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PLACER DOME (CLA) LTD

SUMMARY REPORT

2003-2004 DIAMOND DRILLING

PROGRAM

VOLUME 1 OF 6

2.30152

ESKER-ISLAND TARGET
MUSSELWHITE MINE

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OFFICE

J.W. Patrick Lengyel, P. Geo.

June 13, 2005

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Summary

From January 30 2003 to April 1, 2004, two drill programs totaling 13,503.95 meters of surface exploration drilling were conducted in order to test the Esker-Island area between Section 10,400N and 13,500 N located approximately 3.6 km (grid) north of Musselwhite Mine. The Esker-Island area is a separate subparallel fold structure from the main T-Antiform host to the main Musselwhite Mine ore bodies and is located on the south shore of the main part of Opapimiskan Lake.

A total of 61 diamond drill holes were completed as follow up to earlier drilling programs that had delineated the Esker (ESK), Esker North (ESN), Esker South (ESS), and Island (ISL) zones. The programs were designed to test the down plunge extension of the zones. Both programs were also designed to infill previous drilling to augment the preliminary 3D model for the area, which required a greater density of information for resource modeling.

Gold assays returned many significant values, from 2.10g/T over 5.2m (true width) to 47.39 g/T over 1.8m (true width) from high strain zones in Northern Iron Formation rocks.

Introduction and Terms of Reference

The current program is one of several new exploration programs within an expanded exploration effort on the Musselwhite Property that includes mapping, geochemistry, trenching, airborne geophysics, surface geophysics, and 3D modeling throughout the property.

The following report summarizes the results of two consecutive drill programs completed on the Esker-Island target area located approximately 3.6 km north of Musselwhite Mine.

N. Morissette of Haileybury, Ontario was contracted to perform the drilling with Longyear LM38 and LF70 wireline diamond drill rigs.

The current report is a regular service provided to Musselwhite Mine on an annual basis. The writer has held short and long term contracts for on site positions at the mine since 2001 as well as writing assessment reports off site.

Property Description and Location

The Musselwhite Mine property consists of 279 unpatented and 338 leased claims covering an area of approximately 17,555 hectares (Figures 3 and 4).

The property is recorded in the Patricia Mining Division with beneficial interest held by Placer Dome (68%) and Kinross Gold Corporation (32%).

The 2003-2004 Esker-Island drilling program was completed on the following claims within the Musselwhite Property:

Table 1: Esker-Island Claims

Claim	G-Number or Parcel
369773	2214DPL
449145	2214DPL
449150	2214DPL
449151	2214DPL
449154	2214DPL
449155	2213DPL
529459	2213DPL
529460	2214DPL
529475	2214DPL
529476	2213DPL
529497	2208DPL
529498	2211DPL

NOTE: The parcel registers (surveyed claims) are in Appendix I.

Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Musselwhite Property is located in the Patricia Mining District in northwestern Ontario; NTS 53B/9 - latitude 52° 36' 50" N and longitude 90° 21' 43" W
The property is situated approximately 76 km southeast of the First Nation community of Round Lake (Weagamow), 103 km north of the town of Pickle Lake, and 430 km northwest of Thunder Bay (Figure 1).

Access to the property is provided by chartered air service and an all-weather road that extends north from the town of Pickle Lake (Figure 2).

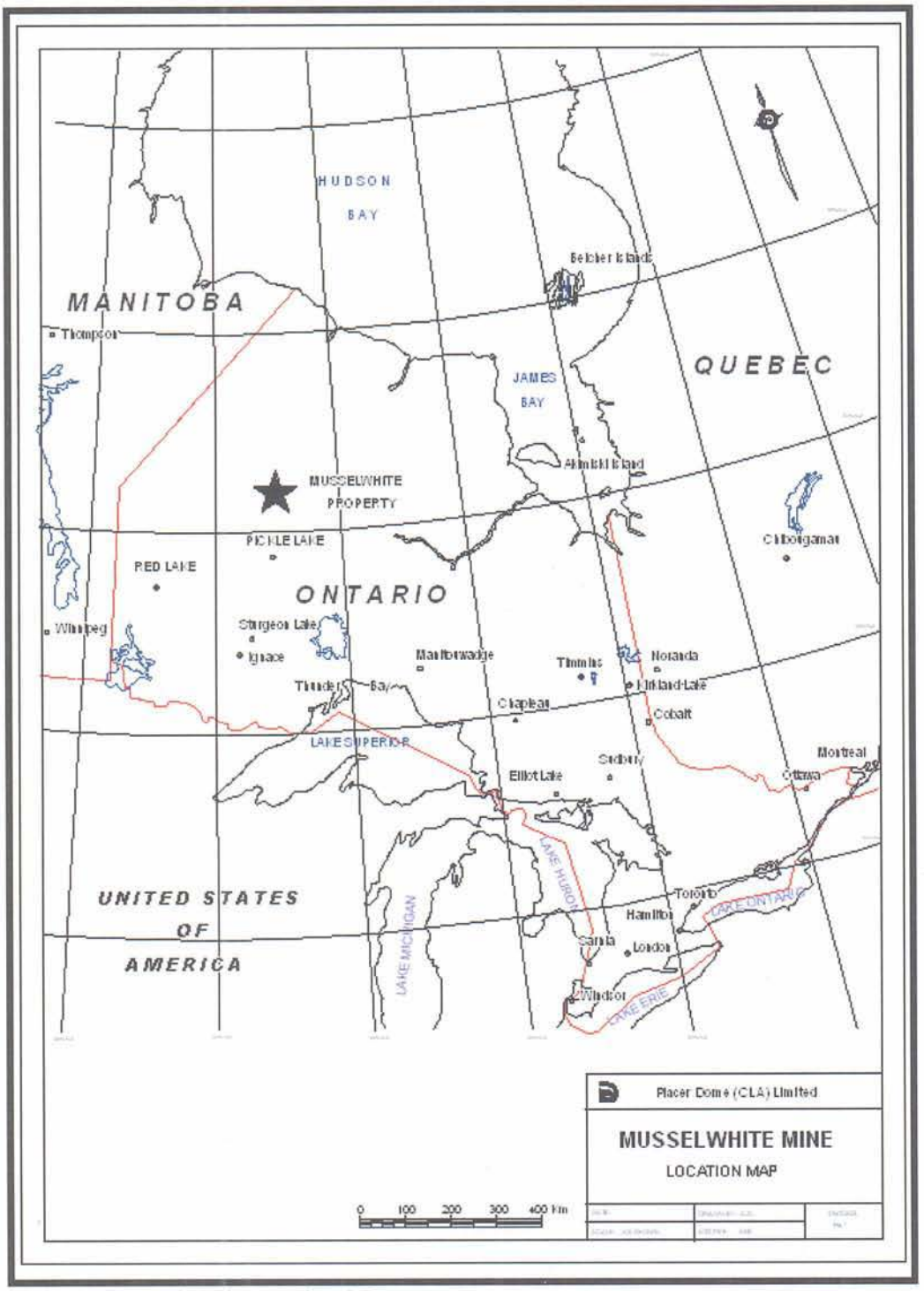


Figure 1 – Regional Location Map

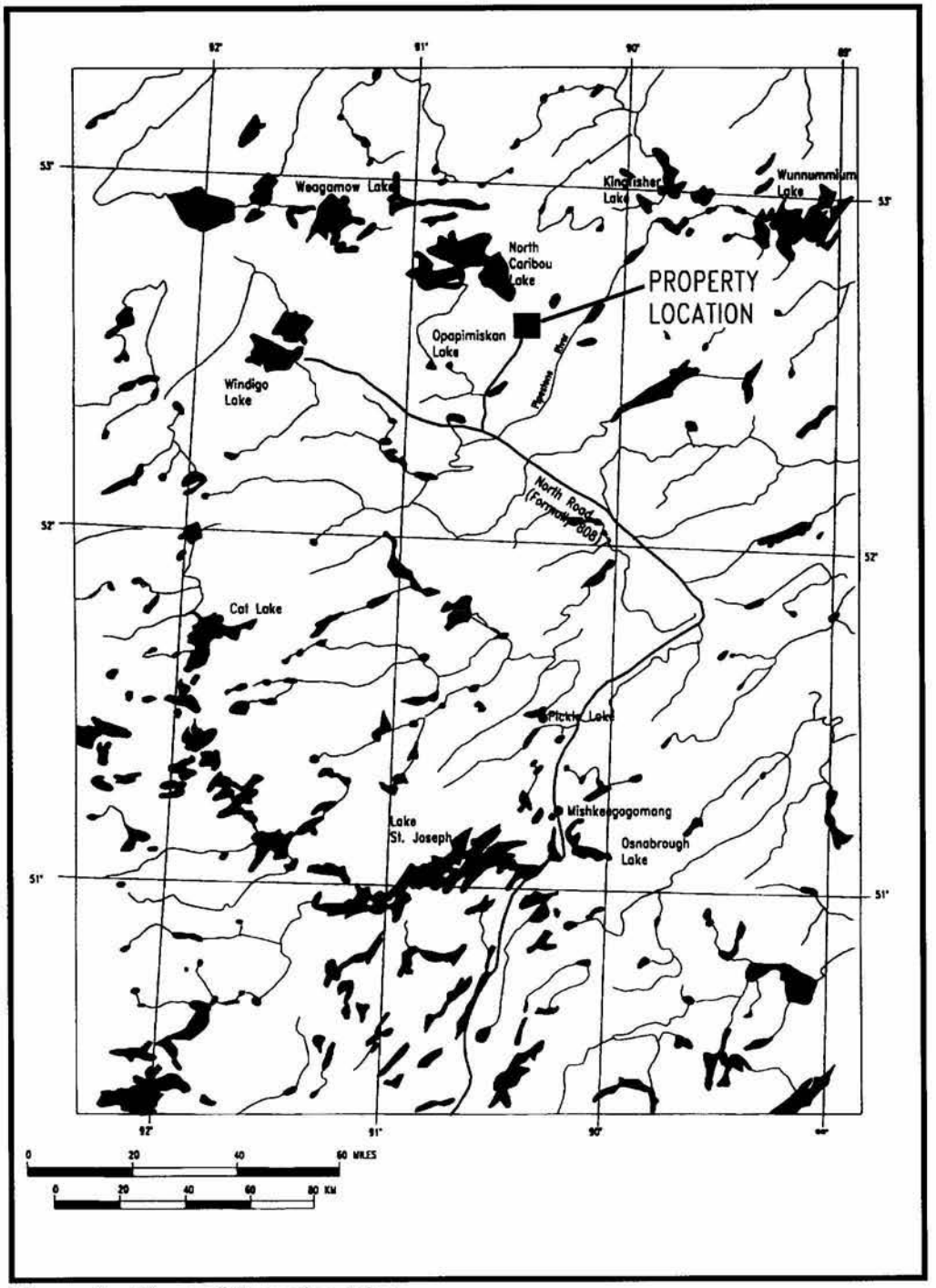


Figure 2 – General Location Map

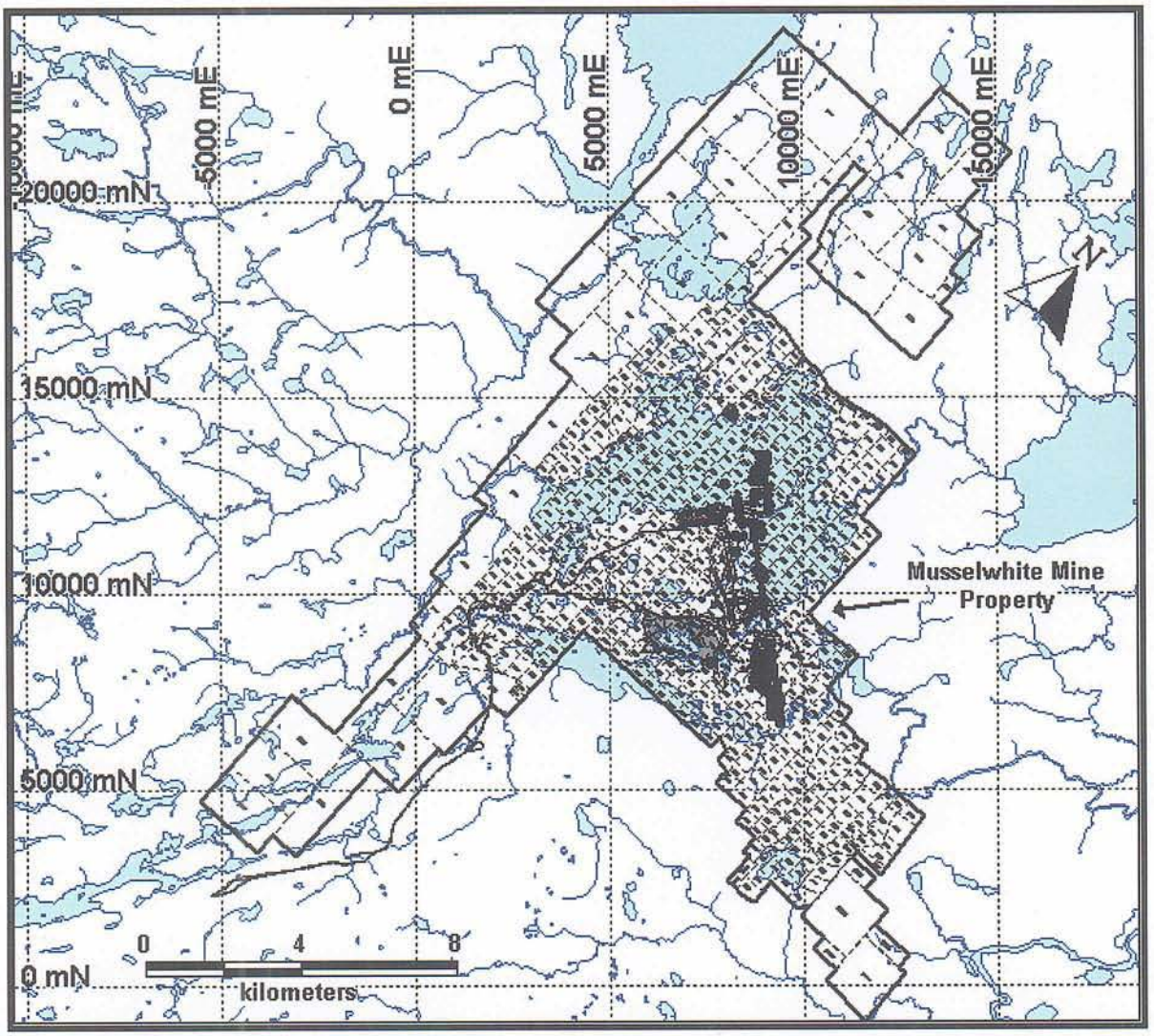


Figure 3 – Claim Location Map

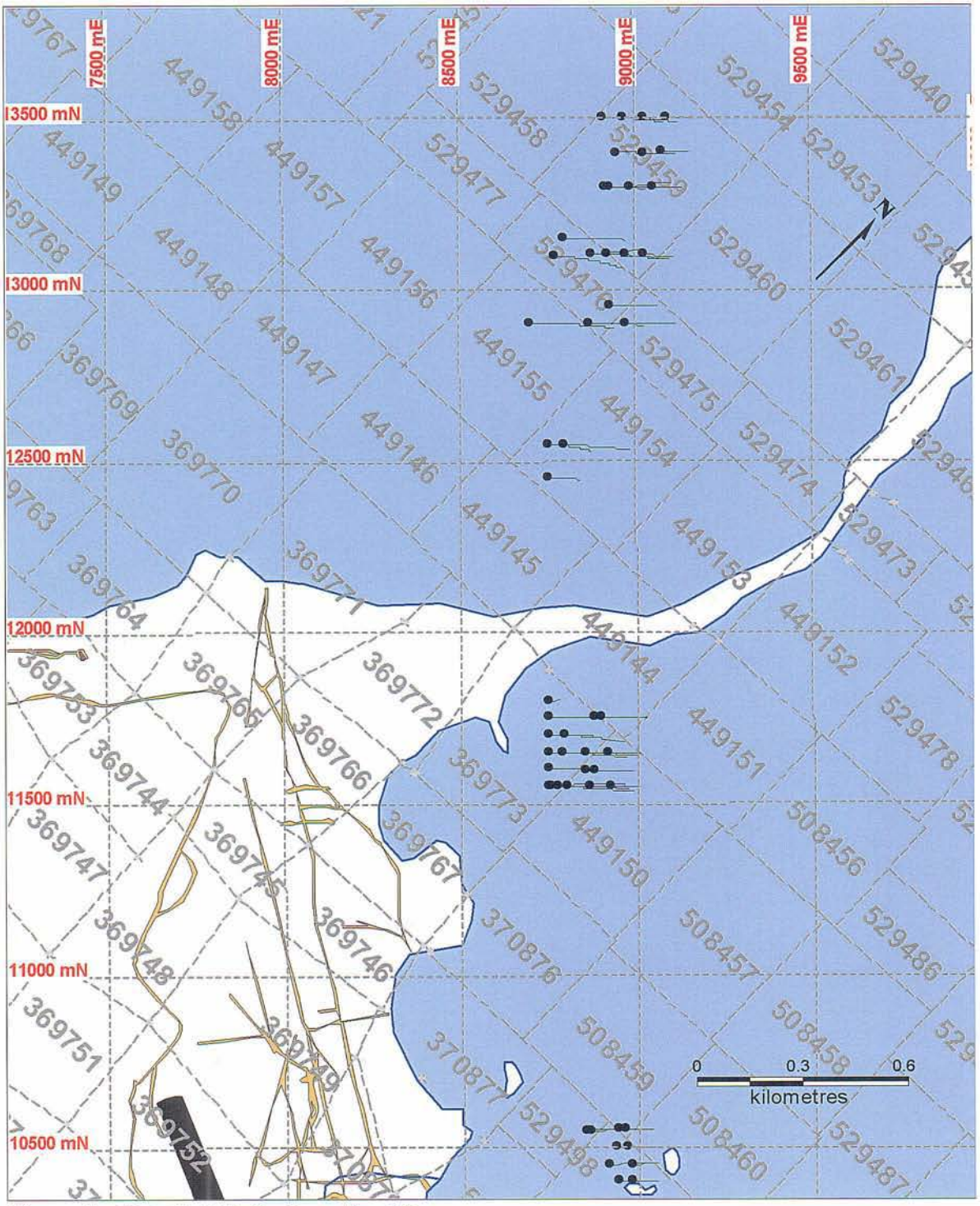


Figure 4 – Detailed Claim Location Map

History

Exploration began on the Musselwhite property in the late 1960's when brothers Harold and Alan Musselwhite prospected the region. The Musselwhite Joint Venture was formed in 1973, and several exploration campaigns followed (1973-1984). Surface drilling from 1985 to 1986 confirmed that one exploration discovery had economic potential.

A prefeasibility study was completed on the discovery from 1986 to 1987, followed by an underground exploration program in 1988. A full feasibility study by the three partners (Placer Dome, Inco Gold, and Corona) in 1989 showed that development of the orebody could not be justified by the economics.

Further drilling in 1992 and 1993 focused on the OP and PQ mineralized zones. In 1994 a second underground program began on the T-Antiform structure, and drilling continued on the PQ zone.

The Musselwhite Joint Venture partners made the decision to put the property into construction in 1996. Construction started immediately after a feasibility study. Underground development of the T-Antiform and open pit mining on the OP zone both commenced in 1996. The first gold bar was poured March 10, 1997, and the mine entered commercial production April 1, 1997.

In January, 2003, TVX/Normandy (the previous JV partner) merged with Kinross Gold Corporation, making Kinross the current joint venture partner. Current interest in the joint venture is held by Placer Dome (68%) and Kinross Gold Corporation (32%).

Geological Setting

The Musselwhite Property is within the Weagamow/North Caribou Lake Greenstone Belt of the Sachigo Subprovince of the Archean Superior Province. Supracrustal rocks have been regionally metamorphosed to amphibolite grade. At least two major deformational events have occurred.

Two main iron formations occur on the property (Figure 5). The Northern Iron Formation has been the main focus of previous exploration and is the dominant host for mineralization including all of the known deposits. However, recent identification of mineralization within the sub parallel Southern Iron Formation indicates further potential for the discovery of additional mineralization.

Deposit Types

Stratabound gold mineralization at Musselwhite occurs primarily within folded silicate/oxide iron formation in a dominantly volcanic sequence. Grunerite-garnet-amphibole-chert and grunerite-magnetite-chert iron formations are the most common host rocks to mineralized zones.

Four deposits have been identified in the East Bay Synform; these are the T Antiform, PQ, West and Esker Deposits. An additional deposit, the West Anticline Deposit, has been identified to the west of the East Bay Synform. The T Antiform is the largest and most significant deposit.

Mineralization

Quartz and pyrrhotite accompany economic gold mineralization. An intense network of anastomosing quartz floods/veinlets characterizes mineralized zones. Pyrrhotite occurs as discontinuous stringers, wisps and blebs peripheral to quartz floods, in late fractures in quartz, and as interstitial blebs in grunerite-garnet bands. Pyrrhotite varies from 2-30% quartz floods vary from 5-30%. Pyrrhotite was observed to increase in zones of increased quartz floods.

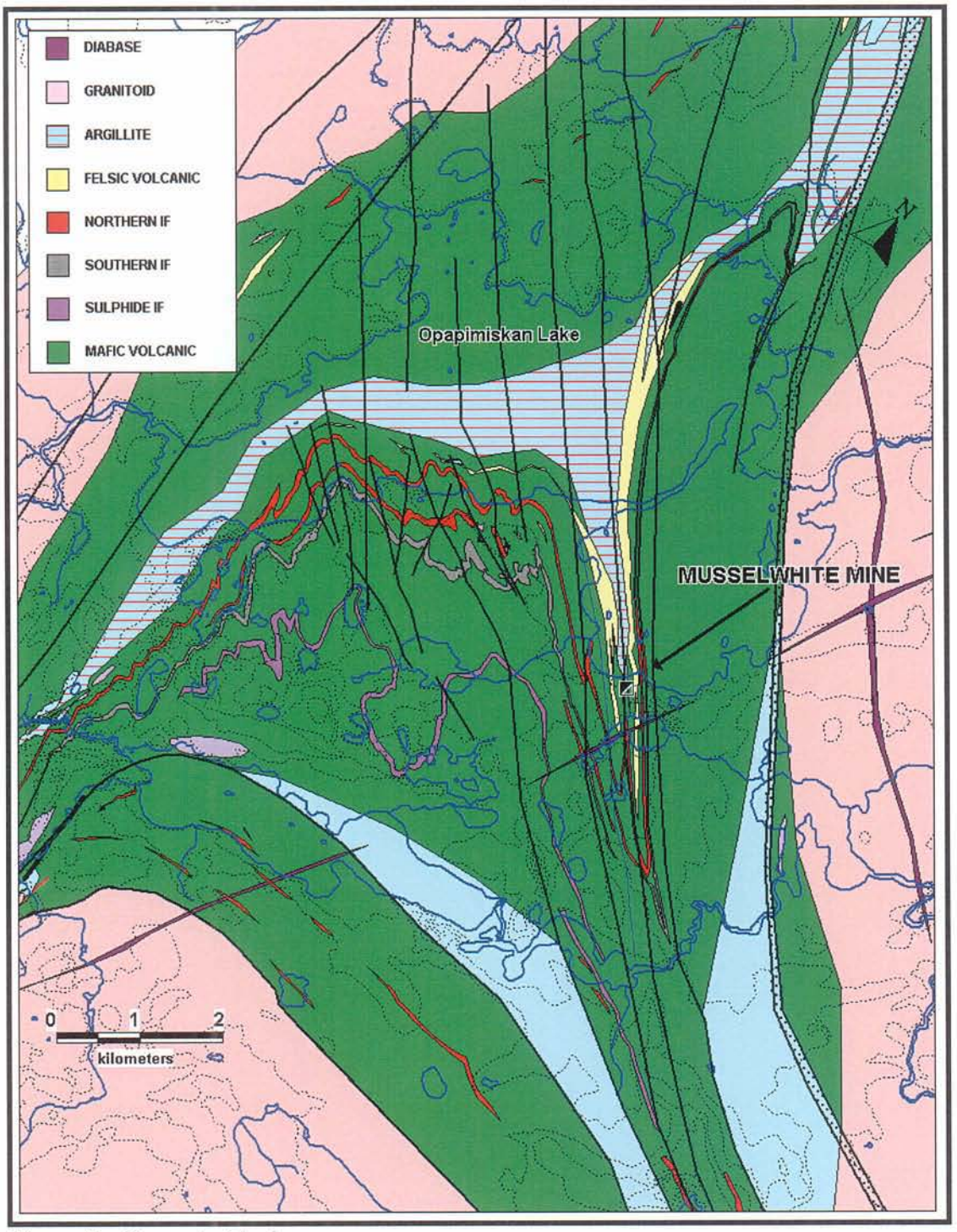


Figure 5 – Property Geology

Table 2 – Stratigraphic Units

LEGEND OF STRATIGRAPHICAL UNITS		
AVOL	Predominantly felsic to intermediate volcanics. (3)	
BVOL	Predominantly mafic to intermediate volcanics. (2, 4, +/- 3)	
NIF	Northern Iron Formation. (4b, 4e, 4ea, 4f, 4h, 2)	
MIF	Middle Iron Formation	
SIF	Southern Iron Formation (4a, 4b, 4c, 4d, 4h, 4I, 2)	
2VOL	Predominantly mafic volcanics. (1, 2, 4)	
1VOL	Predominantly mafic to ultramafic volcanics. (1, 2, 3, 4)	
M	Predominantly metasediments. (6)	
1	Ultramafic to Mafic Volcanic	
2	Mafic to Intermediate Volcanic	
3	Intermediate to Felsic Volcanic	
4	Iron Formation	
	a	Chert-Grunerite
	b	Chert-Magnetite
	c	Chert-Carbonate
	d	Carbonate-Magnetite
	e	Garnet-Amphibole
	ea	Chert-Grunerite-Amphibole+/-Garnet (Main Mineralization Host)
	f	Garnet-Biotite
	h	Sulphidic IF
	i	Graphitic IF
5	Mafic to Ultramafic Intrusive	
6	Sediment	
7	Felsic to Intermediate Intrusive	
8	Diabase Dyke	
9	Gneiss	

Drilling

Program Details

From January 30, 2003 to April 1, 2004, a 13,503.95-meter surface exploration drilling program was completed the Esker-Island target area located approximately 3.6 km (grid) north of Musselwhite Mine between Section 10,400 N and 13,500 N. A total of 61 diamond NQ drill holes were completed.

Project planning, supervision and report writing were facilitated in house by Musselwhite staff. A list of drill holes is provided in Table 3 and Appendix II. A 1:3,000 scale plan map and accompanying 1:500 scale cross-sections are included in Appendices III and IV. Diamond drill logs are included in Appendix V.

The assay laboratory at the Musselwhite mine site provided analytical services. Assay certificates are included in Appendix VI and a summary of the Musselwhite Mine assay and quality control procedures are included in Appendix VII.

In this report, all assay data is reported in grams of gold per metric Tonne (g/T), all distances are in metres and all azimuths are related to the mine grid (mine grid north = 317.951 degrees astronomic north). A conversion table from UTM NAD 83 to Musselwhite Mine grid is included in Appendix VIII.

Program Targeting

The West Anticline area was the first major discovery of gold mineralization on the south shore of Opapimiskan Lake and was explored in detail during the 1980's. A decline and bulk sampling program completed in 1984 concluded that the known mineralization was uneconomic and exploration activity shifted to the new deposits in the T-Antiform area.

Early exploration in the mine area focused on the down plunge extension of the T-Antiform deposits. Growing success along the T-Antiform proper, and a revision of the exploration model based on GoCAD 3D modeling, has allowed the company to expand exploration throughout the property, including the current target.

The current program was designed to test the down-plunge extension of significant intersections discovered in the previous year's drilling of the Esker and Island zones as well as infill untested areas identified in the 3D modeling (Figures 6 and 7).

Table 3 – Diamond Drill Hole List

Hole ID	East (m)	North (m)	RL (m)	Azimuth	Dip	Depth (m)
03-ESN-008	8975.20	12900.11	5296.25	91	-51	221
03-ESN-009	8927.90	12950.01	5296.06	89	-50	200
03-ESN-011	8876.16	13100.17	5296.14	83	-66	305
03-ESN-013	8975.11	13100.22	5296.27	95	-62	227
03-ESN-017	8798.56	13150.22	5296.31	92	-70	399
04-ESK-001	8750.70	12449.92	5296.68	89	-75	312
04-ESK-002	8798.24	12549.92	5296.66	94	-55	320
04-ESK-003	8748.15	12549.98	5296.70	90	-74	408
04-ESN-001	9051.92	13299.93	5296.92	91	-50	129
04-ESN-002	8991.09	13300.19	5296.98	83	-54	177
04-ESN-003	8930.96	13299.81	5298.72	89	-54	204
04-ESN-004	9080.79	13401.02	5296.92	90	-57	138
04-ESN-005	9025.04	13399.78	5297.11	92	-60	177
04-ESN-006	8950.85	13399.74	5298.98	88	-55	223
04-ESN-007	9090.74	13499.99	5296.79	88	-67	165
04-ESN-008	9030.30	13499.83	5296.74	96	-66	213
04-ESN-009	8971.97	13499.73	5296.76	92	-64	241
04-ESN-010	8910.67	13500.06	5296.44	87	-62	308
04-ESN-011	8916.36	13300.06	5296.51	91	-64	288
04-ESS-001	8921.57	11549.97	5296.29	89	-45	109
04-ESS-002	8865.61	11549.70	5296.33	92	-44	150
04-ESS-004	8754.39	11550.40	5296.82	89	-44	311
04-ESS-005	8750.43	11550.32	5296.84	89	-59	248
04-ESS-006	8750.64	11550.71	5296.93	87	-50	326
04-ESS-007	8775.26	11549.75	5296.99	90	-46	152
04-ESS-009	8875.70	11598.75	5296.78	90	-46	158
04-ESS-010	8850.35	11598.79	5296.36	89	-58	250
04-ESS-011	8750.00	11600.30	5296.70	89	-65	284
04-ESS-012	8915.00	11650.00	5296.00	90	-46	129
04-ESS-013	8850.77	11649.99	5296.87	91	-49	203
04-ESS-014	8786.13	11650.40	5296.77	90	-48	302
04-ESS-015	8749.21	11650.17	5296.78	88	-50	341
04-ESS-016	8748.77	11650.00	5296.93	89	-60	266
04-ESS-017	8748.92	11650.02	5296.85	89	-57	359
04-ESS-020	8795.45	11699.79	5296.46	91	-65	323
04-ESS-021	8795.45	11699.79	5296.46	91	-71	248
04-ESS-022	8749.48	11700.29	5296.12	90	-67	281
04-ESS-023	8749.27	11750.08	5296.85	87	-60	262
04-ESS-025	8875.68	11750.03	5296.19	90	-58	188
04-ESS-026	8900.28	11749.95	5296.68	89	-44	176
04-ESS-027	8750.47	11800.33	5296.84	86	-58	55
04-ESS-029	8915.00	11650.00	5296.00	90	-45	19
04-ESS-030	8749.18	11750.09	5296.56	86	-70	314

04-ESS-031	8865.10	11550.30	5296.69	91	-46	176
04-ESS-032	8799.81	11550.12	5297.00	89	-46	253
04-ISL-001	8930.57	10499.36	5296.14	89	-50	157
04-ISL-002	8967.93	10499.89	5296.07	88	-49	111
04-ISL-003	8938.77	10549.40	5296.28	89	-53	144
04-ISL-004	8959.62	10549.66	5296.10	90	-49	113
04-ISL-005	8848.78	10548.67	5296.98	87	-48	140
04-ISL-006	8976.17	10449.88	5296.26	88	-50	117
04-ISL-007	8913.94	10449.13	5296.25	86	-51	173
04-ISL-008	8974.91	10399.45	5296.67	87	-45	101
04-ISL-009	8939.97	10399.13	5296.66	89	-45	142
04-ISL-010	8858.80	10548.48	5296.24	89	-51	162
03-ESN-004	8700.10	12900.18	5296.25	89	-56	403
03-ESN-007	8870.20	12899.92	5296.26	89	-55	242
03-ESN-010	8774.82	13099.91	5296.13	93	-69	429
03-ESN-012	8925.29	13100.63	5296.26	93	-65	280
03-ESN-014	9024.79	13100.04	5296.32	89	-61	170
04-ESS-024	8750.00	11750.00	5296.00	90	-65	82

Sampling Method and Approach

Core samples are selected during the core logging process. Samples are selected based on visual criteria including rock type, alteration, veining, and sulphide mineralogy. Samples are marked on the core and entered into Acquire. Samples are split using a diamond saw, individually bagged and tagged, and either delivered to the on site lab or packed for shipment to an off site laboratory. Standards, blanks, and coarse and fine rejects are also inserted approximately 1 per 50 samples as part of a QA/QC program.

Sample Preparation, Analyses and Security – Musselwhite Mine

Sample Preparation

Muck and chip samples are dried in a propane-fired oven for a minimum of 4 hours. Drill core is dried if necessary (water from saw, rain, snow). Samples are fed one at a time into the Rocklabs automated sampling system. Muck samples are crushed in the Big Boyd crusher to approximately ½", then crushed to 80% passing 6-mesh in the Boyd crusher. The sample is then split to 3000g (if the original sample was at least 3000g) and the split portion is pulverized to a minimum 90% passing 10-mesh. The sample is split again to 600g and this portion is pulverized to a minimum 90% passing 150-mesh. To minimize the chances of cross-contamination, 100-150 grams of material are allowed to pass through the pulverizer before collection begins. Reject material is not saved for these samples.

Drill core samples are prepared the same way as the mucks, however virtually all of the sample continues through the process (no material is sent to waste from the crushers) until the second-stage pulverizer, where the 10-mesh reject is bagged and stored.

Fire Assay

The samples are weighed at 30g and mixed with a pre-mixed flux. They are inquarted with $AgNO_3$ and fused at 1920°F for 50 to 60 minutes. The buttons are then cupelled and the resulting Doré beads are placed in 10ml test tubes.

Analysis

The beads are parted with 1ml of 33% HNO_3 in a hot water bath, and then the gold is digested with 1ml of concentrated HCl in the same bath. The solution is cooled and bulked to 10ml. The solutions are run on a Varian200 AA using an autosampler. The results are sent to the LIMS database for approval by the technicians.

Quality Control

Several QC methods are employed in this analysis. In sample preparation, each batch of drill core samples includes a granite blank and reference material submitted by geology and a granite grit blank inserted by the lab. Run-of-mine samples are treated the same, although no reference material is submitted with these. In fire assay, a reagent blank, pulp duplicate, and reference material are added to each batch received from sample prep. At the analysis stage, a spike standard is analyzed before every 12 samples, and a calibration or re-slope is performed at the same rate.

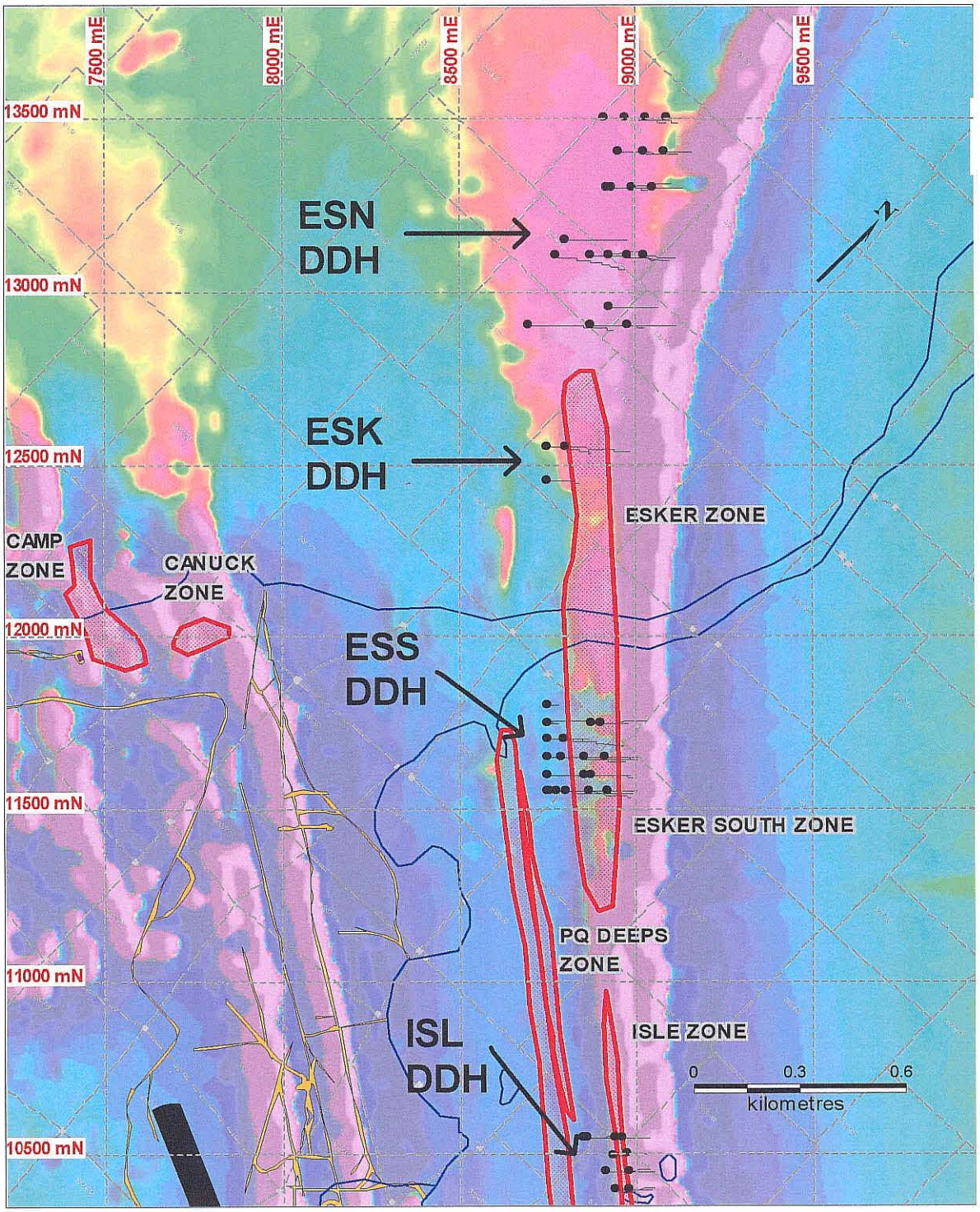


Figure 6 – Drill Targeting

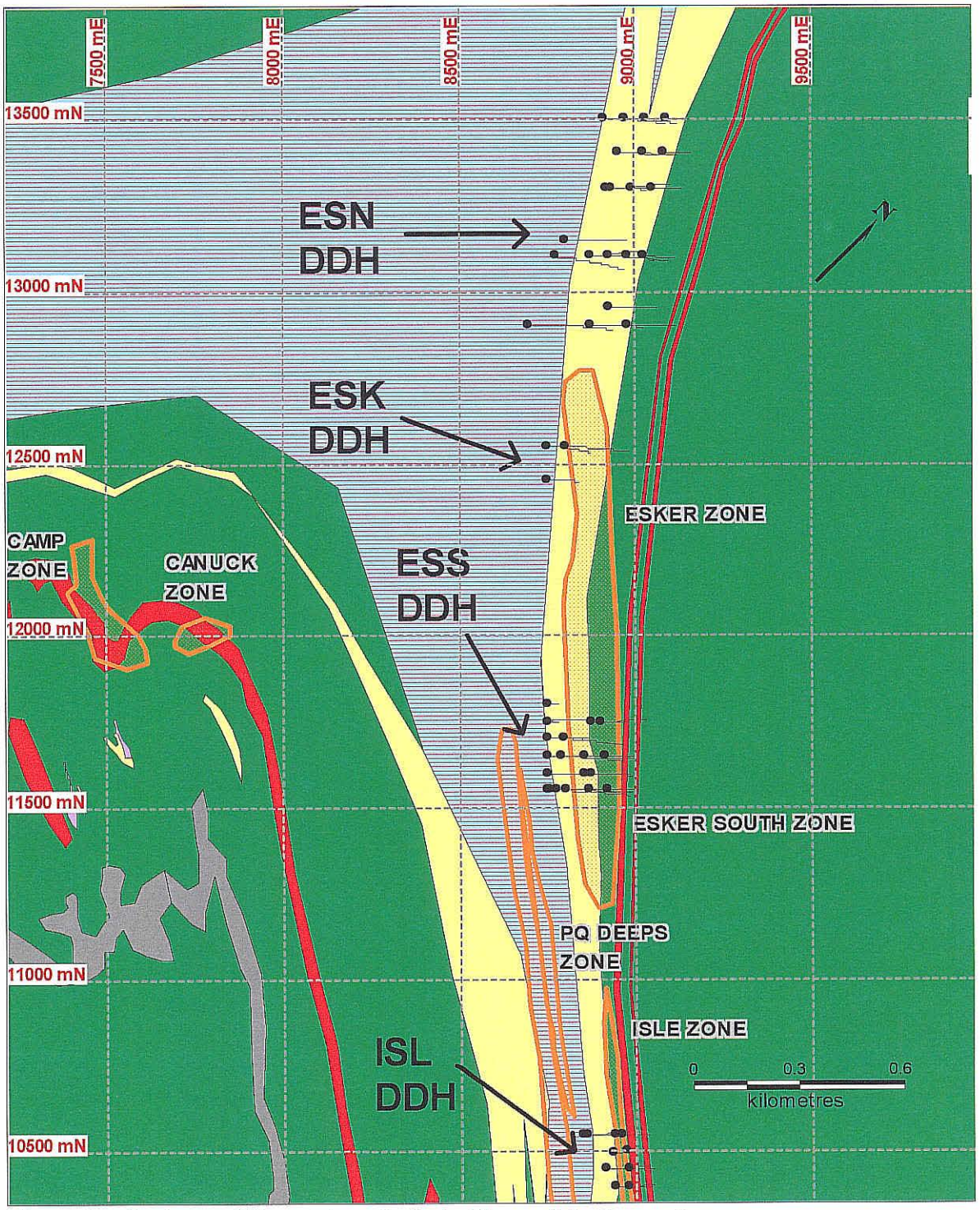


Figure 7 – Geology of Target Area (refer to Figure 5 for Legend)

Data Verification

For on site analysis, the Musselwhite Mine laboratory uses an internal QA/QC program that identifies and reports anomalous values on a daily basis. Logging inserts standards but the value is not revealed until after analysis. The laboratory coordinator generates a monthly QA/QC report complete with statistical analysis and distributes it to the Geology Department of the mine for review. In the event that a significant issue is identified joint meetings are held to highlight the issue and subsequent progress meetings are held as the issue is rectified.

For off site analysis, the Geology Department generates a QA/QC report every time analysis is imported into Acquire. Any anomalies are identified and reviewed with senior staff and the laboratory is instructed to reanalyze samples as required. Off site analysis issues are also reviewed in monthly department meetings.

The Geology department also completes a QA/QC study for each reserve calculation study and reports the results in the reserve reports.

Musselwhite Mine has a thorough QA/QC program that is monitored by two departments on a regular basis and in the writers opinion an independent data verification review is not required for an assessment report.

Adjacent Properties

No other companies or prospectors are engaged in exploration in the Musselwhite Mine area, nor has there been any significant exploration since the early 1990's. Several claim blocks are held by other companies but typically not restaked after they lapse.

Interpretation and Conclusions

Significant Results

The program intersected several zones of significant gold mineralization from zones typically >100m from surface with grades ranging from 2.10 g/T Au over 5.2m to 47.39 g/T Au over 1.80m (true width).

While there were numerous significant intersections (Table 4) and there appeared to be continuity between sections, the continuity on section was not readily evident, and several assumptions concerning mineralization control had to be revised.

Significant results from the 2003-2004 Esker-Island drilling program are summarized in the following table:

Table 4 – Selected significant intersections (Grade x True Width > 20).
NOTE: See Appendix XX for a list of all significant intersections.

Hole ID	From (m)	To (m)	Drilled Width (m)	True Width (m)	Grade (g/T Au)
03-ESN-004	278.00	286.00	8.00	6.93	3.677
03-ESN-007	68.70	74.15	5.45	4.52	6.637
03-ESN-008	56.00	61.17	5.17	4.99	7.106
03-ESN-009	107.00	116.20	9.20	9.13	3.662
03-ESN-010	218.77	231.20	12.43	10.76	2.598
03-ESN-010	288.00	289.00	1.00	0.87	32.790
03-ESN-012	233.00	234.65	1.65	1.43	14.513
03-ESN-017	249.00	252.00	3.00	2.60	11.499
04-ESK-002	220.00	224.80	4.80	3.62	5.738
04-ESN-002	115.00	122.00	7.00	5.20	10.321
04-ESN-005	127.00	136.00	9.00	6.02	4.722
04-ESN-006	168.00	181.00	13.00	9.51	3.809
04-ESN-008	146.40	157.20	10.80	9.62	4.033
04-ESN-009	183.50	188.50	5.00	4.78	5.001
04-ESN-009	198.50	206.60	8.10	7.75	4.495
04-ESS-004	214.00	226.10	12.10	10.97	3.223
04-ESS-011	229.93	233.00	3.07	2.35	12.052
04-ESS-014	155.68	167.00	11.32	10.26	6.595
04-ESS-014	205.00	214.00	9.00	8.46	2.818
04-ESS-014	236.00	240.00	4.00	3.02	8.184
04-ESS-015	296.75	307.20	10.45	8.35	5.941
04-ESS-015	299.00	306.20	7.20	5.75	7.773
04-ESS-015	302.50	305.20	2.70	2.16	11.670
04-ESS-017	295.00	297.00	2.00	1.80	47.385
04-ESS-020	264.00	267.00	3.00	1.50	27.859
04-ESS-022	252.60	256.00	3.40	2.60	11.998
04-ESS-023	228.10	232.00	3.90	3.47	6.232
04-ESS-030	253.50	256.00	2.50	1.92	10.996
04-ESS-032	216.00	221.00	5.00	4.41	11.418
04-ESS-032	217.00	218.70	1.70	1.50	22.308
04-ISL-007	62.00	65.00	3.00	2.70	13.469
04-ISL-007	62.00	63.30	1.30	1.17	28.724
04-ISL-008	63.00	69.00	6.00	5.64	4.515
04-ISL-009	36.00	39.00	3.00	2.82	8.647
04-ISL-009	110.40	121.00	10.60	9.96	5.158

Previous trenching and channel sampling programs had returned grades in the 1-2 ounce-per-tonne range. The current drill program was not able to duplicate the results of the previous work, indicating the mineralization in the Kenpat target area is discontinuous over any width that would be economic.

Recommendations

Based on the results to date, it is further drilling is recommended to better define the down-plunge extent of the Esker and Island Zones. Further infill drilling is also recommended to better define the on-section and section-to-section continuity of the mineralization for resource modelling.

Statements of Expenditures

	2003 Cost $
Diamond Drilling - 2876m @ $78.98/m	$ 159,072
Assaying - 0s @ $12.10/s and 1236s@ $11.86/s	$ 14,659
Drill Hole Surveying (Maxibore& Reflex)	$ 12,505
Oriented Core (Ballmark) Rental	$ 9,000
Supervision - 2 people / 42 person-days @ $300/day	$ 12,600
Core Boxes - 669 trays @ $4.85/tray	$ 3,244
Charter Flights	$ 6,000
Room & Board	$ 10,080
Total	**$ 227,160**

	2004 Cost $
Diamond Drilling - 10628m @ $79.06/m	$ 589,967
Assaying - 854s @ $12.10/s and 3645s@ $11.86/s	$ 53,563
Drill Hole Surveying (Maxibore & Reflex)	$ 30,069
Oriented Core (Ballmark) Rental	$ 10,500
Cementing of Holes	$ 19,140
Supervision - 2 people /163 person-days @ $300/day	$ 48,900
Core Boxes - 2472 trays @ $4.85/tray	$ 11,987
Charter Flights	$ 23,286
Room & Board	$ 39,120
Total	**$ 826,532**

Breakdown By Claim and Year

Claim	Size (Ha)	2003 Total $
449154	17.79	$ 4,444.47
449155	17.79	$ 36,545.94
529460	19.85	$ 23,935.50
529475	7.62	$ 48,759.96
529476	7.62	$ 113,474.10
	Total	**$ 227,159.97**

Claim	Size (Ha)	2004 Total $
369773	18.1	$ 153,213.97
449145	14.09	$ 15,439.02
449150	18.12	$ 322,784.63
449151	15.56	$ 243.91
449154	17.79	$ 60,375.71
529459	19.85	$ 166,706.03
529497	11.69	$ 106,756.62
529498	4.98	$ 1,012.12
	Total	**$ 826,532.00**

MUSSELWHITE MINE
P.O. BOX 7500
THUNDER BAY, ONTARIO P7B 6S8
a division of PLACER DOME (CLA) LIMITED
TEL: (807) 532-2160

STATEMENT OF QUALIFICATIONS

I, J.W. Patrick Lengyel, do hereby certify:

I am a resident of 90 Nicollet Avenue, Winnipeg, Manitoba, Canada R2M 4T9.

I am a graduate of University of Manitoba with a B. Sc. Degree in geology (1988).

I have been employed full-time as a geologist with industry since 1987.

I am a Professional Geoscientist registered with the following professional associations and institutions:

Association of Professional Geoscientists of Ontario (APGO - #420)
Association of Professional Engineers and Geoscientists of Manitoba (APEGM - #20259)
Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS - #11384).

I am also a member in good standing with the Prospectors and Developers Association of Canada and the Geological Association of Canada.

I am currently retained as a private consultant by Placer Dome (CLA) Ltd. to carry out occasional project work at the Musselwhite Mine in Northwestern Ontario and to manage regional exploration programs and property evaluations out of their Toronto office.

PROFESSIONAL GEOSCIENTIST
J.W. PATRICK LENGYEL
PRACTISING MEMBER
0420
ONTARIO

J.W. Patrick Lengyel, P. Geo.

Date: June 13, 2005

PLACER DOME (CLA) LTD

SUMMARY REPORT

2003-2004 DIAMOND DRILLING PROGRAM

RECEIVED
JUN 22 2005
GEOSCIENCE ASSESSMENT OFFICE

VOLUME 2 OF 6

2.30152

ESKER-ISLAND TARGET
MUSSELWHITE MINE

J.W.PATRICK LENGYEL, P. GEO.

JUNE 13, 2005

Appendix I
Parcel Registry

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JUN 22 2005
GEOSCIENCE ASSESSMENT
OFFICE

2.30152

RECEIVED
JUN 2 2 2005
GEOSCIENCE ASSESSMENT
OFFICE

Appendix II

List of Diamond Drill Holes

Hole ID	East (m)	North (m)	RL (m)	Azimuth	Dip	Depth (m)
03-ESN-004	8700.10	12900.18	5296.25	89	-56	403
03-ESN-007	8870.20	12899.92	5296.26	89	-55	242
03-ESN-008	8975.20	12900.11	5296.25	91	-51	221
03-ESN-009	8927.90	12950.01	5296.06	89	-50	200
03-ESN-010	8774.82	13099.91	5296.13	93	-69	429
03-ESN-011	8876.16	13100.17	5296.14	83	-66	305
03-ESN-012	8925.29	13100.63	5296.26	93	-65	280
03-ESN-013	8975.11	13100.22	5296.27	95	-62	227
03-ESN-014	9024.79	13100.04	5296.32	89	-61	170
03-ESN-017	8798.56	13150.22	5296.31	92	-70	399
04-ESK-001	8750.70	12449.92	5296.68	89	-75	312
04-ESK-002	8798.24	12549.92	5296.66	94	-55	320
04-ESK-003	8748.15	12549.98	5296.70	90	-74	408
04-ESN-001	9051.92	13299.93	5296.92	91	-50	129
04-ESN-002	8991.09	13300.19	5296.98	83	-54	177
04-ESN-003	8930.96	13299.81	5298.72	89	-54	204
04-ESN-004	9080.79	13401.02	5296.92	90	-57	138
04-ESN-005	9025.04	13399.78	5297.11	92	-60	177
04-ESN-006	8950.85	13399.74	5298.98	88	-55	223
04-ESN-007	9090.74	13499.99	5296.79	88	-67	165
04-ESN-008	9030.30	13499.83	5296.74	96	-66	213
04-ESN-009	8971.97	13499.73	5296.76	92	-64	241
04-ESN-010	8910.67	13500.06	5296.44	87	-62	308
04-ESN-011	8916.36	13300.06	5296.51	91	-64	288
04-ESS-001	8921.57	11549.97	5296.29	89	-45	109
04-ESS-002	8865.61	11549.70	5296.33	92	-44	150
04-ESS-004	8754.39	11550.40	5296.82	89	-44	311
04-ESS-005	8750.43	11550.32	5296.84	89	-59	248
04-ESS-006	8750.64	11550.71	5296.93	87	-50	326
04-ESS-007	8775.26	11549.75	5296.99	90	-46	152
04-ESS-009	8875.70	11598.75	5296.78	90	-46	158
04-ESS-010	8850.35	11598.79	5296.36	89	-58	250
04-ESS-011	8750.00	11600.30	5296.70	89	-65	284
04-ESS-012	8915.00	11650.00	5296.00	90	-46	129
04-ESS-013	8850.77	11649.99	5296.87	91	-49	203
04-ESS-014	8786.13	11650.40	5296.77	90	-48	302
04-ESS-015	8749.21	11650.17	5296.78	88	-50	341
04-ESS-016	8748.77	11650.00	5296.93	89	-60	266
04-ESS-017	8748.92	11650.02	5296.85	89	-57	359
04-ESS-020	8795.45	11699.79	5296.46	91	-65	323
04-ESS-021	8795.45	11699.79	5296.46	91	-71	248
04-ESS-022	8749.48	11700.29	5296.12	90	-67	281
04-ESS-023	8749.27	11750.08	5296.85	87	-60	262
04-ESS-024	8750.00	11750.00	5296.00	90	-65	82
04-ESS-025	8875.68	11750.03	5296.19	90	-58	188
04-ESS-026	8900.28	11749.95	5296.68	89	-44	176
04-ESS-027	8750.47	11800.33	5296.84	86	-58	55
04-ESS-029	8915.00	11650.00	5296.00	90	-45	19
04-ESS-030	8749.18	11750.09	5296.56	86	-70	314
04-ESS-031	8865.10	11550.30	5296.69	91	-46	176

Hole ID	East (m)	North (m)	RL (m)	Azimuth	Dip	Depth (m)
04-ESS-032	8799.81	11550.12	5297.00	89	-46	253
04-ISL-001	8930.57	10499.36	5296.14	89	-50	157
04-ISL-002	8967.93	10499.89	5296.07	88	-49	111
04-ISL-003	8938.77	10549.40	5296.28	89	-53	144
04-ISL-004	8959.62	10549.66	5296.10	90	-49	113
04-ISL-005	8848.78	10548.67	5296.98	87	-48	140
04-ISL-006	8976.17	10449.88	5296.26	88	-50	117
04-ISL-007	8913.94	10449.13	5296.25	86	-51	173
04-ISL-008	8974.91	10399.45	5296.67	87	-45	101
04-ISL-009	8939.97	10399.13	5296.66	89	-45	142
04-ISL-010	8858.80	10548.48	5296.24	89	-51	162

Appendix III

Diamond Drill Hole Plan Map – 1:2500

13750 mN
13500 mN
13250 mN
13000 mN
12750 mN
12500 mN
12250 mN
12000 mN
11750 mN
11500 mN
11250 mN
11000 mN
10750 mN
10500 mN
7750 mE
8000 mE
8250 mE
8500 mE
8750 mE
9000 mE
9250 mE
9500 mE
N
449158
529457
529458
529454
04-ESN-010
04-ESN-009
04-ESN-008
04-ESN-007
529459
04-ESN-006
04-ESN-005
04-ESN-004
449157
529477
529453
04-ESN-003
04-ESN-002
04-ESN-001
04-ESN-011
03-ESN-017
529476
449148
449156
03-ESN-011
03-ESN-012
03-ESN-013
03-ESN-014
03-ESN-010
529460
03-ESN-009
03-ESN-004
03-ESN-007
03-ESN-008
449147
449155
529475
04-ESK-003
04-ESK-002
369770
449146
449154
529474
04-ESK-001
449145
449153
369771
449144
449152
369765
369772
04-ESS-027
04-ESS-023, 024, 030
04-ESS-025
04-ESS-026
449151
04-ESS-022
04-ESS-020, 021
04-ESS-015, 016, 017
04-ESS-014
04-ESS-013
04-ESS-012, 029
369766
369773
04-ESS-011
04-ESS-010
04-ESS-009
04-ESS-004
04-ESS-032
04-ESS-002, 031
04-ESS-001
04-ESS-005, 006
04-ESS-007
369745
369767
449150
508456
369746
370876
508457
369749
370877
508459
508458
2.30152
529498
04-ISL-010
04-ISL-004
04-ISL-005
04-ISL-003
04-ISL-001
04-ISL-002
04-ISL-007
04-ISL-006
04-ISL-008
04-ISL-009
508460
529481
529499
529497

Placer Dome (CLA) Limited &
Kinross Gold Corporation

Musselwhite Mine

2003-2004 Esker-Island DDH
Plan Section

Date:26/5/2005
Author: P. Lengyel
Office: Winnipeg
Drawing: K. Jonker
Scale: 1:3,000
Projection: Mine Grid (meters)

0 45 90 180
metres

Appendix IV

Diamond Drilling Cross Sections – 1:500

2.30152

Legend

- 1: U/M VOLC., UNSIBDIVIDED
- 1A: MASSIVE FLOW
- 1D: SERPENTINE SCHIST
- 1H: VARIOLITIC FLOW
- 2: MAFIC VOLC., UNSUBDIVIDED
- 2a: MASSIVE FLOW
- 2B: AMYGDALOIDAL FLOW
- 2D: PILLOW-FLOW BRECCIA
- 2e: FLOW BRECCIA
- 2g: TUFF BRECCIA
- 2H: TUFF/LAPILLI TUFF
- 2J: MG-CG FLOW CENTRES
- 2K: DIKES,SILLS,SMALL INTRUSIONS
- 2M: CHLORITE-ACTINOLITE
- 2P: AMPHIBOLITE
- 2S: HORNBLENDE-PORPHYROBLASTIC
- 2t: BIOTITE-BEARING
- 2U: GARNET-BEARING
- 3: INTERMED. VOLC., UNSUBDIVIDED
- 3A: INTERMED. FLOW
- 3B: INTERMED. TUFF BRECCIA
- 3C: INTERMED. TUFF/LAPILLI TUFF
- 3D: FELSIC FLOW
- 3E: FELSIC TUFF BRECCIA
- 3F: FELSIC TUFF/LAPILLI TUFF
- 3H: SUBVOLC. QFP
- 3P: INTERMED. DIKES,SILLS,SMALL INTRUSIONS
- 4A: CHERT-GRUNERITE IF
- 4B: CHERT-MAGNETITE IF
- 4C: CHERT-CARBONATE IF
- 4CH: CHERT IF
- 4CHP: CHERT-PY-PO IF
- 4D: CARBONATE-MAGNETITE IF
- 4E: GARNET AMPHIBOLE IF
- 4EA: CHERT-GRUNERITE-AMPHIBOLE-GARNET (MAIN HOST)
- 4F: GARNET-BIOTITE IF
- 4H: SULPHIDIC IF
- 4I: GRAPHITIC IF
- 4TB: IF TECTONIC BRECCIA
- 6: METASEDIMENTARY
- 6V: BIOTITE-BEARING
- 6W: GARNET-BEARING
- 7: MAFIC INTRUSIVE, UNSUBDIVIDED
- 7A: GABBRO
- 7D: DIKES,SILLS,SMALL INTRUSIONS
- 7h: ULTRAMAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE, UNSUBDIVIDED
- 8F: GRANITIC PEGMATITE
- 8J: GRANITE
- 8M: GNEISSIC GRANITE
- 8N: XENOLITHIC
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

HoleID

Major_Unit
Text

AU_PPM_FA
Text

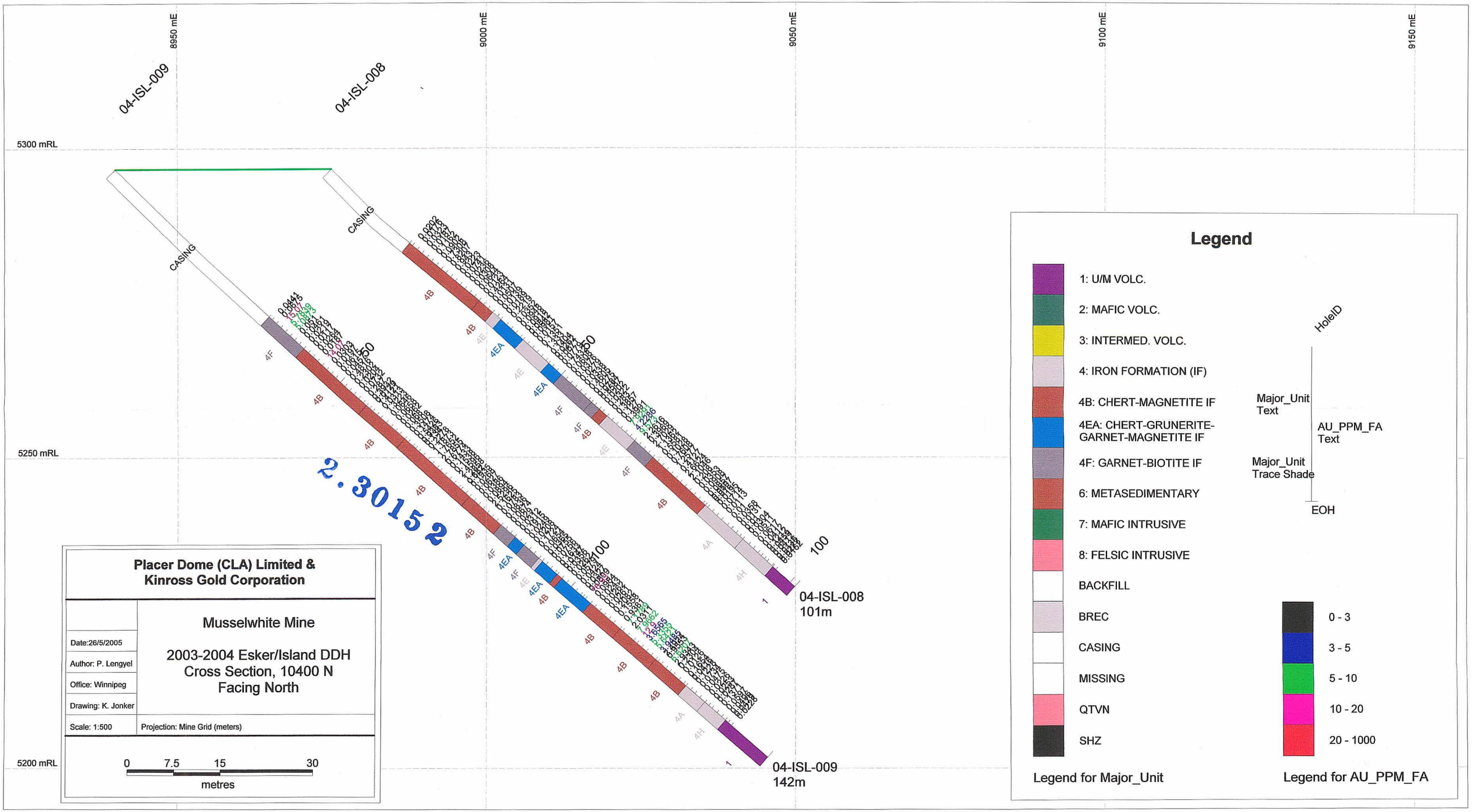
Major_Unit
Trace Shade

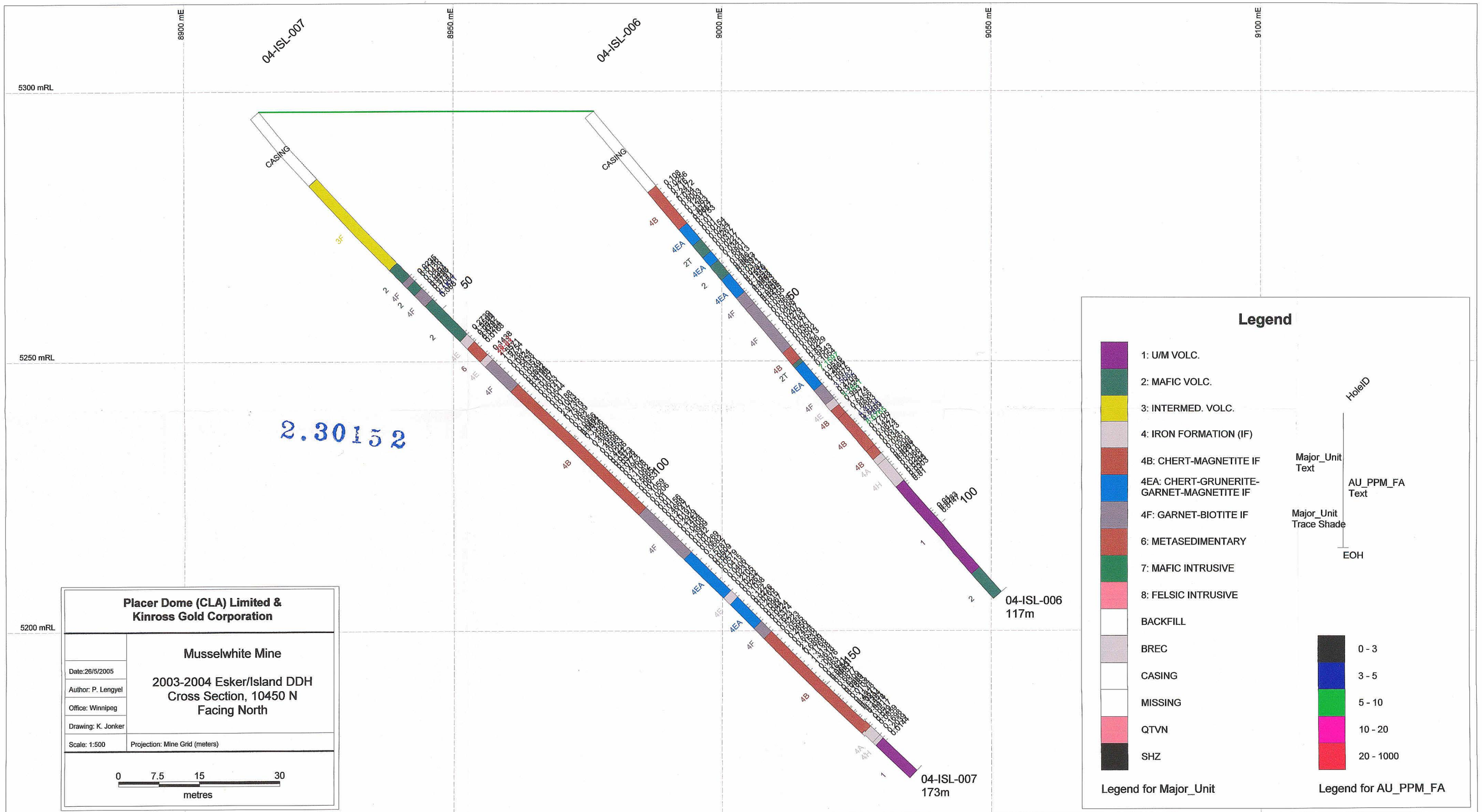
EOH

Legend for Major_Unit

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA


8950 mE
9000 mE
9050 mE
9100 mE
9150 mE
04-ISL-009
04-ISL-008
5300 mRL
5250 mRL
5200 mRL
CASING
CASING
2.30152
04-ISL-008
101m
04-ISL-009
142m
Legend
1: U/M VOLC.
2: MAFIC VOLC.
3: INTERMED. VOLC.
4: IRON FORMATION (IF)
4B: CHERT-MAGNETITE IF
4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
4F: GARNET-BIOTITE IF
6: METASEDIMENTARY
7: MAFIC INTRUSIVE
8: FELSIC INTRUSIVE
BACKFILL
BREC
CASING
MISSING
QTVN
SHZ
HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH
0 - 3
3 - 5
5 - 10
10 - 20
20 - 1000
Legend for Major_Unit
Legend for AU_PPM_FA
Placer Dome (CLA) Limited & Kinross Gold Corporation
Musselwhite Mine
2003-2004 Esker/Island DDH
Cross Section, 10400 N
Facing North
Date:26/5/2005
Author: P. Lengyel
Office: Winnipeg
Drawing: K. Jonker
Scale: 1:500
Projection: Mine Grid (meters)
0 7.5 15 30
metres


8900 mE
8950 mE
9000 mE
9050 mE
9100 mE
5300 mRL
5250 mRL
5200 mRL
04-ISL-007
04-ISL-006
CASING
CASING
3F
4B
4EA
4F
4E
4A
4H
2T
6
1
2
50
100
150
04-ISL-006
117m
04-ISL-007
173m
2.30152
Legend
1: U/M VOLC.
2: MAFIC VOLC.
3: INTERMED. VOLC.
4: IRON FORMATION (IF)
4B: CHERT-MAGNETITE IF
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8: FELSIC INTRUSIVE
BACKFILL
BREC
CASING
MISSING
QTVN
SHZ
Legend for Major_Unit
HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH
0 - 3
3 - 5
5 - 10
10 - 20
20 - 1000
Legend for AU_PPM_FA
Placer Dome (CLA) Limited & Kinross Gold Corporation
Musselwhite Mine
2003-2004 Esker/Island DDH
Cross Section, 10450 N
Facing North
Date:26/5/2005
Author: P. Lengyel
Office: Winnipeg
Drawing: K. Jonker
Scale: 1:500
Projection: Mine Grid (meters)
0 7.5 15 30
metres

8950 mE

9000 mE

9050 mE

9100 mE

04-ISL-001

04-ISL-002

5300 mRL

5250 mRL

5200 mRL

casing

2t

4ea

4f

2u

4b

4h

1

2.30152

04-ISL-002
111m

04-ISL-001
157m

Legend

- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

Legend for Major_Unit

HoleID

Major_Unit
Text

AU_PPM_FA
Text

Major_Unit
Trace Shade

EOH

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA

Placer Dome (CLA) Limited &
Kinross Gold Corporation

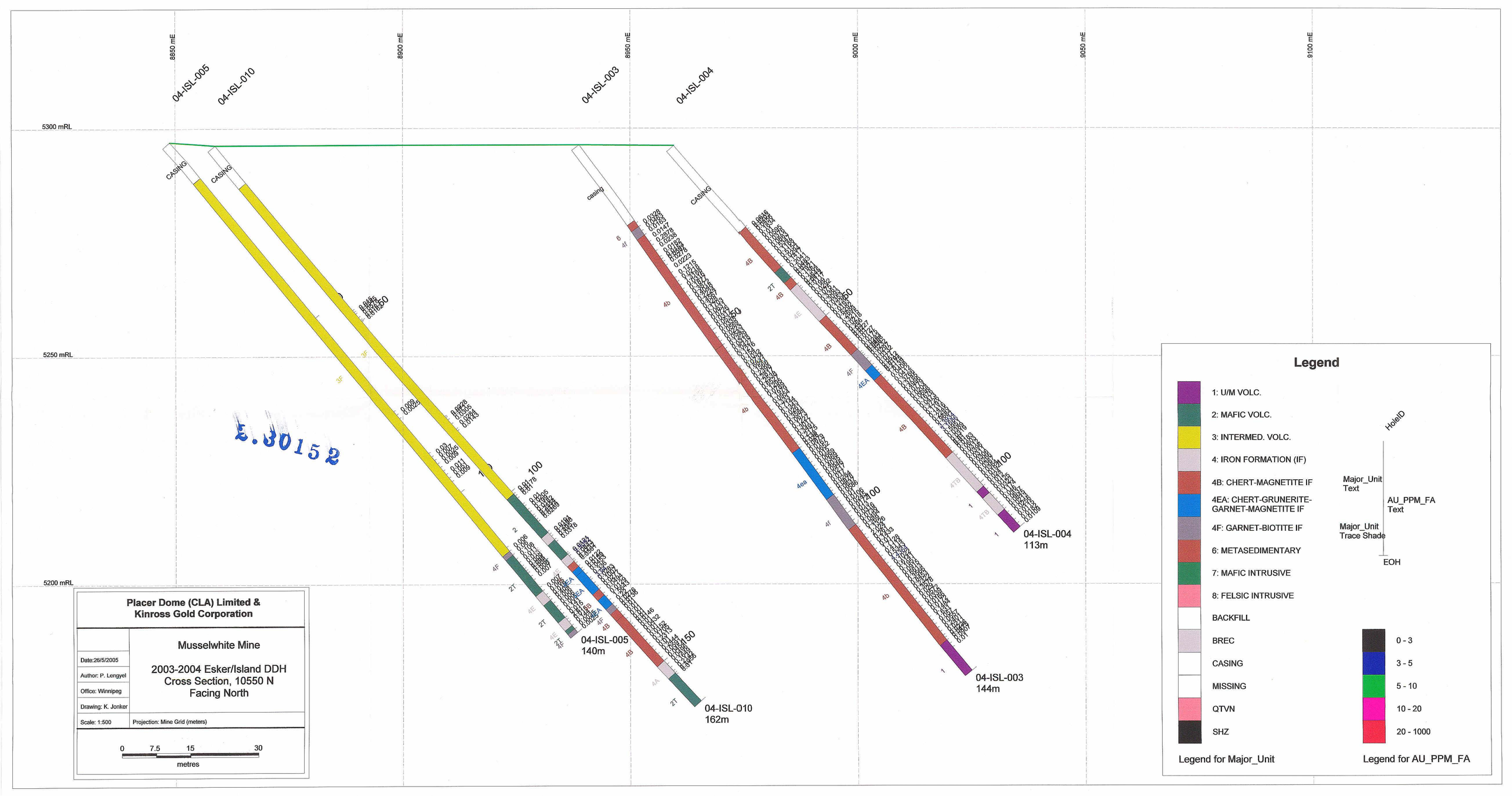
Musselwhite Mine

2003-2004 Esker/Island DDH
Cross Section, 10500 N
Facing North

Date:26/5/2005	
Author: P. Lengyel	
Office: Winnipeg	
Drawing: K. Jonker	
Scale: 1:500	Projection: Mine Grid (meters)

0 7.5 15 30

metres


8850 mE
8900 mE
8950 mE
9000 mE
9050 mE
9100 mE
5300 mRL
5250 mRL
5200 mRL
04-ISL-005
04-ISL-010
04-ISL-003
04-ISL-004
CASING
casing
04-ISL-005
140m
04-ISL-010
162m
04-ISL-003
144m
04-ISL-004
113m
E.30152
Placer Dome (CLA) Limited &
Kinross Gold Corporation
Musselwhite Mine
2003-2004 Esker/Island DDH
Cross Section, 10550 N
Facing North
Date:26/5/2005
Author: P. Lengyel
Office: Winnipeg
Drawing: K. Jonker
Scale: 1:500
Projection: Mine Grid (meters)
0
7.5
15
30
metres
Legend
1: U/M VOLC.
2: MAFIC VOLC.
3: INTERMED. VOLC.
4: IRON FORMATION (IF)
4B: CHERT-MAGNETITE IF
4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
4F: GARNET-BIOTITE IF
6: METASEDIMENTARY
7: MAFIC INTRUSIVE
8: FELSIC INTRUSIVE
BACKFILL
BREC
CASING
MISSING
QTVN
SHZ
Legend for Major_Unit
HoleID
Major_Unit
Text
AU_PPM_FA
Text
Major_Unit
Trace Shade
EOH
0 - 3
3 - 5
5 - 10
10 - 20
20 - 1000
Legend for AU_PPM_FA

8750 mE
8800 mE
8850 mE
8900 mE
8950 mE
9000 mE
9050 mE

5300 mRL
5250 mRL
5200 mRL
5150 mRL
5100 mRL
5050 mRL

04-ESS-005
04-ESS-006
04-ESS-004
04-ESS-007
04-ESS-032
04-ESS-031
04-ESS-002
04-ESS-001

CASING

04-ESS-001
109m

04-ESS-002
150.25m

04-ESS-031
176m

04-ESS-032
253m

04-ESS-007
152m

04-ESS-004
311m

04-ESS-005
248m

04-ESS-006
326m

1:00152

**Placer Dome (CLA) Limited &
Kinross Gold Corporation**

Musselwhite Mine

2003-2004 Esker/Island DDH
Cross Section, 11550 N
Facing North

Date:26/5/2005	
Author: P. Lengyel	
Office: Winnipeg	
Drawing: K. Jonker	
Scale: 1:500	Projection: Mine Grid (meters)

0 7.5 15 30
metres

Legend

1: U/M VOLC.
2: MAFIC VOLC.
3: INTERMED. VOLC.
4: IRON FORMATION (IF)
4B: CHERT-MAGNETITE IF
4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
4F: GARNET-BIOTITE IF
6: METASEDIMENTARY
7: MAFIC INTRUSIVE
8: FELSIC INTRUSIVE
BACKFILL
BREC
CASING
MISSING
QTVN
SHZ

Legend for Major_Unit

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

0 - 3
3 - 5
5 - 10
10 - 20
20 - 1000

Legend for AU_PPM_FA

8750 mE
8800 mE
8850 mE
8900 mE
8950 mE
9000 mE
9050 mE

5300 mRL
5250 mRL
5200 mRL
5150 mRL
5100 mRL
5050 mRL

04-ESS-011
04-ESS-010
04-ESS-009

CASING

04-ESS-011
284m

04-ESS-010
250m

04-ESS-009
158m

2.30152

Placer Dome (CLA) Limited & Kinross Gold Corporation	
	Musselwhite Mine 2003-2004 Esker/Island DDH Cross Section, 11600 N Facing North
Date:26/5/2005	
Author: P. Lengyel	
Office: Winnipeg	
Drawing: K. Jonker	
Scale: 1:500	Projection: Mine Grid (meters)

0 7.5 15 30
metres

Legend

- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

Legend for Major_Unit

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA

8750 mE
8800 mE
8850 mE
8900 mE
8950 mE
9000 mE
9050 mE

04-ESS-016
04-ESS-017
04-ESS-015
04-ESS-014
04-ESS-013
04-ESS-012
04-ESS-029

5300 mRL
5250 mRL
5200 mRL
5150 mRL
5100 mRL
5050 mRL

CASING

04-ESS-029
19m

04-ESS-012
129m

04-ESS-013
203m

04-ESS-014
302m

04-ESS-015
341m

04-ESS-016
266m

04-ESS-017
359m

2.30152

Legend

- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

Legend for Major_Unit

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA

Placer Dome (CLA) Limited & Kinross Gold Corporation

Musselwhite Mine

2003-2004 Esker/Island DDH
Cross Section, 11650 N
Facing North

Date:26/5/2005
Author: P. Lengyel
Office: Winnipeg
Drawing: K. Jonker
Scale: 1:500
Projection: Mine Grid (meters)

0 7.5 15 30
metres

PLACER DOME (CLA) LTD

SUMMARY REPORT

2003-2004 DIAMOND DRILLING

PROGRAM

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VOLUME 3 OF 6

ESKER-ISLAND TARGET
MUSSELWHITE MINE

J.W.PATRICK LENGYEL, P. GEO.

JUNE 13, 2005

8750 mE
8800 mE
8850 mE
8900 mE
8950 mE
9000 mE
9050 mE

04-ESS-030
04-ESS-024
04-ESS-023
04-ESS-025
04-ESS-026

5300 mRL
5250 mRL
5200 mRL
5150 mRL
5100 mRL
5050 mRL

04-ESS-024
81.7m

04-ESS-026
176m

04-ESS-025
188m

04-ESS-023
262m

04-ESS-030
314m

2130152

Placer Dome (CLA) Limited & Kinross Gold Corporation	
	Musselwhite Mine
Date:26/5/2005	2003-2004 Esker/Island DDH Cross Section, 11750 N Facing North
Author: P. Lengyel	
Office: Winnipeg	
Drawing: K. Jonker	
Scale: 1:500	Projection: Mine Grid (meters)

0 7.5 15 30
metres

Legend

- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

Legend for Major_Unit

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA

8750 mE
8775 mE
8800 mE
8825 mE
8850 mE
8875 mE

5325 mRL
5300 mRL
5275 mRL
5250 mRL

04-ESS-027

Casing

3C

2.50 30152

04-ESS-027
55m

Legend

- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

Legend for Major_Unit

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA

Placer Dome (CLA) Limited & Kinross Gold Corporation

Musselwhite Mine

2003-2004 Esker/Island DDH
Cross Section, 11800 N
Facing North

Date:26/5/2005
Author: P. Lengyel
Office: Winnipeg
Drawing: K. Jonker
Scale: 1:500
Projection: Mine Grid (meters)

0 7.5 15 30
metres

8750 mE
8800 mE
8850 mE
8900 mE
5300 mRL
5250 mRL
5200 mRL
5150 mRL
5100 mRL
5050 mRL
04-ESK-001
CASING
2
2D
3C
3C
4E
2
3C
4E
2T
2
4EA
2
4E
6
4F
4EA
4EA
4B
2T
3F
50
100
150
200
250
300
04-ESK-001
312m
2.30152

Placer Dome (CLA) Limited & Kinross Gold Corporation

Musselwhite Mine

2003-2004 Esker/Island DDH
Cross Section, 12450 N
Facing North

Date:26/5/2005
Author: P. Lengyel
Office: Winnipeg
Drawing: K. Jonker
Scale: 1:500
Projection: Mine Grid (meters)

0 7.5 15 30
metres

Legend

- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

Legend for Major_Unit

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA

8750 mE
8800 mE
8850 mE
8900 mE
8950 mE
9000 mE

04-ESK-003
04-ESK-002

5300 mRL
5250 mRL
5200 mRL
5150 mRL
5100 mRL
5050 mRL
5000 mRL
4950 mRL

casing
casing

50
100
150
200
250
300
350
400

04-ESK-002
320m

04-ESK-003
408m

2.30152

Placer Dome (CLA) Limited & Kinross Gold Corporation

Musselwhite Mine

2003-2004 Esker/Island DDH
Cross Section, 12550 N
Facing North

Date:26/5/2005
Author: P. Lengyel
Office: Winnipeg
Drawing: K. Jonker
Scale: 1:500
Projection: Mine Grid (meters)

0 7.5 15 30
metres

Legend

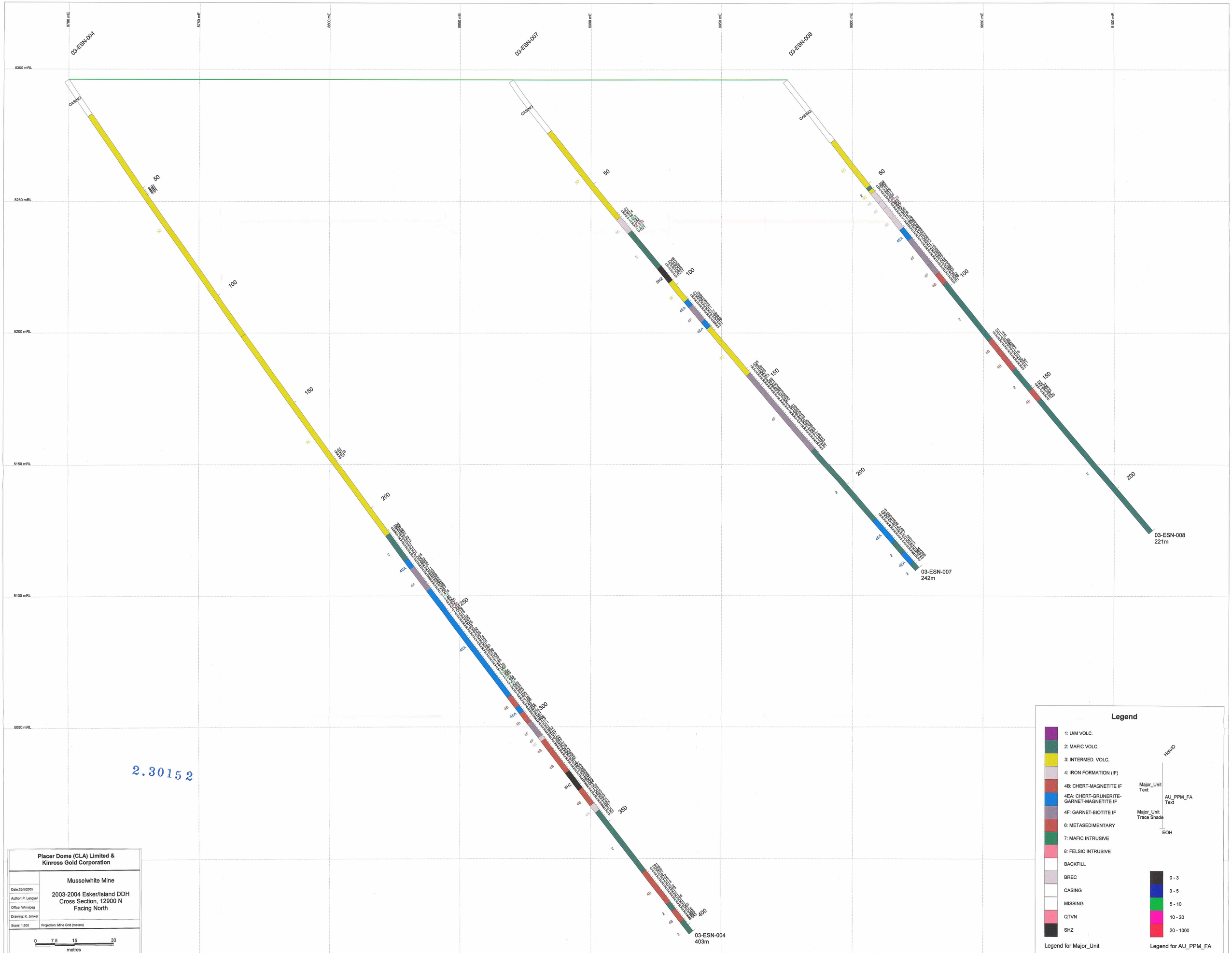
- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

Legend for Major_Unit

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA



2.30152

Placer Dome (CLA) Limited & Kinross Gold Corporation	
	Musselwhite Mine
Date:26/5/2005	2003-2004 Esker/Island DDH Cross Section, 12900 N Facing North
Author: P. Lengyel	
Office: Winnipeg	
Drawing: K. Jonker	
Scale: 1:500	Projection: Mine Grid (meters)

0 7.5 15 30
metres

Legend

- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

Legend for Major_Unit

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA

8950 mE
9000 mE
9050 mE
9100 mE
9150 mE

5300 mRL
5250 mRL
5200 mRL
5150 mRL

03-ESN-009

CASING

2.30152

50
100
150
200

03-ESN-009
200m

Placer Dome (CLA) Limited & Kinross Gold Corporation	
	Musselwhite Mine
Date:26/5/2005	2003-2004 Esker/Island DDH Cross Section, 12950 N Facing North
Author: P. Lengyel	
Office: Winnipeg	
Drawing: K. Jonker	
Scale: 1:500	Projection: Mine Grid (meters)

0 7.5 15 30
metres

Legend

- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

Legend for Major_Unit

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA

8750 mE
8800 mE
8850 mE
8900 mE
8950 mE
9000 mE
9050 mE
9100 mE

5300 mRL
5250 mRL
5200 mRL
5150 mRL
5100 mRL
5050 mRL
5000 mRL

03-ESN-010
03-ESN-011
03-ESN-012
03-ESN-013
03-ESN-014

CASING
SHZ

03-ESN-014
170m

03-ESN-013
227m

03-ESN-012
280m

03-ESN-011
305m

03-ESN-010
376.1m

2.30152

Legend

- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

Legend for Major_Unit

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA

Placer Dome (CLA) Limited & Kinross Gold Corporation

Musselwhite Mine

2003-2004 Esker/Island DDH
Cross Section, 13100 N
Facing North

Date:26/5/2005
Author: P. Lengyel
Office: Winnipeg
Drawing: K. Jonker
Scale: 1:500
Projection: Mine Grid (meters)

0 7.5 15 30
metres

8750 mE
8800 mE
8850 mE
8900 mE
8950 mE
9000 mE
9050 mE

5300 mRL
5250 mRL
5200 mRL
5150 mRL
5100 mRL
5050 mRL
5000 mRL

03-ESN-017

CASING

50

100

150

200

250

300

350

03-ESN-017
399m

2.30152

Legend

- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

Legend for Major_Unit

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA

Placer Dome (CLA) Limited & Kinross Gold Corporation

Musselwhite Mine

2003-2004 Esker/Island DDH
Cross Section, 13150 N
Facing North

Date:26/5/2005
Author: P. Lengyel
Office: Winnipeg
Drawing: K. Jonker
Scale: 1:500
Projection: Mine Grid (meters)

0 7.5 15 30
metres

8900 mE | 8950 mE | 9000 mE | 9050 mE | 9100 mE | 9150 mE

5300 mRL
5250 mRL
5200 mRL
5150 mRL
5100 mRL

04-ESN-011 | 04-ESN-003 | 04-ESN-002 | 04-ESN-001

CASING

04-ESN-001
129m

04-ESN-002
177m

04-ESN-003
204m

04-ESN-011
288m

2.30132

Placer Dome (CLA) Limited & Kinross Gold Corporation	
	Musselwhite Mine 2003-2004 Esker/Island DDH Cross Section, 13300 N Facing North
Date:26/5/2005	
Author: P. Lengyel	
Office: Winnipeg	
Drawing: K. Jonker	
Scale: 1:500	Projection: Mine Grid (meters)

0 7.5 15 30
metres

Legend

- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

Legend for Major_Unit

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA

8950 mE
9000 mE
9050 mE
9100 mE
9150 mE
9200 mE

5300 mRL
5250 mRL
5200 mRL
5150 mRL

04-ESN-006
04-ESN-005
04-ESN-004

CASING
50
100
150
200
3F
4F
2
4EA
4E
4B
2T

04-ESN-006
223m

04-ESN-005
177m

04-ESN-004
138m

2.30152

**Placer Dome (CLA) Limited &
Kinross Gold Corporation**

Musselwhite Mine

2003-2004 Esker/Island DDH
Cross Section, 13400 N
Facing North

Date:26/5/2005	
Author: P. Lengyel	
Office: Winnipeg	
Drawing: K. Jonker	
Scale: 1:500	Projection: Mine Grid (meters)

0 7.5 15 30
metres

Legend

- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

Legend for Major_Unit

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA

8900 mE
8950 mE
9000 mE
9050 mE
9100 mE
9150 mE

5300 mRL
5250 mRL
5200 mRL
5150 mRL
5100 mRL
5050 mRL

04-ESN-010
04-ESN-009
04-ESN-008
04-ESN-007

CASING

04-ESN-007
165m

04-ESN-008
213m

04-ESN-009
241m

04-ESN-010
308m

2.30152

**Placer Dome (CLA) Limited &
Kinross Gold Corporation**

	Musselwhite Mine
Date:26/5/2005	2003-2004 Esker/Island DDH Cross Section, 13500 N Facing North
Author: P. Lengyel	
Office: Winnipeg	
Drawing: K. Jonker	
Scale: 1:500	Projection: Mine Grid (meters)

0 7.5 15 30
metres

Legend

- 1: U/M VOLC.
- 2: MAFIC VOLC.
- 3: INTERMED. VOLC.
- 4: IRON FORMATION (IF)
- 4B: CHERT-MAGNETITE IF
- 4EA: CHERT-GRUNERITE-GARNET-MAGNETITE IF
- 4F: GARNET-BIOTITE IF
- 6: METASEDIMENTARY
- 7: MAFIC INTRUSIVE
- 8: FELSIC INTRUSIVE
- BACKFILL
- BREC
- CASING
- MISSING
- QTVN
- SHZ

Legend for Major_Unit

HoleID
Major_Unit Text
AU_PPM_FA Text
Major_Unit Trace Shade
EOH

- 0 - 3
- 3 - 5
- 5 - 10
- 10 - 20
- 20 - 1000

Legend for AU_PPM_FA

PLACER DOME (CLA) LTD

SUMMARY REPORT

2003-2004 DIAMOND DRILLING

PROGRAM 2.30152

RECEIVED
JUN 22 2005
GEOSCIENCE ASSESSMENT OFFICE

VOLUME 4 OF 6

ESKER-ISLAND TARGET
MUSSELWHITE MINE

J.W.PATRICK LENGYEL, P. GEO.

JUNE 13, 2005

Appendix V

Diamond Drill Logs - 2003

RECEIVED
JUN 22 2005
GEOSCIENCE ASSESSMENT
OFFICE

2.30152

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-004**

Project Code: ESN

Mine Grid Easting: 8700.1
Mine Grid Northing: 12900.184
Elevation: 5296.254

UTM East
UTM North:

Planned Depth:
Actual Depth: 403

Drill Start Date: 30/01/2003
Drill End Date: 02/02/2003

Core Diameter:
Plugged: YES

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
3	89.3	-56.23	MAXI
6	89.09	-55.59	MAXI
9	88.8	-55.22	MAXI
12	88.56	-55.23	MAXI
15	88.41	-55.35	MAXI
18	88.46	-55.37	MAXI
21	88.56	-55.36	MAXI
24	88.64	-55.33	MAXI
27	88.7	-55.31	MAXI
30	88.72	-55.28	MAXI
33	88.83	-55.28	MAXI
36	88.91	-55.25	MAXI
39	89	-55.23	MAXI
42	89.05	-55.21	MAXI
45	89.13	-55.16	MAXI
48	89.2	-55.12	MAXI
51	89.25	-55.08	MAXI
54	89.28	-55.05	MAXI
57	89.3	-55.02	MAXI
60	89.39	-54.96	MAXI
63	89.4	-54.92	MAXI
66	89.51	-54.9	MAXI
69	89.55	-54.87	MAXI
72	89.58	-54.85	MAXI
75	89.69	-54.82	MAXI
78	89.79	-54.78	MAXI
81	89.87	-54.74	MAXI
84	89.86	-54.71	MAXI
87	89.98	-54.67	MAXI
90	90.01	-54.61	MAXI
93	90.06	-54.57	MAXI
96	90.16	-54.53	MAXI
99	90.21	-54.49	MAXI
102	90.26	-54.47	MAXI
105	90.38	-54.45	MAXI
108	90.44	-54.4	MAXI
111	90.52	-54.36	MAXI
114	90.6	-54.3	MAXI
117	90.64	-54.3	MAXI
120	90.67	-54.29	MAXI
123	90.78	-54.27	MAXI
126	90.86	-54.24	MAXI
129	90.94	-54.22	MAXI
132	91	-54.18	MAXI
135	91.06	-54.16	MAXI
138	91.13	-54.13	MAXI
141	91.2	-54.09	MAXI
144	91.22	-54.05	MAXI
147	91.26	-54.02	MAXI
150	91.35	-53.99	MAXI
153	91.41	-53.97	MAXI
156	91.41	-53.94	MAXI
159	91.51	-53.9	MAXI
162	91.57	-53.87	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-004**

Project Code: ESN

Mine Grid Easting: 8700.1

Mine Grid Northing: 12900.184

Elevation: 5296.254

UTM East

UTM North:

Planned Depth:

Actual Depth: 403

Drill Start Date: 30/01/2003

Drill End Date: 02/02/2003

Core Diameter:

Plugged: YES

Target 1:

Target 2:

Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
165	91.63	-53.81	MAXI
168	91.66	-53.77	MAXI
171	91.73	-53.74	MAXI
174	91.8	-53.72	MAXI
177	91.89	-53.7	MAXI
180	91.95	-53.66	MAXI
183	92.01	-53.64	MAXI
186	92.08	-53.61	MAXI
189	92.16	-53.56	MAXI
192	92.22	-53.54	MAXI
195	92.29	-53.54	MAXI
198	92.32	-53.51	MAXI
201	92.41	-53.47	MAXI
204	92.5	-53.42	MAXI
207	92.59	-53.38	MAXI
210	92.69	-53.37	MAXI
213	92.75	-53.34	MAXI
216	92.89	-53.32	MAXI
219	92.91	-53.26	MAXI
222	93	-53.24	MAXI
225	93.09	-53.2	MAXI
228	93.16	-53.16	MAXI
231	93.23	-53.08	MAXI
234	93.33	-52.98	MAXI
237	93.36	-52.92	MAXI
240	93.46	-52.83	MAXI
243	93.61	-52.76	MAXI
246	93.7	-52.71	MAXI
249	93.75	-52.69	MAXI
252	93.85	-52.69	MAXI
255	93.98	-52.68	MAXI
258	94.07	-52.68	MAXI
261	94.17	-52.7	MAXI
264	94.3	-52.71	MAXI
267	94.37	-52.72	MAXI
270	94.4	-52.72	MAXI
273	94.5	-52.7	MAXI
276	94.6	-52.66	MAXI
279	94.66	-52.61	MAXI
282	94.8	-52.55	MAXI
285	94.92	-52.54	MAXI
288	95.02	-52.52	MAXI
291	95.13	-52.5	MAXI
294	95.21	-52.47	MAXI
297	95.27	-52.43	MAXI
300	95.37	-52.42	MAXI
303	95.42	-52.4	MAXI
306	95.49	-52.39	MAXI
309	95.65	-52.37	MAXI
312	95.69	-52.33	MAXI
315	95.75	-52.31	MAXI
318	95.86	-52.29	MAXI
321	95.96	-52.26	MAXI
324	96.05	-52.23	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-004**

Project Code: ESN

Mine Grid Easting: 8700.1
Mine Grid Northing: 12900.184
Elevation: 5296.254

UTM East:
UTM North:

Planned Depth:
Actual Depth: 403

Drill Start Date: 30/01/2003
Drill End Date: 02/02/2003

Core Diameter:
Plugged: YES

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
327	96.15	-52.18	MAXI
330	96.2	-52.13	MAXI
333	96.26	-52.13	MAXI
336	96.37	-52.14	MAXI
339	96.46	-52.12	MAXI
342	96.58	-52.11	MAXI
345	96.68	-52.09	MAXI
348	96.75	-52.08	MAXI
351	96.81	-52.06	MAXI
354	96.85	-52.03	MAXI
357	96.88	-51.98	MAXI
360	96.97	-51.93	MAXI
363	97.09	-51.87	MAXI
366	97.19	-51.84	MAXI
369	97.28	-51.82	MAXI
372	97.36	-51.79	MAXI
375	97.46	-51.73	MAXI
378	97.56	-51.69	MAXI
381	97.66	-51.64	MAXI
384	97.78	-51.61	MAXI
387	97.92	-51.56	MAXI
390	97.99	-51.51	MAXI
393	98.06	-51.46	MAXI
396	98.13	-51.42	MAXI
399	98.2	-51.37	MAXI
402	98.25	-51.33	MAXI
403	98.3	-51.33	MAXI

LITHOLOGY LOG 03-ESN-004

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	15.75	CASIN	First box contains 2 m of brokem mafic volcanic rubble before grading into fractured mafic tuff at about 15.75 m.													
				15.75	118.00	3C	Fairly homogeneous section of well foliated, somewhat banded looking heterolithic intermediate lapilli tuff with lesser ash-crystal tuff. Banded appearance due to alternating pale grey, dark grey and pale to medium brown-grey fragments and the variable c	ompositon and alteration of the matrix. Several intervals of much more felsic tuff dominated by well bedded ash, e.g. 142-151 m. Fragments are up to 1-2 cm thick (but presumably highly stretched), comprise 30-50% of unit, and f.g. intermediate to matic l												
E224026	51.00	51.50	0.01																	
E224027	51.50	52.00	0.01																	
E224028	52.00	52.50	0.01																	
E224029	52.50	53.00	0.01																	
E224030	53.00	53.50	0.01																	
				118.00	211.97	3C	Intermediate to Felsic Ash Tuff.G enerally well bedded, locally graded bedding 2-5 mm thick resembling turbidites. Unit varies over 3-5 m zones from felsic to intermediate composition. Only minor amph-plag matrix and garnets in this interval, much less m	afic components. Only minor drag folds, generally interfolial, probably shear induced.F OLIATION & BEDDING: Parallel at 60 deg tca +/- 2 deg throughout section.M INERALIZATION: 1 75.70 - 176.53 m: 10% 1-2 mm laminae of pyrite grains along foliation plane											
E224031	174.00	174.50	0.01																	
E224032	174.50	175.70	0.01																	
E224033	175.70	176.53	0.02																	
E224034	176.53	177.50	0.01																	
E224035	210.50	211.00	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E224036	211.00	211.97	0.03																	
E224037	211.97	212.50	0.31	211.97	223.90	2	Hetero section dominated by highly strained, biotitized mafic volcanic containing 1-2 intercalated zones of 4EA developed from 4B and 1-2 zones of		211.97	223.90	4EA									
E224038	212.50	213.00	1.10																	
E224039	213.00	213.80	0.18																	
E224040	213.80	214.40	1.05																	
E224041	214.40	215.60	0.02																	
E224042	215.60	216.60	0.01																	
E224043	216.60	217.20	1.13																	
E224044	217.20	218.00	0.01																	
E224045	218.00	219.00	0.01																	
E224046	219.00	220.00	0.43																	
E224047	220.00	221.00	0.01																	
E224048	221.00	222.00	0.01																	
E224049	222.00	223.00	0.01																	
E224050	223.00	223.90	0.01																	
E224051	223.90	224.80	10.00	223.90	227.55	4EA	Heterogeneous section of banded, mixed 4EA, 4E, some v.f.g. bio schist of unceratin origin. 4EA is typical mix of c.g. garnets, bands of green f.g. to m.g. amph, remnant Mt-chert layers, and variable amounts of grunerite, typically weak here though, <10%	often. Grades into areas of no grunerite but still gar-amph.~1/3 of section is a featureless v.f.g. bio-plag rock, possibly alt'd volc?? F OLIATION: 76 to 80 deg to CA.F OLDS: No decent drag folds here.	223.90	227.55	4E									
E224052	224.80	225.70	0.05																	
E224053	225.70	226.60	0.04																	
E224054	226.60	227.55	0.20																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E224055	227.55	228.30	0.89	227.55	238.00	4F	Typical 4F, derived from metamorphosed metapelite presumably. 30-40% garnets, 1-2 mm, in f.g. bio matrix. Minor local patches of amphibole dominant matrix. Sulphides are rare, a few frax fillings of Py.F OLIATION: Often vague. Varies from zero to 80 deg	to CA. 68 deg TCA at 231, 0 at 232, 18 at 233.5, 30 at 234 m.F OLDS: ~10 siliceous bands 5-10 cm thick folded into tight folds, contain minor dissem Po and some green amph. Appear to be qtz veins but possibly meta-chert. Fold Axes at 30 deg TCA.T race Po													
E224056	228.30	229.00	0.01																	
E224057	229.00	230.00	0.02																	
E224058	230.00	231.00	0.01																	
E224059	231.00	232.00	0.01																	
E224060	232.00	233.00	0.06																	
E224061	233.00	233.70	0.04																	
E224062	233.70	234.30	0.03																	
E224063	234.30	235.00	0.03																	
E224064	235.00	236.00	0.03																	
E224065	236.00	237.00	0.05																	
E224066	237.00	238.00	0.06																	
E224067	238.00	239.00	0.49	238.00	289.00	4EA	Fairly homogeneous section of 4EA. Relatively minor variations in degree and style of banding, Consists of alternating bands of c.g. garnet-green amphibole (<2-3 cm usually), f.g. grunerite with c.g. garnets, minor biotite-garnet schist, and locally comm	on magnetic chert layers 5 mm to 4 cm thick. From 238 m to 247.5 m the gar-amph layers are minor, mainly grunerite-garnet and 10-40% Mt-chert layers, thereafter it is an even mix of the 3 major rock types. Pyrrhotite is generally minor and there is very												
E224068	239.00	240.00	0.37																	
E224069	240.00	241.00	0.32																	
E224070	241.00	242.00	2.06																	
E224071	242.00	243.00	1.42																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E224072	243.00	244.00	7.18																	
E224073	244.00	245.00	1.86																	
E224074	245.00	246.00	0.52																	
E224075	246.00	247.00	0.03																	
E224076	247.00	248.00	2.52																	
E224077	248.00	249.00	10.85																	
E224078	249.00	250.00	0.54																	
E224079	250.00	251.00	1.09																	
E224080	251.00	252.00	0.12																	
E224081	252.00	253.00	0.02																	
E224082	253.00	254.00	0.01																	
E224083	254.00	255.00	0.02																	
E224084	255.00	256.00	0.26																	
E224085	256.00	257.00	0.04																	
E224086	257.00	258.00	0.16																	
E224087	258.00	259.00	0.04																	
E224088	259.00	260.00	0.01																	
E224089	260.00	261.00	0.28																	
E224090	261.00	262.00	0.15																	
E224091	262.00	263.00	0.03																	
E224092	263.00	264.00	0.05																	
E224093	264.00	265.00	1.32																	
E224094	265.00	266.00	0.02																	
E224095	266.00	267.00	0.02																	
E224096	267.00	268.00	0.03																	
E224097	268.00	269.00	0.18																	
E224098	269.00	270.00	0.02																	
E224099	270.00	271.00	0.04																	
E224100	271.00	272.00	0.02																	
E224101	272.00	273.00	0.10																	
E224102	273.00	274.00	0.21																	
E224103	274.00	275.00	0.13																	
E224104	275.00	276.00	0.35																	
E224105	276.00	277.00	1.37																	
E224106	277.00	278.00	0.12																	
E224107	278.00	279.00	1.07																	
E224108	279.00	280.00	6.52																	
E224109	280.00	281.00	1.99																	
E224110	281.00	282.00	1.99																	
E224111	282.00	283.00	9.05																	
E224112	283.00	284.00	1.47																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E224113	284.00	285.00	0.28																	
E224114	285.00	286.00	7.07																	
E224115	286.00	287.00	0.05																	
E224116	287.00	288.00	0.03																	
E224117	288.00	289.00	0.02																	
E224118	289.00	290.00	1.08	289.00	294.00	4B	Mixed interval, mainly banded Mt-chert BIF (4B) but without sharp qtz-Mt banding seen before. Minor, ~10%, intercalated gar-bio and lesser gar-amph layers <1 cm. No qtz flooding or minerlization. Badly broken core from 290-292 m due to late, chloritized	fault . Small mafic band 15-20 cm wide.F OLIATION/BANDING: 63 deg to CA at 292.5.C ONTACT: Upper and lower contacts gradational over ~1 m.												
E224119	290.00	291.00	0.16																	
E224120	291.00	292.00	0.31																	
E224121	292.00	293.00	0.21																	
E224122	293.00	294.00	0.14																	
E224123	294.00	295.00	0.36	294.00	296.70	4EA	Another mixed interval of broad zones (10-40 cm) dominated by f.g. grunerite with minor garnets, ~15% 1-2 cm Mt-Chert bands, several gar-bio schist layers up to 3-4 cm thick, and scattered interevals of gar-amph up to10cm. Several zones up to 10 cm wide	of qtz veining, green amph and garnets but no Po.F oliation: 68 deg to CA. C ontacts: Gradational over 1 m and somewhat arbitrary.	294.00	296.70	4B									
E224124	295.00	296.00	2.45																	
E224125	296.00	296.70	2.24																	
E224136	296.70	297.30	0.22	296.70	301.60	4B	Evenly banded, mixed section of alternating Mt-Chert layers 5-10 mm thick and garnet-green amphibole layers 0.5-3 cm wide with local garnet-biotite schist layers up to 2.5 cm thick. Mt-Chert layers are light grey chert with finely dissem Mt throughout, o	nly minor actual Mt laminae. Minor grunerite throughout and becomes abundant in lower part. Minor qtz-calcite veinlets but no qtz flooding or Po.F OLIATION/BANDING: Regular at 65 +/- 3 deg to CA. No signficant drag folds evident.	296.70	301.60	4E									
E224126	297.30	298.00	0.04																	
E224127	298.00	299.00	0.02																	
E224128	299.00	300.00	0.01																	
E224129	300.00	301.00	0.07																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E224130	301.00	301.60	0.07																	
E224131	301.60	302.50	0.01	301.60	306.80	4F	Typical m.g. 4F with ~30-40% m.g. anhedral to subhedral garnets in f.g. biotite schist, only minor qtz-fd in schist. Contains ~10-20% 4B -strongly to weakly magnetic chert- layers <1cm thick. Several short intervals <20cm of semi-massive garnets with min	or grunerite (?). Several tight isoclinal folds <5cm wide, no good drag folds. No obvious mineralization or significant qtz veins.F OLIATION: 66 deg tca at 302m, 63 at 304, 57 at 305.	301.60	306.80	4B									
E224132	302.50	303.00	0.03																	
E224133	303.00	303.80	0.18																	
E224134	303.80	305.00	0.02																	
E224135	305.00	306.20	0.01																	
E224137	306.20	307.00	0.01	306.80	308.50	4F	Continuation of above unit but no 4B layers now. One 15 cm interval of thinly bedded green, f.g. amphibolite (mafic tuff??) with thin non-mag cherty laminae. No obvious mineralization. F OLIATION: avgs. 64 deg to CA.													
E224138	307.00	308.00	0.01																	
E224139	308.00	308.50	0.05																	
E224140	308.50	309.50	0.01	308.50	310.25	4E	Another mixed interval of well banded gar-amph layers up to 15 cm, ~25-30%, 30% Mt-chert layers, 15-20% gar-grunerite bands, and various hybrid rx. No Po and only minor possible qtz veins.F OLiATION/BANDING: 64 to 68 deg to CA.		308.50	310.25	4B									
E224141	309.50	310.25	0.01																	
E224142	310.25	311.00	0.02	310.25	314.60	4B	Generally well banded section of 2-7 mm thick Mt bearing chert layers separated by 1-2 mm thick layers of f.g. gar-amph. Very minor intervals of grunerite beaing BIF. Possiby one qtv vein 5-7 cm wide, or chert?B ANDING/FOLIATION: 70 deg to CA.		310.25	314.60	4F									
E224143	311.00	312.00	0.01																	
E224144	312.00	313.00	0.30																	
E224145	313.00	314.00	0.69																	
E224146	314.00	314.60	0.02																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E224147	314.60	315.20	2.31	314.60	325.50	4B	Somewhat variable but dominantly 4B, thinly laminated to unevenly spaced bedding up to 1-2 cm thick. Several sections of f.g. 4F <1 m long and sections of interbanded 4B and 4F up to 1 m long. Two zones of grunerite replacement, ~20 & 60 cm long and a fe	w barren looking dolomite-qtz flooded zones <50 cm long, but no other indication of mineralization.B ANDING/FOLIATION: Varies from 57 to 70 deg to CA, most is ~63. Sub-horizontal cleavage at 43-48 deg to CA, filled with calcite.F OLDING: Scattered tight,															
E224148	315.20	316.20	0.31																	
E224149	316.20	317.00	0.01																	
E224150	317.00	318.00	0.05																	
E238176	318.00	319.00	0.04																	
E238177	319.00	320.00	0.07																	
E238178	320.00	321.00	0.03																	
E238179	321.00	322.00	0.02																	
E238180	322.00	323.00	0.08																	
E238181	323.00	324.00	2.01																	
E238182	324.00	325.00	0.06																	
E238183	325.00	325.50	0.03																	
E238184	325.50	326.70	0.07	325.50	333.60	SHZ	Mineralized (Po), Silicified early Shear Zone with variable amounts of grunerite, light green amph +/- m.g. garnets, remnant distorted bands of 4B, and probably f.g. sericite and dolomite throughout. Textures clearly indicate early faulting and movement	of altered rock frags followed by more silicification, amph, Po, and streaky, wispy grun-sericite(?) development. Lower contact gradational over 1-2 m.M INERALIZATION: Po forms small frax fillings <4 mm wide & blebs in pressure shadows, semi-massive band												
E238185	326.70	327.90	0.03																	
E238186	327.90	329.00	0.09																	
E238187	329.00	329.80	0.09																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E238188	329.80	- 330.60	0.15																	
E238189	330.60	331.30	0.02																	
E238190	331.30	332.00	0.03																	
E238191	332.00	333.00	0.06																	
E238192	333.00	333.60	0.12																	
E238193	333.60	334.10	0.04	333.60	341.00	4B	Heterogeneous section but mainly 4B with thick (2-3 cm) to thin banding. Two sections ~1-1.5 m long of uncertain origin-appear to be siliceous units cut by later wispy bands of grun-ser +/- pale green amph up to 3-4 cm wide. May have been a silicified zo	ne or just an original low Mt chert horizon. These also are cut by a few biotite rich veins (?) up to 3 cm thick. Faint original Mt-chert laminae still visible locally in broken and rotated blocks. Minor Po, 4F an 4E in these siliceous bands. Rest of 4B													
E238194	334.10	335.20	0.13																	
E238195	335.20	336.30	0.16																	
E238196	336.30	337.00	0.11																	
E238197	337.00	338.18	0.06																	
E238198	338.18	339.00	0.86																	
E238199	339.00	340.00	0.04																	
E238200	340.00	341.00	0.05																	
E238201	341.00	342.00	0.23	341.00	344.28	4H	Pyrrhotite rich section, origin uncertain. Consists of 25-70% Po in siliceous rock through most of section dropping off to <5% in last 70 cm. Po forms thin laminae along foliation, irregular frax fillings in siliceous parts, bands up to 2-3 cm of 50-70%	dissem grains, and massive zones up to 10 cm wide with minor qtz frags. Minor bands of green amphibole and some areas of thinly bedded chert-bio schist +/- f.g. Mt. Last 70 cm is more typical thick bedded 4B with some grunerite alt'n and 1-2% Po as frax												
E238202	342.00	343.00	0.13																	
E238203	343.00	343.70	0.03																	
E238204	343.70	344.28	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E238205	344.28	345.00	0.01	344.28	373.42	2	Generally a medium green mafic volcanic, relativly featureless except for strong shear foliation from start to 349.5 m. Sheared portion continues from disturbed BIF above and is typical mod-strongly biotitized, mod. schistose rock with minor green amphib	olitic sections preserved.S hear Foliation: Consistent at 68 deg to CA. Shear Banding well developed and indicates east side moved down.												
E238206	345.00	346.00	0.01																	
E238207	346.00	347.00	0.01																	
E238208	347.00	348.00	0.01																	
E238209	373.42	374.60	0.29	373.42	388.75	4B	Medium grey-green in colour depending on chlorite/grunerite content, well laminated with laminae averaging 2-3mm wide. Chert often broken and veined by po. Magnetite occurs as massive beds 1-4mm wide and as disseminated crystals often in a groundmass of	grunerite. Average po content is 0.5%.	373.42	388.75	4A									
E238210	374.60	375.80	0.09																	
E238211	375.80	377.00	0.77																	
E238212	377.00	378.00	0.01																	
E238213	378.00	379.00	0.02																	
E238214	379.00	380.00	0.03																	
E238215	380.00	381.00	0.12																	
E238216	381.00	382.00	0.01																	
E238217	382.00	383.00	0.01																	
E238218	383.00	384.00	0.01																	
E238219	384.00	385.00	0.02																	
E238220	385.00	386.00	0.01																	
E238221	386.00	387.00	0.01																	
E238222	387.00	388.00	0.01																	
E238223	388.00	388.75	0.01																	
E238224	388.75	390.00	0.05	388.75	392.11	2	Medium-green, aphanitic and chloritic with 10% QC veins. No sulphides. Unit may be mafic dike but appears to be sheared-faulted into place and is similar to mafic volcanic unit at end of hole. Contains 15cm piece of iron formation between 388.90-389.05m	also with sheared contacts.												
E238225	390.00	391.00	0.01																	
E238226	391.00	392.11	0.01																	
E238227	392.11	393.00	0.01	392.11	397.46	4B	Interval is identical to previous iron formation.		392.11	397.46	4A									

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E238228	393.00	394.00	0.07																	
E238229	394.00	395.00	0.01																	
E238230	395.00	396.00	0.02																	
E238231	396.00	397.00	0.35																	
E238232	397.00	397.46	0.09																	
E238233	397.46	398.00	0.01	397.46	403.00	2	Dark-green, hornblende porphyroblastic and poorly foliated. EOH.													
E238234	398.00	398.74	0.04																	

STRUCTURAL LOG 03-ESN-004

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	15.75	CASI																																		
15.75	118.00	3C																	51.00	51.50	45		S1													
					0.1																															
118.00	211.97	3C																																		
								0.2																													
								10																													
								0.1																													
																			210.50	211.00	49		S1													
211.97	223.90	2					15.			Highly contorted, uncertain if qtz flooding or chert beds.																															
							1.0												213.00	213.80	61		S1													
							0.5																														
							1.0																														
																			215.60	216.60	52		S1													
							3.0			Uncertain origin.																												
																			223.00	223.90	80		S1													
223.90	227.55	4EA					2.0																													
							0.2												226.60	227.55	80		S1													
227.55	238.00	4F																	228.30	229.00	80		S1													
																			231.00	232.00	68		S1													
																			232.00	233.00	0		S1													
																			233.00	233.70	18		S1													

STRUCTURAL LOG 03-ESN-004

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py %	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
								0.5											234.30	235.00	25		S1													
							0.2																												
							0.2																												
238.00	289.00	4EA																																	
							0.5																												
							0.5												243.00	244.00	68		S1													
							0.1												245.00	246.00	6		S1													
																			250.00	251.00	66		S1													
																			252.00	253.00	80		S1													
																			253.00	254.00	88		S1													
																			264.00	265.00	67		S1													
							0.1																												

STRUCTURAL LOG 03-ESN-004

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							0.2																													
							0.3												283.00	284.00	60		S1													
																			284.00	285.00	62		S1													
																			286.00	287.00	63		S1													
289.00	294.00	4B																																		
																			292.00	293.00	63		S1													
							0.2																													
294.00	296.70	4EA																																		
296.70	301.60	4B																																		
																			298.00	299.00	65		S1													
																			299.00	300.00	63		S1													
																			300.00	301.00	68		S1													
301.60	306.80	4F								5% hydrothermal related garnets.																											
306.80	308.50	4F																																		
308.50	310.25	4E																																		
310.25	314.60	4B																																		
314.60	325.50	4B																																		

STRUCTURAL LOG 03-ESN-004

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							0.2												315.20	316.20	70		S1														
							0.2																													
							0.3																													
																			321.00	322.00	70		S1													
							0.1												325.00	325.50	58		S1													
325.50	333.60	SHZ					0.1																													
							0.5												329.00	329.80	58		S1													
							0.5												329.80	330.60	54		S1													
							10.																													
							0.1																													
							0.2																													
							0.1																													
							5.0																													
333.60	341.00	4B																																		
							5.0																													
							0.5																													
							1.0																													
341.00	344.28	4H		0.0			20.																													
							35.			Uncertain if qtz flooding or original siliceous rx.																											
							10.																													
							1.0			Uncertain, possibly chert?																											
344.28	373.42	2																	345.00	346.00	68		S1													
																			346.00	347.00	68		S1													
373.42	388.75	4B																	373.42	374.60	70		S1													
																			375.80	377.00	75		S1													

STRUCTURAL LOG 03-ESN-004

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			388.00	388.75	75		S1													
388.75	392.11	2																	388.75	390.00	60		S1													
																			391.00	392.11	50		S1													
392.11	397.46	4B																	392.11	393.00	80		S1													
																			393.00	394.00	80		S1													
																			394.00	395.00	75		S1													
							1.5												396.00	397.00	70		S1													
397.46	403.00	2																																	
							5.0												398.00	398.74	52		S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-007**

Project Code: ESN

Mine Grid Easting: 8870.201
Mine Grid Northing: 12899.922
Elevation: 5296.259

Drill Start Date: 07/02/2003
Drill End Date: 10/02/2003

Core Diameter:
Plugged: YES

UTM East
UTM North:

Planned Depth:
Actual Depth: 242

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
3	89.42	-55.11	MAXI
6	89.08	-54.24	MAXI
9	88.84	-53.23	MAXI
12	88.59	-52.25	MAXI
15	88.37	-51.56	MAXI
18	88.39	-51.4	MAXI
21	88.49	-51.58	MAXI
24	88.59	-51.65	MAXI
27	88.69	-51.57	MAXI
30	88.81	-51.52	MAXI
33	88.94	-51.45	MAXI
36	89.02	-51.34	MAXI
39	89.12	-51.24	MAXI
42	89.25	-51.16	MAXI
45	89.37	-51.09	MAXI
48	89.46	-51.04	MAXI
51	89.55	-50.99	MAXI
54	89.64	-50.93	MAXI
57	89.73	-50.87	MAXI
60	89.77	-50.82	MAXI
63	89.86	-50.74	MAXI
66	89.99	-50.68	MAXI
69	90.07	-50.62	MAXI
72	90.18	-50.57	MAXI
75	90.31	-50.49	MAXI
78	90.4	-50.42	MAXI
81	90.52	-50.35	MAXI
84	90.54	-50.33	MAXI
87	90.65	-50.27	MAXI
90	90.71	-50.24	MAXI
93	90.79	-50.18	MAXI
96	90.9	-50.12	MAXI
99	90.98	-50.04	MAXI
102	91.12	-49.99	MAXI
105	91.19	-49.95	MAXI
108	91.24	-49.9	MAXI
111	91.34	-49.85	MAXI
114	91.42	-49.81	MAXI
117	91.49	-49.78	MAXI
120	91.57	-49.72	MAXI
123	91.66	-49.67	MAXI
126	91.73	-49.62	MAXI
129	91.81	-49.6	MAXI
132	91.86	-49.58	MAXI
135	91.92	-49.52	MAXI
138	91.98	-49.48	MAXI
141	92.1	-49.44	MAXI
144	92.17	-49.42	MAXI
147	92.26	-49.41	MAXI
150	92.3	-49.39	MAXI
153	92.4	-49.37	MAXI
156	92.47	-49.35	MAXI
159	92.55	-49.31	MAXI
162	92.6	-49.3	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-007**

Project Code: ESN

Mine Grid Easting: 8870.201
Mine Grid Northing: 12899.922
Elevation: 5296.259

Drill Start Date: 07/02/2003
Drill End Date: 10/02/2003

Core Diameter:
Plugged: YES

UTM East
UTM North:

Planned Depth:
Actual Depth: 242

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
165	92.68	-49.25	MAXI
168	92.79	-49.23	MAXI
171	92.87	-49.19	MAXI
174	92.98	-49.17	MAXI
177	93.04	-49.12	MAXI
180	93.07	-49.08	MAXI
183	93.14	-49.08	MAXI
186	93.18	-49.04	MAXI
189	93.22	-48.97	MAXI
192	93.26	-48.94	MAXI
195	93.34	-48.88	MAXI
198	93.41	-48.87	MAXI
201	93.44	-48.84	MAXI
204	93.52	-48.82	MAXI
207	93.57	-48.81	MAXI
210	93.61	-48.79	MAXI
213	93.71	-48.73	MAXI
216	93.81	-48.64	MAXI
219	93.91	-48.58	MAXI
222	94.06	-48.5	MAXI
225	94.21	-48.43	MAXI
228	94.32	-48.36	MAXI
231	94.4	-48.28	MAXI
234	94.48	-48.21	MAXI
237	94.56	-48.13	MAXI
240	94.64	-48.07	MAXI
242	94.71	-48.05	MAXI

LITHOLOGY LOG 03-ESN-007

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	24.20	CASIN														
				24.20	66.37	3D	Dark-medium grey, siliceous and moderately well foliated. Characterized by >1m intervals of stretched, 1-3mm quartz phenocrysts alternating with bands of tuffaceous material. Tuffaceous beds more sericitic than massive flows. Entire unit is mineralized w	ith trace to locally 1% pyrite up to 47m where py content increases to 3%, locally up to 20% over 30cm widths and appear to be shear controlled. Garnet porphyroblasts present locally.												
E224225	64.37	65.37	0.01																	
E224226	65.37	66.37	0.01																	
E224227	66.37	67.50	0.57	66.37	73.15	4E	Dark-green, weakly to moderately well foliated and composed of 35% garnet up to 0.8cm set in a mixed amphibole>biotite>chlorite groundmass. Garnet occurs in 'beds' that define S1 and show closed folds locally (described in sample intervals). Abundant qua	rtz veins most often folded and broken and mineralized with po up to 20% locally over 10-20cm widths with rare semi-massive po veins.	66.37	73.15	4F									
E224228	67.50	68.70	0.44																	
E224229	68.70	69.90	5.85																	
E224230	69.90	71.00	0.79																	
E224231	71.00	72.10	0.08																	
E224232	72.10	73.15	16.82																	
E224233	73.15	74.15	5.42	73.15	90.75	2	Dark-green, aphanitic and poorly foliated. Characterized by 0-20% 1-5mm garnet porphyroblasts, locally up to 2cm. Few areas of intense garnet/biotite/calcite that appears to be 4F but obviously is a product of alteration. No sulphides. Upper contact 40 d	eg to CA.												
E224234	74.15	75.15	0.02																	
E224235	90.75	92.00	0.33	90.75	97.69	SHZ	Shear zone in mafic volcanic composed of chlorite+biotite, veined with up to 50% quartz+calcite veins over 1m widths. No visible sulphides.													
E224236	92.00	93.20	2.08																	
E224237	93.20	94.40	0.70																	
E224238	94.40	95.60	0.10																	
E224239	95.60	96.60	0.08																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E224240	96.60	97.60	0.02																	
				97.69	106.93	3F	Medium-grey, well foliated/bedded with alternating light and darker grey-green bands averaging 1cm wide. Darker bands are composed of chlorite and biotite often with 2-6mm garnet porphyroblasts.													
E224241	106.10	106.93	0.01																	
E224242	106.93	108.00	0.02	106.93	109.70	4EA	Dark-green with 15 2-5mm garnet porphyroblasts set in a groundmass of amphibole and 5% grunerite and locally minor biotite. Rare broken quartz vein fragments to 2cm. No visible sulphides.													
E224243	108.00	109.00	0.27																	
E224244	109.00	109.70	0.28																	
E224245	109.70	110.90	0.06	109.70	117.05	4F	Dark greyish-brown and composed of 60% 1-2mm garnet porphyroblasts in a groundmass of fine-grained biotite and rare rounded and rotated quartz vein fragments. No visible sulphides.													
E224246	110.90	112.00	0.03																	
E224247	112.00	113.00	0.01																	
E224248	113.00	114.00	0.02																	
E224249	114.00	115.00	0.01																	
E224250	115.00	116.00	0.01																	
E224251	116.00	117.05	0.02																	
E224252	117.05	118.25	0.04	117.05	120.45	4EA	Dark-green, well foliated and composed of 15% garnet set in abundant blue-green amphibole and approximately 25% fine-grained grunerite. Sulphides present (8%) only between 119.3-119.9m													
E224253	118.25	119.30	0.07																	
E224254	119.30	119.90	0.15																	
E224255	119.90	120.45	0.13																	
E224256	120.45	121.45	0.02	120.45	143.67	3C	Medium-grey, well foliated mixed intermediate lapilli and ash tuff. May have more felsic component locally. Lapilli average 1cm but range up to 4cm. Below 130m rock is moderately calcite veined with 15% veins devoid of sulphides.													
E224257	121.45	122.45	0.01																	
E224258	141.57	142.57	0.44																	
E224259	142.57	143.67	0.19																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E224260	143.67	144.80	0.17	143.67	181.52	4F	Interval is composed of 90% 4F and 10% 4EA. 4F unit is as previous with 50-60% 1-4mm garnets in amphibole-rich groundmass. Garnets reach up to 1cm within bands of pure amphibole typically associated with beds of chert. 4EA units are grunerite-rich associ	ated with chert and lesser amphibole. No sulphides and almost no deformation. Interformational unit of dark green, aphanitic mafic volcanic from 154.05-155.83m.	143.67	181.52	4EA									
E224261	144.80	146.00	0.08																	
E224262	146.00	147.00	0.06																	
E224263	147.00	148.00	0.02																	
E224264	148.00	149.00	0.02																	
E224265	149.00	150.00	0.50																	
E224266	150.00	151.00	0.05																	
E224267	151.00	152.00	0.07																	
E224268	152.00	153.00	0.05																	
E224269	153.00	154.05	2.33																	
E224270	154.05	155.00	0.06																	
E224271	155.00	155.83	0.30																	
E224272	155.83	157.00	0.37																	
E224273	157.00	158.00	0.16																	
E224274	158.00	159.00	2.10																	
E224275	159.00	160.00	2.55																	
E224276	160.00	161.00	0.37																	
E224277	161.00	162.00	2.40																	
E224278	162.00	163.00	3.50																	
E224279	163.00	164.00	1.69																	
E224280	164.00	165.00	0.15																	
E224281	165.00	166.00	0.88																	
E224282	166.00	167.00	0.46																	
E224283	167.00	168.00	0.23																	
E224284	168.00	169.00	1.82																	
E224285	169.00	170.00	0.95																	
E224286	170.00	171.00	1.58																	
E224287	171.00	172.00	0.56																	
E224288	172.00	173.00	0.06																	
E224289	173.00	174.00	0.14																	
E224290	174.00	175.00	0.03																	
E224291	175.00	176.17	0.08																	
E224292	176.17	177.00	0.31																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E224293	177.00	178.00	0.77																	
E224294	178.00	179.00	0.72																	
E224295	179.00	179.61	0.19																	
E224296	179.61	180.61	0.15																	
E224297	180.61	181.52	0.30																	
E224298	181.52	182.50	0.02	181.52	217.16	2	Medium to locally dark green, well foliated to locally sheared and aphanitic. Locally biotitic and QC veined. No sulphides or alteration. Abundant broken and blocky /ground core between 193-212m.													
E224299	182.50	183.50	0.01																	
E224300	216.16	217.16	0.03																	
E224301	217.16	218.20	0.27	217.16	228.30	4EA	Yellow-green in colour, very well foliated/bedded with laminae 0.5-2mm wide on average. Interval appears to be composed of 60% grunerite and 40% quartz+amphibole. Approx. 5% broken and rotated quartz vein material, no sulphides.													
E224302	218.20	219.20	0.07																	
E224303	219.20	220.20	0.11																	
E224304	220.20	221.20	0.04																	
E224305	221.20	222.20	0.12																	
E224306	222.20	223.20	0.49																	
E224307	223.20	224.20	0.11																	
E224308	224.20	225.20	0.14																	
E224309	225.20	226.20	0.07																	
E224310	226.20	227.20	0.02																	
E224311	227.20	228.30	0.13																	
E224312	228.30	229.50	0.02	228.30	233.85	2	Medium-green, weakly to moderately foliated and amphibole porphyroblastic. Weak to moderate biotite alteration, 5% calcite veins typically parallel to foliation.													
E224313	229.50	230.70	0.01																	
E224314	230.70	231.90	0.05																	
E224315	231.90	233.00	0.02																	
E224316	233.00	233.85	0.01																	
E224317	233.85	234.85	0.01	233.85	238.85	4EA	Interval can be divided into two section: from 233.85-236.38 is very well laminated on mm scale with rare disruptions in bedding; the second from 236.38-238.85m is more silceous with broken cherty bands but no fold closures or sulphides.													
E224318	234.85	235.85	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E224319	235.85	236.38	0.03																	
E224320	236.38	237.00	0.04																	
E224321	237.00	238.00	0.03																	
E224322	238.00	238.85	0.26																	
E224323	238.85	240.00	0.04	238.85	242.00	2	Mafic volcanic as previous interval. EOH													

STRUCTURAL LOG 03-ESN-007

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	24.20	CASI																	27.00	27.10	62		S1													
24.20	66.37	3D																	35.00	35.10	61		S1													
																			44.00	44.10	85		S1													
																			56.00	56.10	63		S1													
																			64.37	65.37	43		S1													
66.37	73.15	4E					7.0				66.37	67.50	QZ	12			45																			
							3.0												67.50	68.70	56		S1													
																			68.70	69.90	57		S1													
																			69.90	71.00	60		S1													
							3.0																													
73.15	90.75	2																																	
																			83.00	83.10	43		S1													
																			90.00	90.10	62		S1													
90.75	97.69	SHZ									90.75	92.00	QZ-C	3			60		90.75	92.00	65		S1													
											92.00	93.20	QZ-C	20			40		92.00	93.20	60		S1													
																			93.20	94.40	55		S1													
																			95.60	96.60	70		S1													
																			96.60	97.60	57		S1													
																			108.00	106.10	52		S1													
97.69	106.93	3F																																	
106.93	109.70	4EA																	106.93	108.00	55		S1													
																			108.00	109.00	46		S1													
109.70	117.05	4F																	109.70	110.90	36		S1													
																			110.90	112.00	53		S1													
																			114.00	115.00	60		S1													
																			116.00	117.05	58		S1													
																			117.05	118.25	67		S1													
117.05	120.45	4EA																																	
							8.0			Massive to semi-massive veins and lesser blebs.									119.30	119.90	78		S1													
																			119.90	120.45	53		S1													
																			120.45	121.45	60		S1													
120.45	143.67	3C																																	
																			125.00	125.10	68		S1													

STRUCTURAL LOG 03-ESN-007

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
143.67	181.52	4F					1.0												134.00	134.10	50		S1													
																			141.57	142.57	0		S1													
																			142.57	143.67	67		S1													
																			143.67	144.80	50		S1													
																			146.00	147.00	75		S1													
																			149.00	150.00	70		S1													
																			153.00	154.05	65		S1													
																			155.00	155.83	70		S1													
																			155.83	157.00	68		S1													
																			159.00	160.00	60		S1													
																			162.00	163.00	64		S1													
																			165.00	166.00	64		S1													
																			168.00	169.00	60		S1													
																			171.00	172.00	60		S1													
																			173.00	174.00	70		S1													
																			174.00	175.00	70		S1													
																			175.00	176.17	66		S1													
											176.17	177.00	QZ	2			65	Numerous veins at this orientation.																		
																			177.00	178.00	62		S1													
																			179.00	179.61	72		S1													
							2.0												179.61	180.61	64		S1													

STRUCTURAL LOG 03-ESN-007

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
181.52	217.16	2																																		
																			191.00	191.10	52		S1													
																			215.00	215.10	62		S1													
																			216.16	217.16	60		S1													
217.16	228.30	4EA																	217.16	218.20	77		S1													
							1.0																														
																			220.20	221.20	70		S1													
																			224.20	225.20	72		S1													
																			227.20	228.30	60		S1													
																			228.30	229.50	60		S1													
228.30	233.85	2																																		
																			231.90	233.00	65		S1													
																			233.85	234.85	75		S1													
233.85	238.85	4EA																	235.85	236.38	63		S1													
																			237.00	238.00	70		S1													
							3.0																														
238.85	242.00	2																	238.85	240.00	43		S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-008**

Project Code: ESN

Mine Grid Easting: 8975.203
Mine Grid Northing: 12900.106
Elevation: 5296.253

UTM East:
UTM North:

Planned Depth:
Actual Depth: 221

Drill Start Date: 04/02/2003
Drill End Date: 07/02/2003

Core Diameter:
Plugged: YES

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	91.0833	-51.2444	SURV
24	91.0833	-52.5	EZS
31	91.0833	-51.9	EZS
50	91.0833	-51.4	EZS
75	91.0833	-51.7	EZS
101	91.0833	-50.9	EZS
125	91.0833	-51.3	EZS
152	91.0833	-50.1	EZS
175	91.0833	-49.7	EZS
200	91.0833	-49.4	EZS
221	91.0833	-49.5	EZS

LITHOLOGY LOG 03-ESN-008

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	29.00	CASIN														
				29.00	50.91	3C	Probable mix of intermediate lapilli tuff and ash tuff. Medium-grey in colour and well foliated with visible tuff fragments up to 3cm in a fine-grained, moderately siliceous groundmass. Some beds of laminated ash with rare wispy fragments (fiamme?) proba	bly representing pumice. Some fragments appear to be partly biotitized. QC veins becoming more numerous to lower contact. Average foliation is 70 deg to CA. No sulphides except where QC veins are plentiful and then py associated with coarse-grained musco												
				50.91	52.32	2	Dark-green, well laminated, probable mafic tuff or volcaniclastic showing alternating beds of dark and lighter green material. Few QC veins. Average foliation is 70 deg.													
E224151	52.32	53.00	0.06	52.32	53.73	3C	Similar to previous intermediate tuff except slightly more biotitized and shows zone of up to 10% py around 53m.													
E224152	53.00	53.73	0.09																	
E224153	53.73	55.00	0.75	53.73	58.26	4E	Medium brownish-green coloured and composed of 60% 2-4mm garnet porphyroblasts set in a groundmass of 30% biotite/chlorite and 10% blue-green amphibole. Garnet tends to cluster in bands up to 25cm wide. Biotite/chlorite bands tend to be much poorer in ga	rnet. Occassional cherty bed up to 1cm wide. No visible sulphides or grunerite.	53.73	58.26	4F									
E224154	55.00	56.00	0.22																	
E224155	56.00	57.00	2.84																	
E224156	57.00	58.26	0.03																	
E224157	58.26	59.26	3.47	58.26	61.17	4E	Interval is characterized by large garnet porphyroblasts up to 1.5cm surrounded by mixed blue-green amphibole and grunerite. Rock has a wispy texture produced by amphibole/grunerite wrapping around garnet. No sulphides.		58.26	61.17	4EA									
E224158	59.26	60.26	0.01																	
E224159	60.26	61.17	26.27																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E224160	61.17	62.00	0.67	61.17	71.41	4E	Interval is very similar to 53.73-58.26m with garnet/biotite/amphibole bands occurring up to 10cm wide but averaging <1cm. Trace of grunerite locally but not enough to warrant a rock type designation. Few bands richer in amphibole over 25cm with rare po.	Foliation is consistantly at 60 deg to CA.	61.17	71.41	4F									
E224161	62.00	63.00	0.96																	
E224162	63.00	64.00	0.26																	
E224163	64.00	65.00	0.59																	
E224164	65.00	66.00	0.16																	
E224165	66.00	67.00	0.88																	
E224166	67.00	68.00	2.92																	
E224167	68.00	69.00	1.13																	
E224168	69.00	70.00	0.12																	
E224169	70.00	71.00	0.04																	
E224170	71.00	71.41	0.03																	
E224171	71.41	72.50	0.22	71.41	76.58	4EA	Similar to previous unit except grunerite now comprises 25% of rock with decrease in biotite content. Bedding remains at <1cm wide on average with minor drag folds. Foliation averages 70 deg to CA. No sulphides.													
E224172	72.50	73.50	0.06																	
E224173	73.50	74.50	0.02																	
E224174	74.50	75.50	0.03																	
E224175	75.50	76.58	0.43																	
E224176	76.58	77.80	0.03	76.58	88.64	4F	Interval is well banded with average band width of 1cm ranging up to 20cm. Interval is 80% 4F and 20% 4E. 4E intervals are characterized by semi-massive amphibole and abundant, coarse-grained biotite associated with barren quartz veins. Foliation average	s 60 deg to CA.	76.58	88.64	4E									
E224177	77.80	79.00	0.15																	
E224178	79.00	80.00	1.06																	
E224179	80.00	81.00	0.03																	
E224180	81.00	82.00	0.01																	
E224181	82.00	83.00	0.01																	
E224182	83.00	84.00	0.22																	
E224183	84.00	85.00	0.02																	
E224184	85.00	86.00	0.03																	
E224185	86.00	87.00	0.15																	
E224186	87.00	88.00	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E224187	88.00	88.64	0.03																	
E224188	88.64	89.80	0.03	88.64	93.34	4F	Banded, dark-green and light grey composed of alternating bio/gar and chert/mag bedded over 1cm widths. Magnetite is very fine-grained. Interval is defined by the presence of garnet which is absent in following interval. Numerous fold closures as describ	ed in sample intervals.	88.64	93.34	4B									
E224189	89.80	91.00	0.04																	
E224190	91.00	92.20	0.03																	
E224191	92.20	93.34	0.03																	
E224192	93.34	94.00	0.03	93.34	98.02	4B	Interval is light grey in colour due to abundace of chert occurring as locally laminated beds up to 20cm wide, often brecciated and veined with po. Intervals between chert beds is mainly fine-grained magnetite locally with po +-garnet. Between 95.8-97.0m	at least 3 diatreme dikes with black fragments up to 1cm in dark-grey groundmass. Core is very broken in vicinity of dikes.												
E224193	94.00	95.00	0.34																	
E224194	95.00	96.00	0.45																	
E224195	96.00	97.00	0.04																	
E224196	97.00	98.02	0.09																	
E224197	98.02	99.00	0.06	98.02	125.62	2	Dark-green to locally bleached to light green over 1m lengths. Aphanitic and very well foliated at 80 deg to CA. Probable sheared contact. No sulphides or significant alteration, only trace QC veins abundant broken core.													
E224198	99.00	100.00	0.01																	
E224199	123.46	124.62	0.01																	
E224200	124.62	125.62	0.01																	
E224201	125.62	126.82	0.11	125.62	130.75	4B	Dark to medium-grey depending on chert content. Magnetite occurring mainly as disseminated crystals with biotite and chlorite. Chert occurs as boudinaged and rotated fragments. Traces po. Local zones of transposition parallel to axial planes of small fol	ds at 45-50 deg to CA.												
E224202	126.82	128.00	0.42																	
E224203	128.00	129.00	0.51																	
E224204	129.00	130.00	0.30																	
E224205	130.00	130.75	0.19																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E224206	130.75	132.00	0.56	130.75	140.01	4B	This interval can be divided into an upper unit from 130.75-134.00m where rock is richer in broken chert and grunerite and a lower unit showing more regular laminations of chert/mag/gru bedded over 3mm widths.		130.75	140.01	4A									
E224207	132.00	133.00	2.24																	
E224208	133.00	134.00	0.11																	
E224209	134.00	135.00	0.01																	
E224210	135.00	136.00	0.02																	
E224211	136.00	137.00	0.01																	
E224212	137.00	138.00	0.01																	
E224213	138.00	139.00	0.29																	
E224214	139.00	140.01	0.19																	
E224215	140.01	141.00	0.01	140.01	150.01	2	Medium green, typically hornblende porphyroblastic and moderately well foliated with 5% QC veins. Several 1-25cm wide fine-grained diatreme dikes with contacts at 50 deg to CA. Foliation averages 60 deg to CA.													
E224216	141.00	142.00	0.01																	
E224217	149.00	150.01	0.01																	
E224218	150.01	151.00	0.06	150.01	155.11	4B	Dark to light-grey in colour, well laminated with brecciation locally. Grunerite becomes more common downhole. Pyrrhotite averages 1% but can occur as massive veins up to 3cm wide locally but typically occurs around margins of broken QVs.		150.01	155.11	4A									
E224219	151.00	152.00	1.25																	
E224220	152.00	153.00	0.39																	
E224221	153.00	154.00	0.42																	
E224222	154.00	155.11	0.28																	
E224223	155.11	156.11	0.02	155.11	221.00	2	Medium-green, weakly to locally moderately well foliated with pillow selvages becoming well develped below 167m. 10% QC veins devoid of sulphides. EOH													
E224224	156.11	157.11	0.03																	

STRUCTURAL LOG 03-ESN-008

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	29.00	CASI																																	
29.00	50.91	3C																																	
50.91	52.32	2																																	
52.32	53.73	3C						1											52.32	53.00	73		S1												
53.73	58.26	4E																	53.73	55.00	73		S1												
																			57.00	58.26	77		S1												
58.26	61.17	4E																	58.26	59.26	70		S1												
																			60.26	61.17	0		S1												
61.17	71.41	4E																	62.00	63.00	55		S1												
							1.0												67.00	68.00	55		S1												
71.41	76.58	4EA																	71.41	72.50	70		S1												
																			75.50	76.58	75		S1												
76.58	88.64	4F																	76.58	77.80	70		S1												
																			81.00	82.00	0		S1												
																			85.00	86.00	5		S1												
																			86.00	87.00	65		S1												
																			88.00	88.64	70		S1												
88.64	93.34	4F																	88.64	89.80	60		S1												

STRUCTURAL LOG 03-ESN-008

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
93.34	98.02	4B																	93.34	94.00	75		S1													
																			95.00	96.00	65		S1													
							1.0																													
							3.0												97.00	98.02	65		S1													
98.02	125.62	2																	98.02	99.00	80		S1													
																			123.00	123.10	75		S1													
																			123.46	124.62	75		S1													
125.62	130.75	4B																	125.62	126.82	55		S1													
																			128.00	129.00	80		S1													
130.75	140.01	4B					1.0												130.75	132.00	70		S1													
																			132.00	133.00	85		S1													
																			133.00	134.00	85		S1													
																			136.00	137.00	70		S1													
																			138.00	139.00	70		S1													
																			139.00	140.01	75		S1													
140.01	150.01	2																																		
																			149.00	150.01	55		S1													
150.01	155.11	4B																	150.01	151.00	62		S1													
																			153.00	154.00	65		S1													
155.11	221.00	2																	156.11	157.11	70		S1													
																			165.00	165.10	78		S1													
																			171.50	171.60	70		S1													
																			191.00	191.10	65		S1													
																			205.00	205.10	60		S1													
																			216.00	216.10	50		S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-009**

Project Code: ESN

Mine Grid Easting: 8927.895

Mine Grid Northing: 12950.009

Elevation: 5296.06

UTM East

UTM North:

Planned Depth:

Actual Depth: 200

Drill Start Date: 09/04/2003

Drill End Date: 12/04/2003

Core Diameter:

Plugged: YES

Target 1:

Target 2:

Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	88.5131	-50.4169	SURV
21	88.5131	-51.6	EZS
50	88.5131	-47	EZS
101	88.5131	-46.1	EZS
152	88.5131	-45.3	EZS
200	88.5131	-43.8	EZS

LITHOLOGY LOG 03-ESN-009

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	33.15	CASIN														
				33.15	40.23	2	Dark-green, moderately well foliated and locally biotite porphyroblastic. 5-8% quartz+/-calcite veins parallel to foliation. Few intervals 10-130cm wide of biotitization without sulphides.													
				40.23	48.39	3	Medium-grey, poorly foliated and locally quartz-phyric felsic volcanic. Possible stretched felsic lapilli as well as broken and boudinaged quartz fragments, trace py throughout.													
				48.39	56.10	2	Same as previous mafic volcanic.													
E225501	56.10	57.00	0.07	56.10	64.31	4E	Interval logged as 4E, however, contacts are diffuse and garnets extend into surrounding lithologies probably indicating that this is sheared and altered mafic volcanic. Garnet occurs as 1-2mm to 3-5mm porphyroblasts set in either biotite, chlorite or am	phibole. Intense shearing over 20-70cm results in tight folds locally.												
E225502	57.00	58.00	0.02																	
E225503	58.00	59.00	0.35																	
E225504	59.00	60.00	0.35																	
E225505	60.00	61.00	0.51																	
E225506	61.00	62.15	0.26																	
E225507	62.15	63.15	0.08																	
E225508	63.15	64.31	0.22																	
E225509	64.31	65.40	0.01	64.31	66.56	3C	Medium-grey, very poorly foliated and locally quartz phyric with minor mafic tuff beds <10cm wide especially near downhole contact. Uphole contact is sheared and sharp over 5cm.													
E225510	65.40	66.56	0.01																	
E225511	66.56	67.85	0.20	66.56	70.25	4EA	Dark greyish-green in colour, well foliated and composed of 25% 1-10mm garnets in an amphibole-rich groundmass with minor grunerite and broken quartz veins.													
E225512	67.85	69.00	0.28																	
E225513	69.00	70.25	0.16																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E225514	70.25	71.45	0.18	70.25	102.05	3C	Typically medium-grey to very light grey brown and banded with chlorite/amphibole rich beds <1cm wide (absent in lower 4-5 m). Garnets are ubiquitous in upper portion and range up to 1.5cm, not associated with other alteration minerals. Quartz phenocryst	s present locally as well as more chloritic units <1m thick that are not broken out.T race dissem and fracture controlled Py in lower 3 m, associated with abundant layer parallel calcite veins, up to 10-15%,~5 mm thick, small												
				102.05	105.00	2	Mafic volcanic, probabaly water-lain & tuffaceous in origin due to presence of thin Mt-chert layers in lower part. Rock is banded with alternating gradational layers of medium green to light green amphibole dominated rock and lesser medium green-brown bi	otite rich, altered, sheared sections <few cm wide. Amount of biotite, minor shears and offsets, and qtz-calcite veins increase with depth and this unit grades into the underlying 4F. Lower 1 m has several weakly magnetic chert layers up to 5-8 mm.F OLIA												
E225515	103.00	104.00	1.32																	
E225516	104.00	105.00	1.13																	
E225517	105.00	105.50	0.37	105.00	106.30	4F	Fine to medium grained gar-bio schist with 40-70% garnets in bio rich matrix. Upper 60-70 cm is gradational into the biotite altered mafic tuff with minor chert Mt layers. No obvious mineralization or qtz flooding.													
E225518	105.50	106.30	0.56																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
E225519	106.30	107.00	0.42	106.30	116.20	4EA	Well developed, banded garnet-grunerite-green amph-chert-Mt layered rock. Minor Po, concentrated up to 1-3% over scattered 10-20 cm intervals, especially associated with apparent qtz flooding. Minor qtz veining/flooding, also concentrated over short inte	rvals.S everal small sections, <1m, of 4F and mafic tuff with intercalated Mt-chert.Main 4EA consists of ~15-20% Mt-chert layers usually <1 cm thick, alternating with bands of m.g. garnet-grunerite up to 5 cm thick and green amph-garnet schist, generall												
E225520	107.00	108.00	1.32																	
E225521	108.00	109.00	1.73																	
E225522	109.00	110.00	0.30																	
E225523	110.00	111.00	4.30																	
E225524	111.00	112.00	5.79																	
E225525	112.00	113.00	1.39																	
E225526	113.00	114.00	9.97																	
E225527	114.00	115.00	3.61																	
E225528	115.00	116.20	4.41																	
E225529	116.20	117.00	0.47	116.20	119.70	2	Mixed zone of ~40% mod. biotititized mafic volcanics (presumably tuff) with local short intervals of c.g. garnets (near the bio alt'n) and minor chert-Mt layers, and ~60% intercalated 4F and lesser chert-Mt layers with minor grunerite. Units are 50-70 cm	long and gradational into each other.FOLATION: 68 deg TCA at most consistent spot.	116.20	119.70	4F									
E225530	117.00	118.00	0.06																	
E225531	118.00	118.60	0.44																	
E225532	118.60	119.70	0.09																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E225533	119.70	120.80	5.23	119.70	125.40	4EA	Mixed zone. Most is thin (2-4 mm) striped grey-green-yellow, f.g. to m.g. unit of alternating green amph, grey chert-Mt, and garnets in either grunerite or green amph matrix. Several sections are c.g. gar-grun in vague bands up to 30 cm long with only mi	nor green amph or 4B left. Minor 4F. Only minor possible qtz veins and Po is confined to fractures in a few siliceous layers up to 5 cm wide.F OLIATION/BANDING: Generally consistent at ~65 to 68 deg TCA.F OLDS: Absent, or so tight they resemble layering.	119.70	125.40	4B											
E225534	120.80	122.00	0.09																	
E225535	122.00	123.00	0.06																	
E225536	123.00	124.00	2.53																	
E225537	124.00	124.90	3.28																	
E225538	124.90	125.40	0.65																	
E225539	125.40	126.00	0.02	125.40	140.80	4B	Well banded, 2 mm to 2 cm, light grey-pink-green rock composed of roughly equal amounts of chert-mt layers and intercalated fine to m.g. gar-bio schist. Only minor, short intervals <10 cm of green amph or gar-amph.F OLIATION/BANDING: Generally even and c	oonsitent, only minor distortions. Ranges from 67 to 78 deg TCA.F OLDS: Absent in most of unit but common from 134 m to 137m. These are prob due to differential shearing caused by a small fault centred at 135.3. Fault displays broken, offset and rotated	125.40	140.80	4F									
E225540	126.00	127.00	0.01																	
E225541	127.00	128.00	0.17																	
E225542	128.00	129.00	0.08																	
E225543	129.00	130.00	0.03																	
E225544	130.00	131.00	0.01																	
E225545	131.00	132.00	0.01																	
E225546	132.00	133.00	0.02																	
E225547	133.00	134.00	0.03																	
E225548	134.00	135.00	0.06																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E225549	135.00	136.00	0.38																	
E225550	136.00	137.00	0.07																	
E225551	137.00	138.00	0.04																	
E225552	138.00	139.00	0.02																	
E225553	139.00	140.00	0.09																	
E225554	140.00	140.80	0.01																	
E225555	140.80	141.60	0.11	140.80	144.96	4H	Not a sulphide iron formation but rather magnetite bearing chert faulted, sheared, and infilled with Po, possibly some minor sili'n, plus f.g. sericite and/or grunerite, green amph, and minor garnets along fractures in the chert. These frax are up to 1cm	wide and have a streaky, wispy pattern. Po occurs as frax fillings generally < few mm in the chert layers but most occurs in several brecciated zones up to 10 cm wide. Breccia zones have ~40-50% frags of Mt-Chert up to 1 cm across in a matrix of Po.												
E225556	141.60	142.20	0.11																	
E225557	142.20	142.70	0.02																	
E225558	142.70	143.90	0.20																	
E225559	143.90	144.37	0.04																	
E225560	144.37	144.96	0.02																	
E225561	144.96	146.00	0.01	144.96	149.45	2	Medium grey to light brown mafic volcanic. Upper 3 m is mod-strongly altered to f.g. biotite, this alteration decreases with depth away from the Po filled faulted chert/4B unit above. Several 1-4 cm wide calcite veins in lower part, no significant sil'n	or visible Po.F OLIATION: Consistent at 70-74 deg to CA.C ore is badly broken over ~1/2 this interval due to fault slips at low angle to CA, lined with black chlorite? or possibly some serpentine?												
E225562	146.00	147.00	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E225563	147.00	148.00	0.01	149.45	154.00	1	Fairly homogeneous, light green, well foliated to schistose, f.g. serpentinized ultramafic, probably a flow. Rock is now composed of indistinct small grains of light green seprentine. Numerous small slips along the foliation, lined with serpentine. No vi	sible sulphides or sil'nF oliation: varies from 24 to 34 deg to CA.												
				154.00	169.00	2	Mafic volcanic, highly strained/sheared in upper 7-8 m. Much of this unit is badly broken due to shear foliation and some later chloritized faults. Fault begins in ultramafic and carries on from at least 153m to 163m & shows progressive change in foliati	on: 11 deg to CA at 153, 30 at 154, 40 at 155, 50 at 157, 77 at 160 m. Local x-cutting cleavage slips at 58 deg TCA at 160 m. Sheared rocks are mod-strongly altered to f.g. biotite and cut by 2-3% qtz-cc veins 1-2 cm wide. V olcanics below fault are ligh										
E225564	167.00	168.00	0.01																	
E225565	168.00	168.92	0.01																	
E225566	168.92	170.00	0.12	169.00	183.50	4B	4B, chert-magnetite iron formation. Generally thinly banded to laminated, bands 1-5 mm thick. Locally bands are alternating white-black chert-magnetite but commonly they are all shades of grey and lesser light yellow grunerite rich layers. Banding is fai	rly even and not deformed except for a few spots where there is qtz flooding-Po-grunerite alteration and one area of												
E225567	170.00	171.00	0.14																	
E225568	171.00	172.00	0.05																	
E225569	172.00	173.00	0.28																	
E225570	173.00	174.00	0.41																	
E225571	174.00	175.00	0.21																	
E225572	175.00	176.00	0.14																	
E225573	176.00	177.00	0.08																	
E225574	177.00	177.72	0.06																	
E225575	177.72	178.70	0.69																	
E225576	178.70	179.70	0.98																	
E225577	179.70	180.90	0.01																	
E225578	180.90	181.80	0.03																	
E225579	181.80	182.50	0.14																	
E225580	182.50	183.00	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E225581	183.00	183.50	0.01																	
E225582	183.50	184.00	0.01	183.50	200.00	2	Fairly homogeneous, light-med green-grey mafic volcanc. Most is f.g. but some sections of m.g. spotted (with green amph), looks like gabbro, possible early dykes. Featureless otherwise except for variable degree of foliation, weak to mod, and scattered	qtz or calcite veins, and a few c.g. qtz-amph-calcite veins up to 15 cm. Possible high Mg/ultramafic flow from ~185 m to 188.5 m, much softer than rest and locally comprised of serp/talc. Biotite alteration is relatively minor and confined to short inter												
E225583	184.00	185.00	0.01																	

STRUCTURAL LOG 03-ESN-009

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	33.15	CASI																	53.00	53.10	74		S1													
33.15	40.23	2																																	
40.23	48.39	3																																	
48.39	56.10	2																																	
56.10	64.31	4E																	56.10	57.00	70		S1													
																			58.00	59.00	70		S1													
																			61.00	62.15	61		S1													
																			62.15	63.15	80		S1													
64.31	66.56	3C																	65.40	66.56	60		S1													
66.56	70.25	4EA																	66.56	67.85	66		S1													
							1.5																													
							0.5												70.25	71.45	80		S1													
70.25	102.05	3C																	80.00	80.10	75		S1													
102.05	105.00	2																	90.00	90.10	80		S1													
																			103.00	104.00	80		S1													
105.00	106.30	4F																																	
106.30	116.20	4EA																	106.30	107.00	83		S1													
							0.5																													
							0.1												109.00	110.00	75		S1													
							1.0																													
							0.0												111.00	112.00	77		S1													
							0.0			Uncertain, may be deformed chert beds with no Mt?																											
116.20	119.70	2																	117.00	118.00	68		S1													
							1.0																													
119.70	125.40	4EA					0.5			Uncertain, some may be chert layers.																											

