

## **ASSESSMENT REPORT**

on

## **GEOLOGICAL, GEOPHYSICAL**

## AND GEOCHEMICAL SURVEYS

on the

## SCOTCHMAN AND STANDARD CROWN GRANTS

## **E and B CLAIM GROUP**

## **OLIVER AREA**

## **OSOYOOS MINING DIVISION**

NTS: Latitude: Longitude: Owner: Operator: Author: Date:

82E/04E and 05E 49°14'55''N 119°39'30''W Alvina and Ernie Kilback Discovery Consultants T.H. Carpenter, P.Geo. December 20, 1999

GEOLOGICAL SURVEY BRANCH



## **TABLE OF CONTENTS**

SUMMARY		Page	I				
LOCATION	AND ACCESS	Page	2				
PROPERTY		Page	3				
HISTORY		Page	4				
GEOLOGY		Page	6				
MINERALIZ	ATION	Page	7				
STRUCTURI	Ξ	Page	7				
WORK COM	PLETED	Page	8				
SOIL a) b) GEOI	SAMPLING SURVEY Program Parameters Program Results PHYSICAL SURVEY	Page Page	8 9				
Magn	etometer Survey	_					
a) b)	Program Parameters Program Results	Page	10				
0)	i logiani Results	rage	10				
VLF-	Em Survey						
a)	Program Parameters	Page	11				
b)	Program Results	Page	12				
MAP	PING AND PROSPECTING						
a)	Program Parameters	Page	12				
b)	Program Results	Page	13				
AIR F	ΡΗΛΤΛ ΙΝΤΕΡΡΕΤΑΤΙΛΝ		·				
a)	Program Parameters	Page	13				
b)	Page	13					
CONCLUSIO	NS	Page	15				
RECOMMEN	IDATIONS	Page	17				
REFERENCE	S	Page	18				
STATEMENT	T OF COSTS	Page	19				
STATEMENT	STATEMENT OF QUALIFICATIONS Pa						

# LIST OF ILLUSTRATIONS

Figure 1	Location Map	Following Page 2
Figure 2	Claim Location Map	Following Page 3
Figure 3	Gold in Rocks, Geology (1:5000)	In Pocket
Figure 3a	Gold in Rocks, Geology (1:2500)	In Pocket
Figure 4	Gold in Soils (1:5000)	In Pocket
Figure 5	Lead in Soils (1:5000)	In Pocket
Figure 6	Zinc in Soils (1:5000)	In Pocket
Figure 7	Magnetometer Survey (1:2500)	Following Page 10
Figure 8	Electromagnetic Survey – Fraser Filter Values – Hawaii (1:2500)	Following Page 12
Figure 9	Electromagnetic Survey – Fraser Filter Values – Cutler, Maine (1:2500)	Following Page 12
Figure 10	Electromagnetic Survey – Fraser Filter Values – Seattle (1:2500)	Following Page 12
Figure 11	Air photo Interpretation (1:50000)	Following Page 13

# APPENDICES

Appendix 1	Soil Sample Program Analytical Procedures and Results
Appendix 2	Rock Sampling Analytical Procedures and Results
Appendix 3	Magnetometer Results
Appendix 4	VLF-EM Values and Fraser Filter data

## **SUMMARY**

The 1999 exploration program on the E and B property was designed to explore the area of the Scotchman and Standard crown grants for possible extensions of auriferous quartz veins exposed in old workings. Field work was carried out between November 02 and November 05, 1999 and comprised grid establishment followed by soil sampling, a combined magnetometer/VLF-EM survey and a mapping and prospecting program. An air photo interpretation of the property area was carried out on November 26.

On the Standard and Scotchman crown grants two showings comprising quartz veins to 3.5' wide occur in a granite type host rock. The quartz veins contain 1"-2" bands of galena and sphalerite. Grab samples collected from the veins over the years are reported to contain up to 1.60 oz/ton Au, 2.90 oz/ton Ag, 5.65% Pb, 1.55% Zn and 0.12% Cu.

## LOCATION AND ACCESS

The claims are located approximately 11 km northwest of Oliver, B.C., 1.5 kms east of Orofino Mountain. The Scotchman and Standard crown grants are centred at 119°39'30"W longitude and 49°14'55"N latitude on NTS maps 082E/04E and 05E.

The crown grants and surrounding E & B claims cover the eastern flank of Orofino Mountain.

Elevations range from 3700' at the eastern edge of the claims to 5200' at the western edge of the claims.

Access to the property can be gained from Oliver via two-wheel drive gravel road for 13 kilometres and four-wheel drive road for 2 kilometres.



## PROPERTY

The E & B property comprises two crown-granted mineral claims, the Scotchman and Standard, and eleven two-post claims located by Ernest Kilback on November 16 and 17, 1995 and August 15,1996.

The claims were grouped and assigned a common anniversary date of February 24 on

November 15, 1999.

Claim details are as follows:

Claim Name	Record No.	Owner of Record	Anniversary Date *
Scotchman C.G.	L.3981s	Alvina & Ernie Kilback	N/A
Standard C.G.	L.3982s	Alvina & Ernie Kilback	N/A
E & B	342215	Alvina Kilback	February 24, 2004
E & B	342216	Alvina Kilback	February 24, 2004
E & B	342217	Alvina Kilback	February 24, 2004
E & B	342218	Alvina Kilback	February 24, 2004
Е&В	342219	Alvina Kilback	February 24, 2004
Е&В	342220	Alvina Kilback	February 24, 2004
E & B	342221	Alvina Kilback	February 24, 2004
E + B - 8	349927	Alvina Kilback	February 24, 2004
E + B – 9	349928	Alvina Kilback	February 24, 2004
E + B - 10	349929	Alvina Kilback	February 24, 2004
E + B - 11	349930	Alvina Kilback	February 24, 2004

\* Pending acceptance of this report.



#### HISTORY

No specific mention of the Standard and Scotchman crown grants is contained in Ministry of Mines annual reports nor have the showings been assigned a Minfile number. The Orofino (L1448) and Independence (L1449) crown grants which lie two kms to the northwest have had work recorded dating from the 1890's. Work on the Orofino claim was first mentioned in 1896 and presumably work was carried out on other properties in the area at that time including the Standard and Scotchman crown grants.

The geology and mineralization of the Orofino and Independence claims appears to be similar to that at the Standard and Scotchman.

Further work was recorded on the Orofino claims from 1930 through 1935 and included production of over 1200 tons of ore with one shipment of 220 tons averaging 1.77 oz/ton gold.

Presumably the open cuts and tunnels on the Standard and Scotchman claims were constructed during the same period. A brief mention is made in the 1934 Minister of Mines report of a Standard crown grant but the location is indefinite and it is uncertain if the reference is to the present Standard property.

From 1981 to 1985 DRC Resources carried out programs of line cutting, rock and soil sampling and ground EM surveys on the Orofino/Independence crown grants and surrounding claims, including the Mo and King claims.

In 1986 Ascent Resources carried out a limited line cutting and soil-sampling program on the Mo 3 & 4 claims.

None of the above work was carried out in the vicinity of Standard and Scotchman crown grants.

J.W. Murton carried out a brief examination of the Scotchman and Standard crown grants for the claim owners in 1986. Another brief examination was carried out in 1990 by Bob Miller on behalf of Crown Resource Corporation.

## **GEOLOGY**

The Orofino Mountain area is underlain by complexly deformed metamorphic rocks of the Carboniferous-Permian(?) Kobau Group, and by west and northwest trending sequences of quartzite, chert and greenstone belonging to the Triassic Shoemaker and Old Tom Formations. These are intruded by the Jurassic-Cretaceous Nelson and Valhalla plutonic complexes of gabbroid to granitic compositions.

The latter are the rock types found on the Scotchman and Standard claims (Figure 3). Mapping has shown four rock types on the ground grants consisting of granite and mega-crystic granite, diorite and gneiss.

Granite forms the principal rock type. Occasional gneissic outcrops may represent remnants of the Kobau Group occurring as rafts or roof pendants.

#### **MINERALIZATION**

Gold mineralization occurs in quartz veins cutting porphyritic granite. Similar mineralization was mined in the 1930's from the Orofino and Independence claims (M.I. #082ESW010) 2 km to the west and at the important Fairview camp, 6 km to the southwest.

On the Scotchman claim, a faulted quartz vein, 0.5 to 1.5 metres in width, strikes 070° to 080° with a 40° northwesterly dip. The main vein material is rusty and shattered bull quartz with minor galena and pyrite. Intensely altered & bleached granite wall rock, cut by quartz stringers, is locally incorporated into the vein structure.

Sampling by Murton (1987) and Miller (1990) yielded gold values ranging from 0.002 oz/ton in grab samples to 0.912 oz/tonne across 0.9m.

On the Standard claim sampling by Miller returned values to 2370 ppb gold over 0.9 metres.

## STRUCTURE

At the Scotchman showing the main quartz vein is offset 1-2 metres by northerly trending shears. These shears are probably related to a north-south fault zone interpreted from an air photo examination (Figure 11). This fault corresponds to a topographic low on the property. A second parallel structure is interpreted from air photos to occur about 500 metres east of the above fault. Both structures appear to be offset laterally to the northeast by an interpreted north-northeast trending structure to the north of the Scotchman crown grant.

#### WORK COMPLETED

A program of gridding, geochemical sampling, geophysical surveying, mapping and prospecting was carried out on the property during the period November 02 to November 05, 1999.

Soil sampling and geophysical surveys were carried out over a grid established on the property. A picketed baseline was established using the southwest corner survey pin of L.3981s as control. The 300 metre baseline was run east and west using a declination-corrected tripod-mounted Brunton compass. Seven chained and flagged cross-lines were run at 50 metre intervals for 250 metres north and 250 metres south of the baseline. An examination of 1:15,000 scale coloured air photos of the area was carried out at the B.C. Ministry of Forests, Penticton office on November 26 in an attempt to define structural controls on the property.

Details and results of the various surveys carried out over this grid and the air photo interpretation are discussed below.

#### SOIL SAMPLING SURVEY

#### a) Program Parameters

Soil samples were collected at 25 metres along the cross lines using shovels. Soil development on the hillside is very poor. The "B" horizon is non-existent to poorly developed. Consequently samples were collected from the "C" horizon and comprised decomposed bedrock at depths ranging from 10 cm to 40 cm.

Soil material was placed in labelled kraft sample bags and shipped to Chemex Labs Ltd. In North Vancouver, B.C. where they were analyzed for gold by the F.A.-A.A. method and for 32 other elements by ICP methods.

#### b) Program Results

Gold values in soils are, in general, low with a maximum value of 45 ppb obtained at 1200 W, 4750N. Most samples contained gold values below the detection limit (Figure 4).

Gold values in soils on the property would necessarily be sporadic due to the nature of the mineralization and the poorly developed nature of the sampling medium. Perhaps a more suitable pathfinder to gold mineralization would be lead or zinc, which occur with gold in the quartz veins and which would be more susceptible to mechanical and chemical dispersion in soils.

Lead values (Figure 5) are also in general low, but show a distinct anomaly over the Standard Showing with a value of 66 ppm, five to six times background. Weak soil anomalies occur in the northwest part of the grid. However an anomaly similar in amplitude to that over the Standard Showing occurs at 1000W, 5200N and is possibly indicative of mineralization in this area.

Average background Zinc values over the grid area average about 75 ppm with values in excess of 100 ppm considered to be anomalous. The highest Zinc value of 148 ppm occurs over the Standard quartz vein as an isolated anomaly. Isolated single point anomalies occur in the northeastern quarter of the grid area including a value of 138 ppm at 1000W, 5200N and corresponds to the anomalous Lead value noted at the same location. A distinct five point anomaly occurs along line 1300W from ~5075N and may be worthy of further exploration.

#### **GEOPHYSICAL SURVEY**

A combined magnetometer and VLF-EM survey was run over the grid with stations at 12.5 metre intervals along lines placed 50 metre apart.

#### **Magnetometer Survey**

#### a) Program Parameters

The survey was run using a GEM Systems GSM19v5.0 portable high sensitivity Overhauser effect magnetometer designed for hand-held or base station use. The GSM-19 is a secondary standard for measurement of the Earth's magnetic field, having 0.01 nanoTeslas (nT) resolution and 0.2nT absolute accuracy over its full temperature range. The GSM-19 is a microprocessor based instrument with storing capabilities up to 2Mbytes. Synchronized operation between hand held and base station units is possible and corrections for diurnal variations of magnetic field are done automatically. The results of the measurements are made available in serial form for collection by data acquisition systems, terminals or computers. Both on-line and post-operation transfers are possible. The result is a high quality reading independent of diurnal variations of the magnetic field.

The addition of a VLF sensor allows a combined magnetometer-VLF-EM survey. On the property three VLF surveys were run at frequencies of 21.4 kHz, 24.0 kHz and 24.8 kHz using transmitters located in Hawaii, Cutler, Maine and Seattle respectively.

#### b) Program Results

Magnetic Readings ranging from 55,200 nanoTeslas (nT) to 56,600 nT were noted in the magnetic survey for a contrast of 1,400 nT. Magnetic contours are shown on Figure 7. Complete magnetometer data are contained in Appendix 3.



Fig\_7

Of particular interest is a magnetic linear extending in a westerly direction from approximately 1000W, 4950N to 1250W, 5250N. This feature corresponds in part to dioritic rocks mapped at 5000N, 1030W and may indicate that this rock type extends as a possible dyke in a northwesterly direction. None of the mineralized quartz veins on the property are located within this magnetic feature which may indicate that it post dates or is contemporaneous with mineralization. However there is some indication that this feature may be locally offset by a north-northeasterly trending fault, locally mapped on the claims and interpreted from air photos (Figure 11).

The quartz veining on the property occurs in areas of lower magnetic relief. However it is not possible to trace possible extensions of the veins utilizing collected data. A more detailed survey on tight grids within the vicinity of the veins may be more successful in this regard.

#### **VLF-EM Survey**

#### a) Program Parameters

A very Low Frequency Electromagnetic survey was carried out on the property in conjunction with the Magnetometer Survey. The VLF survey comprised three individual surveys utilizing U.S. Navy transmitters located in Hawaii (21.4 kHz), Cutler, Maine (24.0 kHz) and Seattle, Washington (24.8 kHz).

Field data were converted to Fraser Filter data for ease of interpretation. Individual surveys are shown on Figures 8, 9 and 10. Field data and details of the Fraser Filter process are contained in Appendix 4.

b) Program Results

All three frequencies appear to show two conductors extending east-northeasterly from approximately 4875N and 5025N. These anomalies are most well defined on the Seattle and Hawaii frequencies (Figures 8 and 10).

These anomalies are in contrast to the geology and the magnetometer survey and may represent a bias error within the data sets.

Analysis of the data could also show several conductors trending in a northwesterly direction parallel to the magnetic feature previously noted. One of these conductors would then extend from 1250W, 5190N in a southwesterly direction to 1150W,5090N and from 1100W,4990N to 1050W,4950N.

This proposed conductor might be offset dextrally by the fault interpreted from air photos.

## MAPPING AND PROSPECTING

#### a) Program Parameters

A mapping and prospecting program was carried out on the grid area at a scale of 1:1000. Chip samples were collected from any quartz veining encountered. In total six rock samples were collected. Details of the mapping program and rock sample locations are shown of Figure 3 and 3a at scales of 1:5000 and 1:2500 respectively. Complete analytical results are contained in Appendix 2. . Prospecting for additional mineralization was hampered during the time of the program by snow cover.



Nov 17, 1999





#### b) Program Results

The predominant rock type on the property comprises megacrystic granite. In the east central part of the grid, diorite outcrops are located along the baseline from 1000W to 1035W. These outcrops coincide in part with a magnetic high extending northwesterly. Other outcrops of gneissic material occur to the north and northwest of this location and may represent rafts or roof pendants of Kobau Group metamorphic rocks.

The maximum gold value obtained from the six rock samples collected was 60 ppb in sample 197805. No attempt was made to duplicate previous sampling. A thorough program of channel sampling would need to be carried out on the quartz veins to accurately determine the gold content and overcome the sporadic results generated by grab and chip sampling.

## **AIR PHOTO INTERPRETATION**

#### a) Program Parameters

A stereoscopic examination of 1:15,000 scale coloured air photos of the project area was carried out at the B.C. Ministry of Forests office in Penticton, B.C.

b) Program Results

Results of the interpretation are shown on Figure 11.

Two distinct linears are noted on the property, trending in the north-south direction. The westerly of these linears corresponds with an interpreted fault on the Scotchman and Standard claims which occurs in close proximity to mineralized quartz veins. At the Scotchman showing the mineralized quartz vein is offset by a northerly trending shear which may be a part of a larger shear zone as interpreted from the air photo (Figure 11).



This interpreted fault corresponds to a topographic low extending from the Scotchman showing southerly to the area of the Standard showing (Figures 3 and 3a).

