120082

ASSESSMENT REPORT

MAGNETOMETER SURVEY ON BARKER AND AGATE CREEKS KLONDIKE MINING DISTRICT

Claims P11010-11013, P11015, P11016

NTS SHEET 115-O/2
"Scroggie Creek"

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for
HAVILAH GOLD MINES LTD.

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ABSTRACT

A number of fairly strong magnetic anomalies were found during a magnetic survey on Barker and Agate Creeks, Yukon Territory. It is probable that the anomalies originate from fluvial concentrations of the mineral Magnetite. As such concentrations are known to contain placer gold, it is recommended that a field program be conducted during mining operations to determine the possible correlation. If the relationship is established, magnetic surveys in the area, possibly combined with other geophysical methods may lead to considerable savings in time and effort in the search for placer deposits. The low environmental impact of the magnetic method and other geophysical methods constitutes an attractive alternative to more destructive sampling techniques.

CONTENTS

1. PURPOSE

The purpose of this work was to indicate the probable locations of paystreaks within the survey area using a proton precession magnetometer/gradiometer. Based on the common association of the black sands (magnetite) and placer gold, anomalous magnetic responses from shallow sources often provide indications of such locations, particularily in the areas historically known to bear gold deposits.

2. SCIENTIFIC BACKGROUND

Very precise measurements of the magnetic fields are possible with the Proton Precession Magnetometer, an electronic instrument utilizing the pronciple of spinning nuclei of hydrogen in a hydrocarbon fluid such as kerosene or alcohol. By briefly subjecting the hydrocarbon to a sufficiently strong magnetic field from a coil surrounding the sensor, the protons in the sample are forced into alignment consistent with the direction of the applied field. When the field is removed, the protons precess about the earth's magnetic field with the frequency which is proportional, through the so called gyromagnetic ratio of the proton, to the strength of that field. This frequency can be monitored, as the precessing protons induce in the

sensor coil a small current which is sent to the processor and converted into the Total Magnetic Field (TMF) measurement.

By the physical principle on which the instrument is desiged, the Proton Precession Magnetometer is an omnidirectional device, hence it provides only the magnitude of the vector magnetic field and, in general, the reading will be independent of the sensor attitude. (In reality, there may be a degradation of the signal strength but not necessarily the reading accuracy if the sensor is held in a manner different from that reccommended by the manufacturer).

In order to gain some insight into what is being measured, it is important to consider quantitatively the fields involved. In most field situations, the magnetometer reading represents the total of a number of vector components of the magnetic field at any given location. One of these components, the earth's magnetic field (emf), is present in any field situation, and depending on the location, varies between about 30,000 gamma (0.30 gauss) at the Equator to about 60,000 gamma in the polar regions. The vector has a general N-S direction and its inclination varies from horizontal at the Equator to almost vertical around the poles

The other two types of magnetism commonly encountered in the field are induced and prermanent magnetisation. The former is generated by the emf in most substances but is significant only in ferromagnetic (eg. iron) and ferrimagnetic (eg. magnetite) materials. It acts in such a way that it reinforces the external field inducing it. The permanent magnetisation originates in some natural substances, such as magnetite, from heating to temperatures which are suficient to subject the elementary magnetic domains to alignment in the direction of the ambient magnetic field. The permanent magnetisation needs not be in the direction of the emf, and in most cases it has a different orientation. The induced and permanent magnetisation constitute what is known as the magnetic anomaly.

The strengths of most of magnetic anomalies encountered in the field ranges from a few gamma to a few tenths of gamma. According to the laws of vector addition, the resulting vector magnetic field will be:

a) by far dominated by the emf, whose strength is thousands of times that of a typical anomaly.

b) to a very good approximation, considered to have the same direction as the original emf, therefore its magnitude will be changed only by the component of the anomalous field in the direction of the emf.

It is worthwhile to note, that if one consideres even a fairly strong anomalous field at the right angles to the emf, such field will not give anomalous readings.

Magnetite is the most common naturally occuring magnetic substance. Derived from igneous rocks in the process of erosion, it is often found in fluvial deposits in the form of "black sand". Detrial grains usually have the size that ranges from fine to coarse sand. Magnetite is black in colour, has a black streak, hardness of 6, and specific gravity of 5.2. Due to its high specific gravity, Magnetite "black sand" migrates slower than lighter materials and tends to accumulate in the same places as other heavy minerals. Having the volume magnetic susceptibility of 0.3 cgs, magnetite rates, in terms of magnetic properties, between the non-magnetic substances (appx. 10^{-6} cgs), and the ferromagnetic materials such as iron alloys, which show susceptibilities varying between 1 and 10^{6} cgs.

Depending on the energy and the sorting properties of the environment of deposition, magnetite will form local concentrations or be disseminated more or less uniformly in the fluvial material. Naturally, high concentrations of magnetite will produce stronger anomalous fields, and in the areas known to carry gold, constitute a logical target for further investigations. The distinct magnetic character of the mineral and its common association with placer gold