STRUCTURAL LOG 03-ESN-009

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC					FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			120.80	122.00	68		S1													
																			123.00	124.00	65		S1													
										Discrete veins 1-2 cm, layer parallel.									124.90	125.40	66		S1													
125.40	140.80	4B																	126.00	127.00	67		S1													
																			128.00	129.00	70		S1													
																			129.00	130.00	72		S1													
																			137.00	138.00	76		S1													
																			138.00	139.00	76		S1													
140.80	144.96	4H					7.0																												
							7.0																												
							1.0			Uncertain due to vfg nature of sheared areas.																										
							20.																												
							2.0																												
144.96	149.45	2																	144.96	146.00	3		S1													
149.45	154.00	1																																	
154.00	169.00	2																																	
169.00	183.50	4B					0.0																												
							0.5																												
							1.5																												
							0.2																												
							0.1																												

STRUCTURAL LOG 03-ESN-009

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							0.2												175.00	176.00	73		S1													
							0.1																												
							0.1																												
							1.0																												
							0.1																												
							0.0																												
							1.0																												
183.50	200.00	2			0.0		0.5																												

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-010**

Project Code: ESN

Mine Grid Easting: 8774.823
Mine Grid Northing: 13099.912
Elevation: 5296.134

UTM East:
UTM North:

Planned Depth:
Actual Depth: 429

Drill Start Date: 10/02/2003
Drill End Date: 12/02/2003

Core Diameter:
Plugged: YES

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
3	93.39	-68.83	MAXI
6	93.76	-68.52	MAXI
9	94.4	-68.12	MAXI
12	95.01	-67.79	MAXI
15	95.27	-67.59	MAXI
18	95.44	-67.53	MAXI
21	95.52	-67.46	MAXI
24	95.58	-67.41	MAXI
27	95.66	-67.36	MAXI
30	95.68	-67.31	MAXI
33	95.74	-67.27	MAXI
36	95.81	-67.23	MAXI
39	95.84	-67.17	MAXI
42	95.94	-67.12	MAXI
45	95.99	-67.08	MAXI
48	96.04	-67.02	MAXI
51	96.13	-66.96	MAXI
54	96.22	-66.9	MAXI
57	96.2	-66.85	MAXI
60	96.25	-66.82	MAXI
63	96.35	-66.78	MAXI
66	96.37	-66.73	MAXI
69	96.47	-66.7	MAXI
72	96.54	-66.62	MAXI
75	96.62	-66.54	MAXI
78	96.62	-66.5	MAXI
81	96.73	-66.45	MAXI
84	96.85	-66.41	MAXI
87	96.89	-66.35	MAXI
90	96.93	-66.3	MAXI
93	97.01	-66.23	MAXI
96	97.11	-66.15	MAXI
99	97.16	-66.05	MAXI
102	97.18	-65.97	MAXI
105	97.33	-65.88	MAXI
108	97.35	-65.81	MAXI
111	97.42	-65.72	MAXI
114	97.46	-65.63	MAXI
117	97.53	-65.56	MAXI
120	97.57	-65.49	MAXI
123	97.61	-65.43	MAXI
126	97.65	-65.38	MAXI
129	97.65	-65.31	MAXI
132	97.66	-65.26	MAXI
135	97.74	-65.21	MAXI
138	97.86	-65.15	MAXI
141	97.91	-65.08	MAXI
144	98.02	-64.99	MAXI
147	98.09	-64.92	MAXI
150	98.16	-64.86	MAXI
153	98.28	-64.76	MAXI
156	98.37	-64.69	MAXI
159	98.43	-64.61	MAXI
162	98.43	-64.55	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-010**

Project Code: ESN

Mine Grid Easting: 8774.823

Mine Grid Northing: 13099.912

Elevation: 5296.134

UTM East:

UTM North:

Planned Depth:

Actual Depth: 429

Drill Start Date: 10/02/2003

Drill End Date: 12/02/2003

Core Diameter:

Plugged: YES

Target 1:

Target 2:

Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
165	98.41	-64.49	MAXI
168	98.46	-64.4	MAXI
171	98.51	-64.3	MAXI
174	98.48	-64.22	MAXI
177	98.48	-64.18	MAXI
180	98.53	-64.11	MAXI
183	98.56	-64.08	MAXI
186	98.6	-64.03	MAXI
189	98.62	-63.96	MAXI
192	98.71	-63.88	MAXI
195	98.83	-63.79	MAXI
198	98.97	-63.72	MAXI
201	99.13	-63.66	MAXI
204	99.17	-63.63	MAXI
207	99.23	-63.57	MAXI
210	99.3	-63.5	MAXI
213	99.39	-63.47	MAXI
216	99.5	-63.42	MAXI
219	99.68	-63.31	MAXI
222	99.83	-63.19	MAXI
225	100	-63.15	MAXI
228	100.23	-63.09	MAXI
231	100.46	-63.03	MAXI
234	100.7	-62.94	MAXI
237	100.85	-62.88	MAXI
240	101.01	-62.8	MAXI
243	101.07	-62.76	MAXI
246	101.23	-62.68	MAXI
249	101.41	-62.56	MAXI
252	101.52	-62.44	MAXI
255	101.67	-62.34	MAXI
258	101.82	-62.28	MAXI
261	101.97	-62.23	MAXI
264	102.12	-62.18	MAXI
267	102.36	-62.06	MAXI
270	102.57	-61.94	MAXI
273	102.83	-61.75	MAXI
276	103.05	-61.65	MAXI
279	103.17	-61.58	MAXI
282	103.3	-61.54	MAXI
285	103.42	-61.47	MAXI
288	103.5	-61.43	MAXI
291	103.67	-61.33	MAXI
294	103.9	-61.13	MAXI
297	104.09	-60.95	MAXI
300	104.27	-60.77	MAXI
303	104.4	-60.57	MAXI
306	104.51	-60.39	MAXI
309	104.6	-60.07	MAXI
312	104.63	-59.69	MAXI
315	104.68	-59.34	MAXI
318	104.71	-59.16	MAXI
321	104.76	-59	MAXI
324	104.83	-58.86	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-010**

Project Code: ESN

Mine Grid Easting: 8774.823
Mine Grid Northing: 13099.912
Elevation: 5296.134

UTM East:
UTM North:

Planned Depth:
Actual Depth: 429

Drill Start Date: 10/02/2003
Drill End Date: 12/02/2003

Core Diameter:
Plugged: YES

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
327	104.99	-58.72	MAXI
330	105.13	-58.55	MAXI
333	105.3	-58.41	MAXI
336	105.42	-58.24	MAXI
339	105.63	-58.1	MAXI
342	105.73	-58	MAXI
345	105.84	-57.91	MAXI
348	105.99	-57.85	MAXI
351	106.14	-57.78	MAXI
354	106.23	-57.75	MAXI
357	106.27	-57.66	MAXI
360	106.25	-57.6	MAXI
363	106.24	-57.52	MAXI
366	106.25	-57.45	MAXI
369	106.28	-57.3	MAXI
372	106.35	-57.1	MAXI
375	106.45	-56.91	MAXI
378	106.47	-56.78	MAXI
381	106.5	-56.64	MAXI
384	106.52	-56.5	MAXI
387	106.54	-56.37	MAXI
390	106.56	-56.23	MAXI
393	106.58	-56.09	MAXI
396	106.6	-55.96	MAXI
399	106.63	-55.82	MAXI
402	106.65	-55.69	MAXI
405	106.67	-55.55	MAXI
408	106.69	-55.41	MAXI
411	106.71	-55.28	MAXI
414	106.73	-55.14	MAXI
417	106.75	-55	MAXI
420	106.78	-54.87	MAXI
423	106.8	-54.73	MAXI
426	106.82	-54.59	MAXI
429	106.84	-54.46	MAXI

LITHOLOGY LOG 03-ESN-010

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	20.50	CASIN														
				20.50	30.78	3F	Very dark-grey, aphanitic and weakly to moderately well foliated. Characterized by lapilli sized, lighter grey coloured fragments set in a weakly biotitized, quartz-rich groundmass.													
				30.78	36.73	3D	Dark-grey to nearly black, typically quartz-phyric with 0.5-1mm qtz phenocrysts in a siliceous groumdmass. Trace QC veinlets.													
				36.73	38.95	3F	As previous 3F.													
				38.95	51.82	3D	Same as previous 3D.													
				51.82	53.41	3F	Lighter grey and more laminated than previous tuff.													
				53.41	56.20	3D	As previous 3D.													
				56.20	64.00	3C	Mixed tuff brecia and ash. Medium to light grey and characterized by well laminated ash and rarer lapilli tuff. Rock is weathered and broken indicating probable fault zone. End of interval marked by schistose fragments and 30cm broken quartz veins.													
				64.00	78.81	3D	Felsic flow as above.													
				78.81	84.11	3F	Well laminated dark-green and grey. Laminations average 0.3cm. 5% qtz veins, no sulphides or alteration.													
				84.11	94.17	3D	Quartz-phyric felsic volc. as before.													
				94.17	138.82	3F	Interval composed of 90% tuff and ash and 10% large felsic blocks? or flows up to 1m wide. Large garnets common locally. Some very well laminated ash beds up to 30cm wide.													
				138.82	142.28	3D	Felsic flow as above.													
				142.28	147.82	3F	Felsic tuff as above.													
				147.82	151.44	3D	Felsic flow as above.													
				151.44	160.56	3F	Felsic tuff as above.													
				160.56	163.52	3D	Felsic flow as above.													
				163.52	167.50	3F	Felsic tuff as above.													
				167.50	174.28	3D	Felsic flow as above.													
				174.28	178.82	3F	Felsic tuff as above. Lower contact diffuse over 30cm.													
				178.82	218.77	2	Typical mafic volcanic, dark-green, moderately well foliated and composed od chl/amp/bio. 5% QC veinlets, one 3cm vein of near massive po close to upper contact.													
E228251	213.00	214.00	0.06																	
E228252	214.00	215.00	0.02																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E228253	215.00	216.00	0.02																	
E228254	216.00	217.00	0.01																	
E228255	217.00	218.00	0.02																	
E228256	218.00	218.77	0.06																	
E228257	218.77	220.00	1.12	218.77	232.37	4E	Interval composed of 35% amphibole, 30% quartz, 30% garnet and 5% biotite. Majority of unit is contorted with poorly developed foliation with quartz controlling schistosity (ie wrapping around quartz 'islands'. Garnet average 3mm but range up 8mm where g	rowing in pure amphibole.												
E228258	220.00	221.00	1.03																	
E228259	221.00	222.00	1.23																	
E228260	222.00	223.00	0.77																	
E228261	223.00	224.00	2.60																	
E228262	224.00	225.00	2.38																	
E228263	225.00	226.00	10.12																	
E228264	226.00	227.00	3.27																	
E228265	227.00	228.00	3.23																	
E228266	228.00	229.00	0.07																	
E228267	229.00	230.00	2.78																	
E228268	230.00	231.20	2.87																	
E228269	231.20	232.37	0.50																	
E228270	232.37	233.50	0.12	232.37	294.24	4E	Interval begins mainly as 4F with 40% garnet porphyroblasts in biotite with numerous quartz fragments. Below 238m interval becomes richer in 4E with approximately 50% of each unit over 15-20cm widths.		232.37	294.24	4F									
E228271	233.50	234.70	0.10																	
E228272	234.70	235.90	0.13																	
E228273	235.90	237.00	0.10																	
E228274	237.00	238.00	0.67																	
E228275	238.00	239.00	0.45																	
E228276	239.00	240.00	1.19																	
E228277	240.00	241.00	0.11																	
E228278	241.00	242.00	1.18																	
E228279	242.00	243.00	0.11																	
E228280	243.00	244.00	0.08																	
E228281	244.00	245.00	0.23																	
E228282	245.00	246.00	0.11																	
E228283	246.00	247.00	0.06																	
E228284	247.00	248.00	0.27																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E228285	248.00	249.00	0.13																	
E228286	249.00	250.00	1.38																	
E228287	250.00	251.00	0.08																	
E228288	251.00	252.00	0.71																	
E228289	252.00	253.00	0.11																	
E228290	253.00	254.00	0.12																	
E228291	254.00	255.00	0.07																	
E228292	255.00	256.00	0.06																	
E228293	256.00	257.00	0.05																	
E228294	257.00	258.00	0.03																	
E228295	258.00	259.00	0.15																	
E228296	259.00	260.00	0.04																	
E228297	260.00	261.00	0.05																	
E228298	261.00	262.00	0.08																	
E228299	262.00	263.00	0.08																	
E228300	263.00	264.00	0.04																	
E228301	264.00	265.00	0.25																	
E228302	265.00	266.00	0.55																	
E228303	266.00	267.00	0.51																	
E228304	267.00	268.00	0.95																	
E228305	268.00	269.00	1.09																	
E228306	269.00	270.00	0.77																	
E228307	270.00	271.00	0.05																	
E228308	271.00	272.00	0.43																	
E228309	272.00	273.00	7.37																	
E228310	273.00	274.00	2.96																	
E228311	274.00	275.00	0.15																	
E228312	275.00	276.00	0.05																	
E228313	276.00	277.00	0.03																	
E228314	277.00	278.00	0.02																	
E228315	278.00	279.00	0.01																	
E228316	279.00	280.00	0.06																	
E228317	280.00	281.00	0.03																	
E228318	281.00	282.00	0.02																	
E228319	282.00	283.00	0.02																	
E228320	283.00	284.00	0.02																	
E228321	284.00	285.00	0.05																	
E228322	285.00	286.00	0.71																	
E228323	286.00	287.00	0.04																	
E228324	287.00	288.00	0.02																	
E228325	288.00	289.00	32.79																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E228326	289.00	290.00	0.08																	
E228327	290.00	291.00	0.04																	
E228328	291.00	292.00	0.05																	
E228329	292.00	293.00	0.03																	
E228330	293.00	294.24	0.03																	
E228331	294.24	295.40	0.19	294.24	340.54	4B	Medium grey-green in colour, well laminated and composed of 1-2mm bands of magnetite interbedded with cm-scale bands of amph.+gar+bio+-quartz. Rock becomes very magnetic at top of this interval. Several meter-scale intervals of pure magnetite iron format	ion bedded on mm to cm scale. Trace grunerite locally.	294.24	340.54	4E									
E228332	295.40	296.60	0.13																	
E228333	296.60	297.80	0.09																	
E228334	297.80	299.00	0.06																	
E228335	299.00	300.00	0.07																	
E228336	300.00	301.00	0.05																	
E228337	301.00	302.00	0.05																	
E228338	302.00	303.00	0.05																	
E228339	303.00	304.00	0.11																	
E228340	304.00	305.00	0.06																	
E228341	305.00	306.00	0.04																	
E228342	306.00	307.00	0.17																	
E228343	307.00	308.00	0.27																	
E228344	308.00	309.00	0.28																	
E228345	309.00	310.00	0.22																	
E228346	310.00	311.00	0.31																	
E228347	311.00	312.00	0.24																	
E228348	312.00	313.00	0.13																	
E228349	313.00	314.00	0.19																	
E228350	314.00	315.00	0.19																	
E228351	315.00	316.00	0.13																	
E228352	316.00	317.00	0.14																	
E228353	317.00	318.00	0.08																	
E228354	318.00	319.00	0.22																	
E228355	319.00	320.00	0.16																	
E228356	320.00	321.00	0.11																	
E228357	321.00	322.00	0.20																	
E228358	322.00	323.00	0.15																	
E228359	323.00	324.00	0.10																	
E228360	324.00	325.00	0.67																	
E228361	325.00	326.00	1.45																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E228362	326.00	327.00	0.71																	
E228363	327.00	328.00	0.18																	
E228364	328.00	329.00	0.15																	
E228365	329.00	330.00	0.08																	
E228366	330.00	331.00	0.10																	
E228367	331.00	332.00	0.15																	
E228368	332.00	333.00	2.35																	
E228369	333.00	334.00	0.11																	
E228370	334.00	335.00	0.55																	
E228371	335.00	336.00	1.26																	
E228372	336.00	337.00	0.28																	
E228373	337.00	338.00	0.71																	
E228374	338.00	338.90	0.16																	
E228375	338.90	339.56	0.30																	
E228376	339.56	340.54	0.06																	
E228377	340.54	341.74	0.03	340.54	377.00	2	Medium-green, fine-grained and moderately biotite altered. Strongly foliated with trace QC veinlets rarely exceeding 1 cm wide.													
E228378	376.00	377.00	0.03																	
E228379	377.00	378.00	0.08	377.00	391.23	4B	Interval is composed mainly of chert-magnetite iron formation bedded over 1-3mm widths. Locally grunerite develops imparting yellowish colouration. Bedding is very regular and only rarely shows folding or disruption.		377.00	391.23	4A									
E228380	378.00	379.00	0.34																	
E228381	379.00	380.00	0.07																	
E228382	380.00	381.00	0.10																	
E228383	381.00	382.00	0.13																	
E228384	382.00	383.00	0.07																	
E228385	383.00	384.00	0.03																	
E228386	384.00	385.00	0.09																	
E228387	385.00	386.00	0.10																	
E228388	386.00	387.00	0.01																	
E228389	387.00	388.00	0.01																	
E228390	388.00	389.00	0.01																	
E228391	389.00	390.00	0.03																	
E228392	390.00	391.23	0.32																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E228393	391.23	392.43	0.01	391.23	404.56	2	Generally fine-grained, poorly foliated with 5% QC veinlets. Few biotite-porphyroblastic sections around 396-398m.													
E228394	403.56	404.56	0.02																	
E228395	404.56	405.56	0.02	404.56	408.26	4B	Magnetite-chert iron formation as before without grunerite.													
E228396	405.56	406.56	0.02																	
E228397	406.56	407.56	0.07																	
E228398	407.56	408.26	0.04																	
E228399	408.26	409.26	0.01	408.26	429.00	2	Fine-grained, dark-green, poorly foliated matic volcanic. E.O.H.													
E228400	409.26	410.26	0.01																	
E228401	410.26	411.26	0.02																	
E228402	411.26	412.26	0.03																	
E228403	418.45	419.10	0.30																	

STRUCTURAL LOG 03-ESN-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	20.50	CASI																	23.00	23.10	33		S1													
20.50	30.78	3F																	30.00	30.10	35		S1													
30.78	36.73	3D																	32.00	32.10	42		S1													
36.73	38.95	3F																	36.00	36.10	35		S1													
38.95	51.82	3D																	38.00	38.10	35		S1													
51.82	53.41	3F																	40.00	40.10	42		S1													
53.41	56.20	3D																	48.00	48.10	40		S1													
56.20	64.00	3C																	52.00	52.10	52		S1													
64.00	78.81	3D																	55.00	55.10	50		S1													
78.81	84.11	3F																	57.00	57.10	60		S1													
84.11	94.17	3D																	63.00	63.10	42		S1													
94.17	138.82	3F																	66.00	66.10	75		S1													
138.82	142.28	3D																	70.00	70.10	57		S1													
142.28	147.82	3F																	75.00	75.10	60		S1													
147.82	151.44	3D																	78.00	78.10	52		S1													
151.44	160.56	3F																	83.00	83.10	50		S1													
160.56	163.52	3D																	94.00	94.10	55		S1													
163.52	167.50	3F																	100.00	100.10	60		S1													
167.50	174.28	3D																	110.00	110.10	62		S1													
174.28	178.82	3F																	115.00	115.10	62		S1													
178.82	218.77	2																	121.00	121.10	60		S1													
																			126.00	126.10	63		S1													
																			132.00	132.10	54		S1													
																			138.00	138.10	55		S1													
																			140.00	140.10	48		S1													
																			145.00	145.10	52		S1													
																			148.00	148.10	60		S1													
																			152.00	152.10	63		S1													
																			156.00	156.10	69		S1													
																			160.00	160.10	61		S1													
																			162.00	162.10	54		S1													
																			165.00	165.10	58		S1													
																			168.00	168.10	55		S1													
																			178.00	178.10	50		S1													
																			185.00	185.10	57		S1													
																			190.00	190.10	59		S1													
																			195.00	195.10	54		S1													
																			201.00	201.10	58		S1													
																			204.25	204.35	44		S1													
																			210.00	210.10	56		S1													
																			213.00	214.00	44		S1													
																			216.00	217.00	60		S1													

STRUCTURAL LOG 03-ESN-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
218.77	232.37	4E																	217.00	218.00	56		S1													
																			220.00	221.00	52		S1													
																			223.00	224.00	51		S1													
																			226.00	227.00	68		S1													
																			228.00	229.00	68		S1													
																			231.20	232.37	68		S1													
232.37	294.24	4E																	232.37	233.50	66		S1													
																			238.00	239.00	40		S1													
																			240.00	241.00	43		S1													
																			242.00	243.00	64		S1													
																			244.00	245.00	63		S1													
																			247.00	248.00	50		S1													
																			248.00	249.00	70		S1													
																			249.00	250.00	61		S1													
																			250.00	251.00	71		S1													
																			253.00	254.00	63		S1													
																			255.00	256.00	63		S1													
																			257.00	258.00	57		S1													
																			261.00	262.00	52		S1													

STRUCTURAL LOG 03-ESN-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			262.00	263.00	49		S1													
																			265.00	266.00	48		S1													
							0.3												266.00	267.00	47		S1													
																			270.00	271.00	75		S1													
																			271.00	272.00	57		S1													
							0.5												274.00	275.00	53		S1													
																			276.00	277.00	40		S1													
																			278.00	279.00	44		S1													
																			280.00	281.00	53		S1													
																			281.00	282.00	51		S1													
																			283.00	284.00	61		S1													
																			286.00	287.00	56		S1													
																			288.00	289.00	69		S1													
																			290.00	291.00	50		S1													
																			292.00	293.00	57		S1													
294.24	340.54	4B																	294.24	295.40	65		S1													
																			297.80	299.00	55		S1													
																			299.00	300.00	49		S1													
																			301.00	302.00	46		S1													
																			302.00	303.00	53		S1													
																			303.00	304.00	40		S1													
																			306.00	307.00	63		S1													

STRUCTURAL LOG 03-ESN-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			313.00	314.00	58		S1													
																			317.00	318.00	47		S1													
																			318.00	319.00	61		S1													
																			321.00	322.00	65		S1													
																			325.00	326.00	45		S1													
							5.0												327.00	328.00	45		S1													
																			329.00	330.00	45		S1													
																			331.00	332.00	60		S1													
																			334.00	335.00	33		S1													
																			335.00	336.00	40		S1													
							1.0																													
							3.0												338.00	338.90	50		S1													
							80.																													
							5.0												339.56	340.54	58		S1													
																			340.54	341.74	68		S1													
340.54	377.00	2																	346.00	346.10	62		S1													
																			352.00	352.10	57		S1													
																			358.00	358.10	50		S1													
																			364.00	364.10	45		S1													
																			371.00	371.10	58		S1													
																			375.90	376.00	53		S1													
																			376.00	377.00	58		S1													
																			377.00	378.00	53		S1													
377.00	391.23	4B																	378.00	379.00	58		S1													

STRUCTURAL LOG 03-ESN-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			381.00	382.00	58		S1													
																			384.00	385.00	68		S1													
																			386.00	387.00	56		S1													
																			388.00	389.00	45		S1													
																			390.00	391.23	48		S1													
391.23	404.56	2																	391.23	392.43	40		S1													
																			397.00	397.10	40		S1													
																			403.56	404.56	50		S1													
404.56	408.26	4B																	404.56	405.56	60		S1													
																			406.56	407.56	65		S1													
408.26	429.00	2																																		
							1.0																													
							2.0												417.00	417.10	55		S1													
							1.0												418.45	419.10	52		S1													
																			428.90	429.00	63		S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-011**

Project Code: ESN

Mine Grid Easting: 8876.164
Mine Grid Northing: 13100.173
Elevation: 5296.138

UTM East:
UTM North:

Planned Depth:
Actual Depth: 305

Drill Start Date: 12/02/2003
Drill End Date: 14/02/2003

Core Diameter:
Plugged: YES

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	82.7492	-66.1108	SURV
26	82.7492	-64.7	EZS
50	82.7492	-64.5	EZS
101	82.7492	-64.1	EZS
150	82.7492	-63.6	EZS
200	82.7492	-63	EZS
251	82.7492	-62.3	EZS
305	82.7492	-61	EZS

LITHOLOGY LOG 03-ESN-011

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	20.00	CASIN														
				20.00	26.90	3F	The following felsic units all contain components of other rock types but are logged based on major component. This interval is medium grey, well foliated and contains quartz-phyric fragments and fine ash(?). Appears to be composed of qtz, ser and minor	feldspar and carbonate.												
				26.90	36.37	3D	Dark-grey, moderately to weakly foliated and show 10-40cm sections of quartz-phyric material with minor ash/breccia between. Quartz crystals average 1mm or less.													
				36.37	49.00	3F	Similar to previous tuff unit. Rare intervals of garnet alteration <15cm wide associated with QVs and biotite.													
				49.00	56.03	3D	As previous felsic flow with 3% garnet alteration occurring as 1-3mm garnet porphyroblasts.													
				56.03	63.37	3F	Tuffaceous interval showing well developed banding averaging <1cm wide of alternating light and dark-grey beds. Minor bands of pyrite near downhole contact.													
				63.37	79.00	3D	Felsic flow as previous with 20% tuffaceous beds up to 25cm thick.													
				79.00	134.32	3F	Same as previous felsic tuff. From 98.69- 101.21 rock is strongly altered to a gar-amph-chl +-qtz composition. Margins are gradational and banding remains constant as in tuffs above and below, therefore, most likely alteration and not true 4E. Similar al	teration between 112.53-113.80m. From 131-end of interval characterized by 1-5mm garnet porphyroblasts set in biotite-rich groudmass.												
E227351	97.69	98.69	0.01																	
E227352	98.69	99.69	2.41																	
E227353	99.69	100.40	9.98																	
E227354	100.40	101.21	0.04																	
E227355	101.21	102.40	0.01																	
E227356	102.40	103.55	0.01																	
E227357	111.53	112.53	0.01																	
E227358	112.53	113.80	0.21																	
E227359	113.80	114.80	0.02																	
E227360	133.34	134.32	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E227361	134.32	135.50	0.01	134.32	142.82	SHZ	Interval is probably sheared and altered felsic volcanic as some sections are siliceous and appear to be weakly altered felsic volc. Interval is composed of QC-veined biotite schist as well as qtz-amph-gar-bio schist intermixed over 10cm-1m lengths. Brok	en and rotated quartz fragments are common, however, sulphides are absent. Planar fabric is well developed throughout, howver, is very strong between 140m and end of unit.												
E227362	135.50	136.70	0.42																	
E227363	136.70	137.90	0.06																	
E227364	137.90	139.00	0.13																	
E227365	139.00	140.00	0.08																	
E227366	140.00	141.00	0.18																	
E227367	141.00	142.00	0.02																	
E227368	142.00	142.82	0.09																	
E227369	142.82	144.00	0.03	142.82	149.60	4F	Dark-brown speckled with 50% 1-2mm garnets in biotite groundmass. Traces quartz bands associated with amphibole.													
E227370	144.00	145.00	0.05																	
E227371	145.00	146.00	0.08																	
E227372	146.00	147.00	0.01																	
E227373	147.00	148.00	0.19																	
E227374	148.00	149.00	0.38																	
E227375	149.00	149.60	0.21																	
E227376	149.60	150.80	0.11	149.60	166.45	4E	Interval is composed of 60% 4E and 40% 4F characteristically bedded over 30-70cm lengths. Cherty beds common often broken and veined with traces of po. Garnets average 2mm but reach 1cm where grown in pure amphibole. Sulphides where indicated in sample d	escriptions.	149.60	166.45	4F									
E227377	150.80	152.00	0.51																	
E227378	152.00	153.00	0.10																	
E227379	153.00	154.00	0.03																	
E227380	154.00	155.00	0.04																	
E227381	155.00	156.00	0.10																	
E227382	156.00	157.00	0.20																	
E227383	157.00	158.00	2.65																	
E227384	158.00	159.00	0.13																	
E227385	159.00	160.00	0.05																	
E227386	160.00	161.00	0.21																	

Assay				MAJOR UNIT				Comments	MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments		From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
E227387	161.00	162.00	1.35																	
E227388	162.00	163.00	0.08																	
E227389	163.00	164.00	0.16																	
E227390	164.00	165.00	1.06																	
E227391	165.00	166.00	0.04																	
E227392	166.00	166.45	0.14																	
E227393	166.45	167.50	0.02	166.45	186.77	3F	Light-grey, siliceous, hard and aphanitic showing well developed lapilli with chlorite and amphibole +- sericite alteration around fragments. Alteration intensity increasing downhole with attendant po mineralization.													
E227394	167.50	168.50	0.03																	
E227395	168.50	169.70	0.04																	
E227396	169.70	170.90	0.02																	
E227397	170.90	172.00	0.05																	
E227398	172.00	173.00	0.01																	
E227399	173.00	174.00	0.01																	
E227400	174.00	175.00	0.01																	
E227401	175.00	176.00	0.02																	
E227402	176.00	177.00	0.05																	
E227403	177.00	178.00	0.10																	
E227404	178.00	179.00	0.14																	
E227405	179.00	180.00	0.17																	
E227406	180.00	181.00	0.12																	
E227407	181.00	182.00	0.14																	
E227408	182.00	183.00	0.09																	
E227409	183.00	184.00	1.12																	
E227410	184.00	185.00	1.45																	
E227411	185.00	186.00	3.60																	
E227412	186.00	186.72	0.02																	
E227413	186.72	187.90	0.24	186.77	229.83	4F	Interval of mixed garnet and amphibole rich units devoid of sulphides. 4F units are characterized by 1mm garnet in biotite. 4E is more diverse with well developed chert-amph+-garnet layers averaging <1cm with little apparent deformation.		186.77	229.83	4E									
E227414	187.90	189.00	0.02																	
E227415	189.00	190.00	0.02																	
E227416	190.00	191.00	0.04																	
E227417	191.00	192.00	0.02																	
E227418	192.00	193.00	0.06																	
E227419	193.00	194.00	0.02																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
E227420	194.00	195.00	0.06																	
E227421	195.00	196.00	0.01																	
E227422	196.00	197.00	0.08																	
E227423	197.00	198.00	0.05																	
E227424	198.00	199.00	0.08																	
E227425	199.00	200.00	0.01																	
E227426	200.00	201.00	0.01																	
E227427	201.00	202.00	0.01																	
E227428	202.00	203.00	0.07																	
E227429	203.00	204.00	0.68																	
E227430	204.00	205.00	0.10																	
E227431	205.00	206.00	0.10																	
E227432	206.00	207.00	4.04																	
E227433	207.00	208.00	0.87																	
E227434	208.00	209.00	4.93																	
E227435	209.00	210.00	1.85																	
E227436	210.00	211.00	1.45																	
E227437	211.00	212.00	1.47																	
E227438	212.00	213.00	0.25																	
E227439	213.00	214.00	0.28																	
E227440	214.00	215.00	0.27																	
E227441	215.00	216.00	0.12																	
E227442	216.00	217.00	0.36																	
E227443	217.00	218.00	0.59																	
E227444	218.00	219.00	3.57																	
E227445	219.00	220.00	0.69																	
E227446	220.00	221.00	2.03																	
E227447	221.00	222.00	0.12																	
E227448	222.00	223.00	0.06																	
E227449	223.00	224.00	0.27																	
E227450	224.00	225.00	0.17																	
E227451	225.00	226.00	0.93																	
E227452	226.00	227.00	0.57																	
E227453	227.00	228.00	0.15																	
E227454	228.00	229.00	0.18																	
E227455	229.00	229.83	0.01																	
E227456	229.83	231.00	0.01	229.83	255.71	2	Dark-green, very sheared and flattened. Composed of bio+chl+cbt. Blocky and broken, no visible sulphides.													
E227457	231.00	232.00	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E227458	254.71	255.71	0.01																	
E227459	255.71	256.90	0.07	255.71	269.60	4B	Very well and uniformly laminated chert-magnetite iron formation showing laminae averaging 2mm but ranging from <1-20mm in thickness. Very little deformation, local trace po associated with late qtz veins.													
E227460	256.90	258.00	0.05																	
E227461	258.00	259.00	0.04																	
E227462	259.00	260.00	0.04																	
E227463	260.00	261.00	0.01																	
E227464	261.00	262.00	0.01																	
E227465	262.00	263.00	0.01																	
E227466	263.00	264.00	0.28																	
E227467	264.00	265.00	1.04																	
E227468	265.00	266.00	0.08																	
E227469	266.00	267.00	0.03																	
E227470	267.00	268.00	0.16																	
E227471	268.00	269.00	0.14																	
E227472	269.00	269.60	0.03																	
E227473	269.60	270.80	0.01	269.60	277.45	2	Medium-green in colour, moderately well foliated with 5% QC veinlets to 2cm parallel to foliation. Typically biotite-porphyroblastic.													
E227474	276.45	277.45	0.01																	
E227475	277.45	278.45	0.01	277.45	284.35	4B	Well laminated chert-magnetite iron formation identical to previous unit. No deformation.													
E227476	278.45	279.45	0.01																	
E227477	279.45	280.45	0.01																	
E227478	280.45	281.45	0.03																	
E227479	281.45	282.45	0.06																	
E227480	282.45	283.45	0.01																	
E227481	283.45	284.35	0.01																	
E227482	284.35	285.25	0.01	284.35	305.00	2	Fine-grained, dark-green, pillowed basalt. Moderately well foliated. E.O.H.													
E227483	296.00	297.05	0.01																	
E227484	297.05	298.16	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E227485	298.16	299.00	0.01																	

STRUCTURAL LOG 03-ESN-011

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	20.00	CASI																	23.00	23.10	55		S1													
20.00	26.90	3F																	31.00	31.10	50		S1													
26.90	36.37	3D																	38.00	38.10	57		S1													
36.37	49.00	3F																	47.00	47.10	52		S1													
49.00	56.03	3D																	53.00	53.10	55		S1													
56.03	63.37	3F																	60.00	60.10	60		S1													
63.37	79.00	3D																	70.00	70.10	60		S1													
79.00	134.32	3F																	78.00	78.10	58		S1													
																			86.00	86.10	57		S1													
																			95.00	95.10	63		S1													
																			97.69	98.69	60		S1													
																			100.40	101.21	55		S1													
																			102.40	103.55	44		S1													
																			108.00	108.10	47		S1													
																			111.53	112.53	45		S1													
																			113.80	114.80	43		S1													
																			120.05	121.24	30		S1													
																			128.00	128.10	50		S1													
																			133.34	134.32	33		S1													
134.32	142.82	SHZ																	135.50	136.70	40		S1													
																			137.90	139.00	40		S1													
																			140.00	141.00	55		S1													
																			142.00	142.82	52		S1													
142.82	149.60	4F																	142.82	144.00	60		S1													
																			145.00	146.00	65		S1													
																			148.00	149.00	57		S1													
149.60	166.45	4E																	149.60	150.80	50		S1													
																			150.80	152.00	45		S1													
																			154.00	155.00	65		S1													

STRUCTURAL LOG 03-ESN-011

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			158.00	159.00	30		S1													
																			162.00	163.00	50		S1													
							7.0																												
							0.5												165.00	166.00	45		S1													
							10.																												
166.45	186.77	3F					5.0																												
							1.0												168.50	169.70	60		S1													
							0.5																												
							2.0												170.90	172.00	55		S1													
																			174.00	175.00	55		S1													
																			175.00	176.00	62		S1													
							8.0																												
							8.0				177.00	178.00	QZ	13			50																		
							10.												178.00	179.00	70		S1													
																			180.00	181.00	55		S1													
							2.0																												
							2.0																												
							0.5				182.00	183.00	QZ	10			45		182.00	183.00	55		S1													
							4.0																												
							6.0				184.00	185.00	QZ	15			50																		
							0.5												185.00	186.00	50		S1													
186.77	229.83	4F																	186.72	187.90	65		S1													
																			190.00	191.00	55		S1													
																			191.00	192.00	62		S1													
																			194.00	195.00	50		S1													

STRUCTURAL LOG 03-ESN-011

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			200.00	201.00	54		S1													
																			203.00	204.00	53		S1													
																			204.00	205.00	57		S1													
																			206.00	207.00	55		S1													
																			209.00	210.00	50		S1													
																			212.00	213.00	55		S1													
																			214.00	215.00	58		S1													
																			217.00	218.00	52		S1													
																			219.00	220.00	60		S1													
							1.0												223.00	224.00	55		S1													
							1.0												225.00	226.00	53		S1													
							2.0																													
							2.0												227.00	228.00	51		S1													
							10.																													
229.83	255.71	2																	229.83	231.00	50		S1													
																			239.00	239.10	36		S1													
																			246.00	246.10	68		S1													
																			254.71	255.71	62		S1													
255.71	269.60	4B																	255.71	256.90	68		S1													
																			259.00	260.00	58		S1													
																			261.00	262.00	58		S1													

STRUCTURAL LOG 03-ESN-011

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py %	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			265.00	266.00	73		S1													
																			268.00	269.00	60		S1													
																			269.00	269.60	55		S1													
269.60	277.45	2																	269.60	270.80	36		S1													
																			276.45	277.45	40		S1													
277.45	284.35	4B																	279.45	280.45	64		S1													
																			283.45	284.35	63		S1													
284.35	305.00	2																	293.00	293.10	40		S1													
							8.0												297.05	298.16	50		S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-012**

Project Code: ESN

Mine Grid Easting: 8925.286
Mine Grid Northing: 13100.625
Elevation: 5296.259

UTM East:
UTM North:

Planned Depth:
Actual Depth: 280

Drill Start Date: 03/03/2003
Drill End Date: 07/03/2003

Core Diameter:
Plugged: YES

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
3	92.53	-64.58	MAXI
6	92.26	-64.23	MAXI
9	91.81	-63.82	MAXI
12	91.1	-63.55	MAXI
15	90.48	-63.5	MAXI
18	90.22	-63.49	MAXI
21	90.18	-63.43	MAXI
24	90.27	-63.38	MAXI
27	90.31	-63.33	MAXI
30	90.38	-63.27	MAXI
33	90.47	-63.23	MAXI
36	90.6	-63.19	MAXI
39	90.72	-63.16	MAXI
42	90.77	-63.13	MAXI
45	90.82	-63.1	MAXI
48	90.94	-63.06	MAXI
51	91.02	-63	MAXI
54	91.09	-62.99	MAXI
57	91.17	-62.98	MAXI
60	91.27	-62.98	MAXI
63	91.36	-62.94	MAXI
66	91.47	-62.94	MAXI
69	91.54	-62.93	MAXI
72	91.6	-62.91	MAXI
75	91.64	-62.9	MAXI
78	91.73	-62.87	MAXI
81	91.84	-62.82	MAXI
84	91.92	-62.72	MAXI
87	91.98	-62.64	MAXI
90	92.09	-62.58	MAXI
93	92.29	-62.5	MAXI
96	92.4	-62.41	MAXI
99	92.47	-62.33	MAXI
102	92.64	-62.26	MAXI
105	92.76	-62.19	MAXI
108	92.89	-62.14	MAXI
111	93.05	-62.1	MAXI
114	93.18	-62.07	MAXI
117	93.24	-62.02	MAXI
120	93.33	-61.99	MAXI
123	93.49	-61.95	MAXI
126	93.66	-61.9	MAXI
129	93.75	-61.83	MAXI
132	93.88	-61.76	MAXI
135	93.99	-61.68	MAXI
138	94.12	-61.62	MAXI
141	94.27	-61.62	MAXI
144	94.42	-61.56	MAXI
147	94.57	-61.5	MAXI
150	94.61	-61.49	MAXI
153	94.8	-61.44	MAXI
156	94.92	-61.39	MAXI
159	95.03	-61.34	MAXI
162	95.18	-61.32	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-012**

Project Code: ESN

Mine Grid Easting: 8925.286
Mine Grid Northing: 13100.625
Elevation: 5296.259

UTM East:
UTM North:

Planned Depth:
Actual Depth: 280

Drill Start Date: 03/03/2003
Drill End Date: 07/03/2003

Core Diameter:
Plugged: YES

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
165	95.29	-61.29	MAXI
168	95.44	-61.26	MAXI
171	95.61	-61.22	MAXI
174	95.74	-61.19	MAXI
177	95.88	-61.11	MAXI
180	96	-61.02	MAXI
183	96.15	-60.97	MAXI
186	96.29	-60.94	MAXI
189	96.39	-60.9	MAXI
192	96.38	-60.91	MAXI
195	96.35	-60.88	MAXI
198	96.49	-60.83	MAXI
201	96.62	-60.77	MAXI
204	96.78	-60.65	MAXI
207	96.92	-60.6	MAXI
210	97.14	-60.5	MAXI
213	97.35	-60.43	MAXI
216	97.43	-60.34	MAXI
219	97.52	-60.26	MAXI
222	97.6	-60.18	MAXI
225	97.69	-60.1	MAXI
228	97.77	-60.02	MAXI
231	97.85	-59.93	MAXI
234	97.94	-59.85	MAXI
237	98.02	-59.77	MAXI
240	98.1	-59.69	MAXI
243	98.19	-59.61	MAXI
246	98.27	-59.53	MAXI
249	98.35	-59.44	MAXI
252	98.44	-59.36	MAXI
255	98.52	-59.28	MAXI
258	98.6	-59.2	MAXI
261	98.69	-59.12	MAXI
264	98.77	-59.03	MAXI
267	98.85	-58.95	MAXI
270	98.93	-58.87	MAXI
273	99.02	-58.79	MAXI
276	99.1	-58.71	MAXI
279	99.17	-58.64	MAXI
280	99.22	-58.62	MAXI

LITHOLOGY LOG 03-ESN-012

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	17.30	CASIN														
				17.30	57.60	3F	Fine-grained felsic ash tuff with local crystal tuff beds. Generally well bedded with beds <few cm thick, alternating off-white, light grey and light brown-grey beds. Unit consists of v.f.g. feldspar and qtz, only minor biotite in most. Up to 7% feldspar	crystals <2mm occur in a few tuff beds up to 3-4 m thick. No qtz crystals. No significant biotite alt'n (as seen in ESN 13 and 14) until ~58 m depth where the more intermediate-matic tuffs occur. Minor intervals of more intermediate tuff at ~47-51m. Fel												
				57.60	70.40	3C	Continuation of tuff from above but now more intermediate, locally matic and felsic sections. Unit is banded with ~ 70% broad (2-10cm) bands of light reddish-brown, biotitic tuff. Biotite is very f.g., possibly alteration or a product of a sedimentary co	mponent. From 57.6 to 63m the biotite is fairly pervasive, minor afterwards. Lower portion is mainly f.g., ~featureless, medium green intermediate to matic tuff(?) with some felsic sections at ~68-69m. Contact with underlying 4EA is gradational over ~1m												
E227001	69.00	69.60	0.01																	
E227002	69.60	70.40	0.01																	
E227003	70.40	71.50	0.16	70.40	84.55	4EA	Typical irregularly banded and folded 4EA with minor intervals of 4E and 4B partially replaced by f.g. grunerite. 4EA varies from thinly banded (<1cm) garnet-amphibolite and f.g. grunerite-green amph layers to broader zones (up to 10 cm) of c.g. garnet-g	runerite rock containing up to 80% garnets. A few small bands to 10 cm of 4F and several tightly folded bands of very f.g. grunerite alt'd 4B. Upper contact gradational from 70.4 to 72 m with bands of 4F, matic tuff, and 4EA. Lower contact grades from 83												

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
E227004	71.50	72.00	0.52																	
E227005	72.00	73.00	0.08																	
E227006	73.00	74.00	0.17																	
E227007	74.00	75.00	0.09																	
E227008	75.00	76.00	0.34																	
E227009	76.00	77.00	0.06																	
E227010	77.00	78.10	0.13																	
E227011	78.10	79.00	0.32																	
E227012	79.00	80.00	0.08																	
E227013	80.00	81.00	0.01																	
E227014	81.00	82.00	0.03																	
E227015	82.00	83.00	0.04																	
E227016	83.00	83.80	0.02																	
E227017	83.80	84.55	0.02																	
E227018	84.55	85.00	0.01	84.55	87.40	3	Verg f.g., mainly featureless, aphyric, light grey felsic unit. Only obvious bedding occurs in lower 20 cm, weak foliation, generally no biotite, locally contains vfg sericite but otherwise mainly just qtz and feldspar.B EDDING: 62 deg to CA at 87.3m, we	ak cleavage here at 43 deg to CA.												
E227019	85.00	86.00	0.01																	
E227020	86.00	87.00	0.01																	
E227021	87.00	87.60	0.01	87.40	93.83	4EA	Similar to 4EA unit above. Contains a few 10 cm intervals of 4F, possibly the same one repeated by folding. One 15 cm zone of 4E at 91m. Upper contact sharp at 62 deg to CA, lower one also sharp but ~irregular and some < 20 cm wide bands of 4EA occur 1 m	into underlying tuff-seds. F OLIATION: Generally 56-63 deg to CA where well developed.F OLDING: Much of unit appears tightly folded with wavelength of ~10 cm causing repetition of horizons 9-10 times in 1-1.5 m. No complete drag folds evident but partia												
E227022	87.60	88.10	0.05																	
E227023	88.10	89.00	0.37																	
E227024	89.00	90.00	0.11																	
E227025	90.00	91.00	0.01																	
E227026	91.00	92.00	0.08																	
E227027	92.00	93.00	0.17																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E227028	93.00	93.83	0.06																	
E227029	93.83	95.00	0.02	93.83	127.70	3F	Mainly felsic ash tuff as before with ~50% light brown bands 1-6 cm containing~10% f.g. biotite. Only minor intermediate-mafic bands. Upper 6 m contains numerous bands to 15 cm of c.g. garnets in f.g. biotite matrix - probably original siltstone layers.	S hear Zones/Faults from ~114-119 and 123.6-127m marked by 15-30% thin calcite veinlets 1-4 mm wide parallel to shear foliation. Minor qtz veins but no Po or signs of mineralization in these shears.L ower contact gradational over ~10 cm into mafic tuff.F												
E227030	95.00	95.60	0.01																	
E227031	95.60	97.00	0.01																	
E227032	97.00	98.00	0.01																	
E227033	98.00	99.00	0.01																	
E227034	99.00	100.00	0.03																	
E227035	100.00	100.50	0.01																	
				127.70	134.80	2	Mafic tuff. Well foliated, colour banded from medium and pale green to streaky light-medium brown in biotite-rich areas. Approx. 50% is green, f.g. amphibolite grade mafic volc, rest is mainly biotite-rich bands, up to 50% f.g. biotite in a feldspathic m	atrix; these may have been original sedimentary layers or later alt'n. One band of mixed 4EA-4E-4F from 132.4-133.38. Scattered qtz veins up to 10-15 cm wide but appear late and barren.F OLIATION: 63 deg to CA throughout.												
E227036	131.40	132.40	0.15																	
E227037	132.40	133.38	1.38																	
E227038	133.38	134.80	0.20																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E227039	134.80	136.00	0.48	134.80	147.85	4EA	Fairly homogeneous section of 4EA with 10-15% thin bands of 4B <1cm thick. 4EA consists of up to 90% garnets in aggregates up to 8 cm across within a f.g. matrix of yellow grunerite and minor green amph. It occurs in bands up to 10 cm thick separated by	thin bands, <1cm usually, of minor 4E and 4B. Only minor 4F, largest band occurs from 146.83-147.4m. As usual the 4EA is folded irregularly with few complete folds evident; best ones appear to be Z folds, parallel to foliation.F OLIATION/BANDING: Irregul	134.80	147.85	4B									
E227040	136.00	137.00	1.68																	
E227041	137.00	138.00	0.58																	
E227042	138.00	139.00	0.19																	
E227043	139.00	140.00	2.03																	
E227044	140.00	141.00	6.07																	
E227045	141.00	142.00	0.38																	
E227046	142.00	143.00	2.55																	
E227047	143.00	144.00	1.05																	
E227048	144.00	145.00	0.74																	
E227049	145.00	145.90	2.47																	
E227050	145.90	146.83	6.82																	
E227051	146.83	147.40	0.13																	
E227052	147.40	147.85	0.08																	
E227053	147.85	149.00	0.14	147.85	150.30	2	Mafic tuff. Medium green, amphibolitic, f.g., weak-mod (1-10%) biotite throughout, mainly in 2-3cm bands. 15-20 qtz veins, most ~1cm, some 3-5cm, look barren.F OLIATION: 45 deg to CA.													
E227054	149.00	150.30	0.49																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E227055	150.30	151.00	1.10	150.30	169.95	4F	Generally thinly bedded, few mm to 1-2cm, 4F with ~10% thin 4B layers. 4B is greater than 4F from ~163-166m. 4F is ~20-50% m.g. garnets in f.g. bio matrix, only local c.g. garnets. Several minor sections of 4E-4B, mafic tuff <5 cm, and 4EA bands <6cm. Ma	in upper contact sharp at ~55 deg to CA, x-cuts foliation - several c.g. garnets bands found in lower 30 cm of mafics. Lower contact gradational over 10-20cm. F OLIATION: Varies from 52-70 deg to CA. 70 deg at 151, 55 at 153, 62 at 155, 67 at 158, 60 at	150.30	169.95	4B											
E227056	151.00	152.00	0.70																	
E227057	152.00	153.00	0.20																	
E227058	153.00	154.00	0.04																	
E227059	154.00	155.00	0.01																	
E227060	155.00	156.00	0.52																	
E227061	156.00	157.00	6.50																	
E227062	157.00	158.00	0.05																	
E227063	158.00	159.00	0.10																	
E227064	159.00	160.00	0.05																	
E227065	160.00	161.00	0.35																	
E227066	161.00	162.00	0.35																	
E227067	162.00	163.00	0.01																	
E227068	163.00	164.00	0.02																	
E227069	164.00	165.00	0.19																	
E227070	165.00	166.00	0.04																	
E227071	166.00	167.00	0.03																	
E227072	167.00	168.00	0.09																	
E227073	168.00	169.00	0.08																	
E227074	169.00	169.95	0.01																	
E227075	169.95	171.00	0.20	169.95	172.27	4B	Banded mix of 4B and lesser 4F. Bands are typically 8-20mm thick and alternate between massive Mt, magnetic chert and 4F. Minor 4EA bands in upper part.B ANDING/FOLIATION: Bands slightly irregular, most consistent ones are at 50-58 deg to CA.M INERALIZAT	ION: 3 quartz veins 5-13 cm wide but no Po.	169.95	172.27	4F											
E227076	171.00	172.27	0.16																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E227077	172.27	173.40	0.05	172.27	173.40	4F	Somewhat distinctive 4F layer seen in ESN-13. Generally f.g. with only minor 4B layers except in upper 50 cm where several dismembered, non-mag chert layers <few cm thick occur.F OLIATION: Consistent at 66 deg to CA.													
E227078	173.40	174.25	0.06	173.40	175.44	4B	Most is thin bedded 4B with chert beds ~1cm thick and magnetite beds ~0.5 cm. Minor 4F layers <few mm throughout and one 10 cm zone of 4F>4B.B ANDING/FOLIATION: Varies from 67-74 deg to CA.M INERALIZATION: Looks barren except for two 1-2 cm veins of ~ so	lid Po slightly x-cutting 4B at 175.2m and 175.45.											
E227079	174.25	175.00	0.26																	
E227080	175.00	175.44	0.12																	
E227081	175.44	176.00	0.65	175.44	176.58	4B	Probably more 4A than 4B. Unit is pale yellow due to grunerite bearing cherty layers up to 2cm, locally separated by few mm of 4B magnetite layers, and commonly highly sheared. Several 10-20cm sheared sections of abundant qtz veining, veins up to 8cm, bu	t only trace Po.F OLIATION/BANDING: 72 deg to CA.	175.44	176.58	4A									
E227082	176.00	176.58	0.02																	
E227083	176.58	177.00	0.56	176.58	177.00	4H	Appears to be a sheared and fractured chert layer infilled with Po and minor f.g. green amph laminae. Po content up to 75% over 10cm enclosing small frags of the 4B chert layers. Overall ~30% Po. No significant garnets, qtz veins, Cp, etc. Weak grunerite	development in the chert.												
E227084	177.00	177.50	0.16	177.00	177.50	4B	Same unit as 175.44-176.58m.F oliation irreg mostly but constant in lower 10 cm at 65 deg to CA. Lower contact probably sharp but now obscured by 1-2cm of amphibole overgrowth. Adjacent basalt is abnormally sheared at low angle for ~20-30cm.		177.00	177.50	4A									

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E227085	177.50	178.00	0.01	177.50	200.82	2	Heterogeneous section of mafic volcanics. Generally light green to grey green but variably altered to biotite. From 177.5 to 191 the rock is strongly foliated-strained and alt'd to biotite; also contains numerous greasy, black slips coated with serpentin	e(?). From 191-200.82 the rock is moderately foliated but only weakly alt'd to biotite. No obvious tuffaceous bedding evident anywhere, presume these are flows. Lower contact sharp at 68 deg to CA, upper one obscured by 2 cm of amph growth.I ntercalated												
E227086	178.00	179.00	0.01																	
E227087	179.00	180.00	0.01																	
E227088	199.00	200.00	0.01																	
E227089	200.00	200.82	0.01																	
E227090	200.82	202.00	0.06	200.82	220.90	4B	Thinly banded to laminated 4B, minor f.g. grunerite developed throughout much of the chert layers. Banding is fairly regular, no major folds evident just numerous small (few cm) Z type drags. Numerous Qtz-Po +/- Py +/- f.g. green amphibole veins througho	ut entire section. Veins or zones of fairly complete qtz flooding vary from few cm to 40 cm in width and make up ~20-30% of section. No pervasive alt'n or garnets associated with these veins. C ontacts: lower one slightly wavy at 20 deg to CA,, upper on												
E227091	202.00	203.00	0.06																	
E227092	203.00	204.00	0.22																	
E227093	204.00	204.70	0.61																	
E227094	204.70	205.50	0.05																	
E227095	205.50	206.75	0.87																	
E227096	206.75	207.50	0.60																	
E227097	207.50	208.40	0.70																	
E227098	208.40	209.00	0.88																	
E227099	209.00	210.00	0.14																	
E227100	210.00	211.00	0.14																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E227101	211.00	212.00	0.67																	
E227102	212.00	213.00	0.08																	
E227103	213.00	214.00	0.04																	
E227104	214.00	215.00	0.18																	
E227105	215.00	216.00	0.60																	
E227106	216.00	217.10	0.02																	
E227107	217.10	218.00	0.01																	
E227108	218.00	218.75	0.01																	
E227109	218.75	219.50	0.01																	
E227110	219.50	220.00	0.03																	
E227111	220.00	220.90	0.02																	
E227112	220.90	222.00	0.01	220.90	230.16	2	F.g., well foliated to weakly sheared, light green to brownish-green (where biotite alt'd) actinolitic mafic volcanic. Presumably a flow, no sign of bedding or tuff frags.Upper few metres is probably a shear zone as fol'n runs parallel to CA for 2 m and	then becomes moderately biotitized & micro-crenulated and hard to measure angles. Lower part is also weak-mod biotite alt'd but more regualrly foliated at 65 deg to CA. Contacts sharp: upper one slightly wavy at 20 deg to CA, lower one at 45 deg. Only a												
E227113	222.00	223.00	0.02																	
E227114	228.00	229.00	0.01																	
E227115	229.00	230.00	0.01																	
E227116	230.00	231.00	0.03	230.16	233.46	4B	Thinly laminated 4B, alternating white chert and black magnetite layers <1mm to 7mm thick. No obvious grunerite, no qtz veins or sulphides.B anding is quite regular except for a few tight folds 2-5cm wide, possibly shear-induced?, and some unusual foldin	g adjacent to the upper contact - presumably caused by faulting along the contact. Upper contact sharp at 45 deg to CA and marked by few mm of Po. Lower one obscured by Po zone.B ANDING: Varies from 48 to 61 deg to CA. 48 at 232m, 58 at 232.5, 61 at 233.												

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E227117	231.00	232.00	0.01																	
E227118	232.00	233.00	0.01																	
E227119	233.00	233.46	3.03																	
E227120	233.46	234.17	28.74	233.46	234.17	4H	Semi-massive pyrrhotite band. Approx 90% f.g. Po, 7-8% fragments of dismembered calcite-dolomite veins up to 1cm, and minor clots of chlorite up to 3 mm. Upper contact fairly sharp but ~wavy, lower one has irreg offshoots of Po into underlying unit.														
E227121	234.17	234.65	4.47	234.17	244.16	4B	Variable section of 4A>4B; fractured, alt'd, sil'd and Po mineralized along upper and lower margins. BIF consists of light yellow grunerite chert layers commonly 1 cm thick, separated by thinner magnetite layers usually ~2-5mm. Banding/foliation shows tw	o major reversals in this unit with core angle changing 60 deg in 10-20cm. Upper margin consists of an unusual f.g. green unit that looks like mafic volc but is more likely a green amph alt'n of f.g. iron formation layer. Same amphibole is seen witihin s	234.17	244.16	4A									
E227122	234.65	235.80	0.11																	
E227123	235.80	236.33	0.01																	
E227124	236.33	237.00	0.01																	
E227125	237.00	238.00	0.02																	
E227126	238.00	239.30	0.02																	
E227127	239.30	240.00	0.02																	
E227128	240.00	241.10	2.38																	
E227129	241.10	242.10	4.20																	
E227130	242.10	243.16	4.35																	
E227131	243.16	244.20	0.03	244.16	280.00	2	Mafic volcanic flows, some pillowed. Light grey-green colour, weakly foliated, only minor biotite alt'n. Several clusters of qtz veins, largest from 248.8-251.8m contains ~30% qtz veins up to 20cm, some cut by minor Po-filled frax.P illow selvages are no	w <1cm thick bands of f.g. dark green amph and pale brown biotite? Selvages occur ~10-50cm apart for much of this section.F OLIATION/SELVAGES: Generally 65-67 deg to CA from 245-253m, 58 from 255-267m.											
E227132	244.20	245.00	0.04																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E227133	245.00	246.00	0.08																	
E227138	248.00	248.75	0.01																	
E227134	248.75	250.00	0.29																	
E227135	250.00	251.00	0.51																	
E227136	251.00	251.75	0.78																	
E227137	251.75	252.75	0.17																	

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	17.30	CASI																																	
17.30	57.60	3F																																	
57.60	70.40	3C																	69.00	69.60	53		S1													
																			69.60	70.40	68		S1													
70.40	84.55	4EA																	70.40	71.50	68		S1													
																			72.00	73.00	48		S1													
																			73.00	74.00	48		S1													
							0.1																													
							0.1																													
							0.2																													
							0.1												83.00	83.80	57		S1													
84.55	87.40	3																																	
87.40	93.83	4EA																	87.00	87.60	61		S1													
																			87.60	88.10	63		S1													
							0.7												90.00	91.00	56		S1													
							0.1																													
							1.5																													
							0.2																													
93.83	127.70	3F																	93.83	95.00	62		S1													
																			100.00	100.50	73		S1													
127.70	134.80	2																	131.40	132.40	63		S1													
							0.1			Occurs in a 1 cm band of ~10% Po.																											
																			133.38	134.80	65		S1													

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
134.80	147.85	4EA					0.1																													
							0.2																													
							0.1																													
							1.0																													
							0.2												144.00	145.00	52		S1													
																			146.83	147.40	60		S1													
147.85	150.30	2																	147.85	149.00	45		S1													
150.30	169.95	4F																	151.00	152.00	70		S1													
																			152.00	153.00	55		S1													
																			153.00	154.00	56		S1													
																			154.00	155.00	62		S1													
																			155.00	156.00	62		S1													
							1.0																													
																			158.00	159.00	62		S1													
																			161.00	162.00	68		S1													
																			162.00	163.00	68		S1													
																			163.00	164.00	68		S1													
																			164.00	165.00	68		S1													
																			166.00	167.00	68		S1													
																			168.00	169.00	73		S1													
169.95	172.27	4B																	171.00	172.27	58		S1													
172.27	173.40	4F																	172.27	173.40	66		S1													
173.40	175.44	4B					3.0																													
							0.0																													
175.44	176.58	4B					0.0																													
							0.1																													

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Ml %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
176.58	177.00	4H					30.																													
177.00	177.50	4B																																		
177.50	200.82	2																	178.00	179.00	63		S1													
200.82	220.90	4B					0.1												200.82	202.00	63		S1													
							0.5																													
							0.3	0.02											204.70	205.50	62		S1													
							0.0																													
							40.			Most broken and dismembered.																											
							0.0																													
							20.																													
							0.5																													
							1.5																													
							4.0												211.00	212.00	63		S1													
																			212.00	213.00	61		S1													
																			213.00	214.00	52		S1													
							3.0																													
							1.0																													
							0.0																													
							0.0												217.10	218.00	43		S1													
																			218.00	218.75	45		S1													
							0.5																													
							0.7												220.00	220.90	32		S1													
220.90	230.16	2																																		
							0.2																													
230.16	233.46	4B																	231.00	232.00	48		S1													
																			233.00	233.46	61		S1													
233.46	234.17	4H					90.																													
234.17	244.16	4B					5.0																													

STRUCTURAL LOG 03-ESN-012

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							3.0												240.00	241.10	20		S1													
							30.																													
							1.0																													
							8.0																													
244.16	280.00	2					4.0																													
							0.2																													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-013**

Project Code: ESN

Mine Grid Easting: 8975.106
Mine Grid Northing: 13100.218
Elevation: 5296.271

UTM East:
UTM North:

Planned Depth:
Actual Depth: 227

Drill Start Date: 03/03/2003
Drill End Date: 07/03/2003

Core Diameter:
Plugged: YES

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	94.8136	-61.9078	SURV
18	94.8136	-60.6	EZS
50	94.8136	-59.3	EZS
101	94.8136	-58	EZS
150	94.8136	-56.9	EZS
200	94.8136	-56.1	EZS
227	94.8136	-55.7	EZS

LITHOLOGY LOG 03-ESN-013

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	18.33	CASIN														
				18.33	85.10	3	Virtually identical felsic volcanics as upper portion of ESN-014. Diffuse bands of light grey and light reddish-brown, ~0.5-2 cm wide. Brown colour due to vfg biotite content produced either by sedimentary component in the felsic tuff (?) or later hyrdot	hermal alteration. Unit is aphyric, moderately well foliated throughout, no obvious folds. Locally abundant calcite veinlets along fol'n planes. No discernible volcanic features. Minor green intervals composed of f.g. amph-plag, probably matic tuff layer												
E238001	82.00	82.60	0.01																	
E238002	82.60	83.10	0.08																	
E238003	83.10	83.80	0.09																	
E238004	83.80	84.50	0.04																	
E238005	84.50	85.10	0.02																	
E238006	85.10	86.00	0.30	85.10	88.90	4F	Well foliated, moderately banded gar-bio schist with ~10-15% m.g. garnets in a f.g. bio schist matrix. Appears barren. 5-10% thin magentic chert layers <1cm thick and ~5% gar-amphibolite (4E) layers up to 3-4 cm. All are weakly to strongly magnetic. No	qtz veins, Po, obvious folds or faults. Sharp upper contact marked by few cm of chert and c.g. 4E. Lower contact ~sharp into 4E-4B.F OLIATION: 68 deg to ca.										
E238007	86.00	87.00	0.69																	
E238008	87.00	88.00	0.05																	
E238009	88.00	88.90	0.92																	
E238010	88.90	89.80	18.60	88.90	91.60	4E	Complex interval composed mainly of thinly (<1 cm) banded 4E-4B with several bands of c.g. 4EA up to 10 cm and 15 cm of 4F-4B. Some bands of 4E up to 25 cm with only minor 4B. 4E tends to have 5-15% c.g. garnets in f.g. green amph matrix.F OLIATION/BANDI	NG: Fairly consistent at ~70 deg to CA. Possibly some very tight small folds parallel to banding but not complete.M INERALIZATION: Looks barren except for a few 2-3 cm clusters of small qtz veins with minor Po filled frax and ~2-3 cm zones of Po bearing	88.90	91.60	4B									

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E238011	89.80	91.00	2.27																	
E238012	91.00	91.60	2.90																	
E238013	91.60	93.00	0.67	91.60	94.20	4F	Mainly 4F as before with ~30% 4B bands <1cm thick. One 50 cm interval where 4E>4F and another 30 cm with 4A-4B is dominant.F OLIATION/BANDING: 68 deg to CA.F OLDS: several small		91.60	94.20	4B									
E238014	93.00	94.20	1.63																	
E238015	94.20	95.13	1.64	94.20	99.45	4E	Complex mix of 4E, 4EA, 4F and 4B. 20-30% 4B magnetic chert bands ~<1cm thoughout. Rest varies from ~1/3 4E, 1/3 4EA as thick zones up to 10cm thick and more regular thin bands <1cm. ~1/3 is 4F bands up to 10 cm but mainly as <1cm bands intercalated with	chert or 4EA.F OLIATION/BANDING: Varies from 53 to 66, avg ~55.M ineralization: Appears barren.	94.20	99.45	4EA									
E238016	95.13	96.23	1.18																	
E238017	96.23	97.25	0.20																	
E238018	97.25	98.00	0.18																	
E238019	98.00	99.00	0.11																	
E238020	99.00	99.45	0.72																	
E238021	99.45	100.00	0.05	99.45	100.80	4F	Well banded 4F with ~30-40% 4B bands of magnetic chert and minor 4E - garnet poor amphibolite. 4F contains ~40% garnets 1-2 mm across in f.g. bio rich matrix. No obvious mineralization, qtz veins, Po, etc.F OLIATION: Consistent at 58 deg to CA.		99.45	100.80	4B									
E238022	100.00	100.80	0.10																	
E238023	100.80	102.00	2.76	100.80	104.50	4EA	Well developed c.g. 4EA with ~20% 4B magnetic chert layers <1cm thick. 4EA is a weakly banded mix of ~70% 3-7 mm garnets in a yellow matrix of f.g. grunerite.M INERALIZATION: Looks relatively weak. Several zones 3 to 30 cm wide of 3% to 7% Po mineralizat	ion, typically in the highly strained 4E layers, fractured chert, or with the few small qtz veins.F OLIATION: Somewhat wavy and irreg due to growth of c.g. garnets, varies from 43 to 62 deg to CA.	100.80	104.50	4B									
E238024	102.00	103.00	4.69																	
E238025	103.00	104.00	6.58																	
E238026	104.00	104.50	0.47																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E238027	104.50	105.30	0.73	104.50	106.00	4B	Generally well banded, ~2-8 mm thick bands, of alternating 4B magnetic chert and f.g. 4E - green amphibolite with ~1-10% m.g. garnets. Upper 0.8 m appears to be variably sheared as indicated by a more thinly laminated and distorted fabric with several 10	-20 cm zones of network f.g. Py, up to 30%/4cm or 5-10 cm bands of 10-20% dissem Py x'ls up to 5-7 mm.B ANDING/FOLIATION: 50 deg to CA.	104.50	106.00	4E									
E238028	105.30	106.00	0.03																	
E238029	106.00	107.00	0.16	106.00	118.20	4F	Well banded 4F and ~30% 4B magnetic chert bands <1 cm thick. Only minor bands, <5%, of 4E, 4A, 4EA, etc. Largest is ~1m thick at 113m. This entire unit appears barren, only a few scattered qtz veins, no significant Po.F OLIATION/BANDING: Gradual variatio	n between 53 and 68 deg to CA. 55 at 106.5m, 68 at 109, 58 at 111m, 58 at 114, 62 at 17m.	106.00	118.20	4B									
E238030	107.00	108.00	0.06																	
E238031	108.00	109.00	0.01																	
E238032	109.00	110.00	0.02																	
E238033	110.00	111.00	0.01																	
E238034	111.00	112.00	0.01																	
E238035	112.00	113.00	0.07																	
E238036	113.00	114.00	0.03																	
E238037	114.00	115.00	0.02																	
E238038	115.00	116.00	0.03																	
E238039	116.00	117.00	0.01																	
E238040	117.00	118.20	0.23																	
E238041	118.20	119.14	1.43	118.20	123.25	4B	Thinly banded 4B. Chert and Mt layers ~<1cm, minor f.g grunerite development. Scattered thin layers of 4F and 4E and one large section of 4F from 119.14 to 120.34 m.F OLIATION: Fairly constant between 61 and 67 deg to CA.M INERALIZATION: Generally looks	barren except for a few qtz veins up to 8 cm with minor Po and two 1-cm veins of solid Po at 112m.												
E238042	119.14	120.34	0.02																	
E238043	120.34	121.40	0.07																	
E238044	121.40	121.90	0.04																	
E238045	121.90	122.40	0.17																	
E238046	122.40	123.25	0.17																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E238047	123.25	124.00	0.05	123.25	127.10	4B	4B from above becomes increasingly strained and replaced by f.g. grunerite with depth. Chert beds in upper portion are broken and slighlty rotated and infilled & flanked by grunerite. Lower portion is highly strained/sheared out and replaced by grunerite	, no Mt bands left. Chert beds are largely replaced, only minor frags left.M INERALIZATION: ~10% broken qtz veins up to 7 cms throughout with minor Po. Several Po breccia veins 2-8 cm with minor relic qtz veins frags occur in lower 1m.F OLIATION: 62 deg	123.25	127.10	4A									
E238048	124.00	125.00	0.09																	
E238049	125.00	125.60	0.06																	
E238050	125.60	126.50	0.04																	
E238101	126.50	127.10	0.04																	
E238102	127.10	128.36	0.13	127.10	128.36	4H	Highly strained 4B(?) cut by anastomosing network of thinly laminated, wispy bands of Po and f.g. green amph up to 3-6cm wide. Approx 30% Po throughout as above plus several Po breccia bands 6-8 cm wide. Numerous qtz veins 1-4 cm wide, broken, often with	Po filled frax.L ocal Z folds, ~parallel to fol'n.												
E238103	128.36	129.11	0.04	128.36	129.11	4B	Broadly, irregularly banded 4B, mainly chert layers 2-4 cm, cut by irreg frax filled with f.g. grunerite and rx frags. Cut by ~6-7 qtz veins 1-4 cm wide with minor Po filled frax. Upper margin marked by a 13 cm f.g. mafic volcanic band. Mafic contacts at	64 deg to CA.	128.36	129.11	4A									
E238104	129.11	130.00	0.01	129.11	159.26	2	Fine-grained, pale to medium green, well foliated mafic volcanic. relatively massive compared to some areas and biotite alt'n is generally minor, significant (~20% bio) only in upper few metres. No obvious mineralization, no qtz veins or Po of significan	ce. F OLIATION: Relatively constant. 56 deg to Ca at 130m, 49 at 136, 63 at 142, 60 at 144, 70 at 150, 69 at 153, 65 at 158m.F OLDS: One good small Z fold at 140, axis ~parallel to fol'n.												
E238105	130.00	131.00	0.01																	
E238106	158.00	158.50	0.01																	
E238107	158.50	159.26	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
E238108	159.26	160.00	0.27	159.26	162.00	4B	Well banded 4B, bands few mm to 2 cm wide, most ~3-6 mm. Alternating light yellow chert layers, presumably with minor f.g. grunerite, and black magnetite bands. Very little deformation, only a few qtz veins of note - all <7 cm, and only one small qtz-Po	vein <2 cm wide.G rades into more grunerite chert dominant section over 1 m.B ANDING: Consistent at 67 deg to CA.												
E238109	160.00	161.00	0.12																	
E238110	161.00	162.00	0.17																	
E238111	162.00	163.00	0.13	162.00	174.00	4A	4A-4B. Banded, light grey-yellow unit of ~30% magnetite bands up to 2 cm and 70% v.f.g. grunerite chert intervals up to 20 cm. Grunerite phase clearly x-cuts magnetite layers locally and surrounds remnant Mt layers - appears to be a metamorphic overgro	wth of original 4B.C ontacts gradational over ~1m.B ANDING: Quite consistent at ~72-74 deg to CA.M INERALIZATION: Approx 10-12 qtz +/- Po veins 3-15 cm wide scattered throughout. Po occurs as ~2-3% frax fillings in the veins and as zones of up to 20-30%															
E238112	163.00	164.00	0.06																	
E238113	164.00	165.00	0.03																	
E238114	165.00	166.00	0.10																	
E238115	166.00	167.00	0.06																	
E238116	167.00	168.00	0.03																	
E238117	168.00	169.00	0.09																	
E238118	169.00	169.50	0.07																	
E238119	169.50	170.30	0.01																	
E238120	170.30	171.30	0.01																	
E238121	171.30	172.60	1.26																	
E238122	172.60	174.00	0.01																	
E238123	174.00	175.43	0.01	174.00	178.30	4B	Well banded to thinly laminated 4B similar to start of this BIF unit. Weak grunerite development in the chert layers plus one grunerite-chert zone at 175.43-176m.M inor deformation zones <20 cm long, appear to be small shears and shear induced													
E238124	175.43	176.00	0.01																	
E238125	176.00	177.00	0.01																	
E238126	177.00	178.30	0.05																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E238127	178.30	179.00	0.01	178.30	183.10	1	Serpentinized ultramafic flow (?), featureless, moderately foliated, composed of pale green and dark grey f.g. serpentine giving a micro-mottled appearance. Upper contact sharp but slighlty irreg at ~90 deg to CA, lower one sharp at 60 deg to CA. No vein	s or sulphides visible.F oliation too weak to measure accurately.												
E238128	179.00	180.00	0.01																	
				183.10	186.13	2	Pale green mafic volcanic. Most is weakly-moderately foliated, some moderately biotite alt'd and strained. Upper contact sharp at 60 deg to Ca, lower one ~irreg at ~78.F OLIATION: 68 deg to CA.										-		
E238129	185.00	186.13	0.01																	
E238130	186.13	187.00	0.17	186.13	190.30	4B	Alternating 0.5-2 m long intervals of thinly laminated 4B and more diffusely banded grunerite-chert with minor relic Mt laminae. Contacts between 4B and 4A are gradational over 20-30 cm or obscured by qtz floods. Laminated 4B from 186.13 to 187.0 m, 188	.0 to 188.5; rest mainly 4A.B ANDING: 72-76 deg to CA throughout.M INERALIZATION: 5 main zones 5-27 cm wide, of qtz veining/flooding with 2-50% Po, often mixed with qtz frags <5 mm. Zones occur in both 4B and 4A, several smaller qtz-Po veins, 1-3cm, thro	186.13	190.30	4A									
E238131	187.00	187.50	1.00																	
E238132	187.50	188.00	1.99																	
E238133	188.00	188.50	8.35																	
E238134	188.50	189.50	1.38																	
E238135	189.50	190.30	1.08																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E238136	190.30	191.00	0.03	190.30	227.00	2	Pillowed Basalt. Most of section is f.g., medium green basalt with probable pillow selvages scattered throughout. Selvages consist of ~1 cm irreg bands of f.g. bio with 10-20% m.g. garnets, flanked by few mm of darker green amph. Unit is cut by several w	ell foliated intervals that are likely weak shear zones. F OLIATION: 72 deg to CA at 204m, 48 at 208-209 (shear zone), 69 at 216, 68 at 225.S mall shear bands are common in the foliated areas, trend ~18 deg to CA and show east side down movement.M INERAL											
E238137	191.00	191.60	0.01																	

STRUCTURAL LOG 03-ESN-013

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	18.33	CASI																																	
18.33	85.10	3						5																											
								8																											
								1																											
85.10	88.90	4F																	85.10	86.00	68		S1												
																			86.00	87.00	68		S1												
88.90	91.60	4E					0.3																												
																			89.80	91.00	70		S1												
							0.1																												
91.60	94.20	4F																	91.60	93.00	68		S1												
94.20	99.45	4E					0.3																												
																			95.13	96.23	56		S1												
																			96.23	97.25	55		S1												
							0.1																												
																			98.00	99.00	55		S1												
99.45	100.80	4F																																	
																			100.00	100.80	58		S1												
100.80	104.50	4EA					2.0																												
							5.0			Uncertain, may be deformed chert.																											
							2.0												103.00	104.00	67		S1												
104.50	106.00	4B						5											104.50	105.30	58		S1												
																			105.30	106.00	50		S1												
106.00	118.20	4F																	106.00	107.00	55		S1												
																			108.00	109.00	68		S1												
																			109.00	110.00	68		S1												
																			110.00	111.00	58		S1												
																			114.00	115.00	57		S1												
																			116.00	117.00	62		S1												
																			117.00	118.20	63		S1												

STRUCTURAL LOG 03-ESN-013

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
118.20	123.25	4B																	118.20	119.14	61		S1													
																			122.40	123.25	67		S1													
123.25	127.10	4B																	124.00	125.00	62		S1													
							5.0																													
							0.3																													
127.10	128.36	4H					30.																													
128.36	129.11	4B					0.1																													
129.11	159.26	2																	129.11	130.00	56		S1													
																			158.00	158.50	65		S1													
159.26	162.00	4B																	159.26	160.00	68		S1													
							0.2																													
162.00	174.00	4A					0.1																													
							0.1																													
																			165.00	166.00	72		S1													
							0.1																													
							3.0																													
																			172.60	174.00	77		S1													
174.00	178.30	4B																	174.00	175.43	80		S1													
																			176.00	177.00	85		S1													
178.30	183.10	1																																		
183.10	186.13	2																																		
186.13	190.30	4B																	186.13	187.00	75		S1													
							3.0																													
							4.0																													

STRUCTURAL LOG 03-ESN-013

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							7.0												188.00	188.50	76		S1													
							1.0																													
190.30	227.00	2					5.0																													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-014**

Project Code: ESN

Mine Grid Easting: 9024.791
Mine Grid Northing: 13100.041
Elevation: 5296.32

UTM East:
UTM North:

Planned Depth:
Actual Depth: 170

Drill Start Date: 24/02/2003
Drill End Date: 26/02/2003

Core Diameter:
Plugged: YES

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
3	88.81	-61.1	MAXI
6	88.73	-60.72	MAXI
9	88.74	-60.6	MAXI
12	88.93	-60.58	MAXI
15	89.15	-60.46	MAXI
18	89.47	-60.36	MAXI
21	89.78	-60.2	MAXI
24	90.19	-60.08	MAXI
27	90.53	-59.92	MAXI
30	90.79	-59.78	MAXI
33	91.04	-59.64	MAXI
36	91.31	-59.51	MAXI
39	91.58	-59.4	MAXI
42	91.79	-59.37	MAXI
45	92.01	-59.35	MAXI
48	92.11	-59.32	MAXI
51	92.22	-59.29	MAXI
54	92.28	-59.26	MAXI
57	92.43	-59.22	MAXI
60	92.59	-59.2	MAXI
63	92.72	-59.19	MAXI
66	92.85	-59.15	MAXI
69	93.01	-59.1	MAXI
72	93.21	-59.05	MAXI
75	93.35	-59.02	MAXI
78	93.52	-58.97	MAXI
81	93.66	-58.91	MAXI
84	93.74	-58.87	MAXI
87	93.84	-58.8	MAXI
90	94.01	-58.74	MAXI
93	94.08	-58.65	MAXI
96	94.2	-58.53	MAXI
99	94.33	-58.39	MAXI
102	94.47	-58.27	MAXI
105	94.55	-58.14	MAXI
108	94.68	-58.08	MAXI
111	94.76	-57.97	MAXI
114	94.88	-57.91	MAXI
117	94.94	-57.81	MAXI
120	95	-57.72	MAXI
123	95.06	-57.62	MAXI
126	95.11	-57.52	MAXI
129	95.17	-57.43	MAXI
132	95.23	-57.33	MAXI
135	95.29	-57.23	MAXI
138	95.35	-57.14	MAXI
141	95.4	-57.04	MAXI
144	95.46	-56.95	MAXI
147	95.52	-56.85	MAXI
150	95.58	-56.75	MAXI
153	95.63	-56.66	MAXI
156	95.69	-56.56	MAXI
159	95.75	-56.46	MAXI
162	95.8	-56.37	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-014**

Project Code: ESN

Mine Grid Easting: 9024.791

Mine Grid Northing: 13100.041

Elevation: 5296.32

UTM East

UTM North:

Planned Depth:

Actual Depth: 170

Drill Start Date: 24/02/2003

Drill End Date: 26/02/2003

Core Diameter:

Plugged: YES

Target 1:

Target 2:

Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
165	95.86	-56.27	MAXI
168	95.91	-56.18	MAXI
170	95.96	-56.16	MAXI

LITHOLOGY LOG 03-ESN-014

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	13.85	CASIN														
				13.85	33.75	3F	Felsic Volcanic Rocks. Homogeneous, aphyric, f.g., no obvious volcanic features, bedding, etc. Well foliated and banded light grey to light reddish-brown due to variable vfg, weak-moderate biotite alteration. Alteration occurs in bands ~0.5-2 cm wide an	d covers ~50-70% of the unit, presumably altered during weak shearing. Several sections 1-3 m long of 5-10% calcite-dolomite veinlets and 1-2% clots (1-5 mm) of m.g. to c.g muscovite parallel to foliation in slightly more strained, distorted areas - prob											
				33.75	34.96	2	Mafic Volcanic. Presumed to be a tuff due to small size within the felsic package. Composed of ~50% f.g. feldspar and 50% f.g. green amphibole, all very well foliated. One 10 cm patch of possible grunerite dominant rock.C ONTACTS: Both sharp, upper one a	t 71 deg to CA, lower one at 70 deg tca.F OLIATION: 66-71 deg to CA throughout.N o qtz or Po.											
				34.96	42.84	3F	Same felsic rocks as per 13.85-33.75 m. More abundant calcite-dolomite veinlets throughout this interval, commonly up to 10-15% veins parallel to foliation, 1-4 mm wide, generally straight and not deformed. Some veinlets have minor bio, green amph and/ P	y.S cattered clots, 2-4 mm, of m.g. muscovite, typically along small x-cutting frax or within the carb veinlets.L ower 3 m of section is more heterogeneous with ~30% med green bands 2-5 cm wide dominated by green amphibole - presumably thin beds of mafic											
E226001	38.00	39.00	0.01																	
E226002	39.00	40.20	0.02																	
E226003	40.20	41.25	0.01																	
E226004	41.25	41.70	0.08																	
E226005	41.70	42.35	0.04																	
E226006	42.35	42.84	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E226007	42.84	44.00	1.35	42.84	48.60	4F	Beginning of complexly mixed sequence of 4F, 4E, 4A & 4B extending to 84.5 m. Upper contact sharp at 74 deg to CA, 3 qtz veins, 3 mm-1 cm in upper 10 cm of 4E. Thereafter this interval is typical m.g. to f.g. 4F but contains zones, between 1 and 70 cm of	4EA-4B but no Po.F OLIATION: Varies gradually from 60-84 deg to CA, a few small knife edge faults. 73 deg to CA at 43m, 60 at 45m, 84 at 46m, 79 at 47m.F OLDS: No reliable folds for measuring in entire 4F-4B-4EA interval. M ineralized (?) Zones. From 45													
E226008	44.00	45.00	0.64																	
E226009	45.00	45.57	0.91																	
E226010	45.57	46.00	1.52																	
E226011	46.00	47.13	0.17																	
E226012	47.13	47.83	0.47																	
E226013	47.83	48.60	0.38																	
E226014	48.60	49.10	17.30	48.60	53.00	4E	Mod. well banded unit of alternating magnetic chert layers up to 1.5 cm thick and more irreg 4E layers up to 1 cm of c.g. garnets in f.g. green amph. Minor sections of 4E also contain abundant grunerite over 10-20 cm.F OLIATION: Somewhat wavy but between	52 and 58 deg to CA, avg ~54 deg.M INERALIZATION: Only 2 short intervals with qtz-Po. One zone, 12 cm wide, centred at 49 m has a 3-4 cm qtz vein flanked by ~4 cm of 5-7% Po. From 50.75 to 51.3m is ~50% qtz veins/flood with up to10% Po flanking the vein	48.60	53.00	4B									
E226015	49.10	50.00	9.98																	
E226016	50.00	50.75	0.92																	
E226017	50.75	51.30	0.93																	
E226018	51.30	52.00	1.14																	
E226019	52.00	53.00	5.31																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E226020	53.00	54.50	8.13	53.00	57.50	4B	Generally thinly banded 4B and 4E with lesser sections of 4EA (gar-grunerite mainly). 4F from 54.5-55.3m. Coarser garnet-grun over last 1 m.M ineralization: cut by 3 qtz veins - 4,5, and 9 cm wide- each flanked by 2-5 cm of sil'n and 5-10% Po.F OLIATION:	53 deg to CA.	53.00	57.50	4E											
E226021	54.50	55.30	0.85																	
E226022	55.30	56.20	0.14																	
E226023	56.20	57.50	7.17																	
E226024	57.50	59.00	0.82	57.50	63.95	4F	Dominantly fine to m.g. 4F as before, local minor bands of 4B. Only one small qtz vein, no obvious min'n. Small band of 4EA-4B from 60.9 to 62.2F OLIATION: 64 deg throughout.													
E226025	59.00	60.00	0.73																	
E226026	60.00	60.90	1.31																	
E226027	60.90	62.20	0.52																	
E226028	62.20	63.00	0.01																	
E226029	63.00	63.95	0.01																	
E226030	63.95	65.00	0.05	63.95	67.60	4EA	Mainly typical m.g. to c.g. gar-grunerite with minor green amph, in bands up to 6 cm. Separated by ~35% bands of 4B magnetic chert < 1 cm wide. A few small qtz veins roughly parallel to the wavy/crude banding of the unit, but only trace Po.F OLIATION: 75	deg to CA.	63.95	67.60	4B											
E226031	65.00	66.00	2.46																	
E226032	66.00	67.00	0.18																	
E226033	67.00	67.60	0.27																	
E226034	67.60	69.00	0.01	67.60	77.00	4F	Mainly typical 4F with 20-30% pale red garnets 1-2 mm across in a f.g. bio rich schist. Intercalated with variable amounts, <2% to 50%, of magnetic chert layers typically 3-6 mm thick. Several intervals <1 m thick of c.g. garnets in a grunerite and/or gr	een amph dominant matrix, i.e. 4EA. Minor bands up to 8 cm of f.g. grunerite with few garnets.F OLIATION: Gradual changes only, between 57 and 71 deg to CA. 75 deg to CA from 67.6 to 69, 71 at 73.5 m, 60 at 75m, 71 at 76.5. Averages ~71 deg. F OLDS: Very	67.60	77.00	4B											
E226035	69.00	70.00	0.36																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E226036	70.00	71.00	0.14																	
E226037	71.00	72.00	0.02																	
E226038	72.00	73.00	0.20																	
E226039	73.00	74.00	0.01																	
E226040	74.00	75.00	0.84																	
E226041	75.00	75.82	0.06																	
E226042	75.82	77.00	3.57																	
E226043	77.00	78.00	0.17	77.00	83.65	4B	Mainly 4B with minor, variable amounts of 4F or 4E, 4EA as thin layers <6-7 mm thick. Unit ranges from 4B with ~30-40% 4F to 30% 4EA to pure 4B. Bands are generally few mm of magnetite and up to 1.5 cm of magnetic chert, and are somewhat wavy and irregul	ar. From 83.08 to 83.65 the unit is chert dominant but still is magnetic throughout and has minor magnetite laminae. The chert is commonly fractured and cut by wispy, irregular zones of grunerite up to 3-4 cm wide.F OLIATION/BANDING: 61 deg to Ca at 77.5														
E226044	78.00	79.50	0.72																	
E226045	79.50	80.00	0.04																	
E226046	80.00	81.00	0.15																	
E226047	81.00	82.08	0.08																	
E226048	82.08	83.00	0.03																	
E226049	83.00	83.65	0.03																	
E226050	83.65	84.51	0.01	83.65	84.51	4B	4H. Avg 30% Po as net-texture zone and frax fillings in chert, and laminae. ~1/3 in broken chert layers, rest in a f.g., high strain zone of med-dark green rock, part of which may have been 4F originally. Green mineral prob amph. Minor Py filled late fra	x.												

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E226051	84.51	85.00	0.02	84.51	123.06	2	Mafic volcanic. Moderately biotitized and well foliated throughout with several well developed shear zones that are strongly alt'd to biotite. Lower contact sheared and brecciated for ~1 m; relatively sharp at 45 deg to CA but ~obscured by 1 cm qtz vein.	F OLIATION: 49 deg to Ca at 86.5-88.5 m, 53 from 96-103 m, 63 from 107-109m,S HEAR ZONES: 8 8.3 to 90.8 m. Strong bio alt'n and mod f.g. green amph. Foliation 55-72 deg to CA, avg ~65. Well developed shear bands at 26-45 deg to CA, indicate shear moved w												
E226052	85.00	86.10	0.03																	
E226053	86.10	87.00	0.01																	
E226054	92.60	93.27	0.01																	
E226055	93.27	93.75	0.01																	
E226056	93.75	94.10	0.15																	
E226057	94.10	94.60	0.01																	
E226058	94.60	95.10	0.01																	
E226059	121.50	122.00	0.01																	
E226060	122.00	123.06	0.01																	
E226061	123.06	124.00	0.18	123.06	144.73	4B	Well banded, light yellow-off white chert with minor vfg grunerite and carbonate (dolomite-siderite?) and dark brown-black to locally green-black magnetite +/- vfg green amph layers. Banding is fairly regular in upper and lower portions but highly distur	bed in central part. Minor offsets along cleavage throughout. From ~127 m to 137.7m the BIF is highly contorted with bedding often at 0-5 deg to CA in short fragments, few cm long, offset by movement along cleavage planes, and farily pervasive feathery												
E226062	124.00	125.00	0.06																	
E226063	125.00	126.00	0.18																	
E226064	126.00	127.00	0.07																	
E226065	127.00	128.00	0.05																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E226066	128.00	129.00	0.31																	
E226067	129.00	130.00	0.05																	
E226068	130.00	131.00	0.06																	
E226069	131.00	132.00	0.06																	
E226070	132.00	133.00	0.08																	
E226071	133.00	134.00	0.03																	
E226072	134.00	135.50	0.11																	
E226073	135.50	136.00	0.11																	
E226074	136.00	137.00	0.07																	
E226075	137.00	137.70	1.06																	
E226076	137.70	138.40	0.22																	
E226077	138.40	139.00	0.01																	
E226078	139.00	140.00	0.04																	
E226079	140.00	141.00	0.02																	
E226080	141.00	142.00	0.03																	
E226081	142.00	143.00	0.04																	
E226082	143.00	143.80	0.02																	
E226083	143.80	144.73	0.50																	
E226084	144.73	145.50	0.01	144.73	149.61	2	Homogeneous section of medium green, well foliated, moderately strained, barren looking mafic volcanic. Weak-mod biotite alt'n throughout. Cut by 2 calcite veins 3-5 cm wide but no qtz or Po.F OLIATION: 46 deg to Ca at 146.5, 53 at 147.L ower contact at	67 deg and sharp. upper one sharp at 36 deg to CA.													
E226085	145.50	146.00	0.01																	
E226086	146.00	146.50	0.01																	
E226087	148.00	149.00	0.02																	
E226088	149.00	149.61	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
E226089	149.61	150.00	0.01	149.61	155.23	4B	Similar unit to previous iron formation from 123.06m to 144.73m. Varies from thinly laminated, 1-4 mm, to more thickly (~1cm) but vaguely banded, to largely chert in the lower 2 m. As before the light bands are yellow-beige but vary from vfg siderite d	ominant to fg grunerite dominant in the lower, more deformed portion. Magnetite bands are usually <few mm thick, rarely to 1 cm.B ANDING: Varies gradually from 66-78 deg to CA. 71 deg to CA at 151.5, 78 at 151.7, 66 at 155. M INERALIZATION: Above 153.95												
E226090	150.00	151.00	0.01																	
E226091	151.00	152.00	0.11																	
E226092	152.00	152.95	0.05																	
E226093	152.95	153.45	0.25																	
E226094	153.45	154.00	0.05																	
E226095	154.00	155.23	0.29																	
E226096	155.23	156.00	0.01	155.23	170.00	2	Mafic volcanic. Fairly homogeneous, no original volc textures, varies from very weakly foliated to moderately foliated. Weakly biotitized in most of section. Several qtz veins up to 10 cm and ~3% small calcite veinlets, often with bio clots ~2-3 mm. No v	isible mineralization except for a 5 mm Po band near a small shear.F OLIATION: Often weak and hard to measure. Elsewhere it varies by 30 deg over short intervals. 73 deg to CA at 160m, 68 at 162, 78 at 166.												
E226097	156.00	157.00	0.01																	

STRUCTURAL LOG 03-ESN-014

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py %	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	13.85	CASI																																		
13.85	33.75	3F																																		
33.75	34.96	2																																		
34.96	42.84	3F						0.1																												
								0.1											39.00	40.20	65		S1													
																			40.20	41.25	69		S1													
								5																													
42.84	48.60	4F																	44.00	45.00	60		S1													
48.60	53.00	4E					3.0																													
							4.0												51.30	52.00	5		S1													
							0.1																													
53.00	57.50	4B					2.0												54.50	55.30	53		S1													
																			55.30	56.20	56		S1													
							0.1																													
57.50	63.95	4F																	59.00	60.00	64		S1													
																			60.00	60.90	65		S1													
63.95	67.60	4EA					0.0																													
							0.0																													
67.60	77.00	4F																	67.60	69.00	76		S1													
																			73.00	74.00	71		S1													
																			74.00	75.00	60		S1													

STRUCTURAL LOG 03-ESN-014

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							0.0												75.00	75.82	63		S1														
							0.0												75.82	77.00	71		S1														
77.00	83.65	4B					3.0												77.00	78.00	61		S1														
																			83.00	83.65	57		S1														
83.65	84.51	4B					30.	0.3																												
84.51	123.06	2					0.0												86.10	87.00	49		S1														
							8.0																														
																			121.50	122.00	60		S1														
123.06	144.73	4B																																		
																			125.00	126.00	72		S1														
																			127.00	128.00	10		S1														
																			129.00	130.00	5		S1														
							0.0																														
																			133.00	134.00	66		S1														
							0.0																														
							0.1																														
																			139.00	140.00	60		S1														
																			140.00	141.00	57		S1														
																			141.00	142.00	53		S1														
																			142.00	143.00	51		S1														
																			143.00	143.80	60		S1														

STRUCTURAL LOG 03-ESN-014

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
144.73	149.61	2					7.0																													
																			146.00	146.50	46		S1													
149.61	155.23	4B																																		
							0.0												150.00	151.00	71		S1													
																			151.00	152.00	78		S1													
																			154.00	155.23	66		S1													
155.23	170.00	2																																		

MUSSELWHITE MINE - GEOLOGY

Hole ID: **03-ESN-017**

Project Code: ESN

Mine Grid Easting: 8798.556
Mine Grid Northing: 13150.219
Elevation: 5296.31

UTM East:
UTM North:

Planned Depth:
Actual Depth: 399

Drill Start Date: 06/04/2003
Drill End Date: 12/04/2003

Core Diameter:
Plugged: YES

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	91.5589	-70.1878	SURV
50	91.5589	-69.4	EZS
100	91.5589	-68.1	EZS
150	91.5589	-66	EZS
200	91.5589	-63.5	EZS
252	91.5589	-61.1	EZS
300	91.5589	-59.3	EZS
351	91.5589	-57.2	EZS
399	91.5589	-56.1	EZS

LITHOLOGY LOG 03-ESN-017

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	18.20	CASIN														
				18.20	169.00	3F	Felsic Ash-Crystal Tuff. Fairly homgeneous section of light-medium grey to medium grey-brown, weakly to moderately foliated felsic tuff. Generally contains 2-10% feldspar crystals ~1 mm across in a very f.g. siliceous matrix presumed to be ash, with no s	ignicant visible sericite and rare m.g. scattered garnets. Some sections (e.g. 60-78m) are brown due to hi % of f.g. biotite, up to 20-30%, often associated with up to 20-30% diffuse bands of calcite-amphibolite (alt'n?). Several narrow, <30cm, bands of											
E228404	152.00	152.60	0.01																	
E228405	152.60	153.10	2.43																	
E228406	153.10	154.00	0.01																	
E228407	154.00	155.00	0.01																	
E228408	155.00	156.00	0.01																	
E228409	156.00	157.30	0.01																	
E228410	157.30	158.20	0.01																	
E228411	158.20	159.00	0.01																	
E228412	159.00	160.00	0.01																	
E228413	160.00	160.80	0.03																	
E228414	160.80	162.00	0.06																	
E228415	162.00	163.00	0.01																	
E228416	163.00	164.00	0.01																	
E228417	168.40	169.00	0.01																	
E228418	169.00	169.80	2.08	169.00	170.70	4E	Heterogeneous section, mix of 4E, 4F, minor 4B and 4EA. Each rock type occurs in bands ~5-15cm wide. Upper 1/2 is strained mix of biotite schist, ~20% dark green amphibolite, and ~30-40% calcite flooded/veined zones with local qtz veinlet swarms and patc	hes of Py>Po. Lower 1/2 is mainly banded 4E-4EA with local 4B. Contacts gradational over 50cm, foliation mostly irregular.F OLIATION: 68 deg to Ca where regular.M INERALIZATION: Thin frax fillings and patches of Pyrite throughout with minor very f.g Po,	169.00	170.70	4B										

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E228419	169.80	170.70	0.42																	
E228420	170.70	172.00	0.01	170.70	182.37	2	Mafic to Intermediate Volcanic. Generally a light-medium green unit, 0-10% biotite alt'n, weak foliation mostly. Unit is very f.g. and hard to see any amphiboles in it; unit is also harder than most mafic volcanics and is probably intermediate. Cut (?) b	y a zone of c.g. garnet rock, contains up to 80% ragged garnets in f.g. matrix of green amph, no obvious grunerite, several patches of Pyrite up to 10cm wide and some bands of Py cubes to 3mm. Most likely this is an alt'd shear zone. Unit's contacts grad												
E228421	173.00	174.00	0.01																	
E228422	174.00	174.50	0.01																	
E228423	174.50	175.24	12.38																	
E228424	175.24	176.00	0.34																	
E228425	176.00	176.80	0.01																	
E228426	181.00	181.50	0.01																	
E228427	181.50	182.37	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E228428	182.37	183.00	0.02	182.37	184.30	4EA	Section is a crudely banded mix of ~40% c.g. 4EA, 10% 4E, 10-15% 4B, and variably altered volcanics. Appears to have been intercalated 4B with mafic tuff (?), now hydrothermally alt'd and meta'd leading to gar-grunerite formation. ~1-2% Py and minor Po	throughout in patches to 1cm and in thin laminae.FOLIATION/BANDING: Often irregular, most consistent part is 80 deg to CA.MINERALIZATION: 1-2% Py, minor Po throughout.	182.37	184.30	4B												
E228429	183.00	184.30	0.06																	
E228430	184.30	185.00	0.01	184.30	226.17	2	Light grey-green mafic-intermediate volcanics. Harder than most mafic volcanics, probably intermediate. Very f.g., locally spotted with 10% amphibole grains 1-3mm. Moderate foliation throughout, only local biotite alt'n, mainly in lower 3-4m. Several qtz	veins/flooded zones 15-50cm wide, one has abundant Po and assoc'd green amph. Lower contact fairly sharp at 58 deg tca but marked by 10 cm of bio alt'n of volcanics. Unit is pervasively, moderately alt'd to f.g biotite for several metres above and cut b												
E228431	185.00	185.48	0.01																	
E228432	189.70	190.23	0.03																	
E228433	190.23	190.82	3.51																	
E228434	190.82	191.65	0.18																	
E228435	191.65	192.40	0.02																	
E228436	220.00	220.50	0.01																	
E228437	220.50	221.00	0.01																	
E228438	221.00	222.00	0.01																	
E228439	222.00	222.70	0.27																	
E228440	222.70	223.20	0.01																	
E228441	225.00	225.50	0.01																	
E228442	225.50	226.17	0.06																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E228443	226.17	227.00	3.04	226.17	230.10	4EA	Fairly homogeneous section of ~50-60% 4EA with lesser 4B and 4E. 4EA consists of c.g. to very c.g. garnets and aggregates to 6 cm in bands to 10cm and a matrix of f.g. yellow grunerite. 4E forms irreg bands 1-2cm wide between 4EA layers and consists main	ly of f.g. light-medium green amph, minor garnets. Roughly 5-10% remnant magnetic chert layers, 4B, throughout. From 228.6-229.5 4B and weakly magnetic chert dominates, cut by 50% wispy, streaks of light and medium green amph (probably deformed frax cont	226.17	230.10	4B									
E228444	227.00	228.00	1.18																	
E228445	228.00	228.60	2.01																	
E228446	228.60	229.50	0.17																	
E228447	229.50	230.10	0.49																	
E228448	230.10	231.00	0.13	230.10	245.05	4F	Homogeneous section of m.g. 4F. Approx. 50-60% m.g. garnets in a f.g. biotite schist. No obvious layers of 4B, 4E, 4EA, or other rx types. From 239 m to 245m there are semi-continuous zones of qtz veining with flanking m.g., magnetic grunerite +/- f.g g	reen amph 1-2 cm wide. The veins average 1 cm in width and are usually folded along with assoc'd alt'n., some tightly repeated over 30cm intervals. Most subparallel to fol'n. No visible sulphides.FOLIATION: 53 deg to CA at 232m.FOLDS: Several well deve															
E228449	231.00	232.00	0.08																	
E228450	232.00	233.00	0.09																	
E228451	233.00	234.00	0.47																	
E228452	234.00	235.00	0.04																	
E228453	235.00	236.00	0.06																	
E228454	236.00	237.00	0.02																	
E228455	237.00	238.00	0.02																	
E228456	238.00	239.00	0.02																	
E228457	239.00	239.80	0.14																	
E228458	239.80	240.30	0.02																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E228459	240.30	241.30	0.15																	
E228460	241.30	242.60	0.09																	
E228461	242.60	243.41	0.06																	
E228462	243.41	244.55	0.05																	
E228463	244.55	245.05	0.26																	
E228464	245.05	246.00	0.17	245.05	254.00	4EA	Fairly typical 4EA with approx. 10-20% thin, <1cm, remnant 4B layers. Approx. 5-10% layer parallel qtz veins throughout, most <1cm wide, only a few flanked by narrow zones of Po. 4EA consists of crudely banded zones 4EA sepaarted by thin layers of 4B, 4E	, and locally 4F. 4EA bands are up to 12cm wide, consist of 50-80% c.g. garnets in yellow grunerite matrix. F OLIATION/BANDING: 37 deg to CA at 248m, 39 at 253.F OLDING: several Z folds (assuming layering is ~upright), axial planes at 43 deg tca.M INERA	245.05	254.00	4B									
E228465	246.00	247.00	7.51																	
E228466	247.00	248.00	0.08																	
E228467	248.00	249.00	0.80																	
E228468	249.00	250.00	5.17																	
E228469	250.00	251.00	22.11																	
E228470	251.00	252.00	7.22																	
E228471	252.00	253.00	0.36																	
E228472	253.00	254.00	0.03																	
E228473	254.00	255.00	0.04	254.00	275.22	4F	Complex mix of 4F, 4B, 4E and local 4EA. 4B layers 3mm-2cm throughout, 30% in upper part, 5-10% in lower part. ~30% 4F forming intervals up to 1.5 m long as well as layers a few cm thick between other rx types. Several zones of m.g. 4EA (yellow gar-grune	rite rx) up to 6 cm throughout upper part. 4E occurs intermittently throughout as bands 1-5 cm wide; more massive medium green amphibolite occurs as bands to 40 cm in the 4F.F OLIATION/BANDING: Often erratic in the 4E-EA dominated upper few metres. 41 de	254.00	275.22	4B									
E228474	255.00	256.00	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E228475	256.00	257.00	0.01																	
E228476	257.00	258.00	0.01																	
E228477	258.00	259.00	0.01																	
E228478	259.00	260.00	0.02																	
E228479	260.00	261.00	0.01																	
E228480	261.00	262.00	0.01																	
E228481	262.00	263.00	0.01																	
E228482	263.00	264.00	0.01																	
E228483	264.00	264.65	0.01																	
E228484	264.65	265.70	0.01																	
E228485	265.70	267.00	0.01																	
E228486	267.00	268.00	0.01																	
E228487	268.00	269.00	0.03																	
E228488	269.00	270.00	0.02																	
E228489	270.00	271.00	0.01																	
E228490	271.00	272.00	0.01																	
E228491	272.00	273.00	0.01																	
E228492	273.00	274.00	0.01																	
E228493	274.00	275.22	0.01																	
E228494	275.22	276.10	1.39	275.22	285.00	4E	Thinly banded mix of ~30-40% 4B layers <1cm thick, ~40% m.g. 4E layers, most <6mm wide, a few up to 4 cm, ~20% 4E-4EA - yellow, m.g. to c.g. garnet-grunerite layers to 5cm, and minor 4F layers <1cm wide intercalated with 4B. Contacts gradational over 1m	and somewhat arbitrary.N o major qtz flooding or Po.F OLIATION/BANDING: Relatively regular except where folded. Between 58 and 63 deg to CA, avg 61.F OLDS: Several well developed Z folds, assuming banding is upright. Axes ~parallel to fol'n/banding.	275.22	285.00	4B											
E228495	276.10	277.00	0.90																	
E228496	277.00	278.00	0.01																	
E228497	278.00	279.00	0.01																	
E228498	279.00	280.00	0.07																	
E228499	280.00	281.00	0.05																	
E228500	281.00	282.00	0.01																	
E229001	282.00	283.00	0.03																	
E229002	283.00	284.00	0.45																	
E229003	284.00	285.00	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E229004	285.00	286.00	0.04	285.00	306.25	4B	Generally well bedded interval of thin 4B magnetic chert layers <1cm thick, separated by <1cm thick layers of m.g. 4F and lesser 4E. Local intervals <50cm long of 60-70% c.g. 4E-4EA overprinting (?) other units. 4F forms a few discrete bands up to 30cm.	Upper contact is gradational over 1 m and ~subjective, lower one ~obscured by garnet growth over ~20-30cm. FOLIATION/BANDING: Fairly regular at 66-68 deg to CA throughout.F OLDS: 2 crude drag folds, possible S type but very uncertain.MINERALIZATION: A	285.00	306.25	4F										
E229005	286.00	287.00	0.38																	
E229006	287.00	288.00	0.02																	
E229007	288.00	289.00	0.01																	
E229008	289.00	289.95	0.02																	
E229009	289.95	291.00	0.01																	
E229010	291.00	292.00	0.11																	
E229011	292.00	293.00	0.70																	
E229012	293.00	294.00	0.05																	
E229013	294.00	295.00	0.02																	
E229014	295.00	296.00	0.30																	
E229015	296.00	297.00	2.70																	
E229016	297.00	298.15	0.60																	
E229017	298.15	298.65	0.21																	
E229018	298.65	299.46	0.11																	
E229019	299.46	300.80	0.09																	
E229020	300.80	302.10	0.10																	
E229021	302.10	302.85	0.23																	
E229022	302.85	304.00	1.25																	
E229023	304.00	305.00	8.25																	
E229024	305.00	306.25	4.21																	
E229025	306.25	307.00	0.02	306.25	309.75	2	F.g., hard, light-medium grey-green mafic volcanic. No obvious bedding or other volcaninc features. Unit is weakly to moderately alt'd to biotite and moderately foliated. Several 1-3cm qtz veins but no significant Po. Lower margin sheared for 60 cm at 58	deg to CA and cut by several broken up qtz veins ~1-2cm wide over last 15cm.FOLIATION: 68-72 deg to CA.												

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E229026	307.00	307.75	0.02																	
E229027	308.50	309.25	0.03																	
E229028	309.25	309.75	0.03																	
E229029	309.75	310.50	0.28	309.75	320.91	4B	Generally well banded 4B with ~20-40% thin interbedded 4F and 5% 4E layers <1cm thick in upper few metres. Chert beds are commonly 1-2cm thick, locally 2-4 mm. Magnetite layers similar 2mm to 1 cm range. Broad bands of m.g. 4EA-4A in upper 1-2m. Lower co	ntact sharp at 68 deg to CA, upper one obscured by 20-30cm of garnet growth.F OLIATION/BANDING: 62 deg to CA at 310m, 63 at 317, 57 at 320, 68 at 320.9m.F OLDS: No drag folds but one shear bands shows offset of east side down (assuming bands are upright)														
E229030	310.50	311.40	0.09																	
E229031	311.40	312.00	0.39																	
E229032	312.00	313.00	7.87																	
E229033	313.00	313.58	0.28																	
E229034	313.58	314.80	2.27																	
E229035	314.80	316.00	0.66																	
E229036	316.00	317.00	2.39																	
E229037	317.00	318.00	0.73																	
E229038	318.00	318.75	0.04																	
E229039	318.75	319.20	0.23																	
E229040	319.20	319.55	0.03																	
E229041	319.55	320.34	0.06																	
E229042	320.34	320.91	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E229043	320.91	321.50	0.01	320.91	340.85	2	Typical light-medium grey-green, f.g. basalt. Biotite alt'n and foliation vary from weak to moderate mostly but is strong from 333-339m. No significant veining, Po, or other alt'n evident. Upper contact sharp at 68 deg TCA, lower one in 10cm of rubble. S	mall horizon of 4B from 331.93-332.35m, lightly folded at 64 deg to CA. Minor patch of Po in the 4B fold core. Adjacent basalt is quite pale, prob. spilitized. Core is badly broken from 324-327 and 333-339m.F OLIATION: 58 deg to CA at 324 & 332, 52 at 33													
E229044	321.50	322.00	0.01																	
				340.85	343.20	1	Light yellow-grey green, f.g., fairly homogeneous unit of serpentinized ultramafic flow. Consists largely of f.g. light to dark gey-green serpentine and talc now. No talc porphyroblasts though. Lower contact sharp at 38 deg TCA.F oliation vague at about	66 deg tca.												
				343.20	349.48	2	Mainly light-medium grey-green, f.g., weakly foliated basalt. Only minor biotite alt'n, ~5% calcite veins up to 8 cm wide. One section ~1.5 m wide is pale green and more greasy, possibly a high Mg or ultramafic flow but not serpentinized like flow above.	F OLIATION: Weak, approx. 53 deg to CA.												
E229045	348.50	349.00	0.01																	
E229046	349.00	349.48	0.01																	
E229047	349.48	350.40	0.41	349.48	369.78	4B	Very thinly laminated 4B, chert and magnetite layers often ~1mm thick. Some chert layers are very light yellow, possibly contain minor v.f.g. grunerite. No significant amph, gar, biotite,or other silicate layers. Banding is fairly consistent and regular	for the most part but there are some zones of intense folding and moderate transposition, e.g. 354.7-356.4. L ower contact very sharp at 60 deg tca, slightly deformed. B ANDING: 60 deg tca at 350.5m, 42 at 351.5, 48 at 352.5m, 55 at 357, 40 at 358, 60 at												

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E229048	350.40	351.30	0.11																	
E229049	351.30	352.00	0.02																	
E229050	352.00	353.00	0.14																	
E229051	353.00	354.00	0.02																	
E229052	354.00	355.00	0.03																	
E229053	355.00	356.00	0.01																	
E229054	356.00	357.00	0.01																	
E229055	357.00	358.00	0.04																	
E229056	358.00	358.70	0.01																	
E229057	358.70	360.00	0.53																	
E229058	360.00	361.00	0.03																	
E229059	361.00	362.00	0.17																	
E229060	362.00	363.00	0.02																	
E229061	363.00	364.00	0.08																	
E229062	364.00	365.00	0.07																	
E229063	365.00	366.00	0.01																	
E229064	366.00	367.00	0.02																	
E229065	367.00	368.00	0.03																	
E229066	368.00	369.00	0.02																	
E229067	369.00	369.78	0.01																	
E229068	369.78	370.78	0.02	369.78	377.27	2	Upper 1/2 is pale green, ~massive mafic to ultramafic volcanic; not strongly serpentinized but slightly greasy, prob hi % v.f.g. actinolite, poss serpentine too. Lower 1/2 is more typical medium brownish-grey-green mafic volcanic with weak-moderate bioti	te alt'n and foliation. Contacts are sharp, upper one at 60 deg tca, lower one at 41 deg tca and ~deformed. Only a few minor qtz veins, no sulphides.F OLIATION: 50 deg tca at 374m, 45 at 376m.													
E229069	376.27	377.27	0.02																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E229070	377.27	378.00	0.01	377.27	387.93	4B	Thinly laminated 4B with <1-5mm alternating bands of magnetite and light grey chert. The chert is locally light grey-yellow and may contain minor v.f.g. grunerite. Most of the banding in the BIF is quite regular but there are several very well developed	Z folds (assuming banding is upright) and 2 deformed, qtz-Po-green amph flooded zones - a minor one at 380.6-381m and a major zone from 384.97 to 387.93m.U pper contact sharp at 41 deg tca and ~deformed, lower one obscured by alt'n.B EDDING: 55 deg to C											
E229071	378.00	379.00	0.02																	
E229072	379.00	380.00	0.02																	
E229073	380.00	381.00	0.04																	
E229074	381.00	382.00	0.02																	
E229075	382.00	383.00	0.01																	
E229076	383.00	384.00	0.03																	
E229077	384.00	384.97	0.02																	
E229078	384.97	385.50	0.08																	
E229079	385.50	386.27	0.07																	
E229080	386.27	387.00	0.06																	
E229081	387.00	387.50	0.03																	
E229082	387.50	387.93	0.08																	
E229083	387.93	389.17	0.02	387.93	399.00	2	Mafic volcanic. Weak-moderate fol'n and biotite alt'n. Several small shear zones up to 40cm with Po and qtz veining. One late fracture at 20 deg tca ined with 1-2mm of Cp. One 10cm band of 4B with 3-5% Poat 393-393.1m.E nd of Hole at 399m (drillers metre	blocks still off by 3m since 93m, corrected by JB).											
E229084	389.17	389.70	0.04																	
E229085	389.70	390.90	0.01																	
E229086	390.90	392.00	0.02																	
E229087	392.00	393.00	0.04																	
E229088	393.00	393.80	0.03																	
E229089	393.80	394.50	0.02																	

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py %	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	18.20	CASI																																		
18.20	169.00	3F																																		
								5											152.60	153.10	50		S1													
								0.1																													
								4		Several Py veins/frax fillings to 1 cm.																												
								0.1											155.00	156.00	61		S1													
								1																													
								0.1																													
								0.2																													
								4		Uncertain.									160.00	160.80	62		S1													
								5		Appears to be pervasive sil'n.																												
								0.3		Many small veins, <1-2cm, sheared out.																												
																			168.40	169.00	68		S1													
169.00	170.70	4E					0.3	0.4											169.00	169.80	68		S1													
							0.5												169.80	170.70	69		S1													
170.70	182.37	2																																		
							0.2	4																													
182.37	184.30	4EA					0.2												182.37	183.00	63		S1													
							0.5																														
184.30	226.17	2																																		
																			189.70	190.23	60		S1													
							6.0																														
																			191.65	192.40	58		S1													

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							0.3																												
							2.0												225.50	228.17	58		S1													
226.17	230.10	4EA					0.5												226.17	227.00	62		S1												
							0.7												227.00	228.00	68		S1												
							0.3																												
							1.5																												
230.10	245.05	4F																	231.00	232.00	53		S1												
																			232.00	233.00	53		S1												
																			237.00	238.00	82		S1												
																			238.00	239.00	61		S1												
																			241.30	242.60	52		S1												
																			243.41	244.55	45		S1												
245.05	254.00	4EA					1.0																												
							0.3												247.00	248.00	38		S1												
							0.1																												
							0.5																												
							0.7		6																										
							0.7																												
							0.7												252.00	253.00	39		S1												
254.00	275.22	4F																																	
																			256.00	257.00	66		S1												
																			258.00	259.00	60		S1												

STRUCTURAL LOG 03-ESN-017

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			260.00	261.00	63		S1													
																			261.00	262.00	50		S1													
							0.1												265.70	267.00	71		S1													
																			267.00	268.00	41		S1													
																			268.00	269.00	63		S1													
																			269.00	270.00	80		S1													
																			271.00	272.00	63		S1													
																			273.00	274.00	62		S1													
																			274.00	275.22	57		S1													
275.22	285.00	4E																	276.10	277.00	61		S1													
																			278.00	279.00	62		S1													
																			281.00	282.00	58		S1													
							0.1												284.00	285.00	63		S1													
285.00	306.25	4B																																	
							0.1																													
							0.3																													
							0.1												291.00	292.00	67		S1													
							0.1																													
																			294.00	295.00	66		S1													
							0.1												296.00	297.00	67		S1													
							0.2																													
							0.2												298.65	299.46	68		S1													
							2.0																													

STRUCTURAL LOG 03-ESN-017

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			304.00	305.00	68		S1													
306.25	309.75	2																	306.25	307.00	68		S1													
																			309.25	309.75	58		S1													
309.75	320.91	4B																	309.75	310.50	62		S1													
							6.0																														
							2.0												316.00	317.00	63		S1													
							7.0																														
							15.												320.34	320.91	68		S1													
320.91	340.85	2																																		
340.85	343.20	1																																		
343.20	349.48	2																																		
349.48	369.78	4B					1.0																													
																			351.30	352.00	42		S1													
																			352.00	353.00	48		S1													
																			353.00	354.00	35		S1													
																			354.00	355.00	52		S1													
																			356.00	357.00	50		S1													
																			357.00	358.00	47		S1													
																			358.00	358.70	40		S1													
							6.0																														
							1.0																														
																			363.00	364.00	60		S1													
																			365.00	366.00	63		S1													

STRUCTURAL LOG 03-ESN-017

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			366.00	367.00	60		S1													
369.78	377.27	2																																	
377.27	387.93	4B																	377.27	378.00	55		S1													
																			378.00	379.00	61		S1													
																			379.00	380.00	62		S1													
																			382.00	383.00	57		S1													
							0.1																													
							3.0																													
							2.0																													
							0.2																													
							0.1																													
							7.0																													
387.93	399.00	2					8.0												387.93	389.17	41		S1													
							1.5																													
							2.0																													
							2.0																													

Appendix VI

Diamond Drill Logs – 2004

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESK-001**

Project Code: ESK

Mine Grid Easting: 8750.6992
Mine Grid Northing: 12449.9163
Elevation: 5296.676

UTM East 676379.978
UTM North: 5834345.216

Planned Depth: 230
Actual Depth: 312

Drill Start Date: 27/02/2004
Drill End Date: 29/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESK
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	88.79	-74.96	MAXI
3	88.77	-74.79	MAXI
6	88.78	-74.48	MAXI
9	89.06	-74.15	MAXI
12	89.01	-73.92	MAXI
15	88.93	-73.8	MAXI
18	89.01	-73.81	MAXI
21	89.13	-73.81	MAXI
24	89.34	-73.81	MAXI
27	89.48	-73.8	MAXI
30	89.53	-73.78	MAXI
33	89.61	-73.76	MAXI
36	89.68	-73.74	MAXI
39	89.99	-73.74	MAXI
42	89.98	-73.72	MAXI
45	89.95	-73.71	MAXI
48	90.19	-73.74	MAXI
51	90.2	-73.74	MAXI
54	90.3	-73.74	MAXI
57	90.34	-73.76	MAXI
60	90.25	-73.74	MAXI
63	90.38	-73.75	MAXI
66	90.45	-73.76	MAXI
69	90.49	-73.77	MAXI
72	90.51	-73.72	MAXI
75	90.64	-73.67	MAXI
78	90.69	-73.63	MAXI
81	90.77	-73.62	MAXI
84	90.73	-73.6	MAXI
87	90.83	-73.58	MAXI
90	90.92	-73.55	MAXI
93	91.01	-73.52	MAXI
96	91.11	-73.51	MAXI
99	91.18	-73.5	MAXI
102	91.23	-73.54	MAXI
105	91.4	-73.54	MAXI
108	91.46	-73.53	MAXI
111	91.6	-73.5	MAXI
114	91.67	-73.46	MAXI
117	91.64	-73.43	MAXI
120	91.68	-73.41	MAXI
123	91.66	-73.39	MAXI
126	91.59	-73.39	MAXI
129	91.61	-73.4	MAXI
132	91.73	-73.41	MAXI
135	91.76	-73.4	MAXI
138	91.81	-73.37	MAXI
141	91.88	-73.37	MAXI
144	91.94	-73.34	MAXI
147	92.07	-73.33	MAXI
150	92.12	-73.26	MAXI
153	92.09	-73.21	MAXI
156	92.01	-73.18	MAXI
159	92.08	-73.14	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESK-001**

Project Code: ESK

Mine Grid Easting: 8750.6992
Mine Grid Northing: 12449.9163
Elevation: 5296.676

UTM East 676379.978
UTM North: 5834345.216

Planned Depth: 230
Actual Depth: 312

Drill Start Date: 27/02/2004
Drill End Date: 29/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESK
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	92.16	-73.1	MAXI
165	92.12	-73.08	MAXI
168	92.24	-73.08	MAXI
171	92.38	-73.07	MAXI
174	92.47	-73.07	MAXI
177	92.45	-73.05	MAXI
180	92.43	-73.04	MAXI
183	92.54	-73.05	MAXI
186	92.46	-73.06	MAXI
189	92.36	-73.09	MAXI
192	92.41	-73.11	MAXI
195	92.46	-73.09	MAXI
198	92.6	-73.05	MAXI
201	92.61	-72.99	MAXI
204	92.35	-72.95	MAXI
207	92.43	-72.95	MAXI
210	92.5	-72.96	MAXI
213	92.42	-72.99	MAXI
216	92.34	-73	MAXI
219	92.36	-73.02	MAXI
222	92.39	-73.01	MAXI
225	92.34	-72.99	MAXI
228	92.27	-72.98	MAXI
231	92.38	-72.99	MAXI
234	92.4	-72.99	MAXI
237	92.48	-72.96	MAXI
240	92.38	-72.98	MAXI
243	92.43	-72.98	MAXI
246	92.66	-72.95	MAXI
249	92.59	-72.98	MAXI
252	92.64	-72.99	MAXI
255	92.82	-72.97	MAXI
258	92.8	-72.97	MAXI
261	92.85	-72.97	MAXI
264	92.91	-72.97	MAXI
267	92.96	-72.97	MAXI
270	93.02	-72.97	MAXI
273	93.07	-72.97	MAXI
276	93.12	-72.97	MAXI
279	93.18	-72.97	MAXI
282	93.23	-72.97	MAXI
285	93.29	-72.97	MAXI
288	93.34	-72.97	MAXI
291	93.4	-72.97	MAXI
294	93.45	-72.97	MAXI
297	93.51	-72.97	MAXI
300	93.56	-72.97	MAXI
303	93.62	-72.97	MAXI
306	93.67	-72.97	MAXI
309	93.73	-72.97	MAXI
312	93.78	-72.97	MAXI

LITHOLOGY LOG 04-ESK-001

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
				0.00	17.50	CASIN			68.00	69.00	4F	Intermediate tuffs here have a significant bio-(c.g Gar) component, probably was mixed tuff-sediment horizon.		M				S	S	
				17.50	48.00	2	Medium gray mafic volcanic with weak to moderate foliation and streaky biotite alteration (?). Most is aphyric and probably was a flow, lower part is is either Fd-phyric flow or a Fd-crystal tuff.	No obvious pillows. Lower part grades into a flow breccia/possible hyaloclastite.	80.00	90.00	4F	Intermediate tuffs here are well bedded and have a significant bio-(c.g Gar) component and locally abndant f.g. staurolite, probably was mixed tuff-sediment horizon.								
				48.00	49.50	2D	Possible basaltic hyaloclastite. Approx 80% light gray, bleached, very irregular fragments up to 4cm thick in a f.g. biotitic to basaltic matrix.													
				49.50	68.00	3C	Light beige-gray, well foliated, intermediate ash tuff with a local ~10% 1-2mm Fd-crystal component. Consists of ~30-40% f.g. anhedral malic minerals and ~50% Fd-(qtz) overprinted by 5-10% f.g. biotite flakes.													
				68.00	96.20	3C	Light to medium gray, well foliated and faintly banded intermediate waterlain ash tuff with locally abundant, up to 10-15%, Fd-crystals <2mm.	Several more sedimentary sections with 30-40% f.g. bio, bordering on 4F or "6", often with 20-30% f.g. staurolite and 2-3% c.g. anhedral garnets.												
				96.20	97.00	4E	Quite homogeneous, non-banded, atypical 4E. Consists of ~10-15% c.g., ragged garnets in f.g. dark green, melanocratic amphibolite. Unit is moderately magnetic,													
				97.00	129.00	2	Medium-dark gray, quite f.g., intermediate to matic volcanic. Hard to see composition due to fine grain size but appears to be ~30-40% matics and 60% plag with minor biotite alteration concentrated in diffuse bands.	No obvious volcanic features, major shears or veins.												
				129.00	152.00	3C	Well foliated, medium gray-beige, fairly homogeneous unit of intermediate ash tuff. Minor well bedded and biotitic sections which are probably more sedimentary. Minor more siliceous, felsic intervals.	Only one, fairly narrow, shear zone but no significant alteration or mineralization anywhere.												

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				152.00	231.70	3F	Well foliated, light beige to off-white, homogeneous section of felsic to intermediate, waterlain (?) ash tuff. Minor biotite above 170m, generally concentrated in bands <2cm wide, probably primary not alteration?.	Upper contact gradational over 30cm. Below 170m the unit is more massive and may be part flows. No major alteration, shears or mineralization. Trace Py laminae.												
E274001	195.80	196.80	0.02																	
E274002	196.80	197.80	0.04																	
E274003	197.80	198.70	0.07																	
E274004	198.70	199.10	0.02						203.00	207.00	4F	The felsic tuffs here have a sedimentary component, now metamorphosed into a coarser qtz-fd unit with ~30% f.g. to m.g. biotite, local zones of 15% c.g. garnets, and locally abundant sericite.								
E274005	231.00	231.70	0.00										W						S	
E274006	231.70	232.30	5.00	231.70	232.30	4E	Highly qtz veined section of 4E with ~60% qtz veins/floods, 7% Po bands up to 2cm wide, rest is green amphibolite with minor faint 4B layers and minor garnets.													
E274007	232.30	232.70	0.19	232.30	248.30	2	Mainly weakly foliated basalt, fresh to weakly biotitized, with 2 bands of 4E-(4EA) from 236.6-237.1m and ~241.7-242.2m plus a few shorter zones of 4B and qtz flooding.													
E274008	232.70	233.30	0.03																	
E274009	236.15	236.65	0.01																	
E274011	236.65	237.10	0.13						236.65	237.10	4E	Appears to be a thinly banded 4B and dark green amphibolite (Fe-silicate) unit ~70% overprinted by c.g. garnets with minor interstitial biotite and qtz veining.							W	
E274012	237.10	237.60	0.01																	
E274013	240.80	241.40	0.19																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274014	241.40	242.40	0.37						241.40	242.20	4F	Mixed section with a central 20 cm of c.g. 4EA flanked by 0-10cm of 4E and then 4F gradining outwards into 6. Highly magnetic, presumably a faint relic 4B component too.	W			W			W	
E274015	242.40	242.70	0.02																	
E274016	247.60	248.40	0.03	248.30	249.50	4E	Highly qtz flooded section of original laminated 4B-amphibolite now altered to 20% c.g. garnets with interstitial pale yellow-green amph and streaky bands of pale and dark green amph.													
E274017	248.40	249.50	5.57													W			S	
E274018	249.50	250.00	0.09	249.50	253.00	2T	Well foliated, moderately-strongly biotitized mafic volcanic, almost all mafic minerals destroyed and overprinted by ~20-40% biotite flakes <2mm.	Unit is coarser and more irregular looking than typical unit 6.												
				253.00	256.55	2	Fairly homogeneous and massive basalt. No significant alteration.													
E274019	256.00	256.55	0.03																	
E274021	256.55	257.30	16.05	256.55	258.15	4EA	Fairly well developed 4EA, moderately magnetic, minor 4B layers. Moderately contorted, quartz flooded and mineralized with Po.									W			M	
E274022	257.30	258.15	2.44																	
E274023	258.15	259.15	0.07	258.15	260.00	2	Varies from fairly fresh to strongly biotitized and qtz-Cc veined.													
E274024	259.15	260.00	0.02																M	
E274025	260.00	260.80	0.42	260.00	260.80	4E	Mixed section of poorly developed 4E with ~20-30% weak 4F, minor weak 4EA, and lesser mafic volcanics.													
E274026	260.80	261.60	0.02	260.80	264.00	6	Light gray-beige, very homogeneous, eqyuigranular, non-banded, well foliated unit composed of ~20-30% very f.g. biotite in a Fd>Qtz matrix.. No amphibole.	Grades into 4F for upper 50cm and within 30cm at base. Significantly finer grained and more uniform than the 2T.												

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E274027	263.50	264.00	0.02																	
E274028	264.00	264.80	0.05	264.00	265.80	4F	Fairly typical 4F with ~20-40% garnets 1-3mm in f.g. biotite dominant matrix (~20-30% f.g. Fd-Qtz too). No c.g. garnets or biotite. Lower 30cm has several interbedded 4B layers.													
E274029	264.80	265.80	0.16																	
E274031	265.80	266.40	5.45	265.80	276.00	4EA	Moderately developed 4EA in terms of gar-grunerite size and % but only weak local qtz flooding and trace Po. Still ~20-30% 4B layers and minor 4E.												W	
E274032	266.40	267.00	3.18																W	
E274033	267.00	268.00	2.28																	
E274034	268.00	269.00	0.16																	
E274035	269.00	270.00	0.58																	
E274036	270.00	271.00	0.41																	
E274037	271.00	272.00	1.25																	
E274038	272.00	273.00	0.03																	
E274039	273.00	274.00	0.09																	
E274041	274.00	275.00	0.04																	
E274042	275.00	276.00	0.08																W	
E274043	276.00	277.00	0.02	276.00	280.30	4EA	Weakly developed 4EA. Fairly pervasive f.g. grunerite but garnets are m.g., faint and only ~20-30%. Only local qtz flooding, trace Po.	Straight banded, no major deformation. Lower contact gradational over 30cm.												
E274044	277.00	278.00	0.07																	
E274045	278.00	279.00	0.83																	
E274046	279.00	279.70	1.30																	
E274047	279.70	280.30	1.26																	
E274048	280.30	281.00	3.12	280.30	302.10	4B	Thinly to thickly (2-3cm) banded black-white magnetite-chert BIF. Upper part is fairly clean and straight banded, highly distorted below 286m.	Moderate grunerite formation from 286-287.7m. Becomes whiter and chertier below 300m with a 15-20cm 4H layer.												
E274049	281.00	282.00	2.34																	
E274051	282.00	283.00	0.20																	
E274052	283.00	284.00	0.34																	
E274053	284.00	285.00	0.32																	
E274054	285.00	286.00	0.06																	
E274055	286.00	286.60	0.20																	
E274056	286.60	287.70	0.10										W			M				

LITHOLOGY LOG 04-ESK-001

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274057	287.70	288.80	0.09										M							
E274058	288.80	290.00	0.04																	
E274059	290.00	291.00	0.25																	
E274061	291.00	292.00	0.41																	
E274062	292.00	292.80	1.40																	
E274063	292.80	293.50	1.51																S	
E274064	293.50	294.50	0.11																	
E274065	294.50	295.50	0.17																	
E274066	295.50	296.50	0.06																	
E274067	296.50	297.50	0.05																	
E274068	297.50	298.50	0.02																	
E274069	298.50	299.50	0.05																	
E274071	299.50	300.60	0.11																S	
E274072	300.60	301.60	0.31																	
E274073	301.60	302.10	0.15																	
E274074	302.10	302.60	0.01	302.10	312.00	2T	Moderately to strongly bio'd, wel foliated, medium greenish-gray mafic volcanic. No major veins, faulyts or other alteration.						M							

STRUCTURAL LOG 04-ESK-001

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	17.50	CASI	32																23.00	24.00	33	MO	S1		188.00	189.00	65	INT	FD		49.50	51.00	33	WEK	SC	
17.50	48.00	2																	33.00	35.00	35	WE	S1								138.00	139.10	51	INT	SC	Highly sericitized and qtz-Cc veined but no sulphides.
48.00	49.50	2D																	45.00	46.00	45	WE	S1													
49.50	68.00	3C																	49.50	51.00	33	MO	S2													
68.00	96.20	3C																	51.00	52.00	45	MO	S1													
96.20	97.00	4E																	54.00	56.00	52	MO	S1													
97.00	129.00	2																	63.00	64.00	37	MO	S1													
129.00	152.00	3C																	67.00	68.00	38	MO	S1													
152.00	231.70	3F																	72.00	75.00	38	MO	S1													
																			81.00	82.00	45	MO	S1													
																			87.00	91.00	44	MO	S1													
																			102.00	103.00	35	MO	S1													
																			111.00	112.00	31	WE	S1													
																			117.00	118.00	34	WE	S1													
																			123.00	124.00	32	WE	S1													
																			134.00	135.00	33	WE	S1													
																			141.00	142.00	38	WE	S1													
																			147.00	148.00	34	WE	S1													
																			159.00	160.00	33	WE	S1													
																			165.00	166.00	38	WE	S1													
																			171.00	172.00	42	WE	S1													
																			180.00	182.00	45	WE	S1													
																			192.00	193.00	36	WE	S1													
								0.3		Mainly as 2 frax fillings 2mm thick.																												
								0.3																												
								6		Numerous thin laminae of Py plus irreg newtork veins.																												
																			201.00	202.00	37	WE	S1													
																			203.00	205.00	52	MO	S2													
																			211.00	212.00	42	MO	S1													
																			219.00	220.00	36	MO	S1													
							6.0																													
231.70	232.30	4E																																		
232.30	248.30	2																																		
					0.1																															
			49				0.1												237.00	239.00	45	MO	S1													
			65																																	

STRUCTURAL LOG 04-ESK-001

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							0.2																													
																			245.00	247.00	38	MO	S1													
248.30	249.50	4E	33																																
							0.5																													
249.50	253.00	2T																																	
253.00	256.55	2																	252.00	253.00	45	MO	S1												
256.55	258.15	4EA	57				3.0																												
							0.2												258.00	259.00	53	MO	S1												
258.15	260.00	2																	259.00	261.00	38	MO	S1												
							0.1																													
260.00	260.80	4E																																	
260.80	264.00	6	38																																
																			264.00	265.00	33	MO	S1												
264.00	265.80	4F																	265.00	266.00	52		S0												
265.80	276.00	4EA					0.1																												
276.00	280.30	4EA					0.1																												
							0.1				277.00	278.00	QZ	20	m	D			277.00	278.00	37		S0												
											278.00	279.00	QZ	25																					
											279.00	280.00	QZ	12																					
280.30	302.10	4B									280.30	283.00	QZ	5																					
																			282.00	283.00	44		S0												
							0.1																													
																			285.00	286.00	59		S0		285.00	286.00	38	MO	ZF						
							0.1																													

STRUCTURAL LOG 04-ESK-001

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																									288.00	289.00	36	INT	ZF							
				0.1															292.00	292.10	53		S0													
				0.1																															
							1.0																													
				0.1																															
							0.3																													
							0.1												300.00	301.00	35		S0													
							20.																													
							0.3																													
302.10	312.00	2T	45																306.00	307.00	59	MO	S1													
																			311.00	312.00	45	MO	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESK-002**

Project Code: ESK

Mine Grid Easting: 8798.2356
Mine Grid Northing: 12549.923
Elevation: 5296.6567

UTM East 676346.253
UTM North: 5834451.774

Planned Depth: 140
Actual Depth: 320

Drill Start Date: 07/03/2004
Drill End Date: 12/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESK
Target 2: ESK
Target 3: ESK

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	93.749	-55.488	SURV
3	93.53	-55.5	MAXI
6	93.77	-55.26	MAXI
9	93.75	-55.74	MAXI
12	93.76	-56.25	MAXI
15	93.79	-55.91	MAXI
18	93.42	-55.93	MAXI
21	93.36	-55.92	MAXI
24	93.39	-55.75	MAXI
27	93.44	-55.54	MAXI
30	93.5	-55.5	MAXI
33	93.57	-55.51	MAXI
36	93.58	-55.51	MAXI
39	93.6	-55.49	MAXI
42	93.59	-55.46	MAXI
45	93.59	-55.43	MAXI
48	93.63	-55.42	MAXI
51	93.64	-55.4	MAXI
54	93.67	-55.38	MAXI
57	93.71	-55.35	MAXI
60	93.69	-55.34	MAXI
63	93.69	-55.34	MAXI
66	93.75	-55.31	MAXI
69	93.73	-55.28	MAXI
72	93.68	-55.27	MAXI
75	93.74	-55.26	MAXI
78	93.76	-55.25	MAXI
81	93.78	-55.23	MAXI
84	93.83	-55.2	MAXI
87	93.88	-55.15	MAXI
90	93.89	-55.09	MAXI
93	93.93	-55.04	MAXI
96	93.99	-55.01	MAXI
99	93.97	-54.98	MAXI
102	94.01	-54.94	MAXI
105	94.07	-54.91	MAXI
108	94.08	-54.89	MAXI
111	94.13	-54.86	MAXI
114	94.19	-54.81	MAXI
117	94.17	-54.77	MAXI
120	94.21	-54.73	MAXI
123	94.24	-54.7	MAXI
126	94.23	-54.68	MAXI
129	94.29	-54.66	MAXI
132	94.3	-54.63	MAXI
135	94.29	-54.61	MAXI
138	94.36	-54.6	MAXI
141	94.35	-54.58	MAXI
144	94.4	-54.55	MAXI
147	94.36	-54.56	MAXI
150	94.42	-54.52	MAXI
153	94.47	-54.5	MAXI
156	94.49	-54.49	MAXI
159	94.6	-54.46	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESK-002**

Project Code: ESK

Mine Grid Easting: 8798.2356
Mine Grid Northing: 12549.923
Elevation: 5296.6567

UTM East 676346.253
UTM North: 5834451.774

Planned Depth: 140
Actual Depth: 320

Drill Start Date: 07/03/2004
Drill End Date: 12/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESK
Target 2: ESK
Target 3: ESK

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	94.66	-54.44	MAXI
165	94.69	-54.43	MAXI
168	94.67	-54.4	MAXI
171	94.72	-54.34	MAXI
174	94.71	-54.27	MAXI
177	94.7	-54.22	MAXI
180	94.75	-54.19	MAXI
183	94.79	-54.18	MAXI
186	94.94	-54.16	MAXI
189	94.94	-54.13	MAXI
192	94.97	-54.11	MAXI
195	94.98	-54.13	MAXI
198	95.02	-54.1	MAXI
201	95.05	-54.07	MAXI
204	95.15	-54.03	MAXI
207	95.3	-54.03	MAXI
210	95.33	-53.98	MAXI
213	95.4	-53.87	MAXI
216	95.45	-53.79	MAXI
219	95.5	-53.78	MAXI
222	95.53	-53.8	MAXI
225	95.59	-53.76	MAXI
228	95.69	-53.71	MAXI
231	95.78	-53.65	MAXI
234	95.82	-53.62	MAXI
237	95.86	-53.6	MAXI
240	95.9	-53.57	MAXI
243	95.93	-53.54	MAXI
246	95.97	-53.51	MAXI
249	96.01	-53.48	MAXI
252	96.05	-53.46	MAXI
255	96.09	-53.43	MAXI
258	96.13	-53.4	MAXI
261	96.16	-53.39	MAXI
264	96.202	-53.352	MAXI
267	96.24018182	-53.32509091	MAXI
270	96.27836364	-53.29818182	MAXI
273	96.31654545	-53.27127273	MAXI
276	96.35472727	-53.24436364	MAXI
279	96.39290909	-53.21745455	MAXI
282	96.43109091	-53.19054545	MAXI
285	96.46927273	-53.16363636	MAXI
288	96.50745455	-53.13672727	MAXI
291	96.54563636	-53.10981818	MAXI
294	96.58381818	-53.08290909	MAXI
297	96.622	-53.056	MAXI
300	96.66018182	-53.02909091	MAXI
303	96.69836364	-53.00218182	MAXI
306	96.73654545	-52.97527273	MAXI
309	96.77472727	-52.94836364	MAXI
312	96.81290909	-52.92145455	MAXI
315	96.85109091	-52.89454545	MAXI
318	96.88927273	-52.86763636	MAXI

LITHOLOGY LOG 04-ESK-002

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	33.75	casing							W					M		
				33.75	120.65	3f	well foliated typical felsic/intermediate tuffs(?)						W					M		
E209838	119.80	120.65	0.11																	
E209839	120.65	121.45	0.14	120.65	122.25	2t	well foliated biotitic mafics with ,moderate carbonate alteration and a 2cm Po vein at top contact. Lower contact shows silicification.						M							
E209841	121.45	122.25	0.07																	
E209842	122.25	123.15	1.05	122.25	123.15	4f	mixed 80/20 4f/4e with very minor grunurite atleration. Could also be called a ery poorly developed 4ea.													
E209843	123.15	123.90	0.02	123.15	124.90	2t	farirly featureless moderately well foliated mafics with strong biotite alteration for first .5m and only minor biotite atleration for rest of unit.													
E209844	123.90	124.90	0.02																	
E209845	124.90	125.40	1.22	124.90	125.40	4ea	nice, well developed 4ea with both fine mm scale and larger 7mm garnets and minor Po mineralization.													
E209846	125.40	126.40	0.02	125.40	128.70	2t	well foliated very biotitic mafics with minor carbonate veinlets throughout.													
E209847	128.00	128.70	0.02																	
E209848	128.70	129.00	3.51	128.70	129.00	4ea	same 4ea unit as above.													
E209849	129.00	129.70	0.02	129.00	147.80	2t	moderately well foliated biotitic mafics.													
E209851	147.00	147.80	0.07																	
E209852	147.80	148.45	2.71	147.80	149.15	4ea	poorly to moderately well developed 4ea with only minor 5-10% .5-2cm garnets.						S	W						
E209853	148.45	149.15	3.09																	
E209854	149.15	150.00	0.68	149.15	153.75	2u	unit ranges from weak to strong biotite alteration, minor garnets scattered throughout and intermittent bands of pure green amphbiole makiing up 5% of unit.													
E209855	150.00	151.15	0.04																	
E209856	151.15	152.15	0.01																	
E209857	152.15	153.00	0.01																	
E209858	153.00	153.75	0.08																	
E209859	153.75	154.75	1.69	153.75	168.90	4f	Top 4m of unit increasing in amount of garnets unitl unit becomes well developed garnet biotitie schish with strong schistose texture. top of unit has patches of 4e in thick 10cm bnads. whole unit has 5% bands of chert scattered throughout.													

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E209861	154.75	155.75	0.05																	
E209862	155.75	156.75	0.02																	
E209863	156.75	157.75	0.01																	
E209864	157.75	158.75	0.05																	
E209865	158.75	159.75	0.04																	
E209866	159.75	160.75	0.02																	
E209867	160.75	161.75	0.17																	
E209868	161.75	162.75	0.05																	
E209869	162.75	163.75	0.14																	
E209871	163.75	164.75	0.15																	
E209872	164.75	165.75	0.48																	
E209873	165.75	166.75	0.31																	
E209874	166.75	167.75	0.12																	
E209875	167.75	168.90	0.22																	
E209876	168.90	169.90	0.15	168.90	175.40	4ea	well developed, well banded, weakly mineralized 4ea													
E209877	169.90	170.90	0.18																	
E209878	170.90	171.90	0.03																	
E209879	171.90	172.90	0.67																	
E209881	172.90	173.90	0.69																	
E209882	173.90	174.65	0.07																	
E209883	174.65	175.40	0.04																	
E209884	175.40	176.40	0.20	175.40	211.05	4f	well developed 4f with 10% bands of 4e and/or 4ea throughout.													
E209885	176.40	177.40	0.07																	
E209886	177.40	178.40	0.20																	
E209887	178.40	179.40	0.02																	
E209888	179.40	180.40	0.02																	
E209889	180.40	181.40	0.02																	
E209891	181.40	182.40	0.05																	
E209892	182.40	183.40	0.02																	
E209893	183.40	184.40	0.02																	
E209894	184.40	185.40	0.03																	
E209895	185.40	186.40	0.06																	
E209896	186.40	187.40	0.15																	
E209897	187.40	188.40	0.06																	
E209898	188.40	189.40	0.03						188.40	193.30	4ea									
E209899	189.40	190.40	0.20																	
E276001	190.40	191.40	1.26																	
E276002	191.40	192.40	0.08																	
E276003	192.40	193.40	0.15																	
E276004	193.40	194.40	0.05																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E276005	194.40	195.40	0.13																	
E276006	195.40	196.40	1.14										S							
E276007	196.40	197.40	0.02																	
E276008	197.40	198.40	0.03																	
E276009	198.40	199.40	0.01																	
E276011	199.40	200.40	0.02																	
E276012	200.40	201.40	0.01																	
E276013	201.40	202.25	0.01						202.00	204.00	4ea									
E276014	202.25	203.20	0.14																	
E276015	203.20	204.15	0.01																	
E276016	204.15	206.00	0.01																	
E276017	206.00	209.00	0.01																	
E276018	209.00	210.20	0.04																	
E276019	210.20	211.05	0.03																	
E276021	211.05	212.00	0.14	211.05	224.80	4b	well banded 4b with 15% bands of 4f mixed through. 15% bands of 4ea mixed through. core is very blocky						M	W	W	W				
E276022	212.00	213.00	0.02																	
E276023	213.00	214.00	0.02																	
E276024	214.00	215.00	0.03																	
E276025	215.00	216.00	2.01																	
E276026	216.00	217.00	0.09																	
E276027	217.00	218.00	0.13																	
E276028	218.00	219.00	0.89																	
E276029	219.00	220.00	0.05																	
E276031	220.00	221.00	1.33																	
E276032	221.00	222.00	3.39																	
E276033	222.00	223.00	0.47																	
E276034	223.00	224.00	15.73																	
E276035	224.00	224.80	8.27						224.20	224.80	4ea									
E276036	224.80	225.95	0.06	224.80	225.95	4f	well banded, well developed 4f with 5% chert bands mixed through.						S							
E276037	225.95	227.00	0.27	225.95	229.80	4b	very magnetic, thick 5cm bands of magnetite.						M	W						
E276038	227.00	228.00	0.22																	
E276039	228.00	229.00	0.45																	
E276041	229.00	229.80	0.40																	
E276042	229.80	230.90	0.08	229.80	230.90	4f	same 4f unit as above.						S M	W	W	S				
E276043	230.90	231.90	0.48	230.90	243.20	4ea	upper 5m poorly developed 4ea with 40% thick chert bands and 5% 4f bands. bolow 236 well developed 4ea.													

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E276044	231.90	232.90	0.68																	
E276045	232.90	233.90	0.12																	
E276046	233.90	234.90	0.35																	
E276047	234.90	235.90	2.50																	
E276048	235.90	236.90	0.71																	
E276049	236.90	237.90	1.26																	
E276051	237.90	238.90	0.74																	
E276052	238.90	239.90	0.06																	
E276053	239.90	240.90	0.07																	
E276054	240.90	241.90	0.05																	
E276055	241.90	243.20	0.40																	
E276147	243.20	244.20	2.09	243.20	255.10	4b	well banded 4b with 5% 4f bands throughout. From 254-254.5 bands of graphibitc pyrite with small clasts brecciated 4b.							W		W				
E276148	244.20	245.20	1.34																	
E276149	245.20	246.20	0.44																	
E276151	246.20	247.20	0.86																	
E276152	247.20	248.20	0.31																	
E276153	248.20	248.85	0.17																	
E276154	248.85	249.60	0.08						248.85	249.50	4f									
E276155	249.60	250.60	0.15																	
E276156	250.60	251.60	0.15																	
E276157	251.60	252.60	0.40																	
E276158	252.60	253.60	0.20																	
E276159	253.60	254.60	0.22																	
E276161	254.60	255.10	0.05																	
E276162	255.10	256.10	0.02	255.10	271.90	2t	strongly biotitic well foliated mafics.						W	W						
E276163	270.90	271.90	0.02																	
E276164	271.90	272.90	0.13	271.90	280.95	4b	well laminated zebra rock style iron formation.							W		W				
E276165	272.90	273.90	0.13																	
E276166	273.90	274.90	0.26																	
E276167	274.90	275.90	0.02																	
E276168	275.90	276.90	0.15																	
E276169	276.90	277.90	0.07																	
E276171	277.90	278.90	0.02																	
E276172	278.90	279.90	0.02																	
E276173	279.90	280.90	0.26																	
E276174	280.90	281.90	0.01	280.95	286.90	2t	mildly biotitic almost amphibolite.						W							strong green amphibole.
E276175	281.90	282.90	0.02																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E276176	284.90	285.90	0.02																	
E276177	285.90	286.90	0.01																	
E276178	286.90	287.90	0.01	286.90	292.00	4b	zebra rock same as above unit.							W		W				
E276179	287.90	288.90	0.01																	
E276181	288.90	289.90	0.01																	
E276182	289.90	290.90	0.01																	
E276183	290.90	292.00	0.05																	
E276184	292.00	293.00	0.19	292.00	294.10	4B	coarser banding cm scale													
E276185	293.00	294.10	0.04																	
E276186	294.10	295.10	0.02	294.10	302.65	2	mod-well foliated													
E276187	295.10	296.10	0.01																	
E276188	300.65	301.65	0.01																	
E276189	301.65	302.65	0.04																	
E276191	302.65	303.50	0.03	302.65	304.20	4I	4i/4ch													
E276192	303.50	304.20	0.03																	
E276193	304.20	305.20	0.02	304.20	320.00	2	well foliated						M							
E276194	305.20	306.20	0.01																	

STRUCTURAL LOG 04-ESK-002

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	33.75	casin																	37.00	37.10	63	mod	s1													
33.75	120.65	3f																	47.00	47.10	53	MO	S1													
																			53.00	53.10	50	MO	S1													
																			65.00	65.10	58	MO	S1													
																			74.00	74.10	50	MO	S1													
																			80.00	80.10	54	MO	S1													
																			89.00	89.10	55	MO	S1													
																			98.00	98.10	55	mod	s1													
																			110.00	110.10	60	mod	s1													
																			120.00	120.10	60	mod	s1													
120.65	122.25	2t	54				2.0																													
122.25	123.15	4f	50																																	
123.15	124.90	2t	60																																	
124.90	125.40	4ea	50				1.0																													
125.40	128.70	2t	30																																	
128.70	129.00	4ea	60				1.0																													
129.00	147.80	2t	65																133.00	133.10	64	mod	s1													
																			143.00	143.10	60	mod	s1													
147.80	149.15	4ea	50				1.0																													
149.15	153.75	2u																																		
			56																																	
																			153.00	153.10	63	Int	s1													
153.75	168.90	4f	35																																	
																			160.00	160.10	40	int	s1													
																			166.00	166.10	60	Int	s1													

STRUCTURAL LOG 04-ESK-002

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
168.90	175.40	4ea	70				2.0																													
							0.5																													
175.40	211.05	4f	60																177.00	177.10	60	int	s1													
																									180.00	180.20	30		fd							
																			182.00	182.10	30	int	s1													
																									190.00	190.20	40		fd							
																									190.20	190.40	46		fd							
																			192.00	192.10	38	int	s1													
																			197.00	197.10	25	int	s1													
																			203.00	203.10	61	int	s1													

STRUCTURAL LOG 04-ESK-002

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																															204.15	222.00	50	mode	os	very blocky core, much of it missing, small 5cm bands of soft green gouge, late more brittle fault?
																			210.00	210.10	30	int	s1												
211.05	224.80	4b	45																																	
																			214.00	214.10	50	int	s1												
																			224.00	224.10	48	int	S1												
224.80	225.95	4f	50																																	
225.95	229.80	4b	53																																	
229.80	230.90	4f	47																																	
230.90	243.20	4ea	60				1.0												233.00	233.10	54	INT	s1												
							1.0																													
							2.0												239.00	239.10	42	int	s1								240.70	240.80	70		kl	clear clean fault with .5cm band of Po at contact.
																			241.00	241.10	28	int	s1												
243.20	255.10	4b	42																																	

STRUCTURAL LOG 04-ESK-002

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			246.20	248.30	58	int	s1													
							3.0																													
							1.0												251.00	251.10	45	int	s1													
							10.																													
255.10	271.90	2t	50																259.00	259.10	55	int	s1													
																			269.50	269.60	65	int	s1													
271.90	280.95	4b	78				3.0																													
																			276.00	276.10	70	int	s1													
																			280.00	280.10	85	int	s1		280.50	280.60	70		FD		280.90	281.00	58		kf	
280.95	286.90	2t	50																																	
286.90	292.00	4b	50																287.00	287.10	45	int	s1													
292.00	294.10	4B	65																293.50	293.60	65	MO	S1													
																			293.60	293.70	32	MO	S2													
294.10	302.65	2	70																												294.10	294.50	70	MOD	BC	
302.65	304.20	4l	50				10.																													

STRUCTURAL LOG 04-ESK-002

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
304.20	320.00	2	60																311.00	311.10	50	MO	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESK-003**

Project Code: ESK

Mine Grid Easting: 8748.1546
Mine Grid Northing: 12549.9816
Elevation: 5296.701

UTM East 676310.359
UTM North: 5834416.921

Planned Depth: 255
Actual Depth: 408

Drill Start Date: 02/03/2004
Drill End Date: 05/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESK
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	90.3527	-74.352	SURV
3	89.83	-74.1	MAXI
6	89.58	-73.69	MAXI
9	89.68	-73.27	MAXI
12	89.99	-73	MAXI
15	90.18	-72.95	MAXI
18	90.09	-72.92	MAXI
21	90.03	-72.86	MAXI
24	90.07	-72.93	MAXI
27	90.31	-73.05	MAXI
30	90.54	-73.02	MAXI
33	90.79	-72.97	MAXI
36	90.97	-72.95	MAXI
39	91.15	-72.94	MAXI
42	91.33	-72.93	MAXI
45	91.46	-72.93	MAXI
48	91.77	-72.91	MAXI
51	92	-72.89	MAXI
54	92.12	-72.89	MAXI
57	92.3	-72.88	MAXI
60	92.47	-72.82	MAXI
63	92.48	-72.79	MAXI
66	92.5	-72.74	MAXI
69	92.69	-72.72	MAXI
72	92.97	-72.68	MAXI
75	93.12	-72.64	MAXI
78	93.33	-72.61	MAXI
81	93.52	-72.58	MAXI
84	93.62	-72.55	MAXI
87	93.87	-72.52	MAXI
90	94.02	-72.5	MAXI
93	94.23	-72.46	MAXI
96	94.28	-72.4	MAXI
99	94.33	-72.41	MAXI
102	94.55	-72.39	MAXI
105	94.68	-72.38	MAXI
108	94.79	-72.38	MAXI
111	94.96	-72.36	MAXI
114	95.26	-72.35	MAXI
117	95.36	-72.36	MAXI
120	95.48	-72.39	MAXI
123	95.59	-72.38	MAXI
126	95.74	-72.39	MAXI
129	95.87	-72.42	MAXI
132	96.01	-72.41	MAXI
135	96.04	-72.39	MAXI
138	96.17	-72.39	MAXI
141	96.26	-72.37	MAXI
144	96.38	-72.37	MAXI
147	96.6	-72.39	MAXI
150	96.67	-72.38	MAXI
153	96.83	-72.36	MAXI
156	96.96	-72.36	MAXI
159	97.07	-72.38	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESK-003**

Project Code: ESK

Mine Grid Easting: 8748.1546
Mine Grid Northing: 12549.9816
Elevation: 5296.701

UTM East 676310.359
UTM North: 5834416.921

Planned Depth: 255
Actual Depth: 408

Drill Start Date: 02/03/2004
Drill End Date: 05/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESK
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	97.11	-72.37	MAXI
165	97.22	-72.37	MAXI
168	97.22	-72.4	MAXI
171	97.36	-72.4	MAXI
174	97.6	-72.43	MAXI
177	97.64	-72.42	MAXI
180	97.67	-72.45	MAXI
183	97.81	-72.45	MAXI
186	97.96	-72.42	MAXI
189	98.09	-72.43	MAXI
192	98.25	-72.46	MAXI
195	98.37	-72.47	MAXI
198	98.57	-72.49	MAXI
201	98.59	-72.54	MAXI
204	98.74	-72.54	MAXI
207	98.93	-72.55	MAXI
210	99.03	-72.53	MAXI
213	99.14	-72.53	MAXI
216	99.27	-72.53	MAXI
219	99.41	-72.49	MAXI
222	99.58	-72.51	MAXI
225	99.76	-72.49	MAXI
228	99.85	-72.43	MAXI
231	99.94	-72.42	MAXI
234	100.06	-72.38	MAXI
237	100.05	-72.35	MAXI
240	100.09	-72.31	MAXI
243	100.22	-72.29	MAXI
246	100.35	-72.29	MAXI
249	100.51	-72.31	MAXI
252	100.61	-72.27	MAXI
255	100.52	-72.23	MAXI
258	100.62	-72.18	MAXI
261	100.69	-72.15	MAXI
264	100.88	-72.13	MAXI
267	100.94	-72.1	MAXI
270	101.2	-72.08	MAXI
273	101.44	-72.02	MAXI
276	101.53	-71.95	MAXI
279	101.79	-71.92	MAXI
282	101.93	-71.91	MAXI
285	102.04	-71.89	MAXI
288	102.17	-71.84	MAXI
291	102.32	-71.79	MAXI
294	102.37	-71.73	MAXI
297	102.51	-71.66	MAXI
300	102.65	-71.6	MAXI
303	102.57	-71.54	MAXI
306	102.75	-71.5	MAXI
309	102.78	-71.45	MAXI
312	102.95	-71.4	MAXI
315	102.96	-71.33	MAXI
318	102.96	-71.31	MAXI
321	103.11	-71.27	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESK-003**

Project Code: ESK

Mine Grid Easting: 8748.1546
Mine Grid Northing: 12549.9816
Elevation: 5296.701

UTM East 676310.359
UTM North: 5834416.921

Planned Depth: 255
Actual Depth: 408

Drill Start Date: 02/03/2004
Drill End Date: 05/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESK
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
324	103.1	-71.24	MAXI
327	103.16	-71.21	MAXI
330	103.25	-71.19	MAXI
333	103.39	-71.15	MAXI
336	103.43	-71.12	MAXI
339	103.45	-71.07	MAXI
342	103.4	-71.03	MAXI
345	103.49	-70.99	MAXI
348	103.59	-70.93	MAXI
351	103.73	-70.88	MAXI
354	103.69	-70.84	MAXI
357	103.8	-70.78	MAXI
360	103.99	-70.74	MAXI
363	104.05	-70.69	MAXI
366	103.99	-70.67	MAXI
369	104.08	-70.58	MAXI
372	104.24	-70.54	MAXI
375	104.27	-70.51	MAXI
378	104.39	-70.5	MAXI
381	104.52	-70.47	MAXI
384	104.5	-70.46	MAXI
387	104.67	-70.44	MAXI
390	104.74	-70.41	MAXI
393	104.77	-70.39	MAXI
396	104.8	-70.37	MAXI
399	104.83	-70.35	MAXI
402	104.86	-70.33	MAXI
405	104.9	-70.32	MAXI

LITHOLOGY LOG 04-ESK-003

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	29.20	casing							M	M				W		
				29.20	89.50	3c	well foliated, biotitic intermediate tuff (?) with minor amphibole and minor calcite veinlets						M	M				W		
													S	M						
				89.50	120.00	3C	well foliated biotitic mafics with minor carbonate stringers and veinlets throughout. from 102-105.5 larger 3-5cm qtz/carb veins. Minor garnets, 1%, scattered throughout. Some garnets up to 1cm diam.	Minor, 5%, bands of green unit with amphibole intermixed thorughout					W	M					S	
													W	M				M		
				120.00	177.00	3f	increasing serecite alteration, well foliated felsic tuffs. No more amphibole visible.													
				177.00	220.30	3F	same unit as above. 214-219 flt zone, blocky core, small, 10cm, pieces of brecciated rock recemented w/ calcite.													
E269276	185.90	186.90	0.01																	
E269277	186.90	187.90	0.02																	
E269278	187.90	188.90	0.01																	
E269279	188.90	189.90	0.01																	
E269281	219.30	220.30	0.01																	
E269282	220.30	220.80	2.74	220.30	224.15	4E	mixed up unit of amphibole, biotite, and garnet. 10% large up to 1cm garnets. strong carbonate alteration.													
E269283	220.80	221.80	0.02																	
E269284	221.80	222.80	0.02																	
E269285	222.80	223.45	0.05																	
E269286	223.45	224.15	1.67																	
E269287	224.15	225.15	0.06	224.15	231.90	2t	well foliated, intensely biotitic mafics.		227.00	227.35	4E	minor garnets, but strong amphibole, qtz alteration and minor Po mineralization. Altered mafics?								
E269288	230.90	231.90	0.02																	
E269289	231.90	232.90	2.53	231.90	233.85	4ea	Well developed, mineralized 4ea. Only minor, 10%, garnets 4-7mm in diam.						S	W		M			S	
E269291	232.90	233.85	7.12																	
E269292	233.85	234.85	0.07	233.85	243.00	2t	well foliated, biotitic mafics.													
E269293	242.00	243.00	0.02																	
E269294	243.00	244.20	0.29	243.00	244.20	4ea	similar to above unit. Not as well mineralized.						S	W					M	
E269295	244.20	245.35	0.03	244.20	245.35	2u	well foliated, biotitic garnetiferous mafics iwth cm bands of pure amphibole.													
E269296	245.35	245.90	1.94	245.35	245.90	4f	mixed unit of 4f with bands of chert and minor bands of amphibole.													

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E269297	245.90	246.55	0.06	245.90	247.20	2t	moderately well foliated biotitzed mafics.													
E269298	246.55	247.20	0.02																	
E269299	247.20	248.20	0.08	247.20	250.15	4f	well foliated 4f. unit gradually builds from minor garnets up to 45% garnets with minor chert bands thoroughout.													
E269301	248.20	249.15	0.21																	
E269302	249.15	250.15	0.07																	
E269303	250.15	251.00	1.57	250.15	272.70	4ea	well developed 4ea with 25% chert/qtz bands. garnets range from fine mm scale to larger 1cm garnets. only weak Po mineralization.									M				
E269304	251.00	252.00	0.30																	
E269305	252.00	253.00	6.94																	
E269306	253.00	254.00	6.03																	
E269307	254.00	255.00	1.41																	
E269308	255.00	256.00	0.38																	
E269309	256.00	257.00	0.05																	
E269311	257.00	258.00	0.11																	
E269312	258.00	259.00	0.04																	
E269313	259.00	260.00	0.03																	
E269314	260.00	261.00	0.55																	
E269315	261.00	262.00	0.05																	
E269316	262.00	263.00	0.04																	
E269317	263.00	264.00	0.10																	
E269318	264.00	265.00	0.06																	
E269319	265.00	266.00	0.02																	
E269321	266.00	267.00	0.04																	
E269322	267.00	268.00	0.03																	
E269323	268.00	269.00	0.09																	
E269324	269.00	270.00	0.10																	
E269325	270.00	271.00	0.01																	
E269326	271.00	272.00	0.03																	
E269327	272.00	272.70	0.04																	
E269328	272.70	273.50	0.02	272.70	276.50	4b	poorly banded 4b with 25% 4f bands and minor qtz flooding.													
E269329	273.50	274.70	0.12																	
E269331	274.70	275.70	5.89																	
E269332	275.70	276.70	4.02	276.50	291.90	4b	well banded 4b with minor 10% 4f bands mixed throughout.													
E269333	276.70	277.70	2.46																	
E269334	277.70	278.70	0.04																	
E269335	278.70	279.70	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E269336	279.70	280.70	0.07																	
E269337	280.70	281.70	0.02																	
E269338	281.70	282.70	0.04																	
E269339	282.70	283.70	2.57																	
E269341	283.70	284.70	0.37																	
E269342	284.70	285.70	0.20																	
E269343	285.70	286.70	3.51																S	
E269344	286.70	287.70	6.74																	
E269345	287.70	288.70	0.48																	
E269346	288.70	289.70	0.50																	
E269347	289.70	290.70	0.46																	
E269348	290.70	291.90	0.12																	
E269349	291.90	292.90	0.02	291.90	297.90	2l	very well foliated biotitic mafics.													
E269351	296.90	297.90	0.01																	
E269352	297.90	298.90	0.10	297.90	315.00	4ch	very cherty unit with minor fine magnetite bands throughout. moderate gruni=urite and carbonate alteration ann small brecciated/Po viens. lower 5m has 5% cm bnads of green amphibole throughout and 10% 4l bands throughout.													
E269353	298.90	299.90	0.01																	
E269354	299.90	300.90	0.02																	
E269355	300.90	301.90	0.11																	
E269356	301.90	302.90	0.02																	
E269357	302.90	303.60	0.04																	
E269358	303.60	304.10	0.06																	
E269359	304.10	305.00	0.01																	
E269361	305.00	305.50	0.03																	
E269362	305.50	306.20	0.01																	
E269363	306.20	306.90	0.03																	
E269364	306.90	307.90	0.01																	
E269365	307.90	308.90	0.02																	
E269366	308.90	309.90	0.01																	
E269367	309.90	310.90	0.09																	
E269368	310.90	311.90	0.09																S	
E269369	311.90	312.90	0.20																	
E269371	312.90	313.90	0.12										W	W	W	M				
E269372	313.90	315.00	0.06																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E269373	315.00	316.00	0.13	315.00	364.20	4b	well banded 4b unit with minor 5% bands of 4f and minor thicker chert patches. Many of the chert bands are are broken and weakly rotated. lower end of unit has intensely folded areas													
E269374	316.00	317.00	0.11																	
E269375	317.00	318.00	0.16																	
E269376	318.00	319.00	0.04																	
E269377	319.00	320.00	0.09																	
E269378	320.00	321.00	0.22																	
E269379	321.00	322.00	0.58																	
E269381	322.00	323.00	0.11																	
E269382	323.00	324.00	0.24																	
E269383	324.00	325.00	0.05																	
E269384	325.00	326.00	0.04																	
E269385	326.00	327.00	0.22																	
E269386	327.00	328.00	0.03																	
E269387	328.00	329.00	0.06																	
E269388	329.00	330.00	0.08																	
E269389	330.00	331.00	0.20																	
E269391	331.00	332.00	0.07																	
E269392	332.00	333.00	0.03																	
E269393	333.00	334.00	0.14																	
E269394	334.00	335.00	0.12																	
E269395	335.00	336.00	0.16																	
E269396	336.00	337.00	0.09																	
E269397	337.00	338.00	0.09																	
E269398	338.00	339.00	0.14																	
E269399	339.00	340.00	0.41																	
E269401	340.00	341.00	0.08																	
E269402	341.00	342.00	0.17																	
E269403	342.00	343.00	0.74																	
E269404	343.00	344.00	0.17																	
E269405	344.00	345.00	0.24																	
E269406	345.00	346.00	0.48																	
E269407	346.00	347.00	0.13																	
E269408	347.00	348.00	0.05																	
E269409	348.00	349.00	0.25																	
E269411	349.00	350.00	14.90																	
E269412	350.00	351.00	0.12																	
E269413	351.00	352.00	0.07																	
E269414	352.00	353.00	0.15																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E269415	353.00	354.00	0.19																	
E269416	354.00	355.00	0.07																	
E269417	355.00	356.00	0.23																	
E269418	356.00	357.00	0.03																	
E269419	357.00	358.00	0.02																	
E269421	358.00	359.00	0.06																	
E269422	359.00	360.00	0.03																	
E269423	360.00	361.00	0.02																	
E269424	361.00	362.00	0.02																	
E269425	362.00	363.00	0.03																	
E269426	363.00	364.20	0.02																	
E269427	364.20	364.90	0.01	364.20	365.60	2u	mixed unit of altered (mafics?) very fine grained biotite, 5% fine garnets, bands of green amphibole, almost 4eish patches. All mildly sheared.						M	W						
E269428	364.90	365.60	0.01																	
E269429	365.60	366.60	0.02	365.60	385.45	4b	well bnaded 4b with patches of intense folding with cm scale drag folds. 10-15% 4f bands. moderate grunurite and mnor carbonate alteration.						W	W	W	M				
E269431	366.60	367.60	0.03																	
E269432	367.60	368.60	0.12																	
E269433	368.60	369.60	0.05																	
E269434	369.60	370.60	5.02																	
E269435	370.60	371.60	0.11																	
E269436	371.60	372.60	0.05																	
E269437	372.60	373.60	0.05																	
E269438	373.60	374.60	0.04											W		W				
E269439	374.60	375.60	0.04																	
E269441	375.60	376.60	0.94																	
E269442	376.60	377.60	0.12																	
E269443	377.60	378.50	0.02																	
E269444	378.50	379.50	0.07																	
E269445	379.50	380.50	0.03																	
E269446	380.50	381.50	0.05																	
E269447	381.50	382.50	0.03																	
E269448	382.50	383.50	0.04																	
E269449	383.50	384.50	0.02																	
E269451	384.50	385.45	0.02																	
E269452	385.45	386.50	0.01	385.45	389.80	4a	only very rare fine magnetitie bands, mostly chert unit with strong grunurite alteration and minor carbonate alteration. bottom metre has stong Po mineralization.							W		S				

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E269453	386.50	387.50	0.01																	
E269454	387.50	388.50	0.02																	
E269455	388.50	389.15	0.05																	
E269456	389.15	389.80	0.05																	
E269457	389.80	390.70	0.02	389.80	408.00	1	weakly foliated to massive talcose, serpentinized ultramafics. EOH													
E269458	390.70	391.70	0.01																	

STRUCTURAL LOG 04-ESK-003

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	29.20	casin	54								102.00	105.50	QZ-C	5		S	40		30.00	30.10	36	Int	s1													
29.20	89.50	3c									119.00	120.00	QZ	5		i			38.00	38.10	27	int	s1													
89.50	120.00	3C																	46.00	46.10	28	int	s1													
120.00	177.00	3f																	58.00	58.10	39	Int	s1													
177.00	220.30	3F																	66.00	66.10	44	int	s1													
																			74.00	74.10	40	int	s1													
																			86.00	86.10	53	int	s1													
																			92.00	92.10	39	int	s1													
																			102.00	102.10	29	int	s1													
																			108.00	108.10	33	int	s1													
																			120.00	120.10	40	int	s1													
																			130.00	130.10	41	int	s1													
																			132.00	132.10	36	int	s1													
																			140.00	140.10	40	Int	s1													
																			150.00	150.10	40	int	s1													
																			165.00	165.10	42	int	s1													
																			174.00	174.10	37	INT	S1													
								2																												
								1																												
																			193.00	193.10	34	int	s1							214.40	219.50		INT	BC	large, late rubbley fault zone. Not really brecciatd, ubt berst fit. ther are 10cm patches of brecciated rock recemented with calcite.
																			204.00	204.10	31	int	s1													
220.30	224.15	4E	40				85.																												
							3.0																												
																			222.00	222.10	50	Int	s1													
224.15	231.90	2t	40																																
			50																																
			34																																
231.90	233.85	4ea	30				1.0																												
							3.0																												

STRUCTURAL LOG 04-ESK-003

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
233.85	243.00	2t	85																240.00	240.10	29	mod	s1													
243.00	244.20	4ea	50				2.0																													
244.20	245.35	2u	40				0.5																													
245.35	245.90	4f	47																																	
245.90	247.20	2t	44																																	
247.20	250.15	4f	40																																	
250.15	272.70	4ea	22																																	
							1.0												252.00	252.10	36	int	s1													
							2.0																													
							1.0																													
							0.5												258.00	258.10	42	int	s1													
																			270.00	270.10	40	int	s1													
272.70	276.50	4b	54																																	
276.50	291.90	4b																	279.00	279.10	38	int	s1													

STRUCTURAL LOG 04-ESK-003

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			284.00	284.10	33	int	s1													
							1.0												291.00	291.10	29	int	s1													
291.90	297.90	2l	40																																	
																			297.00	297.10	37	int	s1								298.30	298.50	-43	mode	bc	mm scale sub angular to sub rounded clasts of 4b with Po rich matrix
297.90	315.00	4ch	33				5.0																													
							1.0																								303.60	303.70	50	int	bc	same style as above.
							20.																													
							20.																								305.10	305.15	40	int	bc	same as above.
							15.																													
							3.0												308.00	308.10	35	int	s1		306.50	309.00	55	we	fd	minor cm scale drag folds.						
							0.5																													
							2.0																													
																			312.00	312.10	44	int	s1													
							0.5																													
315.00	364.20	4b	42				0.5																													
																			319.00	319.10	40	int	s1													

STRUCTURAL LOG 04-ESK-003

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							0.5																													
																			325.00	325.10	35	int	s1													
																			333.00	333.10	40	int	s1													
																			337.00	337.10	50	int	s1													
				0.0			1.0																													
																			342.00	342.10	45	int	s1													
				0.1			0.5																													
				0.1			0.5												346.00	346.10	65	int	s1		346.00	354.00	55	MO	fd	numerous cm scale folds. avg AP 55. s? z?						
																			351.00	351.10	75	int	s1													
							0.5												355.00	355.10	50	int	s1													
																									357.00	365.00	55	MO	fd	same as above folds						

STRUCTURAL LOG 04-ESK-003

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			362.00	362.10	46	int	s1													
364.20	365.60	2u	44																												364.20	365.60	45	wek	sc	
365.60	385.45	4b	90																																	
																			368.00	368.10	36	int	s1													
																									371.00	375.00	35	we	1d	same as above with avg AP 35					
				0.1			2.0																													
																			377.00	377.00	53	int	s1													
																			380.00	380.10	53	int	s1													
							2.0																													
							1.0																													
385.45	389.80	4a	48				3.0																													
							5.0												388.00	388.10	41	int	s1													
							8.0																													
389.80	408.00	1	50																																	
			50																																	

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-001**

Project Code: ESN

Mine Grid Easting: 9051.915
Mine Grid Northing: 13299.93
Elevation: 5296.9153

UTM East 676003.127
UTM North: 5835163.959

Planned Depth: 70
Actual Depth: 129

Drill Start Date: 04/02/2004
Drill End Date: 04/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	90.6084	-50.4104	SURV
24	90.6084	-50.5	EZS
40	90.6084	-50.1	EZS
54	90.6084	-49.1	EZS
75	90.6084	-48.7	EZS
99	90.6084	-48.5	EZS
126	90.6084	-47.3	EZS

LITHOLOGY LOG 04-ESN-001

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	17.70	CASIN														
				17.70	63.80	3F	Pale gray, weakly foliated to almost massive locally, felsic volcanic. Generally less banded/foliated or Fd-phyric than other sections and some small intervals may be flows.	Local minor pervasive biotite, probably derived from clays, not alteration.												
E208301	63.00	63.80	0.02																	
E208302	63.80	64.60	0.04	63.80	69.90	3F	Continuation of felsics from above but moderately biotitic now and contains minor 4E-(B) interval from 63.8-64.6m and commonly 1-3% Py as dissem'd grains or laminae.													
E208303	64.60	65.30	0.02																	
E208304	65.30	66.00	0.04																	
E208305	66.00	66.70	0.04																	
E208306	66.70	67.70	0.04																	
E208307	67.70	68.40	0.03																	
E208308	68.40	69.00	0.04																	
E208309	69.00	69.90	0.08																	
E208311	69.90	70.90	2.80	69.90	86.70	4F	Fairly consistent section of 4F with ~50-60% m.g. garnets in f.g. matrix of >80% biotite. Locally 20-30% f.g. yellow staurolite over 10-20cm.	Commonly has 5-10% weakly magnetic chert layers (4B) but only trace 4E. Upper 1m is highly quartz veined.					M						S	
E208312	70.90	72.00	0.83																	
E208313	72.00	73.00	1.90																	
E208314	73.00	74.00	0.38																	
E208315	74.00	75.00	0.72																	
E208316	75.00	76.00	0.74																	
E208317	76.00	76.80	0.71																	
E208318	76.80	77.40	4.66																	
E208319	77.40	78.10	0.13																	
E208321	78.10	79.00	0.13																	
E208322	79.00	80.00	0.10																	
E208323	80.00	81.00	1.44																	
E208324	81.00	82.00	0.04																	
E208325	82.00	83.00	0.29																	
E208326	83.00	84.00	0.21																	
E208327	84.00	85.00	1.64																	
E208328	85.00	86.00	0.12																	
E208329	86.00	86.70	0.21																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E208331	86.70	87.60	4.45	86.70	89.80	4EA	Moderately developed 4EA with ~30% intervals to 10cm of layered magnetic chert-green amphibolite bands <cm +/- c.g. garnets and ~10-20% thinly layered 4F-chert	The 4EA layers are ~50-60% pale c.g. red garnets in f.g. grunerite but very little qtz flooding or Po.												
E208332	87.60	88.50	0.18																	
E208333	88.50	89.20	0.27																	
E208334	89.20	89.80	0.45																	
E208335	89.80	91.00	0.01	89.80	94.50	4F	Same as previous 4F unit. Contacts with upper 4EA and lower 4EA-4B are gradational over ~60cm.													
E208336	91.00	92.00	0.02																	
E208337	92.00	93.00	0.04																	
E208338	93.00	94.00	0.04																	
E208339	94.00	94.50	0.35																	
E208341	94.50	95.50	0.25	94.50	99.00	4F	Intermediate unit between 4F and 4B. Consist of bands <1cm thick of pale pink-grey f.g. garnetiferous-magnetic chert and moderately developed f.g. 4F.	Unit is not a true 4F but not a real 4B either. Minor volcanic bands <20cm.												
E208342	95.50	96.40	0.03																	
E208343	96.40	97.00	0.03																	
E208344	97.00	98.00	0.15																	
E208345	98.00	99.00	0.20																	
E208346	99.00	100.00	0.07	99.00	105.60	4F	Another transitional type section similar to above unit but more of a 4F here and less discrete 4B-silicate bands. Most has ~30-40% 1-2mm garnets of f.g. bioite dominant magnetic matrix, but still up to 40% cherty layers.	Lower 1.6m has ~30-40% f.g. grunerite.												
E208347	100.00	101.00	0.64																	
E208348	101.00	102.00	0.35																	
E208349	102.00	103.00	0.10																	
E208351	103.00	104.00	0.28																	
E208352	104.00	105.00	0.04																	
E208353	105.00	105.60	0.09																	
E208354	105.60	106.00	0.10	105.60	116.60	4B	Well banded, few mm to 1cm, white chert and black megnetite. Approx. 15-20% thin 4F alteration laminae from 111-113m. Below 4B there is moderate vfg grunerite, borders on a 4A.	Intercalated Po rich chert-mudstone from 114.8-116.5m and 116.75-116.1m with a minor intervening basalt layer.												
E208355	106.00	107.00	0.34																	
E208356	107.00	108.00	0.34																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E208357	108.00	109.00	0.08																	
E208358	109.00	110.00	0.11																	
E208359	110.00	111.00	0.09										M							
E208361	111.00	112.00	0.04																	
E208362	112.00	113.00	0.09																	
E208363	113.00	114.00	0.06																	
E208364	114.00	114.80	0.02																	
E208365	114.80	115.65	0.02						114.80	116.10	4H	30-40% Po in a mixed section of mudstone and chert layers. Intervening barren basalt from ~116.6-116.75.								
E208366	115.65	116.10	0.03																	
E208367	116.10	116.60	0.08																	
E208368	116.60	117.30	0.02	116.60	129.00	2	Well foliated, weakly to moderately strained and biotitized mafic volcanic. No major veins or alteration otherwise. Small kimberlite dyke at 127.6-128m.						M							
									127.60	128.00	7H	Possible kimberlite dyke. Composed of ~70% m.g. serpentininzed olivine grains with interstital clay and CC plus ~20% f.g. bio/phlogopite. No visible garnets though.								

STRUCTURAL LOG 04-ESN-001

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	17.70	CASI																	22.00	24.00	70	WE	S1													
17.70	63.80	3F																	30.00	33.00	63	WE	S1													
																			38.00	40.00	58	WE	S1													
																			48.00	49.00	63	WE	S1													
																			50.00	51.00	79	MO	S2													
																			54.00	60.00	69	MO	S2	Weak shear zone laced with up to 40% straight Cc veins.												
																			62.00	63.50	70	MO	S2													
											63.00	63.80	CA	35																						
63.80	69.90	3F																																		
							1.0	2																												
								0.7																												
							0.1	1																												
																			69.00	70.00	66	MO	S1													
69.90	86.70	4F					1.0																												
							0.4																												
							0.2				72.00	77.40	QZ	2	m	I																			
																			74.00	75.00	73	MO	S1													
							0.7																												
											78.10	79.10	QZ	25	m	I																			
											80.00	81.00	QZ	6																					
																			84.00	85.00	81		S0													
86.70	89.80	4EA					0.3																												
																			88.50	89.00	77		S0													
89.80	94.50	4F																																		

STRUCTURAL LOG 04-ESN-001

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py %	vg specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
94.50	99.00	4F									94.00	94.50	QZ	10																						
99.00	105.60	4F																	98.00	102.00	80		S0													
105.60	116.60	4B	63				4.0				105.60	106.00	QZ	20					106.00	110.00	76		S0													
							30.																													
116.60	129.00	2					30.																													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-002**

Project Code: ESN

Mine Grid Easting: 8991.094
Mine Grid Northing: 13300.1873
Elevation: 5296.9789

UTM East 675960.092
UTM North: 5835122.168

Planned Depth: 110
Actual Depth: 177

Drill Start Date: 04/02/2004
Drill End Date: 06/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	82.8403	-53.783	SURV
15	82.8403	-50.9	EZS
24	82.8403	-51.9	EZS
54	82.8403	-51.2	EZS
75	82.8403	-50	EZS
100	82.8403	-49.5	EZS
126	82.8403	-48.8	EZS
150	82.8403	-48.8	EZS
174	82.8403	-47.7	EZS

LITHOLOGY LOG 04-ESN-002

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	22.00	CASIN			99.37	101.50	1H	Possible mafic dike.								
				22.00	61.62	2	Mainly mafic volcanic but appears to contain <1m wide beds of felsic ash or at least bleached and banded sections. Minor biotite alteration throughout.													
				61.62	108.77	3F	Probably ranges to intermediate in composition. Well bedded/banded with occassional chloritic bands <1cm wide. Minor weak biotite and calcite veining increrasing to 10% below 102m.													
E208376	108.77	110.00	0.08	108.77	111.64	4F	Averages 50% garnet, 2-3mm.													
E208377	110.00	111.00	0.83																	
E208378	111.00	111.64	1.16																	
E208379	111.64	112.80	0.49	111.64	123.72	4EA	Well banded with chert and generally grunerite poor.													
E208381	112.80	114.00	0.12																	
E208382	114.00	115.00	0.66																	
E208383	115.00	116.00	14.57																	
E208384	116.00	117.00	29.17																	
E208385	117.00	118.00	7.27																	
E208386	118.00	119.00	14.00																	
E208387	119.00	120.00	0.62																	
E208388	120.00	121.00	1.32																	
E208389	121.00	122.00	5.30																	
E208391	122.00	123.00	0.38																	
E208392	123.00	123.72	0.57																	
E208393	123.72	125.00	0.61	123.72	129.32	4F	Same as previous 4F.													
E208394	125.00	126.00	1.11																	
E208395	126.00	127.00	0.09																	
E208396	127.00	128.20	0.79																	
E208397	128.20	129.32	0.11																	
E208398	129.32	130.00	6.79	129.32	134.12	4EA	Grunerite-poor with minor, tight isoclinal folds but typically planer laminated.													
E208399	130.00	131.00	2.98																	
E208401	131.00	132.00	10.77																	
E208402	132.00	133.00	0.13																	
E208403	133.00	134.12	0.06																	
E208404	134.12	135.00	0.03	134.12	136.40	4F	Typical 4F with 40% 3mm garnets.													
E208405	135.00	135.70	0.05																	
E208406	135.70	136.40	0.05																	
E208407	136.40	137.60	0.04	136.40	160.05	4B	Interval is 4F/4E-rich up to 142m after which typical chert magnetite Fe-fm becoming more chert rich downhole.													
E208408	137.60	138.80	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E208409	138.80	140.00	0.80																	
E208411	140.00	141.00	0.16																	
E208412	141.00	142.00	0.17																	
E208413	142.00	143.00	0.05																	
E208414	143.00	144.00	0.25																	
E208415	144.00	145.00	0.02																	
E208416	145.00	146.00	0.50																	
E208417	146.00	147.00	0.53																	
E208418	147.00	148.00	0.24																	
E208419	148.00	149.00	0.24																	
E208421	149.00	150.00	0.77																	
E208422	150.00	151.00	0.13																	
E208423	151.00	152.00	0.05																	
E208424	152.00	153.00	0.39																	
E208425	153.00	154.00	0.17																	
E208426	154.00	155.00	0.03																	
E208427	155.00	156.00	0.04																	
E208428	156.00	157.00	0.05																	
E208429	157.00	158.00	0.03																	
E208431	158.00	159.00	0.04																	
E208432	159.00	160.05	0.05																	
E208433	160.05	161.00	0.01	160.05	177.00	2	Begins moderately biotite-rich becoming more chl/amph rich downhole.													

STRUCTURAL LOG 04-ESN-002

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py %	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	22.00	CASI																	25.00	25.10	74	MO	S1													
22.00	61.62	2																	33.00	33.10	70	MO	S1													
61.62	108.77	3F																	40.00	40.10	67	MO	S1													
																			49.00	49.10	68	MO	S1													
																			58.00	58.10	64	WE	S1													
																			66.00	66.10	70	WE	S1													
																			70.00	70.10	67	WE	S1													
																			78.00	78.10	76	WE	S0													
																			84.00	84.10	75	MO	S1													
																			91.00	91.10	74	WE	S1													
																			99.00	99.10	77	MO	S1													
																			104.00	104.00	77	MO	S1													
																			108.00	108.10	73	MO	S1													
108.77	111.64	4F																																		
111.64	123.72	4EA																																		
																			117.00	117.10	75	MO	S0													
																			123.00	123.10	75		S0													
123.72	129.32	4F																																		
129.32	134.12	4EA																																		
																			132.00	132.10	69	MO	S0													
																			133.00	133.10	76	MO	S0													
134.12	136.40	4F																																		
136.40	160.05	4B																																		
																			138.00	138.10	65	MO	S0													

STRUCTURAL LOG 04-ESN-002

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			144.00	144.10	73	MO	S0													
																			151.00	151.10	76	MO	S0													
																			156.00	156.10	71	MO	S0													
																			160.00	160.10	70	MO	S0													
160.05	177.00	2																	161.00	161.10	80	INT	S1													
																			171.00	171.10	70	MO	S1													
																			176.00	176.10	67	WE	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-003**

Project Code: ESN

Mine Grid Easting: 8930.963
Mine Grid Northing: 13299.8074
Elevation: 5298.7231

UTM East 675917.048
UTM North: 5835080.376

Planned Depth: 160
Actual Depth: 204

Drill Start Date: 08/02/2004
Drill End Date: 09/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	89.4552	-54.4142	SURV
15	89.455	-51.1	EZS
26	89.455	-49.1	EZS
52	89.455	-48.9	EZS
75	89.455	-48.3	EZS
99	89.455	-47.5	EZS
126	89.455	-45.7	EZS
150	89.455	-44.6	EZS
175	89.455	-45.3	EZS
204	89.455	-43.4	EZS

LITHOLOGY LOG 04-ESN-003

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	26.00	CASIN			143.50	145.20	2	Typical mafic vol.								
				26.00	74.34	3F	Well laminated with apparent felsic fragments. Few 30cm zones of disseminated, euhedral pyrite.													
				74.34	82.00	2	Appears to be mainly mafic with intense biotite alteration and bleaching. From 82m downhole to approx. 97m is mixed biotite-altered mafic and laminated tuff?													
				82.00	121.00	3C	Darker than typical felsictuff with abundant green (chloritic?) wispsto 3cm wide. Minor feldspar-phyric sections.													
				121.00	150.73	3F	Typically laminated and fine grained with abundant calcite veinlets.													
E208434	149.50	150.73	0.04																	
E208435	150.73	152.00	0.15	150.73	155.35	4F														
E208436	152.00	153.00	1.15																	
E208437	153.00	154.20	0.21																	
E208438	154.20	155.35	0.68																	
E208439	155.35	156.00	1.56	155.35	163.93	4EA														
E208441	156.00	157.00	6.96																	
E208442	157.00	158.00	0.40																	
E208443	158.00	159.00	0.37																	
E208444	159.00	160.00	3.25																	
E208445	160.00	161.00	2.66																	
E208446	161.00	162.00	1.36																	
E208447	162.00	163.00	0.12																	
E208448	163.00	163.93	5.41																	
E208449	163.93	165.23	0.06	163.93	165.23	4B														
E208451	165.23	166.00	0.84	165.23	167.07	4E														
E208452	166.00	167.07	4.76																	
E208453	167.07	168.27	2.81	167.07	169.45	4F														
E208454	168.27	169.43	0.56																	
E208455	169.43	170.60	0.82	169.45	174.95	4EA														
E208456	170.60	171.80	3.11																	
E208457	171.80	173.00	3.72																	
E208458	173.00	174.00	6.58																	
E208459	174.00	174.95	0.73																	
E208461	174.95	176.00	0.04	174.95	179.70	4F														
E208462	176.00	177.00	0.02																	
E208463	177.00	178.00	0.02																	
E208464	178.00	179.00	0.02																	
E208465	179.00	179.70	0.02																	

LITHOLOGY LOG 04-ESN-003

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E208466	179.70	180.30	1.43	179.70	181.20	4B	Composed of 60% magnetite-chert bands and 40% 4F with 1-2mm garnets.													
E208467	180.30	181.20	0.48																	
E208468	181.20	182.40	0.03	181.20	185.00	4F	Same as previous section except %ages are reversed.													
E208469	182.40	183.60	0.02																	
E208471	183.60	184.20	0.03																	
E208472	184.20	185.00	0.17																	
E208473	185.00	186.00	0.25	185.00	187.90	4B	Composed of 60% 4B and 40% 4F. Well banded and weakly disrupted.													
E208474	186.00	187.00	0.07																	
E208475	187.00	187.90	0.06																	
E208476	187.90	189.00	0.80	187.90	194.05	4B	Typical, well banded chert-magnetite.													
E208477	189.00	190.00	0.08																	
E208478	190.00	191.00	0.03																	
E208479	191.00	192.00	0.28																	
E208481	192.00	193.00	0.04																	
E208482	193.00	194.00	0.03																	
E208483	194.00	195.00	0.01	194.05	204.00	2														

STRUCTURAL LOG 04-ESN-003

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	26.00	CASI																	27.00	27.10	67	WE	S1													
26.00	74.34	3F																	36.00	36.10	63	MO	S1													
74.34	82.00	2																	43.00	43.10	73	MO	S1													
82.00	121.00	3C																	52.00	52.10	70	MO	S1													
121.00	150.73	3F																	58.00	58.10	65	MO	S1													
																			67.00	67.10	67	MO	S1													
																			73.00	73.10	73	MO	S1													
																			83.00	83.10	72	MO	S1													
																			90.00	90.10	73	MO	S1													
																			93.00	93.10	70	MO	S1													
																			102.00	102.10	72	MO	S0													
																			108.00	108.10	71	MO	S1													
																			114.00	114.10	71	MO	S1													
																			120.00	120.10	60	MO	S1													
																			129.00	129.10	71	MO	S1													
																			136.00	136.10	74	MO	S1													
																			141.00	141.10	74	MO	S1													
																			150.00	150.10	75	MO	S1													
150.73	155.35	4F																																	
																			154.00	154.10	76	MO	S1													
155.35	163.93	4EA																																	
																			159.00	159.10	76	MO	S1													
163.93	165.23	4B																	164.00	164.10	80	MO	S0													
165.23	167.07	4E																																	
167.07	169.45	4F																																	
169.45	174.95	4EA																	171.00	171.10	80	MO	S0													
174.95	179.70	4F																																	

STRUCTURAL LOG 04-ESN-003

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
179.70	181.20	4B																	180.00	181.10	78	MO	S0													
181.20	185.00	4F																																	
185.00	187.90	4B																	185.00	185.10	75	MO	S1													
187.90	194.05	4B																	188.00	188.10	70	MO	S0													
							2.0												192.00	192.10	82	MO	S0													
194.05	204.00	2																	198.00	198.10	81	INT	S0													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-004**

Project Code: ESN

Mine Grid Easting: 9080.7869
Mine Grid Northing: 13401.0231
Elevation: 5296.919

UTM East 675951.244
UTM North: 5835253.161

Planned Depth: 80
Actual Depth: 138

Drill Start Date: 09/02/2004
Drill End Date: 11/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	90.11089	-56.8732	SURV
21	90.11089	-55.2	EZS
51	90.11089	-55.1	EZS
75	90.11089	-54.9	EZS
102	90.11089	-54.4	EZS
123	90.11089	-54.2	EZS
138	90.11089	-53.1	EZS

LITHOLOGY LOG 04-ESN-004

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	19.00	CASIN														
				19.00	50.63	3F	Relatively massive and poorly foliated with rare calcite veinlets. Dark grey in colour and may be more dacitic in composition. Often blocky and broken.													
				50.63	52.06	2	Probable dike.													
				52.06	73.25	3F	Very fine-grained and calcite veined.													
E274251	72.00	73.25	0.04																	
E274252	73.25	74.00	6.23	73.25	80.67	4F	Moderately well banded with minor 10cm bands of 4E. Garnets average 2-3mm.													
E274253	74.00	75.00	0.70																	
E274254	75.00	76.00	0.11																	
E274255	76.00	77.00	1.01																	
E274256	77.00	78.00	0.15																	
E274257	78.00	79.00	0.03																	
E274258	79.00	80.00	0.05																	
E274259	80.00	80.67	0.78																	
E274261	80.67	81.80	0.18	80.67	94.00	2	Interval is mixed 2 and 2T with biotite occurring at upper and lower contacts.													
E274262	81.80	83.00	3.82																	
E274263	93.00	94.00	0.35																	
E274264	94.00	95.00	0.03	94.00	117.94	4F	Begins poorly banded becoming well banded below 110m. No sulphides and rare 4E bands <10cm wide.													
E274265	95.00	96.00	0.86																	
E274266	96.00	97.00	0.05																	
E274267	97.00	98.00	0.03																	
E274268	98.00	99.00	0.59																	
E274269	99.00	100.00	4.90																	
E274271	100.00	101.00	0.03																	
E274272	101.00	102.00	0.03																	
E274273	102.00	103.00	0.06																	
E274274	103.00	104.00	0.01																	
E274275	104.00	105.00	0.04																	
E274276	105.00	106.00	0.03																	
E274277	106.00	107.00	0.02																	
E274278	107.00	108.00	0.05																	
E274279	108.00	109.00	0.13																	
E274281	109.00	110.00	0.03																	
E274282	110.00	111.00	0.24																	
E274283	111.00	112.00	0.27																	
E274284	112.00	113.00	0.03																	

LITHOLOGY LOG 04-ESN-004

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E274285	113.00	114.00	0.37																	
E274286	114.00	115.00	0.25																	
E274287	115.00	116.00	0.26																	
E274288	116.00	117.00	0.19																	
E274289	117.00	117.94	0.21																	
E274291	117.94	119.00	0.21	117.94	130.87	4B	Silicate content decreases downhole.													
E274292	119.00	120.00	2.92																	
E274293	120.00	121.00	0.16																	
E274294	121.00	122.00	0.99																	
E274295	122.00	123.00	0.39																	
E274296	123.00	124.00	0.21																	
E274297	124.00	125.00	0.32																	
E274298	125.00	126.00	0.16																	
E274299	126.00	127.00	0.07																	
E274301	127.00	128.00	0.14																	
E274302	128.00	128.82	0.02																	
E274303	128.82	129.60	0.05						128.82	130.65	4TB	Brecciated with 20% po filling between breccia fragments.								
E274304	129.60	130.65	0.09																	
E274305	130.65	130.87	0.04																	
E274306	130.87	132.00	0.00	130.87	138.00	2T	Biotite-altered mafic volcanic.													

STRUCTURAL LOG 04-ESN-004

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	19.00	CASI																	21.00	21.10	60	WE	S1													
19.00	50.63	3F																	30.00	30.10	65	MO	S1													
50.63	52.06	2																	37.00	37.10	60	WE	S1													
52.06	73.25	3F																	44.00	44.10	65	MO	S1													
																			50.00	50.10	67	WE	S1													
																			55.00	55.10	70	WE	S1													
																			60.00	60.10	62	MO	S1													
																			65.00	65.10	65	MO	S1													
																			69.00	69.10	61	MO	S1													
73.25	80.67	4F																																		
																			76.00	76.10	68	MO	S1													
80.67	94.00	2																	81.00	81.10	67	MO	S1													
																			84.00	84.10	72	WE	S1													
																			93.00	93.10	63	MO	S1													
94.00	117.94	4F																																		
																			99.00	99.10	72	MO	S1													
																			108.00	108.10	58	WE	S1													

STRUCTURAL LOG 04-ESN-004

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
117.94	130.87	4B																	117.00	117.10	76	MO	S1													
																			126.00	126.10	75	MO	S0													
130.87	138.00	2T																	131.00	131.10	68	INT	S1													
																			137.00	137.10	70	INT	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-005**

Project Code: ESN

Mine Grid Easting: 9025.0421
Mine Grid Northing: 13399.7819
Elevation: 5297.1105

UTM East 675915.35
UTM North: 5835218.308

Planned Depth: 110
Actual Depth: 177

Drill Start Date: 12/02/2004
Drill End Date: 14/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	91.5153	-60.336	SURV
15	91.5153	-60	EZS
27	91.5153	-58.8	EZS
30	91.5153	-58.8	EZS
51	91.5153	-57.3	EZS
78	91.5153	-56.3	EZS
102	91.5153	-56.4	EZS
125	91.5153	-56.3	EZS
177	91.5153	-55.6	EZS

LITHOLOGY LOG 04-ESN-005

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	22.00	CASIN			98.95	100.25	2	Probable mafic dike.								
				22.00	24.00	4F	Typical 4F with garnets up to 1cm. Interval contains numerous 10-20cm, white bull qtz veins.													
				24.00	50.15	2	Massive to weakly foliated except where biotite is present.													
				50.15	53.46	3F	Poorly foliated with muscovite veinlets.													
				53.46	57.00	2	Massive and poorly foliated.													
				57.00	114.05	3F	Laminated with minor calcite veinlets.													
E273251	114.00	115.05	0.09	114.05	118.56	4F	Weakly banded with 40-50% 1-2mm garnet. Rare siliceaous bands.													
E273252	115.05	116.00	0.38																	
E273253	116.00	117.00	0.33																	
E273254	117.00	117.80	2.35																	
E273255	117.80	118.56	0.15																	
E273256	118.56	119.70	0.49	118.56	123.86	4EA	Folded and disrupted with 0.5-1cm garnets in siliceaous and amphibole-rich matrix.													
E273257	119.70	120.90	7.99																	
E273258	120.90	122.00	2.27																	
E273259	122.00	123.00	9.63																	
E273261	123.00	124.00	0.50	123.86	132.86	4F	50% garnets averaging 3mm ranging up to 0.7cm. Minor siliceaous bands.													
E273262	124.00	125.00	2.09																	
E273263	125.00	126.00	0.51																	
E273264	126.00	127.00	0.76																	
E273265	127.00	128.00	3.13																	
E273266	128.00	129.00	3.35																	
E273267	129.00	130.00	2.01																	
E273268	130.00	131.00	1.62																	
E273269	131.00	132.00	1.22																	
E273271	132.00	132.86	0.09																	
E273272	132.86	134.00	19.37	132.86	137.13	4E	Typically folded and grunerite-poor. Moderately siliceous.													
E273273	134.00	135.00	5.47																	
E273274	135.00	136.00	3.53																	
E273275	136.00	137.13	0.60																	
E273276	137.13	138.00	0.10	137.13	143.67	4F	Moderately well banded with numerous 4E bands up to 3cm wide. Minor siliceous zones.													
E273277	138.00	139.00	0.04																	
E273278	139.00	140.00	0.10																	
E273279	140.00	141.00	0.19																	
E273281	141.00	142.00	0.06																	

LITHOLOGY LOG 04-ESN-005

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273282	142.00	143.00	0.08																	
E273283	143.00	143.67	0.02																	
E273284	143.67	144.80	0.11	143.67	150.57	4EA	Composed of approximately 55% 4EA and 45% 4F intimately mixed in upper 6m and becoming more 4EA-like downhole.													
E273285	144.80	146.00	0.05																	
E273286	146.00	147.00	0.23																	
E273287	147.00	148.00	0.25																	
E273288	148.00	149.00	0.07																	
E273289	149.00	150.00	0.02																	
E273291	150.00	150.57	0.05																	
E273292	150.57	151.70	0.11	150.57	167.60	4B	Typical 4B with chert-magnetite bedded over 1cm thicknesses. Becomes more silicate rich around 162m with garnet, biotite and trace amphibole.													
E273293	151.70	152.90	1.08																	
E273294	152.90	154.00	0.53																	
E273295	154.00	155.00	1.01																	
E273296	155.00	156.00	0.33																	
E273297	156.00	157.00	1.32																	
E273298	157.00	158.00	0.36																	
E273299	158.00	159.00	0.90																	
E273301	159.00	160.00	0.35																	
E273302	160.00	161.00	0.71																	
E273303	161.00	162.00	0.24																	
E273304	162.00	163.00	1.10																	
E273305	163.00	164.00	0.07																	
E273306	164.00	165.00	0.05																	
E273307	165.00	166.00	0.06																	
E273308	166.00	167.00	0.04																	
E273309	167.00	167.60	0.14																	
E273311	167.60	168.80	0.03	167.60	177.00	2T	Wispy biotite defining foliation often associated with calcite.													

STRUCTURAL LOG 04-ESN-005

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	22.00	CASI																	22.00	22.10	78	MO	S1													
22.00	24.00	4F																	30.00	30.10	61	WE	S1													
24.00	50.15	2																	37.00	37.10	67	WE	S0													
50.15	53.46	3F																	45.00	45.10	67	WE	S1													
53.46	57.00	2																	52.00	52.10	62	WE	S1													
57.00	114.05	3F																	58.00	58.10	66	MO	S1													
																			63.00	63.10	65	WE	S1													
																			72.00	72.10	60	WE	S1													
																			78.00	78.10	60	MO	S1													
																			84.00	84.10	60	MO	S1													
																			90.00	90.10	67	WE	S1													
																			96.00	96.10	70	WE	S1													
																			102.00	102.10	70	MO	S1													
																			111.00	111.10	78	WE	S1													
114.05	118.56	4F																																		
																			117.00	117.10	65	MO	S1													
118.56	123.86	4EA																																		
																			121.00	121.10	71	MO	S1													
123.86	132.86	4F																																		
																			129.00	129.10	67	MO	S1													
132.86	137.13	4E																	133.00	133.10	68	MO	S1													
																			137.00	137.10	73	MO	S1													
137.13	143.67	4F																																		
																			141.00	141.10	77	MO	S1													

STRUCTURAL LOG 04-ESN-005

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
143.67	150.57	4EA																	147.00	147.10	77	WE	S0													
150.57	167.60	4B																	153.00	153.10	56	MO	S0													
																			159.00	159.10	60	MO	S0													
																			164.00	164.10	72	MO	S0													
																			165.00	165.10	60	MO	S0													
167.60	177.00	2T																	171.00	171.10	76	INT	S1													
																			177.00	177.00	67	INT	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-006**

Project Code: ESN

Mine Grid Easting: 8950.8473
Mine Grid Northing: 13399.7358
Elevation: 5298.9811

UTM East 675861.595
UTM North: 5835166.099

Planned Depth: 160
Actual Depth: 223

Drill Start Date: 15/02/2004
Drill End Date: 17/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	87.692	-55.0134	SURV
3	87.59	-55.17	MAXI
6	87.69	-55.26	MAXI
9	87.86	-54.99	MAXI
12	88.16	-54.43	MAXI
15	88.7	-53.85	MAXI
18	89.07	-53.61	MAXI
21	88.97	-53.55	MAXI
24	88.98	-53.36	MAXI
27	89.18	-53.26	MAXI
30	89.27	-53.25	MAXI
33	89.43	-53.23	MAXI
36	89.55	-53.21	MAXI
39	89.67	-53.19	MAXI
42	89.76	-53.19	MAXI
45	89.84	-53.19	MAXI
48	89.91	-53.21	MAXI
51	90.04	-53.24	MAXI
54	90.11	-53.27	MAXI
57	90.25	-53.3	MAXI
60	90.3	-53.32	MAXI
63	90.41	-53.28	MAXI
66	90.58	-53.27	MAXI
69	90.67	-53.24	MAXI
72	90.79	-53.19	MAXI
75	90.84	-53.14	MAXI
78	91.02	-53.09	MAXI
81	91.13	-53.05	MAXI
84	91.24	-53.02	MAXI
87	91.35	-52.96	MAXI
90	91.51	-52.91	MAXI
93	91.63	-52.85	MAXI
96	91.79	-52.77	MAXI
99	91.91	-52.73	MAXI
102	92.02	-52.68	MAXI
105	92.1	-52.63	MAXI
108	92.22	-52.59	MAXI
111	92.3	-52.55	MAXI
114	92.45	-52.53	MAXI
117	92.62	-52.5	MAXI
120	92.74	-52.47	MAXI
123	92.87	-52.45	MAXI
126	92.97	-52.43	MAXI
129	93.01	-52.4	MAXI
132	93.11	-52.37	MAXI
135	93.25	-52.34	MAXI
138	93.36	-52.3	MAXI
141	93.45	-52.25	MAXI
144	93.54	-52.22	MAXI
147	93.62	-52.2	MAXI
150	93.73	-52.19	MAXI
153	93.82	-52.15	MAXI
156	93.93	-52.12	MAXI
159	94.1	-52.1	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-006**

Project Code: ESN

Mine Grid Easting: 8950.8473
Mine Grid Northing: 13399.7358
Elevation: 5298.9811

UTM East 675861.595
UTM North: 5835166.099

Planned Depth: 160
Actual Depth: 223

Drill Start Date: 15/02/2004
Drill End Date: 17/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	94.18	-52.05	MAXI
165	94.32	-52.01	MAXI
168	94.44	-51.96	MAXI
171	94.51	-51.93	MAXI
174	94.71	-51.89	MAXI
177	94.84	-51.84	MAXI
180	95	-51.8	MAXI
183	95.15	-51.72	MAXI
186	95.27	-51.59	MAXI
189	95.35	-51.47	MAXI
192	95.44	-51.43	MAXI
195	95.6	-51.41	MAXI
198	95.72	-51.36	MAXI
201	95.81	-51.33	MAXI
204	95.91	-51.3	MAXI
207	96.06	-51.27	MAXI
210	96.2	-51.19	MAXI
216	96.47	-51.07	MAXI
222	96.50821429	-51.085	MAXI

LITHOLOGY LOG 04-ESN-006

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	26.00	CASIN			78.00	83.20	4F	Mixed 4E, 4F and garnetiferous felsic volcanic.								
				26.00	164.65	3F	Light grey in colouir showing moderate foliation . Zones up to 3m long of 0.5-1mm feldspar phenocrysts up to 20%.		83.20	104.30	3C	Mixed unit of felsic and more intermediate rock. Int. is greenish and biotite altered and intermixed with obvious felsic volcanic.								
									110.64	116.00	2									
									126.00	128.66	2									
E273312	163.65	164.65	0.04																	
E273313	164.65	166.00	0.13	164.65	168.00	4F	Generally poorly banded with minor crystal-size variations on cm-scale.													
E273314	166.00	167.00	0.12																	
E273315	167.00	168.00	0.27																	
E273316	168.00	169.00	13.40	168.00	192.88	4EA	Interval is actually mixed classic 4EA and banded 4E&4F with local grunerite alteration. Good 4EA developed between 168 and 172m as well as 186-192m.													
E273317	169.00	170.00	0.14																	
E273318	170.00	171.00	2.18																	
E273319	171.00	172.00	4.20																	
E273321	172.00	173.00	0.45																	
E273322	173.00	174.00	1.96																	
E273323	174.00	175.00	0.70																	
E273324	175.00	176.00	9.34																	
E273325	176.00	177.00	7.56																	
E273326	177.00	178.00	5.54																	
E273327	178.00	179.00	1.78																	
E273328	179.00	180.00	1.01																	
E273329	180.00	181.00	1.27																	
E273331	181.00	182.00	0.47																	
E273332	182.00	183.00	0.82																	
E273333	183.00	184.00	2.12																	
E273334	184.00	185.00	5.76																	
E273335	185.00	186.00	8.50																	
E273336	186.00	187.00	1.15																	
E273337	187.00	188.00	0.25																	
E273338	188.00	189.00	1.17																	
E273339	189.00	190.00	0.14																	
E273341	190.00	191.00	1.44																	
E273342	191.00	192.00	2.65																	

LITHOLOGY LOG 04-ESN-006

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273343	192.00	192.88	0.08																	
E273344	192.88	194.00	0.05	192.88	200.60	4E	Interval is mixed 4B and 4E-4F. Well banded but magnetite-poor. Probably lean Fe-fm.													
E273345	194.00	195.00	0.53																	
E273346	195.00	196.00	0.04																	
E273347	196.00	197.00	0.18																	
E273348	197.00	198.00	0.36																	
E273349	198.00	199.00	0.03																	
E273351	199.00	200.00	0.05																	
E273352	200.00	200.60	0.08																	
E273353	200.60	201.80	0.44	200.60	209.64	4B	Well banded and weakly disrupted with bands averaging 1cm wide.													
E273354	201.80	203.00	0.98																	
E273355	203.00	204.00	0.29																	
E273356	204.00	205.00	0.17																	
E273357	205.00	206.00	0.07																	
E273358	206.00	207.00	0.18																	
E273359	207.00	208.00	0.32																	
E273361	208.00	209.00	0.19																	
E273362	209.00	209.64	0.11																	
E273363	209.64	210.84	0.04	209.64	223.00	2T	Moderately well foliated with abundant biotite locally. Minor calcite veins with tourmaline.													