The quartz veining on the property may be dilatant zones or splays off this fault. If quartz veining on the property is related to these structures then later movement along the faults is postulated by the apparent vein offset at the Scotchman showing.

The second linear occurs above 500 metres east of the above but has not been observed in outcrop nor is any quartz veining known to be associated with this feature.

Both linears appear to continue to the north but are offset about 500 metres easterly by a northeast trending linear that occurs near the northeast corner of the claim block.

#### CONCLUSIONS

The Standard and Scotchman crown grants contain mineralized quartz veins up to 3.5-ft. (1.07m). Previous sampling of these veins has yielded values to 1.6 oz./ton Au in grab samples and 0.912 oz/tonne across 0.9 metres in a chip sample. Limited rock sampling in the recent exploration program has not duplicated these values but has confirmed anomalous gold values within the quartz veins.

The veins occur within granitic rocks and appear to be associated with a north-south trending fault zone interpreted from air photos and mapped locally in outcrop and may be emplaced in dilatant zones related to this fault or possibly splays off the fault. A second parallel fault zone is interpreted 500 metres to the east.

These veins are in a setting similar to the Elk deposit some 80 km northwest which in 1995 contained measured reserves of 156,000 tonnes containing 36.55 grams per tonne gold and 50.00 grams per tonne silver. At the Elk deposit structurally controlled quartz veining occurs in a number of parallel to subparallel zones. In the Siwash North zone of the Elk deposit, the structure has a strike length of 925 metres and has been tested to 335 metres down dip.

Soil sampling has not been successful in delineating additional gold mineralization away from known showings. Anomalous lead and zinc soil values over the Standard showing indicate that these elements may be useful as pathfinder elements on the property and may indicate that areas with anomalous Pb and Zn values should be further explored.

Prospecting may provide a more useful tool on the property than soil sampling as the soil cover is relatively thin and quart material in float should be readily apparent.

The magnetometer survey shows that quartz veining occurs in areas of lower magnetic relief and appears to be unrelated to a magnetic high which transects the Scotchman crown grant

and which appears to be caused by late stage mafic intrusive rocks. An orientation survey confirms that the known quartz veins occur as magnetic lows. Quite detailed magnetic surveys would need to be carried out to trace these veins away from known showings.

The results of the VLF-EM survey are somewhat ambiguous, possibly due to a contouring bias within the computer software used. The results show northeast trending conductors in the grid area. There is no reflection of this trend in bedrock based on present work. The data do appear to confirm however the north-south fault zone interpreted from air photos and mapping as an offset to a proposed northwest trending conductor can be interpreted.

#### RECOMMENDATIONS

Additional mapping and prospecting on the property are recommended to check for additional quartz veining in outcrop and float. At the time of the present program snow cover precluded detailed claim coverage and prospecting.

Particular emphasis should be placed on prospecting along the interpreted north-south fault zone, along an interpreted parallel structure to the east, and within the area of anomalous zinc and lead values in the grid area to explore for additional quartz veining in these areas. Prospecting should be concentrated on finding quartz float away from known showings.

The area of northeast trending VLF conductors on the grid should be investigated to determine if these conductors accurately reflect bedrock conditions.

Detailed magnetometer surveys could be carried in areas of soil anomalies to help define magnetic lows associated with possible recessive quartz veins.

Trenching and sampling should be carried out on any quartz veining defined by the above program. Drilling should be carried out only if defined veins are of sufficient size to develop significant reserves of gold mineralization similar to those at the Elk property.

Respectfully submitted, nterce P.Geo. Т.Н. С

Vernon, BC December 20, 1999

# REFERENCES

Murton, J.W. 1987	Summary of an examination on the Scotchman and Standard Crown Grant claims near Oliver, B.C.									
Miller, R., 1990	Scotchman L-3981 and Standard L-3982 claims, Oliver, B.C. for Crown Resource Corporation, Denver, Colorado.									
<ul> <li>furton, J.W. 1987 Summary of an examination on the Scotchman and Standard Crown Grant claims near Oliver, B.C.</li> <li>liller, R., 1990 Scotchman L-3981 and Standard L-3982 claims, Oliver, B.C. for Crown Resource Corporation, Denver, Colorado.</li> <li>edley, M.S. and K. DeP. Watson, 1945 British Columbia Ministry of Energy, Mines and Petroleum Resources, Bulletin 20, Part III, pg. 19</li> <li>nnual Report – 1933, British Columbia Ministry of Mines, pg. 168</li> </ul>										
Annual Report – 1933	, British Columbia Ministry of Mines, pg. 168									

Annual Report - 1934, British Columbia Ministry of Mines, pg. D16

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# STATEMENT OF COSTS E & B Property

1	Professional Services				
	K.L. Daughtry (P.Eng.)				
	Field Examination & Planning				
	1.0 days @\$450/day	\$ 450.00			
	T. Carpenter (P.Geo.)				
	Planning, Airphoto Interpretation, & Reporting	1			
	2.5 days @\$450/day	1,125.00			
	R. Tilsley (Geol.) Nov. 2 - 5				
	Mapping & Rock Sampling				
	4 0 days @\$425/day	1.700.00			
	Data Compilation – Nov. 6	.,			
	0.5 days @\$375/day	187.50			
	0.5 days (approval)	101.00		\$	3.462.50
2	Field Personnel			•	0,102.00
2	lobe Ostorbogon (Nov. 2, 5)				
	Orid Establishment, Soil Sempling				
	8 Coordination				
	a Geophysics	1 500 00			
	4.0 days @\$375/day	1,500.00			
	Meivin Kildack (Nov. 2 - 5)				
	Grid Establishment, Soll Sampling	740.00			
	4.0 days @\$185/day	740.00			2 240 00
•					2,240.00
3	Office Personnel	250.00			
	Drafting	350.00			
	Secretarial	200.00			
	Data Compilation (incl JO <sup>1</sup> /2day)	178.93			700.00
					728.93
4	Expenses				
	Analysis - Chemex Labs Ltd.				
	(Au + 32 elements ICP)				
	6 Rocks @\$18.28/sample		\$ 109.68		
	77 soils @15.92/sample		1,225.84		
	Field Supplies		40.20		
	Equipment Rental		291.00		
	Freight		24.36		
	Lodging & Meals		341.71		
	Maps & Publications		35.00		
	Communications, Report & Map printing		150.00		
	Management Fee		206.32		
	-				2,424.11
		Exploration Co	sts :	\$	8,855.54
5	Transportation				
	a) 4x4 Truck 4 days @\$40.00/day	\$ 160.00			
	527km @30¢/km	158.10			
	gas	43.46			
	~	\$ 361.56			
	b) @20% of Exploration Costs of \$8,855.	54	<u>\$1,771.11</u>		
	(a) or (b) - whichever is less				361.56
	· · · · · · · · · · · · · · · · · · ·	Total Exploration Costs :		\$	9,217.10

# **STATEMENT OF QUALIFICATIONS**

I, THOMAS H. CARPENTER of 3902 14<sup>th</sup> Street, Vernon, B.C. V1T 3V2, DO HEREBY CERTIFY that:

- 1. I am a consulting geologist in mineral exploration with Discovery Consultants, Vernon B.C.
- 2. I am a 1971 graduate of the Memorial University of Newfoundland with a Bachelor of Science degree in geology.
- 3. I have been practicing my profession since graduation.
- 4. I am a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia.
- 5. This report is based upon knowledge of the Scotchman and Standard property gained from research, observation and supervision.
- 6. I hold no interest either directly or indirectly in the Scotchman or Standard crown grants or the E & B claims.

December 20, 1999 Vernon, B.C.



# APPENDIX 1

# Soil Sampling Program

## ANALYTICAL PROCEDURES

# **Geochemical Analysis**

# by Chemex Labs Ltd.

		LOWER		
ELEM	ENT	DETECTION LIMIT	EXTRACTION	METHOD
Au	Gold	5 ppb	fire assay	A.A.
Al*	Aluminum	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
Sb	Antimony	2 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
As	Arsenic	2 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Ba*	Barium	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Be*	Beryllium	0.5 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Bi	Bismuth	2 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Cd	Cadmium	0.5 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Ca*	Calcium	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
Cr*	Chromium	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Co	Cobalt	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Cu	Copper	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Ga*	Gallium	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Fe	Iron	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
La*	Lanthanum	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Pb	Lead	2 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Mg*	Magnesium	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
Mn	Maganese	5 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Hg	Mercury	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Мо	Molybdenum	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Ni	Nickel	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Р	Phosphorus	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
K*	Potassium	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
Sc*	Scandium	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Ag	Silver	0.2 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Na*	Sodium	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
Sr*	Strontium	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
TI*	Thallium	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Ti*	Titanium	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
W*	Tungsten	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
U	Uranium	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
V	Vanadium	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Zn	Zinc	2 ppm	Aqua-Regia digestion	Ind. Coupled Plasma

\* Incomplete digeston.

#### Standard/Scotchman

file: 592\geodata\Rock\_99.wk4

#### Soil Sample Analyses 1999

Reference :	a9933736

\$22222223222 <b>2</b> 3		*******	=======		========	*******			=======	\$228 <b>3</b> 28					=======	*=**===	******
		30g FA/AA	ICP	ICP	ICP	ICP	ICP	ICP	КP	ICP	ICP	ICP	ICP	ICP	ICP	ЮP	ICP
Sample ID	Lab	Au	Ag	As	Sb	Cu	Pb	Zn	W	Cd	Mo	Bi	Ni	Co	Cr	Fe	Mn
	report #	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
- <u></u>																	
		-			_		_										
1000W-4750N	a9933736	<5	<0.2	4	<2	20	8	60	< 10	<0.5	1	<2	14	10	23	2.47	565
1000W-4800N	a9933736	<5 ~5	<0.2	2	<2	20	8	48	<10	<0.5	-1	~2	12	10	20	2.21	345
1000 W ~48500	A9933730	<5	<0.2	6	~2	24	6	83	<10	<0.5	<1	<2	14	11	20	2.00	400
1000W-4950N	+9933736	20	<0.2	6	<2	24	4	118	<10	<0.5	<1	<2	13	9	19	2 29	860
1000W-5000N	a9933736	<5	<0.2	ĕ	<2	23	8	174	<10	0.5	1	<2	14	14	23	3.12	2280
1000W-5050N	a9933736	<5	<0.2	6	<2	18	6	92	<10	<0.5	1	<2	15	12	24	2.93	1235
1000W-5100N	a9933736	<5	<0.2	6	<2	20	6	66	<10	<0.5	1	<2	15	11	27	2.77	925
1000W-5150N	a9933736	<5	<0.2	<2	<2	15	6	58	<10	<0.5	1	<2	15	9	22	2.17	570
1000W-5200N	a9933736	5	<0.2	6	<2	23	58	138	<10	1.5	1	<2	16	13	26	2.94	590
1000W-5250N	a9933736	<5	<0.2	6	<2	17	6	58	<10	<0.5	<1	<2	16	9	26	2.38	445
1050W-4750N	a9933736	<5	<0.2	6	<2	23	12	130	<10	<0.5	1	<2	13	14	22	3.72	935
1050W-4800N	a9933736	<5	<0.2	6	<2	20	8	60	<10	<0.5	<1	<2	15	11	27	2.72	650
1050W-4850N	a9933736	5	<0.2	6	<2	18	8	80	<10	<0.5	1	<2	15	11	25	2.83	805
1050W-4900N	a9933736	<5	<0.2	2	<2	14	4	60	<10	1.5	-1	<2	12	0	21	1.3/	400
1050W-4950N	a9933736	~5	<0.2	0	<2	15	8	70	<10	<0.5	1	<2	14	11	24	2.33	590
1050W-5050N	#9933736	<5	<0.2	6	<2	16	8	54	<10	<0.5	1	<2	15	10	27	2.48	435
1050W-5100N	a9933736	<5	<0.2	2	<2	18	8	100	<10	<0.5	1	<2	15	10	25	2.52	1210
1050W-5150N	a9933736	<5	<0.2	6	<2	16	6	76	<10	<0.5	1	<2	14	11	24	2.64	700
1050W-5200N	a9933736	<5	<0.2	4	<2	25	10	68	<10	<0.5	1	<2	18	11	29	2.75	490
1050W-5250N	a9933736	<5	<0.2	6	<2	17	8	80	<10	<0.5	1	<2	15	10	30	2.71	405
1075W-5250N	a9933736	<5	<0.2	<2	<2	12	6	42	<10	<0.5	1	<2	12	8	17	1.89	480
1100W-4750N	a9933736	<5	<0.2	10	<2	22	10	88	<10	<0.5	<1	<2	15	14	28	3.49	1045
1100W-4800N	a9933736	<5	<0.2	6	<2	17	6	72	<10	<0.5	1	<2	14	12	27	3.31	480
1100W-4850N	a9933736	<5	<0.2	6	<2	16	6	74	<10	<0.5	1	<2	14	12	25	2.96	615
1100W-4900N	a9933736	<5	<0.2	2	<2	23	12	90	<10	0.5	1	<2	13	10	21	2.41	220
1100W-4950N	a9933736	<0	<0.2	8	<2	10	6	24 62	<10	<0.5	-1	~2	13	0 0	21	2.14	330
1100W-5000N	a9933/36	<5	<0.2	-2 -2	~2	21	6	54	<10	<0.5	<1	<2	14	11	29	2.00	350
1100W-5050N	-0013736	<5	<0.2	2	<2	27	4	176	<10	<0.5	<1	<2	12	10	20	2 34	1770
1100W-5150N	a9933736	5	<0.2	6	<2	16	6	64	<10	<0.5	1	<2	13	9	21	2.29	495
1100W-5200N	a9933736	<5	<0.2	6	<2	17	8	82	<10	<0.5	1	<2	10	7	15	1.93	530
1100W-5250N	a9933736	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
1150W-4750N	a9933736	<5	<0.2	6	<2	22	8	100	<10	<0.5	<1	<2	14	14	25	3.25	960
1150W-4800N	<b>#99</b> 33736	<5	<0.2	4	<2	15	10	92	<10	<0.5	1	<2	14	12	24	3.04	700
1150W-4850N	<b>a993</b> 3736	<5	<0.2	2	<2	18	10	68	<10	<0.5	1	<2	13	10	21	2.47	585
1150W-4900N	<b>■9933736</b>	<5	<0.2	6	<2	17	66	148	<10	2.0	1	<2	13	11	23	2.78	1230
1150W-4950N	a9933736	<5	<0.2	2	<2	15	10	80	<10	<0.5	1	<2	17	10	23	2.58	695
1150W-5000N	a9933736	<0	<u.z< td=""><td>4</td><td>&lt;2</td><td>19</td><td>D B</td><td>34</td><td>&lt; 10</td><td>&lt;0.5</td><td>1</td><td>&lt;2</td><td>22</td><td>10</td><td>27</td><td>2.00</td><td>490</td></u.z<>	4	<2	19	D B	34	< 10	<0.5	1	<2	22	10	27	2.00	490
1150W-5050N	a9933736	<5	<0.2	4 6	<2	43	о А	52	<10	<0.5	<1	<2	17	g	20	2.37	590
1150W-5150N	+9033736	<5	<0.2	2	<2	11	4	58	<10	<0.5	<1	<2	11	8	22	2.21	380
1150W-5200N	a9933736	<5	<0.2	4	<2	13	6	52	<10	<0.5	1	<2	12	8	23	2.42	365
1150W-5250N	a9933736	<5	<0.2	6	<2	19	12	112	<10	0.5	1	<2	14	11	24	2.94	2160
1200W-4750N	a9933736	<5	<0.2	2	<2	15	6	64	<10	<0.5	<1	<2	13	11	27	2.7 <del>9</del>	610
1200W-4800N	<b>#9933736</b>	<5	0.2	6	<2	24	10	76	<10	<0.5	1	<2	14	12	27	2.90	555
1200W-4850N	a9933736	45	<0.2	6	<2	16	10	76	<10	<0.5	<1	<2	13	10	26	2.63	555
1200W-4900N	e9933736	<5	<0.2	4	<2	17	6	74	<10	<0.5	<1	<2	12	9	20	2.33	650
1200W-4950N	a9933736	<5	<0.2	6	<2	23	10	62	<10	<0.5	1	<2	15	9	22	2.40	410
1200W-5000N	#9933736	<5	<0.2	8	<2	13	ð	48	<10	<0.5 <0.5	1	<2	13	9 7	10	1.00	440
1200W-5050N	ay933736	<5 F	<0.2 <0.2	2	<2	12 24	0 A	50	<10	<0.5	1	<2	16	9	20	2.25	425
1200W-5150N	#9733/36	5 <5	<0.2	2 4	<2	14	6	78	<10	<0.5	, <1	<2	12	ě.	18	2.12	650
1200W-5200N	a9933736	<5	<0.2	8	<2	21	ě	98	<10	<0.5	1	<2	14	11	26	2.96	1275
1200W-5250N	a9933736	<5	<0.2	6	<2	15	4	66	<10	<0.5	1	<2	14	10	25	2.84	360
1250W-4750N	a9933736	<5	<0.2	6	<2	17	16	72	<10	<0.5	1	<2	13	10	26	2.80	515
1250W-4800N	a9933736	5	<0.2	8	<2	17	8	62	<10	<0.5	<1	<2	14	10	23	2.46	630
1250W-4850N	a9933736	<5	<0.2	2	<2	14	12	94	<10	<0.5	<1	<2	14	10	25	2.74	650
1250W-4900N	a9933736	<5	<0.2	4	<2	17	10	72	<10	<0.5	<1	<2	15	10	24	2.55	580
1250W-4950N	a9933736	<5	<0.2	6	<2	20	6	58	<10	<0.5	1	<2	13	9	23	2.68	480
1250W-5000N	a9933736	25	<0.2	4	<2	16	8	62	<10	<0.5	<1	<2	13	8 40	22	2.33	1410
1250W-5050N	a9933738	<5	<0.2	2	<2	18	8 10	92	<10	<0.5 ∠0.5	-1	~2	12	10	22	2.55	430
1250W-5100N	a9933736	5	02	10	<2	42	10	110	<10	<0.5	<1	<2	15	2	5	0.65	40
1200W-0150N	ayy33/36	~5 ~5	<0.2 <0.2	2	<2	10	10	70	<10	<0.5	3	<2	12	9	21	2.53	640
1756W-5200N	age33/30	~0 <5	<0.2	4	<2	25	R	54	<10	<0.5	1	<2	12	8	18	2.18	425
1300W-4750N	a9933736	<5	<0.2	8	<2	29	12	68	<10	<0.5	<1	<2	14	11	23	2.71	405
1300W-4800N	a9933736	<5	<0.2	2	<2	22	10	96	<10	<0.5	1	<2	17	13	27	3.38	550
1300W-4850N	a9933736	5	<0.2	8	<2	19	12	78	<10	<0.5	1	<2	14	10	24	3.16	360
1300W-4900N	a9933736	<5	<0.2	10	<2	19	8	88	<10	<0.5	<1	<2	14	11	24	2.94	495