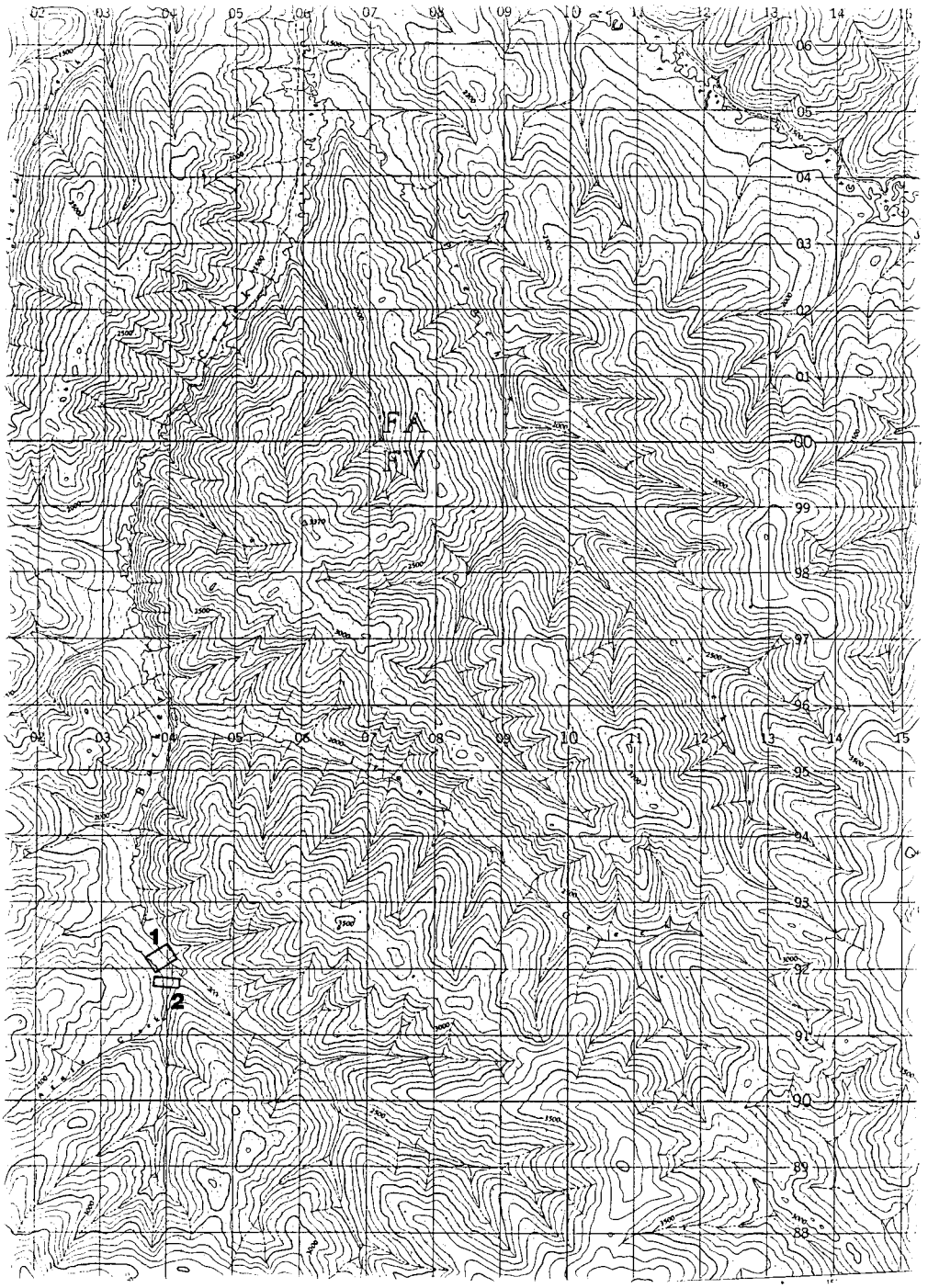

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FIG. 1

lend validity to magnetic prospecting.

3. LOCATION

Barker Creek, a tributary of the Stuart River, is located in the Klondike Mining District of the Yukon, seventy miles (115 km) south of Dawson City. Approach to the area is by air or, in the wintertime, by a rour wheel drive road from Pelly Farm on the Klondike Highway. Agate Creek is a tributary of Barker Creek. The surveys described in this report were conducted in the immediate vicinity of the confluence of the two creeks on the claims P11010-P11013 and P11015, P11016 (see Fig.1)

4. INSTRUMENTATION AND PROCEDURE

The instrumentation involved in the survey consisted of two OMNI IV proton precession magnetometers manufactured by EDA Instruments Inc. of Toronto, Ontario. The field unit had the gradiometer capability. The second instrument was configured for the base station operation. Additional gear consisted of battery chargers and a printer.

The survey on Barker Creek (Fig.1, location 1) was ran on chained grid with the line separation of 100 ft and reading separation of 25 ft. The reconnaissance survey on Agate Creek was done on a "pace and compass" grid with an intended line separation of 100 ft and reading spacing of

25 ft. The height of the sensor staff was 2.4 m at all times. Attention was paid to the magnetic objcts in the area as these could contaminate the readings of the magnetometer. Locations of those objects are indicated on Maps 1 and 2. The base station was set to take readings every 15 seconds. The timing of the field readings at Agate Creek was synchronised to a fraction of a second with the readings of the base station. On Barker Creek the readings were not synchronised in the above manner since it was decided that the small scale of of the emf variations at the time of the surveys did not warrant spending the additional time required by the former approach. At the end of the day's work the two instruments were connected by a cable and the field data automatically corrected for the diurnal fluctuation of the emf. It must be noted that the instruments performed admirably in temperartures between -10 and -20 deg. C.

5. GEOLOGIC SETTING

The area of the survey appears to be underlain by the rocks generally referred to as the Klondike Shist. Three rock samples were collected in the Barker Creek survey area. All three came from the base of a prominent bench on the left hand side of the creek valley (see Map 1). After a visual examination of the samples, they were classified as Quartz-Sericite Shist, with a progressive increase of felsic minerals from sample 1 to 3. Feldspar augen was

observed in the outcrop at location 1. No rock samples were collected during the reconnaissance survey on Agate Creek.

The bench, representing a remnant of a Tertiary valley bottom (Milner, 1980?, Copeland, 1986) is overlain by poorly sorted brown gravels referred to by Bostock (1935) as "Tertiary and Modern". Visual examination of the gravels exposed along a trench cut near L10S, 6+00W (Map 1) showed an extreme weathering of some pebbles apparently originating from a Klondike Shist-type source rock. Upon touching, the pebbles tended to disintegrate into mica and sand. Such degree of weathering may be indicative of an extreme rate of erosion, perhaps due to the freeze-thaw cycle, or it may confirm the considerable age of the bench gravels. Poor sorting (from silt to boulder size particles) of the gravels suggests multiple sources of the constituents as well as the high energy of the depositional environment. Observed rounding ranged from angular to well rounded. Rock types varied from massive quartz, through quartz shist to volcanics.

The gravels are gold bearing and were placer mined in various periods since the beginning of the Century producing some of the coarsest nuggets in the Klondike (Copeland, 1986). Recent trenching and bulk sampling confirms the potential of the bench gravels to produce placer gold.

The present valley bottom fluvial deposits are likely to be of more recent origin, however some of the material undoubtedly originates from the secondary erosion of the bench gravels.

6. RESULTS AND INTERPRETATION

After the diurnal correction and elimination of the possibly erroneous readings, the data were plotted in the form of contour maps. The resulting Total Magnetic Fields (TMF) for the Barker Creek and the Agate Creek surveys are shown in Maps 1 and 3. The Vertical Magnetic Gradient (VMG) is displayed in Map 2 for the Barker survey. The Agate survey gradient maxima are shown on the TMF Map 3.

a) Barker Creek-Results

Map 1 shows contours representing the Total Magnetic Field distribution at the Barker Creek survey area. Some ground surface and artificial objects are also shown in the map to facilitate the interpretation.

It was determined that to be considered anomalous, the TMF within the area of the map had to exceed 40 gamma (i.e. 58,600+40) or be lower than 30 gamma. On this assumption, the 30 to 40 gamma range represents . the "background" magnetism of the location.

A number of magnetic anomalies show on the map, notably a double 100 gamma anomaly at the bottom of the bedrock drain (labelled as "Gully" on Map 1). It is felt that a 70-gamma high at L6S, 3+00W is an extension of the same trend. There is a 10-gamma low at L5S, 2+00W. Another 100-gamma anomaly is located at L6-7S, 8+50W. In its immediate vicinity (L8S, 7+50W) a 20-gamma low can be seen followed by a 60-gamma high at approximately L9S, 7+00W. At L9S,10+00W a third 100-gamma high is present. It tapers off to 80 gamma at L11-12, 8+50W and continues to L13S, 9+00W at 70 gamma. A 20-gamma low centres at the "creek" around L1S, 8+00W. An apparently isolated 20-gamma anomaly is pesent at L12S, 5+00W. A weak 50-gamma anomalous field is also present NE of the baseline trending from L15S,2+00E to L11S, 4+00E.