STRUCTURAL LOG 04-ESN-006

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	26.00	CASI																	30.00	30.10	70	MO	S1													
26.00	164.65	3F																	38.00	38.10	75	MO	S1													
																			45.00	45.10	71	WE	S1													
																			50.00	50.10	80	MO	S1													
																			54.00	54.10	71	MO	S1													
																			60.00	60.10	70	MO	S1													
																			67.00	67.10	74	MO	S1													
																			72.00	72.10	70	WE	S1													
																			78.00	78.10	73	MO	S1													
																			83.00	83.10	64	WE	S0													
																			90.00	90.10	59	WE	S1													
																			98.00	98.10	70	MO	S1													
																			102.00	102.10	68	MO	S1													
																			107.00	107.10	65	MO	S1													
																			117.00	117.10	69	MO	S1													
																			126.00	126.10	67	MO	S1													
																			137.00	137.10	70	WE	S1													
																			141.00	141.10	71	MO	S1													
																			147.00	147.10	73	MO	S1													
																			150.00	150.10	70	MO	S1													
																			156.00	156.10	72	MO	S1													
																			162.00	162.10	77	MO	S1													
164.65	168.00	4F																																		
168.00	192.88	4EA																	168.00	168.10	70	MO	S1													
																			174.00	174.10	76	MO	S1													
																			177.00	177.10	70	MO	S0													
																			180.00	180.10	70	MO	S0													

STRUCTURAL LOG 04-ESN-006

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			186.00	186.10	70	MO	S0													
																			192.00	192.10	65	MO	S1													
192.88	200.60	4E																																		
																			198.00	198.10	80	MO	S1													
200.60	209.64	4B																																		
																			205.00	205.10	83	MO	S0													
				0.3			0.5																														
							5.0												209.00	209.10	80	MO	S0													
209.64	223.00	2T																	217.00	217.10	68	INT	S1													
																			220.00	221.00	70	MO	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-007**

Project Code: ESN

Mine Grid Easting: 9090.7424
Mine Grid Northing: 13499.992
Elevation: 5296.7877

UTM East 675892.492
UTM North: 5835335.424

Planned Depth: 90
Actual Depth: 165

Drill Start Date: 20/02/2004
Drill End Date: 21/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	87.7926	-67.2404	SURV
12	87.7926	-67.1	EZS
30	87.7926	-67.7	EZS
54	87.7926	-67.4	EZS
75	87.7926	-67.5	EZS
102	87.7926	-66.7	EZS
126	87.7926	-66.7	EZS
150	87.7926	-65.8	EZS

LITHOLOGY LOG 04-ESN-007

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
				0.00	19.00	CASIN	Water and oveburden.													
E273364	19.00	19.80	0.06	19.00	19.80	3C	Pale beige-gray, f.g., well foliated, aphyric, homogenous unit, probably an intermediate ash tuff. Fairly hard but beige tint indicates minor vfg biotite (?).													
E273365	19.80	20.40	1.11	19.80	22.90	6	Protolith uncertain. Either a highly bio'd volcanic or a biotitic metasediment. Consists of ~40% f.g. biotite in vfg matrix of Fd-qtz-Cc, no amphiboles visible.	Sharp contact with overlying volcanics, homogeneity and lack of amphiboles suggest this is a f.g. metased (unit "6").												
E273366	20.40	21.20	0.18						20.40	21.20	4E	Contorted, highly qz-Cc veined interval with local green amh-garnet+/-bio-(Po) alteration flanking veins. No 4B.	W	M					S	
E273367	21.20	22.00	0.29																	
E273368	22.00	22.90	0.03																	
E273369	22.90	23.50	0.03	22.90	26.80	2	Medium green to locally bleached pale green malic volcanics. Aphyric, locally well foliated and highly contorted.	Upper contact diffuse over 1cm, lower one masked by qtz veins and alteration.												
E273371	26.20	26.80	0.37																	
E273372	26.80	28.00	0.54	26.80	28.00	4E	Section varies from good 4E with 30-40% c.g. garnets in f.g. green amphibolite to moderately qtz veined and gruneritized malic volcanics.	No 4B layers. Minor Po.											M	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273373	28.00	28.50	0.04	28.00	92.30	3F	Fairly hard, aphyric, no obvious bedding, consists of vfg qtz-fd with minor to moderate biotite. From 28-69m it is a light beige due to vfg biotite % and 30% gray, bleached streaks <2-3cm wide.	From 28-69m the unit borders on being intermediate but is still hard and continues gradually into more felsic looking ash tuff below.						W						Also ~30% is bleached pale gray about thin Cc-filled fractures.
									68.50	69.60	2	F.g., dark green-grey basalt, probably a dyke.								
E273374	90.00	90.40	0.22																	
E273375	90.40	90.75	0.04																	
E273376	90.75	91.40	0.01																	
E273377	91.40	92.30	0.05																	
E273378	92.30	93.00	0.04	92.30	101.30	4F	Fairly consistent section of 4F, only weak banding in terms of grain size and % of bio. Approx. 15-50% m.g. garnets in biottie-rich matrix, only minor Fd usually.	No visible staurolite, no major qtz veins or flooding. Upper contact gradational over 1m, lower one fairly sharp +/- a few cm.												
E273379	93.00	94.00	0.52																	
E273381	94.00	95.00	0.05																	
E273382	95.00	96.00	0.17																	
E273383	96.00	97.00	0.15																	
E273384	97.00	98.00	0.45																	
E273385	98.00	99.00	0.06																	
E273386	99.00	100.00	0.24																	
E273387	100.00	101.30	1.54																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E273388	101.30	102.00	0.28	101.30	111.00	2T	Unit is a mix of moderately to strongly (30% f.g. bio) biotitized basalt (?) and lesser fresh to weakly bio'd basalt. Minor amphibole still visble in bio'd sections, internal contacts very gradational.	Mag susc values consistent and 1/2 of the previous 4F suggesting this is not mixed 2-4F but rather alteration of 2.												
E273389	105.00	105.60	0.33										W						S	~70% qtz flooding/vein.
E273391	105.60	106.60	2.44										S							
E273392	106.60	107.60	1.03						106.60	107.60	4F	Mixed section of ~60% 4F and 30-40% 4E or amphibolitized 4F. Locally magnetic, probably an altered iron metased rather than just alteration of volcanics.								
E273393	107.60	108.10	0.05										M							
				111.00	118.00	2	Relatively quite fresh basalt, only minor local biotite alteration and weak foliation, biotite alteration overall has decreased markedly towards the underlying 4F. Contacts sharp, witihin 1-2cm.												
E273394	118.00	118.40	0.12	118.00	140.40	4F	Fairly homogeneous section of 4F with up to 20% intercalated 4B Mt-chert layers and moderate vfg grunerite development in lower 9m.	4F has ~20-30% 1-3mm garnets in f.g. well foliated biotite matrix, only minor Fd. Only ~5% coarser, more hydrothermal bands of 4F. Upper contact sharp with the fresh basalt. Lower one gradational into 4B over 1m.												
E273395	118.40	119.00	1.66																	
E273396	119.00	120.00	0.30																	
E273397	120.00	121.00	0.14																	
E273398	121.00	122.00	0.08																	
E273399	122.00	122.75	0.04																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273401	122.75	123.70	2.25						122.75	123.70	4E	Highly qtz veined section with pervasive alt'n to ~30-40% c.g. garnets (up to 1cm) , ~10-20% f.g. dark green amph, minor grunerite.							M	
E273402	123.70	124.70	1.90						123.70	124.70	4EA	Continuation of alteration/4E above but now with ~40% f.g. pale yellow grunerite and 30% pale red garnets, minor 4E, and ~20% qtz veins.								
E273403	124.70	125.20	0.24																	
E273404	125.20	126.00	0.01																	
E273405	126.00	127.00	0.01																	
E273406	127.00	128.00	0.02																	
E273407	128.00	129.00	0.02																	
E273408	129.00	130.30	0.07																	
E273409	130.30	131.00	0.32																M	
E273411	131.00	131.80	0.02																W	
E273412	131.80	133.00	0.04																	
E273413	133.00	134.00	0.29																	
E273414	134.00	135.00	0.24																	
E273415	135.00	136.00	0.04																	
E273416	136.00	137.00	0.88																	
E273417	137.00	138.00	0.27																	
E273418	138.00	139.00	0.12																	
E273419	139.00	140.00	0.07																	
E273421	140.00	140.40	0.05																	
E273422	140.40	141.30	0.44	140.40	152.50	4B	Fairly clean 4B, alternating white chert and black magnetite layers 1mm to 1cm. Upper 1m is gradational into overlying 4F, lower 1-2m is gradational into underlying 4A.	4B is fairly straight banded, no major folds or deformation zones.												
E273423	141.30	142.00	0.80																M	Plus local epidote alt'n and thin drusy qtz veinlets.
E273424	142.00	143.00	0.39																	
E273425	143.00	144.00	0.37																	
E273426	144.00	145.00	0.42																	
E273427	145.00	146.00	0.25																	
E273428	146.00	147.00	0.08																	
E273429	147.00	148.00	0.24																	
E273431	148.00	149.00	0.07																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273432	149.00	150.00	0.14																	
E273433	150.00	151.00	0.05																W	
E273434	151.00	152.00	0.03																	
E273435	152.00	152.50	0.03																	
E273436	152.50	153.00	0.02	152.50	154.20	4A	Typical white to light yellow chert dominant BIF with wispy bands of vfg grunerite -Fe carb up to 3-4cm thick. Approx 10-20% magnetite layers <1-2cm thick throughout.	Grades into Po rich chert-mudstone at base.												
E273437	153.00	154.20	0.04																W	
E273438	154.20	154.90	0.03	154.20	156.20	4H	Variable section of Po rich, dark grey to green mudstone and lesser interlayered chert. Po often in semi-massive bands up to 1-2cm thick.	Upper contact gradational into 4A over 20cm, lower one sharp.												
E273439	154.90	155.50	0.04																	
E273441	155.50	156.20	0.02																	
E273442	156.20	156.80	0.05	156.20	156.80	4A	As per 4A above but with minor local f.g. green amph and c.g. brown amph alt'n.													
E273443	156.80	157.50	0.05	156.80	165.00	2T	Very well foliated to weakly sheared mafic volcanics, now moderately to strongly biotitized (mainly along thin laminae every few mm.).	No major veins or other alteration.												

STRUCTURAL LOG 04-ESN-007

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	19.00	CASI																																		
19.00	19.80	3C																	19.00	20.00	49	MO	S1													
19.80	22.90	6	60				0.1																													
22.90	26.80	2																	24.00	25.00	49	MO	S1													
26.80	28.00	4E					0.1																													
28.00	92.30	3F																	32.00	33.00	46	WE	S1													
																			42.00	43.00	45	MO	S1													
																			48.00	50.00	45	MO	S1													
																			56.00	58.00	45	MO	S1													
																			75.00	76.00	55	MO	S1													
																			80.00	82.00	62	WE	S1													
																			90.00	91.00	62	MO	S1													
								5			90.40	90.75	QZ	65		I																				
								5		Py as f.g. grains along laminae <2-3mm thick throughout section.																												
92.30	101.30	4F																	94.00	95.00	57	MO	S1													
											97.00	101.30	QZ	3	m	I																				
101.30	111.00	2T					0.1												108.00	112.00	53	WE	S1													
111.00	118.00	2																																		
118.00	140.40	4F	67																																	

STRUCTURAL LOG 04-ESN-007

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			119.00	120.00	70	MO	S1													
							0.1												125.00	126.00	72	MO	S1													
							0.1												136.00	140.00	67	MO	S1													
140.40	152.50	4B																																		
				0.2			0.2																													
								0.05											145.00	146.00	65		S0													
152.50	154.20	4A																	154.00	156.00	68		S1													
154.20	156.20	4H					3.0																													
							20.																													
156.20	156.80	4A					1.0																													
156.80	165.00	2T	68																159.00	180.00	67	MO	S1													

STRUCTURAL LOG 04-ESN-007

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Speckle	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			163.00	165.00	60	MO	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-008**

Project Code: ESN

Mine Grid Easting: 9030.2959
Mine Grid Northing: 13499.8347
Elevation: 5296.7421

UTM East 675849.449
UTM North: 5835293.623

Planned Depth: 125
Actual Depth: 213

Drill Start Date: 21/02/2004
Drill End Date: 22/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	95.72	-66.28	MAXI
3	95.34	-66.01	MAXI
6	95.01	-65.8	MAXI
9	94.44	-65.79	MAXI
12	93.67	-66.09	MAXI
15	93.17	-66.5	MAXI
18	93.03	-66.67	MAXI
21	93.19	-66.52	MAXI
24	93.47	-66.31	MAXI
27	93.64	-66.15	MAXI
30	93.9	-66.04	MAXI
33	94.27	-65.93	MAXI
36	94.54	-65.78	MAXI
39	94.71	-65.59	MAXI
42	95	-65.38	MAXI
45	95.21	-65.24	MAXI
48	95.29	-65.13	MAXI
51	95.51	-65.03	MAXI
54	95.77	-64.95	MAXI
57	96.09	-64.84	MAXI
60	96.4	-64.72	MAXI
63	96.75	-64.61	MAXI
66	97.05	-64.52	MAXI
69	97.34	-64.42	MAXI
72	97.47	-64.33	MAXI
75	97.61	-64.26	MAXI
78	97.81	-64.18	MAXI
81	97.98	-64.11	MAXI
84	98.14	-64.05	MAXI
87	98.3	-63.99	MAXI
90	98.4	-63.94	MAXI
93	98.52	-63.88	MAXI
96	98.6	-63.82	MAXI
99	98.76	-63.78	MAXI
102	98.78	-63.79	MAXI
105	98.93	-63.76	MAXI
108	99.13	-63.73	MAXI
111	99.31	-63.68	MAXI
114	99.41	-63.64	MAXI
117	99.6	-63.6	MAXI
120	99.75	-63.55	MAXI
123	99.88	-63.51	MAXI
126	99.98	-63.49	MAXI
129	100.16	-63.47	MAXI
132	100.27	-63.46	MAXI
135	100.42	-63.44	MAXI
138	100.59	-63.43	MAXI
141	100.78	-63.39	MAXI
144	100.88	-63.34	MAXI
147	101.02	-63.28	MAXI
150	101.22	-63.25	MAXI
153	101.33	-63.22	MAXI
156	101.47	-63.16	MAXI
159	101.6	-63.09	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-008**

Project Code: ESN

Mine Grid Easting: 9030.2959
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Elevation: 5296.7421

UTM East 675849.449
UTM North: 5835293.623

Planned Depth: 125
Actual Depth: 213

Drill Start Date: 21/02/2004
Drill End Date: 22/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	101.71	-63.07	MAXI
165	101.93	-63.02	MAXI
168	102	-62.95	MAXI
171	102.13	-62.87	MAXI
174	102.27	-62.8	MAXI
177	102.36	-62.73	MAXI
180	102.48	-62.65	MAXI
183	102.71	-62.57	MAXI
186	102.89	-62.46	MAXI
189	103.03	-62.32	MAXI
192	103.21	-62.19	MAXI
195	103.34	-62.14	MAXI
198	103.52	-62.02	MAXI
201	103.7	-61.91	MAXI
204	103.86	-61.81	MAXI
207	104.02	-61.7	MAXI
210	104.18	-61.59	MAXI
213	104.34	-61.48	MAXI

LITHOLOGY LOG 04-ESN-008

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	18.70	CASIN	Only 40cm of cored boluder.													
				18.70	41.70	3F	Typical pale gray to off-white, well foliated ash tuff. No major banding, Fd crystal component is minor and local, no major shears or veining. Minor biotite in upper 10m.	Several sections up to 1m with ~5% bedded pytite in laminae and beds up to 8mm, locally in qtz veins.												
E274562	35.00	35.50	0.03																	
E274563	35.50	36.50	0.15																	
E274564	36.50	37.40	0.04																	
E274565	37.40	38.00	0.04																	
E274566	40.20	41.00	0.05																	
E274567	41.00	41.70	0.03																	
E274568	41.70	42.30	0.03	41.70	44.90	2H	Wel foliated, diffusely banded medium brown to green unit, gradational with felsics above. Green parts are ~50:50 amph-Fd, brown parts have 30-40% bio, 10-20% amph, rest Fd.	Most likely this was mafic waterlain tuff with local high clay or sedimentary component.												
E274569	42.30	43.30	0.02																	
E274571	43.30	43.80	0.02																	
E274572	43.80	44.90	0.05																	
E274573	44.90	46.00	0.10	44.90	48.00	4F	Rather coarse section of 4F with ~30-40% c.g. garnets up to 8mm in f.g. matrix of ~20-30% anhedral staurolite, 30% bio, rest Fd mainly.	Minor thin magnetic 4B laminae and some "4E" zones >15cm wide. Several qtz veins to 10cm. Upper contact sharp, lower one gradational over 10-20cm.												
E274574	46.00	47.00	0.31																	
E274575	47.00	48.00	7.55																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274576	48.00	48.70	0.12	48.00	56.20	3F	Diffusely banded pale gray to pale brown, fairly hard, moderately foliated felsic ash tuff. No significant Fd-crystal component. Brown bands (~5-20mm) are more biotite rich (meta'm of original clays) and locally have 1-2% c.g. ragged garnets.	Biotite content varies from <2% to ~20-30%.												
				56.20	64.30	2H	Medium green to local brown, well foliated matic volcanics, probably tuff? Lower 3m are brown and have 20-30% f.g. biotite with minor amph, rest Fd; this may have been clay rich section of the waterlain tuff?	No biotite alteration in felsic and matic unit immediately below, suggests biotite in this unit is not alteration either.						M						Weakly sheared section with 10-15% thin Cc veinlets parallel to folication.
				64.30	66.00	3F	White, presumably felsic volcanic, fairly massive but locally greasy feel (either sericitized or possibly talcose??). Local CC cemented breccia.													
				66.00	79.00	2	Fairly fresh basalt composed of 50-60% green amph, 40-50% Fd. Only weak, local biotitization. Weakly foliated, no major veins or shears.	Lower 1m is an odd banded and veined transition into underlying felsics.												
				79.00	88.00	3F	Diffusely banded beige to light gray felsic waterlain ash tuff as before. Minor pale green, more matic intervals.													
				88.00	91.70	2	1/2 is ~massive green basalt (flow?), other 1/2 is ~banded brown bio'd and fresh basalt, possibly tuffs. Upper contact grades over 50cm into felsics, lower one ~sharp~ within 1-2cm.													
				91.70	143.20	3F	Beige to gray felsic ash tuff as before. No major veins, only minor Cc veined and sheared sections. No Py or significant alteration zones. Minor intermediate to matic sections but <1-2m thick.	Very f.g. biotite is locally abundant and gives the rock a beige colour for 3-4m. Presumed to be derived from early clays not alteration.												
E274577	142.40	143.20	0.05																	
E274578	143.20	143.90	0.13	143.20	143.90	4E	70% quartz veined/flooded zone with c.g. garnet-f.g. amph flanking the veins. Presumably alteration of the 4F/6 unit.						W			W			S	
E274579	143.90	145.00	0.03	143.90	146.40	4F	Fairly typical, homogeneous, well foliated 4F with ~30-40% 1-2mm garnets in f.g. bio-(fd-qtz) matrix. Only a few small bands of hydrothermal looking "pure" biotite schist.													
E274581	145.00	146.00	0.08																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274582	146.00	146.40	0.03													S			M	Plus 10% green amph bands.
E274583	146.40	147.10	7.84	146.40	147.10	4EA	Well banded section of ~60% 4EA, 10-20% qtz veins <1cm wide, and 10-20% gar-amphibolite bands <1cm.													
E274584	147.10	148.00	1.70	147.10	153.00	4B	Mixed unit of ~50-55% 4B magnetic chert layers ~5-6mm thick separated by 45-50% 4F layers 2-5mm generally. Minor "4E" layers and local minor qtz veining. Several small zones of poor 4EA.		147.10	153.00	4F	Approx 40% 4F layers 2-6mm intercalated with the 4B magnetic chert layers, probably alteration of pre-existing Fe-silicate layers.	W			M			W	
E274585	148.00	148.70	9.25																	
E274586	148.70	150.00	2.68																	
E274587	150.00	151.00	1.04																	
E274588	151.00	152.00	4.48																	
E274589	152.00	153.00	6.74																	
E274591	153.00	154.00	1.73	153.00	162.10	4F	Mixed section, mainly 4F with local qtz flooding and a few short intervals <30cm of poor 4E. 4F locally has 20% f.g. staurolite in the matirx.	Upper contact obscured by quartz veins, lower one sharp.												
E274592	154.00	155.00	2.59																	
E274593	155.00	156.00	1.56																S	
E274594	156.00	156.60	12.73																	
E274595	156.60	157.20	1.35																	
E274596	157.20	158.00	0.66										M						W	
E274597	158.00	159.00	0.30																	
E274598	159.00	160.00	0.08																	
E274599	160.00	161.00	0.77																	
E274601	161.00	162.10	2.23																	
E274602	162.10	163.00	4.69	162.10	166.10	4E	Mixed interval of ~40% garnet-poor 4E, ~15-20% 4F mainly in one band ~80cm wide, and 30% weakly developed 4EA. Approx 10-120% 4B Mt-chert layers <1cm throughout.									S			M	
E274603	163.00	163.50	3.39																	
E274604	163.50	164.30	0.14						163.50	164.30	4F	~75% 4F with 20% 4B layers <1cm, minor 4E.								
E274605	164.30	165.00	4.01						164.30	165.70	4EA	Moderately developed 4EA and minor 4E.								
E274606	165.00	166.10	5.97																	
E274607	166.10	167.00	0.08	166.10	175.30	4F	Not typical 4F. Unit is a diffusely banded mix of 4F and highly magnetic gar-bio-+/-grun bands <1-2cm thick, the latter borders on being 4B. Unit is ~transitional between a 4F and 4B.													
E274608	167.00	168.30	0.15																	
E274609	168.30	169.00	0.07																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274611	169.00	170.00	1.16																	
E274612	170.00	171.00	0.11																	
E274613	171.00	172.00	0.05																	
E274614	172.00	173.00	0.03																	
E274615	173.00	174.00	0.12																	
E274616	174.00	174.50	0.07																	
E274617	174.50	175.30	0.23																	
E274618	175.30	176.10	0.25	175.30	176.10	4EA	Highly contorted unit, mainly ~massive yellow f.g. grunerite studded with ~30% pale garnets. Minor 4f bands, qtz veins and chert layers.													
E274619	176.10	177.00	0.66	176.10	177.00	4B	Highly folded, thick bedded (up to 5cm) white chert-black magnetite, minor vfg grunerite at Mt-chert boundaries.												S	
E274621	177.00	178.00	0.04	177.00	179.00	4F	Mixed unit of 4F with ~30% diffuse bands of vfg grunerite and magnetic chert, most <1cm, locally up to 10cm. Similar to previous transitional 4F-4B section but much less 4B component here.													
E274622	178.00	179.00	0.02																	
E274623	179.00	180.00	0.11	179.00	197.00	4B	Typical "Northern Iron Formation". Well banded black magnetite-white chert layers up to 1-2cm thick. Only minor grunerite, no silicate layers.	Often highly and tightly folded but no major shear zones, alteration or mineralization.												
E274624	180.00	181.00	0.21																	
E274625	181.00	182.00	0.47																	
E274626	182.00	183.00	0.60																S	
E274627	183.00	184.00	0.50																	
E274628	184.00	185.00	0.17																	
E274629	185.00	186.00	0.31																	
E274631	186.00	187.00	0.15																	
E274632	187.00	188.00	1.12																	
E274633	188.00	189.00	0.10																	
E274634	189.00	190.00	0.22																	
E274635	190.00	191.00	2.31																	
E274636	191.00	192.00	0.18																	
E274637	192.00	193.00	0.04																	
E274638	193.00	194.00	0.05																	
E274639	194.00	195.00	0.05																	
E274641	195.00	196.00	0.06																	
E274642	196.00	197.00	0.03																	
E274643	197.00	198.00	0.04	197.00	199.15	4A	Not a "pure" 4A but still much more chert and pale yellow, wispy grunerite bands than 4B above.													

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274644	198.00	199.15	0.05																	
E274645	199.15	199.80	0.06	199.15	199.80	4H	Po rich section with ~30% broken up chert beds ~1-3cm thick and local dark green matrix of metamorphosed mudstone(?). ~50% Po over much of the section.													
E274646	199.80	200.30	0.01	199.80	213.00	2T	Well foliated and moderately to strongly biotitized, medium beige-green-gray mafic volcanic. No major veins or other alteration.													

STRUCTURAL LOG 04-ESN-008

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Text	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	18.70	CASI																	24.00	28.00	68	MO	S1												
18.70	41.70	3F																	30.00	34.00	63	MO	S1												
								5											36.00	38.00	63	MO	S1												
								2																											
								0.5																											
								3																											
41.70	44.90	2H																	42.00	44.00	66	MO	S1												
44.90	48.00	4F						0.05																											
											46.00	48.00	QZ	10	m	I																			
48.00	56.20	3F																	48.00	50.00	53	MO	S1												
56.20	64.30	2H																	57.00	59.00	63	MO	S1								132.00	135.50	68	MOD	SC	10-25% Cc veinlets <5mm wide.
64.30	66.00	3F																	70.00	74.00	54	WE	S1												
66.00	79.00	2																	81.00	83.00	57	WE	S1												
79.00	88.00	3F																	86.00	94.00	59	WE	S1												
88.00	91.70	2																	98.00	100.00	52	WE	S1												
91.70	143.20	3F																	108.00	110.00	58	WE	S1												
																			114.00	116.00	58	WE	S1												
																			123.00	124.00	59	WE	S1												
																			133.00	134.00	69	WE	S1												
																			135.00	137.00	68	WE	S2	Weakly sheared and moderately-highly Cc veined section.											
																			142.00	143.00	68	WE	S1												
143.20	143.90	4E																																	
143.90	146.40	4F																	144.00	150.00	72		S0												
146.40	147.10	4EA					0.1																												
147.10	153.00	4B																																	

STRUCTURAL LOG 04-ESN-008

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							2.0																													
							1.0																													
153.00	162.10	4F																																		
							2.0																													
							0.1																													
																			160.00	162.00	65	MO	S1													
162.10	166.10	4E	71				1.0																													
																			164.00	165.00	75	MO	S1													
							1.0																													
							2.0												165.00	166.00	64	MO	S1													
166.10	175.30	4F																																		
																			172.00	174.00	68	MO	S1													
175.30	176.10	4EA																																		
176.10	177.00	4B																																		
177.00	179.00	4F																	177.00	178.00	77	MO	S1													
																			178.00	180.00	69		S1													
179.00	197.00	4B	69				0.1																													
							0.1																													
				0.1			0.1												183.00	185.00	80		S0													
							0.5																													
							0.6																													
				-			-																													
											190.50	191.00	QZ	40	m	I																				
				-																																

STRUCTURAL LOG 04-ESN-008

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit-		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							40.			Mainly as semi-massive Po vein 7cm wide.									192.00	194.00	60		S0													
							0.2																												
							0.1																												
197.00	199.15	4A																																	
199.15	199.80	4H					25.																												
199.80	213.00	2T																	204.00	205.00	57	MO	S1												
																			207.00	210.00	64	MO	S1												

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-009**

Project Code: ESN

Mine Grid Easting: 8971.9675
Mine Grid Northing: 13499.7305
Elevation: 5296.7591

UTM East 675806.414
UTM North: 5835251.831

Planned Depth: 160
Actual Depth: 241

Drill Start Date: 25/02/2004
Drill End Date: 26/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	91.9994	-64.4365	SURV
3	92.01	-64.29	MAXI
6	92.01	-63.56	MAXI
9	91.97	-62.73	MAXI
12	92.58	-62.35	MAXI
15	93.1	-62.72	MAXI
18	93.41	-63.16	MAXI
21	93.55	-63.21	MAXI
24	93.6	-63.13	MAXI
27	93.69	-63.11	MAXI
30	93.76	-63.01	MAXI
33	93.89	-62.91	MAXI
36	94	-62.8	MAXI
39	94.1	-62.69	MAXI
42	94.16	-62.58	MAXI
45	94.36	-62.49	MAXI
48	94.43	-62.43	MAXI
51	94.46	-62.39	MAXI
54	94.51	-62.38	MAXI
57	94.58	-62.34	MAXI
60	94.7	-62.33	MAXI
63	94.79	-62.32	MAXI
66	94.93	-62.3	MAXI
69	95.09	-62.29	MAXI
72	95.18	-62.25	MAXI
75	95.24	-62.21	MAXI
78	95.37	-62.14	MAXI
81	95.44	-62.06	MAXI
84	95.48	-61.97	MAXI
87	95.66	-61.89	MAXI
90	95.7	-61.81	MAXI
93	95.76	-61.78	MAXI
96	95.82	-61.72	MAXI
99	95.9	-61.68	MAXI
102	95.98	-61.65	MAXI
105	96.08	-61.61	MAXI
108	96.18	-61.56	MAXI
111	96.28	-61.52	MAXI
114	96.39	-61.5	MAXI
117	96.44	-61.46	MAXI
120	96.56	-61.42	MAXI
123	96.66	-61.38	MAXI
126	96.74	-61.34	MAXI
129	96.85	-61.3	MAXI
132	96.92	-61.27	MAXI
135	97.06	-61.24	MAXI
138	97.14	-61.2	MAXI
141	97.22	-61.17	MAXI
144	97.33	-61.14	MAXI
147	97.44	-61.11	MAXI
150	97.53	-61.08	MAXI
153	97.55	-61.05	MAXI
156	97.62	-61.02	MAXI
159	97.73	-61	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-009**

Project Code: ESN

Mine Grid Easting: 8971.9675
Mine Grid Northing: 13499.7305
Elevation: 5296.7591

UTM East 675806.414
UTM North: 5835251.831

Planned Depth: 160
Actual Depth: 241

Drill Start Date: 25/02/2004
Drill End Date: 26/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	97.79	-60.95	MAXI
165	97.82	-60.91	MAXI
168	97.91	-60.88	MAXI
171	97.97	-60.84	MAXI
174	98.07	-60.79	MAXI
177	98.21	-60.77	MAXI
180	98.37	-60.73	MAXI
183	98.52	-60.7	MAXI
186	98.62	-60.65	MAXI
189	98.73	-60.6	MAXI
192	98.86	-60.54	MAXI
195	99	-60.52	MAXI
198	99.14	-60.48	MAXI
201	99.27	-60.43	MAXI
204	99.4	-60.39	MAXI
207	99.53	-60.35	MAXI
210	99.66	-60.31	MAXI
213	99.79	-60.27	MAXI
216	99.92	-60.23	MAXI
219	100.05	-60.18	MAXI
222	100.18	-60.14	MAXI
225	100.31	-60.1	MAXI
228	100.44	-60.06	MAXI
231	100.57	-60.02	MAXI
234	100.7	-59.98	MAXI
237	100.83	-59.93	MAXI
240	100.96	-59.89	MAXI
241	101.01	-59.88	MAXI

LITHOLOGY LOG 04-ESN-009

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	21.50	CASIN														
				21.50	101.50	3F	Typical 3F for this area. Moderately foliated, light grey to brownish grey, faintly banded felsic to intermediate felsic ash tuff with local minor Fd-crystal component (<10% Fd grains 1-2mm).	Minor very f.g. biotite occurs in faint bands locally, probably original clay component not alteration. Quite massive from 72-83m, possible flow. Often has diffuse white bands of higher sericite %, probably shearing induced.												
E274647	92.00	92.40	0.04																	
E274648	92.40	93.50	0.08						92.40	93.50	4EA	~50% is ~well formed 4E, 20% is qtz veined weak 4E, rest is 3F. 4E is strongly magnetic and probably a true Fe-chemical sediment.								
E274649	93.50	94.40	0.06																	
E274651	94.40	95.30	0.10						94.40	95.30	4EA	~80% is well formed c.g. 4E, rest is moderately biotitic 3F.								
E274652	95.30	96.00	0.02																	
E274653	96.00	96.30	0.05						96.00	96.30	4EA	~80% is well formed c.g. 4E, rest is moderately biotitic 3F.								

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
E274654	96.30	96.80	0.01																	
				101.50	111.30	2	Mainly f.g. medium green mafic volcanic with ~20-30% diffuse bands of weak-moderate biotite, either alteration or meta'm of original clay component?	No major shears, veins or alteration other than the weak-mod biotite.					W							
				111.30	113.70	3F	As per previous 3F unit.													
				113.70	136.20	2	Relatively fresh and massive basalt, only a weak-moderate foliation. Biotite alteration confined to a few short intervals. No obvious pillow selvages or other volcanic textures evident.													
				136.20	182.20	3F	As per previous 3F units, a faintly banded beige to light gray unit of waterlain felsic ash tuff. No major veins, shears or alteration.	Intercalated mafic layers at ~163m and a mafic unit from 172.2-174.4m. Biotite increase gradually below 180.5 and the 3F grades into 4F.												
E274655	181.70	182.20	0.03																	
E274656	182.20	183.50	0.44	182.20	183.50	4F	Homogeneous section of good 4F with ~15-20% garnets, 1-2mm, in f.g. matrix of bio>fd-qtz. Only minor magnetic patches. Grades inot overlying 3F over 50cm but sharp contact with 4EA below.													
E274657	183.50	184.50	2.26	183.50	189.00	4EA	Moderately well developed 4EA but with ~30% intervals up to 10cm wide of thinly banded 4B-dark green amph +/- minor 4E. Garnet in the garnet-grunerite bands are very c.g.. Section is moderately silicified, has minor Po.									M			M	
E274658	184.50	185.50	2.44																	
E274659	185.50	186.50	1.04																	
E274661	186.50	187.50	18.23																	
E274662	187.50	188.50	1.04																	
E274663	188.50	189.00	0.07																	
E274664	189.00	190.00	0.16	189.00	197.00	4B	Mixed interval, actually a 4B-4F-(4E). Well banded with 1-20mm thick, ~equal alternating bands of grey magnetic chert (4B) and 4F with local patches of 4EA, 4E, amphibolite.	Only a few minor qtz veins, trace Po. Fairly straight banded, little deformation.					M			M			W	
E274665	190.00	191.00	0.87																	
E274666	191.00	192.00	0.41																	
E274667	192.00	193.00	0.87																	
E274668	193.00	194.00	7.39																	
E274669	194.00	195.00	4.47																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274671	195.00	196.10	3.16													M			W	
E274672	196.10	197.00	5.09																	
E274673	197.00	197.80	0.81	197.00	197.80	4EA	Continuation of mixed 4B-4F from above but now bands and patches of 4EA is ~50% of the core.													
E274674	197.80	198.50	0.18	197.80	200.40	4F	Mainly m.g. 4F with locally dominant zones of 4EA and 4E (~10% each) and ~ 10-15% intercalated light grey magnetic chert layers <1cm thick.						M			M			W	
E274675	198.50	199.50	2.25																	
E274676	199.50	200.40	1.64																	
E274677	200.40	201.00	4.21	200.40	202.60	4EA	Moderately well formed 4EA, better in lower part. ~10% bands of interlaminated 4B-amphibolite. The gar-grunerite forms relatively massive bands up to 30cm.									M			W	
E274678	201.00	202.00	0.47																	
E274679	202.00	202.60	5.74																	
E274681	202.60	203.60	4.66	202.60	206.60	4EA	Highly quartz flooded 4EA. Approx. 25% bands up to 5cm of good 4EA, 10% amphibolite, 2% 4F, all separated by quartz flooding.	Abundant Po throughout. Several small zones of pale green amph alt'n.								W			S	Local pale and dark green amph alt'n too.
E274682	203.60	204.60	5.74																	
E274683	204.60	205.60	6.67																	
E274684	205.60	206.60	9.17																	
E274685	206.60	207.60	0.05	206.60	207.60	4EA	Mixed zone of ~50% moderately developed 4EA, 20-30% m.g. to c.g. 4F and 20-30% 4B layers with minor amphibolite laminae. Only minor qtz flooding, trace Po.						M			M			W	
E274686	207.60	208.20	0.04	207.60	212.90	4F	Fairly typical 4F with ~30-50% m.g. garnets in f.g. biotite-rich matrix, only minor Fd-Qtz. Approx. 10% pale gray chert beds, locally magnetic, scattered throughout.	Minor amphibolite sections.												
E274687	208.20	208.80	14.27																W	
E274688	208.80	209.80	0.04																	
E274689	209.80	210.80	0.28																	
E274691	210.80	212.00	0.18																	
E274692	212.00	212.90	1.64																	
E274693	212.90	214.00	0.07	212.90	217.15	4B	Dark gray, mixed unit of well bedded, ~5-7mm, 4B with ~30-40% 4F component as ~discrete layers 3-7mm thick. The 4B layers have a moderate silicate (f.g. garnet-amph) overprint as well.	Straight banded, no significant deformation, veins, alteration zones, etc.												
E274694	214.00	215.00	0.31																	
E274695	215.00	216.00	0.30																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274696	216.00	217.15	0.09																	
E274697	217.15	218.00	0.03	217.15	229.00	4B	Typical "clean" 4B with pale gray chert-black magnetite bands up to 2cm. Only minor grunerite, no major deformation. A few scattered qtz veins but no significant Po.													
E274698	218.00	219.00	0.23																	
E274699	219.00	220.00	0.03																M	
E274701	220.00	221.00	0.30																	
E274702	221.00	221.50	0.09																	
E274703	221.50	222.00	0.02																	
E274704	222.00	223.00	0.01																	
E274705	223.00	224.00	0.07																	
E274706	224.00	224.70	0.05																	
E274707	224.70	225.70	0.15																	
E274708	225.70	226.50	0.12																	
E274709	226.50	227.10	0.66																	
E274711	227.10	228.00	0.17																	
E274712	228.00	229.00	0.20																	
E274713	229.00	229.90	0.04	229.00	232.65	4A	"Messy" interval of 4A with lesser 4B component. Commonly sheared and qtz flooded with abundant Po mineralization.	Gradational into the 4H unit at 230.9-232.25m.												
E274714	229.90	230.90	0.85													W			S	
E274715	230.90	231.90	0.09						230.90	232.25	4H	Po rich interval. Approx 10 to 25% Po in a chert rich BIF, probably a meta-mudstone component in the most Po-rich sections.								
E274716	231.90	232.25	0.04										M							
E274717	232.25	232.65	0.02																	
E274718	232.65	233.20	0.03	232.65	241.00	2T	Strongly foliated and biotitized mafic volcanic. Commonly bleached, no ultramafics here.													

STRUCTURAL LOG 04-ESN-009

MAJOR UNIT

From	To	Major Unit	Cont
0.00	21.50	CASI	
21.50	101.50	3F	
101.50	111.30	2	62
111.30	113.70	3F	73
113.70	136.20	2	
136.20	182.20	3F	
182.20	183.50	4F	73
183.50	189.00	4EA	
189.00	197.00	4B	
197.00	197.80	4EA	
197.80	200.40	4F	

MINERALS

As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments
			2.0	1		
			0.2			
			8.0			
			0.1			
			1.0			
			0.1			
			0.1			
			0.1			
			0.2			
			0.1			
			0.2			
			0.1			
			0.2			

QTZ VEINING

From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments

FABRIC

From	To	Alpha deg	Int	Type	Comments
34.00	37.00	68	MO	S1	
40.00	44.00	58	WE	S1	
46.00	48.00	64	WE	S1	
58.00	60.00	68	MO	S1	
61.00	62.00	62	MO	S1	
70.00	71.00	58	MO	S1	
76.00	79.00	67	WE	S1	
82.00	88.00	63	WE	S1	
96.00	97.00	60	MO	S1	
97.00	98.00	62	MO	S1	
110.00	114.00	63	MO	S1	
119.00	120.00	59	WE	S1	
128.00	132.00	63	WE	S1	
139.00	140.00	63	WE	S1	
142.00	146.00	63	WE	S1	
153.00	155.00	67	WE	S1	
160.00	162.00	73	WE	S1	
169.00	170.00	68	WE	S1	
175.00	182.00	72	MO	S1	
183.00	184.00	73		S0	
187.00	188.00	75		S0	
190.00	192.00	78		S0	
193.00	194.00	70		S0	
199.00	200.00	72		S0	

FOLD

From	To	Alpha deg	Int	Type	Comments

FAULT

From	To	Alpha deg	Int	Type	Comments
140.00	143.00	63	WEK	SC	Late shear zone with 5-10% thin Cc veinlets.

STRUCTURAL LOG 04-ESN-009

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py %	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
200.40	202.60	4EA					0.1																													
202.60	206.60	4EA					0.7																													
							5.0																													
							6.0																													
							5.0																													
206.60	207.60	4EA																																		
207.60	212.90	4F																	208.00	209.00	70		S0													
212.90	217.15	4B																	214.00	215.00	68		S0													
217.15	229.00	4B																	218.00	219.00	63		S0													
							0.1																													
							0.5																													
							35.			2 massive Po veins 7 &1 4 cm wide.																											
							0.1																													
																			223.00	224.00	77		S0													
											224.70	226.50	QZ	7	m	I									225.00	225.50	53	MO	ZF							
											226.50	227.00	QZ	60	m	I																				
229.00	232.65	4A					7.0																													
							17.												232.00	233.00	70		S0								232.00	241.00	66	MOD	SC	
232.65	241.00	2T	67																235.00	235.00	65	MO	S1													
																			238.00	239.00	67	MO	S2													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-010**

Project Code: ESN

Mine Grid Easting: 8910.6748
Mine Grid Northing: 13500.0616
Elevation: 5296.442

UTM East:
UTM North:

Planned Depth:
Actual Depth: 308

Drill Start Date: 16/03/2004
Drill End Date: 19/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	86.9582	-62.3403	SURV
3	86.85	-62.48	MAXI
6	86.65	-62.01	MAXI
9	86.38	-61.28	MAXI
12	86.66	-60.7	MAXI
15	86.87	-60.7	MAXI
18	87.06	-61	MAXI
21	87.2	-61.08	MAXI
24	87.3	-61.08	MAXI
27	87.37	-61.08	MAXI
30	87.44	-61.05	MAXI
33	87.51	-61.06	MAXI
36	87.62	-61.06	MAXI
39	87.67	-61.02	MAXI
42	87.74	-61.01	MAXI
45	87.82	-60.98	MAXI
48	87.89	-60.94	MAXI
51	87.93	-60.9	MAXI
54	88.07	-60.86	MAXI
57	88.1	-60.85	MAXI
60	88.24	-60.8	MAXI
63	88.33	-60.77	MAXI
66	88.42	-60.73	MAXI
69	88.47	-60.7	MAXI
72	88.55	-60.67	MAXI
75	88.68	-60.62	MAXI
78	88.79	-60.55	MAXI
81	88.89	-60.52	MAXI
84	89.05	-60.49	MAXI
87	89.2	-60.46	MAXI
90	89.28	-60.44	MAXI
93	89.31	-60.42	MAXI
96	89.39	-60.39	MAXI
99	89.48	-60.35	MAXI
102	89.54	-60.38	MAXI
105	89.6	-60.37	MAXI
108	89.65	-60.34	MAXI
111	89.77	-60.28	MAXI
114	89.95	-60.17	MAXI
117	90.17	-60.03	MAXI
120	90.38	-59.9	MAXI
123	90.6	-59.77	MAXI
126	90.79	-59.67	MAXI
129	90.94	-59.61	MAXI
132	91.12	-59.52	MAXI
135	91.3	-59.48	MAXI
138	91.39	-59.45	MAXI
141	91.49	-59.42	MAXI
144	91.59	-59.38	MAXI
147	91.69	-59.35	MAXI
150	91.73	-59.34	MAXI
153	91.75	-59.33	MAXI
156	91.8	-59.35	MAXI
159	91.86	-59.34	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-010**

Project Code: ESN

Mine Grid Easting: 8910.6748
Mine Grid Northing: 13500.0616
Elevation: 5296.442

UTM East:
UTM North:

Planned Depth:
Actual Depth: 308

Drill Start Date: 16/03/2004
Drill End Date: 19/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESN
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	91.91	-59.35	MAXI
165	91.98	-59.34	MAXI
168	92.05	-59.34	MAXI
171	92.15	-59.33	MAXI
174	92.25	-59.32	MAXI
177	92.35	-59.28	MAXI
180	92.45	-59.25	MAXI
183	92.52	-59.22	MAXI
186	92.57	-59.19	MAXI
189	92.65	-59.16	MAXI
192	92.77	-59.14	MAXI
195	92.89	-59.1	MAXI
198	92.97	-59.08	MAXI
201	93.02	-59.05	MAXI
204	93.15	-59.02	MAXI
207	93.23	-58.99	MAXI
210	93.26	-58.99	MAXI
213	93.34	-58.98	MAXI
216	93.42	-58.96	MAXI
219	93.49	-58.94	MAXI
222	93.56	-58.92	MAXI
225	93.64	-58.9	MAXI
228	93.73	-58.88	MAXI
231	93.85	-58.84	MAXI
234	93.99	-58.81	MAXI
237	94.07	-58.79	MAXI
240	94.16	-58.79	MAXI
243	94.32	-58.77	MAXI
246	94.41	-58.76	MAXI
249	94.56	-58.71	MAXI
252	94.69	-58.69	MAXI
255	94.82	-58.64	MAXI
258	94.91	-58.6	MAXI
261	95.04	-58.58	MAXI
264	95.11	-58.53	MAXI
267	95.2	-58.5	MAXI
270	95.29	-58.46	MAXI
273	95.45	-58.41	MAXI
276	95.52	-58.35	MAXI
279	95.67	-58.27	MAXI
282	95.85	-58.17	MAXI
285	95.98	-58.11	MAXI
288	96.11	-58.05	MAXI
291	96.24	-57.95	MAXI
294	96.38	-57.89	MAXI
297	96.52	-57.82	MAXI
300	96.67	-57.73	MAXI
303	96.81	-57.66	MAXI
305	96.9	-57.61	MAXI

LITHOLOGY LOG 04-ESN-010

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	20.50	CASIN														
				20.50	46.00	3C	feldspar phyric (5-10%) int volcs-tuffs, mod-well foliated													
				46.00	85.30	3C	mod-well banded int volcs, intervals look almost mafic but not quite (bio-chl alt?)													
				85.30	119.10	3F	mod-well banded fine grained tuffs, wkly sericitic, minor biotitic/amph rich bands may be seds or int volcs													
E276336	107.00	108.00	0.00																	
E276337	108.00	109.00	0.00																	
E276338	109.00	110.00	0.01																	
E276339	110.00	111.00	0.01																	
E276341	111.00	112.00	0.04																	
E276342	112.00	113.00	0.01																	
E276343	113.00	114.00	0.01																	
				119.10	142.60	3F	feldspar phyric (5-10%) felsic volcs, mod-well foliated, wkly sericitic													
E276344	123.00	124.00	0.00																	
				142.60	147.30	3C	mod-well banded fine grained int volc tuffs, minor intervals look mafic													
E276345	144.60	145.30	0.07																	
E276346	145.30	146.30	0.01																	
E276347	146.30	147.30	0.01																	
E276348	147.30	148.10	0.13	147.30	147.80	4E	qzf, mm-cm gt throughout, po												M	
				147.80	152.00	3C	mod-well banded fine grained int volc tuffs													
E276349	148.10	149.10	0.01																	
				152.00	162.10	2	mod-well foliated, wkly bio alt													
				162.10	169.10	3C	mod-well banded fine grained int volc tuffs, 5% gt near top of unit													
				169.10	169.80	2	mod foliated													
				169.80	176.20	3C	mod-well banded fine grained int volc tuffs													
E276351	175.20	176.20	0.00																W	
E276352	176.20	177.20	0.03	176.20	178.10	4E	minor qzf, mm-cm gt, po													
E276353	177.20	178.10	0.07																	
E276354	178.10	179.10	0.04	178.10	207.90	3C	mod-well banded fine grained int volc tuffs													
				207.90	216.30	3F	felsic tuffs, no sericite, lots of carb veinlets giving a pseudo clastic appearance						W							
				216.30	224.00	3C	mod-well banded fine grained int volc tuffs													
				224.00	225.50	2	highly deformed, lots of qzcv throughout													
				225.50	229.80	2T	2tu, minor, gt mm scale, throughout													
E276355	225.80	226.80	0.12																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E276356	226.80	227.80	0.06																	
E276357	227.80	228.80	0.05																	
E276358	228.80	229.80	0.04																	
E276359	229.80	230.80	0.19	229.80	232.50	4F	mm gt throughout, minor 4e cm bands						S							
E276361	230.80	231.80	0.23																	
E276362	231.80	232.50	0.03																	
E276363	232.50	233.50	6.22	232.50	235.50	4EA	moderately developed 4ea, mm-cm gt									M			M	
E276364	233.50	234.50	2.25																	
E276365	234.50	235.50	2.32																	
E276366	235.50	236.50	1.01	235.50	242.40	4F	mm gt, 25% (locally up to 40%) cm 4b bands (mostly chert with minor mag), well banded						S						W	
E276367	236.50	237.50	0.44																	
E276368	237.50	238.50	0.08																	
E276369	238.50	239.50	0.08																	
E276371	239.50	240.50	0.61																	
E276372	240.50	241.50	0.30																	
E276373	241.50	242.40	0.38																	
E276374	242.40	243.10	1.03	242.40	243.10	4EA	mm gt with rare cm gt, wkly developed 4ea (almost a 4e)									W			W	
E276375	243.10	244.10	2.40	243.10	247.30	4F	mm gt, 25% (locally up to 40%) cm 4b bands (mostly chert with minor mag), well banded						S						W	
E276376	244.10	245.10	0.57																	
E276377	245.10	246.10	0.49																	
E276378	246.10	247.30	0.27																	
E276379	247.30	248.40	4.51	247.30	248.40	4EA	weakly developed 4ea with minor cm gt									W			W	
E276381	248.40	249.30	1.02	248.40	249.30	4F	mm gt, 25% cm 4b bands (mostly chert with minor mag), well banded						S						W	
E276382	249.30	250.00	2.88	249.30	250.70	4EA	moderately developed 4ea, mm-cm scale gt									M			W	
E276383	250.00	250.70	0.28																	
E276384	250.70	251.80	0.05	250.70	251.80	4B	well banded/laminated with 15% 4fe bands, mm-cm													
E276385	251.80	252.80	0.03	251.80	254.40	4F	mm gt, 25% cm 4b bands						S							
E276386	252.80	253.60	0.30																	
E276387	253.60	254.40	0.19																	
E276388	254.40	255.40	0.44	254.40	266.70	4F	60% 4f, 40% 4b, magnetic, well banded													
E276389	255.40	256.40	0.01																	
E276391	256.40	257.40	0.02																	
E276392	257.40	258.40	0.01																	
E276393	258.40	259.40	0.03																	
E276394	259.40	260.40	0.04																	
E276395	260.40	261.40	0.04																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E276396	261.40	262.40	0.05																	
E276397	262.40	263.40	0.07																	
E276398	263.40	264.40	0.30																	
E276399	264.40	265.40	0.01																	
E276401	265.40	266.00	0.04																	
E276402	266.00	266.70	0.01																	
E276403	266.70	267.50	1.71	266.70	268.30	4B	70% 4b, 30% 4f, well banded													
E276404	267.50	268.30	8.19																	
E276405	268.30	269.30	0.03	268.30	270.00	4F	moderately banded, mm gt													
E276406	269.30	270.00	0.06																	
E276407	270.00	271.00	0.17	270.00	278.00	4B	moderately to coarsely banded (mm-cms), getting more cherty near bottom of unit, 10% 4f bands (mm-cm)									W			M	
E276408	271.00	272.00	0.22																	
E276409	272.00	273.00	0.07																	
E276411	273.00	274.00	0.02																	
E276412	274.00	275.00	0.07																	
E276413	275.00	276.00	0.01																	
E276414	276.00	277.00	0.11																	
E276415	277.00	278.00	0.11													W			S	
E276416	278.00	279.00	0.05	278.00	279.90	4H	4hi, graphitic, sulphidic, cherty, qzf, brecciated													
E276417	279.00	279.90	0.05																	
E276418	279.90	280.90	0.08	279.90	280.10	2														
				280.10	280.90	4B	cms scale banding						W							
E276419	280.90	281.90	0.02	280.90	287.90	2T	wkly to moderately bio altered, well foliated													
E276421	281.90	282.90	0.10										S							
				287.90	291.60	2T	very well foliated, highly distorted, shear zone						M							
				291.60	297.10	2T	well foliated, mod bio alt													
				297.10	308.00	2	mod foliated													

STRUCTURAL LOG 04-ESN-010

MAJOR UNIT			Conf	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py %	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	20.50	CASI	50																25.00	25.10	56	MO	S1								74.20	75.00	60	MOD	SC	
20.50	46.00	3C	55																35.00	35.10	50	MO	S1													
46.00	85.30	3C																	35.10	35.20	30	MO	S2													
85.30	119.10	3F																	41.00	41.10	55	MO	S1													
																			47.00	47.10	55	MO	S1													
																			56.00	56.10	54	MO	S1													
																			65.00	65.10	68	MO	S1													
																			77.00	77.10	70	MO	S1													
																			86.00	86.10	68	MO	S1													
																			88.10	86.20	50	MO	S2													
																			98.00	98.10	65	MO	S1													
																			98.10	98.20	48	MO	S2													
																			104.00	104.10	70	MO	S1													
																			104.10	104.20	50	WE	S2													
								3																												
																			113.00	113.10	64	MO	S1													
119.10	142.60	3F																	119.00	119.10	70	MO	S1													
																			119.10	119.20	46	WE	S2													
							3.0																													
142.60	147.30	3C																	130.00	130.10	55	MO	S1													
																			130.10	130.20	45	WE	S2													
																			137.00	137.10	55	MO	S1													
																			137.10	137.20	35	WE	S2													
							60.																													
																			146.00	146.10	70	MO	S1													
																			146.10	146.20	50	MO	S2													
								0.5																												
147.30	147.80	4E	65				3.0																													
147.80	152.00	3C	55																																	
																			153.00	153.10	60	MO	S1													
152.00	162.10	2	50																161.00	161.10	70	WE	S1													
162.10	169.10	3C	52																161.10	161.20	40	WE	S2													
169.10	169.80	2	60																167.00	167.10	60	WE	S1													
169.80	176.20	3C	58																167.10	167.20	45	WE	S2													
																			176.00	176.10	64	MO	S1													
176.20	178.10	4E	70				2.0																													
178.10	207.90	3C	65																																	

STRUCTURAL LOG 04-ESN-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
207.90	216.30	3F	40																185.00	185.10	64	WE	S1													
216.30	224.00	3C																	194.00	194.10	62	MO	S1													
224.00	225.50	2																	203.00	203.10	68	WE	S1													
225.50	229.80	2T																	212.00	212.10	60	MO	S1													
																			221.00	221.10	70	MO	S1													
							2.0	2																													
229.80	232.50	4F	60				2.0												230.50	230.60	60	MO	S1													
																			230.60	230.70	45	MO	S2													
232.50	235.50	4EA	50				2.0																													
235.50	242.40	4F	55																																	
																			239.00	239.10	50	MO	S1													
																			239.10	239.20	35	WE	S2													
242.40	243.10	4EA	58				2.0																													
243.10	247.30	4F	48																																	
247.30	248.40	4EA	68				0.5												248.00	248.10	68	MO	S1													
																			248.10	248.20	30	INT	S2													
248.40	249.30	4F	70																																	
249.30	250.70	4EA	70				3.0																													
250.70	251.80	4B	60																																	
251.80	254.40	4F	68																																	
254.40	266.70	4F																	255.00	255.10	55	MO	S1													
																			255.10	255.20	40	INT	S2													

STRUCTURAL LOG 04-ESN-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			264.00	264.10	60	MO	S1													
																			264.10	264.20	35	MO	S2													
266.70	268.30	4B																																		
268.30	270.00	4F																																		
270.00	278.00	4B					4.0																													
							0.5																													
							3.0																													
							1.0																		273.00	273.30	38	INT	FD								
																			275.00	275.10	60	MO	S1													
																			275.10	275.20	38	MO	S2													
							3.0																								278.00	279.90	60	MOD	BC	brecciate qtz/chert in graphite
278.00	279.90	4H					7.0																													
279.90	280.10	2					3.0																													
280.10	280.90	4B																																		
280.90	287.90	2T																																		
																			284.00	284.10	60	MO	S1		307.50	307.60	70	INT	FD		287.90	291.60	40	INT	SC	
287.90	291.60	2T																	284.10	284.20	58	WE	S2													
291.60	297.10	2T																	293.00	293.10	60	MO	S1													
297.10	308.00	2																	299.00	299.10	55	MO	S1													
																			307.00	307.10	52	MO	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-011**

Project Code: ESN

Mine Grid Easting: 8916.363
Mine Grid Northing: 13300.062
Elevation: 5296.5066

UTM East:
UTM North:

Planned Depth:
Actual Depth: 288

Drill Start Date: 12/03/2004
Drill End Date: 15/03/2004

Core Diameter: NQ
Plugged: YES

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	90.994	-64.146	SURV
3	90.85	-66.21	MAXI
6	90.8	-66.23	MAXI
9	90.81	-66.47	MAXI
12	90.84	-66.66	MAXI
15	91.02	-66.67	MAXI
18	91.04	-66.69	MAXI
21	91	-66.67	MAXI
24	91.05	-66.67	MAXI
27	91.08	-66.66	MAXI
30	91.09	-66.62	MAXI
33	91.1	-66.59	MAXI
36	91.09	-66.58	MAXI
39	91.15	-66.57	MAXI
42	91.26	-66.56	MAXI
45	91.37	-66.57	MAXI
48	91.49	-66.53	MAXI
51	91.56	-66.52	MAXI
54	91.61	-66.49	MAXI
57	91.69	-66.44	MAXI
60	91.8	-66.42	MAXI
63	91.84	-66.37	MAXI
66	91.89	-66.33	MAXI
69	91.85	-66.3	MAXI
72	91.91	-66.28	MAXI
75	91.96	-66.25	MAXI
78	91.93	-66.2	MAXI
81	91.91	-66.16	MAXI
84	91.98	-66.1	MAXI
87	92.03	-66.07	MAXI
90	92.09	-66.02	MAXI
93	92.19	-65.99	MAXI
96	92.3	-65.96	MAXI
99	92.36	-65.98	MAXI
102	92.33	-65.96	MAXI
105	92.35	-65.93	MAXI
108	92.42	-65.92	MAXI
111	92.5	-65.91	MAXI
114	92.61	-65.87	MAXI
117	92.67	-65.81	MAXI
120	92.74	-65.76	MAXI
123	92.8	-65.71	MAXI
126	92.88	-65.67	MAXI
129	92.96	-65.64	MAXI
132	93.01	-65.61	MAXI
135	93.02	-65.57	MAXI
138	93.11	-65.54	MAXI
141	93.14	-65.52	MAXI
144	93.23	-65.5	MAXI
147	93.29	-65.48	MAXI
150	93.4	-65.46	MAXI
153	93.38	-65.44	MAXI
156	93.4	-65.43	MAXI
159	93.52	-65.41	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESN-011**

Project Code: ESN

Mine Grid Easting: 8916.363
Mine Grid Northing: 13300.062
Elevation: 5296.5066

Drill Start Date: 12/03/2004
Drill End Date: 15/03/2004

Core Diameter: NQ
Plugged: YES

UTM East:
UTM North:

Planned Depth:
Actual Depth: 288

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	93.58	-65.41	MAXI
165	93.64	-65.38	MAXI
168	93.69	-65.35	MAXI
171	93.74	-65.31	MAXI
174	93.85	-65.27	MAXI
177	93.95	-65.25	MAXI
180	94.08	-65.19	MAXI
183	94.2	-65.14	MAXI
186	94.24	-65.1	MAXI
189	94.28	-65.06	MAXI
192	94.32	-65.02	MAXI
195	94.37	-64.98	MAXI
198	94.41	-64.94	MAXI
201	94.45	-64.9	MAXI
204	94.49	-64.86	MAXI
207	94.53	-64.82	MAXI
210	94.58	-64.78	MAXI
213	94.62	-64.74	MAXI
216	94.66	-64.7	MAXI
219	94.7	-64.66	MAXI
222	94.74	-64.62	MAXI
225	94.78	-64.58	MAXI
228	94.83	-64.53	MAXI
231	94.87	-64.49	MAXI
234	94.91	-64.45	MAXI
237	94.95	-64.41	MAXI
240	94.99	-64.37	MAXI
243	95.03	-64.33	MAXI
246	95.08	-64.29	MAXI
249	95.12	-64.25	MAXI
252	95.16	-64.21	MAXI
255	95.2	-64.17	MAXI
258	95.24	-64.13	MAXI
261	95.28	-64.09	MAXI
264	95.32	-64.05	MAXI
267	95.37	-64.01	MAXI
270	95.41	-63.97	MAXI
273	95.45	-63.93	MAXI
276	95.49	-63.89	MAXI
279	95.53	-63.84	MAXI
282	95.57	-63.8	MAXI
285	95.61	-63.76	MAXI
288	95.65	-63.75	MAXI

LITHOLOGY LOG 04-ESN-011

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	17.00	CASIN														
				17.00	29.60	3C	darker than typical felsic, feldspar phyric (1-3mm), abundant bio, mod banded (mm scale), well foliated													
				29.60	36.10	3C	as above but without feldspar phenos													
				36.10	44.60	3C	darker than typical felsic, feldspar phyric (1-3mm), abundant bio, wkly banded, well foliated													
				44.60	67.00	3F	more typical felsic, minor bio, well layered, well foliated													
				67.00	96.10	3F	feldspar phyric (1-3mm) 5%, wkly-mod layered, well foliated													
				96.10	106.10	2T	2tu, biotitic and chloritic with 1-7mm gt throughout (2-5%), may be intermediate													
				106.10	113.60	3F	3le, clasts 3 to 8mm wide by cms making up to 50% of rock, well foliated, abundant bio													
				113.60	122.10	2T	minor 4e units up to 3cm, abundant qzv and qzcv throughout with associated py+po, well foliated													
E276195	118.00	119.00	2.06																	
E276196	119.00	120.00	0.03																	
E276197	120.00	121.00	0.02																	
E276198	121.00	122.10	0.02																	
E276199	122.10	123.10	0.09	122.10	126.00	4EA	moderately developed with minor cm scale gt									M			W	
E276201	123.10	124.10	0.04																	
E276202	124.10	125.10	0.04																	
E276203	125.10	126.00	0.13																	
E276204	126.00	127.30	0.01	126.00	127.30	3F	wkly sericitic, well foliated													
E276205	127.30	128.30	0.04	127.30	130.40	2T	Conveyor Shear Zone													
E276206	128.30	129.30	0.32																	
E276207	129.30	130.40	0.05																	
E276208	130.40	131.60	0.04	130.40	131.60	3F														
E276209	131.60	132.60	0.07	131.60	133.50	4EA	mod developed									M			W	
E276211	132.60	133.50	0.07																	
E276212	133.50	134.30	0.06	133.50	133.90	2T	Conveyor Shear Zone													
				133.90	135.00	4EA	mod developed													
E276213	134.30	135.00	0.05																	
E276214	135.00	136.00	0.01	135.00	138.50	2T	mod sheared													
E276215	136.00	137.00	0.04																	
E276216	137.00	137.80	0.02																	
E276217	137.80	138.50	0.08																	
E276218	138.50	139.50	0.29	138.50	142.30	4EA	mod developed, looks like 4e in places									M			W	
E276219	139.50	140.50	0.37																	
E276221	140.50	141.50	0.21																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E276222	141.50	142.30	0.43																	
E276223	142.30	143.30	0.05	142.30	145.40	2T														
E276224	143.30	144.30	0.05													M				
E276225	144.30	145.40	0.11																	
E276226	145.40	146.40	0.08	145.40	172.70	3C														
E276227	146.40	147.40	0.08																	
E276228	147.40	148.40	0.04																	
E276229	148.40	149.30	0.04																	
E276231	149.30	150.00	0.04																	
E276232	150.00	151.00	0.07																	
E276233	151.00	152.00	0.02																	
E276234	152.00	153.00	0.02																	
				172.70	181.10	2T														
E276235	179.10	180.10	0.75																	
E276236	180.10	181.10	0.48																	
E276237	181.10	182.10	5.70	181.10	183.50	4F	80% 4f, 20% 4e in 1-3cm bands						S							
E276238	182.10	182.80	0.52																	
E276239	182.80	183.50	0.35																	
E276241	183.50	184.50	3.49	183.50	196.90	4EA	mod-well developed 4ea, minor portions look more 4b/4ef looking									S			M	
E276242	184.50	185.50	0.13																	
E276243	185.50	186.50	1.06																	
E276244	186.50	187.50	1.86																	
E276245	187.50	188.50	0.46																	
E276246	188.50	189.50	1.91																	
E276247	189.50	190.50	0.13																	
E276248	190.50	191.50	4.27																	
E276249	191.50	192.50	2.45																	
E276251	192.50	193.50	0.33																	
E276252	193.50	194.50	0.17																	
E276253	194.50	195.50	0.41																	
E276254	195.50	196.20	1.59																	
E276255	196.20	196.90	1.31																	
E276256	196.90	197.90	2.06	196.90	197.90	4F	70% 4f, 30% 4b in cm bands						S			W				
E276257	197.90	198.70	1.74	197.90	198.70	4EA							W			S			W	
E276258	198.70	199.60	1.25	198.70	199.00	4E														
				199.00	199.30	2														
				199.30	199.60	4E														
E276259	199.60	200.60	2.08	199.60	201.30	4EA														
E276261	200.60	201.30	0.38																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E276262	201.30	202.30	0.27	201.30	219.00	4B	55% 4b, 45% 4f, locally 4f dominant, well banded mm-cm scale, wkly-mod distorted						S			W			W	
E276263	202.30	203.30	0.04																	
E276264	203.30	204.30	0.62																	
E276265	204.30	205.30	0.27																	
E276266	205.30	206.30	0.34																	
E276267	206.30	207.30	0.06																	
E276268	207.30	208.30	0.17																	
E276269	208.30	209.30	0.11																	
E276271	209.30	210.30	0.10																	
E276272	210.30	211.30	0.14																	
E276273	211.30	212.30	0.06																	
E276274	212.30	213.30	0.04																	
E276275	213.30	214.30	0.09																	
E276276	214.30	215.30	0.04																	
E276277	215.30	216.30	0.04																	
E276278	216.30	217.30	0.11																	
E276279	217.30	218.30	0.12																	
E276281	218.30	219.00	0.12																	
E276282	219.00	220.00	0.07	219.00	222.00	4F	60% 4f, 40% 4b, highly distorted, well banded cm scale						S			W			W	
E276283	220.00	221.00	0.05																	
E276284	221.00	222.00	0.04																	
E276285	222.00	223.00	0.01	222.00	227.90	4F	90% 4f, 10% 4b in cm bands (mostly chert), mod distorted													
E276286	223.00	224.00	0.04																	
E276287	224.00	225.00	0.01																	
E276288	225.00	226.00	0.02																	
E276289	226.00	227.00	0.02																	
E276291	227.00	227.90	0.05																	
E276292	227.90	228.90	0.07	227.90	233.20	4F	60% 4f, 40% 4b, highly distorted, well banded cm scale													
E276293	228.90	229.90	0.02																	
E276294	229.90	230.90	0.03																	
E276295	230.90	231.80	0.05																	
E276296	231.80	232.50	0.02																	
E276297	232.50	233.20	0.04																	
E276298	233.20	234.00	0.09	233.20	238.60	4B	with 5% 4f in mm-cm bands, locally almost 4ch, mod distorted												W	
E276299	234.00	235.00	0.10																	
E276301	235.00	236.00	0.11																	

LITHOLOGY LOG 04-ESN-011

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E276302	236.00	237.00	0.15																	
E276303	237.00	238.00	0.03																	
E276304	238.00	238.60	0.34																	
E276305	238.60	239.60	0.01	238.60	252.20	2T	highly deformed by S2 fol, mod-highly bio alt						M							
E276306	239.60	240.60	0.01																	
				252.20	256.50	1														
				256.50	258.50	2	sheared and brecciated													
E276307	257.00	258.00	0.01																	
E276308	258.00	259.00	0.04	258.50	259.00	4B	highly sheared													
E276309	259.00	260.00	0.02	259.00	260.00	2	sheared, fractured													
E276311	260.00	261.00	0.05	260.00	280.30	4B	well laminated, mod-highly sheared locally, looks like SIF													
E276312	261.00	262.00	0.30																	
E276313	262.00	263.00	0.13																	
E276314	263.00	264.00	0.13																	
E276315	264.00	265.00	0.25																M	
E276316	265.00	266.00	0.45																	
E276317	266.00	267.00	0.14																	
E276318	267.00	268.00	1.60																	
E276319	268.00	269.00	1.29																	
E276321	269.00	270.00	0.82																	
E276322	270.00	271.00	0.14																W	
E276323	271.00	272.00	0.11																	
E276324	272.00	273.00	0.10																	
E276325	273.00	274.00	0.04																	
E276326	274.00	275.00	0.03																	
E276327	275.00	276.00	0.03																	
E276328	276.00	277.00	0.04																W	
E276329	277.00	278.00	0.04																	
E276331	278.00	278.70	0.04																	
E276332	278.70	279.50	0.10																M	
E276333	279.50	280.30	0.08																	
E276334	280.30	281.30	0.03	280.30	283.00	1	talcose, well foliated													
E276335	281.30	282.30	0.06																	
				283.00	288.00	2	well foliated													

STRUCTURAL LOG 04-ESN-011

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	17.00	CASI	40					2											21.00	21.10	60	MO	S1													
17.00	29.60	3C						0.5											30.00	30.10	60	INT	S1													
29.60	36.10	3C																	42.00	42.10	58	MO	S1													
36.10	44.60	3C																	51.00	51.10	58	MO	S1													
44.60	67.00	3F																	60.00	60.10	65	MO	S1													
67.00	96.10	3F																	69.00	69.10	56	MO	S1													
96.10	106.10	2T																	81.00	81.10	60	MO	S1													
106.10	113.60	3F																	87.00	87.10	65	MO	S1													
113.60	122.10	2T																	102.00	102.10	55	MO	S1													
																			114.00	114.10	58	MO	S1													
																			114.10	114.20	30	MO	S2													
							2.0	4																													
																			121.00	121.10	55	MO	S1													
																			121.10	121.20	30	MO	S2													
122.10	126.00	4EA	55				1.0																													
126.00	127.30	3F	72																												127.30	130.40	54	INT	SC	Conveyor Shear Zone
127.30	130.40	2T	63																																	
																			129.40	129.50	60	INT	S1													
																			129.50	129.60	24	INT	S2													
130.40	131.60	3F	54																																	
131.60	133.50	4EA	55				1.0																								133.50	133.90	55	INT	SC	Conveyor Shear Zone
133.50	133.90	2T	50																																	
133.90	135.00	4EA	50																																	
135.00	138.50	2T	65																																	
138.50	142.30	4EA					3.0																													
																			141.00	141.10	44	INT	S1													
																			141.10	141.20	56	INT	S2													
142.30	145.40	2T					1.0	0.5																												

STRUCTURAL LOG 04-ESN-011

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
145.40	172.70	3C																																		
																			150.00	150.10	55	INT	S1													
172.70	181.10	2T																	162.00	162.10	54	MO	S1													
																			174.00	174.10	46	MO	S1													
																			180.00	180.10	62	MO	S1													
181.10	183.50	4F	55																																	
183.50	196.90	4EA	75				3.0																													
																			189.00	189.10	54	INT	S1													
																			189.10	189.20	40	INT	S2													
196.90	197.90	4F	60				0.5												196.90	197.00	65	MO	S1													
																			197.00	197.10	50	MO	S2													
197.90	198.70	4EA	50				1.0																													
198.70	199.00	4E	40																																	
199.00	199.30	2																																		
199.30	199.60	4E																																		
199.60	201.30	4EA	50																																	
201.30	219.00	4B	55				0.5																													

STRUCTURAL LOG 04-ESN-011

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			207.00	207.10	56	MO	S1													
																			207.10	207.20	40	MO	S2													
																			213.50	213.60	48	MO	S1													
																			213.60	213.70	38	MO	S2													
219.00	222.00	4F	40				0.1																													
222.00	227.90	4F	60																222.00	222.10	12	MO	S1													
																			222.10	222.20	60	MO	S2													
227.90	233.20	4F	25																																	
																			231.00	231.10	15	MO	S1													
																			231.10	231.20	38	MO	S2													
233.20	238.60	4B	45				50. 4.0																													
							1.0 5.0																															
238.60	252.20	2T	60																																	
252.20	256.50	1	90																246.50	246.60	70	MO	S1								256.60	261.00	15	INT	SC	highly sheared and fractured, S1 15, S2 60
256.50	258.50	2																	246.60	246.70	40	MO	S2													
																			254.00	254.10	38	MO	S1													

STRUCTURAL LOG 04-ESN-011

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
258.50	259.00	4B																																		
259.00	260.00	2																																		
260.00	280.30	4B																													261.00	264.70	24	INT	SC	highly sheared, nice shear fabric in 4b
							2.0																													
							4.0																													
							1.0												267.00	267.10	50	MO	S1													
																			267.10	267.20	18	INT	S2													
							1.0																													
							0.5																													
																			276.00	276.10	65	MO	S1													
																			276.10	276.20	15	MO	S2													
							3.0																													
							6.0																													
							3.0																													
280.30	283.00	1																																		
283.00	288.00	2																	285.00	285.10	40	INT	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-001**

Project Code: ESS

Mine Grid Easting: 8921.57
Mine Grid Northing: 11549.97
Elevation: 5296.29

UTM East 677128.932
UTM North: 5833817.893

Planned Depth: 70
Actual Depth: 109

Drill Start Date: 10/01/2004
Drill End Date: 15/12/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	88.684	-45.371	SURV
25	88.684	-42.3	EZS
52	88.684	-41.9	EZS
76	88.684	-41.3	EZS
100	88.684	-41.2	EZS

LITHOLOGY LOG 04-ESS-001

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	17.00	CASIN														
				17.00	24.08	2														
E264676	23.00	24.08	0.05																	
E264677	24.08	24.60	0.18	24.08	24.60	4E	Quartz veined up to 1cm wide with coarse-grained garnets up to 1cm.													
E264678	24.60	25.00	0.11	24.60	25.00	2														
E264679	25.00	25.80	0.62	25.00	26.34	4E	Same as previous													
E264681	25.80	26.34	0.09																	
E264682	26.34	27.00	0.05	26.34	30.00	2T	Well laminated and biotitic with minor cal veins.													
E264683	27.00	28.00	0.26																	
E264684	28.00	29.00	0.09																	
E264685	29.00	30.00	0.04																	
E264686	30.00	31.00	1.74	30.00	42.47	4E	Garnets average 0.5cm with minor 4F units up to 10cm wide. Generally qtz-poor.													
E264687	31.00	32.00	2.02																	
E264688	32.00	33.00	0.38																	
E264689	33.00	34.00	0.89																	
E264691	34.00	35.00	0.04																	
E264692	35.00	36.00	0.01																	
E264693	36.00	37.00	0.01																	
E264694	37.00	38.00	0.02																	
E264695	38.00	39.00	0.97																	
E264696	39.00	40.00	0.57																	
E264697	40.00	41.20	0.51																	
E264698	41.20	42.47	0.56																	
E264699	42.47	43.65	0.06	42.47	45.65	4F	Atypical 4F with 1-2mm garnets and bleached appearance. Poorly laminated.													
E264651	43.65	44.65	0.06																	
E264652	44.65	45.65	0.09																	
E264653	45.65	46.85	0.05	45.65	57.35	4E	Has appearance of 4EA except no grunerite and weakly magnetic. Garnets up to 1.2cm often associated with biotite. Some broken and folded qtz vein material. Local minor po.													
E264654	46.85	48.00	0.09																	
E264655	48.00	49.00	0.18																	
E264656	49.00	50.00	0.41																	
E264657	50.00	51.00	0.55																	
E264658	51.00	52.00	0.26																	
E264659	52.00	53.00	1.07																	
E264661	53.00	54.00	5.03																	
E264662	54.00	55.00	1.73																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E264663	55.00	56.00	1.27																	
E264664	56.00	57.00	3.45																	
E264665	57.00	57.35	0.59																	
E264666	57.35	58.00	0.11	57.35	63.10	4F	Poorly foliated, 2-3mm garnets.													
E264667	58.00	59.00	0.04																	
E264668	59.00	60.00	0.04																	
E264669	60.00	61.00	0.07																	
E264671	61.00	62.00	0.04																	
E264672	62.00	63.10	0.66																	
E264673	63.10	64.00	4.01	63.10	68.95	4EA	Siliceous with 0.2-1cm wide qtz bands. Poorly developed, very minor grunerite.													
E264674	64.00	65.00	1.66																	
E264675	65.00	66.00	0.21																	
E264501	66.00	67.00	0.18																	
E264502	67.00	68.00	0.55																	
E264503	68.00	69.00	0.41	68.95	71.27	2	Minor biotite and broken qtz veins with minor calcite.													
E264504	69.00	70.00	0.37																	
E264505	70.00	71.27	1.21																	
E264506	71.27	72.00	4.02	71.27	73.85	4E	Grunerite-poor with minor 4F bands inreasing downhole.													
E264507	72.00	73.00	7.78																	
E264508	73.00	73.85	0.55																	
E264509	73.85	75.00	0.32	73.85	76.82	4F	Approx. 60% 1mm garnets.													
E264511	75.00	76.00	0.13																	
E264512	76.00	76.82	0.15																	
E264513	76.82	78.00	0.31	76.82	92.42	4B	Upper 5m comprised of alternating magnetite/chert interbedded with 4E over 1cm widths. Becoming more typical to 91 m where it is more cherty 4A-like.													
E264514	78.00	79.00	2.01																	
E264515	79.00	80.00	0.10																	
E264516	80.00	81.00	0.19																	
E264517	81.00	82.00	0.53																	
E264518	82.00	83.00	0.50																	
E264519	83.00	84.00	0.97																	
E264521	84.00	85.00	0.17																	
E264522	85.00	86.00	0.25																	
E264523	86.00	87.00	0.07																	
E264524	87.00	88.00	0.45																	
E264525	88.00	89.00	0.16																	
E264526	89.00	90.20	0.03																	
E264527	90.20	91.40	0.23																	

LITHOLOGY LOG 04-ESS-001

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E264528	91.40	92.42	0.07																	
E264529	92.42	93.60	0.02	92.42	109.00	2T	Moderately schistose with 1-3mm wide biotite wisps parallel to foliation.													

STRUCTURAL LOG 04-ESS-001

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit-		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	17.00	CASI																	19.00	19.10	70	MO	S1													
17.00	24.08	2																																		
24.08	24.60	4E																																		
24.60	25.00	2																																		
25.00	26.34	4E																	25.00	25.10	60	MO	S1													
26.34	30.00	2T																																		
30.00	42.47	4E																	32.00	32.10	60	MO	S1													
																			40.00	40.10	52	MO	S1													
42.47	45.65	4F																																		
45.65	57.35	4E																	46.00	46.10	80	MO	S1													
																			52.00	52.10	75	MO	S1													
57.35	63.10	4F																	58.00	58.10	72	WE	S1													

STRUCTURAL LOG 04-ESS-001

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
63.10	68.95	4EA																	64.00	64.10	65	MO	S0													
68.95	71.27	2																	70.00	70.10	50	MO	S1													
71.27	73.85	4E																	76.00	76.10	65	WE	S1													
73.85	76.82	4F																	82.00	82.10	87	MO	S0													
76.82	92.42	4B					5.0												88.00	88.10	58	MO	S0													
92.42	109.00	2T																	94.00	94.10	60	MO	S1													
																			100.00	100.10	67	MO	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-002**

Project Code: ESS

Mine Grid Easting: 8865.607
Mine Grid Northing: 11549.697
Elevation: 5296.334

UTM East 677089.467
UTM North: 5833779.571

Planned Depth: 90
Actual Depth: 150.25

Drill Start Date: 17/01/2004
Drill End Date: 19/01/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	92.458	-43.652	SURV
6	92.458	-43.7	EZS
20	92.458	-44.1	EZS
68	92.458	-42.8	EZS
92	92.458	-41.4	EZS
116	92.458	-40.7	EZS
140	92.458	-40	EZS

LITHOLOGY LOG 04-ESS-002

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	19.00	CASIN														
				19.00	36.82	3F	Moderately well laminated tuff. Upper 3m is weakly to moderately biotitic.													
E272501	36.82	38.00	2.27	36.82	43.63	2T	Interval may be 2T or biotite/amphibole altered felsic volcanic. Strongly banded biotite +-amph+-gare with 5% calcite veins.													
E272502	38.00	39.00	0.07																	
E272503	39.00	40.00	0.02																	
E272504	40.00	41.00	0.02																	
E272505	41.00	42.00	0.02																	
E272506	42.00	43.00	0.02																	
E272507	43.00	43.63	0.02																	
E272508	43.63	44.80	0.04	43.63	44.84	4E	Garnet and garnet clots up to 1.3cm in dark-green groundmass.													
E272509	44.80	46.00	0.04	44.84	48.85	2T	Appears to be equal mixture of bio-altered mafic and well developed 4E interbedded over 50-100 cm widths.													
E272511	46.00	47.00	0.02																	
E272512	47.00	48.00	0.02																	
E272513	48.00	48.85	0.02																	
E272514	48.85	50.00	0.08	48.85	66.09	2	Typically weakly to locally moderately well foliated with minor zones of biotite alteration.													
E272515	50.00	50.80	0.03																	
E272516	50.80	51.60	0.03																	
E272517	51.60	52.80	0.04						51.60	55.80	2T	Mixed zone of 2T with 4E in a 60:40 ratio. No sulphides.								
E272518	52.80	54.00	0.01																	
E272519	54.00	55.00	1.93																	
E272521	55.00	55.80	0.02																	
E272522	55.80	57.00	0.03																	
E272523	65.00	66.09	0.02																	
E272524	66.09	67.00	1.19	66.09	74.39	4E	Well developed with siliceous bands. Would be 4EA if grunerite was present. Few 2T bands up to 30cm wide sometimes associated with weak 4EA over 40cm.													
E272525	67.00	68.00	2.28																	
E272526	68.00	69.00	0.04																	
E272527	69.00	70.00	1.04																	
E272528	70.00	71.00	0.20																	
E272529	71.00	72.00	0.43																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E272531	72.00	73.20	0.40																	
E272532	73.20	74.39	2.89																	
E272533	74.39	75.00	0.04	74.39	76.90	2	Unaltered, poorly foliated.													
E272534	75.00	76.00	0.02																	
E272535	76.00	76.90	0.01																	
E272536	76.90	78.16	0.08	76.90	78.16	4E	Similar to previous 4E unit.													
E272537	78.16	79.00	0.01	78.16	82.00	2T	Moderately to wealy developed with 5% calcite veins.													
E272538	79.00	80.00	0.03																	
E272539	80.00	81.00	0.02																	
E272541	81.00	82.00	0.02																	
E272542	82.00	83.00	0.49	82.00	85.73	4EA	Siliceous with minor bands <20cm of pure 4E. Garnets up to 1cm.													
E272543	83.00	84.00	0.25																	
E272544	84.00	85.00	0.07																	
E272545	85.00	85.73	5.46																	
E272546	85.73	87.00	0.10	85.73	88.05	2T	Well foliated with rare qtz bands averaging 1cm.													
E272547	87.00	88.05	0.02																	
E272548	88.05	89.00	0.04	88.05	94.50	4E	Disrupted with 40% silica bands. No well developed grunerite.													
E272549	89.00	90.00	0.09																	
E272551	90.00	91.00	1.88																	
E272552	91.00	92.00	0.86																	
E272553	92.00	93.00	0.47																	
E272554	93.00	93.80	0.42																	
E272555	93.80	94.50	0.33																	
E272556	94.50	95.70	0.04	94.50	124.30	4F	Poorly foliated with 50% 1-3mm garnet porphs. Broken and blocky in upper 2m.													
E272557	95.70	96.90	0.17																	
E272558	96.90	98.00	0.04																	
E272559	98.00	99.00	0.06																	
E272561	99.00	100.00	0.04																	
E272562	100.00	101.00	0.04																	
E272563	101.00	102.00	0.03																	
E272564	102.00	103.00	0.04																	
E272565	103.00	104.00	0.04																	
E272566	104.00	105.00	0.04																	
E272567	105.00	106.00	0.06																	
E272568	106.00	107.00	0.04																	
E272569	107.00	108.00	0.10																	
E272571	108.00	109.00	0.26																	
E272572	109.00	110.00	0.09																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E272573	110.00	111.00	0.03																	
E272574	111.00	112.00	0.07																	
E272575	112.00	113.00	0.03																	
E272576	113.00	114.00	0.03																	
E272577	114.00	114.60	0.02																	
E272578	114.60	115.50	0.07						114.60	117.50	4E	Well folded and qtz-poor.								
E272579	115.50	116.50	0.29																	
E272581	116.50	117.50	0.26																	
E272582	117.50	118.70	0.02																	
E272583	118.70	119.90	0.07																	
E272584	119.90	121.00	0.01																	
E272585	121.00	122.00	0.02																	
E272586	122.00	123.20	0.04																	
E272587	123.20	124.30	0.05																	
E272588	124.30	125.00	0.05	124.30	133.33	4E	Well banded and composed of alternating , 0.5cm wide 4E and chert beds often with magnetite wisps. Minor 4F units up to 20cm.													
E272589	125.00	126.00	0.46																	
E272591	126.00	127.00	0.28																	
E272592	127.00	128.00	0.55																	
E272593	128.00	129.00	0.33																	
E272594	129.00	130.00	0.05																	
E272595	130.00	131.00	0.08																	
E272596	131.00	132.20	0.16																	
E272597	132.20	133.33	0.89																	
E272598	133.33	134.00	1.73	133.33	145.40	4B	Not classic 4B, composed of bedded 4E and magnetite-bearing chert as previous unit except much more magnetic and amphibole-rich.													
E272599	134.00	135.00	2.73																	
E272601	135.00	136.00	1.34																	
E272602	136.00	137.00	6.70																	
E272603	137.00	138.00	0.81																	
E272604	138.00	139.00	8.24																	
E272605	139.00	140.00	0.72																	
E272606	140.00	141.00	0.20																	
E272607	141.00	142.00	0.61																	
E272608	142.00	143.00	1.80																	
E272609	143.00	144.00	1.75																	
E272611	144.00	145.00	0.82																	

LITHOLOGY LOG 04-ESS-002

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E272612	145.00	146.00	0.07	145.40	150.25	4A	Typical light yellowish-off white 4A composed of 30-40% wispy bands of very f.g. grunerite & Mg-Fe carb (effervesces with HCl) with 50-60% off-white weakly magnetic chert. Laced with ~10-30% semi-conformable qtz veins up to 10cm.	~2% bands of gar-amph <3mm wide, conc'd near qtz veins.											M	Unit is laced with 10-30% small (<1-2cm) qtz veins subparallel to banding, hard to tell from chert bands.
E272613	146.00	147.00	0.50																	
E272614	147.00	148.00	0.06						147.45	147.70	2	Medium grey green, weakly bio'd mafic volcanic.								
E272615	148.00	149.00	0.11																	
E272616	149.00	150.25	0.01																	

STRUCTURAL LOG 04-ESS-002

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	19.00	CASI																	26.00	26.10	60	MO	S1													
19.00	36.82	3F																	35.00	35.10	63	MO	S1													
36.82	43.63	2T																	38.00	38.10	49	INT	S1													
43.63	44.84	4E																																		
44.84	48.85	2T																	45.00	45.10	60	MO	S1													
48.85	66.09	2																																		
																			55.00	55.10	50	MO	S1													
																			56.00	56.10	53	MO	S1													
																			62.00	62.10	65	MO	S1													
66.09	74.39	4E																																		
																			68.00	68.10	60	MO	S1													
																			74.00	74.10	58	MO	S0													
74.39	76.90	2																																		
76.90	78.16	4E																																		
78.16	82.00	2T																	80.00	80.10	66	INT	S1													
82.00	85.73	4EA																																		

STRUCTURAL LOG 04-ESS-002

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
85.73	88.05	2T																	87.00	87.10	62	INT	S1													
88.05	94.50	4E																	92.00	92.10	47	MO	S0													
94.50	124.30	4F																	102.00	102.10	57	WE	S1													
																			109.00	109.10	30	WE	S1													
																			119.00	119.10	49	MO	S1													
124.30	133.33	4E																	125.00	125.10	36	MO	S0													

STRUCTURAL LOG 04-ESS-002

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			131.00	131.10	51	MO	S0													
133.33	145.40	4B																																	
																			137.00	137.10	40	MO	S0													
							1.0												144.00	144.10	50	MO	S0													
145.40	150.25	4A																																	
							1.0												147.00	148.00	63	MO	S1													
							0.2												148.00	149.00	44		S0													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-004**

Project Code: ESS

Mine Grid Easting: 8754.3918
Mine Grid Northing: 11550.4011
Elevation: 5296.8208

UTM East 677006.968
UTM North: 5833699.447

Planned Depth: 200
Actual Depth: 311

Drill Start Date: 29/01/2004
Drill End Date: 01/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments: Lower 100m condtional on good Eastern Zone Results elsewhere.

Survey

Depth	Azimuth	Dip	SurveyType
0	88.937	-43.976	SURV
3	89	-43.54	MAXI
6	88.92	-43.41	MAXI
9	89.17	-43.45	MAXI
12	89.81	-43.44	MAXI
15	90.33	-43.29	MAXI
18	90.57	-43.18	MAXI
21	90.75	-43.04	MAXI
24	90.9	-42.87	MAXI
27	91.02	-42.8	MAXI
30	91.16	-42.75	MAXI
33	91.37	-42.68	MAXI
36	91.49	-42.61	MAXI
39	91.62	-42.5	MAXI
42	91.73	-42.43	MAXI
45	91.79	-42.41	MAXI
48	91.87	-42.38	MAXI
51	91.95	-42.38	MAXI
54	92.04	-42.36	MAXI
57	92.13	-42.33	MAXI
60	92.19	-42.32	MAXI
63	92.27	-42.27	MAXI
66	92.33	-42.25	MAXI
69	92.43	-42.24	MAXI
72	92.53	-42.24	MAXI
75	92.6	-42.24	MAXI
78	92.67	-42.22	MAXI
81	92.71	-42.19	MAXI
84	92.78	-42.16	MAXI
87	92.84	-42.14	MAXI
90	92.86	-42.12	MAXI
93	92.95	-42.11	MAXI
96	92.99	-42.08	MAXI
99	93.07	-42.04	MAXI
102	93.15	-42	MAXI
105	93.2	-41.97	MAXI
108	93.27	-41.95	MAXI
111	93.33	-41.96	MAXI
114	93.43	-41.97	MAXI
117	93.54	-41.95	MAXI
120	93.65	-41.94	MAXI
123	93.72	-41.91	MAXI
126	93.8	-41.85	MAXI
129	93.89	-41.81	MAXI
132	93.95	-41.79	MAXI
135	94.04	-41.76	MAXI
138	94.16	-41.71	MAXI
141	94.23	-41.68	MAXI
144	94.26	-41.64	MAXI
147	94.32	-41.61	MAXI
150	94.34	-41.59	MAXI
153	94.39	-41.56	MAXI
156	94.46	-41.53	MAXI
159	94.5	-41.51	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-004**

Project Code: ESS

Mine Grid Easting: 8754.3918
Mine Grid Northing: 11550.4011
Elevation: 5296.8208

UTM East 677006.968
UTM North: 5833699.447

Planned Depth: 200
Actual Depth: 311

Drill Start Date: 29/01/2004
Drill End Date: 01/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments: Lower 100m condtional on good Eastern Zone Results elsewhere.

Survey

Depth	Azimuth	Dip	SurveyType
162	94.51	-41.46	MAXI
165	94.57	-41.42	MAXI
168	94.58	-41.39	MAXI
171	94.63	-41.35	MAXI
174	94.63	-41.31	MAXI
177	94.67	-41.26	MAXI
180	94.69	-41.21	MAXI
183	94.72	-41.17	MAXI
186	94.73	-41.16	MAXI
189	94.79	-41.11	MAXI
192	94.82	-41.07	MAXI
195	94.86	-41.06	MAXI
198	94.93	-41.13	MAXI
201	95	-41.13	MAXI
204	95.07	-41.09	MAXI
207	95.15	-41.07	MAXI
210	95.25	-41.06	MAXI
213	95.32	-41.02	MAXI
216	95.39	-40.97	MAXI
219	95.41	-40.91	MAXI
222	95.42	-40.85	MAXI
225	95.49	-40.8	MAXI
228	95.53	-40.75	MAXI
231	95.51	-40.72	MAXI
234	95.52	-40.71	MAXI
237	95.55	-40.68	MAXI
240	95.57	-40.63	MAXI
243	95.56	-40.59	MAXI
246	95.56	-40.57	MAXI
249	95.6	-40.52	MAXI
252	95.61	-40.48	MAXI
255	95.65	-40.45	MAXI
258	95.72	-40.46	MAXI
261	95.77	-40.43	MAXI
264	95.8	-40.4	MAXI
267	95.81	-40.36	MAXI
270	95.83	-40.32	MAXI
273	95.87	-40.3	MAXI
276	95.92	-40.28	MAXI
279	95.99	-40.29	MAXI
282	96.03	-40.26	MAXI
285	96.14	-40.27	MAXI
288	96.17	-40.3	MAXI
291	96.19	-40.33	MAXI
294	96.21	-40.33	MAXI
297	96.25	-40.29	MAXI
300	96.24	-40.19	MAXI
303	96.32	-40.26	MAXI
306	96.35	-40.26	MAXI
309	96.39	-40.26	MAXI
311	96.43	-40.25	MAXI

LITHOLOGY LOG 04-ESS-004

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
				0.00	21.00	CASIN	Approx 2m of water followed by thick organics and then sand-boulders.												M	
				21.00	61.50	3F	Light to medium grey often with brownish tinge due to f.g. biotite. Fairly homogeneous, f.g., well foliated, aphyric. Consists mainly of very f.g. quartz (with lesser feldspar presumably) minor sericite, and variable biotite	Biotite is concentrated up to 25% in thin bands <1cm, may be primary component of this waterlain (?) ash tuff. Unit is locally quite dark but still ~siliceous.					W							Possibly just metamorphic assemblage from more pelitic interval.
				61.50	65.00	3C	Diffusely banded medium grey to brown unit with alternating biotite and amphibole dominant layers. Bio and amph vary from 20-60% in thier respective layers, rest is f.g. qtz-fd.	Higher amph % indicates this is more intermediate than the felsic tuff above but still has high sed component indicated by high bioite%.												
				65.00	73.70	3F	Medium grey, ~homogeneous, aphyric felsic volcanics. Featureless, presumed to be ash tuff. Minor biotite banding, alteration?													
				73.70	88.00	3C	Similar to previous 3C, biotite and locally amphibole rich, well laminated/banded, presumed to be waterlain intermediate tuff.													
				88.00	158.65	3F	Generally well foliated, locally weakly, most is faintly banded but some well banded grey-white-beige in <1-2cm bands. Felsic ash tuff as before, perhaps more of a Fd-crystal component from 119-126m.	No major shears, veins or sulphides. Locally 1-2% garnets but generally very minor amphiboles.												
E272273	158.00	158.65	0.09																	
E272274	158.65	159.30	0.12	158.65	161.60	6	Mixed metasedimentary package. Approx. 60% is a f.g. light-medium brown quartzose unit with ~10-20% evenly dsitributed biotite, no amphiboles, probably was a siltstone.	Three intercalated units, 10-90 cm thick, of mixed 4B-4F-4E, latter 2 are c.g. and locally have 2% Py.	158.65	159.30	4E	2 sections, 30 and 5cm, of ~c.g. 4E with minor 4B laminae and moderate qtz flooding + dissem Po blebs and a 2-3cm vein. Intervening metased layer is much more biotite rich than rest of unit 6.										
E272275	159.30	160.20	0.02																	
E272276	160.20	161.10	0.07						160.20	161.10	4F	Mixed section of ~50% c.g 4F, 10-20% 4B partially alt'd to green amph, minor 4E, and the rest is metased unit 6.									

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E272277	161.10	161.60	0.02	161.60	164.90	2	Pale grey-green, moderately well foliated f.g. mafic volcanic. Only minor biotite, f.g., usually in diffuse bands. One 60cm unit of f.g. metased.													
E272278	164.40	164.90	0.03																	
E272279	164.90	165.30	0.80	164.90	166.20	6	Well foliated to thinly bedded/banded biotitic metased as before. Upper margin quartz flooded for 40cm, lower one sharp.	No amphiboles visible, no sign that this is altered basalt.											S	
E272281	165.30	166.20	0.25																	
E272282	166.20	167.30	0.16	166.20	168.90	4EA	Two horizons of 4EA separated by unit 6? from 167.3-167.8. 4EA is fairly coarse, highly quartz flooded and moderately mineralized with Po but grunerite is only ~5%.	4EA also contains ~10-20% coarse (garnets) 4F, quite hydrothermal looking.					S			W			S	
E272283	167.30	167.80	0.15						167.30	167.80	6	Mainly f.g. biotitic metased as before but with a few patches of f.g. amphibolite.								
E272284	167.80	168.90	8.73										M			W			S	
E272285	168.90	169.50	0.22	168.90	179.65	6	Mainly unit 6 f.g., well foliated metasediment as before with ~20-30% f.g. biotite dissem thoughout a f.g. Fd-Qtz matrix. No amphiboles, locally signs of early S1 foliation in the biotite.	Section also has 2 intervals of mafic volcanis <1.5m wide, moderately biotitized and with gradational contacts ino seds.												
E272286	179.00	179.65	0.07																	
E272287	179.65	180.65	0.06	179.65	181.45	4EA	Similar to previous 4EA, moderately qtz flooded, 10% c.g. hydrothermal looking 4F, c.g. garnets, ~30% magnetic chert layers up to 3cm thick, etc. but low grunerite content, ~5%.						W			W			M	
E272288	180.65	181.45	0.06																	
E272289	181.45	182.20	0.17	181.45	186.20	4F	Mixed section with ~40-50% 4F, 15% f.g. unit 6, and ~10-20% 4B & 4E layers. 4F has ~50% m.g. garnets in biotite rich matrix, probably some hydrothermal alt'n.													
E272291	182.20	183.00	0.17																	
E272292	183.00	184.00	0.20										M							

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E272293	184.00	185.00	0.03						184.00	185.00	6	Pale brownish -grey, very homogeneous metased unit as before.								
E272294	185.00	186.20	0.04										M W			M			W	
E272295	186.20	187.00	0.46	186.20	192.00	4EA	Moderately developed 4EA with minor bands of hydrothermal 4F, <5% 4E, moderate qtz flooding, 20-30% remnant 4B layers <1-2cm thick.	Relatively weakly deformed and only minor Po.												
E272296	187.00	188.00	2.69																	
E272297	188.00	189.00	3.04																	
E272298	189.00	190.00	1.00																	
E272299	190.00	191.00	0.17																	
E272301	191.00	192.00	1.50																	
E272302	192.00	193.00	1.41	192.00	238.00	4B	Fairly "clean" 4B with only minor local hydrothermal 4F bands, no significant 4E. Thicker chert layers and 5-10% f.g. grunerite bordering on 4A from 197-213m.													
E272303	193.00	194.00	0.39																	
E272304	194.00	194.70	1.30																	
E272305	194.70	195.70	0.11																	
E272306	195.70	196.70	0.17																	
E272307	196.70	197.20	0.17						197.00	213.00	4A	4Bin this sections has thicker chert layers, up to 10cm, often <10-15% magnetite layers, and 5-10% wispy grunerite layers so borders on a 4A.								
E272308	197.20	198.00	0.11																	
E272309	198.00	199.00	1.41																	
E272311	199.00	200.00	0.24																	
E272312	200.00	201.00	3.52																	
E272313	201.00	202.00	1.56										M							
E272314	202.00	203.00	0.17																	
E272315	203.00	204.00	0.29																	
E272316	204.00	205.00	0.12																	
E272317	205.00	206.00	0.08																	
E272318	206.00	207.00	1.88																	
E272319	207.00	208.00	0.54																	
E272321	208.00	209.00	0.80																	
E272322	209.00	210.00	0.81																	
E272323	210.00	211.00	0.78																	
E272324	211.00	212.00	0.06																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
E272325	212.00	213.00	0.12																	
E272326	213.00	214.00	0.66																M	Quartz as both discrete veins up to 30cm and more diffuse flooded zones.
E272327	214.00	215.00	5.91																	
E272328	215.00	216.00	5.60																	
E272329	216.00	217.00	1.19																	
E272331	217.00	218.00	1.11																	
E272332	218.00	219.00	2.08																	
E272333	219.00	220.00	2.93																	
E272334	220.00	221.00	4.17																	
E272335	221.00	222.00	3.82																	
E272336	222.00	223.00	0.60																	
E272337	223.00	224.00	2.30																	
E272338	224.00	225.00	7.54																	
E272339	225.00	226.10	1.57																	
E272341	226.10	227.00	0.12																M	Quartz all as discrete veins up to 25cm wide.
E272342	227.00	228.00	0.14																	
E272343	228.00	229.00	0.15																	
E272344	229.00	230.00	1.71																	
E272345	230.00	231.00	0.55										W						S	
E272346	231.00	232.00	0.06																	
E272347	232.00	233.00	0.34																	
E272348	233.00	234.00	1.69																	
E272349	234.00	235.00	1.19																	
E272351	235.00	236.00	0.46																	
E272352	236.00	237.00	0.63																	
E272353	237.00	238.00	0.20																	
E272354	238.00	239.00	0.05	238.00	243.50	4EA	Poorly developed due to lack of quartz flooding but still consists mainly of f.g. grunerite with ~30% pale red, m.g. to c.g. ragged garnets.	Fairly straight banded and highly magnetic, f.g. dissem Mt throughout the grunerite plau ~10% magnetic chert layers.													
E272355	239.00	240.00	0.09																	
E272356	240.00	241.00	0.25																	
E272357	241.00	242.00	0.04																	
E272358	242.00	242.80	0.03																	
E272359	242.80	243.50	0.69																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E272361	243.50	244.00	0.02	243.50	247.70	4F	Another mixed section. ~50-60% 4F layers up to 3-4cm thick separated by 10-20% 4B magnetic chert layers <1cm which are flanked by f.g. grunerite bands 2-8mm thick. Minor green amphibolite layers.	Several terrific S folds.												
E272362	244.00	245.00	0.03																	
E272363	245.00	246.00	0.05																	
E272364	246.00	247.00	0.04																	
E272365	247.00	247.70	0.02																	
E272366	247.70	248.30	0.02	247.70	252.80	4B	Mixed interval of ~50-60% 4B magentic chert layers <1cm separated by 4F layers <1cm in upper part which grade into more diffuse Mt-silicate layers with depth (mix of f.g. amph-gar-minor bio).	Lower 80 cm is mainly a light grey, non-magnetic chert.												
E272367	248.30	249.00	0.02																	
E272368	249.00	250.00	0.08																	
E272369	250.00	251.00	0.04																	
E272371	251.00	252.00	0.08																	
E272372	252.00	252.80	0.04																	
E272373	252.80	253.40	4.98	252.80	255.40	4EA	Moderately developed 4EA but only local qtz flooding and little Po. 10% 4B layers, mnor 4F and 4E.												W	
E272374	253.40	254.50	5.83																	
E272375	254.50	255.40	0.45																	
E272376	255.40	256.40	0.09	255.40	259.30	4F	4F with ~10-20% 4B layers <1cm, usually highly folded. Minor grunerite and green amph margins to the 4B. 4F has 50-70% m.g. garnets in biotite-rich, f.g. matrix (looks hydrothermally altered).													
E272377	256.40	257.00	0.06																	
E272378	257.00	258.00	0.17																	
E272379	258.00	259.30	0.09																	
E272381	259.30	260.00	0.49	259.30	264.00	4EA	Moderately well developed 4EA but <10% quartz veins/flooding. Unit contains ~30-40% c.g. subhedral garnets in ~pure f.g. grunerite, only minor green amph, <10% 4B layers.	Contacts are gradational and ~subjective.											W	
E272382	260.00	261.00	2.86																M	
E272383	261.00	262.00	2.85																	
E272384	262.00	263.00	0.91																	
E272385	263.00	264.00	0.18																	
E272386	264.00	265.00	0.02	264.00	268.00	4F	Another mixed section. Approx 50-60% 4F layers <10cm thick and one ~1m thick, plus ~20% magnetite-grunerite +/- garnets irregular bands to 3cm (altered 4B?) , minor 4E and 4B.													

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E272387	265.00	266.00	0.02																	
E272388	266.00	267.00	0.11																	
E272389	267.00	268.00	0.06																	
E272391	268.00	269.00	0.35	268.00	272.00	4B	Approx 50% 4B layers <1cm, 30% 4F bands <1cm, 10-20% 4EA gar-grunerite layers and minor 4E.	Fairly straight banded, little silicification or Po.												
E272392	269.00	270.00	0.09																	
E272393	270.00	271.00	1.90																W	
E272394	271.00	272.00	0.67																	
E272395	272.00	273.00	1.05	272.00	277.00	4EA	Moderately developed 4EA with ~10-20% hydrothermal looking 4F layers <1cm. Little quartz flooding. Often highly contorted.													
E272396	273.00	274.00	1.01																	
E272397	274.00	275.00	0.13																	
E272398	275.00	276.00	1.16																	
E272399	276.00	277.00	2.94																	
E272401	277.00	278.00	5.69	277.00	282.00	4B	Upper 3m and parts of rest is a more silicate rich version of 4B consisting of pale yellow bands of f.g. grunerite, chert, magnetite and minor garnets.	~10% to 30% pale grey magnetic chert layers as well. Rest of interval is ~pure chert-Mt layers in central part and ~sheared & gruneritized 4B in bottom.												
E272402	278.00	279.00	4.63																	
E272403	279.00	280.00	5.14																	
E272404	280.00	281.00	0.25																W	
E272405	281.00	282.00	0.16													W			W	
E272406	282.00	283.00	0.04	282.00	291.40	4A	Most is typical 4A with bands of pale grey magnetic chert cut by discrete wispy shear bands and beds?? of grunerite up to 3-4cm wide and broad sheared/grun'd zones.	Po & qtz flooding often common, 2 semi-massive Po zones that may be 4CH rather than veins??												
E272407	283.00	283.50	0.03																W	
E272408	283.50	284.50	0.20																	
E272409	284.50	285.00	0.12													M			M	
E272411	285.00	286.00	0.04																	
E272412	286.00	287.00	0.02																	
E272413	287.00	288.00	0.05																	
E272414	288.00	288.50	0.08																	
E272415	288.50	289.10	0.23																	

Assay				MAJOR UNIT				Comments	MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments		From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E272416	289.10	290.00	0.18																	
E272417	290.00	291.00	0.09																	
E272418	291.00	291.40	0.02																	
E272419	291.40	292.40	0.04	291.40	295.85	1	Pale grey, soft, sheared serpentinite. Lower 1m has coarse clots of biotie up to 1cm across due to hydration reaction with adjacent basalt during metamorphism.													
				295.85	311.00	2	Varies from biolte-free to moderately bio'd (in streaks <1cm wide) and from ~normal mafic volcanics in upper 1/2 to more mafic-ultramfic volcanics in lower 1/2.													

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MAJOR UNIT

From	To	Major Unit	Cont
0.00	21.00	CASI	
21.00	61.50	3F	
61.50	65.00	3C	
65.00	73.70	3F	
73.70	88.00	3C	
88.00	158.65	3F	
158.65	161.60	6	
161.60	164.90	2	63
164.90	166.20	6	
166.20	168.90	4EA	60
168.90	179.65	6	

MINERALS

As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments
				2		Top of hole, mainly rubble and 1/2 missing. Typical banded Py zone in the felsic tuffs.
			0.1	0.4		
			0.1			
				0.4		
			1.0	0.1		
			7.0	0.2		

QTZ VEINING

From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments

FABRIC

From	To	Alpha deg	Int	Type	Comments
26.00	34.00	66	MO	S1	
36.00	40.00	67	MO	S1	
44.00	46.00	69	MO	S1	
50.00	52.00	68	MO	S1	
61.00	63.00	67	MO	S1	
68.00	72.00	67	MO	S1	
74.00	78.00	73	MO	S2	
80.00	82.00	76	MO	S1	
82.00	84.00	71	MO	S1	
86.00	88.00	73	MO	S1	
97.00	99.00	70	MO	S1	
104.00	106.00	76	MO	S1	
108.00	110.00	73	MO	S1	
116.00	118.00	68	MO	S1	
122.00	124.00	72	MO	S1	
126.00	130.00	67	MO	S1	
137.00	138.00	67	MO	S1	
140.00	142.00	60	MO	S1	
146.00	148.00	60	MO	S1	
156.00	158.00	72	WE	S1	
165.00	167.00	60	WE	S1	

FOLD

From	To	Alpha deg	Int	Type	Comments

FAULT

From	To	Alpha deg	Int	Type	Comments
107.00	113.00		WEK	BC	Actually a late, brittle fracture with numerous rubble patches.

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			170.00	172.00	68	MO	S1	Foliation is probably S2 as there is an earlier deformed fol'n in these seds but current convention is S1=dominant foliation.												
							0.1												172.00	174.00	63	MO	S1													
179.85	181.45	4EA																																	
							1.0												181.00	182.00	68		S0													
181.45	186.20	4F																																	
							0.1																													
			63																184.00	185.00	63	MO	S1													
186.20	192.00	4EA					0.1																												
																			189.00	190.00	85		S0													
192.00	238.00	4B																	192.00	193.00	69		S0													
				0.5																															
																			196.00	198.00	68		S0													
																									199.00	200.00	61	MO	IF						
							0.1			30cm is quartz flooded, rest is broken rubble.																										

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC					FOLD					FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																									205.00	206.00	68	MO	MF						
				0.1			0.1																												
							0.1												209.00	211.00	68		S0												
				1.0			0.3																												
							0.1												217.00	219.00	68		S0												
							1.0			All in a 5cm qtz-po vein.																										
							0.1																												
							0.7																												
				0.2			0.1																												
				2.5			0.1																												
							0.1																												
											227.00	230.00	QZ	15	m	S	63		227.00	228.00	63		S0												
							0.2																												
							0.1				233.00	234.00	QZ	6	m	I																		
											234.00	235.00	QZ	25																				
											235.00	238.00	QZ	5																				
238.00	243.50	4EA																																
											240.00	241.00	QZ	10																				
243.50	247.70	4F																																

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			245.00	246.00	57		S0		245.00	248.00	57	MO	SF							
247.70	252.80	4B																	248.00	250.00	40		S0													
											249.00	250.00	QZ	4		I									249.00	250.00	53		SF							
											251.00	252.00	QZ	8	m	D																				
252.80	255.40	4EA									252.80	254.00	QZ	13	m	I																				
255.40	259.30	4F									256.40	259.00	QZ	4	m	I									257.00	258.00	62	MO	MF							
259.30	264.00	4EA																																		
264.00	268.00	4F																																		
268.00	272.00	4B																	270.00	272.00	70		S0													
272.00	277.00	4EA					0.1																													
																			274.00	276.00	60		S0													
							0.1																													
277.00	282.00	4B					0.2												277.00	279.00	61		S0													
							0.5																													
282.00	291.40	4A																													282.00	291.00		MOD	SC	The 4A is commonly sheared and gruneritized in bands up to 3-4cm thick. Bedded 4B layers brx'd and sliced by grun bands.

STRUCTURAL LOG 04-ESS-004

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vq Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							2.0																													
							40.																													
																			288.00	289.00	67		S0													
							10.																													
							2.0																													
							0.2																													
291.40	295.85	1																	298.00	299.00	67		S1													
295.85	311.00	2																	299.00	300.00	50	MO	S1													
																			302.00	304.00	63	MO	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-005**

Project Code: ESS

Mine Grid Easting: 8750.425
Mine Grid Northing: 11550.3185
Elevation: 5296.8409

UTM East 677006.968
UTM North: 5833699.447

Planned Depth: 225
Actual Depth: 248

Drill Start Date: 02/02/2004
Drill End Date: 04/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	89.3121	-59.001	SURV
3	89.25	-58.96	MAXI
6	89.29	-59.13	MAXI
9	89.29	-59.38	MAXI
12	89.26	-59.48	MAXI
15	89.32	-59.46	MAXI
18	89.39	-59.49	MAXI
21	89.47	-59.5	MAXI
24	89.52	-59.49	MAXI
27	89.62	-59.51	MAXI
30	89.72	-59.52	MAXI
33	89.79	-59.52	MAXI
36	89.86	-59.52	MAXI
39	89.93	-59.52	MAXI
42	90	-59.49	MAXI
45	90.07	-59.46	MAXI
48	90.18	-59.44	MAXI
51	90.31	-59.41	MAXI
54	90.36	-59.38	MAXI
57	90.43	-59.34	MAXI
60	90.58	-59.28	MAXI
63	90.65	-59.25	MAXI
66	90.75	-59.2	MAXI
69	90.9	-59.11	MAXI
72	90.95	-59.02	MAXI
75	91.03	-58.95	MAXI
78	91.16	-58.94	MAXI
81	91.3	-58.94	MAXI
84	91.43	-58.94	MAXI
87	91.54	-58.93	MAXI
90	91.7	-58.9	MAXI
93	91.82	-58.89	MAXI
96	91.93	-58.87	MAXI
99	92.1	-58.85	MAXI
102	92.18	-58.83	MAXI
105	92.28	-58.8	MAXI
108	92.45	-58.78	MAXI
111	92.56	-58.76	MAXI
114	92.63	-58.74	MAXI
117	92.75	-58.71	MAXI
120	92.81	-58.69	MAXI
123	92.89	-58.67	MAXI
126	92.96	-58.65	MAXI
129	93.08	-58.62	MAXI
132	93.14	-58.59	MAXI
135	93.23	-58.54	MAXI
138	93.32	-58.49	MAXI
141	93.41	-58.45	MAXI
144	93.56	-58.4	MAXI
147	93.63	-58.35	MAXI
150	93.74	-58.28	MAXI
153	93.83	-58.21	MAXI
156	93.9	-58.15	MAXI
159	94.02	-58.06	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-005**

Project Code: ESS

Mine Grid Easting: 8750.425
Mine Grid Northing: 11550.3185
Elevation: 5296.8409

UTM East 677006.968
UTM North: 5833699.447

Planned Depth: 225
Actual Depth: 248

Drill Start Date: 02/02/2004
Drill End Date: 04/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	94.11	-57.96	MAXI
165	94.12	-57.82	MAXI
168	94.23	-57.67	MAXI
171	94.29	-57.5	MAXI
174	94.33	-57.33	MAXI
177	94.44	-57.21	MAXI
180	94.6	-57.08	MAXI
183	94.74	-56.94	MAXI
186	94.85	-56.87	MAXI
189	94.98	-56.81	MAXI
192	95.11	-56.75	MAXI
195	95.26	-56.73	MAXI
198	95.37	-56.71	MAXI
201	95.46	-56.68	MAXI
204	95.58	-56.64	MAXI
207	95.66	-56.57	MAXI
210	95.74	-56.56	MAXI
213	95.86	-56.53	MAXI
216	95.9	-56.5	MAXI
219	96.09	-56.47	MAXI
222	96.22	-56.4	MAXI
225	96.34	-56.29	MAXI
228	96.48	-56.19	MAXI
231	96.6	-56.11	MAXI
234	96.73	-56.02	MAXI
240	96.92	-55.86	MAXI

LITHOLOGY LOG 04-ESS-005

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	20.00	CASIN														
				20.00	89.00	3F	Typical felsic volcanic section here. Appears to be mainly felsic ash tuff with local Fd-crystal tuff intervals and minor more massive, siliceous looking units that may be thin flows.	Weal-moderate biotite is present in ~1/2 but is likely not alteration, just metamorphism of original clays?												
				89.00	108.50	3C	Well foliated, pale-medium brownish-grey intermediate ash tuff. Locally up to 30% green amph dominant bands <3-4cm and minor amph grains scattered throughout.	Section is darker and ~more biotitic than before and locally has ~1-2% m.g. ragged garnets.												
				108.50	189.00	3F	Generally f.g., light grey, moderately siliceous felsic to intermediate ash tuff with minor Fd-crystal tuff component locally. Well foliated and no major deformation visible.	Minor f.g. biotite locally but probably primary, not alteration. No major shears or veins but core is quite fractured and often blocky.												
E272421	163.80	165.00	0.16																	
E272422	165.00	165.75	0.34																	
E272423	165.75	166.50	0.17																	
E272424	166.90	167.80	0.25																S	
E272425	167.80	168.70	0.17																	
E272426	168.70	169.20	0.47																W	
E272427	169.20	170.00	0.10																	
E272428	170.00	171.00	0.12																	
E272429	173.70	174.70	0.72																M	
E272431	174.70	175.70	0.11																W	
E272432	188.60	189.00	0.02																	
E272433	189.00	189.70	0.07	189.00	190.30	4E	Mixed section of ~25 4E, ~10-20% 4B layers to 1cm, 20% c.g. 4F, and 20% f.g. biotitic metsaed +/- bio'd volcanics.	~6 qtz veins to 1cm plus locl Po min'n.												
E272434	189.70	190.30	0.05																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E272435	190.30	191.00	0.04	190.30	204.60	2	Mainly a pale-medium green-gray, f.g., moderately foliated basalt with weak bio'n but several intercalated horizons of 4F up to 50cm, minor f.g. biotitic metased ("unit 6"), thin 4B units <10cm, one 4EA unit ~10cm.													
E272436	192.90	193.50	0.03						192.90	193.50	4F	Mainly ~pale 4F with ~35% c.g. garnets in biotite>Fd-Qtz matrix. Minor 4B laminae and Po min'n.							
E272437	193.50	194.50	0.76											W					M	
E272438	196.70	197.50	1.14						196.70	197.50	4E	Poorly developed 4E, probably alteration of volcanics and metased unit.								
E272439	197.50	198.10	0.35						197.70	198.10	4EA	~10cm of good c.g. 4EA with <10cm of adjacent 4E.								
E272441	198.10	198.60	0.03																	
E272442	204.60	205.50	0.08	204.60	205.50	4F	Mixed interval with ~40cm of 4F having 15% c.g. garnets in f.g. staur-bio-fd matrix, 30-40cm of f.g. unit 6, and 10-15cm of laminated 4E-4B.													
E272443	205.50	206.00	9.86	205.50	206.00	4EA	Mixed interval with ~10-15 cm of c.g. 4EA, 15-20cm of 4B magnetic chert layers, and minor 4F.													
E272444	206.00	206.60	0.20	206.00	216.10	2	Heterogeneous section. Upper part is mainly well foliated, moderately biotitic unit, probably an altered basalt but grades locally into possible metaseds for 60cm. Lower 1/2 has more minor units and bleaching?	Several intercalated horizons 30-40cm of 4B-4E-(4EA), often quartz flooded/veined.					M							
E272445	212.00	212.80	0.10																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E272446	212.80	213.35	9.11						212.80	213.35	4E	~50% laminated green amphibolite with 20% c.g. garnets, 20-30% 4B laminae, some qtz flooding and weak 4EA.							M	
E272447	213.35	214.00	0.48						213.80	214.00	4E	As above.	W	M					W	
E272448	214.00	215.00	0.40																	
E272449	215.00	216.10	0.23																	
E272451	216.10	217.00	0.87	216.10	217.50	4EA	Moderately well developed 4EA with ~20% 4B bands (magnetic chert-green amphibolite, <few mm layers), mod qtz flooding, minor Po.	Relatively straight banded still. Gradational contact with 4F-6-4E below.								W			M	
E272452	217.00	217.50	2.41																	
E272453	217.50	218.00	0.58	217.50	222.00	4F	Variable section but overall it is a package of f.g. pelitic metaseds, partialy f.g. to m..g. 4F (~35%), ~30% f.g. light beige unit 6 biotitic metased, and several zones of moderately developed 4E <50cm.		217.50	219.00	4E	Mixed section, ~35% weak-moderate 4E, 30% F.g. biotitic metaseds, 30% 4F, minor grunerite bands.								
E272454	218.00	219.00	0.35																	
E272455	219.00	220.00	0.04																	
E272456	220.00	220.70	0.03																	
E272457	220.70	221.30	0.04																	
E272458	221.30	222.00	0.04																	
E272459	222.00	223.00	1.26	222.00	226.20	4EA	Crudely banded fairly well developed 4EA. Approx 25% 4B magnetic chert layers <1cm, moderate qtz flooding, <5 to 20% 4E layers and minor hydrothermal looking 4F bands <1cm.	Lower contact gradational over ~1m.					W			W			M	
E272461	223.00	224.00	2.44																	
E272462	224.00	225.00	3.83																	
E272463	225.00	225.60	0.60																	
E272464	225.60	226.20	0.10										W							
E272465	226.20	226.85	0.04	226.20	228.85	4B	Transition from 4EA into fairly pure 4B. Unit is well laminated grey magnetic chert layers with moderate vfg silicate component giving a slight yellow colour studded with <5% f.g. garnets.	Locally quartz veined strongly with flanking "4F" type bio-gar hydrothermal alteration bands up to 1cm (~10-15% overall).													
E272466	226.85	227.85	1.25										M			W			M	
E272467	227.85	228.85	1.17										W						W	
E272468	228.85	229.85	0.19	228.85	239.70	4B	Fairly pure 4B, banded chert and magnetite, layers up to 8cm thick. Lower 3m has slight yellow colour and is often qtz flooded, approaches a 4A.													
E272469	229.85	230.90	0.42										W						M	

LITHOLOGY LOG 04-ESS-005

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E272471	230.90	231.30	2.51																	
E272472	231.30	232.00	0.10										M						W	
E272473	232.00	233.00	0.12																	
E272474	233.00	234.00	0.13																	
E272475	234.00	235.00	0.07																	
E272476	235.00	236.00	0.01																W	
E272477	236.00	237.00	0.02													W			S	
E272478	237.00	238.00	0.17																	
E272479	238.00	239.00	1.13																	
E272481	239.00	239.70	0.19																	
E272482	239.70	240.50	0.01	239.70	248.00	2	Well foliated, medium to pale gray, moderately biotitized mafic volcanic.No ultramafics.						M							

STRUCTURAL LOG 04-ESS-005

MAJOR UNIT

From	To	Major Unit	Cont
0.00	20.00	CASI	
20.00	89.00	3F	
89.00	108.50	3C	
108.50	189.00	3F	
189.00	190.30	4E	
190.30	204.60	2	
204.60	205.50	4F	
205.50	206.00	4EA	
206.00	216.10	2	

MINERALS

As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments
	0.1		0.1	1		
			0.1			
			5.0	2		
			0.1	0.1		
				0.5		
			2.0			
			0.2			
			0.1			

QTZ VEINING

From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments
166.90	167.80	CA	35		S	52	

FABRIC

From	To	Alpha deg	Int	Type	Comments
29.00	30.00	58	MO	S1	
40.00	42.00	46	MO	S1	
47.00	48.00	48	MO	S1	
58.00	60.00	52	MO	S1	
65.00	66.00	53	MO	S1	
74.00	76.00	47	MO	S1	
83.00	84.00	46	MO	S1	
95.00	96.00	57	MO	S1	
104.00	106.00	50	MO	S1	
107.00	110.00	63	MO	S1	
113.00	115.00	54	MO	S1	
125.00	130.00	61	MO	S1	
134.00	136.00	61	MO	S1	
148.00	150.00	59	MO	S1	
167.00	168.00	47	MO	S2	
173.00	174.00	53	MO	S2	
176.00	178.00	50	MO	S1	
188.00	190.00	55	MO	S1	
197.00	198.00	63		S0	
200.00	201.00	58	WE	S1	
206.00	207.00	45	MO	S1	

FOLD

From	To	Alpha deg	Int	Type	Comments

FAULT

From	To	Alpha deg	Int	Type	Comments

STRUCTURAL LOG 04-ESS-005

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							1.5																													
216.10	217.50	4EA					0.3																													
							0.2																													
217.50	222.00	4F																	218.00	219.00	58		S0												
222.00	226.20	4EA					0.1																													
																			224.00	225.00	49		S0												
226.20	228.85	4B																																		
																			228.00	230.00	53		S0												
228.85	239.70	4B																																		
							0.2																													
							5.0																													
							0.1																													
							0.3																													
							0.7																													
							0.2																													
239.70	248.00	2																	244.00	246.00	50	MO	S2												
																			246.00	248.00	45	MO	S2												

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-006**

Project Code: ESS

Mine Grid Easting: 8750.6398
Mine Grid Northing: 11550.7074
Elevation: 5296.9339

UTM East 677006.968
UTM North: 5833699.447

Planned Depth: 210
Actual Depth: 326

Drill Start Date: 05/02/2004
Drill End Date: 08/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments: Conditional on good results from 50m spaced intercepts.

Survey

Depth	Azimuth	Dip	SurveyType
0	86.957	-49.755	SURV
3	87.07	-49.11	MAXI
6	87.07	-49.12	MAXI
9	87.04	-49.08	MAXI
12	87.02	-48.82	MAXI
15	87	-48.64	MAXI
18	86.96	-48.7	MAXI
21	86.86	-48.76	MAXI
24	86.82	-48.72	MAXI
27	86.86	-48.64	MAXI
30	86.84	-48.56	MAXI
33	86.82	-48.49	MAXI
36	86.81	-48.38	MAXI
39	86.77	-48.3	MAXI
42	86.8	-48.26	MAXI
45	86.83	-48.25	MAXI
48	86.92	-48.24	MAXI
51	86.97	-48.23	MAXI
54	87.02	-48.21	MAXI
57	87.06	-48.18	MAXI
60	87.13	-48.17	MAXI
63	87.23	-48.19	MAXI
66	87.28	-48.2	MAXI
69	87.38	-48.22	MAXI
72	87.44	-48.23	MAXI
75	87.47	-48.19	MAXI
78	87.54	-48.14	MAXI
81	87.6	-48.09	MAXI
84	87.65	-48.06	MAXI
87	87.7	-48.01	MAXI
90	87.76	-47.96	MAXI
93	87.82	-47.89	MAXI
96	87.9	-47.83	MAXI
99	87.96	-47.78	MAXI
102	88	-47.73	MAXI
105	88.02	-47.64	MAXI
108	88.1	-47.56	MAXI
111	88.18	-47.5	MAXI
114	88.24	-47.41	MAXI
117	88.25	-47.37	MAXI
120	88.36	-47.35	MAXI
123	88.39	-47.31	MAXI
126	88.43	-47.27	MAXI
129	88.5	-47.21	MAXI
132	88.57	-47.18	MAXI
135	88.64	-47.14	MAXI
138	88.71	-47.11	MAXI
141	88.77	-47.1	MAXI
144	88.87	-47.05	MAXI
147	88.91	-47.02	MAXI
150	88.96	-46.96	MAXI
153	89.04	-46.95	MAXI
156	89.15	-46.89	MAXI
159	89.23	-46.79	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-006**

Project Code: ESS

Mine Grid Easting: 8750.6398
Mine Grid Northing: 11550.7074
Elevation: 5296.9339

UTM East 677006.968
UTM North: 5833699.447

Planned Depth: 210
Actual Depth: 326

Drill Start Date: 05/02/2004
Drill End Date: 08/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments: Conditional on good results from 50m spaced intercepts.

Survey

Depth	Azimuth	Dip	SurveyType
162	89.3	-46.72	MAXI
165	89.41	-46.66	MAXI
168	89.48	-46.59	MAXI
171	89.57	-46.5	MAXI
174	89.63	-46.37	MAXI
177	89.71	-46.21	MAXI
180	89.75	-46.18	MAXI
183	89.8	-46.18	MAXI
186	89.86	-46.18	MAXI
189	89.9	-46.16	MAXI
192	89.92	-46.14	MAXI
195	89.96	-46.12	MAXI
198	90.05	-46.13	MAXI
201	90.1	-46.13	MAXI
204	90.22	-46.11	MAXI
207	90.29	-46.07	MAXI
210	90.35	-46.03	MAXI
213	90.38	-45.99	MAXI
216	90.41	-45.96	MAXI
219	90.46	-45.95	MAXI
222	90.49	-45.92	MAXI
225	90.52	-45.87	MAXI
228	90.57	-45.83	MAXI
231	90.64	-45.8	MAXI
234	90.7	-45.77	MAXI
237	90.72	-45.75	MAXI
240	90.78	-45.72	MAXI
243	90.86	-45.73	MAXI
246	90.91	-45.71	MAXI
249	90.98	-45.7	MAXI
252	91.05	-45.68	MAXI
255	91.1	-45.63	MAXI
258	91.11	-45.6	MAXI
261	91.16	-45.56	MAXI
264	91.26	-45.53	MAXI
267	91.31	-45.49	MAXI
270	91.36	-45.45	MAXI
273	91.45	-45.42	MAXI
276	91.52	-45.38	MAXI
279	91.62	-45.36	MAXI
282	91.7	-45.3	MAXI
285	91.79	-45.26	MAXI
288	91.85	-45.24	MAXI
291	91.92	-45.21	MAXI
294	91.97	-45.18	MAXI
297	92.03	-45.14	MAXI
300	92.08	-45.11	MAXI
303	92.14	-45.07	MAXI
306	92.2	-45.04	MAXI
309	92.25	-45.01	MAXI
312	92.31	-44.97	MAXI
315	92.36	-44.94	MAXI
318	92.42	-44.9	MAXI
321	92.47	-44.87	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-006**

Project Code: ESS

Mine Grid Easting: 8750.6398
Mine Grid Northing: 11550.7074
Elevation: 5296.9339

UTM East 677006.968
UTM North: 5833699.447

Planned Depth: 210
Actual Depth: 326

Drill Start Date: 05/02/2004
Drill End Date: 08/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments: Conditional on good results from 50m spaced intercepts.

Survey

Depth	Azimuth	Dip	SurveyType
324	92.52	-44.84	MAXI
325	92.56	-44.83	MAXI

LITHOLOGY LOG 04-ESS-006

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	21.00	CASIN														
				21.00	106.80	3F	Interval is mixed massive flows with possible intercalations of ash tuff. Minor garnet and chlorite? alteration.													
				106.80	110.80	3C	Very finely laminated alternating white and grey bands. Probable ash tuff?													
				110.80	169.05	3F	Same as previous 3F unit.													
E273001	162.77	163.80	0.36																	
E273002	163.80	164.30	0.66																	
E273003	169.05	170.20	0.05	169.05	174.10	2	Weakly to moderately well-foliated and biotitic with one 25cm section of 4E. Trace calcite veins													
E273004	170.20	171.00	0.02																	
E273005	171.00	172.00	0.02																	
E273006	172.00	173.00	0.02																	
E273007	173.00	174.10	0.02																	
E273008	174.10	175.00	0.01	174.10	175.60	4E	Moderately well-developed with 0.8cm garnet porphs.													
E273009	175.00	175.60	0.03																	
E273011	175.60	176.80	0.03	175.60	190.23	2T	Grades from massive and green to very well-laminated with abundant biotite to a mixture of 4E/4F over 10-20cm lengths.													
E273012	176.80	178.00	0.01																	
E273013	178.00	179.00	0.02																	
E273014	179.00	179.94	0.47																	
E273015	179.94	181.00	1.30																	
E273016	181.00	181.81	0.32																	
E273017	181.81	183.00	0.14																	
E273018	183.00	184.00	0.49																	
E273019	184.00	185.00	0.57																	
E273021	185.00	186.00	0.03																	
E273022	186.00	187.00	0.01																	
E273023	187.00	188.00	0.04																	
E273024	188.00	189.00	0.04																	
E273025	189.00	190.23	0.56																	
E273026	190.23	191.00	0.11	190.23	194.13	4E	Intimate intermixture of 4E with 4F and minor biotitic basalt.													
E273027	191.00	192.00	0.16																	
E273028	192.00	193.00	0.04																	
E273029	193.00	194.13	0.26																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
E273031	194.13	195.00	0.65	194.13	203.28	4EA	Poorly to moderately well developed with minor folding observed. Trace po and silicification observed over <20cm intervals.													
E273032	195.00	196.00	2.66																	
E273033	196.00	197.00	3.10																	
E273034	197.00	198.00	3.22																	
E273035	198.00	199.00	1.24																	
E273036	199.00	200.00	0.28																	
E273037	200.00	201.00	0.07																	
E273038	201.00	202.00	5.72																	
E273039	202.00	203.28	2.06																	
E273041	203.28	204.50	1.12	203.28	314.20	4B	Well developed Fe-fm with 0.2-1.5cm wides bands of chert with 4E/4F interbeds. Minor carbonate below 223m.													
E273042	204.50	205.70	2.33																	
E273043	205.70	206.90	0.17																	
E273044	206.90	208.00	0.03																	
E273045	208.00	209.00	0.12																	
E273046	209.00	210.00	0.33																	
E273047	210.00	211.00	0.24																	
E273048	211.00	212.00	0.06																	
E273049	212.00	213.00	0.35																	
E273051	213.00	214.00	0.05																	
E273052	214.00	215.00	2.15																	
E273053	215.00	216.00	0.60																	
E273054	216.00	217.00	1.46																	
E273055	217.00	218.00	0.58																	
E273056	218.00	219.00	0.15																	
E273057	219.00	220.00	0.91																	
E273058	220.00	221.00	0.26																	
E273059	221.00	222.00	0.12																	
E273061	222.00	223.00	0.05																	
E273062	223.00	224.00	0.09																	
E273063	224.00	225.00	0.06																	
E273064	225.00	226.00	0.03																	
E273065	226.00	227.00	0.43																	
E273066	227.00	228.00	0.03																	
E273067	228.00	229.00	0.09																	
E273068	229.00	230.00	0.07																	
E273069	230.00	231.00	0.02																	
E273071	231.00	232.00	0.04																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273072	232.00	233.00	0.08													W			W	
E273073	233.00	234.00	0.13																	
E273074	234.00	235.00	0.09																	
E273075	235.00	236.00	0.01																	
E273076	236.00	237.00	0.01																	
E273077	237.00	238.00	0.05																	
E273078	238.00	239.00	1.94																	
E273079	239.00	240.00	0.11																	
E273081	240.00	241.00	0.60																	
E273082	241.00	242.00	0.27																	
E273083	242.00	243.00	0.10																	
E273084	243.00	244.00	0.36																	
E273085	244.00	245.00	1.77																	
E273086	245.00	246.00	0.79																	
E273087	246.00	247.00	0.43																	
E273088	247.00	248.00	0.19																	
E273089	248.00	249.00	0.27																	
E273091	249.00	250.00	0.32																	
E273092	250.00	251.00	0.06																	
E273093	251.00	252.00	0.09																	
E273094	252.00	253.00	0.18																	
E273095	253.00	254.00	1.21																	
E273096	254.00	255.00	0.12																	
E273097	255.00	256.00	0.19																	
E273098	256.00	257.00	0.92																	
E273099	257.00	258.00	0.07																	
E273101	258.00	259.00	0.04																	
E273102	259.00	260.00	0.06																	
E273103	260.00	261.00	0.56																	
E273104	261.00	262.00	0.15																	
E273105	262.00	263.00	0.38																	
E273106	263.00	264.00	0.12																	
E273107	264.00	265.00	0.19																	
E273108	265.00	266.00	0.10																	
E273109	266.00	267.00	3.80																	
E273111	267.00	268.00	0.20																	
E273112	268.00	269.00	0.25																	
E273113	269.00	270.00	0.09																	
E273114	270.00	271.00	0.94																	
E273115	271.00	272.00	0.10																	
E273116	272.00	273.00	0.20																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273117	273.00	274.00	0.08																	
E273118	274.00	275.00	0.24																	
E273119	275.00	276.00	0.26																	
E273121	276.00	277.00	0.64																	
E273122	277.00	278.00	0.78																	
E273123	278.00	279.00	0.96																	
E273124	279.00	280.00	0.15																	
E273125	280.00	281.00	0.25																	
E273126	281.00	282.00	0.05																	
E273127	282.00	283.00	0.16																	
E273128	283.00	284.00	0.04																	
E273129	284.00	285.00	0.02																	
E273131	285.00	286.00	0.04																	
E273132	286.00	287.00	0.03																	
E273133	287.00	288.00	0.02																	
E273134	288.00	289.00	0.11																	
E273135	289.00	290.00	0.12																	
E273136	290.00	291.00	0.14																	
E273137	291.00	292.00	0.02																	
E273138	292.00	293.00	0.11																	
E273139	293.00	294.00	0.22																	
E273141	294.00	295.00	0.17																	
E273142	295.00	296.00	0.42																	
E273143	296.00	297.00	0.04																	
E273144	297.00	298.00	0.03																	
E273145	298.00	299.00	0.07																	
E273146	299.00	300.00	0.03																	
E273147	300.00	301.00	0.02																	
E273148	301.00	302.00	0.09																	
E273149	302.00	303.00	0.04																	
E273151	303.00	304.00	0.73																	
E273152	304.00	305.00	0.22																M	
E273153	305.00	306.00	3.75																	
E273154	306.00	307.00	1.28																	
E273155	307.00	308.00	1.80																	
E273156	308.00	309.00	2.67																	
E273157	309.00	310.00	3.43																	
E273158	310.00	311.00	0.56																	
E273159	311.00	312.00	1.90																	
E273161	312.00	313.00	0.21																	
E273162	313.00	314.00	0.05																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273163	314.00	315.00	0.01	314.20	326.00	2	Amphibole porphyroblastic in lower-most 3m. Poorly foliated.													

STRUCTURAL LOG 04-ESS-006

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	21.00	CASI																	26.00	26.10	70	MO	S1													
21.00	106.80	3F																	35.00	35.10	55	MO	S1													
106.80	110.80	3C																	44.00	44.10	80	MO	S1													
110.80	169.05	3F																	51.00	51.10	70	MO	S1													
																			60.00	60.10	85	MO	S1													
																			68.00	68.10	57	MO	S1													
																			77.00	77.10	63	MO	S1													
																			86.00	86.10	55	MO	S1													
																			95.00	95.10	65	MO	S1													
																			100.00	100.10	70	MO	S1													
																			108.00	108.10	65	MO	S1													
																			116.00	116.10	70	MO	S0													
																			122.00	122.10	60	MO	S1													
																			131.00	131.10	65	MO	S0													
																			140.00	140.10	63	MO	S1													
																			149.00	149.10	68	MO	S1													
																			158.00	158.10	64	MO	S1													
																			169.00	169.10	62	MO	S0													
169.05	174.10	2																																	
174.10	175.60	4E																																	
175.60	190.23	2T																	176.00	176.10	67	MO	S1													
											179.94	181.81	QZ	95	m	I	65																			
																			182.00	182.10	60	WE	S1													
																			187.00	187.10	59	MO	S1													
																			190.00	190.10	59	MO	S1													
190.23	194.13	4E																																	

STRUCTURAL LOG 04-ESS-006

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
194.13	203.28	4EA																																		
																			197.00	197.10	63	MO	S0													
203.28	314.20	4B																	204.00	204.10	75	MO	S0													
																			210.00	210.10	62	MO	S0													
																			218.00	218.10	73	MO	S0													
																			224.00	224.10	67	MO	S0													
																			226.00	226.10	67	MO	S0													
							1.0												233.00	233.10	64	MO	S0													
																			237.00	237.10	55	MO	S0													

STRUCTURAL LOG 04-ESS-006

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			244.00	244.10	55	MO	S0													
																			246.00	248.10	45	MO	S0													
																			258.00	258.10	47	MO	S0													
																			263.00	263.10	48	MO	S0													
																			267.00	267.10	48	MO	S0													
																			270.00	270.10	71	MO	S0													
																			276.00	276.10	57	MO	S0													
																			281.00	281.10	70	MO	S0													

STRUCTURAL LOG 04-ESS-006

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			290.00	290.00	53	MO	S0													
																			298.00	298.10	53	MO	S0													
							1.0												304.00	304.10	45	MO	S0													
																			310.00	310.10	63	MO	S0													
314.20	326.00	2																	314.00	314.10	62	MO	S1													
																			320.00	320.10	56	WE	S1													

PLACER DOME (CLA) LTD

SUMMARY REPORT

2003-2004 DIAMOND DRILLING

PROGRAM

RECEIVED
JUN 22 2005
GEOSCIENCE ASSESSMENT OFFICE

VOLUME 5 OF 6

ESKER-ISLAND TARGET
MUSSELWHITE MINE

2.30152

J.W.PATRICK LENGYEL, P. GEO.

JUNE 13, 2005

Appendix VI
Diamond Drill Logs – 2004
continued

2.30152

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-007**

Project Code: ESS

Mine Grid Easting: 8775.2632
Mine Grid Northing: 11549.7463
Elevation: 5296.9915

UTM East 677024.845
UTM North: 5833716.804

Planned Depth: 170
Actual Depth: 152

Drill Start Date: 18/03/2004
Drill End Date: 26/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments: Conditional on good results from 50m spaced intercepts.

Survey

Depth	Azimuth	Dip	SurveyType
0	90.2766	-45.5293	SURV
26	90.2766	-42.8	EZS
77	90.2766	-41.8	EZS
128	90.2766	-40.4	EZS

LITHOLOGY LOG 04-ESS-007

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	18.30	CASIN							W	W				M		
				18.30	134.20	3C	Pale to medium beige-gray, well foliated and faintly banded intermediate to locally more felsic ash tuff. Banding is from shades of gray to brown depending on % of very f.g. biotite and amphibole. No obvious crystal tuffs.	Unit commonly has 10-20% f.g. green amph, 5-25% biotite in very f.g qtz-fd matrix. Rare garnets. No major shears, veins or significant alteration.												
E276493	109.85	110.85	0.03																	
E276494	110.85	111.85	0.02																	
E276495	111.85	112.85	0.02										W					M		
E276496	133.20	134.20	0.01										W	W						
E276497	134.20	135.40	0.04	134.20	135.40	2u	unit of altered mafics in places very biotitic with minor garnets with 20% 10cm bands of 4e.													
E276498	135.40	136.40	0.44	135.40	140.20	2t	very biotitic moderately well foliated with minor carb stringers.													
E276499	139.20	140.20	0.02																	
E276501	140.20	141.40	11.15	140.20	142.20	4e	mixed 4e with 25% 4b. a few very large, 3cm, garnets. well banded with minor distortion around large garnets ass. with qtz flooding.													
E276502	141.40	141.80	0.34						141.40	141.80	2									
E276503	141.80	142.20	5.95																	
E276504	142.20	143.20	0.08	142.20	152.00	2	weakly to doderately well foliated. moderately well foliated patches are distinguished by increasing biotite alteration and minor carb stringers. no signs of shearing.													

STRUCTURAL LOG 04-ESS-007

MAJOR UNIT

From	To	Major Unit	Cont
0.00	18.30	CASI	
18.30	134.20	3C	
134.20	135.40	2u	
135.40	140.20	2l	
140.20	142.20	4e	
142.20	152.00	2	

MINERALS

From	To	As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments
106.00	106.10				3.0	1		
					1.0	1		
						0.5		

QTZ VEINING

From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments

FABRIC

From	To	Alpha deg	Int	Type	Comments
22.00	25.00	68	MO	S1	
33.00	35.00	68	MO	S1	
41.00	43.00	72	MO	S1	
50.00	52.00	65	MO	S1	
57.00	59.00	68	MO	S1	
64.00	65.00	65	MO	S1	
70.00	70.10	75	mod	s1	
79.00	79.10	65	mod	s1	
90.00	90.10	66	mod	s1	
97.00	97.10	76	mod	s1	
106.00	106.10	60	mod	s1	
113.00	113.10	63	mod	s1	
126.00	126.10	62	mod	s1	
138.00	138.10	60	mod	s1	
144.00	144.10	57	mod	s1	
151.00	151.10	65	mod	s1	

FOLD

From	To	Alpha deg	Int	Type	Comments

FAULT

From	To	Alpha deg	Int	Type	Comments

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-009**

Project Code: ESN

Mine Grid Easting: 8875.6969
Mine Grid Northing: 11598.7517
Elevation: 5296.7761

UTM East 677061.67
UTM North: 5833822.502

Planned Depth: 70
Actual Depth: 158

Drill Start Date: 29/03/2004
Drill End Date: 31/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments: Conditional on good results from East Zone drilling elsewhere..

Survey

Depth	Azimuth	Dip	SurveyType
0	89.905	-45.71	SURV
26	89.905	-45.6	EZS
50	89.905	-45.8	EZS
71	89.905	-45.5	EZS
101	89.905	-45.5	EZS
128	89.905	-44.9	EZS
158	89.905	-44	EZS

LITHOLOGY LOG 04-ESS-009

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	19.00	CASIN														
				19.00	34.65	3F	Typical light beige-gray, weak-moderately foliated felsic ash tuff. Quite homogeneous here, no biotite-rich areas and no appreciable amphiboles. Only minor bleached/weakly sericitized bands throughout.	Lower contact with mafics marked by 40cm metapelite (~"4E-F") with 4cm of Po. Several massive Py bands up to 4cm thick between 29.9 and 30.65m.												
E276928	29.40	29.90	0.01																	
E276929	29.90	30.65	0.51																	
E276931	30.65	31.25	0.14																	
E276932	33.65	34.25	0.01																	
E276933	34.25	34.65	0.01						34.25	34.65	4F	Unit is a probable metapelite and would be a mix of 4F>4E. Consists of 15% c.g. garnets in f.g., well foliated, light coloured matrix of biotite, qtz-fd and local green amphibole								
E276934	34.65	35.25	0.01	34.65	84.00	2	Varies from ~60% fairly fresh, medium gray-green, weakly foliated basalt to 40% moderately foliated, pale brown, moderately bio'd basalt (2T), especially from 57-62m.	Sections of 2 and 2T are generally between 2 and 5m long. Section contains 3 intraformational horizons of 4EA or 4F.												
E276935	37.70	38.30	0.01																	
E276936	38.30	39.20	0.16						38.30	39.20	4F	~80% is well-developed 4F with 15-20% c.g. garnets in a f.g. matrix of ~40% biotite and 60% fd-qtz. Several bands of moderate grunerite and green amphibole, bordering on 4EA. Minor Po.								

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E276937	39.20	39.80	0.01																	
E276938	42.50	43.20	0.01																	
E276939	43.20	44.05	0.07						43.20	44.05	4E	Another mixed minor unit. Approx 50% is highly magnetic 4E (thinly laminated chert-green amphibolite studded with up to 40% c.g. garnets). Rest is mix of 4F, 2T and minor 4EA.								
E276941	44.05	44.75	0.01																	
E276942	46.15	46.75	0.01																	
E276943	46.75	47.40	1.57						46.75	47.40	4EA	Similar to previous minor unit but 50% is now well-developed 4EA, rest is 4E, 4F.								
E276944	47.40	48.20	0.09																	
E276945	60.00	60.50	0.01																	
E276946	60.50	60.90	0.01						60.50	60.90	4E	Mixed section of ~40% weakly garnetiferous 4E (laminated magnetic chert-green amphibolite), 20% 4A and 40% 2T/6.								
E276947	60.90	61.30	0.01																	
E276948	61.30	61.50	0.01						61.30	61.50	4A	Highly contorted, grunerite-rich cherty band.								
E276949	61.50	62.10	0.01						61.50	62.30	4E	Weakly garnetiferous (<2-3%) 4E as before, 5-10% qtz veins.								
E276951	62.10	62.30	0.01																	
E276952	62.30	62.80	0.01																	
E276953	84.00	84.80	0.01	84.00	84.80	2T	Appears to be a strongly, ~pervasively biotitized malic volcanic even though upper contact is diffuse over only a few cm. Contains ~30-40% biotite which often forms 1-3mm flakes in an off-white very f.g. feldspathic matrix.	The biotite is somewhat coarser and less evenly distributed than in unit 6. Lower contact very sharp.					M							

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E276954	84.80	85.40	3.26	84.80	88.30	4EA	4EA is fairly consistent, strongly qtz flooded with minor Po. Borders on being 4E (laminated chert-green amphibolite) but has 25-30% bands <2cm thick of c.g. garnets in f.g. grunerite.	Contains two bands of strongly biotitic, light to dark brown, well foliated rock - either 2T or 6, from 86.4-86.7m and 87.1-87.45m.								M			M	
E276955	85.40	86.40	1.41										M						S	
E276956	86.40	87.45	0.13													M			M	
E276957	87.45	88.30	0.40																	
E276958	88.30	88.90	0.07	88.30	88.90	6	Probably unit 6, possibly 2T? Very homogeneous, f.g., equigranular, medium gray unit composed of ~40% f.g. biotite and 60% very f.g. fd-qtz mix. No amphiboles and the biotite is finer and more evenly distributed than in 2T.													
E276959	88.90	89.45	0.49	88.90	103.30	4F	Fairly homogeneous section of 4F that continues to 116m. Consists of ~20-40% garnets 1-2mm in f.g biotite-rich matrix, often with only minor qtz-fd component.	Section contains several minor units of 4E and/or qtz flooding and one 10cm band of Po.	88.90	89.45	4E	~1/3 is c.g. garnets in dark green amphibolite, 2/3 is a thinly banded pale green amphibole-cherl mix with minor garnets.							W	
E276961	89.45	90.00	0.07																	
E276962	90.00	91.00	0.05																	
E276963	91.00	92.00	0.15																	
E276964	92.00	93.00	0.02																	
E276965	93.00	94.00	0.01																M	
E276966	94.00	95.00	0.01																	
E276967	95.00	96.00	0.01																	
E276968	96.00	97.00	0.08																	
E276969	97.00	97.60	0.81						97.00	97.60	4E	Dark green, f.g., massive amphibolite with 20% m.g. garnets.								
E276971	97.60	98.00	0.20										M						S	
E276972	98.00	99.00	0.11																M	Plus moderate light and dark green amphibole alteration.
E276973	99.00	100.00	0.03																	
E276974	100.00	100.80	0.80																	
E276975	100.80	102.00	0.09																	
E276976	102.00	102.90	0.10																	
E276977	102.90	103.30	0.07																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E276978	103.30	104.20	0.43	103.30	104.20	4EA	"Massive" looking type of 4EA composed intergrowth of m.g. pale garnets in f.g. yellow grunerite matrix. <10% chert beds, 5% green amphibolite layers <1cm thick.						W			S			W	
E276979	104.20	105.00	0.12	104.20	108.50	4F	Same 4F as abovebut with a few small, <10-20cm, zones of weak 4A-4EA.													
E276981	105.00	106.00	0.02																	
E276982	106.00	107.00	0.01													M			W	Grunerite-qtz alt'n is within 4F, gar-bio not listed as alt'n.
E276983	107.00	108.00	0.05																	
E276984	108.00	108.50	0.25																	
E276985	108.50	109.00	0.09	108.50	110.20	4EA	As per previous 4Ea unit - semi-massive gar-grunerite zones with minor 4B chert layers, a few qtz veins.									S			M	
E276986	109.00	110.20	0.22																	
E276987	110.20	111.00	0.21	110.20	113.30	4F	As per previous 4F but no major 4A-4EA patches.						S			W			W	
E276988	111.00	112.00	0.23																	
E276989	112.00	113.30	0.06																	
E276991	113.30	114.10	0.14	113.30	114.10	4EA	As per previous 4EA - strong development of massive gar-grunerite but relatively f.g. and "dry" compared to mineralized 4EA (i.e. no major qtz flooding, c.g. garnets, Po, hydrothermal biotite, etc.)						W			S			W	
E276992	114.10	115.00	0.02	114.10	116.00	4F	As per previous 4F section but with several 5-20cm bands of probable mafic tuff mixed with f.g. biotitic metaseds.													
E276993	115.00	116.00	0.06																	
E276994	116.00	117.00	0.17	116.00	118.50	4B	Mixed unit of well laminated to faintly banded 4B "overprinted" with locally pervasive f.g. garnets and grunerite/ Commonly has 20-30% hydrothermal looking 4F layers <5mm thick.	Unit is strongly magnetic mix of 4B, 4EA, 4A, and 4F.					W		M	W			W	
E276995	117.00	118.00	0.09																	
E276996	118.00	118.50	0.16																	
E276997	118.50	119.00	0.07	118.50	124.70	4F	Mix of ~`60% 4F with ~20-30% bands of pale yellow gruneite chert (4A?) with minor 4B laminae, 5-10% weak-moderate 4 bands <5cm wide, and minor weak 4EA.	No major qtz flooding or Po. Unit looks mainly sedimentary.												
E276998	119.00	119.50	0.29																	
E276999	119.50	120.50	1.00																	
E277001	120.50	121.75	1.05																	
E277002	121.75	123.00	3.43																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E277003	123.00	124.00	0.41																	
E277004	124.00	124.70	0.15																	
E277005	124.70	126.00	0.46	124.70	131.10	4EA	Moderately developed 4EA with semi-massive garnet-grunerite intergrowths and only minor 4B, 4E, 4F bands. Quartz flooding confined to a few 30cm zones.	Unit is fairly tightly folded, appear to be either M-type or differential shearing.												
E277006	126.00	127.00	0.40																	
E277007	127.00	128.00	0.45																	
E277008	128.00	129.00	3.54																	
E277009	129.00	130.00	0.34																M	
E277011	130.00	131.10	2.27																M	
E277012	131.10	132.00	1.57	131.10	134.90	4F	As pe 118.5-124.7m; 4F with ~20% bands of 4A-B.													
E277013	132.00	133.00	0.35																	
E277014	133.00	134.00	0.25																	
E277015	134.00	134.90	0.27																	
E277016	134.90	136.00	0.38	134.90	136.75	4EA	Weak to moderately developed 4EA with ~20% bands 4F <5cm wide and 10% 4E.													
E277017	136.00	136.75	0.15																	
E277018	136.75	137.25	1.25	136.75	140.20	4E	Mixed section of ~50% mafic volcanics with numerous weakly garnetiferous bands of laminated magnetic chert-amphibolite, 50cm 4F band, and 30-40% qtz flooded 2/2T with 10-20% c.g. garnet-f.g. grunerite development.													
E277019	137.25	138.15	0.52																	
E277021	138.15	138.65	1.25													W			M	
E277022	138.65	139.55	0.96													S			W	
E277023	139.55	140.20	1.12						139.55	140.00	4EA	Moderately well developed 4EA with 10% minor qtz flooding. Grades over 30cm into clean 4B below.								
E277024	140.20	140.90	0.49	140.20	147.45	4B	Thinly banded, <1cm, generally "clean" chert-magnetite BIF. Minor chert-grunerite dominant sections (4A) and strong alteration in upper 1.5m.									W			W	
E277025	140.90	141.70	0.35										M			M			M	
E277026	141.70	142.70	1.05																	
E277027	142.70	143.25	1.05										S			W			W	
E277028	143.25	144.00	0.36																	
E277029	144.00	145.00	1.61																	
E277031	145.00	146.00	0.29																	
E277032	146.00	147.00	0.46																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E277033	147.00	147.45	0.37																	
E277034	147.45	148.00	0.12	147.45	149.30	4A	Typical pale yellow 4A composed of weakly magnetic chert with banded to pervasive f.g. grunerite and local brecciated qtz flooding.									M			M	
E277035	148.00	149.30	0.03																	
E277036	149.30	150.40	0.13	149.30	150.40	4H	Numerous bands of ~40% Po up to 20cm wide within a cherty section with locally abundant broken qtz veins. No obvious mudstone component, this is the chert-hosted Po variety of 4H.													
E277037	150.40	151.25	0.09	150.40	151.24	4A	As before.													
				151.24	156.50	2T	Well foliated, moderately bio'd mafic volcanics, moderately bleached.													
E277038	151.25	152.00	0.01																	
				156.50	158.00	2	Medium gray-green, weakly foliated basalt, only minor biotite alt'n.													

STRUCTURAL LOG 04-ESS-009

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	19.00	CASI																	24.00	28.00	60	WE	S1													
19.00	34.65	3F																	28.00	32.00	62	WE	S1													
								15		Mainly in 2 massive bands 3-5cm wide.																											
			83				80	5																												
34.65	84.00	2	74																35.00	37.00	58	WE	S1													
			63.2				0.2																													
																			41.00	42.00	54	WE	S1													
																			45.00	46.00	57	WE	S1													
							1.0																													
			53																50.00	51.00	50	WE	S1													
																			58.00	60.00	50	WE	S1													
							0.1																													
																			64.00	66.00	54	WE	S1													
																			70.00	71.00	61	WE	S1													
																			73.00	74.00	50	MO	S1													
																			77.00	78.00	58	WE	S1													
84.00	84.80	2T																	84.00	85.00	38	WE	S1													
84.80	88.30	4EA	38				0.1	0.05											85.00	86.00	42		S0													
							0.1	0.5																												
							0.5																													
88.30	88.90	6																																	
88.90	103.30	4F			0.1		0.1																													
			45																																	

STRUCTURAL LOG 04-ESS-009

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			92.00	93.00	45	WE	S1													
							45.	5 6		Po in a 7cm semi-massive vein.																											
							0.5	0.1																												
																			102.00	103.00	56	MO	S1													
							0.2																													
103.30	104.20	4EA					0.1												104.00	105.00	47	MO	S1													
104.20	108.50	4F	57																																	
108.50	110.20	4EA																																		
110.20	113.30	4F																																		
113.30	114.10	4EA																																		
114.10	116.00	4F																																		
116.00	118.50	4B	47																116.00	117.00	45		S0													
											118.00	122.00	QZ	2	m	I			118.00	119.00	47		S0													
118.50	124.70	4F																																		
											122.00	123.00	QZ	7	m	I			122.00	123.00	53		S0													
											123.00	124.00	QZ	2																						
											124.00	124.70	QZ	10	m	I																				
124.70	131.10	4EA									124.70	127.00	QZ	3		I																				
											127.00	129.00	QZ	2	m	I			127.00	128.00	58		S0													

STRUCTURAL LOG 04-ESS-009

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																									128.00	130.00	45	MO	FD	Most appear to be M-type, possibly one Z-type.						
131.10	134.90	4F					0.1				132.00	133.00	QZ	4	m	D									133.00	134.00	58	MO	FD							
																			134.00	135.00	53		S0													
134.90	136.75	4EA									134.90	136.00	QZ	3	m	I																			
							0.1				136.00	137.25	QZ	20	m	I																			
136.75	140.20	4E									137.25	138.15	QZ-C	7																					
							0.1																													
																			140.00	141.00	58		S0													
140.20	147.45	4B					0.2																													
							0.5																													
											143.25	144.00	QZ	10	m	I																			
											144.00	147.45	QZ	5	m	I																			
							0.1																													
				0.1			0.5												146.00	147.00	48		S0		146.00	146.20	47	MO	IF							
							0.1																													
147.45	149.30	4A																																		
							0.1																													
							1.0																													
149.30	150.40	4H					25.																													
150.40	151.24	4A					3.0																													
151.24	156.50	2T																																		
																			152.00	154.00	64	MO	S1													
156.50	158.00	2																	155.00	156.00	66	MO	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-010**

Project Code: ESS

Mine Grid Easting: 8850.3487
Mine Grid Northing: 11598.7914
Elevation: 5296.362

UTM East 677043.802
UTM North: 5833805.146

Planned Depth: 105
Actual Depth: 250

Drill Start Date: 27/03/2004
Drill End Date: 29/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments: Conditional on good results from East Zone drilling elsewhere.

Survey

Depth	Azimuth	Dip	SurveyType
0	89.0663	-58.31	SURV
3	89.07	-58.31	MAXI
6	89.17	-57.75	MAXI
9	89.44	-57.39	MAXI
12	89.74	-57.48	MAXI
15	89.83	-57.96	MAXI
18	89.68	-58.24	MAXI
21	89.63	-58.3	MAXI
24	89.68	-58.22	MAXI
27	89.8	-58.18	MAXI
30	89.87	-58.14	MAXI
33	89.92	-58.07	MAXI
36	89.98	-57.97	MAXI
39	90	-57.89	MAXI
42	90	-57.8	MAXI
45	90	-57.73	MAXI
48	90.12	-57.67	MAXI
51	90.1	-57.64	MAXI
54	90.19	-57.63	MAXI
57	90.24	-57.6	MAXI
60	90.31	-57.55	MAXI
63	90.38	-57.5	MAXI
66	90.45	-57.48	MAXI
69	90.54	-57.42	MAXI
72	90.64	-57.3	MAXI
75	90.71	-57.21	MAXI
78	90.8	-57.14	MAXI
81	90.91	-57.09	MAXI
84	90.94	-57.03	MAXI
87	91.02	-56.96	MAXI
90	91.08	-56.89	MAXI
93	91.15	-56.84	MAXI
96	91.25	-56.75	MAXI
99	91.37	-56.66	MAXI
102	91.49	-56.59	MAXI
105	91.64	-56.54	MAXI
108	91.79	-56.5	MAXI
111	91.88	-56.45	MAXI
114	91.96	-56.38	MAXI
117	92.08	-56.3	MAXI
120	92.22	-56.27	MAXI
123	92.32	-56.2	MAXI
126	92.38	-56.15	MAXI
129	92.48	-56.07	MAXI
132	92.63	-55.98	MAXI
135	92.7	-55.92	MAXI
138	92.77	-55.86	MAXI
141	92.85	-55.81	MAXI
144	92.96	-55.77	MAXI
147	92.99	-55.73	MAXI
150	93.11	-55.69	MAXI
153	93.15	-55.67	MAXI
156	93.23	-55.65	MAXI
159	93.3	-55.64	MAXI

MUSSELWHITE MINE - GEOLOGY

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Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments: Conditional on good results from East Zone drilling elsewhere.

Survey

Depth	Azimuth	Dip	SurveyType
162	93.39	-55.63	MAXI
165	93.48	-55.61	MAXI
168	93.52	-55.61	MAXI
171	93.59	-55.59	MAXI
174	93.68	-55.55	MAXI
177	93.78	-55.53	MAXI
180	93.82	-55.49	MAXI
183	93.91	-55.44	MAXI
186	93.96	-55.41	MAXI
189	94.08	-55.36	MAXI
192	94.19	-55.32	MAXI
195	94.31	-55.28	MAXI
198	94.46	-55.23	MAXI
201	94.51	-55.18	MAXI
204	94.59	-55.13	MAXI
207	94.77	-55.1	MAXI
210	94.89	-55.04	MAXI
213	94.97	-54.99	MAXI
216	95.1	-54.96	MAXI
219	95.19	-54.9	MAXI
222	95.3	-54.84	MAXI
225	95.43	-54.79	MAXI
228	95.55	-54.77	MAXI
231	95.64	-54.77	MAXI
234	95.78	-54.74	MAXI
237	95.86	-54.68	MAXI
240	95.99	-54.64	MAXI
243	96.1	-54.62	MAXI
246	96.22	-54.58	MAXI
250	96.33	-54.55	MAXI

LITHOLOGY LOG 04-ESS-010

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
				0.00	15.90	CASIN														
				15.90	65.30	3F	Light gray, fairly homogeneous, moderately well foliated felsic volcanics, probably ash tuff with locally up to 5-7%, 1-2mm Fd-crystals. Lower contact gradational over 30cm into mafic volcanics.	Generally only minor biotite (due to original clays) and no amphiboles. No major alteration, veins or sulphides. Fractured every 10-30cm on average. ~ 30m section at 44m with ~20% f.g. yellow staurolite (?) in a slightly more pelitic unit.												
				65.30	66.90	2	Part of mafic volcanic package extending to 97m but interrupted by 3 horizons of 4E-4F 30-190cm wide. Volcanics are medium brownish green, weak to moderately foliated and weakly bio'd.	Upper contact is gradational into felsics over 30cm.												
E276753	66.40	66.90	0.04																	
E276754	66.90	68.00	0.12	66.90	68.00	4E	Moderately magnetic 4E with ~20-30% unusually c.g. garnets (~1cm) in f.g amphibolite with thin cherty laminae. ~15-20% hydrothermal looking 4F bands up to 10cm.													
E276755	68.00	69.00	0.08	68.00	69.00	4F	Continuation of 4E above but now 80% 4F with 30-40% m.g. to c.g. garnets. approx 10-15% 4E bands <10cm.													
E276756	69.00	69.50	0.04	69.00	94.00	2T	Section is ~50-60% moderately to strongly bio'd, medium brown mafic volcanic and 40-50% medium green, fresh to weakly bio'd basalt.	Contacts between 2T and 2 are usually gradational over a few cm and the zones of 2T and 2 are ~20-120cm wide.												

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E276757	76.20	76.80	0.03						76.70	77.20	4E	Well banded layers of ~30% magnetic white chert and 70% dark green f.g. amphibolite studded with only 2-3% m.g. garnets.								
E276758	76.80	77.20	0.05																	
E276759	77.20	77.70	0.05																	
													M	M					W	
E276761	81.00	81.80	0.05										W						W	
E276762	81.80	82.20	0.07											W		W			W	
E276763	82.20	83.20	0.05										M	W					S	
E276764	83.20	84.20	0.02																	
E276765	84.20	84.70	0.03																	
E276766	93.50	94.00	0.03																	
E276767	94.00	94.80	3.04	94.00	94.80	4E	Highly qtz flooded and moderately Po-mineralized 4E composed of light to dark green laminae of strongly magnetic f.g. amphibolite with ~5% m.g. garnets in bands 1-2cm wide.									M			S	
E276768	94.80	95.30	0.09	94.80	102.10	4F	Borderline between a garnet-poor, f.g. 4F and weakly garnetiferous 6. Medium brown, moderately foliated, very homogeneous. Consists of ~5% garnets 1-2mm in f.g. equigranular matrix of ~30% biotite and 70% fd-qtz..	Locally more garnet and biotite-rich over 50cm zones, more like a real 4F.												
E276769	95.30	96.00	3.65										M						W	
E276771	96.00	96.60	0.44																	
E276772	96.60	97.10	0.07																	
E276773	101.00	102.10	0.04																	
E276774	102.10	102.80	0.08	102.10	102.80	4E	Well banded 4E with ~20% garnets 1-8mm in f.g., magnetic, green amphibolitic matrix. Several bands to 10cm with grunerite, verging on 4EA.													
E276775	102.80	104.00	0.04	102.80	108.20	4F	Mostly well foliated 4F with 30% garnets 1-3mm in f.g. biotite-rich matrix and only minor fd-qtz. Quite homogeneous except for a few patches of weak 4Ein upper 50cm and 107.5m.													
E276776	104.00	104.60	0.03													W			S	
E276777	104.60	105.30	2.83																	
E276778	105.30	106.30	0.04																	
E276779	106.30	107.30	0.01																	
E276781	107.30	108.20	0.04																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E276782	108.20	109.00	0.13	108.20	116.75	4EA	Well developed, quartz flooded 4EA. Typical highly contorted 4EA with 20% gray 4B chert layers <1cm thick. Approx 20% irregular bands and patches of c.g. 4E.									S			M	
E276783	109.00	110.00	1.23																	
E276784	110.00	111.00	0.24																	
E276785	111.00	112.00	0.21																	
E276786	112.00	113.00	0.09																	
E276787	113.00	114.00	0.37																	
E276788	114.00	115.00	0.82																	
E276789	115.00	116.00	0.80																	
E276791	116.00	116.75	0.07																	
E276792	116.75	117.75	0.03	116.75	131.20	4B	Generally a thinly, faintly laminated 4B with little discrete magnetite-white chert banding, most laminae are shades of gray, magnetic chert. Minor f.g. garnets-amphibolite layers throughout but <5%.	Several qtz veined zones <1m with assoc'd bands of intense gar-bio alteration to 7cm. Upper 3-4m is intensely fractured, rubbly fault.												
E276793	117.75	119.00	0.04																	
E276794	119.00	120.00	0.02																	
E276795	120.00	121.00	0.01																	
E276796	121.00	122.00	0.01																	
E276797	122.00	123.00	0.02																	
E276798	123.00	124.00	0.07																	
E276799	124.00	125.00	0.15																	
E276801	125.00	126.00	0.04																	
E276802	126.00	127.00	0.02										M						M	
E276803	127.00	128.00	0.05																	
E276804	128.00	129.00	0.04																	
E276805	129.00	130.10	0.42																	
E276806	130.10	131.20	0.02										M						S	
E276807	131.20	131.80	0.05	131.20	133.20	4B	Same 4B as above but cut by 2 qtz vein swarms 60-70cm wide with strong gar-bio alteration ("4F") and weak grunerite overprint in lower 1m.													
E276808	131.80	132.50	0.03										M						S	
E276809	132.50	133.20	0.04																	
E276811	133.20	134.00	0.04	133.20	134.00	4B	Faintly laminated 4B as before but with moderate f.g. grunerite throughout.													

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E276812	134.00	135.10	0.17	134.00	137.30	4EA	Weak to moderate 4EA with minor bands of c.g. hydrothermal 4F, minor 2-2T and 50cm of probable f.g. unit 6. 4EA is generally straight banded with only minor qtz veins and no Po.													
E276813	135.10	135.60	0.02																	
E276814	135.60	136.60	0.03																	
E276815	136.60	137.30	0.03																	
E276816	137.30	138.40	0.04	137.30	138.40	4F	From 137.6-138.4 it is an intense 4F (30% m.g. garnets in ~pure biotite matirx) with 20% light gray magnetic chert bands <1cm. From 137.3-137.6m it is more of a thinly laminated 4B with weak 4E.													
E276817	138.40	139.70	0.02	138.40	140.50	4B	Mixed unit of thinly laminated 4B with 20-30% thin bands of 4F, 4E, minor amphibolite, generally <3-4mm wide. Becomes coarser-grained and more altered to 4F-EA in last 40cm.													
E276818	139.70	140.50	0.03										S			W				
E276819	140.50	141.50	0.04	140.50	145.00	4F	Mixed section of ~60% hydrothermal looking 4F in bands 1-10cm wide separated by 20% bands of 4B magnetic chert <1-2cm thick and 20% weak-moderate 4EA zones <20-30cm wide.	Unit is complexly folded and cut by 3-5% thin qtz veins but only trace Po.	140.50	145.00	4B	20% 4B as bands 1-2cm wide in the 4F.								
E276821	141.50	142.65	0.04																	
E276822	142.65	143.80	0.02																	
E276823	143.80	145.00	0.02										M			S				
E276824	145.00	146.00	0.03	145.00	147.00	4EA	Weak to moderately developed 4EA with ~10-15% bands of 4F <10cm wide. Garnet-grunerite forms ~massive zones but is not c.g. or qtz-Po flooded as in the well mineralized 4EA elsewhere.													
E276825	146.00	147.00	0.03										W			S				
E276826	147.00	148.00	0.02	147.00	148.50	4F	Similar to previous 4F section; has ~20% gray magnetic chert bands <1-2cm wide and 10-15% f.g. grunerite bands up to 3-4cm wide.						S			W				
E276827	148.00	148.50	0.03																	
E276828	148.50	149.00	0.04	148.50	151.30	4E	Generally well formed 4E commonly with moderate f.g.grunerite and borders on being a 4EA, especially from 149.5-150m.	Approx 15% gray magnetic chert bands <1-2cm (4B). The 4E bands are highly magnetic and presumably chem seds, not alt'n of volcanics.												
E276829	149.00	150.00	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E276831	150.00	151.00	0.02																	
E276832	151.00	152.00	0.02	151.30	159.20	4EA	Mainly a moderately developed 4EA with ~15% 4E sections to 40cm, minor 4F bands to 20cm, and only minor qtz veining.	The 4EA consists of ~massive garnet-grunerite intergowth but it is f.g. to m.g. and not the c.g. variety assoc'd with best grades. Unit is complexly folded as usual.												
E276833	152.00	153.00	0.03																	
E276834	153.00	154.00	0.10																	
E276835	154.00	155.00	0.93																	
E276836	155.00	156.00	0.36										S							
E276837	156.00	157.40	0.25																	
E276838	157.40	158.00	0.03																	
E276839	158.00	159.20	0.01																	
E276841	159.20	160.00	0.02	159.20	160.80	4F	Typical 4F with 20-40% garnets, 1-3mm, in biotite dominant matrix. No chert bands, minor thin bands of 4E. No major qtz veins.													
E276842	160.00	160.80	0.11										W			S			M	
E276843	160.80	162.00	3.17	160.80	164.00	4EA	Well developed 4EA in terms of % of garnet-grunerite and the moderate qtz flooding but little Po. Approx 10% thin 4B layers and a few minor patches of 4E.													
E276844	162.00	163.00	1.73													S			S	
E276845	163.00	164.00	0.70																	
E276846	164.00	165.00	0.21	164.00	172.50	4F	As per previous 4F but has locally abundant small qtz veins (up to 20%), some of which are flanked by 1cm of f.g. grunerite. Section includes 2 sections, 50-100cm wide, of weak-moderate 4EA and ~70cm of weak 4E style overprint.													
E276847	165.00	166.00	0.12																	
E276848	166.00	167.00	0.04																	
E276849	167.00	168.00	0.02																	
E276851	168.00	169.00	0.03																	
E276852	169.00	169.70	0.04																	
E276853	169.70	170.20	0.02																	
E276854	170.20	171.35	0.09																	
E276855	171.35	172.50	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E276856	172.50	173.00	0.21	172.50	182.10	4EA	Moderately well developed 4EA with broad zones of massive m.g. garnet-f.g. grunerite intergrowth separated by ~10-20% weakly magnetic gray chert layers <1-2cm thick. Unit is tightly folded, mainly M-type?	Section includes several bands to 50cm of strong 4F, most looks hydrothermal but some may be primary. Minor 4E bands too.												
E276857	173.00	174.00	0.11										S			W			M	
E276858	174.00	175.00	0.09																	
E276859	175.00	176.00	0.02										S			W				
E276861	176.00	176.70	0.22																	
E276862	176.70	177.20	0.13										S							
E276863	177.20	178.00	0.39																	
E276864	178.00	179.00	0.52																	
E276865	179.00	180.00	0.29																	
E276866	180.00	181.00	0.07																	
E276867	181.00	182.10	0.45										S							
E276868	182.10	183.00	0.04	182.10	183.50	4F	Faintly banded 4F with ~20-50% garnets, 1-3mm wide, in f.g. matirx of mainly f.g. biotite and lesser Fd-Qtz. Does not look hydrothermal in origin.													
E276869	183.00	183.50	0.02																	
E276871	183.50	184.40	0.06	183.50	194.00	4EA	Moderately developed 4EA with several horizons of 4F up to 60cm wide and a few small bands of 4E. The 4EA is well banded with massive garnet-grunerite intergrowths <10cm wide separated by ~30-40% gray magnetic chert bands <1cm thick.	Unit is fairly straight banded, not very contorted. Only minor qtz veining and trace Po.												
E276872	184.40	185.00	10.76																	
E276873	185.00	185.65	0.97										S							
E276874	185.65	186.25	0.04										M			M			M	
E276875	186.25	187.00	5.74																	
E276876	187.00	188.00	0.10										W		W	S			M	
E276877	188.00	189.00	0.13										M						S	
E276878	189.00	190.30	0.03																	
E276879	190.30	190.80	0.03																	
E276881	190.80	192.00	0.03																	
E276882	192.00	193.00	0.03										S			M			S	
E276883	193.00	194.00	0.05																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
E276884	194.00	195.00	0.03	194.00	202.00	4F	Well banded mix of ~60% hydrothermal looking 4F (50-70% m.g. garnets in ~pure biotite matrix) in bands up to 10cm thick separated by ~30-40% bands <1cm wide of gray to yellow, weakly magnetic chert +/- grunerite.	Minor 4E and 4B bands, <5% each. No major qtz flooding or Po. Lower contact is gradational over 1-2m into a more diffuse mix of 4B-4F.					S			W			M	
E276885	195.00	196.00	0.02																	
E276886	196.00	197.00	0.02																	
E276887	197.00	198.00	0.23																	
E276888	198.00	199.00	1.04																	
E276889	199.00	200.00	0.02																	
E276891	200.00	201.00	0.06																	
E276892	201.00	202.00	0.10																	
E276893	202.00	203.00	0.13	202.00	209.00	4B	Complex, thinly laminated mix of units. Mainly a faintly laminated 4B with major 4F, 4E and local 4EA overprint/intergrowth.	Unit is highly magnetic indicating hi % of magnetic chert but with so abundant f.g. garnets, biotite and local amphibole that it often looks more like 4F or 4E. Lower contact is gradational into pure 4B over 1-2m.												
E276894	203.00	204.00	1.48																	
E276895	204.00	205.00	0.28						204.00	206.00	4EA	Section is part of mixed 4B-E-F-EA package and contains ~ 60% f.g. to m.g. garnet-grunerite bands ~4-30cm thick with lesser 4F, 4E and minor 4B.								
E276896	205.00	206.00	0.63																	
E276897	206.00	207.00	4.35																	
E276898	207.00	207.80	15.83																	
E276899	207.80	208.20	12.77																	
E276901	208.20	209.00	7.28																	
E276902	209.00	210.00	3.14	209.00	215.60	4B	Well banded white chert-black magnetite BIF with local 4F-type alteration laminae. Lower 3.5 m is commonly brecciated to some degree, cut by large brecciated qtz veins (infilled with up to 60% Po) and a few Po veins to 2-3cm.													

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E276903	210.00	211.00	0.21																	
E276904	211.00	212.00	0.11																	
E276905	212.00	213.00	0.04																	
E276906	213.00	213.80	0.04																	
E276907	213.80	215.00	0.06																	
E276908	215.00	215.60	0.05																	
E276909	215.60	216.60	0.04	215.60	216.60	4H	Semi-massive band of 40-60% Po in a f.g. brecciated matrix of chert (?) and probable mudstone.													
E276911	216.60	217.40	0.04	216.60	221.80	4B	Well banded 4B with only minor local 4F, 4E components. Upper 1-1.5m verges on being a 4A.													
E276912	217.40	218.00	0.04																	
E276913	218.00	219.00	0.07																	
E276914	219.00	220.00	0.41																	
E276915	220.00	221.00	0.55																	
E276916	221.00	221.80	0.57																	
E276917	221.80	222.80	0.04	221.80	224.25	4A	Much lighter and chertier unit than 4B above, consists mainly of off-white, moderately magnetic chert with wispy streaks and bands of f.g. yellowish grunerite and <10% thin magnetite layers < 3-4mm.													
E276918	222.80	223.80	0.08																	
E276919	223.80	224.25	0.23																	
E276921	224.25	225.00	0.06	224.25	226.05	4H	Mix of ~2/3 Po-rich (~10-20%) chert bands, commonly qtz veined, brecciated and infilled with abundant Po, and 1/3 dark gray Po-rich mudstone bands up to 12cm wide.													
E276922	225.00	225.70	0.07																	
E276923	225.70	226.05	0.03																	
E276924	226.05	226.85	0.04	226.05	234.10	1	Typical pale greenish-gray, weakly foliated, rather featureless, homogeneous, aphyric serpentinized ultramafic. Composed of f.g. light gray to pale green serpentine, no visible talc.	Lower 30cm has c.g. hydration reaction zone of pale green amphiboles studded with c.g. dark brown mafics.												
				234.10	240.00	2T	Moderately foliated and biotitized mafic volcanics. Biotite conentrated in thin laminae, foliation planes etc., not pervasive. Unit is pale gray-green, possibly bleached.	Small intraformational 4B-4E unit with minor Po from 235-235.46m.												
E276925	234.40	235.00	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E276926	235.00	235.46	0.05						235.00	235.46	4B	Mixed unit of well banded chert-magnetite BIF, white chert layers to 5-6cm, and dark green amphibolite layers up to 6-7cm. Po occurs in clots/fracture fillings and as a 5-7mm band along foliation.								
E276927	235.46	236.00	0.03																	
				240.00	250.00	2	Medium gray-green, weak to moderately foliated basalt with only minor local bio'n. No major shears, veins, or alteration.													