#### Standard/Scotchman

## Soil Sample Analyses (part 2)

	ЮP	ЮР	ICP	ЮP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICF
Sample ID	Ba ppm	V ppm	Hg ppm	Sr ppm	La ppm	A1 %	Mg %	Ca %	Na %	K %	Ti %	U ppm	Be ppm	Ga ppm	P ppm	Sc ppm	TI ppm	B ppm	S %
1000W_4750N	170			35	10	2.24	0.45	0.28	0.01	0.13	0.11	<10	0.5	<10	020		c10	<10	
1000W-4800N	100	48	<1	36	20	2.24	0.38	0.31	0.01	0.08	0.10	<10	0.5	<10	1100	3	<10	<10	0.01
1000W-4850N	150	59	<1	52	10	1.70	0.54	0.59	0.01	0.13	0.09	<10	<0.5	<10	1810	3	<10	<10	0.01
1000W-4900N	150	59	<1	44	10	2.38	0.51	0.42	0.01	0.11	0.10	<10	0.5	<10	1940	4	<10	<10	0.01
1000W-4950N	360	43	<1	67	10	2.20	0.39	0.55	0.01	0.22	0.10	<10	<0.5	<10	3290	3	<10	<10	0.01
1000W-5000N	270	55	< 3	86	<10	2.51	0.70	0.93	0.01	0.28	0.13	10	0.5	<10	3570	3	<10	<10	0.01
1000W-5100N	180	61	<1	-40 54	20	2.11	0.32	0.46	0.01	0.15	0.12	<10	0.5	<10	1600	3	<10	<10	0.01
1000W-5150N	190	46	<1	43	10	2.07	0.34	0.44	0.01	0.14	0.10	<10	0.5	<10	940	3	<10	<10	<0.01
1000W-5200N	210	69	<1	43	10	2.46	0.64	0.40	0.01	0.18	0.12	<10	0.5	<10	1830	4	<10	<10	<0.01
1000W-5250N	210	49	<1	38	10	2.13	0.42	0.39	0.03	0.14	0.10	<10	<0.5	<10	1460	4	<10	<10	<0.01
1050W-4750N 1050W-4808N	170	75 60	<1	56	30	2.56	0.82	0.50	0.01	0.18	0.12	<10	0.5	10	2560	4	<10	<10	0.02
1050W-4850N	160	59	<1	38	20	2.53	0.57	0.42	0.01	0.15	0.13	<10	0.5	<10	1420	4	<10	<10	0.01
1050W-4900N	120	28	<1	28	10	1.22	0.23	0.34	0.01	0.09	0.05	<10	<0.5	<10	1170	1	<10	<10	<0.01
1050W-4950N	170	48	<1	38	10	2.37	0.42	0.29	0.01	0.14	0.10	<10	0.5	<10	1410	3	<10	<10	0.01
1050W-5000N	170	59	<1	39	10	2.64	0.50	0.29	0.01	0.12	0.13	<10	0.5	<10	690	3	<10	<10	0.01
1050W-5050N	170	55	<1	46	10	2.28	0.43	0.35	0.01	0.14	0.11	<10	0.5	<10	870	3	<10	<10	0.01
1050W-5100N	230	54	<1	53 47	10	2.04	0.40	0.40	0.01	0.13	0.10	<10	0.5	<10	2050	3	<10	<10	<0.01
1050W-5200N	200	56	<1	54	30	2.75	0.49	0.48	0.03	0.13	0.13	<10	0.5	<10	650	5	<10	<10	0.01
1050W-5250N	190	56	<1	48	20	2.35	0.41	0.41	0.02	0.25	0.12	<10	0.5	<10	750	5	<10	<10	<0.01
1075W-5250N	150	36	<1	35	10	2.33	0.24	0.48	0.03	0.11	0.10	<10	<0.5	<10	730	3	<10	<10	<0.01
1100W-4750N	250	77	<1	60	20	2.76	0.70	0.56	0.01	0.36	0.14	<10	0.5	<10	1030	5	<10	<10	0.01
1100W-4800N	150	75	<1	49	10	2.92	0.67	0.41	0.01	0.17	0.14	<10	0.5	<10	1380	3	<10	<10	0.01
ELOOW-4859/N	210	46	<1	40	50	2.30	0.01	0.40	0.02	0.18	0.12	<10	0.5	<10	1300	4 1	<10	<10	<0.01
1100W-4950N	160	46	<1	45	10	2.04	0.34	0.35	0.03	0.11	0.12	<10	<0.5	<10	1140	3	<10	<10	< 0.01
1100W-5000N	210	49	<1	56	10	2.41	0.39	0.33	0.02	0.16	0.11	<10	0.5	<10	1080	3	<10	<10	<0.01
1100W-5050N	140	71	<1	58	10	2.06	0.68	0.43	0.01	0.15	0.15	<10	<0.5	<10	530	4	<10	<10	<0.01
1100W-5100N	820	38	<1	112	10	2.25	0.33	0.93	0.02	0.19	0.08	<10	0.5	<10	3900	4	<10	10	0.01
1100W-5150N	150	48	<1	50	10	2.19	0.31	0.44	0.03	0.14	0.11	<10	<0.5	<10	1070	3	<10	<10	0.01
1100W-5250N	2.50 n/s	n/s	n/s	n/s	n/s	2.31 n/s	0.25 n/s	0.46 n/s	0.03 n/s	n/s	0.00 n/s	~10 n/s	0.3 n/s	- 10 n/s	2140 n/s	n/s	n/s	n/s	0.01 n/s
1150W-4750N	290	65	<1	70	20	2.66	0.65	0.52	0.01	0.39	0.13	<10	0.5	<10	1360	4	<10	<10	<0.01
1150W-4800N	210	62	<1	39	10	2.56	0.59	0.33	0.01	0.19	0.13	<10	0.5	<10	1100	3	<10	<10	0.01
1150W-4850N	200	51	<1	38	10	2.63	0.42	0.37	0.02	0.14	0.11	<10	0.5	<10	1520	3	<10	<10	<0.01
1150W-4900N	230	56	<1	45	10	2.22	0.50	0.46	0.01	0.12	0.11	<10	0.5	<10	2430	3	<10	<10	0.02
1150W-4950N	210 140	54 60	<1	39 58	10	2.55	0.45	0.33	0.02	0.11	0.11	<10	0.5	<10	2000	د ا	<10	<10	<0.01
1150W-5050N	340	40	<1	68	60	3.31	0.29	0.45	0.02	0.12	0.10	<10	1.0	<10	380	6	<10	<10	0.01
1150W-5100N	170	44	<1	57	50	2.68	0.30	0.57	0.03	0.12	0.12	10	0.5	<10	390	4	<10	<10	0.01
1150W-5150N	210	48	<1	47	10	1.63	0.30	0.38	0 02	0.15	0.10	<10	<0.5	<10	940	3	<10	<10	<0.01
1150W-5200N	140	53	<1	51	20	1.88	0.34	0.37	0.01	0.19	0.11	<10	<0.5	<10	640	3	<10	<10	< 0.01
1150W-5250N	280	58	<1	57	10	2.42	0.48	0.38	0.01	0.15	0.12	<10	0.5	<10	1590	3	<10	<10	0.03
1200W-4750N 1200W-4800N	170	04 68	<1	00	10	1.00	0.49	0.45	0.01	0.10	0.12	<10	<0.5	<10	1380	4	<10	<10	<0.01 0.01
1200W-4850N	210	57	<1	42	10	2.27	0.42	0.35	0.01	0.13	0.11	<10	0.5	<10	1380	3	<10	<10	<0.01
1200W-4900N	260	47	<1	50	10	2.02	0.41	0.44	0.02	0.14	0.09	<10	<0.5	<10	2040	3	<10	<10	<0.01
1200W-4950N	110	45	<1	43	40	3.14	0.35	0.39	0.03	0.08	0.13	30	1.0	<10	570	5	<10	<10	0.01
1200W-5000N	150	50	<1	42	20	2.03	0.29	0.41	0.03	0.09	0.11	<10	<0.5	<10	470	3	<10	<10	< 0.01
1200W-5050N	190	43 46	<1	48 61	10	2.57	0.25	0.27	0.04	0.09	0.12	<10 <10	0.5 <0.5	<10 <10	200 280	2	< 10 < 10	<10 <10	<0.01
1200W-5150N	200	41	<1	46	10	2.16	0.32	0.44	0.03	0.17	0.09	<10	<0.5	<10	2110	3	<10	<10	0.01
1200W-5200N	230	63	<1	74	20	2.25	0.48	0.63	0.01	0.22	0.11	<10	<0.5	<10	1470	4	<10	<10	0.02
1200W-5250N	170	66	<1	59	10	2.43	0.42	0.31	0.01	0.11	0.12	<10	0.5	<10	750	3	<10	<10	<0.01
1250W-4750N	180	63	<1	50	10	2.35	0.51	0.39	0.01	0.11	0.12	<10	<0.5	<10	890	3	<10	<10	<0.01
1250W-4800N	190	52	<1	40 F 2	10	2.25	0.39	0.44	0.02	0.13	0.11	<10	0.5	<10	970	3	<10	<10	0.01
1420W-4830N 1250W-4900N	200	57 55	<1	⊃3 47	10	∠.18 2.49	0.47	0.42	0.01	0.14	0.12	<10	~U.S 0.5	<10 <10	1510	3	<10	<10	0.01
1250W-4950N	190	68	<1	49	10	1,97	0.46	0.42	0.02	0.17	0.10	<10	<0.5	<10	1130	3	<10	<10	<0.01
1250W-5000N	240	51	<1	65	10	1.87	0.33	0.58	0.02	0.17	0.10	<10	<0.5	<10	940	3	<10	<10	<0.01
1250W-5050N	340	52	<1	65	20	1.86	0.35	0.49	0.01	0.11	0.10	<10	0.5	<10	1640	3	<10	<10	0.01
1250W-5100N	280	45	<1	51	10	2.83	0.43	0.46	0.03	0.18	0.11	<10	0.5	<10	4270	3	<10	<10	0.01
1250W-5150N	110	9	<1	45	10	1.61	0.10	0.59	0.11	0.04	0.04	30	<0.5	<10	310	1	<10	<10	0.03
1250W-5200N	200	00 43	<1 <1	30 58	20 40	2.81 2.90	0.40	0.32	0.03	0.14	0.12	<10	0.5	<10	1040	4	<10	<10	0.01
1300W-4750N	120	49	<1	39	30	3.29	0.46	0.49	0.03	0.11	0.15	<10	0.5	<10	710	4	<10	<10	0.01
1300W-4800N	240	72	<1	47	10	3.71	0.67	0.34	0.02	0.15	0.16	<10	0.5	10	1040	3	<10	<10	0.01
1300W-4850N	100	65	<1	34	10	3.24	0.52	0.25	0.01	0.11	0.13	<10	0.5	10	1770	3	<10	<10	0.02
1300W-4900N	200	62	<1	43	10	3.06	0.56	0.37	0.01	0.16	0.15	<10	0.5	10	1030	3	<10	<10	0.01

Date of Report: 01/11/2000

#### Project 592

#### Standard/Scotchman

file: 592\geodala\Rock\_99.wk4

Soil	Sample	Analyses
	1999	)

Reference : a99	33736																
Sample ID	30 Leb report#	og FA/AA Au ppb	iCP Ag ppm	ICP As ppm	ICP Sb ppm	ICP Cu ppm	ICP Pb ppm	ICP Zn ppm	ICP W ppm	ICP Cd ppm	ICP Mo ppm	ICP Bi ppm	ICP Ni ppm	ICP Co ppm	ICP Cr ppm	ICP Fe %	ICP Mn ppm
1300W_4950N	e9033736	<5	<0.2	6	<2	21	6	96	<10	<0.5	1	<2	12	9	19	2.26	850
1300W-5000N	a9933736	<5	<0.2	4	<2	13	8	78	<10	<0.5	<1	<2	12	9	23	2.42	470
1300W-5050N	a9933736	<5	0.2	4	<2	33	8	72	<10	<0.5	1	<2	17	9	20	2.34	555
1300W-5100N	a9933736	<5	<0.2	6	<2	17	12	136	<10	<0.5	1	<2	13	12	22	3.31	1215
1300W-5150N	a9933736	<5	<0.2	2	<2	18	18	132	<10	<0.5	1	<2	15	12	25	3.70	1020
1300W-5200N	a9933736	<5	<0.2	6	<2	20	16	108	<10	<0.5	2	<2	15	13	24	3.68	795
1300W-5250N	a9933736	<5	<0.2	10	<2	18	12	118	<10	<0.5	1	<2	12	10	27	2.91	1310

page: 2

#### Standard/Scotchman

## Soil Sample Analyses (part 2)

	******			*****	=====		*******		======		******					======	======	.=====	=====
Sample ID	ICP Ba ppm	ICP V ppm	ICP Hg ppm	ICP Sr ppm	ICP La ppm	ICP A1 %	IСР <b>Mg</b> %	ЮР Са %	ЮР <b>Na</b> %	ICP <b>K</b> %	ICP Ti %	ICP U ppm	ICP Be ppm	ICP Ga ppm	ICP P ppm	ICP Sc ppm	ICP TI ppm	ICP B ppm	ICP S %
1300W-4950N	310	42	<1	52	10	2.71	0.32	0.56	0.03	0.13	0.11	<10	0.5	<10	2030	3	<10	<10	0.01
1300W-5000N	210	50	<1	44	10	2.15	0.39	0.38	0.02	0.17	0.11	<10	<0.5	<10	1540	3	<10	<10	<0.01
1300W-5050N	140	44	<1	47	50	2.96	0.34	0.45	0.04	0.10	0.12	10	0.5	<10	720	4	<10	<10	0.01
1300W-5100N	430	59	<1	48	10	2.86	0.64	0.44	0.02	0.27	0.13	<10	0.5	10	2840	3	<10	<10	0.01
1300W-5150N	270	70	<1	51	10	3.64	0.72	0.40	0.01	0.25	0.14	<10	0.5	10	1370	4	<10	<10	0.01
1300W-5200N	170	72	<1	46	30	3.50	0.76	0.40	0.02	0.27	0.16	<10	0.5	10	880	4	<10	<10	0.01
1300W-5250N	330	59	<1	61	10	2.34	0.52	0.51	0.01	0.14	0.10	<10	0.5	<10	2110	3	<10	<10	0.01

# APPENDIX 2

Rock Sample Results

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# ANALYTICAL PROCEDURES

# **Geochemical Analysis**

# by Chemex Labs Ltd.

		LOWER		
ELEME	ENT	DETECTION LIMIT	EXTRACTION	METHOD
Au	Gold	5 ppb	fire assay	A.A.
Al*	Aluminum	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
Sb	Antimony	2 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
As	Arsenic	2 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Ba*	Barium	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Be*	Beryllium	0.5 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Bi	Bismuth	2 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Cd	Cadmium	0.5 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Ca*	Calcium	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
Cr*	Chromium	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Co	Cobalt	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Cu	Copper	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Ga*	Gallium	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Fe	Iron	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
La*	Lanthanum	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Pb	Lead	2 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Mg*	Magnesium	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
Mn	Maganese	5 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Hg	Mercury	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Мо	Molybdenum	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Ni	Nickel	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Р	Phosphorus	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
K*	Potassium	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
Sc*	Scandium	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Ag	Silver	0.2 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Na*	Sodium	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
Sr*	Strontium	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
TI*	Thallium	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Ti*	Titanium	0.01%	Aqua-Regia digestion	Ind. Coupled Plasma
W*	Tungsten	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
U	Uranium	10 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
V	Vanadium	1 ppm	Aqua-Regia digestion	Ind. Coupled Plasma
Zn	Zinc	2 ppm	Aqua-Regia digestion	Ind. Coupled Plasma

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\* Incomplete digeston.