Referring to Map 2, "Vertical Magnetic Gradient", it is possible to see that, with only minor exceptions, the anomalous TMF of Map 1 corresponds to the anomalous magnetic gradients. The most apparent gradients are located at the base of the bedrock drain and in the vicinity of the sampling trench at L7-8S, 8+50W. The maximum VMG at these locations are 8 and 13 gamma. A strong 7-gamma gradient matches closely the 70-gamma TMF at L6S, 8+00W. A -7-gamma gradient at L8S, 7+50W lies at the 10-gamma TMF low in the trench area. A mild 5-gamma VMG coincides.with the location of the 100-gamma TMF at L9S, 10+00W. To the East, a broad

8-gamma gradient overlies the 70-80-gamma TMF near the trench at L12-13S, 8+50W. The location of a -4-gamma VMG matches that of the 20-gamma TMF low near the creek. A small negative gradient at L5S,7+30W has a 10-gamma equivalent on the total field map. Some rather weak TMFs appear to have relatively strong VMGs, such as those at L12S, 2+70E and L15S, 2+70W. Some quite strong gradients appear in places with little or no appreciable TMF. For example, the 10-gamma VMG at L5S, 4+60W corresponds to a diffuse 60-gamma high in the TMF. An isolated 4-gamma gradient near the base of the bedrock drain appears to have no definite equivalent in the TMF. Similarly the -5-gamma VMG near the location of rock sample 3 has no such equivalent.

b) Barker Creek-Interpretation

Due to the bipolar nature of the magnetic phenomena, magnetic anomalies tend to have a more complicated character than other types of anomalies, such as, for example, gravity. This bipolar nature will manifest itself in a magnetic high-low pair often encountered in the field. There are several examples of this behaviour in the TMF Map 1. For instance, each 100-gamma anomaly has a neighboring 10 or 20-gamma low. These "pairs" will be treated here as one TMF anomaly. For this reason, the TMF anomaly at L9S, 10+00W will be interpreted as extending.SE to include the low at the creek at L15S, 8+00W. The next strong anomaly,

which has a high of 100 gamma centered at L6-7S, 8+00W, will be extended to include the 20-gamma low on the other side of the trench and a 60-gamma high immediately to the SE. The third anomaly with the highs at the base of the bench extends towards a 70-gamma high at L6S, 3+00W and continues NW to incorporate the 10-gamma low at L5S, 2+00W.

Strong magnetic gradients idicate high concentrations of magnetic material or a proximity of less concentrated sources. There is an inherent nonuniqueness involved in the interpretation of the magnetic fields. Theoretically it is possible to have an infinite number of sources give rise to the same type of anomaly.

However, there appear to be only two probable explanations to the magnetism at Barker Creek. The first assumes that the magnetic anomalies are caused by concentrations of magnetite in the gravels overlying the area. The second possible explanation is based on the assumption that the underlying bedrock includes magnetic bodies, such as dikes, containing disseminated magnetic minerals. If that is the case, the surface anomalies will reflect the locations of these bodies, their proximity to the ground surface, as well as concentrations of the magnetic particles.

The placer deposit scenario is supported by the followinf facts:

1) Black sands are common in the gravels at Barker Creek, often in very high concentrations.

2) The gravels have been successfully mined for placer gold in various periods of time since the beginning of the Century.

3) Old channels have been observed in the bedrock underneath the bench gravels and contained significant concentrations of gold.

4) 11.91 oz of gold in 474 cu yd were recovered in the trench located in the immediate vicinity of the 100-gamma anomaly at L6-7S, 8+50W. Placer gold was also recovered at 0.090 oz/cu yd at the location of the 20-gamma TMF low on the opposite side of the same trench. (Other trenches shown on Map 1 were not sampled).

There is no evidence to support the "dike" scenario. In the two trenches located at L8-9S, 5+50W and L7-8S, 7+50W the exposed bedrock consisted of highly friable shist with some more resistant "reefs" evidently of the same composition (private communication with Mr. Larry Bratvold, owner of the property).

As noted earlier, the three rock samples collected by the author at the base of the bench belonged to the

category of shist common in the area. No outcrops having different composition were observed.

On the basis of the above it is concluded that the observed magnetic anomalies can be interpreted as originating from the local concentrations of magnetite, and that by association, such concentrations may indicate locations of placer gold.

c) Agate Creek-Results

Map 3 represents the results of a reconnaissance TMF/VMG survey on Agate Creek. The threshold for a TMF high was established at 50 gamma with the background TMF of 30 to 40 gamma, although no field values below 30 gamma were observed.

Two prominent magnetic anomalies are centered at L6S, 9+50W and at L5S, 12+50W. Weaker 60-gamma anomalies are located at L5-7S,3+50W, L4S, 3+00W and L2S, 3+00E. There also appears to be an onset of an anomaly at L7S, 0+00.

d) Agate Creek-Interpretation

On the basis of their proximity, the two strongest anomalies may be considered as one unit. However, in the absence of any evidence to comfirm its probable origin, it is impossible to state with certainty what causes the field

at this location to deviate from normal.

It is nevertheless reasonable to suggest that such a stong TMF may have its origin in the black sand concentrations, especially if one consideres the proximity of the location to the evidently rich deposits on Barker Creek.

7. CONCLUSIONS AND RECOMMENDATIONS

A number of fairly strong magnetic anomalies were encountered during a magnetic syrvey on Barker and Agate Creeks. It is probable that the anomalies originate from fluvial concentrations of magnetite. As such concentrations are known to contain placer gold, it appears worthwhile to correlate the findings with the results of a sampling program carried out during mining operations. Such a program should include an attempt to determine the following:

- locations of high concentrations of black sand
- locations of concentrations of placer gold
- depths to the above deposits
- presence and locations of burried channels

If the correlation between magnetic anomalies and placer gold concentration is established, magnetic prospecting in the area may provide useful information in

the search for the deposits. It should be mentioned, that the method is nondestructive and relatively fast. Further reinforced by such geophysical methods as the subsurface interface radar or the reflection seismic, magnetic surveys may provide information which will lead to significant reductions in exploration costs. All these methods cause very little or no damage to the environment.

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APPENDICES

FIELD DATA, BARKER CREEK

BARKER CREEK

EDA OMNI-IV Tie-line MAG Ser #255030
TOTAL FIELD DATA (Base stn. corrected)
& GRADIENT
Date: 7 FEB 87
OPerator: 5001
Reference field: 58610.0
Datum subtracted: 58000.0
Records: 607
Bat: 15.4 Volt Lithium: 3.48 Volt
Last time uPdate: 2/07 9:38:00
Start of Print: 2/07 15:20:24

Base stn. Pos: 0 Line: 0
Last time uPdate: 2/07 9:38:00
Start of Print: 2/07 15:20:23

#1	595.6	.00	-2225.9	9:38:41	88
#2	-592.8	.00	-1037.5	10:05:39	88

Line: -500 Date: 7 FEB 87 #3

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	-595.6	.00	-1034.7	10:12:42	88
0	-595.2	.00	-1035.1	10:13:20	88

Line: -600 Date: 7 FEB 87 #5

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	-595.2	.00	-1035.1	10:14:03	88
0	-596.3	.00	-1034.0	10:14:25	88

Line: -700 Date: 7 FEB 87 #7

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	-596.6	.00	-1033.7	10:15:04	88
0	-596.5	.00	-1033.8	10:15:11	88

Line: -800 Date: 7 FEB 87 #9

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	627.7	.03	-1033.6	10:16:19	88
	-0.9				
0	627.8	.03	-1033.8	10:16:32	88
	-1.0				

Line: -900 Date: 7 FEB 87 #11

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	631.6	.03	-1033.8	10:17:34	88
	-0.6				
0	631.3	.04	-1033.6	10:17:47	88
	-0.3				

Line: -1000 Date: 7 FEB 87 #13

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	633.0	.03	-1034.0	10:18:33	88
	-1.4				
0	633.1	.04	-1034.4	10:18:45	88
	-0.7				

Line: -1100 Date: 7 FEB 87 #15

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	629.5	.03	-1034.1	10:19:29	88
	-0.8				
0	629.4	.04	-1033.8	10:19:40	88
	-0.1				

Line: -1200 Date: 7 FEB 87 #17

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	633.2	.03	-1032.7	10:20:30	88
	-1.2				
0	633.3	.03	-1032.9	10:20:45	88
	-0.3				