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	15.90	CASI																	19.00	24.00	50	WE	S1													
15.90	65.30	3F																	26.00	28.00	55	WE	S1													
65.30	66.90	2																	35.00	37.00	50	WE	S1													
																			38.00	40.00	46	WE	S1													
																			47.00	49.00	45	WE	S1													
																			56.00	58.00	45	WE	S1													
																			60.00	62.00	43	WE	S1													
66.90	68.00	4E					0.1																													
68.00	69.00	4F																																		
69.00	94.00	2T																	71.00	72.00	41	MO	S1													
							0.1																													
																			79.00	81.00	45	MO	S1													
																			88.00	89.00	43	MO	S1													
94.00	94.80	4E	45				1.5																													
94.80	102.10	4F	30																																	
							0.1																													
																			98.00	99.00	58	MO	S1													
																			100.00	101.00	63	MO	S1													
102.10	102.80	4E	54				0.1																													
102.80	108.20	4F					0.1																													
							3.0																													
							0.1																													
108.20	116.75	4EA					0.1																													
							0.1																													
											112.00	113.00	QZ	3																						
											113.00	114.00	QZ	10	m	I			113.00	116.00	45		S0													

STRUCTURAL LOG 04-ESS-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							0.1				114.00	115.00	QZ	4	m	I																				
							0.1				115.00	116.00	QZ	2	m	I																				
																			116.00	118.00	45		S0													
116.75	131.20	4B																							117.00	119.00	40	WE	ZF	Possibly these minor drag folds are related to the fault nearby.	116.75	121.50		INT	BC	Late brittle fault zone, reduced to rubble.
																			122.00	123.00	27	MO	S2	Banding deformed by nearby fault zone?										
											123.00	125.00	QZ	3	m	I																				
																			125.00	126.00	28	MO	S2													
											126.00	129.00	QZ	4	m	I																				
											129.00	130.10	QZ	25	m	I																				
											130.10	131.20	QZ	2																						
131.20	133.20	4B									131.20	131.80	QZ	40	m	I																				
											131.80	132.50	QZ	10		I			132.00	133.00	42		S0													
											132.50	133.20	QZ	40	m	I																				
133.20	134.00	4B									133.20	137.00	QZ	2	m	I																				
134.00	137.30	4EA																	135.00	136.00	35		S0													
																			137.00	138.00	37		S0													
137.30	138.40	4F																																		
138.40	140.50	4B																	140.00	141.00	63		S0	Beta angle suspect.	140.00	141.00	71	WE	FD	Beta is suspect.						
140.50	145.00	4F									140.50	142.60	QZ	5	m	I																				
																			143.00	144.00	58		S0													

STRUCTURAL LOG 04-ESS-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC					FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
145.00	147.00	4EA									145.00	146.00	QZ	12	m	I																		
											146.00	147.00	QZ	5	m	I			146.00	147.00	63		S0												
147.00	148.50	4F																	147.00	148.00	73		S0		147.00	149.00	73	MO	MF					
148.50	151.30	4E																																
																									150.00	152.00	76	MO	MF					
151.30	159.20	4EA																																
											152.00	153.00	QZ	5	m	I			152.00	153.00	52		S0												
											153.00	156.00	QZ	4	m	I																		
							0.1																											
											156.00	157.40	QZ	20	m	I									156.00	159.00	81	INT	MF					
											157.40	160.00	QZ	4	m	I																		
159.20	160.80	4F																																
160.80	164.00	4EA					0.1																											
							0.1																											
							0.1												163.00	164.00	58		S0												
164.00	172.50	4F									164.00	165.20	QZ	5	m	I																		
											166.80	168.00	QZ	8	m	I									167.00	168.00	80	INT	MF					
											168.80	171.35	QZ	7	m	I																		
							0.1												170.00	171.00	66		S0		170.00	171.00	81	MO	MF					
											171.35	172.50	QZ	5	m	I																		
172.50	182.10	4EA																																
											176.00	176.50	QZ	3	m	I									176.00	177.00	40	MO	ZF	Large fold, hard to see it all, might be M type.				
							0.1				178.00	180.00	QZ	4	m	I																		
							0.1				180.00	181.00	QZ	7	m	I																		
											181.00	182.10	QZ	2					182.00	183.00	43		S0		181.00	182.00	67	INT	MF					

STRUCTURAL LOG 04-ESS-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
182.10	183.50	4F																																	
183.50	194.00	4EA									183.50	184.40	QZ	3		I																			
							0.1				184.40	185.00	QZ	25	m	I																			
							0.2																													
																			188.00	189.00	58		S0													
																			191.00	193.00	19		S0													
											193.00	194.00	QZ	7	m	I																			
194.00	202.00	4F																																	
																			196.00	197.00	22		S0													
																			199.00	200.00	22		S0													
202.00	209.00	4B																							203.00	204.00	34	WE	SF						
											205.00	206.00	QZ	4	m	I																			
											206.00	207.00	QZ	2					206.00	207.00	27		S0													
							50.																													
209.00	215.60	4B									210.00	211.00	QZ	10	m	I																			
							0.1				211.00	213.80	QZ	5	m	I																			
							25.				213.80	215.60	QZ	40				Veins are completely brecciated into large fragments and infilled with Po.																		
				0.1			25.																													

STRUCTURAL LOG 04-ESS-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
215.60	216.60	4H					40.				215.60	219.00	QZ	4	m	I		Most veins are partially brecciated.																		
216.60	221.80	4B					0.1																												
							0.2				219.00	221.80	QZ	12	m	I																				
							2.5																													
221.80	224.25	4A					2.5				221.80	224.25	QZ	6	m																					
224.25	226.05	4H					13.				224.25	225.00	QZ	15				Veins brecciated into frags <2-3cm.																		
				15.0							225.00	225.70	QZ	15																						
											225.70	226.05	QZ	66	m	I																		226.05	230.00	30	MOD	SC	Actually a late fault in the serpentinite, no significant veins or alteration.
226.05	234.10	1																																	
234.10	240.00	2T																	227.00	228.00	30	MO	S2												
																			235.00	235.50	47		S0												
			45				1.0																													
240.00	250.00	2																	236.00	238.00	50	MO	S1												
																			239.00	242.00	53	MO	S1												
																			242.00	244.00	45	MO	S1												

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-011**

Project Code: ESS

Mine Grid Easting: 8750.0032
Mine Grid Northing: 11600.295
Elevation: 5296.6954

UTM East 676972.022
UTM North: 5833735.45

Planned Depth: 260
Actual Depth: 284

Drill Start Date: 09/02/2004
Drill End Date: 11/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	88.8624	-65.0695	SURV
3	89.08	-64.89	MAXI
6	89.3	-64.72	MAXI
9	89.45	-64.71	MAXI
12	89.54	-64.74	MAXI
15	89.57	-64.7	MAXI
18	89.44	-64.64	MAXI
21	89.34	-64.63	MAXI
24	89.29	-64.55	MAXI
27	89.29	-64.48	MAXI
30	89.45	-64.41	MAXI
33	89.49	-64.36	MAXI
36	89.5	-64.34	MAXI
39	89.57	-64.33	MAXI
42	89.56	-64.29	MAXI
45	89.59	-64.27	MAXI
48	89.67	-64.27	MAXI
51	89.76	-64.24	MAXI
54	89.79	-64.23	MAXI
57	89.83	-64.22	MAXI
60	89.87	-64.22	MAXI
63	89.96	-64.24	MAXI
66	89.97	-64.2	MAXI
69	90.02	-64.16	MAXI
72	90.07	-64.12	MAXI
75	90.06	-64.09	MAXI
78	90.16	-64.06	MAXI
81	90.19	-64.02	MAXI
84	90.19	-63.98	MAXI
87	90.2	-63.95	MAXI
90	90.24	-63.91	MAXI
93	90.27	-63.9	MAXI
96	90.28	-63.88	MAXI
99	90.32	-63.85	MAXI
102	90.35	-63.82	MAXI
105	90.41	-63.81	MAXI
108	90.39	-63.78	MAXI
111	90.42	-63.73	MAXI
114	90.51	-63.68	MAXI
117	90.57	-63.65	MAXI
120	90.64	-63.6	MAXI
123	90.66	-63.58	MAXI
126	90.72	-63.55	MAXI
129	90.76	-63.53	MAXI
132	90.8	-63.49	MAXI
135	90.81	-63.45	MAXI
138	90.86	-63.42	MAXI
141	90.83	-63.36	MAXI
144	90.9	-63.33	MAXI
147	90.96	-63.29	MAXI
150	90.99	-63.24	MAXI
153	91.02	-63.21	MAXI
156	91.08	-63.17	MAXI
159	91.1	-63.13	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-011**

Project Code: ESS

Mine Grid Easting: 8750.0032
Mine Grid Northing: 11600.295
Elevation: 5296.6954

UTM East 676972.022
UTM North: 5833735.45

Planned Depth: 260
Actual Depth: 284

Drill Start Date: 09/02/2004
Drill End Date: 11/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	91.21	-63.11	MAXI
165	91.23	-63.07	MAXI
168	91.23	-63.03	MAXI
171	91.26	-62.99	MAXI
174	91.36	-62.95	MAXI
177	91.41	-62.92	MAXI
180	91.53	-62.88	MAXI
183	91.65	-62.84	MAXI
186	91.81	-62.77	MAXI
189	91.97	-62.7	MAXI
192	92.07	-62.64	MAXI
195	92.21	-62.62	MAXI
198	92.31	-62.59	MAXI
201	92.44	-62.54	MAXI
204	92.56	-62.51	MAXI
207	92.7	-62.49	MAXI
210	92.84	-62.48	MAXI
213	92.94	-62.46	MAXI
216	93.05	-62.43	MAXI
219	93.15	-62.41	MAXI
222	93.24	-62.39	MAXI
225	93.34	-62.37	MAXI
228	93.48	-62.33	MAXI
231	93.57	-62.29	MAXI
234	93.61	-62.26	MAXI
237	93.76	-62.21	MAXI
240	93.84	-62.18	MAXI
243	93.97	-62.13	MAXI
246	94.13	-62.07	MAXI
249	94.3	-61.98	MAXI
252	94.5	-61.9	MAXI
255	94.78	-61.84	MAXI
258	94.98	-61.79	MAXI
261	95.09	-61.76	MAXI
264	95.21	-61.74	MAXI
267	95.35	-61.72	MAXI
270	95.54	-61.71	MAXI
273	95.71	-61.7	MAXI
276	95.78	-61.68	MAXI
279	95.85	-61.66	MAXI
282	95.91	-61.64	MAXI
284	95.97	-61.64	MAXI

LITHOLOGY LOG 04-ESS-011

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	26.00	CASIN														0.5-1cm garnet knots
				26.00	27.70	3D	Light grey, massive, fine-grained and plagioclase-phyric.													
				27.70	29.40	2	May be mafic dike,sharp contacts.													
				29.40	206.00	3F	Moderately well laminated and light grey. Rare sections of easily discerable plagioclse crystals. Rare sections with 0.5cm garnets.													
E273164	205.00	206.00	0.08																	
E273165	206.00	207.20	0.26	206.00	221.27	2	Mainly biotitic with 30-50cm sections of 4E near top of interval. Minor sections of 4E and 4F.		206.00	207.20	4E	Mainly 4E with minor 2T and 4F layers 10-30 cm.								
E273166	207.20	208.00	0.03																	
E273167	208.00	209.00	0.05															-		
E273168	209.00	209.72	0.03																	
E273169	209.72	210.20	0.02						209.72	210.95	4F	Mainly 4F intermixed with 4E and garnetiferous 2T.				-				
E273171	210.20	210.95	0.10																	
E273172	210.95	212.00	0.33																	
E273173	212.00	213.00	0.29																	
E273174	213.00	214.15	0.16																	
E273175	214.15	215.30	0.23						214.15	216.30	4E	1cm garnets in amphibole as well as minor 2T.								
E273176	215.30	216.30	0.95																	
E273177	216.30	217.30	0.02																	
E273178	217.30	218.30	0.02																	
E273179	218.30	219.30	0.02																	
E273181	219.30	220.30	0.01																	
E273182	220.30	221.27	0.06																	
E273183	221.27	222.30	0.15	221.27	223.50	4EA	Composed of mixed 4EA with lesser amount of 4E and silica.													
E273184	222.30	223.50	4.21																	
E273185	223.50	224.70	0.06	223.50	231.76	2T	Mainly biotite-altered basalt with minor unaltered intervals and 4E-type siliceous material up to 1m wide.													
E273186	224.70	225.90	0.04																	
E273187	225.90	227.00	0.02																	
E273188	227.00	228.00	0.04																	
E273189	228.00	229.00	0.02																	
E273191	229.00	229.93	0.05																S	
E273192	229.93	230.80	23.17																	
E273193	230.80	231.76	0.32																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273194	231.76	233.00	13.33	231.76	236.08	4EA	Moderately well developed and siliceous. No sulphides.													
E273195	233.00	234.00	0.66																	
E273196	234.00	235.00	0.73																	
E273197	235.00	236.08	2.24																	
E273198	236.08	237.00	0.10	236.08	240.40	2	Weakly biotite altered along contacts with minor 4F and 4E intervals with gradational contacts.													
E273199	237.00	238.00	0.88																	
E273201	238.00	239.20	0.03																	
E273202	239.20	240.40	0.03																	
E273203	240.40	241.60	3.91	240.40	247.73	4EA	Moderately well developed with abundant 2-4cm bands of 4F with lesser 4E. Minor qtz in upper 3m becoming less abundant downhole with increase in grunerite.													
E273204	241.60	242.80	7.18																	
E273205	242.80	244.00	3.15																	
E273206	244.00	245.00	0.30																	
E273207	245.00	246.00	0.18																	
E273208	246.00	247.00	12.70																	
E273209	247.00	247.73	0.20																	
E273211	247.73	249.00	0.20	247.73	263.00	4B	Composed of 0.5-1cm wide bands of chert-magnetite. Upper 3m is silicate rich. No obvious disruption of bedding.													
E273212	249.00	250.00	1.29																	
E273213	250.00	251.00	0.17																	
E273214	251.00	252.00	0.90																	
E273215	252.00	253.00	0.35																	
E273216	253.00	254.00	0.08																	
E273217	254.00	255.00	0.30																	
E273218	255.00	256.00	0.44																	
E273219	256.00	257.00	0.57																	
E273221	257.00	258.00	0.09																	
E273222	258.00	259.00	0.13																	
E273223	259.00	260.00	0.18																	
E273224	260.00	261.00	0.29																	
E273225	261.00	262.00	0.36																	
E273226	262.00	263.00	0.69																	
E273227	263.00	264.00	0.02	263.00	284.00	2T	Wispy biotite defining foliation throughout.													

STRUCTURAL LOG 04-ESS-011

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	26.00	CASI																	31.00	31.10	64	MO	S1													
26.00	27.70	3D																	38.00	38.10	45	MO	S1													
27.70	29.40	2																	44.00	44.10	50	MO	S1													
29.40	206.00	3F																	50.00	50.10	48	MO	S1													
																			57.00	57.10	50	MO	S1													
																			65.00	65.10	50	MO	S1													
																			74.00	74.10	45	MO	S0													
																			80.00	80.10	37	MO	S1													
																			86.00	86.10	42	MO	S1													
																			92.00	92.10	50	MO	S1													
																			95.00	95.10	50	MO	S1													
																			104.00	104.10	56	MO	S1													
																			111.00	111.10	45	WE	S1													
																			119.00	119.10	47	MO	S1													
																			128.00	128.10	45	MO	S1													
																			136.00	136.10	48	MO	S1													
																			146.00	146.10	52	MO	S1													
																			158.00	158.10	50	MO	S1													
																			165.00	165.10	52	MO	S1													
																			173.00	173.10	47	MO	S1													
																			185.00	185.10	42	MO	S1													
																			191.00	191.10	38	MO	S1													
																			195.00	195.10	48	MO	S1													
																			197.00	197.10	45	MO	S1													
																			204.00	204.10	43	MO	S1													
206.00	221.27	2																	207.20	207.30	50	MO	S1													
																			215.00	215.10	50	MO	S1													
221.27	223.50	4EA					1.0												222.00	222.10	43	WE	S1													

STRUCTURAL LOG 04-ESS-011

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
223.50	231.76	2T																																		
																			227.00	227.10	49	MO	S1													
																			230.00	230.10	51	INT	S1													
231.76	236.08	4EA																	233.00	233.10	40	INT	S1													
236.08	240.40	2																	237.00	237.10	60	MO	S1													
240.40	247.73	4EA																																		
																			245.00	245.10	45	INT	S1													
247.73	263.00	4B																																		
																			251.00	251.10	48	MO	S0													
																			255.00	255.10	43	MO	S0													
																			260.00	260.10	43	MO	S0													
263.00	284.00	2T																	264.00	264.10	45	MO	S1													
																			275.00	275.10	44	INT	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-012**

Project Code: ESS

Mine Grid Easting: 8915
Mine Grid Northing: 11650
Elevation: 5296

UTM East 677055.602
UTM North: 5833886.269

Planned Depth: 80
Actual Depth: 129

Drill Start Date: 20/03/2004
Drill End Date: 21/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments: Conditional on good results from East Zone drilling elsewhere. Planned coords

Survey

Depth	Azimuth	Dip	SurveyType
0	90	-46	EZS
23	90	-45.9	EZS
47	90	-45.6	EZS
71	90	-45.1	EZS
98	90	-44.7	EZS
122	90	-43.8	EZS

LITHOLOGY LOG 04-ESS-012

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	15.00	CASIN														
E246576	15.00	15.30	0.46	15.00	17.00	1	Core is badly broken and ~bleached but appears to be mafic to ultramafic volcanic, copmosed mainly of f.g. light gray serpentine. Minor qtz flooded and pyritic unit in upper 30cm.													
E246577	15.30	16.00	0.01																	
E246578	16.00	17.00	0.03																	
E246579	17.00	18.00	0.49	17.00	20.40	4E	Badly broken core, often stained and hard to see but most is moderately magnetic 4E composed of ~30-40% magnetic chert layers up to 10cm, 30-40% c.g. garnets-f.g. green amph bands, and minor qt veins, basalt, etc.	Local moderate biotite and/or minor grunerite alteration.												
E246581	18.00	19.00	0.53																	
E246582	19.00	20.10	0.85																	
E246583	20.10	20.50	0.66	20.40	36.20	2T	Variable section of ~60% 2T and 40% 2 in zones 30-200cm wide, gradational over 10-20cm into each other. 2T still has minor green amph visible and the biotite is slightly coarser than that seen in unit 6.													
E246584	20.50	21.00	0.38																	
E275329	35.70	36.20	0.06																	
E275331	36.20	37.00	1.14	36.20	41.90	4E	Mixed section of ~35% weak-moderately formed 4E, 10% good 4F in a 60cm band, 15% f.g. metased unit 6 locally grading into weak 4F, rest is 2T with 10% thin Cc veins.	4E is weakly magnetic and appears to be true chemical sediment.												
E275332	37.00	37.45	2.19																	
E275333	37.45	38.10	0.10																	
E275334	38.10	38.70	1.34																	
E275335	38.70	40.00	0.04																	
E275336	40.00	41.00	0.03																	
E275337	41.00	41.90	0.04																	
E275338	41.90	43.00	0.03	41.90	44.50	2T	Pale-medium greenish brown, well foliated to sheared, moderately biotitized mafic volcanic. Moderately sheared below 44m, minor Cc veinlets throughout.						M	W						
E275339	43.00	44.00	0.06																	
E275341	44.00	44.50	0.08																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275342	44.50	45.15	0.46	44.50	52.50	4F	Well developed 4F with 4 horizons of 4EA-4E 20-60cm wide. 4F has ~15-20% garnets 1-2mm in biotite-rich matrix with locally up to 10% f.g. yellow staurolite; only minor fd-qtz.		44.50	45.15	4EA	Fairly well dveloped 4EA with 50% c.g. garnets in f.g. grunerite matrix, minor green amph bands. No significant qtz flooding or Po.								
E275343	45.15	45.80	0.60						45.30	45.80	4E	Mainly ~60% bands of light gray magnetic chert up to 1cm separated by 25-30% bands of hydrothermal looking c.g. 4F and 15% dark green amphibolite.								
E275344	45.80	47.00	0.57																	
E275345	47.00	48.00	0.34																	
E275346	48.00	49.00	0.07																	
E275347	49.00	50.00	0.05																	
E275348	50.00	51.15	0.17																	
E275349	51.15	51.65	0.08						51.15	51.65	4A	~1/2 of interval is 4F, rest is mainly 1-2cm bands of pale yelow grunerite-chert and lesser white chert-green amphibolite bands.								
E275351	51.65	52.50	0.15																	
E275352	52.50	53.00	0.37	52.50	57.00	4E	Heterogeneous section but most is f.g., weakly foliated amphibolite with 5-30% m.g. to c.g. ragged garnets, not a true chem sediment probably meta'm/alteration of volcanics.	Several <20cm zones of >70% c.g. garnets with minor grunerite and 2-5% Po, bordering on 4EA. Lower 1m has 35% qtz flooding and is largely altered to light green amph.												
E275353	53.00	54.00	0.24																	
E275354	54.00	55.00	0.16																	
E275355	55.00	56.00	0.36																	
E275356	56.00	57.00	3.31																	
E275357	57.00	57.70	0.11	57.00	59.00	3F	Small band of apparent felsc volcanics. Composed mainly of f.g. qtz-fd with abundant sericite and up to 5% Py laminae and dissem grains. No amph, bio.													
E275358	57.70	59.00	0.06																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E275359	59.00	60.00	0.14	59.00	61.60	2	Heterogeneous section of mainly dark green amphibolitic mafic volcanic moderately sheared and cut by 10-20% thin cc veinlets. Several zones to 20-30cm of c.g. garnet overgrowths with 5% Py; borders on being a 4E locally.													
E275361	60.00	60.90	0.05																	
E275362	60.90	61.60	0.22																	
E275363	61.60	62.30	1.02	61.60	64.75	4E	Mixed section with ~40% c.g. gar-amphibolite 4E, 40% mixed 4E with 40% white chert bands flanked by pale green amph-c.g. garnets and lesser c.g. 4F bands, and 20% f.g, 4F.													
E275364	62.30	63.00	0.28										M			W			M	
E275365	63.00	64.10	0.37																	
E275366	64.10	64.75	0.76																	
E275367	64.75	66.00	0.26	64.75	67.70	4F	Similar to previous 4F, ~10-20% garnets, 1-3mm, in biotite-rich matrix having only minor fd-qtz. Lower contact interbedded with 4A/EA for 20cm.													
F275368	66.00	67.00	0.08																	
E275369	67.00	67.70	0.05																	
E275371	67.70	68.40	0.19	67.70	69.10	4EA	~80% is 4EA composed of ~massive pale yellow grunerite studded with up to 50% pale yellow-pink. m.g. garnets. Rest is magnetic chert bands <1cm wide.	Unit has typical irregular deformation typical of 4EA.												
E275372	68.40	69.10	0.15																	
E275373	69.10	70.00	0.05	69.10	70.00	2T	Banded unit composed of alternating medium green, light gray and light beige, fresh to moderately biotitized, mafic volcanics.													
E275374	70.00	71.00	0.04	70.00	72.80	4F	Sameas previous 4F units.													
E275375	71.00	72.00	0.06																	
E275376	72.00	72.80	0.06										W			W			M	
E275377	72.80	73.80	0.32	72.80	75.00	4EA	Moderately developed 4EA but fairly low grunerite % so close to a 4E. Highly magnetic, >30% 4B layers. Little or no qtz flooding or Po.	Gradational over 20cm into 4F above and over 1m into mixed 4B-4F below.												
E275378	73.80	75.00	1.57																	
E275379	75.00	76.00	1.30	75.00	79.70	4F	Mixed section of interbanded 4F (~55%) and 40% light gray magnetic chert (4B) with 5% 4A layers (f.g. grunerite-chert). All layers vary from a few mm to ~1.5cm thick. Lower 70 cm is mainly faint zones to 20cm of weak 4EA and lesser 4F. .												
E275381	76.00	77.00	0.82																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275382	77.00	78.00	0.22																	
E275383	78.00	78.80	0.29																	
E275384	78.80	79.70	0.67																	
E275385	79.70	80.00	1.68	79.70	81.45	2	Weakly foliated and locally biotitized mafic volcanic becoming moderately strained and veined with 15% thin qtz-Cc veins in lower 1/2.													
E275386	80.00	81.00	1.18																	
E275387	81.00	81.45	0.69																	
E275388	81.45	82.00	5.54	81.45	84.00	4EA	Varaible section. Approx 2/3 is moderately developed 4EA but 1/3 is 4E, generally in bands or zones 1-10cm wide. 4EA is generally c.g. and often has f.g. Po throughout.												W	
E275389	82.00	83.00	2.61																	
E275391	83.00	84.00	1.43																	
E275392	84.00	85.30	1.28	84.00	87.60	4E	4E varies from dark green f.g. amphibolite with 40% m.g. garnets to sections with 60% magnetic chert bands flanked by gar-amph. ~1/3 has minor f.g grunerite and a few bands have c.g. gar-grunerite (4EA) up to 5cm wide.													
E275393	85.30	86.10	0.52																	
E275394	86.10	87.00	0.58																	
E275395	87.00	87.60	0.14																	
E275396	87.60	88.30	0.06	87.60	95.00	4B	Heterogeneous section of 4B. Most is more cherty than typical 4B and verges on a 4A. One 20cm 4F band. Upper 1.5 is more thinly & faintly banded Mt dominant 4B.													
E275397	88.30	89.00	0.13																	
E275398	89.00	90.00	0.43																	
E275399	90.00	91.00	0.33																	
E275401	91.00	92.00	0.24																M	
E275402	92.00	93.00	0.31																	
E275403	93.00	94.00	0.21																	
E275404	94.00	95.00	0.35																W	
E275405	95.00	96.00	0.17	95.00	98.90	4A	Distinctly lighter coloured (light yellow-off white) and chertier section than 4B above. Still ~10-20% 4B magnetite layers but most are faint, wispy zones <1-2cm wide.	Chert is distinctly pale yellow due to f.g. grunerite-(Fe-carb) content. Contains a 60cm Po rich (4H) zone from 97.5-98.1m.												
E275406	96.00	97.00	0.18																	
E275407	97.00	97.50	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275408	97.50	98.10	0.41						97.50	98.10	4H	~40% semi-massive Po in bands and irregular zones up to 3-4cm wide within an off-white chert. several brecciated qtz veins up to 5cm.							M	
E275409	98.10	98.90	0.08																	
E275411	98.90	99.90	0.01	98.90	107.90	2	Weakly to moderately biotitized and foliated, medium green-gray mafic volcanic. Biotite mainly along thin laminae < 3-4mm wide, not as pervasive as that in good 2T.						M							
				107.90	110.80	1	Pale gray, rather featureless, weakly foliated serpentinized ultramafic. Locally 5-10% bands up to 1 cm wide of c.g. anhedral brown pyroxene (?) with minor cc.						W M							
				110.80	121.60	2	Similar to previous 2 but slightly greener now and less bioitite.													
				121.60	125.10	1	Light gray to off-white serpentinized ultramafic as before but no c.g pyx veins.													
				125.10	129.00	2	As before.													

STRUCTURAL LOG 04-ESS-012

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py %	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	15.00	CASI																																		
15.00	17.00	1																																		
17.00	20.40	4E					0.2																													
							3.0																													
							0.1																													
20.40	36.20	2T																																		
																			23.00	24.00	34	WE	S1													
																			26.00	27.00	40	WE	S1													
																			32.00	33.00	45	MO	S1													
36.20	41.90	4E																																		
																			37.00	38.00	62		S0													
																			38.00	40.00	61	MO	S1													
																			41.00	42.00	52	MO	S1													
41.90	44.50	2T																																		
																			44.00	45.00	35	MO	S2								44.00	44.50	35	MOD	SC	
44.50	52.50	4F																																		
			45				0.1																														
																			50.00	52.00	62	MO	S1													
52.50	57.00	4E	80				1.5																													
							0.2																													
							2.0																													
							4.0												56.00	57.00	55	MO	S1													
57.00	59.00	3F	65				0.1																													
							1.0	1																												
59.00	61.60	2						1											59.00	60.00	70	MO	S2													
								7																												
61.60	64.75	4E					2.0	4																												

STRUCTURAL LOG 04-ESS-012

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							0.5	0.05																												
							0.2																												
64.75	67.70	4F																																		
																			67.00	68.00	62	MO	S1		67.50	68.00	60	MO	FD						
67.70	69.10	4EA																	68.00	69.00	68		S1												
69.10	70.00	2T																																		
70.00	72.80	4F																																		
																			72.00	73.00	65		S0												
72.80	75.00	4EA					0.1																													
							0.2																		74.50	75.00	58	MO	ZF						
75.00	79.70	4F																																		
																			77.00	78.00	63		S0												
							0.1																													
79.70	81.45	2	56																																	
81.45	84.00	4EA					0.1																													
							1.0																													
							0.1																													
84.00	87.60	4E																																		
87.60	95.00	4B																	88.00	89.00	65		S0												
							0.1																													
							1.0												92.00	93.00	79		S0												
							0.1												93.00	94.00	79		S0												
							3.0																													
95.00	98.90	4A																																		
							1.0												97.00	98.00	60		S0												
							40.																													
							0.2																													
98.90	107.90	2	57																																	
107.90	110.80	1																	103.00	104.00	58	MO	S2												

STRUCTURAL LOG 04-ESS-012

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
110.80	121.60	2																	107.00	108.00	45	MO	S1													
121.60	125.10	1																	111.00	112.00	45	MO	S1													
125.10	129.00	2																	116.00	117.00	47	MO	S1													
																			122.00	123.00	30	MO	S1													
																			125.00	126.00	50	MO	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-013**

Project Code: ESS

Mine Grid Easting: 8850.7679
Mine Grid Northing: 11649.9902
Elevation: 5296.8708

UTM East 677008.988
UTM North: 5833840.999

Planned Depth: 100
Actual Depth: 203

Drill Start Date: 12/02/2004
Drill End Date: 14/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	91.336	-49.129	SURV
16	91.336	-45.9	EZS
25	91.336	-45.8	EZS
56	91.336	-45.5	EZS
75	91.336	-45	EZS
107	91.336	-44.7	EZS
125	91.336	-43.7	EZS
155	91.336	-43.3	EZS
176	91.336	-42.4	EZS
203	91.336	-42.3	EZS

LITHOLOGY LOG 04-ESS-013

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	17.00	CASIN														
				17.00	57.50	3F	Siliceous, weakly porphyritic and generally banded.													
E274307	50.00	51.00	0.11						50.00	57.50	3F	Locally sheared and brecciated with po filling fractures almost massive over 10cm locally.								
E274308	51.00	52.20	0.10																	
E274309	52.20	52.90	0.12																	
E274311	52.90	53.53	0.63																	
E274312	53.53	54.20	0.05																	
E274313	56.50	57.50	0.11																	
E274314	57.50	58.80	0.00	57.50	76.85	2	Mainly massive to weakly foliated with abundant 50cm zones of siliceous 4E.													
E274315	58.80	59.95	0.02						58.80	59.95	4F									
E274316	59.95	61.00	0.01																	
E274317	61.00	61.80	0.03																	
E274318	61.80	62.60	0.04						61.80	62.60	4E									
E274319	62.60	63.60	0.01																	
E274321	63.60	64.60	0.01																	
E274322	64.60	65.40	4.99						64.60	65.20	4E									
E274323	76.85	78.00	3.26	76.85	82.55	4EA	Poor in grunerite but siliceous and moderately magnetic.													
E274324	78.00	79.00	0.06																	
E274325	79.00	80.00	0.43																	
E274326	80.00	81.00	0.04																	
E274327	81.00	82.00	0.05																	
E274328	82.00	82.55	3.52																	
E274329	82.55	83.54	0.74	82.55	83.54	4F	Minor silica bands and 4E over 2-4cm.													
E274331	83.54	84.10	0.02	83.54	84.10	2														
E274332	84.10	85.00	0.11	84.10	86.98	4EA	Garnets up to 1.3cm.													
E274333	85.00	86.00	0.03																	
E274334	86.00	86.98	0.30																	
				86.98	98.40	2	Minor sheared and biotitic zones.													
E274335	97.40	98.40	0.08																	
E274336	98.40	99.40	0.12	98.40	104.00	4E	Very magnetic and amph-rich, no visible magnetite.													
E274337	99.40	100.17	0.14																	
E274338	100.17	101.00	8.71																	
E274339	101.00	102.00	0.22																	
E274341	102.00	103.00	0.67																	
E274342	103.00	104.00	0.42																	

LITHOLOGY LOG 04-ESS-013

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274343	104.00	104.80	0.61	104.00	105.62	4F	Typical 4F with 2-3mm ganets. Minor siliceous bands.													
E274344	104.80	105.62	0.18																	
E274345	105.62	106.20	0.29	105.62	124.25	4EA	Very grunerite-poor with abundant chert and garnet.													
E274346	106.20	107.00	0.19																	
E274347	107.00	107.75	0.13																	
E274348	107.75	109.00	4.31																	
E274349	109.00	110.00	0.06																	
E274351	110.00	111.00	0.06																	
E274352	111.00	112.00	0.08																	
E274353	112.00	113.00	0.18																	
E274354	113.00	114.00	0.18																	
E274355	114.00	115.00	1.38																	
E274356	115.00	116.00	0.49																	
E274357	116.00	117.00	1.92																	
E274358	117.00	118.00	1.02																	
E274359	118.00	119.00	1.16																	
E274361	119.00	120.00	1.58																	
E274362	120.00	121.00	0.42																	
E274363	121.00	122.00	0.33																	
E274364	122.00	123.00	0.07																	
E274365	123.00	124.25	0.11																	
E274366	124.25	125.50	0.02	124.25	138.45	4F	Ranges from massive to moderately well banded. Minor sections of 4E <20cm.													
E274367	125.50	126.70	0.04																	
E274368	126.70	127.90	0.09																	
E274369	127.90	129.00	0.48																	
E274371	129.00	130.00	0.03																	
E274372	130.00	131.00	0.02																	
E274373	131.00	132.00	0.02																	
E274374	132.00	133.00	0.03																	
E274375	133.00	134.00	0.02																	
E274376	134.00	135.00	0.27																	
E274377	135.00	136.00	0.03																	
E274378	136.00	137.20	0.01																	
E274379	137.20	138.45	0.02																	
E274381	138.45	139.60	0.05	138.45	143.77	4EA	Very poorly developed with minor to trace grunerite. Well banded and magnetic.													
E274382	139.60	140.80	0.08																	
E274383	140.80	142.00	0.30																	
E274384	142.00	143.00	0.07																	
E274385	143.00	143.77	0.20																	

LITHOLOGY LOG 04-ESS-013

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E274386	143.77	145.00	0.20	143.77	171.44	4B	From 143.77 to about 160m is intermixed 4B and 4F+4E. After 160 is more classic 4B.													
E274387	145.00	146.00	0.37																	
E274388	146.00	147.00	0.16																	
E274389	147.00	148.00	0.18																	
E274391	148.00	149.00	0.48																	
E274392	149.00	150.00	0.69																	
E274393	150.00	151.00	4.22																	
E274394	151.00	152.00	0.64																	
E274395	152.00	153.00	1.25																	
E274396	153.00	154.00	2.08																	
E274397	154.00	155.00	0.47																	
E274398	155.00	156.00	0.20																	
E274399	156.00	157.00	0.73																	
E274401	157.00	158.00	1.82																	
E274402	158.00	159.00	1.84																	
E274403	159.00	160.00	2.45																	
E274404	160.00	161.00	1.06																	
E274405	161.00	162.00	1.12																	
E274406	162.00	163.00	0.28																	
E274407	163.00	164.00	1.41																	
E274408	164.00	165.00	0.42																	
E274409	165.00	166.00	0.04																	
E274411	166.00	167.00	0.04																	
E274412	167.00	168.00	0.23																	
E274413	168.00	169.00	0.11																	
E274414	169.00	170.20	0.11																	
E274415	170.20	171.44	0.12																	
E274416	171.44	172.44	0.00	171.44	203.00	2														

STRUCTURAL LOG 04-ESS-013

MAJOR UNIT

From	To	Major Unit
0.00	17.00	CASI
17.00	57.50	3F
57.50	76.85	2
76.85	82.55	4EA
82.55	83.54	4F
83.54	84.10	2
84.10	86.98	4EA
86.98	98.40	2
98.40	104.00	4E
104.00	105.62	4F

Cont

MINERALS

As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments
			3.0			

QTZ VEINING

From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments

FABRIC

From	To	Alpha deg	Int	Type	Comments
21.00	21.10	63	MO	S1	
27.00	27.10	53	MO	S1	
35.00	35.10	61	MO	S1	
41.00	41.10	60	WE	S1	
48.00	48.10	56	WE	S1	
53.00	53.10	49	MO	S1	
57.00	57.10	50	WE	S1	
62.00	62.10	61	MO	S1	
68.00	68.10	50	WE	S1	
76.00	76.10	60	WE	S1	
84.00	84.10	60	MO	S1	
92.00	92.10	61	MO	S1	
95.00	95.10	64	MO	S1	
101.00	101.10	63	MO	S1	

FOLD

From	To	Alpha deg	Int	Type	Comments

FAULT

From	To	Alpha deg	Int	Type	Comments

STRUCTURAL LOG 04-ESS-013

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
105.62	124.25	4EA																	110.00	110.10	60	MO	S0													
																			114.00	114.10	40	MO	S1													
																			120.00	120.10	65	MO	S1													
124.25	138.45	4F																	125.00	125.10	57	MO	S1													
																			131.00	131.10	40	MO	S1													
																			137.00	137.10	57	WE	S1													
138.45	143.77	4EA																	142.00	142.10	43	MO	S1													
143.77	171.44	4B																	146.00	146.10	45	MO	S1													
																			150.00	150.10	53	MO	S0													

STRUCTURAL LOG 04-ESS-013

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			156.00	156.10	44	MO	S0													
																			161.00	161.10	25	MO	S0													
																			167.00	167.10	43	MO	S0													
171.44	203.00	2																	175.00	175.10	58	INT	S1													
																			182.00	182.10	52	MO	S1													
																			190.00	190.10	55	MO	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-014**

Project Code: ESS

Mine Grid Easting: 8786.1337
Mine Grid Northing: 11650.3985
Elevation: 5296.7676

UTM East 676962.234
UTM North: 5833795.598

Planned Depth: 165
Actual Depth: 302

Drill Start Date: 15/02/2004
Drill End Date: 20/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	89.9	-47.65	MAXI
3	90	-46.7	MAXI
6	90.35	-45.88	MAXI
9	90.5	-45.47	MAXI
12	90.74	-45.63	MAXI
15	91.01	-45.84	MAXI
18	91.22	-45.78	MAXI
21	91.35	-45.72	MAXI
24	91.5	-45.72	MAXI
27	91.58	-45.69	MAXI
30	91.58	-45.64	MAXI
33	91.58	-45.59	MAXI
36	91.57	-45.54	MAXI
39	91.59	-45.52	MAXI
42	91.61	-45.5	MAXI
45	91.6	-45.46	MAXI
48	91.61	-45.41	MAXI
51	91.62	-45.36	MAXI
54	91.62	-45.31	MAXI
57	91.6	-45.26	MAXI
60	91.66	-45.22	MAXI
63	91.69	-45.23	MAXI
66	91.73	-45.23	MAXI
69	91.79	-45.23	MAXI
72	91.82	-45.23	MAXI
75	91.82	-45.25	MAXI
78	91.86	-45.28	MAXI
81	91.86	-45.32	MAXI
84	91.88	-45.34	MAXI
87	91.88	-45.37	MAXI
90	91.91	-45.37	MAXI
93	91.95	-45.37	MAXI
96	91.98	-45.37	MAXI
99	92.05	-45.35	MAXI
102	92.08	-45.32	MAXI
105	92.1	-45.32	MAXI
108	92.14	-45.32	MAXI
111	92.19	-45.33	MAXI
114	92.23	-45.34	MAXI
117	92.27	-45.31	MAXI
120	92.3	-45.25	MAXI
123	92.32	-45.19	MAXI
126	92.36	-45.13	MAXI
129	92.38	-45.09	MAXI
132	92.42	-45.05	MAXI
135	92.42	-45.02	MAXI
138	92.45	-44.99	MAXI
141	92.47	-44.94	MAXI
144	92.47	-44.9	MAXI
147	92.53	-44.84	MAXI
150	92.57	-44.82	MAXI
153	92.61	-44.8	MAXI
156	92.6	-44.74	MAXI
159	92.6	-44.65	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-014**

Project Code: ESS

Mine Grid Easting: 8786.1337
Mine Grid Northing: 11650.3985
Elevation: 5296.7676

UTM East 676962.234
UTM North: 5833795.598

Planned Depth: 165
Actual Depth: 302

Drill Start Date: 15/02/2004
Drill End Date: 20/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	92.63	-44.58	MAXI
165	92.64	-44.52	MAXI
168	92.69	-44.48	MAXI
171	92.75	-44.46	MAXI
174	92.83	-44.45	MAXI
177	92.86	-44.42	MAXI
180	92.83	-44.34	MAXI
183	92.8	-44.23	MAXI
186	92.8	-44.17	MAXI
189	92.84	-44.15	MAXI
192	92.87	-44.16	MAXI
195	92.9	-44.16	MAXI
198	92.93	-44.15	MAXI
201	92.94	-44.13	MAXI
204	92.94	-44.11	MAXI
207	92.98	-44.1	MAXI
210	93.04	-44.09	MAXI
213	93.09	-44.12	MAXI
216	93.17	-44.13	MAXI
219	93.23	-44.12	MAXI
222	93.3	-44.1	MAXI
225	93.36	-44.07	MAXI
228	93.4	-44.05	MAXI
231	93.49	-44	MAXI
234	93.53	-43.95	MAXI
237	93.59	-43.94	MAXI
240	93.63	-43.89	MAXI
243	93.71	-43.87	MAXI
246	93.75	-43.81	MAXI
249	93.81	-43.78	MAXI
252	93.82	-43.74	MAXI
255	93.87	-43.71	MAXI
258	93.9	-43.67	MAXI
261	93.92	-43.65	MAXI
264	93.95	-43.62	MAXI
267	93.99	-43.59	MAXI
270	93.99	-43.56	MAXI
273	94.01	-43.52	MAXI
276	94	-43.48	MAXI
279	94.06	-43.43	MAXI
282	94.07	-43.41	MAXI
285	94.15	-43.34	MAXI
288	94.13	-43.32	MAXI
291	94.16	-43.28	MAXI
294	94.18	-43.24	MAXI
297	94.21	-43.2	MAXI
300	94.23	-43.16	MAXI
302	94.24	-43.14	MAXI

LITHOLOGY LOG 04-ESS-014

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	32.00	CASIN														
				32.00	121.60	3F	Well laminated and, locally biotite-rich with m,inor qtz-cal veins.													
E274417	121.60	122.48	0.08	121.60	149.42	2	Obiously folded and localy disrupted with strong biotite alteraion over 1-2m lengths. Numerous zones of 4E averaging 40cm wide with associated biotite described in minor units.		121.60	122.48	4E	Mixed 4E and 4F with minor interbeds of 2T and 1cm wide po vein at upper contact.								
E274418	122.48	123.20	0.01																	
E274419	123.20	123.77	1.98						123.20	123.77	4E	Similar to previous 4E.								
E274421	129.60	130.60	0.05						129.60	131.40	4E	Well developed and folded with minor qtz.								
E274422	130.60	131.40	0.04																	
E274423	137.63	137.93	0.17																	
E274424	148.28	148.80	5.91						148.28	148.80	4E									
E274425	148.80	149.42	0.09																	
E274426	149.42	150.60	0.24	149.42	155.68	4F	Moderately well banded with rare qtz veins up to 10cm wide.													
E274427	150.60	151.80	0.04																	
E274428	151.80	153.00	0.02																	
E274429	153.00	154.00	0.15																	
E274431	154.00	155.00	0.20																	
E274432	155.00	155.68	0.03																	
E274433	155.68	156.80	4.84	155.68	170.50	4EA	Generally well developed with abundant qtz and garnets up to 1cm. Minor folding locally.													
E274434	156.80	158.00	8.18																	
E274435	158.00	159.00	9.01																	
E274436	159.00	160.00	8.58																	
E274437	160.00	161.00	0.53																	
E274438	161.00	162.00	3.23																	
E274439	162.00	163.00	1.63																	
E274441	163.00	164.00	20.50																	
E274442	164.00	165.00	7.00																	
E274443	165.00	166.00	4.86																	
E274444	166.00	167.00	4.07																	
E274445	167.00	168.00	0.13																	
E274446	168.00	169.00	1.00																	
E274447	169.00	170.00	0.09																	
E274448	170.00	170.50	0.23																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E274449	170.50	171.70	3.03	170.50	194.00	4B	Well banded/bedded with variable amount of silicate minerals imparting banding on rock.													
E274451	171.70	172.90	0.09																	
E274452	172.90	174.00	0.31																	
E274453	174.00	175.00	0.04																	
E274454	175.00	176.00	0.06																	
E274455	176.00	177.00	0.06																	
E274456	177.00	178.00	0.05																	
E274457	178.00	179.00	0.24																	
E274458	179.00	180.00	0.05																	
E274459	180.00	181.00	0.26																	
E274461	181.00	182.00	0.22																	
E274462	182.00	183.00	0.35																	
E274463	183.00	184.00	0.21																	
E274464	184.00	185.00	1.44																	
E274465	185.00	186.00	0.27																	
E274466	186.00	187.00	0.02																	
E274467	187.00	188.00	0.06																	
E274468	188.00	189.00	0.03																	
E274469	189.00	190.00	0.02																	
E274471	190.00	191.00	0.09										M			W				
E274472	191.00	192.00	0.04																	
E274473	192.00	193.00	0.02																	
E274474	193.00	194.00	0.05																	
E274475	194.00	195.00	0.01	194.00	203.00	4EA	Mixed unit of ~50-60% weakly developed 4EA with 10-20% 4F bands <5cm wide, 20-30% magnetic cherl layers (4B) <2-3cm, and minor 4E. Only minor local qtz flooding.	Generally staright banded but locally highly contorted like typical 4EA.	194.00	203.00	4F	Approx 10-20% hydrothermal looking 4F bands up to 3-4cm thick. Locally highly folded along with adjacent 4B-4EA layers.								
E274476	195.00	196.00	0.08																	
E274477	196.00	197.00	0.04										W			M			W	
E274478	197.00	198.00	0.08																	
E274479	198.00	199.00	0.12																	
E274481	199.00	200.00	0.51													M			W	
E274482	200.00	201.00	0.03																	
E274483	201.00	202.00	0.02																	
E274484	202.00	203.00	0.02																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E274485	203.00	204.00	0.35	203.00	214.00	4EA	Moderately developed 4EA with typical 20-30% remnant 4B magnetic chert layers, <10% 4E layers and <5% 4F layers generally. One minor unit of 4F at 209-210m.	Generally weak, localized quartz flooding and only minor Po. Not as contorted as 4EA in PQD area.												
E274486	204.00	205.00	0.48													S			W	
E274487	205.00	206.00	1.06																	
E274488	206.00	207.00	11.80																	
E274489	207.00	208.00	2.49																	
E274491	208.00	209.00	3.53										S						W	
E274492	209.00	210.00	0.96																	
E274493	210.00	211.00	1.41																	
E274494	211.00	212.00	0.29										W			S			W	
E274495	212.00	213.00	1.33																	
E274496	213.00	214.00	2.50										S							
E274497	214.00	215.00	0.16	214.00	219.40	4F	Mixed section of ~70% 4F layers <2-3cm thick separated by 20-30% 4B magnetic grey chert layers <1cm thick. Often tightly, isoclinally folded. Minor grunerite at chert-4F contact.	4F is ~20-30% garnets, 1-3mm, in f.g. biotite-rich matrix with only minor qtz-fd.												
E274498	215.00	216.00	0.17																	
E274499	216.00	217.00	0.05																	
E274501	217.00	218.00	0.06																	
E274502	218.00	219.40	0.02																	
E274503	219.40	220.00	0.06	219.40	226.00	4E	Another mixed section, naming ~subjective. Preodminant unit is poorly formed 4E but with ~20-30% 4B magnetic chert layers, local sections of moderate 4EA, 10-15% 4F bands up to 50cm thick.	Presumably this is a variably altered interval of 4B and intercalated Fe-silicate layers.	219.40	226.00	4F	~10-20% 4F zones grading in and out of 4E and local 4EA, plus as ~discrete bands up to 50cm thick.	W			W				
E274504	220.00	221.00	0.12										S						M	
E274505	221.00	222.00	0.31										W			M			M	
E274506	222.00	223.00	0.27										M			W			W	
E274507	223.00	224.00	0.02																	
E274508	224.00	225.00	0.31																	
E274509	225.00	226.00	0.14																	
E274511	226.00	227.00	0.02	226.00	233.00	4F	Another mixed section. Approx. 60% 4F with 30-40% 4B magnetic grey chert layers <2-3cm thick and minor weak 4EA and 4E layers.		226.00	233.00	4B	Approx 30% magnetic grey chert layers <2cm thick throughout the 4F.								
E274512	227.00	228.00	0.01																	
E274513	228.00	229.00	0.01																	
E274514	229.00	230.00	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274515	230.00	231.00	0.29																	
E274516	231.00	232.00	0.01																	
E274517	232.00	233.00	0.10																	
E274518	233.00	234.00	0.25	233.00	239.00	4B	Mainly thinly banded to laminated grey 4B (not black Mt-white chert type) but with 20-40% moderate grunerite alt'n, 4F gar-bio laminae, and "4E" style gar-amphibolite lamnae.						W			W				
E274519	234.00	235.00	0.13																	
E274521	235.00	236.00	0.25																	
E274522	236.00	237.00	1.75																	
E274523	237.00	238.00	27.40																	
E274524	238.00	239.00	0.72																	
E274525	239.00	240.00	2.86	239.00	255.50	4B	Most is medium grey 4B, often has >60% chert layers and minor grunerite bordering on a 4A. Generally only very minor silicate layers.	30cm Po-metamudstone 4H layer at base.											W	
E274526	240.00	241.00	0.49																	
E274527	241.00	242.00	0.32																	
E274528	242.00	243.00	0.06																	
E274529	243.00	244.00	0.09																	
E274531	244.00	245.00	0.30																	
E274532	245.00	246.00	0.44																	
E274533	246.00	247.00	0.27																W	
E274534	247.00	248.00	0.39																	
E274535	248.00	249.00	0.21																	
E274536	249.00	250.00	0.04																M	
E274537	250.00	251.00	0.31																	
E274538	251.00	252.00	0.22																	
E274539	252.00	253.00	0.13																	
E274541	253.00	254.00	0.17																	
E274542	254.00	254.70	0.04						255.20	255.50	4H	Highly contorted, well foliated unit of ~20-30% Po in f.g. meta-mudstone. Po as massive irregular bands and patches to 1cm and as irregular network..							M	
E274543	254.70	255.50	0.05																	
E274544	255.50	256.00	0.03	255.50	259.50	1	Varies from medium white-grey to medium green ultramafic studded with c.g. black amphiboles. Lower 1.5m is f.g. green UM with 30% patches of c.g. black amph grains, probable hydration reaction zone between UM and basalt below. .													

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274545	256.00	256.50	0.03																	
				259.50	262.80	2D	Light green-grey with 25% irregular bands of dark green amphibolite-biotite, probable pillow selvages. Weakly foliated and only minor bio'n outside selvages.						W							
				262.80	265.50	1	Pale grey-green, soft, well foliated ultramafic. Typical equigranular mix of f.g. pale green talc-serpentine and minor remnant black pyx (?).													
				265.50	281.10	2	Fairly well foliated to banded basalt, possibly some sheared out pillow selvages. Minor streaky biotitization and possible local bleaching but no major shears or veins.													
E274546	280.50	281.10	0.04																	
E274547	281.10	282.00	0.07	281.10	292.70	4B	Typical "southern" BIF, well laminated black magnetite and off-white to yellowish chert layers with minor vfg grunerite and/or Fe-carb throughout.	Lower 2m is highly distorted and quartz veined, rest is fairly straight banded. No silicate layers, no 4A.												
E274548	282.00	283.00	0.14																	
E274549	283.00	284.00	0.66																	
E274551	284.00	285.00	0.26																	
E274552	285.00	286.00	0.16																	
E274553	286.00	287.00	2.12																	
E274554	287.00	288.00	0.90																	
E274555	288.00	289.00	0.27																	
E274556	289.00	290.00	0.05																	
E274557	290.00	291.20	0.06																M	
E274558	291.20	292.00	0.60																	
E274559	292.00	292.70	5.49																	
E274561	292.70	293.70	0.03	292.70	295.60	1	Medium grey-green, f.g., equigranular, homogenous, featureless serpentinized ultramafic. Composed almost entirely of pale green and lesser dark grey serpentine, probably minor talc too.													
				295.60	302.00	2	Well foliated, weak-moderately biotitized basalt with minor ultramafic sections. No obvious pillow selvages or other volcanic features left.						W							

STRUCTURAL LOG 04-ESS-014

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	32.00	CASI																	38.00	38.10	48	INT	S1													
32.00	121.60	3F																	44.00	44.10	65	MO	S0													
																			50.00	50.10	63	MO	S1													
																			56.00	56.10	63	MO	S1													
																			60.00	60.10	63	MO	S1													
																			68.00	68.10	70	MO	S1													
																			76.00	76.10	62	MO	S1													
																			80.00	80.10	62	MO	S0													
																			86.00	86.10	65	MO	S1													
																			92.00	92.10	7	MO	S1													
																			99.00	99.10	70	MO	S1													
																			107.00	107.10	55	MO	S1													
																			113.00	113.10	63	MO	S1													
																			120.00	120.10	54	MO	S1													
121.60	149.42	2																																		
																			128.00	128.10	53	WE	S1													
																			134.00	134.10	57	WE	S1													
																			141.00	141.10	55	MO	S1													
																			148.00	148.10	59	INT	S0													
149.42	155.68	4F																																		
																			155.00	155.10	66	MO	S1													
155.68	170.50	4EA																																		
																			160.00	160.10	65	MO	S0													
																			167.00	167.10	35	MO	S0													

STRUCTURAL LOG 04-ESS-014

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
170.50	194.00	4B																	173.00	173.10	64	MO	S0													
																			179.00	179.10	56	MO	S0													
																			186.00	186.10	65	MO	S0													
																			191.00	191.10	62	MO	S0													
194.00	203.00	4EA																	194.00	195.00	67		S0													
																									200.00	201.00	80	MO	ZF						
203.00	214.00	4EA					0.1												203.00	204.00	76		S0													
							0.5																													
							0.1																													
							0.1																													
							0.1																													

STRUCTURAL LOG 04-ESS-014

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
214.00	219.40	4F					0.1												215.00	216.00	67		S0													
																			217.00	218.00	58		S0													
219.40	226.00	4E																							218.00	219.00	72	MO	FD							
226.00	233.00	4F																	225.00	226.00	54		S0													
																			227.00	228.00	74		S0													
																			230.00	231.00	45		S0													
233.00	239.00	4B																																	
																			235.00	236.00	49		S0													
							6.0																													
239.00	255.50	4B					0.1												240.00	242.00	62		S0													
								0.05																												
							1.0	0.05																												
							0.1												245.00	246.00	58		S0													
							0.1																													
							0.4																													
							0.3																													
							30.																													

STRUCTURAL LOG 04-ESS-014

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
255.50	259.50	1																																	
259.50	262.80	2D																	260.00	261.00	51	MO	S1													
262.80	265.50	1																	272.00	274.00	58	MO	S1													
265.50	281.10	2																																	
281.10	292.70	4B					0.1												282.00	282.00	67		S0													
							0.1			Trace galena in a 1-2mm veinlet.									284.00	285.00	64		S0													
							0.1																													
							0.1																													
																			288.00	290.00	71		S0													
							1.0																													
292.70	295.60	1	40																																
295.60	302.00	2																	297.00	299.00	53	MO	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-015**

Project Code: ESS

Mine Grid Easting: 8749.2102
Mine Grid Northing: 11650.1714
Elevation: 5296.7804

UTM East 676937.216
UTM North: 5833771.303

Planned Depth: 210
Actual Depth: 341

Drill Start Date: 21/02/2004
Drill End Date: 25/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3:

Comments: Lower 90 m conditional on East Zone results in upper holes.

Survey

Depth	Azimuth	Dip	SurveyType
0	88.4701	-50.072	SURV
3	88.47	-49.94	MAXI
6	88.62	-49.55	MAXI
9	88.62	-49.26	MAXI
12	88.48	-49.12	MAXI
15	88.49	-48.87	MAXI
18	88.51	-48.59	MAXI
21	88.56	-48.49	MAXI
24	88.63	-48.42	MAXI
27	88.67	-48.4	MAXI
30	88.7	-48.35	MAXI
33	88.8	-48.29	MAXI
36	88.9	-48.24	MAXI
39	88.98	-48.24	MAXI
42	89.01	-48.26	MAXI
45	89.06	-48.27	MAXI
48	89.09	-48.29	MAXI
51	89.1	-48.31	MAXI
54	89.15	-48.3	MAXI
57	89.13	-48.33	MAXI
60	89.16	-48.32	MAXI
63	89.14	-48.3	MAXI
66	89.18	-48.26	MAXI
69	89.15	-48.23	MAXI
72	89.19	-48.2	MAXI
75	89.18	-48.18	MAXI
78	89.19	-48.15	MAXI
81	89.2	-48.12	MAXI
84	89.24	-48.09	MAXI
87	89.3	-48.05	MAXI
90	89.34	-48.02	MAXI
93	89.35	-47.99	MAXI
96	89.43	-47.97	MAXI
99	89.49	-47.97	MAXI
102	89.51	-47.98	MAXI
105	89.58	-47.99	MAXI
108	89.62	-47.96	MAXI
111	89.61	-47.95	MAXI
114	89.67	-47.92	MAXI
117	89.68	-47.89	MAXI
120	89.68	-47.87	MAXI
123	89.71	-47.85	MAXI
126	89.76	-47.82	MAXI
129	89.81	-47.78	MAXI
132	89.82	-47.73	MAXI
135	89.85	-47.66	MAXI
138	89.88	-47.61	MAXI
141	89.9	-47.57	MAXI
144	89.91	-47.55	MAXI
147	89.97	-47.52	MAXI
150	90.03	-47.49	MAXI
153	90.1	-47.51	MAXI
156	90.12	-47.49	MAXI
159	90.18	-47.49	MAXI

MUSSELWHITE MINE - GEOLOGY

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Drill End Date: 25/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3:

Comments: Lower 90 m conditional on East Zone results in upper holes.

Survey

Depth	Azimuth	Dip	SurveyType
162	90.19	-47.5	MAXI
165	90.25	-47.46	MAXI
168	90.3	-47.47	MAXI
171	90.3	-47.48	MAXI
174	90.34	-47.5	MAXI
177	90.39	-47.57	MAXI
180	90.42	-47.56	MAXI
183	90.45	-47.52	MAXI
186	90.45	-47.5	MAXI
189	90.48	-47.46	MAXI
192	90.54	-47.41	MAXI
195	90.64	-47.36	MAXI
198	90.67	-47.32	MAXI
201	90.78	-47.27	MAXI
204	90.9	-47.21	MAXI
207	91.01	-47.12	MAXI
210	91.09	-47.03	MAXI
213	91.17	-46.94	MAXI
216	91.3	-46.88	MAXI
219	91.41	-46.83	MAXI
222	91.48	-46.78	MAXI
225	91.6	-46.73	MAXI
228	91.64	-46.69	MAXI
231	91.67	-46.67	MAXI
234	91.74	-46.67	MAXI
237	91.82	-46.66	MAXI
240	91.87	-46.6	MAXI
243	91.97	-46.49	MAXI
246	92.11	-46.32	MAXI
249	92.17	-46.13	MAXI
252	92.32	-45.97	MAXI
255	92.42	-45.81	MAXI
258	92.55	-45.64	MAXI
261	92.67	-45.47	MAXI
264	92.78	-45.35	MAXI
267	92.86	-45.24	MAXI
270	92.95	-45.15	MAXI
273	93.04	-45.12	MAXI
276	93.09	-45.09	MAXI
279	93.08	-45	MAXI
282	93.11	-44.96	MAXI
285	93.17	-44.94	MAXI
288	93.25	-44.89	MAXI
291	93.34	-44.87	MAXI
294	93.42	-44.83	MAXI
297	93.48	-44.79	MAXI
300	93.5	-44.74	MAXI
303	93.6	-44.72	MAXI
306	93.66	-44.68	MAXI
309	93.73	-44.64	MAXI
312	93.8	-44.61	MAXI
315	93.86	-44.57	MAXI
318	93.93	-44.54	MAXI
321	94	-44.5	MAXI

MUSSELWHITE MINE - GEOLOGY

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Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3:

Comments: Lower 90 m conditional on East Zone results in upper holes.

Survey

Depth	Azimuth	Dip	SurveyType
324	94.06	-44.46	MAXI
327	94.13	-44.43	MAXI
330	94.2	-44.39	MAXI
333	94.27	-44.36	MAXI
341	94.29	-44.34	MAXI

LITHOLOGY LOG 04-ESS-015

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	35.00	CASIN	Water and organics, then large boulders start at ~12.5m.													
				35.00	172.70	3F	Typical light to medium gray, fairly hard, faintly banded, waterlain felsic ash to Fd-crystal tuff. Some sections have alternating gray and beige, more biotitic bands, suggesting this was waterlain.	Unit ranges from ash to crystal tuff with ~10% Fd grains <2mm. No major veins, shears or alteration. Several brownish sections <4m with higher biotite due to sed component, not mafics.												
E273444	149.50	150.40	0.01																	
E273445	150.40	150.70	0.02																	
E273446	150.70	151.40	0.01										M							
E273447	172.50	172.85	0.01	172.70	178.40	2T	Well foliated, moderately-strongly biotitized unit, medium brown to locally green in colour. Section appears to be a bio'd mafic volcanic as there are local diffuse remnants of basaltic rock.	Lower 1.5m has 20cm 4F and possibly 30cm of intercalated f.g. metaseds (unit 6).												
E273448	172.85	173.15	0.02																	
E273449	173.15	173.50	0.02																	
E273451	177.30	177.80	0.01																	
E273452	177.80	178.40	0.02																	
E273453	178.40	179.00	4.72	178.40	180.50	4E	Strongly qtz flooded section of 4E, probably derived by alteration of original thinly bedded 4B-green amphibolite into coarser 4E and local 4EA patches.						W			W			S	
E273454	179.00	179.80	4.28																	
E273455	179.80	180.50	14.67																	
E273456	180.50	181.00	0.13	180.50	191.20	2T	As per previous 2T section. Same 20-30% f.g. to m.g. biotite in a f.g. matrix of Fd and minor green amph. Some remnant patches of weakly altered basalt left. Lower 1m is more highly bio'd, sheared and qtz veined.						M							
E273457	190.00	190.60	0.55																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E273458	190.60	191.20	0.64										W						M	
E273459	191.20	191.90	3.51	191.20	192.50	4E	First 70cm is highly, ~40%, qtz flooded 4E with locally very c.g. garnets in f.g. green amphibolite and lesser grunerite. Lower 60cm is an unusual light grey cherty unit with thin Mt layers locally.									W			S	
E273461	191.90	192.50	0.70																	
E273462	192.50	193.50	0.07	192.50	196.80	6	Mixed interval but mainly (~40%) f.g., light biege-gray metased unit 6 with several bands of c.g. 4F-(B) up to 40cm, minor f.g. 4F, and a slightly coarser 6 and/or bio'd mafic volcanic section ~60cm.	Unit 6 is typical f.g., very homogeneous, equigranular, featureless rock composed of ~15-20% bloite in matrix of Fd>>Qtz.	193.20	193.80	4F	Weakly developed 4F within the metased package.								
E273463	193.50	194.60	0.46																	
E273464	194.60	195.10	5.32						194.60	195.10	4F	Well developed c.g. 4F with ~10-20% 4B magnetic chert layers to 3-4cm thick. Unit 6 grades into 4F as this 4F-4B horizon is approached.	M						W	
E273465	195.10	195.90	0.17						195.10	195.90	4F	Moderately well developed 4F.								
E273466	195.90	196.80	0.03																	
E273467	196.80	197.70	0.12	196.80	197.70	4F	Fairly "hydrothermal" looking 4F composed of 15-30% garnets <3-4mm in a bioite-rich matrix. Upper contact gradational over 20-30cm into unit 6, lower one gradational over 10cm.													
E273468	197.70	198.50	0.12	197.70	201.00	4EA	From 197.7-199.5m it is a c.g. 4EA with 20-30% 4B laminae throughout and relatively low grunerite content for a 4EA; borders on being a 4E. Below 199.5 it is more f.g. and grunerite-rich but straight and thinly banded with little qtz flooding or Po..													
E273469	198.50	199.50	0.65																	
E273471	199.50	200.50	0.04																	
E273472	200.50	201.50	0.47	201.00	238.80	4B	Fairly typical unaltered northern iron formation composed of white chert-black magnetite layers up to 2-3cm thick. Minor Fe-silicate laminae locally, mainly hydrothermal looking 4F..	Fairly straight banded with only minor local folding, only minor scattered qtz veins, no major faults.											M	
E273473	201.50	202.30	3.83																	
E273474	202.30	203.00	0.36																	
E273475	203.00	203.50	5.75																	
E273476	203.50	204.50	0.30																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E273477	204.50	205.30	0.04																	
E273478	205.30	206.00	0.02																	
E273479	206.00	207.00	0.02																	
E273481	207.00	208.00	0.02										M							
E273482	208.00	209.00	1.24																	
E273483	209.00	210.20	0.26																	
E273484	210.20	211.40	1.72																	
E273485	211.40	212.00	0.66																	
E273486	212.00	213.00	0.18																	
E273487	213.00	214.00	0.15																	
E273488	214.00	215.00	0.31																	
E273489	215.00	215.70	0.14										W							Approx 5% bands <2cm of intense "4F" style alteration.
E273491	215.70	216.50	2.32																	
E273492	216.50	217.50	0.38																	
E273493	217.50	218.50	0.04																	
E273494	218.50	219.00	0.12																	
E273495	219.00	220.00	0.03																	
E273496	220.00	221.00	0.22																	
E273497	221.00	222.00	0.15																	
E273498	222.00	222.80	2.78																	
E273499	222.80	223.60	0.09																	
E273501	223.60	224.00	0.27																	
E273502	224.00	225.00	0.04										M							
E273503	225.00	226.00	0.13																	
E273504	226.00	227.00	0.10																	
E273505	227.00	228.00	0.08																	
E273506	228.00	228.60	0.26																	
E273507	228.60	229.70	0.19																	
E273508	229.70	230.60	0.24																	
E273509	230.60	231.60	0.93																	
E273511	231.60	232.40	0.09																	
E273512	232.40	233.20	0.12																	
E273513	233.20	234.00	0.06						233.20	234.60	4F	As per 238.8-241.5 section, 4F with faint chert layers and moderately to strongly magnetic throughout.								
E273514	234.00	234.60	0.03																	
E273515	234.60	235.30	0.18																	
E273516	235.30	236.00	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273517	236.00	237.00	0.05																	
E273518	237.00	238.00	0.76																	
E273519	238.00	238.80	0.21																	
E273521	238.80	240.00	0.02	238.80	241.50	4F	4F with ~15% garnets, 10-2mm, in f.g. grey-brown matrix of ~50% bio and 45% Fd-Qtz plus minor Mt.. Commonly has faint magnetic cherty bands and laminae scattered throughout, clearly a sedimentary horizon.	Locally has up to 30% net-textured Po up to 2-3cm wide but no major qtz veins. Grades into 4B below by an increase in chert-(grunerite) bands for ~50cm.												
E273522	240.00	240.40	0.05																	
E273523	240.40	241.50	0.03																	
E273524	241.50	242.00	0.05	241.50	255.00	4B	Somewhat less pure than previous 4B. Commonly has minor vfg metamorphic and pervasive grunerite. Local intense gar-bio alt'n bands up to 3-4cm wide around qtz veins.													
E273525	242.00	243.00	0.09																	
E273526	243.00	244.00	0.20																	
E273527	244.00	245.00	0.61																	
E273528	245.00	246.00	0.07																	
E273529	246.00	247.00	0.12																	
E273531	247.00	248.00	0.04																	
E273532	248.00	249.00	0.12																	
E273533	249.00	249.90	0.10																	
E273534	249.90	251.00	0.16										M		W					
E273535	251.00	252.00	0.04																	
E273536	252.00	253.10	0.91																	
E273537	253.10	254.00	0.09																	
E273538	254.00	255.00	0.16																	
E273539	255.00	256.00	0.41	255.00	266.00	4B	"Impure" BIF, not clearly banded white and black as before. Mainly a faintly banded, gray magnetite-rich chert with abundant Fe-silicate component throughout producing a ~pervasive overprint of pale grunerite and locally abundant m.g. garnets.	Minor discrete "4E" layers <1cm and local gar-bio alt'n bands near scattered qz veins. Overall fairly straight banded.								M			M	
E273541	256.00	257.00	0.61																	
E273542	257.00	258.00	0.48																	
E273543	258.00	259.00	0.14																	
E273544	259.00	260.00	0.07																	
E273545	260.00	261.00	0.02																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273546	261.00	262.00	0.02										W			W				
E273547	262.00	263.00	0.08																	
E273548	263.00	264.00	0.05																	
E273549	264.00	265.00	0.02																	
E273551	265.00	265.70	0.15																	
E273552	265.70	266.70	4.52	266.00	289.10	4EA	Moderately developed 4EA but only minor quartz flooding and Po. Sheared from 266.7 to 273m, rest is ~typical contorted mix of remnant 4B layers, c.g. garnet-f.g. grunerite bands and patches, and minor 4E & 4F zones.													
E273553	266.70	267.50	0.49													S			W	
E273554	267.50	268.30	0.14																	
E273555	268.30	269.00	0.09																	
E273556	269.00	270.00	0.06																	
E273557	270.00	271.00	0.16																	
E273558	271.00	272.00	1.89																	
E273559	272.00	273.00	1.50																	
E273561	273.00	274.00	0.72										M			M			M	
																M			W	
E273562	274.00	275.00	0.44																	
E273563	275.00	276.00	1.22																	
E273564	276.00	277.00	0.31																	
E273565	277.00	278.00	0.92						277.00	278.00	2T	Probably 2 mafic volcanic layer, now partially bio'd in irregular patches, separated byt 30-40cm of 4EA.	W			W				
													W			M			W	
E273566	278.00	279.00	1.59																	
E273567	279.00	280.00	0.62																	
E273568	280.00	281.00	1.22																	
E273569	281.00	282.00	1.65																	
E273571	282.00	283.00	1.59																	
E273572	283.00	284.00	0.16																	
E273573	284.00	285.00	0.24																	
E273574	285.00	286.00	0.07																	
E273575	286.00	287.00	0.02													M			W	
E273576	287.00	287.80	0.38																	
E273577	287.80	288.40	0.21																	
E273578	288.40	289.10	0.15																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E273579	289.10	290.00	0.36	289.10	291.00	4F	Mixed section of ~70% moderately developed 4F bands to 20cm, 20% 4B-A bands <2cm, and ~10% weak 4E layers. Grades into lower 4B-4F over 1-2m and upper 4EA over 20cm.						M			W				
E273581	290.00	291.00	0.07																	
E273582	291.00	292.00	0.25	291.00	302.50	4B	As per 255-266m, mainly a faintly banded, gray magnetite-rich chert with abundant Fe-silicate component throughout producing a ~pervasive overprint of f.g. pale grunerite and f.g. garnets. Minor qtz flooded sections < 60cm with strong bio-gar-amph alt'n.													
E273583	292.00	293.00	0.02																	
E273584	293.00	294.00	0.01																	
E273585	294.00	295.00	0.02																	
E273586	295.00	296.00	0.10																	
E273587	296.00	296.75	0.04													W				
E273588	296.75	297.15	1.12																	
E273589	297.15	298.00	1.35																	
E273591	298.00	299.00	1.89																W	
E273592	299.00	299.90	5.15																	
E273593	299.90	300.90	8.36																S	
E273594	300.90	301.70	6.91																	
E273595	301.70	302.50	1.44																S	
E273596	302.50	303.50	10.65	302.50	317.00	4B	Fairly "clean", well banded white chert-black magnetite 4B with common qtz flooding +/- Po and local flanking strong bio-gar alteration for 10-50cm.	Below 311 m the 4B becomes much chertier but still has 30-40% Mt layers. No obvious 4H component in lower qtz-Po flooded part												
E273597	303.50	304.50	5.11																M	
E273598	304.50	305.20	22.50																W	
E273599	305.20	306.20	4.78																	
E273601	306.20	307.20	2.64																M	
E273602	307.20	308.00	0.24																	
E273603	308.00	309.00	0.83																	
E273604	309.00	310.00	0.75																S	
E273605	310.00	311.00	0.57																	
E273606	311.00	311.80	0.05																	
E273607	311.80	312.50	0.02																S	
E273608	312.50	313.50	0.07																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273609	313.50	314.50	0.04																S	
E273611	314.50	315.60	0.06																	
E273612	315.60	316.10	0.05													W			M	
E273613	316.10	317.00	0.03																	
E273614	317.00	318.00	0.01	317.00	319.70	1	Pale to medium gray, fairly massive looking but still a penetrative fol'n wit abundant slickensided slips. Composed largely of f.g. serpentine with minor white acicular amph. tlac, etc.						W							
				319.70	341.00	2	Varies from medium green, fairly fresh basalt to brownish, moderately biotitized, well foliated basalt. No strong shear zones or veins.		339.10	339.50	4B	3 minor horizons of well banded, "clean" 4B, 2-12cm thick. No alteration or veining.								

STRUCTURAL LOG 04-ESS-015

MAJOR UNIT

From	To	Major Unit	Cont
0.00	35.00	CASI	
35.00	172.70	3F	
172.70	178.40	2T	
178.40	180.50	4E	
180.50	191.20	2T	
191.20	192.50	4E	

MINERALS

As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments
				1.5		Most Py is in several qtz veins subparallel to foliation and up to 1cm wide.
			0.1	10		Pyrite in an 8cm qtz vein and a few veins <5mm.
			0.2	0.4		
			12.			One 4cm band of massive Po flanked by 4E.
			0.1			
			2.0			
	0.1		10.			
			0.1			
			0.2			

QTZ VEINING

From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments
136.00	137.00	QZ-C	75	m	I		

FABRIC

From	To	Alpha deg	Int	Type	Comments
38.00	40.00	63	WE	S1	
46.00	48.00	62		S0	
53.00	56.00	67	WE	S1	
62.00	66.00	66	WE	S1	
68.00	70.00	68	WE	S1	
76.00	78.00	59	MO	S1	
83.00	85.00	66	MO	S1	
90.00	96.00	68	MO	S1	
106.00	108.00	63	WE	S1	
118.00	120.00	62	WE	S1	
128.00	130.00	63	WE	S1	
137.00	138.00	61	WE	S1	
143.00	146.00	63	WE	S1	
149.00	150.00	57	WE	S1	
152.00	154.00	60	WE	S1	
167.00	168.00	45	MO	S1	
172.00	173.00	63	MO	S1	
176.00	178.00	47	MO	S1	
182.00	183.00	47	MO	S1	

FOLD

From	To	Alpha deg	Int	Type	Comments

FAULT

From	To	Alpha deg	Int	Type	Comments

STRUCTURAL LOG 04-ESS-015

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py %	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
192.50	196.80	6					1.0												192.00	194.00	63	MO	S1													
196.80	197.70	4F																																	
197.70	201.00	4EA					0.1																												
							0.2												200.00	201.00	53		S0													
201.00	238.80	4B					0.2				201.50	202.30	QZ	15	m	I																			
							2.0				203.00	206.00	QZ	4	m	I																			
																			205.00	206.00	54		S0													
							0.1																													
							0.4																													
							0.1												209.00	210.00	60		S0													
											210.20	211.40	QZ	15	m	D																			
							0.5			Late slickensided fault zone, some lost core.	212.00	215.00	QZ	4	m	I																			
							0.1																													
							2.0				215.70	217.50	QZ	15	m	I																			
							0.2																													
							0.2												218.00	220.00	66		S0													
							0.5																													
				0.1			0.1				221.70	222.80	QZ	30	m	I																			
							0.2																													
							0.1																													
							4.0				223.60	224.00	QZ	5																					
							0.1				224.00	227.00	QZ	2																					
																			225.00	228.00	65		S0		225.00	226.00	68	MO	FD						
											227.00	228.00	QZ	5																					

STRUCTURAL LOG 04-ESS-015

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD					FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
				0.1			0.1				228.00	228.60	QZ	20	m	I																			
							1.0												230.00	232.00	65		S0												
							0.1				230.60	231.00	QZ	10	m	I																			
											232.40	233.20	QZ	15	m	D																			
							0.2																												
											238.00	238.80	QZ	6																					
238.80	241.50	4F					1.0												239.00	240.00	54		S0												
							3.0																												
							0.5																												
241.50	255.00	4B					0.1																												
											243.00	244.00	QZ	6	m	I			243.00	244.00	63		S0												
											244.00	245.00	QZ	25	m	I																			
											245.00	246.00	QZ	7	m	I																			
											246.00	249.90	QZ	3	m	I																			
				0.1			0.5																												
							0.1				249.90	251.00	QZ	15	m	I																			
							0.1												251.00	252.00	45		S0		251.00	251.50	55	MO	ZF						
											252.60	253.10	QZ	40	m	I									253.10	255.30	63	MO	ZF						
											254.00	255.00	QZ	2																					
255.00	266.00	4B					0.5				255.00	257.00	QZ	10	m	D																			
							0.1																												
											257.00	258.00	QZ	17	m	D			257.00	258.00	42		S0												
																			260.00	262.00	45		S0												
																			263.00	264.00	60		S0												
266.00	289.10	4EA					0.1				266.00	266.70	QZ	10	m	I																			
																			266.70	268.00	52	INT	S2								266.70	273.00	38	MOD	SC	Strong development of f.g. grunerite and blends into surrounding 4E/4EA but is highly strained.

STRUCTURAL LOG 04-ESS-015

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			268.00	269.00	32	INT	S2													
																			270.00	271.00	38	MO	S2													
							0.1																		271.00	272.00	50	WE	ZF						
							0.1																												
																			275.00	276.00	62		S0													
							0.3																												
							0.1																												
							0.1																												
											287.80	288.40	QZ	60	m	I																			
289.10	291.00	4F																	290.00	291.00	59		S0													
291.00	302.50	4B																																	
							0.1				295.50	296.00	QZ	10	m	I			296.00	297.00	65		S0													
											296.75	297.15	QZ	30	m	I																			
							0.3																												
							5.0																												
							3.0																												
																			302.00	303.00	53		S0													
302.50	317.00	4B					5.0																												

STRUCTURAL LOG 04-ESS-015

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							7.0												305.00	306.00	45		S0													
							0.3																													
							0.1																													
							0 4																													
							8.0																													
							15.																													
							8.0																													
							3.0																													
							5.0																													
317.00	319.70	1																	326.00	327.00	45	MO	S1												
319.70	341.00	2																	332.00	333.00	43	MO	S1												
																			339.10	339.50	45		S0												

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-016**

Project Code: ESS

Mine Grid Easting: 8748.7722
Mine Grid Northing: 11650.0044
Elevation: 5296.9311

UTM East 676937.216
UTM North: 5833771.303

Planned Depth: 235
Actual Depth: 266

Drill Start Date: 27/02/2004
Drill End Date: 29/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	88.92	-59.68	MAXI
3	88.77	-59.67	MAXI
6	88.69	-59.32	MAXI
9	88.64	-59.05	MAXI
12	88.64	-58.83	MAXI
15	88.66	-58.69	MAXI
18	88.78	-58.64	MAXI
21	88.86	-58.65	MAXI
24	88.93	-58.61	MAXI
27	89	-58.54	MAXI
30	89.1	-58.48	MAXI
33	89.18	-58.41	MAXI
36	89.25	-58.36	MAXI
39	89.34	-58.33	MAXI
42	89.41	-58.31	MAXI
45	89.38	-58.3	MAXI
48	89.4	-58.27	MAXI
51	89.46	-58.25	MAXI
54	89.5	-58.22	MAXI
57	89.53	-58.19	MAXI
60	89.58	-58.17	MAXI
63	89.67	-58.16	MAXI
66	89.68	-58.13	MAXI
69	89.72	-58.1	MAXI
72	89.72	-58.08	MAXI
75	89.75	-58.09	MAXI
78	89.79	-58.07	MAXI
81	89.79	-58.04	MAXI
84	89.83	-58.01	MAXI
87	89.93	-57.96	MAXI
90	89.91	-57.9	MAXI
93	89.91	-57.87	MAXI
96	89.98	-57.8	MAXI
99	90.03	-57.79	MAXI
102	90.04	-57.78	MAXI
105	90.06	-57.75	MAXI
108	90.12	-57.7	MAXI
111	90.14	-57.65	MAXI
114	90.19	-57.6	MAXI
117	90.24	-57.55	MAXI
120	90.29	-57.51	MAXI
123	90.32	-57.45	MAXI
126	90.36	-57.38	MAXI
129	90.4	-57.34	MAXI
132	90.43	-57.28	MAXI
135	90.44	-57.22	MAXI
138	90.44	-57.16	MAXI
141	90.47	-57.1	MAXI
144	90.53	-57.02	MAXI
147	90.58	-56.95	MAXI
150	90.6	-56.9	MAXI
153	90.67	-56.82	MAXI
156	90.68	-56.77	MAXI
159	90.64	-56.72	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-016**

Project Code: ESS

Mine Grid Easting: 8748.7722
Mine Grid Northing: 11650.0044
Elevation: 5296.9311

UTM East 676937.216
UTM North: 5833771.303

Planned Depth: 235
Actual Depth: 266

Drill Start Date: 27/02/2004
Drill End Date: 29/02/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	90.68	-56.67	MAXI
165	90.75	-56.62	MAXI
168	90.82	-56.57	MAXI
171	90.88	-56.52	MAXI
174	90.94	-56.45	MAXI
177	90.96	-56.4	MAXI
180	91.05	-56.35	MAXI
183	91.16	-56.29	MAXI
186	91.23	-56.23	MAXI
189	91.29	-56.15	MAXI
192	91.29	-56.08	MAXI
195	91.38	-56.03	MAXI
198	91.48	-55.98	MAXI
201	91.52	-55.95	MAXI
204	91.52	-55.92	MAXI
207	91.56	-55.88	MAXI
210	91.65	-55.82	MAXI
213	91.7	-55.77	MAXI
216	91.83	-55.72	MAXI
219	91.88	-55.67	MAXI
222	91.98	-55.62	MAXI
225	92.06	-55.56	MAXI
228	92.15	-55.48	MAXI
231	92.26	-55.4	MAXI
234	92.29	-55.31	MAXI
237	92.27	-55.27	MAXI
240	92.37	-55.18	MAXI
243	92.48	-55.09	MAXI
246	92.54	-55	MAXI
249	92.59	-54.92	MAXI
252	92.64	-54.83	MAXI
255	92.7	-54.76	MAXI
258	92.76	-54.68	MAXI
261	92.82	-54.6	MAXI
264	92.88	-54.51	MAXI
266	92.92	-54.46	MAXI

LITHOLOGY LOG 04-ESS-016

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	32.00	CASIN														
				32.00	188.30	3F	Typical 3F unit, a waterlain felsic to intermediate ash tuff with local Fd-crystal component and local pervasive to banded minor very f.g. biotite (presumed to be meta'm of original clay component).	Minor intermediate-mafic intervals , generally <1-2m. Some more massive sections may be flows but most appears to be tuffs.												
E273615	186.00	186.60	0.05																	
E273616	186.60	187.50	0.09																S	
E273617	187.50	188.30	0.03																	
E273618	188.30	189.30	3.47	188.30	202.00	2	Complex section of mafic volcanics with several intercalated Qtz-Po flooded 4E-(4) intervals <1m wide, minor bands of 4F, several small zones of 2T and a possible felsic tuff bed from ~193-194m.	Mafic unit is medium gray-green, weakly foliated, and fresh to moderately biotitized.	188.30	189.30	4E	Highly qtz flooded/veined and Po mineralized horizon of "4E", mainly a f.g. drak green amphibolite with faint 4B layers throughout, and only minor garnets.								
E273619	189.30	190.30	0.49						189.30	190.30	4F	Well foliated, light brown central unit of c.g. 4F ~50cm wide flanked by f.g. bio-fd-(qtz) rock, either unit 6 or possibly bio'd volcanics?							M	
E273621	190.30	191.00	0.02						192.20	194.20	6	Mainly a f.g., light beige, well foliated unit of ~20% biotite & sericite, 80% Fd>Qtz and no amphiboles, presumed to be metased due to intercalated 4F, 4B layers and much finer grain size than most 2T.							M	
E273622	193.60	194.20	0.15																	
E273623	194.20	195.00	0.13						194.20	195.40	4E	Most is moderately silicified , laminated 4B-green amphibolite with minor to 40% garnets.Several bands of Po min'n, two are 6-8cm wide.							M	
E273624	195.00	195.40	0.06																	
E273625	195.40	195.90	0.01																	
E273626	196.80	197.30	0.03																	

Assay				MAJOR UNIT				Comments	MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments		From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273627	197.30	198.40	1.26						197.30	198.00	2T	Mixed interval of 2, bio'd 2, 4F and minor 4E.							S	
									198.00	199.50	2T	Appears to be bio'd basalt, bio is coarser than that in unit 6.								
E273628	198.40	198.90	0.05										M							
E273629	199.50	200.00	0.01																	
E273631	200.00	200.65	9.63						200.00	206.50	4E	20-30cm of weak 4E developed from qtz flooded basalt, plus minor 4F.	W						W	
E273632	200.65	201.15	0.04																	
				202.00	205.60	2	Weakly foliated basalt, minor local patches of weak bio'n.													
E273633	205.10	205.60	0.10																	
E273634	205.60	206.70	0.03	205.60	206.70	4F	Coarse, quite "hydrothermal" looking 4F but with a few remnant bands of 4B <3-4cm. Unit has ~ 60-70% c.g. garnets in f.g. biotite rich matrix with moderate-strong qtz flooding.						S						S	
E273635	206.70	207.50	0.04	206.70	207.50	4F	Intense alteration to biotite with only minor garnets, one 15cm qtz flooded zone, and 20cm with 30-40% f.g. staurolite.						S							
E273636	207.50	208.00	1.72	207.50	209.05	4EA	Highly Qtz-(Po) flooded zone with 30-40% relic thinly laminated 4b-amphibolite bands. Approx 40-50% patches and bands of c.g. 4EA but with ~weak grunerite.												S	
E273637	208.00	209.05	4.81																	
E273638	209.05	209.55	0.18	209.05	213.80	2T	Well foliated with ~30% slightly wavy biotite flakes 1-3mm in f.g. off-white groundmass (plag mainly?), grades into short sections of basalt at each end.						M							
				213.80	215.50	2T	Bleached light beige to off-white unit, presumed to be altered, weakly bio'd mafic volcanics.						W							Bleached white volcanics (?)
E273639	215.00	215.50	0.11													W			S	
E273641	215.50	216.20	2.91	215.50	216.20	4E	Highly quartz flooded 4E with 30% remnant laminated 4B-amphibolite throughout and locally >50% c.g. garnets with minor grunerite.													
E273642	216.20	216.70	0.12	216.20	218.50	4E	Mixed unit. From 216.2-216.7m it is 2T and minor 4E-F. From 216.7 to 217.8m it is 95% qtz vein with 5% 4E-4EA. From 217.8 to 218.5m it is good qtz flooded magnetic 4E with 20% c.g. garnets and minor interstitial grunerite.						M							

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273643	216.70	217.80	4.24																S	Virtually one solid qtz vein.
E273644	217.80	218.50	9.27										W						S	Trace grunerite.
E273645	218.50	219.30	0.07	218.50	220.60	2T	Mixed interval of banded green, ~fresh basalt and brown, moderately bio'd basalt (?) plus minor bands of 4E, 4F. Possibly could be altered metaseds too.						M							
E273646	219.30	220.00	0.07										W							
E273647	220.00	220.60	0.54																	
E273648	220.60	221.60	0.02	220.60	223.50	4F	Most is well developed 4F with ~30-50% m.g. garnets in biotite rich matrix. but from 221.0-221.6 it is a f.g. metased, unit 6.													
E273649	221.60	222.60	0.25																W	
E273651	222.60	223.50	0.49																	
E273652	223.50	224.00	0.85	223.50	228.80	4EA	Moderately developed 4EA but not highly distorted, qtz flooded or Po mineralized. Consists of ~20% light gray 4B magnetic chert layers <1cm separated by fairly massive bands up to 3-4cm wide of f.g. grunerite-c.g. pale pink garnets.												M	
E273653	224.00	225.00	6.48																	
E273654	225.00	226.00	2.15																W	
E273655	226.00	227.00	0.05																	
E273656	227.00	228.00	0.15																	
E273657	228.00	228.80	0.03																	
E273658	228.80	230.00	0.12	228.80	242.00	4B	Well banded black magnetite-white chert BIF with bands up to 2-3cm thick. Fairly "clean" except for minor local zones of hydrothermal gar-bio ("4F") alteration along the banding planes.	Banding is generally straight with only minor distortion. Upper contact gradational over 1-2m, lower one sharp.												
E273659	230.00	231.00	0.65																	
E273661	231.00	232.00	0.49																	
E273662	232.00	233.00	0.01																	
E273663	233.00	234.00	0.05																	
E273664	234.00	235.00	0.03										M							
E273665	235.00	236.00	0.18																	
E273666	236.00	237.00	0.15																	
E273667	237.00	238.00	0.17																	
E273668	238.00	239.00	0.02																	
E273669	239.00	240.00	0.03																	
E273671	240.00	241.00	0.05																	
E273672	241.00	242.00	0.08																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273673	242.00	243.05	0.46	242.00	244.55	4B	Much chertier, whiter 4B than previous unit verging on being a 4A but still has ~40-50% magnetite layers.													
E273674	243.05	244.00	0.18																	
E273675	244.00	244.55	0.30																	
E273676	244.55	245.00	0.01	244.55	266.00	2T	Medium greenish-gray, very well foliated, bio'd mafic volcanic. Still minor amphibole visible but rock is ~bleached now with >20-30% biotite throughout along fol'n planes, laminae and thin bands. No obvious ultramafics, pillows, etc.													

STRUCTURAL LOG 04-ESS-016

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	32.00	CASI						2			165.50	166.20	QZ-C	80	m	I	60		38.00	40.00	45	MO	S1								88.00	92.00	47	WEK	SC	Weak shear with 5-10% thin Cc veinlets.
32.00	188.30	3F																	44.00	46.00	47	WE	S1													
																			50.00	52.00	55	WE	S1													
																			65.00	66.00	56	WE	S1								123.50	125.50	57	INT	SC	Fault zone is much whiter than other 3F due to f.g. sericitization. Unit is very fissile, cleaves easily.
																			73.00	75.00	57	WE	S1													
																			80.00	81.00	45	WE	S1													
																			88.00	90.00	57	MO	S2													
																			101.00	102.00	57	MO	S1													
																			107.00	108.00	61	WE	S1													
																			113.00	114.00	67	MO	S1								168.00	171.00		INT	BC	Late, brittle fault zone, highly fractured, broken up rubble.
																			119.00	120.00	53	WE	S1													
																			128.00	132.00	59	WE	S1													
																			143.00	144.00	55	WE	S1													
																			152.00	154.00	58	WE	S1													
																			164.00	166.00	60	WE	S1													
																			167.00	168.00	58	WE	S1													
																			175.00	180.00	51	MO	S1													
																			182.00	184.00	50	MO	S1													
																			185.00	186.00	57	MO	S1													
							2.0																													
							0.1																													
188.30	202.00	2					13.																													
																			194.00	195.00	58	MO	S1													
							15.			Mainly in 2 semi-massive veins up to 7cm wide.																											
							0.3																													
							0.2																													
							0.2												200.00	201.00	62	WE	S1													
202.00	205.60	2																																		
205.60	206.70	4F					0.1												206.00	207.00	73		S0													

STRUCTURAL LOG 04-ESS-016

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
206.70	207.50	4F																																		
207.50	209.05	4EA					2.0												209.00	210.00	58	MO	S1													
209.05	213.80	2T																	212.00	213.00	54	MO	S1													
213.80	215.50	2T																	216.00	217.00	61	MO	S1													
215.50	216.20	4E					0.2																													
216.20	218.50	4E					0.3																													
							1.5																													
218.50	220.60	2T					0.1												219.00	220.00	53	MO	S1													
							0.5												220.00	222.00	63	WE	S1													
220.60	223.50	4F																																		
223.50	228.80	4EA	55																																	
							1.5												224.00	225.00	60		S0													
							0.1																													
228.80	242.00	4B									228.80	231.20	QZ	6	m	I																				
							7.0												230.00	232.00	47		S0													
											233.00	235.00	QZ	2					233.00	236.00	52		S0													
							0.1																													
				0.1							236.00	242.00	QZ	4	m	I																				
							1.2												239.00	241.00	60		S0													
							0.1																													
242.00	244.55	4B					4.0			Almost all Po is in a 4-5cm vein.									243.00	244.00	68		S0													
244.55	266.00	2T																	248.00	249.00	63	MO	S1													
																			254.00	255.00	47	INT	S1													
																			263.00	264.00	58	INT	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-017**

Project Code: ESS

Mine Grid Easting: 8748.9177
Mine Grid Northing: 11650.0238
Elevation: 5296.8452

UTM East 676937.216
UTM North: 5833771.303

Planned Depth: 200
Actual Depth: 359

Drill Start Date: 01/03/2004
Drill End Date: 06/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments: Conditional on good results from 50m spaced intercepts.

Survey

Depth	Azimuth	Dip	SurveyType
0	88.9	-57.3	MAXI
3	89.01	-56.82	MAXI
6	89.24	-56.26	MAXI
9	89.7	-55.72	MAXI
12	90.15	-55.19	MAXI
15	90.55	-54.76	MAXI
18	90.68	-54.55	MAXI
21	90.52	-54.53	MAXI
24	90.44	-54.57	MAXI
27	90.4	-54.52	MAXI
30	90.4	-54.47	MAXI
33	90.43	-54.45	MAXI
36	90.56	-54.35	MAXI
39	90.68	-54.28	MAXI
42	90.72	-54.2	MAXI
45	90.8	-54.15	MAXI
48	90.88	-54.08	MAXI
51	91.02	-54	MAXI
54	91.11	-53.93	MAXI
57	91.12	-53.87	MAXI
60	91.19	-53.81	MAXI
63	91.21	-53.75	MAXI
66	91.24	-53.71	MAXI
69	91.3	-53.68	MAXI
72	91.38	-53.63	MAXI
75	91.42	-53.59	MAXI
78	91.44	-53.53	MAXI
81	91.49	-53.49	MAXI
84	91.56	-53.45	MAXI
87	91.61	-53.39	MAXI
90	91.66	-53.33	MAXI
93	91.71	-53.29	MAXI
96	91.78	-53.22	MAXI
99	91.91	-53.15	MAXI
102	92.05	-53.07	MAXI
105	92.15	-53.04	MAXI
108	92.24	-53.01	MAXI
111	92.34	-53.01	MAXI
114	92.44	-52.98	MAXI
117	92.52	-52.97	MAXI
120	92.63	-52.94	MAXI
123	92.7	-52.91	MAXI
126	92.79	-52.85	MAXI
129	92.84	-52.79	MAXI
132	92.89	-52.72	MAXI
135	92.95	-52.65	MAXI
138	92.97	-52.57	MAXI
141	93.04	-52.48	MAXI
144	93.12	-52.38	MAXI
147	93.25	-52.31	MAXI
150	93.35	-52.27	MAXI
153	93.51	-52.19	MAXI
156	93.62	-52.12	MAXI
159	93.72	-52.06	MAXI

MUSSELWHITE MINE - GEOLOGY

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Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments: Conditional on good results from 50m spaced intercepts.

Survey

Depth	Azimuth	Dip	SurveyType
162	93.78	-51.99	MAXI
165	93.9	-51.92	MAXI
168	94	-51.82	MAXI
171	94.11	-51.74	MAXI
174	94.15	-51.67	MAXI
177	94.28	-51.62	MAXI
180	94.41	-51.58	MAXI
183	94.56	-51.54	MAXI
186	94.68	-51.5	MAXI
189	94.78	-51.47	MAXI
192	94.92	-51.42	MAXI
195	95.06	-51.34	MAXI
198	95.16	-51.23	MAXI
201	95.2	-51.16	MAXI
204	95.3	-51.14	MAXI
207	95.36	-51.09	MAXI
210	95.43	-51.06	MAXI
213	95.48	-51.02	MAXI
216	95.52	-50.97	MAXI
219	95.58	-50.92	MAXI
222	95.63	-50.86	MAXI
225	95.67	-50.81	MAXI
228	95.68	-50.77	MAXI
231	95.71	-50.74	MAXI
234	95.78	-50.71	MAXI
237	95.81	-50.67	MAXI
240	95.86	-50.62	MAXI
243	95.93	-50.58	MAXI
246	96.03	-50.53	MAXI
249	96.07	-50.5	MAXI
252	96.12	-50.48	MAXI
255	96.2	-50.44	MAXI
258	96.25	-50.41	MAXI
261	96.29	-50.36	MAXI
264	96.33	-50.31	MAXI
267	96.38	-50.28	MAXI
270	96.44	-50.25	MAXI
273	96.46	-50.23	MAXI
276	96.5	-50.19	MAXI
279	96.51	-50.13	MAXI
282	96.56	-50.05	MAXI
285	96.57	-49.98	MAXI
288	96.56	-49.9	MAXI
291	96.56	-49.84	MAXI
294	96.7	-49.79	MAXI
297	96.73	-49.71	MAXI
300	96.82	-49.64	MAXI
303	96.87	-49.59	MAXI
306	96.9	-49.54	MAXI
309	96.97	-49.48	MAXI
312	97.02	-49.43	MAXI
315	97.07	-49.36	MAXI
318	97.11	-49.27	MAXI
321	97.16	-49.14	MAXI

MUSSELWHITE MINE - GEOLOGY

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Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments: Conditional on good results from 50m spaced intercepts.

Survey

Depth	Azimuth	Dip	SurveyType
324	97.18	-49.03	MAXI
327	97.27	-48.96	MAXI
330	97.3	-48.89	MAXI
333	97.38	-48.76	MAXI
336	97.41	-48.69	MAXI
339	97.46	-48.59	MAXI
342	97.51	-48.5	MAXI
345	97.56	-48.41	MAXI
348	97.6	-48.32	MAXI
351	97.65	-48.22	MAXI
354	97.7	-48.13	MAXI
357	97.75	-48.04	MAXI
359	97.8	-47.95	MAXI

LITHOLOGY LOG 04-ESS-017

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	32.00	CASIN														
				32.00	65.00	3F	Light gray, fairly homogeneous unit of felsic volcanic, probably ash tuff with a minor Fd-crystal component. Some has a light brown tinge due to very f.g.biotite. No significant amphiboles.	No major faults, alteration or sulphides.												
				65.00	71.00	3C	Generally a darker gray and locally greenish-brown colour than 3F due to 5-25% f.g. dark green amphibole throughout and perhaps a higher biotite content too. Locally 2-3% c.g. ragged garnets, mainly in the most bio-amph rich areas.													
				71.00	81.00	3F	Typical light gray felsic ash tuff as before, minor Fd-crystal component, minor biotite only and little or no amphiboles.													
				81.00	102.00	3C	Intermediate ash tuff as before. Generally thinly, <2cm, banded light-medium brown and gray due to variation in very f.g. biotite content. Minor dark green amphibole throughout plus numerous green bands to 3-4cm with 20-40% amphibole.	1-3% c.g. ragged garnets in a few short intervals with higher bio-amph content.												
				102.00	184.00	3F	Light gray to off-white felsic ash tuff as before. Locally up to 10% Fd-crystals 1-3mm. Only rare amphibolitic bands, < 2-3cm wide.	No major shears, veins or alteration.												
E273813	175.75	176.25	0.27																	
E273814	176.25	177.25	0.02						176.25	177.25	4E	Weakly-moderately formed 4E with ~30% intercalated 2-2T and 30% faint relic 4B laminae.							W	
E273815	177.25	177.75	0.03																	
				184.00	187.70	2	Matic volcanics are a mix of ~1/3 fairly fresh, light green basalt, 1/3 weak-moderately biotitized basalt, and 1/3 pervasively and strongly bio'd (2T). Section has one zone of weak zone of minxed 4E-4F-(4B) from 184.185.45.	Upper contact with 3F is obscured by a 4cm qtz vein but was probably sharp. Lower contact is intercalated over 20cm.												
E273816	184.45	184.85	0.10																	
E273817	184.85	185.45	0.29																	
E273818	185.45	185.85	0.03																	
E273819	187.00	187.70	0.12																	
E273821	187.70	188.50	0.04	187.70	188.95	4E	Moderately well formed 4E with ~10cm of 4F, moderate qtz flooding and minor Po. 4E has 15-35% c.g. garnets in green amphibolite with faint remnant 4B laminae.													

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273822	188.50	188.95	0.20																M	
E273823	188.95	189.65	0.03	188.95	202.30	2T	Fairly homogeneous section of ~typical bio'd mafic volcanic with ~15-20% m.g., "wavy" flakes of biotite in a beige f.g. matrix of feldspar and minor bio, amph.	Numerous small green coloured zones throughout where original amphibole still dominates.					S							
E273824	201.00	201.40	0.02						201.40	202.30	4E	Moderately to weakly formed 4E. Best 4E (~1/3 of section) has 25% c.g. garnets in f.g. amphibolite with faint remnant 4B. Rest is manily 2, 2T and qtz veins.							S	
E273825	201.40	202.30	0.71																	
E273826	202.30	202.80	4.14	202.30	208.40	4F	Mixed section of ~30% good c.g. 4F, 25% f.g. biotitic, weakly garnetiferous metaseds (unit 6), a 50cm qtz vein, and numerous 20-30cm bands of 4E, rare 4EA.													
E273827	202.80	203.80	0.99																	
E273828	203.80	204.80	0.87						203.80	204.10	4E	Weakly garnetiferous 4E with faint magnetic cherty layers.								
E273829	204.80	205.50	0.21						204.80	205.50	4E	3-4 diffuse bands <15cm wide of 4E, one verging on 4EA, mixed with the 4F.								
E273831	205.50	206.50	0.40						205.85	206.50	4E	Weakly formed 4E mixed with lesser 4F.								
E273832	206.50	207.50	0.06																	
E273833	207.50	208.40	0.08						207.50	208.40	6	Light beige, moderately foliated metasediment, probably a siltstone? Only 10-15% f.g. biotite, rest is f.g. fd-qtz and a few % f.g. garnets.								
E273834	208.40	209.00	0.20	208.40	214.40	4EA	4EA varies from well formed in upper 3m to moderate between 211-213m, then weak from 213-214.3m. Most is straight banded with ~30-40% thin 4B layers <1cm throughout.						M			W			S	
E273835	209.00	210.00	0.59													M			W	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273836	210.00	211.00	1.02										W			M			W	
E273837	211.00	212.00	0.15													S			S	
E273838	212.00	213.00	4.63																	
E273839	213.00	213.30	7.32													W			W	
E273841	213.30	214.40	0.10																	
E273842	214.40	215.00	0.73	214.40	224.00	4B	Typical well banded northern iron formation but with locally pervasive weak grunerite in upper 2m.													
E273843	215.00	216.00	0.36																	
E273844	216.00	217.00	0.30																	
E273845	217.00	218.00	1.01																S	
E273846	218.00	219.00	4.82										M							
E273847	219.00	220.00	0.12																	
E273848	220.00	221.00	0.12																	
E273849	221.00	222.00	0.04																	
E273851	222.00	223.00	0.07																	
E273852	223.00	224.00	0.08						223.00	233.30	4A	Section of 4B has locally significant 4A (chert-grunerite) component.								
E273853	224.00	224.80	0.02	224.00	233.30	4B	Generally chertier and lighter colour, slightly yellow, than 4B above, locally borders on being a 4A. Much of the unit is highly strained and quartz flooded (both pre- and syn to post shearing) with abundant Po.	Minor gar-bio rich bands but these appear hydrothermal; no sign of a true 4H here.								M			M	
E273854	224.80	225.80	0.07																	
E273855	225.80	226.10	0.07																	
E273856	226.10	227.00	0.04													M			M	
E273857	227.00	228.00	0.13																	
E273858	228.00	229.00	0.37																	
E273859	229.00	230.00	3.00													M			W	
E273861	230.00	230.70	0.28																	
E273862	230.70	231.70	0.04													M			S	
E273863	231.70	232.70	0.31													M			W	
E273864	232.70	233.30	0.14																	
E273865	233.30	234.00	0.01	233.30	248.70	2T	Fairly typical well foliated and moderately biotitized mafic volcanics. Still a slight greenish tint due to f.g. amphiboles but most is light to medium gray.	No major faults, veins or alteration other than biotite.					M			M			S	
E273866	248.00	248.70	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273867	248.70	249.00	0.84	248.70	266.50	4A	Much chertier than normal 4B, off-white with a yellow tinge, commposed mainly of chert with weak-moderate very f.g. grunerite throughout, and minor magnetite laminae.	Chert bands are massive to thinly laminated and often highly distorted. First 3-4m is highly qtz flooded and Po-mineralized.												
E273868	249.00	250.00	0.08													W			S	
E273869	250.00	251.00	0.02													M			W	
E273871	251.00	252.00	0.01																	
E273872	252.00	253.00	0.02																	
E273873	253.00	254.00	0.03													W			M	
E273874	254.00	255.00	0.03													W			W	
E273875	255.00	256.00	0.02																	
E273876	256.00	257.00	0.03																	
E273877	257.00	258.00	0.06																	
E273878	258.00	259.00	0.04													W			S	
E273879	259.00	260.00	0.13																	
E273881	260.00	261.00	0.09																	
E273882	261.00	262.00	0.06																	
E273883	262.00	263.00	0.04																	
E273884	263.00	264.00	0.01																	
E273885	264.00	265.00	0.01																	
E273886	265.00	266.00	0.01																	
E273887	266.00	267.00	0.01	266.50	342.10	4B	5% 4F, small po vein ~ 272. Weak garnet/grun alteration, only tr garnets after 332 m. Massive po/ars vein fr 305.5-305.6 m. Minor dextral mv't along axial planes	Semi-massive po at contact w underlying mafics. 25% 4F from 332-337m.												
E273888	267.00	268.00	0.02																	
E273889	268.00	269.00	0.12										W			W				alt banded...typical of 4F
E273891	269.00	270.00	0.04																	
E273892	270.00	271.00	0.06																	
E273893	271.00	272.00	0.10																	
E273894	272.00	272.50	0.22																	
E273895	272.50	273.00	0.31																	
E273896	273.00	274.00	0.31																	
E273897	274.00	275.00	0.18																W	
E273898	275.00	276.00	0.18																	
E273899	276.00	277.00	0.33																	
E273901	277.00	278.00	0.24																	
E273902	278.00	279.00	0.29																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E273903	279.00	280.00	0.17																	
E273904	280.00	281.00	1.07																	
E273905	281.00	282.00	0.08																	
E273906	282.00	283.00	0.78										W			W				
E273907	283.00	283.80	0.29																	
E273908	283.80	284.30	0.23																	
E273909	284.30	285.00	0.06																	
E273911	285.00	286.00	0.26																	
E273912	286.00	287.00	0.15																	
E273913	287.00	288.00	0.29																	
E273914	288.00	289.00	0.49																	
E273915	289.00	290.00	0.28																	
E273916	290.00	291.00	1.33																	
E273917	291.00	292.00	0.19																	
E273918	292.00	293.00	0.32																	
E273919	293.00	294.00	0.09										W		M	W				
E273921	294.00	295.00	0.05																	
E273922	295.00	296.00	52.50						295.90	302.00	4F	small interbanded with 4b, approx 25-30%.								
													W		M					
E273923	296.00	297.00	42.27										M		W	W				
E273924	297.00	298.00	0.05																	
E273925	298.00	299.00	0.55																	
E273926	299.00	300.00	0.42																	
E273927	300.00	301.00	0.13																	
E273928	301.00	302.00	0.07																	
E273929	302.00	303.00	0.08																	
E273931	303.00	304.00	0.16																	
E273932	304.00	305.00	1.41																	
E273933	305.00	305.50	0.14																	
E273934	305.50	306.00	0.87																	
E273935	306.00	307.00	0.06																	
E273936	307.00	308.00	0.86																	
E273937	308.00	309.00	0.04																	
E273938	309.00	310.00	0.20																	
E273939	310.00	311.00	0.05												W	W				
E273941	311.00	312.00	0.01																	
E273942	312.00	313.00	0.28																	
E273943	313.00	314.00	0.32																	
E273944	314.00	315.00	0.06																	
E273945	315.00	316.00	0.08																	
E273946	316.00	317.00	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273947	317.00	318.00	0.13										W			W				
E273948	318.00	319.00	0.03																	
E273949	319.00	320.00	0.07																	
E273951	320.00	321.00	0.02																	
E273952	321.00	322.00	0.03																	
E273953	322.00	323.00	0.05											W		W			M	
E273954	323.00	324.00	0.03						323.90	329.00	4A	minor grunerite also, weak carb (fizzing).								
E273955	324.00	325.00	0.04																	
E273956	325.00	326.00	0.03																	
E273957	326.00	327.00	0.07																	
E273958	327.00	328.00	0.10																	
E273959	328.00	329.00	0.41																	
E273961	329.00	329.50	0.05																	
E273962	329.50	330.00	0.02																	
E273963	330.00	331.00	0.15																	
E273964	331.00	332.00	0.07																	
E273965	332.00	333.00	0.35						332.00	337.00	4F	Approx. 20% 4F interbanded with 4B.	W							alteration typical of 4F
E273966	333.00	334.00	0.40																	
E273967	334.00	335.00	0.03																	
E273968	335.00	336.00	0.06																	
E273969	336.00	337.00	0.03																	
E273971	337.00	338.00	0.02						337.00	339.70	4A	weak carb alteration, contacts gradational		W	W	M				
E273972	338.00	339.00	0.01																	
E273973	339.00	340.00	0.02																	
E273974	340.00	340.50	0.05																	
E273975	340.50	341.00	0.02																	
E273976	341.00	341.50	0.08																	
E273977	341.50	342.00	0.04																	
E273978	342.00	343.00	0.02	342.10	356.00	1D	Strong chl alteration, schistose. Very broken up, weak to trace talc. Localized coarse serpentiine on fracture surfaces							W	S					talcy/serpentin-rich. Soft and broken. No veins/sulphides.
E273979	343.00	344.00	0.03																	
				356.00	359.00	2T	strongly foliated/weakly sheared at contact with umafics. Contains biotite-rich bands.						S		M					only 3 metres of this unit before end of hole. Alteration likely result of upper contact.

STRUCTURAL LOG 04-ESS-017

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	32.00	CASI					0.2	2											32.00	33.00	50	WE	S1													
32.00	65.00	3F																	39.00	41.00	53	WE	S1													
65.00	71.00	3C																	47.00	48.00	58	WE	S1													
71.00	81.00	3F																	53.00	54.00	63	WE	S1													
81.00	102.00	3C																	68.00	69.00	63	WE	S1													
102.00	184.00	3F																	72.00	73.00	53	WE	S1													
																			95.00	96.00	62	MO	S1													
																			98.00	125.00	59	WE	S1													
																			128.00	129.00	61	WE	S1													
																			137.00	138.00	53	WE	S1													
																			143.00	144.00	60	WE	S1													
																			149.00	150.00	60	WE	S1													
																			158.00	159.00	58	WE	S1													
																			167.00	168.00	58	WE	S1													
																			174.00	175.00	63	MO	S1													
184.00	187.70	2																	182.00	183.00	67	MO	S1													
187.70	188.95	4E					0.2												188.00	189.00	62	MO	S1													
188.95	202.30	2T																	194.00	195.00	53	MO	S1													
																			200.00	201.00	52	MO	S1													
							0.2																													
202.30	208.40	4F					0.1				202.30	202.80	QZ	80		S																				
							0.1																													
							0.7												205.00	208.00	53		S1													
							0.5																													
208.40	214.40	4EA					0.4																													
							0.1																													
							1.0																													
							5.0																													

STRUCTURAL LOG 04-ESS-017

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
214.40	224.00	4B					2.0				214.80	215.00	QZ	95	m	S			215.00	216.00	67		S0													
							0.1																												
							2.0												222.00	223.00	62		S0												
							1.5																												
224.00	233.30	4B					0.1																												
							7.0																												
							0.1																												
							0.2												230.00	232.00	63		S0												
							5.0																												
							7.0																												
233.30	248.70	2T	45																236.00	237.00	60	MO	S1												
																			244.00	245.00	52	MO	S1												
248.70	266.50	4A	45				3.0																												
							40.																												
							3.0																												
							0.5												251.00	252.00	62		S0												
							0.1																												
							2.5																												
							4.0																												
							0.1																												
							0.6																												
				0.1			0.1												258.00	259.00	42		S0												
							1.0																												
				0.1			0.1																												
							0.5																												
							0.4																												
							0.1																												

STRUCTURAL LOG 04-ESS-017

MAJOR UNIT

From	To	Major Unit	Cont
266.50	342.10	4B	

MINERALS

As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments
			0.5			minor blebs
			75.			massive po breccia vein
			1.5			med veinlets/blebs
			0.5			minor med blebs
			3.0			coarse blebs/veinlets
			1.0			med/fine po blebs/stringers.
			0.5			
0.5			40.			asp as fine blebs, po is semi-massive

QTZ VEINING

From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments
275.00	277.00	QZ	10	m	S	35	
283.90	284.10	QZ	95	m	S	40	
288.00	290.00	QZ	10	m	S	40	

FABRIC

From	To	Alpha deg	Int	Type	Comments
266.00	279.50	45	MO	S0	banding in 4b
280.00	284.00	30	MO	S0	
284.00	287.00	15	mod	s0	
287.00	297.00	45	mod	s0	

FOLD

From	To	Alpha deg	Int	Type	Comments
291.00	297.00	45	WE	FD	minor folds in 4b-4f.

FAULT

From	To	Alpha deg	Int	Type	Comments

STRUCTURAL LOG 04-ESS-017

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							5.0			scattered blebby patches									297.00	299.00	70	MO	S0	could be axial planar cleavage/transposition along s2?	297.00	299.00	60	INT	FD	local transpositio n // to axial planar cleavage						
				0.5			1.0				298.80	301.00	QZ	20	m	D	75		299.00	310.00	60	mod	s0													
				70.0			20.			Semi-massive sulphide vein.																										
							0.5			Fine grained threads/blebs																										
				0.1			0.1			fine scattered blebs																										
				1.0			0.5			threads/blebs of med aspo. Finer po.	309.00	310.00	QZ	20	m	D	60																			
				0.1						trace fine-grained blebs									310.00	315.00	35	mod	s0		310.00	314.20	50	MO	FD							
							2.0			small thread zone																										
							0.1			trace scattered disseminations																										
																			315.00	327.00	45	mod	S0													
							0.5			fine-med blebs															320.00	321.00	55	WE	FD							
							5.0			coarse blebs																										
							0.1			trace fine blebs																										
				-							324.00	325.00	QZ	20	m	S	55																			

STRUCTURAL LOG 04-ESS-017

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							1.0			coarse blebs									327.00	332.00	35	mod	s0													
							40.			semi-massive vein																										
							2.0			blebs/threads																										
							40.			semi-massive veinlets zone																										
							0.5			scattered fine blebs																										
							5.0			coarse blebs									332.00	342.10	60	mod	s0													
							0.3			localized blebs, med-coarse grained																										
				0.1						trace fine disseminations																										
							25.			coarse blebs proximal to umafic contact																										
342.10	356.00	1D	65																342.10	348.50	45	INT	S0												
356.00	359.00	2T	35																351.00	351.00	25	int	s0								346.50	347.00	45	MOD	GG	could be slickensides or just serpentine xtals on jointed surfaces
																			353.00	354.00	15	INT	s1												
																			355.00	356.00	40	MO	S0												

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-020**

Project Code: ESS

Mine Grid Easting: 8795.4525
Mine Grid Northing: 11699.7918
Elevation: 5296.457

UTM East 676934.717
UTM North: 5833838.529

Planned Depth: 200
Actual Depth: 323

Drill Start Date: 07/03/2004
Drill End Date: 11/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	91.011	-65.0519	SURV
3	91.47	-65.06	MAXI
6	92.12	-64.74	MAXI
9	92.53	-64.51	MAXI
12	92.4	-64.38	MAXI
15	92.19	-64.29	MAXI
18	92.08	-64.26	MAXI
21	92.07	-64.25	MAXI
24	92.02	-64.24	MAXI
27	92.05	-64.18	MAXI
30	92.14	-64.03	MAXI
33	92.34	-63.84	MAXI
36	92.5	-63.61	MAXI
39	92.59	-63.28	MAXI
42	92.75	-62.98	MAXI
45	92.99	-62.73	MAXI
48	93.11	-62.49	MAXI
51	93.19	-62.24	MAXI
54	93.37	-62.04	MAXI
57	93.58	-61.93	MAXI
60	93.67	-61.82	MAXI
63	93.76	-61.71	MAXI
66	93.89	-61.69	MAXI
69	93.9	-61.68	MAXI
72	94	-61.62	MAXI
75	94.08	-61.54	MAXI
78	94.08	-61.43	MAXI
81	94.14	-61.35	MAXI
84	94.31	-61.28	MAXI
87	94.45	-61.23	MAXI
90	94.57	-61.17	MAXI
93	94.64	-61.12	MAXI
96	94.72	-61.08	MAXI
99	94.84	-61.06	MAXI
102	94.89	-61.02	MAXI
105	94.99	-60.95	MAXI
108	95.07	-60.86	MAXI
111	95.09	-60.79	MAXI
114	95.17	-60.73	MAXI
117	95.2	-60.69	MAXI
120	95.27	-60.64	MAXI
123	95.4	-60.56	MAXI
126	95.45	-60.43	MAXI
129	95.61	-60.26	MAXI
132	95.82	-60.04	MAXI
135	95.97	-59.87	MAXI
138	96	-59.78	MAXI
141	96.09	-59.72	MAXI
144	96.23	-59.67	MAXI
147	96.38	-59.61	MAXI
150	96.65	-59.48	MAXI
153	96.91	-59.3	MAXI
156	97.12	-58.97	MAXI
159	97.26	-58.63	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-020**

Project Code: ESS

Mine Grid Easting: 8795.4525
Mine Grid Northing: 11699.7918
Elevation: 5296.457

UTM East 676934.717
UTM North: 5833838.529

Planned Depth: 200
Actual Depth: 323

Drill Start Date: 07/03/2004
Drill End Date: 11/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	97.34	-58.46	MAXI
165	97.42	-58.36	MAXI
168	97.48	-58.28	MAXI
171	97.54	-58.08	MAXI
174	97.6	-57.87	MAXI
177	97.66	-57.67	MAXI
180	97.72	-57.46	MAXI
183	97.78	-57.26	MAXI
186	97.84	-57.06	MAXI
189	97.89	-56.85	MAXI
192	97.95	-56.65	MAXI
195	98.01	-56.44	MAXI
198	98.07	-56.24	MAXI
201	98.13	-56.04	MAXI
204	98.19	-55.83	MAXI
207	98.24	-55.63	MAXI
210	98.3	-55.42	MAXI
213	98.36	-55.22	MAXI
216	98.42	-55.17	MAXI
219	98.478	-54.87333333	MAXI

LITHOLOGY LOG 04-ESS-020

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
				17.70	26.00	8M	Signifcant amount of unconsolidated sediment containing fragments of 8M. Very broken.						S	M	M			M		
													S	S	M			M		
				26.00	67.00	3C	strongly altered..bio/car-rich with minor chlorite. Small s-fold seen in qtz/car vein at 40 m.						W					M	M	also has epidote in bx faults
				67.00	139.20	3F	Contact gradational, Broken from 67-74 metres. Moderate biotite after 127 m.	Strong bimodal sequence of 2T and 3F between 134 and 139 metres.										M	W	minor stringer veins of epidote from 71 to 72.5 m.
E273718	115.00	116.00	0.08										W					M	M	
E273719	116.00	117.00	0.04																	
E273721	117.00	118.00	0.07																	
E273722	118.00	119.00	0.05										W					M	W	
E273723	119.00	120.00	0.04																	
E273724	124.10	125.00	0.04																	
E273725	125.00	126.00	0.05																	
E274719	126.00	127.00	0.03										M					M	M	
E274721	130.00	131.00	0.05																	
									134.00	135.10	2T	bedded, not altered, slightly biotitic.								
E274722	135.00	136.00	0.04										W	W					S	
E274723	136.00	137.00	0.09						136.20	137.00	2T	moderately biotitic, weakly carbonitized. weak shear, minor veining.								
E274724	137.00	138.00	0.04						137.80	138.30	2T	weak biotite, foliated, vein at contact with 3F.								
E274725	138.00	139.00	0.04																	
E273726	139.00	140.00	0.05	139.20	142.80	3F	Weak-moderately biotitic felsic volcanic, presumably waterlain ash tuff. Still mainly very f.g. qtz, lesser feldspar and 10-20% sericite. Commonly highly, tightly folded/deformed. 2 cm po vein at lower contact with 4e.	Changed from original 2T by JLB after relogging.												
E273727	140.00	141.00	0.05																	
E273728	141.00	142.00	0.05										S	W						
E273729	142.00	142.80	0.04																	
E273731	142.80	143.40	0.16	142.80	143.40	4E	Several bands up to 10cm of good c.g., magnetic gar-amphibolite (4E) separated by f.g. metased unit 6 (?) bands up to 12cm thick which has a gradational contact with 3F above.	Edited by JLB.												

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273732	143.40	144.40	0.05	143.40	146.50	2T	Moderately foliated, medium greenish-brown unit composed of ~20-30% f.g. "wavy" flakes and slips of biottie in a matrix of f.g. off-white feldspar (albitized basalt??) with local remnant green amph up to 10-20%. More magnetic than units 3F, 6, etc.													
E273733	144.40	145.00	1.07										M						S	
E273734	145.00	146.00	1.89																	
E273735	146.00	146.50	0.12						146.40	146.60	4E	gradational contacts								
E273736	146.50	147.20	10.33	146.50	148.50	4E	Mixed interval with 3 bands of 4E 20-40cm wide separated by bands of 2T up to 60cm wide. 2T is the coarser, "wavy biotite" style as above. 4E is fairly typical f.g. green amphibolite with interlaminated Mt-chert and studded wit 20-40% c.g. garnets.	Strong qtz flooding in one 4E band.	146.80	146.90	4E									
E273737	147.20	148.00	0.15																	
E273738	148.00	148.50	0.10						148.00	148.50	4E	fairly sharp contacts at 40								
E273739	148.50	149.50	0.05	148.50	152.20	2T	strongly foliated, contact with 4F gradational,						M							
E273741	149.50	150.50	0.05																	
E273742	150.50	151.50	0.04																	
E273743	151.50	152.20	0.05																	
E273744	152.20	153.00	0.18	152.20	153.70	4F	10-15% 4e. 4F gets finer grained from 153.2 to 153.7m.													
E273745	153.00	154.00	0.06	153.70	155.60	2T	strongly foliated, weak shear. Minor calcite. contact with 4E is gradational.						M	W					W	
E273746	154.00	155.00	0.05																	
E273747	155.00	155.50	0.07																	
E273748	155.50	156.70	13.93	155.60	156.70	4E	weakly folded, minor calcite.													
E273749	156.70	157.50	0.14	156.70	170.00	2T	weak biotite, incr to mod after 157.5 m. Minor crenulations seen at 162 m. Gradational contact with mineralization and minor sulphides.						S	W					W	
E273228	157.50	158.50	0.09																	
E273229	158.50	159.50	0.07																	
E273231	167.00	168.00	0.20																	
E273232	168.00	169.00	0.30																	
E273233	169.00	170.00	1.98																	
E273234	170.00	171.00	0.23	170.00	171.60	4E	small unit, contains approx 20% 4F. Minor folding seen													
E273235	171.00	171.60	0.15																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273236	171.60	172.40	0.07	171.60	175.20	6	Changed from 2T to 6 by JLB for consistency with other logging. Moderately foliated, minor 4F from 172.4 to 172.7 m. Minor qtz vein fragments seen with rotation in shear, sense of shear not obtainable						W							
E273237	172.40	173.00	0.09						172.40	172.70	4F									
E273238	173.00	174.00	0.08																	
E273239	174.00	175.20	0.06																	
E273241	175.20	176.00	0.10	175.20	183.00	4F	Lots of interbedded 4E as minor units from 175.8 to 176.8 m, 178.3 to 179.2 m. Contact with next unit gradational and contains minor grunerite alteration.		175.80	176.80	4E	minor 4E-4F, thick cherty bands								
E273242	176.00	177.00	0.09																	
E273243	177.00	178.00	0.04																	
E273244	178.00	179.00	0.65						178.30	179.20	4E	same as above minor unit, 10-15% 4F.								
E273245	179.00	180.00	1.07																	
E273246	180.00	181.00	0.06																	
E273247	181.00	182.00	0.04																	
E273248	182.00	183.00	1.52																	
E273249	183.00	184.00	0.47	183.00	205.90	4C	minor carbonate and some 4F (5%). Pinching and swelling seen in bands. Carbonate bands more common between 186 to 195, grades into a 4B after 195 m.													
E274101	184.00	185.00	0.11																	
E274102	185.00	186.00	0.18																	
E274103	186.00	187.00	0.01																	
E274104	187.00	188.00	0.03																	
E274105	188.00	189.00	0.12																	
E274106	189.00	190.00	0.36																	
E274107	190.00	191.00	1.86																	
E274108	191.00	192.00	0.32																	
E274109	192.00	193.00	0.60																	
E274111	193.00	194.00	0.29												S					
E274112	194.00	195.00	0.22																	
E274113	195.00	196.00	0.09																	
E274114	196.00	197.00	0.04											W		W				
E274115	197.00	198.00	0.11																	
E274116	198.00	199.00	0.03																	
E274117	199.00	200.00	0.06											M		W				
E274118	200.00	201.00	0.06																	
E274119	201.00	202.00	0.16																	
E274121	202.00	203.00	0.13																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274122	203.00	204.00	0.09																	
E274123	204.00	205.00	0.04																	
E274124	205.00	205.90	0.13																	
E274125	205.90	207.00	0.01	205.90	274.10	4C	strongly folded, minor 20% 4F intervals from 225.4 to 228.7 m, 234 to 236 m, and 241 to 242.5 m. Carbonate strength is weak from 253-264 m.	Carbonate moderate after 264 m. Weak shear after 254 m.					S	W						
E274726	207.00	208.00	0.01																	
E274727	208.00	209.00	0.01																S	
E274728	209.00	210.00	0.01																	
E274729	217.00	218.00	0.01																	
E274731	218.00	219.00	0.01																	
E274732	219.00	219.50	0.01											M		W				
E274733	219.50	220.00	0.12																	
E274734	220.00	221.00	0.09																	
E274735	221.00	222.00	0.09																	
E274736	222.00	223.00	0.03																	
E274737	223.00	224.00	0.04																	
E274738	224.00	225.00	0.33											M		W				
E274739	225.00	226.00	0.11																	
E274741	226.00	227.00	0.02																	
E274742	227.00	228.00	0.03											M		W				
E274743	228.00	229.00	0.75																	
E274744	229.00	230.00	0.25																	
E274745	230.00	231.00	0.09																	
E274746	231.00	232.00	0.03																	
E274747	232.00	233.00	0.02											M		W				
E274748	233.00	234.00	0.07																	
E274749	234.00	235.00	0.03																	
E274751	235.00	236.00	0.53											W						
E274752	236.00	237.00	0.19																	
E274753	237.00	238.00	0.30																	
E274754	238.00	239.00	0.18																	
E274755	239.00	240.00	0.21																	
E274756	240.00	241.00	0.08											W						
E274757	241.00	242.00	0.11																	
E274758	242.00	243.00	0.13																	
E274759	243.00	244.00	0.15																	
E274801	244.00	245.00	0.62										W	W		W				Trace grunerite, wk bio/garnet as 4F bands.
E274802	245.00	246.00	1.14																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274803	246.00	247.00	0.06																	
E274804	247.00	248.00	0.10																	
E274805	248.00	249.00	0.47																	
E274806	249.00	250.00	0.13																	
E274807	250.00	251.00	0.03																	
E274808	251.00	252.00	0.30																	
E274809	252.00	253.00	0.12																	
E274811	253.00	254.00	0.39																	
E274812	254.00	255.00	0.46																	
E274813	255.00	256.00	0.16																	
E274814	256.00	257.00	0.10																	
E274815	257.00	258.00	0.13																	
E274816	258.00	259.00	0.44																	
E274817	259.00	260.00	0.23																	
E274818	260.00	261.00	0.49																	
E274819	261.00	262.00	0.58																	
E274821	262.00	263.00	0.52																	
E274822	263.00	264.00	0.72										W	W					W	
E274823	264.00	265.00	23.03																	
E274824	265.00	266.00	1.68																	
E274825	266.00	267.00	58.87																	
E274826	267.00	268.00	0.26																	
E274827	268.00	269.00	0.43																	
E274828	269.00	270.00	0.12											M					S	
E274829	270.00	271.00	0.52																	
E274831	271.00	272.00	0.44																	
E274832	272.00	273.00	0.31																	
E274833	273.00	274.00	0.21																	
E274834	274.00	275.00	0.06	274.10	278.00	4F	Main 4F unit has approx 10-15% 4B. Small minor 4b-f unit from 277 to 277.5						M	W		W				
E274835	275.00	276.00	0.22																	
E274836	276.00	277.00	4.42																	
E274837	277.00	278.00	0.31						277.00	277.50	4B	small 4b-4f unit, approx. 50% of each								
E274838	278.00	279.00	0.51	278.00	317.40	4B	Minor 4F units, approx 20% present throughout. Strong folding with intense axial planar cleavage with movement, can't tell if folds are s or z.	After 289 m, 4F content decreases to <5%. Still see s/z fabrics at 290 m.					M							Approx 25-30% 4F
E274839	279.00	280.00	0.16																	
E274841	280.00	281.00	0.02																	
E274842	281.00	282.00	0.23																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E274843	282.00	283.00	0.08																	
E274844	283.00	284.00	0.11																	
E274845	284.00	285.00	0.58																	
E274846	285.00	286.00	0.05																	
E274847	286.00	287.00	0.31										W							approx only 5% 4f
E274848	287.00	288.00	0.01																	
E274849	288.00	289.00	0.02																	
E274851	289.00	290.00	0.02																	
E274852	290.00	291.00	0.06																	
E274853	291.00	292.00	0.07																	
E274854	292.00	293.00	0.05																	
E274855	293.00	294.00	0.05																	
E274856	294.00	295.00	0.05																	
E274857	295.00	296.00	0.04																	
E274858	296.00	297.00	0.01																	
E274859	297.00	298.00	0.27																	
E274861	298.00	299.00	0.04																	
E274862	299.00	300.00	0.20																	
E274863	300.00	301.00	0.17																	
E274864	301.00	302.00	0.20																	
E274865	302.00	303.00	7.97																	
E274866	303.00	304.00	0.13																W	
E274867	304.00	305.00	1.19																	
E274868	305.00	306.00	0.27																	
E274869	306.00	307.00	0.31																	
E274871	307.00	308.00	0.16																	
E274872	308.00	309.00	0.53																	
E274873	309.00	310.00	0.41																	
E274874	310.00	311.00	0.72																	
E274875	311.00	312.00	6.04																M	
E274876	312.00	313.00	0.20																	
E274877	313.00	314.00	0.06																	
E274878	314.00	315.00	0.04																	
E274879	315.00	316.00	0.01																	
E274881	316.00	316.70	0.01																	
E274882	316.70	317.40	0.02																	
E274883	317.40	318.00	0.01	317.40	323.00	1D	fine grained grayish-blue rock, moderate hardness, soft in places. Could be ultramafic or heavily chlorilized mafic at 4b contact. Most likely umafic due to mag reading.	Small 12-20 cm flooded po vein at contact							M					
E274884	318.00	319.00	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274885	319.00	320.00	0.01																	

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
17.70	26.00	8M	45					0.2		threads // to s0	39.80	40.00	QZ-C	20	m	I	60		26.00	30.00	35	INT	s0								17.70	33.00		MOD	OS	section of broken rock at top of hole.
26.00	67.00	3C						0.2		threads // to	57.40	58.60	CA	5	m	S	50		37.00	38.00	45	INT	s0													
67.00	139.20	3F								banding	60.00	61.00	QZ	15	m	S	55		41.00	42.00	50	INT	s0								103.40	103.50	50	INT	BC	
								0.1			97.00	97.10	QZ	85	m	S	35		47.00	48.00	45	MO	S0													
																			53.00	55.00	45	INT	s0													
																			58.00	59.00	50	MO	s0													
																			62.00	63.00	50	MO	s0													
																			68.00	69.00	40	MO	s0													
																			74.00	75.00	50	MO	s0													
																			82.00	83.00	40	MO	S0													
																			88.00	89.00	45	MO	s0													
																			92.00	93.00	55	MO	s0													
																			96.00	97.00	40	MO	s0													
																			100.00	101.00	20	WE	CR													
																			102.00	103.00	40	MO	s0													
																			109.00	110.00	45	MO	s0													
																			114.00	115.00	40	MO	s0													
							0.5	1.5																													
							1.0	0.5																													
							10.	2.5		coarse, semi massive. Large bio/ser laths.																												
								0.5											119.00	120.00	40	MO	s0								123.90	124.10	40	MOD	BC	Dolomite-magnesite massive vein, likely sealing pre-existing faults.
							0.5	0.2																												
								1		threads in qtz vein																												
																			126.00	127.00	45	MO	s0													
								0.2																												
								1											131.00	132.00	40	MO	s0													
							2.5	0.5			136.90	137.30	QZ	75	m	D	40																			
																			137.00	138.00	40	INT	s0													
139.20	142.80	3F	50								139.00	140.50	QZ	30	m	D	35																			

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MAJOR UNIT				MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit	Cont	As %	Cp %	Mt %	Po %	Py %	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
142.80	143.40	4E	50				85.			small vein at contact									143.00	144.00	40	INT	s0													
							2.0																												
143.40	146.50	2T	50				0.2			vein disseminated	144.70	145.90	QZ	45	m	D	40																			
							5.0	10		coarse blebs in minor unit																					146.00	146.50		MOD	OS	broken section of 2T
146.50	148.50	4E																	147.00	148.00	60	MO	s0												
			40					0.1																												
148.50	152.20	2T	40																151.00	152.00	40	MO	s0												
152.20	153.70	4F	45																																
153.70	155.60	2T	40																154.00	155.00	30	MO	s0												
							0.5				155.00	156.00	QZ-C	7.5	m	S	45																			
155.60	156.70	4E					10.																		156.00	157.00	60	WE	FD						
156.70	170.00	2T	35																																
																			160.00	161.00	45	MO	s0												
																			166.00	168.00	50	MO	s0												
											167.00	169.00	QZ	10	m	D	80																			
							0.2																												
170.00	171.60	4E	45				0.1																		170.00	171.00	45	MO	FD	only one instance found					
171.60	175.20	6	75																																
											173.00	174.00	QZ	5	m	S	40		173.00	174.00	45	INT	s1													
175.20	183.00	4F	70																																
							0.2												178.00	179.00	40	MO	S1												

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
183.00	205.90	4C	35				0.1												182.00	183.00	35	MO	s1													
																			186.00	187.00	40	MO	s1													
																			191.00	192.00	30	MO	s1													
																															194.20	194.70		MOD	OS	broken gougy section
							0.1												195.00	196.00	45	MO	s1													
																			199.00	200.00	50	INT	s1													
				0.2			3.0																													
				0.5			5.0																		203.00	205.00	60	MO	FD	small folded area in 4C						
																			204.00	205.00	70	INT	s1													
							10.			coarse blebby, lots of flooding																											
205.90	274.10	4C	60																206.00	210.00	50	INT	s0													
							0.1			disseminated in qtz/cal veins	209.30	210.00	QZ-C	45	m	D	65																			

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			215.00	216.00	75	INT	s1		210.00	213.50	70	INT	FD	Strongly folded 2T, transposition strong // to axial planar cleavage, original folds rarely seen due to strain						
																									216.00	218.00	65	INT	FD							
											217.00	218.00	QZ-C	25	m	S	60		218.00	219.00	60	INT	s1													
							5.0			coarse blebs																										
				0.5			15.			semi-massive po, blebby aspo.																										
							2.5																													
							1.0																													
							0.3												223.00	224.00	45	MO	s1													
				0.2			1.0																													
				0.1			3.0																													
				0.1			3.0												226.00	227.00	55	MO	s1													
							1.0																		227.00	228.00	60	MO	FD							
							1.0																													
							80.			vein																										
							0.1												230.00	231.00	40	MO	s1													
							0.3																		232.00	235.00	60	INT	FD	s or z folds, can't tell based on lack of core orientation						
				0.3			3.0			po as little 2-3 cm veinlets																										
																			234.00	235.00	40	INT	s1													
				0.1			1.5																													
							80.			semi-massive po veinelt																										

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
				0.1			0.5																													
				0.3			1.0												239.00	240.00	40	INT	s1													
							25.			strong, coarse blebs																											
																			245.00	246.00	45	MO	s1													
																			248.00	249.00	35	MO	s1		248.00	249.00	60	MO	FD	s/z fabri present					
																									250.00	251.00	60	WE	FD						
							3.5																													
							1.0												254.00	255.00	20	MO	s1													
																			257.00	260.00	20	INT	s1													
							0.3																													
							0.3																													
							0.5												263.00	265.00	30	MO	s1													
							0.1																													
											267.00	269.00	CA	7.5	m	S	40		268.00	269.00	40	INT	s1													
											272.00	273.00	QZ-C	15	m	S	50		272.00	274.00	60	MO	s1													
274.10	278.00	4F	55																																	
																									277.00	277.00	40	INT	FD						

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																									277.50	278.00	50	MO	FD							
278.00	317.40	4B	40																278.00	280.00	60	MO	S1													
																			279.00	279.00	45	INT	S2	movement seen // to cleavage, can't tell sense.	279.00	281.00	45	INT	FD	Strong axial planar cleavage						
							0.5												281.00	281.00	45	INT	s2	slip // to cleavage												
																			283.00	284.00	50	INT	s1													
							0.3												284.00	286.00	60	INT	S1													
																			289.00	290.00	35	INT	s1	fabric // to axial planes	289.00	290.00	40	MO	FD							
							0.3												294.00	295.00	50	INT	s1													
																									295.00	296.00	40	INT	FD							
							0.3																													
				0.2			0.1																													
							0.1												301.00	302.00	15	INT	s1													
							5.0												303.00	304.00	40	MO	s1													
				0.2			0.1																													
				0.3																																
							0.1												306.00	307.00	45	MO	s1													
																			310.00	311.00	50	INT	s1													
				0.1			0.2																													
							2.0																													
							0.5												314.00	315.00	55	INT	s1													

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MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							30.			thready to vein like in floods at contact with 1 unit.									317.00	318.00	60	MO	s1													
317.40	323.00	1D																	322.00	323.00	45	MO	s1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-021**

Project Code: ESS

Mine Grid Easting: 8795.4525
Mine Grid Northing: 11699.7918
Elevation: 5296.457

UTM East 676934.717
UTM North: 5833838.529

Planned Depth: 210
Actual Depth: 248

Drill Start Date: 13/03/2004
Drill End Date: 15/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments: Possibly another hole at -66 if results good here.

Survey

Depth	Azimuth	Dip	SurveyType
0	91.011	-71.1	SURV
3	90.98	-70.92	MAXI
6	91.03	-70.69	MAXI
9	91.04	-70.57	MAXI
12	90.98	-70.6	MAXI
15	90.83	-70.58	MAXI
18	90.62	-70.56	MAXI
21	90.56	-70.54	MAXI
24	90.48	-70.57	MAXI
27	90.45	-70.58	MAXI
30	90.49	-70.6	MAXI
33	90.54	-70.58	MAXI
36	90.52	-70.56	MAXI
39	90.58	-70.56	MAXI
42	90.66	-70.55	MAXI
45	90.68	-70.55	MAXI
48	90.79	-70.55	MAXI
51	90.87	-70.54	MAXI
54	90.89	-70.53	MAXI
57	90.86	-70.54	MAXI
60	90.84	-70.55	MAXI
63	90.83	-70.55	MAXI
66	90.93	-70.53	MAXI
69	90.98	-70.52	MAXI
72	90.96	-70.51	MAXI
75	90.9	-70.51	MAXI
78	90.92	-70.52	MAXI
81	91.01	-70.53	MAXI
84	90.96	-70.51	MAXI
87	91.04	-70.54	MAXI
90	91.05	-70.48	MAXI
93	91.12	-70.44	MAXI
96	91.28	-70.41	MAXI
99	91.2	-70.38	MAXI
102	91.26	-70.35	MAXI
105	91.24	-70.31	MAXI
108	91.24	-70.26	MAXI
111	91.34	-70.16	MAXI
114	91.42	-70.08	MAXI
117	91.54	-70	MAXI
120	91.66	-69.94	MAXI
123	91.73	-69.89	MAXI
126	91.78	-69.85	MAXI
129	91.89	-69.8	MAXI
132	92.02	-69.73	MAXI
135	92.13	-69.69	MAXI
138	92.21	-69.63	MAXI
141	92.31	-69.57	MAXI
144	92.38	-69.49	MAXI
147	92.44	-69.45	MAXI
150	92.55	-69.39	MAXI
153	92.68	-69.39	MAXI
156	92.83	-69.38	MAXI
159	92.93	-69.38	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-021**

Project Code: ESS

Mine Grid Easting: 8795.4525
Mine Grid Northing: 11699.7918
Elevation: 5296.457

UTM East 676934.717
UTM North: 5833838.529

Planned Depth: 210
Actual Depth: 248

Drill Start Date: 13/03/2004
Drill End Date: 15/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments: Possibly another hole at -66 if results good here.

Survey

Depth	Azimuth	Dip	SurveyType
162	93.05	-69.39	MAXI
165	93.1	-69.38	MAXI
168	93.16	-69.32	MAXI
171	93.18	-69.28	MAXI
174	93.26	-69.25	MAXI
177	93.32	-69.22	MAXI
180	93.45	-69.22	MAXI
183	93.55	-69.22	MAXI
186	93.58	-69.17	MAXI
189	93.7	-69.15	MAXI
192	93.78	-69.14	MAXI
195	93.86	-69.11	MAXI
198	93.86	-69.06	MAXI
201	93.99	-68.99	MAXI
204	94.12	-68.93	MAXI
207	94.16	-68.86	MAXI
210	94.19	-68.8	MAXI
213	94.22	-68.74	MAXI
216	94.25	-68.68	MAXI
219	94.27	-68.63	MAXI
222	94.3	-68.57	MAXI
225	94.33	-68.51	MAXI
228	94.36	-68.46	MAXI
231	94.38	-68.4	MAXI
234	94.41	-68.34	MAXI
237	94.44	-68.29	MAXI
240	94.47	-68.23	MAXI
243	94.49	-68.17	MAXI
246	94.52	-68.12	MAXI
248	94.54	-68.11	MAXI

LITHOLOGY LOG 04-ESS-021

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	19.00	CASIN			36.40	36.60	4E	small garnets	S		M					
				19.00	24.00	8M	8M boulders						M	W				W		
				24.00	63.80	3C	Could be biotite altered felsic. Slightly carbonitized, strong fabric.						W	W						
													W	W						
				63.80	119.30	3F	Light gray, very silicious. Minor garnets from 77-78 metres. Grades to a more intermediate unit with higher deformation after 110 m.	From 98 to 112 m, strong fractures at 80 t.c.a. with iron carb infilling, S2?						W				W		
																		W		
													W					W		
				119.30	122.10	3C	could be small mafic interbedded with 3F.						W	W				W		
													M					M		
													S	W				M		
													S						W	moderate veining
E275251	120.30	121.30	1.96																	
				122.10	125.80	3F	weakly altered		128.00	128.20	2T		M	W						
				125.80	126.90	2H	could be 2T, intertayered with 3							M						
				126.90	159.70	3F	Strong silicification/veining from 151 to 156 metres. From 151 onwards, units are weak to moderately sheared, expecially 2T units.							W				W	M	
													M						S	
E275252	151.00	152.00	0.03																	
E275253	152.00	153.00	0.14																	
E275254	153.00	154.00	0.02																	
E275255	154.00	155.00	0.03						154.20	155.50	2T	Strong veining								
E275256	155.00	156.00	0.03																	
E275257	156.00	157.00	0.03										M	W				M		
E275258	157.00	158.00	0.01																	
E275259	158.00	159.00	0.01																	
E275261	159.00	159.70	0.01																	
E275262	159.70	160.50	0.05	159.70	162.20	2T	could be 2H with minor 3F sheared in. strong veining at contact with lower 4E unit.		160.00	161.60	3F	could be weakly silicified 2T, more biotitic	M						S	
E275263	160.50	161.60	0.02																	
E275264	161.60	162.20	0.01																M	
E275265	162.20	163.20	0.28	162.20	163.80	4E	lower contact is less altered, slightly sharper.													
E275266	163.20	163.80	0.06																	
E275267	163.80	165.00	0.08	163.80	196.30	2T	Minor 4e unit present, strong shear from 167.9 to 168.5 m. More minor 4e and 4ea units (30 cm) with strong veining from 170-171 and 179.5 to 180.5 m.		164.30	164.60	4E		M	W						strongly foliated, localized weak shear.
E275268	165.00	166.00	0.01																	
E275269	166.00	167.00	0.03																	
E275271	167.00	167.70	0.21																	
E275272	167.70	168.50	0.12																	
E275273	168.50	169.00	0.06																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275274	169.00	170.00	0.10																	
E275275	170.00	171.00	0.04																	
E275276	171.00	172.00	0.99										M	W						
E275277	172.00	172.80	4.54																	
E275278	172.80	173.30	1.23						172.80	173.30	4E	grad contacts, mod to strong sulphides.								
E275279	173.30	174.10	0.03																	
E275281	174.10	175.10	0.02																	
E275282	175.10	176.10	0.01																	
E275283	176.10	176.60	2.73						176.10	176.60	4EA	strong veining at lower contact, weak-mod shear.								
E275284	176.60	177.50	0.67																	
E275285	177.50	178.50	0.05																	
E275286	178.50	179.50	0.02										M						S	
E275287	179.50	180.50	1.67										M	W					W	Minor flooding after 194 m. Strongly foliated 2 with scattered qtz/car veins <15 cm wide.
E275288	180.50	181.00	0.25																	
E275289	194.30	195.30	0.07																	
E275291	195.30	196.30	0.30																	
E275292	196.30	197.30	6.47	196.30	198.50	4E	approximately 10-15% 4f, minor 2 unit from 197.7 to 197.9 m.													
E275293	197.30	198.50	4.38						197.70	197.90	2T									
E275294	198.50	199.50	3.27	198.50	200.50	4F	Moderate to strong flooding, weak to moderately banded 4F with minor amphibole alteration.									W			S	
E275295	199.50	200.50	1.87																	
E275296	200.50	201.50	0.88	200.50	203.90	6	Typical light gray-beige, very equigranular, homogeneous f.g. biotitic metased. Moderately foliated, grades into 4F over 20-30cm at both ends. (Changed from 2T by JLB)						M						M	
E275297	201.50	202.50	0.03																	
E275298	202.50	203.00	0.06																	
E275299	203.00	203.90	0.55																	
E275301	203.90	204.90	0.67	203.90	210.80	4EA	Moderate amount of 4B present, approx 30-35%. 4ea is better devleoped after 208.7 metres. Thinly to moderately banded.		203.90	204.90	4F	minor unit, grades between 2T and weakly developed 4ea-b								

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E275302	204.90	206.00	2.13													M				
E275303	206.00	207.00	2.45													M			W	
E275304	207.00	208.00	1.62																	
E275305	208.00	209.00	0.38																	
E275306	209.00	210.00	0.10																	
E275307	210.00	210.80	0.06																	
E275308	210.80	212.00	0.10	210.80	227.50	4B	Approx 15-20% 4ea content in 4b until 212 m, then 4b has only trace <5% 4f bands. Very cherty.	Minor 4f, 10-15% from 218 to 220 m. s2 cleavage and folding seen.					W							
E275309	212.00	213.00	0.01																	
E275311	213.00	214.00	0.01																	
E275312	214.00	215.00	0.14																	
E275313	215.00	216.00	0.39													W				
E275314	216.00	217.00	0.05																	
E275315	217.00	218.00	0.59																	
E275316	218.00	219.00	0.03																	
E275317	219.00	220.00	0.06																	
E275318	220.00	221.00	0.34																	
E275319	221.00	222.00	0.08																	
E275321	222.00	223.00	0.05																	
E275322	223.00	224.00	0.03																	
E275323	224.00	225.00	0.05																	
E275324	225.00	226.00	0.02																	
E275325	226.00	227.00	0.67																	
E275326	227.00	227.50	0.02																	
E275327	227.50	228.50	0.01	227.50	248.00	2T	strongly foliated, s2 cleavage seen and minor folds seen as well. s1 likely equivalent to highly attenuated s2 fabric.	E.O.H. at 248 m.					M	W						
E275328	228.50	229.50	0.83																	

STRUCTURAL LOG 04-ESS-021

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	19.00	CASI	40				0.1				40.00	40.20	QZ	70	m	s	40		28.00	29.00	30	INT	s1		79.00	80.00	85	WE	FD	folded qtz vein	100.50	100.80	35	MOD	OS	Broken up section of 3F with epidote. small knife fault, cuts fold with axial plane at high angle t.c.a.
19.00	24.00	8M	40				0.1				67.00	70.00	QZ-C	20	m	I	30		37.00	38.00	25	INT	s1								108.60	108.60	15	WEK	KF	
24.00	63.80	3C									81.30	81.50	QZ	80	m	s	45		42.00	43.00	45	INT	s1													
63.80	119.30	3F									95.50	96.00	QZ	30	m	I			47.00	48.00	70	WE	s2													
119.30	122.10	3C									96.00	97.00	QZ-C	5	m	S	45		48.00	49.00	40	MO	s1													
											105.00	106.00	CA	7.5	m	I			53.00	54.00	40	MO	s1													
											120.00	121.00	QZ	25	m	D	30		57.00	58.00	30	MO	s1													
																			61.00	62.00	45	MO	s1													
																			64.00	65.00	45	MO	s1													
																			69.00	70.00	35	INT	s1													
																			74.00	75.00	35	MO	s1													
																			77.00	78.00	30	MO	s1													
																			80.00	81.00	35	MO	s1													
																			84.00	85.00	35	MO	s1													
																			88.00	89.00	35	WE	s1													
																			95.00	96.00	35	MO	s1													
																			99.00	100.00	40	MO	s1													
																			102.00	103.00	35	INT	s1													
																			106.00	107.00	35	MO	s1													
																			112.00	113.00	35	INT	s1													
																			116.00	117.00	35	INT	S1													
																			118.00	119.00	35	INT	s1													
																			121.00	122.00	40	INT	s1		121.00	122.00	30	INT	FD	more folds but they are so attenuated, they are // to fabric S1						
122.10	125.80	3F	30					1.5		disseminated	125.80	127.00	CA	15	m	S	50		125.00	126.00	40	MO	s1		126.00	127.00	30	INT	FD							
125.80	126.90	2H	40							with little	138.00	139.00	QZ	5	m	S	50		128.00	129.00	40	MO	s1													
126.90	159.70	3F	40							veinlets of py.									130.00	131.00	40	MO	s1													
								0.2											134.00	135.00	45	MO	s1													
								0.5											137.00	138.00	40	INT	s1													
								1											142.00	143.00	40	INT	s1													
								25		py-rich veinlet									145.00	146.00	40	INT	s1													
								1		small veinlets									149.00	150.00	50	MO	s1													
								0.5																											
							0.5	0.5																											
																			153.00	154.00	50	INT	s1													
							0.5	0.5																											
							2.0	0.5																											

STRUCTURAL LOG 04-ESS-021

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			159.00	160.00	55	INT	s1													
159.70	162.20	2T	30				0.5																													
							5.0	0.2											162.00	163.00	40	MO	s1													
162.20	163.80	4E																																		
163.80	196.30	2T	35																163.80	164.30	35	INT	s1		164.00	165.00	30	we	FD	small, in strongly foliated 2						
							0.1												167.90	168.50	25	INT	s1	strong shear in 2T												
							0.3			in qtz veln	170.00	172.00	QZ	35	m	D	35	could be strongly flooded zone																		
							0.1			in veins									171.00	172.00	50	MO	s1													
							3.0																														
																			175.00	176.00	40	INT	s1													
											176.40	176.60	QZ-C	75	m	I		sheared with mod biotite, weak chl.																		
																			179.00	180.00	30	INT	s1													
											179.50	180.50	QZ	70	m	S	30	strongly flooded																		
							0.1				181.50	182.00	QZ	25	M	S	40		182.00	183.00	35	INT	s1		186.00	187.00	50	WE	FD							
											182.00	183.00	QZ-C	7.5	M	S	30		184.00	185.00	45	INT	s1													
											187.00	188.00	QZ-C	15	m	S	30		188.00	189.00	30	MO	s1													
																			192.00	193.00	30	INT	s1													
																									195.00	196.00	45	WE	FD							

STRUCTURAL LOG 04-ESS-021

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
196.30	198.50	4E	35				5.0			as blebs in 4e									197.00	198.00	40	INT	s1		197.00	197.50	30	MO	FD							
198.50	200.50	4F	45				1.0																													
							0.3												200.00	201.00	60	INT	s1													
200.50	203.90	6					0.3																		201.00	202.00	50	WE	FD							
							0.2																													
											203.00	204.00	QZ	10	m	D	50		203.00	204.00	35	MO	s1													
203.90	210.80	4EA																																		
							1.0																													
																			207.00	208.00	50	MO	s1													
							0.1																													
210.80	227.50	4B																	211.00	212.00	35	INT	s1													
																			214.00	215.00	40	INT	s1													
																			215.00	216.00	40	INT	s1													
																			219.00	219.00	50	INT	S1													
																			219.00	219.50	45	INT	s2													
																			220.50	221.00	45	INT	s2													
							5.0																													
							0.3												223.50	224.00	60	INT	s1		223.00	224.00	55	MO	FD							
							10.												226.00	227.00	50	MO	S1													
227.50	248.00	2T	50																229.00	230.00	30	INT	S1													
																			230.50	231.00	45	INT	s2		233.00	235.00	35	INT	FD	has movement // to axial planes, but slight.						
																			231.00	232.00	35	INT	s1													
																			234.00	235.00	40	INT	s1													
																			235.00	235.50	35	INT	s2													
																			239.00	240.00	50	INT	s1													
																			242.00	243.00	45	INT	s1													
																			245.00	246.00	50	INT	s1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-022**

Project Code: ESS

Mine Grid Easting: 8749.4791
Mine Grid Northing: 11700.2852
Elevation: 5296.116

UTM East 676902.402
UTM North: 5833807.155

Planned Depth: 250
Actual Depth: 281

Drill Start Date: 20/03/2004
Drill End Date: 22/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	90.1789	-67.36	SURV
3	89.35	-67.3	MAXI
6	88.99	-67.2	MAXI
9	88.78	-67.05	MAXI
12	88.62	-66.95	MAXI
15	88.49	-66.85	MAXI
18	88.44	-66.87	MAXI
21	88.33	-66.87	MAXI
24	88.44	-66.8	MAXI
27	88.53	-66.79	MAXI
30	88.53	-66.83	MAXI
33	88.53	-66.83	MAXI
36	88.33	-66.77	MAXI
39	88.3	-66.75	MAXI
42	88.3	-66.7	MAXI
45	88.33	-66.67	MAXI
48	88.32	-66.62	MAXI
51	88.3	-66.57	MAXI
54	88.33	-66.51	MAXI
57	88.31	-66.47	MAXI
60	88.45	-66.42	MAXI
63	88.39	-66.38	MAXI
66	88.49	-66.35	MAXI
69	88.49	-66.28	MAXI
72	88.48	-66.23	MAXI
75	88.48	-66.18	MAXI
78	88.42	-66.15	MAXI
81	88.48	-66.11	MAXI
84	88.49	-66.04	MAXI
87	88.58	-65.99	MAXI
90	88.52	-65.95	MAXI
93	88.53	-65.88	MAXI
96	88.52	-65.84	MAXI
99	88.56	-65.79	MAXI
102	88.53	-65.74	MAXI
105	88.61	-65.68	MAXI
108	88.68	-65.62	MAXI
111	88.62	-65.56	MAXI
114	88.69	-65.48	MAXI
117	88.72	-65.39	MAXI
120	88.77	-65.3	MAXI
123	88.86	-65.22	MAXI
126	88.98	-65.15	MAXI
129	89.02	-65.1	MAXI
132	89.04	-65.02	MAXI
135	89.09	-64.91	MAXI
138	89.17	-64.81	MAXI
141	89.15	-64.71	MAXI
144	89.13	-64.65	MAXI
147	89.2	-64.58	MAXI
150	89.27	-64.53	MAXI
153	89.29	-64.46	MAXI
156	89.44	-64.39	MAXI
159	89.53	-64.32	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-022**

Project Code: ESS

Mine Grid Easting: 8749.4791
Mine Grid Northing: 11700.2852
Elevation: 5296.116

UTM East 676902.402
UTM North: 5833807.155

Planned Depth: 250
Actual Depth: 281

Drill Start Date: 20/03/2004
Drill End Date: 22/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	89.65	-64.25	MAXI
165	89.72	-64.17	MAXI
168	89.79	-64.1	MAXI
171	89.86	-64.04	MAXI
174	89.85	-64.01	MAXI
177	89.89	-63.97	MAXI
180	89.94	-63.93	MAXI
183	89.99	-63.89	MAXI
186	89.99	-63.84	MAXI
189	90.01	-63.8	MAXI
192	90.11	-63.77	MAXI
195	90.1	-63.73	MAXI
198	90.15	-63.66	MAXI
201	90.21	-63.63	MAXI
204	90.26	-63.59	MAXI
207	90.3	-63.53	MAXI
210	90.34	-63.47	MAXI
213	90.4	-63.41	MAXI
216	90.47	-63.37	MAXI
219	90.5	-63.3	MAXI
222	90.58	-63.24	MAXI
225	90.62	-63.2	MAXI
228	90.7	-63.15	MAXI
231	90.76	-63.08	MAXI
234	90.75	-63.04	MAXI
237	90.82	-62.98	MAXI
240	90.91	-62.92	MAXI
243	90.96	-62.86	MAXI
246	91.01	-62.82	MAXI
249	91.07	-62.77	MAXI
252	91.12	-62.71	MAXI
255	91.11	-62.63	MAXI
258	91.15	-62.54	MAXI
261	91.26	-62.46	MAXI
264	91.29	-62.41	MAXI
267	91.31	-62.36	MAXI
270	91.35	-62.28	MAXI
273	91.4	-62.2	MAXI
276	91.44	-62.13	MAXI
279	91.48	-62.06	MAXI
281	91.51	-62.01	MAXI

LITHOLOGY LOG 04-ESS-022

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	27.00	CASIN														
				27.00	42.50	3C	wkly-mod banded int volc tuffs													
				42.50	63.10	3C	feldspar phyric (2-15%) int volc tuffs, % phenos increasing down unit, mod-well banded													
				63.10	83.40	3C	well banded int volc tuffs													
				83.40	86.10	2T	well foliated, may be a bio altered int volc													
				86.10	112.00	3C	well banded int volc tuffs, minor gt bottom 10m of unit, feldspar phyric (2-5%) in minor amounts													
				112.00	113.30	3D	homogenous looking with patchy alteration (bio-chl), light grey/beige in colour, wkly foliated													
				113.30	122.90	3C	well banded and foliated int volc tuffs, minor feldspar phenos mm scale													
				122.90	124.30	3F	sheared felsic volcanics													
				124.30	135.80	3F	feldspar phyric felsic volcs, wkly sericitic, well foliated													
				135.80	141.70	3F	felsic volc tuffs, mod sericitic, well foliated, minor gt throughout													
				141.70	181.30	3F	feldspar phyric tuffs, wkly-mod sericitic, mod foliated													
				181.30	181.60	2														
				181.60	182.80	3F	same as previous 3f unit													
				182.80	184.00	2														
				184.00	196.00	3F	felsic tuffs, wkly-mod sericitic, mod foliated													
E276422	190.80	191.80	0.02																	
E276423	191.80	192.80	0.01																	
				196.00	196.30	2														
				196.30	203.30	3F	same as previous 3f unit													
E276424	201.30	202.30	0.01																	
E276425	202.30	203.30	0.01																	
E276426	203.30	204.30	0.37	203.30	205.30	4E	cm scale gt, minor chert bands?, mod distorted													
E276427	204.30	205.30	1.14																	
E276428	205.30	206.30	2.35	205.30	213.90	3f	moderately well foliated felsic tuffs with minor garnets throughout and moderate amounts of qtz flooding throughout.							W				M	M	
E276429	211.90	212.90	0.02																	
E276431	212.90	213.90	0.10																	
E276432	213.90	214.60	2.28	213.90	215.30	4e	cm scale garnets very minor chert and magnetite bands, strongly biotized bands and minor qtz flooding. weak Po mineralization.						M	W		W			W	
E276433	214.60	215.30	0.12																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E276434	215.30	216.50	0.08	215.30	216.50	2t	well foliated, strongly biotitic mafics.						M	W						
E276435	216.50	217.15	3.18	216.50	217.80	4e	same 4e unit as above.													
E276436	217.15	217.80	5.25																	
E276437	217.80	218.80	0.50	217.80	221.50	2t	same unit as above with mild sheared fabric.													
E276438	218.80	219.80	0.07																	
E276439	219.80	220.80	0.05																	
E276441	220.80	221.50	4.87																	
E276442	221.50	222.00	0.89	221.50	222.00	4e	same as above.													
E276443	222.00	223.10	0.02	222.00	223.10	2	weakly biotitic moderatly well foliated						W							
E276444	223.10	223.70	0.01	223.10	227.00	2t	strongly biotitic, well foliated, with strong shear fabric.						M	W					M	
E276445	223.70	224.55	0.03																	
E276446	224.55	225.50	0.56																	
E276447	225.50	226.45	2.21																	
E276448	226.45	227.00	0.04																	
E276449	227.00	228.00	0.10	227.00	230.10	4e	mixed 4e-f unit with 10% chert bands, cm scale garnets.						S						M	moderate green amphibole.
E276451	228.00	229.00	0.04																	
E276452	229.00	230.10	3.35																	
E276453	230.10	231.10	0.12	230.10	237.80	2	weakly biotitic with patches of moderatly sheared fabric.						M							
E276454	236.80	237.80	0.03																	
E276455	237.80	238.45	9.47	237.80	239.10	4e	same 4e unit as above.													
E276456	238.45	239.10	0.83																	
E276457	239.10	239.50	0.02	239.10	239.50	2t	same as above.													
E276458	239.50	240.30	0.34	239.50	240.30	4e	mixed 4e with 10% 4f units, 5% chert bands, fine and cm scale garnets. weakly mineralized.													
E276459	240.30	240.60	0.16	240.30	240.60	2t	same as above.													
E276461	240.60	241.40	0.79	240.60	241.40	4e	same as above.													
E276462	241.40	242.15	0.03	241.40	242.90	2t	same as above.													
E276463	242.15	242.90	0.01																	
E276464	242.90	243.75	0.02	242.90	244.55	4e	mixed 4e-4f unit with only mnor 5% garnets ranging from fine to cm scale.													
E276465	243.75	244.55	2.27																	
E276466	244.55	245.00	0.05	244.55	245.00	4f	well developed 4f.													
E276467	245.00	245.85	0.02	245.00	246.70	6	Originally logged as "2u", changed by JLB to unit 6 for consistency with other holes. Typical pale gray-beige, f.g. equigranular, non-banded bio-qtz-fd metased but with a few % dissem'd garnets. Moderately foliated.	Grades into 4F over 10-20cm at both ends												

LITHOLOGY LOG 04-ESS-022

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E276468	245.85	246.70	0.02																	
E276469	246.70	247.60	0.04	246.70	247.60	4f	well developed 4f with minor 5% chert bands.													
E276471	247.60	248.60	2.05	247.60	254.00	4ea	poorly to moderatly well developed 4ea, well foliated, 15% fine to 7mm garnets.						M	W		M				moderate green amphibole.
E276472	248.60	249.60	3.18																	
E276473	249.60	250.60	2.55																	
E276474	250.60	251.60	0.16																	
E276475	251.60	252.60	0.11																	
E276476	252.60	253.30	3.74																	
E276477	253.30	254.00	9.57																	
E276478	254.00	255.00	3.21	254.00	265.20	4b	mixed unit with upper unit to 262.5 mixed with 30% 4e-4f in .5cm bands, end of unit 4b-a with strong grunurite and calcit aleteration and thick qlz-ca veins.						M							
E276479	255.00	256.00	28.27																	
E276481	256.00	257.00	0.72																	
E276482	257.00	258.00	0.22																	
E276483	258.00	259.00	0.09																	
E276484	259.00	260.00	0.29																	
E276485	260.00	261.00	0.09																	
E276486	261.00	262.00	0.14																	
E276487	262.00	263.00	0.15											M		M				
E276488	263.00	264.10	0.36																	
E276489	264.10	265.20	0.36																	
E276491	265.20	266.20	0.02	265.20	281.00	2t	very well foliated, biotitic, brownish-green colour. EOH						M	W						
E276492	266.20	267.20	0.04																	

STRUCTURAL LOG 04-ESS-022

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	27.00	CASI	45																38.00	38.10	48	MO	S1								122.90	124.30	30	INT	SC	
27.00	42.50	3C	50																47.00	47.10	40	MO	S1													
42.50	63.10	3C	37																47.10	47.20	32	WE	S2													
63.10	83.40	3C	30																56.00	56.10	43	MO	S1													
83.40	86.10	2T	45																56.10	56.20	36	WE	S2													
86.10	112.00	3C	50																65.00	65.10	45	MO	S1													
112.00	113.30	3D	40																73.00	73.10	48	MO	S1													
113.30	122.90	3C																	73.10	73.20	35	MO	S2													
122.90	124.30	3F																	80.00	80.10	43	MO	S1													
124.30	135.80	3F																	80.10	80.20	30	MO	S2													
135.80	141.70	3F																	92.00	92.10	40	MO	S1													
141.70	181.30	3F																	92.10	92.20	25	MO	S2													
181.30	181.60	2																	101.00	101.10	45	MO	S1													
181.60	182.80	3F																	110.00	110.10	40	MO	S1													
182.80	184.00	2																	110.10	110.20	25	MO	S2													
184.00	196.00	3F																	119.00	119.10	50	MO	S1													
																			119.10	119.20	38	WE	S2													
																			131.00	131.10	50	MO	S1													
																			131.10	131.20	38	MO	S2													
																			140.00	140.10	48	MO	S1													
																			150.00	150.10	50	MO	S1													
																			150.10	150.20	32	WE	S2													
																			161.00	161.10	48	MO	S1													
																			170.00	170.10	54	MO	S1													
																			170.10	170.20	30	WE	S2													
																			179.00	179.10	50	MO	S1													
																			188.00	188.10	50	MO	S1													
							2.0	2																													
196.00	196.30	2																	200.00	200.10	45	MO	S1													
196.30	203.30	3F																																		
203.30	205.30	4E					5.0																													
205.30	213.90	3f																																		
							1.0												213.00	213.10	35	int	s1													
213.90	215.30	4e																																		
215.30	216.50	2t																																		
216.50	217.80	4e					1.0																													

STRUCTURAL LOG 04-ESS-022

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
217.80	221.50	2t																													218.00	219.00	50	wek	sc	
221.50	222.00	4e					0.5																													
222.00	223.10	2																	223.00	223.10	50	int	s1													
223.10	227.00	2t																													224.50	226.00	50	MOD	sc	
							4.0																													
227.00	230.10	4a					1.0																													
							4.0												230.00	230.10	50	int	s1													
230.10	237.80	2																	235.50	235.60	40	int	s1													
237.80	239.10	4e					5.0																													
							3.0																													
239.10	239.50	2t																																		
239.50	240.30	4e					2.0																													
240.30	240.60	2t					2.0																													
240.60	241.40	4e																																		
241.40	242.90	2t																																		
242.90	244.55	4e					1.0												242.90	243.00	35	int	s1													
							1.0																													
244.55	245.00	4f																																		
245.00	246.70	6																																		
246.70	247.60	4f																	247.50	247.60	50	int	s1													
247.60	254.00	4ea					0.5																													
254.00	265.20	4b																	254.00	254.10	50	int	s1													
							5.0																													
							0.5																													

STRUCTURAL LOG 04-ESS-022

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							4.0																													
							1.0																													
							2.0												262.00	262.10	45	int	s1													
							4.0																													
							2.0																													
265.20	281.00	2	25																265.50	265.60	45	int	s1													
																			268.00	268.10	35	int	s1													
																			277.00	277.10	40	int	s1													
																			280.50	280.60	40	int	s1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-023**

Project Code: ESS

Mine Grid Easting: 8749.2734
Mine Grid Northing: 11750.0784
Elevation: 5296.8454

UTM East 676867.596
UTM North: 5833842.998

Planned Depth: 230
Actual Depth: 262

Drill Start Date: 29/02/2004
Drill End Date: 02/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	87.05	-60.27	MAXI
3	87.31	-60.15	MAXI
6	87.39	-60.05	MAXI
9	87.35	-60.07	MAXI
12	87.31	-60.07	MAXI
15	87.27	-60.07	MAXI
18	87.21	-60.11	MAXI
21	87.24	-60.12	MAXI
24	87.31	-60.11	MAXI
27	87.37	-60.13	MAXI
30	87.42	-60.11	MAXI
33	87.51	-60.08	MAXI
36	87.61	-60.06	MAXI
39	87.65	-60.11	MAXI
42	87.74	-60.07	MAXI
45	87.81	-60.01	MAXI
48	87.99	-59.91	MAXI
51	88.08	-59.84	MAXI
54	88.18	-59.76	MAXI
57	88.23	-59.64	MAXI
60	88.28	-59.51	MAXI
63	88.31	-59.38	MAXI
66	88.44	-59.33	MAXI
69	88.48	-59.3	MAXI
72	88.54	-59.31	MAXI
75	88.53	-59.3	MAXI
78	88.54	-59.28	MAXI
81	88.6	-59.26	MAXI
84	88.61	-59.22	MAXI
87	88.65	-59.18	MAXI
90	88.64	-59.13	MAXI
93	88.73	-59.04	MAXI
96	88.79	-58.97	MAXI
99	88.78	-58.87	MAXI
102	88.86	-58.8	MAXI
105	88.89	-58.75	MAXI
108	88.94	-58.68	MAXI
111	88.94	-58.64	MAXI
114	88.99	-58.56	MAXI
117	89.01	-58.49	MAXI
120	89.03	-58.41	MAXI
123	89.08	-58.31	MAXI
126	89.05	-58.2	MAXI
129	89.12	-58.09	MAXI
132	89.09	-57.99	MAXI
135	89.13	-57.87	MAXI
138	89.23	-57.74	MAXI
141	89.27	-57.59	MAXI
144	89.29	-57.44	MAXI
147	89.37	-57.27	MAXI
150	89.42	-57.11	MAXI
153	89.44	-56.98	MAXI
156	89.5	-56.89	MAXI
159	89.57	-56.79	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-023**

Project Code: ESS

Mine Grid Easting: 8749.2734
Mine Grid Northing: 11750.0784
Elevation: 5296.8454

UTM East 676867.596
UTM North: 5833842.998

Planned Depth: 230
Actual Depth: 262

Drill Start Date: 29/02/2004
Drill End Date: 02/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	89.69	-56.68	MAXI
165	89.7	-56.55	MAXI
168	89.75	-56.44	MAXI
171	89.79	-56.35	MAXI
174	89.82	-56.24	MAXI
177	89.89	-56.15	MAXI
180	89.95	-56.07	MAXI
183	90.03	-55.97	MAXI
186	90.07	-55.88	MAXI
189	90.11	-55.79	MAXI
192	90.15	-55.69	MAXI
195	90.23	-55.66	MAXI
198	90.3	-55.63	MAXI
201	90.34	-55.6	MAXI
204	90.45	-55.55	MAXI
207	90.53	-55.51	MAXI
210	90.61	-55.46	MAXI
213	90.65	-55.43	MAXI
216	90.75	-55.4	MAXI
219	90.83	-55.37	MAXI
222	90.95	-55.31	MAXI
225	91.05	-55.28	MAXI
228	91.14	-55.22	MAXI
231	91.25	-55.14	MAXI
234	91.33	-55.13	MAXI
237	91.42	-55.08	MAXI
240	91.52	-55.04	MAXI
243	91.61	-55	MAXI
246	91.71	-54.95	MAXI
249	91.8	-54.91	MAXI
252	91.9	-54.86	MAXI
255	91.99	-54.82	MAXI
258	92.09	-54.77	MAXI
261	92.18	-54.73	MAXI
262	92.21	-54.72	MAXI

LITHOLOGY LOG 04-ESS-023

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	22.00	CASIN														
				22.00	52.00	3F	Highly fractured, fissile unit producing rubble core with few pieces more than 20cm long. Unit is typical unit 3F otherwise, a felsic, waterlain (?) ash tuff with local Fd-crystal component up to 10-20% and minor biotite (due to original clay?).	Unit is deeply weathered and has some minor weathered out pyrite.												
				52.00	66.00	3C	Continuation of ash tuff unit from above but now darker, medium gray-brown colour and more magnetic due to increased mafic content (now ~5-10% amphibole) and minor dissem'd Mt. Unit also has higher biotite content than before, up to 20-30%.	One minor interval from 58-61.5m of higher sedimentray component now meta'd to 2-3% c.g. ragged garnets and higher bio %.												
				66.00	184.00	3F	Light gray to light brown, moderately foliated ash tuff, presumably waterlain due to local biotite content up to 10-20%. Only trace amphiboles (much less than previous intermediate unit). Becomes much lighter gray with only minor biotite below 109m.	No major shears, veins or alteration zones. Abundant very f.g. dissem Po from 166-186m.												
				184.00	186.60	4E	Mixed section of 4E and 2, 2T. Fro, 184.0 to 184.85m is 2-2T-weak 4F. From 184.45-185.9 and 186.2-186.6 is 4E with 5-40% c.g. garnets, ~20-30% relic laminated 4B-amphibolite, and extensive qtz flooding.													
E273751	184.25	184.85	0.01													W			M	
E273752	184.85	185.90	0.14						184.85	185.90	4E	Moderately qtz flooded zone, originally laminated 4B-green amphibolite (?) now locally converted to good 4E but most is garnet poor.								
E273753	185.90	186.60	0.01						186.20	186.60	4E	More typical 4E with 30-40% c.g. garnets in f.g. green amphibolite with faint bands of remnant 4B throughout.				W				
E273754	186.60	187.00	0.01	186.60	189.15	2T	Varies from ~fresh green basalt to light brown, moderately and pervasively bio'd basalt.						W							
E273755	188.60	189.15	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E273756	189.15	190.15	3.45	189.15	192.40	4E	Another mixed zone of 2 zones of 4E (189.15-190.15m and 191.5-192.4m) separated by sheared 2T? or 4F/6 and a 75cm qtz vein from 190.75-191.5m..	The 4E zones have ~30% interbanded 2T and 2 layers, weak-moderate qtz flooding and one 20cm zone of moderate grunerite.	189.15	190.15	4E	Unit is an interlayered mix of ~1/3 each laminated 4B-green amphibolite, f.g. 4F, and moderately formed 4E.	M						W	
E273757	190.15	190.75	0.22																	
E273758	190.75	191.50	5.44																	
E273759	191.50	192.40	0.59						191.90	192.40	4E	Well formed, qtz flooded, c.g. 4E with locally abundant grunerite.	W			W			M	
E273761	192.40	192.80	0.00	192.40	194.50	2T	Fairly typical light brown, well foliated 2T with 20-30% biotite flakes 1-3mm long in a f.g. beige matrix of mainly feldspar. Minor greenish zones with remnant amphiboles throughout.													
				194.50	208.70	2	Mixed interval of mainly weakly bio'd basalt and lesser 2T. Zone of 4E-4F-(4B) from 196.3-197.05m and a Qtz-Po flooded zone from 197.5-197.85m.	Lower 3m are bleached to off-white colour and locally highly qtz flooded.					M							
E273762	195.90	196.30	0.00																	
E273763	196.30	197.05	0.10						196.30	197.05	4E	Another mixed section with ~60% 4E, weak to well formed, and 40% c.g. 4F.	M			W			W	
E273764	197.05	197.50	0.29																	
E273765	197.50	197.85	7.52																S	
E273766	197.85	198.75	0.05																	
E273767	198.75	199.25	0.09																	
E273768	208.70	209.20	0.19	208.70	213.25	2T	Typical moderately-strongly biotitized basalt with ~20-30% biolte flakes 1-3mm in a f.g. light beige matrix of feldspar, very f.g. biotite and minor remnant green amphibole.													
E273769	209.20	209.70	1.49																S	
E273771	209.70	210.20	0.16																	
E273772	212.75	213.25	0.02																	
E273773	213.25	214.30	4.37	213.25	218.35	4F	Mixed section of ~50% 4F, 35% f.g., light gray metasediment (unit 6), and 15% quartz flooded-4E zones (2) in upper 1.5m. 4F is quite variable with 5-60% garnets in a matrix of <50% to >90% biotite.	4F also grades into unit 6 over 10-20cm but has sharp contact with 4EA below.	213.25	213.55	4E	~20% thinly laminated 4B-amphibolite, 15% qtz flooding, rest is streaky, banded 4E-2-2T.	M			W			W S	
E273774	214.30	214.95	0.60																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273775	214.95	215.50	0.17																	
E273776	215.50	216.00	0.08																	
E273777	216.00	216.70	0.04																	
E273778	216.70	217.40	0.80																	
E273779	217.40	218.00	0.03																	
E273781	218.00	218.35	0.04													S			M	
E273782	218.35	219.00	0.11	218.35	226.90	4EA	Well developed 4EA with ~20% remnant 4B layers <1cm thick throughout. Moderate-strong quartz flooding, weak Po, but well developed garnet-grunerite.	Relatively straight banded for a 4EA but some short zones of strong contortion. Upper contact sharp, lower one diffuse over 10cm.												
E273783	219.00	219.70	0.13																	
E273784	219.70	220.30	0.29																	
E273785	220.30	221.00	0.95																	
E273786	221.00	222.00	3.63																	
E273787	222.00	223.00	1.91																	
E273788	223.00	224.00	0.11																	
E273789	224.00	225.00	0.02																	
E273791	225.00	226.00	0.02																	
E273792	226.00	226.90	0.13																	
E273793	226.90	227.40	0.33	226.90	242.30	4B	Generally a "clean" 4B with only minor zones of hydrothermal gar-bio alteration along banding planes and a couple of <1m zones of moderate grunerite.	Lower 2-3m is whiter and chertier than the rest but is still a 4B, not a 4A. Several zones of semi-massive Po-4H in lower 2-3m.											M	
E273794	227.40	228.10	0.16													M			M	
E273795	228.10	229.00	13.65																S	Quartz mainly as discrete veins up to 10cm wide rather than flooding.
E273796	229.00	230.00	6.08																	
E273797	230.00	231.00	3.83																	
E273798	231.00	232.00	2.11																	
E273799	232.00	233.00	0.57																	
E273801	233.00	234.00	0.57																	
E273802	234.00	235.00	0.49																	
E273803	235.00	236.00	0.14																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E273804	236.00	237.00	0.04																	
E273805	237.00	238.00	0.03																	
E273806	238.00	239.00	0.04																	
E273807	239.00	240.00	0.17																	
E273808	240.00	241.00	0.15																	
E273809	241.00	241.60	0.10																	
E273811	241.60	242.30	0.69																	
E273812	242.30	243.00	0.02	242.30	262.00	2T	Strongy foliated and moderately-strongly biotitized mafic volcanics. Still a green tinge due to the f.g. amphibole in spite of the biotite overprint.						M							

STRUCTURAL LOG 04-ESS-023

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	22.00	CASI					0.1												25.00	26.00	38	MO	S1								0.00	57.00		INT	BC	Entire section is highly fractured and largely just rubble but may be due mainly to weathering rather than a major structure.
22.00	52.00	3F																	36.00	37.00	37	MO	S1													
52.00	66.00	3C																	43.00	44.00	57	MO	S1													
66.00	184.00	3F																	56.00	57.00	45	MO	S1													
184.00	186.60	4E																	62.00	63.00	59	MO	S1													
																			69.00	79.00	53	MO	S1													
																			76.00	77.00	47	MO	S1													
																			88.00	89.00	45	MO	S1													
																			94.00	95.00	57	MO	S1													
																			103.00	104.00	47	MO	S1													
																			109.00	110.00	51	WE	S1													
																			115.00	116.00	51	WE	S1													
																			121.00	122.00	53	WE	S1													
																			124.00	125.00	62	MO	S1													
																			136.00	137.00	51	MO	S1													
																			145.00	146.00	42	WE	S1													
																			148.00	149.00	52	MO	S1													
																			151.00	152.00	51	WE	S1													
																			163.00	164.00	45	WE	S1													
																			169.00	170.00	50	WE	S1													
																			181.00	182.00	55	WE	S1													
							8.0																												
							0.1																												
186.60	189.15	2T																	187.00	188.00	45	WE	S1													
189.15	192.40	4E					0.1																												
							0.1				190.75	191.50	QZ	98	m	D																			
192.40	194.50	2T																																	
194.50	208.70	2																	193.00	194.00	58	WE	S1		193.00	196.00		WE	ZF	Several shear bands indicate west side moved up relative to east.						
							0.1																												
			45																																

STRUCTURAL LOG 04-ESS-023

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							4.0				198.30	198.70	QZ	100	m	D																				
											199.00	200.00	QZ	20																						
																			205.00	206.00	57	WE	S1													
208.70	213.25	2T																																		
							0.2																														
																			211.00	212.00	51	MO	S1													
																			213.00	214.00	45	MO	S1													
213.25	218.35	4F	37				5.0												214.00	216.00	51	MO	S1													
			32				0.3																														
			48																																		
																			218.00	219.00	51	WE	S1													
218.35	226.90	4EA	60				0.1																													
																			220.00	221.00	46		S0													
																			222.00	223.00	60		S0													
																									223.00	224.00	57		FD						
																			225.00	226.00	62		S0													
226.90	242.30	4B																																		
											232.80	233.20	QZ	25	m	S			232.00	233.00	64		S0		232.00	233.00	59		ZF							
				0.2																																
																			237.00	238.00	62		S0													
							0.2																														
							5.0																														
							4.0																														
				-			22.																														