Date of Report: 01/11/2000

Project 592

#### Standard/Scotchman

#### Rock Sample Analyses 1999

file: 592\geodeta\Rock\_99.wk4 Reference : a9933730

***********			2222222	z===z==	2222233	******		======	==========	******			=======	======	*******		
	30	g FA/AA	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ЮP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
Sample ID	Lab	Au	Ag	As	Sb	Cu	Pb	Zn	w	Cd	Мо	Bi	Ni	Co	Cr	Fe	Mn
	report #	рръ	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
197801	a9933730	15	<0.2	8	<2	3	16	6	<10	<0.5	<1	<2	1	1	133	0.25	40
197802	a9933730	15	0.2	2	<2	3	14	6	<10	<0.5	<1	<2	1	2	142	0.34	90
197803	<b>#993373</b> 0	30	<0.2	4	<2	3	4	2	<10	<0.5	3	<2	3	<1	277	0.32	40
197804	a9933730	15	<0.2	<2	<2	2	<2	6	<10	<0.5	3	<2	3	<1	269	0.38	80
197805	#9933730	60	0.2	4	<2	5	2	6	<10	<0.5	8	<2	4	1	285	0.56	50
197806	<b>a9933730</b>	<5	<0.2	<2	<2	2	<2	2	<10	<0.5	<1	<2	3	<1	242	0.33	50

page: 1

#### Standard/Scotchman

## Rock Sample Analyses (part 2)

	======		t=====	z==z=2	======		=========	=======	2=32=509			======		*======	======			*****	**===
Sample ID	ICP Ba ppm	ICP V ppm	ICP Hg ppm	ICP Sr ppm	ICP La ppm	ЮР АІ %	ICP Mg %	ICP Ca %	IСР <b>Na</b> %	ICP K %	ICP Ti %	ICP U ppm	ICP Be ppm	ICP Ga ppm	ICP P ppm	ICP Sc ppm	ICP TI ppm	ICP B ppm	ЮР \$ %
197801	60	6	<1	6	<10	0.38	0.03	0.06	0.06	0.20	<0.01	<10	<0.5	<10	180	<1	<10	<10	<0.01
197802	60	4	<1	14	10	0.43	0.04	0.18	0.07	0.21	<0.01	<10	<0.5	<10	220	<1	<10	<10	<0.01
197803	10	3	<1	4	<10	0.10	0.01	0.06	< 0.01	0.05	<0.01	<10	<0.5	<10	20	<1	<10	<10	0.01
197804	10	2	<1	4	<10	0.11	0.05	0.22	< 0.01	0.03	<0.01	<10	<0.5	<10	20	<1	<10	<10	<0.01
197805	40	4	<1	6	<10	0.24	0.06	0.04	0.02	0.11	< 0.01	<10	<0.5	<10	100	<1	<10	<10	0.04
197806	10	1	<1	3	<10	0.08	0.02	0.03	<0.01	0.03	<0.01	<10	<0.5	<10	40	<1	<10	<10	<0.01

# APPENDIX 3

Magnetometer Results

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Standard/Scotchman

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file: 592\geophysc\mag\_99.wk4

			Magnetic Field (nT)					
Line	Station	Time (hr min sec)	Uncorrected	Corrected				
1300 W	5250.0 N	90915.7	56791.7	56055.2				
	5237.5	91030.7	56720.4	55984.0				
	5225.0	91234.6	56666.8	55930.7				
	5212.5	91326.4	56633.4	55897.5				
	5200.0	91401.4	56569.6	55834.0				
	5187.5	91741.9	56675.0	55939.5				
	5175.0	91828.9	56564.4	55829.1				
	5162.5	91855.3	56712.7	55977.6				
	5150.0	91936.8	56793.1	56058.1				
	5137.5	92016.7	56586.5	55851.5				
	5125.0	92111.7	56566.7	55831.7				
	5112.5	92410.9	56560.5	55826.0				
	5100.0	92548.9	56632.7	55898.6				
	5087.5	92727.0	56596.0	55862.1				
	5075.0	92813.1	56581.9	55848.0				
	5062.5	92906.1	56607.1	55873.6				
	5050.0	92945.9	56659.6	55926.2				
	5037.5	93030.2	56695.1	55961.6				
	5025.0	93102.4	56733.8	56000.1				
	5012.5	93134.9	56760.8	56027.4				
	5000.0	93245.5	56711.1	55977.7				
	4987.5	93357.7	56682.9	55949.4				
	4975.0	93454.0	56658.4	55925.3				
	4962.5	93528.9	56639.3	55906.2				
	4950.0	93606.3	56601.6	55868.6				
	4937.5	93714.9	56589.9	55857.3				
	4925.0	93805.2	56627.7	55895.5				
	4912.5	93901.1	56644.1	55911.6				
	4900.0	93939.3	56653.5	55921.0				
	4887.5	94022.0	56625.2	55892.8				
	4875.0	94101.3	56431.3	55698.9				
	4862.5	94223.8	56576.6	55844.3				
	4850.0	94251.7	56519.8	55787.5				
	4837.5	94322.0	56518.9	55786.5				
	4825.0	94354.8	56414.6	55682.3				
	4812.5	94428.0	56887.0	56154.6				
	4800.0	94504.7	57330.4	56598.1				