Line: -1300 Date: 7 FEB 87 #19

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	636.5	.05	-1033.6	10:21:36	88
	0.0				
0	636.7	.03	-1033.8	10:21:47	88
	0.2				

Line: -1400 Date: 7 FEB 87 #21

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	639.4	.03	-1033.3	10:22:31	88
	0.0				
0	639.6	.03	-1033.4	10:22:42	88
	1.2				

Line: -1500 Date: 7 FEB 87 #23

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	635.3	.03	-1033.4	10:23:26	88
	-1.5				
0	635.2	.04	-1033.5	10:23:35	88
	-0.1				
400	634.4	.03	-1033.0	10:26:30	88
	-2.0				
400	634.5	.04	-1032.7	10:27:21	88
	-1.5				
375	634.6	.04	-1032.2	10:27:45	88
	-1.3				
350	637.7	.03	-1032.0	10:28:03	88
	-0.2				
325	639.2	.03	-1031.7	10:28:26	88
	0.6				
300	645.4	.03	-1031.1	10:28:43	88
	0.3				
275	649.0	.04	-1030.9	10:29:01	88
	1.6				
250	647.9	.04	-1031.1	10:29:21	88
	0.0				
225	654.1	.03	-1031.5	10:29:43	88
	2.2				
200	653.8	.03	-1031.7	10:30:01	88
	1.3				
175	643.5	.03	-1031.8	10:30:24	88
	-0.5				
150	638.3	.03	-1031.7	10:30:47	88
	-0.4				
#37	639.5	.04	-1031.7	10:30:56	88
	-0.7				
125	639.5	.03	-1031.5	10:31:34	88
	-0.4				
100	642.0	.03	-1031.3	10:31:55	88
	0.5				
75	643.1	.04	-1031.1	10:32:12	88
	0.9				
50	641.5	.03	-1030.5	10:32:35	88
	0.8				
25	637.5	.03	-1030.6	10:33:01	88
	-0.3				
0	635.8	.03	-1031.0	10:33:24	88
	-0.4				
-25	637.9	.03	-1031.3	10:33:55	88
	0.0				
-50	637.7	.04	-1030.7	10:34:18	88
	0.4				
-75	639.5	.04	-1030.4	10:34:45	88
	0.8				
-100	638.7	.04	-1030.0	10:35:04	88
	-0.4				
-125	638.2	.04	-1029.6	10:35:26	88
	-0.2				
-150	637.7	.03	-1029.1	10:35:46	88
	-1.1				
-175	644.3	.03	-1028.7	10:36:12	88
	0.2				
-200	650.3	.04	-1028.6	10:36:36	88
	2.2				
-225	652.6	.12	-1028.5	10:36:57	88
	2.2				
-250	658.0	.03	-1028.6	10:37:19	88
	2.9				
-275	665.1	.04	-1028.5	10:37:40	88
	5.2				
-300	663.1	.03	-1028.9	10:38:00	88
	1.9				
-325	663.8	.03	-1028.9	10:38:29	88
	3.1				
-350	650.8	.03	-1028.7	10:38:52	88
	0.9				
-375	640.6	.04	-1028.5	10:39:10	88
	0.1				
-400	670.0	.03	-1028.1	10:39:29	88
	-1.3				
-425	638.2	.03	-1027.9	10:39:56	88
	-0.9				
-450	639.9	.03	-1028.2	10:40:22	88
	0.2				
-475	641.8	.03	-1028.4	10:40:43	88
	0.7				
-500	638.2	.03	-1028.5	10:41:07	88
	-1.2				
-525	642.2	.04	-1028.7	10:41:28	88
	1.8				
-550	638.1	.03	-1029.0	10:41:47	88
	-1.9				
-575	641.7	.08	-1028.9	10:42:09	88
	-0.4				
-600	639.3	.04	-1028.7	10:42:28	88
	-2.1				
-625	641.0	.03	-1027.7	10:43:22	88
	2.1				
-650	644.6	.03	-1028.3	10:43:42	88
	1.9				
-675	638.3	.04	-1028.9	10:44:02	88
	1.1				
-700	638.1	.04	-1029.3	10:44:20	88
	0.3				
-725	642.3	.04	-1029.3	10:44:42	88
	1.3				

Line: -1300 Date: 7 FEB 87 #143

POSITION	FIELD	ERR	DRIFT	TIME	DS
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	-0.9				
375	644.8	.11	-1028.9	11:20:29	88
	0.7				
350	646.3	.07	-1028.6	11:20:48	88
	1.1				
325	641.5	.04	-1028.9	11:21:10	88
	-0.5				
300	643.4	.03	-1029.4	11:21:29	88
	-1.1				
275	649.7	.03	-1029.9	11:21:49	88
	1.9				
250	645.9	4.9	-1030.3	11:22:06	88
	498.3				
225	642.6	.25	-1030.4	11:22:27	88
	0.0				
200	639.6	.04	-1030.2	11:22:45	88
	0.0				
175	640.7	.20	-1029.2	11:23:20	88
	0.0				
150	641.0	.08	-1029.6	11:23:46	88
	0.4				
125	639.3	.05	-1030.2	11:24:07	88
	0.2				
100	639.9	.08	-1030.5	11:24:28	88
	0.5				
#156	~~640.2~~	.03	-1030.5	11:24:35	88
	0.5				
75	641.1	.16	-1030.2	11:24:58	88
	1.6				
50	635.0	.09	-1030.2	11:25:19	88
	-0.7				
#159	~~634.3~~	.04	-1030.1	11:25:26	88
	-0.5				
25	634.1	.04	-1029.8	11:25:46	88
	-0.3				
0	636.4	.04	-1030.2	11:26:14	88
	0.4				
-25	636.1	.10	-1031.0	11:26:42	88
	0.2				
-50	637.6	.03	-1031.4	11:27:06	88
	0.2				
-75	638.7	.04	-1031.5	11:27:25	88
	0.3				
-100	642.2	.03	-1031.6	11:27:46	88
	0.4				
-125	643.3	.03	-1031.7	11:28:07	88
	0.1				
-150	646.3	.06	-1031.6	11:28:28	88
	1.0				
-175	641.6	.16	-1031.2	11:28:49	88
	-0.1				
-200	640.0	.04	-1031.0	11:29:08	88
	-0.1				
-225	641.1	.12	-1031.1	11:29:26	88
	0.0				
-250	641.9	.13	-1031.1	11:29:48	88
	0.7				
-275	642.1	.12	-1031.3	11:30:11	88
	0.9				
-300	645.6	.03	-1031.0	11:30:31	88
	1.6				
-325	642.5	.23	-1030.7	11:30:56	88
	0.4				
-350	639.1	.08	-1030.5	11:31:16	88
	0.9				
-375	636.5	.16	-1030.6	11:31:36	88
	-0.5				
-400	640.7	.16	-1030.7	11:31:56	88
	2.3				
-425	639.9	.07	-1030.6	11:32:19	88
	1.0				
-450	637.8	.04	-1030.6	11:32:40	88
	1.3				
-475	633.5	.21	-1030.2	11:33:18	88
	1.5				
#181	~~634.1~~	.04	-1030.3	11:33:26	88
	1.4				
-500	629.2	.04	-1030.3	11:33:47	88
	1.6				
-525	626.5	.04	-1031.5	11:34:47	88
	-1.4				
-550	630.7	.03	-1031.3	11:35:14	88
	-0.4				
-575	628.2	.04	-1030.9	11:35:44	88
	-3.1				
-600	639.4	.03	-1030.6	11:36:17	88
	-0.4				
-625	648.7	.03	-1030.7	11:36:46	88
	2.9				
-650	644.5	.04	-1030.8	11:37:07	88
	2.5				
-675	635.0	.04	-1030.6	11:37:33	88
	-0.5				
-700	637.6	.03	-1030.6	11:37:59	88
	0.0				
-725	637.9	.04	-1030.4	11:38:26	88
	-0.6				
-750	650.6	.03	-1030.3	11:39:19	88
	0.1				
#197	~~650.7~~	.04	-1030.3	11:39:25	88