STRUCTURAL LOG 04-ESS-023

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
242.30	262.00	2T					0.1												244.00	245.00	45	WE	S1													
																			247.00	248.00	54	WE	S1													
																			250.00	251.00	43	WE	S1													
																			256.00	257.00	57	MO	S1													
																			261.00	262.00	47	MO	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-024**

Project Code: ESS

Mine Grid Easting: 8750
Mine Grid Northing: 11750
Elevation: 5296

UTM East 676867.596
UTM North: 5833842.998

Planned Depth: 270
Actual Depth: 81.7

Drill Start Date: 06/03/2004
Drill End Date: 06/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments: Hole abandonned

Survey

Depth	Azimuth	Dip	SurveyType
[illegible]	90	-65.2	EZS
25	90	-65.4	EZS

LITHOLOGY LOG 04-ESS-024

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	9.00	CASIN							M		W			M		
				9.00	22.20	8M	could be coarse granite, however bio-rich layers present. Also could be several boulders.											M		
													M		W			W		
				22.20	56.10	3C	minor lapilli's seen throughout. Strongly broken from 22.2 until approx. 50 metres.													
				56.10	81.70	3F	could still be 3C...looks lighter in colour. Same textures, gradational contact.													
E273981	73.00	74.00	0.02																	
E273982	74.00	75.00	0.01																	
E273983	75.00	75.50	0.01																	
E273984	75.50	76.00	0.01																	
E273985	76.00	76.50	0.16																	
E273986	76.50	77.00	0.01																	
E273987	77.00	78.00	0.01																	
E273988	78.00	79.00	0.01																	
E273989	79.00	80.00	0.01																	
E273991	80.00	80.50	0.01																	
E273992	80.50	81.00	0.07																	
E273993	81.00	81.70	1.12																	

STRUCTURAL LOG 04-ESS-024

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC							FOLD							FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	9.00	CASI	45								62.00	65.00	QZ-C	2.5	m	S	45		22.20	32.00	35	INT	s0								9.00	50.00		int	BC	very broken..late stage.
9.00	22.20	8M																	32.00	50.00	45	INT	s0													
22.20	56.10	3C																	50.00	71.00	45	int	s0								56.20	56.30	65	MOD	KF	has mod/strong local hematite alteration
56.10	81.70	3F																	71.00	81.70	45	INT	S0													
							0.1	0.4		specks in massive qtz vein	75.00	77.00	QZ	33	m	S	35																			
								0.25		med grained blebs // to fabric																											
											80.70	81.70	QZ-C	40	m	S	50																			

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-025**

Project Code: ESS

Mine Grid Easting: 8875.682
Mine Grid Northing: 11750.0268
Elevation: 5296.1928

UTM East 676957.245
UTM North: 5833930.06

Planned Depth: 80
Actual Depth: 188

Drill Start Date: 11/03/2004
Drill End Date: 15/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments: Conditional on good results from East Zone drilling eslewhere.

Survey

Depth	Azimuth	Dip	SurveyType
0	89.686	-57.6199	SURV
26	89.686	-56.9	EZS
50	89.686	-56.4	EZS
77	89.686	-56.4	EZS
104	89.686	-55.8	EZS
131	89.686	-55.4	EZS
158	89.686	-55.7	EZS
188	89.686	-54.8	EZS

LITHOLOGY LOG 04-ESS-025

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	12.80	CASIN							W					M	W	
				12.80	18.50	BM	Granitic/gneissic boulders													
				18.50	37.50	3F	Very broken from 22 to 36.5 metres. Minor epidote in fractures and // to bedding planes.													
E274886	36.50	37.50	0.04																	
E274887	37.50	38.20	0.13	37.50	47.40	2T	Minor units of 4e, 4f and 4ea at 37.5, 40.1 and 45.4 m. See minor units for widths. Strong folds in 4ea unit.		37.50	38.20	4E	py vein at 2T/4E contact. Minor unit contacts are sharp.	M							
													W							
E274888	38.20	39.00	0.03																	
E274889	39.00	40.00	0.02																	
E274891	40.00	41.00	0.04						40.10	41.40	4F	4F is weakly developed but contacts are sharp.	W							
													W							
E274892	41.00	41.50	0.05																	
E274893	41.50	42.50	0.01																	
E274894	42.50	43.50	0.01																	
E274895	43.50	44.50	0.01																	
E274896	44.50	45.40	0.01																	
E274897	45.40	46.20	0.47						45.40	46.20	4EA	Weakly developed, more of a 4E-4EA, minor grunerite. Contacts are sharp.Tight folds seen.				M				amphibole present as well as minor 4ea unit
													M							
E274898	46.20	47.00	0.80																	
E274899	47.00	48.00	0.04	47.40	57.30	2A	Massive, no alteration. Contact with both upper and lower units is gradational													
E274901	48.00	49.00	0.43																	
				57.30	72.80	2T	Foliation strength increases closer to 4e with higher bio content. Contact gradational.						W							
													M							
													S	W						strongly foliated
E274902	70.80	71.80	0.04																	
E274903	71.80	72.80	0.05																	
E274904	72.80	73.80	9.95	72.80	74.70	4E	Strong to moderate flooding, mod sulphides. Contacts gradational, // to s1												M	
E274905	73.80	74.70	5.66																	
E274906	74.70	75.60	1.46	74.70	85.50	2T	compositionally banded, foliation strong between 74.7 and 80 m, strong local biotite and weak spotty carb.													
E274907	75.60	76.10	5.47						75.60	76.00	4E	Strongly flooded, could be amph altered 2T with garnets.	S	W						
E274908	76.10	77.00	0.38																	
E274909	77.00	78.00	0.31																	
													M							

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274911	84.50	85.50	0.02																	
E274912	85.50	86.30	0.81	85.50	86.30	4EA	More of a 4e-ea. Many small 4e/ea units interfingered with 2 from 85.5 to 89.2 m.									M				
E274913	86.30	87.10	0.15	86.30	89.20	2T	strongly foliated with compositional bands. Contacts are sharp.						S	M						
E274914	87.10	87.70	0.44						87.10	87.70	4EA	gradational contacts with 2T.								
E274915	87.70	88.70	0.17										S	M						
E274916	88.70	89.20	5.06						88.70	88.80	4E									
E274917	89.20	90.00	7.81	89.20	91.70	4EA	Weak to moderately developed, more a 4ea at lower interval end and closer to 4e at start.													
E274918	90.00	91.00	10.20																	
E274919	91.00	91.70	3.80																	
E274921	91.70	92.80	0.26	91.70	97.80	4F	Weak bands, fine grained garnets. Minor 4ea unit within 4F.Contact is gradational.													
E274922	92.80	94.00	0.30																	
E274923	94.00	95.00	0.05																	
E274924	95.00	96.00	0.27						95.30	96.10	4EA	small unit in 4F								
E274925	96.00	97.00	0.04																	
E274926	97.00	97.80	0.13																	
E274927	97.80	99.00	0.68	97.80	104.50	4EA	Well developed, no significant flooding.													
E274928	99.00	100.00	1.72																	
E274929	100.00	101.00	0.44																	
E274931	101.00	102.00	0.11																	
E274932	102.00	103.00	0.25																	
E274933	103.00	104.00	0.10																	
E274934	104.00	104.50	0.04																	
E274935	104.50	105.00	0.01	104.50	123.60	4F	Minor units of 4ea, especially in proximity to contact.									W				
E274936	105.00	106.00	0.04																	
E274937	106.00	107.00	0.05													W	S			
E274938	107.00	108.00	0.06																	
E274939	108.00	109.00	0.14																	
E274941	109.00	110.00	0.05						109.80	111.10	4E	Combination of 4E-4F, gradational contacts								
E274942	110.00	111.00	0.70													W				
E274943	111.00	112.00	0.28																	
E274944	112.00	113.00	0.03																	
E274945	113.00	114.00	0.11																	
E274946	114.00	115.00	0.02																	
E274947	115.00	116.00	0.01																	
E274948	116.00	117.00	0.02																	
E274949	117.00	118.00	0.02																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274951	118.00	119.00	0.05																	
E274952	119.00	120.00	0.04																	
E274953	120.00	121.10	0.11						120.40	121.10	4EA	still contains approx. 20-25% 4F.								
E274954	121.10	122.00	0.12													W				
E274955	122.00	123.00	0.02																	
E274956	123.00	123.60	0.06																	
E274957	123.60	124.50	0.64	123.60	128.30	4EA	10-15% 4F bands in 4EA unit													
E274958	124.50	125.00	0.47																	
E274959	125.00	126.00	0.13																	
E274961	126.00	127.00	0.07																	
E274962	127.00	127.60	0.03																	
E274963	127.60	128.30	0.01																	
E274964	128.30	129.00	0.02	128.30	130.00	4F	Weak amphibole banding throughout.									W				minor weak green amphibole as well
E274965	129.00	130.00	0.08																	
E274966	130.00	131.00	0.04	130.00	134.60	4EA	Thinly banded, not well developed, quite cherty. 30-35% 4B bands present. Could also be logged as poorly developed 4B with minor 4EA.	Becomes more 4EA rich after 133 m, logged as a minor unit.												
E274967	131.00	132.00	0.04																	
E274968	132.00	133.00	0.03																	
E274969	133.00	134.00	0.06																	
E274971	134.00	134.60	0.06																	
E274972	134.60	135.50	0.17	134.60	136.50	4F	Trace to weak grunerite alteration													
E274973	135.50	136.50	0.04																	
E274974	136.50	137.50	0.17	136.50	139.60	4EA	A mix of thin 4EA bands with 20% 4F bands. Slightly magnetic, grades into lower more 4b-f rich unit.						M			W				
E274975	137.50	138.50	0.35																	
E274976	138.50	139.50	0.28																	
E274977	139.50	140.50	0.55	139.60	149.10	4B	contacts are gradational, unit still contains approx 30-35% 4F with moderate localized grunerite alteration. Mag sus is high.						S			M				very altered 4b-4f-ea
E274978	140.50	141.00	0.42																	
E274979	141.00	142.00	1.56																	
E274981	142.00	142.80	0.39																	
E274982	142.80	143.30	0.48																	
E274983	143.30	144.20	0.36						143.30	144.90	4EA	small folded unit, still has 5% 4B.	M							4ea with minor 4F
E274984	144.20	144.90	2.47																	
E274985	144.90	146.00	0.35										M			W				4b with moderate 4f
E274986	146.00	147.00	0.29																	
E274987	147.00	148.00	0.20																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E274988	148.00	149.10	3.24																	
E274989	149.10	150.00	1.61	149.10	156.70	4EA	minor unit of 4F present, moderte mag, 5-10% 4b bands present throughout.						W							4ea with minor 4f
E274991	150.00	151.00	0.87																	
E274992	151.00	152.00	0.17																	
E274993	152.00	153.00	1.13																	
E274994	153.00	154.00	1.65																	
E274995	154.00	155.00	2.32																	
E274996	155.00	156.00	0.15																	
E274997	156.00	156.70	0.09						156.00	156.70	4F									
E274998	156.70	157.50	0.78	156.70	165.40	4B	Strong grunerite alteration and quite cherty. Could be a gradation to a 4a, not too much magnetite present, mag sus is lower than usual.							W		S				grunerite altered 4b.
E274999	157.50	158.00	0.19											W		W				
E275606	158.00	159.00	0.09																	
E275607	159.00	160.00	0.07																	
E275608	160.00	161.00	0.08																	
E275609	161.00	162.00	0.03																	
E275611	162.00	163.00	0.11																	
E275612	163.00	164.00	0.10																	
E275613	164.00	165.00	0.12																	
E275614	165.00	165.50	0.06	165.40	188.00	2T	strongly foliated . EOH at 188 m. Minor breccia unit from 164.5 to 164.9 m.													
E275615	165.50	166.00	0.01																	
E275616	166.00	167.00	0.01																	
E275617	167.00	168.00	0.02																	

STRUCTURAL LOG 04-ESS-025

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	12.80	CASI						0.1											17.00	18.00	50	MO	s0	bedding/banding in 3F							14.30	16.80		MOD	OS	broken zone of 3F
12.80	18.50	8M						0.5																							25.00	26.00		MOD	OS	Broken with minor gouge
18.50	37.50	3F						0.1											21.00	22.00	45	INT	s0													
																			24.00	25.00	50	INT	s0								28.00	28.10		MOD	OS	
																			29.00	30.00	55	INT	s0								28.40	28.50		MOD	OS	
																			33.00	34.00	50	INT	s0								35.10	35.30		MOD	OS	
																			36.00	37.00	45	MO	s0								36.40	36.60		MOD	OS	
37.50	47.40	2T	40					80		breccia/semi-massive po vein at contact																					37.50	37.60	40	INT	BC	Brecciated to semi-massive po vein
							0.2																												
																			40.00	41.00	40	WE	s1	Weakly developed in 4e/4f units												
																			43.00	44.00	60	WE	s0													
																			45.00	46.00	50	MO	s1		45.40	46.20	50	INT	FD							
							0.1	0.5																							46.20	46.25	40	WEK	BC	cemented threaded/brecciated vein
47.40	57.30	2A	50																																
							0.5	0.5											48.00	49.00	55	INT	s1	close to contact with 2a												
57.30	72.80	2T	45				0.2	0.1											55.00	56.00	55	WE	s0													
					0.5		0.5			small veinlet from 66.57 to 66.58 m.									57.00	58.00	50	WE	s2													
																			59.00	60.00	55	MO	s0													
																			65.00	66.00	55	MO	s0													
					0.1		0.1												68.00	69.00	55	INT	s1	strongly foliated 2T												
							10.	5		small breccia vein from 70.35-70.38 m.																										
											71.55	71.70	CA	75	m	S	60		71.00	72.00	55	INT	s1													
72.80	74.70	4E	65	0.2			5.0	3																											
							3.0												74.00	75.00	60	INT	s1	banding in 4E												

STRUCTURAL LOG 04-ESS-025

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
74.70	85.50	2T	65				5.0 0.5	1											76.00	77.00	45	INT	s1	weak shearing in 2T												
								0.1											80.00	81.00	40	MO	s2													
																			82.00	83.00	45	MO	s1													
85.50	86.30	4EA	45				0.5												86.00	87.00	50	INT	s2	weak/mod shear in 2T	86.00	87.00	40	MO	FD	pinching and swelling seen in folded 4ea						
86.30	89.20	2T	70																						87.00	88.00	40	MO	FD							
								2																												
							10.			semi-massive blebs									89.00	90.00	50	MO	s1													
89.20	91.70	4EA	65				0.5																												
							0.1																												
91.70	97.80	4F	55																92.00	93.00	85	WE	s1	hard to see in massive 4F												
											93.00	94.00	QZ	10	m	D	45	could also be heavily flooded section																	
																									95.00	96.00	25	MO	FD	s/z features seen						
97.80	104.50	4EA	80				2.0												98.00	99.00	50	MO	s1		98.00	99.00	35	MO	FD							
																			101.00	102.00	60	MO	s1													
							0.2																		103.00	104.00	70	WE	FD							
104.50	123.60	4F	50								105.20	105.40	QZ	10	f	D		small thread like qtz/iron carb vein zone	105.00	106.00	30	MO	s1													

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			107.00	108.00	45	MO	s1		106.00	107.00	70	WE	FD							
								0.1											110.00	111.00	55	MO	s1								109.00	110.00		MOD	OS	broken up section
								0.1		minor threads									115.00	116.00	25	INT	s1													
																			118.00	119.00	45	MO	s1													
																			122.00	123.00	40	MO	s1													
123.60	128.30	4EA	60				0.3												125.00	126.00	40	MO	s1		126.00	127.00	50	WE	FD							
128.30	130.00	4F	45																																
130.00	134.60	4EA	50				0.1												130.00	131.00	30	INT	s1		132.00	133.00	30	INT	FD	s/z structures						
																									133.00	134.00	35	MO	FD							
134.60	136.50	4F	30																135.00	136.00	45	MO	s1		135.00	136.00	60	MO	FD							
136.50	139.60	4EA	50																137.00	138.00	35	MO	s1		137.00	138.00	40	WE	FD							
																			139.00	140.00	30	MO	s1		138.00	139.00	45	WE	FD							
139.60	149.10	4B	45																141.00	142.00	40	MO	s1													

STRUCTURAL LOG 04-ESS-025

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			145.00	146.00	45	MO	s1													
																			146.00	147.00	40	WE	s2								146.40	146.50	70	WEK	BC	
							0.1																													
							0.3																													
149.10	156.70	4EA	35																																	
																			151.00	152.00	55	MO	s1		151.00	152.00	50	INT	FD						
							0.2																													
																			154.00	155.00	45	MO	s1													
																			156.00	157.00	60	MO	s1													
156.70	165.40	4B	40				0.5																													
				0.3						med to coarse grained blebs.																											
																			160.00	161.00	45	INT	s1													
																			161.00	162.00	35	INT	s1													
																			164.00	165.00	40	INT	s1													
165.40	188.00	2T	50																																	
																			167.00	168.00	45	INT	s1													
																			170.00	171.00	35	INT	s1		172.00	173.00	35	WE	FD						
																			175.00	176.00	50	INT	s1													
																			181.00	182.00	35	INT	s1													
																			186.00	187.00	55	INT	s1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-026**

Project Code: ESS

Mine Grid Easting: 8900.2782
Mine Grid Northing: 11749.9472
Elevation: 5296.6846

UTM East 676975.114
UTM North: 5833947.417

Planned Depth: 75
Actual Depth: 176

Drill Start Date: 15/03/2004
Drill End Date: 16/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments: Conditional on good results from East Zone drilling eslewhere.

Survey

Depth	Azimuth	Dip	SurveyType
0	89.2393	-44.2554	SURV
50	89.2393	-43.8	EZS
74	89.2393	-43.8	EZS
101	89.2393	-43.5	EZS
125	89.2393	-43	EZS
152	89.2393	-42.4	EZS
173	89.2393	-42.5	EZS

LITHOLOGY LOG 04-ESS-026

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	20.80	CASIN	contains 8M boulders						M						W	
				20.80	26.50	2T	strongly foliated, strong biotite. Minor garnet/amph alteration near gradational contact						W							minor amphibole present also.
				26.50	41.00	2A	Weakly foliated with minor localized biotite.						W							
				41.00	55.10	2T	moderate biotite, broken from 53 to 53.4 m. Weak amphibole/garnet from 54 to 55.1 m.						M	W						
													S	W						
E275618	53.10	54.10	0.02										S	M						minor amphibole as well
E275619	54.10	55.10	0.06																	
E275621	55.10	56.10	1.05	55.10	58.10	4F	First 30 cm and last 10 contain approx 35% 4e.													
E275622	56.10	57.10	0.03																	
E275623	57.10	58.10	0.26																	
E275624	58.10	59.00	0.01	58.10	62.70	2T	strongly foliated, weak to trace amphibole/garnet present. Looks intermediate in some places, mod biotite, weak calcite.						W	M						minor amphibole as well
E275625	59.00	60.00	0.01																	
E275626	60.00	61.00	0.01																	
E275627	61.00	62.00	0.01																	
E275628	62.00	62.70	0.01																	
E275629	62.70	63.50	0.04	62.70	64.30	4E	Contains approx 35% 4F. Thinly banded, med. garnets.													
E275631	63.50	64.30	1.12																	
E275632	64.30	65.00	0.11	64.30	70.00	4F	Small garnets,95% to 100% 4F. Contacts easy to discern.													
E275633	65.00	66.00	0.03																	
E275634	66.00	67.00	0.03																	
E275635	67.00	68.00	0.03																	
E275636	68.00	69.00	0.05																	
E275637	69.00	70.00	0.12																	
E275638	70.00	71.00	0.33	70.00	75.10	4E	Moderately flooded, contains 25% 4F.													
E275639	71.00	72.00	0.21																	
E275641	72.00	73.00	0.78																	
E275642	73.00	74.00	1.87																	
E275643	74.00	75.10	0.85																	
E275644	75.10	76.00	0.49	75.10	79.30	2T	strongly foliated, weak carb and strong/moderate biotite.						M	W				W		
E275645	76.00	77.00	0.04																	
E275646	77.00	78.00	0.09																	
E275647	78.00	78.50	0.68																	
E275648	78.50	79.30	0.08						78.80	79.30	2T	could be small 3C?								

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275649	79.30	80.00	1.32	79.30	87.40	4F	small garnets, broken in areas, small 4ea-is appearance from 83 to 83.5 m. Small 2 unit mixed with 4f from 84 to 84.6.									W				
E275651	80.00	81.00	0.20												M					
E275652	81.00	82.00	0.01																	
E275653	82.00	83.00	0.12						83.00	83.50	4EA					W				
E275654	83.00	84.00	0.12						84.00	84.60	2T									
E275655	84.00	84.60	0.01																	
E275656	84.60	85.50	0.01																	
E275657	85.50	86.50	0.01																	
E275658	86.50	87.40	0.16													M				4ea-rich 4b
E275659	87.40	88.00	0.26	87.40	97.20	4B	strong 4ea component from 87.4 to 88.1 m. 35-40% 4F and grunerite alteration from 88.1 to 95.9, and 4ea-ish in appearance from 95.9 to 97.2 m.						S			W				trace 4ea, strong 4f.
E275661	88.00	89.00	0.12																	
E275662	89.00	90.00	0.23																	
E275663	90.00	91.00	0.65																	
E275664	91.00	92.00	1.34																	
E275665	92.00	93.00	0.36																	
E275666	93.00	94.00	0.67																	
E275667	94.00	95.00	0.70																	
E275668	95.00	96.00	0.50																	
E275669	96.00	97.20	1.77																	
E275671	97.20	98.00	1.15	97.20	99.10	2T	strongly foliated, sharp contacts.						S							
E275672	98.00	99.10	0.36																	
E275673	99.10	100.00	5.72	99.10	104.60	4B	strong 4ea component, upwards of 30-40%. Contact with lower unit is gradational.									M				strong 4ea component to 4b
E275674	100.00	101.00	2.86																	
E275675	101.00	102.00	2.03																	
E275676	102.00	103.00	1.27																	
E275677	103.00	104.00	2.27																	
E275678	104.00	104.60	1.02																	
E275679	104.60	105.50	0.42	104.60	108.50	4EA	Large garnets swarmed by grunerite. Small 4B component, approx. 15%.													
E275681	105.50	106.50	0.33																	
E275682	106.50	107.50	0.37																	
E275683	107.50	108.50	0.28																	
E275684	108.50	109.30	0.07	108.50	109.90	2T	small sliver seperates 4ea from 4b with 15-20% 4f.						M							
E275685	109.30	109.90	0.04																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275686	109.90	111.00	0.33	109.90	118.10	4C	thinly banded, moderate carbonate alteration, weak 4ea in appearance until 113 m. Weak grunerite alteration until 115 m.						S			W				strong 4f, mod 4ea components
E275687	111.00	112.00	1.31																	
E275688	112.00	113.00	0.14											M		W				
E275689	113.00	114.00	0.04																	
E275691	114.00	115.00	0.27																	
E275692	115.00	116.00	0.45																	
E275693	116.00	116.90	0.17																	
E275694	116.90	117.50	0.32										M							
E275695	117.50	118.50	0.13	118.10	147.90	2T	strongly foliated and biotitic, broken in sections. Not as broken after 138 m, still biotitic. Shear zone from 137.5 to 138 m.													
E275696	118.50	119.50	0.01										W	W	W					
E275697	126.00	127.00	0.01										S	S						
E275698	127.00	128.00	0.03										M	W						minor amphibole as well
E275699	128.00	129.00	0.01										M							
E275701	145.90	146.90	0.01																	
E275702	146.90	147.90	0.01											M		W				
E275703	147.90	148.90	0.08	147.90	152.00	4C	Very thinly banded with moderate grunerite alteration. Bands strongly attenuated.													
E275704	148.90	149.90	0.72																	
E275705	149.90	150.90	0.01																	
E275706	150.90	152.00	0.01																	
E275707	152.00	153.00	0.01	152.00	154.50	2A	unaltered, weak foliation													
E275708	153.00	154.00	0.01																	
E275709	154.00	155.00	0.01	154.50	155.80	2J	gradational contacts													
E275711	155.00	156.00	0.01	155.80	156.60	2A														
E275712	156.00	156.60	0.05																	
E275713	156.60	157.50	0.01	156.60	161.00	4C	very thinly banded with minor grunerite.													
E275714	157.50	158.00	0.15																	
E275715	158.00	159.00	0.01																	
E275716	159.00	160.00	0.01																	
E275717	160.00	161.00	0.02																	
E275718	161.00	162.00	0.01	161.00	176.00	2A	contains trace biotite, not enough to classify as 2T. Weak to moderate foliation.													
E275719	162.00	163.00	0.01																	
E275721	163.00	164.00	0.01																	
E275722	164.00	165.00	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E275723	165.00	166.00	0.01																	
E275724	166.00	167.00	0.01																	
E275725	167.00	168.00	0.01																	

STRUCTURAL LOG 04-ESS-026

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	20.80	CASI	60				0.2	0.1			21.00	22.00	QZ	10	m	S	70		22.00	23.00	70	MO	s1													
20.80	26.50	2T						0.5			23.00	24.00	QZ	10	m	S	80		25.00	26.00	65	WE	s1													
26.50	41.00	2A									26.00	27.00	QZ	7.5	m	D	80		29.00	30.00	70	WE	s1													
41.00	55.10	2T									38.00	39.00	QZ	45	m	S	50		35.00	36.00	55	WE	s1													
											42.00	43.00	QZ	20	m	S	45		39.00	40.00	50	WE	s1													
																			43.00	44.00	65	MO	s1													
																			48.00	49.00	60	MO	s1													
																			52.00	53.00	50	MO	s1													
							1.0	0.2											54.00	55.00	60	INT	s1													
55.10	58.10	4F	60																																	
							1.0												57.00	58.00	55	INT	s1													
58.10	62.70	2T	55																																	
62.70	64.30	4E	60				0.5												63.00	64.00	75	INT	s1													
64.30	70.00	4F	70				0.5												65.00	66.00	60	MO	s1													
																			68.00	69.00	60	MO	s1													
								0.25											70.00	71.00	65	MO	s1													
70.00	75.10	4E	60				1.0																													
							0.1																													
				0.5			0.3												73.00	74.00	80	MO	s1													
							1.5	0.75											75.00	76.00	60	INT	s1		74.00	75.00	65	WE	FD							
75.10	79.30	2T	45																																	
																			77.00	78.00	60	INT	s1													
							1.5												79.00	80.00	75	INT	s1													
79.30	87.40	4F	75																																	
							0.1												81.00	82.00	65	INT	s1								81.00	82.00	75	WEK	GG	
																			83.00	84.00	55	INT	s1													

STRUCTURAL LOG 04-ESS-026

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
87.40	97.20	4B	85																87.00	88.00	65	INT	s1													
																									89.00	89.50	55	INT	FD						
																			90.00	91.00	60	INT	s1		90.00	91.00	50	WE	FD						
																			94.00	95.00	55	INT	s1												
																			97.00	97.50	60	INT	s1												
97.20	99.10	2T	60																97.50	98.00	5	WE	CR												
							1.0																												
99.10	104.60	4B	45																						100.00	101.00	50	WE	FD						
							0.5																												
							0.5												101.00	102.00	70	INT	s1												
																			104.00	105.00	55	INT	s1												
104.60	108.50	4EA	75																																
																			108.00	109.00	55	INT	s1												
108.50	109.90	2T	65																																
109.90	118.10	4C	60	1.5						coarse blebs, cm in size																										
																			113.00	114.00	60	INT	s1												
							0.5																												
							3.0																												
							80.			massive po breccia vein									117.00	118.00	50	INT	s1												
118.10	147.90	2T	65				0.3												119.00	120.00	55	INT	s1												

STRUCTURAL LOG 04-ESS-026

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Ml %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
											120.00	121.00	QZ	7.8	m	S	50		121.00	122.00	50	INT	s1	faint crenulations seen, can't get a reading, seem at shallow angle t.c.a.							120.10	120.30	45	WEK	GG	
																			124.00	125.00	65	MO	s1	Bio is weakly crenulated, can't get orientation												
																			127.50	128.00	45	INT	s1								127.00	127.50		MOD	GG	
																															127.50	128.00	60	INT	SC	
											144.00	145.00	QZ-C	15	m	S	50		130.00	131.00	55	MO	s1		141.00	142.00	50	INT	FD							
																			134.00	135.00	50	INT	s1													
																			136.00	137.00	55	MO	s1													
																			139.00	140.00	55	INT	s1													
																			143.00	144.00	55	MO	s1													
																			146.00	147.00	50	MO	s1													
147.90	152.00	4C	60				5.0												148.00	149.00	50	INT	s1													
152.00	154.50	2A	45																152.00	153.00	50	INT	s1													
154.50	155.80	2J																																		
155.80	156.60	2A																	156.00	156.50	70	WE	s1													
156.60	161.00	4C	50																																	
																			159.00	160.00	55	INT	s1													
																			160.00	161.00	30	MO	s2		160.00	161.00	30	INT	FD	Minor movement along cleavage planes, appears slightly sheared.						

STRUCTURAL LOG 04-ESS-026

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
161.00	176.00	2A	20								161.00	162.00	CA	45	m	D	15																			
											165.00	166.00	CA	70	f	D			164.00	165.00	50	WE	s1													
																			170.00	171.00	55	MO	s1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-027**

Project Code: ESS

Mine Grid Easting: 8750.4748
Mine Grid Northing: 11800.3305
Elevation: 5296.8364

UTM East 676832.782
UTM North: 5833878.851

Planned Depth: 225
Actual Depth: 55

Drill Start Date: 01/04/2004
Drill End Date: 01/04/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments: Hole stopped early

Survey

Depth	Azimuth	Dip	SurveyType
0	85.703	-57.693	SURV
44	85.703	-56.2	EZS

LITHOLOGY LOG 04-ESS-027

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	22.90	Casing							W					M		
				22.90	55.00	3C	weak to moderate biotite. Horribly broken rock the entire interval.						W					S		

STRUCTURAL LOG 04-ESS-027

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC							FOLD							FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	22.90	Casin																	25.00	26.00	50	INT	s1		38.00	38.00	55	WE	SF	only seen in this specific area	30.30	33.30		INT	OS	strong ground up/missing core, chunks of broken seds present
22.90	55.00	3C																	29.00	30.00	45	INT	s1													
																			36.00	37.00	60	MO	s1													
																			38.00	39.00	50	INT	s1													
																			42.00	43.00	55	INT	s1													
																			47.00	48.00	50	INT	s1													
																			53.00	54.00	50	INT	s1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-029**

Project Code: ESS

Mine Grid Easting: 8915
Mine Grid Northing: 11650
Elevation: 5296

UTM East 677055.602
UTM North: 5833886.269

Planned Depth: 19
Actual Depth: 19

Drill Start Date: 01/04/2004
Drill End Date: 01/04/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments: Originally began as hole 12, had to ream through broken casing. Cancelled

Survey

Depth	Azimuth	Dip	SurveyType
0	90	-45	PLAN

LITHOLOGY LOG 04-ESS-029

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	16.00	CASIN	very broken, no block at end of casing, had to attempt to work backwards through very blocky core.													
				16.00	19.00	3F	very broken and blocky/rubbly....almost gravelly. Last 1 m, appears more intermediate to mafic with minor garnets. No sharp contacts seen.	Hole is essentially reamed material from re-casing.												

STRUCTURAL LOG 04-ESS-029

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	16.00	CASI																																		
16.00	19.00	3F																																		

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-030**

Project Code: ESS

Mine Grid Easting: 8749.1773
Mine Grid Northing: 11750.0901
Elevation: 5296.5621

Drill Start Date: 06/03/2004
Drill End Date: 10/03/2004

Core Diameter: NQ
Plugged: YES

UTM East:
UTM North:

Planned Depth:
Actual Depth: 314

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	86.224	-69.824	SURV
3	85.69	-70.03	MAXI
6	85.33	-70.21	MAXI
9	85.17	-70.28	MAXI
12	85.04	-70.39	MAXI
15	84.99	-70.41	MAXI
18	85.01	-70.39	MAXI
21	85.12	-70.32	MAXI
24	85.36	-70.29	MAXI
27	85.46	-70.28	MAXI
30	85.62	-70.24	MAXI
33	85.73	-70.17	MAXI
36	85.78	-70.14	MAXI
39	85.93	-70.06	MAXI
42	86.02	-69.98	MAXI
45	86.02	-69.9	MAXI
48	85.96	-69.85	MAXI
51	86.21	-69.82	MAXI
54	86.27	-69.82	MAXI
57	86.34	-69.81	MAXI
60	86.39	-69.75	MAXI
63	86.45	-69.69	MAXI
66	86.43	-69.64	MAXI
69	86.68	-69.59	MAXI
72	86.69	-69.55	MAXI
75	86.74	-69.49	MAXI
78	86.82	-69.45	MAXI
81	86.86	-69.39	MAXI
84	87.01	-69.3	MAXI
87	87.21	-69.25	MAXI
90	87.23	-69.16	MAXI
93	87.32	-69.05	MAXI
96	87.36	-68.97	MAXI
99	87.53	-68.88	MAXI
102	87.57	-68.79	MAXI
105	87.67	-68.71	MAXI
108	87.91	-68.63	MAXI
111	87.92	-68.54	MAXI
114	88.05	-68.47	MAXI
117	88.18	-68.37	MAXI
120	88.27	-68.28	MAXI
123	88.38	-68.17	MAXI
126	88.58	-68.09	MAXI
129	88.72	-68	MAXI
132	88.83	-67.94	MAXI
135	88.86	-67.89	MAXI
138	89.02	-67.83	MAXI
141	89.19	-67.72	MAXI
144	89.32	-67.59	MAXI
147	89.42	-67.43	MAXI
150	89.5	-67.3	MAXI
153	89.58	-67.18	MAXI
156	89.67	-67.05	MAXI
159	89.73	-66.96	MAXI

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-030**

Project Code: ESS

Mine Grid Easting: 8749.1773
Mine Grid Northing: 11750.0901
Elevation: 5296.5621

UTM East:
UTM North:

Planned Depth:
Actual Depth: 314

Drill Start Date: 06/03/2004
Drill End Date: 10/03/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
162	89.88	-66.86	MAXI
165	89.99	-66.77	MAXI
168	90.13	-66.7	MAXI
171	90.26	-66.66	MAXI
174	90.3	-66.58	MAXI
177	90.37	-66.5	MAXI
180	90.49	-66.4	MAXI
183	90.53	-66.32	MAXI
186	90.69	-66.24	MAXI
189	90.8	-66.15	MAXI
192	90.93	-66.04	MAXI
195	91	-65.93	MAXI
198	91.1	-65.82	MAXI
201	91.25	-65.71	MAXI
204	91.31	-65.57	MAXI
207	91.48	-65.46	MAXI
210	91.6	-65.39	MAXI
213	91.69	-65.36	MAXI
216	91.95	-65.32	MAXI
219	92.03	-65.24	MAXI
222	92.08	-65.15	MAXI
225	92.16	-65.02	MAXI
228	92.14	-64.9	MAXI
231	92.13	-64.83	MAXI
234	92.19	-64.74	MAXI
237	92.24	-64.67	MAXI
240	92.31	-64.63	MAXI
243	92.42	-64.61	MAXI
246	92.59	-64.57	MAXI
249	92.66	-64.5	MAXI
252	92.79	-64.44	MAXI
255	92.9	-64.38	MAXI
258	93.02	-64.31	MAXI
261	93.07	-64.25	MAXI
264	93.12	-64.18	MAXI
267	93.18	-64.12	MAXI
270	93.23	-64.06	MAXI
273	93.28	-64	MAXI
276	93.33	-63.94	MAXI
279	93.38	-63.88	MAXI
282	93.43	-63.82	MAXI
285	93.49	-63.75	MAXI
288	93.54	-63.69	MAXI
291	93.59	-63.63	MAXI
294	93.64	-63.57	MAXI
297	93.69	-63.51	MAXI
300	93.74	-63.49	MAXI

LITHOLOGY LOG 04-ESS-030

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	11.80	casing							S		M			M		
				11.80	22.30	8M	could be granitic boulders? Lots of soft gouge, late faulting						W					M		
													W		W			M		
				22.30	38.00	3C	strongly sheared, chloritized and sericitized.										W			
				38.00	73.50	3F	slightly more felsic, not as sheared and altered													
E273994	71.00	72.00	0.01																	
E273995	72.00	73.00	0.01																	
E273996	73.00	73.50	0.01																	
E273997	73.50	74.00	0.01	73.50	130.40	3C	contact gradational, higher biotite/chlorite content in 3C than 3F. Sm hematite bx zone from 58.7-58.9 (likely a vein). Small amphibole/garnet zone from 87.4 to 89.6 m.	Strong alteration between 103.1 and 112 m (looks like a mafic tuff zone (bio,amph,car,garn).					S		M			M		
E273998	74.00	75.00	0.01																	
													W		W			W		
E273999	83.00	84.00	0.03																	
E273677	84.00	85.00	0.01																	
E273678	85.00	86.00	0.01																	
E273679	86.00	87.00	0.01																	
E273681	87.00	88.00	0.02																	
E273682	88.00	89.00	0.04																	
E273683	89.00	90.00	0.01										M					W		
				130.40	211.70	3F	very silicious with trace to no alteration. Stronger content of quartz-rich material from 143 onwards. More tuffaceous with no chlorite/bio/garnets.	Contact with underlying 4e unit is silicified (veining)					S	S	M			W		
													M	W	W			W		
													W		W			M		
													M	W				W		
																		M	W	no other significant alteration, slightly more silica than previous to 132 m.
																			S	
													W					W		
																		M		minor epidote in fractures from 153-156, and 161-163
																		W		
																		M		
																		M		
E274075	166.00	167.00	0.02																	
E274076	167.00	167.50	0.03																	
E274077	167.50	168.00	0.04																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E274078	168.00	169.00	0.03											W				M		also have weak epidote in fractres // to s0 and in breccia faults
E274079	185.00	186.00	0.02																	
E274081	186.00	186.50	0.02										M	S				M		
E274082	186.50	187.50	0.04																	
E274083	187.50	188.00	0.57																	
E274084	188.00	189.00	0.53																	
E274085	209.00	210.00	0.01										W		W			M		
E274086	210.00	211.00	0.01										W		W			M		
E274087	211.00	212.00	0.02	211.70	212.70	4E	very silicified/flooded							W					S	
E274088	212.00	212.50	0.16																	
E274089	212.50	213.00	0.10	212.70	217.80	2T	Very heavily silicified, and locally garnitiferous. Strong strain, some sections resemble 3F.													
E274091	213.00	214.00	0.56																	
E274092	214.00	215.00	0.06																	
E274093	215.00	216.00	3.14																	
E274094	216.00	217.00	1.18																	
E274095	217.00	218.00	5.06	217.80	220.00	4E	silicified, minor 2T, approximately 20%.Moderately mineralized.													
E274096	218.00	219.00	0.85										W						W	
E274097	219.00	220.00	2.44																	
E274098	220.00	221.00	0.09	220.00	236.20	2T	Strong biotite seen in layers, wk to mod spotty garnets, strong strain. Minor z-folds seen.	Moderate shear with bio/carb from 223 to 226 m, and 230 to 235 m.												
E274099	221.00	221.50	0.06						221.70	222.10	4EA	weakly developed								
E273684	221.50	222.00	0.05										S	M	W					
E273685	222.00	223.00	0.37																	
E273686	223.00	224.00	0.15																	
E273687	224.00	225.00	1.72						224.80	225.10	4E	small area, could be amph/garnet 2T? Carb present								
E273688	225.00	226.00	0.48																	
E273689	226.00	227.00	0.02																	
E273691	227.00	228.00	0.03										S	W	W					
E273692	228.00	228.50	0.03																	
E273693	228.50	229.00	1.35						228.50	228.80	4EA	mod qtz flooding.								

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E273694	229.00	230.00	0.04																S	
E273695	230.00	231.00	2.00										S	W	W					
E273696	231.00	232.00	0.16																	
E273697	232.00	233.00	0.02																	
E273698	233.00	234.00	0.01																	
E273699	234.00	234.50	0.03																	
E273701	234.50	235.00	0.74						234.70	235.00	4E	flooded, strong/ mod strain								
E273702	235.00	236.00	0.03																	
E273703	236.00	237.00	0.07	236.20	239.60	4E	very broken, borderline 4e-4ea.Strong mineralization close to contact with 2.													
E273704	237.00	238.00	0.14																	
E273705	238.00	239.00	0.69																	
E273706	239.00	240.00	1.26	239.60	247.50	2T	strongly foliated, contact gradational with lower and upper units. Weak to mod. flooding.						M						M	
E273707	240.00	241.00	0.03																	
E273708	241.00	242.00	0.01																	
E273709	245.00	246.00	0.01																	
E273711	246.00	247.00	0.01																	
E273712	247.00	248.00	0.01	247.50	250.30	3F	could be silicified 2T, or small lens of 3F. Contact with lower unit is sharp.						W						M	
E273713	248.00	249.20	0.02																	
E273714	249.20	250.30	0.03																	
E273715	250.30	251.00	6.12	250.30	252.60	4EA	minor strongly biotitic bits of 2T. 2T parts are strongly carbonitized.													
E273716	251.00	252.00	0.32						251.20	251.70	2T	strongly sheared and carbonitized	S	S						
E273717	252.00	253.00	0.02	252.60	255.90	4E	could be transition between 2 and 4e. Unit is mostly 2T from 252.6 to 253.5, contact gradational .Strong flooding makes lithology hard to discern.	Lower contact also flooded.	252.60	253.50	2T	strongly foliated, contacts with 4E and 4EA are gradational							M	minor amphibole as well
E274761	253.00	253.50	0.02																	
E274762	253.50	254.50	2.52																	
E274763	254.50	255.50	15.60																	
E274764	255.50	256.00	18.73	255.90	258.50	2T	Mior units of 4ea as well as 4F. Lower contact is gradational, no flooding.						M	W		W				
E274765	256.00	257.00	0.16						256.30	257.60	4EA	grades from carbonitized 2 into more biotitic and garnet-bearing 2. Gradational contacts.								
E274766	257.00	258.00	0.27						257.10	257.40	4F	Upper contact gradational, lower contact is fairly sharp.								
E274767	258.00	258.50	0.03																	
E274768	258.50	259.50	0.04	258.50	260.70	4F	Slight amphibole content, no flooding.													

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E274769	259.50	260.70	1.62																	
E274771	260.70	261.50	3.06	260.70	269.30	4EA	Thinly banded with approx 20% 4b, locally up to 50% in places. Large flood/vein from 268 to 269.3 with 'fragments' of 4ea scattered within it.	Moderated influence of 4F in areas.												
E274772	261.50	262.00	3.01																	
E274773	262.00	263.00	0.06																	
E274774	263.00	264.00	0.17						263.40	263.80	4F	Unit is more of a 4F-4B. Gradational contacts								
E274775	264.00	265.00	0.13																	
E274776	265.00	266.00	0.53																W	
E274777	266.00	267.00	0.03																	
E274778	267.00	268.00	0.03						267.50	268.00	4E	Gradational decrease of grunerite, strong presence of green amphibole.								
E274779	268.00	269.00	6.74																S	
E274781	269.00	270.00	6.37	269.30	281.90	4B	Contains up to 10-15% 4F in areas. Gradational upper contact, lower one is sharp.	Also contains minor to moderate carbonated.					M	M						
E274782	270.00	271.00	0.09																	
E274783	271.00	272.00	0.49																	
E274784	272.00	273.00	1.01																	
E274785	273.00	274.00	0.05																	
E274786	274.00	275.00	0.43																	
E274787	275.00	276.00	0.20																	
E274788	276.00	277.00	0.14																	
E274789	277.00	278.00	0.14																	
E274791	278.00	279.00	0.09											W						
E274792	279.00	280.00	0.15																	
E274793	280.00	281.00	0.17																	
E274794	281.00	281.90	0.23																	
E274795	281.90	283.00	0.02	281.90	314.00	2T	Strongly biotitic with large biotite laths forming thin bands. Strong fabric/strain.						S							
E274796	283.00	284.00	0.01																	
E274797	284.00	285.00	0.01																	
E274798	285.00	285.50	0.09																	
E274799	285.50	286.50	0.01										S	W	S					Strong compositional layering

STRUCTURAL LOG 04-ESS-030

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Ml %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	11.80	casin																	22.30	38.00	30	INT	S0								11.80	49.90		INT	BC	broken, sheared with soft unconsolidated seds at start.
11.80	22.30	8M																	38.00	50.00	40	INT	S0													
22.30	38.00	3C																	62.00	63.00	40	int	s0													
38.00	73.50	3F																	69.00	71.00	50	int	s0													
											72.20	72.40	QZ-C	80	I	S	45																			
											73.10	73.50	QZ-C	75	m	S	30																			
73.50	130.40	3C	35																																	
											79.00	79.20	CA	90	m	S	40		77.00	78.00	40	int	s0													
							0.1	0.1		small disseminations in qtz veins	84.70	86.00	QZ	20	m	S	50																			
							0.3			minor fine blebs																											
																			89.00	90.00	55	int	s0													
130.40	211.70	3F	50				0.5	0.1		fine disseminated to blebby sulphides	116.40	125.30	QZ	3	m	S	40		97.00	99.00	40	int	s0								115.60	115.90	45	WEK	OS	section of broken rock. No gouge or breccia.
											130.00	132.00	QZ-C	20	m	I			103.00	107.00	45	int	S1													
											136.80	138.90	QZ	90	m	S	40		107.00	112.00	40	int	s0													
																			113.00	115.00	35	int	s0								136.00	137.00	65	WEK	OS	Epidote filled fractures, likely an early fault.
								0.25		small pyrite veinlet in 3F									122.00	130.00	40	int	s0													
																			140.00	141.00	45	int	s0													
																			144.00	145.00	30	INT	s0								158.90	158.95	45	MOD	BC	filled in with epidote
																			148.00	150.00	40	int	s0								161.40	161.70	50	INT	BC	quartz/epidote bx vein
																			153.00	154.00	50	int	s0													
																			159.00	160.00	50	int	s0													
																			164.00	166.00	50	int	s0													
				0.3			0.5			minor blebs/threads of aspo/po // to s0	167.00	167.20	QZ	90	m	S	55																			
							0.5			coarse blebs	180.20	180.25	QZ	60	m	S	50		173.00	174.00	45	MO	S0													
				0.3				0.5		vein disseminated									182.00	183.00	45	mod	s0													
																			185.00	186.00	50	MO	s0													
							1.0			coarse grained blebs																											

STRUCTURAL LOG 04-ESS-030

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							0.3			veln disseminated, fine-grained																											
											187.70	188.60	CA	65	m	S	45																			
																			188.00	189.00	45	INT	s0													
							1.0			// to bedding/banding fine to med grained	202.00	205.00	QZ	5	m	S	65		194.00	195.00	45	MO	s0								197.10	197.15	40	WEK	BC	
																			198.00	199.00	40	MO	S0								197.80	197.90	50	WEK	BC	
																			203.00	205.00	50	MO	s0													
																			207.00	208.00	45	MO	S0													
								0.5		disseminated in qtz vein																											
								1		fine-grained, present // to bedding as threads																											
211.70	212.70	4E	65				0.1																													
							70.			small vein of massive/brecciated po																											
							0.5																													
212.70	217.80	2T	55				0.1												213.00	214.00	55	MO	s0								213.00	213.10	50	WEK	BC	cemented epidote-threads in 10 cm vein-like brecca fault.
											214.40	217.80	QZ	30	m	D	40																		
							1.0			blebby in qtz lloods																											
							0.3																													
217.80	220.00	4E	55				1.5			blebby interstitial masses																											
																			218.00	219.00	55	INT	s0													
220.00	236.20	2T																							220.50	220.50	25	WE	FD	s/z fold (depending on which side of core is being looked at)						
							0.3												221.00	222.00	55	INT	s0													

STRUCTURAL LOG 04-ESS-030

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py %	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
			55																																	
							0.5	0.1		small blebs in minor unit									223.00	225.00	45	INT	s1														
							0.3			small blebs in minor unit																											
																			229.00	230.00	50	INT	s0													
				0.2	0.1		0.5			2 f.g. specks of VG, stringer po, blebby f.g. chal, trace blebby aspo in flooded section of 2T.	230.40	231.20	QZ	70	m	I			230.00	231.00	40	MO	s0														
							0.2			present as f.g. blebs in minor unit.																											
236.20	239.60	4E					0.3			fine grained threads									236.00	237.00	40	INT	s0													
239.60	247.50	2T	45				10.			semi-to massive blebs																											
																			244.00	245.00	45	MO	s0													
											245.00	247.00	QZ	10	m	S	60		246.00	246.00	30	MO	CR													
247.50	250.30	3F	50								247.00	248.00	QZ	20	m	S	30		248.00	249.00	35	MO	s0													
				0.3			5.0																													
250.30	252.60	4EA	40				0.1												251.00	252.00	50	INT	s1													
252.60	255.90	4E	55				0.5																													

STRUCTURAL LOG 04-ESS-030

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							2.0												255.00	256.00	50	INT	s1													
255.90	258.50	2T																																	
258.50	260.70	4F																	260.00	261.00	35	MO	s1											
260.70	269.30	4EA					0.5																												
							0.3												263.00	264.00	65	MO	s2											
							0.3																												
							3.0			coarse blebs in vein/flood																										
269.30	281.90	4B																	269.00	270.00	50	INT	s1											
																			271.00	272.00	45	INT	s1											
							40.			small 5 cm vein																									
							1.0												277.00	278.00	50	MO	s1											
				2.0			0.5																												
							25.			veinlet of po..5 cm.																									
							1.0																												
				0.5															282.00	287.00	45	INT	s1											
281.90	314.00	2T																																	
											285.00	285.50	QZ	70	m	D	50																	
																			290.00	292.00	40	INT	s1		311.00	312.00	45	INT	FD	Strongly flattened	293.50	293.60		MOD	OS	
																			299.00	303.00	30	INT	s1	no more orientations after 281 m										

STRUCTURAL LOG 04-ESS-030

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			308.00	309.00	40	MO	s1													
																			313.00	314.00	35	INT	s1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-031**

Project Code: ESS

Mine Grid Easting: 8865.0981
Mine Grid Northing: 11550.2995
Elevation: 5296.6873

UTM East
UTM North:

Planned Depth: 90
Actual Depth: 176

Drill Start Date: 23/01/2004
Drill End Date: 25/01/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	91.33	-45.51	SURV
29	91.33	-44.7	EZS
53	91.33	-44.5	EZS
77	91.33	-43.5	EZS
104	91.33	-43.4	EZS
128	91.33	-43.6	EZS
152	91.33	-43.1	EZS
176	91.33	-42.7	EZS

LITHOLOGY LOG 04-ESS-031

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	23.00	CASIN	Only a few metres of water, rest is overburden.													
				23.00	33.50	3F	Light beige-grey colour, well foliated, felsic to intermediate volcanic with only minor biottie. Probably tuffaceous but no obvious volcanic features left. Moderately hard, no phenos, no signficant veins or discrete shear zones.	Lower contact gradational over 1m into medium-dark grey volcanic, probably more intermediate.												
				33.50	43.90	3C	Most is dark grey, locally light beige-grey, moderately foliated, no obvious volcanic features left. No phenos, moderately hard.	Light areas are mainly Fd-qtz-moderate sericite +/- bio. Darker areas have minor gar-amph scattered throughout.												
E264531	37.00	37.60	0.06											W					M	
E264532	37.60	38.80	1.51																	
E264533	38.80	39.30	0.03																	
E264534	43.00	43.90	0.03																	
E264535	43.90	45.00	0.04	43.90	45.90	4E	"Swirling", folded mix of 4E and lesser 4F. 4E has ~30-40% c.g. subhedral pale pink garnets in f.g. med-dark green amphibolite. 4F is ~25% c.g. garnets in f.g. bio>Fd-qtz matrix.	Locally abundant Cc and/or qtz veins in 10-20cm zones and a few bands of Po min'n <1 to 5-6cm wide.					M						W	+ strong green amph alt'n
E264536	45.00	45.90	0.18																	
E264537	45.90	46.30	0.06	45.90	48.00	3C	Intermediate to locally matic volcanics, weak-mod fol'n and bio'n. Minor ~diffuse , irregular qtz veins to 2-3cm wide.													
E264538	46.30	47.00	0.01																	
E264539	47.00	48.00	0.01																	
E264541	48.00	49.00	0.02	48.00	49.45	4E	Mix of ~50-60% 4E and 40-50% 4F as before. Straight banded, bands ~3-10cm usually, appears to be alteration of volcanics not a 4B.						M						W	+ weak to moderate green amph alt'n.
E264542	49.00	49.45	0.06																	
E264543	49.45	50.00	0.03	49.45	66.80	2	Typical mdium-dark grey-green matic volcanic, varies from ~massive with only minor bio'n to well foliated and mod-strongly bio'd, often in bands >few cm wide. Moderately hard still, no phenos.	Several gar-amph-qtz alt'n zones throughout with Po.												
E264544	51.30	51.90	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E264545	51.90	52.60	0.04						51.90	52.60	4EA	Crudely banded, poorly developed 4EA with lesser 4E, minor 4F. Only minor sil'n.	W			M			W	
E264546	52.60	53.00	0.01																	
E264547	54.60	55.10	0.01						55.10	55.50	4E	Banded, few mm to 2cm, gar-amph 4E with minor 4EA and ~20% small qtz veins parallel to banding.				W			M	
E264548	55.10	55.50	2.50																	
E264549	55.50	56.00	0.04																	
E264551	66.00	66.80	0.05																	
E264552	66.80	68.00	0.84	66.80	68.60	4E	Crudely banded 4E with ~20% 4EA and ~20-30% ~diffuse qtz veins ~subaparallel to banding. Appears to be alteration of volc.	Lower 60cm is moderately alt'd to medium green amphibolite and mod-strongly bio'd volc.and has no sil'n.								W			S	
E264553	68.00	68.60	1.48																W	
E264554	68.60	69.00	0.34	68.60	70.30	2T	Well foliated, medium brown, biotite rich unit, either highly altered volc or perhaps a metased?. Several 10cm bands of f.g. green amphibolite, probably alt'n.													
E264555	69.00	69.50	0.05																	
E264556	69.50	70.30	0.02																	
E264557	70.30	71.00	1.56	70.30	75.20	4E	Crudely banded 4E with <5% 4F, local minor f.g. grunerite mixed with the green amph, weak to moderate sil'n, and several <15cm wide bands of bio'd volcanic.	Unit is locally strongly magnetic and may contain remnant 4B layers.								W			M	+ moderate-strong pale to darg green amph alt'n
E264558	71.00	72.00	1.12													M			W	
E264559	72.00	73.00	0.33																M	Minor grunerite, abundant green amph.
E264561	73.00	74.00	1.89																	
E264562	74.00	75.20	1.64																	
E264563	75.20	76.00	0.03	75.20	76.90	2T	Alternating bands of medium grey-green to light brown biotite-poor and rich mafic volcanic; bands generally <2-3cm wide. No significant veins or alt'n other than biotite.													
E264564	76.00	76.90	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E264565	76.90	78.00	0.03	76.90	79.20	4E	Highly silicified 4E, ~40-50% qtz floods. Rest is mainly c.g. garnets in a matrix of f.g. green amph>biotite. Local very c.g. pale green amph.						W						S	
E264566	78.00	79.20	1.16																	
E264567	79.20	80.40	0.02	79.20	81.35	2T	Mainly a medium brown, moderately-highly biotitic mafic volcanic with <20% remnant green volc bands <few cm wide.	From 80.4-80.8 is a white band of either felsic volc or strong bleaching of the basalt.					W							
E264568	80.40	80.80	0.01																	
E264569	80.80	81.35	0.04																	
E264571	81.35	82.00	0.06	81.35	87.50	4EA	Highly silicified but poorly developed, borderline "4EA", could easily be called 4E with minor 4A, rare 4F. Only rarely is there typical 4EA type c.g. garnets in f.g. grunerite.	Strongly magnetic, minor remnant 4B visible. Most is pale yellow-green f.g. mix of green amph and grunerite with <5% garnets.					W						M	
E264572	82.00	82.70	0.05						82.00	82.70	2T	Medium grey to brownish-grey, weak to mod bio'd mafic volcanics.								
E264573	82.70	84.00	0.68										W			W			S	Biotite in rare zones <10cm, garnet mainly in a few bands <30cm.
E264574	84.00	85.00	2.06																	
E264575	85.00	86.00	9.01																	
E264576	86.00	87.00	9.70																	
E264577	87.00	87.50	0.97																	
E264578	87.50	88.00	0.09	87.50	90.70	2	Varies from typical weak-mod bio'd mafic volc to ~60% of an unusual ragged unit with 20-60% c.g. pale green amph porphyroblasts and then overprinted by 3% c.g. ragged garnets.						W							
E264579	88.00	89.00	0.04																	
E264581	89.00	90.00	0.10										W						W	Unusual section of mafic volc? with 30-60% c.g. faint, remnant porphryroblasts of pale green amph?
E264582	90.00	90.70	0.38																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E264583	90.70	91.60	1.48	90.70	93.55	4E	Mainly 4E, mod sil'd with 20% c.g. garnets in med-dark green amphibolite but lower 1m has ~30% bands of 4EA ~1-2cm wide and 15cm of 4F with >40% f.g. staurolite.						W			W			M	
E264584	91.60	92.00	1.02																	
E264585	92.00	93.00	1.38																	
E264586	93.00	93.55	1.75																	
E264587	93.55	94.45	0.10	93.55	94.45	2	Med grey to green mafic volc with irreg patches of dark green amph'n.						W							
E264588	94.45	95.00	0.64	94.45	95.60	4E	4E as before, moderately sil'd, minor bands of 4F <1-2cm wide, garnets vary from 0-50%, avg ~20% overall. Amphiboles are pale and dark green, no grunerite.													
E264589	95.00	95.60	0.30																	
E264591	95.60	96.00	0.09	95.60	128.00	4F	Relatively f.g. for a 4F, consists of ~25-50% 1-3mm garnets in f.g. matirx of biotite with ~20% fd-qtz. Not as high biotite % as in the coarser, clearly hydrothermal "4F".	Several zones of moderate qtz veining for <1m, some with assoc'd bio-gar-amph alt'n but only rare Po-Py.												
E264592	96.00	97.00	0.79																	
E264593	97.00	98.00	0.06																	
E264594	98.00	99.00	0.14																	
E264595	99.00	100.00	0.06																	
E264596	100.00	101.00	0.04																	
E264597	101.00	102.00	0.04																	
E264598	102.00	103.00	0.04																	
E264599	103.00	104.00	0.13																	
E264601	104.00	105.00	0.03																	
E264602	105.00	106.00	0.02																	
E264603	106.00	107.00	0.06																	
E264604	107.00	108.00	0.04																	
E264605	108.00	109.10	0.28						108.00	109.10	4B	~10-20% bands <1cm wide of weakly magnetic chert, often with weak amph-grun? margins.							W	
E264606	109.10	110.00	0.34																	
E264607	110.00	110.95	0.04																	
E264608	110.95	111.90	0.62						110.95	111.90	4B	~20-30% bands <5cm wide of weakly magnetic chert, often with weak amph-grun? margins.	M						M	
E264609	111.90	113.00	0.04																	
E264611	113.00	114.00	0.04																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E264612	114.00	115.00	0.08																	
E264613	115.00	116.00	0.05																	
E264614	116.00	117.00	0.04																	
E264615	117.00	118.00	0.05																	
E264616	118.00	119.00	0.03																	
E264617	119.00	120.00	0.09																	
E264618	120.00	121.00	0.14																	
E264619	121.00	122.00	0.02																	
E264621	122.00	123.00	0.02																	
E264622	123.00	124.00	0.46																	
E264623	124.00	125.00	0.02																	
E264624	125.00	126.00	0.03																	
E264625	126.00	127.00	0.04																	
E264626	127.00	128.00	0.04																	
E264627	128.00	129.00	0.12	128.00	129.00	4B	Mainly a thinly laminated, 1-5mm, chert>magnetite BIF but with ~25-30% "hydrothermal" looking 4F layers up to 3cm wide and 10-15% c.g. garnet porphyroblasts in the 4B layers.													
E264628	129.00	130.00	0.19	129.00	136.00	4F	Mixed unit of ~50-60% 4F, most looks hydrothermal (prob alt'n of earlier seds not the 4B), and ~10-20% thin magnetic chert layers <6mm and flanked by ~10-20% pale yellow-grey grunerite +/- green amph margins <5mm usually.	Little or no qtz flooding or sulphides. 20cm of biotitic mafic volcanics at lower contact.	129.00	136.00	4B	10-20% 4B layers <5-6mm thick intercalated with the 4F and having pale grunerite +/- green amph alt'n margins <5mm usually.								
E264629	130.00	131.00	0.25																	
E264631	131.00	132.00	0.37																	
E264632	132.00	133.00	0.10																	
E264633	133.00	134.00	0.06																	
E264634	134.00	135.00	0.08																	
E264635	135.00	136.00	0.79																	
E264636	136.00	137.00	0.36	136.00	143.00	4B	Not typical 4B, no distinct chert-magnetite layering. Mainly pale pink-yellow-grey bands, <2-3cm, of f.g. mixed Mt-Chert with <1 to 30% very f.g. garnets and minor grunerite.	"4B" bands sperated by ~20% bands of hydrothermal 4F up to 2-3cm and lesser gar-amphibolite layers to 10cm. Only minor qtz veining.												
E264637	137.00	138.00	0.58																	
E264638	138.00	139.00	1.11																	
E264639	139.00	140.00	3.68																	
E264641	140.00	140.75	7.08																	
E264642	140.75	142.00	5.65																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E264643	142.00	143.00	2.63																	
E264644	143.00	144.00	3.18	143.00	149.00	4EA	Borderline poorly developed 4EA, close to 4E as well. Similar to 4B above but less layered and magnetic and has more grunerite.	Contains ~30% c.g., pale pink, anhedral garnets in f.g grunerite dominant matrix. Locally cut by thin slivers of 4E & a few patches where 4E dominates for <20cm. Only minor sil'n or Po.												
E264645	144.00	145.00	1.33																W	
E264646	145.00	146.00	0.98																	
E264647	146.00	147.20	1.03																	
E264648	147.20	148.00	1.13																	
E264649	148.00	148.75	0.08																	
E272626	148.75	149.55	0.04	149.00	155.40	4A	Fairly typical 4A but quite strained causing dismemberment of the original chert layers and most qtz veins.~30-40% siliceous laminae and frags up to ~7mm wide, rest is f.g. yellow grunerite dominant matrix.	From 149.75-149.55 and 151.4-151.65 are bands of Po rich gar-amphibolite(?). Lower 1m is a qtz vein with small xenoliths of the 4A.												
E272627	149.55	150.00	0.02																	
E272628	150.00	151.00	0.05																	
E272629	151.00	151.40	0.02																	
E272631	151.40	151.65	0.03																	
E272632	151.65	152.65	0.03																	
E272633	152.65	153.40	0.04																	
E272634	153.40	153.85	0.05																	
E272635	153.85	154.40	0.08																	
E272636	154.40	155.40	0.02																	
E272637	155.40	156.00	0.01	155.40	176.00	2T	Medium to pale grey f.g. mafic volcanic cut by ~20% laminae of biotite alt'n 1-10mm thick, only rare pervasive bio'n. Upper 1m is bleached white.	Bio'd bands are well foliated, rest is only weakly foliated. Minor ultramafic unit from 168.5-170m.												

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
									168.50	170.00	1	Weakly foliated, pale grey-green, rather featureless unit of ultramfic volcanics, appears to consist mainly of f.g., still fairly hard serpentine.								

STRUCTURAL LOG 04-ESS-031

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	23.00	CASI																	25.00	26.00	59	MO	S1													
23.00	33.50	3F																	35.00	36.00	65	MO	S1													
33.50	43.90	3C																																	
																			38.00	38.00	60	MO	S1													
43.90	45.90	4E					0.1																												
							0.1																													
							30.			Most conc'd in a 6-8 cm band.																											
45.90	48.00	3C																																	
																			47.00	48.00	60	MO	S1													
48.00	49.45	4E					0.3																												
49.45	66.80	2																	51.00	52.00	56	MO	S1													
							0.1	0.05																													
																			54.00	55.00	65	MO	S1													
							0.1																													
66.80	68.60	4E					0.5																												
							0.1																													
68.60	70.30	2T																																	
70.30	75.20	4E	60				0.2																												
							0.1												71.00	72.00	58	MO	S1													
							0.5																													
							0.4												75.00	76.00	66	MO	S1													
75.20	76.90	2T	70																																
76.90	79.20	4E	72				0.1																												
79.20	81.35	2T	74																																

STRUCTURAL LOG 04-ESS-031

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
81.35	87.50	4EA					0.1																													
				0.1			1.0																													
							0.5																													
							3.0																													
							0.1																													
87.50	90.70	2																																		
								0.05											90.00	91.00	62		S0														
90.70	93.55	4E																																		
							0.1																													
93.55	94.45	2																																		
94.45	95.60	4E						0.2																												
							0.1																								95.60	99.00		MOD	GG	Late fault, soft 4F is commonly broken and rubbly, local chl-clay gouge
95.60	128.00	4F																																		
																			97.00	98.00	41	MO	S2													
																			99.00	100.00	0	MO	S2													
																			100.00	102.00	10	MO	S2													
																															102.00	104.00		MOD	GG	Late fault, soft 4F is commonly broken and rubbly, local chl-clay gouge
																															107.00	109.00		MOD	GG	Late fault, soft 4F is commonly broken and rubbly, local chl-clay gouge
							0.2	0.05											108.00	109.00	55		S2													

STRUCTURAL LOG 04-ESS-031

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							0.5	0.1																											
																		114.00	115.00	27	MO	S1													
																		115.00	117.00	37	MO	S1													
																									119.00	120.00	65	WE	IF						
																		121.00	122.00	37		S0													
																		125.00	126.00	44	MO	S1													
128.00	129.00	4B																																	
129.00	136.00	4F									129.00	130.00	QZ	3	m	I	50		129.00	130.00	50		S0													
																		132.00	133.00	50		S0													
																									133.00	134.00	58	WE	FD						
											134.00	136.00	QZ	3	m	I	55																		
136.00	143.00	4B																																	
							0.1																												
							0.1				138.00	139.00	QZ	7	m	I			138.00	139.00	58		S0													
											139.00	140.00	QZ	3	m	I									139.00	140.00	64	WE	ZF						
											140.00	140.75	QZ	10	m	I																			
							0.1				140.75	143.00	QZ	1	m	I																			
143.00	149.00	4EA									143.00	147.20	QZ	2	m	I			144.00	145.00	51		S0													
							0.2																												
							1.5																												
							1.5				148.00	149.55	QZ	3	m	I																			
149.00	155.40	4A					7.0											149.00	151.00	44		S0													
							0.1																												
							30.																												
							0.1											152.00	153.00	64	MO	S2													

STRUCTURAL LOG 04-ESS-031

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							0.4												155.00	156.00	53	MO	S1												
							40.																											
							0.1				154.40	155.40	QZ	95	m	I																		
155.40	176.00	2T																	161.00	173.00	42	MO	S1											

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ESS-032**

Project Code: ESS

Mine Grid Easting: 8799.8086
Mine Grid Northing: 11550.1186
Elevation: 5296.9969

Drill Start Date: 25/01/2004
Drill End Date: 29/01/2004

Core Diameter: NQ
Plugged: YES

UTM East
UTM North:

Target 1: ESS
Target 2: ESS
Target 3: ESS

Planned Depth: 145
Actual Depth: 253

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	89.1525	-45.583	SURV
22	89.1525	-43.8	EZS
46	89.1525	-42.9	EZS
70	89.1525	-42.5	EZS
94	89.1525	-41.7	EZS
118	89.1525	-41.5	EZS
148	89.1525	-40.8	EZS
172	89.1525	-40.5	EZS
196	89.1525	-40	EZS
220	89.1525	-39.9	EZS
246	89.1525	-39.2	EZS

LITHOLOGY LOG 04-ESS-032

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	19.20	CASIN	Approx 2m of water followed by organics and till.						M							Varies from weak to moderate bio, possibly "primary" but highest % is where unit is weakly sheared and carbonatized for 1-2m.
				19.20	107.43	3F	Most is banded medium grey to brown on cm scale and consists of mainly f.g. Fd-Qtz with <5 % to ~30% mafics (Amph>Bio). Banding probably tuffaceous, mainly ash tuffs, local Fd-crystal tuffs with 10% Fd x'ls <3mm..	Several 1-2m intervals of more massive, dark grey, siliceous flows (?). Section is not significantly sheared, sericitized or mineralized with sulphides. 2 sections of 4B-E 5-10cm thick in lower few metres.										
E272638	42.70	43.20	0.01																	
E272639	43.20	44.50	0.04																	
E272641	44.50	45.00	0.01																	Also weak local green amph alt'n.
E272642	88.30	88.80	0.01																	
E272643	88.80	89.80	0.02																	
E272644	89.80	90.80	0.01																	
E272645	104.00	104.60	0.30						104.00	104.60	4B	Mixed interval with 4cm and 10cm 4B-E horizons flanked by weak-moderate gar-amph alteration(?). No Po or major qtz veins. Adjacent rocks are barren.								

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E272646	107.43	107.75	0.71	107.43	121.20	2	Mixed section, mainly weakly bio'd, medium grey-green basalt with ~40% 1-2m zones of medium brown, moderately bio'd basalt.	Bio'n (?) locally so intense there are no other mafics and rock looks like a metased. No major shears, Po or veins. One minor intercalated 4B-E layer at 118m.	107.43	107.75	4B	Mixed unit with 20cm of thin 4B layes within garnet-amphibolite ("4E"), minor mafic tuff?, and 7cm massive Po-(qtz) vein.								
E272647	118.00	118.55	1.42						118.00	118.55	4B	Mixed zone with ~30% magnetitc chert layers <1cm flanked by 4E, minor 4F, and some volcanics.								
				121.20	131.35	6	Pale brown, well foliated, quite homogeneous unit composed of ~10-20% biotite, evenly dsitributed along micro-foliation planes and as dissem flakes, 80-90% f.g. fd and qtz.	Little or no amphiboles, if present they appear secondary. Unit logged as altered volcanic before but more likely is a f.g. metased - siltstone or wacke. Faint bedding locally. One intercalated 4B-E.											
E272648	127.50	128.25	0.06																	
E272649	128.25	129.25	0.07																	
E272651	129.25	129.85	0.56																	
E272652	129.85	130.50	0.23																	
E272653	130.50	131.35	0.02																	
E272654	131.35	132.00	0.03	131.35	132.90	4F	Relatively f.g. 4F with ~15% garnets, most < 2-3mm, in f.g. matrix of bio and ~20-30% Fd-qtz. % of biotite increases with depth towards the 4EA/alt'n. Upper contact sharp with f.g. unit 6 but units not too different.													
E272655	132.00	132.90	0.57																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E272656	132.90	134.00	4.52	132.90	156.00	4EA	Moderately well developed 4EA with ~60-70% c.g. gar-f.g. grunerite bands/zones, 10-20% qtz flooding, ~10% vague 4B bands, and minor 4E. Qtz flooding decreases in lower 3-4m as does grunerite-gar%.	Relativley low Po and less c.g. distinct garnets than high-grade 4EA".								S			W	
E272657	134.00	135.00	1.61																	
E272658	135.00	136.00	4.60																	
E272659	136.00	137.00	0.12																	
E272661	137.00	138.00	1.81													S			S	
E272662	138.00	139.00	1.82																	
E272663	139.00	139.80	2.69																	
E272664	139.80	141.00	3.42										W			M			S	
E272665	141.00	142.00	0.23																	
E272666	142.00	143.00	0.48										W			M			S	
E272667	143.00	144.00	1.70																	
E272668	144.00	145.00	0.41																	
E272669	145.00	146.00	0.65																	
E272671	146.00	147.00	1.25													M			W	
E272672	147.00	148.00	0.62																	
E272673	148.00	149.00	0.13																	
E272674	149.00	150.00	0.43													S			M	
E272675	150.00	151.00	7.04													M				
E272676	151.00	152.00	0.63																	
E272677	152.00	153.00	0.04																	
E272678	153.00	154.00	0.13																	
E272679	154.00	155.00	0.13																	
E272681	155.00	156.00	0.06																	
E272682	156.00	157.00	0.04	156.00	175.00	4B	"Impure" 4B. Varies from well banded chert-magnetite to more common magnetic chert layers <1cm separated by silicate-chert layers (f.g. bio-amph-gar).	Several quartz veined zones <1m with associated strong gar-bio alteration.												
E272683	157.00	158.00	0.06										M							
E272684	158.00	159.00	0.26																	
E272685	159.00	160.00	0.29																	
E272686	160.00	161.00	0.56																	
E272687	161.00	162.00	0.04																	
E272688	162.00	163.00	0.03										M							
E272689	163.00	163.60	0.15																	
E272691	163.60	164.30	0.39																	
E272692	164.30	165.15	0.17										W							
E272693	165.15	165.45	0.79																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E272694	165.45	166.00	0.60																	
E272695	166.00	167.00	0.88																	
E272696	167.00	168.00	0.03																	
E272697	168.00	169.00	0.04																	
E272698	169.00	170.00	0.03																	
E272699	170.00	171.00	0.02																	
E272701	171.00	172.00	0.48																	
E272702	172.00	173.00	0.86																	
E272703	173.00	174.00	0.24																	
E272704	174.00	175.00	0.34																	
E272705	175.00	176.00	0.07	175.00	176.00	4E	Mixed, banded section of ~40-50% 4E, 30-40% 4EA (poorly developed), 10% 4B and 10% 4F.													
E272706	176.00	177.00	0.06	176.00	190.90	4EA	Poorly-moderately developed 4EA, only local qtz flooding. Well banded, 1-2cm thick, straight to highly contorted. Most has ~15% 4B layers <1cm within pale yellow	Most has ~15% 4B layers <1cm within pale yellow gar-grunerite layers. Minor 4F & 4E but locally predominates.												
E272707	177.00	178.00	0.04																	
E272708	178.00	179.00	0.03																	
E272709	179.00	180.00	0.03																	
E272711	180.00	181.00	0.04																W	
E272712	181.00	182.00	0.07																	
E272713	182.00	183.00	0.04																	
E272714	183.00	184.00	0.08																	
E272715	184.00	185.00	0.06																	
E272716	185.00	186.00	0.07																	
E272717	186.00	187.00	0.46																	
E272718	187.00	188.00	0.53																	
E272719	188.00	189.00	0.10																W	
E272721	189.00	190.00	0.13																	
E272722	190.00	190.90	0.61																	
E272723	190.90	192.00	0.34	190.90	209.10	4F	Mixed interval with ~70% 4F intercalated with 10-20% weakly magnetic chert <1cm, several 4E-(B) layers <30cm thick, and locally weak 4EA/gruneritized zones. No shears or qtz flooding.	4F has 20-60% garnets, 1-3mm, in f.g. matrix of ~60% to >95% biotite and 5-40% qtz-Fd. Weak 4EA from 197-200, 206.7-207.2m.												
E272724	192.00	193.00	0.19																	
E272725	193.00	194.00	0.05																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E272726	194.00	195.00	0.04																	
E272727	195.00	196.00	0.04																	
E272728	196.00	197.00	0.03																	
E272729	197.00	198.00	0.07																W	
E272731	198.00	199.00	0.18																	
E272732	199.00	200.00	0.10																	
E272733	200.00	201.00	0.11																	
E272734	201.00	202.00	0.02																	
E272735	202.00	203.00	4.00																	
E272736	203.00	204.20	0.09																	
E272737	204.20	205.00	1.13																	
E272738	205.00	205.60	0.06																	
E272739	205.60	206.70	0.04																	
E272741	206.70	207.20	0.01																	
E272742	207.20	208.00	0.03																	
E272743	208.00	209.10	0.01																	
E272744	209.10	210.00	0.29	209.10	212.00	4EA	Moderately well developed but no major silicification or Po. Much is not banded, contains 50-70% m.g. garnets in f.g. grunerite.	Upper and lower margins intercalated with 4F and 4B.												
E272745	210.00	211.00	0.14																	
E272746	211.00	212.00	0.03																	
E272747	212.00	213.00	0.14	212.00	218.70	4B	Mixed section of ~60% 4B magnetic chert layers <1cm thick with ~30% fine to m.g. 4F and 10% 4E layers <2cm thick. Straight banded, no major folds, veins.	Probably was interbedded oxide & silicate facies BIF, latter now largely altered to 4F. Altered to grunerite below 217m and cut by qtz veins.												
E272748	213.00	214.00	0.24																	
E272749	214.00	215.00	1.11																	
E208276	215.00	216.00	0.92																	
E208277	216.00	217.00	2.83																	
E208278	217.00	218.20	19.70										W		W					
E208279	218.20	218.70	28.57																	
E208281	218.70	220.00	3.44	218.70	231.00	4B	Thinly laminated to "bedded" 1cm thick chert & magnetite layers. Much "cleaner" unit than before. A few qtz flooded zones but little deformation otherwise.												W	
E208282	220.00	221.00	11.87																	
E208283	221.00	222.00	0.28																	
E208284	222.00	223.00	0.10																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E208285	223.00	224.00	0.28																	
E208286	224.00	225.00	0.17																	
E208287	225.00	226.00	0.67																S	
E208288	226.00	227.00	0.67																	
E208289	227.00	228.00	0.38																W	
E208291	228.00	229.00	0.71																M	
E208292	229.00	230.00	1.22																	
E208293	230.00	230.50	0.34																	
E208294	230.50	231.00	0.09																	
E208295	231.00	232.00	0.08	231.00	232.25	4A	Thinly laminated, wispy chert-grunerite unit with numerous sheared zones containing small fragments of qtz vein/chert material.	Two Po-rich mudstone units ~15cm thick,												
E208296	232.00	232.40	0.03	232.25	244.50	1	Pale grey at start changing to light green at 234m. Weakly folded, soft, f.g. serpentinite. Lower 3m is contorted and locally brecciated.													
E208297	232.40	233.25	0.06																S	
E208298	233.25	234.00	0.02																	
				244.50	253.00	2	Fairly fresh basalt, only local weak & streaky bio'n. Well foliated to massive, no visible volcanic textures left.													

STRUCTURAL LOG 04-ESS-032

MAJOR UNIT

From	To	Major Unit	Cont
0.00	19.20	CASI	
19.20	107.43	3F	
107.43	121.20	2	
121.20	131.35	6	

MINERALS

As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments
			0.1	1.5		Sulphides appear to be in thin veinlets +/- qtz, rare tourmaline and garnet.
				0.5		
			80.			7cm vein of massive Po and minor qtz.
			0.6			

QTZ VEINING

From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments
43.20	44.50	QZ-C	45		I	60	Veins are mainly massive, pure qtz but a few are mixed Qtz-Cc and brecciated.
75.20	79.00	QZ	7	m	S	67	Weak associated gar-amph alt'n of host volcanics. .
88.80	89.60	QZ	4			66	Veins have f.g. dissem Py throughout + rare tourmaline and garnets

FABRIC

From	To	Alpha deg	Int	Type	Comments
29.00	30.00	52	MO	S1	
32.00	33.00	67	MO	S1	
34.00	35.00	63	MO	S1	
38.00	43.00	70	MO	S1	
45.00	46.00	67	MO	S1	
59.00	64.00	64	MO	S1	
64.00	66.00	63	MO	S1	
70.00	72.00	68	WE	S1	
76.00	78.00	73	WE	S1	
81.00	88.00	66	WE	S1	
88.00	92.00	66	WE	S1	
94.00	95.00	65	MO	S1	
106.00	106.00	54	MO	S1	
116.00	117.00	54	WE	S1	
119.00	121.00	58	MO	S1	
123.00	124.00	71	MO	S1	
127.00	128.00	60	MO	S1	

FOLD

From	To	Alpha deg	Int	Type	Comments

FAULT

From	To	Alpha deg	Int	Type	Comments
34.00	36.00		MOD	BC	Actually a brittle, highly fractured rubble zone, not really sheared.
68.00	75.00		MOD	BC	Actually a highly fractured rubble zone not a real shear zone.

STRUCTURAL LOG 04-ESS-032

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			130.00	133.00	68	MO	S1													
131.35	132.90	4F	72																																
				0.1			0.3																												
132.90	156.00	4EA																	134.00	135.00	68		S0													
							0.2																												
							0.1																												
							0.2																												
							1.5																												
							0.1																												
							0.3																												
							0.5																												
							1.5																												
							0.1												145.00	146.00	38	INT	S2													
					0.1		0.1												148.00	149.00	72		S0													
																			150.00	151.00	62		S0								150.00	155.00		MOD	BC	Several rubble zones to 60cm long, late brittle fault.
							0.5																												
																			154.00	155.00	68		S0													
							0.1												156.00	157.00	65		S0													
156.00	175.00	4B																																	
											158.00	160.00	QZ	10																					
																			162.00	163.00	61		S0													
							0.1				163.00	164.30	QZ	25	m	I																			
				0.1			1.0				165.15	165.45	QZ	20	m	I																			

STRUCTURAL LOG 04-ESS-032

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							2.0				166.00	166.50	QZ	10					166.00	170.00	61		S0													
											166.80	167.00	QZ	10	m	I																			
175.00	176.00	4E					0.1												175.00	176.00	63		S0												
176.00	190.90	4EA																							177.00	178.00	72	MO	ZF						
							0.1												184.00	185.00	77		S0												
							0.1																												
							0.2																												
190.90	209.10	4F																																	
							0.1												193.00	199.00	71		S0												
																									196.00	197.00	75	MO	SF						
							0.1				199.00	208.00	QZ	1	m	I																			
																			205.00	206.00	50		S0												

STRUCTURAL LOG 04-ESS-032

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
209.10	212.00	4EA																																	
212.00	218.70	4B					0.7												216.00	217.00	50		S0												
							2.0				217.00	218.20	QZ	15																					
							15.				218.20	218.70	QZ	5																					
218.70	231.00	4B					0.5												219.00	220.00	62		S0												
							0.7																												
							0.1				223.00	225.00	QZ	5																					
							0.2																												
							2.0																												
231.00	232.25	4A					0.1				231.00	232.00	QZ	25	m	I																			
232.25	244.50	1					3.0												233.00	234.00	49	WE	S1												
																			237.00	238.00	57	WE	S1												
244.50	253.00	2																																	

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ISL-001**

Project Code: ESS

Mine Grid Easting: 8930.5748
Mine Grid Northing: 10499.3603
Elevation: 5296.1405

UTM East 677867.364
UTM North: 5833071.655

Planned Depth: 40
Actual Depth: 157

Drill Start Date: 2/27/2004
Drill End Date: 2/29/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	89.052	-49.671	SURV
25	89.052	-51.1	EZS
50	89.052	-51.3	EZS
75	89.052	-50.7	EZS
100	89.052	-50	EZS
127	89.052	-50	EZS
150	89.052	-50	EZS

LITHOLOGY LOG 04-ISL-001

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	14.40	casing							S	W						
				14.40	17.55	2t	moderately to intensely biotized mafics with strong foliation.													
E269125	15.55	16.55	0.01																	
E269126	16.55	17.55	0.01																	
E269127	17.55	18.30	0.05	17.55	18.30	4ea	poorly developed 4ea with minor grunurite alteration in a garnet, amphibole, chert, magnetite formation. 15% 4-7mm garnets.													
E269128	18.30	19.30	0.01	18.30	23.95	2t	same as above unit with minor carb veinlets.													
E269129	19.30	20.30	0.01																	
E269131	22.00	23.00	0.01																	
E269132	23.00	23.95	0.01																	
E269133	23.95	24.70	11.75	23.95	25.40	4ea	same as above unit with more chert bands making up 35% of rock. Very blocky ground.													
E269134	24.70	25.40	3.97																	
E269135	25.40	26.40	0.05	25.40	30.20	2t	intensely biotitzed, moderately conbonatized, well foliated mafics.													
E269136	26.40	27.40	0.02																	
E269137	28.20	29.20	0.02																	
E269138	29.20	30.20	0.01																	
E269139	30.20	31.00	6.92	30.20	31.00	4ea	same poorly developed 4ea unit as above.													
E269141	31.00	31.60	0.04	31.00	31.60	2t														
E269142	31.60	32.20	0.02	31.60	34.60	4f	absolute dogs breakfast best described as 4b-e-ea-t. Mixed unit of 20-40cm bands of each unit.													
E269143	32.20	33.30	0.02																	
E269144	33.30	34.60	0.75																	
E269145	34.60	35.60	0.06	34.60	38.20	2u	very biotitized, weakkly garnetiferous mafics. almost a 4f, but not schistose.													
E269146	35.60	36.60	0.01																	
E269147	36.60	37.60	0.02																	
E269148	37.60	38.20	0.17																	
E269149	38.20	39.20	0.10	38.20	45.45	4b	very mixed unit 40% 4b, 30% 4ea, 30% 4f. well foliated, very blocky ground.								W	M				
E269151	39.20	40.20	0.07																	
E269152	40.20	41.20	2.89																	
E269153	41.20	42.20	0.01																	
E269154	42.20	43.20	0.17																	
E269155	43.20	44.20	0.01																	
E269156	44.20	45.45	0.12																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E269157	45.45	46.50	0.01	45.45	55.20	4b	cleaner 4b with minor 20% chloritzed 4f bands mixed through. All well banded with some minor qtz flooding and associated Po mineralization.								W				W	
E269158	46.50	47.50	0.00																	
E269159	47.50	48.50	0.00																	
E269161	48.50	49.50	0.01																	
E269162	49.50	50.50	0.10																	
E269163	50.50	51.50	0.36																	
E269164	51.50	52.50	1.18																	
E269165	52.50	53.50	1.07																	
E269166	53.50	54.50	2.44																	
E269167	54.50	55.50	0.09	55.20	79.00	4b	well banded 4b with minor 10% chloritized 4f bands mixed throughout. Minor patches of grunurite alteration.													
E269168	55.50	56.50	0.22																	
E269169	56.50	57.50	0.27																	
E269171	57.50	58.50	3.42													W			W	
E269172	58.50	59.50	0.05																	
E269173	59.50	60.50	0.84																	
E269174	60.50	61.50	0.35																	
E269175	61.50	62.50	0.52																	
E269176	62.50	63.50	0.11																	
E269177	63.50	64.50	0.25																	
E269178	64.50	65.50	0.11																	
E269179	65.50	66.50	0.18																	
E269181	66.50	67.50	1.07																	
E269182	67.50	68.50	0.35													W			W	
E269183	68.50	69.50	0.17																	
E269184	69.50	70.50	0.02																	
E269185	70.50	71.50	0.02																	
E269186	71.50	72.50	0.38																	
E269187	72.50	73.50	0.22																	
E269188	73.50	74.50	0.36																	
E269189	74.50	75.50	0.66																	
E269191	75.50	76.50	0.40																	
E269192	76.50	77.50	1.24																	
E269193	77.50	78.50	1.32																	
E269194	78.50	79.50	0.10	79.00	85.60	4b	well banded 60% 4b with 40% 4f and minor grunurite alteration.								W	W				
E269195	79.50	80.50	0.22																	
E269196	80.50	81.50	0.14																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E269197	81.50	82.50	0.65																	
E269198	82.50	83.50	0.21												W	S				
E269199	83.50	84.50	0.02																	
E269201	84.50	85.60	0.01																	
E269202	85.60	86.60	0.03	85.60	113.30	4ea	moderately well developed 4ea with only minor green amphibole and very minor mineralization. Heavily distorted in areas, folded etc.													
E269203	86.60	87.60	0.03																	
E269204	87.60	88.60	2.50																	
E269205	88.60	89.60	0.77																	
E269206	89.60	90.60	0.71																	
E269207	90.60	91.60	0.04																	
E269208	91.60	92.60	0.95																	
E269209	92.60	93.60	0.03																	
E269211	93.60	94.60	0.03																	
E269212	94.60	95.60	0.03																	
E269213	95.60	96.60	0.02																	
E269214	96.60	97.60	0.03																	
E269215	97.60	98.60	0.35																	
E269216	98.60	99.60	0.23																	
E269217	99.60	100.60	0.67																	
E269218	100.60	101.60	0.06																	
E269219	101.60	102.60	0.02																	
E269221	102.60	103.60	0.07																	
E269222	103.60	104.60	0.19																	
E269223	104.60	105.60	0.06																	
E269224	105.60	106.60	0.02																	
E269225	106.60	107.60	0.16																	
E269226	107.60	108.60	0.03																	
E269227	108.60	109.60	0.02																	
E269228	109.60	110.60	0.01																	
E269229	110.60	111.60	0.03																	
E269231	111.60	112.55	0.09																	
E269232	112.55	113.30	0.03																	
E269233	113.30	114.30	0.05	113.30	130.20	4b	well banded 4b with 25% 1cm 4f bands mixed through. minor amounts of green amphibole in small pateches. from 125m-130.2 unit very distorted, qtz flooding, carbonate, chlorite and minor green amphibole alteration.						M	M	W	W			M	
E269234	114.30	115.30	0.20																	
E269235	115.30	116.30	0.15																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E269236	116.30	117.30	1.00																	
E269237	117.30	118.30	0.67																	
E269238	118.30	119.30	0.33																	
E269239	119.30	120.30	4.17																	
E269241	120.30	121.30	0.30																	
E269242	121.30	122.30	0.20																	
E269243	122.30	123.30	0.77																	
E269244	123.30	124.30	1.40																	
E269245	124.30	125.30	0.37																	
E269246	125.30	126.30	1.16																	
E269247	126.30	127.30	0.50																	
E269248	127.30	128.30	0.32																	
E269249	128.30	129.30	0.14																	
E269251	129.30	130.20	0.08																	
E269252	130.20	130.85	0.03	130.20	130.85	2f	intensely biotized mafics with minor 2% garnets scattered throughout.						S							
E269253	130.85	131.65	0.07	130.85	132.50	4a	very cherty, grunurite alteration and carbonatization of 4b unit.							S		M			W	
E269254	131.65	132.50	0.04																	
E269255	132.50	133.50	0.04	132.50	148.95	4b	distorted 4b unit with qtz flooding and grunurite alteration.									M			S	
E269256	133.50	134.50	0.06																	
E269257	134.50	135.50	0.07																	
E269258	135.50	136.50	0.25																	
E269259	136.50	137.50	0.08																	
E269261	137.50	138.50	0.03																	
E269262	138.50	139.50	0.01																	
E269263	139.50	140.50	0.05																	
E269264	140.50	141.50	0.01																	
E269265	141.50	142.50	0.01																	
E269266	142.50	143.50	0.01																	
E269267	143.50	144.50	0.01																	
E269268	144.50	145.50	0.01																	
E269269	145.50	146.50	0.01																	
E269271	146.50	147.50	0.02																	
E269272	147.50	148.20	0.08																	
E269273	148.20	148.95	0.04																	
E269274	148.95	150.00	0.01	148.95	157.00	1	intensely talcose, soft, blue-grey ultramafics.													
E269275	150.00	151.00	0.01																	

STRUCTURAL LOG 04-ISL-001

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	14.40	casin																	15.00	15.10	44	int	s1													
14.40	17.55	2t																																	
17.55	18.30	4ea																																	
18.30	23.95	2t																																	
23.95	25.40	4ea																	25.00	25.10	40	int	s1													
25.40	30.20	2t																																	
30.20	31.00	4ea					5.0	1																											
31.00	31.60	2t																																	
31.60	34.60	4f																	33.00	33.10	50	int	s1													
34.60	38.20	2u																																	
38.20	45.45	4b																																	
																			41.50	41.60	44	int	s1													
45.45	55.20	4b																	46.00	46.10	46	int	s1													
																									51.00	53.00	60	WE	fd						
							3.0												53.00	53.10	44	int	s1													
55.20	79.00	4b					2.0																												

STRUCTURAL LOG 04-ISL-001

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
				0.5			0.5																													
							1.0												70.00	70.10	37	int	s1													
							2.0												76.00	76.10	60	int	s1													
																			76.10	76.20	33	mod	s2													
							0.5																													
79.00	85.60	4b																							81.00	83.50	65	MO	fd	minor cm scale folds (drag folds?)					
																			83.00	83.10	64	int	s1													
																									85.00	95.00	65	int	fd	numerous cm scale folds with average FA at 65tca					
85.60	113.30	4ea	70																																	
																			91.00	91.10	46	int	s1													

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			93.50	93.60	70	Int	s1													
																									100.00	109.00			ld	highly contorted folded unit with no clear FA						
																			102.00	102.10	66	int	s1													
																			110.00	110.10	48	int	s1													
113.30	130.20	4b	55																114.00	114.10	46	int	s1													
							0.5												119.00	119.10	52	int	s1													
																			127.00	127.10	40	int	s1													
130.20	130.85	2t	31																																	
130.85	132.50	4a	27																131.00	131.10	40	int	s1													

STRUCTURAL LOG 04-ISL-001

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
132.50	148.95	4b	54																																	
							0.5												140.00	140.10	40	int	s1													
							0.5																													
							5.0												148.00	148.10	48	int	s1													
							10.																													
148.95	157.00	1	46																156.00	156.10	35	mod	s1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ISL-002**

Project Code: ESS

Mine Grid Easting: 8967.9342
Mine Grid Northing: 10499.8901
Elevation: 5296.0739

UTM East 677896.1
UTM North: 5833099.559

Planned Depth: 50
Actual Depth: 111

Drill Start Date: 3/8/2004
Drill End Date: 3/9/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3:

Comments: Dip changed to -47, could not drill -45 without hitting skid on available drill.

Survey

Depth	Azimuth	Dip	SurveyType
0	88.321	-48.715	SURV
19	88.321	-48.4	EZS
23	88.321	-47.7	EZS
54	88.321	-45.8	EZS
78	88.321	-45.7	EZS
102	88.321	-45.3	EZS
111	88.321	-45.2	EZS

LITHOLOGY LOG 04-ISL-002

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	23.80	casing														
				23.80	40.25	4b	mixed up unit of 4b/4f/4ea and even some 2t. all well foliated with a strong s2 fabric and mildly sheared patches.													
E276056	24.80	25.80	0.10																	
E276057	25.80	26.80	0.45																	
E276058	26.80	27.80	0.16																	
E276059	27.80	28.80	1.13																	
E276061	28.80	29.80	0.01																	
E276062	29.80	30.80	0.07											W		M				
E276063	30.80	31.80	0.43																	
E276064	31.80	32.80	0.02																	
E276065	32.80	33.55	0.03																	
E276066	33.55	34.50	0.08																	
E276067	34.50	35.20	0.03						34.50	35.20	2t		M	W	W	W				
E276068	35.20	36.20	1.33																	
E276069	36.20	37.20	0.29																	
E276071	37.20	38.20	0.13																	
E276072	38.20	39.20	0.09																	
E276073	39.20	40.25	0.04																	
E276074	40.25	41.25	0.02	40.25	45.15	2t	biotitic mafics with 15% chert bands and weak wargnet alteration.													
E276075	41.25	42.25	0.05																	
E276076	43.15	44.15	0.05																	
E276077	44.15	45.15	0.14										S	W	W	S				green amphibole
E276078	45.15	46.15	0.03	45.15	53.80	4ea	poorly developed 4ea with patches of 4f mixed through. garnets range from fine 1-2mm to 5-7 mm garnets.													
E276079	46.15	47.15	0.02																	
E276081	47.15	48.15	0.04																	
E276082	48.15	49.15	0.02																	
E276083	49.15	50.15	0.04																	
E276084	50.15	51.15	0.33																	
E276085	51.15	52.15	0.02																	
E276086	52.15	53.00	0.02																	
E276087	53.00	53.80	0.02																	
E276088	53.80	55.00	0.02	53.80	66.15	4f	50/50 4f/4b with 10cm patches of moderately well developed 4ea						S							
E276089	55.00	56.00	0.09																	
E276091	56.00	57.00	0.02																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E276092	57.00	58.00	0.03																	
E276093	58.00	59.00	0.06																	
E276094	59.00	60.00	0.02																	
E276095	60.00	61.00	0.02																	
E276096	61.00	62.00	0.03																	
E276097	62.00	63.00	0.03																	
E276098	63.00	64.00	0.02																	
E276099	64.00	65.00	0.01																	
E276101	65.00	66.15	0.09																	
E276102	66.15	67.15	0.09	66.15	74.30	4ea	poorly developed 4ea with 10% 4f bands and 5% thick 5cm bands of mostly green amphibole.						M	W		M				
E276103	67.15	68.15	0.10										M	W	W	M				
E276104	68.15	69.15	3.74																	
E276105	69.15	70.15	1.25																	
E276106	70.15	71.15	0.04																	
E276107	71.15	72.15	0.40																	
E276108	72.15	73.15	0.02																	
E276109	73.15	74.30	0.01																	
E276111	74.30	75.30	0.11	74.30	88.30	4b	well banded 4b with 15% 4f bands.							W		W				
E276112	75.30	76.30	0.07																	
E276113	76.30	77.30	1.43																	
E276114	77.30	78.30	1.24																	
E276115	78.30	79.30	4.56																	
E276116	79.30	80.30	0.36																	
E276117	80.30	81.30	1.67																	
E276118	81.30	82.30	0.13																	
E276119	82.30	83.30	0.05																	
E276121	83.30	84.30	0.08																	
E276122	84.30	85.30	0.01																	
E276123	85.30	86.30	0.02																	
E276124	86.30	87.30	0.01																	
E276125	87.30	88.30	0.02																	
E276126	88.30	89.30	0.03	88.30	105.40	4h	very cherty 4b moderately brecciated at top of unit and intensely brecciated at bottom of unit. matrix is very graphitic and Po rich with mm to cm scale sub rounded to sub angular clasts of 4b.							W		W			S	
E276127	89.30	90.30	0.38																	
E276128	90.30	91.30	0.08																	
E276129	91.30	92.30	0.19																	
E276131	92.30	93.30	0.03																	
E276132	93.30	94.30	0.02																	

LITHOLOGY LOG 04-ISL-002

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E276133	94.30	95.30	0.02																	
E276134	95.30	96.30	0.02																	
E276135	96.30	97.30	0.02																	
E276136	97.30	98.30	0.08																	
E276137	98.30	99.30	0.01																	
E276138	99.30	100.30	0.04																	
E276139	100.30	101.30	0.03																	
E276141	101.30	102.30	0.02																	
E276142	102.30	103.30	0.04																	
E276143	103.30	104.30	0.04																	
E276144	104.30	105.40	0.03																	
E276145	105.40	106.40	0.02	105.40	111.00	1	massive featureless mildly talcose, blocky ultramafics.													
E276146	106.40	107.40	0.01																	

STRUCTURAL LOG 04-ISL-002

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	23.80	casin																																		
23.80	40.25	4b																																		
																			26.00	26.10	25	int	s1													
																			26.10	26.20	50	mod	s2													
							1.0	1																													
																			30.00	30.10	19	int	s1								30.00	33.00	25	wek	sc	
																			35.00	35.10	50	mod	s1													
40.25	45.15	2l																	41.00	41.10	40	int	s1													
45.15	53.80	4ea																																		
																			50.00	50.10	53	mod	s1													
53.80	66.15	4f																	55.00	55.10	46	int	s1													
																			64.00	64.10	40	int	s1													

STRUCTURAL LOG 04-ISL-002

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
66.15	74.30	4ea																	69.00	69.10	40	int	s1													
																			72.00	72.10	25	int	s1													
74.30	88.30	4b																	80.00	80.10	36	int	s1													
																			85.00	85.10	40	int	s1													
							3.0																													
							2.0																													
							3.0																													
88.30	105.40	4h					10.																								90.00	105.00	30	INT	BC	fine mm scale clasts sub rounded to sub angular.
							15.																													
							15.																													
							8.0																													
																			93.00	93.10	65	int	s1													
							3.0												95.00	95.10	45	int	s1													
							10.																													
							30.																													
																			105.00	105.10	30	mod	s1													
105.40	111.00	1																																	

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ISL-003**

Project Code: ESS

Mine Grid Easting: 8938.7746
Mine Grid Northing: 10549.4019
Elevation: 5296.2828

UTM East 677839.699
UTM North: 5833114.446

Planned Depth: 25
Actual Depth: 144

Drill Start Date: 3/5/2004
Drill End Date: 3/6/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	88.9018	-53.299	SURV
30	88.9018	-54.7	EZS
78	88.9018	-53.5	EZS
126	88.9018	-51.7	EZS
144	88.9018	-50.1	EZS

LITHOLOGY LOG 04-ISL-003

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
				0.00	20.60	casing							S							
				20.60	22.30	6	Fairly typical f.g., moderately foliated biotitic metasediment with a few small patches of very f.g. amphibole.													
E209761	21.30	22.30	0.03																	
E269459	22.30	23.40	0.05	22.30	24.50	4f	well foliated well developed 4f with 35% very fine 1-2mm garnets. Core is very blocky and missing approx .5m						S	W	W	M				
E269461	23.40	24.50	0.02																	
E269462	24.50	26.30	0.01	24.50	54.00	4b	4b/4f with small patches of 4eaish poorly developed 4ea. Most of unit is 60%4b 40% 4f bands. from 50.5-numerous small drag folds.	Top of core to 31m is very rubbly, but no visible gouge or slickensides. possible fault?												
E269463	26.30	27.30	0.29																	
E269464	27.30	28.80	0.02																	
E269465	28.80	30.35	0.02																	
E269466	30.35	30.95	0.02						30.35	31.60	4ea	poorly developed 4ea with only very minor amounts of amphibole in a mixed 4f/4b unit with moderate grunurite alteration.								
E269467	30.95	31.60	0.06																	
E269468	31.60	32.60	0.03																	
E269469	32.60	34.60	0.02																	
E269471	34.60	36.00	0.12																	
E269472	36.00	37.00	0.02																	
E269473	37.00	38.00	1.32																	
E269474	38.00	39.00	0.03																	
E269475	39.00	40.00	0.19																	
E269476	40.00	41.00	0.39																	
E269477	41.00	42.00	0.40																	
E269478	42.00	43.00	0.22																	
E269479	43.00	44.00	0.46																	
E269481	44.00	45.00	0.33																	
E269482	45.00	46.00	0.17																	
E269483	46.00	47.00	0.06																	
E269484	47.00	48.00	0.07																	
E269485	48.00	49.00	0.03																	
E269486	49.00	50.00	0.05																	
E269487	50.00	51.00	0.03						50.00	54.00	4f	40% 4f bands interbedded wiht 4b.								
E269488	51.00	52.00	0.06																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E269489	52.00	53.00	0.02																	
E269491	53.00	54.00	0.05																	
E269492	54.00	55.00	0.12	54.00	82.35	4b	well banded but in areas strongly qtz flooded. still minor 10% bands of 4f throughout and from 66-69 thick 30cm bands of pure 4f.													
E269493	55.00	56.00	0.04																	
E269494	56.00	57.00	0.04																	
E269495	57.00	58.00	0.12																	
E269496	58.00	59.00	0.15																	
E269497	59.00	60.00	0.10																	
E269498	60.00	61.00	0.07																	
E269499	61.00	62.00	1.68																	
E209752	62.00	63.00	0.16																	
E209753	63.00	64.00	0.24																	
E209754	64.00	65.00	0.28																	
E209755	65.00	66.00	0.25																	
E209756	66.00	67.00	0.65						66.00	69.50	4f	50% 4f units in thick 20-30cm bands interbedded with 4b.								
E209757	67.00	68.00	0.13																	
E209758	68.00	69.00	0.08																	
E209759	69.00	70.00	1.20																	
E209762	70.00	71.00	0.10										S	W	W				W	
E209763	71.00	72.00	0.33																	
E209764	72.00	73.00	0.71																	
E209765	73.00	74.00	0.13																	
E209766	74.00	75.00	0.03																	
E209767	75.00	76.00	0.36																	
E209768	76.00	77.00	0.07																	
E209769	77.00	78.00	0.12																	
E209771	78.00	79.00	0.30																	
E209772	79.00	80.00	0.35																	
E209773	80.00	81.00	0.22																	
E209774	81.00	81.70	0.14																	
E209775	81.70	82.35	0.03																	
E209776	82.35	83.35	0.09	82.35	95.00	4ea	moderately well developed 4ea 10%fine 2-4mm garnets. Lower 5m well developed 4ea, but no mineralization.						M	W	W	S			W	
E209777	83.35	84.35	0.02																	
E209778	84.35	85.35	0.07																	
E209779	85.35	86.35	0.02																	
E209781	86.35	87.35	0.07																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E209782	87.35	88.35	0.04																	
E209783	88.35	89.35	0.40																	
E209784	89.35	90.35	0.09																	
E209785	90.35	91.35	0.02																	
E209786	91.35	92.35	0.02																	
E209787	92.35	93.35	0.03																	
E209788	93.35	94.10	0.09																	
E209789	94.10	95.00	0.06																	
E209791	95.00	96.00	0.06	95.00	103.10	4f	65% 4f with 35% 4b/4ea mixed unit.						S							
E209792	96.00	97.00	0.01																	
E209793	97.00	98.00	0.01																	
E209794	98.00	99.00	0.02																	
E209795	99.00	100.00	0.02																	
E209796	100.00	101.00	0.01										S			M				
E209797	101.00	102.00	0.03						101.85	103.10	4ea	60% poorly developed 4ea with fine 3-4mm garnets.								
E209798	102.00	103.10	0.07																	
E209799	103.10	104.00	0.05	103.10	135.35	4b	well banded 4b with minor, 10%, thin .5-1cm bands of 4f mixed through. From 127-135.35 very cherty and qtz flooded with minor grunurite and carbonate alteration.						W	W						
E209801	104.00	105.00	0.27																	
E209802	105.00	106.00	1.13																	
E209803	106.00	107.00	2.02																	
E209804	107.00	108.00	0.26																	
E209805	108.00	109.00	0.14																	
E209806	109.00	110.00	0.01																	
E209807	110.00	111.00	1.71																	
E209808	111.00	112.00	0.41																	
E209809	112.00	113.00	0.53																	
E209811	113.00	114.00	4.44																	
E209812	114.00	115.00	0.10																	
E209813	115.00	116.00	0.61																	
E209814	116.00	117.00	0.20																	
E209815	117.00	118.00	0.09										M	W	W				W	
E209816	118.00	119.00	0.66																	
E209817	119.00	120.00	0.36																	
E209818	120.00	121.00	0.85																	
E209819	121.00	122.00	0.23																	
E209821	122.00	123.00	0.36																	
E209822	123.00	124.00	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E209823	124.00	125.00	0.06																	
E209824	125.00	126.00	0.03																	
E209825	126.00	127.00	0.02																	
E209826	127.00	128.00	0.02																	
E209827	128.00	129.00	0.15										W	W		M			S	
E209828	129.00	130.00	1.63																	
E209829	130.00	131.00	0.06																	
E209831	131.00	132.00	0.06																	
E209832	132.00	133.00	0.24																	
E209833	133.00	134.00	0.02																	
E209834	134.00	134.65	0.02																	
E209835	134.65	135.35	0.05																	
E209836	135.35	136.35	0.09	135.35	144.00	1	moderately well foliated, talcose, blue grey ultramafics. VERY MAGNETIC!!													
E209837	136.35	137.35	0.01																	

STRUCTURAL LOG 04-ISL-003

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	20.60	casin																	21.00	21.10	36	mod	s1													
20.60	22.30	6																																		
22.30	24.50	4f																																		
24.50	54.00	4b																																		
																			28.00	28.10	34	mod	s1													
																									31.50	31.80	25	mo	fd	s or z fold					
																									31.80	32.50	40	mo	fd	s or z folds					
																			34.00	34.10	50	int	s1													
																			41.00	41.10	50	int	s1													
																			43.00	43.10	34	MO	s1													
																			47.00	47.10	60	int	s1													
																									50.50	51.00	35	mo	fd						
																			51.00	51.10	36	int	s1		51.00	51.20	35	mo	fd						
																			51.50	53.50	15	int	s1		51.20	51.50	28	mo	fd						
																									53.50	54.00	34	mo	fd						
54.00	82.35	4b																	54.00	54.10	42	int	s1													
																			63.00	63.10	37	int	s1													

STRUCTURAL LOG 04-ISL-003

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			69.00	69.10	34	int	s1													
																			74.00	74.10	40	int	s1		74.70	75.00	44	mo	fd	Clean s or z fold.						
							4.0												81.00	81.10	34	int	s1													
							1.0																													
82.35	95.00	4ea	40																																	
																			87.00	87.10	32	int	s1													
95.00	103.10	4f	25																																	
																			98.00	98.10	22	int	s1													
																									99.00	100.00	39	mo	fd	cm scale s or z folds						
																									100.50	100.70	50	mo	fd							
																									100.70	101.00	44	mo	fd							
																									101.00	101.50	45		fd							
103.10	135.35	4b																																		

STRUCTURAL LOG 04-ISL-003

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							2.0												105.00	105.10	55	int	s1													
							2.0												111.00	111.10	63	int	s1													
							2.0																												
																			117.00	117.10	54	int	s1												
							4.0												124.00	124.10	55	int	s1												
																			127.00	127.10	45	mod	s2												
																			127.10	127.20	75	int	s1												
							2.0																												
							1.0																												
							2.0												131.00	131.10	60	int	s1												
							1.0																												
							7.0																												
135.35	144.00	1	50																136.00	136.10	50	MO	s1												

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ISL-004**

Project Code: ESS

Mine Grid Easting: 8959.6169
Mine Grid Northing: 10549.663
Elevation: 5296.0957

UTM East 677853.997
UTM North: 5833128.334

Planned Depth: 65
Actual Depth: 113

Drill Start Date: 3/14/2004
Drill End Date: 3/14/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	89.83169	-49.0664	SURV
29	89.83169	-47.9	EZS
53	89.83169	-47.2	EZS
77	89.83169	-47.4	EZS
101	89.83169	-47.6	EZS
113	89.83169	-47.4	EZS

LITHOLOGY LOG 04-ISL-004

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	23.80	CASIN	Includes approx 1 metres of 8M boulders.													
E275501	23.80	24.50	0.06	23.80	35.60	4B	Minor 4F included, approx 10%. Moderate to strong grunerite alteration from 34.5 to lower contact.						W							
E275502	24.50	25.00	0.02																	
E275503	25.00	26.00	0.05																	
E275504	26.00	27.00	0.18																	
E275505	27.00	28.00	0.01																	
E275506	28.00	29.00	0.06																	
E275507	29.00	30.00	0.04																	
E275508	30.00	31.00	0.09																	
E275509	31.00	32.00	0.53																	
E275511	32.00	33.00	0.12										M		W					
E275512	33.00	34.00	0.52																	
E275513	34.00	35.00	0.03																	
E275514	35.00	35.60	0.14																	
E275515	35.60	37.40	0.20	35.60	38.70	2T	strongly foliated with moderate biotite and chlorite alteraion. Lower contact is gradational, minor garnets present towards the end.	Missing/ground core from 36.3 to 37.4 m.					S	W	M					
E275516	37.40	38.00	0.05																	
E275517	38.00	38.70	0.01																	
E275518	38.70	39.50	0.19	38.70	40.70	4B	Thinly banded with strong grunerite alteration in bands, unit could be 35-40% 4ea. Asymmetrical folds seen, lower contact also gradational.						W			S				
E275519	39.50	40.70	0.14																	
E275521	40.70	41.50	0.36	40.70	50.00	4E	Contains approx 40% 4F, but also has strong green amphibole content. Mag sus fairly low. Mod to thickly banded, Weak flooding.													
E275522	41.50	42.00	0.04																	
E275523	42.00	43.00	0.01																	
E275524	43.00	44.00	0.20																	
E275525	44.00	45.00	0.03																	
E275526	45.00	46.00	0.08																	
E275527	46.00	47.00	0.34																	
E275528	47.00	48.00	0.31																	
E275529	48.00	49.00	0.04																	
E275531	49.00	50.00	0.12													S				strong spotty altertion, as mix of 4b-4ea.
E275532	50.00	51.00	0.02	50.00	60.10	4B	Weakly developed 4EA present as approx 35-40% of unit. Thinly banded with a minor 4F unit, grades to more of a 4b-f at end.													
E275533	51.00	52.00	0.63																	
E275534	52.00	53.00	1.27																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E275535	53.00	54.00	0.32																	
E275536	54.00	55.00	0.02																	
E275537	55.00	56.00	0.27																	
E275538	56.00	56.60	0.03																	
E275539	56.60	57.30	0.02						56.60	57.30	4F									
E275541	57.30	58.00	0.01										W			W				strong presence of 4f in 4b
E275542	58.00	59.00	0.07																	
E275543	59.00	60.10	0.02																	
E275544	60.10	61.00	0.03	60.10	64.80	4F	Minor weakly developed 4ea unit from 61 to 61.5 m. Gradational contacts													
E275545	61.00	61.50	0.04						61.00	61.50	4EA	weakly developed								
E275546	61.50	62.00	0.06																	
E275547	62.00	63.00	0.02																	
E275548	63.00	64.00	0.03																	
E275549	64.00	64.80	0.01																	
E275551	64.80	65.80	0.08	64.80	67.70	4EA	Weakly developed, well banded, small 4F unit from 67.2 to 67.7 m.												W	weakly developed cherty 4ea.
E275552	65.80	66.50	0.05																	
E275553	66.50	67.20	0.02																	
E275554	67.20	67.70	0.22						67.20	67.70	4F									
E275555	67.70	68.70	1.81	67.70	91.00	4B	Unit starts as folded 4B-4F with 45% 4f bands until 71.6 where local 4f bands seem replaced with 20% 4ea. End of unit is 4b.	4F content decreases until 84 m, where 4b is moderately grunerite altered only.					M			W				4b with moderate 4f
E275556	68.70	69.70	0.04																	
E275557	69.70	71.00	0.04													S				4b with minor 4ea
E275558	71.00	72.00	0.38																	
E275559	72.00	73.00	0.38																	
E275561	73.00	74.00	0.50																	
E275562	74.00	75.00	0.08										M							4b with 4f
E275563	75.00	76.00	0.02																	
E275564	76.00	77.00	0.07																	
E275565	77.00	78.00	0.17																	
E275566	78.00	79.00	0.05																	
E275567	79.00	80.00	0.27																	
E275568	80.00	81.00	0.18																	
E275569	81.00	82.00	0.14																	
E275571	82.00	83.00	0.23																	
E275572	83.00	84.00	0.97																	
E275573	84.00	85.00	3.39										W							less than 5% 4F

LITHOLOGY LOG 04-ISL-004

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275574	85.00	86.00	3.17																	
E275575	86.00	87.00	0.60																	
E275576	87.00	88.00	0.04																	
E275577	88.00	89.00	0.03																	
E275578	89.00	89.50	0.01										W			W			S	cherty 4b
E275579	89.50	90.00	0.01																	
E275581	90.00	91.00	0.02																	
E275582	91.00	92.00	0.06	91.00	101.00	4TB	strongly mineralized and cherty. Folds and s2 cleavage seen, minor areas also contain up to 25-30% thickly banded magnetite rich 4b.	Unit is also very graphitic.						W						
E275583	92.00	93.00	0.03																	
E275584	93.00	94.00	0.04																	
E275585	94.00	95.00	0.03																	
E275586	95.00	96.00	0.03																	
E275587	96.00	97.00	0.03																	
E275588	97.00	98.00	0.04																	
E275589	98.00	99.00	0.04																	
E275591	99.00	100.00	0.02																	
E275592	100.00	101.00	0.02																	
E275593	101.00	102.00	0.01	101.00	103.00	1	could be altered 2 due to nearby units. Unit is weakly serpentinized. Contacts are sharp.													moderately serpentinized
E275594	102.00	103.00	0.01																	
E275595	103.00	104.00	0.03	103.00	107.80	4TB	Same as above brecciated massive po unit.							W						
E275596	104.00	105.00	0.12																	
E275597	105.00	106.00	0.05																	
E275598	106.00	107.00	0.06																	
E275599	107.00	107.80	0.08																	
E275601	107.80	108.80	0.02	107.80	113.00	1	Unit is very broken up and schistose.													moderately serpentinized
E275602	108.80	109.80	0.03																	
E275603	109.80	111.00	0.01																	
E275604	111.00	112.00	0.02																	
E275605	112.00	113.00	0.01																	

STRUCTURAL LOG 04-ISL-004

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	23.80	CASI																																		
23.80	35.60	4B																	24.00	25.00	35	INT	S1		24.00	25.00	50	MO	FD							
											27.60	27.70	QZ	65	m	S	30		27.00	28.00	35	INT	S1		27.00	28.00	35	MO	FD	s or z folds seen						
																			32.00	33.00	35	MO	S1		33.00	34.00	35	WE	FD							
35.60	38.70	2T	25																37.00	38.00	20	INT	S1													
38.70	40.70	4B	40																39.00	40.00	20	MO	S1		39.00	40.00	30	MO	FD							
40.70	50.00	4E																	41.00	42.00	25	MO	S1													
											43.70	43.80	QZ	75	m	S	25		44.00	45.00	25	MO	S1													
							0.1				46.50	47.10	QZ	15	m	D	45	Most likely qtz floods																		
							0.1												47.00	48.00	35	MO	S1													
50.00	60.10	4B	40				0.3												50.00	51.00	35	MO	S1													
							1.0			small veinlet from 52 to 52.01 m.																											
							0.1												53.00	54.00	40	MO	S1													
																			54.00	55.00	40	MO	S1		54.00	55.00	50	MO	FD							
																			57.00	58.00	40	MO	S1													

STRUCTURAL LOG 04-ISL-004

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
60.10	64.80	4F	45																						61.00	61.50	70	MO	FD							
																			62.00	63.00	50	wek	s1													
																			63.00	64.00	35	WE	s1													
64.80	67.70	4EA	55																						66.00	67.00	50	MO	FD							
							0.1												67.00	68.00	45	INT	s1													
67.70	91.00	4B	40																																	
																			71.00	72.00	55	INT	s1													
																			72.00	73.00	40	MO	s2		72.00	73.00	50	INT	FD							
																			74.00	75.00	35	INT	s1													
																			78.00	79.00	45	MO	s2		78.00	79.00	35	MO	FD							
																			79.00	79.00	55	MO	s1													
																			80.00	81.00	55	INT	s1		80.00	81.00	50	INT	FD	s/z patterns seen						
																									83.00	84.00	45	INT	FD							
																			85.00	86.00	50	INT	s1													
																															87.50	87.60		WEK	OS	rubble rock with granitic pieces?
																			88.00	89.00	40	INT	s1	pinch/swell seen in bands												
						20.				mt-rich veins approx 4-10 cm wide.																													
																			90.00	91.00	40	INT	s1													

STRUCTURAL LOG 04-ISL-004

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alph a deg	Int	Type	Comments	From	To	Alph a deg	Int	Type	Comments
91.00	101.00	4TB	25				20.			massive to semi-massive po breccia througout unit									91.00	92.00	30	WE	s1													
																									96.00	97.00	0	INT	FD	if alpha is 0, isn't beta automatically 0 as well?						
																			100.00	101.00	10	MO	s2		100.00	101.00	0	INT	FD	fold seen in "fragments" of 4b unit, possibly caught up in original breccia forming fault event?						
101.00	103.00	1																																		
103.00	107.80	4TB	45				15.			massive to semi-massive in breccia									103.00	104.00	50	INT	s1													
																									106.00	107.00	20	INT	FD	fold is asymmetrical						
107.80	113.00	1	40																107.80	108.40	5	INT	s1	strongly foliated at contact												
																															109.00	109.70	45	MOD	OS	strongly broken up

STRUCTURAL LOG 04-ISL-004

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			112.00	113.00	45	INT	s1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ISL-005**

Project Code: ESS

Mine Grid Easting: 8848.7815
Mine Grid Northing: 10548.6713
Elevation: 5296.9789

UTM East 677775.216
UTM North: 5833051.829

Planned Depth: 130
Actual Depth: 140

Drill Start Date: 3/17/2004
Drill End Date: 3/17/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	86.8173	-47.5955	SURV
12	86.8173	-50.9	EZS
23	86.8173	-50.5	EZS
47	86.8173	-50.3	EZS
76	86.8173	-50.2	EZS
102	86.8173	-50.2	EZS
122	86.8173	-50.1	EZS
140	86.8173	-50.1	EZS

LITHOLOGY LOG 04-ISL-005

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
				0.00	10.30	CASIN														Large cm-scale garnets from 16-17 m.
				10.30	116.70	3F	moderately foliated, weak sericite. More biotite at start until approx 17 m. Broken from 12-13 m, 12-24.5 m, and 45-46 m.										M		W	possible iron carb in fractures as well
																		M		
													W							
														M	W		M			moderate iron carb-hematite alteration in fractures. Fractures are at 60 t.c.a. and cut across s1
														S			S			strong fracturing filled with iron carb/hematite.
E272617	77.00	78.00	0.01																	
E272618	78.00	79.00	0.00										M		M					
E272619	89.00	90.00	0.03																	
E272621	90.00	91.00	0.01																	
E272622	91.00	92.00	0.00																	
E272623	92.00	93.00	0.01																	
E272624	94.00	95.00	0.01														W		S	
E272625	95.00	96.00	0.05															M	W	
E272483	96.00	97.00	0.01															M	W	
E272484	115.70	116.70	0.01											W						
E272485	116.70	117.80	0.06	116.70	117.80	4F	Small unit at 3F/2T contact. Contacts fairly sharp, minor amphibole alteration and remnant 2.													
E272486	117.80	119.00	0.11	117.80	128.10	2T	small 4F unit from 122.4 to 123 m. Biotite alteration increases to strong after 123 m. Weak carb.													
E272487	119.00	120.00	0.01																	
E272488	120.00	121.00	0.01																	
E272489	121.00	121.80	0.01																	
E272491	121.80	122.40	0.10																	
E272492	122.40	123.00	0.01																	
E272493	123.00	124.00	0.01						123.40	124.00	4F	minor amphibole alteration.	M							
E272494	124.00	125.00	0.01																	
E272495	127.10	128.10	0.01																	
E272496	128.10	129.20	0.07	128.10	130.70	4E	small 4f and 2T minor units enclosed with gradational contacts.													

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E272497	129.20	130.00	0.02						129.20	129.50	4F	small garnets, unit may be weakly folded								
									129.50	130.00	2T	weak to moderate fabric.								
E272498	130.00	130.70	0.40																	
E272499	130.70	131.70	0.01	130.70	135.70	2T	strongly foliated/weak shear unitl approx 133 m. Contact with 4e relatively sharp.						M							
E208369	131.70	132.70	0.01																	
E208371	132.70	133.70	0.01																	
E208372	133.70	134.70	0.14																	
E208373	134.70	135.70	0.02																	
E208374	135.70	136.30	2.61	135.70	138.00	4E	small 2T and 30 cm of 4f at interval end. Unit contains up to 35-40% 4F.													
E208375	136.30	137.00	0.02						136.30	137.00	2T									
E208299	137.00	138.00	0.14																	
E275726	138.00	139.00	0.00	138.00	139.00	2T														
E275727	139.00	140.00	0.00	139.00	140.00	4F	Thinly banded, moderately foliated.													

STRUCTURAL LOG 04-ISL-005

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	10.30	CASI									70.00	71.00	QZ	15	m	D	45		12.00	13.00	50	WE	s1		69.00	70.00	40	WE	FD							
10.30	116.70	3F																	18.00	19.00	50	WE	s1												
																			24.00	25.00	50	MO	s1												
																			29.00	30.00	35	WE	s1												
																			33.00	34.00	45	WE	s1												
																			38.00	39.00	40	WE	s1												
																			42.00	43.00	45	WE	s1												
																			44.00	45.00	50	WE	s1												
																			48.00	49.00	45	WE	s1												
																			50.00	51.00	40	WE	s1												
																			52.00	53.00	45	MO	s1												
																			56.00	57.00	45	WE	s1												
																			59.00	60.00	40	WE	s1												
																			60.00	61.00	40	WE	s1												
																			63.00	64.00	40	WE	s1												
																			65.00	66.00	50	WE	s2												
																			67.00	68.00	40	WE	s1												
																			71.00	72.00	45	WE	s1												
																			72.00	77.00	60	MO	s2								77.00	78.00	45	INT	BC	Strong hematite/iron carb breccia vein.
											83.00	84.00	QZ	20	m	D	35		79.00	80.00	40	INT	s1		81.00	81.50	40	WE	FD						
																			81.00	82.00	40	MO	s1												
																			83.00	84.00	35	INT	s1												
																			86.00	87.00	40	INT	s1												
								2																											
								1																											
								1																											
																			92.00	93.00	40	MO	s1												
											93.00	94.00	QZ	15	m	S	50		93.00	94.00	45	MO	s1												
								1																											
								3		In strong floods																										
								2											96.00	97.00	35	INT	s1								104.50	104.70		MOD	GG	very broken up 3F
								1											99.00	100.00	40	INT	s1								105.20	105.60		MOD	GG	strongly broken 3F
								0.5											102.00	103.00	45	INT	s1								106.50	107.00		MOD	GG	broken up 3F
																			106.00	107.00	45	INT	s1								112.70	112.70	40	INT	KF	s1 fabric changes by 80 degrees instantaneously at 112.7 m in proximity to small qtz vein.
																			110.00	111.00	40	INT	s1												
																			113.00	114.00	40	INT	s1												

STRUCTURAL LOG 04-ISL-005

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			114.00	114.50	55	WE	s2	iron carb/hematite veins still present, cross cut foliation.												
116.70	117.80	4F	55																117.00	118.00	40	MO	s1													
117.80	128.10	2T	40																121.00	122.00	33	MO	s1													
																			123.00	124.00	50	INT	s1	minor s/z folds seen												
																			127.00	128.00	45	INT	s1													
128.10	130.70	4E	40				0.1	0.5																	129.20	129.50	40	WE	FD							
							2.0												130.00	130.50	35	MO	s1													
130.70	135.70	2T	45																132.00	133.00	45	INT	s1													
																			134.00	135.00	35	MO	s1													
135.70	138.00	4E	40				5.0																													
							2.0																													
138.00	139.00	2T	50																																	
139.00	140.00	4F	50																139.00	140.00	45	INT	s1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ISL-006**

Project Code: ESS

Mine Grid Easting: 8976.1721
Mine Grid Northing: 10449.8758
Elevation: 5296.2563

UTM East 677934.625
UTM North: 5833067.036

Planned Depth: 30
Actual Depth: 117

Drill Start Date: 3/23/2004
Drill End Date: 3/24/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	88.063	-49.976	SURV
20	88.063	-50	EZS
44	88.063	-49.8	EZS
68	88.063	-50.1	EZS
116	88.063	-48.3	EZS

LITHOLOGY LOG 04-ISL-006

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	18.00	CASIN														
E275966	18.00	19.00	0.11	18.00	27.10	4B	Thinly laminated 4B but banding is rather faint in shades of gray (not distinct black & white bands). Upper 1/2 is ~clean with no Fe-silicates, lower 1/2 has overprint of minor f.g. garnets and weak grunerite, plus thin hydrothermal 4F laminae.													
E275967	19.00	20.00	0.03																	
E275968	20.00	21.00	0.72																	
E275969	21.00	22.00	2.25																	
E275971	22.00	23.00	0.03																	
E275972	23.00	24.00	0.80																	
E275973	24.00	25.00	0.13																	
E275974	25.00	25.75	0.14																	
E275975	25.75	26.70	1.84										S						S	
E275976	26.70	27.10	0.07																	
E275977	27.10	28.10	0.18	27.10	31.00	4EA	Mixed interval of ~60% 4F, 30-40% faintly laminated gray 4B-(4A) layers <1-2cm, and local minor 4E-2.-2T. 4F appears to be hydrothermal alteration, possibly of original Fe-silicate layers.	Several bands of moderate f.g. pervasive grunerite below 30.3m.												
E275978	28.10	29.00	0.01																	
E275979	29.00	30.00	0.01																	
E275981	30.00	31.00	0.02																	
E275982	31.00	32.00	0.02	31.00	33.90	2T	Complex section ranging from f.g., medium green and fairly fresh basalt in upper part to highly qtz-cc flooded and locally highly altered to bio +/-gar ("2T and 4F") or weak "4E" in lower part.	Although the lower part is intensely altered it seems that the protolith was probably basaltic.	31.00	31.40	4EA	Weak-moderate 4EA, >50-60% c.g. garnets but grunerite % is low. Garnet in bands up to 3-4cm wide spearated by thin amphibolite bands <4-5mm wide.								
E275983	32.00	33.00	0.03										M	M					M	
E275984	33.00	33.90	0.03																	
E275985	33.90	34.90	0.02	33.90	36.00	4EA	Moderately developed 4EA with ~10-20% diffuse bands of "4E" and minor 4F. The 4EA consist of ~massive pale yellow gar-grunerite mix but only minor qtz flooding.													
E275986	34.90	36.00	0.03										W			M			M	
E275987	36.00	37.00	1.68	36.00	39.30	2	Fresh parts are f.g., ~massive, medium green-gray basalt but ~70% is weakly to strongly altered to mix of biotite, pale garnets <3-4m, and weak grunerite (?).	Locally strong qtz +/- Cc flooding, typically flanked by the strongest alteration.					W			W			M	
E275988	37.00	38.00	0.04																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Si	Comments
E275989	38.00	38.80	0.59						38.00	38.80	4EA	Moderately formed 4EA with ~60-70% c.g. garnets in f.g. grunerite matrix. Local qtz veining/flooding. Grades over 20-30cm through qtz flooded/bio'd basalt into ~fresh basalt.				M			M	
E275991	38.80	39.30	0.06																	
E275992	39.30	40.00	0.04	39.30	43.70	4EA	Weak to moderately developed 4EA with 40cm of 2-2T and minor 4E bands. The 4EA is ~massive light brown-yellow gar-grunerite mix as before with 20% light gray chert layers up to 3-4cm thick. Little or no qtz flooding or Po.	Section is ~straight banded, not highly deformed like the good 4EA. One prominent flake of v.g. at 44m on a foliation plane in ~barren looking 4E.												
E275993	40.00	41.00	0.03																	
E275994	41.00	41.80	0.03																	
E275995	41.80	42.20	0.15																	
E275996	42.20	43.20	0.16																	
E275997	43.20	43.70	1.10																	
E275998	43.70	44.20	0.05	43.70	46.40	4F	Complex, mixed section of ~50-60% 4F, much of which looks c.g. and ~hydrothermal, 5-10% 2/2T with 10% garnets,~10% 4B layers <1cm scattered throughout, and several small zones of weak 4E intercalated with lesser 4B.	Grades into more pure 4F with depth.												
E275999	44.20	44.90	0.05																	
E275001	44.90	45.90	0.19																	
E275002	45.90	46.40	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275003	46.40	47.00	0.02	46.40	56.90	4F	4F with nil to locally 30% interbanded 4B-A layers up to 3-4cm thick (generally these bands have Mt-chert cores and grunerite margins).	The 4F itself is generally homogeneous, non-banded, and does not appear to be a metased, not just an alteration zone. Contains ~20% f.g. to m.g. garnets in f.g. bio and lesser fd-qtz. Rare amphibolitic bands at 54m. Lower 2m has increasing % of 4B.												
E275004	47.00	48.00	0.04																	
E275005	48.00	48.80	0.04																	
E275006	48.80	49.90	0.04																	
E275007	49.90	51.00	0.05																	
E275008	51.00	52.00	0.02																	
E275009	52.00	53.00	0.03																	
E275011	53.00	54.00	0.02																	
E275012	54.00	55.00	0.03																	
E275013	55.00	56.00	0.04						55.00	56.90	4B	4F unit has increasing % of 4B with depth starting at 55m. Up to 50-60% thin 4B layers by 56m.								
E275014	56.00	56.90	0.05																	
E275015	56.90	57.90	0.02	56.90	59.80	4B	4B with 20-30% Fe-silcate laminae 2-3mm thick (i.e. ~10-20% f.g. garnets in f.g. black amphibolite). 30cm of 2-2T grading into 4B at upper margin.													
E275016	57.90	59.00	0.09																	
E275017	59.00	59.80	0.02																	
E275018	59.80	60.60	0.83	59.80	60.60	2T	Mixed section of 1/3 mafic volcanic, weakly to moderately biotitized, ~1/3 c.g. hydrothermal looking 4F, and 1/3 weakly developed 4E with thinly laminated 4B layers.						M		W	W			M	
E275019	60.60	61.60	2.95	60.60	66.00	4EA	Moderately devloped 4EA in terms of gar-grunerite % but no major qtz flooding or Po. Has ~20% gray magnetic chert (4B) layers <2cm thick, often complexly folded.	Several sections <20cm of moderate 4E.												
E275021	61.60	62.75	0.11																	
E275022	62.75	63.75	7.16																S	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275023	63.75	64.60	1.05																	
E275024	64.60	65.30	0.27																	
E275025	65.30	66.00	0.50																	
E275026	66.00	67.00	1.10	66.00	69.50	4F	~60-70% 4F with 30% 4B-A bands up to 2-3cm thick and highly folded. Most 4B-A bands have 4B centres and 4A margins. Minor 4E, <5%.	4F commonly looks hydrothermal (i.e. >50% garnets 1-3mm in a ~pure biotite matrix).	66.00	69.50	4B	Section of 4F contains 30% 4B-A bands up to 2-3cm, wide.								
E275027	67.00	68.00	3.57																	
E275028	68.00	69.00	0.47																	
E275029	69.00	69.50	0.93																	
E275031	69.50	70.10	5.16	69.50	71.00	4E	Another mixed, complex section of ~50% 4E, which contains thinly laminated 4B layers, separated by 40% 4F layers up to 2-3cm wide. Local patches of weak 4EA.													
E275032	70.10	71.00	0.99																	
E275033	71.00	72.00	1.78	71.00	73.00	4B	Thinly laminated, <<1cm usually, 4B with ~30-40% 4F and 10% 4E laminae. The 4B is faintly laminated and probably has very f.g. silicate component too, and is studded with 5-10% f.g. garnets.		71.00	73.00	4F	Section is 4B with ~30-40% 4F laminae and an overprint of f.g. garnets in the 4B layers.								
E275034	72.00	73.00	0.65																	
E275035	73.00	74.00	1.89	73.00	81.00	4B	Lower 3-4m is ~clean 4B with distinct black Mt-white chert bands to 1cm. Above 77m the BIF is fainlty laminated and has ~10-20% thin, <2-3mm, bands of 4F (hydrothermal alteration along banding planes?), and minor 4E/altered matic laminae.													
E275036	74.00	75.00	4.48																	
E275037	75.00	75.50	0.54																	
E275038	75.50	76.10	4.79																	
E275039	76.10	77.00	8.68																	
E275041	77.00	78.00	0.77																	
E275042	78.00	79.00	0.14																	
E275043	79.00	80.00	0.09																	
E275044	80.00	81.00	0.06																	
E275045	81.00	82.00	0.03	81.00	83.00	4B	BIF is noticebaly whiter and chertier here but still has ~30% balck magnetite layers up to 5-6cm thick. Cherty bands are up to 3cm wide and have faint yellow colour due to very f.g. grunerite.		81.00	83.00	4A	Section is still 4B but unit contains ~60% yellowish off-white cherty layers (4A).							W	
E275046	82.00	83.00	0.03																	
E275047	83.00	84.30	0.02	83.00	84.30	4A	Gradation from mixed 4A-B unit above. Section has <10% distinct Mt layers, consists largely of yellowish to off-white grunerite bearing chert.													

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E275048	84.30	84.80	0.04	84.30	89.50	4H	Po rich section with up to 80% Po concentrated in bands up to 50cm wide, separated by cherty layers up to 60cm wide which have only minor Po but are locally qtz flooded.	Unit is often hiighly folded and/or brecciated. Po rich sections may have a graphitic mudstone component but hard to see.												
E275049	84.80	85.40	0.02													W			S	
E275051	85.40	86.00	0.01																W	
E275052	86.00	87.10	0.04																	
E275053	87.10	88.00	0.03																	
E275054	88.00	88.50	0.02																	
E275055	88.50	89.50	0.03																	
E275056	89.50	90.00	0.01	89.50	110.90	1	Light gray-green, quite featureless, aphyric, massive to weakly foliated, very homogeneous serpentinized ultramafic. No obvious talc and unit is unusually magnetic.	Upper 50cm is a well foliated, f.g. biotite schist formed by hydration reaction between ultramafic and BIF.												
E275057	90.00	90.50	0.01																	
E275058	96.75	97.25	0.01						97.25	97.85	2T	Well foliaed, light brown unit, gradational into ultramafic at depth, upper contact marked by 3-4cm of Po. Appears to be a highly bio'd mafic volcanic but may have been ultramafic?								
E275059	97.25	97.85	0.03																	
E275061	97.85	98.50	0.01																	
				110.90	117.00	2	Weak-moderately foliated, medium green-gray mafic to ultramfic flows. Upper 1-2m contains ~50% f.g. light green amph (actinolite?) and lesser biotite. Below this it grades into ~fresh basalt or possibly f.g. gabbro.													

STRUCTURAL LOG 04-ISL-006

MAJOR UNIT

From	To	Major Unit	Cont	Comments
0.00	18.00	CASI		
18.00	27.10	4B		
27.10	31.00	4EA		
31.00	33.90	2T		
33.90	36.00	4EA		
36.00	39.30	2		
39.30	43.70	4EA		
43.70	46.40	4F		A 2-3mm gold flake occurs along a foliation plane in otherwise fairly barren-looking rock.

MINERALS

From	As %	Cp %	Mt %	Po %	Py%	VG Specks
18.00				0.1		
20.00				0.3		
21.00				1.0	0.2	
24.00				0.1		
27.10						
33.90				0.1		
36.00		0.1				
39.30						
41.00				0.1		
43.70						

QTZ VEINING

From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments
18.00	20.00	QZ	3	m	I		
20.00	21.00	QZ	30	m	I		
21.00	23.00	QZ	3	m	I		
24.00	25.00	QZ	10	m	I		
27.10	28.00	QZ	12	m	I		
41.00	43.20	QZ-C	5	m	I		

FABRIC

From	To	Alpha deg	Int	Type	Comments
19.00	20.00	31		S0	
22.00	23.00	33		S0	
30.00	31.00	28		S0	
37.00	38.00	41	MO	S1	

FOLD

From	To	Alpha deg	Int	Type	Comments
24.00	25.00	45	MO	FD	
25.50	26.00	45	INT	FD	Possibly differential shearing induced rather than drag folds??
28.10	28.20	42	MO	SF	
29.50	30.00	46	MO	SF	
43.50	44.00	48	MO	IF	

FAULT

From	To	Alpha deg	Int	Type	Comments

STRUCTURAL LOG 04-ISL-006

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
											44.20	45.50	QZ	6	m	I																				
46.40	56.90	4F									47.00	50.00	QZ	5	m	I									47.00	47.20	47.	MO	MF							
																			49.00	50.00	50		S0		50.00	51.00	78	INT	MF							
56.90	59.80	4B																	57.00	60.00	37		S0													
59.80	60.60	2T									60.00	61.20	QZ	10	m	I																				
60.60	66.00	4EA									62.00	63.00	QZ	5																						
											63.00	64.00	QZ	15											64.00	65.00	37	INT	FD							
66.00	69.50	4F																							68.90	69.00	38	INT	FD							
																									69.20	69.40	43	MO	ZF	Fairly open S fold, ~uncertain.					
69.50	71.00	4E									69.50	70.00	QZ	20	m	I			70.00	72.00	42		S0													
71.00	73.00	4B					0.1																													
73.00	81.00	4B					1.0				73.50	74.00	QZ	20																						
							0.1				74.00	75.50	QZ	3					74.00	75.00	35		S0													
							15.												76.00	77.00	40		S0													
											78.00	79.50	QZ	15	m	I																				
							0.2																													

STRUCTURAL LOG 04-ISL-006

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
81.00	83.00	4B																																	
83.00	84.30	4A																																	
84.30	89.50	4H					35.																												
							0.5																													
							4.0												87.00	88.00	51		S0													
							25.																													
							17.																													
							55.																													
89.50	110.90	1																																	
																			97.40	97.80	28	MO	S1												
110.90	117.00	2																	107.00	109.00	47	MO	S1												

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ISL-007**

Project Code: ESS

Mine Grid Easting: 8913.9382
Mine Grid Northing: 10449.1262
Elevation: 5296.2528

UTM East 677891.582
UTM North: 5833025.245

Planned Depth: 70
Actual Depth: 173

Drill Start Date: 3/19/2004
Drill End Date: 3/20/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	86.361	-50.915	SURV
17	86.361	-47.1	EZS
41	86.361	-45.2	EZS
65	86.361	-44.4	EZS
89	86.361	-44	EZS
113	86.361	-44.2	EZS
137	86.361	-44.5	EZS
161	86.361	-43.3	EZS

LITHOLOGY LOG 04-ISL-007

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sil	Comments
				0.00	16.40	CASIN														
				16.40	38.00	3F	Light gray, locally streaked with off-white, more sericitic (sheared?) bands up to 2cm wide, well foliated felsic ash tuff. Locally up to ~10% f.g. Fd-crystals.	Unit is often badly broken, presumably due to weathering and not any major fault. Locally abundant disseminated magnetite.												
				38.00	41.40	2	Weakly foliated, fairly homogeneous medium green-gray basalt. No significant bioite alt'n. ~60% green amph, 40% plag.	Upper 1m is rubble and has minor garnet rich layers and local Py. Lower contact ~sharp with underlying metaseds.												
E275728	41.40	42.00	0.02	41.40	42.65	4F	Mixed interval of thinly laminated, garnet poor (<10%) "4F" or 6 and lesser "4E", 2 and 2T.													
E275729	42.00	42.65	0.01																	
E275731	42.65	44.00	0.04	42.65	44.60	2	Moderately foliated, weakly bio'd basalt. Fairly sharp contacts with metaseds above and below.													
E275732	44.00	44.60	0.03																	
E275733	44.60	45.25	0.08	44.60	47.40	4F	Mixed section with ~40-50 %4F-6, 25% moderate-good 4EA, 5% siliceous 4E, and minor 2T.													
E275734	45.25	46.00	0.98						45.25	46.00	4EA	Moderately well developed 4EA with minor Po, weak-mod qtz flooding and weak grunerite.	W			W			W	
E275735	46.00	46.90	0.71																	
E275736	46.90	47.40	4.16						46.90	47.40	4E	Highly qtz flooded band, ~50-60% qtz veins flanked by green amph-minor garnets. Moderately magnetic, probably a true chemical sediment in part.							S	
E275737	47.40	48.00	0.07	47.40	56.60	2	Fairly broken, rubbly zone. Mainly basalt, weakly biotitized, local 2T, and a one 10cm band of 4E/4EA.						W							Varies from nil to moderate.
E275738	56.00	56.60	0.27																	
E275739	56.60	57.35	1.56	56.60	58.50	4E	Mixed section of ~50% moderately qtz flooded 4E verging on 4EA locally with ~45% m.g. 2T or 6, minor 4F.									W			M	
E275741	57.35	58.10	0.09										S							
E275742	58.10	58.50	2.48										M						S	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275743	58.50	59.30	0.03	58.50	62.00	6	Very homogeneous, pale beige-gray, moderately foliated unit composed of ~10% biotite, 10% sericite, 80% fd-qtz, all very f.g. No amphiboles or evidence of alteration, presumed to be f.g. arenaceous metased.	Grades over 20cm into 4F above and 4E below.												
E275744	59.30	60.00	0.02																	
E275745	61.50	62.00	0.14																	
E275746	62.00	62.67	28.53	62.00	63.30	4E	Appears to have been 4B originally, now ~1/2 qtz flooded and altered to bands and patches of c.g. garnet in f.g. green amph +/-minor grunerite.	Locally highly strained, contorted and cut by qtz veins to 12cm with minor assoc'd Po-Py.												
E275747	62.67	63.30	28.93																	
E275748	63.30	64.00	1.56	63.30	69.90	4F	Mixed section of original (?) 4B now ~55% altered to hydrothermal "4F" bands up to 2-3cm wide. Some 4F bands are flanked by moderate grunerite development for ~1cm and highly folded.	Only locally does the 4F-(4EA-4E) appear to be original, thin intercalated Fe-silcate layers.	63.30	69.90	4B	Section is part of original 4B package but now ~55% altered to hydrothermal looking "4F" and minor 4EA, 4E.								
E275749	64.00	65.00	1.98																	
E275751	65.00	66.00	0.28																	
E275752	66.00	67.00	0.08																	
E275753	67.00	68.00	0.54																	
E275754	68.00	69.00	0.04																	
E275755	69.00	69.90	0.02																	
E275756	69.90	70.70	0.09	69.90	103.00	4B	Mainly a thin to thick (few mm to 2-3cm) banded white chert-black magnetite 4B. Local sections <1.5m of "4F" type alteration, especially near qtz veins.	Unit is mainly straight banded but often has subtle isoclinal folds and minor drag folds. No obvious major faults.												
E275757	70.70	71.30	0.02																	
E275758	71.30	72.10	0.32																	
E275759	72.10	73.00	0.02																	
E275761	73.00	74.00	0.07																	
E275762	74.00	75.00	0.01																	
E275763	75.00	76.00	0.05																	
E275764	76.00	77.00	0.01																	
E275765	77.00	77.90	0.02																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275766	77.90	78.90	0.10						77.90	78.90	4F	Bands of hydrothermal 4F (~20-30% f.g. to m.g. garnets in ~pure biotite matrix) up to 10cm wide increase with depth towards qtz flooding.								
E275767	78.90	79.90	2.97											W		W			S	
E275768	79.90	81.00	0.75																	
E275769	81.00	82.00	0.08																	
E275771	82.00	83.00	0.16																	
E275772	83.00	84.20	0.10																	
E275773	84.20	84.50	0.04																	
E275774	84.50	85.00	0.07																	
E275775	85.00	86.00	0.13																	
E275776	86.00	87.00	1.26																	
E275777	87.00	88.00	0.50																	
E275778	88.00	89.00	1.27																	
E275779	89.00	90.00	0.46																	
E275781	90.00	91.00	0.06																	
E275782	91.00	92.00	0.42																	
E275783	92.00	92.50	0.16																	
E275784	92.50	93.40	0.04						92.50	93.40	4F	4F with <10% chert bands, minor qtz veins. Most appears to be primary, minor sections are hydrothermal.								
E275785	93.40	94.00	0.03										W						S	
E275786	94.00	95.00	0.08																	
E275787	95.00	96.00	0.50																	
E275788	96.00	97.00	0.11																	
E275789	97.00	98.00	0.11																	
E275791	98.00	99.00	0.57																	
E275792	99.00	100.00	0.07																	
E275793	100.00	100.70	0.01										S							
E275794	100.70	101.90	0.11										W							Although the section is mixed 4B-"4E-F", the silicate layers appear primary. Only minor hydrothermal looking gar-bio alteration.
E275795	101.90	103.00	0.02																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275796	103.00	104.00	0.01	103.00	114.80	4F	Mixed 4B-4F unit. Approx. 50-55% bands of hydrothermal looking 4F 3-20mm wide and 40-45% pale gray 4B magnetic chert layers <1cm thick.	Locally weak grunerite for a few mm at 4F-4B contacts. The "4F" is ~15-25% 1-3mm garnets in fairly pure biotite matrix, presumably alteration of original Fe-silicate of volcanic laminae.	103.00	114.80	4B	Part of a mixed 4F-4B section. Approx 45% 4B layers <1cm wide separated by 3-20mm bands of hydrothermal looking 4F and minor grunerite.								
E275797	104.00	105.00	0.01																	
E275798	105.00	106.00	0.02																	
E275799	106.00	107.00	0.47																	
E275801	107.00	108.00	0.21																	
E275802	108.00	109.00	0.02																	
E275803	109.00	110.00	0.29										M							Section has much more gar-bio than the rocks above, and more appears to be alteration rather than primary.
E275804	110.00	111.00	0.15																	
E275805	111.00	112.00	0.04																	
E275806	112.00	113.00	0.40																	
E275807	113.00	114.00	0.04										S			W				
E275808	114.00	114.80	0.01																	
E275809	114.80	115.80	0.03	114.80	125.00	4EA	Moderately developed 4EA with local quartz flooding but little Po. Local minor bands of hydrothermal 4F, especially from ~122-125m.	4EA is often tightly and irregularly folded, minor high strain zones which are usually qtz flooded.					W			S				
E275811	115.80	117.00	0.07																	
E275812	117.00	118.30	0.58																	
E275813	118.30	119.00	0.05																	
E275814	119.00	119.65	0.02																	
E275815	119.65	120.75	0.06																	
E275816	120.75	122.00	0.04																	
E275817	122.00	123.00	0.04																	
E275818	123.00	124.00	0.02										M							
E275819	124.00	125.00	0.21																	
E275821	125.00	126.00	0.02	125.00	126.70	4E	Another mixed unit of ~50% 4E, 25% 4B magnetic gray chert layers ~1cm thick, and 25% 4F, probably hydrothermal. 4E forms bands up to 2-3cm wide.	All units are tightly folded.												

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E275822	126.00	126.70	0.03																	
E275823	126.70	128.00	0.10	126.70	133.00	4EA	Moderately developed 4EA in terms of ~pervasive, massive gar-grunerite layers up to 10cm thick, separated by ~25% white magnetic chert layers 1-3cm thick.	Unit however is not qtz flooded or mineralized with Po and the garnets are small, <6mm, and pale. Minor 4E bands and patches throughout.								S				
E275824	128.00	129.00	0.13																	
E275825	129.00	129.60	0.03																	
E275826	129.60	130.40	0.02																	
E275827	130.40	131.40	0.26																	
E275828	131.40	132.40	0.10																	
E275829	132.40	133.00	0.04																	
E275831	133.00	134.00	0.02	133.00	135.70	4F	Another mixed section of ~50% 4F, probably hydrothermal, ~10% weak-moderate grunerite bands <1cm thick, 5-10% 4E bands up to 1.5cm; rest is ~"dirty" bands of chert containing minor f.g garnets, amph, etc.	Lower contact is gradational into ~pure 4B over 1m.	133.00	135.70	4B	Section is mainly 4F but has ~1/3 4B layers - magnetic gray chert, often with minor f.g. gar-amph throughout.	S			W				
E275832	134.00	135.00	0.54																	
E275833	135.00	135.70	0.62																	
E275834	135.70	137.00	0.52	135.70	161.00	4B	Fairly typical northern BIF, well banded white chert-black magnetite layers up to 1cm thick. Several ~1m thick sections with a minor Fe-silicate (gar-grun-green amph) component.	Banding is fairly straight overall but ~wavy locally. Lower 1.5m becomes chertier and grades into the 4A-(4B) below.												
E275835	137.00	138.00	0.06																	
E275836	138.00	139.00	0.29																	
E275837	139.00	140.00	0.75																	
E275838	140.00	141.00	0.65																	
E275839	141.00	142.00	2.15																	
E275841	142.00	143.00	0.69																	
E275842	143.00	144.00	1.18																	
E275843	144.00	145.00	1.31																	
E275844	145.00	146.00	1.36																	
E275845	146.00	147.00	0.07																	
E275846	147.00	148.00	0.36																	
E275847	148.00	149.00	0.16																	
E275848	149.00	149.50	0.08																	
E275849	149.50	149.90	0.07																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275851	149.90	150.80	0.07																	
E275852	150.80	151.80	0.69																	
E275853	151.80	152.80	0.63																	
E275854	152.80	153.30	0.10																	
E275855	153.30	154.00	0.19																	
E275856	154.00	155.00	0.01																	
E275857	155.00	156.00	0.11																	
E275858	156.00	156.23	0.47																	
E275859	156.23	157.05	0.02																	
E275861	157.05	157.40	0.14																	
E275862	157.40	158.30	0.15																	
E275863	158.30	158.70	0.63																	
E275864	158.70	159.50	1.09																	
E275865	159.50	160.50	0.05																	
E275866	160.50	161.00	0.03																	
E275867	161.00	162.00	0.09	161.00	163.40	4A	Light gray, chert dominant unit, still moderately magnetic but far less magnetite layers than above and much chertier. Relatively minor grunerite compared to 4A elsewhere.	Several narrow Po veins <1cm wide, probably remobilized from 4H below.												
E275868	162.00	163.40	0.17																	
E275869	163.40	164.20	0.20	163.40	164.20	4H	Somewhat banded unit with 4 bands of 30-70% Po 7-10cm wide separated by cherty bands ~10cm wide and somewhat brecciated. No obvious "mudstone" component, mainly just Po-chert.													
E275871	164.20	165.00	0.01	164.20	173.00	1	Typical pale gray, massive to weakly foliated, very homogeneous, aphyric, equigranular serpentinized ultramafic. Composed almost entirely of f.g. gray serpentine, locally up to 10% talc spots 1-3mm.													

STRUCTURAL LOG 04-ISL-007

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	16.40	CASI																	17.00	19.00	51	WE	S1													
16.40	38.00	3F																	26.00	28.00	50	WE	S1													
38.00	41.40	2																	32.00	33.00	53	WE	S1													
41.40	42.65	4F	55					0.4																											
																			42.00	43.00	58	MO	S1													
42.65	44.60	2	58																																
44.60	47.40	4F					0.1																												
							0.1	0.5																												
47.40	56.60	2																	55.00	56.00	42	MO	S1								49.00	59.00		MOD	GG	Most core is broken into <20cm pieces due to numerous frax, small slips, etc. Late, brittle fault zone, no assoc'd alt'n.
56.60	58.50	4E						0.5																											
								0.5																											
58.50	62.00	6																																	
																			60.00	62.00	52	MO	S1													
62.00	63.30	4E					1.0	2																											
							1.0	1											63.00	64.00	64		S0													
63.30	69.90	4F																							64.00	65.00	60	MO	FD					
											68.00	69.00	QZ	8	m	D																			
69.90	103.00	4B																	71.00	72.00	53		S0													
											71.30	72.10	QZ	15																					
											73.00	74.00	QZ	12																					
											75.00	76.00	QZ	10	m	I			75.00	76.00	58		S0		75.50	76.00	45	MO	ZF						

STRUCTURAL LOG 04-ISL-007

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %.	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
											77.90	78.90	QZ	8	m	I																				
							0.3	0.1			78.90	79.90	QZ	75	m	D																				
											83.00	84.00	QZ	10																						
							16.			All Po in a 7cm vein.																											
							0.2																													
											85.00	86.00	QZ	15	m	I			85.00	86.00	47		S0													
				0.1							87.00	88.00	QZ	10	m	I																				
				0.2			0.1				88.00	89.00	QZ	10	m	I																				
											89.00	90.00	QZ	10	m	I			89.00	90.00	45		S0													
							0.1																													
											92.00	92.50	QZ	6	m	I																				
							0.3				95.00	96.20	QZ	7	m	I			95.00	96.00	42		S0													
											97.00	101.10	QZ	2	m	I			98.00	99.00	40		S0													
																									100.00	101.00	38	INT	FD							
											101.10	101.90	QZ	8	m	I			101.00	101.50	38		S0													
103.00	114.80	4F																	103.00	104.00	33		S0													
											104.00	105.00	QZ	2		I																				
																									106.00	107.00	45	MO	SF	Several small, apparent S folds.						
																			107.00	108.00	26		S0													
																									108.00	109.00	38	INT	FD							
																									112.00	113.00	37	MO	ZF							
																			113.00	114.00	63		S0		113.00	114.00	51	INT	IF							

STRUCTURAL LOG 04-ISL-007

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
114.80	125.00	4EA																																		
											117.50	118.00	QZ	10	m	I																				
																			119.00	120.00	51		S0													
							0.1																													
											122.00	133.00	QZ	1	m	I																				
125.00	126.70	4E																							126.00	127.00	90	INT	IF							
126.70	133.00	4EA																	128.00	129.00	70		S0													
							0.1												131.00	132.00	68		S0													
133.00	135.70	4F																																		
135.70	161.00	4B																	137.00	139.00	53		S0													
							0.1				138.00	139.00	QZ	8	m	I																				
							0.1				141.00	142.00	QZ	12	m	I																				
							0.1																													
							5.0																													
							0.3																													
							0.1												146.00	147.00	45		S0													
							5.0																													
							0.5																													

STRUCTURAL LOG 04-ISL-007

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT				
From	To	Major Unit		As %	Cp %	Mt %.	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							0.8												156.00	157.00	48		S0													
							25.																												
							1.0																												
							25.			6-7cm band of semi-massive Po, proabably remobilized from 4H below.																											
							0.1																								158.30	159.50	0	MOD	SC	Locally up to 50% Po in this shear zone, remobilized from 4H below?
							45.																												
							15.																												
							0.1																												
161.00	163.40	4A																	161.00	162.00	35		S0											
							0.8																												
163.40	164.20	4H					40.																												
164.20	173.00	1																	167.00	168.00	38	WE	S2											
																			170.00	171.00	28	WE	S2											
																			172.00	173.00	38	WE	S2											

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ISL-008**

Project Code: ESS

Mine Grid Easting: 8974.9147
Mine Grid Northing: 10399.4485
Elevation: 5296.6704

UTM East 677969.431
UTM North: 5833031.183

Planned Depth: 15
Actual Depth: 101

Drill Start Date: 3/22/2004
Drill End Date: 3/24/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2:
Target 3:

Comments: Conditional on good results from 100m sections.

Survey

Depth	Azimuth	Dip	SurveyType
0	86.601	-45.337	SURV
22	86.601	-39.7	EZS
50	86.601	-42.4	EZS
74	86.601	-42.2	EZS
101	86.601	-41.7	EZS

LITHOLOGY LOG 04-ISL-008

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	17.40	CASIN														
E275872	17.40	18.00	0.02	17.40	32.00	4B	Relatively pure 4B ranging from thinly & faintly laminated to well banded, ~1cm, white chert and black magnetite bands. Moderate-strong hydrothermal "4F" gar-bio alteration along banding planes in upper 2m and weak-moderate in lower 1-2m.	Pattern of minor folds in upper few metres is very complex and inconsistent but most are probably "M" type.	17.40	19.50	4F	~40% bands of hydrothermal looking gar-bio occur parallel to banding and are co-folded with the 4B. The "4F" has 5-10% garnets, 1-2mm, in ~pure f.g. biotite matrix.	M						W	
E275873	18.00	19.00	0.02										M						W	
E275874	19.00	20.00	0.03																	
E275875	20.00	21.00	0.02																	
E275876	21.00	22.00	0.12																	
E275877	22.00	23.00	0.09																W	
E275878	23.00	24.00	0.73										W						W	
E275879	24.00	25.00	0.82																W	
E275881	25.00	26.00	0.94																	
E275882	26.00	27.00	0.02																	
E275883	27.00	28.00	0.07											M					M	
E275884	28.00	29.00	0.02										W						W	
E275885	29.00	30.00	0.03																	
E275886	30.00	31.00	0.06										W							
E275887	31.00	32.00	0.01																	
E275888	32.00	33.00	0.43	32.00	35.00	4B	Mixed section of ~50:50 interbanded light gray 4B magnetic chert and dark gray 4F bands which are alteration of original silicate or 4B layers. Bands up to 2cm wide. Minor 4E bands and a few ~masive green amphibolite bands to 7cm.		32.00	35.00	4F	Mixed section of 50:50 interbanded 4B:4F with minor amphibolite and 4E. Bands up to 2cm thick, 4F is probably alteration.	M							
E275889	33.00	34.00	0.01										S							
E275891	34.00	35.00	0.05																	
E275892	35.00	36.00	0.01	35.00	36.70	4E	Tightly folded (M's or isoclinal?) section of fairly homogeneous 4E composed of 10-20% garnets 1-3mm in a f.g. amph-plag-(bio) matrix. Includes ~10-20% pale yellow-gray bands of f.g. gar-grun <1cm wide.	Minor 4F component. Gar-grun bands increase with depth and unit grades into the weak 4EA below.												
E275893	36.00	36.70	0.02																	
E275894	36.70	38.00	0.22	36.70	41.60	4EA	Heterogeneous section of weak-moderately formed 4EA with ~10-20% scattered 4F, 4E and amphibolite bands <20cm wide. The 4EA is generally ~massive mix of pale yellow grunerite and indistinct garnet.	No major qtz flooding or Po.					M	W		M			W	
E275895	38.00	39.00	0.04													S			W	
E275896	39.00	40.00	0.09																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275897	40.00	41.00	0.09																	
E275898	41.00	41.60	0.08																	
E275899	41.60	42.60	0.10	41.60	47.20	4E	Heterogeneous mixed section of ~60% magnetic 4E in bands 10-100cm wide, 35% f.g. medium green mafic volcanic, and minor 2T, Cc veins and 4F.	4E consists of ~50% ragged c.g. garnets in f.g. amphibolite +/- thin, faint bands of Mt-chert. Gold flakes on foliation plane at 44m (not in assayed sample).	41.60	47.20	2	~35% medium gray-green mafic volcanic and minor 2T mixed in with the 4E.							S	
E275901	42.60	43.60	0.02																	
E275902	43.60	44.60	0.14																	
E275903	44.60	45.60	1.33																	
E275904	45.60	46.60	0.14																	
E275905	46.60	47.20	0.03																	
E275906	47.20	48.00	0.07	47.20	50.00	4EA	Moderately developed 4EA with ~10-20% 4B layers <1cm throughout. 4EA is ~60% c.g. garnets in f.g. grunerite. Approx 1/3 of upper 1.5m is intermixed 4F, 4E.	Quartz flooding is minor, only rare Po.											W	
E275907	48.00	49.00	0.08																	
E275908	49.00	50.00	0.74																	
E275909	50.00	51.00	0.06	50.00	56.60	4F	Fairly homogeneous section of 4F with ~10-20% intercalated bands of 4A (f.g. grunerite-chert) mostly up to 2-3cm. Approx 10% magnetic white chert layers in upper 1-2m.	% of chert layers, 4A and minor 4E increases in lower 1m as unit grades into mixed 4B-4F-(4A) unit.												
E275911	51.00	52.00	0.04																	
E275912	52.00	53.00	0.03																	
E275913	53.00	54.00	0.03																	
E275914	54.00	55.00	0.46																	
E275915	55.00	56.00	0.03																	
E275916	56.00	56.60	0.08																	
E275917	56.60	57.30	0.86	56.60	58.30	4F	Gradation from 4F-(4A) unit above. Consists of ~60% 4F layers (many look hydrothermal/alteration) ~30% 4B magnetic chert layers <1cm, and minor 4A.													
E275918	57.30	58.30	0.02																	
E275919	58.30	59.00	0.03	58.30	60.00	4B	Thinly banded, few mm, medium gray magnetite rich chert and dark gray Fe-silicate bearing layers containing 5-10% f.g. garnets in very f.g. amph-bio-chert-Mt mix.													

LITHOLOGY LOG 04-ISL-008

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275921	59.00	60.00	0.28																	
E275922	60.00	61.00	0.39	60.00	66.00	4E	Complex section consisting of roughly equal amounts of poorly developed 4E (mainly qtz-chrt and green amph with minor garnets), 4F with 20% 4B chert layers <1cm, poor 4EA, and 3 sections <30cm of matic volcanic.	Section is more irregularly folded and quartz veined than units above and below, possibly a sheared zone related to tight fold.												
E275923	61.00	62.00	0.13																M	
E275924	62.00	63.00	0.40																	
E275925	63.00	64.00	7.93																S	
E275926	64.00	65.00	4.23																	
E275927	65.00	66.00	9.57																	
E275928	66.00	67.00	2.26	66.00	70.00	4F	4F with 20% light gray to yellowish, magnetic chert and grunerite-chert bands <1cm. Unit grades into faintly banded 4B in lower 50cm.													
E275929	67.00	68.00	0.40																	
E275931	68.00	69.00	2.70																	
E275932	69.00	70.00	1.14																	
E275933	70.00	71.00	0.56	70.00	81.50	4B	4B varies from fairly clean, pure magnetite-chert bands below 75m to more silicate-rich 4B in upper, thinly lamnated 5m.	Upper part has up to 40% thin laminae of garnet-amph-mt-chert between the magnetite-chert layers. One 40cm zone with semi-pervasive grunerite-garnet, bordering on 4EA.												
E275934	71.00	72.00	0.10																	
E275935	72.00	73.00	0.76																	
E275936	73.00	74.00	1.26																	
E275937	74.00	75.00	0.41																	
E275938	75.00	76.00	2.66																	
E275939	76.00	77.00	2.10																	
E275941	77.00	78.00	0.21																	
E275942	78.00	79.00	0.04																	
E275943	79.00	80.00	0.09																	
E275944	80.00	81.00	0.09																	
E275945	81.00	81.50	0.05																	

LITHOLOGY LOG 04-ISL-008

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Blo	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275946	81.50	82.00	0.02	81.50	89.70	4A	Thinly laminated to non-nbanded grunerite bearing chert dominant section. Upper 2.5 m has ~20% thin Mt layers still but only rare bnads of Mt below 84m.	Below 86.3 m are three horizons 10-30cm wide of Po-rich, up to 20%, black meta-pelite.												
E275947	82.00	83.00	0.02																	
E275948	83.00	84.00	0.07																	
E275949	84.00	85.00	0.01																	
E275951	85.00	86.30	0.01																	
E275952	86.30	87.20	0.04																	
E275953	87.20	88.20	0.01																	
E275954	88.20	89.00	0.01																	
E275955	89.00	89.70	0.03																	
E275956	89.70	91.00	0.05	89.70	96.20	4H	Most Po-rich interval I've ever seen here. Averages ~40% Po throughout, locally up to 80-90%. Section is highly contorted, brecciated and locally cut by brx'd qtz veins up to 40cm wide.	Only minor intact relics of the original laminated chert evident, most is brecciated into pieces <few cm. No obvious mudstone component. Lower 20cm is pure 4B with no Po.												
E275957	91.00	92.00	0.06																	
E275958	92.00	93.00	0.04																	
E275959	93.00	93.70	0.12																	
E275961	93.70	94.40	0.05																	
E275962	94.40	95.00	0.04																	
E275963	95.00	96.00	0.01																	
E275964	96.00	96.20	0.03																	
E275965	96.20	96.90	0.02	96.20	101.00	1	Pale greenish-gray, moderately foliated serpentinized ultramafic. Consists almost entirely of serpentine and has numerous slickensided slips throughout.													

STRUCTURAL LOG 04-ISL-008

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	17.40	CASI																																	
17.40	32.00	4B																							17.40	20.00	55	INT	MF							
							0.1																													
																			22.00	23.00	38		S0													
							0.5	0.05																													
																			26.00	27.00	42		S0													
							0.1																													
								0.05																													
32.00	35.00	4B						0.05											32.00	33.00	42		S0													
35.00	36.70	4E																	35.00	36.00	34		S0		35.00	37.00	45	INT	MF	Possibly folds are due to differential shearing but not all are very strained.						
36.70	41.60	4EA																	38.00	39.00	48		S0													
							0.5												40.00	42.00	42		S0													
41.60	47.20	4E																																	
							0.1			3 flakes of gold 1-3mm across on a foliation planes in 4E laminae, otherwise barren looking.	43.60	46.00	QZ	10	m	I																								
																			46.00	47.00	45	MO	S1													

STRUCTURAL LOG 04-ISL-008

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %.	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
47.20	50.00	4EA					2.0																												
																									48.00	49.00	52	MO	SF						
50.00	58.60	4F																							50.00	52.00	82	MO	SF						
							0.1																												
																			53.00	54.00	50		S0												
							0.1												54.00	55.00	50	WE	S1												
											55.50	57.30	QZ	8	m	I																			
56.60	58.30	4F																	58.00	59.00	45		S0												
58.30	60.00	4B																																	
							0.1																												
60.00	66.00	4E									60.00	61.00	QZ	4																					
							0.1																												
							0.7																												
							1.0																												
66.00	70.00	4F																																	
70.00	81.50	4B																	70.00	72.00	45		S0												
											76.00	77.00	QZ	15																					
																			77.00	78.00	45		S0												
											78.00	79.00	QZ	10																					
							2.0				80.00	83.00	QZ	3					80.00	81.00	45		S0												
81.50	89.70	4A																																	
																									84.00	84.50	53	MO	ZF						
																			86.00	87.00	58		S0												
							15.																												
							12.																												

STRUCTURAL LOG 04-ISL-008

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																									89.00	89.50	47	MO	ZF							
89.70	96.20	4H					12.				89.70	93.00	QZ	20				All qtz veins are now brecciated into frags <few cm.																		
							60.																													
							20.				93.00	93.70	QZ	25				Veins brecciated into frags <5cm.																		
							15.				93.70	94.40	QZ	75				Appears to have been one big vein, now semi-brecciated and infilled with Po.																		
							55.				94.40	96.00	QZ	10																						
96.20	101.00	1																	96.60	97.00	62	WE	S1													

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ISL-009**

Project Code: ESS

Mine Grid Easting: 8939.9704
Mine Grid Northing: 10399.1299
Elevation: 5296.6604

UTM East 677944.264
UTM North: 5833006.748

Planned Depth: 40
Actual Depth: 142

Drill Start Date: 3/24/2004
Drill End Date: 3/26/2004

Core Diameter: NQ
Plugged: YES

Target 1: ESS
Target 2: ESS
Target 3: ESS

Comments: Conditional on good results from 100m sections.

Survey

Depth	Azimuth	Dip	SurveyType
0	88.5899	-44.539	SURV
40	88.5899	-42.5	EZS
64	88.5899	-41.9	EZS
88	88.5899	-41.1	EZS
112	88.5899	-40.7	EZS
142	88.5899	-40.7	EZS

LITHOLOGY LOG 04-ISL-009

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
				0.00	34.40	CASIN														
E275062	34.40	35.10	0.04	34.40	42.00	4F	Typical complex mix of 4F-B-EA found in upper part of ISL stratigraphy. Consists of ~50% 4F layers up to 1-2cm thick, likely hydrothermal, separating ~40% 4B magnetic gray chert layers (very few distinct magnetite layers as usual).	Several small zones 20-40cm of modreate 4EA and minor 4E patches. Excellent Z folds in upper part, probably M folds in lower 1-2m. Highly qtz veined for 2m with minor Po.					M			M				
E275063	35.10	36.00	0.07										M						M	
E275064	36.00	37.00	15.07										M						W	
E275065	37.00	38.00	5.78										M						M	
E275066	38.00	39.00	5.09										M			M				
E275067	39.00	40.00	0.05																	
E275068	40.00	41.00	0.05										S			W				
E275069	41.00	42.00	0.02										M							
E275071	42.00	43.00	0.01	42.00	55.70	4B	Varies from distinctly banded chert-magnetite layers up to 2-3cm wide in lower part to more faintly laminated 4B in upper part with 10-20% thin 4E-F laminae and overprinting of minor f.g. garnets.	Scattered 4F layers up to 20cm wide, mostly alteration, in lower part too.												
E275072	43.00	44.00	0.03																	
E275073	44.00	45.00	0.02																	
E275074	45.00	46.00	14.07																	
E275075	46.00	47.00	0.03																	
E275076	47.00	48.00	0.02																	
E275077	48.00	49.00	0.06																	
E275078	49.00	50.00	0.05																	
E275079	50.00	51.00	0.48																	
E275081	51.00	52.00	0.23																	
E275082	52.00	53.00	0.02																	
E275083	53.00	54.00	0.07																	
E275084	54.00	55.00	0.29																	
E275085	55.00	55.70	0.39																	
E275086	55.70	56.40	0.01	55.70	64.00	4B	Continuation of 4B from above but much more chert now, bordering on 4A. Approx. 60-70% off-white chert layers with minor very f.g. grunerite.		55.70	64.00	4A	Section has ~60-70% off-white to light yellow chert layers up to 20cm thick with minor grunerite, rest is dark gray magnetite layers < few cm.								
E275087	56.40	57.10	1.41													M			S	
E275088	57.10	58.00	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275089	58.00	58.80	1.32																	
E275091	58.80	60.00	0.06																	
E275092	60.00	61.00	0.07																	
E275093	61.00	62.00	0.03													M			S	
E275094	62.00	62.90	0.07																	
E275095	62.90	64.00	0.35																	
E275096	64.00	64.75	0.15	64.00	78.00	4B	4B as before. Moderate qtz flooding and bio-gar alteration/4F between 70 and 74m.													
E275097	64.75	65.75	0.54																	
E275098	65.75	66.35	0.94																	
E275099	66.35	67.00	0.13																	
E275101	67.00	68.00	0.23																	
E275102	68.00	69.00	1.19																	
E275103	69.00	70.00	1.77																	
E275104	70.00	71.00	2.79																	
E275105	71.00	71.70	0.68																	
E275106	71.70	72.70	0.14										M			M			S	
E275107	72.70	73.70	0.15																	
E275108	73.70	74.70	2.46																	
E275109	74.70	75.70	1.29																	
E275111	75.70	76.20	0.68																	
E275112	76.20	77.20	0.19																	
E275113	77.20	78.00	0.03																	
E275114	78.00	79.00	0.06	78.00	85.00	4B	Faintly laminated, medium gray 4B with ~20% thin laminae of f.g. gar-amphibolite ("4E") 1-6mm thick and minor thin bands of hyrdothermal looking 4F (concentrated near qtz veins).	A few short sections <30cm with minor f.g. grunerite.												
E275115	79.00	80.00	0.04																	
E275116	80.00	81.00	0.09																	
E275117	81.00	82.00	2.53																	
E275118	82.00	83.00	0.16																	
E275119	83.00	84.00	0.08																	
E275121	84.00	85.00	0.08																	
E275122	85.00	86.00	0.07	85.00	88.00	4F	Continuation of 4B-(4E) unit from above but now has ~60% 4F layers up to 3-4cm thick, 30% 4B layers (with minor grunerite) and 10% 4E bands.		85.00	88.00	4B	Section has 30% 4B layers <1-2cm wide, often with weak grunerite.								
E275123	86.00	87.00	0.03																	
E275124	87.00	87.90	0.03																	
E275125	87.90	89.00	0.19	88.00	89.90	4EA	Moderately developed 4EA in terms of gar-grunerite % but these are only m.g., have no major qtz flooding and no Po. ~20% 4B layers left.													

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275126	89.00	89.90	0.02																	
E275127	89.90	91.00	0.02	89.90	93.10	4F	Section has ~60-70% 4F intercalated with ~20% 4B layers (with grunerite margins) and 10% 4A-weak 4EA patches. 4F itself is fairly homogeneous, contains ~ 25% garnets 1-2mm in f.g. biotite dominant matrix, looks only partially hydrothermal.													
E275128	91.00	92.00	0.17																	
E275129	92.00	93.10	0.07																	
E275131	93.10	93.80	0.04	93.10	93.80	4E	Mix of 40% 2-2T, minor 4F, and 55% 4E (including the ~40% intercalated 4B laminae)													
E275132	93.80	94.60	0.08	93.80	97.00	4EA	Moderately developed 4EA, mainly semi-massive pale yellow, m.g. gar-grunerite intergrowth, with 20% white chert-(Mt) layers <1cm thick.	One 40cm section of 4F-(4B) and minor bands of 4E scattered thoughout. No significant qtz flooding or Po.												
E275133	94.60	95.60	0.08																	
E275134	95.60	96.50	0.16																	
E275135	96.50	97.00	0.01																	
E275136	97.00	98.00	0.04	97.00	98.00	4B	Mixed interval of ~60% faintly banded medium green gray 4B bands separated by 40% 4F bands to 5cm. 4B has significant Fe-silicate % (f.g. gar-amph).	4F looks like hydrothermal alteration (pure biotite matrix).												
E275137	98.00	99.00	0.03	98.00	104.10	4EA	Moderately developed 4EA as before, no major qtz or Po flooding. ~5-10% irregular 4F bands <5cm throughout. Lower 1m has increasing % up to 45% of 4F bands and minor 4E.													
E275138	99.00	100.00	0.06																	
E275139	100.00	101.00	0.04																	
E275141	101.00	102.00	0.03																	
E275142	102.00	102.50	0.08																	
E275143	102.50	103.00	16.93																	
E275144	103.00	104.10	0.10																	
E275145	104.10	105.00	0.02	104.10	110.40	4B	Mixed, somewhat heterogeneous section of interbanded, faintly laminated 4B (60%), ~40% f.g. gar-biotite-amphibolite laminae. Locally weak grunerite.	Amphibolite laminae presumed to be primary volcaniclastic/epiclastic layers now partially or completely altered to gar-biotite.												
E275146	105.00	106.00	0.03																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E275147	106.00	107.00	0.03																	
E275148	107.00	108.00	0.21																	
E275149	108.00	109.00	0.16																	
E275151	109.00	110.40	0.94																	
E275152	110.40	110.90	7.18	110.40	118.00	4B	Section of 4B +/- minor 4E-F laminae but now moderately sheared and heavily laced with ~40% irregular qtz veins and Po, and moderately altered to f.g. pervasive grunerite.													
E275153	110.90	112.00	2.03																	
E275154	112.00	113.30	7.97																	
E275155	113.30	114.00	12.90																	
E275156	114.00	115.00	3.66																	
E275157	115.00	116.00	5.34																	
E275158	116.00	117.00	5.64																	
E275159	117.00	118.00	3.95																	
E275161	118.00	118.50	2.49	118.00	124.50	4B	Fairly typical northern iron formation with alternating off-white chert layers and black magnetite layers up to 1-2cm thick. Still abundant qtz veins and scattered Po zones.													
E275162	118.50	119.20	0.96																	
E275163	119.20	120.20	6.62																S	
E275164	120.20	121.00	2.93																	
E275165	121.00	121.80	0.23																	
E275166	121.80	123.00	0.01																	
E275167	123.00	124.00	0.17																	
E275168	124.00	124.50	0.04																	
E275169	124.50	125.50	0.12	124.50	128.50	4A	Pale yellowish-gray cherty unit with only minor magnetite layers. Several thin metapelite (?) layers composed of f.g. gar-bio+/- amph and minor Po.	Unit grades into 4H below by intercalation of 2 Po rich bands 15-20cm wide and the cherty layers.												
E275171	125.50	126.40	0.07																	
E275172	126.40	127.40	0.05																	
E275173	127.40	128.55	0.02	128.50	132.90	4H	Least deformed parts of section are off-white chert with intercalated Po laminae and bands <2mm to <1cm thick. Most though is highly contorted to brecciated with abundant remobilized Po patches/veins/netwroks.	Several bands <7cm wide have ~50-70% f.g. gar-bio mixed with the Po, probaly were Po-mudstones. Lowermost 10cm is thinly laminated chert-magnetite.												