Standard/Scotchman

file: 592\geophysc\mag\_99.wk4

# **Magnetometer Survey**

Time (hr min sec)         Uncorrected         Corrected           4787.5         94548.2         56860.1         56128.1           4775.0         94636.8         56517.8         55785.9           4762.5         94719.1         56234.2         55502.4           4750.0         94754.1         55944.9         55213.3           1250 W         4750.0 N         95128.3         56668.9         55937.8           4762.5         95407.2         57094.7         56364.0           4775.0         95532.6         56151.0         55421.1           4787.5         95639.1         5623.6         55334.0           4800.0         95731.3         56367.3         55637.8           4812.5         95831.7         56420.8         55691.3           4825.0         95912.9         56439.1         55709.4           4837.5         100047.5         56658.8         55927.4           4862.5         1001141.6         56653.0         55933.6           4875.0         100217.8         56327.9         55988.5           4887.5         100306.1         56430.3         55701.0           4900.0         100345.7         56490.6         55770.5			Magnetic Field (nT)								
Line         Station         (hr min sec)         Uncorrected         Corrected           4787.5         94548.2         56860.1         56128.1           4775.0         94636.8         56517.8         55785.9           4762.5         94719.1         56234.2         55502.4           4750.0         94754.1         55944.9         55213.3           1250 W         4760.5         95407.2         57094.7         56364.0           4775.0         95532.6         56151.0         55421.1           4775.0         95532.6         56151.0         55421.1           4775.0         95533.1         56263.6         55534.0           4800.0         95731.3         56367.3         55691.3           4825.0         95912.9         56439.1         55709.4           4837.5         100047.5         56658.8         55927.3           4850.0         100113.5         56656.8         55927.4           4862.5         100141.6         56653.0         55923.6           4875.0         100217.8         56327.9         55985.5           4875.0         100217.8         56430.3         55701.5           4975.5         100356.1         56499.6         <			Time	0							
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Line	Station	(hr min sec)	Uncorrected	Corrected						
4787.5         94548.2         56800.1         56128.1           4775.0         94636.8         56517.8         55785.9           4762.5         94719.1         55234.2         55502.4           4750.0         94754.1         55944.9         55213.3           1250 W         4760.5         95407.2         57094.7         56364.0           4775.0         95532.6         56151.0         55421.1           4787.5         95639.1         56263.6         55534.0           4800.0         95731.3         56367.3         55637.8           4812.5         95831.7         56420.8         55929.3           4825.0         95912.9         56439.1         55709.4           4837.5         100047.5         56656.8         55929.3           4850.0         100113.5         56657.0         5598.5           4875.0         100217.8         56327.9         5598.5           4887.5         100306.1         56430.3         55701.0           4900.0         100326.1         56561.5         5832.4           4937.5         10057.0         56697.7         55968.6           4950.0         100628.3         56730.3         55938.0			·····								
4775.0         94636.8         56517.8         55785.9           4762.5         94719.1         56234.2         55502.4           4750.0         94754.1         55944.9         55213.3           1250 W         4750.0 N         95128.3         56668.9         55937.8           4762.5         95407.2         57094.7         56364.0           4775.0         95532.6         56151.0         55421.1           4787.5         95639.1         56263.6         55534.0           4800.0         95731.3         56367.3         55697.8           4812.5         95817.7         56420.8         55691.3           4825.0         95912.9         56439.1         55709.4           4837.5         100047.5         56658.8         55927.4           4862.5         100113.5         56657.0         55923.6           4875.0         100217.8         56327.9         55598.5           4887.5         10036.1         56430.3         55701.0           4900.0         100345.7         56499.6         55770.5           4912.5         100448.1         565451.5         55832.4           4937.5         100526.1         55561.5         55832.4      <		4787.5	94548.2	56860.1	56128.1						
4762.5         94719.1         56234.2         55502.4           4750.0         94754.1         55944.9         55213.3           1250 W         4750.0 N         95128.3         56668.9         55937.8           4762.5         95407.2         57094.7         56364.0           4775.0         95532.6         56151.0         55421.1           4787.5         95639.1         56263.6         55534.0           4800.0         95731.3         56367.3         55697.3           4812.5         9581.7         56420.8         5591.3           4825.0         95912.9         56439.1         55709.4           4837.5         100047.5         56658.8         55927.4           4862.5         100141.6         56653.0         5598.5           4875.0         100217.8         56327.9         5598.5           4887.5         100306.1         56430.3         55701.0           4900.0         100345.7         56499.6         55770.5           4912.5         100557.0         56697.7         55988.6           4950.0         100526.1         56561.5         5832.4           4937.5         10057.7         56694.9         55998.7		4775.0	94636.8	56517.8	55785.9						
4750.0         94754.1         55944.9         55213.3           1250 W         4750.0 N         95128.3         56668.9         55937.8           4762.5         95407.2         57094.7         56364.0           4775.0         95532.6         56151.0         55421.1           4787.5         95639.1         56263.6         55534.0           4800.0         95731.3         56367.3         55637.8           4812.5         95831.7         56420.8         55691.3           4825.0         95912.9         56439.1         55792.4           4837.5         100047.5         56656.8         55927.4           4862.5         100141.6         56653.0         55923.6           4875.0         100217.8         56327.9         5598.5           4887.5         100306.1         56430.3         55701.0           4900.0         100345.7         56499.6         55770.5           4912.5         100448.1         56545.1         5588.6           4937.5         10057.0         56697.7         5598.6           4937.5         10057.0         56697.7         5598.6           4950.0         100528.3         56730.3         5599.7		4762.5	94719.1	56234.2	55502.4						
1250 W       4750.0 N       95128.3       56668.9       55937.8         4762.5       95407.2       57094.7       56364.0         4775.0       95532.6       56151.0       55421.1         4787.5       95639.1       56263.6       55534.0         4800.0       95731.3       5667.3       55637.8         4812.5       95831.7       56420.8       55691.3         4825.0       95912.9       56439.1       55709.4         4837.5       100047.5       56658.8       55927.4         4862.5       100141.6       56653.0       55923.6         487.0       100217.8       56327.9       5598.5         4887.5       100306.1       56430.3       55701.0         4900.0       100345.7       56499.6       55770.5         4912.5       10048.1       565451       55882.4         4925.0       100526.1       55561.5       55882.4         4937.5       10057.0       56697.7       5598.6         4950.0       100628.3       56730.3       5599.7         4975.0       100723.3       5667.0       55837.6         5000.0       100905.3       56667.7       55938.0         4987.5 <td></td> <td>4750.0</td> <td>94754.1</td> <td>55944.9</td> <td>55213.3</td>		4750.0	94754.1	55944.9	55213.3						
4762.5       95407.2       57094.7       56364.0         4775.0       95532.6       56151.0       55421.1         4787.5       95639.1       56263.6       55534.0         4800.0       95731.3       56367.3       55637.8         4812.5       95831.7       56420.8       55691.3         4825.0       95912.9       56439.1       55709.4         4837.5       100047.5       56658.8       55927.4         4850.0       100113.5       56656.8       55923.6         4850.1       100141.6       56653.0       55923.6         4875.0       100217.8       56327.9       55598.5         4887.5       1003045.7       56649.6       5770.5         4912.5       100448.1       56551.5       55832.4         4925.0       100526.1       56561.5       55832.4         4937.5       10057.0       56697.7       55968.6         4950.0       100628.3       56730.3       56001.2         4962.5       100659.0       56681.8       55959.7         4975.0       100723.3       56667.3       55938.0         4987.5       100811.0       56567.0       55837.6         5012.5       10	1250 W	4750.0 N	95128.3	56668.9	55937.8						
4775.0         95532.6         56151.0         55421.1           4787.5         95639.1         56263.6         55534.0           4800.0         95731.3         56367.3         55637.8           4812.5         95831.7         56420.8         55691.3           4825.0         95912.9         56439.1         55709.4           4837.5         100047.5         56658.8         55929.3           4850.0         100113.5         56656.8         55927.4           4862.5         100141.6         56653.0         55923.6           4875.0         100217.8         56327.9         55598.5           4887.5         100306.1         56430.3         55701.0           4900.0         100345.7         56499.6         55770.5           4912.5         100448.1         56545.1         55832.4           4925.0         100557.0         56697.7         55968.6           4950.0         100628.3         56730.3         56001.2           4962.5         100659.0         56688.8         55959.7           4975.0         100723.3         56667.3         55837.6           5001.2         100957.7         56694.9         55965.8           5025.		4762.5	95407.2	57094.7	56364.0						
4787.5       95639.1       56263.6       55534.0         4800.0       95731.3       56367.3       55637.8         4812.5       9581.7       56420.8       55691.3         4825.0       95912.9       56439.1       55709.4         4837.5       10047.5       56658.8       55929.3         4850.0       100113.5       56656.8       55927.4         4862.5       100141.6       56653.0       55923.6         4875.0       100217.8       56327.9       55598.5         4887.5       100306.1       56430.3       55701.0         4900.0       100345.7       56499.6       55770.5         4912.5       100448.1       56545.1       55816.1         4925.0       100526.1       56561.5       55832.4         4937.5       100526.1       56567.5       55832.4         4937.5       100527.0       56697.7       55988.6         4950.0       100628.3       56730.3       56001.2         4962.5       100659.0       56687.3       55937.6         5001.2       100723.3       56667.3       55837.6         5002.0       101030.1       56557.7       55928.8         5025.0       1		4775.0	95532.6	56151.0	55421.1						
4800.0         95731.3         56367.3         55637.8           4812.5         95831.7         56420.8         55691.3           4825.0         95912.9         56439.1         55709.4           4837.5         100047.5         56658.8         55929.3           4850.0         100113.5         56656.8         55927.4           4852.5         100141.6         56653.0         55923.6           4875.0         100217.8         56327.9         55598.5           4887.5         100306.1         56430.3         55701.0           4900.0         100345.7         56499.6         55770.5           4912.5         100448.1         56545.1         55816.1           4925.0         100526.1         55651.5         55832.4           4937.5         100557.0         56697.7         55968.6           4937.5         100628.3         56730.3         56001.2           4962.5         100628.3         56730.3         56001.2           4962.5         100695.3         56664.6         55837.6           5000.0         100905.3         56604.6         55837.5           5012.5         10130.1         56657.7         55928.8           5037		4787.5	95639.1	56263.6	55534.0						
4812.5         95831.7         56420.8         55691.3           4825.0         95912.9         56439.1         55709.4           4837.5         100047.5         56658.8         55923.3           4850.0         100113.5         56656.8         55927.4           4862.5         100141.6         56653.0         55923.6           4875.0         100217.8         56327.9         55598.5           4887.5         100306.1         56430.3         55701.0           4900.0         100345.7         56499.6         55770.5           4912.5         100448.1         56561.5         55832.4           4937.5         100526.1         56561.5         55959.7           4950.0         100628.3         56730.3         56001.2           4962.5         100659.0         56688.8         55959.7           4975.0         100723.3         56667.3         55938.0           4987.5         100811.0         56567.0         55837.6           5000.0         100995.3         56694.9         55965.8           5025.0         101030.1         56657.7         55928.8           5037.5         101101.3         566607.7         55932.0           5		4800.0	95731.3	56367.3	55637.8						
4825.0         95912.9         56439.1         55709.4           4837.5         100047.5         56658.8         55929.3           4850.0         100113.5         56656.8         55927.4           4862.5         100141.6         56653.0         55923.6           4875.0         100217.8         56327.9         55598.5           4887.5         100306.1         56430.3         55701.0           4900.0         100345.7         56499.6         55770.5           4912.5         100448.1         56545.1         55816.1           4925.0         100526.1         56561.5         55832.4           4937.5         100557.0         56697.7         55988.6           4950.0         100628.3         56730.3         56001.2           4962.5         100659.0         56687.3         55938.0           4987.5         100811.0         56567.0         55837.6           5000.0         100995.3         56604.6         55875.5           5012.5         100957.7         56694.9         55932.0           5037.5         101101.3         56607.3         55932.0           5037.5         101101.3         56697.7         55932.0           5		4812.5	95831.7	56420.8	55691.3						
4837.5         100047.5         56658.8         55929.3           4850.0         100113.5         56656.8         55927.4           4862.5         100141.6         56653.0         55923.6           4875.0         100217.8         56327.9         55598.5           4887.5         100306.1         56430.3         55701.0           4900.0         100345.7         56499.6         55770.5           4912.5         100448.1         56545.1         55832.4           4937.5         100526.1         56561.5         55832.4           4937.5         100557.0         56697.7         55968.6           4950.0         100628.3         56730.3         56001.2           4962.5         100659.0         56688.8         55959.7           4975.0         100723.3         56667.3         55837.6           5012.5         100905.3         56664.6         55875.5           5012.5         100957.7         56694.9         55965.8           5025.0         101030.1         566507.1         55928.8           5037.5         101101.3         56660.7         55932.0           5050.0         10130.1         565677.8         55968.8 <td< td=""><td></td><td>4825.0</td><td>95912.9</td><td>56439.1</td><td>55709.4</td></td<>		4825.0	95912.9	56439.1	55709.4						
4850.0         100113.5         56656.8         55927.4           4862.5         100141.6         56653.0         55923.6           4875.0         100217.8         56327.9         55598.5           4887.5         100306.1         56430.3         55701.0           4900.0         100345.7         56499.6         55770.5           4912.5         100448.1         56545.1         55816.1           4925.0         100526.1         56697.7         55968.6           4937.5         100659.0         56688.8         55959.7           4962.5         100659.0         56667.3         55938.0           4987.5         100811.0         56567.0         55837.6           5000.0         100905.3         56604.6         55875.5           5012.5         100957.7         56694.9         55965.8           5025.0         101030.1         56667.7         55928.8           5037.5         10110.3         56660.7         55932.0           5050.0         101146.3         56597.8         55864.6           5062.5         101256.8         56597.8         55869.0           5075.0         101356.3         56647.2         55918.5           5		4837.5	100047.5	56658.8	55929.3						
4862.5         100141.6         56653.0         55923.6           4875.0         100217.8         56327.9         55598.5           4887.5         100306.1         56430.3         55701.0           4900.0         100345.7         56499.6         55770.5           4912.5         100448.1         56545.1         55816.1           4925.0         100526.1         56561.5         55832.4           4937.5         100557.0         56697.7         55968.6           4950.0         100628.3         56730.3         56001.2           4962.5         100659.0         56688.8         55959.7           4975.0         100723.3         566607.3         55938.0           4987.5         100811.0         56567.0         55837.6           5000.0         100905.3         56604.6         55875.5           5012.5         100957.7         56694.9         55965.8           5025.0         101030.1         56657.7         55928.8           5037.5         101101.3         56660.7         55932.0           5050.0         101146.3         56597.8         55864.6           5062.5         101256.8         56597.8         55864.6 <td< td=""><td></td><td>4850.0</td><td>100113.5</td><td>56656.8</td><td>55927.4</td></td<>		4850.0	100113.5	56656.8	55927.4						
4875.0         100217.8         56327.9         55598.5           4887.5         100306.1         56430.3         55701.0           4900.0         100345.7         56499.6         55770.5           4912.5         100448.1         56545.1         55816.1           4925.0         100526.1         55661.5         55832.4           4937.5         10057.0         56697.7         55968.6           4950.0         100628.3         56730.3         56001.2           4962.5         100659.0         56687.0         55837.6           4975.0         100723.3         56667.0         55837.6           5000.0         100811.0         56567.0         55837.6           5000.0         100905.3         56604.6         55875.5           5012.5         100957.7         56694.9         55965.8           5025.0         101030.1         56657.7         55928.8           5037.5         101101.3         56660.7         55932.0           5050.0         101146.3         56597.8         55869.0           5075.0         101256.8         56597.8         55869.0           5075.0         10136.3         56647.2         55918.5           50		4862.5	100141.6	56653.0	55923.6						
4887.5       100306.1       56430.3       55701.0         4900.0       100345.7       56499.6       55770.5         4912.5       100448.1       56545.1       55816.1         4925.0       100526.1       56561.5       55832.4         4937.5       100557.0       56697.7       55968.6         4950.0       100628.3       56730.3       56001.2         4962.5       100659.0       56688.8       55959.7         4975.0       100723.3       56667.3       55837.6         5000.0       100905.3       56684.6       55875.5         5012.5       100957.7       56694.9       55965.8         5025.0       101030.1       56657.7       55928.8         5037.5       101101.3       56660.7       55932.0         5050.0       101146.3       56593.1       55864.6         5062.5       101256.8       56597.8       55869.0         5075.0       101356.3       56647.2       55918.5         5087.5       101503.3       56717.3       55988.7         5100.0       101356.3       5673.7       55988.7         5100.0       101553.8       56738.7       56010.4         5112.5		4875.0	100217.8	56327.9	55598.5						
4900.0100345.756499.655770.54912.5100448.156545.155816.14925.0100526.156561.555832.44937.510057.056697.755968.64950.0100628.356730.356001.24962.5100659.056688.855959.74975.0100723.356667.355837.65000.0100905.356694.955965.85012.5100957.756694.955965.85025.0101101.356657.755928.85037.5101101.356667.755932.05050.0101146.356593.155864.65062.5101256.856597.855869.05075.0101356.35647.255918.55087.5101503.356717.355988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		4887.5	100306.1	56430.3	55701.0						
4912.5       100448.1       56545.1       55816.1         4925.0       100526.1       56561.5       55832.4         4937.5       10057.0       56697.7       55968.6         4937.5       100628.3       56730.3       56001.2         4962.5       100659.0       56688.8       55959.7         4975.0       100723.3       56667.3       55938.0         4987.5       100811.0       56567.0       55837.6         5000.0       100905.3       56604.6       55875.5         5012.5       100957.7       56694.9       55965.8         5025.0       101030.1       56657.7       55928.8         5037.5       101101.3       56660.7       55932.0         5050.0       101146.3       56593.1       55864.6         5062.5       101256.8       56597.8       55986.7         5087.5       101503.3       56717.3       55988.7         5100.0       101356.3       56647.2       55918.5         5087.5       101503.3       56715.7       55987.5         5100.0       101553.8       56738.7       56010.4         5112.5       101629.4       56715.7       55987.5         5125.0		4900.0	100345.7	56499.6	55770.5						
4925.0       100526.1       56561.5       55832.4         4937.5       100557.0       56697.7       55968.6         4950.0       100628.3       56730.3       56001.2         4962.5       100659.0       56688.8       55959.7         4975.0       100723.3       56667.3       55938.0         4987.5       100811.0       56567.0       55837.6         5000.0       100905.3       56694.9       55965.8         5012.5       100957.7       56694.9       55965.8         5025.0       101030.1       56657.7       55928.8         5037.5       101101.3       56660.7       55932.0         5050.0       101146.3       56597.8       55869.0         5075.0       101356.3       56647.2       55918.5         5087.5       101503.3       56738.7       56010.4         5112.5       101629.4       56715.7       55987.5         5125.0       101748.0       56681.7       55953.3         5137.5       101834.9       56627.5       55899.0		4912.5	100448.1	56545.1	55816.1						
4937.5100557.056697.755968.64950.0100628.356730.356001.24962.5100659.056688.855959.74975.0100723.356667.355938.04987.5100811.056567.055837.65000.0100905.356604.655875.55012.5100957.756694.955965.85025.0101030.156657.755932.05050.0101101.356660.755932.05050.0101146.356597.855864.65062.5101256.856597.855864.65087.5101503.356717.355988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755933.35137.5101834.956627.555899.0		4925.0	100526.1	56561.5	55832.4						
4950.0100628.356730.356001.24962.5100659.056688.855959.74975.0100723.356667.355938.04987.5100811.056567.055837.65000.0100905.356604.655875.55012.5100957.756694.955965.85025.0101030.156657.755932.05050.0101101.356660.755932.05050.0101146.356597.855864.65062.5101256.856597.855869.05075.0101356.356647.255918.55087.5101503.356778.755988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		4937.5	100557.0	56697.7	55968.6						
4962.5100659.056688.855959.74975.0100723.356667.355938.04987.5100811.056567.055837.65000.0100905.356604.655875.55012.5100957.756694.955965.85025.0101030.156657.755932.05050.0101101.356660.755932.05050.0101146.356593.155864.65062.5101256.856597.855869.05075.0101356.356647.255918.55087.5101503.356717.355988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		4950.0	100628.3	56730.3	56001.2						
4975.0100723.356667.355938.04987.5100811.056567.055837.65000.0100905.356604.655875.55012.5100957.756694.955965.85025.0101030.156657.755928.85037.5101101.356660.755932.05050.0101146.356593.155864.65062.5101256.856597.855869.05075.0101356.356647.255918.55087.5101503.356717.355988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		4962.5	100659.0	56688.8	55959.7						
4987.5100811.056567.055837.65000.0100905.356604.655875.55012.5100957.756694.955965.85025.0101030.156657.755928.85037.5101101.356660.755932.05050.0101146.356593.155864.65062.5101256.856597.855869.05075.0101356.356647.255918.55087.5101503.356717.355988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		4975.0	100723.3	56667.3	55938.0						
5000.0100905.356604.655875.55012.5100957.756694.955965.85025.0101030.156657.755928.85037.5101101.356660.755932.05050.0101146.356593.155864.65062.5101256.856597.855869.05075.0101356.356647.255918.55087.5101503.356717.355988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		4987.5	100811.0	56567.0	55837.6						
5012.5100957.756694.955965.85025.0101030.156657.755928.85037.5101101.356660.755932.05050.0101146.356593.155864.65062.5101256.856597.855869.05075.0101356.356647.255918.55087.5101503.356717.355988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		5000.0	100905.3	56604.6	55875.5						
5012.0100101.150657.755928.85025.0101030.156657.755932.05037.5101101.356660.755932.05050.0101146.356593.155864.65062.5101256.856597.855869.05075.0101356.356647.255918.55087.5101503.356717.355988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		5012.5	100957.7	56694.9	55965.8						
5037.5101101.356660.755932.05050.0101146.356593.155864.65062.5101256.856597.855869.05075.0101356.356647.255918.55087.5101503.356717.355988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		5025.0	101030.1	56657.7	55928.8						
5051.0101101.05050.0101146.35050.0101146.356593.155864.65062.5101256.856597.855869.05075.0101356.356647.255918.55087.5101503.356717.355988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		5037.5	101101.3	56660.7	55932.0						
5062.5101256.856597.855869.05075.0101356.356647.255918.55087.5101503.356717.355988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		5050.0	101146.3	56593.1	55864.6						
5075.0101356.356647.255918.55087.5101503.356717.355988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		5062.5	101256.8	56597.8	55869.0						
5087.5101503.356717.355988.75100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		5075.0	101356.3	56647.2	55918.5						
5100.0101553.856738.756010.45112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		5087.5	101503.3	56717.3	55988.7						
5112.5101629.456715.755987.55125.0101748.056681.755953.35137.5101834.956627.555899.0		5100.0	101553.8	56738.7	56010.4						
5125.0       101748.0       56681.7       55953.3         5137.5       101834.9       56627.5       55899.0		5112.5	101629.4	56715.7	55987.5						
5137.5 101834.9 56627.5 55899.0		5125.0	101748.0	56681.7	55953.3						
		5137.5	101834.9	56627.5	55899.0						

Standard/Scotchman

file: 592\geophysc\mag\_99.wk4

			Magnetic F	Field (nT)
		Time	-	
Line	Station	(hr min sec)	Uncorrected	Corrected
	<u></u>	<u></u>		
	5150.0	101906.4	56631.5	55903.1
	5162.5	102014.4	56718.7	55991.0
	5175.0	102055.8	56705.6	55977.9
	5187.5	102137.8	56695.3	55967.6
	5200.0	102210.7	56749.9	56022.2
	5212.5	102241.8	56764.6	56037.1
	5225.0	102305.2	56741.6	56014.2
	5237.5	102349.8	56930.7	56203.2
	5250.0	102423.9	57074.6	56346.8
1200 W	5250 0 N	102615.4	56713.3	55985.2
1200 11	5237 5	102653 4	56793.4	56065.1
	5225.0	102719.6	56972.6	56244.4
	5212.5	102751.9	56960.3	56232.3
	5200.0	102857 7	56758.3	56030.2
	5187 5	102935 7	56735.5	56007.5
	5175.0	103020.7	56656.8	55928.9
	5162.5	1031101	56703.0	55975.2
	5150.0	103209.2	56706.8	55978.8
	5137.5	103310.3	56795.8	56068.0
	5125.0	103358.3	56721.5	55994.0
	5112.5	103513.9	56707.4	55980.5
	5100.0	103546.5	56710.7	55984.1
	5087.5	103630.5	56738.2	56011.8
	5075.0	103744.3	56679.2	55952.8
	5062.5	103842.0	56673.4	55947.0
	5050.0	103931.0	56657.1	55930.5
	5037.5	104036.4	56640.5	55913.7
	5025.0	104136.7	56662.8	55936.0
	5012.5	104219.6	56589.2	55862.4
	5000.0	104304.5	56607.2	55880.4
	4987.5	104418.3	56633.6	55906.8
	4975.0	104518.3	56654.0	55927.3
	4962.5	104646.8	56620.4	55893.3
	4950.0	104733.5	56594.5	55867.2
	4937.5	104843.1	56600.9	55873.5
	4925.0	104953.4	56591.0	55863.5

# Project 592

# Standard/Scotchman

file: 592\geophysc\mag\_99.wk4

			Magnetic <b>F</b>	Magnetic Field (nT)				
		Time	-					
<b>T</b> *	Ct-ti-	(hr min	Uncorrected	Corrected				
Line	Station	sec)						
	4912.5	105105.8	56549.6	55821.8				
	4900.0	105200.7	56630.3	55902.5				
	4887.5	105306.6	56592.0	55864.3				
	4875.0	105345.4	56615.8	55888.0				
	4862.5	105520.7	56652.2	55924.3				
	4850.0	105616.7	56598.2	55870.4				
	4837.5	105711.1	56590.1	55862.4				
	4825.0	105816.4	56557.1	55829.7				
	4812.5	110024.4	56549.1	55820.9				
	4800.0	110113.7	56857.1	56128.9				
	4787.5	110200.3	56713.8	55986.0				
	4775.0	110226.0	56579.6	55851.7				
	4762.5	110319.0	56548.3	55820.3				
	4750.0	110355.0	56731.0	56002.9				
1150 W	4750.0 N	110732.0	56442.1	55714.2				
	4762.5	110828.1	56773.6	56045.8				
	4775.0	110918.7	56829.9	56101.7				
	4787.5	110959.5	56891.3	56162.7				
	4800.0	111032.9	56604.5	55875.6				
	4812.5	111114.8	56607.8	55878.6				
	4825.0	111154.2	56664.4	55935.2				
	4837.5	111337.9	56463.0	55734.2				
	4850.0	111423.3	56557.1	55828.2				
	4862.5	111520.3	56591.7	55862.8				
	4875.0	111609.4	56560.1	55830.8				
	4887.5	111704.7	56627.3	55898.0				
	4900.0	111738.1	56575.0	55845.3				
	4912.5	111902.5	56684.5	55954.8				
	4925.0	112014.6	56696.7	55966.6				
	4937.5	112126.1	56645.0	55915.4				
	4950.0	112209.8	56642.1	55912.6				
	4962.5	112331.8	56663.5	55933.8				
	4975.0	112413.9	56629.4	55899.7				
	4987.5	112450.0	56613.3	55883.4				
	5000.0	112518.1	56689.6	55959.6				
	5012.5	112623.7	56601.9	55871.8				