Line: -1400 Date: 7 FEB 87 #84

POSITION	FIELD	ERR	DRIFT	TIME	DS
-1000	636.5	.03	-1026.8	10:54:38	88
	0.8				
-975	636.6	.03	-1025.3	10:55:10	88
	0.7				
-950	636.2	.04	-1025.0	10:55:29	88
	0.0				
-925	633.9	.11	-1026.5	10:55:49	88
	-0.2				
-900	632.9	1.5	-1027.3	10:56:06	88
	30.2				
-875	634.4	.03	-1027.5	10:56:44	88
	-1.1				
-850	632.6	.04	-1027.2	10:57:23	88
	-3.5				
-825	642.2	.04	-1026.5	10:57:43	88
	-0.8				
-800	632.0	.03	-1026.5	10:58:02	88
	0.3				
-775	632.5	2.5	-1026.2	10:58:22	88
	-73.1				
-750	648.9	.19	-1026.8	10:58:42	88
	2.1				
-725	626.6	.04	-1027.0	10:59:02	88
	-4.5				
-700	627.3	.03	-1027.3	10:59:19	88
	-1.8				
-675	640.8	.14	-1027.1	10:59:41	88
	2.6				
-650	637.7	.09	-1027.2	10:59:58	88
	0.3				
-625	635.9	.14	-1026.8	11:00:17	88
	0.1				
-600	631.9	.17	-1027.5	11:00:41	88
	-0.8				
-575	633.5	.20	-1026.8	11:01:04	88
	-0.2				
-550	634.6	.03	-1027.5	11:01:27	88
	0.3				
-525	628.3	.14	-1029.3	11:01:54	88
	-0.9				
-500	631.0	.03	-1029.9	11:02:20	88
	0.6				
-475	633.7	.09	-1029.6	11:02:41	88
	-0.9				
-450	636.7	2.7	-1029.6	11:03:06	88
	186.3				
-425	638.4	.07	-1029.2	11:03:26	88
	0.9				
-400	637.6	.04	-1029.3	11:03:48	88
	-0.3				
-375	641.8	.04	-1029.2	11:04:06	88
	1.2				
-350	641.3	.04	-1029.6	11:04:26	88
	0.4				
-325	639.6	.04	-1029.6	11:04:47	88
	0.3				
-300	639.7	.04	-1029.3	11:05:08	88
	0.0				
-275	641.6	.04	-1029.0	11:05:29	88
	0.3				
-250	640.0	.06	-1028.4	11:05:50	88
	0.2				
-225	638.4	.04	-1028.3	11:06:08	88
	-0.1				
-200	642.6	.28	-1028.3	11:06:25	88
	0.4				
-175	647.4	.03	-1028.2	11:06:43	88
	0.8				
-150	646.9	.03	-1028.3	11:07:03	88
	0.5				
-125	646.1	.04	-1028.0	11:07:23	88
	1.4				
-100	640.3	1.6	-1027.9	11:07:46	88
	39.9				
-75	638.0	.03	-1027.7	11:08:07	88
	0.1				
-50	639.3	.04	-1027.8	11:08:27	88
	0.5				
-25	639.9	.04	-1027.7	11:08:46	88
	0.9				
0	639.7	.03	-1027.8	11:09:11	88
	0.9				
25	638.0	.03	-1026.8	11:11:28	88
	-0.1				
50	641.9	.20	-1026.7	11:11:46	88
	0.5				
75	640.8	.03	-1026.7	11:12:19	88
	0.1				
#128	~~640.6~~	.04	-1026.8	11:12:25	88
	0.5				
100	640.7	.04	-1026.9	11:12:44	88
	0.8				
125	638.1	.15	-1026.7	11:13:11	88
	-1.3				
150	640.5	.03	-1025.8	11:13:42	88
	0.3				
175	644.1	.04	-1025.3	11:14:12	88
	1.2				
#133	~~643.4~~	.04	-1025.6	11:14:36	88
	1.0				
200	645.5	.07	-1025.8	11:14:43	88

Line: -1100 Date: 7 FEB 87 #267

POSITION	FIELD	ERR	DRIFT	TIME	DS
400	653.8	.05	-1037.0	12:12:05	88
	3.8				
375	655.0	.04	-1037.6	12:14:23	88
	1.9				
350	648.3	.03	-1037.5	12:14:45	88
	1.1				
325	642.9	.03	-1037.5	12:15:05	88
	0.0				
300	643.2	.03	-1037.3	12:15:27	88
	0.8				
275	642.8	.04	-1036.8	12:16:35	88
	1.1				
250	639.8	.03	-1036.9	12:16:54	88
	0.4				
225	637.5	.04	-1037.0	12:17:14	88
	0.0				
200	641.0	.04	-1037.4	12:17:33	88
	1.0				
175	639.5	.03	-1037.5	12:17:53	88
	0.1				
150	640.5	.04	-1037.5	12:18:12	88
	0.9				
125	641.8	.03	-1037.5	12:18:35	88
	0.8				
100	640.6	.03	-1037.3	12:18:56	88
	0.7				
75	638.5	.04	-1037.6	12:19:17	88
	0.8				
#281	639.4	.03	-1037.5	12:19:24	88
	0.6				
50	635.7	.03	-1037.3	12:19:45	88
	0.8				
25	630.6	.04	-1037.3	12:20:11	88
	0.1				
0	629.1	.03	-1037.4	12:20:46	88
	0.6				
-25	627.3	.03	-1037.4	12:21:15	88
	-1.4				
-50	633.0	.04	-1037.2	12:21:38	88
	0.0				
-75	638.8	.04	-1037.1	12:21:59	88
	0.2				
-100	645.0	.03	-1037.4	12:22:19	88
	-0.3				
-125	656.6	.04	-1037.7	12:22:41	88
	1.0				
-150	661.1	.04	-1037.8	12:23:02	88
	2.0				
-175	656.5	.03	-1037.9	12:23:25	88
	0.1				
-200	656.5	.04	-1037.4	12:23:52	88
	2.8				
-225	660.4	.04	-1036.9	12:24:16	88
	2.4				
-250	644.2	.04	-1036.8	12:24:44	88
	-1.6				
-275	639.0	.04	-1037.3	12:25:26	88
	0.1				
-300	634.3	.03	-1037.5	12:25:45	88
	-0.4				
-325	636.4	.04	-1038.0	12:26:15	88
	-3.1				
-350	634.6	.03	-1037.9	12:26:38	88
	-3.5				
-375	627.0	.04	-1037.4	12:26:58	88
	0.0				
-400	622.9	.04	-1037.0	12:27:25	88
	-1.6				
-425	626.7	.03	-1037.0	12:28:00	88
	-1.1				
-450	631.9	.03	-1036.6	12:28:37	88
	-0.2				
-475	636.5	.04	-1036.4	12:29:10	88
	0.2				
-500	639.2	.03	-1036.4	12:29:33	88
	0.4				
-525	639.0	.04	-1036.7	12:29:59	88
	1.4				
-550	639.2	.04	-1037.0	12:30:26	88
	0.6				
-575	641.6	.03	-1037.9	12:30:52	88
	-2.3				
-600	646.6	.04	-1037.7	12:31:24	88
	0.7				
#309	646.7	.03	-1037.9	12:31:32	88
	0.8				
-625	643.7	.03	-1037.7	12:31:53	88
	-0.6				
-650	641.3	.03	-1037.7	12:32:14	88
	0.1				
-675	637.7	.04	-1037.6	12:32:36	88
	-1.2				
-700	643.5	.03	-1037.4	12:33:00	88
	-0.6				
-725	648.4	.03	-1037.7	12:33:22	88
	-0.4				
-750	649.8	.04	-1037.7	12:33:47	88
	0.8				
-775	656.1	.04	-1037.9	12:34:06	88
	-0.2				
-800	656.6	.04	-1038.2	12:34:27	88
	4.0				
-825	658.1	.03	-1038.4	12:34:47	88
	-0.9				