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E275174	128.55	129.35	0.03																	
E275175	129.35	130.00	0.03																	
E275176	130.00	131.10	0.14																	
E275177	131.10	132.10	0.06																	
E275178	132.10	132.90	0.05																	
E275179	132.90	133.50	0.05	132.90	142.00	1	Weak-moderately foliated, very homogeneous and ~featureless serpentinized ultramafic. Composed almost entirely of f.g. gray serpentine, no obvious talc porphyroblasts.	Several Po veins up to 1cm wide in upper 30cm, remobilized from 4H above?												
E275181	133.50	134.20	0.02																	

STRUCTURAL LOG 04-ISL-009

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	34.40	CASI																																	
34.40	42.00	4F																	34.40	35.00	67		S0		34.40	36.00	41	INT	ZF							
							0.7	0.05																													
							0.3												37.00	38.00	45		S0		37.00	38.00	52	MO	ZF							
							0.5			Almost all is flanking a 10cm qlz vein.																											
																									40.00	40.40	45	INT	ZF							
																									41.00	42.00	60	INT	MF							
42.00	55.70	4B																	42.00	44.00	72		S0													
							4.0				45.80	46.00	QZ	80	m	I																				
																			46.00	47.00	61		S0													
											48.60	49.00	QZ	5																					
																			49.00	50.00	61		S0													
											50.00	51.00	QZ	12																					
											51.00	54.00	QZ	3																					
							0.1												53.00	55.00	61		S0													
											54.00	55.20	QZ	25																					
55.70	64.00	4B									56.00	56.40	QZ	45																					
							0.3				56.40	57.10	QZ	5																					
											58.20	58.80	QZ	80																					
											58.80	60.00	QZ	2																					
											62.00	62.90	QZ	4																					
							0.1				62.90	64.00	QZ	10																					
64.00	78.00	4B									64.00	65.00	QZ	3					64.00	69.00	52		S0		64.00	64.10	68	MO	SF							
							1.0				65.00	66.00	QZ	7																					
							0.1																													
											68.00	69.00	QZ	7																					
							0.1				69.00	71.00	QZ	50																					
							1.5																													
							0.1																		71.00	71.10	80	WE	SF							

STRUCTURAL LOG 04-ISL-009

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							1.2				73.50	75.30	QZ	15					73.00	74.00	57		S0													
											75.30	76.20	QZ	15					75.00	76.00	71		S0													
							0.1				76.20	77.20	QZ	12																					
78.00	85.00	4B																																		
											81.00	82.00	QZ	15		I																			
																			83.00	84.00	51		S0												
85.00	88.00	4F																	85.00	86.00	65		S0												
88.00	89.90	4EA									88.00	89.00	QZ	6	m	I																			
											89.00	90.00	QZ	2	m	I																			
89.90	93.10	4F																	91.00	92.00	52		S0												
93.10	93.80	4E																																		
93.80	97.00	4EA					0.1	0.05			94.00	94.60	QZ	10	m	I			95.00	96.00	51		S0													
97.00	98.00	4B																																		
98.00	104.10	4EA																																		
											101.00	101.50	QZ	6	m	I																			
											102.50	103.00	QZ	70	m	D																			
104.10	110.40	4B																																		
											106.00	108.00	QZ	4	m	I			106.00	107.00	55		S0													
											109.00	110.40	QZ	3					110.00	111.00	58		S0													

STRUCTURAL LOG 04-ISL-009

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %.	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
110.40	118.00	4B					5.0				110.40	110.90	QZ	40	m	I		Quartz veins from ~110.4-120.2m are more gray and glassy looking than typical in this area and have abundant assoc'd Po.																		
							0.3				110.90	113.40	QZ	8																	113.00	118.00		MOD	SC	Only moderately strained but laced with irregular qtz veins and hi % Po.
							5.0				113.40	114.00	QZ	30		I		Veins are up to 20cm wide and highly brecciated.																		
							0.2																													
							7.0				115.00	116.50	QZ	40	m	I																				
							6.0				116.50	118.50	QZ	5	m	I																				
							6.0																													
118.00	124.50	4B									118.50	119.20	QZ	5	m	I																				
							0.5				119.20	120.20	QZ	40	m	I																				
																			121.00	122.00	40		S0													
											122.00	123.00	QZ	6	m	I																				
							60.																													
							0.3																													
																			124.00	125.00	45		S0													
124.50	128.50	4A									124.50	125.50	QZ	25	m	I																				
											125.50	126.40	QZ	22	m	I																				
											126.40	127.00	QZ	10	m	I			127.00	128.00	28		S0													
128.50	132.90	4H					50.																													
							1.0																													
							17.				129.40	130.00	QZ	25	m	I																				
							20.				130.00	132.10	QZ	22	m	I																				

STRUCTURAL LOG 04-ISL-009

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
							8.0																												
							40.				132.10	132.50	QZ	S	m	I																			
132.90	142.00	1					7.0																											
																			138.00	139.00	38	MO	S1												

MUSSELWHITE MINE - GEOLOGY

Hole ID: **04-ISL-010**

Project Code: ESS

Mine Grid Easting: 8858.7963
Mine Grid Northing: 10548.4814
Elevation: 5296.2422

Drill Start Date: 3/26/2004
Drill End Date: 3/27/2004

Core Diameter: NQ
Plugged: YES

UTM East:
UTM North:

Planned Depth:
Actual Depth: 162

Target 1:
Target 2:
Target 3:

Comments:

Survey

Depth	Azimuth	Dip	SurveyType
0	89.4356	-50.7635	SURV
14	89.4356	-50.4	EZS
39	89.4356	-49.8	EZS
63	89.4356	-49	EZS
87	89.4356	-48.4	EZS
111	89.4356	-47.9	EZS
138	89.4356	-47.9	EZS
162	89.4356	-47.2	EZS

LITHOLOGY LOG 04-ISL-010

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
		-		0.00	10.60	CASIN														
				10.60	100.70	3F	Light gray, quite homogeneous, moderately foliated felsic volcanic, presumed to be ash tuff with local Fd-crysal component up to 5%.	Locally weakly shared and seriitized in streaky bands up to 10cm wide. No significant biotite or amphibole content. Pyrite beds up to 2cm thick bewteen 78.3m and 81.7m.												
E275182	47.00	47.50	0.02																	
E275183	47.50	48.00	0.05																	
E275184	48.00	49.00	0.06																	
E275185	49.00	49.70	0.02																	
E275186	49.70	50.20	0.02																	
E275187	78.00	78.30	0.02																	
E275188	78.30	79.00	0.07																	
E275189	79.00	80.20	0.03																	
E275191	80.20	81.70	0.03																	
E275192	81.70	82.20	0.01																	
E275193	100.00	100.70	0.01																	
E275194	100.70	101.30	0.02	100.70	112.00	2	Mainly a f.g., weakly foliated, medium green-gray basalt but with 3 horizons of 4E-4F up to 70cm wide and local 2T. Core is badly broken, especially at 111m and 112m.													
E275195	101.30	102.00	0.01																	
E275196	103.70	104.30	0.01																	
E275197	104.30	105.30	0.02						104.30	104.80	4F	Mainly 4F composed of ~20-25% garnets 1-7mm across in f.g. matrix of Bio>Fd-Qtz. Minor, ~10-20% thin bands of 4E and possibly 2T. Unit is magnetic and probably mainly metasedimentary in origin.								
									105.00	105.30	4F	As per previous minor 4F unit.								
E275198	105.30	106.00	0.20																	
E275199	106.00	107.00	0.02																	
E275201	107.00	107.50	0.26																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Sl	Comments
E275202	107.50	108.20	0.01						107.50	108.20	4F	As above plus a few thin laminae of 4B magnetic chert.								
E275203	108.20	108.80	0.03																	
E275204	111.85	112.55	0.02	112.00	114.10	4E	Mixed interval of ~60% moderately magnetic 4E composed of thinly banded white chert-green amphibolite with minor garnets, 10% 4EA as bands to 10cm, 15% 2T and 15% f.g. biotitic metased (unit 6).						M	M					W	
E275205	112.55	113.10	0.25													W			S	
E275206	113.10	114.10	0.50																	
E275207	114.10	114.70	0.03	114.10	118.40	2T	Predominantly well foliated and moderately, ~pervasively bio'd mafic volcanic, grading into small sections of weakly bio'd medium green-gray basalt.	Lower 1m is badly broken core of off-white sepenitinized ultramafic. As usual the biotite in the 2T is slightly coarser and less evenly dsitributed than in unit 6.					M							
E275208	118.00	118.40	0.01																	
E275209	118.40	118.90	3.51	118.40	120.40	4E	Two horizons of 4E from 118.4-118.9m and 120-120.4m separated by 2T/6. First interval is highly qtz flooded, thinly banded mix of chert and green amphibolite with minor garnets. Lower one is partially chemical sediment variely and part alt'd basalt.												S	
E275211	118.90	120.00	0.08						118.90	120.00	2T	Approx 50cm of core ground and lost due to softenss of this unit. Either a highly bio'd 2 or an altered 6 bordering on f.g. 4F.							
E275212	120.00	120.40	0.17										M						W	

LITHOLOGY LOG 04-ISL-010

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E275213	120.40	121.00	0.03	120.40	122.00	6	Light brown, weakly foliated, very homogeneous, non-banded f.g. unit composed of ~30% biotite and 60-70% fd>qtz. Biotite is very equigranular and evenly distributed as opposed to the 2T.	Grades into 4F above and below over ~10-30cm.												
E275214	121.90	122.70	0.01	122.00	123.30	4EA	4F contains ~30% garnets 1-3mm in f.g. biotite dominant f.g. matrix with minor fd, qtz, and local prismatic white grains, possibly sillimanite.													
E275215	122.70	123.30	0.02																	
E275216	123.30	124.30	0.05	123.30	128.70	4EA	Moderate to well developed 4EA with several small sections (<5%) of 4E, 4F and 30cm of a banded chert-green amphibolite type of BIF.	4EA has local weak-moderate qtz flooding and minor Po.												
E275217	124.30	125.50	0.34										M			W			S	
E275218	125.50	126.00	3.94																	
E275219	126.00	127.00	0.03																	
E275221	127.00	128.00	0.10																	
E275222	128.00	128.70	0.03																	
E275223	128.70	130.00	0.05	128.70	130.45	4B	Well banded, ~2-8mm, gray magnetic chert (~50-55%) and 45-50% dark green to black bands of 4F (10-40% garnets 1-5mm in f.g. biotite) and minor 4E.	It appears that the "4E" are primary Fe-silicate layers and the 4F is a hydrothermal alteration of these. The 4F is more abundant and coarser nin folded or qtz veined sections.												
E275224	130.00	131.00	0.01	130.45	133.10	4EA	Moderately developed 4EA, often highly folded and locally qtz veined. ~25% 4B layers <1cm thick and minor sections where 4F dominates over the 4E coomponent.													
E275225	131.00	132.00	1.56										W			M			M	
E275226	132.00	133.10	0.22										S							
E275227	133.10	134.00	0.03	133.10	134.60	4F	Hydrothermal looking section of 4F (with 20% 4B-A) composed of 40-60% garnets 3-5mm in f.g. ~pure biotite matrix. 4F occurs as bands up to 20cm wide seperated by ~20% bands <1cm wide of 4B-A and weak 4E.													
E275228	134.00	134.60	0.01																	

Assay				MAJOR UNIT					MINOR UNIT				ALTERATION							
Sample	From	To	AU ppm	From	To	Unit	Comments	Comments	From	To	Unit	Comments	Bio	Car	Chl	Gru	Hem	Ser	Si	Comments
E275229	134.60	135.60	0.01	134.60	136.60	4B	Faintly laminated, dark gray 4B with ~20-30% thin laminae of 4F, minor 4E and 4EA.						W							
E275231	135.60	136.60	0.01																	
E275232	136.60	137.60	0.01	136.60	150.00	4B	Upper 3m is faintly laminated 4B with minor 4E-4F and 4EA laminae. Rest is more typical well banded white chert-black magnetite; band width increases with depth up to 2-3cm.	Only a few minor zones of alteration, some 4F flanking qtz veins.					W			W				
E275233	137.60	138.60	0.01																	
E275234	138.60	139.20	0.01																	
E275235	139.20	140.00	0.01																	
E275236	140.00	141.00	0.01																	
E275237	141.00	142.00	0.04																	
E275238	142.00	143.00	0.01																	
E275239	143.00	144.00	0.02																	
E275241	144.00	145.00	0.17																	
E275242	145.00	146.00	0.23																	
E275243	146.00	146.90	0.01																	
E275244	146.90	148.00	0.24																	
E275245	148.00	149.00	0.06																	
E275246	149.00	150.00	0.05																	
E275247	150.00	151.00	0.05	150.00	153.55	4A	Appears to have been a typical chert-grunerite 4A unit but has been highly qtz flooded and veined, strained, moderately mineralized with Po.	The Po occurs as irregular bands, veins, networks, etc., no obvious 4H component.							W	M			S	
E275248	151.00	152.00	0.16																	
E275249	152.00	153.00	0.21																	
E276751	153.00	153.55	0.11																	
E276752	153.55	154.00	0.01	153.55	162.00	2T	Well foliated, moderately biotitized basalt. Biotite occurs along thin foliation planes and bands <few mm thick. No ultramafics.													

STRUCTURAL LOG 04-ISL-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
0.00	10.60	CASI																	17.00	18.00	47	WE	S1													
10.60	100.70	3F																	27.00	28.00	45	WE	S1													
																			34.00	36.00	45	WE	S1													
											47.50	48.00	QZ-C	50				Actually more of a qtz-Cc flooding than discrete veins but flanks major qtz vein below.																		
											48.00	49.70	QZ	95	m	S	42	Single big qtz vein with minor wallrock slivers and biotite filled frax.	48.00	49.00	45	WE	S1													
																			51.00	52.00	47	WE	S1													
																			57.00	58.00	45	WE	S1													
																			64.00	68.00	45	WE	S1													
																			71.00	72.00	45	WE	S1													
								1.5																												
							5.0																													
								3																												
																			84.00	88.00	45	WE	S1													
																			93.00	95.00	45	MO	S1													
100.70	112.00	2						4			100.70	101.30	QZ-C	3																						
								0.05																												

STRUCTURAL LOG 04-ISL-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING								FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	VG Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
112.00	114.10	4E					1.0												112.00	113.00	38	MO	S1													
							2.0																													
114.10	118.40	2T																																	
118.40	120.40	4E					1.0	2																											
			51																120.00	121.00	51	MO	S1													
120.40	122.00	6																	121.00	123.00	47	WE	S1													
122.00	123.30	4EA																																	
123.30	128.70	4EA																							124.00	125.00	35	MO	IF						
							0.5	0.1											125.00	126.00	50		S0													
							0.1																													
																			128.00	129.00	45		S0													
128.70	130.45	4B																							130.00	130.50	40	INT	IF						
130.45	133.10	4EA					0.1																		130.50	131.00	47	INT	ZF						
133.10	134.60	4F																																	
134.60	136.60	4B																																	
											136.00	142.00	QZ	2	m	I																			
136.60	150.00	4B																	138.00	139.00	43	WE	S0													
																									139.00	139.40			ZF	Actually a small shear band, indicates west side moved up relative to the east, same as a Z fold.						

STRUCTURAL LOG 04-ISL-010

MAJOR UNIT			Cont	MINERALS							QTZ VEINING							FABRIC						FOLD						FAULT					
From	To	Major Unit		As %	Cp %	Mt %	Po %	Py%	vg Specks	Comments	From	To	Vein Type	Vein %	Tex	Contact Type	Alpha deg	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments	From	To	Alpha deg	Int	Type	Comments
																			141.00	142.00	38		S0													
							0.1				142.00	144.00	QZ	8	m	I									142.90	143.00	45	MO	ZF						
											144.00	145.00	QZ	6		I																			
											145.00	146.00	QZ	20	m	I																			
											146.00	146.90	QZ	2																					
								0.05			146.90	148.90	QZ	7	m	I			147.00	149.00	45		S0													
							2.0			Mainly in a 1.5cm vein.	148.90	150.00	QZ	3	m	I																			
							0.1																													
150.00	153.55	4A					1.5																													
							8.0																													
							0.1																													
153.55	162.00	2T																	155.00	156.00	34	MO	S2												
																			160.00	162.00	38	MO	S1												

PLACER DOME (CLA) LTD

SUMMARY REPORT

2003-2004 DIAMOND DRILLING PROGRAM

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VOLUME 6 OF 6

ESKER-ISLAND TARGET
MUSSELWHITE MINE

J.W.PATRICK LENGYEL, P. GEO.

JUNE 13, 2005

RECEIVED
JUN 22 2005
GEOSCIENCE ASSESSMENT
OFFICE

Appendix VII

Assay Lab Certificates

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1 Canada
Phone: 604 984 0221 Fax: 604 984 0218

To: **PLACER DOME NORTH AMERICA**
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 26-MAR-2004
Account: OPB

CERTIFICATE TB04014040

Project:

P.O. No.:

This report is for 105 Drill Core samples submitted to our lab in Thunder Bay, ON, Canada on 19-MAR-2004.

The following have access to data associated with this certificate:

ANDREW CHEATLE	PETER LAUDER	GARY SNOW

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um
SPL-21	Split sample - riffle splitter
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Au-GRA21	Au 30g FA-GRAV finish	WST-SIM



To: **PLACER DOME NORTH AMERICA**
ATTN: ANDREW CHEATLE
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd
212 Brooksbank Avenue
North Vancouver BC V7J 2C1 Canada
Phone 604 984 0221 Fax: 604 984 0218

To: PLACER DOME NORTH AMERICA
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 26-MAR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04014040

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-GRA21 Au ppm 0.05
E273751		1.43	0.010	
E273752		2.99	0.142	
E273753		1.69	0.008	
E273754		0.95	0.006	
E273755		1.37	0.012	
E273756		2.61	3.45	
E273757		1.39	0.215	
E273758		1.59	5.44	
E273759		2.47	0.588	
E273760		2.11	<0.005	
E273761		1.17	<0.005	
E273762		0.99	<0.005	
E273763		2.03	0.097	
E273764		1.07	0.287	
E273765		0.95	7.52	
E273766		1.90	0.048	
E273767		1.30	0.091	
E273768		1.08	0.186	
E273769		1.21	1.485	
E273770		0.04	7.33	
E273771		1.34	0.157	
E273772		1.27	0.017	
E273773		2.56	4.37	
E273774		1.84	0.604	
E273775		1.41	0.173	
E273776		1.28	0.077	
E273777		1.43	0.038	
E273778		1.84	0.795	
E273779		1.70	0.031	
E273780		2.32	<0.005	
E273781		0.94	0.044	
E274001		2.03	0.020	
E274002		2.29	0.039	
E274003		2.07	0.068	
E274004		0.97	0.023	
E274005		1.55	<0.005	
E274006		1.41	5.00	
E274007		0.81	0.190	
E274008		1.56	0.027	
E274009		1.24	0.012	

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To: PLACER DOME NORTH AMERICA
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 26-MAR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04014040

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-GRA21 Au ppm 0.05
E274010		0.05	3.19	
E274011		1.05	0.129	
E274012		1.06	0.012	
E274013		1.35	0.192	
E274014		2.19	0.374	
E274015		1.46	0.015	
E274016		1.99	0.029	
E274017		2.74	5.57	
E274018		1.24	0.088	
E274019		1.42	0.026	
E274020		1.42	0.008	
E274021		1.33	>10.0	16.05
E274022		2.37	2.44	
E274023		1.94	0.069	
E274024		2.13	0.016	
E274025		2.22	0.423	
E274026		2.07	0.021	
E274027		1.29	0.015	
E274028		2.18	0.051	
E274029		3.03	0.164	
E274030		0.07	6.60	
E274031		1.70	5.45	
E274032		1.75	3.18	
E274033		3.00	2.28	
E274034		2.65	0.155	
E274035		3.37	0.577	
E274036		3.08	0.407	
E274037		2.89	1.250	
E274038		2.86	0.033	
E274039		3.06	0.085	
E274040		1.58	0.093	
E274041		3.17	0.042	
E274042		2.71	0.080	
E274043		2.79	0.016	
E274044		2.72	0.069	
E274045		2.86	0.829	
E274046		1.91	1.295	
E274047		1.18	1.255	
E274048		2.07	3.12	
E274049		2.71	2.34	

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Date: 26-MAR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04014040

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-GRA21 Au ppm 0.05
E274050		0.07	3.29	
E274051		2.88	0.199	
E274052		2.65	0.337	
E274053		2.74	0.320	
E274054		2.88	0.056	
E274055		1.81	0.196	
E274056		2.94	0.104	
E274057		3.02	0.088	
E274058		2.94	0.044	
E274059		2.63	0.252	
E274060		1.68	<0.005	
E274061		2.75	0.409	
E274062		2.33	1.400	
E274063		1.97	1.510	
E274064		2.87	0.108	
E274065		2.74	0.171	
E274066		2.81	0.056	
E274067		2.57	0.048	
E274068		3.12	0.021	
E274069		2.87	0.047	
E274070		0.06	7.11	
E274071		2.91	0.109	
E274072		2.81	0.310	
E274073		1.57	0.154	
E274074		1.08	0.007	

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To: **PLACER DOME NORTH AMERICA**
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 24-MAR-2004
Account: OPB

CERTIFICATE TB04013485

Project:

P.O. No.:

This report is for 221 Drill Core samples submitted to our lab in Thunder Bay, ON, Canada on 17-MAR-2004.

The following have access to data associated with this certificate:

ANDREW CHEATLE	PETER LAUDER	GARY SNOW

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode
CRU-31	Fine crushing - 70% <2mm
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um
SPL-21	Split sample - riffle splitter

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS

To: **PLACER DOME NORTH AMERICA**
ATTN: GARY SNOW
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

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PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 24-MAR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04013485

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-AA23 Au Check ppm 0.005
E266879		1.61	0.234		
E266880		1.14	<0.005		
E266881		2.40	0.370		
E266882		1.86	0.009		
E266883		2.39	0.019		
E266884		2.19	0.007		
E266885		1.65	0.009		
E266886		1.93	0.008		
E266887		1.48	0.011		
E266888		1.47	0.006		
E266889		2.10	0.006		
E266890		0.15	3.18		
E266891		1.64	0.008		
E266892		1.83	0.007		
E266893		2.18	0.028		
E266894		2.81	0.014		
E266895		2.21	0.016		
E266896		2.41	0.835		
E266897		2.33	0.649		
E266898		2.49	0.095		
E266899		2.21	0.238		
E266900		1.49	0.034		
E266901		2.36	0.043		
E266902		2.03	0.019		
E266903		1.94	0.024		
E266904		2.20	<0.005		
E266905		2.45	0.011		
E266906		2.05	0.055		
E266907		2.42	0.015		
E266908		3.19	0.014		
E266909		1.77	0.024		
E266910		0.39	3.20		
E266911		1.71	0.158		
E266912		2.68	0.056		
E266913		2.46	0.022		
E266914		2.68	0.099		
E266915		2.84	0.024		
E266916		2.21	0.017		
E266917		2.29	0.028		
E266918		2.42	0.097		

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Date: 24-MAR-2004
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CERTIFICATE OF ANALYSIS TB04013485

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-AA23 Au Check ppm 0.005
E266919		2.43	0.298		
E266920		1.38	0.009		
E266921		2.42	0.059		
E268564		2.63	0.017		
E268565		2.40	0.041		
E268566		2.55	0.584		
E268567		2.12	0.055		
E268568		2.58	0.026		
E268569		2.82	0.299		
E268570		0.19	6.96		
E268571		1.98	0.018		
E268572		2.23	0.017		
E268573		2.15	0.020		
E268574		2.02	0.019		
E268575		2.23	0.020		
E268576		2.25	0.023		
E268577		1.91	0.024		
E268578		1.96	0.061		
E268579		2.41	0.221		
E268580		0.97	0.009		
E268581		2.00	0.018		
E268582		2.24	0.013		
E268583		1.98	0.012		
E268584		1.81	0.008		
E268585		2.16	0.011		
E268586		2.26	0.010		
E268587		2.43	0.018		
E268588		2.03	0.044		
E268589		2.19	0.030		
E268590		0.06	3.21		
E268591		1.79	0.269		
E268592		2.01	0.020		
E268593		1.92	0.017		
E268594		1.85	0.006		
E268595		2.30	0.006		
E268596		1.66	0.006		
E268597		2.24	0.013		
E268598		2.13	0.008		
E268599		1.77	0.011		
E268600		1.06	<0.005		

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Date: 24-MAR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04013485

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-AA23 Au Check ppm 0.005
E268601		2.35	0.013		
E268602		2.15	0.020		0.019
E268603		2.34	4.08		3.76
E268604		2.06	0.325		0.293
E268605		2.24	0.117		
E268606		2.04	0.044		
E268607		1.96	0.016		
E268608		2.82	0.042		
E268609		2.21	0.040		
E268610		0.49	3.26		
E268611		2.16	0.428		
E268612		2.20	0.107		
E268613		2.26	0.068		
E268614		1.98	0.155		
E268615		2.17	0.466		
E268616		1.66	0.140		
E268617		2.31	0.056		
E268618		2.09	0.197		
E268619		2.12	1.340		
E268620		0.89	0.008		
E268621		1.94	1.735		
E268622		1.87	0.030		
E268623		1.94	0.069		0.018
E268624		2.00	5.18		5.01
E268625		2.16	0.041		0.036
E268626		2.33	0.059		
E268627		1.85	0.045		
E268628		2.26	0.019		
E268629		2.22	0.015		
E268630		0.16	7.15		
E268631		1.89	0.050		
E268632		2.00	0.024		
E268633		1.33	0.152		
E268634		1.48	0.023		
E268635		1.77	0.126		
E268636		2.27	1.550		
E268637		2.06	0.343	0.250	0.251
E268638		2.08	3.22	1.360	1.335
E268639		2.14	0.019		0.011
E268640		0.75	0.012		

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PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 24-MAR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04013485

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-AA23 Au Check ppm 0.005
E268641		1.94	0.015		
E268642		2.36	0.010		
E268643		1.86	0.010		
E268644		2.24	0.010		
E268645		1.96	0.005		
E268646		2.05	0.009		
E268647		1.70	0.016		
E268648		1.98	0.012		
E268649		2.22	0.018		
E268650		0.24	3.28		
E268651		1.41	0.015		
E268652		1.73	0.030		
E268653		1.87	0.209		
E268654		1.77	0.992		
E268655		2.61	0.126		
E268656		2.54	0.140		
E268657		2.06	0.009		
E268658		2.01	0.015		
E268659		1.78	0.084		
E268660		0.88	<0.005		
E268661		2.18	0.010		
E268662		2.31	0.007		
E268663		2.12	0.006		
E268664		1.81	<0.005		
E268665		1.87	0.005		
E268666		1.89	<0.005		
E273615		1.05	0.051		
E273616		1.78	0.094		
E273617		2.00	0.034		
E273618		2.47	3.47		
E273619		2.25	0.492		
E273620		0.88	0.006		
E273621		1.40	0.020		
E273622		1.62	0.152		
E273623		1.86	0.126		
E273624		0.85	0.056		
E273625		0.99	0.011		
E273626		1.09	0.026		
E273627		2.74	1.260		
E273628		1.22	0.046		

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THUNDER BAY ON P7B 6S8

Date: 24-MAR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04013485

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-AA23 Au Check ppm 0.005
E273629		0.97	0.011		
E273630		0.13	6.99		6.97
E273631		1.39	9.63		8.94
E273632		1.05	0.042		0.060
E273633		1.16	0.096		
E273634		2.72	0.034		
E273635		1.70	0.044		
E273636		1.08	1.720		
E273637		2.08	4.81		
E273638		1.06	0.184		
E273639		1.06	0.108		
E273640		1.23	0.031		
E273641		1.58	2.91		
E273642		1.09	0.115		
E273643		2.40	4.24		
E273644		1.92	9.27		
E273645		1.67	0.066		
E273646		1.91	0.068		
E273647		1.60	0.541		
E273648		2.08	0.022		
E273649		2.11	0.254		
E273650		0.22	7.26		
E273651		2.20	0.489		
E273652		1.26	0.852		
E273653		2.80	6.48		
E273654		2.21	2.15		
E273655		2.48	0.051		
E273656		2.67	0.145		
E273657		1.76	0.031		
E273658		3.20	0.124		
E273659		2.71	0.654		
E273660		1.26	0.014		
E273661		2.50	0.492		
E273662		2.61	0.011		
E273663		2.35	0.048		
E273664		2.72	0.026		
E273665		2.45	0.179		
E273666		2.64	0.147		
E273667		2.12	0.165		
E273668		2.81	0.021		

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Date: 24-MAR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04013485

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-AA23 Au Check ppm 0.005
E273669		2.75	0.026		
E273670		0.28	6.67		
E273671		2.49	0.046		
E273672		2.43	0.078		
E273673		2.47	0.461		
E273674		2.37	0.176		
E273675		1.59	0.299		
E273676		0.70	0.014		
E273981		2.02	0.022		
E273982		2.10	0.007		
E273983		0.84	0.011		
E273984		0.88	0.005		
E273985		1.05	0.160		
E273986		1.04	0.012		
E273987		2.34	0.011		
E273988		2.15	0.005		
E273989		2.32	0.007		
E273990		0.18	2.87		
E273991		0.87	0.014		
E273992		1.03	0.069		
E273993		1.14	1.115		

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THUNDER BAY ON P7B 6S8

Date: 16-APR-2004
Account: OPB

CERTIFICATE TB04017919

Project:

P.O. No.:

This report is for 144 Drill Core samples submitted to our lab in Thunder Bay, ON, Canada on 8-APR-2004.

The following have access to data associated with this certificate:

ANDREW CHEATLE	PETER LAUDER	GARY SNOW

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um
SPL-21	Split sample - riffle splitter
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Au-GRA21	Au 30g FA-GRAV finish	WST-SIM

To: **PLACER DOME NORTH AMERICA**
ATTN: ANDREW CHEATLE
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

ALS Chemex

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PO BOX 7500
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Date: 16-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04017919

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-GRA21 Au ppm 0.05
E209891		2.97	0.052		
E209892		2.49	0.017		
E209893		2.51	0.015		
E209894		2.55	0.028		
E209895		2.96	0.058		
E209896		2.84	0.146		
E209897		2.36	0.061		
E209898		2.86	0.031		
E209899		3.26	0.201		
E209900		1.04	<0.005		
E269125		2.34	0.006		
E269126		1.79	0.006		
E269127		2.04	0.045		
E269128		2.46	0.010		
E269129		2.46	0.007		
E269130		0.04	7.43		
E269131		2.08	0.008		
E269132		1.79	0.011		
E269133		1.59	>10.0		11.75
E269134		1.76	3.97		
E269135		1.17	0.048		
E269136		0.99	0.024		
E269137		2.28	0.023		
E269138		1.94	0.011		
E269139		2.19	6.92		
E269140		1.65	0.053		
E269141		1.53	0.042		
E269142		1.32	0.015		
E269143		2.43	0.015		
E269144		2.82	0.750		
E269145		2.34	0.060		
E269146		1.99	0.012		
E269147		2.06	0.016		
E269148		0.93	0.169		
E269149		2.39	0.097		
E269150		0.06	3.36		
E269151		2.03	0.070		
E269152		2.73	2.89		
E269153		2.52	0.010		
E269154		3.42	0.171		

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Phone: 604 984 0221 Fax: 604 984 0218

TO: PLACER DOME NORTH AMERICA
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 16-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04017919

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-GRA21 Au ppm 0.05
E269155		2.87	0.007		
E269156		3.11	0.120		
E269157		2.56	0.010		
E269158		2.34	<0.005		
E269159		2.57	<0.005		
E269160		1.31	<0.005		
E269161		2.89	0.008		
E269162		2.67	0.095		
E269163		2.44	0.362		
E269164		2.58	1.180		
E269165		2.70	1.065		
E269166		2.78	2.44		
E269167		2.89	0.094		
E269168		2.71	0.224		
E269169		2.30	0.272		
E269170		0.04	6.62		
E269171		2.57	3.42		
E269172		2.59	0.046		
E269173		2.80	0.840		
E269174		2.46	0.354		
E269175		2.64	0.524		
E269176		2.67	0.107		
E269177		2.86	0.247		
E269178		2.57	0.114		
E269179		2.42	0.176		
E269180		1.46	<0.005		
E269181		3.18	1.065		
E269182		2.53	0.348		
E269183		2.50	0.174		
E269184		1.99	0.016		
E269185		2.74	0.023		
E269186		2.47	0.375		
E269187		2.70	0.216		
E269188		2.77	0.358		
E269189		2.75	0.660		
E269190		0.04	3.31		
E269191		2.57	0.401		
E269192		2.61	1.240		
E269193		2.57	1.315		
E269194		2.48	0.096		

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MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 16-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04017919

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-GRA21 Au ppm 0.05
E269195		2.33	0.216		
E269196		2.67	0.135		
E269197		2.71	0.647		
E269198		2.55	0.214		
E269199		2.60	0.023		
E269200		1.50	<0.005		
E269201		2.80	0.014		
E269202		2.34	0.032		
E269203		2.78	0.028		
E269204		2.21	2.50		
E273578		2.13	0.150		
E273579		2.58	0.359		
E273580		1.50	<0.005		
E273581		2.48	0.066		
E273582		2.83	0.247		
E273583		2.75	0.023		
E273584		2.78	0.013		
E273585		2.74	0.016		
E273586		2.99	0.102		
E273587		2.10	0.035		
E273588		1.13	1.120		
E273589		2.57	1.345		
E273590		0.05	3.12		
E273591		2.70	1.885		
E273592		2.49	5.15		
E273593		2.85	8.36		
E273594		2.05	6.91		
E273595		2.34	1.440		
E273596		2.81	>10.0		10.65
E273597		2.83	5.11		
E273598		1.71	>10.0		22.5
E273599		2.68	4.78	4.20	
E273600		1.62	0.113	0.123	
E273601		2.69	2.64	2.03	
E273602		2.04	0.239	0.209	
E273603		2.46	0.831		
E273604		2.67	0.748		
E273605		2.56	0.568		
E273606		1.91	0.047		
E273607		1.74	0.018		

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Date: 16-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04017919

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-GRA21 Au ppm 0.05
E273608		2.48	0.065		
E273609		2.81	0.040		
E273610		0.05	3.20		
E273611		2.87	0.062		
E273612		1.43	0.052		
E273613		2.88	0.032		
E273614		2.28	0.006		
E276001		2.65	1.255		
E276002		2.71	0.082		
E276003		2.29	0.151		
E276004		2.41	0.054		
E276005		3.03	0.127		
E276006		2.69	1.140		
E276007		2.26	0.020		
E276008		2.65	0.028		
E276009		2.64	0.011		
E276010		0.08	3.33		
E276011		2.73	0.020		
E276012		2.50	0.007		
E276013		2.05	0.005		
E276014		2.80	0.138		
E276015		2.29	0.010		
E276016		3.46	0.008		
E276017		5.22	0.014		

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To: PLACER DOME NORTH AMERICA
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 21-APR-2004
Account: OPB

CERTIFICATE TD04011966

Project:

P.O. No.:

This report is for 155 Drill Core samples submitted to our lab in Thunder Bay, ON, Canada on 15-APR-2004.

The following have access to data associated with this certificate:

ANDREW CHEATLE	PETER LAUDER	GARY SNOW

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um
SPL-21	Split sample - riffle splitter
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS

To: **PLACER DOME NORTH AMERICA**
ATTN: GARY SNOW
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

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To: PLACER DOME NORTH AMERICA
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PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 21-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04011966

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005
E268207		2.60	0.877
E268208		2.37	2.07
E268209		2.74	0.016
E268210		0.08	3.10
E268211		2.56	0.075
E268212		2.44	0.628
E268213		2.45	0.021
E268214		2.56	0.019
E268215		2.37	0.014
E268216		2.88	1.480
E268217		2.32	0.017
E268218		2.61	0.011
E268219		2.68	0.082
E268220		1.39	<0.005
E268221		2.71	0.028
E268222		2.52	0.439
E268223		2.65	0.010
E268224		2.41	0.012
E268225		2.67	0.009
E268226		1.91	0.187
E268227		2.52	0.734
E268228		2.49	0.528
E268229		2.93	0.099
E268230		0.09	6.77
E268231		2.64	1.280
E268232		2.70	0.589
E268233		2.38	6.03
E268234		2.55	0.039
E269084		2.30	0.035
E269085		2.56	0.044
E269086		2.61	0.022
E269087		2.33	0.373
E269088		1.46	0.140
E269089		2.50	0.019
E269090		0.08	3.18
E269091		2.55	0.042
E269092		2.46	<0.005
E269093		2.08	0.009
E269094		2.78	0.027
E269095		3.27	0.056

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Date: 21-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04011966

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005
E269096		2.93	0.009
E269097		2.05	<0.005
E269098		1.34	<0.005
E269099		2.47	0.009
E269100		1.93	<0.005
E269101		2.49	0.134
E269102		2.45	<0.005
E269103		2.31	0.102
E269104		2.89	0.047
E269105		2.76	0.259
E269106		3.03	0.069
E269107		2.68	0.189
E269108		2.73	0.060
E269109		2.93	0.137
E269110		0.08	3.17
E269111		2.61	0.350
E269112		2.53	0.215
E269113		2.97	0.219
E269114		3.29	0.259
E269115		2.90	0.143
E269116		2.67	0.439
E269117		2.83	0.142
E269118		2.17	0.060
E269119		2.60	0.132
E269120		1.89	<0.005
E269121		2.65	0.098
E269122		2.70	0.218
E269123		2.48	<0.005
E269124		2.49	0.005
E276336		2.40	<0.005
E276337		2.10	<0.005
E276338		2.30	0.005
E276339		2.30	0.005
E276340		1.78	<0.005
E276341		2.40	0.037
E276342		2.20	0.010
E276343		2.22	0.013
E276344		2.11	<0.005
E276345		1.60	0.066
E276346		2.42	0.009

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PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 21-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04011966

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005
E276347		2.37	0.005
E276348		1.92	0.129
E276349		2.30	0.008
E276350		0.05	3.06
E276351		2.29	<0.005
E276352		2.51	0.032
E276353		2.29	0.073
E276354		2.05	0.035
E276355		2.06	0.115
E276356		2.36	0.064
E276357		2.06	0.053
E276358		2.59	0.043
E276359		2.59	0.194
E276360		1.57	<0.005
E276361		2.74	0.228
E276362		1.77	0.025
E276363		2.82	6.22
E276364		2.63	2.25
E276365		2.59	2.32
E276366		2.92	1.005
E276367		2.69	0.443
E276368		2.72	0.082
E276369		3.13	0.076
E276370		0.08	6.70
E276371		2.64	0.613
E276372		2.28	0.301
E276373		2.67	0.380
E276374		1.64	1.025
E276375		2.96	2.40
E276376		2.53	0.565
E276377		2.60	0.491
E276378		2.81	0.271
E276379		2.99	4.51
E276380		1.55	0.034
E276381		2.66	1.015
E276382		2.09	2.88
E276383		1.78	0.278
E276384		2.68	0.053
E276385		2.88	0.034
E276386		2.34	0.302

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Date: 21-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04011966

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005
E276387		2.12	0.185
E276388		2.54	0.442
E276389		3.02	0.013
E276390		0.08	3.19
E276391		2.26	0.022
E276392		2.80	0.012
E276393		3.14	0.026
E276394		2.64	0.035
E276395		2.69	0.043
E276396		2.41	0.046
E276397		2.57	0.071
E276398		2.76	0.304
E276399		2.88	0.014
E276400		1.47	<0.005
E276401		1.36	0.035
E276402		1.93	0.010
E276403		2.39	1.710
E276404		2.21	8.19
E276405		2.68	0.032
E276406		1.79	0.058
E276407		2.71	0.165
E276408		2.35	0.218
E276409		2.86	0.072
E276410		0.08	2.65
E276411		3.03	0.023
E276412		2.76	0.072
E276413		2.71	0.014
E276414		2.75	0.106
E276415		3.29	0.112
E276416		2.80	0.048
E276417		2.86	0.050
E276418		2.06	0.079
E276419		2.00	0.017
E276420		1.33	<0.005
E276421		2.39	0.100

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Date: 14-APR-2004
Account: OPB

CERTIFICATE TB04018635

Project:

P.O. No.:

This report is for 115 Drill Core samples submitted to our lab in Thunder Bay, ON, Canada on 8-APR-2004.

The following have access to data associated with this certificate:

ANDREW CHEATLE	PETER LAUDER	GARY SNOW

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um
SPL-21	Split sample - riffle splitter
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS

To: **PLACER DOME NORTH AMERICA**
ATTN: GARY SNOW
MUSSELWHITE MINE
PO BOX 7500
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

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Date: 14-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04018635

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005
E209838		2.04	0.108
E209839		2.13	0.135
E209840		1.02	<0.005
E209841		2.05	0.072
E209842		2.56	1.045
E209843		2.61	0.019
E209844		2.40	0.021
E209845		1.71	1.215
E209846		2.57	0.017
E209847		1.72	0.015
E209848		0.90	3.51
E209849		1.98	0.016
E209850		0.06	3.39
E209851		1.96	0.068
E209852		1.53	2.71
E209853		2.41	3.09
E209854		1.55	0.681
E209855		3.25	0.044
E209856		2.56	0.014
E209857		1.95	0.012
E209858		1.81	0.076
E209859		1.98	1.690
E209860		0.94	0.009
E209861		2.56	0.054
E209862		2.38	0.021
E209863		2.32	0.014
E209864		2.62	0.049
E209865		2.42	0.040
E209866		2.50	0.020
E209867		2.52	0.172
E209868		2.56	0.050
E209869		2.42	0.135
E209870		0.06	3.45
E209871		2.44	0.149
E209872		2.33	0.477
E209873		2.60	0.314
E209874		2.76	0.118
E209875		2.73	0.222
E209876		2.62	0.153
E209877		3.09	0.178

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Date: 14-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04018635

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005
E209878		2.76	0.027
E209879		2.69	0.671
E209880		0.88	<0.005
E209881		2.96	0.691
E209882		2.25	0.073
E209883		2.72	0.037
E209884		2.78	0.196
E209885		2.64	0.065
E209886		3.12	0.195
E209887		2.79	0.023
E209888		2.90	0.016
E209889		2.81	0.022
E209890		0.06	3.21
E246001		2.72	0.023
E246002		2.47	0.005
E246003		1.94	0.008
E246004		2.73	<0.005
E246005		2.81	0.012
E246006		2.81	0.142
E246007		2.47	0.132
E246008		2.94	0.070
E246009		2.49	0.363
E246010		0.06	3.03
E246011		2.75	1.930
E246012		2.57	0.148
E246013		2.81	5.00
E246014		2.83	1.195
E246015		2.60	0.242
E246016		2.72	0.131
E246017		2.56	0.068
E246018		2.75	0.050
E246019		2.78	0.017
E246020		1.64	<0.005
E246021		2.51	0.186
E246022		2.87	0.012
E246023		2.88	0.013
E246024		2.89	0.008
E246025		2.68	0.005
E246026		2.79	0.041
E246027		2.76	0.367

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THUNDER BAY ON P7B 6S8

Date: 14-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04018635

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005
E246028		2.88	0.560
E246029		2.93	0.153
E246030		0.06	7.26
E246031		2.55	0.820
E246032		2.71	0.017
E246033		3.02	0.045
E246034		2.64	0.028
E246035		2.60	0.035
E246036		3.01	0.037
E246037		2.62	0.007
E246038		2.73	0.006
E246039		2.77	0.496
E246040		1.57	0.005
E246041		2.90	0.227
E246042		2.36	0.011
E246043		2.54	0.005
E246044		1.58	<0.005
E246045		1.86	0.010
E246046		2.12	0.005
E246047		1.95	0.006
E246048		2.94	0.489
E246049		2.40	3.28
E246050		0.07	3.24
E246051		2.89	0.966
E246052		2.87	0.130
E246053		2.63	0.069
E246054		2.91	0.400
E246055		2.62	0.082
E246056		1.36	0.188
E246057		2.48	0.196
E246058		2.23	0.147
E269997		2.47	0.016
E269998		2.21	0.016
E269999		2.67	0.011
E270000		1.73	<0.005

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): PLACER DOME NORTH AMERICA
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 14-APR-2004
Account: OPB

CERTIFICATE TB04018634

Project:

P.O. No.:

This report is for 109 Drill Core samples submitted to our lab in Thunder Bay, ON, Canada on 8-APR-2004.

The following have access to data associated with this certificate:

ANDREW CHEATLE	PETER LAUDER	GARY SNOW

SAMPLE PREPARATION

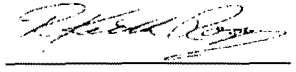
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um
SPL-21	Split sample - riffle splitter
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS

To: **PLACER DOME NORTH AMERICA**
ATTN: GARY SNOW
MUSSELWHITE MINE
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Signature: 

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MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 14-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04018634

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005
E273469		2.93	0.645
E273470		0.06	7.50
E273471		2.82	0.038
E273472		2.78	0.465
E273473		2.40	3.83
E273474		2.04	0.360
E273475		1.44	5.75
E273476		2.87	0.302
E273477		2.21	0.044
E273478		1.88	0.020
E273479		2.85	0.023
E273480		1.76	<0.005
E273481		2.56	0.022
E273482		2.76	1.235
E273483		3.03	0.262
E273484		3.33	1.720
E273485		1.70	0.659
E273486		2.35	0.182
E273487		2.72	0.147
E273488		2.64	0.307
E273489		1.80	0.144
E273490		0.05	3.40
E273491		2.19	2.32
E273492		2.87	0.383
E273493		2.87	0.039
E273494		1.29	0.115
E273495		2.56	0.032
E273496		2.69	0.222
E273497		2.47	0.145
E273498		2.05	2.78
E273499		2.21	0.093
E273500		1.46	0.017
E273501		1.25	0.268
E273502		2.79	0.035
E273503		2.78	0.134
E273504		2.78	0.100
E273505		2.74	0.075
E273506		1.50	0.260
E273507		3.25	0.190
E273508		2.43	0.244

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PO BOX 7500
THUNDER BAY ON P7B 6S8

CERTIFICATE OF ANALYSIS TB04018634

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005
E273509		2.72	0.928
E273510		0.05	3.26
E273511		2.34	0.092
E273512		2.24	0.124
E273513		1.39	0.062
E273514		1.38	0.032
E273515		1.81	0.180
E273516		1.76	0.014
E273517		2.86	0.051
E273518		2.69	0.762
E273519		2.38	0.211
E273520		1.43	<0.005
E273521		3.03	0.020
E273522		1.08	0.048
E273523		2.79	0.030
E273524		1.49	0.046
E273525		2.44	0.087
E273526		2.88	0.197
E273527		2.86	0.608
E273528		2.76	0.073
E273529		2.94	0.118
E273530		0.05	7.32
E273531		3.07	0.041
E273532		2.85	0.123
E273533		2.35	0.101
E273534		3.02	0.155
E273535		2.88	0.041
E273536		3.01	0.913
E273537		2.74	0.092
E273538		2.69	0.162
E273539		2.72	0.412
E273540		1.26	0.006
E273541		2.70	0.608
E273542		2.44	0.478
E273543		2.88	0.139
E273544		2.81	0.074
E273545		2.80	0.019
E273546		2.43	0.019
E273547		2.63	0.077
E273548		2.59	0.051

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PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 14-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04018634

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005
E273549		2.74	0.022
E273550		0.05	3.15
E273551		1.91	0.152
E273552		2.51	4.52
E273553		2.28	0.493
E273554		2.39	0.140
E273555		1.88	0.088
E273556		2.81	0.056
E273557		2.79	0.159
E273558		2.68	1.885
E273559		2.62	1.500
E273560		1.64	0.028
E273561		2.61	0.719
E273562		2.58	0.442
E273563		2.63	1.220
E273564		2.66	0.308
E273565		2.61	0.923
E273566		2.51	1.590
E273567		2.73	0.622
E273568		2.70	1.215
E273569		2.79	1.650
E273570		0.05	7.08
E273571		2.69	1.590
E273572		2.80	0.163
E273573		2.71	0.244
E273574		2.63	0.074
E273575		2.52	0.020
E273576		2.11	0.377
E273577		1.58	0.205

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To: **PLACER DOME NORTH AMERICA**
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

CERTIFICATE TB04016974

Project:

P.O. No.:

This report is for 59 Drill Core samples submitted to our lab in Thunder Bay, ON, Canada on 30-MAR-2004.

The following have access to data associated with this certificate:

ANDREW CHEATLE	PETER LAUDER	GARY SNOW

SAMPLE PREPARATION

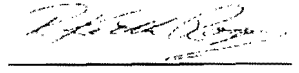
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um
SPL-21	Split sample - riffle splitter
LOG-24	Pulp Login - Rcc w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Au-GRA21	Au 30g FA-GRAV finish	WST-SIM

To: **PLACER DOME NORTH AMERICA**
ATTN: GARY SNOW
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

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To: PLACER DOME NORTH AMERICA
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 6-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04016974

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-GRA21 Au ppm 0.05
E269634		2.42	0.073	
E269635		1.90	0.080	
E269636		3.01	8.42	
E269637		2.51	1.005	
E269638		2.28	0.263	
E269639		2.77	0.705	
E269640		1.26	0.008	
E269641		2.60	0.081	
E269642		2.16	0.426	
E269643		2.19	0.032	
E269644		1.88	0.074	
E269645		2.52	0.252	
E269646		2.84	0.098	
E269647		2.32	0.140	
E269648		2.69	0.178	
E269649		2.64	0.151	
E269650		0.03	3.16	
E269651		2.33	0.310	
E269652		2.46	0.630	
E269653		2.62	2.84	
E269654		2.60	5.03	
E269655		2.22	0.708	
E269656		2.13	3.72	
E269657		2.16	0.199	
E269658		1.86	0.707	
E269659		3.28	0.747	
E269660		1.36	0.014	
E269661		2.23	0.172	
E273782		1.81	0.106	
E273783		2.15	0.131	
E273784		1.84	0.285	
E273785		2.15	0.945	
E273786		2.98	3.63	
E273787		2.58	1.910	
E273788		2.93	0.107	
E273789		2.80	0.016	
E273790		0.03	3.23	
E273791		2.70	0.015	
E273792		2.45	0.125	
E273793		1.43	0.330	

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PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 6-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04016974

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-GRA21 Au ppm 0.05
E273794		2.13	0.164	
E273795		2.56	>10.0	13.65
E273796		3.05	6.08	
E273797		2.90	3.83	
E273798		2.83	2.11	
E273799		2.79	0.566	
E273800		1.65	0.005	
E273801		3.21	0.566	
E273802		2.59	0.492	
E273803		3.03	0.138	
E273804		2.97	0.036	
E273805		2.63	0.033	
E273806		2.55	0.043	
E273807		2.48	0.173	
E273808		2.49	0.148	
E273809		1.47	0.102	
E273810		0.03	3.19	
E273811		2.28	0.688	
E273812		1.48	0.018	

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To: **PLACER DOME NORTH AMERICA**
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PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 13-APR-2004
Account: OPB

CERTIFICATE TB04018636

Project:

P.O. No.:

This report is for 38 Drill Core samples submitted to our lab in Thunder Bay, ON, Canada on 8-APR-2004.

The following have access to data associated with this certificate:

ANDREW CHEATLE	PETER LAUDER	GARY SNOW

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um
SPL-21	Split sample - riffle splitter
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS

To: **PLACER DOME NORTH AMERICA**
ATTN: ANDREW CHEATLE
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

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PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 13-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04018636

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005
E208299		2.77	0.144
E208300		1.03	<0.005
E208369		2.48	0.006
E208370		0.07	7.38
E208371		2.52	0.005
E208372		2.81	0.141
E208373		1.79	0.015
E208374		2.00	2.61
E208375		1.83	0.015
E272483		2.49	0.009
E272484		3.12	0.006
E272485		2.77	0.060
E272486		2.41	0.108
E272487		2.63	0.011
E272488		2.44	0.013
E272489		2.05	0.009
E272490		0.06	3.39
E272491		1.98	0.095
E272492		1.49	0.006
E272493		2.55	0.008
E272494		2.12	0.007
E272495		2.69	0.007
E272496		2.83	0.065
E272497		2.14	0.019
E272498		2.22	0.404
E272499		2.30	0.006
E272500		0.88	<0.005
E272617		2.06	0.009
E272618		2.44	<0.005
E272619		2.50	0.030
E272620		1.24	<0.005
E272621		2.02	0.007
E272622		2.03	<0.005
E272623		2.22	0.009
E272624		2.31	0.011
E272625		2.51	0.051
E275726		2.34	<0.005
E275727		2.58	<0.005

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Date: 7-APR-2004
Account: OPB

CERTIFICATE TB04015454

Project:

P.O. No.:

This report is for 352 Drill Core samples submitted to our lab in Thunder Bay, ON, Canada on 26-MAR-2004.

The following have access to data associated with this certificate:

ANDREW CHEATLE	PETER LAUDER	GARY SNOW

SAMPLE PREPARATION

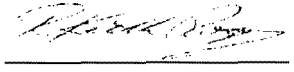
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um
SPL-21	Split sample - riffle splitter
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Au-GRA21	Au 30g FA-GRAV finish	WST-SIM

To: **PLACER DOME NORTH AMERICA**
ATTN: ANDREW CHEATLE
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

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): PLACER DOME NORTH AMERICA
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

CERTIFICATE OF ANALYSIS TB04015454

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-GRA21 Au ppm 0.05	Au-GRA21 Au Check ppm 0.05
E268096		3.12	0.005			
E268097		2.65	0.514			
E268098		3.13	0.011			
E268099		2.13	0.012			
E268100		1.94	0.163			
E268101		2.31	0.005			
E268102		2.59	<0.005			
E268103		2.59	0.034			
E268104		2.71	0.383			
E268105		2.75	0.027			
E268106		2.65	1.020			
E268107		3.14	0.011			
E268851		1.78	0.038			
E268852		1.97	0.026			
E268853		2.01	0.024			
E268854		1.84	0.015			
E268855		2.20	0.009			
E268856		2.34	0.013			
E268857		1.82	0.021			
E268858		2.07	0.006			
E268859		2.05	0.006			
E268860		0.95	0.064			
E268861		2.17	0.010			
E268862		2.09	0.023			
E268863		1.90	0.005			
E268864		1.10	0.018			
E268865		1.49	0.013			
E268866		2.57	0.023			
E268867		2.18	0.040			
E268868		1.94	0.017			
E268869		2.34	0.009			
E268870		0.07	7.06			
E268871		2.60	0.222			
E268872		2.52	0.183			
E268873		1.47	0.041			
E268874		1.52	0.029			
E268875		2.34	0.016			
E268876		2.17	0.720			
E268877		2.14	0.117			
E268878		2.29	0.006			

Comments: Sample E274434 exhibits Au nugget effect, the other Au value is at 18.50ppm.

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PO BOX 7500
THUNDER BAY ON P7B 6S8

CERTIFICATE OF ANALYSIS TB04015454

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-GRA21 Au ppm 0.05	Au-GRA21 Au Check ppm 0.05
E268879		2.35	0.008			
E268880		1.21	0.005			
E268881		2.23	0.026			
E268882		1.94	0.011			
E268883		2.33	0.018			
E268884		2.09	0.007			
E268885		2.13	0.030			
E268886		2.32	0.010			
E268887		2.08	0.017			
E268888		2.01	0.065			
E268889		2.19	0.039			
E268890		0.02	3.31			
E268891		2.02	0.033			
E268892		2.27	0.079			
E268893		2.41	0.036			
E268894		2.17	0.026			
E268895		2.13	0.660			
E268896		2.22	0.228			
E268897		2.21	0.021			
E268898		1.99	0.018			
E268899		2.13	0.018			
E268900		1.48	0.007			
E268901		2.30	0.016			
E268902		2.65	0.018			
E268903		2.28	0.009			
E268904		2.08	0.011			
E268905		2.33	0.015			
E268906		2.03	0.014			
E268907		1.60	0.006			
E268908		2.05	0.005			
E268909		1.99	<0.005			
E268910		0.02	3.22			
E268911		2.31	0.007			
E268912		2.38	<0.005			
E268913		2.15	0.019			
E268914		2.12	<0.005			
E268915		1.75	0.011			
E268916		2.34	0.006			
E268917		2.38	0.031			
E268918		1.62	0.037			

Comments: Sample E274434 exhibits Au nugget effect, the other Au value is at 18.50ppm.

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: PLACER DOME NORTH AMERICA
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

CERTIFICATE OF ANALYSIS TB04015454

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-GRA21 Au ppm 0.05	Au-GRA21 Au Check ppm 0.05
E268919		2.41	0.018			
E268920		1.30	<0.005			
E268921		2.52	0.014			
E268922		1.97	0.008			
E268923		2.37	0.007			
E268924		2.45	0.009			
E268925		2.46	0.008			
E268926		2.16	0.007			
E268927		2.55	0.009			
E268928		2.02	0.010			
E268929		2.15	0.014			
E268930		0.02	7.35			
E268931		1.92	0.007			
E268932		1.82	0.005			
E268933		1.91	0.005			
E268934		1.83	<0.005			
E268935		2.05	0.018			
E268936		2.20	0.020			
E268937		2.27	0.043			
E274307		2.26	0.112			
E274308		2.58	0.098			
E274309		1.62	0.121			
E274310		0.02	3.42			
E274311		1.41	0.634			
E274312		1.98	0.045			
E274313		2.21	0.105			
E274314		2.76	<0.005			
E274315		2.81	0.019			
E274316		2.27	0.013			
E274317		1.52	0.032			
E274318		2.03	0.036			
E274319		2.23	0.009			
E274320		1.69	<0.005			
E274321		2.25	0.011			
E274322		1.26	4.99			
E274323		2.99	3.26			
E274324		2.78	0.058			
E274325		2.50	0.428			
E274326		2.53	0.036			
E274327		2.54	0.050			

Comments: Sample E274434 exhibits Au nugget effect, the other Au value is at 18.50ppm.

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MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 7-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04015454

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-GRA21 Au ppm 0.05	Au-GRA21 Au Check ppm 0.05
E274328		1.96	3.52			
E274329		2.52	0.743			
E274330		0.03	7.31			
E274331		1.22	0.022			
E274332		2.26	0.109			
E274333		2.14	0.027			
E274334		2.38	0.295			
E274335		2.63	0.078			
E274336		2.66	0.119			
E274337		1.75	0.142			
E274338		1.93	8.71			
E274339		2.43	0.217			
E274340		1.17	0.053			
E274341		2.36	0.669			
E274342		2.45	0.419			
E274343		1.83	0.605			
E274344		1.77	0.175			
E274345		1.84	0.294			
E274346		1.51	0.188			
E274347		1.95	0.131			
E274348		3.11	4.31			
E274349		2.42	0.059			
E274350		0.03	3.41			
E274351		2.95	0.064			
E274352		2.67	0.076			
E274353		2.93	0.182			
E274354		1.98	0.179			
E274355		1.74	1.375			
E274356		2.78	0.487			
E274357		2.14	1.915			
E274358		2.15	1.015			
E274359		2.50	1.155			
E274360		1.22	0.017			
E274361		2.35	1.575			
E274362		2.82	0.419			
E274363		2.54	0.333			
E274364		2.25	0.074			
E274365		3.51	0.105			
E274366		2.66	0.022			
E274367		2.83	0.044			

Comments: Sample E274434 exhibits Au nugget effect, the other Au value is at 18.50ppm.

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CERTIFICATE OF ANALYSIS TB04015454

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-GRA21 Au ppm 0.05	Au-GRA21 Au Check ppm 0.05
E274368		2.78	0.089			
E274369		2.62	0.483			
E274370		0.03	7.42			
E274371		2.27	0.032			
E274372		2.26	0.015			
E274373		2.21	0.024			
E274374		2.29	0.029			
E274375		2.35	0.022			
E274376		2.34	0.271			
E274377		2.26	0.032			
E274378		2.98	0.011			
E274379		3.04	0.016			
E274380		1.17	<0.005			
E274381		2.88	0.045			
E274382		3.13	0.082			
E274383		3.38	0.302			
E274384		2.35	0.071			
E274385		2.01	0.198			
E274386		3.00	0.197			
E274387		2.55	0.373			
E274388		2.66	0.161			
E274389		3.08	0.179			
E274390		0.07	7.53			
E274391		2.61	0.476			
E274392		2.78	0.692			
E274393		2.31	4.22			
E274394		2.62	0.636			
E274395		2.50	1.250			
E274396		2.67	2.08			
E274397		3.11	0.466			
E274398		2.93	0.195			
E274399		2.54	0.731			
E274400		1.25	0.008			
E274401		2.71	1.815			
E274402		2.51	1.835			
E274403		2.68	2.45			
E274404		3.07	1.055			
E274405		2.34	1.115			
E274406		3.00	0.284			
E274407		2.63	1.410			

Comments: Sample E274434 exhibits Au nugget effect, the other Au value is at 18.50ppm.

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CERTIFICATE OF ANALYSIS TB04015454

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-GRA21 Au ppm 0.05	Au-GRA21 Au Check ppm 0.05
E274408		2.71	0.418			
E274409		2.46	0.039			
E274410		0.03	3.39			
E274411		2.50	0.035			
E274412		2.30	0.233			
E274413		2.43	0.113			
E274414		2.78	0.110			
E274415		3.39	0.120			
E274416		2.48	<0.005			
E274417		2.10	0.075			
E274418		1.54	0.006			
E274419		1.41	1.975			
E274420		1.17	0.009			
E274421		2.26	0.047			
E274422		2.33	0.041			
E274423		0.84	0.172			
E274424		1.15	5.91			
E274425		1.63	0.089			
E274426		2.91	0.240			
E274427		2.76	0.036			
E274428		3.06	0.022			
E274429		2.38	0.150			
E274430		0.03	7.23			
E274431		2.82	0.203			
E274432		1.63	0.034			
E274433		3.22	4.84			
E274434		3.41	>10.0		8.18	8.21
E274435		2.89	9.01			
E274436		2.58	8.58			
E274437		2.42	0.533			
E274438		2.67	3.23			
E274439		2.59	1.630			
E274440		1.28	0.031			
E274441		2.63	>10.0		20.5	
E274442		2.40	7.00			
E274443		3.10	4.86			
E274444		2.63	4.07			
E274445		2.39	0.125			
E274446		2.49	1.000			
E274447		2.30	0.094			

Comments: Sample E274434 exhibits Au nugget effect, the other Au value is at 18.50ppm.

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THUNDER BAY ON P7B 6S8

Date: 7-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04015454

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-GRA21 Au ppm 0.05	Au-GRA21 Au Check ppm 0.05
E274448		1.29	0.234			
E274449		1.78	3.03			
E274450		0.03	2.92			
E274451		2.36	0.085			
E274452		2.73	0.311			
E274453		2.45	0.036			
E274454		2.54	0.063			
E274455		2.33	0.056			
E274456		2.09	0.045			
E274457		2.52	0.240			
E274458		2.49	0.049			
E274459		2.41	0.262			
E274460		1.46	<0.005			
E274461		3.19	0.216			
E274462		2.59	0.348			
E274463		2.40	0.213			
E274464		2.66	1.440			
E274465		2.42	0.271			
E274466		2.31	0.015			
E274467		2.53	0.060			
E274468		2.48	0.029			
E274469		3.35	0.016			
E274470		0.35	7.68			
E274471		2.76	0.085			
E274472		2.21	0.043			
E274473		2.45	0.020			
E274474		2.19	0.047			
E274475		2.30	0.013			
E274476		2.74	0.076			
E274477		2.59	0.041			
E274478		2.47	0.076			
E274479		2.56	0.120			
E274480		1.13	<0.005			
E274481		2.76	0.505			
E274482		2.59	0.029			
E274483		2.64	0.020			
E274484		2.69	0.018			
E274485		2.21	0.345			
E274486		2.80	0.475			
E274487		2.42	1.055			

Comments: Sample E274434 exhibits Au nugget effect, the other Au value is at 18.50ppm.

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THUNDER BAY ON P7B 6S8

Date: 7-APR-2004
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CERTIFICATE OF ANALYSIS TB04015454

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-GRA21 Au ppm 0.05	Au-GRA21 Au Check ppm 0.05
E274488		2.43	>10.0		11.80	
E274489		2.45	2.49			
E274490		0.03	3.19			
E274491		2.54	3.53			
E274492		2.68	0.962	0.893		
E274493		2.45	1.410			
E274494		2.40	0.286			
E274495		2.61	1.325			
E274496		2.13	2.50			
E274497		2.31	0.161			
E274498		2.68	0.168			
E274499		2.54	0.048			
E274500		1.33	<0.005			
E274501		2.45	0.063			
E274502		3.27	0.019			
E274503		1.51	0.060			
E274504		2.64	0.120			
E274505		2.21	0.308			
E274506		2.39	0.272			
E274507		2.28	0.017			
E274508		2.52	0.305			
E274509		2.37	0.144			
E274510		0.12	3.30			
E274511		2.39	0.021			
E274512		2.43	0.014			
E274513		2.40	0.012			
E274514		2.52	0.033			
E274515		2.65	0.286			
E274516		2.33	0.013			
E274517		2.21	0.100			
E274518		2.34	0.247			
E274519		2.25	0.132			
E274520		1.25	0.012			
E274521		2.51	0.253			
E274522		2.36	1.750			
E274523		2.54	>10.0		27.4	
E274524		2.78	0.724			
E274525		2.57	2.86			
E274526		2.49	0.488			
E274527		2.47	0.315			

Comments: Sample E274434 exhibits Au nugget effect, the other Au value is at 18.50ppm.

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THUNDER BAY ON P7B 6S8

Date: 7-APR-2004
Account: OPB

CERTIFICATE OF ANALYSIS TB04015454

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-GRA21 Au ppm 0.05	Au-GRA21 Au Check ppm 0.05
E274528		2.79	0.056			
E274529		2.51	0.087			
E274530		0.09	7.58			
E274531		2.39	0.302			
E274532		2.69	0.440			
E274533		2.54	0.267			
E274534		2.64	0.393			
E274535		2.61	0.214			
E274536		2.76	0.043			
E274537		2.67	0.314			
E274538		2.61	0.223			
E274539		2.66	0.128	0.135		
E274540		0.74	0.011			
E274541		2.45	0.166			
E274542		1.84	0.035			
E274543		2.16	0.050			
E274544		1.29	0.033			
E274545		1.25	0.028			
E274548		3.25	0.137			
E274549		3.08	0.662			
E274550		0.04	3.24			
E274551		2.64	0.258			
E274552		3.07	0.163			
E274553		2.93	2.12			
E274554		2.92	0.901			
E274555		3.27	0.272			
E274556		3.22	0.045			
E274557		3.62	0.057			
E274558		2.06	0.600			
E274559		2.00	5.49			
E274560		0.87	0.013	0.008		
E274561		2.17	0.032			

Comments: Sample E274434 exhibits Au nugget effect, the other Au value is at 18.50ppm.

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To: **PLACER DOME NORTH AMERICA**
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

Date: 10-MAR-2004
Account: OPB

CERTIFICATE TB04011041

Project:

P.O. No.:

This report is for 83 Drill Core samples submitted to our lab in Thunder Bay, ON, Canada on 4-MAR-2004.

The following have access to data associated with this certificate:

ANDREW CHEATLE	PETER LAUDER	GARY SNOW

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
LOG-22	Sample login - Rod w/o BarCode
PUL-31	Pulverize split to 85% <75 um
SPL-21	Split sample - riffle splitter
LOG-24	Pulp Login - Rcc w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS

To: **PLACER DOME NORTH AMERICA**
ATTN: ANDREW CHEATLE
MUSSELWHITE MINE
PO BOX 7500
THUNDER BAY ON P7B 6S8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

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CERTIFICATE OF ANALYSIS TB04011041

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005
E268025		2.40	0.010
E268026		1.96	0.009
E268027		1.92	0.069
E268028		2.13	0.396
E268029		2.23	0.014
E268030		0.05	7.33
E268031		2.53	0.028
E268032		2.92	0.011
E268033		2.08	0.029
E268034		1.77	4.46
E268035		2.29	0.031
E268036		2.01	0.065
E268037		1.54	<0.005
E268038		1.88	0.009
E268039		2.93	0.023
E268040		1.36	<0.005
E268041		2.63	<0.005
E268042		2.57	<0.005
E268043		2.45	0.140
E268044		1.86	3.57
E268045		1.93	4.28
E268046		1.96	0.031
E268047		2.00	2.41
E268048		2.35	0.119
E268049		2.62	0.264
E268050		0.05	3.17
E268781		2.48	0.010
E274251		2.49	0.037
E274252		1.99	6.23
E274253		2.67	0.698
E274254		2.48	0.105
E274255		2.59	1.005
E274256		2.67	0.145
E274257		2.48	0.030
E274258		2.51	0.050
E274259		1.92	0.778
E274260		1.09	<0.005
E274261		2.57	0.181
E274262		2.79	3.82
E274263		2.51	0.349

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CERTIFICATE OF ANALYSIS TB04011041

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005
E274264		2.52	0.025
E274265		2.70	0.855
E274266		2.64	0.051
E274267		2.57	0.025
E274268		2.76	0.589
E274269		2.61	4.90
E274270		0.05	7.28
E274271		2.66	0.029
E274272		2.51	0.027
E274273		2.53	0.061
E274274		2.53	0.009
E274275		2.54	0.038
E274276		2.66	0.029
E274277		2.52	0.015
E274278		2.75	0.051
E274279		2.56	0.130
E274280		1.19	<0.005
E274281		2.35	0.034
E274282		3.29	0.240
E274283		2.82	0.266
E274284		2.68	0.032
E274285		3.40	0.374
E274286		3.00	0.251
E274287		2.53	0.261
E274288		2.62	0.188
E274289		2.55	0.211
E274290		0.04	3.17
E274291		2.94	0.208
E274292		2.76	2.92
E274293		2.59	0.155
E274294		2.70	0.988
E274295		2.31	0.391
E274296		2.40	0.214
E274297		2.82	0.318
E274298		2.79	0.156
E274299		2.63	0.070
E274300		1.25	<0.005
E274301		2.41	0.137
E274302		1.72	0.016
E274303		1.98	0.049

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CERTIFICATE OF ANALYSIS TB04011041

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt kg 0.02	Au-AA23 Au ppm 0.005
E274304		2.63	0.091
E274305		1.38	0.038
E274306		1.86	<0.005

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E208276	04-ESS-032	215.00	216.00	0.919	2-Jul-04	29-Jan-04
E208277	04-ESS-032	216.00	217.00	2.829	2-Jul-04	29-Jan-04
E208278	04-ESS-032	217.00	218.20	19.700	2-Jul-04	29-Jan-04
E208279	04-ESS-032	218.20	218.70	28.566	2-Jul-04	29-Jan-04
E208281	04-ESS-032	218.70	220.00	3.442	2-Jul-04	29-Jan-04
E208282	04-ESS-032	220.00	221.00	11.866	2-Jul-04	29-Jan-04
E208283	04-ESS-032	221.00	222.00	0.279	2-Jul-04	29-Jan-04
E208284	04-ESS-032	222.00	223.00	0.102	2-Jul-04	29-Jan-04
E208285	04-ESS-032	223.00	224.00	0.284	2-Jul-04	29-Jan-04
E208286	04-ESS-032	224.00	225.00	0.171	2-Jul-04	29-Jan-04
E208287	04-ESS-032	225.00	226.00	0.673	2-Jul-04	29-Jan-04
E208288	04-ESS-032	226.00	227.00	0.673	2-Jul-04	29-Jan-04
E208289	04-ESS-032	227.00	228.00	0.379	2-Jul-04	29-Jan-04
E208291	04-ESS-032	228.00	229.00	0.714	2-Jul-04	29-Jan-04
E208292	04-ESS-032	229.00	230.00	1.218	2-Jul-04	29-Jan-04
E208293	04-ESS-032	230.00	230.50	0.338	2-Jul-04	29-Jan-04
E208294	04-ESS-032	230.50	231.00	0.088	2-Jul-04	29-Jan-04
E208295	04-ESS-032	231.00	232.00	0.079	2-Jul-04	29-Jan-04
E208296	04-ESS-032	232.00	232.40	0.033	2-Jul-04	29-Jan-04
E208297	04-ESS-032	232.40	233.25	0.058	2-Jul-04	29-Jan-04
E208298	04-ESS-032	233.25	234.00	0.015	2-Jul-04	29-Jan-04
E208301	04-ESN-001	63.00	63.80	0.020	13-Feb-04	4-Feb-04
E208302	04-ESN-001	63.80	64.60	0.039	13-Feb-04	4-Feb-04
E208303	04-ESN-001	64.60	65.30	0.023	13-Feb-04	4-Feb-04
E208304	04-ESN-001	65.30	66.00	0.039	13-Feb-04	4-Feb-04
E208305	04-ESN-001	66.00	66.70	0.039	13-Feb-04	4-Feb-04
E208306	04-ESN-001	66.70	67.70	0.045	13-Feb-04	4-Feb-04
E208307	04-ESN-001	67.70	68.40	0.027	13-Feb-04	4-Feb-04
E208308	04-ESN-001	68.40	69.00	0.042	13-Feb-04	4-Feb-04
E208309	04-ESN-001	69.00	69.90	0.080	13-Feb-04	4-Feb-04
E208311	04-ESN-001	69.90	70.90	2.799	13-Feb-04	4-Feb-04
E208312	04-ESN-001	70.90	72.00	0.834	13-Feb-04	4-Feb-04
E208313	04-ESN-001	72.00	73.00	1.902	13-Feb-04	4-Feb-04
E208314	04-ESN-001	73.00	74.00	0.375	13-Feb-04	4-Feb-04
E208315	04-ESN-001	74.00	75.00	0.718	13-Feb-04	4-Feb-04
E208316	04-ESN-001	75.00	76.00	0.743	13-Feb-04	4-Feb-04
E208317	04-ESN-001	76.00	76.80	0.706	13-Feb-04	4-Feb-04
E208318	04-ESN-001	76.80	77.40	4.661	13-Feb-04	4-Feb-04
E208319	04-ESN-001	77.40	78.10	0.130	13-Feb-04	4-Feb-04
E208321	04-ESN-001	78.10	79.00	0.134	13-Feb-04	4-Feb-04
E208322	04-ESN-001	79.00	80.00	0.097	13-Feb-04	4-Feb-04
E208323	04-ESN-001	80.00	81.00	1.442	13-Feb-04	4-Feb-04
E208324	04-ESN-001	81.00	82.00	0.043	13-Feb-04	4-Feb-04
E208325	04-ESN-001	82.00	83.00	0.286	13-Feb-04	4-Feb-04
E208326	04-ESN-001	83.00	84.00	0.208	13-Feb-04	4-Feb-04
E208327	04-ESN-001	84.00	85.00	1.642	13-Feb-04	4-Feb-04
E208328	04-ESN-001	85.00	86.00	0.122	13-Feb-04	4-Feb-04
E208329	04-ESN-001	86.00	86.70	0.213	13-Feb-04	4-Feb-04
E208331	04-ESN-001	86.70	87.60	4.445	13-Feb-04	4-Feb-04
E208332	04-ESN-001	87.60	88.50	0.176	13-Feb-04	4-Feb-04
E208333	04-ESN-001	88.50	89.20	0.266	13-Feb-04	4-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM m	SAMPLE TO m	AU PPM	Analysis Date	Sample Date
E208334	04-ESN-001	89.20	89.80	0.454	13-Feb-04	4-Feb-04
E208335	04-ESN-001	89.80	91.00	0.015	13-Feb-04	4-Feb-04
E208336	04-ESN-001	91.00	92.00	0.018	13-Feb-04	4-Feb-04
E208337	04-ESN-001	92.00	93.00	0.042	13-Feb-04	4-Feb-04
E208338	04-ESN-001	93.00	94.00	0.039	13-Feb-04	4-Feb-04
E208339	04-ESN-001	94.00	94.50	0.349	13-Feb-04	4-Feb-04
E208341	04-ESN-001	94.50	95.50	0.252	13-Feb-04	4-Feb-04
E208342	04-ESN-001	95.50	96.40	0.029	13-Feb-04	4-Feb-04
E208343	04-ESN-001	96.40	97.00	0.028	13-Feb-04	4-Feb-04
E208344	04-ESN-001	97.00	98.00	0.147	13-Feb-04	4-Feb-04
E208345	04-ESN-001	98.00	99.00	0.203	13-Feb-04	4-Feb-04
E208346	04-ESN-001	99.00	100.00	0.068	13-Feb-04	4-Feb-04
E208347	04-ESN-001	100.00	101.00	0.639	13-Feb-04	4-Feb-04
E208348	04-ESN-001	101.00	102.00	0.348	13-Feb-04	4-Feb-04
E208349	04-ESN-001	102.00	103.00	0.101	13-Feb-04	4-Feb-04
E208351	04-ESN-001	103.00	104.00	0.283	13-Feb-04	4-Feb-04
E208352	04-ESN-001	104.00	105.00	0.045	13-Feb-04	4-Feb-04
E208353	04-ESN-001	105.00	105.60	0.086	13-Feb-04	4-Feb-04
E208354	04-ESN-001	105.60	106.00	0.099	13-Feb-04	4-Feb-04
E208355	04-ESN-001	106.00	107.00	0.336	14-Feb-04	4-Feb-04
E208356	04-ESN-001	107.00	108.00	0.339	14-Feb-04	4-Feb-04
E208357	04-ESN-001	108.00	109.00	0.077	14-Feb-04	4-Feb-04
E208358	04-ESN-001	109.00	110.00	0.109	14-Feb-04	4-Feb-04
E208359	04-ESN-001	110.00	111.00	0.086	14-Feb-04	4-Feb-04
E208361	04-ESN-001	111.00	112.00	0.036	14-Feb-04	4-Feb-04
E208362	04-ESN-001	112.00	113.00	0.092	14-Feb-04	4-Feb-04
E208363	04-ESN-001	113.00	114.00	0.060	14-Feb-04	4-Feb-04
E208364	04-ESN-001	114.00	114.80	0.022	14-Feb-04	4-Feb-04
E208365	04-ESN-001	114.80	115.65	0.020	13-Feb-04	4-Feb-04
E208366	04-ESN-001	115.65	116.10	0.027	14-Feb-04	4-Feb-04
E208367	04-ESN-001	116.10	116.60	0.078	14-Feb-04	4-Feb-04
E208368	04-ESN-001	116.60	117.30	0.016	14-Feb-04	4-Feb-04
E208376	04-ESN-002	108.77	110.00	0.076	24-Feb-04	7-Feb-04
E208377	04-ESN-002	110.00	111.00	0.827	24-Feb-04	7-Feb-04
E208378	04-ESN-002	111.00	111.64	1.159	24-Feb-04	7-Feb-04
E208379	04-ESN-002	111.64	112.80	0.490	24-Feb-04	7-Feb-04
E208381	04-ESN-002	112.80	114.00	0.121	24-Feb-04	7-Feb-04
E208382	04-ESN-002	114.00	115.00	0.663	24-Feb-04	7-Feb-04
E208383	04-ESN-002	115.00	116.00	14.570	25-Feb-04	7-Feb-04
E208384	04-ESN-002	116.00	117.00	29.170	25-Feb-04	7-Feb-04
E208385	04-ESN-002	117.00	118.00	7.266	24-Feb-04	7-Feb-04
E208386	04-ESN-002	118.00	119.00	14.000	25-Feb-04	7-Feb-04
E208387	04-ESN-002	119.00	120.00	0.619	24-Feb-04	7-Feb-04
E208388	04-ESN-002	120.00	121.00	1.323	24-Feb-04	7-Feb-04
E208389	04-ESN-002	121.00	122.00	5.299	25-Feb-04	7-Feb-04
E208391	04-ESN-002	122.00	123.00	0.381	25-Feb-04	7-Feb-04
E208392	04-ESN-002	123.00	123.72	0.569	25-Feb-04	7-Feb-04
E208393	04-ESN-002	123.72	125.00	0.613	25-Feb-04	7-Feb-04
E208394	04-ESN-002	125.00	126.00	1.113	25-Feb-04	7-Feb-04
E208395	04-ESN-002	126.00	127.00	0.087	25-Feb-04	7-Feb-04
E208396	04-ESN-002	127.00	128.20	0.790	25-Feb-04	7-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E208397	04-ESN-002	128.20	129.32	0.114	25-Feb-04	7-Feb-04
E208398	04-ESN-002	129.32	130.00	6.792	25-Feb-04	7-Feb-04
E208399	04-ESN-002	130.00	131.00	2.979	25-Feb-04	7-Feb-04
E208401	04-ESN-002	131.00	132.00	10.770	25-Feb-04	7-Feb-04
E208402	04-ESN-002	132.00	133.00	0.128	25-Feb-04	7-Feb-04
E208403	04-ESN-002	133.00	134.12	0.063	25-Feb-04	7-Feb-04
E208404	04-ESN-002	134.12	135.00	0.032	25-Feb-04	7-Feb-04
E208405	04-ESN-002	135.00	135.70	0.052	25-Feb-04	7-Feb-04
E208406	04-ESN-002	135.70	136.40	0.050	25-Feb-04	7-Feb-04
E208407	04-ESN-002	136.40	137.60	0.044	25-Feb-04	7-Feb-04
E208408	04-ESN-002	137.60	138.80	0.034	25-Feb-04	7-Feb-04
E208409	04-ESN-002	138.80	140.00	0.800	25-Feb-04	7-Feb-04
E208411	04-ESN-002	140.00	141.00	0.165	25-Feb-04	7-Feb-04
E208412	04-ESN-002	141.00	142.00	0.170	28-Feb-04	7-Feb-04
E208413	04-ESN-002	142.00	143.00	0.046	28-Feb-04	7-Feb-04
E208414	04-ESN-002	143.00	144.00	0.252	28-Feb-04	7-Feb-04
E208415	04-ESN-002	144.00	145.00	0.018	28-Feb-04	7-Feb-04
E208416	04-ESN-002	145.00	146.00	0.500	28-Feb-04	7-Feb-04
E208417	04-ESN-002	146.00	147.00	0.534	28-Feb-04	7-Feb-04
E208418	04-ESN-002	147.00	148.00	0.238	28-Feb-04	7-Feb-04
E208419	04-ESN-002	148.00	149.00	0.244	28-Feb-04	7-Feb-04
E208421	04-ESN-002	149.00	150.00	0.772	28-Feb-04	7-Feb-04
E208422	04-ESN-002	150.00	151.00	0.127	28-Feb-04	7-Feb-04
E208423	04-ESN-002	151.00	152.00	0.048	28-Feb-04	7-Feb-04
E208424	04-ESN-002	152.00	153.00	0.390	29-Feb-04	7-Feb-04
E208425	04-ESN-002	153.00	154.00	0.170	29-Feb-04	7-Feb-04
E208426	04-ESN-002	154.00	155.00	0.029	29-Feb-04	7-Feb-04
E208427	04-ESN-002	155.00	156.00	0.038	29-Feb-04	7-Feb-04
E208428	04-ESN-002	156.00	157.00	0.052	29-Feb-04	7-Feb-04
E208429	04-ESN-002	157.00	158.00	0.035	29-Feb-04	7-Feb-04
E208431	04-ESN-002	158.00	159.00	0.041	29-Feb-04	7-Feb-04
E208432	04-ESN-002	159.00	160.05	0.046	29-Feb-04	7-Feb-04
E208433	04-ESN-002	160.05	161.00	0.014	29-Feb-04	7-Feb-04
E208434	04-ESN-003	149.50	150.73	0.038	16-Feb-04	10-Feb-04
E208435	04-ESN-003	150.73	152.00	0.154	16-Feb-04	10-Feb-04
E208436	04-ESN-003	152.00	153.00	1.147	16-Feb-04	10-Feb-04
E208437	04-ESN-003	153.00	154.20	0.206	16-Feb-04	10-Feb-04
E208438	04-ESN-003	154.20	155.35	0.685	16-Feb-04	10-Feb-04
E208439	04-ESN-003	155.35	156.00	1.564	16-Feb-04	10-Feb-04
E208441	04-ESN-003	156.00	157.00	6.961	16-Feb-04	10-Feb-04
E208442	04-ESN-003	157.00	158.00	0.400	16-Feb-04	10-Feb-04
E208443	04-ESN-003	158.00	159.00	0.374	17-Feb-04	10-Feb-04
E208444	04-ESN-003	159.00	160.00	3.248	17-Feb-04	10-Feb-04
E208445	04-ESN-003	160.00	161.00	2.660	17-Feb-04	10-Feb-04
E208446	04-ESN-003	161.00	162.00	1.359	17-Feb-04	10-Feb-04
E208447	04-ESN-003	162.00	163.00	0.116	17-Feb-04	10-Feb-04
E208448	04-ESN-003	163.00	163.93	5.406	17-Feb-04	10-Feb-04
E208449	04-ESN-003	163.93	165.23	0.056	17-Feb-04	10-Feb-04
E208451	04-ESN-003	165.23	166.00	0.842	17-Feb-04	10-Feb-04
E208452	04-ESN-003	166.00	167.07	4.763	17-Feb-04	10-Feb-04
E208453	04-ESN-003	167.07	168.27	2.811	17-Feb-04	10-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E208454	04-ESN-003	168.27	169.43	0.561	17-Feb-04	10-Feb-04
E208455	04-ESN-003	169.43	170.60	0.822	17-Feb-04	10-Feb-04
E208456	04-ESN-003	170.60	171.80	3.114	17-Feb-04	10-Feb-04
E208457	04-ESN-003	171.80	173.00	3.722	17-Feb-04	10-Feb-04
E208458	04-ESN-003	173.00	174.00	6.580	17-Feb-04	10-Feb-04
E208459	04-ESN-003	174.00	174.95	0.732	17-Feb-04	10-Feb-04
E208461	04-ESN-003	174.95	176.00	0.044	17-Feb-04	10-Feb-04
E208462	04-ESN-003	176.00	177.00	0.024	17-Feb-04	10-Feb-04
E208463	04-ESN-003	177.00	178.00	0.021	17-Feb-04	10-Feb-04
E208464	04-ESN-003	178.00	179.00	0.016	17-Feb-04	10-Feb-04
E208465	04-ESN-003	179.00	179.70	0.021	17-Feb-04	10-Feb-04
E208466	04-ESN-003	179.70	180.30	1.425	17-Feb-04	10-Feb-04
E208467	04-ESN-003	180.30	181.20	0.476	17-Feb-04	10-Feb-04
E208468	04-ESN-003	181.20	182.40	0.029	17-Feb-04	10-Feb-04
E208469	04-ESN-003	182.40	183.60	0.022	17-Feb-04	10-Feb-04
E208471	04-ESN-003	183.60	184.20	0.029	17-Feb-04	10-Feb-04
E208472	04-ESN-003	184.20	185.00	0.175	17-Feb-04	10-Feb-04
E208473	04-ESN-003	185.00	186.00	0.251	17-Feb-04	10-Feb-04
E208474	04-ESN-003	186.00	187.00	0.072	17-Feb-04	10-Feb-04
E208475	04-ESN-003	187.00	187.90	0.059	17-Feb-04	10-Feb-04
E208476	04-ESN-003	187.90	189.00	0.803	17-Feb-04	25-Feb-04
E208477	04-ESN-003	189.00	190.00	0.081	17-Feb-04	25-Feb-04
E208478	04-ESN-003	190.00	191.00	0.030	17-Feb-04	25-Feb-04
E208479	04-ESN-003	191.00	192.00	0.277	17-Feb-04	25-Feb-04
E208481	04-ESN-003	192.00	193.00	0.035	17-Feb-04	25-Feb-04
E208482	04-ESN-003	193.00	194.00	0.026	17-Feb-04	25-Feb-04
E208483	04-ESN-003	194.00	195.00	0.015	17-Feb-04	25-Feb-04
E209752	04-ISL-003	62.00	63.00	0.157	19-Apr-04	7-Mar-04
E209753	04-ISL-003	63.00	64.00	0.240	19-Apr-04	7-Mar-04
E209754	04-ISL-003	64.00	65.00	0.282	19-Apr-04	7-Mar-04
E209755	04-ISL-003	65.00	66.00	0.254	19-Apr-04	7-Mar-04
E209756	04-ISL-003	66.00	67.00	0.653	19-Apr-04	7-Mar-04
E209757	04-ISL-003	67.00	68.00	0.130	19-Apr-04	7-Mar-04
E209758	04-ISL-003	68.00	69.00	0.079	19-Apr-04	7-Mar-04
E209759	04-ISL-003	69.00	70.00	1.198	19-Apr-04	7-Mar-04
E209761	04-ISL-003	21.30	22.30	0.033	18-Apr-04	7-Mar-04
E209762	04-ISL-003	70.00	71.00	0.095	19-Apr-04	8-Mar-04
E209763	04-ISL-003	71.00	72.00	0.333	19-Apr-04	8-Mar-04
E209764	04-ISL-003	72.00	73.00	0.714	19-Apr-04	8-Mar-04
E209765	04-ISL-003	73.00	74.00	0.134	19-Apr-04	8-Mar-04
E209766	04-ISL-003	74.00	75.00	0.026	19-Apr-04	8-Mar-04
E209767	04-ISL-003	75.00	76.00	0.358	19-Apr-04	8-Mar-04
E209768	04-ISL-003	76.00	77.00	0.067	19-Apr-04	8-Mar-04
E209769	04-ISL-003	77.00	78.00	0.123	19-Apr-04	8-Mar-04
E209771	04-ISL-003	78.00	79.00	0.302	19-Apr-04	8-Mar-04
E209772	04-ISL-003	79.00	80.00	0.349	19-Apr-04	8-Mar-04
E209773	04-ISL-003	80.00	81.00	0.218	19-Apr-04	8-Mar-04
E209774	04-ISL-003	81.00	81.70	0.138	19-Apr-04	8-Mar-04
E209775	04-ISL-003	81.70	82.35	0.026	19-Apr-04	8-Mar-04
E209776	04-ISL-003	82.35	83.35	0.088	19-Apr-04	8-Mar-04
E209777	04-ISL-003	83.35	84.35	0.017	19-Apr-04	8-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E209778	04-ISL-003	84.35	85.35	0.065	19-Apr-04	8-Mar-04
E209779	04-ISL-003	85.35	86.35	0.015	19-Apr-04	8-Mar-04
E209781	04-ISL-003	86.35	87.35	0.067	19-Apr-04	8-Mar-04
E209782	04-ISL-003	87.35	88.35	0.037	19-Apr-04	8-Mar-04
E209783	04-ISL-003	88.35	89.35	0.404	19-Apr-04	8-Mar-04
E209784	04-ISL-003	89.35	90.35	0.095	19-Apr-04	8-Mar-04
E209785	04-ISL-003	90.35	91.35	0.022	19-Apr-04	8-Mar-04
E209786	04-ISL-003	91.35	92.35	0.017	19-Apr-04	8-Mar-04
E209787	04-ISL-003	92.35	93.35	0.028	19-Apr-04	8-Mar-04
E209788	04-ISL-003	93.35	94.10	0.088	19-Apr-04	8-Mar-04
E209789	04-ISL-003	94.10	95.00	0.064	19-Apr-04	8-Mar-04
E209791	04-ISL-003	95.00	96.00	0.059	19-Apr-04	8-Mar-04
E209792	04-ISL-003	96.00	97.00	0.010	19-Apr-04	8-Mar-04
E209793	04-ISL-003	97.00	98.00	0.011	19-Apr-04	8-Mar-04
E209794	04-ISL-003	98.00	99.00	0.025	19-Apr-04	8-Mar-04
E209795	04-ISL-003	99.00	100.00	0.017	19-Apr-04	8-Mar-04
E209796	04-ISL-003	100.00	101.00	0.013	19-Apr-04	8-Mar-04
E209797	04-ISL-003	101.00	102.00	0.032	19-Apr-04	8-Mar-04
E209798	04-ISL-003	102.00	103.10	0.074	19-Apr-04	8-Mar-04
E209799	04-ISL-003	103.10	104.00	0.049	19-Apr-04	8-Mar-04
E209801	04-ISL-003	104.00	105.00	0.269	19-Apr-04	8-Mar-04
E209802	04-ISL-003	105.00	106.00	1.133	21-Apr-04	8-Mar-04
E209803	04-ISL-003	106.00	107.00	2.024	21-Apr-04	8-Mar-04
E209804	04-ISL-003	107.00	108.00	0.261	21-Apr-04	8-Mar-04
E209805	04-ISL-003	108.00	109.00	0.143	21-Apr-04	8-Mar-04
E209806	04-ISL-003	109.00	110.00	0.010	21-Apr-04	8-Mar-04
E209807	04-ISL-003	110.00	111.00	1.713	21-Apr-04	8-Mar-04
E209808	04-ISL-003	111.00	112.00	0.411	21-Apr-04	8-Mar-04
E209809	04-ISL-003	112.00	113.00	0.534	21-Apr-04	8-Mar-04
E209811	04-ISL-003	113.00	114.00	4.436	21-Apr-04	8-Mar-04
E209812	04-ISL-003	114.00	115.00	0.102	21-Apr-04	8-Mar-04
E209813	04-ISL-003	115.00	116.00	0.614	21-Apr-04	8-Mar-04
E209814	04-ISL-003	116.00	117.00	0.195	21-Apr-04	8-Mar-04
E209815	04-ISL-003	117.00	118.00	0.092	21-Apr-04	8-Mar-04
E209816	04-ISL-003	118.00	119.00	0.661	21-Apr-04	8-Mar-04
E209817	04-ISL-003	119.00	120.00	0.357	21-Apr-04	8-Mar-04
E209818	04-ISL-003	120.00	121.00	0.845	21-Apr-04	8-Mar-04
E209819	04-ISL-003	121.00	122.00	0.232	21-Apr-04	8-Mar-04
E209821	04-ISL-003	122.00	123.00	0.358	21-Apr-04	8-Mar-04
E209822	04-ISL-003	123.00	124.00	0.029	19-Apr-04	8-Mar-04
E209823	04-ISL-003	124.00	125.00	0.057	19-Apr-04	8-Mar-04
E209824	04-ISL-003	125.00	126.00	0.034	19-Apr-04	8-Mar-04
E209825	04-ISL-003	126.00	127.00	0.017	19-Apr-04	8-Mar-04
E209826	04-ISL-003	127.00	128.00	0.017	19-Apr-04	8-Mar-04
E209827	04-ISL-003	128.00	129.00	0.148	19-Apr-04	8-Mar-04
E209828	04-ISL-003	129.00	130.00	1.631	19-Apr-04	8-Mar-04
E209829	04-ISL-003	130.00	131.00	0.057	19-Apr-04	8-Mar-04
E209831	04-ISL-003	131.00	132.00	0.056	19-Apr-04	8-Mar-04
E209832	04-ISL-003	132.00	133.00	0.240	19-Apr-04	8-Mar-04
E209833	04-ISL-003	133.00	134.00	0.021	19-Apr-04	8-Mar-04
E209834	04-ISL-003	134.00	134.65	0.023	19-Apr-04	8-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E209835	04-ISL-003	134.65	135.35	0.048	19-Apr-04	8-Mar-04
E209836	04-ISL-003	135.35	136.35	0.091	19-Apr-04	8-Mar-04
E209837	04-ISL-003	136.35	137.35	0.010	19-Apr-04	8-Mar-04
E224026	03-ESN-004	51.00	51.50	0.010	18-Mar-03	2-Feb-03
E224027	03-ESN-004	51.50	52.00	0.010	18-Mar-03	2-Feb-03
E224028	03-ESN-004	52.00	52.50	0.010	18-Mar-03	2-Feb-03
E224029	03-ESN-004	52.50	53.00	0.010	18-Mar-03	2-Feb-03
E224030	03-ESN-004	53.00	53.50	0.010	18-Mar-03	2-Feb-03
E224031	03-ESN-004	174.00	174.50	0.010	18-Mar-03	2-Feb-03
E224032	03-ESN-004	174.50	175.70	0.010	18-Mar-03	2-Feb-03
E224033	03-ESN-004	175.70	176.53	0.018	18-Mar-03	2-Feb-03
E224034	03-ESN-004	176.53	177.50	0.010	18-Mar-03	2-Feb-03
E224035	03-ESN-004	210.50	211.00	0.026	18-Mar-03	2-Feb-03
E224036	03-ESN-004	211.00	211.97	0.032	18-Mar-03	2-Feb-03
E224037	03-ESN-004	211.97	212.50	0.307	18-Mar-03	2-Feb-03
E224038	03-ESN-004	212.50	213.00	1.100	18-Mar-03	2-Feb-03
E224039	03-ESN-004	213.00	213.80	0.183	18-Mar-03	2-Feb-03
E224040	03-ESN-004	213.80	214.40	1.045	18-Mar-03	2-Feb-03
E224041	03-ESN-004	214.40	215.60	0.022	18-Mar-03	2-Feb-03
E224042	03-ESN-004	215.60	216.60	0.010	18-Mar-03	2-Feb-03
E224043	03-ESN-004	216.60	217.20	1.125	18-Mar-03	2-Feb-03
E224044	03-ESN-004	217.20	218.00	0.011	18-Mar-03	2-Feb-03
E224045	03-ESN-004	218.00	219.00	0.013	18-Mar-03	2-Feb-03
E224046	03-ESN-004	219.00	220.00	0.430	18-Mar-03	2-Feb-03
E224047	03-ESN-004	220.00	221.00	0.010	18-Mar-03	2-Feb-03
E224048	03-ESN-004	221.00	222.00	0.010	18-Mar-03	2-Feb-03
E224049	03-ESN-004	222.00	223.00	0.010	18-Mar-03	2-Feb-03
E224050	03-ESN-004	223.00	223.90	0.010	18-Mar-03	2-Feb-03
E224051	03-ESN-004	223.90	224.80	10.000	18-Mar-03	2-Feb-03
E224052	03-ESN-004	224.80	225.70	0.045	18-Mar-03	2-Feb-03
E224053	03-ESN-004	225.70	226.60	0.040	18-Mar-03	2-Feb-03
E224054	03-ESN-004	226.60	227.55	0.203	18-Mar-03	2-Feb-03
E224055	03-ESN-004	227.55	228.30	0.894	18-Mar-03	2-Feb-03
E224056	03-ESN-004	228.30	229.00	0.014	18-Mar-03	2-Feb-03
E224057	03-ESN-004	229.00	230.00	0.022	18-Mar-03	2-Feb-03
E224058	03-ESN-004	230.00	231.00	0.010	18-Mar-03	2-Feb-03
E224059	03-ESN-004	231.00	232.00	0.011	18-Mar-03	2-Feb-03
E224060	03-ESN-004	232.00	233.00	0.058	18-Mar-03	2-Feb-03
E224061	03-ESN-004	233.00	233.70	0.037	18-Mar-03	2-Feb-03
E224062	03-ESN-004	233.70	234.30	0.027	18-Mar-03	2-Feb-03
E224063	03-ESN-004	234.30	235.00	0.028	18-Mar-03	2-Feb-03
E224064	03-ESN-004	235.00	236.00	0.028	18-Mar-03	2-Feb-03
E224065	03-ESN-004	236.00	237.00	0.052	18-Mar-03	2-Feb-03
E224066	03-ESN-004	237.00	238.00	0.063	18-Mar-03	2-Feb-03
E224067	03-ESN-004	238.00	239.00	0.485	18-Mar-03	2-Feb-03
E224068	03-ESN-004	239.00	240.00	0.368	18-Mar-03	2-Feb-03
E224069	03-ESN-004	240.00	241.00	0.323	18-Mar-03	2-Feb-03
E224070	03-ESN-004	241.00	242.00	2.060	26-Mar-03	2-Feb-03
E224071	03-ESN-004	242.00	243.00	1.415	26-Mar-03	2-Feb-03
E224072	03-ESN-004	243.00	244.00	7.180	26-Mar-03	2-Feb-03
E224073	03-ESN-004	244.00	245.00	1.860	26-Mar-03	2-Feb-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E224074	03-ESN-004	245.00	246.00	0.520	26-Mar-03	2-Feb-03
E224075	03-ESN-004	246.00	247.00	0.025	26-Mar-03	2-Feb-03
E224076	03-ESN-004	247.00	248.00	2.520	26-Mar-03	2-Feb-03
E224077	03-ESN-004	248.00	249.00	10.850	26-Mar-03	2-Feb-03
E224078	03-ESN-004	249.00	250.00	0.544	26-Mar-03	2-Feb-03
E224079	03-ESN-004	250.00	251.00	1.085	26-Mar-03	2-Feb-03
E224080	03-ESN-004	251.00	252.00	0.119	26-Mar-03	2-Feb-03
E224081	03-ESN-004	252.00	253.00	0.015	26-Mar-03	2-Feb-03
E224082	03-ESN-004	253.00	254.00	0.010	26-Mar-03	2-Feb-03
E224083	03-ESN-004	254.00	255.00	0.019	26-Mar-03	2-Feb-03
E224084	03-ESN-004	255.00	256.00	0.255	26-Mar-03	2-Feb-03
E224085	03-ESN-004	256.00	257.00	0.037	26-Mar-03	2-Feb-03
E224086	03-ESN-004	257.00	258.00	0.156	26-Mar-03	2-Feb-03
E224087	03-ESN-004	258.00	259.00	0.040	26-Mar-03	2-Feb-03
E224088	03-ESN-004	259.00	260.00	0.010	26-Mar-03	2-Feb-03
E224089	03-ESN-004	260.00	261.00	0.282	26-Mar-03	2-Feb-03
E224090	03-ESN-004	261.00	262.00	0.147	26-Mar-03	2-Feb-03
E224091	03-ESN-004	262.00	263.00	0.025	26-Mar-03	2-Feb-03
E224092	03-ESN-004	263.00	264.00	0.050	26-Mar-03	2-Feb-03
E224093	03-ESN-004	264.00	265.00	1.315	26-Mar-03	2-Feb-03
E224094	03-ESN-004	265.00	266.00	0.016	26-Mar-03	2-Feb-03
E224095	03-ESN-004	266.00	267.00	0.018	26-Mar-03	2-Feb-03
E224096	03-ESN-004	267.00	268.00	0.030	26-Mar-03	2-Feb-03
E224097	03-ESN-004	268.00	269.00	0.183	26-Mar-03	2-Feb-03
E224098	03-ESN-004	269.00	270.00	0.020	26-Mar-03	2-Feb-03
E224099	03-ESN-004	270.00	271.00	0.039	26-Mar-03	2-Feb-03
E224100	03-ESN-004	271.00	272.00	0.017	26-Mar-03	2-Feb-03
E224101	03-ESN-004	272.00	273.00	0.103	26-Mar-03	2-Feb-03
E224102	03-ESN-004	273.00	274.00	0.214	26-Mar-03	2-Feb-03
E224103	03-ESN-004	274.00	275.00	0.127	26-Mar-03	2-Feb-03
E224104	03-ESN-004	275.00	276.00	0.345	26-Mar-03	2-Feb-03
E224105	03-ESN-004	276.00	277.00	1.370	26-Mar-03	2-Feb-03
E224106	03-ESN-004	277.00	278.00	0.119	26-Mar-03	2-Feb-03
E224107	03-ESN-004	278.00	279.00	1.065	26-Mar-03	2-Feb-03
E224108	03-ESN-004	279.00	280.00	6.520	26-Mar-03	2-Feb-03
E224109	03-ESN-004	280.00	281.00	1.985	26-Mar-03	2-Feb-03
E224110	03-ESN-004	281.00	282.00	1.985	26-Mar-03	2-Feb-03
E224111	03-ESN-004	282.00	283.00	9.050	26-Mar-03	2-Feb-03
E224112	03-ESN-004	283.00	284.00	1.465	26-Mar-03	2-Feb-03
E224113	03-ESN-004	284.00	285.00	0.275	26-Mar-03	2-Feb-03
E224114	03-ESN-004	285.00	286.00	7.070	26-Mar-03	2-Feb-03
E224115	03-ESN-004	286.00	287.00	0.049	26-Mar-03	2-Feb-03
E224116	03-ESN-004	287.00	288.00	0.033	26-Mar-03	2-Feb-03
E224117	03-ESN-004	288.00	289.00	0.022	26-Mar-03	2-Feb-03
E224118	03-ESN-004	289.00	290.00	1.075	26-Mar-03	2-Feb-03
E224119	03-ESN-004	290.00	291.00	0.157	26-Mar-03	2-Feb-03
E224120	03-ESN-004	291.00	292.00	0.306	26-Mar-03	2-Feb-03
E224121	03-ESN-004	292.00	293.00	0.213	26-Mar-03	2-Feb-03
E224122	03-ESN-004	293.00	294.00	0.136	26-Mar-03	2-Feb-03
E224123	03-ESN-004	294.00	295.00	0.359	26-Mar-03	2-Feb-03
E224124	03-ESN-004	295.00	296.00	2.450	26-Mar-03	2-Feb-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome - Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E224125	03-ESN-004	296.00	296.70	2.240	26-Mar-03	2-Feb-03
E224126	03-ESN-004	297.30	298.00	0.036	26-Mar-03	2-Feb-03
E224127	03-ESN-004	298.00	299.00	0.020	26-Mar-03	2-Feb-03
E224128	03-ESN-004	299.00	300.00	0.014	26-Mar-03	2-Feb-03
E224129	03-ESN-004	300.00	301.00	0.071	26-Mar-03	2-Feb-03
E224130	03-ESN-004	301.00	301.60	0.067	26-Mar-03	2-Feb-03
E224131	03-ESN-004	301.60	302.50	0.010	26-Mar-03	2-Feb-03
E224132	03-ESN-004	302.50	303.00	0.026	26-Mar-03	2-Feb-03
E224133	03-ESN-004	303.00	303.80	0.175	26-Mar-03	2-Feb-03
E224134	03-ESN-004	303.80	305.00	0.017	26-Mar-03	2-Feb-03
E224135	03-ESN-004	305.00	306.20	0.011	26-Mar-03	2-Feb-03
E224136	03-ESN-004	296.70	297.30	0.215	26-Mar-03	2-Feb-03
E224137	03-ESN-004	306.20	307.00	0.010	26-Mar-03	2-Feb-03
E224138	03-ESN-004	307.00	308.00	0.010	26-Mar-03	2-Feb-03
E224139	03-ESN-004	308.00	308.50	0.052	26-Mar-03	2-Feb-03
E224140	03-ESN-004	308.50	309.50	0.010	26-Mar-03	2-Feb-03
E224141	03-ESN-004	309.50	310.25	0.012	26-Mar-03	2-Feb-03
E224142	03-ESN-004	310.25	311.00	0.017	26-Mar-03	2-Feb-03
E224143	03-ESN-004	311.00	312.00	0.010	26-Mar-03	2-Feb-03
E224144	03-ESN-004	312.00	313.00	0.302	26-Mar-03	2-Feb-03
E224145	03-ESN-004	313.00	314.00	0.687	26-Mar-03	2-Feb-03
E224146	03-ESN-004	314.00	314.60	0.017	26-Mar-03	2-Feb-03
E224147	03-ESN-004	314.60	315.20	2.310	26-Mar-03	2-Feb-03
E224148	03-ESN-004	315.20	316.20	0.307	26-Mar-03	2-Feb-03
E224149	03-ESN-004	316.20	317.00	0.014	26-Mar-03	2-Feb-03
E224150	03-ESN-004	317.00	318.00	0.047	26-Mar-03	2-Feb-03
E224151	03-ESN-008	52.32	53.00	0.059	17-Mar-03	7-Feb-03
E224152	03-ESN-008	53.00	53.73	0.088	17-Mar-03	7-Feb-03
E224153	03-ESN-008	53.73	55.00	0.746	17-Mar-03	7-Feb-03
E224154	03-ESN-008	55.00	56.00	0.221	17-Mar-03	7-Feb-03
E224155	03-ESN-008	56.00	57.00	2.843	17-Mar-03	7-Feb-03
E224156	03-ESN-008	57.00	58.26	0.031	17-Mar-03	7-Feb-03
E224157	03-ESN-008	58.26	59.26	3.465	17-Mar-03	7-Feb-03
E224158	03-ESN-008	59.26	60.26	0.010	17-Mar-03	7-Feb-03
E224159	03-ESN-008	60.26	61.17	26.272	17-Mar-03	7-Feb-03
E224160	03-ESN-008	61.17	62.00	0.668	17-Mar-03	7-Feb-03
E224161	03-ESN-008	62.00	63.00	0.956	17-Mar-03	7-Feb-03
E224162	03-ESN-008	63.00	64.00	0.257	17-Mar-03	7-Feb-03
E224163	03-ESN-008	64.00	65.00	0.590	17-Mar-03	7-Feb-03
E224164	03-ESN-008	65.00	66.00	0.155	17-Mar-03	7-Feb-03
E224165	03-ESN-008	66.00	67.00	0.881	17-Mar-03	7-Feb-03
E224166	03-ESN-008	67.00	68.00	2.919	17-Mar-03	7-Feb-03
E224167	03-ESN-008	68.00	69.00	1.130	17-Mar-03	7-Feb-03
E224168	03-ESN-008	69.00	70.00	0.115	24-Mar-03	7-Feb-03
E224169	03-ESN-008	70.00	71.00	0.042	24-Mar-03	7-Feb-03
E224170	03-ESN-008	71.00	71.41	0.026	17-Mar-03	7-Feb-03
E224171	03-ESN-008	71.41	72.50	0.218	17-Mar-03	7-Feb-03
E224172	03-ESN-008	72.50	73.50	0.062	17-Mar-03	7-Feb-03
E224173	03-ESN-008	73.50	74.50	0.024	17-Mar-03	7-Feb-03
E224174	03-ESN-008	74.50	75.50	0.028	17-Mar-03	7-Feb-03
E224175	03-ESN-008	75.50	76.58	0.433	17-Mar-03	7-Feb-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E224176	03-ESN-008	76.58	77.80	0.026	17-Mar-03	7-Feb-03
E224177	03-ESN-008	77.80	79.00	0.152	17-Mar-03	7-Feb-03
E224178	03-ESN-008	79.00	80.00	1.064	17-Mar-03	7-Feb-03
E224179	03-ESN-008	80.00	81.00	0.027	17-Mar-03	7-Feb-03
E224180	03-ESN-008	81.00	82.00	0.012	17-Mar-03	7-Feb-03
E224181	03-ESN-008	82.00	83.00	0.010	17-Mar-03	7-Feb-03
E224182	03-ESN-008	83.00	84.00	0.217	17-Mar-03	7-Feb-03
E224183	03-ESN-008	84.00	85.00	0.015	17-Mar-03	7-Feb-03
E224184	03-ESN-008	85.00	86.00	0.026	17-Mar-03	7-Feb-03
E224185	03-ESN-008	86.00	87.00	0.148	17-Mar-03	7-Feb-03
E224186	03-ESN-008	87.00	88.00	0.025	17-Mar-03	7-Feb-03
E224187	03-ESN-008	88.00	88.64	0.033	17-Mar-03	7-Feb-03
E224188	03-ESN-008	88.64	89.80	0.027	17-Mar-03	7-Feb-03
E224189	03-ESN-008	89.80	91.00	0.042	17-Mar-03	7-Feb-03
E224190	03-ESN-008	91.00	92.20	0.028	17-Mar-03	7-Feb-03
E224191	03-ESN-008	92.20	93.34	0.025	17-Mar-03	7-Feb-03
E224192	03-ESN-008	93.34	94.00	0.026	17-Mar-03	7-Feb-03
E224193	03-ESN-008	94.00	95.00	0.336	17-Mar-03	7-Feb-03
E224194	03-ESN-008	95.00	96.00	0.445	17-Mar-03	7-Feb-03
E224195	03-ESN-008	96.00	97.00	0.040	17-Mar-03	7-Feb-03
E224196	03-ESN-008	97.00	98.02	0.092	17-Mar-03	7-Feb-03
E224197	03-ESN-008	98.02	99.00	0.056	17-Mar-03	7-Feb-03
E224198	03-ESN-008	99.00	100.00	0.010	17-Mar-03	7-Feb-03
E224199	03-ESN-008	123.46	124.62	0.010	17-Mar-03	7-Feb-03
E224200	03-ESN-008	124.62	125.62	0.010	17-Mar-03	7-Feb-03
E224201	03-ESN-008	125.62	126.82	0.113	17-Mar-03	7-Feb-03
E224202	03-ESN-008	126.82	128.00	0.418	17-Mar-03	7-Feb-03
E224203	03-ESN-008	128.00	129.00	0.510	17-Mar-03	7-Feb-03
E224204	03-ESN-008	129.00	130.00	0.296	17-Mar-03	7-Feb-03
E224205	03-ESN-008	130.00	130.75	0.185	17-Mar-03	7-Feb-03
E224206	03-ESN-008	130.75	132.00	0.556	17-Mar-03	7-Feb-03
E224207	03-ESN-008	132.00	133.00	2.238	17-Mar-03	7-Feb-03
E224208	03-ESN-008	133.00	134.00	0.113	17-Mar-03	7-Feb-03
E224209	03-ESN-008	134.00	135.00	0.010	17-Mar-03	7-Feb-03
E224210	03-ESN-008	135.00	136.00	0.015	17-Mar-03	7-Feb-03
E224211	03-ESN-008	136.00	137.00	0.010	17-Mar-03	7-Feb-03
E224212	03-ESN-008	137.00	138.00	0.010	17-Mar-03	7-Feb-03
E224213	03-ESN-008	138.00	139.00	0.290	17-Mar-03	7-Feb-03
E224214	03-ESN-008	139.00	140.01	0.194	17-Mar-03	7-Feb-03
E224215	03-ESN-008	140.01	141.00	0.011	17-Mar-03	7-Feb-03
E224216	03-ESN-008	141.00	142.00	0.010	17-Mar-03	7-Feb-03
E224217	03-ESN-008	149.00	150.01	0.010	17-Mar-03	7-Feb-03
E224218	03-ESN-008	150.01	151.00	0.060	17-Mar-03	7-Feb-03
E224219	03-ESN-008	151.00	152.00	1.249	17-Mar-03	7-Feb-03
E224220	03-ESN-008	152.00	153.00	0.394	17-Mar-03	7-Feb-03
E224221	03-ESN-008	153.00	154.00	0.415	17-Mar-03	7-Feb-03
E224222	03-ESN-008	154.00	155.11	0.282	17-Mar-03	7-Feb-03
E224223	03-ESN-008	155.11	156.11	0.020	17-Mar-03	7-Feb-03
E224224	03-ESN-008	156.11	157.11	0.025	17-Mar-03	7-Feb-03
E224225	03-ESN-007	64.37	65.37	0.010	17-Mar-03	10-Feb-03
E224226	03-ESN-007	65.37	66.37	0.010	17-Mar-03	10-Feb-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E224227	03-ESN-007	66.37	67.50	0.574	17-Mar-03	10-Feb-03
E224228	03-ESN-007	67.50	68.70	0.440	17-Mar-03	10-Feb-03
E224229	03-ESN-007	68.70	69.90	5.852	17-Mar-03	10-Feb-03
E224230	03-ESN-007	69.90	71.00	0.794	17-Mar-03	10-Feb-03
E224231	03-ESN-007	71.00	72.10	0.076	17-Mar-03	10-Feb-03
E224232	03-ESN-007	72.10	73.15	16.816	17-Mar-03	10-Feb-03
E224233	03-ESN-007	73.15	74.15	5.415	17-Mar-03	10-Feb-03
E224234	03-ESN-007	74.15	75.15	0.021	17-Mar-03	10-Feb-03
E224235	03-ESN-007	90.75	92.00	0.335	22-Apr-03	10-Feb-03
E224236	03-ESN-007	92.00	93.20	2.084	22-Apr-03	10-Feb-03
E224237	03-ESN-007	93.20	94.40	0.699	22-Apr-03	10-Feb-03
E224238	03-ESN-007	94.40	95.60	0.104	22-Apr-03	10-Feb-03
E224239	03-ESN-007	95.60	96.60	0.085	22-Apr-03	10-Feb-03
E224240	03-ESN-007	96.60	97.60	0.024	22-Apr-03	10-Feb-03
E224241	03-ESN-007	106.10	106.93	0.010	17-Mar-03	10-Feb-03
E224242	03-ESN-007	106.93	108.00	0.019	17-Mar-03	10-Feb-03
E224243	03-ESN-007	108.00	109.00	0.268	17-Mar-03	10-Feb-03
E224244	03-ESN-007	109.00	109.70	0.284	17-Mar-03	10-Feb-03
E224245	03-ESN-007	109.70	110.90	0.064	17-Mar-03	10-Feb-03
E224246	03-ESN-007	110.90	112.00	0.028	17-Mar-03	10-Feb-03
E224247	03-ESN-007	112.00	113.00	0.014	17-Mar-03	10-Feb-03
E224248	03-ESN-007	113.00	114.00	0.016	17-Mar-03	10-Feb-03
E224249	03-ESN-007	114.00	115.00	0.011	17-Mar-03	10-Feb-03
E224250	03-ESN-007	115.00	116.00	0.010	17-Mar-03	10-Feb-03
E224251	03-ESN-007	116.00	117.05	0.017	17-Mar-03	10-Feb-03
E224252	03-ESN-007	117.05	118.25	0.039	17-Mar-03	10-Feb-03
E224253	03-ESN-007	118.25	119.30	0.065	17-Mar-03	10-Feb-03
E224254	03-ESN-007	119.30	119.90	0.147	17-Mar-03	10-Feb-03
E224255	03-ESN-007	119.90	120.45	0.132	17-Mar-03	10-Feb-03
E224256	03-ESN-007	120.45	121.45	0.017	17-Mar-03	10-Feb-03
E224257	03-ESN-007	121.45	122.45	0.010	17-Mar-03	10-Feb-03
E224258	03-ESN-007	141.57	142.57	0.435	17-Mar-03	10-Feb-03
E224259	03-ESN-007	142.57	143.67	0.190	17-Mar-03	10-Feb-03
E224260	03-ESN-007	143.67	144.80	0.169	17-Mar-03	10-Feb-03
E224261	03-ESN-007	144.80	146.00	0.083	17-Mar-03	10-Feb-03
E224262	03-ESN-007	146.00	147.00	0.055	17-Mar-03	10-Feb-03
E224263	03-ESN-007	147.00	148.00	0.020	17-Mar-03	10-Feb-03
E224264	03-ESN-007	148.00	149.00	0.023	17-Mar-03	10-Feb-03
E224265	03-ESN-007	149.00	150.00	0.500	17-Mar-03	10-Feb-03
E224266	03-ESN-007	150.00	151.00	0.046	17-Mar-03	10-Feb-03
E224267	03-ESN-007	151.00	152.00	0.073	17-Mar-03	10-Feb-03
E224268	03-ESN-007	152.00	153.00	0.052	17-Mar-03	10-Feb-03
E224269	03-ESN-007	153.00	154.05	2.333	17-Mar-03	10-Feb-03
E224270	03-ESN-007	154.05	155.00	0.062	17-Mar-03	10-Feb-03
E224271	03-ESN-007	155.00	155.83	0.295	17-Mar-03	10-Feb-03
E224272	03-ESN-007	155.83	157.00	0.373	17-Mar-03	10-Feb-03
E224273	03-ESN-007	157.00	158.00	0.162	17-Mar-03	10-Feb-03
E224274	03-ESN-007	158.00	159.00	2.104	17-Mar-03	10-Feb-03
E224275	03-ESN-007	159.00	160.00	2.545	17-Mar-03	10-Feb-03
E224276	03-ESN-007	160.00	161.00	0.369	17-Mar-03	10-Feb-03
E224277	03-ESN-007	161.00	162.00	2.400	17-Mar-03	10-Feb-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E224278	03-ESN-007	162.00	163.00	3.500	17-Mar-03	10-Feb-03
E224279	03-ESN-007	163.00	164.00	1.691	17-Mar-03	10-Feb-03
E224280	03-ESN-007	164.00	165.00	0.153	17-Mar-03	10-Feb-03
E224281	03-ESN-007	165.00	166.00	0.884	17-Mar-03	10-Feb-03
E224282	03-ESN-007	166.00	167.00	0.462	17-Mar-03	10-Feb-03
E224283	03-ESN-007	167.00	168.00	0.227	17-Mar-03	10-Feb-03
E224284	03-ESN-007	168.00	169.00	1.815	17-Mar-03	10-Feb-03
E224285	03-ESN-007	169.00	170.00	0.948	17-Mar-03	10-Feb-03
E224286	03-ESN-007	170.00	171.00	1.580	17-Mar-03	10-Feb-03
E224287	03-ESN-007	171.00	172.00	0.555	17-Mar-03	10-Feb-03
E224288	03-ESN-007	172.00	173.00	0.063	17-Mar-03	10-Feb-03
E224289	03-ESN-007	173.00	174.00	0.138	17-Mar-03	10-Feb-03
E224290	03-ESN-007	174.00	175.00	0.032	17-Mar-03	10-Feb-03
E224291	03-ESN-007	175.00	176.17	0.082	17-Mar-03	10-Feb-03
E224292	03-ESN-007	176.17	177.00	0.310	17-Mar-03	10-Feb-03
E224293	03-ESN-007	177.00	178.00	0.772	17-Mar-03	10-Feb-03
E224294	03-ESN-007	178.00	179.00	0.718	17-Mar-03	10-Feb-03
E224295	03-ESN-007	179.00	179.61	0.192	17-Mar-03	10-Feb-03
E224296	03-ESN-007	179.61	180.61	0.147	17-Mar-03	10-Feb-03
E224297	03-ESN-007	180.61	181.52	0.299	17-Mar-03	10-Feb-03
E224298	03-ESN-007	181.52	182.50	0.020	17-Mar-03	10-Feb-03
E224299	03-ESN-007	182.50	183.50	0.010	17-Mar-03	10-Feb-03
E224300	03-ESN-007	216.16	217.16	0.033	17-Mar-03	10-Feb-03
E224301	03-ESN-007	217.16	218.20	0.267	17-Mar-03	10-Feb-03
E224302	03-ESN-007	218.20	219.20	0.066	17-Mar-03	10-Feb-03
E224303	03-ESN-007	219.20	220.20	0.105	17-Mar-03	10-Feb-03
E224304	03-ESN-007	220.20	221.20	0.044	17-Mar-03	10-Feb-03
E224305	03-ESN-007	221.20	222.20	0.115	17-Mar-03	10-Feb-03
E224306	03-ESN-007	222.20	223.20	0.492	17-Mar-03	10-Feb-03
E224307	03-ESN-007	223.20	224.20	0.106	17-Mar-03	10-Feb-03
E224308	03-ESN-007	224.20	225.20	0.140	17-Mar-03	10-Feb-03
E224309	03-ESN-007	225.20	226.20	0.072	17-Mar-03	10-Feb-03
E224310	03-ESN-007	226.20	227.20	0.023	17-Mar-03	10-Feb-03
E224311	03-ESN-007	227.20	228.30	0.127	17-Mar-03	10-Feb-03
E224312	03-ESN-007	228.30	229.50	0.020	17-Mar-03	10-Feb-03
E224313	03-ESN-007	229.50	230.70	0.012	17-Mar-03	10-Feb-03
E224314	03-ESN-007	230.70	231.90	0.049	17-Mar-03	10-Feb-03
E224315	03-ESN-007	231.90	233.00	0.021	17-Mar-03	10-Feb-03
E224316	03-ESN-007	233.00	233.85	0.013	17-Mar-03	10-Feb-03
E224317	03-ESN-007	233.85	234.85	0.010	17-Mar-03	10-Feb-03
E224318	03-ESN-007	234.85	235.85	0.010	17-Mar-03	10-Feb-03
E224319	03-ESN-007	235.85	236.38	0.034	17-Mar-03	10-Feb-03
E224320	03-ESN-007	236.38	237.00	0.043	17-Mar-03	10-Feb-03
E224321	03-ESN-007	237.00	238.00	0.033	17-Mar-03	10-Feb-03
E224322	03-ESN-007	238.00	238.85	0.258	17-Mar-03	10-Feb-03
E224323	03-ESN-007	238.85	240.00	0.038	17-Mar-03	10-Feb-03
E225501	03-ESN-009	56.10	57.00	0.073	26-Mar-03	18-Feb-03
E225502	03-ESN-009	57.00	58.00	0.024	26-Mar-03	18-Feb-03
E225503	03-ESN-009	58.00	59.00	0.352	26-Mar-03	18-Feb-03
E225504	03-ESN-009	59.00	60.00	0.345	26-Mar-03	18-Feb-03
E225505	03-ESN-009	60.00	61.00	0.506	26-Mar-03	18-Feb-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E225506	03-ESN-009	61.00	62.15	0.256	26-Mar-03	18-Feb-03
E225507	03-ESN-009	62.15	63.15	0.075	26-Mar-03	18-Feb-03
E225508	03-ESN-009	63.15	64.31	0.221	26-Mar-03	18-Feb-03
E225509	03-ESN-009	64.31	65.40	0.010	26-Mar-03	18-Feb-03
E225510	03-ESN-009	65.40	66.56	0.010	26-Mar-03	18-Feb-03
E225511	03-ESN-009	66.56	67.85	0.195	26-Mar-03	18-Feb-03
E225512	03-ESN-009	67.85	69.00	0.276	26-Mar-03	18-Feb-03
E225513	03-ESN-009	69.00	70.25	0.164	26-Mar-03	18-Feb-03
E225514	03-ESN-009	70.25	71.45	0.177	26-Mar-03	18-Feb-03
E225515	03-ESN-009	103.00	104.00	1.315	26-Mar-03	18-Feb-03
E225516	03-ESN-009	104.00	105.00	1.130	26-Mar-03	18-Feb-03
E225517	03-ESN-009	105.00	105.50	0.368	26-Mar-03	18-Feb-03
E225518	03-ESN-009	105.50	106.30	0.557	26-Mar-03	18-Feb-03
E225519	03-ESN-009	106.30	107.00	0.421	26-Mar-03	18-Feb-03
E225520	03-ESN-009	107.00	108.00	1.320	26-Mar-03	18-Feb-03
E225521	03-ESN-009	108.00	109.00	1.730	26-Mar-03	18-Feb-03
E225522	03-ESN-009	109.00	110.00	0.296	26-Mar-03	18-Feb-03
E225523	03-ESN-009	110.00	111.00	4.300	26-Mar-03	18-Feb-03
E225524	03-ESN-009	111.00	112.00	5.790	26-Mar-03	18-Feb-03
E225525	03-ESN-009	112.00	113.00	1.385	26-Mar-03	18-Feb-03
E225526	03-ESN-009	113.00	114.00	9.970	26-Mar-03	18-Feb-03
E225527	03-ESN-009	114.00	115.00	3.610	26-Mar-03	18-Feb-03
E225528	03-ESN-009	115.00	116.20	4.410	26-Mar-03	18-Feb-03
E225529	03-ESN-009	116.20	117.00	0.469	26-Mar-03	18-Feb-03
E225530	03-ESN-009	117.00	118.00	0.057	26-Mar-03	18-Feb-03
E225531	03-ESN-009	118.00	118.60	0.437	26-Mar-03	18-Feb-03
E225532	03-ESN-009	118.60	119.70	0.088	26-Mar-03	18-Feb-03
E225533	03-ESN-009	119.70	120.80	5.230	26-Mar-03	18-Feb-03
E225534	03-ESN-009	120.80	122.00	0.093	26-Mar-03	18-Feb-03
E225535	03-ESN-009	122.00	123.00	0.061	26-Mar-03	18-Feb-03
E225536	03-ESN-009	123.00	124.00	2.530	26-Mar-03	18-Feb-03
E225537	03-ESN-009	124.00	124.90	3.280	26-Mar-03	18-Feb-03
E225538	03-ESN-009	124.90	125.40	0.647	26-Mar-03	18-Feb-03
E225539	03-ESN-009	125.40	126.00	0.015	26-Mar-03	18-Feb-03
E225540	03-ESN-009	126.00	127.00	0.010	26-Mar-03	18-Feb-03
E225541	03-ESN-009	127.00	128.00	0.166	26-Mar-03	18-Feb-03
E225542	03-ESN-009	128.00	129.00	0.084	26-Mar-03	18-Feb-03
E225543	03-ESN-009	129.00	130.00	0.027	26-Mar-03	18-Feb-03
E225544	03-ESN-009	130.00	131.00	0.014	26-Mar-03	18-Feb-03
E225545	03-ESN-009	131.00	132.00	0.010	26-Mar-03	18-Feb-03
E225546	03-ESN-009	132.00	133.00	0.020	26-Mar-03	18-Feb-03
E225547	03-ESN-009	133.00	134.00	0.030	26-Mar-03	18-Feb-03
E225548	03-ESN-009	134.00	135.00	0.057	26-Mar-03	18-Feb-03
E225549	03-ESN-009	135.00	136.00	0.380	26-Mar-03	18-Feb-03
E225550	03-ESN-009	136.00	137.00	0.065	26-Mar-03	18-Feb-03
E225551	03-ESN-009	137.00	138.00	0.037	26-Mar-03	18-Feb-03
E225552	03-ESN-009	138.00	139.00	0.020	26-Mar-03	18-Feb-03
E225553	03-ESN-009	139.00	140.00	0.088	26-Mar-03	18-Feb-03
E225554	03-ESN-009	140.00	140.80	0.010	26-Mar-03	18-Feb-03
E225555	03-ESN-009	140.80	141.60	0.105	26-Mar-03	18-Feb-03
E225556	03-ESN-009	141.60	142.20	0.114	26-Mar-03	18-Feb-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome - Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E225557	03-ESN-009	142.20	142.70	0.023	26-Mar-03	18-Feb-03
E225558	03-ESN-009	142.70	143.90	0.202	26-Mar-03	18-Feb-03
E225559	03-ESN-009	143.90	144.37	0.044	26-Mar-03	18-Feb-03
E225560	03-ESN-009	144.37	144.96	0.022	26-Mar-03	18-Feb-03
E225561	03-ESN-009	144.96	146.00	0.010	26-Mar-03	18-Feb-03
E225562	03-ESN-009	146.00	147.00	0.010	26-Mar-03	18-Feb-03
E225563	03-ESN-009	147.00	148.00	0.010	26-Mar-03	18-Feb-03
E225564	03-ESN-009	167.00	168.00	0.010	26-Mar-03	18-Feb-03
E225565	03-ESN-009	168.00	168.92	0.010	26-Mar-03	18-Feb-03
E225566	03-ESN-009	168.92	170.00	0.115	26-Mar-03	18-Feb-03
E225567	03-ESN-009	170.00	171.00	0.138	26-Mar-03	18-Feb-03
E225568	03-ESN-009	171.00	172.00	0.048	26-Mar-03	18-Feb-03
E225569	03-ESN-009	172.00	173.00	0.276	26-Mar-03	18-Feb-03
E225570	03-ESN-009	173.00	174.00	0.406	26-Mar-03	18-Feb-03
E225571	03-ESN-009	174.00	175.00	0.206	26-Mar-03	18-Feb-03
E225572	03-ESN-009	175.00	176.00	0.135	26-Mar-03	18-Feb-03
E225573	03-ESN-009	176.00	177.00	0.075	26-Mar-03	18-Feb-03
E225574	03-ESN-009	177.00	177.72	0.062	26-Mar-03	18-Feb-03
E225575	03-ESN-009	177.72	178.70	0.685	26-Mar-03	18-Feb-03
E225576	03-ESN-009	178.70	179.70	0.978	26-Mar-03	18-Feb-03
E225577	03-ESN-009	179.70	180.90	0.010	26-Mar-03	18-Feb-03
E225578	03-ESN-009	180.90	181.80	0.031	26-Mar-03	18-Feb-03
E225579	03-ESN-009	181.80	182.50	0.137	26-Mar-03	18-Feb-03
E225580	03-ESN-009	182.50	183.00	0.010	26-Mar-03	18-Feb-03
E225581	03-ESN-009	183.00	183.50	0.010	26-Mar-03	18-Feb-03
E225582	03-ESN-009	183.50	184.00	0.010	26-Mar-03	18-Feb-03
E225583	03-ESN-009	184.00	185.00	0.014	26-Mar-03	18-Feb-03
E226001	03-ESN-014	38.00	39.00	0.010	5-Apr-03	25-Feb-03
E226002	03-ESN-014	39.00	40.20	0.016	5-Apr-03	25-Feb-03
E226003	03-ESN-014	40.20	41.25	0.011	5-Apr-03	25-Feb-03
E226004	03-ESN-014	41.25	41.70	0.079	5-Apr-03	25-Feb-03
E226005	03-ESN-014	41.70	42.35	0.038	5-Apr-03	25-Feb-03
E226006	03-ESN-014	42.35	42.84	0.025	5-Apr-03	25-Feb-03
E226007	03-ESN-014	42.84	44.00	1.345	5-Apr-03	25-Feb-03
E226008	03-ESN-014	44.00	45.00	0.639	5-Apr-03	25-Feb-03
E226009	03-ESN-014	45.00	45.57	0.906	5-Apr-03	25-Feb-03
E226010	03-ESN-014	45.57	46.00	1.520	5-Apr-03	25-Feb-03
E226011	03-ESN-014	46.00	47.13	0.174	5-Apr-03	25-Feb-03
E226012	03-ESN-014	47.13	47.83	0.465	5-Apr-03	25-Feb-03
E226013	03-ESN-014	47.83	48.60	0.378	5-Apr-03	25-Feb-03
E226014	03-ESN-014	48.60	49.10	17.300	5-Apr-03	25-Feb-03
E226015	03-ESN-014	49.10	50.00	9.980	5-Apr-03	25-Feb-03
E226016	03-ESN-014	50.00	50.75	0.920	5-Apr-03	25-Feb-03
E226017	03-ESN-014	50.75	51.30	0.934	5-Apr-03	25-Feb-03
E226018	03-ESN-014	51.30	52.00	1.135	5-Apr-03	25-Feb-03
E226019	03-ESN-014	52.00	53.00	5.310	5-Apr-03	25-Feb-03
E226020	03-ESN-014	53.00	54.50	8.130	5-Apr-03	25-Feb-03
E226021	03-ESN-014	54.50	55.30	0.854	5-Apr-03	25-Feb-03
E226022	03-ESN-014	55.30	56.20	0.137	1-Apr-03	25-Feb-03
E226023	03-ESN-014	56.20	57.50	7.170	5-Apr-03	25-Feb-03
E226024	03-ESN-014	57.50	59.00	0.817	1-Apr-03	25-Feb-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E226025	03-ESN-014	59.00	60.00	0.725	1-Apr-03	25-Feb-03
E226026	03-ESN-014	60.00	60.90	1.310	1-Apr-03	25-Feb-03
E226027	03-ESN-014	60.90	62.20	0.521	1-Apr-03	25-Feb-03
E226028	03-ESN-014	62.20	63.00	0.012	1-Apr-03	25-Feb-03
E226029	03-ESN-014	63.00	63.95	0.010	1-Apr-03	25-Feb-03
E226030	03-ESN-014	63.95	65.00	0.050	1-Apr-03	25-Feb-03
E226031	03-ESN-014	65.00	66.00	2.460	1-Apr-03	25-Feb-03
E226032	03-ESN-014	66.00	67.00	0.182	1-Apr-03	25-Feb-03
E226033	03-ESN-014	67.00	67.60	0.271	1-Apr-03	25-Feb-03
E226034	03-ESN-014	67.60	69.00	0.014	1-Apr-03	25-Feb-03
E226035	03-ESN-014	69.00	70.00	0.362	1-Apr-03	25-Feb-03
E226036	03-ESN-014	70.00	71.00	0.135	1-Apr-03	25-Feb-03
E226037	03-ESN-014	71.00	72.00	0.015	1-Apr-03	25-Feb-03
E226038	03-ESN-014	72.00	73.00	0.201	1-Apr-03	25-Feb-03
E226039	03-ESN-014	73.00	74.00	0.013	1-Apr-03	25-Feb-03
E226040	03-ESN-014	74.00	75.00	0.838	1-Apr-03	25-Feb-03
E226041	03-ESN-014	75.00	75.82	0.055	1-Apr-03	25-Feb-03
E226042	03-ESN-014	75.82	77.00	3.570	1-Apr-03	25-Feb-03
E226043	03-ESN-014	77.00	78.00	0.167	1-Apr-03	25-Feb-03
E226044	03-ESN-014	78.00	79.50	0.720	1-Apr-03	25-Feb-03
E226045	03-ESN-014	79.50	80.00	0.044	1-Apr-03	25-Feb-03
E226046	03-ESN-014	80.00	81.00	0.149	1-Apr-03	25-Feb-03
E226047	03-ESN-014	81.00	82.08	0.075	1-Apr-03	25-Feb-03
E226048	03-ESN-014	82.08	83.00	0.027	1-Apr-03	25-Feb-03
E226049	03-ESN-014	83.00	83.65	0.027	1-Apr-03	25-Feb-03
E226050	03-ESN-014	83.65	84.51	0.012	1-Apr-03	25-Feb-03
E226051	03-ESN-014	84.51	85.00	0.020	1-Apr-03	25-Feb-03
E226052	03-ESN-014	85.00	86.10	0.027	1-Apr-03	25-Feb-03
E226053	03-ESN-014	86.10	87.00	0.010	1-Apr-03	25-Feb-03
E226054	03-ESN-014	92.60	93.27	0.010	1-Apr-03	25-Feb-03
E226055	03-ESN-014	93.27	93.75	0.010	1-Apr-03	25-Feb-03
E226056	03-ESN-014	93.75	94.10	0.154	1-Apr-03	25-Feb-03
E226057	03-ESN-014	94.10	94.60	0.010	1-Apr-03	25-Feb-03
E226058	03-ESN-014	94.60	95.10	0.010	1-Apr-03	25-Feb-03
E226059	03-ESN-014	121.50	122.00	0.010	1-Apr-03	25-Feb-03
E226060	03-ESN-014	122.00	123.06	0.010	1-Apr-03	25-Feb-03
E226061	03-ESN-014	123.06	124.00	0.184	1-Apr-03	25-Feb-03
E226062	03-ESN-014	124.00	125.00	0.064	1-Apr-03	25-Feb-03
E226063	03-ESN-014	125.00	126.00	0.184	1-Apr-03	25-Feb-03
E226064	03-ESN-014	126.00	127.00	0.066	1-Apr-03	25-Feb-03
E226065	03-ESN-014	127.00	128.00	0.046	1-Apr-03	25-Feb-03
E226066	03-ESN-014	128.00	129.00	0.311	1-Apr-03	25-Feb-03
E226067	03-ESN-014	129.00	130.00	0.052	1-Apr-03	25-Feb-03
E226068	03-ESN-014	130.00	131.00	0.059	1-Apr-03	25-Feb-03
E226069	03-ESN-014	131.00	132.00	0.056	1-Apr-03	25-Feb-03
E226070	03-ESN-014	132.00	133.00	0.084	1-Apr-03	25-Feb-03
E226071	03-ESN-014	133.00	134.00	0.029	1-Apr-03	25-Feb-03
E226072	03-ESN-014	134.00	135.50	0.114	1-Apr-03	25-Feb-03
E226073	03-ESN-014	135.50	136.00	0.110	1-Apr-03	25-Feb-03
E226074	03-ESN-014	136.00	137.00	0.067	1-Apr-03	25-Feb-03
E226075	03-ESN-014	137.00	137.70	1.060	1-Apr-03	25-Feb-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E226076	03-ESN-014	137.70	138.40	0.220	1-Apr-03	25-Feb-03
E226077	03-ESN-014	138.40	139.00	0.010	1-Apr-03	25-Feb-03
E226078	03-ESN-014	139.00	140.00	0.044	1-Apr-03	25-Feb-03
E226079	03-ESN-014	140.00	141.00	0.024	1-Apr-03	25-Feb-03
E226080	03-ESN-014	141.00	142.00	0.025	1-Apr-03	25-Feb-03
E226081	03-ESN-014	142.00	143.00	0.042	1-Apr-03	25-Feb-03
E226082	03-ESN-014	143.00	143.80	0.024	1-Apr-03	25-Feb-03
E226083	03-ESN-014	143.80	144.73	0.500	1-Apr-03	25-Feb-03
E226084	03-ESN-014	144.73	145.50	0.010	1-Apr-03	25-Feb-03
E226085	03-ESN-014	145.50	146.00	0.010	1-Apr-03	25-Feb-03
E226086	03-ESN-014	146.00	146.50	0.013	1-Apr-03	25-Feb-03
E226087	03-ESN-014	148.00	149.00	0.019	1-Apr-03	25-Feb-03
E226088	03-ESN-014	149.00	149.61	0.010	1-Apr-03	25-Feb-03
E226089	03-ESN-014	149.61	150.00	0.010	1-Apr-03	25-Feb-03
E226090	03-ESN-014	150.00	151.00	0.010	1-Apr-03	25-Feb-03
E226091	03-ESN-014	151.00	152.00	0.114	1-Apr-03	25-Feb-03
E226092	03-ESN-014	152.00	152.95	0.054	1-Apr-03	25-Feb-03
E226093	03-ESN-014	152.95	153.45	0.245	1-Apr-03	25-Feb-03
E226094	03-ESN-014	153.45	154.00	0.054	1-Apr-03	25-Feb-03
E226095	03-ESN-014	154.00	155.23	0.287	1-Apr-03	25-Feb-03
E226096	03-ESN-014	155.23	156.00	0.010	1-Apr-03	25-Feb-03
E226097	03-ESN-014	156.00	157.00	0.010	1-Apr-03	25-Feb-03
E227001	03-ESN-012	69.00	69.60	0.010	28-Mar-03	3-Mar-03
E227002	03-ESN-012	69.60	70.40	0.010	28-Mar-03	3-Mar-03
E227003	03-ESN-012	70.40	71.50	0.164	28-Mar-03	3-Mar-03
E227004	03-ESN-012	71.50	72.00	0.521	28-Mar-03	3-Mar-03
E227005	03-ESN-012	72.00	73.00	0.080	28-Mar-03	3-Mar-03
E227006	03-ESN-012	73.00	74.00	0.169	28-Mar-03	3-Mar-03
E227007	03-ESN-012	74.00	75.00	0.094	28-Mar-03	3-Mar-03
E227008	03-ESN-012	75.00	76.00	0.339	28-Mar-03	3-Mar-03
E227009	03-ESN-012	76.00	77.00	0.055	28-Mar-03	3-Mar-03
E227010	03-ESN-012	77.00	78.10	0.125	28-Mar-03	3-Mar-03
E227011	03-ESN-012	78.10	79.00	0.318	28-Mar-03	3-Mar-03
E227012	03-ESN-012	79.00	80.00	0.075	28-Mar-03	3-Mar-03
E227013	03-ESN-012	80.00	81.00	0.010	28-Mar-03	3-Mar-03
E227014	03-ESN-012	81.00	82.00	0.034	28-Mar-03	3-Mar-03
E227015	03-ESN-012	82.00	83.00	0.040	28-Mar-03	3-Mar-03
E227016	03-ESN-012	83.00	83.80	0.016	28-Mar-03	3-Mar-03
E227017	03-ESN-012	83.80	84.55	0.022	28-Mar-03	3-Mar-03
E227018	03-ESN-012	84.55	85.00	0.010	28-Mar-03	3-Mar-03
E227019	03-ESN-012	85.00	86.00	0.010	28-Mar-03	3-Mar-03
E227020	03-ESN-012	86.00	87.00	0.010	28-Mar-03	3-Mar-03
E227021	03-ESN-012	87.00	87.60	0.010	28-Mar-03	3-Mar-03
E227022	03-ESN-012	87.60	88.10	0.053	28-Mar-03	3-Mar-03
E227023	03-ESN-012	88.10	89.00	0.369	28-Mar-03	3-Mar-03
E227024	03-ESN-012	89.00	90.00	0.110	28-Mar-03	3-Mar-03
E227025	03-ESN-012	90.00	91.00	0.013	28-Mar-03	3-Mar-03
E227026	03-ESN-012	91.00	92.00	0.081	28-Mar-03	3-Mar-03
E227027	03-ESN-012	92.00	93.00	0.167	28-Mar-03	3-Mar-03
E227028	03-ESN-012	93.00	93.83	0.063	28-Mar-03	3-Mar-03
E227029	03-ESN-012	93.83	95.00	0.016	28-Mar-03	3-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM m	SAMPLE TO m	AU_PPM	Analysis Date	Sample Date
E227030	03-ESN-012	95.00	95.60	0.010	28-Mar-03	3-Mar-03
E227031	03-ESN-012	95.60	97.00	0.010	28-Mar-03	3-Mar-03
E227032	03-ESN-012	97.00	98.00	0.010	28-Mar-03	3-Mar-03
E227033	03-ESN-012	98.00	99.00	0.010	28-Mar-03	3-Mar-03
E227034	03-ESN-012	99.00	100.00	0.034	28-Mar-03	3-Mar-03
E227035	03-ESN-012	100.00	100.50	0.010	28-Mar-03	3-Mar-03
E227036	03-ESN-012	131.40	132.40	0.145	28-Mar-03	3-Mar-03
E227037	03-ESN-012	132.40	133.38	1.375	28-Mar-03	3-Mar-03
E227038	03-ESN-012	133.38	134.80	0.199	28-Mar-03	3-Mar-03
E227039	03-ESN-012	134.80	136.00	0.482	28-Mar-03	3-Mar-03
E227040	03-ESN-012	136.00	137.00	1.682	28-Mar-03	3-Mar-03
E227041	03-ESN-012	137.00	138.00	0.579	28-Mar-03	3-Mar-03
E227042	03-ESN-012	138.00	139.00	0.187	28-Mar-03	3-Mar-03
E227043	03-ESN-012	139.00	140.00	2.026	28-Mar-03	3-Mar-03
E227044	03-ESN-012	140.00	141.00	6.069	28-Mar-03	3-Mar-03
E227045	03-ESN-012	141.00	142.00	0.381	28-Mar-03	3-Mar-03
E227046	03-ESN-012	142.00	143.00	2.554	28-Mar-03	3-Mar-03
E227047	03-ESN-012	143.00	144.00	1.054	28-Mar-03	3-Mar-03
E227048	03-ESN-012	144.00	145.00	0.743	28-Mar-03	3-Mar-03
E227049	03-ESN-012	145.00	145.90	2.467	28-Mar-03	3-Mar-03
E227050	03-ESN-012	145.90	146.83	6.824	28-Mar-03	3-Mar-03
E227051	03-ESN-012	146.83	147.40	0.130	28-Mar-03	3-Mar-03
E227052	03-ESN-012	147.40	147.85	0.075	28-Mar-03	3-Mar-03
E227053	03-ESN-012	147.85	149.00	0.140	28-Mar-03	3-Mar-03
E227054	03-ESN-012	149.00	150.30	0.492	28-Mar-03	3-Mar-03
E227055	03-ESN-012	150.30	151.00	1.098	28-Mar-03	3-Mar-03
E227056	03-ESN-012	151.00	152.00	0.698	28-Mar-03	3-Mar-03
E227057	03-ESN-012	152.00	153.00	0.196	28-Mar-03	3-Mar-03
E227058	03-ESN-012	153.00	154.00	0.038	28-Mar-03	3-Mar-03
E227059	03-ESN-012	154.00	155.00	0.014	28-Mar-03	3-Mar-03
E227060	03-ESN-012	155.00	156.00	0.516	28-Mar-03	3-Mar-03
E227061	03-ESN-012	156.00	157.00	6.503	28-Mar-03	3-Mar-03
E227062	03-ESN-012	157.00	158.00	0.046	28-Mar-03	3-Mar-03
E227063	03-ESN-012	158.00	159.00	0.100	28-Mar-03	3-Mar-03
E227064	03-ESN-012	159.00	160.00	0.053	28-Mar-03	3-Mar-03
E227065	03-ESN-012	160.00	161.00	0.354	28-Mar-03	3-Mar-03
E227066	03-ESN-012	161.00	162.00	0.346	28-Mar-03	3-Mar-03
E227067	03-ESN-012	162.00	163.00	0.010	28-Mar-03	3-Mar-03
E227068	03-ESN-012	163.00	164.00	0.020	28-Mar-03	3-Mar-03
E227069	03-ESN-012	164.00	165.00	0.192	28-Mar-03	3-Mar-03
E227070	03-ESN-012	165.00	166.00	0.038	28-Mar-03	3-Mar-03
E227071	03-ESN-012	166.00	167.00	0.029	28-Mar-03	3-Mar-03
E227072	03-ESN-012	167.00	168.00	0.088	28-Mar-03	3-Mar-03
E227073	03-ESN-012	168.00	169.00	0.083	28-Mar-03	3-Mar-03
E227074	03-ESN-012	169.00	169.95	0.010	28-Mar-03	3-Mar-03
E227075	03-ESN-012	169.95	171.00	0.203	28-Mar-03	3-Mar-03
E227076	03-ESN-012	171.00	172.27	0.158	28-Mar-03	3-Mar-03
E227077	03-ESN-012	172.27	173.40	0.046	28-Mar-03	3-Mar-03
E227078	03-ESN-012	173.40	174.25	0.058	28-Mar-03	3-Mar-03
E227079	03-ESN-012	174.25	175.00	0.263	28-Mar-03	3-Mar-03
E227080	03-ESN-012	175.00	175.44	0.123	28-Mar-03	3-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome - Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E227081	03-ESN-012	175.44	176.00	0.646	28-Mar-03	3-Mar-03
E227082	03-ESN-012	176.00	176.58	0.021	28-Mar-03	3-Mar-03
E227083	03-ESN-012	176.58	177.00	0.557	5-Apr-03	3-Mar-03
E227084	03-ESN-012	177.00	177.50	0.158	5-Apr-03	3-Mar-03
E227085	03-ESN-012	177.50	178.00	0.010	5-Apr-03	3-Mar-03
E227086	03-ESN-012	178.00	179.00	0.010	5-Apr-03	3-Mar-03
E227087	03-ESN-012	179.00	180.00	0.010	5-Apr-03	3-Mar-03
E227088	03-ESN-012	199.00	200.00	0.010	5-Apr-03	3-Mar-03
E227089	03-ESN-012	200.00	200.82	0.010	5-Apr-03	3-Mar-03
E227090	03-ESN-012	200.82	202.00	0.064	5-Apr-03	3-Mar-03
E227091	03-ESN-012	202.00	203.00	0.057	5-Apr-03	3-Mar-03
E227092	03-ESN-012	203.00	204.00	0.219	5-Apr-03	3-Mar-03
E227093	03-ESN-012	204.00	204.70	0.614	5-Apr-03	3-Mar-03
E227094	03-ESN-012	204.70	205.50	0.054	5-Apr-03	3-Mar-03
E227095	03-ESN-012	205.50	206.75	0.869	5-Apr-03	3-Mar-03
E227096	03-ESN-012	206.75	207.50	0.598	5-Apr-03	3-Mar-03
E227097	03-ESN-012	207.50	208.40	0.696	5-Apr-03	3-Mar-03
E227098	03-ESN-012	208.40	209.00	0.876	5-Apr-03	3-Mar-03
E227099	03-ESN-012	209.00	210.00	0.135	5-Apr-03	3-Mar-03
E227100	03-ESN-012	210.00	211.00	0.143	5-Apr-03	3-Mar-03
E227101	03-ESN-012	211.00	212.00	0.672	5-Apr-03	3-Mar-03
E227102	03-ESN-012	212.00	213.00	0.075	5-Apr-03	3-Mar-03
E227103	03-ESN-012	213.00	214.00	0.039	5-Apr-03	3-Mar-03
E227104	03-ESN-012	214.00	215.00	0.182	5-Apr-03	3-Mar-03
E227105	03-ESN-012	215.00	216.00	0.603	5-Apr-03	3-Mar-03
E227106	03-ESN-012	216.00	217.10	0.022	5-Apr-03	3-Mar-03
E227107	03-ESN-012	217.10	218.00	0.010	5-Apr-03	3-Mar-03
E227108	03-ESN-012	218.00	218.75	0.010	5-Apr-03	3-Mar-03
E227109	03-ESN-012	218.75	219.50	0.010	5-Apr-03	3-Mar-03
E227110	03-ESN-012	219.50	220.00	0.025	5-Apr-03	3-Mar-03
E227111	03-ESN-012	220.00	220.90	0.019	5-Apr-03	3-Mar-03
E227112	03-ESN-012	220.90	222.00	0.010	5-Apr-03	3-Mar-03
E227113	03-ESN-012	222.00	223.00	0.020	5-Apr-03	3-Mar-03
E227114	03-ESN-012	228.00	229.00	0.010	5-Apr-03	3-Mar-03
E227115	03-ESN-012	229.00	230.00	0.010	5-Apr-03	3-Mar-03
E227116	03-ESN-012	230.00	231.00	0.034	5-Apr-03	3-Mar-03
E227117	03-ESN-012	231.00	232.00	0.010	5-Apr-03	3-Mar-03
E227118	03-ESN-012	232.00	233.00	0.010	5-Apr-03	3-Mar-03
E227119	03-ESN-012	233.00	233.46	3.026	5-Apr-03	3-Mar-03
E227120	03-ESN-012	233.46	234.17	28.742	5-Apr-03	3-Mar-03
E227121	03-ESN-012	234.17	234.65	4.473	5-Apr-03	3-Mar-03
E227122	03-ESN-012	234.65	235.80	0.113	5-Apr-03	3-Mar-03
E227123	03-ESN-012	235.80	236.33	0.011	5-Apr-03	3-Mar-03
E227124	03-ESN-012	236.33	237.00	0.010	5-Apr-03	3-Mar-03
E227125	03-ESN-012	237.00	238.00	0.019	5-Apr-03	3-Mar-03
E227126	03-ESN-012	238.00	239.30	0.015	5-Apr-03	3-Mar-03
E227127	03-ESN-012	239.30	240.00	0.016	5-Apr-03	3-Mar-03
E227128	03-ESN-012	240.00	241.10	2.379	5-Apr-03	3-Mar-03
E227129	03-ESN-012	241.10	242.10	4.196	5-Apr-03	3-Mar-03
E227130	03-ESN-012	242.10	243.16	4.350	5-Apr-03	3-Mar-03
E227131	03-ESN-012	243.16	244.20	0.025	5-Apr-03	3-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E227132	03-ESN-012	244.20	245.00	0.042	5-Apr-03	3-Mar-03
E227133	03-ESN-012	245.00	246.00	0.077	5-Apr-03	3-Mar-03
E227134	03-ESN-012	248.75	250.00	0.285	5-Apr-03	3-Mar-03
E227135	03-ESN-012	250.00	251.00	0.512	5-Apr-03	3-Mar-03
E227136	03-ESN-012	251.00	251.75	0.780	5-Apr-03	3-Mar-03
E227137	03-ESN-012	251.75	252.75	0.171	5-Apr-03	3-Mar-03
E227138	03-ESN-012	248.00	248.75	0.010	5-Apr-03	3-Mar-03
E227351	03-ESN-011	97.69	98.69	0.013	5-Apr-03	7-Mar-03
E227352	03-ESN-011	98.69	99.69	2.412	5-Apr-03	7-Mar-03
E227353	03-ESN-011	99.69	100.40	9.977	5-Apr-03	7-Mar-03
E227354	03-ESN-011	100.40	101.21	0.042	5-Apr-03	7-Mar-03
E227355	03-ESN-011	101.21	102.40	0.010	5-Apr-03	7-Mar-03
E227356	03-ESN-011	102.40	103.55	0.014	5-Apr-03	7-Mar-03
E227357	03-ESN-011	111.53	112.53	0.010	5-Apr-03	7-Mar-03
E227358	03-ESN-011	112.53	113.80	0.205	5-Apr-03	7-Mar-03
E227359	03-ESN-011	113.80	114.80	0.020	5-Apr-03	7-Mar-03
E227360	03-ESN-011	133.34	134.32	0.010	5-Apr-03	7-Mar-03
E227361	03-ESN-011	134.32	135.50	0.013	5-Apr-03	7-Mar-03
E227362	03-ESN-011	135.50	136.70	0.418	5-Apr-03	7-Mar-03
E227363	03-ESN-011	136.70	137.90	0.064	5-Apr-03	7-Mar-03
E227364	03-ESN-011	137.90	139.00	0.134	5-Apr-03	7-Mar-03
E227365	03-ESN-011	139.00	140.00	0.083	5-Apr-03	7-Mar-03
E227366	03-ESN-011	140.00	141.00	0.176	5-Apr-03	7-Mar-03
E227367	03-ESN-011	141.00	142.00	0.016	5-Apr-03	7-Mar-03
E227368	03-ESN-011	142.00	142.82	0.088	5-Apr-03	7-Mar-03
E227369	03-ESN-011	142.82	144.00	0.033	5-Apr-03	7-Mar-03
E227370	03-ESN-011	144.00	145.00	0.045	5-Apr-03	7-Mar-03
E227371	03-ESN-011	145.00	146.00	0.079	5-Apr-03	7-Mar-03
E227372	03-ESN-011	146.00	147.00	0.010	5-Apr-03	7-Mar-03
E227373	03-ESN-011	147.00	148.00	0.194	5-Apr-03	7-Mar-03
E227374	03-ESN-011	148.00	149.00	0.377	5-Apr-03	7-Mar-03
E227375	03-ESN-011	149.00	149.60	0.212	5-Apr-03	7-Mar-03
E227376	03-ESN-011	149.60	150.80	0.109	5-Apr-03	7-Mar-03
E227377	03-ESN-011	150.80	152.00	0.514	5-Apr-03	7-Mar-03
E227378	03-ESN-011	152.00	153.00	0.098	5-Apr-03	7-Mar-03
E227379	03-ESN-011	153.00	154.00	0.027	26-May-03	7-Mar-03
E227380	03-ESN-011	154.00	155.00	0.041	10-Apr-03	7-Mar-03
E227381	03-ESN-011	155.00	156.00	0.097	10-Apr-03	7-Mar-03
E227382	03-ESN-011	156.00	157.00	0.199	10-Apr-03	7-Mar-03
E227383	03-ESN-011	157.00	158.00	2.651	10-Apr-03	7-Mar-03
E227384	03-ESN-011	158.00	159.00	0.125	10-Apr-03	7-Mar-03
E227385	03-ESN-011	159.00	160.00	0.053	10-Apr-03	7-Mar-03
E227386	03-ESN-011	160.00	161.00	0.205	10-Apr-03	7-Mar-03
E227387	03-ESN-011	161.00	162.00	1.345	10-Apr-03	7-Mar-03
E227388	03-ESN-011	162.00	163.00	0.075	10-Apr-03	7-Mar-03
E227389	03-ESN-011	163.00	164.00	0.157	10-Apr-03	7-Mar-03
E227390	03-ESN-011	164.00	165.00	1.056	10-Apr-03	7-Mar-03
E227391	03-ESN-011	165.00	166.00	0.035	10-Apr-03	7-Mar-03
E227392	03-ESN-011	166.00	166.45	0.143	10-Apr-03	7-Mar-03
E227393	03-ESN-011	166.45	167.50	0.022	26-May-03	7-Mar-03
E227394	03-ESN-011	167.50	168.50	0.028	26-May-03	7-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM m	SAMPLE TO m	AU_PPM	Analysis Date	Sample Date
E227395	03-ESN-011	168.50	169.70	0.040	10-Apr-03	7-Mar-03
E227396	03-ESN-011	169.70	170.90	0.019	26-May-03	7-Mar-03
E227397	03-ESN-011	170.90	172.00	0.050	10-Apr-03	7-Mar-03
E227398	03-ESN-011	172.00	173.00	0.012	26-May-03	7-Mar-03
E227399	03-ESN-011	173.00	174.00	0.010	26-May-03	7-Mar-03
E227400	03-ESN-011	174.00	175.00	0.010	26-May-03	7-Mar-03
E227401	03-ESN-011	175.00	176.00	0.020	26-May-03	7-Mar-03
E227402	03-ESN-011	176.00	177.00	0.054	10-Apr-03	7-Mar-03
E227403	03-ESN-011	177.00	178.00	0.101	10-Apr-03	7-Mar-03
E227404	03-ESN-011	178.00	179.00	0.136	10-Apr-03	7-Mar-03
E227405	03-ESN-011	179.00	180.00	0.165	10-Apr-03	7-Mar-03
E227406	03-ESN-011	180.00	181.00	0.119	10-Apr-03	7-Mar-03
E227407	03-ESN-011	181.00	182.00	0.137	10-Apr-03	7-Mar-03
E227408	03-ESN-011	182.00	183.00	0.088	10-Apr-03	7-Mar-03
E227409	03-ESN-011	183.00	184.00	1.116	10-Apr-03	7-Mar-03
E227410	03-ESN-011	184.00	185.00	1.449	10-Apr-03	7-Mar-03
E227411	03-ESN-011	185.00	186.00	3.597	10-Apr-03	7-Mar-03
E227412	03-ESN-011	186.00	186.72	0.022	26-May-03	7-Mar-03
E227413	03-ESN-011	186.72	187.90	0.235	10-Apr-03	7-Mar-03
E227414	03-ESN-011	187.90	189.00	0.015	26-May-03	7-Mar-03
E227415	03-ESN-011	189.00	190.00	0.015	26-May-03	7-Mar-03
E227416	03-ESN-011	190.00	191.00	0.035	10-Apr-03	7-Mar-03
E227417	03-ESN-011	191.00	192.00	0.018	26-May-03	7-Mar-03
E227418	03-ESN-011	192.00	193.00	0.057	10-Apr-03	7-Mar-03
E227419	03-ESN-011	193.00	194.00	0.016	26-May-03	7-Mar-03
E227420	03-ESN-011	194.00	195.00	0.061	10-Apr-03	7-Mar-03
E227421	03-ESN-011	195.00	196.00	0.013	26-May-03	7-Mar-03
E227422	03-ESN-011	196.00	197.00	0.082	10-Apr-03	7-Mar-03
E227423	03-ESN-011	197.00	198.00	0.051	10-Apr-03	7-Mar-03
E227424	03-ESN-011	198.00	199.00	0.076	10-Apr-03	7-Mar-03
E227425	03-ESN-011	199.00	200.00	0.012	26-May-03	7-Mar-03
E227426	03-ESN-011	200.00	201.00	0.012	26-May-03	7-Mar-03
E227427	03-ESN-011	201.00	202.00	0.011	26-May-03	7-Mar-03
E227428	03-ESN-011	202.00	203.00	0.073	10-Apr-03	7-Mar-03
E227429	03-ESN-011	203.00	204.00	0.681	10-Apr-03	7-Mar-03
E227430	03-ESN-011	204.00	205.00	0.103	10-Apr-03	7-Mar-03
E227431	03-ESN-011	205.00	206.00	0.100	10-Apr-03	7-Mar-03
E227432	03-ESN-011	206.00	207.00	4.040	10-Apr-03	7-Mar-03
E227433	03-ESN-011	207.00	208.00	0.872	10-Apr-03	7-Mar-03
E227434	03-ESN-011	208.00	209.00	4.932	10-Apr-03	7-Mar-03
E227435	03-ESN-011	209.00	210.00	1.849	10-Apr-03	7-Mar-03
E227436	03-ESN-011	210.00	211.00	1.446	10-Apr-03	7-Mar-03
E227437	03-ESN-011	211.00	212.00	1.466	10-Apr-03	7-Mar-03
E227438	03-ESN-011	212.00	213.00	0.254	10-Apr-03	7-Mar-03
E227439	03-ESN-011	213.00	214.00	0.277	10-Apr-03	7-Mar-03
E227440	03-ESN-011	214.00	215.00	0.266	10-Apr-03	7-Mar-03
E227441	03-ESN-011	215.00	216.00	0.116	10-Apr-03	7-Mar-03
E227442	03-ESN-011	216.00	217.00	0.355	10-Apr-03	7-Mar-03
E227443	03-ESN-011	217.00	218.00	0.593	10-Apr-03	7-Mar-03
E227444	03-ESN-011	218.00	219.00	3.570	10-Apr-03	7-Mar-03
E227445	03-ESN-011	219.00	220.00	0.688	10-Apr-03	7-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E227446	03-ESN-011	220.00	221.00	2.030	10-Apr-03	7-Mar-03
E227447	03-ESN-011	221.00	222.00	0.116	10-Apr-03	7-Mar-03
E227448	03-ESN-011	222.00	223.00	0.063	10-Apr-03	7-Mar-03
E227449	03-ESN-011	223.00	224.00	0.268	10-Apr-03	7-Mar-03
E227450	03-ESN-011	224.00	225.00	0.171	10-Apr-03	7-Mar-03
E227451	03-ESN-011	225.00	226.00	0.926	10-Apr-03	7-Mar-03
E227452	03-ESN-011	226.00	227.00	0.567	10-Apr-03	7-Mar-03
E227453	03-ESN-011	227.00	228.00	0.149	10-Apr-03	7-Mar-03
E227454	03-ESN-011	228.00	229.00	0.181	10-Apr-03	7-Mar-03
E227455	03-ESN-011	229.00	229.83	0.012	26-May-03	7-Mar-03
E227456	03-ESN-011	229.83	231.00	0.010	26-May-03	7-Mar-03
E227457	03-ESN-011	231.00	232.00	0.010	26-May-03	7-Mar-03
E227458	03-ESN-011	254.71	255.71	0.010	26-May-03	7-Mar-03
E227459	03-ESN-011	255.71	256.90	0.065	10-Apr-03	7-Mar-03
E227460	03-ESN-011	256.90	258.00	0.049	10-Apr-03	7-Mar-03
E227461	03-ESN-011	258.00	259.00	0.041	5-Apr-03	7-Mar-03
E227462	03-ESN-011	259.00	260.00	0.041	5-Apr-03	7-Mar-03
E227463	03-ESN-011	260.00	261.00	0.010	5-Apr-03	7-Mar-03
E227464	03-ESN-011	261.00	262.00	0.010	5-Apr-03	7-Mar-03
E227465	03-ESN-011	262.00	263.00	0.010	5-Apr-03	7-Mar-03
E227466	03-ESN-011	263.00	264.00	0.281	5-Apr-03	7-Mar-03
E227467	03-ESN-011	264.00	265.00	1.042	5-Apr-03	7-Mar-03
E227468	03-ESN-011	265.00	266.00	0.083	5-Apr-03	7-Mar-03
E227469	03-ESN-011	266.00	267.00	0.025	5-Apr-03	7-Mar-03
E227470	03-ESN-011	267.00	268.00	0.162	5-Apr-03	7-Mar-03
E227471	03-ESN-011	268.00	269.00	0.141	5-Apr-03	7-Mar-03
E227472	03-ESN-011	269.00	269.60	0.031	5-Apr-03	7-Mar-03
E227473	03-ESN-011	269.60	270.80	0.010	5-Apr-03	7-Mar-03
E227474	03-ESN-011	276.45	277.45	0.010	5-Apr-03	7-Mar-03
E227475	03-ESN-011	277.45	278.45	0.010	5-Apr-03	7-Mar-03
E227476	03-ESN-011	278.45	279.45	0.010	5-Apr-03	7-Mar-03
E227477	03-ESN-011	279.45	280.45	0.010	5-Apr-03	7-Mar-03
E227478	03-ESN-011	280.45	281.45	0.030	5-Apr-03	7-Mar-03
E227479	03-ESN-011	281.45	282.45	0.057	5-Apr-03	7-Mar-03
E227480	03-ESN-011	282.45	283.45	0.010	5-Apr-03	7-Mar-03
E227481	03-ESN-011	283.45	284.35	0.010	5-Apr-03	7-Mar-03
E227482	03-ESN-011	284.35	285.25	0.010	5-Apr-03	7-Mar-03
E227483	03-ESN-011	296.00	297.05	0.010	5-Apr-03	7-Mar-03
E227484	03-ESN-011	297.05	298.16	0.030	5-Apr-03	7-Mar-03
E227485	03-ESN-011	298.16	299.00	0.010	5-Apr-03	7-Mar-03
E228251	03-ESN-010	213.00	214.00	0.062	18-Mar-03	11-Mar-03
E228252	03-ESN-010	214.00	215.00	0.025	18-Mar-03	11-Mar-03
E228253	03-ESN-010	215.00	216.00	0.016	18-Mar-03	11-Mar-03
E228254	03-ESN-010	216.00	217.00	0.010	18-Mar-03	11-Mar-03
E228255	03-ESN-010	217.00	218.00	0.023	18-Mar-03	11-Mar-03
E228256	03-ESN-010	218.00	218.77	0.063	18-Mar-03	11-Mar-03
E228257	03-ESN-010	218.77	220.00	1.120	18-Mar-03	11-Mar-03
E228258	03-ESN-010	220.00	221.00	1.034	18-Mar-03	11-Mar-03
E228259	03-ESN-010	221.00	222.00	1.233	18-Mar-03	11-Mar-03
E228260	03-ESN-010	222.00	223.00	0.767	18-Mar-03	11-Mar-03
E228261	03-ESN-010	223.00	224.00	2.597	18-Mar-03	11-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome—Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E228262	03-ESN-010	224.00	225.00	2.379	18-Mar-03	11-Mar-03
E228263	03-ESN-010	225.00	226.00	10.115	18-Mar-03	11-Mar-03
E228264	03-ESN-010	226.00	227.00	3.272	18-Mar-03	11-Mar-03
E228265	03-ESN-010	227.00	228.00	3.227	18-Mar-03	11-Mar-03
E228266	03-ESN-010	228.00	229.00	0.071	18-Mar-03	11-Mar-03
E228267	03-ESN-010	229.00	230.00	2.781	18-Mar-03	11-Mar-03
E228268	03-ESN-010	230.00	231.20	2.867	18-Mar-03	11-Mar-03
E228269	03-ESN-010	231.20	232.37	0.495	18-Mar-03	11-Mar-03
E228270	03-ESN-010	232.37	233.50	0.121	19-Mar-03	11-Mar-03
E228271	03-ESN-010	233.50	234.70	0.102	19-Mar-03	11-Mar-03
E228272	03-ESN-010	234.70	235.90	0.125	19-Mar-03	11-Mar-03
E228273	03-ESN-010	235.90	237.00	0.101	19-Mar-03	11-Mar-03
E228274	03-ESN-010	237.00	238.00	0.666	19-Mar-03	11-Mar-03
E228275	03-ESN-010	238.00	239.00	0.454	19-Mar-03	11-Mar-03
E228276	03-ESN-010	239.00	240.00	1.195	19-Mar-03	11-Mar-03
E228277	03-ESN-010	240.00	241.00	0.113	19-Mar-03	11-Mar-03
E228278	03-ESN-010	241.00	242.00	1.178	19-Mar-03	11-Mar-03
E228279	03-ESN-010	242.00	243.00	0.111	19-Mar-03	11-Mar-03
E228280	03-ESN-010	243.00	244.00	0.083	19-Mar-03	11-Mar-03
E228281	03-ESN-010	244.00	245.00	0.234	19-Mar-03	11-Mar-03
E228282	03-ESN-010	245.00	246.00	0.112	19-Mar-03	11-Mar-03
E228283	03-ESN-010	246.00	247.00	0.062	19-Mar-03	11-Mar-03
E228284	03-ESN-010	247.00	248.00	0.266	19-Mar-03	11-Mar-03
E228285	03-ESN-010	248.00	249.00	0.133	19-Mar-03	11-Mar-03
E228286	03-ESN-010	249.00	250.00	1.382	19-Mar-03	11-Mar-03
E228287	03-ESN-010	250.00	251.00	0.082	19-Mar-03	11-Mar-03
E228288	03-ESN-010	251.00	252.00	0.715	19-Mar-03	11-Mar-03
E228289	03-ESN-010	252.00	253.00	0.109	19-Mar-03	11-Mar-03
E228290	03-ESN-010	253.00	254.00	0.119	19-Mar-03	11-Mar-03
E228291	03-ESN-010	254.00	255.00	0.069	19-Mar-03	11-Mar-03
E228292	03-ESN-010	255.00	256.00	0.055	19-Mar-03	11-Mar-03
E228293	03-ESN-010	256.00	257.00	0.053	19-Mar-03	11-Mar-03
E228294	03-ESN-010	257.00	258.00	0.031	19-Mar-03	11-Mar-03
E228295	03-ESN-010	258.00	259.00	0.154	19-Mar-03	11-Mar-03
E228296	03-ESN-010	259.00	260.00	0.045	19-Mar-03	11-Mar-03
E228297	03-ESN-010	260.00	261.00	0.047	19-Mar-03	11-Mar-03
E228298	03-ESN-010	261.00	262.00	0.084	19-Mar-03	11-Mar-03
E228299	03-ESN-010	262.00	263.00	0.084	19-Mar-03	11-Mar-03
E228300	03-ESN-010	263.00	264.00	0.037	19-Mar-03	11-Mar-03
E228301	03-ESN-010	264.00	265.00	0.250	19-Mar-03	11-Mar-03
E228302	03-ESN-010	265.00	266.00	0.550	19-Mar-03	11-Mar-03
E228303	03-ESN-010	266.00	267.00	0.509	19-Mar-03	11-Mar-03
E228304	03-ESN-010	267.00	268.00	0.950	19-Mar-03	11-Mar-03
E228305	03-ESN-010	268.00	269.00	1.089	19-Mar-03	11-Mar-03
E228306	03-ESN-010	269.00	270.00	0.774	19-Mar-03	11-Mar-03
E228307	03-ESN-010	270.00	271.00	0.047	19-Mar-03	11-Mar-03
E228308	03-ESN-010	271.00	272.00	0.428	19-Mar-03	11-Mar-03
E228309	03-ESN-010	272.00	273.00	7.369	19-Mar-03	11-Mar-03
E228310	03-ESN-010	273.00	274.00	2.963	19-Mar-03	11-Mar-03
E228311	03-ESN-010	274.00	275.00	0.148	19-Mar-03	11-Mar-03
E228312	03-ESN-010	275.00	276.00	0.053	19-Mar-03	11-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E228313	03-ESN-010	276.00	277.00	0.033	19-Mar-03	11-Mar-03
E228314	03-ESN-010	277.00	278.00	0.021	19-Mar-03	11-Mar-03
E228315	03-ESN-010	278.00	279.00	0.011	19-Mar-03	11-Mar-03
E228316	03-ESN-010	279.00	280.00	0.057	19-Mar-03	11-Mar-03
E228317	03-ESN-010	280.00	281.00	0.026	19-Mar-03	11-Mar-03
E228318	03-ESN-010	281.00	282.00	0.019	19-Mar-03	11-Mar-03
E228319	03-ESN-010	282.00	283.00	0.021	19-Mar-03	11-Mar-03
E228320	03-ESN-010	283.00	284.00	0.017	19-Mar-03	11-Mar-03
E228321	03-ESN-010	284.00	285.00	0.050	19-Mar-03	11-Mar-03
E228322	03-ESN-010	285.00	286.00	0.713	19-Mar-03	11-Mar-03
E228323	03-ESN-010	286.00	287.00	0.036	20-Mar-03	11-Mar-03
E228324	03-ESN-010	287.00	288.00	0.019	20-Mar-03	11-Mar-03
E228325	03-ESN-010	288.00	289.00	32.790	20-Mar-03	11-Mar-03
E228326	03-ESN-010	289.00	290.00	0.082	20-Mar-03	11-Mar-03
E228327	03-ESN-010	290.00	291.00	0.036	20-Mar-03	11-Mar-03
E228328	03-ESN-010	291.00	292.00	0.046	20-Mar-03	11-Mar-03
E228329	03-ESN-010	292.00	293.00	0.027	20-Mar-03	11-Mar-03
E228330	03-ESN-010	293.00	294.24	0.025	20-Mar-03	11-Mar-03
E228331	03-ESN-010	294.24	295.40	0.195	20-Mar-03	11-Mar-03
E228332	03-ESN-010	295.40	296.60	0.130	20-Mar-03	11-Mar-03
E228333	03-ESN-010	296.60	297.80	0.086	20-Mar-03	11-Mar-03
E228334	03-ESN-010	297.80	299.00	0.059	20-Mar-03	11-Mar-03
E228335	03-ESN-010	299.00	300.00	0.068	20-Mar-03	11-Mar-03
E228336	03-ESN-010	300.00	301.00	0.047	20-Mar-03	11-Mar-03
E228337	03-ESN-010	301.00	302.00	0.052	20-Mar-03	11-Mar-03
E228338	03-ESN-010	302.00	303.00	0.048	20-Mar-03	11-Mar-03
E228339	03-ESN-010	303.00	304.00	0.105	20-Mar-03	11-Mar-03
E228340	03-ESN-010	304.00	305.00	0.062	20-Mar-03	11-Mar-03
E228341	03-ESN-010	305.00	306.00	0.041	20-Mar-03	11-Mar-03
E228342	03-ESN-010	306.00	307.00	0.167	20-Mar-03	11-Mar-03
E228343	03-ESN-010	307.00	308.00	0.270	20-Mar-03	11-Mar-03
E228344	03-ESN-010	308.00	309.00	0.282	20-Mar-03	11-Mar-03
E228345	03-ESN-010	309.00	310.00	0.219	20-Mar-03	11-Mar-03
E228346	03-ESN-010	310.00	311.00	0.313	20-Mar-03	11-Mar-03
E228347	03-ESN-010	311.00	312.00	0.237	20-Mar-03	11-Mar-03
E228348	03-ESN-010	312.00	313.00	0.128	20-Mar-03	11-Mar-03
E228349	03-ESN-010	313.00	314.00	0.194	20-Mar-03	11-Mar-03
E228350	03-ESN-010	314.00	315.00	0.191	24-Mar-03	11-Mar-03
E228351	03-ESN-010	315.00	316.00	0.130	24-Mar-03	11-Mar-03
E228352	03-ESN-010	316.00	317.00	0.135	24-Mar-03	11-Mar-03
E228353	03-ESN-010	317.00	318.00	0.082	24-Mar-03	11-Mar-03
E228354	03-ESN-010	318.00	319.00	0.222	24-Mar-03	11-Mar-03
E228355	03-ESN-010	319.00	320.00	0.159	24-Mar-03	11-Mar-03
E228356	03-ESN-010	320.00	321.00	0.107	24-Mar-03	11-Mar-03
E228357	03-ESN-010	321.00	322.00	0.201	24-Mar-03	11-Mar-03
E228358	03-ESN-010	322.00	323.00	0.148	24-Mar-03	11-Mar-03
E228359	03-ESN-010	323.00	324.00	0.099	24-Mar-03	11-Mar-03
E228360	03-ESN-010	324.00	325.00	0.674	24-Mar-03	11-Mar-03
E228361	03-ESN-010	325.00	326.00	1.447	24-Mar-03	11-Mar-03
E228362	03-ESN-010	326.00	327.00	0.711	24-Mar-03	11-Mar-03
E228363	03-ESN-010	327.00	328.00	0.183	24-Mar-03	11-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E228364	03-ESN-010	328.00	329.00	0.153	24-Mar-03	11-Mar-03
E228365	03-ESN-010	329.00	330.00	0.081	24-Mar-03	11-Mar-03
E228366	03-ESN-010	330.00	331.00	0.098	24-Mar-03	11-Mar-03
E228367	03-ESN-010	331.00	332.00	0.153	24-Mar-03	11-Mar-03
E228368	03-ESN-010	332.00	333.00	2.350	24-Mar-03	11-Mar-03
E228369	03-ESN-010	333.00	334.00	0.106	24-Mar-03	11-Mar-03
E228370	03-ESN-010	334.00	335.00	0.545	24-Mar-03	11-Mar-03
E228371	03-ESN-010	335.00	336.00	1.259	24-Mar-03	11-Mar-03
E228372	03-ESN-010	336.00	337.00	0.277	24-Mar-03	11-Mar-03
E228373	03-ESN-010	337.00	338.00	0.714	24-Mar-03	11-Mar-03
E228374	03-ESN-010	338.00	338.90	0.160	24-Mar-03	11-Mar-03
E228375	03-ESN-010	338.90	339.56	0.305	24-Mar-03	11-Mar-03
E228376	03-ESN-010	339.56	340.54	0.063	24-Mar-03	11-Mar-03
E228377	03-ESN-010	340.54	341.74	0.033	24-Mar-03	11-Mar-03
E228378	03-ESN-010	376.00	377.00	0.032	24-Mar-03	11-Mar-03
E228379	03-ESN-010	377.00	378.00	0.079	24-Mar-03	11-Mar-03
E228380	03-ESN-010	378.00	379.00	0.338	24-Mar-03	11-Mar-03
E228381	03-ESN-010	379.00	380.00	0.067	24-Mar-03	11-Mar-03
E228382	03-ESN-010	380.00	381.00	0.096	24-Mar-03	11-Mar-03
E228383	03-ESN-010	381.00	382.00	0.131	24-Mar-03	11-Mar-03
E228384	03-ESN-010	382.00	383.00	0.067	24-Mar-03	11-Mar-03
E228385	03-ESN-010	383.00	384.00	0.034	24-Mar-03	11-Mar-03
E228386	03-ESN-010	384.00	385.00	0.091	24-Mar-03	11-Mar-03
E228387	03-ESN-010	385.00	386.00	0.104	24-Mar-03	11-Mar-03
E228388	03-ESN-010	386.00	387.00	0.010	24-Mar-03	11-Mar-03
E228389	03-ESN-010	387.00	388.00	0.010	24-Mar-03	11-Mar-03
E228390	03-ESN-010	388.00	389.00	0.010	24-Mar-03	11-Mar-03
E228391	03-ESN-010	389.00	390.00	0.027	24-Mar-03	11-Mar-03
E228392	03-ESN-010	390.00	391.23	0.316	24-Mar-03	11-Mar-03
E228393	03-ESN-010	391.23	392.43	0.014	24-Mar-03	11-Mar-03
E228394	03-ESN-010	403.56	404.56	0.024	24-Mar-03	11-Mar-03
E228395	03-ESN-010	404.56	405.56	0.020	24-Mar-03	11-Mar-03
E228396	03-ESN-010	405.56	406.56	0.024	24-Mar-03	11-Mar-03
E228397	03-ESN-010	406.56	407.56	0.066	24-Mar-03	11-Mar-03
E228398	03-ESN-010	407.56	408.26	0.045	24-Mar-03	11-Mar-03
E228399	03-ESN-010	408.26	409.26	0.010	24-Mar-03	11-Mar-03
E228400	03-ESN-010	409.26	410.26	0.010	24-Mar-03	11-Mar-03
E228401	03-ESN-010	410.26	411.26	0.021	24-Mar-03	11-Mar-03
E228402	03-ESN-010	411.26	412.26	0.033	24-Mar-03	11-Mar-03
E228403	03-ESN-010	418.45	419.10	0.300	24-Mar-03	11-Mar-03
E228404	03-ESN-017	152.00	152.60	0.010	3-May-03	19-Mar-03
E228405	03-ESN-017	152.60	153.10	2.427	3-May-03	19-Mar-03
E228406	03-ESN-017	153.10	154.00	0.010	3-May-03	19-Mar-03
E228407	03-ESN-017	154.00	155.00	0.010	3-May-03	19-Mar-03
E228408	03-ESN-017	155.00	156.00	0.010	3-May-03	19-Mar-03
E228409	03-ESN-017	156.00	157.30	0.010	3-May-03	19-Mar-03
E228410	03-ESN-017	157.30	158.20	0.010	3-May-03	19-Mar-03
E228411	03-ESN-017	158.20	159.00	0.010	3-May-03	19-Mar-03
E228412	03-ESN-017	159.00	160.00	0.010	3-May-03	19-Mar-03
E228413	03-ESN-017	160.00	160.80	0.034	3-May-03	19-Mar-03
E228414	03-ESN-017	160.80	162.00	0.064	3-May-03	19-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM m	SAMPLE TO m	AU_PPM	Analysis Date	Sample Date
E228415	03-ESN-017	162.00	163.00	0.013	3-May-03	19-Mar-03
E228416	03-ESN-017	163.00	164.00	0.013	3-May-03	19-Mar-03
E228417	03-ESN-017	168.40	169.00	0.010	3-May-03	19-Mar-03
E228418	03-ESN-017	169.00	169.80	2.082	3-May-03	19-Mar-03
E228419	03-ESN-017	169.80	170.70	0.424	3-May-03	19-Mar-03
E228420	03-ESN-017	170.70	172.00	0.010	3-May-03	19-Mar-03
E228421	03-ESN-017	173.00	174.00	0.010	3-May-03	19-Mar-03
E228422	03-ESN-017	174.00	174.50	0.010	3-May-03	19-Mar-03
E228423	03-ESN-017	174.50	175.24	12.382	3-May-03	19-Mar-03
E228424	03-ESN-017	175.24	176.00	0.344	3-May-03	19-Mar-03
E228425	03-ESN-017	176.00	176.80	0.010	3-May-03	19-Mar-03
E228426	03-ESN-017	181.00	181.50	0.010	3-May-03	19-Mar-03
E228427	03-ESN-017	181.50	182.37	0.011	3-May-03	19-Mar-03
E228428	03-ESN-017	182.37	183.00	0.017	3-May-03	19-Mar-03
E228429	03-ESN-017	183.00	184.30	0.057	3-May-03	19-Mar-03
E228430	03-ESN-017	184.30	185.00	0.010	3-May-03	19-Mar-03
E228431	03-ESN-017	185.00	185.48	0.010	3-May-03	19-Mar-03
E228432	03-ESN-017	189.70	190.23	0.027	3-May-03	19-Mar-03
E228433	03-ESN-017	190.23	190.82	3.513	3-May-03	19-Mar-03
E228434	03-ESN-017	190.82	191.65	0.176	3-May-03	19-Mar-03
E228435	03-ESN-017	191.65	192.40	0.022	3-May-03	19-Mar-03
E228436	03-ESN-017	220.00	220.50	0.010	3-May-03	19-Mar-03
E228437	03-ESN-017	220.50	221.00	0.010	3-May-03	19-Mar-03
E228438	03-ESN-017	221.00	222.00	0.010	3-May-03	19-Mar-03
E228439	03-ESN-017	222.00	222.70	0.265	3-May-03	19-Mar-03
E228440	03-ESN-017	222.70	223.20	0.010	3-May-03	19-Mar-03
E228441	03-ESN-017	225.00	225.50	0.011	3-May-03	19-Mar-03
E228442	03-ESN-017	225.50	226.17	0.064	3-May-03	19-Mar-03
E228443	03-ESN-017	226.17	227.00	3.039	3-May-03	19-Mar-03
E228444	03-ESN-017	227.00	228.00	1.175	3-May-03	19-Mar-03
E228445	03-ESN-017	228.00	228.60	2.006	3-May-03	19-Mar-03
E228446	03-ESN-017	228.60	229.50	0.169	3-May-03	19-Mar-03
E228447	03-ESN-017	229.50	230.10	0.492	3-May-03	19-Mar-03
E228448	03-ESN-017	230.10	231.00	0.132	3-May-03	19-Mar-03
E228449	03-ESN-017	231.00	232.00	0.081	3-May-03	19-Mar-03
E228450	03-ESN-017	232.00	233.00	0.089	3-May-03	19-Mar-03
E228451	03-ESN-017	233.00	234.00	0.474	3-May-03	19-Mar-03
E228452	03-ESN-017	234.00	235.00	0.039	3-May-03	19-Mar-03
E228453	03-ESN-017	235.00	236.00	0.059	3-May-03	19-Mar-03
E228454	03-ESN-017	236.00	237.00	0.015	3-May-03	19-Mar-03
E228455	03-ESN-017	237.00	238.00	0.020	3-May-03	19-Mar-03
E228456	03-ESN-017	238.00	239.00	0.023	3-May-03	19-Mar-03
E228457	03-ESN-017	239.00	239.80	0.140	3-May-03	19-Mar-03
E228458	03-ESN-017	239.80	240.30	0.016	3-May-03	19-Mar-03
E228459	03-ESN-017	240.30	241.30	0.149	3-May-03	19-Mar-03
E228460	03-ESN-017	241.30	242.60	0.093	3-May-03	19-Mar-03
E228461	03-ESN-017	242.60	243.41	0.064	3-May-03	19-Mar-03
E228462	03-ESN-017	243.41	244.55	0.050	3-May-03	19-Mar-03
E228463	03-ESN-017	244.55	245.05	0.262	3-May-03	19-Mar-03
E228464	03-ESN-017	245.05	246.00	0.171	3-May-03	19-Mar-03
E228465	03-ESN-017	246.00	247.00	7.512	3-May-03	19-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E228466	03-ESN-017	247.00	248.00	0.084	3-May-03	19-Mar-03
E228467	03-ESN-017	248.00	249.00	0.801	3-May-03	19-Mar-03
E228468	03-ESN-017	249.00	250.00	5.172	3-May-03	19-Mar-03
E228469	03-ESN-017	250.00	251.00	22.108	3-May-03	19-Mar-03
E228470	03-ESN-017	251.00	252.00	7.218	3-May-03	19-Mar-03
E228471	03-ESN-017	252.00	253.00	0.357	3-May-03	19-Mar-03
E228472	03-ESN-017	253.00	254.00	0.031	3-May-03	19-Mar-03
E228473	03-ESN-017	254.00	255.00	0.042	3-May-03	19-Mar-03
E228474	03-ESN-017	255.00	256.00	0.010	3-May-03	19-Mar-03
E228475	03-ESN-017	256.00	257.00	0.010	3-May-03	19-Mar-03
E228476	03-ESN-017	257.00	258.00	0.010	3-May-03	19-Mar-03
E228477	03-ESN-017	258.00	259.00	0.010	3-May-03	19-Mar-03
E228478	03-ESN-017	259.00	260.00	0.024	3-May-03	19-Mar-03
E228479	03-ESN-017	260.00	261.00	0.010	3-May-03	19-Mar-03
E228480	03-ESN-017	261.00	262.00	0.010	3-May-03	19-Mar-03
E228481	03-ESN-017	262.00	263.00	0.012	3-May-03	19-Mar-03
E228482	03-ESN-017	263.00	264.00	0.011	3-May-03	19-Mar-03
E228483	03-ESN-017	264.00	264.65	0.010	3-May-03	19-Mar-03
E228484	03-ESN-017	264.65	265.70	0.010	3-May-03	19-Mar-03
E228485	03-ESN-017	265.70	267.00	0.013	3-May-03	19-Mar-03
E228486	03-ESN-017	267.00	268.00	0.014	3-May-03	19-Mar-03
E228487	03-ESN-017	268.00	269.00	0.030	3-May-03	19-Mar-03
E228488	03-ESN-017	269.00	270.00	0.020	3-May-03	19-Mar-03
E228489	03-ESN-017	270.00	271.00	0.011	3-May-03	19-Mar-03
E228490	03-ESN-017	271.00	272.00	0.010	3-May-03	19-Mar-03
E228491	03-ESN-017	272.00	273.00	0.010	3-May-03	19-Mar-03
E228492	03-ESN-017	273.00	274.00	0.013	3-May-03	19-Mar-03
E228493	03-ESN-017	274.00	275.22	0.012	3-May-03	19-Mar-03
E228494	03-ESN-017	275.22	276.10	1.386	3-May-03	19-Mar-03
E228495	03-ESN-017	276.10	277.00	0.898	3-May-03	19-Mar-03
E228496	03-ESN-017	277.00	278.00	0.011	3-May-03	19-Mar-03
E228497	03-ESN-017	278.00	279.00	0.013	3-May-03	19-Mar-03
E228498	03-ESN-017	279.00	280.00	0.074	3-May-03	19-Mar-03
E228499	03-ESN-017	280.00	281.00	0.046	3-May-03	19-Mar-03
E228500	03-ESN-017	281.00	282.00	0.010	3-May-03	19-Mar-03
E229001	03-ESN-017	282.00	283.00	0.034	3-May-03	19-Mar-03
E229002	03-ESN-017	283.00	284.00	0.448	3-May-03	19-Mar-03
E229003	03-ESN-017	284.00	285.00	0.012	3-May-03	19-Mar-03
E229004	03-ESN-017	285.00	286.00	0.041	3-May-03	19-Mar-03
E229005	03-ESN-017	286.00	287.00	0.382	3-May-03	19-Mar-03
E229006	03-ESN-017	287.00	288.00	0.016	3-May-03	19-Mar-03
E229007	03-ESN-017	288.00	289.00	0.010	3-May-03	19-Mar-03
E229008	03-ESN-017	289.00	289.95	0.020	3-May-03	19-Mar-03
E229009	03-ESN-017	289.95	291.00	0.012	3-May-03	19-Mar-03
E229010	03-ESN-017	291.00	292.00	0.110	3-May-03	19-Mar-03
E229011	03-ESN-017	292.00	293.00	0.700	3-May-03	19-Mar-03
E229012	03-ESN-017	293.00	294.00	0.047	3-May-03	19-Mar-03
E229013	03-ESN-017	294.00	295.00	0.021	3-May-03	19-Mar-03
E229014	03-ESN-017	295.00	296.00	0.303	3-May-03	19-Mar-03
E229015	03-ESN-017	296.00	297.00	2.697	3-May-03	19-Mar-03
E229016	03-ESN-017	297.00	298.15	0.602	3-May-03	19-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E229017	03-ESN-017	298.15	298.65	0.212	3-May-03	19-Mar-03
E229018	03-ESN-017	298.65	299.46	0.106	3-May-03	19-Mar-03
E229019	03-ESN-017	299.46	300.80	0.087	3-May-03	19-Mar-03
E229020	03-ESN-017	300.80	302.10	0.101	3-May-03	19-Mar-03
E229021	03-ESN-017	302.10	302.85	0.229	3-May-03	19-Mar-03
E229022	03-ESN-017	302.85	304.00	1.253	3-May-03	19-Mar-03
E229023	03-ESN-017	304.00	305.00	8.246	3-May-03	19-Mar-03
E229024	03-ESN-017	305.00	306.25	4.205	3-May-03	19-Mar-03
E229025	03-ESN-017	306.25	307.00	0.022	3-May-03	19-Mar-03
E229026	03-ESN-017	307.00	307.75	0.024	3-May-03	19-Mar-03
E229027	03-ESN-017	308.50	309.25	0.026	3-May-03	19-Mar-03
E229028	03-ESN-017	309.25	309.75	0.026	3-May-03	19-Mar-03
E229029	03-ESN-017	309.75	310.50	0.277	3-May-03	19-Mar-03
E229030	03-ESN-017	310.50	311.40	0.094	3-May-03	19-Mar-03
E229031	03-ESN-017	311.40	312.00	0.385	3-May-03	19-Mar-03
E229032	03-ESN-017	312.00	313.00	7.874	3-May-03	19-Mar-03
E229033	03-ESN-017	313.00	313.58	0.281	3-May-03	19-Mar-03
E229034	03-ESN-017	313.58	314.80	2.270	3-May-03	19-Mar-03
E229035	03-ESN-017	314.80	316.00	0.658	3-May-03	19-Mar-03
E229036	03-ESN-017	316.00	317.00	2.386	3-May-03	19-Mar-03
E229037	03-ESN-017	317.00	318.00	0.732	3-May-03	19-Mar-03
E229038	03-ESN-017	318.00	318.75	0.044	3-May-03	19-Mar-03
E229039	03-ESN-017	318.75	319.20	0.231	3-May-03	19-Mar-03
E229040	03-ESN-017	319.20	319.55	0.028	3-May-03	19-Mar-03
E229041	03-ESN-017	319.55	320.34	0.059	3-May-03	19-Mar-03
E229042	03-ESN-017	320.34	320.91	0.010	3-May-03	19-Mar-03
E229043	03-ESN-017	320.91	321.50	0.010	3-May-03	19-Mar-03
E229044	03-ESN-017	321.50	322.00	0.010	3-May-03	19-Mar-03
E229045	03-ESN-017	348.50	349.00	0.010	3-May-03	19-Mar-03
E229046	03-ESN-017	349.00	349.48	0.010	3-May-03	19-Mar-03
E229047	03-ESN-017	349.48	350.40	0.405	3-May-03	19-Mar-03
E229048	03-ESN-017	350.40	351.30	0.108	3-May-03	19-Mar-03
E229049	03-ESN-017	351.30	352.00	0.015	3-May-03	19-Mar-03
E229050	03-ESN-017	352.00	353.00	0.143	3-May-03	19-Mar-03
E229051	03-ESN-017	353.00	354.00	0.016	3-May-03	19-Mar-03
E229052	03-ESN-017	354.00	355.00	0.026	3-May-03	19-Mar-03
E229053	03-ESN-017	355.00	356.00	0.010	3-May-03	19-Mar-03
E229054	03-ESN-017	356.00	357.00	0.010	3-May-03	19-Mar-03
E229055	03-ESN-017	357.00	358.00	0.036	3-May-03	19-Mar-03
E229056	03-ESN-017	358.00	358.70	0.010	3-May-03	19-Mar-03
E229057	03-ESN-017	358.70	360.00	0.526	3-May-03	19-Mar-03
E229058	03-ESN-017	360.00	361.00	0.030	3-May-03	19-Mar-03
E229059	03-ESN-017	361.00	362.00	0.174	3-May-03	19-Mar-03
E229060	03-ESN-017	362.00	363.00	0.022	3-May-03	19-Mar-03
E229061	03-ESN-017	363.00	364.00	0.081	2-Apr-03	19-Mar-03
E229062	03-ESN-017	364.00	365.00	0.074	2-Apr-03	19-Mar-03
E229063	03-ESN-017	365.00	366.00	0.010	2-Apr-03	19-Mar-03
E229064	03-ESN-017	366.00	367.00	0.020	2-Apr-03	19-Mar-03
E229065	03-ESN-017	367.00	368.00	0.027	2-Apr-03	19-Mar-03
E229066	03-ESN-017	368.00	369.00	0.015	2-Apr-03	19-Mar-03
E229067	03-ESN-017	369.00	369.78	0.013	2-Apr-03	19-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome—Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E229068	03-ESN-017	369.78	370.78	0.015	2-Apr-03	19-Mar-03
E229069	03-ESN-017	376.27	377.27	0.018	2-Apr-03	19-Mar-03
E229070	03-ESN-017	377.27	378.00	0.010	2-Apr-03	19-Mar-03
E229071	03-ESN-017	378.00	379.00	0.025	2-Apr-03	19-Mar-03
E229072	03-ESN-017	379.00	380.00	0.016	2-Apr-03	19-Mar-03
E229073	03-ESN-017	380.00	381.00	0.038	2-Apr-03	19-Mar-03
E229074	03-ESN-017	381.00	382.00	0.017	2-Apr-03	19-Mar-03
E229075	03-ESN-017	382.00	383.00	0.010	2-Apr-03	19-Mar-03
E229076	03-ESN-017	383.00	384.00	0.026	2-Apr-03	19-Mar-03
E229077	03-ESN-017	384.00	384.97	0.016	2-Apr-03	19-Mar-03
E229078	03-ESN-017	384.97	385.50	0.083	2-Apr-03	19-Mar-03
E229079	03-ESN-017	385.50	386.27	0.067	2-Apr-03	19-Mar-03
E229080	03-ESN-017	386.27	387.00	0.056	2-Apr-03	19-Mar-03
E229081	03-ESN-017	387.00	387.50	0.031	2-Apr-03	19-Mar-03
E229082	03-ESN-017	387.50	387.93	0.078	2-Apr-03	19-Mar-03
E229083	03-ESN-017	387.93	389.17	0.022	2-Apr-03	19-Mar-03
E229084	03-ESN-017	389.17	389.70	0.043	2-Apr-03	19-Mar-03
E229085	03-ESN-017	389.70	390.90	0.010	2-Apr-03	19-Mar-03
E229086	03-ESN-017	390.90	392.00	0.022	2-Apr-03	19-Mar-03
E229087	03-ESN-017	392.00	393.00	0.039	2-Apr-03	19-Mar-03
E229088	03-ESN-017	393.00	393.80	0.029	2-Apr-03	19-Mar-03
E229089	03-ESN-017	393.80	394.50	0.023	3-Apr-03	19-Mar-03
E238001	03-ESN-013	82.00	82.60	0.013	28-Mar-03	1-Mar-03
E238002	03-ESN-013	82.60	83.10	0.078	28-Mar-03	1-Mar-03
E238003	03-ESN-013	83.10	83.80	0.092	28-Mar-03	1-Mar-03
E238004	03-ESN-013	83.80	84.50	0.044	28-Mar-03	1-Mar-03
E238005	03-ESN-013	84.50	85.10	0.015	28-Mar-03	1-Mar-03
E238006	03-ESN-013	85.10	86.00	0.297	28-Mar-03	1-Mar-03
E238007	03-ESN-013	86.00	87.00	0.694	28-Mar-03	1-Mar-03
E238008	03-ESN-013	87.00	88.00	0.051	28-Mar-03	1-Mar-03
E238009	03-ESN-013	88.00	88.90	0.920	28-Mar-03	1-Mar-03
E238010	03-ESN-013	88.90	89.80	18.603	28-Mar-03	1-Mar-03
E238011	03-ESN-013	89.80	91.00	2.274	28-Mar-03	1-Mar-03
E238012	03-ESN-013	91.00	91.60	2.899	28-Mar-03	1-Mar-03
E238013	03-ESN-013	91.60	93.00	0.665	28-Mar-03	1-Mar-03
E238014	03-ESN-013	93.00	94.20	1.625	28-Mar-03	1-Mar-03
E238015	03-ESN-013	94.20	95.13	1.635	28-Mar-03	1-Mar-03
E238016	03-ESN-013	95.13	96.23	1.178	28-Mar-03	1-Mar-03
E238017	03-ESN-013	96.23	97.25	0.196	28-Mar-03	1-Mar-03
E238018	03-ESN-013	97.25	98.00	0.179	28-Mar-03	1-Mar-03
E238019	03-ESN-013	98.00	99.00	0.105	28-Mar-03	1-Mar-03
E238020	03-ESN-013	99.00	99.45	0.716	28-Mar-03	1-Mar-03
E238021	03-ESN-013	99.45	100.00	0.045	28-Mar-03	1-Mar-03
E238022	03-ESN-013	100.00	100.80	0.096	28-Mar-03	1-Mar-03
E238023	03-ESN-013	100.80	102.00	2.757	28-Mar-03	1-Mar-03
E238024	03-ESN-013	102.00	103.00	4.690	28-Mar-03	1-Mar-03
E238025	03-ESN-013	103.00	104.00	6.579	28-Mar-03	1-Mar-03
E238026	03-ESN-013	104.00	104.50	0.465	28-Mar-03	1-Mar-03
E238027	03-ESN-013	104.50	105.30	0.725	28-Mar-03	1-Mar-03
E238028	03-ESN-013	105.30	106.00	0.025	28-Mar-03	1-Mar-03
E238029	03-ESN-013	106.00	107.00	0.159	28-Mar-03	1-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E238030	03-ESN-013	107.00	108.00	0.057	28-Mar-03	1-Mar-03
E238031	03-ESN-013	108.00	109.00	0.012	28-Mar-03	1-Mar-03
E238032	03-ESN-013	109.00	110.00	0.016	28-Mar-03	1-Mar-03
E238033	03-ESN-013	110.00	111.00	0.011	28-Mar-03	1-Mar-03
E238034	03-ESN-013	111.00	112.00	0.010	28-Mar-03	1-Mar-03
E238035	03-ESN-013	112.00	113.00	0.074	28-Mar-03	1-Mar-03
E238036	03-ESN-013	113.00	114.00	0.034	28-Mar-03	1-Mar-03
E238037	03-ESN-013	114.00	115.00	0.018	28-Mar-03	1-Mar-03
E238038	03-ESN-013	115.00	116.00	0.028	28-Mar-03	1-Mar-03
E238039	03-ESN-013	116.00	117.00	0.010	28-Mar-03	1-Mar-03
E238040	03-ESN-013	117.00	118.20	0.226	28-Mar-03	1-Mar-03
E238041	03-ESN-013	118.20	119.14	1.434	28-Mar-03	1-Mar-03
E238042	03-ESN-013	119.14	120.34	0.021	28-Mar-03	1-Mar-03
E238043	03-ESN-013	120.34	121.40	0.068	28-Mar-03	1-Mar-03
E238044	03-ESN-013	121.40	121.90	0.037	28-Mar-03	1-Mar-03
E238045	03-ESN-013	121.90	122.40	0.166	28-Mar-03	1-Mar-03
E238046	03-ESN-013	122.40	123.25	0.165	28-Mar-03	1-Mar-03
E238047	03-ESN-013	123.25	124.00	0.051	28-Mar-03	1-Mar-03
E238048	03-ESN-013	124.00	125.00	0.090	28-Mar-03	1-Mar-03
E238049	03-ESN-013	125.00	125.60	0.056	28-Mar-03	1-Mar-03
E238050	03-ESN-013	125.60	126.50	0.043	28-Mar-03	1-Mar-03
E238101	03-ESN-013	126.50	127.10	0.038	28-Mar-03	1-Mar-03
E238102	03-ESN-013	127.10	128.36	0.130	28-Mar-03	1-Mar-03
E238103	03-ESN-013	128.36	129.11	0.035	28-Mar-03	1-Mar-03
E238104	03-ESN-013	129.11	130.00	0.010	28-Mar-03	1-Mar-03
E238105	03-ESN-013	130.00	131.00	0.010	28-Mar-03	1-Mar-03
E238106	03-ESN-013	158.00	158.50	0.010	28-Mar-03	1-Mar-03
E238107	03-ESN-013	158.50	159.26	0.010	28-Mar-03	1-Mar-03
E238108	03-ESN-013	159.26	160.00	0.272	28-Mar-03	1-Mar-03
E238109	03-ESN-013	160.00	161.00	0.120	28-Mar-03	1-Mar-03
E238110	03-ESN-013	161.00	162.00	0.168	28-Mar-03	1-Mar-03
E238111	03-ESN-013	162.00	163.00	0.127	28-Mar-03	1-Mar-03
E238112	03-ESN-013	163.00	164.00	0.064	28-Mar-03	1-Mar-03
E238113	03-ESN-013	164.00	165.00	0.028	28-Mar-03	1-Mar-03
E238114	03-ESN-013	165.00	166.00	0.102	28-Mar-03	1-Mar-03
E238115	03-ESN-013	166.00	167.00	0.061	28-Mar-03	1-Mar-03
E238116	03-ESN-013	167.00	168.00	0.027	28-Mar-03	1-Mar-03
E238117	03-ESN-013	168.00	169.00	0.091	28-Mar-03	1-Mar-03
E238118	03-ESN-013	169.00	169.50	0.074	28-Mar-03	1-Mar-03
E238119	03-ESN-013	169.50	170.30	0.012	28-Mar-03	1-Mar-03
E238120	03-ESN-013	170.30	171.30	0.010	28-Mar-03	1-Mar-03
E238121	03-ESN-013	171.30	172.60	1.260	28-Mar-03	1-Mar-03
E238122	03-ESN-013	172.60	174.00	0.010	28-Mar-03	1-Mar-03
E238123	03-ESN-013	174.00	175.43	0.010	28-Mar-03	1-Mar-03
E238124	03-ESN-013	175.43	176.00	0.011	28-Mar-03	1-Mar-03
E238125	03-ESN-013	176.00	177.00	0.012	28-Mar-03	1-Mar-03
E238126	03-ESN-013	177.00	178.30	0.050	28-Mar-03	1-Mar-03
E238127	03-ESN-013	178.30	179.00	0.010	28-Mar-03	1-Mar-03
E238128	03-ESN-013	179.00	180.00	0.010	28-Mar-03	1-Mar-03
E238129	03-ESN-013	185.00	186.13	0.010	28-Mar-03	1-Mar-03
E238130	03-ESN-013	186.13	187.00	0.170	28-Mar-03	1-Mar-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E238131	03-ESN-013	187.00	187.50	0.997	28-Mar-03	1-Mar-03
E238132	03-ESN-013	187.50	188.00	1.994	28-Mar-03	1-Mar-03
E238133	03-ESN-013	188.00	188.50	8.353	28-Mar-03	1-Mar-03
E238134	03-ESN-013	188.50	189.50	1.383	28-Mar-03	1-Mar-03
E238135	03-ESN-013	189.50	190.30	1.079	28-Mar-03	1-Mar-03
E238136	03-ESN-013	190.30	191.00	0.025	28-Mar-03	1-Mar-03
E238137	03-ESN-013	191.00	191.60	0.013	28-Mar-03	1-Mar-03
E238176	03-ESN-004	318.00	319.00	0.035	26-Mar-03	2-Feb-03
E238177	03-ESN-004	319.00	320.00	0.065	26-Mar-03	2-Feb-03
E238178	03-ESN-004	320.00	321.00	0.026	26-Mar-03	2-Feb-03
E238179	03-ESN-004	321.00	322.00	0.016	26-Mar-03	2-Feb-03
E238180	03-ESN-004	322.00	323.00	0.082	26-Mar-03	2-Feb-03
E238181	03-ESN-004	323.00	324.00	2.010	26-Mar-03	2-Feb-03
E238182	03-ESN-004	324.00	325.00	0.060	26-Mar-03	2-Feb-03
E238183	03-ESN-004	325.00	325.50	0.027	26-Mar-03	2-Feb-03
E238184	03-ESN-004	325.50	326.70	0.065	26-Mar-03	2-Feb-03
E238185	03-ESN-004	326.70	327.90	0.032	26-Mar-03	2-Feb-03
E238186	03-ESN-004	327.90	329.00	0.088	26-Mar-03	2-Feb-03
E238187	03-ESN-004	329.00	329.80	0.093	26-Mar-03	2-Feb-03
E238188	03-ESN-004	329.80	330.60	0.145	26-Mar-03	2-Feb-03
E238189	03-ESN-004	330.60	331.30	0.019	26-Mar-03	2-Feb-03
E238190	03-ESN-004	331.30	332.00	0.026	26-Mar-03	2-Feb-03
E238191	03-ESN-004	332.00	333.00	0.062	26-Mar-03	2-Feb-03
E238192	03-ESN-004	333.00	333.60	0.123	26-Mar-03	2-Feb-03
E238193	03-ESN-004	333.60	334.10	0.044	26-Mar-03	2-Feb-03
E238194	03-ESN-004	334.10	335.20	0.130	26-Mar-03	2-Feb-03
E238195	03-ESN-004	335.20	336.30	0.155	26-Mar-03	2-Feb-03
E238196	03-ESN-004	336.30	337.00	0.114	26-Mar-03	2-Feb-03
E238197	03-ESN-004	337.00	338.18	0.061	26-Mar-03	2-Feb-03
E238198	03-ESN-004	338.18	339.00	0.859	26-Mar-03	2-Feb-03
E238199	03-ESN-004	339.00	340.00	0.041	26-Mar-03	2-Feb-03
E238200	03-ESN-004	340.00	341.00	0.053	26-Mar-03	2-Feb-03
E238201	03-ESN-004	341.00	342.00	0.227	26-Mar-03	2-Feb-03
E238202	03-ESN-004	342.00	343.00	0.131	26-Mar-03	2-Feb-03
E238203	03-ESN-004	343.00	343.70	0.032	26-Mar-03	2-Feb-03
E238204	03-ESN-004	343.70	344.28	0.013	26-Mar-03	2-Feb-03
E238205	03-ESN-004	344.28	345.00	0.010	26-Mar-03	2-Feb-03
E238206	03-ESN-004	345.00	346.00	0.010	26-Mar-03	2-Feb-03
E238207	03-ESN-004	346.00	347.00	0.010	26-Mar-03	2-Feb-03
E238208	03-ESN-004	347.00	348.00	0.010	26-Mar-03	2-Feb-03
E238209	03-ESN-004	373.42	374.60	0.291	26-Mar-03	2-Feb-03
E238210	03-ESN-004	374.60	375.80	0.085	26-Mar-03	2-Feb-03
E238211	03-ESN-004	375.80	377.00	0.766	26-Mar-03	2-Feb-03
E238212	03-ESN-004	377.00	378.00	0.011	26-Mar-03	2-Feb-03
E238213	03-ESN-004	378.00	379.00	0.020	26-Mar-03	2-Feb-03
E238214	03-ESN-004	379.00	380.00	0.027	26-Mar-03	2-Feb-03
E238215	03-ESN-004	380.00	381.00	0.115	26-Mar-03	2-Feb-03
E238216	03-ESN-004	381.00	382.00	0.011	26-Mar-03	2-Feb-03
E238217	03-ESN-004	382.00	383.00	0.013	26-Mar-03	2-Feb-03
E238218	03-ESN-004	383.00	384.00	0.010	26-Mar-03	2-Feb-03
E238219	03-ESN-004	384.00	385.00	0.022	26-Mar-03	2-Feb-03