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Standard/Scotchman

file: 592\geophysc\mag\_99.wk4

		Time	Magnetic Field (nT)						
Line	Station	(hr min sec)	Uncorrected	Corrected					
	5025.0	113036 5	56655 5	55924 7					
	5037.5	113119.5	56667.7	55936.9					
	5050.0	113158.9	56720.8	55990.0					
	5062.5	113254.1	56704.6	55973.4					
	5075.0	113351.6	56731.0	55999.9					
	5087.5	113430.6	56695.8	55964.7					
	5100.0	113528.3	56786.8	56055.4					
	5112.5	113558.1	56804.9	56073.2					
	5125.0	113632.8	56851.7	56119.9					
	5137.5	113715.9	56659.9	55928.1					
	5150.0	113746.7	56772.7	56041.2					
	5162.5	113858.0	56913.3	56181.3					
	5175.0	113934.1	56962.8	56231.0					
	5187.5	114051.5	56604.5	55872.2					
	5200.0	114121.5	56666.1	55933.7					
	5212.5	114208.2	56669.8	55937.5					
	5225.0	114239.4	56683.5	55950.9					
	5237.5	114323.1	56509.4	55776.7					
	5250.0	114406.5	56622.8	55889.9					
1100 W	5275.0 N	115305.0	56625.9	55892.0					
	5262.5	115358.2	56620.9	55886.4					
	5250.0	115434.5	56602.4	55868.1					
	5237.5	115514.5	56608.5	55874.4					
	5225.0	115609.3	56612.4	55878.2					
	5212.5	115710.5	56595.7	55861.6					
	5200.0	120323.4	56595.2	55861.4					
	5187.5	120424.0	56552.5	55818.7					
	5175.0	120505.7	56622.1	55888.4					
	5162.5	120602.6	56561.3	55827.3					
	5150.0	120648.7	56689.4	55955.4					
	5137.5	120757.5	56651.3	55917.4					
	5125.0	120840.2	56590.3	55856.8					
	5112.5	120936.3	56826.3	56092.9					
	5100.0	121031.8	57036.2	56303.0					
	5087.5	121129.5	56892.6	56159.5					
	5075.0	121217.9	56732.5	55999.2					

Standard/Scotchman

file: 592\geophysc\mag\_99.wk4

			Magnetic Field (nT)					
		Time (hr min						
Line	Station	sec)	Uncorrected	Corrected				
	5062.5	121301.1	56659.7	55926.9				
	5050.0	121351.8	56784.3	56051.4				
	5037.5	121422.9	56994.0	56261.0				
	5025.0	121456.5	56958.0	56224.8				
	5012.5	121545.2	56892.6	56159.2				
	5000.0	122524.0	56761.8	56028.9				
	4987.5	122643.1	56680.7	55948.0				
	4975.0	122717.8	56704.7	55972.3				
	4962.5	122745.2	56737.6	56005.2				
	4950.0	122830.6	56701.5	55969.3				
	4937.5	122920.3	56731.7	55999.6				
	4925.0	123031.4	56700.4	55968.0				
	4912.5	123111.6	56665.5	55933.3				
	4900.0	123206.8	56640.4	55908.2				
	4887.5	123259.2	56645.4	55912.5				
	4875.0	123351.9	56607.1	55873.9				
	4862.5	123516.4	56598.1	55864.6				
	4850.0	123617.4	56658.9	55925.2				
	4837.5	123706.2	56680.8	55946.9				
	4825.0	123738.4	56662.0	55928.1				
	4812.5	123814.2	56708.2	55974.2				
	4800.0	123845.0	56698.0	55964.0				
	4787.5	123919.6	56599.2	55865.0				
	4775.0	123953.2	56695.2	55960.7				
	4762.5	124028.0	56635.0	55900.4				
	4750.0	124107.1	56547.3	55812.8				
050 W	4750.0 N	124305.0	56667.4	55933.0				
	4762.5	124345.6	56634.4	55900.1				
	4775.0	124414.3	56592.1	55857.8				
	4787.5	124450.6	56637.6	55903.3				
	4800.0	124519.4	56617.7	55883.3				
	4812.5	124810.5	56647.1	55912.5				
	4825.0	124850.9	56681.6	55946.6				
	4837.5	124934.0	56665.0	55929.8				
	4850.0	125006.2	56655.4	55920.0				
	4862.5	125040.5	56710.7	55975.2				

# Standard/Scotchman

file: 592\geophysc\mag\_99.wk4

			Magnetic I	Field (nT)
		Time		
Line	Station	(III min sec)	Uncorrected	Corrected
	4976.0			
	48/3.0	125115.3	56681.1	55945.4
	400/.0	125207.9	56655.1	55918.9
	4900.0	125257.3	56660.2	55924.2
	4912.5	125355.9	56707.5	55971.3
	4923.0	125414.7	56/26.6	55990.2
	4937.3	125447.0	56740.1	56003.5
	4930.0	125541.1	56780.9	56044.0
	4962.5	125720.5	56832.0	56094.7
	4975.0	125806.5	56905.8	56168.3
	4987.5	130549.9	56910.6	56174.1
	5000.0	130644.6	56847.0	56110.8
	5012.5	130721.6	56824.2	56088.1
	5025.0	130747.1	56935.1	56199.0
	5037.5	130843.4	56989.0	56253.1
	5050.0	131058.9	56810.0	56075.0
	5062.5	131143.1	56692.3	55957.7
	5075.0	131218.3	56634.5	55899.9
	5087.5	131254.1	56575.2	55840.4
	5100.0	131335.9	56596.4	55861.7
	5112.5	131429.8	56664.8	55930.2
	5125.0	131459.5	56727.5	55992.9
	5137.5	131536.0	56838.6	56104.2
	5150.0	131607.6	56791.3	56057.0
	5162.5	131651.1	56656.6	55922.3
	5175.0	131729.0	56614.0	55879.8
	5187.5	131815.8	56721.3	55987.0
	5200.0	131853.1	56722.5	55987.9
	5212.5	132010.0	56488.8	55754.1
	5225.0	132144.7	56532.6	55797.6
	5237.5	132247.2	56573.1	55837.8
	5250.0	132318.2	56593.3	55857.9
000 W	5250.0 N	132932.7	56657.3	55921.0
	5237.5	133054.9	56716.9	55980.3
	5225.0	133142.3	56573.9	55837.2
	5212.5	133306.4	56577.6	55841.1
	5200.0	133415.0	56493.8	55757.6

Standard/Scotchman

file: 592\geophysc\mag\_99.wk4

			Magnetic Field (nT)						
		Time							
Line	Station	(in fifth sec)	Uncorrected	Corrected					
	£108.5		······						
	5187.5	133539.7	56864.0	56127.7					
	5175.0	133633.5	56715.2	55978.8					
	5162.5	133715.4	56754.8	56018.6					
	5150.0	133752.1	56673.5	55936.8					
	5137.5	133842.8	56736.6	56000.1					
	5125.0	134004.7	56658.3	55922.3					
	5112.5	134143.8	56753.4	56017.0					
	5100.0	134252.5	56703.7	55966.8					
	5087.5	134339.7	56666.0	55928.8					
	5075.0	134419.6	56688.6	55951.5					
	5062.5	134500.6	56577.1	55840.3					
	5050.0	134528.5	56603.8	55866.9					
	5037.5	134602.7	56758.6	56021.6					
	5025.0	134629.2	56591.0	55854.2					
	5012.5	134713.0	56672.8	55936.2					
	5000.0	134753.5	56724.4	55987.6					
	4987.5	134836.1	56894.6	56157.6					
	4975.0	134908.7	56817.7	56080.5					
	4962.5	134959.8	56984.5	56247.4					
	4950.0	135051.9	56916.1	56178.7					
	4937.5	135219.9	56926.7	56189.5					
	4925.0	135321.2	56802.1	56064.6					
	4912.5	135449.8	56682.5	55945.0					
	4900.0	135632.6	56601.2	55863.5					
	4887.5	135738.0	56747.4	56010.0					
	4875.0	135838.3	56834.9	56097.5					
	4862.5	135919.4	56830.0	56092.6					
	4850.0	140000.3	56739.8	56002.6					
	4837.5	140031.7	56743.7	56006 4					
	4825.0	140121.2	56629 1	55891.8					
	4812.5	140232.2	56624 5	55887.2					
	4800.0	140311.8	56626.4	55888 8					
	4787.5	140401.6	56659 1	55921 4					
	4775.0	140503 7	56693.2	55955 4					
	4762 5	140536 1	56640 5	55902.4					
	4750.0	140608.0	56615 8	55970 1					

# APPENDIX 4

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VLF-EM Values and Fraser Filter Data

Standard/Scotchman

VLF Survey

file: 592\geophysc\vlf\_99.wk4

		(Cu	Freq tter-Mai	luency ne - 24.0	kHz)	(	Freq Hawaii ·	uency · 21.4 kH	z)	Frequency (Seattle - 24.8 kHz)				
Line	Station	In Phase	Fraser Filter	Out Phase	Field Strength	In Phase	Fraser Filter	Out Phase	Field Strength	In Phase	Fraser Filter	Out Phase	Field Strength	
1300 W	5250.0 N	-13.6		38.2	4.7	6.9		13	82	5.2		1.2	105.5	
	5237.5	-13.2	-9	32.6	5.0	10.0	-2	2.5	8 5	91	-3	0.6	110.4	
	5225.0	-16.0	-9	29.1	5.1	7.4	-3	0.5	8.3	5.3	-5	-0.4	109.0	
	5212.5	-20.0	-1	30.4	5.0	7.9	-3	-0.4	8.2	6.0	-2	-17	106.9	
	5200.0	-17.7	1	29.9	5.2	6.5	-3	-0.8	8.1	33	0	-17	108.5	
	5187.5	-19.5	4	29.2	4.9	5.9	-1	-0.4	8.3	6.4	-2	-18	104.8	
	5175.0	-17.6	2	27.6	5.0	5.3	-2	0.9	8.4	3.2	-1	-1.2	1110	
	5162.5	-16.1	-4	25.7	4,9	6.2	-7	0.4	8.4	4.9	-4	-2.0	106.0	
	5150.0	-18.6	0	26.9	4.9	3.2	-4	-1.3	8.6	3.8	-5	-35	100.0	
	5137.5	-18.7	4	26.9	4.9	1.2	2	-3.5	8.4	0.5	-2	-36	108.6	
	5125.0	-15.7	-5	23.8	4.7	3.9	-3	-2.4	8.6	3.2	-8	-39	113.0	
	5112.5	-17.6	-12	24.4	4.8	2.3	-11	-2.8	8.6	-0.5	-13	-4.2	113.1	
	5100.0	-22.2	-6	25.2	4.8	-0.6	-11	-5.8	8.3	-3.8	-12	-4.4	108.1	
	5087.5	-22.6	-10	23.7	5.1	-3.8	-8	-5.8	8.4	-6.7	-8	-3.8	109.7	
	5075.0	-22.7	-16	22.9	5.0	-5.6	-6	-4.1	8.8	-91	-8	-6.0	110.2	
	5062.5	-31.8	-1	29.4	4.9	-7.1	-2	-7.4	8.2	-9.6	-6	-6.8	105.6	
	5050.0	-29.8	8	27.7	4.8	-7.8	2	-7.9	8.0	-14.4	Ř	-6.5	97.5	
	5037.5	-25.7	-1	32.0	4.6	-7.1	10	-4.9	7.7	-9.8	15	-5.0	99.8	
	5025.0	-27.7	8	31.8	4.6	-5.4	14	-3.3	7.7	-6.6	14	-3.0	92.6	
	5012.5	-28.5	H	31.5	4.6	0.2	9	-1.0	74	-2.2	9	-13	93.6	
	5000.0	-17.0	4	27.9	4.2	1.1	5	0.0	7.8	-0.4	7	0.0	97.0	
	4987.5	-28.1	10	26.5	4.6	2.5	1	-0.2	7.6	0.5	3	-14	98.1	
	4975.0	-13.8	5	26.9	4.3	3.5	-4	1.8	7.6	3.5	-5	-0.7	97.3	
	4962.5	-21.7	-5	28.9	4.7	1.5	-3	-2.4	7.9	-0.5	-2	-1.9	100.4	
	4950.0	-15.0	-15	25.9	4.3	0.6	0	-3.9	7.7	-0.6	4	-4.3	99.0	
	4937.5	-25.4	-11	28.4	4.7	1.8	0	-1.1	7.6	2.0	3	-3.2	94.7	
	4925.0	-26.4	1	28.9	4.6	0.5	1	-1.3	7.7	0.9	3	-2.4	94.7	
	4912.5	-24.6	2	28.1	4.4	2.1	4	-1.1	7.8	3.7	5	-2.4	99.2	
	4900.0	-26.0	7	28.3	4.5	1.4	11	-2.8	7.7	2.3	13	-3.0	99.3	
	4887.5	-22.8	15	28.5	4.4	5.5	12	-2.4	7.6	7.5	14	-4.3	92.7	
	4875.0	-20.9	11	33.0	4.5	8.6	9	0.1	7.7	11.3	6	-4.1	96.6	
	4862.5	-13.1	0	31.4	4.4	10.1	5	1.5	7.8	12.0	0	-2.7	96.1	
	4850.0	-20.1	0	29.3	4.5	13.4	-1	1.4	7.6	13.1	-2	-3.3	95.8	
	4837.5	-14.2	-3	29.1	4.6	10.1	3	-3.2	8.0	10.4	3	-4.9	101.7	
	4825.0	-19.0	-3	28.0	4.6	12.0	5	-3.1	7.8	12.4	9	-4.9	102.0	
	4812.5	-17.9	8	30.2	4.6	14.3	6	0.0	8.1	14.3	11	-5.8	105.3	
	4800.0	-17.8	18	25.5	4.7	12.9	14	-0.6	8.4	17.0	11	-5.3	106.9	
	4787.5	-11.6	17	26.4	4.8	19.6	0	4.4	8.7	20,9	-6	-2.9	113.8	
	4775.0	-5.9	-7	26.1	5.0	21.6	-32	4.7	9.5	21.7	-37	-1.7	125.0	
	4762.5	-6.8		24.2	5.5	10.8		-3.1	10.4	9.8		-6.4	133.4	
	4750.0	-17.3		17.2	5.4	-2.0		-8.9	10.2	-4.0		-10.2	124.7	
1250 W	4750.0 N	18.6		-26.3	4.9	2.2		-2.7	9.1	-1.6		-5.1	115.8	
	4762.5	22,4		-28.3	5.1	2.4		-3.3	8.9	-0.3		-6.4	110.1	
	4775.0	22.2	-2	-27.8	4.8	-0.3	4	-6.1	9.0	-5.9	8	-7.7	111.5	
	4787.5	20.3	7	-29.9	4.8	0.8	2	-6.9	9.0	-3.7	1	-9.0	115.6	
	4800.0	16.9	3	-29.0	4.7	-0.2	-8	-8.0	9.0	-3.2	-12	-9.6	119.9	
	4812.5	23.0	-20	-28.7	4.9	8.7	-23	-5.1	9.9	5.2	-28	-7.2	125.9	
	4825.0	33.7	-19	-27.2	4.7	14.6	-23	2.6	8.4	16.3	-31	-3.0	106.3	
	4837.5	25.4	1	-27.0	4.5	16.6	-9	2.8	8.2	17.0	-11	-2.4	103.2	
	4850.0	30.7	3	-26.9	4.7	15.8	-2	2.1	8.1	15.7	ł	-2.5	100.1	
	4862.5	25.9	3	-24.9	4.5	17.1	-2	3.9	7.8	16.4	-1	0.4	101.1	
	4875.0	27.6	4	-27.4	4.3	17.2	ł	4.5	7.7	17.7	I	0.9	95.0	