Line: -1200 Date: 7 FEB 87 #204

POSITION	FIELD	ERR	DRIFT	TIME	DS
-1000	645.0	.03	-1032.1	11:45:38	88
	0.0				
-975	646.4	.04	-1031.8	11:46:19	88
	-1.3				
-950	662.0	.03	-1031.7	11:46:39	88
	3.2				
-925	663.6	.03	-1031.3	11:47:03	88
	1.2				
-900	658.0	.14	-1031.2	11:47:23	88
	0.0				
-875	659.6	.12	-1030.8	11:47:45	88
	-0.3				
-850	683.9	.03	-1030.7	11:48:02	88
	5.0				
-825	688.0	.21	-1030.5	11:48:21	88
	7.8				
-800	651.8	.11	-1030.5	11:48:39	88
	-1.0				
-775	652.9	.03	-1030.4	11:48:57	88
	0.7				
-750	647.4	.04	-1030.4	11:49:15	88
	-3.1				
-725	651.0	.04	-1030.1	11:49:34	88
	-0.6				
#216	651.1	.04	-1030.1	11:49:42	88
	-0.8				
-700	645.1	.04	-1030.1	11:50:09	88
	-0.6				
-675	641.6	.05	-1029.9	11:50:34	88
	-0.6				
-650	646.4	.05	-1029.5	11:50:59	88
	2.0				
-625	642.7	.03	-1028.9	11:51:29	88
	0.0				
-600	641.1	.03	-1028.4	11:51:47	88
	0.7				
-575	637.9	.03	-1028.2	11:52:08	88
	1.0				
-550	630.5	.03	-1028.9	11:52:38	88
	-1.7				
-525	638.3	.04	-1029.8	11:53:01	88
	2.2				
-500	640.4	.04	-1029.3	11:53:23	88
	2.1				
-450	613.5	4.7	-1026.9	11:55:25	88
	747.9				
#227	629.2	.03	-1026.8	11:57:45	88
	0.5				
-450	629.2	.04	-1026.8	11:57:53	88
	0.3				
#229	629.2	.04	-1027.1	11:58:02	88
	0.4				
-450	629.2	.04	-1027.3	11:58:09	88
	0.7				
-425	631.6	.03	-1027.9	11:58:33	88
	-0.4				
-400	632.5	.03	-1028.5	11:58:57	88
	0.7				
-375	626.8	.04	-1029.0	11:59:20	88
	-1.7				
-350	630.2	.03	-1029.1	11:59:43	88
	-0.7				
-325	639.0	4.2	-1029.3	12:00:04	88
	185.2				
-300	627.6	.03	-1029.6	12:00:23	88
	-1.4				
-275	633.2	.04	-1029.8	12:00:43	88
	-0.2				
-250	639.3	.04	-1029.7	12:01:04	88
	1.1				
-225	639.3	.04	-1030.1	12:01:23	88
	0.1				
-200	639.0	.04	-1030.5	12:01:43	88
	-0.9				
-175	645.9	.03	-1031.0	12:02:02	88
	1.0				
-150	641.9	.10	-1030.9	12:02:21	88
	-0.2				
-125	636.6	.04	-1031.3	12:02:42	88
	-1.1				
-100	640.9	.04	-1030.9	12:03:03	88
	1.1				
-75	644.0	.04	-1030.7	12:03:26	88
	1.3				
-50	641.0	2.3	-1030.5	12:03:53	88
	185.4				
-25	639.0	.04	-1030.7	12:04:14	88
	0.9				
0	633.3	.03	-1031.4	12:04:35	88
	-0.3				
25	628.9	.03	-1032.0	12:05:02	88
	-1.6				
#250	628.8	.04	-1032.0	12:05:09	88
	-1.8				
50	634.6	.03	-1031.5	12:05:33	88
	0.2				
75	635.7	4.5	-1031.1	12:05:56	88
	-200.0				
100	639.9	.04	-1031.5	12:06:22	88
	1.7				
#254	639.4	.06	-1031.9	12:06:44	88
	0.5				
125	639.9	.03	-1032.5	12:06:59	88

Line: -900		Date: 7 FEB 87	#384		
POSITION	FIELD	ERR	DRIFT	TIME	DS
400	630.8	.04	-1041.5	13:03:02	88
	-0.7				
375	635.0	.03	-1040.7	13:03:46	88
	0.8				
350	633.6	.04	-1040.2	13:04:10	88
	0.5				
325	632.3	.03	-1040.4	13:04:28	88
	0.0				
300	632.3	.04	-1040.7	13:04:50	88
	0.7				
275	632.6	.03	-1040.7	13:05:09	88
	0.3				
250	634.0	.04	-1040.4	13:05:32	88
	0.3				
225	637.6	.04	-1040.6	13:05:54	88
	0.5				
200	643.0	.03	-1040.8	13:06:17	88
	1.5				
175	645.0	.04	-1040.9	13:06:40	88
	1.4				
150	645.7	.04	-1040.8	13:06:58	88
	2.0				
125	642.0	.03	-1040.9	13:07:19	88
	1.4				
100	639.9	.04	-1041.3	13:07:37	88
	1.0				
75	639.7	.03	-1041.2	13:07:57	88
	0.1				
50	639.2	.04	-1040.8	13:08:18	88
	1.2				
25	636.1	.04	-1040.3	13:08:39	88
	0.2				
0	634.5	.03	-1039.5	13:09:06	88
	-0.3				
0	631.4	.03	-1035.0	13:20:48	88
	-1.2				
-25	626.8	.03	-1034.7	13:21:15	88
	-0.4				
-50	625.6	.04	-1034.4	13:21:33	88
	-1.8				
-75	637.0	.03	-1034.1	13:22:09	88
	-0.4				
-100	646.4	.04	-1033.9	13:22:33	88
	0.9				
-125	652.4	.04	-1034.7	13:22:57	88
	0.8				
-150	653.4	.04	-1035.0	13:23:17	88
	-0.1				
-175	658.7	.04	-1035.3	13:23:40	88
	-0.3				
-200	671.4	.03	-1034.9	13:24:02	88
	1.8				
-225	677.9	.04	-1034.9	13:24:25	88
	3.2				
-250	682.7	.03	-1035.1	13:24:46	88
	5.8				
-275	653.3	.03	-1034.8	13:25:10	88
	-0.6				
-300	635.2	.03	-1034.5	13:25:33	88
	-1.0				
-325	626.7	.04	-1034.7	13:26:00	88
	-1.6				
-350	624.3	.03	-1035.0	13:27:02	88
	-2.9				
-375	639.7	.11	-1037.0	13:29:59	88
	0.5				
-400	637.2	2.7	-1036.7	13:30:39	88
	-189.9				
-425	633.3	.03	-1036.6	13:31:08	88
	0.4				
-450	634.0	.03	-1036.4	13:31:34	88
	0.2				
-475	633.5	.03	-1036.0	13:32:01	88
	-1.2				
-500	648.0	.10	-1036.1	13:32:32	88
	2.1				
-525	642.9	.03	-1036.0	13:32:54	88
	0.5				
-550	641.9	4.7	-1036.1	13:33:13	88
	-893.5				
-575	642.8	1.6	-1036.5	13:33:36	88
	52.7				
-600	648.5	1.7	-1036.6	13:34:06	88
	72.9				
-625	648.0	3.3	-1036.8	13:34:29	88
	1202.6				
-650	699.7	5.5	-1036.7	13:34:52	88
	354.2				
-675	656.6	.15	-1036.7	13:35:10	88
	0.0				
-700	650.6	.04	-1036.6	13:35:33	88
	0.4				
-725	643.1	.06	-1036.5	13:35:53	88
	1.3				
-750	654.2	.04	-1035.9	13:36:23	88
	0.6				
-775	649.9	.04	-1036.0	13:36:44	88
	-0.5				