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E238220	03-ESN-004	385.00	386.00	0.013	26-Mar-03	2-Feb-03
E238221	03-ESN-004	386.00	387.00	0.010	26-Mar-03	2-Feb-03
E238222	03-ESN-004	387.00	388.00	0.010	26-Mar-03	2-Feb-03
E238223	03-ESN-004	388.00	388.75	0.010	26-Mar-03	2-Feb-03
E238224	03-ESN-004	388.75	390.00	0.045	26-Mar-03	2-Feb-03
E238225	03-ESN-004	390.00	391.00	0.010	26-Mar-03	2-Feb-03
E238226	03-ESN-004	391.00	392.11	0.010	26-Mar-03	2-Feb-03
E238227	03-ESN-004	392.11	393.00	0.010	26-Mar-03	2-Feb-03
E238228	03-ESN-004	393.00	394.00	0.065	26-Mar-03	2-Feb-03
E238229	03-ESN-004	394.00	395.00	0.010	26-Mar-03	2-Feb-03
E238230	03-ESN-004	395.00	396.00	0.015	26-Mar-03	2-Feb-03
E238231	03-ESN-004	396.00	397.00	0.347	26-Mar-03	2-Feb-03
E238232	03-ESN-004	397.00	397.46	0.085	26-Mar-03	2-Feb-03
E238233	03-ESN-004	397.46	398.00	0.010	26-Mar-03	2-Feb-03
E238234	03-ESN-004	398.00	398.74	0.043	26-Mar-03	2-Feb-03
E246576	04-ESS-012	15.00	15.30	0.458	10-Apr-04	4-Apr-04
E246577	04-ESS-012	15.30	16.00	0.010	10-Apr-04	4-Apr-04
E246578	04-ESS-012	16.00	17.00	0.026	10-Apr-04	4-Apr-04
E246579	04-ESS-012	17.00	18.00	0.492	10-Apr-04	4-Apr-04
E246581	04-ESS-012	18.00	19.00	0.534	11-Apr-04	4-Apr-04
E246582	04-ESS-012	19.00	20.10	0.849	11-Apr-04	4-Apr-04
E246583	04-ESS-012	20.10	20.50	0.661	11-Apr-04	4-Apr-04
E246584	04-ESS-012	20.50	21.00	0.381	11-Apr-04	4-Apr-04
E264501	04-ESS-001	66.00	67.00	0.184	19-Jan-04	16-Jan-04
E264502	04-ESS-001	67.00	68.00	0.548	19-Jan-04	16-Jan-04
E264503	04-ESS-001	68.00	69.00	0.414	19-Jan-04	16-Jan-04
E264504	04-ESS-001	69.00	70.00	0.368	19-Jan-04	16-Jan-04
E264505	04-ESS-001	70.00	71.27	1.207	19-Jan-04	16-Jan-04
E264506	04-ESS-001	71.27	72.00	4.017	19-Jan-04	16-Jan-04
E264507	04-ESS-001	72.00	73.00	7.782	19-Jan-04	16-Jan-04
E264508	04-ESS-001	73.00	73.85	0.552	19-Jan-04	16-Jan-04
E264509	04-ESS-001	73.85	75.00	0.317	19-Jan-04	16-Jan-04
E264511	04-ESS-001	75.00	76.00	0.125	19-Jan-04	16-Jan-04
E264512	04-ESS-001	76.00	76.82	0.151	19-Jan-04	16-Jan-04
E264513	04-ESS-001	76.82	78.00	0.306	19-Jan-04	16-Jan-04
E264514	04-ESS-001	78.00	79.00	2.006	19-Jan-04	16-Jan-04
E264515	04-ESS-001	79.00	80.00	0.102	19-Jan-04	16-Jan-04
E264516	04-ESS-001	80.00	81.00	0.188	19-Jan-04	16-Jan-04
E264517	04-ESS-001	81.00	82.00	0.535	19-Jan-04	16-Jan-04
E264518	04-ESS-001	82.00	83.00	0.501	19-Jan-04	16-Jan-04
E264519	04-ESS-001	83.00	84.00	0.973	19-Jan-04	16-Jan-04
E264521	04-ESS-001	84.00	85.00	0.168	19-Jan-04	16-Jan-04
E264522	04-ESS-001	85.00	86.00	0.254	19-Jan-04	16-Jan-04
E264523	04-ESS-001	86.00	87.00	0.072	21-Jan-04	16-Jan-04
E264524	04-ESS-001	87.00	88.00	0.451	21-Jan-04	16-Jan-04
E264525	04-ESS-001	88.00	89.00	0.163	21-Jan-04	16-Jan-04
E264526	04-ESS-001	89.00	90.20	0.027	21-Jan-04	16-Jan-04
E264527	04-ESS-001	90.20	91.40	0.226	21-Jan-04	16-Jan-04
E264528	04-ESS-001	91.40	92.42	0.074	21-Jan-04	16-Jan-04
E264529	04-ESS-001	92.42	93.60	0.019	21-Jan-04	16-Jan-04
E264531	04-ESS-031	37.00	37.60	0.062	26-Jan-04	23-Jan-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E264532	04-ESS-031	37.60	38.80	1.514	26-Jan-04	23-Jan-04
E264533	04-ESS-031	38.80	39.30	0.032	26-Jan-04	23-Jan-04
E264534	04-ESS-031	43.00	43.90	0.028	26-Jan-04	23-Jan-04
E264535	04-ESS-031	43.90	45.00	0.038	26-Jan-04	23-Jan-04
E264536	04-ESS-031	45.00	45.90	0.183	26-Jan-04	23-Jan-04
E264537	04-ESS-031	45.90	46.30	0.063	26-Jan-04	23-Jan-04
E264538	04-ESS-031	46.30	47.00	0.010	26-Jan-04	23-Jan-04
E264539	04-ESS-031	47.00	48.00	0.010	26-Jan-04	23-Jan-04
E264541	04-ESS-031	48.00	49.00	0.023	26-Jan-04	23-Jan-04
E264542	04-ESS-031	49.00	49.45	0.063	26-Jan-04	23-Jan-04
E264543	04-ESS-031	49.45	50.00	0.034	26-Jan-04	23-Jan-04
E264544	04-ESS-031	51.30	51.90	0.032	26-Jan-04	23-Jan-04
E264545	04-ESS-031	51.90	52.60	0.039	26-Jan-04	23-Jan-04
E264546	04-ESS-031	52.60	53.00	0.010	26-Jan-04	23-Jan-04
E264547	04-ESS-031	54.60	55.10	0.010	26-Jan-04	23-Jan-04
E264548	04-ESS-031	55.10	55.50	2.503	26-Jan-04	23-Jan-04
E264549	04-ESS-031	55.50	56.00	0.044	26-Jan-04	23-Jan-04
E264551	04-ESS-031	66.00	66.80	0.047	26-Jan-04	23-Jan-04
E264552	04-ESS-031	66.80	68.00	0.839	26-Jan-04	23-Jan-04
E264553	04-ESS-031	68.00	68.60	1.482	26-Jan-04	23-Jan-04
E264554	04-ESS-031	68.60	69.00	0.344	26-Jan-04	23-Jan-04
E264555	04-ESS-031	69.00	69.50	0.051	27-Jan-04	23-Jan-04
E264556	04-ESS-031	69.50	70.30	0.019	27-Jan-04	23-Jan-04
E264557	04-ESS-031	70.30	71.00	1.562	27-Jan-04	23-Jan-04
E264558	04-ESS-031	71.00	72.00	1.124	27-Jan-04	23-Jan-04
E264559	04-ESS-031	72.00	73.00	0.326	27-Jan-04	23-Jan-04
E264561	04-ESS-031	73.00	74.00	1.888	27-Jan-04	23-Jan-04
E264562	04-ESS-031	74.00	75.20	1.642	27-Jan-04	23-Jan-04
E264563	04-ESS-031	75.20	76.00	0.028	27-Jan-04	23-Jan-04
E264564	04-ESS-031	76.00	76.90	0.013	27-Jan-04	23-Jan-04
E264565	04-ESS-031	76.90	78.00	0.031	27-Jan-04	23-Jan-04
E264566	04-ESS-031	78.00	79.20	1.164	27-Jan-04	23-Jan-04
E264567	04-ESS-031	79.20	80.40	0.020	27-Jan-04	23-Jan-04
E264568	04-ESS-031	80.40	80.80	0.013	27-Jan-04	23-Jan-04
E264569	04-ESS-031	80.80	81.35	0.045	27-Jan-04	23-Jan-04
E264571	04-ESS-031	81.35	82.00	0.058	27-Jan-04	23-Jan-04
E264572	04-ESS-031	82.00	82.70	0.049	27-Jan-04	23-Jan-04
E264573	04-ESS-031	82.70	84.00	0.676	27-Jan-04	23-Jan-04
E264574	04-ESS-031	84.00	85.00	2.057	27-Jan-04	23-Jan-04
E264575	04-ESS-031	85.00	86.00	9.011	27-Jan-04	23-Jan-04
E264576	04-ESS-031	86.00	87.00	9.701	27-Jan-04	23-Jan-04
E264577	04-ESS-031	87.00	87.50	0.968	27-Jan-04	23-Jan-04
E264578	04-ESS-031	87.50	88.00	0.093	27-Jan-04	23-Jan-04
E264579	04-ESS-031	88.00	89.00	0.043	27-Jan-04	23-Jan-04
E264581	04-ESS-031	89.00	90.00	0.097	27-Jan-04	23-Jan-04
E264582	04-ESS-031	90.00	90.70	0.383	27-Jan-04	23-Jan-04
E264583	04-ESS-031	90.70	91.60	1.482	27-Jan-04	23-Jan-04
E264584	04-ESS-031	91.60	92.00	1.024	27-Jan-04	23-Jan-04
E264585	04-ESS-031	92.00	93.00	1.384	27-Jan-04	23-Jan-04
E264586	04-ESS-031	93.00	93.55	1.747	27-Jan-04	23-Jan-04
E264587	04-ESS-031	93.55	94.45	0.098	27-Jan-04	23-Jan-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E264588	04-ESS-031	94.45	95.00	0.638	27-Jan-04	23-Jan-04
E264589	04-ESS-031	95.00	95.60	0.304	27-Jan-04	23-Jan-04
E264591	04-ESS-031	95.60	96.00	0.086	27-Jan-04	23-Jan-04
E264592	04-ESS-031	96.00	97.00	0.791	27-Jan-04	23-Jan-04
E264593	04-ESS-031	97.00	98.00	0.062	27-Jan-04	23-Jan-04
E264594	04-ESS-031	98.00	99.00	0.139	27-Jan-04	23-Jan-04
E264595	04-ESS-031	99.00	100.00	0.056	30-Jan-04	23-Jan-04
E264596	04-ESS-031	100.00	101.00	0.042	30-Jan-04	23-Jan-04
E264597	04-ESS-031	101.00	102.00	0.039	30-Jan-04	23-Jan-04
E264598	04-ESS-031	102.00	103.00	0.044	30-Jan-04	23-Jan-04
E264599	04-ESS-031	103.00	104.00	0.130	30-Jan-04	23-Jan-04
E264601	04-ESS-031	104.00	105.00	0.026	30-Jan-04	23-Jan-04
E264602	04-ESS-031	105.00	106.00	0.021	30-Jan-04	23-Jan-04
E264603	04-ESS-031	106.00	107.00	0.065	30-Jan-04	23-Jan-04
E264604	04-ESS-031	107.00	108.00	0.038	30-Jan-04	23-Jan-04
E264605	04-ESS-031	108.00	109.10	0.277	30-Jan-04	23-Jan-04
E264606	04-ESS-031	109.10	110.00	0.340	30-Jan-04	23-Jan-04
E264607	04-ESS-031	110.00	110.95	0.042	30-Jan-04	23-Jan-04
E264608	04-ESS-031	110.95	111.90	0.622	30-Jan-04	23-Jan-04
E264609	04-ESS-031	111.90	113.00	0.036	30-Jan-04	23-Jan-04
E264611	04-ESS-031	113.00	114.00	0.043	30-Jan-04	23-Jan-04
E264612	04-ESS-031	114.00	115.00	0.076	30-Jan-04	23-Jan-04
E264613	04-ESS-031	115.00	116.00	0.051	30-Jan-04	23-Jan-04
E264614	04-ESS-031	116.00	117.00	0.039	30-Jan-04	23-Jan-04
E264615	04-ESS-031	117.00	118.00	0.047	30-Jan-04	23-Jan-04
E264616	04-ESS-031	118.00	119.00	0.028	30-Jan-04	23-Jan-04
E264617	04-ESS-031	119.00	120.00	0.087	30-Jan-04	24-Jan-04
E264618	04-ESS-031	120.00	121.00	0.141	30-Jan-04	24-Jan-04
E264619	04-ESS-031	121.00	122.00	0.020	30-Jan-04	24-Jan-04
E264621	04-ESS-031	122.00	123.00	0.018	30-Jan-04	24-Jan-04
E264622	04-ESS-031	123.00	124.00	0.459	30-Jan-04	24-Jan-04
E264623	04-ESS-031	124.00	125.00	0.016	30-Jan-04	24-Jan-04
E264624	04-ESS-031	125.00	126.00	0.031	30-Jan-04	24-Jan-04
E264625	04-ESS-031	126.00	127.00	0.037	30-Jan-04	24-Jan-04
E264626	04-ESS-031	127.00	128.00	0.043	30-Jan-04	24-Jan-04
E264627	04-ESS-031	128.00	129.00	0.125	30-Jan-04	24-Jan-04
E264628	04-ESS-031	129.00	130.00	0.189	30-Jan-04	24-Jan-04
E264629	04-ESS-031	130.00	131.00	0.246	30-Jan-04	24-Jan-04
E264631	04-ESS-031	131.00	132.00	0.367	30-Jan-04	24-Jan-04
E264632	04-ESS-031	132.00	133.00	0.096	30-Jan-04	24-Jan-04
E264633	04-ESS-031	133.00	134.00	0.061	30-Jan-04	24-Jan-04
E264634	04-ESS-031	134.00	135.00	0.077	30-Jan-04	24-Jan-04
E264635	04-ESS-031	135.00	136.00	0.790	30-Jan-04	24-Jan-04
E264636	04-ESS-031	136.00	137.00	0.360	30-Jan-04	24-Jan-04
E264637	04-ESS-031	137.00	138.00	0.579	30-Jan-04	24-Jan-04
E264638	04-ESS-031	138.00	139.00	1.109	30-Jan-04	24-Jan-04
E264639	04-ESS-031	139.00	140.00	3.681	30-Jan-04	24-Jan-04
E264641	04-ESS-031	140.00	140.75	7.085	2-Jan-04	24-Jan-04
E264642	04-ESS-031	140.75	142.00	5.653	2-Jan-04	24-Jan-04
E264643	04-ESS-031	142.00	143.00	2.633	2-Jan-04	24-Jan-04
E264644	04-ESS-031	143.00	144.00	3.175	2-Jan-04	25-Jan-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E264645	04-ESS-031	144.00	145.00	1.328	2-Jan-04	25-Jan-04
E264646	04-ESS-031	145.00	146.00	0.983	2-Jan-04	25-Jan-04
E264647	04-ESS-031	146.00	147.20	1.027	2-Jan-04	25-Jan-04
E264648	04-ESS-031	147.20	148.00	1.134	2-Jan-04	25-Jan-04
E264649	04-ESS-031	148.00	148.75	0.083	2-Jan-04	25-Jan-04
E264651	04-ESS-001	43.65	44.65	0.064	18-Jan-04	15-Jan-04
E264652	04-ESS-001	44.65	45.65	0.094	18-Jan-04	15-Jan-04
E264653	04-ESS-001	45.65	46.85	0.052	18-Jan-04	15-Jan-04
E264654	04-ESS-001	46.85	48.00	0.089	18-Jan-04	15-Jan-04
E264655	04-ESS-001	48.00	49.00	0.176	18-Jan-04	15-Jan-04
E264656	04-ESS-001	49.00	50.00	0.411	19-Jan-04	15-Jan-04
E264657	04-ESS-001	50.00	51.00	0.552	19-Jan-04	15-Jan-04
E264658	04-ESS-001	51.00	52.00	0.255	19-Jan-04	15-Jan-04
E264659	04-ESS-001	52.00	53.00	1.070	19-Jan-04	15-Jan-04
E264661	04-ESS-001	53.00	54.00	5.033	19-Jan-04	16-Jan-04
E264662	04-ESS-001	54.00	55.00	1.728	19-Jan-04	16-Jan-04
E264663	04-ESS-001	55.00	56.00	1.266	19-Jan-04	16-Jan-04
E264664	04-ESS-001	56.00	57.00	3.449	19-Jan-04	16-Jan-04
E264665	04-ESS-001	57.00	57.35	0.595	19-Jan-04	16-Jan-04
E264666	04-ESS-001	57.35	58.00	0.113	19-Jan-04	16-Jan-04
E264667	04-ESS-001	58.00	59.00	0.045	19-Jan-04	16-Jan-04
E264668	04-ESS-001	59.00	60.00	0.035	19-Jan-04	16-Jan-04
E264669	04-ESS-001	60.00	61.00	0.069	19-Jan-04	16-Jan-04
E264671	04-ESS-001	61.00	62.00	0.036	19-Jan-04	16-Jan-04
E264672	04-ESS-001	62.00	63.10	0.665	19-Jan-04	16-Jan-04
E264673	04-ESS-001	63.10	64.00	4.014	19-Jan-04	16-Jan-04
E264674	04-ESS-001	64.00	65.00	1.660	19-Jan-04	16-Jan-04
E264675	04-ESS-001	65.00	66.00	0.211	19-Jan-04	16-Jan-04
E264676	04-ESS-001	23.00	24.08	0.051	17-Jan-04	15-Jan-04
E264677	04-ESS-001	24.08	24.60	0.176	17-Jan-04	15-Jan-04
E264678	04-ESS-001	24.60	25.00	0.114	17-Jan-04	15-Jan-04
E264679	04-ESS-001	25.00	25.80	0.620	17-Jan-04	15-Jan-04
E264681	04-ESS-001	25.80	26.34	0.085	17-Jan-04	15-Jan-04
E264682	04-ESS-001	26.34	27.00	0.048	17-Jan-04	15-Jan-04
E264683	04-ESS-001	27.00	28.00	0.261	17-Jan-04	15-Jan-04
E264684	04-ESS-001	28.00	29.00	0.092	17-Jan-04	15-Jan-04
E264685	04-ESS-001	29.00	30.00	0.035	17-Jan-04	15-Jan-04
E264686	04-ESS-001	30.00	31.00	1.739	18-Jan-04	15-Jan-04
E264687	04-ESS-001	31.00	32.00	2.020	18-Jan-04	15-Jan-04
E264688	04-ESS-001	32.00	33.00	0.384	18-Jan-04	15-Jan-04
E264689	04-ESS-001	33.00	34.00	0.887	18-Jan-04	15-Jan-04
E264691	04-ESS-001	34.00	35.00	0.036	18-Jan-04	15-Jan-04
E264692	04-ESS-001	35.00	36.00	0.014	18-Jan-04	15-Jan-04
E264693	04-ESS-001	36.00	37.00	0.011	18-Jan-04	15-Jan-04
E264694	04-ESS-001	37.00	38.00	0.017	18-Jan-04	15-Jan-04
E264695	04-ESS-001	38.00	39.00	0.973	18-Jan-04	15-Jan-04
E264696	04-ESS-001	39.00	40.00	0.565	18-Jan-04	15-Jan-04
E264697	04-ESS-001	40.00	41.20	0.507	18-Jan-04	15-Jan-04
E264698	04-ESS-001	41.20	42.47	0.564	18-Jan-04	15-Jan-04
E264699	04-ESS-001	42.47	43.65	0.065	18-Jan-04	15-Jan-04
E269205	04-ISL-001	88.60	89.60	0.773	8-Apr-04	29-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E269206	04-ISL-001	89.60	90.60	0.706	8-Apr-04	29-Feb-04
E269207	04-ISL-001	90.60	91.60	0.036	8-Apr-04	29-Feb-04
E269208	04-ISL-001	91.60	92.60	0.948	8-Apr-04	29-Feb-04
E269209	04-ISL-001	92.60	93.60	0.033	8-Apr-04	29-Feb-04
E269211	04-ISL-001	93.60	94.60	0.029	8-Apr-04	29-Feb-04
E269212	04-ISL-001	94.60	95.60	0.028	8-Apr-04	29-Feb-04
E269213	04-ISL-001	95.60	96.60	0.023	8-Apr-04	29-Feb-04
E269214	04-ISL-001	96.60	97.60	0.029	8-Apr-04	29-Feb-04
E269215	04-ISL-001	97.60	98.60	0.349	8-Apr-04	29-Feb-04
E269216	04-ISL-001	98.60	99.60	0.234	8-Apr-04	29-Feb-04
E269217	04-ISL-001	99.60	100.60	0.668	7-Apr-04	29-Feb-04
E269218	04-ISL-001	100.60	101.60	0.058	7-Apr-04	29-Feb-04
E269219	04-ISL-001	101.60	102.60	0.025	7-Apr-04	29-Feb-04
E269221	04-ISL-001	102.60	103.60	0.066	7-Apr-04	29-Feb-04
E269222	04-ISL-001	103.60	104.60	0.192	7-Apr-04	29-Feb-04
E269223	04-ISL-001	104.60	105.60	0.057	7-Apr-04	29-Feb-04
E269224	04-ISL-001	105.60	106.60	0.025	7-Apr-04	29-Feb-04
E269225	04-ISL-001	106.60	107.60	0.160	7-Apr-04	29-Feb-04
E269226	04-ISL-001	107.60	108.60	0.033	7-Apr-04	29-Feb-04
E269227	04-ISL-001	108.60	109.60	0.016	7-Apr-04	29-Feb-04
E269228	04-ISL-001	109.60	110.60	0.012	7-Apr-04	29-Feb-04
E269229	04-ISL-001	110.60	111.60	0.033	7-Apr-04	29-Feb-04
E269231	04-ISL-001	111.60	112.55	0.086	7-Apr-04	29-Feb-04
E269232	04-ISL-001	112.55	113.30	0.030	7-Apr-04	29-Feb-04
E269233	04-ISL-001	113.30	114.30	0.055	7-Apr-04	1-Mar-04
E269234	04-ISL-001	114.30	115.30	0.198	7-Apr-04	1-Mar-04
E269235	04-ISL-001	115.30	116.30	0.153	8-Apr-04	1-Mar-04
E269236	04-ISL-001	116.30	117.30	1.003	8-Apr-04	1-Mar-04
E269237	04-ISL-001	117.30	118.30	0.673	8-Apr-04	1-Mar-04
E269238	04-ISL-001	118.30	119.30	0.326	8-Apr-04	1-Mar-04
E269239	04-ISL-001	119.30	120.30	4.173	8-Apr-04	1-Mar-04
E269241	04-ISL-001	120.30	121.30	0.297	8-Apr-04	1-Mar-04
E269242	04-ISL-001	121.30	122.30	0.195	8-Apr-04	1-Mar-04
E269243	04-ISL-001	122.30	123.30	0.768	8-Apr-04	1-Mar-04
E269244	04-ISL-001	123.30	124.30	1.405	8-Apr-04	1-Mar-04
E269245	04-ISL-001	124.30	125.30	0.373	8-Apr-04	1-Mar-04
E269246	04-ISL-001	125.30	126.30	1.156	8-Apr-04	1-Mar-04
E269247	04-ISL-001	126.30	127.30	0.503	8-Apr-04	1-Mar-04
E269248	04-ISL-001	127.30	128.30	0.324	8-Apr-04	1-Mar-04
E269249	04-ISL-001	128.30	129.30	0.139	8-Apr-04	1-Mar-04
E269251	04-ISL-001	129.30	130.20	0.078	8-Apr-04	1-Mar-04
E269252	04-ISL-001	130.20	130.85	0.032	8-Apr-04	1-Mar-04
E269253	04-ISL-001	130.85	131.65	0.075	8-Apr-04	1-Mar-04
E269254	04-ISL-001	131.65	132.50	0.042	8-Apr-04	1-Mar-04
E269255	04-ISL-001	132.50	133.50	0.042	8-Apr-04	1-Mar-04
E269256	04-ISL-001	133.50	134.50	0.064	8-Apr-04	1-Mar-04
E269257	04-ISL-001	134.50	135.50	0.073	8-Apr-04	1-Mar-04
E269258	04-ISL-001	135.50	136.50	0.255	8-Apr-04	1-Mar-04
E269259	04-ISL-001	136.50	137.50	0.083	8-Apr-04	1-Mar-04
E269261	04-ISL-001	137.50	138.50	0.030	10-Apr-04	1-Mar-04
E269262	04-ISL-001	138.50	139.50	0.010	10-Apr-04	1-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E269263	04-ISL-001	139.50	140.50	0.054	10-Apr-04	1-Mar-04
E269264	04-ISL-001	140.50	141.50	0.010	10-Apr-04	1-Mar-04
E269265	04-ISL-001	141.50	142.50	0.010	10-Apr-04	1-Mar-04
E269266	04-ISL-001	142.50	143.50	0.010	10-Apr-04	1-Mar-04
E269267	04-ISL-001	143.50	144.50	0.010	10-Apr-04	1-Mar-04
E269268	04-ISL-001	144.50	145.50	0.010	10-Apr-04	1-Mar-04
E269269	04-ISL-001	145.50	146.50	0.010	10-Apr-04	1-Mar-04
E269271	04-ISL-001	146.50	147.50	0.019	10-Apr-04	1-Mar-04
E269272	04-ISL-001	147.50	148.20	0.075	10-Apr-04	1-Mar-04
E269273	04-ISL-001	148.20	148.95	0.038	10-Apr-04	1-Mar-04
E269274	04-ISL-001	148.95	150.00	0.010	10-Apr-04	1-Mar-04
E269275	04-ISL-001	150.00	151.00	0.010	10-Apr-04	1-Mar-04
E269276	04-ESK-003	185.90	186.90	0.010	3-Sep-04	3-Mar-04
E269277	04-ESK-003	186.90	187.90	0.017	3-Sep-04	3-Mar-04
E269278	04-ESK-003	187.90	188.90	0.015	3-Sep-04	3-Mar-04
E269279	04-ESK-003	188.90	189.90	0.010	3-Sep-04	3-Mar-04
E269281	04-ESK-003	219.30	220.30	0.010	3-Sep-04	3-Mar-04
E269282	04-ESK-003	220.30	220.80	2.739	3-Sep-04	3-Mar-04
E269283	04-ESK-003	220.80	221.80	0.019	3-Sep-04	3-Mar-04
E269284	04-ESK-003	221.80	222.80	0.020	3-Oct-04	3-Mar-04
E269285	04-ESK-003	222.80	223.45	0.046	3-Oct-04	3-Mar-04
E269286	04-ESK-003	223.45	224.15	1.668	3-Oct-04	3-Mar-04
E269287	04-ESK-003	224.15	225.15	0.059	3-Oct-04	3-Mar-04
E269288	04-ESK-003	230.90	231.90	0.017	3-Oct-04	3-Mar-04
E269289	04-ESK-003	231.90	232.90	2.527	3-Oct-04	3-Mar-04
E269291	04-ESK-003	232.90	233.85	7.120	3-Oct-04	3-Mar-04
E269292	04-ESK-003	233.85	234.85	0.066	3-Oct-04	3-Mar-04
E269293	04-ESK-003	242.00	243.00	0.024	3-Oct-04	3-Mar-04
E269294	04-ESK-003	243.00	244.20	0.292	11-Mar-04	3-Mar-04
E269295	04-ESK-003	244.20	245.35	0.035	11-Mar-04	3-Mar-04
E269296	04-ESK-003	245.35	245.90	1.939	11-Mar-04	3-Mar-04
E269297	04-ESK-003	245.90	246.55	0.060	11-Mar-04	3-Mar-04
E269298	04-ESK-003	246.55	247.20	0.023	11-Mar-04	3-Mar-04
E269299	04-ESK-003	247.20	248.20	0.075	11-Mar-04	3-Mar-04
E269301	04-ESK-003	248.20	249.15	0.208	11-Mar-04	3-Mar-04
E269302	04-ESK-003	249.15	250.15	0.073	11-Mar-04	3-Mar-04
E269303	04-ESK-003	250.15	251.00	1.569	25-Mar-04	3-Mar-04
E269304	04-ESK-003	251.00	252.00	0.295	25-Mar-04	3-Mar-04
E269305	04-ESK-003	252.00	253.00	6.942	25-Mar-04	3-Mar-04
E269306	04-ESK-003	253.00	254.00	6.026	25-Mar-04	3-Mar-04
E269307	04-ESK-003	254.00	255.00	1.414	25-Mar-04	3-Mar-04
E269308	04-ESK-003	255.00	256.00	0.382	25-Mar-04	3-Mar-04
E269309	04-ESK-003	256.00	257.00	0.050	25-Mar-04	3-Mar-04
E269311	04-ESK-003	257.00	258.00	0.113	25-Mar-04	3-Mar-04
E269312	04-ESK-003	258.00	259.00	0.040	25-Mar-04	3-Mar-04
E269313	04-ESK-003	259.00	260.00	0.033	25-Mar-04	3-Mar-04
E269314	04-ESK-003	260.00	261.00	0.549	25-Mar-04	3-Mar-04
E269315	04-ESK-003	261.00	262.00	0.048	25-Mar-04	3-Mar-04
E269316	04-ESK-003	262.00	263.00	0.040	25-Mar-04	3-Mar-04
E269317	04-ESK-003	263.00	264.00	0.099	25-Mar-04	3-Mar-04
E269318	04-ESK-003	264.00	265.00	0.061	25-Mar-04	3-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E269319	04-ESK-003	265.00	266.00	0.022	25-Mar-04	3-Mar-04
E269321	04-ESK-003	266.00	267.00	0.039	25-Mar-04	3-Mar-04
E269322	04-ESK-003	267.00	268.00	0.028	25-Mar-04	3-Mar-04
E269323	04-ESK-003	268.00	269.00	0.088	25-Mar-04	3-Mar-04
E269324	04-ESK-003	269.00	270.00	0.103	25-Mar-04	3-Mar-04
E269325	04-ESK-003	270.00	271.00	0.012	25-Mar-04	3-Mar-04
E269326	04-ESK-003	271.00	272.00	0.027	25-Mar-04	3-Mar-04
E269327	04-ESK-003	272.00	272.70	0.042	25-Mar-04	3-Mar-04
E269328	04-ESK-003	272.70	273.50	0.021	25-Mar-04	3-Mar-04
E269329	04-ESK-003	273.50	274.70	0.118	25-Mar-04	3-Mar-04
E269331	04-ESK-003	274.70	275.70	5.892	25-Mar-04	3-Mar-04
E269332	04-ESK-003	275.70	276.70	4.016	25-Mar-04	3-Mar-04
E269333	04-ESK-003	276.70	277.70	2.463	25-Mar-04	3-Mar-04
E269334	04-ESK-003	277.70	278.70	0.042	25-Mar-04	3-Mar-04
E269335	04-ESK-003	278.70	279.70	0.033	25-Mar-04	5-Mar-04
E269336	04-ESK-003	279.70	280.70	0.069	25-Mar-04	5-Mar-04
E269337	04-ESK-003	280.70	281.70	0.016	25-Mar-04	5-Mar-04
E269338	04-ESK-003	281.70	282.70	0.042	25-Mar-04	5-Mar-04
E269339	04-ESK-003	282.70	283.70	2.571	25-Mar-04	5-Mar-04
E269341	04-ESK-003	283.70	284.70	0.367	25-Mar-04	5-Mar-04
E269342	04-ESK-003	284.70	285.70	0.196	25-Mar-04	5-Mar-04
E269343	04-ESK-003	285.70	286.70	3.507	25-Mar-04	5-Mar-04
E269344	04-ESK-003	286.70	287.70	6.737	25-Mar-04	5-Mar-04
E269345	04-ESK-003	287.70	288.70	0.476	25-Mar-04	5-Mar-04
E269346	04-ESK-003	288.70	289.70	0.501	25-Mar-04	5-Mar-04
E269347	04-ESK-003	289.70	290.70	0.461	25-Mar-04	5-Mar-04
E269348	04-ESK-003	290.70	291.90	0.118	25-Mar-04	5-Mar-04
E269349	04-ESK-003	291.90	292.90	0.017	25-Mar-04	5-Mar-04
E269351	04-ESK-003	296.90	297.90	0.010	25-Mar-04	5-Mar-04
E269352	04-ESK-003	297.90	298.90	0.096	25-Mar-04	5-Mar-04
E269353	04-ESK-003	298.90	299.90	0.013	25-Mar-04	5-Mar-04
E269354	04-ESK-003	299.90	300.90	0.025	25-Mar-04	5-Mar-04
E269355	04-ESK-003	300.90	301.90	0.113	25-Mar-04	5-Mar-04
E269356	04-ESK-003	301.90	302.90	0.025	25-Mar-04	5-Mar-04
E269357	04-ESK-003	302.90	303.60	0.043	25-Mar-04	5-Mar-04
E269358	04-ESK-003	303.60	304.10	0.059	25-Mar-04	5-Mar-04
E269359	04-ESK-003	304.10	305.00	0.010	25-Mar-04	5-Mar-04
E269361	04-ESK-003	305.00	305.50	0.026	25-Mar-04	5-Mar-04
E269362	04-ESK-003	305.50	306.20	0.013	25-Mar-04	5-Mar-04
E269363	04-ESK-003	306.20	306.90	0.034	25-Mar-04	5-Mar-04
E269364	04-ESK-003	306.90	307.90	0.010	25-Mar-04	5-Mar-04
E269365	04-ESK-003	307.90	308.90	0.017	25-Mar-04	5-Mar-04
E269366	04-ESK-003	308.90	309.90	0.012	25-Mar-04	5-Mar-04
E269367	04-ESK-003	309.90	310.90	0.090	25-Mar-04	5-Mar-04
E269368	04-ESK-003	310.90	311.90	0.093	25-Mar-04	5-Mar-04
E269369	04-ESK-003	311.90	312.90	0.198	25-Mar-04	5-Mar-04
E269371	04-ESK-003	312.90	313.90	0.118	25-Mar-04	5-Mar-04
E269372	04-ESK-003	313.90	315.00	0.058	25-Mar-04	5-Mar-04
E269373	04-ESK-003	315.00	316.00	0.126	25-Mar-04	5-Mar-04
E269374	04-ESK-003	316.00	317.00	0.109	25-Mar-04	5-Mar-04
E269375	04-ESK-003	317.00	318.00	0.161	25-Mar-04	5-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome—Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E269376	04-ESK-003	318.00	319.00	0.035	25-Mar-04	5-Mar-04
E269377	04-ESK-003	319.00	320.00	0.092	25-Mar-04	5-Mar-04
E269378	04-ESK-003	320.00	321.00	0.222	25-Mar-04	5-Mar-04
E269379	04-ESK-003	321.00	322.00	0.577	25-Mar-04	5-Mar-04
E269381	04-ESK-003	322.00	323.00	0.107	25-Mar-04	5-Mar-04
E269382	04-ESK-003	323.00	324.00	0.236	25-Mar-04	5-Mar-04
E269383	04-ESK-003	324.00	325.00	0.051	25-Mar-04	5-Mar-04
E269384	04-ESK-003	325.00	326.00	0.037	25-Mar-04	5-Mar-04
E269385	04-ESK-003	326.00	327.00	0.215	25-Mar-04	5-Mar-04
E269386	04-ESK-003	327.00	328.00	0.027	25-Mar-04	5-Mar-04
E269387	04-ESK-003	328.00	329.00	0.065	25-Mar-04	5-Mar-04
E269388	04-ESK-003	329.00	330.00	0.077	25-Mar-04	5-Mar-04
E269389	04-ESK-003	330.00	331.00	0.196	25-Mar-04	5-Mar-04
E269391	04-ESK-003	331.00	332.00	0.065	25-Mar-04	5-Mar-04
E269392	04-ESK-003	332.00	333.00	0.026	25-Mar-04	5-Mar-04
E269393	04-ESK-003	333.00	334.00	0.135	25-Mar-04	5-Mar-04
E269394	04-ESK-003	334.00	335.00	0.123	25-Mar-04	5-Mar-04
E269395	04-ESK-003	335.00	336.00	0.164	25-Mar-04	5-Mar-04
E269396	04-ESK-003	336.00	337.00	0.095	25-Mar-04	5-Mar-04
E269397	04-ESK-003	337.00	338.00	0.090	25-Mar-04	5-Mar-04
E269398	04-ESK-003	338.00	339.00	0.141	25-Mar-04	5-Mar-04
E269399	04-ESK-003	339.00	340.00	0.406	25-Mar-04	5-Mar-04
E269401	04-ESK-003	340.00	341.00	0.080	25-Mar-04	5-Mar-04
E269402	04-ESK-003	341.00	342.00	0.169	25-Mar-04	5-Mar-04
E269403	04-ESK-003	342.00	343.00	0.738	25-Mar-04	5-Mar-04
E269404	04-ESK-003	343.00	344.00	0.169	25-Mar-04	5-Mar-04
E269405	04-ESK-003	344.00	345.00	0.235	25-Mar-04	5-Mar-04
E269406	04-ESK-003	345.00	346.00	0.476	25-Mar-04	5-Mar-04
E269407	04-ESK-003	346.00	347.00	0.132	25-Mar-04	5-Mar-04
E269408	04-ESK-003	347.00	348.00	0.054	25-Mar-04	5-Mar-04
E269409	04-ESK-003	348.00	349.00	0.250	25-Mar-04	5-Mar-04
E269411	04-ESK-003	349.00	350.00	14.900	26-Mar-04	5-Mar-04
E269412	04-ESK-003	350.00	351.00	0.115	25-Mar-04	5-Mar-04
E269413	04-ESK-003	351.00	352.00	0.066	25-Mar-04	5-Mar-04
E269414	04-ESK-003	352.00	353.00	0.154	25-Mar-04	5-Mar-04
E269415	04-ESK-003	353.00	354.00	0.187	25-Mar-04	5-Mar-04
E269416	04-ESK-003	354.00	355.00	0.069	25-Mar-04	5-Mar-04
E269417	04-ESK-003	355.00	356.00	0.226	25-Mar-04	5-Mar-04
E269418	04-ESK-003	356.00	357.00	0.032	25-Mar-04	5-Mar-04
E269419	04-ESK-003	357.00	358.00	0.021	25-Mar-04	5-Mar-04
E269421	04-ESK-003	358.00	359.00	0.060	25-Mar-04	5-Mar-04
E269422	04-ESK-003	359.00	360.00	0.029	25-Mar-04	5-Mar-04
E269423	04-ESK-003	360.00	361.00	0.016	26-Mar-04	5-Mar-04
E269424	04-ESK-003	361.00	362.00	0.018	26-Mar-04	5-Mar-04
E269425	04-ESK-003	362.00	363.00	0.035	26-Mar-04	5-Mar-04
E269426	04-ESK-003	363.00	364.20	0.024	26-Mar-04	5-Mar-04
E269427	04-ESK-003	364.20	364.90	0.010	26-Mar-04	5-Mar-04
E269428	04-ESK-003	364.90	365.60	0.010	26-Mar-04	5-Mar-04
E269429	04-ESK-003	365.60	366.60	0.021	26-Mar-04	5-Mar-04
E269431	04-ESK-003	366.60	367.60	0.026	26-Mar-04	5-Mar-04
E269432	04-ESK-003	367.60	368.60	0.125	26-Mar-04	5-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E269433	04-ESK-003	368.60	369.60	0.049	26-Mar-04	5-Mar-04
E269434	04-ESK-003	369.60	370.60	5.024	26-Mar-04	5-Mar-04
E269435	04-ESK-003	370.60	371.60	0.106	26-Mar-04	5-Mar-04
E269436	04-ESK-003	371.60	372.60	0.049	26-Mar-04	5-Mar-04
E269437	04-ESK-003	372.60	373.60	0.046	26-Mar-04	5-Mar-04
E269438	04-ESK-003	373.60	374.60	0.036	26-Mar-04	5-Mar-04
E269439	04-ESK-003	374.60	375.60	0.037	26-Mar-04	5-Mar-04
E269441	04-ESK-003	375.60	376.60	0.936	26-Mar-04	5-Mar-04
E269442	04-ESK-003	376.60	377.60	0.123	26-Mar-04	5-Mar-04
E269443	04-ESK-003	377.60	378.50	0.022	26-Mar-04	5-Mar-04
E269444	04-ESK-003	378.50	379.50	0.075	26-Mar-04	5-Mar-04
E269445	04-ESK-003	379.50	380.50	0.029	26-Mar-04	5-Mar-04
E269446	04-ESK-003	380.50	381.50	0.047	26-Mar-04	5-Mar-04
E269447	04-ESK-003	381.50	382.50	0.030	26-Mar-04	5-Mar-04
E269448	04-ESK-003	382.50	383.50	0.038	26-Mar-04	5-Mar-04
E269449	04-ESK-003	383.50	384.50	0.020	26-Mar-04	5-Mar-04
E269451	04-ESK-003	384.50	385.45	0.017	26-Mar-04	5-Mar-04
E269452	04-ESK-003	385.45	386.50	0.010	26-Mar-04	5-Mar-04
E269453	04-ESK-003	386.50	387.50	0.012	26-Mar-04	5-Mar-04
E269454	04-ESK-003	387.50	388.50	0.018	26-Mar-04	5-Mar-04
E269455	04-ESK-003	388.50	389.15	0.055	26-Mar-04	5-Mar-04
E269456	04-ESK-003	389.15	389.80	0.047	26-Mar-04	5-Mar-04
E269457	04-ESK-003	389.80	390.70	0.022	26-Mar-04	5-Mar-04
E269458	04-ESK-003	390.70	391.70	0.010	26-Mar-04	5-Mar-04
E269459	04-ISL-003	22.30	23.40	0.046	18-Apr-04	7-Mar-04
E269461	04-ISL-003	23.40	24.50	0.016	18-Apr-04	7-Mar-04
E269462	04-ISL-003	24.50	26.30	0.015	18-Apr-04	7-Mar-04
E269463	04-ISL-003	26.30	27.30	0.288	18-Apr-04	7-Mar-04
E269464	04-ISL-003	27.30	28.80	0.024	18-Apr-04	7-Mar-04
E269465	04-ISL-003	28.80	30.35	0.018	18-Apr-04	7-Mar-04
E269466	04-ISL-003	30.35	30.95	0.015	18-Apr-04	7-Mar-04
E269467	04-ISL-003	30.95	31.60	0.060	18-Apr-04	7-Mar-04
E269468	04-ISL-003	31.60	32.60	0.028	18-Apr-04	7-Mar-04
E269469	04-ISL-003	32.60	34.60	0.022	18-Apr-04	7-Mar-04
E269471	04-ISL-003	34.60	36.00	0.122	18-Apr-04	7-Mar-04
E269472	04-ISL-003	36.00	37.00	0.022	18-Apr-04	7-Mar-04
E269473	04-ISL-003	37.00	38.00	1.319	18-Apr-04	7-Mar-04
E269474	04-ISL-003	38.00	39.00	0.032	18-Apr-04	7-Mar-04
E269475	04-ISL-003	39.00	40.00	0.188	18-Apr-04	7-Mar-04
E269476	04-ISL-003	40.00	41.00	0.387	18-Apr-04	7-Mar-04
E269477	04-ISL-003	41.00	42.00	0.405	18-Apr-04	7-Mar-04
E269478	04-ISL-003	42.00	43.00	0.222	18-Apr-04	7-Mar-04
E269479	04-ISL-003	43.00	44.00	0.457	18-Apr-04	7-Mar-04
E269481	04-ISL-003	44.00	45.00	0.328	18-Apr-04	7-Mar-04
E269482	04-ISL-003	45.00	46.00	0.170	18-Apr-04	7-Mar-04
E269483	04-ISL-003	46.00	47.00	0.063	18-Apr-04	7-Mar-04
E269484	04-ISL-003	47.00	48.00	0.073	18-Apr-04	7-Mar-04
E269485	04-ISL-003	48.00	49.00	0.032	18-Apr-04	7-Mar-04
E269486	04-ISL-003	49.00	50.00	0.053	18-Apr-04	7-Mar-04
E269487	04-ISL-003	50.00	51.00	0.034	18-Apr-04	7-Mar-04
E269488	04-ISL-003	51.00	52.00	0.057	18-Apr-04	7-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E269489	04-ISL-003	52.00	53.00	0.022	18-Apr-04	7-Mar-04
E269491	04-ISL-003	53.00	54.00	0.054	18-Apr-04	7-Mar-04
E269492	04-ISL-003	54.00	55.00	0.123	18-Apr-04	7-Mar-04
E269493	04-ISL-003	55.00	56.00	0.042	18-Apr-04	7-Mar-04
E269494	04-ISL-003	56.00	57.00	0.043	18-Apr-04	7-Mar-04
E269495	04-ISL-003	57.00	58.00	0.122	18-Apr-04	7-Mar-04
E269496	04-ISL-003	58.00	59.00	0.154	18-Apr-04	7-Mar-04
E269497	04-ISL-003	59.00	60.00	0.103	18-Apr-04	7-Mar-04
E269498	04-ISL-003	60.00	61.00	0.073	19-Apr-04	7-Mar-04
E269499	04-ISL-003	61.00	62.00	1.684	19-Apr-04	7-Mar-04
E272273	04-ESS-004	158.00	158.65	0.091	2-Jun-04	31-Jan-04
E272274	04-ESS-004	158.65	159.30	0.122	2-Jun-04	31-Jan-04
E272275	04-ESS-004	159.30	160.20	0.016	2-Jun-04	31-Jan-04
E272276	04-ESS-004	160.20	161.10	0.073	2-Jun-04	31-Jan-04
E272277	04-ESS-004	161.10	161.60	0.018	2-Jun-04	31-Jan-04
E272278	04-ESS-004	164.40	164.90	0.030	2-Jun-04	31-Jan-04
E272279	04-ESS-004	164.90	165.30	0.802	2-Jun-04	31-Jan-04
E272281	04-ESS-004	165.30	166.20	0.249	2-Jun-04	31-Jan-04
E272282	04-ESS-004	166.20	167.30	0.160	2-Jun-04	31-Jan-04
E272283	04-ESS-004	167.30	167.80	0.146	2-Jun-04	31-Jan-04
E272284	04-ESS-004	167.80	168.90	8.728	2-Jun-04	31-Jan-04
E272285	04-ESS-004	168.90	169.50	0.217	2-Jun-04	31-Jan-04
E272286	04-ESS-004	179.00	179.65	0.071	2-Jun-04	31-Jan-04
E272287	04-ESS-004	179.65	180.65	0.062	2-Jun-04	31-Jan-04
E272288	04-ESS-004	180.65	181.45	0.060	2-Jun-04	31-Jan-04
E272289	04-ESS-004	181.45	182.20	0.172	2-Jun-04	31-Jan-04
E272291	04-ESS-004	182.20	183.00	0.172	2-Jun-04	31-Jan-04
E272292	04-ESS-004	183.00	184.00	0.198	2-Jun-04	31-Jan-04
E272293	04-ESS-004	184.00	185.00	0.028	2-Jun-04	31-Jan-04
E272294	04-ESS-004	185.00	186.20	0.040	2-Jun-04	31-Jan-04
E272295	04-ESS-004	186.20	187.00	0.457	2-Jun-04	31-Jan-04
E272296	04-ESS-004	187.00	188.00	2.687	2-Jun-04	31-Jan-04
E272297	04-ESS-004	188.00	189.00	3.044	2-Jun-04	31-Jan-04
E272298	04-ESS-004	189.00	190.00	1.002	2-Jun-04	31-Jan-04
E272299	04-ESS-004	190.00	191.00	0.173	2-Jun-04	31-Jan-04
E272301	04-ESS-004	191.00	192.00	1.498	2-Jun-04	31-Jan-04
E272302	04-ESS-004	192.00	193.00	1.407	2-Jun-04	31-Jan-04
E272303	04-ESS-004	193.00	194.00	0.390	2-Jun-04	31-Jan-04
E272304	04-ESS-004	194.00	194.70	1.300	2-Jun-04	31-Jan-04
E272305	04-ESS-004	194.70	195.70	0.112	2-Jun-04	31-Jan-04
E272306	04-ESS-004	195.70	196.70	0.169	2-Jun-04	31-Jan-04
E272307	04-ESS-004	196.70	197.20	0.165	2-Jun-04	31-Jan-04
E272308	04-ESS-004	197.20	198.00	0.111	2-Jun-04	31-Jan-04
E272309	04-ESS-004	198.00	199.00	1.406	2-Jun-04	31-Jan-04
E272311	04-ESS-004	199.00	200.00	0.239	2-Jul-04	31-Jan-04
E272312	04-ESS-004	200.00	201.00	3.522	2-Jul-04	31-Jan-04
E272313	04-ESS-004	201.00	202.00	1.557	2-Jul-04	31-Jan-04
E272314	04-ESS-004	202.00	203.00	0.173	2-Jul-04	31-Jan-04
E272315	04-ESS-004	203.00	204.00	0.286	2-Jul-04	31-Jan-04
E272316	04-ESS-004	204.00	205.00	0.120	2-Jul-04	31-Jan-04
E272317	04-ESS-004	205.00	206.00	0.084	2-Jul-04	31-Jan-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E272318	04-ESS-004	206.00	207.00	1.883	2-Jul-04	31-Jan-04
E272319	04-ESS-004	207.00	208.00	0.537	2-Jul-04	31-Jan-04
E272321	04-ESS-004	208.00	209.00	0.800	2-Jul-04	31-Jan-04
E272322	04-ESS-004	209.00	210.00	0.807	2-Jul-04	31-Jan-04
E272323	04-ESS-004	210.00	211.00	0.777	2-Jul-04	31-Jan-04
E272324	04-ESS-004	211.00	212.00	0.057	2-Jul-04	31-Jan-04
E272325	04-ESS-004	212.00	213.00	0.120	2-Aug-04	31-Jan-04
E272326	04-ESS-004	213.00	214.00	0.665	2-Aug-04	31-Jan-04
E272327	04-ESS-004	214.00	215.00	5.915	2-Aug-04	31-Jan-04
E272328	04-ESS-004	215.00	216.00	5.602	2-Aug-04	31-Jan-04
E272329	04-ESS-004	216.00	217.00	1.190	2-Aug-04	31-Jan-04
E272331	04-ESS-004	217.00	218.00	1.114	2-Aug-04	31-Jan-04
E272332	04-ESS-004	218.00	219.00	2.084	2-Aug-04	31-Jan-04
E272333	04-ESS-004	219.00	220.00	2.925	2-Aug-04	31-Jan-04
E272334	04-ESS-004	220.00	221.00	4.168	2-Aug-04	31-Jan-04
E272335	04-ESS-004	221.00	222.00	3.822	2-Aug-04	31-Jan-04
E272336	04-ESS-004	222.00	223.00	0.598	2-Aug-04	31-Jan-04
E272337	04-ESS-004	223.00	224.00	2.302	2-Aug-04	31-Jan-04
E272338	04-ESS-004	224.00	225.00	7.543	2-Aug-04	31-Jan-04
E272339	04-ESS-004	225.00	226.10	1.572	2-Aug-04	31-Jan-04
E272341	04-ESS-004	226.10	227.00	0.117	2-Aug-04	31-Jan-04
E272342	04-ESS-004	227.00	228.00	0.144	2-Aug-04	31-Jan-04
E272343	04-ESS-004	228.00	229.00	0.147	2-Aug-04	31-Jan-04
E272344	04-ESS-004	229.00	230.00	1.705	2-Aug-04	31-Jan-04
E272345	04-ESS-004	230.00	231.00	0.545	2-Aug-04	1-Feb-04
E272346	04-ESS-004	231.00	232.00	0.061	2-Aug-04	1-Feb-04
E272347	04-ESS-004	232.00	233.00	0.342	2-Aug-04	1-Feb-04
E272348	04-ESS-004	233.00	234.00	1.686	2-Jun-04	1-Feb-04
E272349	04-ESS-004	234.00	235.00	1.188	2-Jun-04	1-Feb-04
E272351	04-ESS-004	235.00	236.00	0.457	2-Jul-04	1-Feb-04
E272352	04-ESS-004	236.00	237.00	0.628	2-Jul-04	1-Feb-04
E272353	04-ESS-004	237.00	238.00	0.195	2-Jul-04	1-Feb-04
E272354	04-ESS-004	238.00	239.00	0.052	2-Jul-04	1-Feb-04
E272355	04-ESS-004	239.00	240.00	0.095	2-Jul-04	1-Feb-04
E272356	04-ESS-004	240.00	241.00	0.247	2-Jul-04	1-Feb-04
E272357	04-ESS-004	241.00	242.00	0.036	2-Jul-04	1-Feb-04
E272358	04-ESS-004	242.00	242.80	0.028	2-Jul-04	1-Feb-04
E272359	04-ESS-004	242.80	243.50	0.694	2-Jul-04	1-Feb-04
E272361	04-ESS-004	243.50	244.00	0.019	2-Jul-04	1-Feb-04
E272362	04-ESS-004	244.00	245.00	0.035	2-Jul-04	1-Feb-04
E272363	04-ESS-004	245.00	246.00	0.045	2-Jul-04	1-Feb-04
E272364	04-ESS-004	246.00	247.00	0.037	2-Jul-04	1-Feb-04
E272365	04-ESS-004	247.00	247.70	0.018	2-Jul-04	1-Feb-04
E272366	04-ESS-004	247.70	248.30	0.021	2-Jul-04	1-Feb-04
E272367	04-ESS-004	248.30	249.00	0.015	2-Jul-04	1-Feb-04
E272368	04-ESS-004	249.00	250.00	0.077	2-Jul-04	1-Feb-04
E272369	04-ESS-004	250.00	251.00	0.044	2-Jul-04	1-Feb-04
E272371	04-ESS-004	251.00	252.00	0.084	2-Jun-04	1-Feb-04
E272372	04-ESS-004	252.00	252.80	0.039	2-Jun-04	1-Feb-04
E272373	04-ESS-004	252.80	253.40	4.978	2-Jun-04	1-Feb-04
E272374	04-ESS-004	253.40	254.50	5.828	2-Jun-04	1-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E272375	04-ESS-004	254.50	255.40	0.454	2-Jun-04	1-Feb-04
E272376	04-ESS-004	255.40	256.40	0.092	2-Aug-04	1-Feb-04
E272377	04-ESS-004	256.40	257.00	0.056	2-Aug-04	1-Feb-04
E272378	04-ESS-004	257.00	258.00	0.172	2-Aug-04	1-Feb-04
E272379	04-ESS-004	258.00	259.30	0.092	2-Aug-04	1-Feb-04
E272381	04-ESS-004	259.30	260.00	0.493	2-Aug-04	1-Feb-04
E272382	04-ESS-004	260.00	261.00	2.862	2-Aug-04	1-Feb-04
E272383	04-ESS-004	261.00	262.00	2.847	2-Aug-04	1-Feb-04
E272384	04-ESS-004	262.00	263.00	0.912	2-Aug-04	1-Feb-04
E272385	04-ESS-004	263.00	264.00	0.185	2-Aug-04	1-Feb-04
E272386	04-ESS-004	264.00	265.00	0.021	2-Aug-04	1-Feb-04
E272387	04-ESS-004	265.00	266.00	0.021	2-Aug-04	1-Feb-04
E272388	04-ESS-004	266.00	267.00	0.106	2-Aug-04	1-Feb-04
E272389	04-ESS-004	267.00	268.00	0.063	2-Aug-04	1-Feb-04
E272391	04-ESS-004	268.00	269.00	0.351	2-Aug-04	1-Feb-04
E272392	04-ESS-004	269.00	270.00	0.085	2-Aug-04	1-Feb-04
E272393	04-ESS-004	270.00	271.00	1.901	2-Aug-04	1-Feb-04
E272394	04-ESS-004	271.00	272.00	0.671	2-Aug-04	1-Feb-04
E272395	04-ESS-004	272.00	273.00	1.050	2-Aug-04	1-Feb-04
E272396	04-ESS-004	273.00	274.00	1.009	2-Aug-04	1-Feb-04
E272397	04-ESS-004	274.00	275.00	0.127	2-Aug-04	1-Feb-04
E272398	04-ESS-004	275.00	276.00	1.163	2-Aug-04	1-Feb-04
E272399	04-ESS-004	276.00	277.00	2.944	2-Aug-04	1-Feb-04
E272401	04-ESS-004	277.00	278.00	5.688	2-Aug-04	1-Feb-04
E272402	04-ESS-004	278.00	279.00	4.626	2-Aug-04	1-Feb-04
E272403	04-ESS-004	279.00	280.00	5.138	2-Aug-04	1-Feb-04
E272404	04-ESS-004	280.00	281.00	0.246	2-Aug-04	1-Feb-04
E272405	04-ESS-004	281.00	282.00	0.164	2-Aug-04	1-Feb-04
E272406	04-ESS-004	282.00	283.00	0.037	2-Aug-04	1-Feb-04
E272407	04-ESS-004	283.00	283.50	0.031	2-Aug-04	1-Feb-04
E272408	04-ESS-004	283.50	284.50	0.196	2-Aug-04	1-Feb-04
E272409	04-ESS-004	284.50	285.00	0.116	2-Aug-04	1-Feb-04
E272411	04-ESS-004	285.00	286.00	0.040	2-Aug-04	1-Feb-04
E272412	04-ESS-004	286.00	287.00	0.021	2-Aug-04	1-Feb-04
E272413	04-ESS-004	287.00	288.00	0.055	2-Aug-04	1-Feb-04
E272414	04-ESS-004	288.00	288.50	0.083	2-Aug-04	1-Feb-04
E272415	04-ESS-004	288.50	289.10	0.231	2-Aug-04	1-Feb-04
E272416	04-ESS-004	289.10	290.00	0.178	2-Aug-04	1-Feb-04
E272417	04-ESS-004	290.00	291.00	0.089	2-Aug-04	1-Feb-04
E272418	04-ESS-004	291.00	291.40	0.020	2-Aug-04	1-Feb-04
E272419	04-ESS-004	291.40	292.40	0.039	2-Aug-04	1-Feb-04
E272421	04-ESS-005	163.80	165.00	0.160	13-Feb-04	2-Feb-04
E272422	04-ESS-005	165.00	165.75	0.338	14-Feb-04	2-Feb-04
E272423	04-ESS-005	165.75	166.50	0.173	14-Feb-04	2-Feb-04
E272424	04-ESS-005	166.90	167.80	0.252	14-Feb-04	2-Feb-04
E272425	04-ESS-005	167.80	168.70	0.172	14-Feb-04	2-Feb-04
E272426	04-ESS-005	168.70	169.20	0.468	14-Feb-04	2-Feb-04
E272427	04-ESS-005	169.20	170.00	0.097	14-Feb-04	2-Feb-04
E272428	04-ESS-005	170.00	171.00	0.116	14-Feb-04	2-Feb-04
E272429	04-ESS-005	173.70	174.70	0.719	14-Feb-04	2-Feb-04
E272431	04-ESS-005	174.70	175.70	0.115	14-Feb-04	2-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E272432	04-ESS-005	188.60	189.00	0.021	2-Oct-04	3-Feb-04
E272433	04-ESS-005	189.00	189.70	0.072	14-Feb-04	3-Feb-04
E272434	04-ESS-005	189.70	190.30	0.046	14-Feb-04	3-Feb-04
E272435	04-ESS-005	190.30	191.00	0.042	14-Feb-04	3-Feb-04
E272436	04-ESS-005	192.90	193.50	0.029	14-Feb-04	3-Feb-04
E272437	04-ESS-005	193.50	194.50	0.765	14-Feb-04	3-Feb-04
E272438	04-ESS-005	196.70	197.50	1.135	14-Feb-04	3-Feb-04
E272439	04-ESS-005	197.50	198.10	0.354	14-Feb-04	3-Feb-04
E272441	04-ESS-005	198.10	198.60	0.035	14-Feb-04	3-Feb-04
E272442	04-ESS-005	204.60	205.50	0.078	14-Feb-04	3-Feb-04
E272443	04-ESS-005	205.50	206.00	9.862	14-Feb-04	3-Feb-04
E272444	04-ESS-005	206.00	206.60	0.195	14-Feb-04	3-Feb-04
E272445	04-ESS-005	212.00	212.80	0.103	14-Feb-04	3-Feb-04
E272446	04-ESS-005	212.80	213.35	9.106	14-Feb-04	3-Feb-04
E272447	04-ESS-005	213.35	214.00	0.480	14-Feb-04	3-Feb-04
E272448	04-ESS-005	214.00	215.00	0.396	14-Feb-04	3-Feb-04
E272449	04-ESS-005	215.00	216.10	0.227	14-Feb-04	3-Feb-04
E272451	04-ESS-005	216.10	217.00	0.870	14-Feb-04	3-Feb-04
E272452	04-ESS-005	217.00	217.50	2.407	14-Feb-04	3-Feb-04
E272453	04-ESS-005	217.50	218.00	0.581	14-Feb-04	3-Feb-04
E272454	04-ESS-005	218.00	219.00	0.350	14-Feb-04	3-Feb-04
E272455	04-ESS-005	219.00	220.00	0.039	14-Feb-04	3-Feb-04
E272456	04-ESS-005	220.00	220.70	0.033	14-Feb-04	3-Feb-04
E272457	04-ESS-005	220.70	221.30	0.035	14-Feb-04	3-Feb-04
E272458	04-ESS-005	221.30	222.00	0.038	14-Feb-04	3-Feb-04
E272459	04-ESS-005	222.00	223.00	1.264	14-Feb-04	3-Feb-04
E272461	04-ESS-005	223.00	224.00	2.435	14-Feb-04	3-Feb-04
E272462	04-ESS-005	224.00	225.00	3.830	14-Feb-04	3-Feb-04
E272463	04-ESS-005	225.00	225.60	0.602	14-Feb-04	3-Feb-04
E272464	04-ESS-005	225.60	226.20	0.098	14-Feb-04	3-Feb-04
E272465	04-ESS-005	226.20	226.85	0.036	14-Feb-04	3-Feb-04
E272466	04-ESS-005	226.85	227.85	1.246	14-Feb-04	3-Feb-04
E272467	04-ESS-005	227.85	228.85	1.174	14-Feb-04	3-Feb-04
E272468	04-ESS-005	228.85	229.85	0.189	14-Feb-04	3-Feb-04
E272469	04-ESS-005	229.85	230.90	0.416	14-Feb-04	4-Feb-04
E272471	04-ESS-005	230.90	231.30	2.511	14-Feb-04	4-Feb-04
E272472	04-ESS-005	231.30	232.00	0.103	14-Feb-04	4-Feb-04
E272473	04-ESS-005	232.00	233.00	0.123	14-Feb-04	4-Feb-04
E272474	04-ESS-005	233.00	234.00	0.130	14-Feb-04	4-Feb-04
E272475	04-ESS-005	234.00	235.00	0.066	14-Feb-04	4-Feb-04
E272476	04-ESS-005	235.00	236.00	0.011	14-Feb-04	4-Feb-04
E272477	04-ESS-005	236.00	237.00	0.018	14-Feb-04	4-Feb-04
E272478	04-ESS-005	237.00	238.00	0.165	14-Feb-04	4-Feb-04
E272479	04-ESS-005	238.00	239.00	1.127	14-Feb-04	4-Feb-04
E272481	04-ESS-005	239.00	239.70	0.190	14-Feb-04	4-Feb-04
E272482	04-ESS-005	239.70	240.50	0.011	14-Feb-04	4-Feb-04
E272501	04-ESS-002	36.82	38.00	2.272	24-Jan-04	19-Jan-04
E272502	04-ESS-002	38.00	39.00	0.065	24-Jan-04	19-Jan-04
E272503	04-ESS-002	39.00	40.00	0.021	24-Jan-04	19-Jan-04
E272504	04-ESS-002	40.00	41.00	0.021	24-Jan-04	19-Jan-04
E272505	04-ESS-002	41.00	42.00	0.022	24-Jan-04	19-Jan-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E272506	04-ESS-002	42.00	43.00	0.019	24-Jan-04	19-Jan-04
E272507	04-ESS-002	43.00	43.63	0.017	24-Jan-04	19-Jan-04
E272508	04-ESS-002	43.63	44.80	0.040	24-Jan-04	19-Jan-04
E272509	04-ESS-002	44.80	46.00	0.036	24-Jan-04	19-Jan-04
E272511	04-ESS-002	46.00	47.00	0.018	24-Jan-04	19-Jan-04
E272512	04-ESS-002	47.00	48.00	0.021	24-Jan-04	19-Jan-04
E272513	04-ESS-002	48.00	48.85	0.020	24-Jan-04	19-Jan-04
E272514	04-ESS-002	48.85	50.00	0.081	24-Jan-04	19-Jan-04
E272515	04-ESS-002	50.00	50.80	0.034	24-Jan-04	19-Jan-04
E272516	04-ESS-002	50.80	51.60	0.030	24-Jan-04	19-Jan-04
E272517	04-ESS-002	51.60	52.80	0.044	24-Jan-04	19-Jan-04
E272518	04-ESS-002	52.80	54.00	0.015	24-Jan-04	19-Jan-04
E272519	04-ESS-002	54.00	55.00	1.927	24-Jan-04	19-Jan-04
E272521	04-ESS-002	55.00	55.80	0.019	24-Jan-04	19-Jan-04
E272522	04-ESS-002	55.80	57.00	0.027	24-Jan-04	19-Jan-04
E272523	04-ESS-002	65.00	66.09	0.020	24-Jan-04	19-Jan-04
E272524	04-ESS-002	66.09	67.00	1.193	24-Jan-04	19-Jan-04
E272525	04-ESS-002	67.00	68.00	2.282	24-Jan-04	19-Jan-04
E272526	04-ESS-002	68.00	69.00	0.043	24-Jan-04	19-Jan-04
E272527	04-ESS-002	69.00	70.00	1.041	24-Jan-04	19-Jan-04
E272528	04-ESS-002	70.00	71.00	0.199	24-Jan-04	19-Jan-04
E272529	04-ESS-002	71.00	72.00	0.431	24-Jan-04	19-Jan-04
E272531	04-ESS-002	72.00	73.20	0.397	24-Jan-04	19-Jan-04
E272532	04-ESS-002	73.20	74.39	2.892	24-Jan-04	19-Jan-04
E272533	04-ESS-002	74.39	75.00	0.037	24-Jan-04	19-Jan-04
E272534	04-ESS-002	75.00	76.00	0.018	24-Jan-04	19-Jan-04
E272535	04-ESS-002	76.00	76.90	0.015	24-Jan-04	19-Jan-04
E272536	04-ESS-002	76.90	78.16	0.082	24-Jan-04	19-Jan-04
E272537	04-ESS-002	78.16	79.00	0.013	24-Jan-04	19-Jan-04
E272538	04-ESS-002	79.00	80.00	0.031	24-Jan-04	19-Jan-04
E272539	04-ESS-002	80.00	81.00	0.018	24-Jan-04	19-Jan-04
E272541	04-ESS-002	81.00	82.00	0.024	24-Jan-04	19-Jan-04
E272542	04-ESS-002	82.00	83.00	0.486	24-Jan-04	19-Jan-04
E272543	04-ESS-002	83.00	84.00	0.254	24-Jan-04	19-Jan-04
E272544	04-ESS-002	84.00	85.00	0.073	24-Jan-04	19-Jan-04
E272545	04-ESS-002	85.00	85.73	5.455	24-Jan-04	19-Jan-04
E272546	04-ESS-002	85.73	87.00	0.102	24-Jan-04	19-Jan-04
E272547	04-ESS-002	87.00	88.05	0.021	24-Jan-04	19-Jan-04
E272548	04-ESS-002	88.05	89.00	0.042	24-Jan-04	19-Jan-04
E272549	04-ESS-002	89.00	90.00	0.086	24-Jan-04	19-Jan-04
E272551	04-ESS-002	90.00	91.00	1.876	24-Jan-04	19-Jan-04
E272552	04-ESS-002	91.00	92.00	0.865	24-Jan-04	19-Jan-04
E272553	04-ESS-002	92.00	93.00	0.471	24-Jan-04	19-Jan-04
E272554	04-ESS-002	93.00	93.80	0.422	24-Jan-04	19-Jan-04
E272555	04-ESS-002	93.80	94.50	0.327	24-Jan-04	19-Jan-04
E272556	04-ESS-002	94.50	95.70	0.042	24-Jan-04	19-Jan-04
E272557	04-ESS-002	95.70	96.90	0.171	24-Jan-04	19-Jan-04
E272558	04-ESS-002	96.90	98.00	0.038	24-Jan-04	19-Jan-04
E272559	04-ESS-002	98.00	99.00	0.060	24-Jan-04	19-Jan-04
E272561	04-ESS-002	99.00	100.00	0.041	24-Jan-04	19-Jan-04
E272562	04-ESS-002	100.00	101.00	0.044	24-Jan-04	19-Jan-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E272563	04-ESS-002	101.00	102.00	0.029	24-Jan-04	19-Jan-04
E272564	04-ESS-002	102.00	103.00	0.038	24-Jan-04	19-Jan-04
E272565	04-ESS-002	103.00	104.00	0.038	24-Jan-04	19-Jan-04
E272566	04-ESS-002	104.00	105.00	0.043	24-Jan-04	19-Jan-04
E272567	04-ESS-002	105.00	106.00	0.061	24-Jan-04	19-Jan-04
E272568	04-ESS-002	106.00	107.00	0.041	24-Jan-04	19-Jan-04
E272569	04-ESS-002	107.00	108.00	0.104	24-Jan-04	19-Jan-04
E272571	04-ESS-002	108.00	109.00	0.262	24-Jan-04	19-Jan-04
E272572	04-ESS-002	109.00	110.00	0.089	24-Jan-04	19-Jan-04
E272573	04-ESS-002	110.00	111.00	0.029	24-Jan-04	19-Jan-04
E272574	04-ESS-002	111.00	112.00	0.067	24-Jan-04	19-Jan-04
E272575	04-ESS-002	112.00	113.00	0.027	24-Jan-04	19-Jan-04
E272576	04-ESS-002	113.00	114.00	0.029	24-Jan-04	19-Jan-04
E272577	04-ESS-002	114.00	114.60	0.024	24-Jan-04	19-Jan-04
E272578	04-ESS-002	114.60	115.50	0.074	24-Jan-04	19-Jan-04
E272579	04-ESS-002	115.50	116.50	0.288	24-Jan-04	19-Jan-04
E272581	04-ESS-002	116.50	117.50	0.257	24-Jan-04	19-Jan-04
E272582	04-ESS-002	117.50	118.70	0.016	24-Jan-04	19-Jan-04
E272583	04-ESS-002	118.70	119.90	0.075	24-Jan-04	19-Jan-04
E272584	04-ESS-002	119.90	121.00	0.013	24-Jan-04	19-Jan-04
E272585	04-ESS-002	121.00	122.00	0.016	24-Jan-04	19-Jan-04
E272586	04-ESS-002	122.00	123.20	0.037	24-Jan-04	19-Jan-04
E272587	04-ESS-002	123.20	124.30	0.049	24-Jan-04	19-Jan-04
E272588	04-ESS-002	124.30	125.00	0.046	24-Jan-04	19-Jan-04
E272589	04-ESS-002	125.00	126.00	0.455	24-Jan-04	19-Jan-04
E272591	04-ESS-002	126.00	127.00	0.283	24-Jan-04	19-Jan-04
E272592	04-ESS-002	127.00	128.00	0.553	24-Jan-04	19-Jan-04
E272593	04-ESS-002	128.00	129.00	0.329	24-Jan-04	19-Jan-04
E272594	04-ESS-002	129.00	130.00	0.049	24-Jan-04	19-Jan-04
E272595	04-ESS-002	130.00	131.00	0.078	24-Jan-04	19-Jan-04
E272596	04-ESS-002	131.00	132.20	0.157	24-Jan-04	19-Jan-04
E272597	04-ESS-002	132.20	133.33	0.887	24-Jan-04	19-Jan-04
E272598	04-ESS-002	133.33	134.00	1.733	24-Jan-04	19-Jan-04
E272599	04-ESS-002	134.00	135.00	2.725	24-Jan-04	19-Jan-04
E272601	04-ESS-002	135.00	136.00	1.336	25-Jan-04	19-Jan-04
E272602	04-ESS-002	136.00	137.00	6.700	25-Jan-04	19-Jan-04
E272603	04-ESS-002	137.00	138.00	0.813	25-Jan-04	19-Jan-04
E272604	04-ESS-002	138.00	139.00	8.236	25-Jan-04	19-Jan-04
E272605	04-ESS-002	139.00	140.00	0.721	25-Jan-04	19-Jan-04
E272606	04-ESS-002	140.00	141.00	0.197	25-Jan-04	19-Jan-04
E272607	04-ESS-002	141.00	142.00	0.606	25-Jan-04	19-Jan-04
E272608	04-ESS-002	142.00	143.00	1.803	25-Jan-04	19-Jan-04
E272609	04-ESS-002	143.00	144.00	1.750	25-Jan-04	19-Jan-04
E272611	04-ESS-002	144.00	145.00	0.820	25-Jan-04	19-Jan-04
E272612	04-ESS-002	145.00	146.00	0.066	25-Jan-04	19-Jan-04
E272613	04-ESS-002	146.00	147.00	0.497	25-Jan-04	23-Jan-04
E272614	04-ESS-002	147.00	148.00	0.057	25-Jan-04	23-Jan-04
E272615	04-ESS-002	148.00	149.00	0.110	25-Jan-04	23-Jan-04
E272616	04-ESS-002	149.00	150.25	0.013	25-Jan-04	23-Jan-04
E272626	04-ESS-031	148.75	149.55	0.041	2-Jan-04	25-Jan-04
E272627	04-ESS-031	149.55	150.00	0.015	2-Jan-04	25-Jan-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E272628	04-ESS-031	150.00	151.00	0.054	2-Jan-04	25-Jan-04
E272629	04-ESS-031	151.00	151.40	0.019	2-Jan-04	25-Jan-04
E272631	04-ESS-031	151.40	151.65	0.030	2-Jan-04	25-Jan-04
E272632	04-ESS-031	151.65	152.65	0.025	2-Jan-04	25-Jan-04
E272633	04-ESS-031	152.65	153.40	0.038	2-Jan-04	25-Jan-04
E272634	04-ESS-031	153.40	153.85	0.052	2-Jan-04	25-Jan-04
E272635	04-ESS-031	153.85	154.40	0.084	2-Jan-04	25-Jan-04
E272636	04-ESS-031	154.40	155.40	0.019	2-Jan-04	25-Jan-04
E272637	04-ESS-031	155.40	156.00	0.010	2-Jan-04	25-Jan-04
E272638	04-ESS-032	42.70	43.20	0.011	5-Feb-04	25-Jan-04
E272639	04-ESS-032	43.20	44.50	0.036	5-Feb-04	25-Jan-04
E272641	04-ESS-032	44.50	45.00	0.014	5-Feb-04	25-Jan-04
E272642	04-ESS-032	88.30	88.80	0.010	2-May-04	25-Jan-04
E272643	04-ESS-032	88.80	89.80	0.019	2-May-04	25-Jan-04
E272644	04-ESS-032	89.80	90.80	0.010	2-May-04	25-Jan-04
E272645	04-ESS-032	104.00	104.60	0.298	2-May-04	26-Jan-04
E272646	04-ESS-032	107.43	107.75	0.709	2-May-04	26-Jan-04
E272647	04-ESS-032	118.00	118.55	1.421	2-May-04	26-Jan-04
E272648	04-ESS-032	127.50	128.25	0.060	2-May-04	26-Jan-04
E272649	04-ESS-032	128.25	129.25	0.074	2-May-04	26-Jan-04
E272651	04-ESS-032	129.25	129.85	0.561	5-Feb-04	26-Jan-04
E272652	04-ESS-032	129.85	130.50	0.233	5-Feb-04	26-Jan-04
E272653	04-ESS-032	130.50	131.35	0.020	5-Feb-04	26-Jan-04
E272654	04-ESS-032	131.35	132.00	0.029	5-Feb-04	26-Jan-04
E272655	04-ESS-032	132.00	132.90	0.571	5-Feb-04	26-Jan-04
E272656	04-ESS-032	132.90	134.00	4.524	5-Feb-04	26-Jan-04
E272657	04-ESS-032	134.00	135.00	1.611	5-Feb-04	26-Jan-04
E272658	04-ESS-032	135.00	136.00	4.604	5-Feb-04	26-Jan-04
E272659	04-ESS-032	136.00	137.00	0.118	5-Feb-04	26-Jan-04
E272661	04-ESS-032	137.00	138.00	1.814	5-Feb-04	26-Jan-04
E272662	04-ESS-032	138.00	139.00	1.818	5-Feb-04	26-Jan-04
E272663	04-ESS-032	139.00	139.80	2.693	5-Feb-04	26-Jan-04
E272664	04-ESS-032	139.80	141.00	3.417	5-Feb-04	26-Jan-04
E272665	04-ESS-032	141.00	142.00	0.228	5-Feb-04	26-Jan-04
E272666	04-ESS-032	142.00	143.00	0.477	5-Feb-04	26-Jan-04
E272667	04-ESS-032	143.00	144.00	1.698	5-Feb-04	26-Jan-04
E272668	04-ESS-032	144.00	145.00	0.408	5-Feb-04	26-Jan-04
E272669	04-ESS-032	145.00	146.00	0.645	5-Feb-04	26-Jan-04
E272671	04-ESS-032	146.00	147.00	1.248	5-Feb-04	26-Jan-04
E272672	04-ESS-032	147.00	148.00	0.617	5-Feb-04	26-Jan-04
E272673	04-ESS-032	148.00	149.00	0.126	5-Feb-04	26-Jan-04
E272674	04-ESS-032	149.00	150.00	0.434	5-Feb-04	26-Jan-04
E272675	04-ESS-032	150.00	151.00	7.040	5-Feb-04	26-Jan-04
E272676	04-ESS-032	151.00	152.00	0.631	5-Feb-04	26-Jan-04
E272677	04-ESS-032	152.00	153.00	0.038	5-Feb-04	26-Jan-04
E272678	04-ESS-032	153.00	154.00	0.130	5-Feb-04	26-Jan-04
E272679	04-ESS-032	154.00	155.00	0.134	5-Feb-04	26-Jan-04
E272681	04-ESS-032	155.00	156.00	0.061	5-Feb-04	26-Jan-04
E272682	04-ESS-032	156.00	157.00	0.039	5-Feb-04	26-Jan-04
E272683	04-ESS-032	157.00	158.00	0.063	5-Feb-04	26-Jan-04
E272684	04-ESS-032	158.00	159.00	0.264	5-Feb-04	26-Jan-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E272685	04-ESS-032	159.00	160.00	0.290	5-Feb-04	26-Jan-04
E272686	04-ESS-032	160.00	161.00	0.563	5-Feb-04	26-Jan-04
E272687	04-ESS-032	161.00	162.00	0.036	5-Feb-04	26-Jan-04
E272688	04-ESS-032	162.00	163.00	0.034	5-Feb-04	26-Jan-04
E272689	04-ESS-032	163.00	163.60	0.150	5-Feb-04	26-Jan-04
E272691	04-ESS-032	163.60	164.30	0.386	5-Feb-04	26-Jan-04
E272692	04-ESS-032	164.30	165.15	0.172	5-Feb-04	26-Jan-04
E272693	04-ESS-032	165.15	165.45	0.787	5-Feb-04	26-Jan-04
E272694	04-ESS-032	165.45	166.00	0.604	2-Jul-04	26-Jan-04
E272695	04-ESS-032	166.00	167.00	0.884	2-Jul-04	26-Jan-04
E272696	04-ESS-032	167.00	168.00	0.033	2-Jul-04	26-Jan-04
E272697	04-ESS-032	168.00	169.00	0.035	2-Jul-04	26-Jan-04
E272698	04-ESS-032	169.00	170.00	0.032	2-Jul-04	26-Jan-04
E272699	04-ESS-032	170.00	171.00	0.016	2-Jul-04	26-Jan-04
E272701	04-ESS-032	171.00	172.00	0.475	2-Jun-04	26-Jan-04
E272702	04-ESS-032	172.00	173.00	0.858	2-Jun-04	26-Jan-04
E272703	04-ESS-032	173.00	174.00	0.241	2-Jun-04	27-Jan-04
E272704	04-ESS-032	174.00	175.00	0.336	2-Jun-04	27-Jan-04
E272705	04-ESS-032	175.00	176.00	0.071	2-Jun-04	27-Jan-04
E272706	04-ESS-032	176.00	177.00	0.057	2-Jun-04	27-Jan-04
E272707	04-ESS-032	177.00	178.00	0.042	2-Jun-04	27-Jan-04
E272708	04-ESS-032	178.00	179.00	0.033	2-Jun-04	27-Jan-04
E272709	04-ESS-032	179.00	180.00	0.033	2-Jun-04	27-Jan-04
E272711	04-ESS-032	180.00	181.00	0.040	2-Jun-04	27-Jan-04
E272712	04-ESS-032	181.00	182.00	0.075	2-Jun-04	27-Jan-04
E272713	04-ESS-032	182.00	183.00	0.043	2-Jun-04	27-Jan-04
E272714	04-ESS-032	183.00	184.00	0.077	2-Jun-04	27-Jan-04
E272715	04-ESS-032	184.00	185.00	0.065	2-Jun-04	27-Jan-04
E272716	04-ESS-032	185.00	186.00	0.071	2-Jun-04	27-Jan-04
E272717	04-ESS-032	186.00	187.00	0.461	2-Jun-04	27-Jan-04
E272718	04-ESS-032	187.00	188.00	0.534	2-Jun-04	27-Jan-04
E272719	04-ESS-032	188.00	189.00	0.096	2-Jun-04	27-Jan-04
E272721	04-ESS-032	189.00	190.00	0.130	2-Jun-04	27-Jan-04
E272722	04-ESS-032	190.00	190.90	0.612	2-Jun-04	27-Jan-04
E272723	04-ESS-032	190.90	192.00	0.337	2-Jun-04	27-Jan-04
E272724	04-ESS-032	192.00	193.00	0.191	2-Jun-04	27-Jan-04
E272725	04-ESS-032	193.00	194.00	0.052	2-Jun-04	27-Jan-04
E272726	04-ESS-032	194.00	195.00	0.045	2-Jun-04	27-Jan-04
E272727	04-ESS-032	195.00	196.00	0.044	2-Jun-04	27-Jan-04
E272728	04-ESS-032	196.00	197.00	0.032	2-Jun-04	27-Jan-04
E272729	04-ESS-032	197.00	198.00	0.075	2-Jun-04	27-Jan-04
E272731	04-ESS-032	198.00	199.00	0.184	2-Jun-04	27-Jan-04
E272732	04-ESS-032	199.00	200.00	0.099	2-Jun-04	29-Jan-04
E272733	04-ESS-032	200.00	201.00	0.111	2-Aug-04	29-Jan-04
E272734	04-ESS-032	201.00	202.00	0.024	2-Jul-04	29-Jan-04
E272735	04-ESS-032	202.00	203.00	4.004	2-Jul-04	29-Jan-04
E272736	04-ESS-032	203.00	204.20	0.091	2-Jul-04	29-Jan-04
E272737	04-ESS-032	204.20	205.00	1.133	2-Jul-04	29-Jan-04
E272738	04-ESS-032	205.00	205.60	0.055	2-Jul-04	29-Jan-04
E272739	04-ESS-032	205.60	206.70	0.036	2-Jul-04	29-Jan-04
E272741	04-ESS-032	206.70	207.20	0.014	2-Jul-04	29-Jan-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E272742	04-ESS-032	207.20	208.00	0.032	2-Jul-04	29-Jan-04
E272743	04-ESS-032	208.00	209.10	0.011	2-Jul-04	29-Jan-04
E272744	04-ESS-032	209.10	210.00	0.291	2-Jul-04	29-Jan-04
E272745	04-ESS-032	210.00	211.00	0.140	2-Jul-04	29-Jan-04
E272746	04-ESS-032	211.00	212.00	0.032	2-Jul-04	29-Jan-04
E272747	04-ESS-032	212.00	213.00	0.141	2-Jul-04	29-Jan-04
E272748	04-ESS-032	213.00	214.00	0.244	2-Jul-04	29-Jan-04
E272749	04-ESS-032	214.00	215.00	1.109	2-Jul-04	29-Jan-04
E273001	04-ESS-006	162.77	163.80	0.360	28-Feb-04	6-Feb-04
E273002	04-ESS-006	163.80	164.30	0.856	28-Feb-04	6-Feb-04
E273003	04-ESS-006	169.05	170.20	0.055	28-Feb-04	6-Feb-04
E273004	04-ESS-006	170.20	171.00	0.018	28-Feb-04	6-Feb-04
E273005	04-ESS-006	171.00	172.00	0.022	28-Feb-04	6-Feb-04
E273006	04-ESS-006	172.00	173.00	0.019	28-Feb-04	6-Feb-04
E273007	04-ESS-006	173.00	174.10	0.017	28-Feb-04	6-Feb-04
E273008	04-ESS-006	174.10	175.00	0.013	28-Feb-04	6-Feb-04
E273009	04-ESS-006	175.00	175.60	0.033	28-Feb-04	6-Feb-04
E273011	04-ESS-006	175.60	176.80	0.035	28-Feb-04	6-Feb-04
E273012	04-ESS-006	176.80	178.00	0.010	28-Feb-04	6-Feb-04
E273013	04-ESS-006	178.00	179.00	0.022	28-Feb-04	6-Feb-04
E273014	04-ESS-006	179.00	179.94	0.466	28-Feb-04	6-Feb-04
E273015	04-ESS-006	179.94	181.00	1.302	28-Feb-04	6-Feb-04
E273016	04-ESS-006	181.00	181.81	0.321	28-Feb-04	6-Feb-04
E273017	04-ESS-006	181.81	183.00	0.143	28-Feb-04	6-Feb-04
E273018	04-ESS-006	183.00	184.00	0.486	28-Feb-04	6-Feb-04
E273019	04-ESS-006	184.00	185.00	0.573	28-Feb-04	6-Feb-04
E273021	04-ESS-006	185.00	186.00	0.033	28-Feb-04	6-Feb-04
E273022	04-ESS-006	186.00	187.00	0.012	28-Feb-04	6-Feb-04
E273023	04-ESS-006	187.00	188.00	0.040	28-Feb-04	6-Feb-04
E273024	04-ESS-006	188.00	189.00	0.037	28-Feb-04	6-Feb-04
E273025	04-ESS-006	189.00	190.23	0.562	28-Feb-04	6-Feb-04
E273026	04-ESS-006	190.23	191.00	0.107	28-Feb-04	6-Feb-04
E273027	04-ESS-006	191.00	192.00	0.160	28-Feb-04	6-Feb-04
E273028	04-ESS-006	192.00	193.00	0.040	28-Feb-04	6-Feb-04
E273029	04-ESS-006	193.00	194.13	0.258	28-Feb-04	6-Feb-04
E273031	04-ESS-006	194.13	195.00	0.653	28-Feb-04	6-Feb-04
E273032	04-ESS-006	195.00	196.00	2.663	28-Feb-04	6-Feb-04
E273033	04-ESS-006	196.00	197.00	3.104	28-Feb-04	6-Feb-04
E273034	04-ESS-006	197.00	198.00	3.216	28-Feb-04	6-Feb-04
E273035	04-ESS-006	198.00	199.00	1.237	28-Feb-04	6-Feb-04
E273036	04-ESS-006	199.00	200.00	0.284	28-Feb-04	6-Feb-04
E273037	04-ESS-006	200.00	201.00	0.067	28-Feb-04	6-Feb-04
E273038	04-ESS-006	201.00	202.00	5.722	28-Feb-04	6-Feb-04
E273039	04-ESS-006	202.00	203.28	2.064	28-Feb-04	6-Feb-04
E273041	04-ESS-006	203.28	204.50	1.117	28-Feb-04	6-Feb-04
E273042	04-ESS-006	204.50	205.70	2.332	28-Feb-04	6-Feb-04
E273043	04-ESS-006	205.70	206.90	0.168	28-Feb-04	6-Feb-04
E273044	04-ESS-006	206.90	208.00	0.033	28-Feb-04	6-Feb-04
E273045	04-ESS-006	208.00	209.00	0.125	28-Feb-04	6-Feb-04
E273046	04-ESS-006	209.00	210.00	0.328	28-Feb-04	6-Feb-04
E273047	04-ESS-006	210.00	211.00	0.236	28-Feb-04	6-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E273048	04-ESS-006	211.00	212.00	0.060	28-Feb-04	6-Feb-04
E273049	04-ESS-006	212.00	213.00	0.348	28-Feb-04	6-Feb-04
E273051	04-ESS-006	213.00	214.00	0.047	28-Feb-04	6-Feb-04
E273052	04-ESS-006	214.00	215.00	2.150	28-Feb-04	6-Feb-04
E273053	04-ESS-006	215.00	216.00	0.599	28-Feb-04	6-Feb-04
E273054	04-ESS-006	216.00	217.00	1.460	28-Feb-04	6-Feb-04
E273055	04-ESS-006	217.00	218.00	0.583	28-Feb-04	6-Feb-04
E273056	04-ESS-006	218.00	219.00	0.152	28-Feb-04	6-Feb-04
E273057	04-ESS-006	219.00	220.00	0.906	28-Feb-04	6-Feb-04
E273058	04-ESS-006	220.00	221.00	0.259	28-Feb-04	6-Feb-04
E273059	04-ESS-006	221.00	222.00	0.124	28-Feb-04	6-Feb-04
E273061	04-ESS-006	222.00	223.00	0.047	28-Feb-04	6-Feb-04
E273062	04-ESS-006	223.00	224.00	0.088	28-Feb-04	6-Feb-04
E273063	04-ESS-006	224.00	225.00	0.062	28-Feb-04	6-Feb-04
E273064	04-ESS-006	225.00	226.00	0.031	28-Feb-04	7-Feb-04
E273065	04-ESS-006	226.00	227.00	0.428	28-Feb-04	7-Feb-04
E273066	04-ESS-006	227.00	228.00	0.028	28-Feb-04	7-Feb-04
E273067	04-ESS-006	228.00	229.00	0.090	28-Feb-04	7-Feb-04
E273068	04-ESS-006	229.00	230.00	0.075	28-Feb-04	7-Feb-04
E273069	04-ESS-006	230.00	231.00	0.019	28-Feb-04	7-Feb-04
E273071	04-ESS-006	231.00	232.00	0.042	28-Feb-04	7-Feb-04
E273072	04-ESS-006	232.00	233.00	0.082	28-Feb-04	7-Feb-04
E273073	04-ESS-006	233.00	234.00	0.130	28-Feb-04	7-Feb-04
E273074	04-ESS-006	234.00	235.00	0.093	28-Feb-04	7-Feb-04
E273075	04-ESS-006	235.00	236.00	0.010	28-Feb-04	7-Feb-04
E273076	04-ESS-006	236.00	237.00	0.010	28-Feb-04	7-Feb-04
E273077	04-ESS-006	237.00	238.00	0.047	28-Feb-04	7-Feb-04
E273078	04-ESS-006	238.00	239.00	1.938	28-Feb-04	7-Feb-04
E273079	04-ESS-006	239.00	240.00	0.113	28-Feb-04	7-Feb-04
E273081	04-ESS-006	240.00	241.00	0.596	28-Feb-04	7-Feb-04
E273082	04-ESS-006	241.00	242.00	0.266	28-Feb-04	7-Feb-04
E273083	04-ESS-006	242.00	243.00	0.097	28-Feb-04	7-Feb-04
E273084	04-ESS-006	243.00	244.00	0.360	28-Feb-04	7-Feb-04
E273085	04-ESS-006	244.00	245.00	1.774	28-Feb-04	7-Feb-04
E273086	04-ESS-006	245.00	246.00	0.791	29-Feb-04	7-Feb-04
E273087	04-ESS-006	246.00	247.00	0.432	29-Feb-04	7-Feb-04
E273088	04-ESS-006	247.00	248.00	0.193	29-Feb-04	7-Feb-04
E273089	04-ESS-006	248.00	249.00	0.267	29-Feb-04	7-Feb-04
E273091	04-ESS-006	249.00	250.00	0.325	29-Feb-04	7-Feb-04
E273092	04-ESS-006	250.00	251.00	0.056	29-Feb-04	7-Feb-04
E273093	04-ESS-006	251.00	252.00	0.088	29-Feb-04	7-Feb-04
E273094	04-ESS-006	252.00	253.00	0.179	29-Feb-04	7-Feb-04
E273095	04-ESS-006	253.00	254.00	1.207	29-Feb-04	7-Feb-04
E273096	04-ESS-006	254.00	255.00	0.124	29-Feb-04	7-Feb-04
E273097	04-ESS-006	255.00	256.00	0.195	29-Feb-04	7-Feb-04
E273098	04-ESS-006	256.00	257.00	0.923	3-Jan-04	7-Feb-04
E273099	04-ESS-006	257.00	258.00	0.070	3-Jan-04	7-Feb-04
E273101	04-ESS-006	258.00	259.00	0.041	3-Jan-04	7-Feb-04
E273102	04-ESS-006	259.00	260.00	0.060	3-Jan-04	7-Feb-04
E273103	04-ESS-006	260.00	261.00	0.561	3-Jan-04	7-Feb-04
E273104	04-ESS-006	261.00	262.00	0.148	3-Jan-04	7-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E273105	04-ESS-006	262.00	263.00	0.377	3-Jan-04	7-Feb-04
E273106	04-ESS-006	263.00	264.00	0.117	3-Jan-04	7-Feb-04
E273107	04-ESS-006	264.00	265.00	0.188	3-Jan-04	7-Feb-04
E273108	04-ESS-006	265.00	266.00	0.099	29-Feb-04	7-Feb-04
E273109	04-ESS-006	266.00	267.00	3.804	29-Feb-04	7-Feb-04
E273111	04-ESS-006	267.00	268.00	0.199	29-Feb-04	7-Feb-04
E273112	04-ESS-006	268.00	269.00	0.248	29-Feb-04	7-Feb-04
E273113	04-ESS-006	269.00	270.00	0.088	29-Feb-04	7-Feb-04
E273114	04-ESS-006	270.00	271.00	0.939	29-Feb-04	7-Feb-04
E273115	04-ESS-006	271.00	272.00	0.103	29-Feb-04	7-Feb-04
E273116	04-ESS-006	272.00	273.00	0.201	29-Feb-04	7-Feb-04
E273117	04-ESS-006	273.00	274.00	0.078	29-Feb-04	7-Feb-04
E273118	04-ESS-006	274.00	275.00	0.240	29-Feb-04	7-Feb-04
E273119	04-ESS-006	275.00	276.00	0.264	29-Feb-04	7-Feb-04
E273121	04-ESS-006	276.00	277.00	0.641	29-Feb-04	7-Feb-04
E273122	04-ESS-006	277.00	278.00	0.776	29-Feb-04	7-Feb-04
E273123	04-ESS-006	278.00	279.00	0.961	29-Feb-04	7-Feb-04
E273124	04-ESS-006	279.00	280.00	0.149	29-Feb-04	7-Feb-04
E273125	04-ESS-006	280.00	281.00	0.250	29-Feb-04	7-Feb-04
E273126	04-ESS-006	281.00	282.00	0.052	29-Feb-04	7-Feb-04
E273127	04-ESS-006	282.00	283.00	0.161	29-Feb-04	7-Feb-04
E273128	04-ESS-006	283.00	284.00	0.037	29-Feb-04	7-Feb-04
E273129	04-ESS-006	284.00	285.00	0.016	29-Feb-04	7-Feb-04
E273131	04-ESS-006	285.00	286.00	0.038	29-Feb-04	7-Feb-04
E273132	04-ESS-006	286.00	287.00	0.027	29-Feb-04	7-Feb-04
E273133	04-ESS-006	287.00	288.00	0.015	29-Feb-04	7-Feb-04
E273134	04-ESS-006	288.00	289.00	0.114	29-Feb-04	7-Feb-04
E273135	04-ESS-006	289.00	290.00	0.124	29-Feb-04	7-Feb-04
E273136	04-ESS-006	290.00	291.00	0.138	29-Feb-04	7-Feb-04
E273137	04-ESS-006	291.00	292.00	0.016	29-Feb-04	7-Feb-04
E273138	04-ESS-006	292.00	293.00	0.105	29-Feb-04	7-Feb-04
E273139	04-ESS-006	293.00	294.00	0.219	29-Feb-04	7-Feb-04
E273141	04-ESS-006	294.00	295.00	0.175	29-Feb-04	7-Feb-04
E273142	04-ESS-006	295.00	296.00	0.417	29-Feb-04	7-Feb-04
E273143	04-ESS-006	296.00	297.00	0.037	29-Feb-04	7-Feb-04
E273144	04-ESS-006	297.00	298.00	0.035	29-Feb-04	7-Feb-04
E273145	04-ESS-006	298.00	299.00	0.072	29-Feb-04	7-Feb-04
E273146	04-ESS-006	299.00	300.00	0.027	29-Feb-04	7-Feb-04
E273147	04-ESS-006	300.00	301.00	0.019	29-Feb-04	7-Feb-04
E273148	04-ESS-006	301.00	302.00	0.093	29-Feb-04	7-Feb-04
E273149	04-ESS-006	302.00	303.00	0.042	29-Feb-04	8-Feb-04
E273151	04-ESS-006	303.00	304.00	0.727	29-Feb-04	8-Feb-04
E273152	04-ESS-006	304.00	305.00	0.220	29-Feb-04	8-Feb-04
E273153	04-ESS-006	305.00	306.00	3.750	29-Feb-04	8-Feb-04
E273154	04-ESS-006	306.00	307.00	1.284	29-Feb-04	8-Feb-04
E273155	04-ESS-006	307.00	308.00	1.797	29-Feb-04	8-Feb-04
E273156	04-ESS-006	308.00	309.00	2.675	29-Feb-04	8-Feb-04
E273157	04-ESS-006	309.00	310.00	3.427	29-Feb-04	8-Feb-04
E273158	04-ESS-006	310.00	311.00	0.564	29-Feb-04	8-Feb-04
E273159	04-ESS-006	311.00	312.00	1.903	29-Feb-04	8-Feb-04
E273161	04-ESS-006	312.00	313.00	0.210	3-Jan-04	8-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E273162	04-ESS-006	313.00	314.00	0.047	3-Jan-04	8-Feb-04
E273163	04-ESS-006	314.00	315.00	0.012	3-Jan-04	8-Feb-04
E273164	04-ESS-011	205.00	206.00	0.083	17-Feb-04	11-Feb-04
E273165	04-ESS-011	206.00	207.20	0.264	17-Feb-04	11-Feb-04
E273166	04-ESS-011	207.20	208.00	0.029	17-Feb-04	11-Feb-04
E273167	04-ESS-011	208.00	209.00	0.047	17-Feb-04	11-Feb-04
E273168	04-ESS-011	209.00	209.72	0.026	17-Feb-04	11-Feb-04
E273169	04-ESS-011	209.72	210.20	0.023	17-Feb-04	11-Feb-04
E273171	04-ESS-011	210.20	210.95	0.098	17-Feb-04	11-Feb-04
E273172	04-ESS-011	210.95	212.00	0.328	17-Feb-04	11-Feb-04
E273173	04-ESS-011	212.00	213.00	0.292	17-Feb-04	11-Feb-04
E273174	04-ESS-011	213.00	214.15	0.157	17-Feb-04	11-Feb-04
E273175	04-ESS-011	214.15	215.30	0.232	17-Feb-04	11-Feb-04
E273176	04-ESS-011	215.30	216.30	0.948	17-Feb-04	11-Feb-04
E273177	04-ESS-011	216.30	217.30	0.023	17-Feb-04	11-Feb-04
E273178	04-ESS-011	217.30	218.30	0.017	17-Feb-04	11-Feb-04
E273179	04-ESS-011	218.30	219.30	0.019	17-Feb-04	11-Feb-04
E273181	04-ESS-011	219.30	220.30	0.014	17-Feb-04	11-Feb-04
E273182	04-ESS-011	220.30	221.27	0.063	17-Feb-04	11-Feb-04
E273183	04-ESS-011	221.27	222.30	0.148	17-Feb-04	11-Feb-04
E273184	04-ESS-011	222.30	223.50	4.205	17-Feb-04	11-Feb-04
E273185	04-ESS-011	223.50	224.70	0.057	17-Feb-04	11-Feb-04
E273186	04-ESS-011	224.70	225.90	0.044	17-Feb-04	11-Feb-04
E273187	04-ESS-011	225.90	227.00	0.022	17-Feb-04	11-Feb-04
E273188	04-ESS-011	227.00	228.00	0.043	17-Feb-04	11-Feb-04
E273189	04-ESS-011	228.00	229.00	0.022	17-Feb-04	11-Feb-04
E273191	04-ESS-011	229.00	229.93	0.046	17-Feb-04	11-Feb-04
E273192	04-ESS-011	229.93	230.80	23.166	18-Feb-04	11-Feb-04
E273193	04-ESS-011	230.80	231.76	0.324	17-Feb-04	11-Feb-04
E273194	04-ESS-011	231.76	233.00	13.333	18-Feb-04	11-Feb-04
E273195	04-ESS-011	233.00	234.00	0.655	17-Feb-04	11-Feb-04
E273196	04-ESS-011	234.00	235.00	0.728	17-Feb-04	11-Feb-04
E273197	04-ESS-011	235.00	236.08	2.239	17-Feb-04	11-Feb-04
E273198	04-ESS-011	236.08	237.00	0.103	17-Feb-04	11-Feb-04
E273199	04-ESS-011	237.00	238.00	0.879	17-Feb-04	11-Feb-04
E273201	04-ESS-011	238.00	239.20	0.029	18-Feb-04	11-Feb-04
E273202	04-ESS-011	239.20	240.40	0.027	18-Feb-04	11-Feb-04
E273203	04-ESS-011	240.40	241.60	3.911	17-Feb-04	11-Feb-04
E273204	04-ESS-011	241.60	242.80	7.181	17-Feb-04	11-Feb-04
E273205	04-ESS-011	242.80	244.00	3.154	17-Feb-04	11-Feb-04
E273206	04-ESS-011	244.00	245.00	0.302	17-Feb-04	11-Feb-04
E273207	04-ESS-011	245.00	246.00	0.181	17-Feb-04	11-Feb-04
E273208	04-ESS-011	246.00	247.00	12.700	18-Feb-04	11-Feb-04
E273209	04-ESS-011	247.00	247.73	0.203	17-Feb-04	11-Feb-04
E273211	04-ESS-011	247.73	249.00	0.198	17-Feb-04	11-Feb-04
E273212	04-ESS-011	249.00	250.00	1.291	17-Feb-04	11-Feb-04
E273213	04-ESS-011	250.00	251.00	0.174	17-Feb-04	11-Feb-04
E273214	04-ESS-011	251.00	252.00	0.903	17-Feb-04	11-Feb-04
E273215	04-ESS-011	252.00	253.00	0.347	17-Feb-04	11-Feb-04
E273216	04-ESS-011	253.00	254.00	0.085	17-Feb-04	11-Feb-04
E273217	04-ESS-011	254.00	255.00	0.305	17-Feb-04	11-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E273218	04-ESS-011	255.00	256.00	0.442	17-Feb-04	11-Feb-04
E273219	04-ESS-011	256.00	257.00	0.565	17-Feb-04	11-Feb-04
E273221	04-ESS-011	257.00	258.00	0.089	17-Feb-04	11-Feb-04
E273222	04-ESS-011	258.00	259.00	0.130	17-Feb-04	11-Feb-04
E273223	04-ESS-011	259.00	260.00	0.183	17-Feb-04	11-Feb-04
E273224	04-ESS-011	260.00	261.00	0.287	17-Feb-04	11-Feb-04
E273225	04-ESS-011	261.00	262.00	0.360	17-Feb-04	11-Feb-04
E273226	04-ESS-011	262.00	263.00	0.691	17-Feb-04	11-Feb-04
E273227	04-ESS-011	263.00	264.00	0.022	17-Feb-04	11-Feb-04
E273228	04-ESS-020	157.50	158.50	0.088	9-Apr-04	9-Mar-04
E273229	04-ESS-020	158.50	159.50	0.070	9-Apr-04	9-Mar-04
E273231	04-ESS-020	167.00	168.00	0.195	9-Apr-04	9-Mar-04
E273232	04-ESS-020	168.00	169.00	0.302	9-Apr-04	9-Mar-04
E273233	04-ESS-020	169.00	170.00	1.977	9-Apr-04	9-Mar-04
E273234	04-ESS-020	170.00	171.00	0.227	9-Apr-04	9-Mar-04
E273235	04-ESS-020	171.00	171.60	0.147	9-Apr-04	9-Mar-04
E273236	04-ESS-020	171.60	172.40	0.066	9-Apr-04	9-Mar-04
E273237	04-ESS-020	172.40	173.00	0.091	9-Apr-04	9-Mar-04
E273238	04-ESS-020	173.00	174.00	0.080	9-Apr-04	9-Mar-04
E273239	04-ESS-020	174.00	175.20	0.062	9-Apr-04	9-Mar-04
E273241	04-ESS-020	175.20	176.00	0.100	9-Apr-04	9-Mar-04
E273242	04-ESS-020	176.00	177.00	0.092	10-Apr-04	9-Mar-04
E273243	04-ESS-020	177.00	178.00	0.038	10-Apr-04	9-Mar-04
E273244	04-ESS-020	178.00	179.00	0.648	10-Apr-04	9-Mar-04
E273245	04-ESS-020	179.00	180.00	1.069	10-Apr-04	9-Mar-04
E273246	04-ESS-020	180.00	181.00	0.063	10-Apr-04	9-Mar-04
E273247	04-ESS-020	181.00	182.00	0.038	10-Apr-04	9-Mar-04
E273248	04-ESS-020	182.00	183.00	1.516	10-Apr-04	9-Mar-04
E273249	04-ESS-020	183.00	184.00	0.473	10-Apr-04	9-Mar-04
E273251	04-ESN-005	114.00	115.05	0.090	26-Feb-04	14-Feb-04
E273252	04-ESN-005	115.05	116.00	0.384	26-Feb-04	14-Feb-04
E273253	04-ESN-005	116.00	117.00	0.325	26-Feb-04	14-Feb-04
E273254	04-ESN-005	117.00	117.80	2.354	26-Feb-04	14-Feb-04
E273255	04-ESN-005	117.80	118.56	0.155	26-Feb-04	14-Feb-04
E273256	04-ESN-005	118.56	119.70	0.492	26-Feb-04	14-Feb-04
E273257	04-ESN-005	119.70	120.90	7.992	26-Feb-04	14-Feb-04
E273258	04-ESN-005	120.90	122.00	2.273	26-Feb-04	14-Feb-04
E273259	04-ESN-005	122.00	123.00	9.632	26-Feb-04	14-Feb-04
E273261	04-ESN-005	123.00	124.00	0.496	26-Feb-04	14-Feb-04
E273262	04-ESN-005	124.00	125.00	2.089	26-Feb-04	14-Feb-04
E273263	04-ESN-005	125.00	126.00	0.507	26-Feb-04	14-Feb-04
E273264	04-ESN-005	126.00	127.00	0.759	26-Feb-04	14-Feb-04
E273265	04-ESN-005	127.00	128.00	3.130	26-Feb-04	14-Feb-04
E273266	04-ESN-005	128.00	129.00	3.354	26-Feb-04	14-Feb-04
E273267	04-ESN-005	129.00	130.00	2.009	26-Feb-04	14-Feb-04
E273268	04-ESN-005	130.00	131.00	1.621	26-Feb-04	14-Feb-04
E273269	04-ESN-005	131.00	132.00	1.224	26-Feb-04	14-Feb-04
E273271	04-ESN-005	132.00	132.86	0.086	26-Feb-04	14-Feb-04
E273272	04-ESN-005	132.86	134.00	19.370	26-Feb-04	14-Feb-04
E273273	04-ESN-005	134.00	135.00	5.473	26-Feb-04	14-Feb-04
E273274	04-ESN-005	135.00	136.00	3.527	26-Feb-04	14-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome - Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E273275	04-ESN-005	136.00	137.13	0.604	26-Feb-04	14-Feb-04
E273276	04-ESN-005	137.13	138.00	0.104	26-Feb-04	14-Feb-04
E273277	04-ESN-005	138.00	139.00	0.044	26-Feb-04	14-Feb-04
E273278	04-ESN-005	139.00	140.00	0.096	26-Feb-04	14-Feb-04
E273279	04-ESN-005	140.00	141.00	0.187	26-Feb-04	14-Feb-04
E273281	04-ESN-005	141.00	142.00	0.064	26-Feb-04	14-Feb-04
E273282	04-ESN-005	142.00	143.00	0.084	26-Feb-04	14-Feb-04
E273283	04-ESN-005	143.00	143.67	0.021	26-Feb-04	14-Feb-04
E273284	04-ESN-005	143.67	144.80	0.111	26-Feb-04	14-Feb-04
E273285	04-ESN-005	144.80	146.00	0.052	26-Feb-04	14-Feb-04
E273286	04-ESN-005	146.00	147.00	0.230	26-Feb-04	14-Feb-04
E273287	04-ESN-005	147.00	148.00	0.254	26-Feb-04	14-Feb-04
E273288	04-ESN-005	148.00	149.00	0.071	26-Feb-04	14-Feb-04
E273289	04-ESN-005	149.00	150.00	0.025	26-Feb-04	14-Feb-04
E273291	04-ESN-005	150.00	150.57	0.054	27-Feb-04	14-Feb-04
E273292	04-ESN-005	150.57	151.70	0.111	27-Feb-04	14-Feb-04
E273293	04-ESN-005	151.70	152.90	1.077	27-Feb-04	14-Feb-04
E273294	04-ESN-005	152.90	154.00	0.529	27-Feb-04	14-Feb-04
E273295	04-ESN-005	154.00	155.00	1.010	27-Feb-04	14-Feb-04
E273296	04-ESN-005	155.00	156.00	0.331	27-Feb-04	14-Feb-04
E273297	04-ESN-005	156.00	157.00	1.323	27-Feb-04	14-Feb-04
E273298	04-ESN-005	157.00	158.00	0.356	27-Feb-04	14-Feb-04
E273299	04-ESN-005	158.00	159.00	0.896	27-Feb-04	14-Feb-04
E273301	04-ESN-005	159.00	160.00	0.347	27-Feb-04	14-Feb-04
E273302	04-ESN-005	160.00	161.00	0.713	27-Feb-04	14-Feb-04
E273303	04-ESN-005	161.00	162.00	0.239	27-Feb-04	14-Feb-04
E273304	04-ESN-005	162.00	163.00	1.103	27-Feb-04	14-Feb-04
E273305	04-ESN-005	163.00	164.00	0.071	27-Feb-04	14-Feb-04
E273306	04-ESN-005	164.00	165.00	0.047	27-Feb-04	14-Feb-04
E273307	04-ESN-005	165.00	166.00	0.057	27-Feb-04	15-Feb-04
E273308	04-ESN-005	166.00	167.00	0.044	27-Feb-04	15-Feb-04
E273309	04-ESN-005	167.00	167.60	0.145	27-Feb-04	15-Feb-04
E273311	04-ESN-005	167.60	168.80	0.026	27-Feb-04	15-Feb-04
E273312	04-ESN-006	163.65	164.65	0.041	3-Mar-04	17-Feb-04
E273313	04-ESN-006	164.65	166.00	0.126	3-Mar-04	17-Feb-04
E273314	04-ESN-006	166.00	167.00	0.119	3-Mar-04	17-Feb-04
E273315	04-ESN-006	167.00	168.00	0.265	3-Mar-04	17-Feb-04
E273316	04-ESN-006	168.00	169.00	13.400	3-Mar-04	17-Feb-04
E273317	04-ESN-006	169.00	170.00	0.138	3-Mar-04	17-Feb-04
E273318	04-ESN-006	170.00	171.00	2.184	3-Mar-04	17-Feb-04
E273319	04-ESN-006	171.00	172.00	4.195	3-Mar-04	17-Feb-04
E273321	04-ESN-006	172.00	173.00	0.445	3-Apr-04	17-Feb-04
E273322	04-ESN-006	173.00	174.00	1.964	3-Apr-04	17-Feb-04
E273323	04-ESN-006	174.00	175.00	0.700	3-Apr-04	17-Feb-04
E273324	04-ESN-006	175.00	176.00	9.337	3-Apr-04	17-Feb-04
E273325	04-ESN-006	176.00	177.00	7.558	3-Apr-04	17-Feb-04
E273326	04-ESN-006	177.00	178.00	5.537	3-Apr-04	17-Feb-04
E273327	04-ESN-006	178.00	179.00	1.778	3-Apr-04	17-Feb-04
E273328	04-ESN-006	179.00	180.00	1.007	3-Apr-04	17-Feb-04
E273329	04-ESN-006	180.00	181.00	1.270	3-Apr-04	17-Feb-04
E273331	04-ESN-006	181.00	182.00	0.468	3-Apr-04	17-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome - Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E273332	04-ESN-006	182.00	183.00	0.817	3-Apr-04	17-Feb-04
E273333	04-ESN-006	183.00	184.00	2.120	3-Apr-04	17-Feb-04
E273334	04-ESN-006	184.00	185.00	5.756	3-Apr-04	17-Feb-04
E273335	04-ESN-006	185.00	186.00	8.500	3-Apr-04	17-Feb-04
E273336	04-ESN-006	186.00	187.00	1.148	3-Apr-04	17-Feb-04
E273337	04-ESN-006	187.00	188.00	0.246	3-Apr-04	17-Feb-04
E273338	04-ESN-006	188.00	189.00	1.168	3-Apr-04	17-Feb-04
E273339	04-ESN-006	189.00	190.00	0.144	3-Apr-04	17-Feb-04
E273341	04-ESN-006	190.00	191.00	1.443	3-Apr-04	17-Feb-04
E273342	04-ESN-006	191.00	192.00	2.654	3-Apr-04	17-Feb-04
E273343	04-ESN-006	192.00	192.88	0.084	3-Apr-04	17-Feb-04
E273344	04-ESN-006	192.88	194.00	0.048	3-Apr-04	17-Feb-04
E273345	04-ESN-006	194.00	195.00	0.535	3-Apr-04	17-Feb-04
E273346	04-ESN-006	195.00	196.00	0.036	3-Apr-04	17-Feb-04
E273347	04-ESN-006	196.00	197.00	0.182	3-Apr-04	17-Feb-04
E273348	04-ESN-006	197.00	198.00	0.361	3-Apr-04	17-Feb-04
E273349	04-ESN-006	198.00	199.00	0.035	3-Apr-04	17-Feb-04
E273351	04-ESN-006	199.00	200.00	0.046	3-Apr-04	17-Feb-04
E273352	04-ESN-006	200.00	200.60	0.085	3-Apr-04	17-Feb-04
E273353	04-ESN-006	200.60	201.80	0.442	3-Apr-04	17-Feb-04
E273354	04-ESN-006	201.80	203.00	0.984	3-Apr-04	17-Feb-04
E273355	04-ESN-006	203.00	204.00	0.291	3-Apr-04	17-Feb-04
E273356	04-ESN-006	204.00	205.00	0.166	3-Apr-04	17-Feb-04
E273357	04-ESN-006	205.00	206.00	0.069	3-Apr-04	17-Feb-04
E273358	04-ESN-006	206.00	207.00	0.185	3-Apr-04	17-Feb-04
E273359	04-ESN-006	207.00	208.00	0.323	3-Apr-04	17-Feb-04
E273361	04-ESN-006	208.00	209.00	0.194	3-Apr-04	17-Feb-04
E273362	04-ESN-006	209.00	209.64	0.106	3-Apr-04	17-Feb-04
E273363	04-ESN-006	209.64	210.84	0.042	3-Apr-04	17-Feb-04
E273364	04-ESN-007	19.00	19.80	0.057	29-Feb-04	20-Feb-04
E273365	04-ESN-007	19.80	20.40	1.113	29-Feb-04	20-Feb-04
E273366	04-ESN-007	20.40	21.20	0.180	28-Feb-04	20-Feb-04
E273367	04-ESN-007	21.20	22.00	0.292	28-Feb-04	20-Feb-04
E273368	04-ESN-007	22.00	22.90	0.026	28-Feb-04	20-Feb-04
E273369	04-ESN-007	22.90	23.50	0.026	28-Feb-04	20-Feb-04
E273371	04-ESN-007	26.20	26.80	0.367	28-Feb-04	20-Feb-04
E273372	04-ESN-007	26.80	28.00	0.539	28-Feb-04	20-Feb-04
E273373	04-ESN-007	28.00	28.50	0.043	28-Feb-04	20-Feb-04
E273374	04-ESN-007	90.00	90.40	0.223	28-Feb-04	20-Feb-04
E273375	04-ESN-007	90.40	90.75	0.037	28-Feb-04	20-Feb-04
E273376	04-ESN-007	90.75	91.40	0.012	28-Feb-04	20-Feb-04
E273377	04-ESN-007	91.40	92.30	0.052	28-Feb-04	20-Feb-04
E273378	04-ESN-007	92.30	93.00	0.036	28-Feb-04	20-Feb-04
E273379	04-ESN-007	93.00	94.00	0.525	28-Feb-04	20-Feb-04
E273381	04-ESN-007	94.00	95.00	0.050	28-Feb-04	20-Feb-04
E273382	04-ESN-007	95.00	96.00	0.169	28-Feb-04	20-Feb-04
E273383	04-ESN-007	96.00	97.00	0.152	28-Feb-04	20-Feb-04
E273384	04-ESN-007	97.00	98.00	0.455	28-Feb-04	20-Feb-04
E273385	04-ESN-007	98.00	99.00	0.058	28-Feb-04	20-Feb-04
E273386	04-ESN-007	99.00	100.00	0.244	29-Feb-04	20-Feb-04
E273387	04-ESN-007	100.00	101.30	1.543	29-Feb-04	20-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E273388	04-ESN-007	101.30	102.00	0.283	29-Feb-04	20-Feb-04
E273389	04-ESN-007	105.00	105.60	0.333	29-Feb-04	20-Feb-04
E273391	04-ESN-007	105.60	106.60	2.441	29-Feb-04	20-Feb-04
E273392	04-ESN-007	106.60	107.60	1.034	29-Feb-04	20-Feb-04
E273393	04-ESN-007	107.60	108.10	0.053	29-Feb-04	20-Feb-04
E273394	04-ESN-007	118.00	118.40	0.117	28-Feb-04	21-Feb-04
E273395	04-ESN-007	118.40	119.00	1.662	28-Feb-04	21-Feb-04
E273396	04-ESN-007	119.00	120.00	0.301	28-Feb-04	21-Feb-04
E273397	04-ESN-007	120.00	121.00	0.144	28-Feb-04	21-Feb-04
E273398	04-ESN-007	121.00	122.00	0.079	28-Feb-04	21-Feb-04
E273399	04-ESN-007	122.00	122.75	0.040	28-Feb-04	21-Feb-04
E273401	04-ESN-007	122.75	123.70	2.246	28-Feb-04	21-Feb-04
E273402	04-ESN-007	123.70	124.70	1.904	28-Feb-04	21-Feb-04
E273403	04-ESN-007	124.70	125.20	0.244	28-Feb-04	21-Feb-04
E273404	04-ESN-007	125.20	126.00	0.013	28-Feb-04	21-Feb-04
E273405	04-ESN-007	126.00	127.00	0.013	28-Feb-04	21-Feb-04
E273406	04-ESN-007	127.00	128.00	0.022	29-Feb-04	21-Feb-04
E273407	04-ESN-007	128.00	129.00	0.021	29-Feb-04	21-Feb-04
E273408	04-ESN-007	129.00	130.30	0.073	29-Feb-04	21-Feb-04
E273409	04-ESN-007	130.30	131.00	0.324	29-Feb-04	21-Feb-04
E273411	04-ESN-007	131.00	131.80	0.023	29-Feb-04	21-Feb-04
E273412	04-ESN-007	131.80	133.00	0.036	29-Feb-04	21-Feb-04
E273413	04-ESN-007	133.00	134.00	0.285	29-Feb-04	21-Feb-04
E273414	04-ESN-007	134.00	135.00	0.238	29-Feb-04	21-Feb-04
E273415	04-ESN-007	135.00	136.00	0.042	29-Feb-04	21-Feb-04
E273416	04-ESN-007	136.00	137.00	0.883	29-Feb-04	21-Feb-04
E273417	04-ESN-007	137.00	138.00	0.269	29-Feb-04	21-Feb-04
E273418	04-ESN-007	138.00	139.00	0.125	29-Feb-04	21-Feb-04
E273419	04-ESN-007	139.00	140.00	0.065	29-Feb-04	21-Feb-04
E273421	04-ESN-007	140.00	140.40	0.054	29-Feb-04	21-Feb-04
E273422	04-ESN-007	140.40	141.30	0.437	29-Feb-04	21-Feb-04
E273423	04-ESN-007	141.30	142.00	0.796	29-Feb-04	21-Feb-04
E273424	04-ESN-007	142.00	143.00	0.395	28-Feb-04	21-Feb-04
E273425	04-ESN-007	143.00	144.00	0.371	28-Feb-04	21-Feb-04
E273426	04-ESN-007	144.00	145.00	0.418	28-Feb-04	21-Feb-04
E273427	04-ESN-007	145.00	146.00	0.252	28-Feb-04	21-Feb-04
E273428	04-ESN-007	146.00	147.00	0.077	28-Feb-04	21-Feb-04
E273429	04-ESN-007	147.00	148.00	0.237	28-Feb-04	21-Feb-04
E273431	04-ESN-007	148.00	149.00	0.070	28-Feb-04	21-Feb-04
E273432	04-ESN-007	149.00	150.00	0.142	28-Feb-04	21-Feb-04
E273433	04-ESN-007	150.00	151.00	0.053	28-Feb-04	21-Feb-04
E273434	04-ESN-007	151.00	152.00	0.030	28-Feb-04	21-Feb-04
E273435	04-ESN-007	152.00	152.50	0.026	28-Feb-04	21-Feb-04
E273436	04-ESN-007	152.50	153.00	0.015	28-Feb-04	21-Feb-04
E273437	04-ESN-007	153.00	154.20	0.044	28-Feb-04	21-Feb-04
E273438	04-ESN-007	154.20	154.90	0.031	28-Feb-04	21-Feb-04
E273439	04-ESN-007	154.90	155.50	0.035	28-Feb-04	21-Feb-04
E273441	04-ESN-007	155.50	156.20	0.025	28-Feb-04	21-Feb-04
E273442	04-ESN-007	156.20	156.80	0.046	28-Feb-04	21-Feb-04
E273443	04-ESN-007	156.80	157.50	0.046	28-Feb-04	21-Feb-04
E273444	04-ESS-015	149.50	150.40	0.010	3-Apr-04	22-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E273445	04-ESS-015	150.40	150.70	0.022	3-Apr-04	22-Feb-04
E273446	04-ESS-015	150.70	151.40	0.011	3-Apr-04	22-Feb-04
E273447	04-ESS-015	172.50	172.85	0.013	3-Apr-04	23-Feb-04
E273448	04-ESS-015	172.85	173.15	0.022	3-Apr-04	23-Feb-04
E273449	04-ESS-015	173.15	173.50	0.016	3-Apr-04	23-Feb-04
E273451	04-ESS-015	177.30	177.80	0.012	3-Apr-04	23-Feb-04
E273452	04-ESS-015	177.80	178.40	0.022	3-Apr-04	23-Feb-04
E273453	04-ESS-015	178.40	179.00	4.716	3-Apr-04	23-Feb-04
E273454	04-ESS-015	179.00	179.80	4.279	3-Apr-04	23-Feb-04
E273455	04-ESS-015	179.80	180.50	14.666	3-Apr-04	23-Feb-04
E273456	04-ESS-015	180.50	181.00	0.125	3-Apr-04	23-Feb-04
E273457	04-ESS-015	190.00	190.60	0.552	3-Apr-04	23-Feb-04
E273458	04-ESS-015	190.60	191.20	0.636	3-Apr-04	23-Feb-04
E273459	04-ESS-015	191.20	191.90	3.511	3-Apr-04	23-Feb-04
E273461	04-ESS-015	191.90	192.50	0.699	3-Apr-04	23-Feb-04
E273462	04-ESS-015	192.50	193.50	0.072	3-Apr-04	23-Feb-04
E273463	04-ESS-015	193.50	194.60	0.462	3-Apr-04	23-Feb-04
E273464	04-ESS-015	194.60	195.10	5.324	3-Apr-04	23-Feb-04
E273465	04-ESS-015	195.10	195.90	0.165	3-Apr-04	23-Feb-04
E273466	04-ESS-015	195.90	196.80	0.034	3-Apr-04	23-Feb-04
E273467	04-ESS-015	196.80	197.70	0.124	3-Apr-04	23-Feb-04
E273468	04-ESS-015	197.70	198.50	0.125	3-Apr-04	23-Feb-04
E273677	04-ESS-030	84.00	85.00	0.010	24-Apr-04	6-Mar-04
E273678	04-ESS-030	85.00	86.00	0.010	24-Apr-04	6-Mar-04
E273679	04-ESS-030	86.00	87.00	0.010	24-Apr-04	6-Mar-04
E273681	04-ESS-030	87.00	88.00	0.017	24-Apr-04	6-Mar-04
E273682	04-ESS-030	88.00	89.00	0.036	24-Apr-04	6-Mar-04
E273683	04-ESS-030	89.00	90.00	0.010	24-Apr-04	6-Mar-04
E273684	04-ESS-030	221.50	222.00	0.046	23-Apr-04	8-Mar-04
E273685	04-ESS-030	222.00	223.00	0.367	23-Apr-04	8-Mar-04
E273686	04-ESS-030	223.00	224.00	0.149	23-Apr-04	8-Mar-04
E273687	04-ESS-030	224.00	225.00	1.716	23-Apr-04	8-Mar-04
E273688	04-ESS-030	225.00	226.00	0.478	23-Apr-04	8-Mar-04
E273689	04-ESS-030	226.00	227.00	0.019	23-Apr-04	8-Mar-04
E273691	04-ESS-030	227.00	228.00	0.026	23-Apr-04	8-Mar-04
E273692	04-ESS-030	228.00	228.50	0.032	23-Apr-04	8-Mar-04
E273693	04-ESS-030	228.50	229.00	1.352	23-Apr-04	8-Mar-04
E273694	04-ESS-030	229.00	230.00	0.036	23-Apr-04	8-Mar-04
E273695	04-ESS-030	230.00	231.00	2.004	23-Apr-04	8-Mar-04
E273696	04-ESS-030	231.00	232.00	0.157	23-Apr-04	8-Mar-04
E273697	04-ESS-030	232.00	233.00	0.018	23-Apr-04	8-Mar-04
E273698	04-ESS-030	233.00	234.00	0.012	23-Apr-04	8-Mar-04
E273699	04-ESS-030	234.00	234.50	0.034	24-Apr-04	8-Mar-04
E273701	04-ESS-030	234.50	235.00	0.739	24-Apr-04	8-Mar-04
E273702	04-ESS-030	235.00	236.00	0.027	24-Apr-04	8-Mar-04
E273703	04-ESS-030	236.00	237.00	0.072	24-Apr-04	8-Mar-04
E273704	04-ESS-030	237.00	238.00	0.143	24-Apr-04	8-Mar-04
E273705	04-ESS-030	238.00	239.00	0.695	24-Apr-04	8-Mar-04
E273706	04-ESS-030	239.00	240.00	1.265	24-Apr-04	8-Mar-04
E273707	04-ESS-030	240.00	241.00	0.028	24-Apr-04	8-Mar-04
E273708	04-ESS-030	241.00	242.00	0.010	24-Apr-04	8-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E273709	04-ESS-030	245.00	246.00	0.013	24-Apr-04	8-Mar-04
E273711	04-ESS-030	246.00	247.00	0.014	24-Apr-04	8-Mar-04
E273712	04-ESS-030	247.00	248.00	0.014	24-Apr-04	8-Mar-04
E273713	04-ESS-030	248.00	249.20	0.019	24-Apr-04	8-Mar-04
E273714	04-ESS-030	249.20	250.30	0.028	24-Apr-04	8-Mar-04
E273715	04-ESS-030	250.30	251.00	6.119	24-Apr-04	8-Mar-04
E273716	04-ESS-030	251.00	252.00	0.317	24-Apr-04	8-Mar-04
E273717	04-ESS-030	252.00	253.00	0.016	24-Apr-04	8-Mar-04
E273718	04-ESS-020	115.00	116.00	0.078	9-Apr-04	8-Mar-04
E273719	04-ESS-020	116.00	117.00	0.043	9-Apr-04	8-Mar-04
E273721	04-ESS-020	117.00	118.00	0.072	9-Apr-04	8-Mar-04
E273722	04-ESS-020	118.00	119.00	0.048	9-Apr-04	8-Mar-04
E273723	04-ESS-020	119.00	120.00	0.044	9-Apr-04	8-Mar-04
E273724	04-ESS-020	124.10	125.00	0.038	9-Apr-04	8-Mar-04
E273725	04-ESS-020	125.00	126.00	0.054	9-Apr-04	8-Mar-04
E273726	04-ESS-020	139.00	140.00	0.045	9-Apr-04	8-Mar-04
E273727	04-ESS-020	140.00	141.00	0.047	9-Apr-04	8-Mar-04
E273728	04-ESS-020	141.00	142.00	0.049	9-Apr-04	8-Mar-04
E273729	04-ESS-020	142.00	142.80	0.045	9-Apr-04	8-Mar-04
E273731	04-ESS-020	142.80	143.40	0.160	9-Apr-04	8-Mar-04
E273732	04-ESS-020	143.40	144.40	0.055	9-Apr-04	8-Mar-04
E273733	04-ESS-020	144.40	145.00	1.068	9-Apr-04	9-Mar-04
E273734	04-ESS-020	145.00	146.00	1.890	9-Apr-04	9-Mar-04
E273735	04-ESS-020	146.00	146.50	0.119	9-Apr-04	9-Mar-04
E273736	04-ESS-020	146.50	147.20	10.326	9-Apr-04	9-Mar-04
E273737	04-ESS-020	147.20	148.00	0.155	9-Apr-04	9-Mar-04
E273738	04-ESS-020	148.00	148.50	0.101	9-Apr-04	9-Mar-04
E273739	04-ESS-020	148.50	149.50	0.049	9-Apr-04	9-Mar-04
E273741	04-ESS-020	149.50	150.50	0.048	9-Apr-04	9-Mar-04
E273742	04-ESS-020	150.50	151.50	0.042	9-Apr-04	9-Mar-04
E273743	04-ESS-020	151.50	152.20	0.048	9-Apr-04	9-Mar-04
E273744	04-ESS-020	152.20	153.00	0.179	9-Apr-04	9-Mar-04
E273745	04-ESS-020	153.00	154.00	0.056	9-Apr-04	9-Mar-04
E273746	04-ESS-020	154.00	155.00	0.052	9-Apr-04	9-Mar-04
E273747	04-ESS-020	155.00	155.50	0.072	9-Apr-04	9-Mar-04
E273748	04-ESS-020	155.50	156.70	13.933	9-Apr-04	9-Mar-04
E273749	04-ESS-020	156.70	157.50	0.145	9-Apr-04	9-Mar-04
E273813	04-ESS-017	175.75	176.25	0.270	26-Mar-04	2-Mar-04
E273814	04-ESS-017	176.25	177.25	0.025	26-Mar-04	2-Mar-04
E273815	04-ESS-017	177.25	177.75	0.029	26-Mar-04	2-Mar-04
E273816	04-ESS-017	184.45	184.85	0.100	26-Mar-04	2-Mar-04
E273817	04-ESS-017	184.85	185.45	0.293	26-Mar-04	2-Mar-04
E273818	04-ESS-017	185.45	185.85	0.029	26-Mar-04	2-Mar-04
E273819	04-ESS-017	187.00	187.70	0.122	26-Mar-04	2-Mar-04
E273821	04-ESS-017	187.70	188.50	0.040	26-Mar-04	2-Mar-04
E273822	04-ESS-017	188.50	188.95	0.204	26-Mar-04	2-Mar-04
E273823	04-ESS-017	188.95	189.65	0.033	26-Mar-04	2-Mar-04
E273824	04-ESS-017	201.00	201.40	0.023	26-Mar-04	2-Mar-04
E273825	04-ESS-017	201.40	202.30	0.715	26-Mar-04	2-Mar-04
E273826	04-ESS-017	202.30	202.80	4.141	26-Mar-04	2-Mar-04
E273827	04-ESS-017	202.80	203.80	0.992	26-Mar-04	2-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E273828	04-ESS-017	203.80	204.80	0.866	26-Mar-04	2-Mar-04
E273829	04-ESS-017	204.80	205.50	0.209	26-Mar-04	2-Mar-04
E273831	04-ESS-017	205.50	206.50	0.396	26-Mar-04	2-Mar-04
E273832	04-ESS-017	206.50	207.50	0.057	26-Mar-04	2-Mar-04
E273833	04-ESS-017	207.50	208.40	0.080	26-Mar-04	2-Mar-04
E273834	04-ESS-017	208.40	209.00	0.205	26-Mar-04	2-Mar-04
E273835	04-ESS-017	209.00	210.00	0.588	26-Mar-04	2-Mar-04
E273836	04-ESS-017	210.00	211.00	1.022	26-Mar-04	2-Mar-04
E273837	04-ESS-017	211.00	212.00	0.147	26-Mar-04	2-Mar-04
E273838	04-ESS-017	212.00	213.00	4.630	26-Mar-04	2-Mar-04
E273839	04-ESS-017	213.00	213.30	7.324	26-Mar-04	2-Mar-04
E273841	04-ESS-017	213.30	214.40	0.103	26-Mar-04	2-Mar-04
E273842	04-ESS-017	214.40	215.00	0.732	26-Mar-04	2-Mar-04
E273843	04-ESS-017	215.00	216.00	0.359	26-Mar-04	2-Mar-04
E273844	04-ESS-017	216.00	217.00	0.297	26-Mar-04	2-Mar-04
E273845	04-ESS-017	217.00	218.00	1.012	26-Mar-04	2-Mar-04
E273846	04-ESS-017	218.00	219.00	4.822	26-Mar-04	3-Mar-04
E273847	04-ESS-017	219.00	220.00	0.117	26-Mar-04	3-Mar-04
E273848	04-ESS-017	220.00	221.00	0.118	26-Mar-04	3-Mar-04
E273849	04-ESS-017	221.00	222.00	0.036	26-Mar-04	3-Mar-04
E273851	04-ESS-017	222.00	223.00	0.074	27-Mar-04	3-Mar-04
E273852	04-ESS-017	223.00	224.00	0.077	27-Mar-04	3-Mar-04
E273853	04-ESS-017	224.00	224.80	0.022	27-Mar-04	3-Mar-04
E273854	04-ESS-017	224.80	225.80	0.070	27-Mar-04	3-Mar-04
E273855	04-ESS-017	225.80	226.10	0.067	27-Mar-04	3-Mar-04
E273856	04-ESS-017	226.10	227.00	0.039	27-Mar-04	3-Mar-04
E273857	04-ESS-017	227.00	228.00	0.126	27-Mar-04	3-Mar-04
E273858	04-ESS-017	228.00	229.00	0.370	27-Mar-04	3-Mar-04
E273859	04-ESS-017	229.00	230.00	3.004	27-Mar-04	3-Mar-04
E273861	04-ESS-017	230.00	230.70	0.276	27-Mar-04	3-Mar-04
E273862	04-ESS-017	230.70	231.70	0.041	27-Mar-04	3-Mar-04
E273863	04-ESS-017	231.70	232.70	0.308	28-Mar-04	3-Mar-04
E273864	04-ESS-017	232.70	233.30	0.142	28-Mar-04	3-Mar-04
E273865	04-ESS-017	233.30	234.00	0.010	28-Mar-04	3-Mar-04
E273866	04-ESS-017	248.00	248.70	0.010	28-Mar-04	3-Mar-04
E273867	04-ESS-017	248.70	249.00	0.839	28-Mar-04	3-Mar-04
E273868	04-ESS-017	249.00	250.00	0.077	28-Mar-04	3-Mar-04
E273869	04-ESS-017	250.00	251.00	0.016	28-Mar-04	3-Mar-04
E273871	04-ESS-017	251.00	252.00	0.010	28-Mar-04	3-Mar-04
E273872	04-ESS-017	252.00	253.00	0.019	28-Mar-04	3-Mar-04
E273873	04-ESS-017	253.00	254.00	0.032	28-Mar-04	3-Mar-04
E273874	04-ESS-017	254.00	255.00	0.027	28-Mar-04	3-Mar-04
E273875	04-ESS-017	255.00	256.00	0.016	28-Mar-04	3-Mar-04
E273876	04-ESS-017	256.00	257.00	0.034	28-Mar-04	3-Mar-04
E273877	04-ESS-017	257.00	258.00	0.062	28-Mar-04	3-Mar-04
E273878	04-ESS-017	258.00	259.00	0.040	28-Mar-04	3-Mar-04
E273879	04-ESS-017	259.00	260.00	0.128	28-Mar-04	3-Mar-04
E273881	04-ESS-017	260.00	261.00	0.089	28-Mar-04	3-Mar-04
E273882	04-ESS-017	261.00	262.00	0.058	28-Mar-04	3-Mar-04
E273883	04-ESS-017	262.00	263.00	0.040	28-Mar-04	3-Mar-04
E273884	04-ESS-017	263.00	264.00	0.013	28-Mar-04	3-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM m	SAMPLE TO m	AU_PPM	Analysis Date	Sample Date
E273885	04-ESS-017	264.00	265.00	0.011	28-Mar-04	3-Mar-04
E273886	04-ESS-017	265.00	266.00	0.010	28-Mar-04	3-Mar-04
E273887	04-ESS-017	266.00	267.00	0.010	28-Mar-04	5-Mar-04
E273888	04-ESS-017	267.00	268.00	0.016	28-Mar-04	5-Mar-04
E273889	04-ESS-017	268.00	269.00	0.124	28-Mar-04	5-Mar-04
E273891	04-ESS-017	269.00	270.00	0.041	28-Mar-04	5-Mar-04
E273892	04-ESS-017	270.00	271.00	0.063	28-Mar-04	5-Mar-04
E273893	04-ESS-017	271.00	272.00	0.101	28-Mar-04	5-Mar-04
E273894	04-ESS-017	272.00	272.50	0.218	28-Mar-04	5-Mar-04
E273895	04-ESS-017	272.50	273.00	0.311	28-Mar-04	5-Mar-04
E273896	04-ESS-017	273.00	274.00	0.307	28-Mar-04	5-Mar-04
E273897	04-ESS-017	274.00	275.00	0.182	28-Mar-04	5-Mar-04
E273898	04-ESS-017	275.00	276.00	0.185	28-Mar-04	5-Mar-04
E273899	04-ESS-017	276.00	277.00	0.332	28-Mar-04	5-Mar-04
E273901	04-ESS-017	277.00	278.00	0.238	28-Mar-04	5-Mar-04
E273902	04-ESS-017	278.00	279.00	0.291	28-Mar-04	5-Mar-04
E273903	04-ESS-017	279.00	280.00	0.169	28-Mar-04	5-Mar-04
E273904	04-ESS-017	280.00	281.00	1.071	28-Mar-04	5-Mar-04
E273905	04-ESS-017	281.00	282.00	0.080	28-Mar-04	5-Mar-04
E273906	04-ESS-017	282.00	283.00	0.784	28-Mar-04	5-Mar-04
E273907	04-ESS-017	283.00	283.80	0.286	28-Mar-04	5-Mar-04
E273908	04-ESS-017	283.80	284.30	0.229	28-Mar-04	5-Mar-04
E273909	04-ESS-017	284.30	285.00	0.055	28-Mar-04	5-Mar-04
E273911	04-ESS-017	285.00	286.00	0.261	28-Mar-04	5-Mar-04
E273912	04-ESS-017	286.00	287.00	0.146	28-Mar-04	5-Mar-04
E273913	04-ESS-017	287.00	288.00	0.286	28-Mar-04	5-Mar-04
E273914	04-ESS-017	288.00	289.00	0.492	28-Mar-04	5-Mar-04
E273915	04-ESS-017	289.00	290.00	0.282	28-Mar-04	5-Mar-04
E273916	04-ESS-017	290.00	291.00	1.331	28-Mar-04	5-Mar-04
E273917	04-ESS-017	291.00	292.00	0.190	30-Mar-04	5-Mar-04
E273918	04-ESS-017	292.00	293.00	0.321	30-Mar-04	5-Mar-04
E273919	04-ESS-017	293.00	294.00	0.090	30-Mar-04	5-Mar-04
E273921	04-ESS-017	294.00	295.00	0.051	30-Mar-04	5-Mar-04
E273922	04-ESS-017	295.00	296.00	52.500	30-Mar-04	5-Mar-04
E273923	04-ESS-017	296.00	297.00	42.270	30-Mar-04	5-Mar-04
E273924	04-ESS-017	297.00	298.00	0.046	4-Jan-04	5-Mar-04
E273925	04-ESS-017	298.00	299.00	0.545	4-Jan-04	5-Mar-04
E273926	04-ESS-017	299.00	300.00	0.420	4-Jan-04	5-Mar-04
E273927	04-ESS-017	300.00	301.00	0.126	4-Jan-04	5-Mar-04
E273928	04-ESS-017	301.00	302.00	0.068	4-Jan-04	5-Mar-04
E273929	04-ESS-017	302.00	303.00	0.080	4-Jan-04	5-Mar-04
E273931	04-ESS-017	303.00	304.00	0.162	4-Jan-04	5-Mar-04
E273932	04-ESS-017	304.00	305.00	1.407	4-Jan-04	
E273933	04-ESS-017	305.00	305.50	0.142	4-Jan-04	5-Mar-04
E273934	04-ESS-017	305.50	306.00	0.866	4-Jan-04	5-Mar-04
E273935	04-ESS-017	306.00	307.00	0.064	4-Jan-04	5-Mar-04
E273936	04-ESS-017	307.00	308.00	0.861	4-Jan-04	5-Mar-04
E273937	04-ESS-017	308.00	309.00	0.043	4-Jan-04	5-Mar-04
E273938	04-ESS-017	309.00	310.00	0.199	4-Jan-04	5-Mar-04
E273939	04-ESS-017	310.00	311.00	0.054	4-Jan-04	5-Mar-04
E273941	04-ESS-017	311.00	312.00	0.013	4-Jan-04	5-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E273942	04-ESS-017	312.00	313.00	0.279	4-Jan-04	5-Mar-04
E273943	04-ESS-017	313.00	314.00	0.316	4-Jan-04	5-Mar-04
E273944	04-ESS-017	314.00	315.00	0.056	4-Jan-04	5-Mar-04
E273945	04-ESS-017	315.00	316.00	0.080	4-Jan-04	5-Mar-04
E273946	04-ESS-017	316.00	317.00	0.029	4-Jan-04	5-Mar-04
E273947	04-ESS-017	317.00	318.00	0.131	4-Jan-04	5-Mar-04
E273948	04-ESS-017	318.00	319.00	0.026	4-Jan-04	5-Mar-04
E273949	04-ESS-017	319.00	320.00	0.069	4-Jan-04	5-Mar-04
E273951	04-ESS-017	320.00	321.00	0.024	4-Jan-04	5-Mar-04
E273952	04-ESS-017	321.00	322.00	0.027	4-Jan-04	5-Mar-04
E273953	04-ESS-017	322.00	323.00	0.054	4-Jan-04	5-Mar-04
E273954	04-ESS-017	323.00	324.00	0.030	4-Jan-04	5-Mar-04
E273955	04-ESS-017	324.00	325.00	0.044	4-Jan-04	5-Mar-04
E273956	04-ESS-017	325.00	326.00	0.028	4-Jan-04	5-Mar-04
E273957	04-ESS-017	326.00	327.00	0.071	4-Jan-04	5-Mar-04
E273958	04-ESS-017	327.00	328.00	0.102	4-Jan-04	5-Mar-04
E273959	04-ESS-017	328.00	329.00	0.413	4-Jan-04	5-Mar-04
E273961	04-ESS-017	329.00	329.50	0.046	4-Jan-04	5-Mar-04
E273962	04-ESS-017	329.50	330.00	0.019	4-Jan-04	5-Mar-04
E273963	04-ESS-017	330.00	331.00	0.151	4-Jan-04	
E273964	04-ESS-017	331.00	332.00	0.069	30-Mar-04	5-Mar-04
E273965	04-ESS-017	332.00	333.00	0.351	30-Mar-04	5-Mar-04
E273966	04-ESS-017	333.00	334.00	0.395	30-Mar-04	5-Mar-04
E273967	04-ESS-017	334.00	335.00	0.035	30-Mar-04	5-Mar-04
E273968	04-ESS-017	335.00	336.00	0.059	30-Mar-04	5-Mar-04
E273969	04-ESS-017	336.00	337.00	0.030	30-Mar-04	5-Mar-04
E273971	04-ESS-017	337.00	338.00	0.022	30-Mar-04	5-Mar-04
E273972	04-ESS-017	338.00	339.00	0.015	30-Mar-04	5-Mar-04
E273973	04-ESS-017	339.00	340.00	0.023	30-Mar-04	5-Mar-04
E273974	04-ESS-017	340.00	340.50	0.049	30-Mar-04	5-Mar-04
E273975	04-ESS-017	340.50	341.00	0.017	30-Mar-04	5-Mar-04
E273976	04-ESS-017	341.00	341.50	0.077	30-Mar-04	5-Mar-04
E273977	04-ESS-017	341.50	342.00	0.036	30-Mar-04	5-Mar-04
E273978	04-ESS-017	342.00	343.00	0.023	30-Mar-04	5-Mar-04
E273979	04-ESS-017	343.00	344.00	0.029	30-Mar-04	5-Mar-04
E273994	04-ESS-030	71.00	72.00	0.010	24-Apr-04	6-Mar-04
E273995	04-ESS-030	72.00	73.00	0.010	24-Apr-04	6-Mar-04
E273996	04-ESS-030	73.00	73.50	0.010	24-Apr-04	6-Mar-04
E273997	04-ESS-030	73.50	74.00	0.010	24-Apr-04	6-Mar-04
E273998	04-ESS-030	74.00	75.00	0.010	24-Apr-04	6-Mar-04
E273999	04-ESS-030	83.00	84.00	0.028	24-Apr-04	6-Mar-04
E274075	04-ESS-030	166.00	167.00	0.019	24-Apr-04	7-Mar-04
E274076	04-ESS-030	167.00	167.50	0.029	24-Apr-04	7-Mar-04
E274077	04-ESS-030	167.50	168.00	0.036	24-Apr-04	7-Mar-04
E274078	04-ESS-030	168.00	169.00	0.026	24-Apr-04	7-Mar-04
E274079	04-ESS-030	185.00	186.00	0.015	24-Apr-04	7-Mar-04
E274081	04-ESS-030	186.00	186.50	0.019	24-Apr-04	7-Mar-04
E274082	04-ESS-030	186.50	187.50	0.042	24-Apr-04	7-Mar-04
E274083	04-ESS-030	187.50	188.00	0.575	24-Apr-04	7-Mar-04
E274084	04-ESS-030	188.00	189.00	0.528	24-Apr-04	7-Mar-04
E274085	04-ESS-030	209.00	210.00	0.011	24-Apr-04	8-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome - Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E274086	04-ESS-030	210.00	211.00	0.012	24-Apr-04	8-Mar-04
E274087	04-ESS-030	211.00	212.00	0.017	24-Apr-04	8-Mar-04
E274088	04-ESS-030	212.00	212.50	0.159	24-Apr-04	8-Mar-04
E274089	04-ESS-030	212.50	213.00	0.103	24-Apr-04	8-Mar-04
E274091	04-ESS-030	213.00	214.00	0.557	24-Apr-04	8-Mar-04
E274092	04-ESS-030	214.00	215.00	0.061	24-Apr-04	8-Mar-04
E274093	04-ESS-030	215.00	216.00	3.145	24-Apr-04	8-Mar-04
E274094	04-ESS-030	216.00	217.00	1.184	24-Apr-04	8-Mar-04
E274095	04-ESS-030	217.00	218.00	5.062	24-Apr-04	8-Mar-04
E274096	04-ESS-030	218.00	219.00	0.855	23-Apr-04	8-Mar-04
E274097	04-ESS-030	219.00	220.00	2.436	23-Apr-04	8-Mar-04
E274098	04-ESS-030	220.00	221.00	0.088	23-Apr-04	8-Mar-04
E274099	04-ESS-030	221.00	221.50	0.058	23-Apr-04	28-Apr-04
E274101	04-ESS-020	184.00	185.00	0.113	12-Apr-04	9-Mar-04
E274102	04-ESS-020	185.00	186.00	0.184	12-Apr-04	9-Mar-04
E274103	04-ESS-020	186.00	187.00	0.010	12-Apr-04	9-Mar-04
E274104	04-ESS-020	187.00	188.00	0.034	12-Apr-04	9-Mar-04
E274105	04-ESS-020	188.00	189.00	0.121	12-Apr-04	9-Mar-04
E274106	04-ESS-020	189.00	190.00	0.364	12-Apr-04	9-Mar-04
E274107	04-ESS-020	190.00	191.00	1.862	12-Apr-04	9-Mar-04
E274108	04-ESS-020	191.00	192.00	0.321	12-Apr-04	9-Mar-04
E274109	04-ESS-020	192.00	193.00	0.604	12-Apr-04	9-Mar-04
E274111	04-ESS-020	193.00	194.00	0.285	12-Apr-04	9-Mar-04
E274112	04-ESS-020	194.00	195.00	0.222	12-Apr-04	9-Mar-04
E274113	04-ESS-020	195.00	196.00	0.093	12-Apr-04	9-Mar-04
E274114	04-ESS-020	196.00	197.00	0.039	16-Apr-04	9-Mar-04
E274115	04-ESS-020	197.00	198.00	0.112	16-Apr-04	9-Mar-04
E274116	04-ESS-020	198.00	199.00	0.032	16-Apr-04	9-Mar-04
E274117	04-ESS-020	199.00	200.00	0.059	16-Apr-04	9-Mar-04
E274118	04-ESS-020	200.00	201.00	0.057	16-Apr-04	9-Mar-04
E274119	04-ESS-020	201.00	202.00	0.160	16-Apr-04	9-Mar-04
E274121	04-ESS-020	202.00	203.00	0.127	16-Apr-04	9-Mar-04
E274122	04-ESS-020	203.00	204.00	0.094	16-Apr-04	9-Mar-04
E274123	04-ESS-020	204.00	205.00	0.035	16-Apr-04	9-Mar-04
E274124	04-ESS-020	205.00	205.90	0.128	16-Apr-04	9-Mar-04
E274125	04-ESS-020	205.90	207.00	0.010	16-Apr-04	9-Mar-04
E274546	04-ESS-014	280.50	281.10	0.036	8-May-04	20-Feb-04
E274547	04-ESS-014	281.10	282.00	0.074	8-May-04	20-Feb-04
E274562	04-ESN-008	35.00	35.50	0.030	3-May-04	21-Feb-04
E274563	04-ESN-008	35.50	36.50	0.147	3-May-04	22-Feb-04
E274564	04-ESN-008	36.50	37.40	0.040	3-May-04	22-Feb-04
E274565	04-ESN-008	37.40	38.00	0.042	3-May-04	22-Feb-04
E274566	04-ESN-008	40.20	41.00	0.048	3-May-04	22-Feb-04
E274567	04-ESN-008	41.00	41.70	0.034	3-May-04	22-Feb-04
E274568	04-ESN-008	41.70	42.30	0.035	3-May-04	22-Feb-04
E274569	04-ESN-008	42.30	43.30	0.023	3-May-04	22-Feb-04
E274571	04-ESN-008	43.30	43.80	0.025	3-May-04	22-Feb-04
E274572	04-ESN-008	43.80	44.90	0.052	3-May-04	22-Feb-04
E274573	04-ESN-008	44.90	46.00	0.104	3-May-04	22-Feb-04
E274574	04-ESN-008	46.00	47.00	0.307	3-May-04	22-Feb-04
E274575	04-ESN-008	47.00	48.00	7.549	3-May-04	22-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E274576	04-ESN-008	48.00	48.70	0.120	3-May-04	22-Feb-04
E274577	04-ESN-008	142.40	143.20	0.050	3-May-04	22-Feb-04
E274578	04-ESN-008	143.20	143.90	0.126	3-May-04	22-Feb-04
E274579	04-ESN-008	143.90	145.00	0.033	3-May-04	22-Feb-04
E274581	04-ESN-008	145.00	146.00	0.075	3-May-04	22-Feb-04
E274582	04-ESN-008	146.00	146.40	0.033	3-May-04	22-Feb-04
E274583	04-ESN-008	146.40	147.10	7.842	3-May-04	22-Feb-04
E274584	04-ESN-008	147.10	148.00	1.701	3-May-04	22-Feb-04
E274585	04-ESN-008	148.00	148.70	9.251	3-May-04	22-Feb-04
E274586	04-ESN-008	148.70	150.00	2.679	3-May-04	22-Feb-04
E274587	04-ESN-008	150.00	151.00	1.038	3-May-04	22-Feb-04
E274588	04-ESN-008	151.00	152.00	4.478	3-May-04	22-Feb-04
E274589	04-ESN-008	152.00	153.00	6.736	3-May-04	22-Feb-04
E274591	04-ESN-008	153.00	154.00	1.733	3-May-04	22-Feb-04
E274592	04-ESN-008	154.00	155.00	2.587	3-May-04	22-Feb-04
E274593	04-ESN-008	155.00	156.00	1.557	3-May-04	22-Feb-04
E274594	04-ESN-008	156.00	156.60	12.730	3-Jun-04	22-Feb-04
E274595	04-ESN-008	156.60	157.20	1.346	3-May-04	22-Feb-04
E274596	04-ESN-008	157.20	158.00	0.664	3-May-04	22-Feb-04
E274597	04-ESN-008	158.00	159.00	0.296	3-May-04	22-Feb-04
E274598	04-ESN-008	159.00	160.00	0.077	3-May-04	22-Feb-04
E274599	04-ESN-008	160.00	161.00	0.766	3-May-04	22-Feb-04
E274601	04-ESN-008	161.00	162.10	2.228	3-May-04	22-Feb-04
E274602	04-ESN-008	162.10	163.00	4.695	3-May-04	22-Feb-04
E274603	04-ESN-008	163.00	163.50	3.389	3-May-04	22-Feb-04
E274604	04-ESN-008	163.50	164.30	0.135	3-May-04	22-Feb-04
E274605	04-ESN-008	164.30	165.00	4.012	3-May-04	22-Feb-04
E274606	04-ESN-008	165.00	166.10	5.971	3-May-04	22-Feb-04
E274607	04-ESN-008	166.10	167.00	0.077	3-May-04	22-Feb-04
E274608	04-ESN-008	167.00	168.30	0.147	3-May-04	22-Feb-04
E274609	04-ESN-008	168.30	169.00	0.066	3-May-04	22-Feb-04
E274611	04-ESN-008	169.00	170.00	1.160	3-May-04	22-Feb-04
E274612	04-ESN-008	170.00	171.00	0.108	3-Jun-04	22-Feb-04
E274613	04-ESN-008	171.00	172.00	0.045	3-Jun-04	22-Feb-04
E274614	04-ESN-008	172.00	173.00	0.032	3-Jun-04	22-Feb-04
E274615	04-ESN-008	173.00	174.00	0.115	3-Jun-04	22-Feb-04
E274616	04-ESN-008	174.00	174.50	0.069	3-Jun-04	22-Feb-04
E274617	04-ESN-008	174.50	175.30	0.232	3-Jun-04	22-Feb-04
E274618	04-ESN-008	175.30	176.10	0.245	3-Jun-04	22-Feb-04
E274619	04-ESN-008	176.10	177.00	0.664	3-Jun-04	22-Feb-04
E274621	04-ESN-008	177.00	178.00	0.035	3-May-04	22-Feb-04
E274622	04-ESN-008	178.00	179.00	0.022	3-May-04	22-Feb-04
E274623	04-ESN-008	179.00	180.00	0.108	3-May-04	22-Feb-04
E274624	04-ESN-008	180.00	181.00	0.213	3-May-04	22-Feb-04
E274625	04-ESN-008	181.00	182.00	0.467	3-May-04	22-Feb-04
E274626	04-ESN-008	182.00	183.00	0.600	3-May-04	22-Feb-04
E274627	04-ESN-008	183.00	184.00	0.502	3-May-04	22-Feb-04
E274628	04-ESN-008	184.00	185.00	0.168	3-Jun-04	22-Feb-04
E274629	04-ESN-008	185.00	186.00	0.310	3-Jun-04	22-Feb-04
E274631	04-ESN-008	186.00	187.00	0.147	3-Jun-04	22-Feb-04
E274632	04-ESN-008	187.00	188.00	1.120	3-Jun-04	22-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E274633	04-ESN-008	188.00	189.00	0.102	3-Jun-04	22-Feb-04
E274634	04-ESN-008	189.00	190.00	0.217	3-Jun-04	22-Feb-04
E274635	04-ESN-008	190.00	191.00	2.313	3-Jun-04	22-Feb-04
E274636	04-ESN-008	191.00	192.00	0.175	3-Jun-04	22-Feb-04
E274637	04-ESN-008	192.00	193.00	0.038	3-Jun-04	22-Feb-04
E274638	04-ESN-008	193.00	194.00	0.047	3-Jun-04	22-Feb-04
E274639	04-ESN-008	194.00	195.00	0.054	3-Jun-04	22-Feb-04
E274641	04-ESN-008	195.00	196.00	0.064	3-Jun-04	22-Feb-04
E274642	04-ESN-008	196.00	197.00	0.031	3-Jun-04	22-Feb-04
E274643	04-ESN-008	197.00	198.00	0.041	3-Jun-04	22-Feb-04
E274644	04-ESN-008	198.00	199.15	0.047	3-Jun-04	22-Feb-04
E274645	04-ESN-008	199.15	199.80	0.057	3-Jun-04	22-Feb-04
E274646	04-ESN-008	199.80	200.30	0.012	3-Jun-04	22-Feb-04
E274647	04-ESN-009	92.00	92.40	0.043	3-Apr-04	25-Feb-04
E274648	04-ESN-009	92.40	93.50	0.084	3-Apr-04	25-Feb-04
E274649	04-ESN-009	93.50	94.40	0.061	3-Apr-04	25-Feb-04
E274651	04-ESN-009	94.40	95.30	0.096	3-Apr-04	25-Feb-04
E274652	04-ESN-009	95.30	96.00	0.020	3-Apr-04	25-Feb-04
E274653	04-ESN-009	96.00	96.30	0.050	3-Apr-04	25-Feb-04
E274654	04-ESN-009	96.30	96.80	0.012	3-Apr-04	25-Feb-04
E274655	04-ESN-009	181.70	182.20	0.029	3-Apr-04	26-Feb-04
E274656	04-ESN-009	182.20	183.50	0.441	3-Apr-04	26-Feb-04
E274657	04-ESN-009	183.50	184.50	2.262	3-Apr-04	26-Feb-04
E274658	04-ESN-009	184.50	185.50	2.436	3-Apr-04	26-Feb-04
E274659	04-ESN-009	185.50	186.50	1.035	3-Apr-04	26-Feb-04
E274661	04-ESN-009	186.50	187.50	18.233	3-Apr-04	26-Feb-04
E274662	04-ESN-009	187.50	188.50	1.037	3-Apr-04	26-Feb-04
E274663	04-ESN-009	188.50	189.00	0.075	3-Apr-04	26-Feb-04
E274664	04-ESN-009	189.00	190.00	0.162	3-Apr-04	26-Feb-04
E274665	04-ESN-009	190.00	191.00	0.867	3-Apr-04	26-Feb-04
E274666	04-ESN-009	191.00	192.00	0.408	3-Apr-04	26-Feb-04
E274667	04-ESN-009	192.00	193.00	0.872	3-Apr-04	26-Feb-04
E274668	04-ESN-009	193.00	194.00	7.390	3-Apr-04	26-Feb-04
E274669	04-ESN-009	194.00	195.00	4.467	3-Apr-04	26-Feb-04
E274671	04-ESN-009	195.00	196.10	3.164	3-Apr-04	26-Feb-04
E274672	04-ESN-009	196.10	197.00	5.090	3-Apr-04	26-Feb-04
E274673	04-ESN-009	197.00	197.80	0.806	3-Apr-04	26-Feb-04
E274674	04-ESN-009	197.80	198.50	0.183	3-Apr-04	26-Feb-04
E274675	04-ESN-009	198.50	199.50	2.250	3-Apr-04	26-Feb-04
E274676	04-ESN-009	199.50	200.40	1.640	3-Apr-04	26-Feb-04
E274677	04-ESN-009	200.40	201.00	4.208	3-Jan-04	26-Feb-04
E274678	04-ESN-009	201.00	202.00	0.469	3-Jan-04	26-Feb-04
E274679	04-ESN-009	202.00	202.60	5.741	3-Jan-04	26-Feb-04
E274681	04-ESN-009	202.60	203.60	4.663	3-Jan-04	26-Feb-04
E274682	04-ESN-009	203.60	204.60	5.735	3-Jan-04	26-Feb-04
E274683	04-ESN-009	204.60	205.60	6.673	3-Jan-04	26-Feb-04
E274684	04-ESN-009	205.60	206.60	9.170	3-Jan-04	26-Feb-04
E274685	04-ESN-009	206.60	207.60	0.051	3-Jan-04	26-Feb-04
E274686	04-ESN-009	207.60	208.20	0.045	3-Jan-04	26-Feb-04
E274687	04-ESN-009	208.20	208.80	14.270	3-Jan-04	26-Feb-04
E274688	04-ESN-009	208.80	209.80	0.043	3-Apr-04	26-Feb-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E274689	04-ESN-009	209.80	210.80	0.282	3-Apr-04	26-Feb-04
E274691	04-ESN-009	210.80	212.00	0.175	3-Apr-04	26-Feb-04
E274692	04-ESN-009	212.00	212.90	1.645	3-Apr-04	26-Feb-04
E274693	04-ESN-009	212.90	214.00	0.073	3-Apr-04	26-Feb-04
E274694	04-ESN-009	214.00	215.00	0.307	3-May-04	26-Feb-04
E274695	04-ESN-009	215.00	216.00	0.297	3-May-04	26-Feb-04
E274696	04-ESN-009	216.00	217.15	0.087	3-May-04	26-Feb-04
E274697	04-ESN-009	217.15	218.00	0.028	3-May-04	26-Feb-04
E274698	04-ESN-009	218.00	219.00	0.228	3-May-04	26-Feb-04
E274699	04-ESN-009	219.00	220.00	0.031	3-May-04	26-Feb-04
E274701	04-ESN-009	220.00	221.00	0.298	3-May-04	26-Feb-04
E274702	04-ESN-009	221.00	221.50	0.088	3-May-04	26-Feb-04
E274703	04-ESN-009	221.50	222.00	0.021	3-May-04	26-Feb-04
E274704	04-ESN-009	222.00	223.00	0.012	3-May-04	26-Feb-04
E274705	04-ESN-009	223.00	224.00	0.074	3-May-04	26-Feb-04
E274706	04-ESN-009	224.00	224.70	0.046	3-May-04	26-Feb-04
E274707	04-ESN-009	224.70	225.70	0.152	3-May-04	26-Feb-04
E274708	04-ESN-009	225.70	226.50	0.119	3-May-04	26-Feb-04
E274709	04-ESN-009	226.50	227.10	0.663	3-May-04	26-Feb-04
E274711	04-ESN-009	227.10	228.00	0.170	3-May-04	26-Feb-04
E274712	04-ESN-009	228.00	229.00	0.195	3-May-04	26-Feb-04
E274713	04-ESN-009	229.00	229.90	0.041	3-May-04	26-Feb-04
E274714	04-ESN-009	229.90	230.90	0.854	3-May-04	26-Feb-04
E274715	04-ESN-009	230.90	231.90	0.085	3-May-04	26-Feb-04
E274716	04-ESN-009	231.90	232.25	0.036	3-May-04	26-Feb-04
E274717	04-ESN-009	232.25	232.65	0.023	3-May-04	26-Feb-04
E274718	04-ESN-009	232.65	233.20	0.026	3-May-04	26-Feb-04
E274719	04-ESS-020	126.00	127.00	0.035	9-Apr-04	8-Mar-04
E274721	04-ESS-020	130.00	131.00	0.046	9-Apr-04	8-Mar-04
E274722	04-ESS-020	135.00	136.00	0.040	9-Apr-04	8-Mar-04
E274723	04-ESS-020	136.00	137.00	0.090	9-Apr-04	8-Mar-04
E274724	04-ESS-020	137.00	138.00	0.039	9-Apr-04	8-Mar-04
E274725	04-ESS-020	138.00	139.00	0.044	9-Apr-04	8-Mar-04
E274726	04-ESS-020	207.00	208.00	0.010	16-Apr-04	9-Mar-04
E274727	04-ESS-020	208.00	209.00	0.010	16-Apr-04	9-Mar-04
E274728	04-ESS-020	209.00	210.00	0.010	16-Apr-04	9-Mar-04
E274729	04-ESS-020	217.00	218.00	0.010	16-Apr-04	9-Mar-04
E274731	04-ESS-020	218.00	219.00	0.010	16-Apr-04	9-Mar-04
E274732	04-ESS-020	219.00	219.50	0.010	16-Apr-04	9-Mar-04
E274733	04-ESS-020	219.50	220.00	0.120	16-Apr-04	9-Mar-04
E274734	04-ESS-020	220.00	221.00	0.094	17-Apr-04	9-Mar-04
E274735	04-ESS-020	221.00	222.00	0.090	17-Apr-04	9-Mar-04
E274736	04-ESS-020	222.00	223.00	0.033	17-Apr-04	9-Mar-04
E274737	04-ESS-020	223.00	224.00	0.044	17-Apr-04	9-Mar-04
E274738	04-ESS-020	224.00	225.00	0.326	17-Apr-04	9-Mar-04
E274739	04-ESS-020	225.00	226.00	0.113	17-Apr-04	9-Mar-04
E274741	04-ESS-020	226.00	227.00	0.025	17-Apr-04	9-Mar-04
E274742	04-ESS-020	227.00	228.00	0.028	17-Apr-04	9-Mar-04
E274743	04-ESS-020	228.00	229.00	0.748	17-Apr-04	9-Mar-04
E274744	04-ESS-020	229.00	230.00	0.249	16-Apr-04	9-Mar-04
E274745	04-ESS-020	230.00	231.00	0.093	17-Apr-04	9-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome - Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E274746	04-ESS-020	231.00	232.00	0.027	17-Apr-04	9-Mar-04
E274747	04-ESS-020	232.00	233.00	0.016	17-Apr-04	9-Mar-04
E274748	04-ESS-020	233.00	234.00	0.074	17-Apr-04	9-Mar-04
E274749	04-ESS-020	234.00	235.00	0.028	17-Apr-04	9-Mar-04
E274751	04-ESS-020	235.00	236.00	0.526	17-Apr-04	9-Mar-04
E274752	04-ESS-020	236.00	237.00	0.193	17-Apr-04	9-Mar-04
E274753	04-ESS-020	237.00	238.00	0.299	17-Apr-04	9-Mar-04
E274754	04-ESS-020	238.00	239.00	0.178	17-Apr-04	9-Mar-04
E274755	04-ESS-020	239.00	240.00	0.213	17-Apr-04	9-Mar-04
E274756	04-ESS-020	240.00	241.00	0.081	17-Apr-04	9-Mar-04
E274757	04-ESS-020	241.00	242.00	0.112	17-Apr-04	9-Mar-04
E274758	04-ESS-020	242.00	243.00	0.132	17-Apr-04	9-Mar-04
E274759	04-ESS-020	243.00	244.00	0.152	17-Apr-04	9-Mar-04
E274761	04-ESS-030	253.00	253.50	0.017	24-Apr-04	10-Mar-04
E274762	04-ESS-030	253.50	254.50	2.525	24-Apr-04	10-Mar-04
E274763	04-ESS-030	254.50	255.50	15.600	25-Apr-04	10-Mar-04
E274764	04-ESS-030	255.50	256.00	18.730	25-Apr-04	10-Mar-04
E274765	04-ESS-030	256.00	257.00	0.159	24-Apr-04	10-Mar-04
E274766	04-ESS-030	257.00	258.00	0.267	24-Apr-04	10-Mar-04
E274767	04-ESS-030	258.00	258.50	0.033	24-Apr-04	10-Mar-04
E274768	04-ESS-030	258.50	259.50	0.040	24-Apr-04	10-Mar-04
E274769	04-ESS-030	259.50	260.70	1.621	24-Apr-04	10-Mar-04
E274771	04-ESS-030	260.70	261.50	3.061	24-Apr-04	10-Mar-04
E274772	04-ESS-030	261.50	262.00	3.008	24-Apr-04	10-Mar-04
E274773	04-ESS-030	262.00	263.00	0.062	24-Apr-04	10-Mar-04
E274774	04-ESS-030	263.00	264.00	0.172	24-Apr-04	10-Mar-04
E274775	04-ESS-030	264.00	265.00	0.131	24-Apr-04	10-Mar-04
E274776	04-ESS-030	265.00	266.00	0.530	24-Apr-04	10-Mar-04
E274777	04-ESS-030	266.00	267.00	0.031	24-Apr-04	10-Mar-04
E274778	04-ESS-030	267.00	268.00	0.027	24-Apr-04	10-Mar-04
E274779	04-ESS-030	268.00	269.00	6.743	24-Apr-04	10-Mar-04
E274781	04-ESS-030	269.00	270.00	6.373	24-Apr-04	10-Mar-04
E274782	04-ESS-030	270.00	271.00	0.092	24-Apr-04	10-Mar-04
E274783	04-ESS-030	271.00	272.00	0.492	24-Apr-04	10-Mar-04
E274784	04-ESS-030	272.00	273.00	1.010	24-Apr-04	10-Mar-04
E274785	04-ESS-030	273.00	274.00	0.050	24-Apr-04	10-Mar-04
E274786	04-ESS-030	274.00	275.00	0.430	24-Apr-04	10-Mar-04
E274787	04-ESS-030	275.00	276.00	0.200	24-Apr-04	10-Mar-04
E274788	04-ESS-030	276.00	277.00	0.140	24-Apr-04	10-Mar-04
E274789	04-ESS-030	277.00	278.00	0.135	24-Apr-04	10-Mar-04
E274791	04-ESS-030	278.00	279.00	0.089	24-Apr-04	10-Mar-04
E274792	04-ESS-030	279.00	280.00	0.152	24-Apr-04	10-Mar-04
E274793	04-ESS-030	280.00	281.00	0.174	24-Apr-04	10-Mar-04
E274794	04-ESS-030	281.00	281.90	0.226	24-Apr-04	10-Mar-04
E274795	04-ESS-030	281.90	283.00	0.025	24-Apr-04	10-Mar-04
E274796	04-ESS-030	283.00	284.00	0.010	2-May-04	10-Mar-04
E274797	04-ESS-030	284.00	285.00	0.010	2-May-04	10-Mar-04
E274798	04-ESS-030	285.00	285.50	0.093	24-Apr-04	10-Mar-04
E274799	04-ESS-030	285.50	286.50	0.010	24-Apr-04	10-Mar-04
E274801	04-ESS-020	244.00	245.00	0.617	17-Apr-04	10-Mar-04
E274802	04-ESS-020	245.00	246.00	1.141	17-Apr-04	10-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E274803	04-ESS-020	246.00	247.00	0.061	17-Apr-04	10-Mar-04
E274804	04-ESS-020	247.00	248.00	0.097	17-Apr-04	10-Mar-04
E274805	04-ESS-020	248.00	249.00	0.469	17-Apr-04	10-Mar-04
E274806	04-ESS-020	249.00	250.00	0.134	17-Apr-04	10-Mar-04
E274807	04-ESS-020	250.00	251.00	0.031	17-Apr-04	10-Mar-04
E274808	04-ESS-020	251.00	252.00	0.303	17-Apr-04	10-Mar-04
E274809	04-ESS-020	252.00	253.00	0.115	17-Apr-04	10-Mar-04
E274811	04-ESS-020	253.00	254.00	0.388	17-Apr-04	10-Mar-04
E274812	04-ESS-020	254.00	255.00	0.464	17-Apr-04	10-Mar-04
E274813	04-ESS-020	255.00	256.00	0.160	17-Apr-04	10-Mar-04
E274814	04-ESS-020	256.00	257.00	0.096	17-Apr-04	10-Mar-04
E274815	04-ESS-020	257.00	258.00	0.133	17-Apr-04	10-Mar-04
E274816	04-ESS-020	258.00	259.00	0.440	17-Apr-04	10-Mar-04
E274817	04-ESS-020	259.00	260.00	0.227	17-Apr-04	10-Mar-04
E274818	04-ESS-020	260.00	261.00	0.491	17-Apr-04	10-Mar-04
E274819	04-ESS-020	261.00	262.00	0.579	17-Apr-04	10-Mar-04
E274821	04-ESS-020	262.00	263.00	0.518	17-Apr-04	10-Mar-04
E274822	04-ESS-020	263.00	264.00	0.722	17-Apr-04	10-Mar-04
E274823	04-ESS-020	264.00	265.00	23.030	17-Apr-04	10-Mar-04
E274824	04-ESS-020	265.00	266.00	1.678	17-Apr-04	10-Mar-04
E274825	04-ESS-020	266.00	267.00	58.870	17-Apr-04	10-Mar-04
E274826	04-ESS-020	267.00	268.00	0.263	17-Apr-04	10-Mar-04
E274827	04-ESS-020	268.00	269.00	0.426	17-Apr-04	10-Mar-04
E274828	04-ESS-020	269.00	270.00	0.124	17-Apr-04	10-Mar-04
E274829	04-ESS-020	270.00	271.00	0.517	17-Apr-04	10-Mar-04
E274831	04-ESS-020	271.00	272.00	0.441	17-Apr-04	10-Mar-04
E274832	04-ESS-020	272.00	273.00	0.308	17-Apr-04	10-Mar-04
E274833	04-ESS-020	273.00	274.00	0.215	17-Apr-04	10-Mar-04
E274834	04-ESS-020	274.00	275.00	0.060	17-Apr-04	10-Mar-04
E274835	04-ESS-020	275.00	276.00	0.224	18-Apr-04	10-Mar-04
E274836	04-ESS-020	276.00	277.00	4.421	18-Apr-04	10-Mar-04
E274837	04-ESS-020	277.00	278.00	0.306	18-Apr-04	10-Mar-04
E274838	04-ESS-020	278.00	279.00	0.510	18-Apr-04	10-Mar-04
E274839	04-ESS-020	279.00	280.00	0.162	18-Apr-04	10-Mar-04
E274841	04-ESS-020	280.00	281.00	0.023	18-Apr-04	10-Mar-04
E274842	04-ESS-020	281.00	282.00	0.232	18-Apr-04	10-Mar-04
E274843	04-ESS-020	282.00	283.00	0.078	18-Apr-04	10-Mar-04
E274844	04-ESS-020	283.00	284.00	0.113	18-Apr-04	10-Mar-04
E274845	04-ESS-020	284.00	285.00	0.577	18-Apr-04	10-Mar-04
E274846	04-ESS-020	285.00	286.00	0.049	18-Apr-04	10-Mar-04
E274847	04-ESS-020	286.00	287.00	0.305	18-Apr-04	10-Mar-04
E274848	04-ESS-020	287.00	288.00	0.015	18-Apr-04	11-Mar-04
E274849	04-ESS-020	288.00	289.00	0.025	18-Apr-04	11-Mar-04
E274851	04-ESS-020	289.00	290.00	0.016	18-Apr-04	11-Mar-04
E274852	04-ESS-020	290.00	291.00	0.061	18-Apr-04	11-Mar-04
E274853	04-ESS-020	291.00	292.00	0.066	18-Apr-04	11-Mar-04
E274854	04-ESS-020	292.00	293.00	0.049	18-Apr-04	11-Mar-04
E274855	04-ESS-020	293.00	294.00	0.047	18-Apr-04	11-Mar-04
E274856	04-ESS-020	294.00	295.00	0.054	18-Apr-04	11-Mar-04
E274857	04-ESS-020	295.00	296.00	0.036	18-Apr-04	11-Mar-04
E274858	04-ESS-020	296.00	297.00	0.014	18-Apr-04	11-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E274859	04-ESS-020	297.00	298.00	0.267	18-Apr-04	11-Mar-04
E274861	04-ESS-020	298.00	299.00	0.044	18-Apr-04	11-Mar-04
E274862	04-ESS-020	299.00	300.00	0.202	18-Apr-04	11-Mar-04
E274863	04-ESS-020	300.00	301.00	0.169	18-Apr-04	11-Mar-04
E274864	04-ESS-020	301.00	302.00	0.198	18-Apr-04	11-Mar-04
E274865	04-ESS-020	302.00	303.00	7.969	18-Apr-04	11-Mar-04
E274866	04-ESS-020	303.00	304.00	0.126	18-Apr-04	11-Mar-04
E274867	04-ESS-020	304.00	305.00	1.186	18-Apr-04	11-Mar-04
E274868	04-ESS-020	305.00	306.00	0.270	18-Apr-04	11-Mar-04
E274869	04-ESS-020	306.00	307.00	0.306	18-Apr-04	11-Mar-04
E274871	04-ESS-020	307.00	308.00	0.156	18-Apr-04	11-Mar-04
E274872	04-ESS-020	308.00	309.00	0.528	18-Apr-04	11-Mar-04
E274873	04-ESS-020	309.00	310.00	0.410	18-Apr-04	11-Mar-04
E274874	04-ESS-020	310.00	311.00	0.719	15-Apr-04	11-Mar-04
E274875	04-ESS-020	311.00	312.00	6.038	15-Apr-04	11-Mar-04
E274876	04-ESS-020	312.00	313.00	0.203	15-Apr-04	11-Mar-04
E274877	04-ESS-020	313.00	314.00	0.063	15-Apr-04	11-Mar-04
E274878	04-ESS-020	314.00	315.00	0.036	15-Apr-04	11-Mar-04
E274879	04-ESS-020	315.00	316.00	0.013	15-Apr-04	11-Mar-04
E274881	04-ESS-020	316.00	316.70	0.013	15-Apr-04	11-Mar-04
E274882	04-ESS-020	316.70	317.40	0.015	15-Apr-04	11-Mar-04
E274883	04-ESS-020	317.40	318.00	0.010	15-Apr-04	11-Mar-04
E274884	04-ESS-020	318.00	319.00	0.010	15-Apr-04	11-Mar-04
E274885	04-ESS-020	319.00	320.00	0.010	15-Apr-04	11-Mar-04
E274886	04-ESS-025	36.50	37.50	0.043	4-May-04	11-Mar-04
E274887	04-ESS-025	37.50	38.20	0.128	4-May-04	11-Mar-04
E274888	04-ESS-025	38.20	39.00	0.031	4-May-04	11-Mar-04
E274889	04-ESS-025	39.00	40.00	0.022	4-May-04	11-Mar-04
E274891	04-ESS-025	40.00	41.00	0.044	4-May-04	11-Mar-04
E274892	04-ESS-025	41.00	41.50	0.048	4-Jun-04	11-Mar-04
E274893	04-ESS-025	41.50	42.50	0.013	4-Jun-04	11-Mar-04
E274894	04-ESS-025	42.50	43.50	0.010	4-Jun-04	11-Mar-04
E274895	04-ESS-025	43.50	44.50	0.010	4-Jun-04	11-Mar-04
E274896	04-ESS-025	44.50	45.40	0.010	4-Jun-04	11-Mar-04
E274897	04-ESS-025	45.40	46.20	0.469	4-Jun-04	11-Mar-04
E274898	04-ESS-025	46.20	47.00	0.800	4-Jun-04	11-Mar-04
E274899	04-ESS-025	47.00	48.00	0.043	4-Jun-04	11-Mar-04
E274901	04-ESS-025	48.00	49.00	0.435	4-Jun-04	11-Mar-04
E274902	04-ESS-025	70.80	71.80	0.042	4-Jun-04	12-Mar-04
E274903	04-ESS-025	71.80	72.80	0.055	4-Jun-04	12-Mar-04
E274904	04-ESS-025	72.80	73.80	9.952	4-Jun-04	12-Mar-04
E274905	04-ESS-025	73.80	74.70	5.656	4-Jun-04	12-Mar-04
E274906	04-ESS-025	74.70	75.60	1.456	4-Jun-04	12-Mar-04
E274907	04-ESS-025	75.60	76.10	5.468	4-Jun-04	12-Mar-04
E274908	04-ESS-025	76.10	77.00	0.378	4-Jun-04	12-Mar-04
E274909	04-ESS-025	77.00	78.00	0.307	4-Jun-04	12-Mar-04
E274911	04-ESS-025	84.50	85.50	0.016	4-Jun-04	12-Mar-04
E274912	04-ESS-025	85.50	86.30	0.813	4-Jun-04	12-Mar-04
E274913	04-ESS-025	86.30	87.10	0.153	4-Jun-04	12-Mar-04
E274914	04-ESS-025	87.10	87.70	0.444	4-Jun-04	12-Mar-04
E274915	04-ESS-025	87.70	88.70	0.173	4-Jun-04	12-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E274916	04-ESS-025	88.70	89.20	5.057	4-Jun-04	12-Mar-04
E274917	04-ESS-025	89.20	90.00	7.809	4-Jun-04	12-Mar-04
E274918	04-ESS-025	90.00	91.00	10.200	4-Jun-04	12-Mar-04
E274919	04-ESS-025	91.00	91.70	3.795	4-Jun-04	12-Mar-04
E274921	04-ESS-025	91.70	92.80	0.262	4-Jun-04	12-Mar-04
E274922	04-ESS-025	92.80	94.00	0.297	7-Apr-04	12-Mar-04
E274923	04-ESS-025	94.00	95.00	0.053	7-Apr-04	12-Mar-04
E274924	04-ESS-025	95.00	96.00	0.270	7-Apr-04	12-Mar-04
E274925	04-ESS-025	96.00	97.00	0.037	7-Apr-04	12-Mar-04
E274926	04-ESS-025	97.00	97.80	0.132	7-Apr-04	12-Mar-04
E274927	04-ESS-025	97.80	99.00	0.680	7-Apr-04	12-Mar-04
E274928	04-ESS-025	99.00	100.00	1.723	7-Apr-04	12-Mar-04
E274929	04-ESS-025	100.00	101.00	0.438	7-Apr-04	12-Mar-04
E274931	04-ESS-025	101.00	102.00	0.115	7-Apr-04	12-Mar-04
E274932	04-ESS-025	102.00	103.00	0.249	7-Apr-04	12-Mar-04
E274933	04-ESS-025	103.00	104.00	0.096	7-Apr-04	12-Mar-04
E274934	04-ESS-025	104.00	104.50	0.041	7-Apr-04	12-Mar-04
E274935	04-ESS-025	104.50	105.00	0.013	7-Apr-04	12-Mar-04
E274936	04-ESS-025	105.00	106.00	0.039	7-Apr-04	12-Mar-04
E274937	04-ESS-025	106.00	107.00	0.051	7-Apr-04	12-Mar-04
E274938	04-ESS-025	107.00	108.00	0.059	7-Apr-04	12-Mar-04
E274939	04-ESS-025	108.00	109.00	0.139	7-Apr-04	12-Mar-04
E274941	04-ESS-025	109.00	110.00	0.055	7-Apr-04	12-Mar-04
E274942	04-ESS-025	110.00	111.00	0.703	7-Apr-04	12-Mar-04
E274943	04-ESS-025	111.00	112.00	0.280	7-Apr-04	12-Mar-04
E274944	04-ESS-025	112.00	113.00	0.027	7-Apr-04	12-Mar-04
E274945	04-ESS-025	113.00	114.00	0.113	7-Apr-04	12-Mar-04
E274946	04-ESS-025	114.00	115.00	0.017	7-Apr-04	12-Mar-04
E274947	04-ESS-025	115.00	116.00	0.012	7-Apr-04	12-Mar-04
E274948	04-ESS-025	116.00	117.00	0.024	7-Apr-04	12-Mar-04
E274949	04-ESS-025	117.00	118.00	0.016	7-Apr-04	12-Mar-04
E274951	04-ESS-025	118.00	119.00	0.053	7-Apr-04	12-Mar-04
E274952	04-ESS-025	119.00	120.00	0.035	7-Apr-04	12-Mar-04
E274953	04-ESS-025	120.00	121.10	0.106	7-Apr-04	12-Mar-04
E274954	04-ESS-025	121.10	122.00	0.118	7-Apr-04	12-Mar-04
E274955	04-ESS-025	122.00	123.00	0.024	7-Apr-04	12-Mar-04
E274956	04-ESS-025	123.00	123.60	0.059	7-Apr-04	12-Mar-04
E274957	04-ESS-025	123.60	124.50	0.637	7-Apr-04	12-Mar-04
E274958	04-ESS-025	124.50	125.00	0.468	7-Apr-04	12-Mar-04
E274959	04-ESS-025	125.00	126.00	0.131	7-Apr-04	12-Mar-04
E274961	04-ESS-025	126.00	127.00	0.074	8-Apr-04	12-Mar-04
E274962	04-ESS-025	127.00	127.60	0.032	8-Apr-04	12-Mar-04
E274963	04-ESS-025	127.60	128.30	0.010	8-Apr-04	12-Mar-04
E274964	04-ESS-025	128.30	129.00	0.022	8-Apr-04	12-Mar-04
E274965	04-ESS-025	129.00	130.00	0.079	8-Apr-04	12-Mar-04
E274966	04-ESS-025	130.00	131.00	0.036	8-Apr-04	12-Mar-04
E274967	04-ESS-025	131.00	132.00	0.035	8-Apr-04	12-Mar-04
E274968	04-ESS-025	132.00	133.00	0.031	8-Apr-04	12-Mar-04
E274969	04-ESS-025	133.00	134.00	0.061	8-Apr-04	12-Mar-04
E274971	04-ESS-025	134.00	134.60	0.058	8-Apr-04	12-Mar-04
E274972	04-ESS-025	134.60	135.50	0.170	8-Apr-04	12-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E274973	04-ESS-025	135.50	136.50	0.037	8-Apr-04	12-Mar-04
E274974	04-ESS-025	136.50	137.50	0.169	8-Apr-04	12-Mar-04
E274975	04-ESS-025	137.50	138.50	0.351	8-Apr-04	12-Mar-04
E274976	04-ESS-025	138.50	139.50	0.280	8-Apr-04	12-Mar-04
E274977	04-ESS-025	139.50	140.50	0.554	8-Apr-04	12-Mar-04
E274978	04-ESS-025	140.50	141.00	0.425	8-Apr-04	13-Mar-04
E274979	04-ESS-025	141.00	142.00	1.559	8-Apr-04	13-Mar-04
E274981	04-ESS-025	142.00	142.80	0.394	8-Apr-04	13-Mar-04
E274982	04-ESS-025	142.80	143.30	0.483	8-Apr-04	13-Mar-04
E274983	04-ESS-025	143.30	144.20	0.362	8-Apr-04	13-Mar-04
E274984	04-ESS-025	144.20	144.90	2.475	8-Apr-04	13-Mar-04
E274985	04-ESS-025	144.90	146.00	0.348	8-Apr-04	13-Mar-04
E274986	04-ESS-025	146.00	147.00	0.291	8-Apr-04	13-Mar-04
E274987	04-ESS-025	147.00	148.00	0.198	8-Apr-04	13-Mar-04
E274988	04-ESS-025	148.00	149.10	3.243	8-Apr-04	13-Mar-04
E274989	04-ESS-025	149.10	150.00	1.613	8-Apr-04	13-Mar-04
E274991	04-ESS-025	150.00	151.00	0.866	8-Apr-04	13-Mar-04
E274992	04-ESS-025	151.00	152.00	0.165	8-Apr-04	13-Mar-04
E274993	04-ESS-025	152.00	153.00	1.130	8-Apr-04	13-Mar-04
E274994	04-ESS-025	153.00	154.00	1.648	8-Apr-04	15-Mar-04
E274995	04-ESS-025	154.00	155.00	2.317	7-Apr-04	15-Mar-04
E274996	04-ESS-025	155.00	156.00	0.151	7-Apr-04	15-Mar-04
E274997	04-ESS-025	156.00	156.70	0.093	7-Apr-04	15-Mar-04
E274998	04-ESS-025	156.70	157.50	0.776	7-Apr-04	15-Mar-04
E274999	04-ESS-025	157.50	158.00	0.192	7-Apr-04	15-Mar-04
E275001	04-ISL-006	44.90	45.90	0.195	21-Apr-04	23-Mar-04
E275002	04-ISL-006	45.90	46.40	0.031	21-Apr-04	23-Mar-04
E275003	04-ISL-006	46.40	47.00	0.022	21-Apr-04	23-Mar-04
E275004	04-ISL-006	47.00	48.00	0.036	21-Apr-04	23-Mar-04
E275005	04-ISL-006	48.00	48.80	0.035	21-Apr-04	23-Mar-04
E275006	04-ISL-006	48.80	49.90	0.037	21-Apr-04	23-Mar-04
E275007	04-ISL-006	49.90	51.00	0.050	21-Apr-04	23-Mar-04
E275008	04-ISL-006	51.00	52.00	0.021	21-Apr-04	23-Mar-04
E275009	04-ISL-006	52.00	53.00	0.028	21-Apr-04	23-Mar-04
E275011	04-ISL-006	53.00	54.00	0.018	21-Apr-04	23-Mar-04
E275012	04-ISL-006	54.00	55.00	0.027	21-Apr-04	23-Mar-04
E275013	04-ISL-006	55.00	56.00	0.035	21-Apr-04	23-Mar-04
E275014	04-ISL-006	56.00	56.90	0.050	21-Apr-04	23-Mar-04
E275015	04-ISL-006	56.90	57.90	0.021	21-Apr-04	23-Mar-04
E275016	04-ISL-006	57.90	59.00	0.086	21-Apr-04	23-Mar-04
E275017	04-ISL-006	59.00	59.80	0.023	21-Apr-04	23-Mar-04
E275018	04-ISL-006	59.80	60.60	0.830	21-Apr-04	23-Mar-04
E275019	04-ISL-006	60.60	61.60	2.954	21-Apr-04	23-Mar-04
E275021	04-ISL-006	61.60	62.75	0.105	22-Apr-04	23-Mar-04
E275022	04-ISL-006	62.75	63.75	7.160	22-Apr-04	23-Mar-04
E275023	04-ISL-006	63.75	64.60	1.052	22-Apr-04	23-Mar-04
E275024	04-ISL-006	64.60	65.30	0.267	22-Apr-04	23-Mar-04
E275025	04-ISL-006	65.30	66.00	0.502	22-Apr-04	27-Apr-04
E275026	04-ISL-006	66.00	67.00	1.098	20-Apr-04	24-Mar-04
E275027	04-ISL-006	67.00	68.00	3.568	20-Apr-04	24-Mar-04
E275028	04-ISL-006	68.00	69.00	0.471	20-Apr-04	24-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275029	04-ISL-006	69.00	69.50	0.932	20-Apr-04	24-Mar-04
E275031	04-ISL-006	69.50	70.10	5.162	21-Apr-04	24-Mar-04
E275032	04-ISL-006	70.10	71.00	0.993	21-Apr-04	24-Mar-04
E275033	04-ISL-006	71.00	72.00	1.777	21-Apr-04	24-Mar-04
E275034	04-ISL-006	72.00	73.00	0.646	21-Apr-04	24-Mar-04
E275035	04-ISL-006	73.00	74.00	1.888	21-Apr-04	24-Mar-04
E275036	04-ISL-006	74.00	75.00	4.483	21-Apr-04	24-Mar-04
E275037	04-ISL-006	75.00	75.50	0.541	21-Apr-04	24-Mar-04
E275038	04-ISL-006	75.50	76.10	4.785	21-Apr-04	24-Mar-04
E275039	04-ISL-006	76.10	77.00	8.677	21-Apr-04	24-Mar-04
E275041	04-ISL-006	77.00	78.00	0.771	21-Apr-04	24-Mar-04
E275042	04-ISL-006	78.00	79.00	0.143	21-Apr-04	24-Mar-04
E275043	04-ISL-006	79.00	80.00	0.087	21-Apr-04	24-Mar-04
E275044	04-ISL-006	80.00	81.00	0.057	21-Apr-04	24-Mar-04
E275045	04-ISL-006	81.00	82.00	0.034	21-Apr-04	24-Mar-04
E275046	04-ISL-006	82.00	83.00	0.026	21-Apr-04	24-Mar-04
E275047	04-ISL-006	83.00	84.30	0.021	21-Apr-04	24-Mar-04
E275048	04-ISL-006	84.30	84.80	0.039	21-Apr-04	24-Mar-04
E275049	04-ISL-006	84.80	85.40	0.020	21-Apr-04	24-Mar-04
E275051	04-ISL-006	85.40	86.00	0.011	21-Apr-04	24-Mar-04
E275052	04-ISL-006	86.00	87.10	0.037	21-Apr-04	24-Mar-04
E275053	04-ISL-006	87.10	88.00	0.025	21-Apr-04	24-Mar-04
E275054	04-ISL-006	88.00	88.50	0.021	21-Apr-04	24-Mar-04
E275055	04-ISL-006	88.50	89.50	0.030	21-Apr-04	24-Mar-04
E275056	04-ISL-006	89.50	90.00	0.010	21-Apr-04	24-Mar-04
E275057	04-ISL-006	90.00	90.50	0.010	21-Apr-04	24-Mar-04
E275058	04-ISL-006	96.75	97.25	0.010	21-Apr-04	24-Mar-04
E275059	04-ISL-006	97.25	97.85	0.028	21-Apr-04	24-Mar-04
E275061	04-ISL-006	97.85	98.50	0.015	21-Apr-04	24-Mar-04
E275062	04-ISL-009	34.40	35.10	0.044	15-Apr-04	25-Mar-04
E275063	04-ISL-009	35.10	36.00	0.068	15-Apr-04	25-Mar-04
E275064	04-ISL-009	36.00	37.00	15.070	15-Apr-04	25-Mar-04
E275065	04-ISL-009	37.00	38.00	5.784	15-Apr-04	25-Mar-04
E275066	04-ISL-009	38.00	39.00	5.087	15-Apr-04	25-Mar-04
E275067	04-ISL-009	39.00	40.00	0.051	15-Apr-04	25-Mar-04
E275068	04-ISL-009	40.00	41.00	0.046	15-Apr-04	25-Mar-04
E275069	04-ISL-009	41.00	42.00	0.022	15-Apr-04	25-Mar-04
E275071	04-ISL-009	42.00	43.00	0.012	15-Apr-04	25-Mar-04
E275072	04-ISL-009	43.00	44.00	0.026	15-Apr-04	25-Mar-04
E275073	04-ISL-009	44.00	45.00	0.019	15-Apr-04	25-Mar-04
E275074	04-ISL-009	45.00	46.00	14.070	15-Apr-04	25-Mar-04
E275075	04-ISL-009	46.00	47.00	0.030	15-Apr-04	25-Mar-04
E275076	04-ISL-009	47.00	48.00	0.020	15-Apr-04	25-Mar-04
E275077	04-ISL-009	48.00	49.00	0.062	15-Apr-04	25-Mar-04
E275078	04-ISL-009	49.00	50.00	0.046	15-Apr-04	25-Mar-04
E275079	04-ISL-009	50.00	51.00	0.482	15-Apr-04	25-Mar-04
E275081	04-ISL-009	51.00	52.00	0.230	15-Apr-04	25-Mar-04
E275082	04-ISL-009	52.00	53.00	0.020	15-Apr-04	25-Mar-04
E275083	04-ISL-009	53.00	54.00	0.073	15-Apr-04	25-Mar-04
E275084	04-ISL-009	54.00	55.00	0.287	15-Apr-04	25-Mar-04
E275085	04-ISL-009	55.00	55.70	0.393	15-Apr-04	25-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275086	04-ISL-009	55.70	56.40	0.013	15-Apr-04	25-Mar-04
E275087	04-ISL-009	56.40	57.10	1.412	15-Apr-04	25-Mar-04
E275088	04-ISL-009	57.10	58.00	0.031	15-Apr-04	25-Mar-04
E275089	04-ISL-009	58.00	58.80	1.322	15-Apr-04	25-Mar-04
E275091	04-ISL-009	58.80	60.00	0.065	15-Apr-04	25-Mar-04
E275092	04-ISL-009	60.00	61.00	0.066	15-Apr-04	25-Mar-04
E275093	04-ISL-009	61.00	62.00	0.026	15-Apr-04	25-Mar-04
E275094	04-ISL-009	62.00	62.90	0.068	15-Apr-04	25-Mar-04
E275095	04-ISL-009	62.90	64.00	0.351	15-Apr-04	25-Mar-04
E275096	04-ISL-009	64.00	64.75	0.147	15-Apr-04	25-Mar-04
E275097	04-ISL-009	64.75	65.75	0.543	15-Apr-04	25-Mar-04
E275098	04-ISL-009	65.75	66.35	0.938	15-Apr-04	25-Mar-04
E275099	04-ISL-009	66.35	67.00	0.134	15-Apr-04	25-Mar-04
E275101	04-ISL-009	67.00	68.00	0.228	15-Apr-04	25-Mar-04
E275102	04-ISL-009	68.00	69.00	1.187	15-Apr-04	25-Mar-04
E275103	04-ISL-009	69.00	70.00	1.765	15-Apr-04	25-Mar-04
E275104	04-ISL-009	70.00	71.00	2.786	15-Apr-04	25-Mar-04
E275105	04-ISL-009	71.00	71.70	0.677	15-Apr-04	25-Mar-04
E275106	04-ISL-009	71.70	72.70	0.143	15-Apr-04	25-Mar-04
E275107	04-ISL-009	72.70	73.70	0.154	15-Apr-04	25-Mar-04
E275108	04-ISL-009	73.70	74.70	2.460	15-Apr-04	25-Mar-04
E275109	04-ISL-009	74.70	75.70	1.286	15-Apr-04	25-Mar-04
E275111	04-ISL-009	75.70	76.20	0.682	15-Apr-04	25-Mar-04
E275112	04-ISL-009	76.20	77.20	0.194	15-Apr-04	25-Mar-04
E275113	04-ISL-009	77.20	78.00	0.027	15-Apr-04	25-Mar-04
E275114	04-ISL-009	78.00	79.00	0.063	15-Apr-04	25-Mar-04
E275115	04-ISL-009	79.00	80.00	0.039	15-Apr-04	25-Mar-04
E275116	04-ISL-009	80.00	81.00	0.089	15-Apr-04	25-Mar-04
E275117	04-ISL-009	81.00	82.00	2.530	15-Apr-04	25-Mar-04
E275118	04-ISL-009	82.00	83.00	0.163	15-Apr-04	25-Mar-04
E275119	04-ISL-009	83.00	84.00	0.078	15-Apr-04	25-Mar-04
E275121	04-ISL-009	84.00	85.00	0.084	15-Apr-04	25-Mar-04
E275122	04-ISL-009	85.00	86.00	0.067	15-Apr-04	25-Mar-04
E275123	04-ISL-009	86.00	87.00	0.029	15-Apr-04	25-Mar-04
E275124	04-ISL-009	87.00	87.90	0.031	15-Apr-04	25-Mar-04
E275125	04-ISL-009	87.90	89.00	0.192	15-Apr-04	25-Mar-04
E275126	04-ISL-009	89.00	89.90	0.025	15-Apr-04	25-Mar-04
E275127	04-ISL-009	89.90	91.00	0.021	15-Apr-04	25-Mar-04
E275128	04-ISL-009	91.00	92.00	0.172	15-Apr-04	25-Mar-04
E275129	04-ISL-009	92.00	93.10	0.065	15-Apr-04	25-Mar-04
E275131	04-ISL-009	93.10	93.80	0.037	15-Apr-04	25-Mar-04
E275132	04-ISL-009	93.80	94.60	0.076	15-Apr-04	25-Mar-04
E275133	04-ISL-009	94.60	95.60	0.076	15-Apr-04	25-Mar-04
E275134	04-ISL-009	95.60	96.50	0.163	15-Apr-04	25-Mar-04
E275135	04-ISL-009	96.50	97.00	0.015	15-Apr-04	25-Mar-04
E275136	04-ISL-009	97.00	98.00	0.036	15-Apr-04	25-Mar-04
E275137	04-ISL-009	98.00	99.00	0.026	15-Apr-04	25-Mar-04
E275138	04-ISL-009	99.00	100.00	0.058	15-Apr-04	25-Mar-04
E275139	04-ISL-009	100.00	101.00	0.042	15-Apr-04	25-Mar-04
E275141	04-ISL-009	101.00	102.00	0.033	15-Apr-04	25-Mar-04
E275142	04-ISL-009	102.00	102.50	0.081	16-Apr-04	25-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275143	04-ISL-009	102.50	103.00	16.930	15-Apr-04	25-Mar-04
E275144	04-ISL-009	103.00	104.10	0.098	16-Apr-04	25-Mar-04
E275145	04-ISL-009	104.10	105.00	0.024	16-Apr-04	25-Mar-04
E275146	04-ISL-009	105.00	106.00	0.026	16-Apr-04	25-Mar-04
E275147	04-ISL-009	106.00	107.00	0.026	16-Apr-04	25-Mar-04
E275148	04-ISL-009	107.00	108.00	0.208	16-Apr-04	25-Mar-04
E275149	04-ISL-009	108.00	109.00	0.156	16-Apr-04	25-Mar-04
E275151	04-ISL-009	109.00	110.40	0.938	29-Mar-04	25-Mar-04
E275152	04-ISL-009	110.40	110.90	7.179	29-Mar-04	25-Mar-04
E275153	04-ISL-009	110.90	112.00	2.031	29-Mar-04	25-Mar-04
E275154	04-ISL-009	112.00	113.30	7.966	29-Mar-04	25-Mar-04
E275155	04-ISL-009	113.30	114.00	12.900	30-Mar-04	25-Mar-04
E275156	04-ISL-009	114.00	115.00	3.657	29-Mar-04	25-Mar-04
E275157	04-ISL-009	115.00	116.00	5.336	30-Mar-04	25-Mar-04
E275158	04-ISL-009	116.00	117.00	5.642	30-Mar-04	25-Mar-04
E275159	04-ISL-009	117.00	118.00	3.949	30-Mar-04	25-Mar-04
E275161	04-ISL-009	118.00	118.50	2.492	30-Mar-04	25-Mar-04
E275162	04-ISL-009	118.50	119.20	0.955	30-Mar-04	25-Mar-04
E275163	04-ISL-009	119.20	120.20	6.621	30-Mar-04	25-Mar-04
E275164	04-ISL-009	120.20	121.00	2.934	30-Mar-04	25-Mar-04
E275165	04-ISL-009	121.00	121.80	0.230	30-Mar-04	25-Mar-04
E275166	04-ISL-009	121.80	123.00	0.013	15-Apr-04	25-Mar-04
E275167	04-ISL-009	123.00	124.00	0.165	15-Apr-04	25-Mar-04
E275168	04-ISL-009	124.00	124.50	0.042	16-Apr-04	25-Mar-04
E275169	04-ISL-009	124.50	125.50	0.123	16-Apr-04	25-Mar-04
E275171	04-ISL-009	125.50	126.40	0.073	16-Apr-04	26-Mar-04
E275172	04-ISL-009	126.40	127.40	0.048	16-Apr-04	26-Mar-04
E275173	04-ISL-009	127.40	128.55	0.023	16-Apr-04	26-Mar-04
E275174	04-ISL-009	128.55	129.35	0.025	16-Apr-04	26-Mar-04
E275175	04-ISL-009	129.35	130.00	0.029	16-Apr-04	26-Mar-04
E275176	04-ISL-009	130.00	131.10	0.137	16-Apr-04	26-Mar-04
E275177	04-ISL-009	131.10	132.10	0.060	16-Apr-04	26-Mar-04
E275178	04-ISL-009	132.10	132.90	0.050	16-Apr-04	26-Mar-04
E275179	04-ISL-009	132.90	133.50	0.048	16-Apr-04	26-Mar-04
E275181	04-ISL-009	133.50	134.20	0.023	16-Apr-04	26-Mar-04
E275182	04-ISL-010	47.00	47.50	0.015	13-Apr-04	26-Mar-04
E275183	04-ISL-010	47.50	48.00	0.055	13-Apr-04	26-Mar-04
E275184	04-ISL-010	48.00	49.00	0.058	13-Apr-04	26-Mar-04
E275185	04-ISL-010	49.00	49.70	0.016	13-Apr-04	26-Mar-04
E275186	04-ISL-010	49.70	50.20	0.016	13-Apr-04	26-Mar-04
E275187	04-ISL-010	78.00	78.30	0.023	13-Apr-04	26-Mar-04
E275188	04-ISL-010	78.30	79.00	0.071	13-Apr-04	26-Mar-04
E275189	04-ISL-010	79.00	80.20	0.031	13-Apr-04	26-Mar-04
E275191	04-ISL-010	80.20	81.70	0.028	13-Apr-04	26-Mar-04
E275192	04-ISL-010	81.70	82.20	0.014	13-Apr-04	26-Mar-04
E275193	04-ISL-010	100.00	100.70	0.010	13-Apr-04	26-Mar-04
E275194	04-ISL-010	100.70	101.30	0.018	13-Apr-04	26-Mar-04
E275195	04-ISL-010	101.30	102.00	0.010	13-Apr-04	26-Mar-04
E275196	04-ISL-010	103.70	104.30	0.010	13-Apr-04	26-Mar-04
E275197	04-ISL-010	104.30	105.30	0.021	13-Apr-04	26-Mar-04
E275198	04-ISL-010	105.30	106.00	0.199	13-Apr-04	26-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275199	04-ISL-010	106.00	107.00	0.018	13-Apr-04	26-Mar-04
E275201	04-ISL-010	107.00	107.50	0.255	12-Apr-04	26-Mar-04
E275202	04-ISL-010	107.50	108.20	0.011	12-Apr-04	26-Mar-04
E275203	04-ISL-010	108.20	108.80	0.027	12-Apr-04	26-Mar-04
E275204	04-ISL-010	111.85	112.55	0.019	12-Apr-04	27-Mar-04
E275205	04-ISL-010	112.55	113.10	0.250	12-Apr-04	27-Mar-04
E275206	04-ISL-010	113.10	114.10	0.495	12-Apr-04	27-Mar-04
E275207	04-ISL-010	114.10	114.70	0.032	12-Apr-04	27-Mar-04
E275208	04-ISL-010	118.00	118.40	0.012	12-Apr-04	27-Mar-04
E275209	04-ISL-010	118.40	118.90	3.509	12-Apr-04	27-Mar-04
E275211	04-ISL-010	118.90	120.00	0.084	12-Apr-04	27-Mar-04
E275212	04-ISL-010	120.00	120.40	0.173	12-Apr-04	27-Mar-04
E275213	04-ISL-010	120.40	121.00	0.030	12-Apr-04	27-Mar-04
E275214	04-ISL-010	121.90	122.70	0.012	12-Apr-04	27-Mar-04
E275215	04-ISL-010	122.70	123.30	0.016	12-Apr-04	27-Mar-04
E275216	04-ISL-010	123.30	124.30	0.045	12-Apr-04	27-Mar-04
E275217	04-ISL-010	124.30	125.50	0.336	12-Apr-04	27-Mar-04
E275218	04-ISL-010	125.50	126.00	3.940	12-Apr-04	27-Mar-04
E275219	04-ISL-010	126.00	127.00	0.028	12-Apr-04	27-Mar-04
E275221	04-ISL-010	127.00	128.00	0.101	13-Apr-04	27-Mar-04
E275222	04-ISL-010	128.00	128.70	0.028	13-Apr-04	27-Mar-04
E275223	04-ISL-010	128.70	130.00	0.049	13-Apr-04	27-Mar-04
E275224	04-ISL-010	130.00	131.00	0.013	13-Apr-04	27-Mar-04
E275225	04-ISL-010	131.00	132.00	1.564	13-Apr-04	27-Mar-04
E275226	04-ISL-010	132.00	133.10	0.220	13-Apr-04	27-Mar-04
E275227	04-ISL-010	133.10	134.00	0.028	13-Apr-04	27-Mar-04
E275228	04-ISL-010	134.00	134.60	0.014	13-Apr-04	27-Mar-04
E275229	04-ISL-010	134.60	135.60	0.010	14-Apr-04	27-Mar-04
E275231	04-ISL-010	135.60	136.60	0.010	14-Apr-04	27-Mar-04
E275232	04-ISL-010	136.60	137.60	0.010	14-Apr-04	27-Mar-04
E275233	04-ISL-010	137.60	138.60	0.010	14-Apr-04	27-Mar-04
E275234	04-ISL-010	138.60	139.20	0.010	14-Apr-04	27-Mar-04
E275235	04-ISL-010	139.20	140.00	0.015	14-Apr-04	27-Mar-04
E275236	04-ISL-010	140.00	141.00	0.010	14-Apr-04	27-Mar-04
E275237	04-ISL-010	141.00	142.00	0.043	14-Apr-04	27-Mar-04
E275238	04-ISL-010	142.00	143.00	0.010	14-Apr-04	27-Mar-04
E275239	04-ISL-010	143.00	144.00	0.015	14-Apr-04	27-Mar-04
E275241	04-ISL-010	144.00	145.00	0.171	14-Apr-04	27-Mar-04
E275242	04-ISL-010	145.00	146.00	0.231	14-Apr-04	27-Mar-04
E275243	04-ISL-010	146.00	146.90	0.010	14-Apr-04	27-Mar-04
E275244	04-ISL-010	146.90	148.00	0.244	14-Apr-04	27-Mar-04
E275245	04-ISL-010	148.00	149.00	0.059	14-Apr-04	27-Mar-04
E275246	04-ISL-010	149.00	150.00	0.045	14-Apr-04	27-Mar-04
E275247	04-ISL-010	150.00	151.00	0.050	14-Apr-04	27-Mar-04
E275248	04-ISL-010	151.00	152.00	0.165	14-Apr-04	27-Mar-04
E275249	04-ISL-010	152.00	153.00	0.214	14-Apr-04	27-Mar-04
E275251	04-ESS-021	120.30	121.30	1.961	25-Apr-04	13-Mar-04
E275252	04-ESS-021	151.00	152.00	0.026	25-Apr-04	13-Mar-04
E275253	04-ESS-021	152.00	153.00	0.137	25-Apr-04	13-Mar-04
E275254	04-ESS-021	153.00	154.00	0.022	25-Apr-04	13-Mar-04
E275255	04-ESS-021	154.00	155.00	0.027	25-Apr-04	13-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome—Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275256	04-ESS-021	155.00	156.00	0.028	25-Apr-04	13-Mar-04
E275257	04-ESS-021	156.00	157.00	0.033	25-Apr-04	13-Mar-04
E275258	04-ESS-021	157.00	158.00	0.013	25-Apr-04	13-Mar-04
E275259	04-ESS-021	158.00	159.00	0.010	25-Apr-04	13-Mar-04
E275261	04-ESS-021	159.00	159.70	0.014	25-Apr-04	13-Mar-04
E275262	04-ESS-021	159.70	160.50	0.055	25-Apr-04	13-Mar-04
E275263	04-ESS-021	160.50	161.60	0.016	25-Apr-04	13-Mar-04
E275264	04-ESS-021	161.60	162.20	0.010	25-Apr-04	13-Mar-04
E275265	04-ESS-021	162.20	163.20	0.278	25-Apr-04	13-Mar-04
E275266	04-ESS-021	163.20	163.80	0.063	25-Apr-04	13-Mar-04
E275267	04-ESS-021	163.80	165.00	0.084	25-Apr-04	15-Mar-04
E275268	04-ESS-021	165.00	166.00	0.011	25-Apr-04	15-Mar-04
E275269	04-ESS-021	166.00	167.00	0.030	25-Apr-04	15-Mar-04
E275271	04-ESS-021	167.00	167.70	0.206	26-Apr-04	15-Mar-04
E275272	04-ESS-021	167.70	168.50	0.119	26-Apr-04	15-Mar-04
E275273	04-ESS-021	168.50	169.00	0.064	26-Apr-04	15-Mar-04
E275274	04-ESS-021	169.00	170.00	0.101	26-Apr-04	15-Mar-04
E275275	04-ESS-021	170.00	171.00	0.037	26-Apr-04	15-Mar-04
E275276	04-ESS-021	171.00	172.00	0.989	26-Apr-04	15-Mar-04
E275277	04-ESS-021	172.00	172.80	4.544	26-Apr-04	15-Mar-04
E275278	04-ESS-021	172.80	173.30	1.228	26-Apr-04	15-Mar-04
E275279	04-ESS-021	173.30	174.10	0.030	26-Apr-04	15-Mar-04
E275281	04-ESS-021	174.10	175.10	0.015	26-Apr-04	15-Mar-04
E275282	04-ESS-021	175.10	176.10	0.010	26-Apr-04	15-Mar-04
E275283	04-ESS-021	176.10	176.60	2.725	26-Apr-04	15-Mar-04
E275284	04-ESS-021	176.60	177.50	0.672	26-Apr-04	15-Mar-04
E275285	04-ESS-021	177.50	178.50	0.050	26-Apr-04	15-Mar-04
E275286	04-ESS-021	178.50	179.50	0.021	26-Apr-04	15-Mar-04
E275287	04-ESS-021	179.50	180.50	1.667	26-Apr-04	15-Mar-04
E275288	04-ESS-021	180.50	181.00	0.249	26-Apr-04	15-Mar-04
E275289	04-ESS-021	194.30	195.30	0.071	26-Apr-04	15-Mar-04
E275291	04-ESS-021	195.30	196.30	0.300	26-Apr-04	15-Mar-04
E275292	04-ESS-021	196.30	197.30	6.468	26-Apr-04	15-Mar-04
E275293	04-ESS-021	197.30	198.50	4.376	26-Apr-04	15-Mar-04
E275294	04-ESS-021	198.50	199.50	3.274	26-Apr-04	15-Mar-04
E275295	04-ESS-021	199.50	200.50	1.867	26-Apr-04	15-Mar-04
E275296	04-ESS-021	200.50	201.50	0.878	26-Apr-04	15-Mar-04
E275297	04-ESS-021	201.50	202.50	0.029	26-Apr-04	15-Mar-04
E275298	04-ESS-021	202.50	203.00	0.056	26-Apr-04	15-Mar-04
E275299	04-ESS-021	203.00	203.90	0.546	26-Apr-04	15-Mar-04
E275301	04-ESS-021	203.90	204.90	0.670	26-Apr-04	15-Mar-04
E275302	04-ESS-021	204.90	206.00	2.130	26-Apr-04	15-Mar-04
E275303	04-ESS-021	206.00	207.00	2.447	26-Apr-04	15-Mar-04
E275304	04-ESS-021	207.00	208.00	1.619	26-Apr-04	15-Mar-04
E275305	04-ESS-021	208.00	209.00	0.379	26-Apr-04	15-Mar-04
E275306	04-ESS-021	209.00	210.00	0.099	26-Apr-04	15-Mar-04
E275307	04-ESS-021	210.00	210.80	0.063	26-Apr-04	15-Mar-04
E275308	04-ESS-021	210.80	212.00	0.099	26-Apr-04	15-Mar-04
E275309	04-ESS-021	212.00	213.00	0.010	26-Apr-04	15-Mar-04
E275311	04-ESS-021	213.00	214.00	0.013	25-Apr-04	15-Mar-04
E275312	04-ESS-021	214.00	215.00	0.141	25-Apr-04	15-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275313	04-ESS-021	215.00	216.00	0.394	25-Apr-04	15-Mar-04
E275314	04-ESS-021	216.00	217.00	0.050	25-Apr-04	15-Mar-04
E275315	04-ESS-021	217.00	218.00	0.590	25-Apr-04	15-Mar-04
E275316	04-ESS-021	218.00	219.00	0.028	25-Apr-04	15-Mar-04
E275317	04-ESS-021	219.00	220.00	0.057	25-Apr-04	15-Mar-04
E275318	04-ESS-021	220.00	221.00	0.343	25-Apr-04	15-Mar-04
E275319	04-ESS-021	221.00	222.00	0.079	25-Apr-04	15-Mar-04
E275321	04-ESS-021	222.00	223.00	0.053	25-Apr-04	15-Mar-04
E275322	04-ESS-021	223.00	224.00	0.026	25-Apr-04	15-Mar-04
E275323	04-ESS-021	224.00	225.00	0.047	25-Apr-04	15-Mar-04
E275324	04-ESS-021	225.00	226.00	0.025	25-Apr-04	15-Mar-04
E275325	04-ESS-021	226.00	227.00	0.674	25-Apr-04	15-Mar-04
E275326	04-ESS-021	227.00	227.50	0.016	25-Apr-04	28-Apr-04
E275327	04-ESS-021	227.50	228.50	0.010	25-Apr-04	28-Apr-04
E275328	04-ESS-021	228.50	229.50	0.827	25-Apr-04	28-Apr-04
E275329	04-ESS-012	35.70	36.20	0.063	9-Apr-04	21-Mar-04
E275331	04-ESS-012	36.20	37.00	1.136	9-Apr-04	21-Mar-04
E275332	04-ESS-012	37.00	37.45	2.195	9-Apr-04	21-Mar-04
E275333	04-ESS-012	37.45	38.10	0.101	9-Apr-04	21-Mar-04
E275334	04-ESS-012	38.10	38.70	1.340	9-Apr-04	21-Mar-04
E275335	04-ESS-012	38.70	40.00	0.037	9-Apr-04	21-Mar-04
E275336	04-ESS-012	40.00	41.00	0.032	9-Apr-04	21-Mar-04
E275337	04-ESS-012	41.00	41.90	0.042	9-Apr-04	21-Mar-04
E275338	04-ESS-012	41.90	43.00	0.032	9-Apr-04	21-Mar-04
E275339	04-ESS-012	43.00	44.00	0.056	9-Apr-04	21-Mar-04
E275341	04-ESS-012	44.00	44.50	0.085	9-Apr-04	21-Mar-04
E275342	04-ESS-012	44.50	45.15	0.459	9-Apr-04	21-Mar-04
E275343	04-ESS-012	45.15	45.80	0.596	9-Apr-04	21-Mar-04
E275344	04-ESS-012	45.80	47.00	0.571	9-Apr-04	21-Mar-04
E275345	04-ESS-012	47.00	48.00	0.338	9-Apr-04	21-Mar-04
E275346	04-ESS-012	48.00	49.00	0.074	9-Apr-04	21-Mar-04
E275347	04-ESS-012	49.00	50.00	0.052	9-Apr-04	21-Mar-04
E275348	04-ESS-012	50.00	51.15	0.173	9-Apr-04	21-Mar-04
E275349	04-ESS-012	51.15	51.65	0.077	9-Apr-04	21-Mar-04
E275351	04-ESS-012	51.65	52.50	0.146	9-Apr-04	21-Mar-04
E275352	04-ESS-012	52.50	53.00	0.369	9-Apr-04	21-Mar-04
E275353	04-ESS-012	53.00	54.00	0.239	9-Apr-04	21-Mar-04
E275354	04-ESS-012	54.00	55.00	0.155	9-Apr-04	21-Mar-04
E275355	04-ESS-012	55.00	56.00	0.365	9-Apr-04	21-Mar-04
E275356	04-ESS-012	56.00	57.00	3.308	9-Apr-04	21-Mar-04
E275357	04-ESS-012	57.00	57.70	0.112	9-Apr-04	21-Mar-04
E275358	04-ESS-012	57.70	59.00	0.065	9-Apr-04	21-Mar-04
E275359	04-ESS-012	59.00	60.00	0.141	9-Apr-04	21-Mar-04
E275361	04-ESS-012	60.00	60.90	0.055	9-Apr-04	21-Mar-04
E275362	04-ESS-012	60.90	61.60	0.221	9-Apr-04	21-Mar-04
E275363	04-ESS-012	61.60	62.30	1.015	9-Apr-04	21-Mar-04
E275364	04-ESS-012	62.30	63.00	0.276	9-Apr-04	21-Mar-04
E275365	04-ESS-012	63.00	64.10	0.373	9-Apr-04	21-Mar-04
E275366	04-ESS-012	64.10	64.75	0.761	9-Apr-04	21-Mar-04
E275367	04-ESS-012	64.75	66.00	0.263	9-Apr-04	21-Mar-04
E275368	04-ESS-012	66.00	67.00	0.082	9-Apr-04	21-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome - Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275369	04-ESS-012	67.00	67.70	0.050	9-Apr-04	21-Mar-04
E275371	04-ESS-012	67.70	68.40	0.189	9-Apr-04	21-Mar-04
E275372	04-ESS-012	68.40	69.10	0.148	9-Apr-04	21-Mar-04
E275373	04-ESS-012	69.10	70.00	0.054	9-Apr-04	21-Mar-04
E275374	04-ESS-012	70.00	71.00	0.045	9-Apr-04	21-Mar-04
E275375	04-ESS-012	71.00	72.00	0.062	9-Apr-04	21-Mar-04
E275376	04-ESS-012	72.00	72.80	0.065	9-Apr-04	21-Mar-04
E275377	04-ESS-012	72.80	73.80	0.325	11-Apr-04	21-Mar-04
E275378	04-ESS-012	73.80	75.00	1.574	11-Apr-04	21-Mar-04
E275379	04-ESS-012	75.00	76.00	1.300	11-Apr-04	21-Mar-04
E275381	04-ESS-012	76.00	77.00	0.819	11-Apr-04	21-Mar-04
E275382	04-ESS-012	77.00	78.00	0.224	11-Apr-04	21-Mar-04
E275383	04-ESS-012	78.00	78.80	0.291	11-Apr-04	21-Mar-04
E275384	04-ESS-012	78.80	79.70	0.666	11-Apr-04	21-Mar-04
E275385	04-ESS-012	79.70	80.00	1.683	11-Apr-04	21-Mar-04
E275386	04-ESS-012	80.00	81.00	1.176	11-Apr-04	21-Mar-04
E275387	04-ESS-012	81.00	81.45	0.693	11-Apr-04	21-Mar-04
E275388	04-ESS-012	81.45	82.00	5.543	11-Apr-04	21-Mar-04
E275389	04-ESS-012	82.00	83.00	2.606	11-Apr-04	21-Mar-04
E275391	04-ESS-012	83.00	84.00	1.432	11-Apr-04	21-Mar-04
E275392	04-ESS-012	84.00	85.30	1.282	11-Apr-04	21-Mar-04
E275393	04-ESS-012	85.30	86.10	0.517	11-Apr-04	21-Mar-04
E275394	04-ESS-012	86.10	87.00	0.578	11-Apr-04	21-Mar-04
E275395	04-ESS-012	87.00	87.60	0.138	11-Apr-04	21-Mar-04
E275396	04-ESS-012	87.60	88.30	0.065	10-Apr-04	21-Mar-04
E275397	04-ESS-012	88.30	89.00	0.127	10-Apr-04	21-Mar-04
E275398	04-ESS-012	89.00	90.00	0.434	10-Apr-04	21-Mar-04
E275399	04-ESS-012	90.00	91.00	0.328	10-Apr-04	21-Mar-04
E275401	04-ESS-012	91.00	92.00	0.239	10-Apr-04	21-Mar-04
E275402	04-ESS-012	92.00	93.00	0.312	10-Apr-04	21-Mar-04
E275403	04-ESS-012	93.00	94.00	0.207	10-Apr-04	21-Mar-04
E275404	04-ESS-012	94.00	95.00	0.355	10-Apr-04	21-Mar-04
E275405	04-ESS-012	95.00	96.00	0.170	10-Apr-04	21-Mar-04
E275406	04-ESS-012	96.00	97.00	0.179	10-Apr-04	21-Mar-04
E275407	04-ESS-012	97.00	97.50	0.010	10-Apr-04	21-Mar-04
E275408	04-ESS-012	97.50	98.10	0.410	10-Apr-04	21-Mar-04
E275409	04-ESS-012	98.10	98.90	0.077	10-Apr-04	21-Mar-04
E275411	04-ESS-012	98.90	99.90	0.010	10-Apr-04	21-Mar-04
E275501	04-ISL-004	23.80	24.50	0.062	18-Apr-04	14-Mar-04
E275502	04-ISL-004	24.50	25.00	0.020	18-Apr-04	14-Mar-04
E275503	04-ISL-004	25.00	26.00	0.046	18-Apr-04	14-Mar-04
E275504	04-ISL-004	26.00	27.00	0.183	18-Apr-04	14-Mar-04
E275505	04-ISL-004	27.00	28.00	0.010	18-Apr-04	14-Mar-04
E275506	04-ISL-004	28.00	29.00	0.060	18-Apr-04	14-Mar-04
E275507	04-ISL-004	29.00	30.00	0.038	18-Apr-04	14-Mar-04
E275508	04-ISL-004	30.00	31.00	0.088	18-Apr-04	14-Mar-04
E275509	04-ISL-004	31.00	32.00	0.535	18-Apr-04	14-Mar-04
E275511	04-ISL-004	32.00	33.00	0.119	18-Apr-04	14-Mar-04
E275512	04-ISL-004	33.00	34.00	0.515	18-Apr-04	14-Mar-04
E275513	04-ISL-004	34.00	35.00	0.029	18-Apr-04	14-Mar-04
E275514	04-ISL-004	35.00	35.60	0.142	18-Apr-04	14-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome - Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275515	04-ISL-004	35.60	37.40	0.204	18-Apr-04	14-Mar-04
E275516	04-ISL-004	37.40	38.00	0.048	18-Apr-04	14-Mar-04
E275517	04-ISL-004	38.00	38.70	0.014	18-Apr-04	14-Mar-04
E275518	04-ISL-004	38.70	39.50	0.192	18-Apr-04	14-Mar-04
E275519	04-ISL-004	39.50	40.70	0.136	18-Apr-04	14-Mar-04
E275521	04-ISL-004	40.70	41.50	0.365	18-Apr-04	14-Mar-04
E275522	04-ISL-004	41.50	42.00	0.041	18-Apr-04	14-Mar-04
E275523	04-ISL-004	42.00	43.00	0.012	18-Apr-04	14-Mar-04
E275524	04-ISL-004	43.00	44.00	0.199	18-Apr-04	14-Mar-04
E275525	04-ISL-004	44.00	45.00	0.029	18-Apr-04	14-Mar-04
E275526	04-ISL-004	45.00	46.00	0.075	18-Apr-04	14-Mar-04
E275527	04-ISL-004	46.00	47.00	0.336	18-Apr-04	14-Mar-04
E275528	04-ISL-004	47.00	48.00	0.309	18-Apr-04	14-Mar-04
E275529	04-ISL-004	48.00	49.00	0.035	18-Apr-04	14-Mar-04
E275531	04-ISL-004	49.00	50.00	0.124	18-Apr-04	14-Mar-04
E275532	04-ISL-004	50.00	51.00	0.019	18-Apr-04	14-Mar-04
E275533	04-ISL-004	51.00	52.00	0.629	19-Apr-04	14-Mar-04
E275534	04-ISL-004	52.00	53.00	1.270	19-Apr-04	14-Mar-04
E275535	04-ISL-004	53.00	54.00	0.322	19-Apr-04	14-Mar-04
E275536	04-ISL-004	54.00	55.00	0.022	19-Apr-04	14-Mar-04
E275537	04-ISL-004	55.00	56.00	0.266	19-Apr-04	14-Mar-04
E275538	04-ISL-004	56.00	56.60	0.030	19-Apr-04	14-Mar-04
E275539	04-ISL-004	56.60	57.30	0.023	19-Apr-04	14-Mar-04
E275541	04-ISL-004	57.30	58.00	0.010	19-Apr-04	14-Mar-04
E275542	04-ISL-004	58.00	59.00	0.073	19-Apr-04	14-Mar-04
E275543	04-ISL-004	59.00	60.10	0.018	19-Apr-04	14-Mar-04
E275544	04-ISL-004	60.10	61.00	0.028	19-Apr-04	14-Mar-04
E275545	04-ISL-004	61.00	61.50	0.041	19-Apr-04	14-Mar-04
E275546	04-ISL-004	61.50	62.00	0.056	19-Apr-04	14-Mar-04
E275547	04-ISL-004	62.00	63.00	0.023	19-Apr-04	14-Mar-04
E275548	04-ISL-004	63.00	64.00	0.030	19-Apr-04	14-Mar-04
E275549	04-ISL-004	64.00	64.80	0.013	19-Apr-04	14-Mar-04
E275551	04-ISL-004	64.80	65.80	0.077	19-Apr-04	14-Mar-04
E275552	04-ISL-004	65.80	66.50	0.051	19-Apr-04	14-Mar-04
E275553	04-ISL-004	66.50	67.20	0.019	19-Apr-04	14-Mar-04
E275554	04-ISL-004	67.20	67.70	0.218	19-Apr-04	14-Mar-04
E275555	04-ISL-004	67.70	68.70	1.814	19-Apr-04	14-Mar-04
E275556	04-ISL-004	68.70	69.70	0.041	19-Apr-04	14-Mar-04
E275557	04-ISL-004	69.70	71.00	0.041	19-Apr-04	14-Mar-04
E275558	04-ISL-004	71.00	72.00	0.377	19-Apr-04	14-Mar-04
E275559	04-ISL-004	72.00	73.00	0.379	19-Apr-04	14-Mar-04
E275561	04-ISL-004	73.00	74.00	0.500	16-Apr-04	14-Mar-04
E275562	04-ISL-004	74.00	75.00	0.078	16-Apr-04	14-Mar-04
E275563	04-ISL-004	75.00	76.00	0.020	16-Apr-04	14-Mar-04
E275564	04-ISL-004	76.00	77.00	0.070	16-Apr-04	14-Mar-04
E275565	04-ISL-004	77.00	78.00	0.168	16-Apr-04	14-Mar-04
E275566	04-ISL-004	78.00	79.00	0.047	16-Apr-04	14-Mar-04
E275567	04-ISL-004	79.00	80.00	0.273	16-Apr-04	14-Mar-04
E275568	04-ISL-004	80.00	81.00	0.179	16-Apr-04	14-Mar-04
E275569	04-ISL-004	81.00	82.00	0.142	16-Apr-04	14-Mar-04
E275571	04-ISL-004	82.00	83.00	0.229	16-Apr-04	14-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275572	04-ISL-004	83.00	84.00	0.968	16-Apr-04	14-Mar-04
E275573	04-ISL-004	84.00	85.00	3.393	16-Apr-04	14-Mar-04
E275574	04-ISL-004	85.00	86.00	3.169	16-Apr-04	14-Mar-04
E275575	04-ISL-004	86.00	87.00	0.595	16-Apr-04	14-Mar-04
E275576	04-ISL-004	87.00	88.00	0.039	16-Apr-04	14-Mar-04
E275577	04-ISL-004	88.00	89.00	0.032	16-Apr-04	14-Mar-04
E275578	04-ISL-004	89.00	89.50	0.010	16-Apr-04	14-Mar-04
E275579	04-ISL-004	89.50	90.00	0.010	16-Apr-04	14-Mar-04
E275581	04-ISL-004	90.00	91.00	0.018	17-Apr-04	14-Mar-04
E275582	04-ISL-004	91.00	92.00	0.060	17-Apr-04	14-Mar-04
E275583	04-ISL-004	92.00	93.00	0.031	17-Apr-04	14-Mar-04
E275584	04-ISL-004	93.00	94.00	0.040	17-Apr-04	14-Mar-04
E275585	04-ISL-004	94.00	95.00	0.031	17-Apr-04	14-Mar-04
E275586	04-ISL-004	95.00	96.00	0.031	17-Apr-04	14-Mar-04
E275587	04-ISL-004	96.00	97.00	0.027	17-Apr-04	14-Mar-04
E275588	04-ISL-004	97.00	98.00	0.037	17-Apr-04	14-Mar-04
E275589	04-ISL-004	98.00	99.00	0.036	17-Apr-04	14-Mar-04
E275591	04-ISL-004	99.00	100.00	0.019	17-Apr-04	14-Mar-04
E275592	04-ISL-004	100.00	101.00	0.024	17-Apr-04	14-Mar-04
E275593	04-ISL-004	101.00	102.00	0.012	17-Apr-04	14-Mar-04
E275594	04-ISL-004	102.00	103.00	0.013	17-Apr-04	14-Mar-04
E275595	04-ISL-004	103.00	104.00	0.032	17-Apr-04	14-Mar-04
E275596	04-ISL-004	104.00	105.00	0.117	17-Apr-04	14-Mar-04
E275597	04-ISL-004	105.00	106.00	0.046	17-Apr-04	14-Mar-04
E275598	04-ISL-004	106.00	107.00	0.064	17-Apr-04	14-Mar-04
E275599	04-ISL-004	107.00	107.80	0.085	17-Apr-04	14-Mar-04
E275601	04-ISL-004	107.80	108.80	0.021	17-Apr-04	14-Mar-04
E275602	04-ISL-004	108.80	109.80	0.026	17-Apr-04	14-Mar-04
E275603	04-ISL-004	109.80	111.00	0.012	17-Apr-04	14-Mar-04
E275604	04-ISL-004	111.00	112.00	0.018	17-Apr-04	14-Mar-04
E275605	04-ISL-004	112.00	113.00	0.011	17-Apr-04	14-Mar-04
E275606	04-ESS-025	158.00	159.00	0.091	7-Apr-04	15-Mar-04
E275607	04-ESS-025	159.00	160.00	0.071	7-Apr-04	15-Mar-04
E275608	04-ESS-025	160.00	161.00	0.078	7-Apr-04	15-Mar-04
E275609	04-ESS-025	161.00	162.00	0.029	7-Apr-04	15-Mar-04
E275611	04-ESS-025	162.00	163.00	0.115	7-Apr-04	15-Mar-04
E275612	04-ESS-025	163.00	164.00	0.102	7-Apr-04	15-Mar-04
E275613	04-ESS-025	164.00	165.00	0.122	7-Apr-04	15-Mar-04
E275614	04-ESS-025	165.00	165.50	0.058	7-Apr-04	15-Mar-04
E275615	04-ESS-025	165.50	166.00	0.010	7-Apr-04	15-Mar-04
E275616	04-ESS-025	166.00	167.00	0.010	7-Apr-04	15-Mar-04
E275617	04-ESS-025	167.00	168.00	0.023	7-Apr-04	15-Mar-04
E275618	04-ESS-026	53.10	54.10	0.024	22-Apr-04	16-Mar-04
E275619	04-ESS-026	54.10	55.10	0.061	22-Apr-04	16-Mar-04
E275621	04-ESS-026	55.10	56.10	1.050	22-Apr-04	16-Mar-04
E275622	04-ESS-026	56.10	57.10	0.031	22-Apr-04	16-Mar-04
E275623	04-ESS-026	57.10	58.10	0.258	22-Apr-04	16-Mar-04
E275624	04-ESS-026	58.10	59.00	0.010	22-Apr-04	16-Mar-04
E275625	04-ESS-026	59.00	60.00	0.010	22-Apr-04	16-Mar-04
E275626	04-ESS-026	60.00	61.00	0.010	22-Apr-04	16-Mar-04
E275627	04-ESS-026	61.00	62.00	0.010	22-Apr-04	16-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome—Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275628	04-ESS-026	62.00	62.70	0.010	22-Apr-04	16-Mar-04
E275629	04-ESS-026	62.70	63.50	0.036	22-Apr-04	16-Mar-04
E275631	04-ESS-026	63.50	64.30	1.115	22-Apr-04	16-Mar-04
E275632	04-ESS-026	64.30	65.00	0.111	22-Apr-04	16-Mar-04
E275633	04-ESS-026	65.00	66.00	0.029	22-Apr-04	16-Mar-04
E275634	04-ESS-026	66.00	67.00	0.026	22-Apr-04	16-Mar-04
E275635	04-ESS-026	67.00	68.00	0.028	22-Apr-04	16-Mar-04
E275636	04-ESS-026	68.00	69.00	0.048	22-Apr-04	16-Mar-04
E275637	04-ESS-026	69.00	70.00	0.118	22-Apr-04	16-Mar-04
E275638	04-ESS-026	70.00	71.00	0.325	22-Apr-04	16-Mar-04
E275639	04-ESS-026	71.00	72.00	0.209	22-Apr-04	16-Mar-04
E275641	04-ESS-026	72.00	73.00	0.780	22-Apr-04	16-Mar-04
E275642	04-ESS-026	73.00	74.00	1.871	22-Apr-04	16-Mar-04
E275643	04-ESS-026	74.00	75.10	0.849	22-Apr-04	16-Mar-04
E275644	04-ESS-026	75.10	76.00	0.489	22-Apr-04	16-Mar-04
E275645	04-ESS-026	76.00	77.00	0.040	22-Apr-04	16-Mar-04
E275646	04-ESS-026	77.00	78.00	0.085	22-Apr-04	16-Mar-04
E275647	04-ESS-026	78.00	78.50	0.682	22-Apr-04	16-Mar-04
E275648	04-ESS-026	78.50	79.30	0.076	22-Apr-04	16-Mar-04
E275649	04-ESS-026	79.30	80.00	1.315	22-Apr-04	16-Mar-04
E275651	04-ESS-026	80.00	81.00	0.198	22-Apr-04	16-Mar-04
E275652	04-ESS-026	81.00	82.00	0.013	22-Apr-04	16-Mar-04
E275653	04-ESS-026	82.00	83.00	0.120	22-Apr-04	16-Mar-04
E275654	04-ESS-026	83.00	84.00	0.123	22-Apr-04	16-Mar-04
E275655	04-ESS-026	84.00	84.60	0.012	22-Apr-04	16-Mar-04
E275656	04-ESS-026	84.60	85.50	0.010	22-Apr-04	16-Mar-04
E275657	04-ESS-026	85.50	86.50	0.013	22-Apr-04	16-Mar-04
E275658	04-ESS-026	86.50	87.40	0.157	22-Apr-04	16-Mar-04
E275659	04-ESS-026	87.40	88.00	0.264	22-Apr-04	16-Mar-04
E275661	04-ESS-026	88.00	89.00	0.124	22-Apr-04	16-Mar-04
E275662	04-ESS-026	89.00	90.00	0.229	22-Apr-04	16-Mar-04
E275663	04-ESS-026	90.00	91.00	0.646	22-Apr-04	16-Mar-04
E275664	04-ESS-026	91.00	92.00	1.337	22-Apr-04	16-Mar-04
E275665	04-ESS-026	92.00	93.00	0.356	22-Apr-04	16-Mar-04
E275666	04-ESS-026	93.00	94.00	0.674	22-Apr-04	16-Mar-04
E275667	04-ESS-026	94.00	95.00	0.696	22-Apr-04	16-Mar-04
E275668	04-ESS-026	95.00	96.00	0.500	22-Apr-04	16-Mar-04
E275669	04-ESS-026	96.00	97.20	1.772	22-Apr-04	16-Mar-04
E275671	04-ESS-026	97.20	98.00	1.147	22-Apr-04	16-Mar-04
E275672	04-ESS-026	98.00	99.10	0.365	22-Apr-04	16-Mar-04
E275673	04-ESS-026	99.10	100.00	5.725	22-Apr-04	16-Mar-04
E275674	04-ESS-026	100.00	101.00	2.865	22-Apr-04	16-Mar-04
E275675	04-ESS-026	101.00	102.00	2.028	22-Apr-04	16-Mar-04
E275676	04-ESS-026	102.00	103.00	1.271	22-Apr-04	16-Mar-04
E275677	04-ESS-026	103.00	104.00	2.270	22-Apr-04	16-Mar-04
E275678	04-ESS-026	104.00	104.60	1.023	22-Apr-04	16-Mar-04
E275679	04-ESS-026	104.60	105.50	0.423	22-Apr-04	16-Mar-04
E275681	04-ESS-026	105.50	106.50	0.333	22-Apr-04	16-Mar-04
E275682	04-ESS-026	106.50	107.50	0.365	22-Apr-04	16-Mar-04
E275683	04-ESS-026	107.50	108.50	0.276	22-Apr-04	16-Mar-04
E275684	04-ESS-026	108.50	109.30	0.074	22-Apr-04	16-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275685	04-ESS-026	109.30	109.90	0.042	22-Apr-04	16-Mar-04
E275686	04-ESS-026	109.90	111.00	0.329	22-Apr-04	16-Mar-04
E275687	04-ESS-026	111.00	112.00	1.305	22-Apr-04	16-Mar-04
E275688	04-ESS-026	112.00	113.00	0.143	22-Apr-04	16-Mar-04
E275689	04-ESS-026	113.00	114.00	0.042	22-Apr-04	16-Mar-04
E275691	04-ESS-026	114.00	115.00	0.275	22-Apr-04	16-Mar-04
E275692	04-ESS-026	115.00	116.00	0.455	22-Apr-04	16-Mar-04
E275693	04-ESS-026	116.00	116.90	0.171	22-Apr-04	16-Mar-04
E275694	04-ESS-026	116.90	117.50	0.321	22-Apr-04	16-Mar-04
E275695	04-ESS-026	117.50	118.50	0.134	22-Apr-04	16-Mar-04
E275696	04-ESS-026	118.50	119.50	0.010	22-Apr-04	16-Mar-04
E275697	04-ESS-026	126.00	127.00	0.012	22-Apr-04	16-Mar-04
E275698	04-ESS-026	127.00	128.00	0.027	22-Apr-04	16-Mar-04
E275699	04-ESS-026	128.00	129.00	0.010	22-Apr-04	16-Mar-04
E275701	04-ESS-026	145.90	146.90	0.010	22-Apr-04	16-Mar-04
E275702	04-ESS-026	146.90	147.90	0.010	22-Apr-04	16-Mar-04
E275703	04-ESS-026	147.90	148.90	0.082	22-Apr-04	16-Mar-04
E275704	04-ESS-026	148.90	149.90	0.722	22-Apr-04	16-Mar-04
E275705	04-ESS-026	149.90	150.90	0.015	22-Apr-04	16-Mar-04
E275706	04-ESS-026	150.90	152.00	0.010	22-Apr-04	16-Mar-04
E275707	04-ESS-026	152.00	153.00	0.010	22-Apr-04	16-Mar-04
E275708	04-ESS-026	153.00	154.00	0.010	22-Apr-04	16-Mar-04
E275709	04-ESS-026	154.00	155.00	0.010	22-Apr-04	16-Mar-04
E275711	04-ESS-026	155.00	156.00	0.010	22-Apr-04	16-Mar-04
E275712	04-ESS-026	156.00	156.60	0.049	22-Apr-04	16-Mar-04
E275713	04-ESS-026	156.60	157.50	0.010	22-Apr-04	16-Mar-04
E275714	04-ESS-026	157.50	158.00	0.151	22-Apr-04	16-Mar-04
E275715	04-ESS-026	158.00	159.00	0.010	22-Apr-04	16-Mar-04
E275716	04-ESS-026	159.00	160.00	0.010	22-Apr-04	16-Mar-04
E275717	04-ESS-026	160.00	161.00	0.017	22-Apr-04	16-Mar-04
E275718	04-ESS-026	161.00	162.00	0.010	22-Apr-04	16-Mar-04
E275719	04-ESS-026	162.00	163.00	0.010	22-Apr-04	16-Mar-04
E275721	04-ESS-026	163.00	164.00	0.010	22-Apr-04	16-Mar-04
E275722	04-ESS-026	164.00	165.00	0.010	22-Apr-04	16-Mar-04
E275723	04-ESS-026	165.00	166.00	0.010	22-Apr-04	16-Mar-04
E275724	04-ESS-026	166.00	167.00	0.010	22-Apr-04	16-Mar-04
E275725	04-ESS-026	167.00	168.00	0.010	22-Apr-04	16-Mar-04
E275728	04-ISL-007	41.40	42.00	0.024	17-Apr-04	19-Mar-04
E275729	04-ISL-007	42.00	42.65	0.015	17-Apr-04	19-Mar-04
E275731	04-ISL-007	42.65	44.00	0.043	17-Apr-04	19-Mar-04
E275732	04-ISL-007	44.00	44.60	0.029	17-Apr-04	19-Mar-04
E275733	04-ISL-007	44.60	45.25	0.080	17-Apr-04	19-Mar-04
E275734	04-ISL-007	45.25	46.00	0.979	17-Apr-04	19-Mar-04
E275735	04-ISL-007	46.00	46.90	0.708	17-Apr-04	19-Mar-04
E275736	04-ISL-007	46.90	47.40	4.157	17-Apr-04	19-Mar-04
E275737	04-ISL-007	47.40	48.00	0.068	17-Apr-04	19-Mar-04
E275738	04-ISL-007	56.00	56.60	0.274	17-Apr-04	19-Mar-04
E275739	04-ISL-007	56.60	57.35	1.560	17-Apr-04	19-Mar-04
E275741	04-ISL-007	57.35	58.10	0.093	17-Apr-04	19-Mar-04
E275742	04-ISL-007	58.10	58.50	2.479	17-Apr-04	19-Mar-04
E275743	04-ISL-007	58.50	59.30	0.026	17-Apr-04	19-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome - Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275744	04-ISL-007	59.30	60.00	0.017	17-Apr-04	19-Mar-04
E275745	04-ISL-007	61.50	62.00	0.144	17-Apr-04	19-Mar-04
E275746	04-ISL-007	62.00	62.67	28.530	17-Apr-04	19-Mar-04
E275747	04-ISL-007	62.67	63.30	28.930	17-Apr-04	19-Mar-04
E275748	04-ISL-007	63.30	64.00	1.557	17-Apr-04	20-Mar-04
E275749	04-ISL-007	64.00	65.00	1.975	17-Apr-04	20-Mar-04
E275751	04-ISL-007	65.00	66.00	0.282	17-Apr-04	20-Mar-04
E275752	04-ISL-007	66.00	67.00	0.082	17-Apr-04	20-Mar-04
E275753	04-ISL-007	67.00	68.00	0.544	17-Apr-04	20-Mar-04
E275754	04-ISL-007	68.00	69.00	0.035	17-Apr-04	20-Mar-04
E275755	04-ISL-007	69.00	69.90	0.025	17-Apr-04	20-Mar-04
E275756	04-ISL-007	69.90	70.70	0.089	17-Apr-04	20-Mar-04
E275757	04-ISL-007	70.70	71.30	0.019	17-Apr-04	20-Mar-04
E275758	04-ISL-007	71.30	72.10	0.319	17-Apr-04	20-Mar-04
E275759	04-ISL-007	72.10	73.00	0.017	17-Apr-04	20-Mar-04
E275761	04-ISL-007	73.00	74.00	0.065	17-Apr-04	20-Mar-04
E275762	04-ISL-007	74.00	75.00	0.014	17-Apr-04	20-Mar-04
E275763	04-ISL-007	75.00	76.00	0.054	18-Apr-04	20-Mar-04
E275764	04-ISL-007	76.00	77.00	0.010	18-Apr-04	20-Mar-04
E275765	04-ISL-007	77.00	77.90	0.019	18-Apr-04	20-Mar-04
E275766	04-ISL-007	77.90	78.90	0.100	18-Apr-04	20-Mar-04
E275767	04-ISL-007	78.90	79.90	2.974	18-Apr-04	20-Mar-04
E275768	04-ISL-007	79.90	81.00	0.752	18-Apr-04	20-Mar-04
E275769	04-ISL-007	81.00	82.00	0.084	18-Apr-04	20-Mar-04
E275771	04-ISL-007	82.00	83.00	0.162	18-Apr-04	20-Mar-04
E275772	04-ISL-007	83.00	84.20	0.096	18-Apr-04	20-Mar-04
E275773	04-ISL-007	84.20	84.50	0.040	18-Apr-04	20-Mar-04
E275774	04-ISL-007	84.50	85.00	0.067	18-Apr-04	20-Mar-04
E275775	04-ISL-007	85.00	86.00	0.134	18-Apr-04	20-Mar-04
E275776	04-ISL-007	86.00	87.00	1.259	18-Apr-04	20-Mar-04
E275777	04-ISL-007	87.00	88.00	0.500	18-Apr-04	20-Mar-04
E275778	04-ISL-007	88.00	89.00	1.266	18-Apr-04	20-Mar-04
E275779	04-ISL-007	89.00	90.00	0.460	18-Apr-04	20-Mar-04
E275781	04-ISL-007	90.00	91.00	0.055	18-Apr-04	20-Mar-04
E275782	04-ISL-007	91.00	92.00	0.423	18-Apr-04	20-Mar-04
E275783	04-ISL-007	92.00	92.50	0.157	18-Apr-04	20-Mar-04
E275784	04-ISL-007	92.50	93.40	0.037	18-Apr-04	20-Mar-04
E275785	04-ISL-007	93.40	94.00	0.033	18-Apr-04	20-Mar-04
E275786	04-ISL-007	94.00	95.00	0.077	18-Apr-04	20-Mar-04
E275787	04-ISL-007	95.00	96.00	0.496	18-Apr-04	20-Mar-04
E275788	04-ISL-007	96.00	97.00	0.111	18-Apr-04	20-Mar-04
E275789	04-ISL-007	97.00	98.00	0.106	18-Apr-04	20-Mar-04
E275791	04-ISL-007	98.00	99.00	0.567	18-Apr-04	20-Mar-04
E275792	04-ISL-007	99.00	100.00	0.065	18-Apr-04	20-Mar-04
E275793	04-ISL-007	100.00	100.70	0.010	18-Apr-04	20-Mar-04
E275794	04-ISL-007	100.70	101.90	0.106	18-Apr-04	20-Mar-04
E275795	04-ISL-007	101.90	103.00	0.021	18-Apr-04	20-Mar-04
E275796	04-ISL-007	103.00	104.00	0.010	18-Apr-04	20-Mar-04
E275797	04-ISL-007	104.00	105.00	0.010	18-Apr-04	20-Mar-04
E275798	04-ISL-007	105.00	106.00	0.016	18-Apr-04	20-Mar-04
E275799	04-ISL-007	106.00	107.00	0.467	18-Apr-04	20-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275801	04-ISL-007	107.00	108.00	0.215	18-Apr-04	20-Mar-04
E275802	04-ISL-007	108.00	109.00	0.020	18-Apr-04	20-Mar-04
E275803	04-ISL-007	109.00	110.00	0.293	18-Apr-04	20-Mar-04
E275804	04-ISL-007	110.00	111.00	0.145	18-Apr-04	20-Mar-04
E275805	04-ISL-007	111.00	112.00	0.041	18-Apr-04	20-Mar-04
E275806	04-ISL-007	112.00	113.00	0.400	18-Apr-04	20-Mar-04
E275807	04-ISL-007	113.00	114.00	0.042	18-Apr-04	20-Mar-04
E275808	04-ISL-007	114.00	114.80	0.010	18-Apr-04	20-Mar-04
E275809	04-ISL-007	114.80	115.80	0.027	18-Apr-04	20-Mar-04
E275811	04-ISL-007	115.80	117.00	0.068	18-Apr-04	20-Mar-04
E275812	04-ISL-007	117.00	118.30	0.579	18-Apr-04	20-Mar-04
E275813	04-ISL-007	118.30	119.00	0.051	18-Apr-04	20-Mar-04
E275814	04-ISL-007	119.00	119.65	0.021	18-Apr-04	20-Mar-04
E275815	04-ISL-007	119.65	120.75	0.058	18-Apr-04	20-Mar-04
E275816	04-ISL-007	120.75	122.00	0.042	18-Apr-04	20-Mar-04
E275817	04-ISL-007	122.00	123.00	0.041	18-Apr-04	20-Mar-04
E275818	04-ISL-007	123.00	124.00	0.023	18-Apr-04	20-Mar-04
E275819	04-ISL-007	124.00	125.00	0.211	18-Apr-04	20-Mar-04
E275821	04-ISL-007	125.00	126.00	0.023	18-Apr-04	20-Mar-04
E275822	04-ISL-007	126.00	126.70	0.026	18-Apr-04	20-Mar-04
E275823	04-ISL-007	126.70	128.00	0.104	18-Apr-04	20-Mar-04
E275824	04-ISL-007	128.00	129.00	0.127	18-Apr-04	20-Mar-04
E275825	04-ISL-007	129.00	129.60	0.028	18-Apr-04	20-Mar-04
E275826	04-ISL-007	129.60	130.40	0.017	18-Apr-04	20-Mar-04
E275827	04-ISL-007	130.40	131.40	0.262	18-Apr-04	20-Mar-04
E275828	04-ISL-007	131.40	132.40	0.097	18-Apr-04	20-Mar-04
E275829	04-ISL-007	132.40	133.00	0.044	18-Apr-04	20-Mar-04
E275831	04-ISL-007	133.00	134.00	0.022	18-Apr-04	20-Mar-04
E275832	04-ISL-007	134.00	135.00	0.537	18-Apr-04	20-Mar-04
E275833	04-ISL-007	135.00	135.70	0.623	18-Apr-04	20-Mar-04
E275834	04-ISL-007	135.70	137.00	0.522	18-Apr-04	20-Mar-04
E275835	04-ISL-007	137.00	138.00	0.056	18-Apr-04	20-Mar-04
E275836	04-ISL-007	138.00	139.00	0.286	18-Apr-04	20-Mar-04
E275837	04-ISL-007	139.00	140.00	0.745	18-Apr-04	20-Mar-04
E275838	04-ISL-007	140.00	141.00	0.654	18-Apr-04	20-Mar-04
E275839	04-ISL-007	141.00	142.00	2.153	18-Apr-04	20-Mar-04
E275841	04-ISL-007	142.00	143.00	0.690	18-Apr-04	20-Mar-04
E275842	04-ISL-007	143.00	144.00	1.177	18-Apr-04	20-Mar-04
E275843	04-ISL-007	144.00	145.00	1.314	18-Apr-04	20-Mar-04
E275844	04-ISL-007	145.00	146.00	1.362	18-Apr-04	20-Mar-04
E275845	04-ISL-007	146.00	147.00	0.068	18-Apr-04	20-Mar-04
E275846	04-ISL-007	147.00	148.00	0.363	18-Apr-04	20-Mar-04
E275847	04-ISL-007	148.00	149.00	0.162	18-Apr-04	20-Mar-04
E275848	04-ISL-007	149.00	149.50	0.078	18-Apr-04	20-Mar-04
E275849	04-ISL-007	149.50	149.90	0.066	18-Apr-04	20-Mar-04
E275851	04-ISL-007	149.90	150.80	0.065	18-Apr-04	20-Mar-04
E275852	04-ISL-007	150.80	151.80	0.688	18-Apr-04	20-Mar-04
E275853	04-ISL-007	151.80	152.80	0.631	18-Apr-04	20-Mar-04
E275854	04-ISL-007	152.80	153.30	0.099	18-Apr-04	20-Mar-04
E275855	04-ISL-007	153.30	154.00	0.188	18-Apr-04	20-Mar-04
E275856	04-ISL-007	154.00	155.00	0.010	18-Apr-04	20-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome - Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275857	04-ISL-007	155.00	156.00	0.115	18-Apr-04	20-Mar-04
E275858	04-ISL-007	156.00	156.23	0.467	18-Apr-04	20-Mar-04
E275859	04-ISL-007	156.23	157.05	0.021	18-Apr-04	20-Mar-04
E275861	04-ISL-007	157.05	157.40	0.139	18-Apr-04	20-Mar-04
E275862	04-ISL-007	157.40	158.30	0.145	18-Apr-04	20-Mar-04
E275863	04-ISL-007	158.30	158.70	0.632	18-Apr-04	20-Mar-04
E275864	04-ISL-007	158.70	159.50	1.091	18-Apr-04	20-Mar-04
E275865	04-ISL-007	159.50	160.50	0.052	18-Apr-04	20-Mar-04
E275866	04-ISL-007	160.50	161.00	0.029	18-Apr-04	20-Mar-04
E275867	04-ISL-007	161.00	162.00	0.086	18-Apr-04	20-Mar-04
E275868	04-ISL-007	162.00	163.40	0.170	18-Apr-04	20-Mar-04
E275869	04-ISL-007	163.40	164.20	0.204	18-Apr-04	20-Mar-04
E275871	04-ISL-007	164.20	165.00	0.014	18-Apr-04	20-Mar-04
E275872	04-ISL-008	17.40	18.00	0.020	19-Apr-04	22-Mar-04
E275873	04-ISL-008	18.00	19.00	0.018	19-Apr-04	22-Mar-04
E275874	04-ISL-008	19.00	20.00	0.032	19-Apr-04	22-Mar-04
E275875	04-ISL-008	20.00	21.00	0.019	19-Apr-04	22-Mar-04
E275876	04-ISL-008	21.00	22.00	0.116	19-Apr-04	22-Mar-04
E275877	04-ISL-008	22.00	23.00	0.090	19-Apr-04	22-Mar-04
E275878	04-ISL-008	23.00	24.00	0.731	19-Apr-04	22-Mar-04
E275879	04-ISL-008	24.00	25.00	0.821	19-Apr-04	22-Mar-04
E275881	04-ISL-008	25.00	26.00	0.943	19-Apr-04	22-Mar-04
E275882	04-ISL-008	26.00	27.00	0.022	19-Apr-04	22-Mar-04
E275883	04-ISL-008	27.00	28.00	0.074	19-Apr-04	22-Mar-04
E275884	04-ISL-008	28.00	29.00	0.024	19-Apr-04	22-Mar-04
E275885	04-ISL-008	29.00	30.00	0.031	19-Apr-04	22-Mar-04
E275886	04-ISL-008	30.00	31.00	0.064	19-Apr-04	22-Mar-04
E275887	04-ISL-008	31.00	32.00	0.012	19-Apr-04	22-Mar-04
E275888	04-ISL-008	32.00	33.00	0.426	19-Apr-04	22-Mar-04
E275889	04-ISL-008	33.00	34.00	0.013	19-Apr-04	22-Mar-04
E275891	04-ISL-008	34.00	35.00	0.051	19-Apr-04	22-Mar-04
E275892	04-ISL-008	35.00	36.00	0.014	19-Apr-04	22-Mar-04
E275893	04-ISL-008	36.00	36.70	0.019	19-Apr-04	22-Mar-04
E275894	04-ISL-008	36.70	38.00	0.222	19-Apr-04	22-Mar-04
E275895	04-ISL-008	38.00	39.00	0.035	19-Apr-04	22-Mar-04
E275896	04-ISL-008	39.00	40.00	0.095	20-Apr-04	22-Mar-04
E275897	04-ISL-008	40.00	41.00	0.092	20-Apr-04	22-Mar-04
E275898	04-ISL-008	41.00	41.60	0.084	20-Apr-04	22-Mar-04
E275899	04-ISL-008	41.60	42.60	0.098	20-Apr-04	22-Mar-04
E275901	04-ISL-008	42.60	43.60	0.016	20-Apr-04	22-Mar-04
E275902	04-ISL-008	43.60	44.60	0.135	20-Apr-04	22-Mar-04
E275903	04-ISL-008	44.60	45.60	1.333	20-Apr-04	22-Mar-04
E275904	04-ISL-008	45.60	46.60	0.140	20-Apr-04	22-Mar-04
E275905	04-ISL-008	46.60	47.20	0.026	20-Apr-04	22-Mar-04
E275906	04-ISL-008	47.20	48.00	0.067	20-Apr-04	22-Mar-04
E275907	04-ISL-008	48.00	49.00	0.078	20-Apr-04	22-Mar-04
E275908	04-ISL-008	49.00	50.00	0.743	20-Apr-04	22-Mar-04
E275909	04-ISL-008	50.00	51.00	0.061	20-Apr-04	22-Mar-04
E275911	04-ISL-008	51.00	52.00	0.038	20-Apr-04	22-Mar-04
E275912	04-ISL-008	52.00	53.00	0.028	20-Apr-04	22-Mar-04
E275913	04-ISL-008	53.00	54.00	0.034	20-Apr-04	22-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275914	04-ISL-008	54.00	55.00	0.461	20-Apr-04	22-Mar-04
E275915	04-ISL-008	55.00	56.00	0.028	20-Apr-04	22-Mar-04
E275916	04-ISL-008	56.00	56.60	0.078	20-Apr-04	22-Mar-04
E275917	04-ISL-008	56.60	57.30	0.859	20-Apr-04	22-Mar-04
E275918	04-ISL-008	57.30	58.30	0.020	20-Apr-04	22-Mar-04
E275919	04-ISL-008	58.30	59.00	0.032	20-Apr-04	22-Mar-04
E275921	04-ISL-008	59.00	60.00	0.283	20-Apr-04	22-Mar-04
E275922	04-ISL-008	60.00	61.00	0.386	20-Apr-04	22-Mar-04
E275923	04-ISL-008	61.00	62.00	0.127	20-Apr-04	22-Mar-04
E275924	04-ISL-008	62.00	63.00	0.399	20-Apr-04	22-Mar-04
E275925	04-ISL-008	63.00	64.00	7.929	20-Apr-04	22-Mar-04
E275926	04-ISL-008	64.00	65.00	4.229	20-Apr-04	22-Mar-04
E275927	04-ISL-008	65.00	66.00	9.573	20-Apr-04	22-Mar-04
E275928	04-ISL-008	66.00	67.00	2.262	20-Apr-04	22-Mar-04
E275929	04-ISL-008	67.00	68.00	0.397	20-Apr-04	22-Mar-04
E275931	04-ISL-008	68.00	69.00	2.703	20-Apr-04	22-Mar-04
E275932	04-ISL-008	69.00	70.00	1.136	19-Apr-04	22-Mar-04
E275933	04-ISL-008	70.00	71.00	0.558	19-Apr-04	22-Mar-04
E275934	04-ISL-008	71.00	72.00	0.103	19-Apr-04	22-Mar-04
E275935	04-ISL-008	72.00	73.00	0.761	19-Apr-04	22-Mar-04
E275936	04-ISL-008	73.00	74.00	1.258	19-Apr-04	22-Mar-04
E275937	04-ISL-008	74.00	75.00	0.413	19-Apr-04	22-Mar-04
E275938	04-ISL-008	75.00	76.00	2.662	19-Apr-04	22-Mar-04
E275939	04-ISL-008	76.00	77.00	2.105	19-Apr-04	22-Mar-04
E275941	04-ISL-008	77.00	78.00	0.208	19-Apr-04	22-Mar-04
E275942	04-ISL-008	78.00	79.00	0.035	19-Apr-04	22-Mar-04
E275943	04-ISL-008	79.00	80.00	0.091	19-Apr-04	22-Mar-04
E275944	04-ISL-008	80.00	81.00	0.086	19-Apr-04	22-Mar-04
E275945	04-ISL-008	81.00	81.50	0.051	19-Apr-04	22-Mar-04
E275946	04-ISL-008	81.50	82.00	0.018	19-Apr-04	22-Mar-04
E275947	04-ISL-008	82.00	83.00	0.020	19-Apr-04	22-Mar-04
E275948	04-ISL-008	83.00	84.00	0.071	19-Apr-04	22-Mar-04
E275949	04-ISL-008	84.00	85.00	0.011	19-Apr-04	22-Mar-04
E275951	04-ISL-008	85.00	86.30	0.010	19-Apr-04	22-Mar-04
E275952	04-ISL-008	86.30	87.20	0.036	20-Apr-04	22-Mar-04
E275953	04-ISL-008	87.20	88.20	0.013	20-Apr-04	22-Mar-04
E275954	04-ISL-008	88.20	89.00	0.010	20-Apr-04	22-Mar-04
E275955	04-ISL-008	89.00	89.70	0.030	20-Apr-04	22-Mar-04
E275956	04-ISL-008	89.70	91.00	0.051	20-Apr-04	22-Mar-04
E275957	04-ISL-008	91.00	92.00	0.062	20-Apr-04	22-Mar-04
E275958	04-ISL-008	92.00	93.00	0.041	20-Apr-04	22-Mar-04
E275959	04-ISL-008	93.00	93.70	0.121	20-Apr-04	22-Mar-04
E275961	04-ISL-008	93.70	94.40	0.046	20-Apr-04	22-Mar-04
E275962	04-ISL-008	94.40	95.00	0.041	20-Apr-04	22-Mar-04
E275963	04-ISL-008	95.00	96.00	0.014	20-Apr-04	22-Mar-04
E275964	04-ISL-008	96.00	96.20	0.028	20-Apr-04	22-Mar-04
E275965	04-ISL-008	96.20	96.90	0.016	20-Apr-04	22-Mar-04
E275966	04-ISL-006	18.00	19.00	0.108	20-Apr-04	23-Mar-04
E275967	04-ISL-006	19.00	20.00	0.026	20-Apr-04	23-Mar-04
E275968	04-ISL-006	20.00	21.00	0.716	20-Apr-04	23-Mar-04
E275969	04-ISL-006	21.00	22.00	2.247	20-Apr-04	23-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E275971	04-ISL-006	22.00	23.00	0.034	20-Apr-04	23-Mar-04
E275972	04-ISL-006	23.00	24.00	0.800	21-Apr-04	23-Mar-04
E275973	04-ISL-006	24.00	25.00	0.129	21-Apr-04	23-Mar-04
E275974	04-ISL-006	25.00	25.75	0.136	21-Apr-04	23-Mar-04
E275975	04-ISL-006	25.75	26.70	1.837	21-Apr-04	23-Mar-04
E275976	04-ISL-006	26.70	27.10	0.069	21-Apr-04	23-Mar-04
E275977	04-ISL-006	27.10	28.10	0.175	21-Apr-04	23-Mar-04
E275978	04-ISL-006	28.10	29.00	0.010	21-Apr-04	23-Mar-04
E275979	04-ISL-006	29.00	30.00	0.010	21-Apr-04	23-Mar-04
E275981	04-ISL-006	30.00	31.00	0.015	21-Apr-04	23-Mar-04
E275982	04-ISL-006	31.00	32.00	0.023	21-Apr-04	23-Mar-04
E275983	04-ISL-006	32.00	33.00	0.027	21-Apr-04	23-Mar-04
E275984	04-ISL-006	33.00	33.90	0.032	21-Apr-04	23-Mar-04
E275985	04-ISL-006	33.90	34.90	0.023	21-Apr-04	23-Mar-04
E275986	04-ISL-006	34.90	36.00	0.034	21-Apr-04	23-Mar-04
E275987	04-ISL-006	36.00	37.00	1.680	21-Apr-04	23-Mar-04
E275988	04-ISL-006	37.00	38.00	0.041	21-Apr-04	23-Mar-04
E275989	04-ISL-006	38.00	38.80	0.586	21-Apr-04	23-Mar-04
E275991	04-ISL-006	38.80	39.30	0.061	21-Apr-04	23-Mar-04
E275992	04-ISL-006	39.30	40.00	0.040	21-Apr-04	23-Mar-04
E275993	04-ISL-006	40.00	41.00	0.031	21-Apr-04	23-Mar-04
E275994	04-ISL-006	41.00	41.80	0.029	21-Apr-04	23-Mar-04
E275995	04-ISL-006	41.80	42.20	0.152	21-Apr-04	23-Mar-04
E275996	04-ISL-006	42.20	43.20	0.155	21-Apr-04	23-Mar-04
E275997	04-ISL-006	43.20	43.70	1.102	21-Apr-04	23-Mar-04
E275998	04-ISL-006	43.70	44.20	0.049	21-Apr-04	23-Mar-04
E275999	04-ISL-006	44.20	44.90	0.052	21-Apr-04	23-Mar-04
E276018	04-ESK-002	209.00	210.20	0.037	4-May-04	10-Mar-04
E276019	04-ESK-002	210.20	211.05	0.032	4-May-04	10-Mar-04
E276021	04-ESK-002	211.05	212.00	0.142	4-May-04	10-Mar-04
E276022	04-ESK-002	212.00	213.00	0.022	4-May-04	10-Mar-04
E276023	04-ESK-002	213.00	214.00	0.024	4-May-04	10-Mar-04
E276024	04-ESK-002	214.00	215.00	0.033	4-May-04	10-Mar-04
E276025	04-ESK-002	215.00	216.00	2.011	4-May-04	10-Mar-04
E276026	04-ESK-002	216.00	217.00	0.094	4-May-04	10-Mar-04
E276027	04-ESK-002	217.00	218.00	0.126	4-May-04	10-Mar-04
E276028	04-ESK-002	218.00	219.00	0.885	4-May-04	10-Mar-04
E276029	04-ESK-002	219.00	220.00	0.045	4-May-04	10-Mar-04
E276031	04-ESK-002	220.00	221.00	1.330	4-May-04	10-Mar-04
E276032	04-ESK-002	221.00	222.00	3.394	4-May-04	10-Mar-04
E276033	04-ESK-002	222.00	223.00	0.470	4-May-04	10-Mar-04
E276034	04-ESK-002	223.00	224.00	15.733	4-May-04	10-Mar-04
E276035	04-ESK-002	224.00	224.80	8.269	4-May-04	10-Mar-04
E276036	04-ESK-002	224.80	225.95	0.061	4-May-04	10-Mar-04
E276037	04-ESK-002	225.95	227.00	0.266	4-May-04	10-Mar-04
E276038	04-ESK-002	227.00	228.00	0.219	4-May-04	10-Mar-04
E276039	04-ESK-002	228.00	229.00	0.452	4-May-04	10-Mar-04
E276041	04-ESK-002	229.00	229.80	0.395	4-May-04	10-Mar-04
E276042	04-ESK-002	229.80	230.90	0.077	4-May-04	10-Mar-04
E276043	04-ESK-002	230.90	231.90	0.482	4-May-04	10-Mar-04
E276044	04-ESK-002	231.90	232.90	0.676	4-May-04	10-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome—Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E276045	04-ESK-002	232.90	233.90	0.117	4-May-04	10-Mar-04
E276046	04-ESK-002	233.90	234.90	0.346	4-May-04	10-Mar-04
E276047	04-ESK-002	234.90	235.90	2.498	4-May-04	10-Mar-04
E276048	04-ESK-002	235.90	236.90	0.707	4-May-04	10-Mar-04
E276049	04-ESK-002	236.90	237.90	1.256	4-May-04	10-Mar-04
E276051	04-ESK-002	237.90	238.90	0.743	4-May-04	10-Mar-04
E276052	04-ESK-002	238.90	239.90	0.059	4-May-04	10-Mar-04
E276053	04-ESK-002	239.90	240.90	0.070	4-May-04	10-Mar-04
E276054	04-ESK-002	240.90	241.90	0.053	4-May-04	10-Mar-04
E276055	04-ESK-002	241.90	243.20	0.399	4-May-04	10-Mar-04
E276056	04-ISL-002	24.80	25.80	0.104	16-Apr-04	10-Mar-04
E276057	04-ISL-002	25.80	26.80	0.450	16-Apr-04	10-Mar-04
E276058	04-ISL-002	26.80	27.80	0.163	16-Apr-04	10-Mar-04
E276059	04-ISL-002	27.80	28.80	1.127	16-Apr-04	10-Mar-04
E276061	04-ISL-002	28.80	29.80	0.012	16-Apr-04	10-Mar-04
E276062	04-ISL-002	29.80	30.80	0.069	16-Apr-04	10-Mar-04
E276063	04-ISL-002	30.80	31.80	0.434	16-Apr-04	10-Mar-04
E276064	04-ISL-002	31.80	32.80	0.016	16-Apr-04	10-Mar-04
E276065	04-ISL-002	32.80	33.55	0.028	16-Apr-04	10-Mar-04
E276066	04-ISL-002	33.55	34.50	0.080	16-Apr-04	10-Mar-04
E276067	04-ISL-002	34.50	35.20	0.031	16-Apr-04	10-Mar-04
E276068	04-ISL-002	35.20	36.20	1.325	16-Apr-04	10-Mar-04
E276069	04-ISL-002	36.20	37.20	0.286	16-Apr-04	10-Mar-04
E276071	04-ISL-002	37.20	38.20	0.127	16-Apr-04	10-Mar-04
E276072	04-ISL-002	38.20	39.20	0.091	16-Apr-04	10-Mar-04
E276073	04-ISL-002	39.20	40.25	0.039	16-Apr-04	10-Mar-04
E276074	04-ISL-002	40.25	41.25	0.021	16-Apr-04	10-Mar-04
E276075	04-ISL-002	41.25	42.25	0.049	16-Apr-04	10-Mar-04
E276076	04-ISL-002	43.15	44.15	0.045	16-Apr-04	10-Mar-04
E276077	04-ISL-002	44.15	45.15	0.141	16-Apr-04	10-Mar-04
E276078	04-ISL-002	45.15	46.15	0.028	16-Apr-04	10-Mar-04
E276079	04-ISL-002	46.15	47.15	0.022	16-Apr-04	10-Mar-04
E276081	04-ISL-002	47.15	48.15	0.037	16-Apr-04	10-Mar-04
E276082	04-ISL-002	48.15	49.15	0.018	16-Apr-04	10-Mar-04
E276083	04-ISL-002	49.15	50.15	0.036	16-Apr-04	10-Mar-04
E276084	04-ISL-002	50.15	51.15	0.331	16-Apr-04	10-Mar-04
E276085	04-ISL-002	51.15	52.15	0.019	16-Apr-04	10-Mar-04
E276086	04-ISL-002	52.15	53.00	0.022	16-Apr-04	10-Mar-04
E276087	04-ISL-002	53.00	53.80	0.021	16-Apr-04	10-Mar-04
E276088	04-ISL-002	53.80	55.00	0.017	16-Apr-04	10-Mar-04
E276089	04-ISL-002	55.00	56.00	0.087	16-Apr-04	10-Mar-04
E276091	04-ISL-002	56.00	57.00	0.021	16-Apr-04	10-Mar-04
E276092	04-ISL-002	57.00	58.00	0.033	16-Apr-04	10-Mar-04
E276093	04-ISL-002	58.00	59.00	0.057	16-Apr-04	10-Mar-04
E276094	04-ISL-002	59.00	60.00	0.016	16-Apr-04	10-Mar-04
E276095	04-ISL-002	60.00	61.00	0.024	16-Apr-04	10-Mar-04
E276096	04-ISL-002	61.00	62.00	0.027	16-Apr-04	10-Mar-04
E276097	04-ISL-002	62.00	63.00	0.032	16-Apr-04	10-Mar-04
E276098	04-ISL-002	63.00	64.00	0.023	16-Apr-04	10-Mar-04
E276099	04-ISL-002	64.00	65.00	0.011	16-Apr-04	10-Mar-04
E276101	04-ISL-002	65.00	66.15	0.088	16-Apr-04	10-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome — Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E276102	04-ISL-002	66.15	67.15	0.087	16-Apr-04	10-Mar-04
E276103	04-ISL-002	67.15	68.15	0.097	16-Apr-04	10-Mar-04
E276104	04-ISL-002	68.15	69.15	3.740	16-Apr-04	10-Mar-04
E276105	04-ISL-002	69.15	70.15	1.249	16-Apr-04	10-Mar-04
E276106	04-ISL-002	70.15	71.15	0.045	16-Apr-04	10-Mar-04
E276107	04-ISL-002	71.15	72.15	0.397	16-Apr-04	10-Mar-04
E276108	04-ISL-002	72.15	73.15	0.016	16-Apr-04	10-Mar-04
E276109	04-ISL-002	73.15	74.30	0.010	16-Apr-04	10-Mar-04
E276111	04-ISL-002	74.30	75.30	0.115	16-Apr-04	10-Mar-04
E276112	04-ISL-002	75.30	76.30	0.068	16-Apr-04	10-Mar-04
E276113	04-ISL-002	76.30	77.30	1.432	16-Apr-04	10-Mar-04
E276114	04-ISL-002	77.30	78.30	1.241	16-Apr-04	10-Mar-04
E276115	04-ISL-002	78.30	79.30	4.561	16-Apr-04	10-Mar-04
E276116	04-ISL-002	79.30	80.30	0.356	15-Apr-04	10-Mar-04
E276117	04-ISL-002	80.30	81.30	1.667	15-Apr-04	10-Mar-04
E276118	04-ISL-002	81.30	82.30	0.130	15-Apr-04	10-Mar-04
E276119	04-ISL-002	82.30	83.30	0.053	15-Apr-04	10-Mar-04
E276121	04-ISL-002	83.30	84.30	0.081	15-Apr-04	10-Mar-04
E276122	04-ISL-002	84.30	85.30	0.013	15-Apr-04	10-Mar-04
E276123	04-ISL-002	85.30	86.30	0.015	15-Apr-04	10-Mar-04
E276124	04-ISL-002	86.30	87.30	0.013	15-Apr-04	10-Mar-04
E276125	04-ISL-002	87.30	88.30	0.021	15-Apr-04	10-Mar-04
E276126	04-ISL-002	88.30	89.30	0.032	15-Apr-04	10-Mar-04
E276127	04-ISL-002	89.30	90.30	0.378	15-Apr-04	10-Mar-04
E276128	04-ISL-002	90.30	91.30	0.079	15-Apr-04	10-Mar-04
E276129	04-ISL-002	91.30	92.30	0.195	15-Apr-04	10-Mar-04
E276131	04-ISL-002	92.30	93.30	0.030	15-Apr-04	10-Mar-04
E276132	04-ISL-002	93.30	94.30	0.023	15-Apr-04	10-Mar-04
E276133	04-ISL-002	94.30	95.30	0.023	15-Apr-04	10-Mar-04
E276134	04-ISL-002	95.30	96.30	0.018	15-Apr-04	10-Mar-04
E276135	04-ISL-002	96.30	97.30	0.015	15-Apr-04	10-Mar-04
E276136	04-ISL-002	97.30	98.30	0.082	15-Apr-04	10-Mar-04
E276137	04-ISL-002	98.30	99.30	0.010	15-Apr-04	10-Mar-04
E276138	04-ISL-002	99.30	100.30	0.038	15-Apr-04	10-Mar-04
E276139	04-ISL-002	100.30	101.30	0.026	15-Apr-04	10-Mar-04
E276141	04-ISL-002	101.30	102.30	0.020	15-Apr-04	10-Mar-04
E276142	04-ISL-002	102.30	103.30	0.035	15-Apr-04	10-Mar-04
E276143	04-ISL-002	103.30	104.30	0.041	15-Apr-04	10-Mar-04
E276144	04-ISL-002	104.30	105.40	0.032	15-Apr-04	10-Mar-04
E276145	04-ISL-002	105.40	106.40	0.025	15-Apr-04	10-Mar-04
E276146	04-ISL-002	106.40	107.40	0.010	15-Apr-04	10-Mar-04
E276147	04-ESK-002	243.20	244.20	2.092	4-May-04	11-Mar-04
E276148	04-ESK-002	244.20	245.20	1.345	4-May-04	11-Mar-04
E276149	04-ESK-002	245.20	246.20	0.442	4-May-04	11-Mar-04
E276151	04-ESK-002	246.20	247.20	0.858	4-May-04	11-Mar-04
E276152	04-ESK-002	247.20	248.20	0.314	4-May-04	11-Mar-04
E276153	04-ESK-002	248.20	248.85	0.165	4-May-04	11-Mar-04
E276154	04-ESK-002	248.85	249.60	0.081	4-May-04	11-Mar-04
E276155	04-ESK-002	249.60	250.60	0.150	4-May-04	11-Mar-04
E276156	04-ESK-002	250.60	251.60	0.151	4-May-04	11-Mar-04
E276157	04-ESK-002	251.60	252.60	0.396	4-May-04	11-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E276158	04-ESK-002	252.60	253.60	0.195	4-May-04	11-Mar-04
E276159	04-ESK-002	253.60	254.60	0.225	4-May-04	11-Mar-04
E276161	04-ESK-002	254.60	255.10	0.048	4-May-04	11-Mar-04
E276162	04-ESK-002	255.10	256.10	0.019	4-May-04	11-Mar-04
E276163	04-ESK-002	270.90	271.90	0.018	4-May-04	11-Mar-04
E276164	04-ESK-002	271.90	272.90	0.129	4-May-04	11-Mar-04
E276165	04-ESK-002	272.90	273.90	0.135	4-May-04	11-Mar-04
E276166	04-ESK-002	273.90	274.90	0.256	4-May-04	11-Mar-04
E276167	04-ESK-002	274.90	275.90	0.016	4-May-04	11-Mar-04
E276168	04-ESK-002	275.90	276.90	0.152	4-May-04	11-Mar-04
E276169	04-ESK-002	276.90	277.90	0.073	4-May-04	11-Mar-04
E276171	04-ESK-002	277.90	278.90	0.023	4-May-04	11-Mar-04
E276172	04-ESK-002	278.90	279.90	0.021	4-May-04	11-Mar-04
E276173	04-ESK-002	279.90	280.90	0.261	4-May-04	11-Mar-04
E276174	04-ESK-002	280.90	281.90	0.014	4-May-04	11-Mar-04
E276175	04-ESK-002	281.90	282.90	0.017	4-May-04	11-Mar-04
E276176	04-ESK-002	284.90	285.90	0.022	4-May-04	11-Mar-04
E276177	04-ESK-002	285.90	286.90	0.011	4-May-04	11-Mar-04
E276178	04-ESK-002	286.90	287.90	0.010	4-May-04	11-Mar-04
E276179	04-ESK-002	287.90	288.90	0.010	4-May-04	11-Mar-04
E276181	04-ESK-002	288.90	289.90	0.012	4-May-04	13-Mar-04
E276182	04-ESK-002	289.90	290.90	0.014	4-May-04	13-Mar-04
E276183	04-ESK-002	290.90	292.00	0.052	4-May-04	13-Mar-04
E276184	04-ESK-002	292.00	293.00	0.186	4-May-04	13-Mar-04
E276185	04-ESK-002	293.00	294.10	0.037	4-May-04	13-Mar-04
E276186	04-ESK-002	294.10	295.10	0.015	4-May-04	13-Mar-04
E276187	04-ESK-002	295.10	296.10	0.014	4-May-04	13-Mar-04
E276188	04-ESK-002	300.65	301.65	0.012	4-May-04	13-Mar-04
E276189	04-ESK-002	301.65	302.65	0.045	4-May-04	13-Mar-04
E276191	04-ESK-002	302.65	303.50	0.032	4-May-04	13-Mar-04
E276192	04-ESK-002	303.50	304.20	0.030	4-May-04	13-Mar-04
E276193	04-ESK-002	304.20	305.20	0.016	4-May-04	13-Mar-04
E276194	04-ESK-002	305.20	306.20	0.013	4-May-04	13-Mar-04
E276195	04-ESN-011	118.00	119.00	2.057	7-Apr-04	14-Mar-04
E276196	04-ESN-011	119.00	120.00	0.032	7-Apr-04	14-Mar-04
E276197	04-ESN-011	120.00	121.00	0.015	7-Apr-04	14-Mar-04
E276198	04-ESN-011	121.00	122.10	0.023	7-Apr-04	14-Mar-04
E276199	04-ESN-011	122.10	123.10	0.086	7-Apr-04	14-Mar-04
E276201	04-ESN-011	123.10	124.10	0.044	7-Apr-04	14-Mar-04
E276202	04-ESN-011	124.10	125.10	0.035	7-Apr-04	14-Mar-04
E276203	04-ESN-011	125.10	126.00	0.131	7-Apr-04	14-Mar-04
E276204	04-ESN-011	126.00	127.30	0.010	7-Apr-04	14-Mar-04
E276205	04-ESN-011	127.30	128.30	0.037	7-Apr-04	14-Mar-04
E276206	04-ESN-011	128.30	129.30	0.317	7-Apr-04	14-Mar-04
E276207	04-ESN-011	129.30	130.40	0.050	7-Apr-04	14-Mar-04
E276208	04-ESN-011	130.40	131.60	0.044	7-Apr-04	14-Mar-04
E276209	04-ESN-011	131.60	132.60	0.069	7-Apr-04	14-Mar-04
E276211	04-ESN-011	132.60	133.50	0.069	7-Apr-04	14-Mar-04
E276212	04-ESN-011	133.50	134.30	0.058	7-Apr-04	14-Mar-04
E276213	04-ESN-011	134.30	135.00	0.053	7-Apr-04	14-Mar-04
E276214	04-ESN-011	135.00	136.00	0.015	7-Apr-04	14-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome — Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E276215	04-ESN-011	136.00	137.00	0.042	7-Apr-04	14-Mar-04
E276216	04-ESN-011	137.00	137.80	0.025	7-Apr-04	15-Mar-04
E276217	04-ESN-011	137.80	138.50	0.082	7-Apr-04	15-Mar-04
E276218	04-ESN-011	138.50	139.50	0.287	7-Apr-04	15-Mar-04
E276219	04-ESN-011	139.50	140.50	0.369	9-Apr-04	15-Mar-04
E276221	04-ESN-011	140.50	141.50	0.205	9-Apr-04	15-Mar-04
E276222	04-ESN-011	141.50	142.30	0.426	9-Apr-04	15-Mar-04
E276223	04-ESN-011	142.30	143.30	0.052	9-Apr-04	15-Mar-04
E276224	04-ESN-011	143.30	144.30	0.045	9-Apr-04	15-Mar-04
E276225	04-ESN-011	144.30	145.40	0.106	9-Apr-04	15-Mar-04
E276226	04-ESN-011	145.40	146.40	0.081	9-Apr-04	15-Mar-04
E276227	04-ESN-011	146.40	147.40	0.081	9-Apr-04	15-Mar-04
E276228	04-ESN-011	147.40	148.40	0.038	9-Apr-04	15-Mar-04
E276229	04-ESN-011	148.40	149.30	0.040	10-Apr-04	15-Mar-04
E276231	04-ESN-011	149.30	150.00	0.039	10-Apr-04	15-Mar-04
E276232	04-ESN-011	150.00	151.00	0.074	10-Apr-04	15-Mar-04
E276233	04-ESN-011	151.00	152.00	0.016	10-Apr-04	15-Mar-04
E276234	04-ESN-011	152.00	153.00	0.019	10-Apr-04	15-Mar-04
E276235	04-ESN-011	179.10	180.10	0.749	10-Apr-04	15-Mar-04
E276236	04-ESN-011	180.10	181.10	0.480	10-Apr-04	15-Mar-04
E276237	04-ESN-011	181.10	182.10	5.702	10-Apr-04	15-Mar-04
E276238	04-ESN-011	182.10	182.80	0.515	10-Apr-04	15-Mar-04
E276239	04-ESN-011	182.80	183.50	0.347	10-Apr-04	15-Mar-04
E276241	04-ESN-011	183.50	184.50	3.494	10-Apr-04	15-Mar-04
E276242	04-ESN-011	184.50	185.50	0.128	10-Apr-04	15-Mar-04
E276243	04-ESN-011	185.50	186.50	1.057	10-Apr-04	15-Mar-04
E276244	04-ESN-011	186.50	187.50	1.858	10-Apr-04	15-Mar-04
E276245	04-ESN-011	187.50	188.50	0.460	10-Apr-04	15-Mar-04
E276246	04-ESN-011	188.50	189.50	1.910	10-Apr-04	15-Mar-04
E276247	04-ESN-011	189.50	190.50	0.128	10-Apr-04	15-Mar-04
E276248	04-ESN-011	190.50	191.50	4.273	10-Apr-04	15-Mar-04
E276249	04-ESN-011	191.50	192.50	2.451	10-Apr-04	15-Mar-04
E276251	04-ESN-011	192.50	193.50	0.332	10-Apr-04	15-Mar-04
E276252	04-ESN-011	193.50	194.50	0.166	10-Apr-04	15-Mar-04
E276253	04-ESN-011	194.50	195.50	0.407	10-Apr-04	15-Mar-04
E276254	04-ESN-011	195.50	196.20	1.594	10-Apr-04	15-Mar-04
E276255	04-ESN-011	196.20	196.90	1.310	10-Apr-04	15-Mar-04
E276256	04-ESN-011	196.90	197.90	2.062	10-Apr-04	15-Mar-04
E276257	04-ESN-011	197.90	198.70	1.744	10-Apr-04	15-Mar-04
E276258	04-ESN-011	198.70	199.60	1.245	10-Apr-04	15-Mar-04
E276259	04-ESN-011	199.60	200.60	2.083	10-Apr-04	15-Mar-04
E276261	04-ESN-011	200.60	201.30	0.376	10-Apr-04	15-Mar-04
E276262	04-ESN-011	201.30	202.30	0.271	10-Apr-04	15-Mar-04
E276263	04-ESN-011	202.30	203.30	0.036	10-Apr-04	15-Mar-04
E276264	04-ESN-011	203.30	204.30	0.619	10-Apr-04	15-Mar-04
E276265	04-ESN-011	204.30	205.30	0.265	10-Apr-04	15-Mar-04
E276266	04-ESN-011	205.30	206.30	0.335	10-Apr-04	15-Mar-04
E276267	04-ESN-011	206.30	207.30	0.056	10-Apr-04	15-Mar-04
E276268	04-ESN-011	207.30	208.30	0.168	10-Apr-04	15-Mar-04
E276269	04-ESN-011	208.30	209.30	0.105	10-Apr-04	15-Mar-04
E276271	04-ESN-011	209.30	210.30	0.098	10-Apr-04	15-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E276272	04-ESN-011	210.30	211.30	0.144	10-Apr-04	15-Mar-04
E276273	04-ESN-011	211.30	212.30	0.056	10-Apr-04	15-Mar-04
E276274	04-ESN-011	212.30	213.30	0.041	10-Apr-04	15-Mar-04
E276275	04-ESN-011	213.30	214.30	0.093	10-Apr-04	15-Mar-04
E276276	04-ESN-011	214.30	215.30	0.039	10-Apr-04	15-Mar-04
E276277	04-ESN-011	215.30	216.30	0.043	10-Apr-04	15-Mar-04
E276278	04-ESN-011	216.30	217.30	0.111	10-Apr-04	15-Mar-04
E276279	04-ESN-011	217.30	218.30	0.122	8-Apr-04	15-Mar-04
E276281	04-ESN-011	218.30	219.00	0.118	8-Apr-04	15-Mar-04
E276282	04-ESN-011	219.00	220.00	0.070	8-Apr-04	15-Mar-04
E276283	04-ESN-011	220.00	221.00	0.055	8-Apr-04	15-Mar-04
E276284	04-ESN-011	221.00	222.00	0.044	8-Apr-04	15-Mar-04
E276285	04-ESN-011	222.00	223.00	0.013	8-Apr-04	15-Mar-04
E276286	04-ESN-011	223.00	224.00	0.042	8-Apr-04	15-Mar-04
E276287	04-ESN-011	224.00	225.00	0.015	8-Apr-04	15-Mar-04
E276288	04-ESN-011	225.00	226.00	0.015	8-Apr-04	15-Mar-04
E276289	04-ESN-011	226.00	227.00	0.025	8-Apr-04	15-Mar-04
E276291	04-ESN-011	227.00	227.90	0.052	8-Apr-04	15-Mar-04
E276292	04-ESN-011	227.90	228.90	0.072	8-Apr-04	15-Mar-04
E276293	04-ESN-011	228.90	229.90	0.023	8-Apr-04	15-Mar-04
E276294	04-ESN-011	229.90	230.90	0.035	8-Apr-04	15-Mar-04
E276295	04-ESN-011	230.90	231.80	0.047	8-Apr-04	15-Mar-04
E276296	04-ESN-011	231.80	232.50	0.024	8-Apr-04	15-Mar-04
E276297	04-ESN-011	232.50	233.20	0.035	8-Apr-04	15-Mar-04
E276298	04-ESN-011	233.20	234.00	0.092	8-Apr-04	15-Mar-04
E276299	04-ESN-011	234.00	235.00	0.099	8-Apr-04	15-Mar-04
E276301	04-ESN-011	235.00	236.00	0.112	8-Apr-04	15-Mar-04
E276302	04-ESN-011	236.00	237.00	0.146	8-Apr-04	15-Mar-04
E276303	04-ESN-011	237.00	238.00	0.028	8-Apr-04	15-Mar-04
E276304	04-ESN-011	238.00	238.60	0.336	10-Apr-04	15-Mar-04
E276305	04-ESN-011	238.60	239.60	0.010	10-Apr-04	15-Mar-04
E276306	04-ESN-011	239.60	240.60	0.013	10-Apr-04	15-Mar-04
E276307	04-ESN-011	257.00	258.00	0.010	10-Apr-04	16-Mar-04
E276308	04-ESN-011	258.00	259.00	0.041	9-Apr-04	16-Mar-04
E276309	04-ESN-011	259.00	260.00	0.025	9-Apr-04	16-Mar-04
E276311	04-ESN-011	260.00	261.00	0.050	9-Apr-04	16-Mar-04
E276312	04-ESN-011	261.00	262.00	0.297	9-Apr-04	16-Mar-04
E276313	04-ESN-011	262.00	263.00	0.133	9-Apr-04	16-Mar-04
E276314	04-ESN-011	263.00	264.00	0.131	9-Apr-04	16-Mar-04
E276315	04-ESN-011	264.00	265.00	0.247	9-Apr-04	16-Mar-04
E276316	04-ESN-011	265.00	266.00	0.449	9-Apr-04	16-Mar-04
E276317	04-ESN-011	266.00	267.00	0.141	9-Apr-04	16-Mar-04
E276318	04-ESN-011	267.00	268.00	1.600	9-Apr-04	16-Mar-04
E276319	04-ESN-011	268.00	269.00	1.289	9-Apr-04	16-Mar-04
E276321	04-ESN-011	269.00	270.00	0.824	9-Apr-04	16-Mar-04
E276322	04-ESN-011	270.00	271.00	0.142	9-Apr-04	16-Mar-04
E276323	04-ESN-011	271.00	272.00	0.113	9-Apr-04	16-Mar-04
E276324	04-ESN-011	272.00	273.00	0.099	9-Apr-04	16-Mar-04
E276325	04-ESN-011	273.00	274.00	0.039	9-Apr-04	16-Mar-04
E276326	04-ESN-011	274.00	275.00	0.031	9-Apr-04	16-Mar-04
E276327	04-ESN-011	275.00	276.00	0.033	9-Apr-04	16-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome—Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E276328	04-ESN-011	276.00	277.00	0.044	9-Apr-04	16-Mar-04
E276329	04-ESN-011	277.00	278.00	0.044	9-Apr-04	16-Mar-04
E276331	04-ESN-011	278.00	278.70	0.036	9-Apr-04	16-Mar-04
E276332	04-ESN-011	278.70	279.50	0.101	9-Apr-04	16-Mar-04
E276333	04-ESN-011	279.50	280.30	0.081	9-Apr-04	16-Mar-04
E276334	04-ESN-011	280.30	281.30	0.030	9-Apr-04	16-Mar-04
E276335	04-ESN-011	281.30	282.30	0.061	9-Apr-04	16-Mar-04
E276422	04-ESS-022	190.80	191.80	0.016	14-Apr-04	24-Mar-04
E276423	04-ESS-022	191.80	192.80	0.010	14-Apr-04	24-Mar-04
E276424	04-ESS-022	201.30	202.30	0.015	14-Apr-04	24-Mar-04
E276425	04-ESS-022	202.30	203.30	0.010	14-Apr-04	24-Mar-04
E276426	04-ESS-022	203.30	204.30	0.370	14-Apr-04	24-Mar-04
E276427	04-ESS-022	204.30	205.30	1.143	14-Apr-04	24-Mar-04
E276428	04-ESS-022	205.30	206.30	2.346	14-Apr-04	25-Mar-04
E276429	04-ESS-022	211.90	212.90	0.018	14-Apr-04	25-Mar-04
E276431	04-ESS-022	212.90	213.90	0.096	14-Apr-04	25-Mar-04
E276432	04-ESS-022	213.90	214.60	2.278	14-Apr-04	25-Mar-04
E276433	04-ESS-022	214.60	215.30	0.117	14-Apr-04	25-Mar-04
E276434	04-ESS-022	215.30	216.50	0.083	14-Apr-04	25-Mar-04
E276435	04-ESS-022	216.50	217.15	3.181	14-Apr-04	25-Mar-04
E276436	04-ESS-022	217.15	217.80	5.254	14-Apr-04	25-Mar-04
E276437	04-ESS-022	217.80	218.80	0.499	14-Apr-04	25-Mar-04
E276438	04-ESS-022	218.80	219.80	0.073	14-Apr-04	25-Mar-04
E276439	04-ESS-022	219.80	220.80	0.051	14-Apr-04	25-Mar-04
E276441	04-ESS-022	220.80	221.50	4.867	14-Apr-04	25-Mar-04
E276442	04-ESS-022	221.50	222.00	0.894	14-Apr-04	25-Mar-04
E276443	04-ESS-022	222.00	223.10	0.018	15-Apr-04	25-Mar-04
E276444	04-ESS-022	223.10	223.70	0.011	15-Apr-04	25-Mar-04
E276445	04-ESS-022	223.70	224.55	0.029	15-Apr-04	25-Mar-04
E276446	04-ESS-022	224.55	225.50	0.561	15-Apr-04	25-Mar-04
E276447	04-ESS-022	225.50	226.45	2.208	15-Apr-04	25-Mar-04
E276448	04-ESS-022	226.45	227.00	0.037	15-Apr-04	25-Mar-04
E276449	04-ESS-022	227.00	228.00	0.096	15-Apr-04	25-Mar-04
E276451	04-ESS-022	228.00	229.00	0.045	15-Apr-04	25-Mar-04
E276452	04-ESS-022	229.00	230.10	3.352	15-Apr-04	25-Mar-04
E276453	04-ESS-022	230.10	231.10	0.116	15-Apr-04	25-Mar-04
E276454	04-ESS-022	236.80	237.80	0.034	15-Apr-04	25-Mar-04
E276455	04-ESS-022	237.80	238.45	9.472	15-Apr-04	25-Mar-04
E276456	04-ESS-022	238.45	239.10	0.827	15-Apr-04	25-Mar-04
E276457	04-ESS-022	239.10	239.50	0.015	16-Apr-04	25-Mar-04
E276458	04-ESS-022	239.50	240.30	0.342	16-Apr-04	25-Mar-04
E276459	04-ESS-022	240.30	240.60	0.160	16-Apr-04	25-Mar-04
E276461	04-ESS-022	240.60	241.40	0.791	16-Apr-04	25-Mar-04
E276462	04-ESS-022	241.40	242.15	0.027	16-Apr-04	25-Mar-04
E276463	04-ESS-022	242.15	242.90	0.012	16-Apr-04	25-Mar-04
E276464	04-ESS-022	242.90	243.75	0.020	16-Apr-04	25-Mar-04
E276465	04-ESS-022	243.75	244.55	2.273	16-Apr-04	25-Mar-04
E276466	04-ESS-022	244.55	245.00	0.049	16-Apr-04	25-Mar-04
E276467	04-ESS-022	245.00	245.85	0.015	16-Apr-04	25-Mar-04
E276468	04-ESS-022	245.85	246.70	0.024	16-Apr-04	25-Mar-04
E276469	04-ESS-022	246.70	247.60	0.040	16-Apr-04	25-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E276471	04-ESS-022	247.60	248.60	2.048	16-Apr-04	25-Mar-04
E276472	04-ESS-022	248.60	249.60	3.180	16-Apr-04	25-Mar-04
E276473	04-ESS-022	249.60	250.60	2.549	16-Apr-04	25-Mar-04
E276474	04-ESS-022	250.60	251.60	0.162	16-Apr-04	25-Mar-04
E276475	04-ESS-022	251.60	252.60	0.105	16-Apr-04	25-Mar-04
E276476	04-ESS-022	252.60	253.30	3.737	16-Apr-04	25-Mar-04
E276477	04-ESS-022	253.30	254.00	9.570	4-May-04	25-Mar-04
E276478	04-ESS-022	254.00	255.00	3.210	16-Apr-04	25-Mar-04
E276479	04-ESS-022	255.00	256.00	28.270	4-May-04	25-Mar-04
E276481	04-ESS-022	256.00	257.00	0.718	16-Apr-04	25-Mar-04
E276482	04-ESS-022	257.00	258.00	0.221	16-Apr-04	25-Mar-04
E276483	04-ESS-022	258.00	259.00	0.086	16-Apr-04	25-Mar-04
E276484	04-ESS-022	259.00	260.00	0.289	16-Apr-04	25-Mar-04
E276485	04-ESS-022	260.00	261.00	0.089	16-Apr-04	25-Mar-04
E276486	04-ESS-022	261.00	262.00	0.145	16-Apr-04	25-Mar-04
E276487	04-ESS-022	262.00	263.00	0.148	16-Apr-04	25-Mar-04
E276488	04-ESS-022	263.00	264.10	0.357	16-Apr-04	25-Mar-04
E276489	04-ESS-022	264.10	265.20	0.356	16-Apr-04	25-Mar-04
E276491	04-ESS-022	265.20	266.20	0.024	16-Apr-04	26-Mar-04
E276492	04-ESS-022	266.20	267.20	0.036	16-Apr-04	26-Mar-04
E276493	04-ESS-007	109.85	110.85	0.029	13-Apr-04	26-Mar-04
E276494	04-ESS-007	110.85	111.85	0.018	13-Apr-04	26-Mar-04
E276495	04-ESS-007	111.85	112.85	0.017	13-Apr-04	26-Mar-04
E276496	04-ESS-007	133.20	134.20	0.010	13-Apr-04	26-Mar-04
E276497	04-ESS-007	134.20	135.40	0.036	13-Apr-04	26-Mar-04
E276498	04-ESS-007	135.40	136.40	0.436	13-Apr-04	26-Mar-04
E276499	04-ESS-007	139.20	140.20	0.019	13-Apr-04	26-Mar-04
E276501	04-ESS-007	140.20	141.40	11.150	13-Apr-04	26-Mar-04
E276502	04-ESS-007	141.40	141.80	0.344	13-Apr-04	26-Mar-04
E276503	04-ESS-007	141.80	142.20	5.949	13-Apr-04	26-Mar-04
E276504	04-ESS-007	142.20	143.20	0.084	13-Apr-04	26-Mar-04
E276751	04-ISL-010	153.00	153.55	0.106	14-Apr-04	27-Mar-04
E276752	04-ISL-010	153.55	154.00	0.010	14-Apr-04	27-Mar-04
E276753	04-ESS-010	66.40	66.90	0.038	26-Apr-04	28-Mar-04
E276754	04-ESS-010	66.90	68.00	0.116	26-Apr-04	28-Mar-04
E276755	04-ESS-010	68.00	69.00	0.077	26-Apr-04	28-Mar-04
E276756	04-ESS-010	69.00	69.50	0.038	26-Apr-04	28-Mar-04
E276757	04-ESS-010	76.20	76.80	0.027	26-Apr-04	28-Mar-04
E276758	04-ESS-010	76.80	77.20	0.047	26-Apr-04	28-Mar-04
E276759	04-ESS-010	77.20	77.70	0.045	26-Apr-04	28-Mar-04
E276761	04-ESS-010	81.00	81.80	0.047	26-Apr-04	28-Mar-04
E276762	04-ESS-010	81.80	82.20	0.068	26-Apr-04	28-Mar-04
E276763	04-ESS-010	82.20	83.20	0.051	26-Apr-04	28-Mar-04
E276764	04-ESS-010	83.20	84.20	0.020	26-Apr-04	28-Mar-04
E276765	04-ESS-010	84.20	84.70	0.034	26-Apr-04	28-Mar-04
E276766	04-ESS-010	93.50	94.00	0.033	26-Apr-04	28-Mar-04
E276767	04-ESS-010	94.00	94.80	3.043	26-Apr-04	28-Mar-04
E276768	04-ESS-010	94.80	95.30	0.089	26-Apr-04	28-Mar-04
E276769	04-ESS-010	95.30	96.00	3.652	26-Apr-04	28-Mar-04
E276771	04-ESS-010	96.00	96.60	0.443	26-Apr-04	28-Mar-04
E276772	04-ESS-010	96.60	97.10	0.073	26-Apr-04	28-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E276773	04-ESS-010	101.00	102.10	0.035	26-Apr-04	28-Mar-04
E276774	04-ESS-010	102.10	102.80	0.079	26-Apr-04	28-Mar-04
E276775	04-ESS-010	102.80	104.00	0.040	26-Apr-04	28-Mar-04
E276776	04-ESS-010	104.00	104.60	0.034	26-Apr-04	28-Mar-04
E276777	04-ESS-010	104.60	105.30	2.834	26-Apr-04	28-Mar-04
E276778	04-ESS-010	105.30	106.30	0.038	26-Apr-04	28-Mar-04
E276779	04-ESS-010	106.30	107.30	0.015	26-Apr-04	28-Mar-04
E276781	04-ESS-010	107.30	108.20	0.038	26-Apr-04	28-Mar-04
E276782	04-ESS-010	108.20	109.00	0.127	26-Apr-04	28-Mar-04
E276783	04-ESS-010	109.00	110.00	1.233	26-Apr-04	28-Mar-04
E276784	04-ESS-010	110.00	111.00	0.237	26-Apr-04	28-Mar-04
E276785	04-ESS-010	111.00	112.00	0.207	26-Apr-04	28-Mar-04
E276786	04-ESS-010	112.00	113.00	0.090	26-Apr-04	28-Mar-04
E276787	04-ESS-010	113.00	114.00	0.375	26-Apr-04	28-Mar-04
E276788	04-ESS-010	114.00	115.00	0.821	26-Apr-04	28-Mar-04
E276789	04-ESS-010	115.00	116.00	0.797	26-Apr-04	28-Mar-04
E276791	04-ESS-010	116.00	116.75	0.065	26-Apr-04	28-Mar-04
E276792	04-ESS-010	116.75	117.75	0.030	26-Apr-04	28-Mar-04
E276793	04-ESS-010	117.75	119.00	0.036	27-Apr-04	28-Mar-04
E276794	04-ESS-010	119.00	120.00	0.020	27-Apr-04	28-Mar-04
E276795	04-ESS-010	120.00	121.00	0.010	27-Apr-04	28-Mar-04
E276796	04-ESS-010	121.00	122.00	0.010	27-Apr-04	28-Mar-04
E276797	04-ESS-010	122.00	123.00	0.016	27-Apr-04	28-Mar-04
E276798	04-ESS-010	123.00	124.00	0.072	27-Apr-04	28-Mar-04
E276799	04-ESS-010	124.00	125.00	0.147	27-Apr-04	28-Mar-04
E276801	04-ESS-010	125.00	126.00	0.036	27-Apr-04	28-Mar-04
E276802	04-ESS-010	126.00	127.00	0.018	27-Apr-04	28-Mar-04
E276803	04-ESS-010	127.00	128.00	0.049	27-Apr-04	28-Mar-04
E276804	04-ESS-010	128.00	129.00	0.044	27-Apr-04	28-Mar-04
E276805	04-ESS-010	129.00	130.10	0.424	27-Apr-04	28-Mar-04
E276806	04-ESS-010	130.10	131.20	0.024	27-Apr-04	28-Mar-04
E276807	04-ESS-010	131.20	131.80	0.047	27-Apr-04	28-Mar-04
E276808	04-ESS-010	131.80	132.50	0.025	27-Apr-04	28-Mar-04
E276809	04-ESS-010	132.50	133.20	0.038	27-Apr-04	28-Mar-04
E276811	04-ESS-010	133.20	134.00	0.043	27-Apr-04	28-Mar-04
E276812	04-ESS-010	134.00	135.10	0.171	27-Apr-04	28-Mar-04
E276813	04-ESS-010	135.10	135.60	0.023	27-Apr-04	28-Mar-04
E276814	04-ESS-010	135.60	136.60	0.030	28-Apr-04	28-Mar-04
E276815	04-ESS-010	136.60	137.30	0.030	28-Apr-04	28-Mar-04
E276816	04-ESS-010	137.30	138.40	0.044	28-Apr-04	28-Mar-04
E276817	04-ESS-010	138.40	139.70	0.019	28-Apr-04	28-Mar-04
E276818	04-ESS-010	139.70	140.50	0.027	28-Apr-04	28-Mar-04
E276819	04-ESS-010	140.50	141.50	0.036	28-Apr-04	28-Mar-04
E276821	04-ESS-010	141.50	142.65	0.043	28-Apr-04	28-Mar-04
E276822	04-ESS-010	142.65	143.80	0.019	28-Apr-04	28-Mar-04
E276823	04-ESS-010	143.80	145.00	0.017	28-Apr-04	28-Mar-04
E276824	04-ESS-010	145.00	146.00	0.033	28-Apr-04	28-Mar-04
E276825	04-ESS-010	146.00	147.00	0.027	28-Apr-04	28-Mar-04
E276826	04-ESS-010	147.00	148.00	0.025	28-Apr-04	28-Mar-04
E276827	04-ESS-010	148.00	148.50	0.029	28-Apr-04	28-Mar-04
E276828	04-ESS-010	148.50	149.00	0.044	28-Apr-04	28-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome — Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E276829	04-ESS-010	149.00	150.00	0.031	28-Apr-04	28-Mar-04
E276831	04-ESS-010	150.00	151.00	0.023	28-Apr-04	28-Mar-04
E276832	04-ESS-010	151.00	152.00	0.024	28-Apr-04	28-Mar-04
E276833	04-ESS-010	152.00	153.00	0.033	28-Apr-04	28-Mar-04
E276834	04-ESS-010	153.00	154.00	0.103	28-Apr-04	28-Mar-04
E276835	04-ESS-010	154.00	155.00	0.934	28-Apr-04	28-Mar-04
E276836	04-ESS-010	155.00	156.00	0.359	28-Apr-04	28-Mar-04
E276837	04-ESS-010	156.00	157.40	0.254	28-Apr-04	28-Mar-04
E276838	04-ESS-010	157.40	158.00	0.035	28-Apr-04	28-Mar-04
E276839	04-ESS-010	158.00	159.20	0.010	28-Apr-04	28-Mar-04
E276841	04-ESS-010	159.20	160.00	0.020	28-Apr-04	29-Mar-04
E276842	04-ESS-010	160.00	160.80	0.110	28-Apr-04	29-Mar-04
E276843	04-ESS-010	160.80	162.00	3.173	28-Apr-04	29-Mar-04
E276844	04-ESS-010	162.00	163.00	1.725	28-Apr-04	29-Mar-04
E276845	04-ESS-010	163.00	164.00	0.703	28-Apr-04	29-Mar-04
E276846	04-ESS-010	164.00	165.00	0.213	28-Apr-04	29-Mar-04
E276847	04-ESS-010	165.00	166.00	0.116	28-Apr-04	29-Mar-04
E276848	04-ESS-010	166.00	167.00	0.040	28-Apr-04	29-Mar-04
E276849	04-ESS-010	167.00	168.00	0.022	28-Apr-04	29-Mar-04
E276851	04-ESS-010	168.00	169.00	0.028	28-Apr-04	29-Mar-04
E276852	04-ESS-010	169.00	169.70	0.040	28-Apr-04	29-Mar-04
E276853	04-ESS-010	169.70	170.20	0.024	28-Apr-04	29-Mar-04
E276854	04-ESS-010	170.20	171.35	0.093	29-Apr-04	29-Mar-04
E276855	04-ESS-010	171.35	172.50	0.033	29-Apr-04	29-Mar-04
E276856	04-ESS-010	172.50	173.00	0.212	29-Apr-04	29-Mar-04
E276857	04-ESS-010	173.00	174.00	0.114	29-Apr-04	29-Mar-04
E276858	04-ESS-010	174.00	175.00	0.091	29-Apr-04	29-Mar-04
E276859	04-ESS-010	175.00	176.00	0.023	29-Apr-04	29-Mar-04
E276861	04-ESS-010	176.00	176.70	0.219	29-Apr-04	29-Mar-04
E276862	04-ESS-010	176.70	177.20	0.127	29-Apr-04	29-Mar-04
E276863	04-ESS-010	177.20	178.00	0.387	29-Apr-04	29-Mar-04
E276864	04-ESS-010	178.00	179.00	0.519	29-Apr-04	29-Mar-04
E276865	04-ESS-010	179.00	180.00	0.289	29-Apr-04	29-Mar-04
E276866	04-ESS-010	180.00	181.00	0.071	29-Apr-04	29-Mar-04
E276867	04-ESS-010	181.00	182.10	0.455	29-Apr-04	29-Mar-04
E276868	04-ESS-010	182.10	183.00	0.036	29-Apr-04	29-Mar-04
E276869	04-ESS-010	183.00	183.50	0.022	29-Apr-04	29-Mar-04
E276871	04-ESS-010	183.50	184.40	0.063	29-Apr-04	29-Mar-04
E276872	04-ESS-010	184.40	185.00	10.760	28-Apr-04	29-Mar-04
E276873	04-ESS-010	185.00	185.65	0.967	28-Apr-04	29-Mar-04
E276874	04-ESS-010	185.65	186.25	0.042	28-Apr-04	29-Mar-04
E276875	04-ESS-010	186.25	187.00	5.737	28-Apr-04	29-Mar-04
E276876	04-ESS-010	187.00	188.00	0.101	28-Apr-04	29-Mar-04
E276877	04-ESS-010	188.00	189.00	0.126	28-Apr-04	29-Mar-04
E276878	04-ESS-010	189.00	190.30	0.030	28-Apr-04	29-Mar-04
E276879	04-ESS-010	190.30	190.80	0.029	28-Apr-04	29-Mar-04
E276881	04-ESS-010	190.80	192.00	0.034	28-Apr-04	29-Mar-04
E276882	04-ESS-010	192.00	193.00	0.026	28-Apr-04	29-Mar-04
E276883	04-ESS-010	193.00	194.00	0.047	28-Apr-04	29-Mar-04
E276884	04-ESS-010	194.00	195.00	0.027	28-Apr-04	29-Mar-04
E276885	04-ESS-010	195.00	196.00	0.018	28-Apr-04	29-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome—Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E276886	04-ESS-010	196.00	197.00	0.016	28-Apr-04	29-Mar-04
E276887	04-ESS-010	197.00	198.00	0.235	28-Apr-04	29-Mar-04
E276888	04-ESS-010	198.00	199.00	1.037	28-Apr-04	29-Mar-04
E276889	04-ESS-010	199.00	200.00	0.018	28-Apr-04	29-Mar-04
E276891	04-ESS-010	200.00	201.00	0.057	28-Apr-04	29-Mar-04
E276892	04-ESS-010	201.00	202.00	0.104	28-Apr-04	29-Mar-04
E276893	04-ESS-010	202.00	203.00	0.129	28-Apr-04	29-Mar-04
E276894	04-ESS-010	203.00	204.00	1.481	28-Apr-04	29-Mar-04
E276895	04-ESS-010	204.00	205.00	0.276	28-Apr-04	29-Mar-04
E276896	04-ESS-010	205.00	206.00	0.629	30-Apr-04	29-Mar-04
E276897	04-ESS-010	206.00	207.00	4.347	30-Apr-04	29-Mar-04
E276898	04-ESS-010	207.00	207.80	15.830	30-Apr-04	29-Mar-04
E276899	04-ESS-010	207.80	208.20	12.770	30-Apr-04	29-Mar-04
E276901	04-ESS-010	208.20	209.00	7.275	30-Apr-04	29-Mar-04
E276902	04-ESS-010	209.00	210.00	3.142	30-Apr-04	29-Mar-04
E276903	04-ESS-010	210.00	211.00	0.214	30-Apr-04	29-Mar-04
E276904	04-ESS-010	211.00	212.00	0.106	30-Apr-04	29-Mar-04
E276905	04-ESS-010	212.00	213.00	0.036	30-Apr-04	29-Mar-04
E276906	04-ESS-010	213.00	213.80	0.037	30-Apr-04	29-Mar-04
E276907	04-ESS-010	213.80	215.00	0.062	30-Apr-04	29-Mar-04
E276908	04-ESS-010	215.00	215.60	0.048	30-Apr-04	29-Mar-04
E276909	04-ESS-010	215.60	216.60	0.044	30-Apr-04	29-Mar-04
E276911	04-ESS-010	216.60	217.40	0.040	30-Apr-04	29-Mar-04
E276912	04-ESS-010	217.40	218.00	0.042	30-Apr-04	29-Mar-04
E276913	04-ESS-010	218.00	219.00	0.074	30-Apr-04	29-Mar-04
E276914	04-ESS-010	219.00	220.00	0.409	30-Apr-04	29-Mar-04
E276915	04-ESS-010	220.00	221.00	0.547	30-Apr-04	29-Mar-04
E276916	04-ESS-010	221.00	221.80	0.574	30-Apr-04	29-Mar-04
E276917	04-ESS-010	221.80	222.80	0.042	30-Apr-04	29-Mar-04
E276918	04-ESS-010	222.80	223.80	0.081	30-Apr-04	29-Mar-04
E276919	04-ESS-010	223.80	224.25	0.233	30-Apr-04	29-Mar-04
E276921	04-ESS-010	224.25	225.00	0.058	30-Apr-04	29-Mar-04
E276922	04-ESS-010	225.00	225.70	0.075	30-Apr-04	29-Mar-04
E276923	04-ESS-010	225.70	226.05	0.035	30-Apr-04	29-Mar-04
E276924	04-ESS-010	226.05	226.85	0.038	30-Apr-04	29-Mar-04
E276925	04-ESS-010	234.40	235.00	0.030	30-Apr-04	29-Mar-04
E276926	04-ESS-010	235.00	235.46	0.052	30-Apr-04	29-Mar-04
E276927	04-ESS-010	235.46	236.00	0.029	30-Apr-04	30-Mar-04
E276928	04-ESS-009	29.40	29.90	0.010	22-Apr-04	30-Mar-04
E276929	04-ESS-009	29.90	30.65	0.510	22-Apr-04	30-Mar-04
E276931	04-ESS-009	30.65	31.25	0.143	22-Apr-04	30-Mar-04
E276932	04-ESS-009	33.65	34.25	0.014	22-Apr-04	30-Mar-04
E276933	04-ESS-009	34.25	34.65	0.010	22-Apr-04	30-Mar-04
E276934	04-ESS-009	34.65	35.25	0.010	22-Apr-04	30-Mar-04
E276935	04-ESS-009	37.70	38.30	0.010	22-Apr-04	30-Mar-04
E276936	04-ESS-009	38.30	39.20	0.163	22-Apr-04	30-Mar-04
E276937	04-ESS-009	39.20	39.80	0.010	22-Apr-04	30-Mar-04
E276938	04-ESS-009	42.50	43.20	0.010	22-Apr-04	30-Mar-04
E276939	04-ESS-009	43.20	44.05	0.071	22-Apr-04	30-Mar-04
E276941	04-ESS-009	44.05	44.75	0.010	22-Apr-04	30-Mar-04
E276942	04-ESS-009	46.15	46.75	0.010	22-Apr-04	30-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome – Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E276943	04-ESS-009	46.75	47.40	1.573	22-Apr-04	30-Mar-04
E276944	04-ESS-009	47.40	48.20	0.089	22-Apr-04	30-Mar-04
E276945	04-ESS-009	60.00	60.50	0.010	22-Apr-04	30-Mar-04
E276946	04-ESS-009	60.50	60.90	0.012	22-Apr-04	30-Mar-04
E276947	04-ESS-009	60.90	61.30	0.010	22-Apr-04	30-Mar-04
E276948	04-ESS-009	61.30	61.50	0.010	22-Apr-04	30-Mar-04
E276949	04-ESS-009	61.50	62.10	0.010	22-Apr-04	30-Mar-04
E276951	04-ESS-009	62.10	62.30	0.010	22-Apr-04	30-Mar-04
E276952	04-ESS-009	62.30	62.80	0.010	22-Apr-04	30-Mar-04
E276953	04-ESS-009	84.00	84.80	0.010	22-Apr-04	31-Mar-04
E276954	04-ESS-009	84.80	85.40	3.260	22-Apr-04	31-Mar-04
E276955	04-ESS-009	85.40	86.40	1.406	22-Apr-04	31-Mar-04
E276956	04-ESS-009	86.40	87.45	0.131	22-Apr-04	31-Mar-04
E276957	04-ESS-009	87.45	88.30	0.404	22-Apr-04	31-Mar-04
E276958	04-ESS-009	88.30	88.90	0.071	22-Apr-04	31-Mar-04
E276959	04-ESS-009	88.90	89.45	0.487	22-Apr-04	31-Mar-04
E276961	04-ESS-009	89.45	90.00	0.070	22-Apr-04	31-Mar-04
E276962	04-ESS-009	90.00	91.00	0.047	22-Apr-04	31-Mar-04
E276963	04-ESS-009	91.00	92.00	0.145	22-Apr-04	31-Mar-04
E276964	04-ESS-009	92.00	93.00	0.021	22-Apr-04	31-Mar-04
E276965	04-ESS-009	93.00	94.00	0.012	22-Apr-04	31-Mar-04
E276966	04-ESS-009	94.00	95.00	0.010	22-Apr-04	31-Mar-04
E276967	04-ESS-009	95.00	96.00	0.010	22-Apr-04	31-Mar-04
E276968	04-ESS-009	96.00	97.00	0.075	22-Apr-04	31-Mar-04
E276969	04-ESS-009	97.00	97.60	0.810	22-Apr-04	31-Mar-04
E276971	04-ESS-009	97.60	98.00	0.195	22-Apr-04	31-Mar-04
E276972	04-ESS-009	98.00	99.00	0.107	22-Apr-04	31-Mar-04
E276973	04-ESS-009	99.00	100.00	0.025	22-Apr-04	31-Mar-04
E276974	04-ESS-009	100.00	100.80	0.796	22-Apr-04	31-Mar-04
E276975	04-ESS-009	100.80	102.00	0.095	22-Apr-04	31-Mar-04
E276976	04-ESS-009	102.00	102.90	0.104	22-Apr-04	31-Mar-04
E276977	04-ESS-009	102.90	103.30	0.071	22-Apr-04	31-Mar-04
E276978	04-ESS-009	103.30	104.20	0.435	22-Apr-04	31-Mar-04
E276979	04-ESS-009	104.20	105.00	0.123	22-Apr-04	31-Mar-04
E276981	04-ESS-009	105.00	106.00	0.024	22-Apr-04	31-Mar-04
E276982	04-ESS-009	106.00	107.00	0.010	22-Apr-04	31-Mar-04
E276983	04-ESS-009	107.00	108.00	0.048	22-Apr-04	31-Mar-04
E276984	04-ESS-009	108.00	108.50	0.253	22-Apr-04	31-Mar-04
E276985	04-ESS-009	108.50	109.00	0.091	22-Apr-04	31-Mar-04
E276986	04-ESS-009	109.00	110.20	0.225	22-Apr-04	31-Mar-04
E276987	04-ESS-009	110.20	111.00	0.205	22-Apr-04	31-Mar-04
E276988	04-ESS-009	111.00	112.00	0.227	22-Apr-04	31-Mar-04
E276989	04-ESS-009	112.00	113.30	0.056	22-Apr-04	31-Mar-04
E276991	04-ESS-009	113.30	114.10	0.140	22-Apr-04	31-Mar-04
E276992	04-ESS-009	114.10	115.00	0.023	22-Apr-04	31-Mar-04
E276993	04-ESS-009	115.00	116.00	0.057	22-Apr-04	31-Mar-04
E276994	04-ESS-009	116.00	117.00	0.168	23-Apr-04	31-Mar-04
E276995	04-ESS-009	117.00	118.00	0.086	23-Apr-04	31-Mar-04
E276996	04-ESS-009	118.00	118.50	0.160	23-Apr-04	31-Mar-04
E276997	04-ESS-009	118.50	119.00	0.075	23-Apr-04	31-Mar-04
E276998	04-ESS-009	119.00	119.50	0.289	23-Apr-04	31-Mar-04