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Standard/Scotchman

VLF Survey

file: 592\geophysc\vlf\_99.wk4

		(Cu	Freq tter-Mai	uency ne - 24.0	kHz)	(	Freq Hawaii -	uency 21.4 kH	z)	Frequency (Seattle - 24.8 kHz)				
Line	Station	In Phase	Fraser Filter	Out Phase	Field Strength	In Phase	Fraser Filter	Out Phase	Field Strength	In Phase	Fraser Filter	Out Phase	Field Strength	
	4887.5	24.5	5	-26.4	4.2	14.4	6	1.3	7.6	13.2	10	-0.8	90.6	
	4900.0	24.4	8	-28.4	4.3	14.1	8	1.8	73	10.7	13	-12	87.8	
	4912.5	20.0	9	-23.5	4.1	10.0	9	0.1	74	7 2	11	-2.0	97.5	
	4925.0	20.3	-1	-28.6	4.3	10.0	4	-1.2	7.6	5.5	6	-3.2	89.5	
	4937.5	24.6	-9	-28.4	4.4	10.5	0	0.9	74	63	2	-0.9	914	
	4950.0	24.2	-6	-27.8	4.3	9.8	4	0.5	7.6	4.8	4	-0.4	91.4	
	4962.5	26.8	-1	-22.8	4.4	67	9	-0.6	73	2.8	8	-07	89.0	
	4975.0	22.7	-2	-27.6	4.4	5.0	5	-0.6	7.3	0.0	4	-0.5	94 7	
	4987.5	30.5	-14	-28.2	4.5	6.2	-7	1.5	7.6	3.5	-10	-1.2	010	
	5000.0	32.5	-12	-21.8	4.3	12.2	-8	3.8	7.2	9.0	-8	34	90.1	
	5012.5	32.8	0	-31.0	4.4	6.9	6	0.8	7.0	29	10	0.9	87.9	
	5025.0	30.6	6	-31.9	4.4	5.5	13	-0.6	7.0	-0.2	16	-0.7	86.4	
	5037.5	28.9	П	-28.3	4.3	L.I	11	-1.7	6.9	-3.4	13	-24	86.3	
	5050.0	24.0	10	-34.7	4.4	-0.1	16	-3.5	7.2	-67	16	-2.4	879	
	5062.5	25.2	14	-32.5	4.4	-8.8	19	-7.0	7.2	-12.8	18	-5.2	87.1	
	5075.0	14.0	24	-28.5	4.2	-9.3	7	-7.9	74	-15.4	. ° 9	-6.3	90.2	
	5087.5	11.5	14	-28.8	4.3	-6.5	-6	-5.0	77	-13.4	-3	-47	91.9	
	5100.0	13.3	-2	-24.9	4.4	-5.3	-5	-7.1	77	-12.0	-8	-4.2	96.6	
	5112.5	13.8	-5	-27.9	4.5	-5.4	-6	-49	7.8	-8.8	-10	-4 1	99.3	
	5125.0	16.0	-16	-23.6	4.3	-0.9	-13	-1.7	7.7	-6.5	-15	-2.4	99.5	
	5137.5	26.8	-23	-25.1	4.8	3.6	-14	-0.4	7.8	0.2	-16	_13	96.5	
	5150.0	26.1	-15	-26.8	4 7	43	-12	-0.1	7.9	0.2	-11	-0.6	95.4	
	5162.5	31.8	-5	-23.0	4.6	10.5	-11	-0.2	7.6	5 I	-10	-0.0	077	
	5175.0	26.2	7	-26.3	4.6	87	-2	-27	7.0	47	-10	-1.0	03.0	
	5187.5	24.9	5	-26.3	4.5	83	2	-2.4	7.8	35	2	-2.7	90.8	
	5200.0	27.9	-6	-26.5	4.6	87	-3	-15	7.5	47	-5	-2.8	95.3	
	5212.5	29.4	-8	-25.8	4.7	11.2	-8	0.5	77	8.8	-12	-2.0	93.5	
	5225.0	31.1	-5	-24.0	4.6	14.2	-9	23	74	113	-6	-0.1	92.1	
	5237.5	31.2	-8	-23.4	4 5	14.4	-6	1.2	7.6	83	-0	-0.1	80.3	
	5250.0	36.8	0	-28.9	4.6	16.9	0	4.4	7.1	13.9	-2	1.6	86.2	
1200 W	5250.0 N	0.6		30.8	4.4	12.1		2.0	7.5	12.3		0.2	94.5	
	5237.5	-8.8	-11	29.7	4.5	12.3	-3	1.2	7.6	13.0	-3	-1.4	91.7	
	5225.0	-8.8	E	28.7	4.4	10.4	-6	2.7	7.6	10.6	-5	-2.0	90.0	
	5212.5	-10.3	1	33.8	4.5	10.7	-7	1.4	7.3	11.5	-7	-2.7	90.8	
	5200.0	-6.0	-9	25.9	4.4	6.0	-1	-1.4	7.5	7.3	-3	-3.9	95.6	
	5187.5	-11.7	-13	25.9	4.4	8.0	-4	1.4	7.6	7.8	-4	-1.6	98.8	
	5175.0	-13.7	-8	26.2	4.4	7.5	-12	1.1	7.6	8.5	-14	-1.8	96.8	
	5162.5	-17.0	-6	28.1	4.7	2.6	-14	-0.7	7.8	2.2	-18	-2.9	97.7	
	5150.0	-16.8	-4	24.4	4.5	1.1	-13	-4.6	7.2	-0.3	-16	-4.8	93.2	
	5137.5	-20.0	-3	25.2	4.3	-4.8	-4	-5.0	7.2	-6.8	-4	-6.1	89.4	
	5125.0	-18.1	-6	23.7	4.3	-4.4	5	-6.2	7.0	-7.4	7	-5.6	86.0	
	5112.5	-21.3	-8	32.5	4.4	-2.9	2	-4.8	6.6	-3.3	0	-5.2	84.6	
	5100.0	-22.7	-9	28.6	4.2	-1.7	-	-4.6	6.6	-3.6	-4	-5.3	83.2	
	5087.5	-24.8	-3	29.2	4.3	-3.8	3	-6.5	6.4	-6.9	6	-4.8	80.6	
	5075.0	-27.7	3	29.5	4.4	-1.9	6	-4.7	6.1	-3.6	10	-3.8	79.0	
	5062.5	-23.1	6	34.0	4.2	-0.8	8	-2.3	6.4	-1.3	13	-2.8	76.5	
	5050.0	-26.2	13	31.6	4.1	1.0	15	-1.8	6.1	1.1	20	-1.6	74.8	
	5037.5	-18.4	5	37.7	4.2	4.4	17	-0.3	5.9	7.3	20	0.4	73.0	
	5025.0	-17.9	-5	33.0	4.2	10.9	8	6.1	6.1	12.9	12	4.0	75.1	
	5012.5	-21.3	0	32.6	4.5	11.2	-3	6.1	6.6	15.7	0	4.6	81.1	
	5000.0	-20.2	2	31.0	4.5	12.2	-5	7.7	6.6	16.6	-7	3.0	84.1	
	4987.5	-19.1	-5	31.6	4.4	6.9	2	3.6	6.8	12.3	-6	2.1	84.8	

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Contrast - 4-0 errorContrast - 4-0 errorContrast - 4-0 errorContrast - 4-0 errorContrast - 4-0 errorFilterPhaseFilterPhaseStrengthIn FraserContrast - 4-0 error4975.0-20.1-528.64.311.9-33.66.513.24962.5-23.8232.44.39.4-64.36.59.64937.5-21.5428.84.48.9-31.66.69.54937.5-21.5428.84.48.9-31.66.69.54925.0-20.9430.44.54.914.06.58.04912.5-17.2-430.64.37.62-1.66.46.14900.0-20.9-731.24.37.1-10.66.44.74887.5-21.2532.14.47.60-2.06.55.54875.0-23.91731.94.56.200.46.87.34862.5-13.0928.24.38.14.11.27.18.04850.0-14.9227.74.35.4-91.56.97.2-4825.0-13.0-1124.34.5-1.0-5.07.1-0.9-4825.0	-6 1.9 -4 2.2 -2 0.5 -5 0.0 -7 -0.3 -4 -1.9 2 -2.7 5 -2.3 2 -1.7 -3 -0.4 11 -0.6 15 -2.3 10 -4 4	Field Strength 81.1 84.3 88.2 87.7 84.1 85.9 85.1 87.8 85.3 87.9 93.4
LineStationPhaseFilterPhaseStrengthPhaseFilterPhaseStrengthPhaseFilter4975.0-20.1-528.64.311.9-33.66.513.24962.5-23.8232.44.39.4-64.36.59.64950.0-20.3231.74.26.4-21.76.79.54937.5-21.5428.84.48.9-31.66.66.58.04912.5-17.2-430.64.37.62-1.66.46.14900.0-20.9-731.24.37.1-10.66.46.14887.5-21.2532.14.47.60-2.06.55.54875.0-23.91731.94.56.200.46.87.348850.0-14.9227.74.35.4-91.56.97.2-4837.5-13.1-426.64.65.1-121.07.35.1-4825.0-13.0-1124.34.5-0.6-10-5.07.1-0.9-4812.5-18.9-627.24.5-1.0-6-4.36.9-1.9-4800.0-18.2-524.34.4-4.0-3-6.06.9-3.8-4775.0-21.9622.	-6 1.9 -4 2.2 -2 0.5 -5 0.0 -7 -0.3 -4 -1.9 2 -2.7 5 -2.3 2 -1.7 -3 -0.4 11 -0.6 15 -2.3 10 -4 4	Strength 81.1 84.3 88.2 87.7 84.1 85.9 85.1 87.8 85.3 87.9 93.4
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	81.1 84.3 88.2 87.7 84.1 85.9 85.1 87.8 85.3 87.9 93.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-4 2.2 -2 0.5 -5 0.0 -7 -0.3 -4 -1.9 2 -2.7 5 -2.3 2 -1.7 -3 -0.4 1 -0.6 15 -2.3 10 -4 4	84.3 88.2 87.7 84.1 85.9 85.1 87.8 85.3 87.9 93.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-2 0.5 -5 0.0 -7 -0.3 -4 -1.9 2 -2.7 5 -2.3 2 -1.7 -3 -0.4 1 -0.6 15 -2.3 10 -4 4	88.2 87.7 84.1 85.9 85.1 87.8 85.3 87.9 93.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-5 0.0 -7 -0.3 -4 -1.9 2 -2.7 5 -2.3 2 -1.7 -3 -0.4 11 -0.6 15 -2.3 10 -4 4	87.7 84.1 85.9 85.1 87.8 85.3 87.9 93.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-7 -0.3 -4 -1.9 2 -2.7 5 -2.3 2 -1.7 -3 -0.4 1 -0.6 15 -2.3 10 -4 4	84.1 85.9 85.1 87.8 85.3 87.9 93.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-4 -1.9 2 -2.7 5 -2.3 2 -1.7 -3 -0.4 11 -0.6 15 -2.3 10 -4 4	85.9 85.1 87.8 85.3 87.9 93.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2 -2.7 5 -2.3 2 -1.7 -3 -0.4 11 -0.6 15 -2.3 10 -4 4	85.1 87.8 85.3 87.9 93.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5 -2.3 2 -1.7 -3 -0.4 11 -0.6 15 -2.3 10 -4 4	87.8 85.3 87.9 93.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2 -1.7 -3 -0.4 11 -0.6 15 -2.3 10 -4 4	85.3 87.9 93.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-3 -0.4 11 -0.6 15 -2.3 10 -4 4	87.9 93.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	11 -0.6 15 -2.3 10 -4 4	93.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	15 -2.3 10 -4 4	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	10 -44	98.8
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		91.9
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-5 -3.6	95.7
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-3 -3.8	93.3
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-2 -3.8	94.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-2 -4.1	93.0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-3.5	97.2
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-3.9	98.5
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-3.2	97.6
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-3.2	93.0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-4 -3.5	92.7
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-6 -2.9	93.5
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-1 -2.4	89.3
4825.0       26.8       -6       -25.7       4.4       3.5       -4       -3.6       6.7       -3.3         4837.5       26.4       0       -27.6       4.6       2.4       -6       -2.1       6.9       -2.9         4850.0       25.1       -9       -25.3       4.5       9.8       -21       -2.8       7.2       4.9          4862.5       36.8       -22       -22.1       4.3       17.0       -18       5.2       6.8       15.2          4875.0       36.3       -9       -24.9       4.1       13.4       -5       6.7       6.2       7.4	0 -2.2	91.4
4837.5       26.4       0       -27.6       4.6       2.4       -6       -2.1       6.9       -2.9         4850.0       25.1       -9       -25.3       4.5       9.8       -21       -2.8       7.2       4.9          4862.5       36.8       -22       -22.1       4.3       17.0       -18       5.2       6.8       15.2          4875.0       36.3       -9       -24.9       4.1       13.4       -5       6.7       6.2       7.4	-1 -2.0	96.2
4850.0       25.1       -9       -25.3       4.5       9.8       -21       -2.8       7.2       4.9          4862.5       36.8       -22       -22.1       4.3       17.0       -18       5.2       6.8       15.2          4875.0       36.3       -9       -24.9       4.1       13.4       -5       6.7       6.2       7.4	-1.9	96.6
4862.5         36.8         -22         -22.1         4.3         17.0         -18         5.2         6.8         15.2         -           4875.0         36.3         -9         -24.9         4.1         13.4         -5         6.7         6.2         7.4	6 0.7	97.7
4875.0 36.3 -9 -24.9 4.1 13.4 -5 6.7 6.2 7.4	1 4.0	93.6
	.3 4.7	88.8
<b>4887.5 34.5</b> 0 -30.6 <b>4.2 18</b> 7 -4 2.3 6.0 <b>15.9</b>	.7 2.8	84.7
<b>4</b> 900.0 <b>38.5</b> - <b>3</b> -30.0 <b>4.2 15.5</b> - <b>2 4.8 5.7 13.4</b>	0 0.9	80.5
<b>4</b> 912.5 <b>3</b> 5.5 <b>2</b> -32.2 <b>4</b> .1 <b>1</b> 8.4 <b>1</b> 0.0 <b>5</b> .8 <b>9</b> .9	3 0.3	78. <b>4</b>
4925.0 35.1 5 -36.4 3.9 15.0 11 -3.6 6.1 6.5	4 -1.2	82.1
<b>4</b> 937.5 33.6 1 -34.7 3.9 7.9 21 -2.7 5.9 2.9	5 -3.2	82.8
4950.0 35.8 3 -33.8 4.2 4.8 14 -2.5 5.6 -1.5	3 -4.1	82.7
4962.5 29.7 13 -31.4 4.0 4.5 4 -2.9 6.0 -1.8	5 -3.6	87.9
<b>4</b> 975.0 <b>26.3</b> 10 -29.3 <b>4.1 4.7</b> 0 -1.8 5.9 -1.6	2 -3.2	85.2
4987.5 29.6 -6 -30.4 4.2 4.7 -5 -1.7 6.1 0.0	7 -2.5	87.0
5000.0 31.9 -12 -27.4 4.2 9.8 -14 -2.5 6.1 3.7 -	I -0.4	89.0
5012.5 35.9 -11 -27.7 4.2 14.0 -15 0.5 6.0 5.2 -	0 0.3	89.4
5025.0 36.3 -11 -34.3 4.1 15.0 -6 1.9 5.7 8.1 -	1 2.7	88.4
5037.5 42.1 -11 -32.3 4.1 14.8 2 1.3 5.8 11.9 -	3 3.3	84.0
5050.0 40.7 f -41.9 5.9 12.3 5 6.3 5.5 14.0	/ 4.1	85.2
5075.0 36.7 5 22.2 2.0 11.4 10 1.2 5.2 2.2	4 5.4	80.6
5097.5 36.2 7 21.5 4.1 5.7 12 2.5 5.7 2.5 5097.5 36.2 7 21.5 4.1 5.7 12 2.5 5.7 2.5	4 <i>5</i> .5	/6.8
51000 $207$ $11$ $210$ $40$ $72$ $5$ $22$ $(1)$ $50$	5 0.0 8 0.0	/8.3
SU25 30.7 11 - 51.0 + 0 / 7.5 5 - 5.2 0.1 5.0	a 0.0	80.3
512.5 51.5 7 -50.1 5.7 5.2 5 -5.4 5.7 -0.1 5125.0 26.5 14 .21.0 4.0 2.5 4 0.0 5.7 0.4	7 U.I 6 I D	61.0 70 4
51375 214 10 350 A1 56 A 40 60 05	ບ -1.8 ຊີ 2.4	/0.0 92 7
5150.0 26.1 -9 -30.6 4.1 5.7 .6 1.2 5.8 2.7	ט.צ- כ ז רי ד	03.1 84 5