Line: -1000		Date: 7 FEB 87	#3	
POSITION	FIELD	ERR	DRIFT	TIME
-1000	689.4	.03	-1037.8	12:39:55
	0.9			
-975	671.7	.03	-1037.5	12:40:26
	1.8			
-950	670.6	.03	-1037.3	12:40:48
	1.2			
-925	670.1	.03	-1037.5	12:41:11
	1.4			
-900	670.1	.04	-1037.9	12:41:31
	2.0			
-875	666.4	.03	-1038.3	12:41:54
	1.1			
-850	665.6	.03	-1038.6	12:42:14
	2.2			
-825	662.7	.04	-1038.8	12:42:32
	1.3			
-800	659.0	.04	-1038.7	12:42:50
	0.2			
-775	652.6	.04	-1038.5	12:43:20
	-0.2			
-750	649.5	.03	-1038.3	12:43:39
	-0.5			
-725	647.0	.04	-1038.3	12:44:00
	-0.4			
-700	651.4	.03	-1038.5	12:44:19
	-0.5			
-675	658.9	.04	-1038.4	12:44:40
	1.9			
-650	652.2	.03	-1038.2	12:44:59
	0.1			
-625	642.9	.04	-1038.8	12:45:20
	-1.6			
-600	641.6	.04	-1039.8	12:45:42
	-0.9			
-575	642.9	.03	-1040.2	12:46:26
	1.2			
-550	641.7	.03	-1038.6	12:46:45
	0.9			
-525	634.2	.04	-1038.0	12:47:11
	-0.8			
-500	638.7	.03	-1037.9	12:47:31
	1.9			
-475	636.1	.04	-1037.2	12:47:52
	0.6			
-450	635.4	.03	-1038.0	12:48:16
	0.2			
-425	634.7	.04	-1038.6	12:48:36
	-0.2			
-400	634.0	.04	-1039.7	12:48:58
	0.8			
-375	631.3	.04	-1040.4	12:49:21
	-0.3			
-350	636.9	.04	-1040.7	12:49:44
	0.4			
-325	640.4	.03	-1040.6	12:50:06
	-0.2			
-300	647.5	.03	-1040.7	12:50:28
	1.2			
-275	650.5	.04	-1041.0	12:50:50
	-3.2			
-250	699.2	.04	-1041.1	12:51:21
	6.5			
-225	709.4	.03	-1040.5	12:51:56
	7.7			
-200	689.0	.04	-1040.1	12:52:18
	4.8			
-175	680.1	.04	-1040.1	12:52:44
	-0.9			
-150	656.5	.03	-1040.0	12:53:06
	0.2			
-125	653.8	.03	-1040.7	12:53:28
	0.0			
-100	652.1	.04	-1040.8	12:53:46
	1.1			
-75	644.5	.04	-1041.3	12:54:10
	-0.1			
-50	643.1	.04	-1041.9	12:54:34
	1.2			
-25	637.9	.03	-1042.1	12:55:01
	1.2			
0	632.9	.03	-1042.5	12:55:26
	-0.5			
25	631.2	.04	-1041.8	12:55:57
	-0.6			
50	634.2	.04	-1041.6	12:56:17
	-0.9			
75	639.4	.03	-1041.5	12:56:45
	1.1			
100	641.1	.03	-1041.4	12:57:06
	1.4			
125	642.5	.04	-1041.4	12:57:29
	1.4			
150	643.3	.04	-1041.5	12:57:52
	0.6			
175	644.8	.03	-1041.5	12:58:22
	1.2			
200	642.6	.04	-1042.0	12:58:41
	1.3			

Line: -700 Date: 7 FEB 87 #483

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	671.2	.04	-1032.1	14:02:08	88
	-1.0				
-25	636.8	.04	-1031.4	14:02:43	88
	3.6				
-50	627.1	.03	-1031.5	14:03:08	88
	-1.3				
-75	619.5	.07	-1031.4	14:03:29	88
	-2.6				
-100	620.7	.03	-1031.2	14:03:53	88
	-1.8				
-125	628.2	.04	-1031.0	14:04:17	88
	-1.4				
-150	636.6	.03	-1030.9	14:04:42	88
	-1.1				
-175	648.6	.04	-1031.0	14:05:09	88
	0.1				
-200	658.6	.04	-1031.2	14:05:38	88
	0.0				
-225	658.4	.04	-1031.3	14:06:01	88
	-2.1				
-250	667.2	(4.5)	-1031.5	14:06:27	88
	-735.9				
-275	669.3	.04	-1032.1	14:07:20	88
	-1.1				
-300	663.0	.04	-1030.8	14:08:14	88
	2.0				
-325	656.1	(1.1)	-1027.7	14:09:45	88
	17.2				
-350	646.6	.04	-1028.1	14:10:23	88
	0.2				
-375	643.1	.03	-1027.9	14:10:55	88
	-2.6				
-400	658.6	.03	-1029.1	14:11:45	88
	5.4				
-425	650.0	.03	-1029.1	14:12:12	88
	-0.3				
-450	639.7	.04	-1028.3	14:12:40	88
	-1.7				
-475	643.9	.04	-1027.6	14:13:11	88
	-2.2				
-500	530.1	.04	-1027.0	14:13:35	88
	-183.9				
#504	571.3	.04	-1026.9	14:13:45	88
	-122.3				
#505	530.7	.04	-1026.7	14:13:52	88
	-122.4				
-525	644.9	.04	-1025.6	14:14:46	88
	0.6				
-550	654.1	.04	-1025.5	14:15:16	88
	5.4				
-575	651.6	.03	-1025.8	14:15:39	88
	3.3				
-600	648.3	.03	-1026.2	14:16:02	88
	0.9				
-625	647.4	.03	-1026.8	14:16:24	88
	1.6				
-650	637.4	.04	-1027.3	14:16:43	88
	-1.0				
-675	633.1	.03	-1027.9	14:17:05	88
	-1.1				
-700	631.0	(1.7)	-1028.0	14:17:30	88
	80.0				
-725	646.6	.03	-1028.2	14:17:52	88
	-0.7				
-750	664.8	.04	-1027.9	14:18:20	88
	2.8				
-775	664.1	.04	-1027.3	14:18:51	88
	-0.3				
-800	670.6	.04	-1026.3	14:19:16	88
	-0.4				
-825	693.8	.04	-1025.9	14:19:42	88
	7.5				
-850	705.2	.04	-1025.3	14:20:07	88
	13.0				
-875	685.2	.03	-1025.6	14:21:05	88
	-1.5				
-900	649.6	.03	-1026.7	14:21:33	88
	-0.5				
-925	648.2	.03	-1027.1	14:22:02	88
	-0.4				
-950	648.5	.04	-1027.9	14:22:24	88
	-0.5				
-975	649.6	.03	-1028.7	14:22:46	88
	0.4				
-1000	653.6	.05	-1028.6	14:23:10	88
	1.7				