PLACER DOME - Musselwhite Mine

ASSAY CERTIFICATE

Project: Esker & Island Surface Drilling

Doug Town, Chief Assayer
Placer Dome—Musselwhite Mine

SAMPLE ID	HOLE ID	SAMPLE FROM_m	SAMPLE TO_m	AU_PPM	Analysis Date	Sample Date
E276999	04-ESS-009	119.50	120.50	1.003	23-Apr-04	31-Mar-04
E277001	04-ESS-009	120.50	121.75	1.047	23-Apr-04	31-Mar-04
E277002	04-ESS-009	121.75	123.00	3.431	23-Apr-04	31-Mar-04
E277003	04-ESS-009	123.00	124.00	0.410	23-Apr-04	31-Mar-04
E277004	04-ESS-009	124.00	124.70	0.147	23-Apr-04	31-Mar-04
E277005	04-ESS-009	124.70	126.00	0.461	23-Apr-04	31-Mar-04
E277006	04-ESS-009	126.00	127.00	0.397	23-Apr-04	31-Mar-04
E277007	04-ESS-009	127.00	128.00	0.455	23-Apr-04	31-Mar-04
E277008	04-ESS-009	128.00	129.00	3.539	23-Apr-04	31-Mar-04
E277009	04-ESS-009	129.00	130.00	0.345	23-Apr-04	31-Mar-04
E277011	04-ESS-009	130.00	131.10	2.271	23-Apr-04	31-Mar-04
E277012	04-ESS-009	131.10	132.00	1.565	23-Apr-04	31-Mar-04
E277013	04-ESS-009	132.00	133.00	0.348	23-Apr-04	31-Mar-04
E277014	04-ESS-009	133.00	134.00	0.253	23-Apr-04	31-Mar-04
E277015	04-ESS-009	134.00	134.90	0.266	23-Apr-04	31-Mar-04
E277016	04-ESS-009	134.90	136.00	0.380	23-Apr-04	31-Mar-04
E277017	04-ESS-009	136.00	136.75	0.147	23-Apr-04	31-Mar-04
E277018	04-ESS-009	136.75	137.25	1.247	23-Apr-04	31-Mar-04
E277019	04-ESS-009	137.25	138.15	0.522	23-Apr-04	31-Mar-04
E277021	04-ESS-009	138.15	138.65	1.251	23-Apr-04	31-Mar-04
E277022	04-ESS-009	138.65	139.55	0.964	23-Apr-04	31-Mar-04
E277023	04-ESS-009	139.55	140.20	1.116	23-Apr-04	31-Mar-04
E277024	04-ESS-009	140.20	140.90	0.493	23-Apr-04	31-Mar-04
E277025	04-ESS-009	140.90	141.70	0.349	23-Apr-04	31-Mar-04
E277026	04-ESS-009	141.70	142.70	1.049	23-Apr-04	31-Mar-04
E277027	04-ESS-009	142.70	143.25	1.047	23-Apr-04	31-Mar-04
E277028	04-ESS-009	143.25	144.00	0.359	23-Apr-04	31-Mar-04
E277029	04-ESS-009	144.00	145.00	1.610	23-Apr-04	31-Mar-04
E277031	04-ESS-009	145.00	146.00	0.295	23-Apr-04	31-Mar-04
E277032	04-ESS-009	146.00	147.00	0.461	23-Apr-04	31-Mar-04
E277033	04-ESS-009	147.00	147.45	0.374	23-Apr-04	31-Mar-04
E277034	04-ESS-009	147.45	148.00	0.120	24-Apr-04	31-Mar-04
E277035	04-ESS-009	148.00	149.30	0.031	24-Apr-04	31-Mar-04
E277036	04-ESS-009	149.30	150.40	0.130	24-Apr-04	31-Mar-04
E277037	04-ESS-009	150.40	151.25	0.091	24-Apr-04	31-Mar-04
E277038	04-ESS-009	151.25	152.00	0.010	24-Apr-04	31-Mar-04

Appendix VIII

JD Barnes UTM Nad 83 to Musselwhite Mine Grid
Conversion Table

JD Barnes UTM Nad 83 to Mine Grid (2002) Transformation Table

MG_Easting	MG_Northing	UTM_Easting	UTM_Northing	Station
9213.45	9783.55	678569.65	5832754.97	SXT-2875
8516.42	9619.61	678184.08	5832151.66	STX-0602
9013.89	9968.28	678297.97	5832748.5	ST-1505
7858.39	9396.49	677867.78	5831533.18	ST-3989
7093.51	9415.49	677306.14	5831013.64	ST-3983
6068.99	8791.2	677005.4	5829852.49	ST-1521
6534.35	8588.63	677480.33	5830031.4	ST-1520
7110.37	8411.19	678017.14	5830305.44	ST-1519
7707.94	8126.38	678644.22	5830517.54	ST-5040
8592.45	14228.97	675027.88	5835511.43	ST-2858
7753.79	14428.01	674287.61	5835070.08	ST-2857
6761.56	13672.56	674102.01	5833837.12	ST-2855
5000	13463.04	672984.35	5832459.86	ST-1664
4327.85	11721.29	673715.58	5830742.33	ST-2853
9849.87	8648.44	679816.89	5832384.8	ST-1031
9480.4	9169.75	679188.68	5832501.1	ST-1028
8616.29	8737.77	678869.81	5831588.78	ST-5120
5380.79	12512.34	673919.63	5832043.29	ST-2851
6069.84	12339.83	674534.15	5832399.45	ST-2850
6964.56	12209.44	675266.82	5832929.17	ST-2849
7790.68	12231.4	675844.15	5833520.39	ST-2848
8851.44	12049.44	676731.72	5834128.54	ST-2846
8095.85	9720.97	677811.8	5831931.28	ST-3984
8998.86	9665.76	678497.84	5832520.95	ST-3386
8215.14	9851.66	677806.18	5832108.14	Tower
8215.14	9851.66	677806.18	5832108.14	Pad

Appendix IX

Significant Intersections > 1 g/T Au

Hole ID	From (m)	To (m)	Drilled Width (m)	True Width (m)	Grade (g/T Au)
03-ESN-004	223.90	224.80	0.90	0.89	10.000
04-ESN-004	241.00	245.00	4.00	3.71	3.129
03-ESN-004	247.00	251.00	4.00	3.65	3.750
03-ESN-004	278.00	286.00	8.00	6.93	3.677
03-ESN-007	68.70	74.15	5.45	4.52	6.637
03-ESN-007	158.00	164.00	6.00	5.20	2.102
03-ESN-008	56.00	61.17	5.17	4.99	7.106
03-ESN-009	107.00	116.20	9.20	9.13	3.662
03-ESN-009	119.70	120.80	1.10	1.02	5.230
03-ESN-010	218.77	231.20	12.43	10.76	2.598
includes	225.00	228.00	3.00	2.60	5.538
03-ESN-010	272.00	274.00	2.00	1.73	5.166
03-ESN-010	288.00	289.00	1.00	0.87	32.790
03-ESN-011	98.69	100.40	1.71	1.48	5.553
03-ESN-011	206.00	212.00	6.00	5.20	2.434
03-ESN-012	139.00	146.83	7.83	6.78	2.732
03-ESN-012	156.00	157.00	1.00	0.87	6.503
03-ESN-012	233.00	234.65	1.65	1.43	14.513
03-ESN-012	240.00	243.16	3.16	2.74	3.615
03-ESN-013	88.90	91.60	2.70	2.34	7.856
03-ESN-013	100.80	104.00	3.20	2.77	4.555
03-ESN-013	187.50	190.30	2.80	2.42	2.650
03-ESN-014	48.60	50.00	1.40	1.21	12.594
03-ESN-014	51.30	54.50	3.20	2.77	5.719
03-ESN-014	56.20	57.50	1.30	1.13	7.170
03-ESN-017	174.50	175.24	0.74	0.64	12.382
03-ESN-017	246.00	247.00	1.00	0.87	7.512
03-ESN-017	249.00	252.00	3.00	2.60	11.499
03-ESN-017	302.85	306.25	3.40	2.94	4.395
03-ESN-017	312.00	317.00	5.00	4.33	2.796
includes	312.00	313.00	1.00	0.87	7.874
04-ESK-001	248.40	249.50	1.10	0.63	5.570
04-ESK-001	256.55	258.15	1.60	1.28	8.820
04-ESK-001	265.80	268.00	2.20	1.73	3.390
04-ESK-002	220.00	224.80	4.80	3.62	5.738
04-ESK-003	231.90	233.85	1.95	0.98	4.400
04-ESK-003	252.00	255.00	3.00	1.93	4.794
04-ESK-003	274.70	277.70	3.00	2.12	4.124
04-ESK-003	282.70	287.70	5.00	2.72	2.676
04-ESK-003	349.00	350.00	1.00	0.94	14.900
04-ESK-003	369.60	370.60	1.00	0.59	5.024
04-ESN-002	115.00	122.00	7.00	5.20	10.321
04-ESN-002	129.32	132.00	2.68	1.99	6.854
04-ESN-003	155.35	157.00	1.65	1.23	4.835
04-ESN-003	159.00	163.93	4.93	3.66	2.517
04-ESN-003	166.00	168.27	2.27	1.69	3.731
04-ESN-003	170.60	174.00	3.40	2.53	4.348
04-ESN-004	99.00	100.00	1.00	0.71	4.900
04-ESN-005	119.70	125.00	5.30	3.55	4.586
04-ESN-005	127.00	136.00	9.00	6.02	4.722

Hole ID	From (m)	To (m)	Drilled Width (m)	True Width (m)	Grade (g/T Au)
04-ESN-006	168.00	181.00	13.00	9.51	3.809
includes	175.00	178.00	3.00	2.19	7.477
04-ESN-006	183.00	192.00	9.00	6.58	2.575
includes	184.00	186.00	2.00	1.46	7.128
04-ESN-008	47.00	48.00	1.00	0.96	7.549
04-ESN-008	146.40	157.20	10.80	9.62	4.033
04-ESN-008	161.00	166.10	5.10	4.99	3.501
04-ESN-009	183.50	188.50	5.00	4.78	5.001
04-ESN-009	193.00	197.00	4.00	3.83	4.980
04-ESN-009	198.50	206.60	8.10	7.75	4.495
04-ESN-009	208.20	208.80	0.60	0.57	14.270
04-ESN-010	232.50	236.50	4.00	3.28	2.949
04-ESN-010	247.30	250.00	2.70	2.21	2.922
04-ESN-010	266.70	268.30	1.60	1.31	4.950
04-ESN-011	181.10	182.10	1.00	0.80	5.702
04-ESN-011	190.50	192.50	2.00	1.60	3.362
04-ESS-001	53.00	57.00	4.00	3.86	2.869
04-ESS-001	63.10	65.00	1.90	1.72	2.775
04-ESS-001	70.00	73.00	3.00	2.30	4.082
04-ESS-002	133.33	139.00	5.67	3.64	3.699
04-ESS-004	167.80	168.90	1.10	0.99	8.728
04-ESS-004	214.00	226.10	12.10	10.97	3.223
04-ESS-004	252.80	254.50	1.70	1.20	5.528
04-ESS-004	275.00	280.00	5.00	4.33	3.912
04-ESS-005	205.50	206.00	0.50	0.35	9.862
04-ESS-005	212.80	213.35	0.55	0.42	9.106
04-ESS-006	195.00	198.00	3.00	2.67	2.995
04-ESS-006	201.00	205.70	4.70	4.42	2.665
04-ESS-006	305.00	310.00	5.00	3.83	2.586
04-ESS-007	140.20	142.20	2.00	1.73	7.948
04-ESS-010	184.40	187.00	2.60	1.99	4.389
04-ESS-010	206.00	210.00	4.00	1.82	7.770
includes	207.00	209.00	2.00	0.91	11.796
04-ESS-011	229.93	233.00	3.07	2.35	12.052
04-ESS-011	240.40	244.00	3.60	2.76	4.749
04-ESS-011	246.00	247.00	1.00	0.71	12.700
04-ESS-013	100.17	101.00	0.83	0.74	8.710
04-ESS-014	155.68	167.00	11.32	10.26	6.595
04-ESS-014	205.00	214.00	9.00	8.46	2.818
includes	206.00	207.00	1.00	0.94	11.800
04-ESS-014	236.00	240.00	4.00	3.02	8.184
04-ESS-015	178.40	180.50	2.10	1.54	7.866
includes	179.80	180.50	0.70	0.51	14.666
04-ESS-015	296.75	307.20	10.45	8.35	5.941
includes	299.00	306.20	7.20	5.75	7.773
includes	302.50	305.20	2.70	2.16	11.670
04-ESS-016	200.00	200.65	0.65	0.57	9.630
04-ESS-016	216.70	218.50	1.80	1.57	6.196
04-ESS-016	224.00	226.00	2.00	1.73	4.315
04-ESS-017	210.00	213.30	3.30	2.97	2.423

Hole ID	From (m)	To (m)	Drilled Width (m)	True Width (m)	Grade (g/T Au)
04-ESS-017	295.00	297.00	2.00	1.80	47.385
04-ESS-020	144.40	147.20	2.80	1.80	3.507
04-ESS-020	155.50	156.70	1.20	0.85	13.933
04-ESS-020	264.00	267.00	3.00	1.50	27.859
04-ESS-020	302.00	305.00	3.00	1.93	3.094
04-ESS-020	311.00	312.00	1.00	0.77	6.038
04-ESS-021	196.30	200.50	4.20	2.70	4.014
04-ESS-022	237.80	238.45	0.65	0.40	9.472
04-ESS-022	252.60	256.00	3.40	2.60	11.998
04-ESS-023	228.10	232.00	3.90	3.47	6.232
04-ESS-025	72.80	76.10	3.30	2.86	5.784
04-ESS-025	88.70	91.70	3.00	2.60	7.211
04-ESS-026	99.10	104.00	4.90	4.60	2.773
04-ESS-030	215.00	218.00	3.00	1.93	3.130
04-ESS-030	253.50	256.00	2.50	1.92	10.996
includes	254.50	256.00	1.50	1.15	16.643
04-ESS-030	268.00	270.00	2.00	1.53	6.558
04-ESS-031	84.00	87.00	3.00	2.72	6.923
04-ESS-031	139.00	144.00	5.00	4.05	4.374
04-ESS-032	132.90	136.00	3.10	2.87	3.610
04-ESS-032	150.00	151.00	1.00	0.88	7.040
04-ESS-032	216.00	221.00	5.00	4.41	11.418
includes	217.00	218.70	1.70	1.50	22.308
04-ISL-001	23.95	25.40	1.45	0.93	7.994
04-ISL-001	30.20	31.00	0.80	0.57	6.920
04-ISL-006	60.60	63.75	3.15	1.94	3.249
04-ISL-006	67.00	70.10	3.10	1.99	2.452
04-ISL-006	74.00	77.00	3.00	1.93	5.145
04-ISL-007	62.00	65.00	3.00	2.70	13.469
includes	62.00	63.30	1.30	1.17	28.724
04-ISL-008	63.00	69.00	6.00	5.64	4.515
04-ISL-009	36.00	39.00	3.00	2.82	8.647
04-ISL-009	45.00	46.00	1.00	0.94	14.070
04-ISL-009	102.50	103.00	0.50	0.47	16.930
04-ISL-009	110.40	121.00	10.60	9.96	5.158
includes	112.00	114.00	2.00	1.88	9.693