**VLF Survey** 

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Standard/Scotchman

VLF Survey

file: 592\geophysc\vlf\_99.wk4

Line		(Cu	Freq tter-Mai	uency ne - 24.0	kHz)	(	Freq Hawaii -	uency 21.4 kH	z)	Frequency (Seattle - 24.8 kHz)				
	Station	In Phase	Fraser Filter	Out Phase	Field Strength	In Phase	Fraser Filter	Out Phase	Field Strength	In Phase	Fraser Filter	Out Phase	Field Strength	
	5162.5	30.9	-10	-29.8	4.0	8.3	-5	-2.4	6.0	3.2	-2	-3.3	85.5	
	5175.0	26.7	1	-32.6	4.3	7.8	-3	-4.0	61	0.9	-	-3.9	90.3	
	5187.5	29.7	-2	-29.0	4.2	93	-5	-3.2	6.2	4 5	-8	-3.9	97.8	
	5200.0	29.5	-6	-29.7	4 2	113	-8	0.1	61	77	-14	-43	90.8	
	5212.5	33 3	-11	-27.6	41	13.4	-11	0.4	63	11.5	-12	-2.8	04 7	
	5225.0	36.8	-13	-32.6	4 7	17.9	-13	0.4	59	13.0	-12	-2.0	00.5	
	5237 5	38.9	-15	-32.0	4.2	10.8	-15	-0.6	5.7	12.0	-,	-2.0	90.5	
	5250.0	37.3	-0	-33.4	3.9	13.8	-2	-0.0	5.7	7.9	7	-2.5	86.3	
1100 W	5275.0 N	-14.6		41.9	4.1	15.1		9.7	6.3	21.3		27	919	
	5262.5	-16.4	-4	37.3	4.2	18.9	-1	5.7	6.2	19.0	-11	12	92.5	
	5250.0	-18.7	3	35.0	4.0	18.6	-12	5.0	6.0	15.7	-6	-0.4	94.4	
	5237.5	-16.0	2	38.6	4.2	14.8	-13	31	61	13.5	-5	0.0	92.6	
	5225.0	-15.9	-3	32.5	41	10.9	-10	6.0	6.2	15.7	_9	-0.3	96.8	
	5212.5	-171	-6	33.8	4 1	93	-9	4 2	6.0	85	_3	-0.5	06.3	
	5200.0	-17.5	-12	40.2	4.0	6.6	-10	5.4	5.9	11.4	-7	-2.0	04 A	
	5187.5	-21.4	-7	37.2	4.1	5.0	-10	45	5.9	00	- 15	-1.5	27.7 80.6	
	5175.0	-21.4	-5	35.2	4.0	0.5	-10	3.6	5.9	3.5	-15	-1.1	07.0	
	5162.5	-24.7	-5	18.0	4.0	0.5	-0	3.0	57	3.0	-0	-1.5	00.0	
	5150.0	-21.1	-1	413	4.0	17	-2	5.7	5.6	17	2	1.2	93.J 80.7	
	5137.5	-27.0	8	41.5	4.0	-1.7		0.7	5.0	1.2	) 0	1.5	07.5	
	5125.0	-10.7	-0	27.0	3.0	1.5	-5	0.2	5.0	4.9	-0	3.3	89.3	
	51125	-24.5	-17	57.9	4.0	1.4	-9 0	9.3	6.0 5 9	2.9	-15	4.0	91.1	
	5100.0	-30.2	-5	20.0	4.I 2.0	-0.0	0	5.0	5.0	-3.2	-1	0.0	88.7	
	5097.5	-26.2	2	41.3	3.8	0.9	0	1.4	5.2	-1.8	2	2.5	84.5	
	5075.0	-29.7	4	40.8	4.0	1.9	5	1.0	5.2	-1.8	2	3.3	80.8	
	5073.0	-20.5	-2	40.0	3.9	0.7	2	/.5	5.5	0.0	8	4.0	89.3	
	5062.5	-27.9	-1	40.8	3.9	4.0	3	4.1	5.5	1.0	13	4.0	87.6	
	5050.0	-30.1	8	42.3	3.8	2.5	2	9.8	5.4	4.8	12	4.5	88.1	
	5037.5	-24.9	10	41.7	3.8	0.1	-/	6.2	5.7	8.8	-3	5.6	88.7	
	5025.0	-24.7	-10	43.1	4.0	3.4	-1/	6.7	5.6	8.7	-18	4.3	92.8	
	5012.5	-29.8	-4	34.7	4.1	-2.1	-9	1.1	6.0	2.1	-12	0.4	96.3	
	5000.0	-29.6	0	41.2	3.8	-3.1	3	-1.8	5.5	-3.0	5	-3.5	91.0	
	4987.5	-28.5	-4	35.8	3.6	-2.5	14	0.7	5.6	2.0	8	-3.6	88.6	
	49/5.0	-31.4	4	37.2	3.6	-1.5	16	1.4	5.4	1.8	6	-1.8	89.7	
	4962.5	-30.5	6	38.8	3.6	7.5	[	0.7	5.1	5.5	7	-0.6	89.5	
	4950.0	-25.6	2	41.0	3.6	4.0	5	1.6	5.6	3.9	15	-0.1	94.1	
	4937.5	-29.8	11	39.8	3.7	2.8	13	6.0	5.5	10.6	11	0.0	96.9	
	4925.0	-24.3	11	40.4	3.7	13.6	4	5.0	5.4	13.9	-1	0.8	91.2	
	4912.5	-20.3	7	<b>4</b> 0. <b>I</b>	3.6	6.1	7	7.2	5.5	11.1	-2	0.6	96.0	
	4900.0	-22.5	5	44.1	3.7	14.1	0	5.1	5.4	12.4	-6	2.8	94.9	
	4887.5	-14.8	-11	39.6	3.8	12.8	-20	5.1	5.8	10.7	-15	4.7	105.1	
	4875.0	-22.6	-12	37.1	3.9	7.2	-17	2.4	6.1	6.6	-15	2.9	106.8	
	4862.5	-25.7	-3	35.5	3.9	-0.7	-3	3.6	6.1	1.8	-9	2.0	101.8	
	4850.0	-23.4	-4	34.0	3.9	3.8	-3	-1.9	5.6	0.3	-6	2.2	105.2	
	4837.5	-27.8	3	35.4	4.0	0.0	-6	0.2	6.0	-1.3	-6	2.1	100.9	
	4825.0	-25.7	6	36.6	4.0	0.5	-3	-1.0	5.8	-2.3	-4	2.2	104.4	
	4812.5	-22.3	-4	33.9	3.9	-2.2	-5	-2.2	5.8	-4.5	6	2.0	102.4	
	4800.0	-25.3	-6	36.5	3.9	-0.1	-7	-1.2	5.7	-3.0	5	2.2	100.0	
	4787.5	-26.2	-2	35.6	3.9	-6.8	-4	0.6	5.8	2.3	-14	0.3	103.9	
	4775.0	-27.7	-1	33.8	4.0	-2.5	-9	-0.6	6.0	-4.4	-18	1.6	108.8	
	4762.5	-26.0		30.2	4.0	-8.0		-0.4	6.0	-9.8		-0.4	107.6	
	4750.0	-29.0		26.4	4.1	-9,9		0.4	6.1	-9.9		-2.3	108.2	

page: 4

Standard/Scotchman

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		(Cu	kHz)	(	Frec Hawaii	uency · 21.4 kH	z)	Frequency (Seattle - 24.8 kHz)					
Line	Station	In Phase	Fraser Filter	Out Phase	Field Strength	in Phase	Fraser Filter	Out Phase	Field Strength	In Phase	Fraser Filter	Out Phase	Field Strength
1050 W	4750.0 N	22.3		-30.7	4.0	-14		-6.3	63	-6.4			107.8
	4762.5	21.4		-32.8	41	-0.6		-4.2	6.0	-9.7		2.2	107.0
	4775.0	22.3	-4	-29.7	4.1	-0.3	-2	-3.2	6.0	-6.8	-5	2.0	111.0
	4787.5	25.6	-9	-27.7	4.0	0.2	-8	17	59	-3.6	-12	4.8	100.0
	4800.0	26.8	-4	-30.0	4.0	6.9	-15	-2.6	6.2	-0.5	_9	51	112.1
	4812.5	24.9	0	-26.9	3.9	7.7	-4	-1.8	5.8	-12	-6	54	105.5
	4825.0	27.7	-9	-26.9	3.9	3.6	3	2.6	57	27	-6	49	105.5
	4837.5	32.8	-11	-24.8	3.8	8.1	-3	-1.7	5.8	1.3	-?	5.8	109.2
	4850.0	30.9	2	-26.8	3.9	6.5	-1	-1.2	5.6	17	-1	43	107.1
	4862.5	28.1	3	-31.0	3.9	5.8	-3	4.4	5.0	29	-3	4.8	107.1
	4875.0	33.0	-4	-26.3	4.0	11.5	-12	-4.2	5.9	2.6	-1	47	104.4
	4887.5	29.5	-2	-27.6	3.6	13.0	-4	-19	5.8	31	-1	44	104.4
	4900.0	33.6	-7	-32.1	3.9	8.7	5	2.6	57	3 3	-1	51	106.0
	4912.5	35.8	-10	-31.9	3.9	11.3	-5	43	5 3	74	-8	47	106.8
	4925.0	37.3	-4	-34.2	3.8	15.1	-12	-3.2	5.5	7.4	-0	30	100.8
	4937.5	36.2	0	-34.3	3.7	16.9	.2	-4.2	51	84	-2	21	98.8
	4950.0	37.0	3	-33.3	3.8	99	15	1.2	5.0	85	5	13	90.0
	4962.5	33.7	7	-39.6	3.6	71	14	2.7	4.8	2.5	14	0.9	97.2
	4975.0	32.6	7	-35.6	38	5.6	7	-0.8	51	0.6	11	0.7	101.3
	4987.5	31.6	10	-37.8	3.7	4.0	2	-39	5.2	-11	8	-1.1	107.1
	5000.0	24.4	13	-32.0	3.6	6.5	-5	-9.8	5.6	-4 1	6	-1.1	102.1
	5012.5	26.4	-1	-33.8	39	8.2	-8	-77	57	-7.1	_4	-0.3	108.0
	5025.0	30.4	-14	-28 5	37	10.7	-4	-13	54	1.6	-12	-0.5	106.0
	5037.5	34.7	-13	-32.6	3.5	7.5	3	5.9	51	3.8	-9	7.2	105.6
	5050.0	34.8	-4	-34.8	3.8	8.4	-3	6.9	5.0	4 2	-3	71	105.0
	5062.5	34.1	2	-28.6	3.5	13.1	-3	-1.1	53	4.4	2	5.8	100.0
	5075.0	33.0	-1	-29.9	3.6	5.8	ц.	4 5	4.8	1.1	7	6.0	99.5
	5087.5	37.1	-2	-30.0	3.6	4.5	3	3.0	5.1	0.2	5	6.0	102.5
	5100.0	31.7	6	-29.4	3.7	11.9	-6	-1.3	5.3	0.4	2	77	101.5
	5112.5	32.1	4	-29.5	3.7	4.7	4	2.2	5.5	-0.8	-1	7.3	106.0
	5125.0	32.8	-9	-25.1	3.9	8.2	-6	5.4	5.5	2.7	-7	9.6	108.6
	5137.5	39.5	-13	-23.6	3.9	14.7	-10	5.1	5.2	3.7	-4	13.3	100.1
	5150.0	38.4	-6	-23.7	3.7	8.1	2	10.0	4.8	24	6	11.2	100.6
	5162.5	39.7	-6	-27.5	3.8	13.1	2	0.2	5.2	-1.8	10	10.4	97.4
	5175.0	43.8	-8	-24.2	3.7	7.9	1	7.9	4.8	-1.6	10	13.5	96.3
	5187.5	42.3	-2	-30.3	3.6	11.9	5	-5.6	5.1	-8.2	15	10.7	92.8
	5200.0	42.9	2	-34.8	3.4	4.1	9	1.2	4.7	-10.5	12	10.0	91.2
	5212.5	40.8	10	-37.1	3.6	7.0	-1	-6.7	47	-10.8	-1	3.0	98.5
	5225.0	34.7	9	-37.7	3.5	10.3	-7	-71	5.4	-6.7	-4	1.5	100.8
	5237.5	39.7	2	-34.1	3.8	7.8	1	-10.1	5.4	-10.6	5	-0.6	102.1
	5250.0	34.3	2	-42.3	3.6	8.2	•	-12.0	5.2	-12.1	5	-0.5	105.1
1000 W	5250.0 N	-29.7		57.7	3.3	1.9		6.4	4.4	-2.8		9.6	88.4
	5237.5	-33.0	13	53.7	3.5	-6.0	-1	12.9	4.7	-5.3	9	9.4	93.2
	5225.0	-27.0	15	46.5	3.6	-3.6	16	12.7	4.9	-3.2	18	10.1	95.8
	5212.5	-23.1	6	49.6	3.5	-1.2	13	15.7	4.8	3.9	13	13.0	94.3
	5200.0	-22.0	2	52.3	3.5	7.3	-1	12.3	4.7	5.3	11	16.0	93.1
	5187.5	-21.7	3	52.1	3.6	1.1	14	17.6	5.2	7.9	15	15.5	99.4
	5175.0	-21.2	10	44.3	3.8	4.5	22	17.2	5.4	11.9	11	15.7	100.3
	5162.5	-19.2	6	47.0	3.8	17.6	-2	15.7	5.1	16.0	-7	16.7	108.2
	5150.0	-13.8	-8	47.6	3.8	10.1	-13	15.9	5.4	14.5	-20	16.1	113.7
	5137.5	-20.5	-9	36.5	4.2	10.5	-18	5.0	5.6	6.7	-14	6.8	116.7
	5125.0	-20.0	-6	38.6	3.9	4.5	-14	3.7	5.3	3.6	-4	6.1	112.9

VLF Survey

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Standard/Scotchman

VLF Survey

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Line		(Cu	Freq tter-Mai	uency ne - 24.0	kHz)	(	Freq Hawaii -	uency 21.4 kH	z)	Frequency (Seattle - 24.8 kHz)			
	Station	In Phase	Fraser Filter	Out Phase	Field Strength	In Phase	Fraser Filter	Out Phase	Field Strength	In Phase	Fraser Filter	Out Phase	Field Strength
	5112.5	-23.7	-6	38.5	3.7	-1.9	6	8.8	5.3	4.1	0	5.2	112.3
	5100.0	-22.6	-7	42.1	3.7	2.8	9	3.8	5.1	2.5	-1	5.8	109.7
	5087.5	-26.6	2	42.8	3.7	5.7	-5	5.9	5.4	5.1	1	6.4	1115
	5075.0	-27.0	7	42.3	3.8	3.7	-5	4.7	5.1	0.6	5	8.3	110.0
	5062.5	-20.4	-6	39.3	3.7	0.2	5	9.4	5.2	7.9	-4	5.2	112.0
	5050.0	-25.8	-13	39.9	3.9	4.2	2	2.2	5.1	3.2	-5	3.6	107.3
	5037.5	-27.8	-4	36.1	3.7	4.3	-8	1.5	5.2	1.8	1	3.5	109.9
	5025.0	-31.2	3	41.1	3.9	2.0	-9	0.0	5.3	4.0	-3	0.4	107.3
	5012.5	-26.3	-2	41.7	3.7	-1.9	3	5.5	5.2	1.7	-3	1.4	107.2
	5000.0	-29.8	0	38.2	3.7	-0.5	5	7.4	5.4	1.1	3	1.8	115.3
	4987.5	-30.0	6	38.9	3.8	4.0	5	0.1	5.0	1.2	14	2.4	108.5
	4975.0	-25.9	-1	43.0	3.5	-1.3	18	9.3	5.2	4.9	13	1.6	108.1
	4962.5	-28.3	-1	39.3	3.6	10.1	11	2.8	5.0	11.0	3	0.8	106.4
	4950.0	-28.7	8	37.9	3.9	10.6	-13	3.1	5.3	8.4	-6	2.4	110.9
	4937.5	-26.4	8	35.5	3.7	9.2	-26	3.0	5.3	10.5	-15	2.0	112.9
	4925.0	-23.1	-2	41.6	3.7	-1.0	-9	5.1	5.7	2.8	-9	3.0	121.5
	4912.5	-23.6	-9	39.9	3.7	-4.7	7	7.1	5.7	1.5	3	2.8	114.2
	4900.0	-27.8	-5	37.4	3.7	4.1	2	2.1	5.1	2.8	5	6.2	113.4
	4887.5	-27.7	3	37.7	3.9	-3.0	9	9.1	5.7	4.4	6	7.4	115.0
	4875.0	-28.2	11	36.1	4.0	3.9	10	4.2	5.3	4.9	5	7.4	115.1
	4862.5	-24.4	10	39.7	3.8	6.2	-1	6.5	5.3	8.2	3	6.7	112.5
	4850.0	-20.5	1	40.5	3.8	4.7	-7	5.5	5.0	6.4	-4	7.1	118.2
	4837.5	-22.5	-1	36.5	4.0	4.0	-10	4.0	5.7	9.9	-16	3.6	117.2
	4825.0	-21.8	-2	32.7	3.9	-0.1	-13	2.2	5.6	0.7	-12	8.0	123.1
	4812.5	-22.2	-3	30.3	3.9	-1.5	-12	1.7	5.7	-0.1	-2	6.0	122.6
	4800.0	-24.2	-1	30.7	4.0	-7.2	-5	4.9	5.6	-1.1	0	5.1	121.6
	4787.5	-23.0	-2	31.3	3.9	-6.3	1	6.7	6.0	-0.7	-4	5.7	120.7
	4775.0	-24.6	-8	32.9	4.0	-7.0	-2	6.8	5.9	-0.9	-11	3.5	122.8
	4762.5	-24.4		30.0	4.0	-5.4		-0.2	5.6	-5.1		4.4	125.5
	4750.0	-31.0		31.2	4.1	-9.8		-2.2	5.7	-7.6		1.3	126.4

page: 6



Dec.1/1999 REVISION

592/geoc\_592dwg

Osoyoos <sup>UTM:</sup> 11 Figure: 3





4

# 26,145 Dec.1/1999 REVISION 592/geoc\_592dwg Consultants Osoyoos UTM: 11

Figure: 4