Line: -800 Date: 7 FEB 87 #442

POSITION	FIELD	ERR	DRIFT	TIME	DS
-1000	651.7	.04	-1037.6	13:41:55	88
	-2.1				
-975	651.3	(4.4)	-1037.9	13:42:33	88
	1291.6				
-950	648.0	.05	-1038.0	13:42:55	88
	0.0				
-925	647.5	.11	-1037.8	13:43:14	88
	-0.5				
-900	641.6	(1.5)	-1037.5	13:43:33	88
	-40.4				
-875	636.4	(1.0)	-1036.9	13:44:01	88
	12.6				
-850	638.3	.04	-1036.0	13:44:31	88
	-1.8				
-825	642.8	.03	-1035.0	13:45:00	88
	-0.6				
-800	641.9	.04	-1034.8	13:45:27	88
	-1.1				
-775	618.8	.05	-1037.3	13:46:57	88
	-6.8				
-750	624.5	.03	-1037.6	13:47:21	88
	-6.4				
-725	638.1	.04	-1037.6	13:47:47	88
	-3.3				
-700	641.0	.03	-1037.4	13:48:15	88
	-0.7				
-675	638.8	.04	-1037.2	13:48:38	88
	0.1				
-650	646.2	.03	-1036.8	13:49:08	88
	1.4				
-625	641.1	.07	-1036.8	13:49:32	88
	-1.8				
-600	638.0	.07	-1036.8	13:49:54	88
	-0.9				
-575	631.4	(2.0)	-1037.1	13:50:14	88
	-27.8				
-550	637.1	.09	-1037.6	13:50:35	88
	-5.3				
-525	648.9	.03	-1037.3	13:51:18	88
	0.1				
-500	649.1	5.1	-1036.7	13:51:41	88
	1059.1				
-475	650.9	(1.8)	-1036.5	13:52:04	88
	116.1				
-450	647.5	.03	-1036.0	13:52:33	88
	-0.6				
-425	644.6	.03	-1035.6	13:53:10	88
	-0.6				
-400	637.2	.08	-1035.5	13:53:33	88
	-1.1				
-375	638.0	.03	-1034.9	13:54:07	88
	0.9				
-350	623.3	(4.3)	-1034.3	13:54:50	88
	498.5				
-325	636.5	.04	-1034.0	13:55:35	88
	-4.1				
-300	650.2	.04	-1034.0	13:56:41	88
	3.6				
-275	661.9	.07	-1033.5	13:57:11	88
	0.7				
-250	684.4	.04	-1033.0	13:57:34	88
	5.0				
-225	701.9	.04	-1032.2	13:57:59	88
	7.7				
-200	687.8	.04	-1031.5	13:58:21	88
	5.1				
-175	686.3	(3.9)	-1031.0	13:58:44	88
	-448.1				
-150	653.5	(2.6)	-1030.4	13:59:07	88
	-88.9				
-125	633.5	(4.8)	-1030.0	13:59:26	88
	-328.2				
-100	624.9	.09	-1029.9	13:59:48	86
	-1.5				
-75	621.5	.04	-1030.7	14:00:14	88
	-1.7				
-50	620.9	.05	-1030.9	14:00:38	88
	-1.9				
-25	626.7	.03	-1031.1	14:01:03	88
	0.0				
0	627.7	.04	-1031.8	14:01:28	88
	-1.1				

Line: -500 Date: 7 FEB 87 #566

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	630.3	.04	-1020.5	14:42:35	88
	-0.7				
-25	631.7	.03	-1020.7	14:43:09	88
	0.0				
-50	631.4	.03	-1016.6	14:44:03	88
	0.0				
-75	632.4	.04	-1016.5	14:44:34	88
	0.8				
-100	632.2	.03	-1016.7	14:44:57	88
	1.0				
-125	628.7	.04	-1015.6	14:45:27	88
	0.8				
-150	627.1	.96	-1015.4	14:45:48	88
	13.5				
-175	620.8	.04	-1017.3	14:46:17	88
	0.1				
-200	618.1	.03	-1018.8	14:46:41	88
	-1.4				
-225	607.5	.03	-1018.9	14:47:01	88
	-7.7				
-250	617.4	.04	-1018.5	14:47:21	88
	-2.0				
-275	626.7	4.1	-1019.3	14:48:01	88
	623.6				
-300	639.5	.03	-1018.7	14:48:39	88
	0.3				
-325	647.5	.03	-1016.6	14:49:25	88
	1.6				
-350	650.0	.03	-1015.4	14:49:59	88
	2.1				
-375	644.5	.04	-1014.4	14:50:40	88
	2.3				
-400	648.1	.03	-1015.1	14:51:20	88
	1.7				
-425	645.7	.04	-1018.9	14:51:51	88
	-0.9				
-450	647.2	.03	-1028.8	14:53:09	88
	9.7				
-475	655.9	.04	-1025.1	14:55:39	88
	0.7				
-500	653.7	.04	-1022.7	14:56:09	88
	1.4				
-525	652.4	.03	-1021.4	14:56:34	88
	1.3				
-550	650.1	.03	-1021.5	14:56:57	88
	1.2				
-575	643.1	.03	-1022.9	14:57:20	88
	-0.3				
-600	644.5	.04	-1024.7	14:57:42	88
	0.0				
-625	646.4	.04	-1027.1	14:58:07	88
	0.1				
-650	645.6	.03	-1030.5	14:58:34	88
	1.4				
-675	632.1	.03	-1032.5	14:58:56	88
	-3.3				
-700	642.1	.04	-1033.2	14:59:19	88
	0.2				
-725	641.2	.03	-1033.2	14:59:41	88
	-0.6				
-750	641.1	.03	-1032.8	15:00:04	88
	-0.3				
-775	646.2	.03	-1030.9	15:00:45	88
	0.8				
-800	647.1	.04	-1028.3	15:01:15	88
	0.4				
-825	647.6	.04	-1026.8	15:01:43	88
	-1.5				
-850	656.3	.04	-1026.5	15:02:05	88
	-0.1				
-875	664.6	.03	-1027.4	15:02:32	88
	1.3				
-900	657.0	.05	-1027.8	15:02:56	88
	0.0				
-925	649.9	.04	-1029.0	15:03:21	88
	-0.1				
-950	648.8	.04	-1030.9	15:03:51	88
	0.3				
-975	649.1	.03	-1031.8	15:04:21	88
	0.9				
-1000	645.8	.04	-1031.7	15:04:48	88
	0.0				
-1000	645.8	.03	-1031.6	15:04:55	88
	-0.1				

EOF

Line: -600 Date: 7 FEB 87 #526

POSITION	FIELD	ERR	DRIFT	TIME	DS
-975	651.6	.03	-1028.2	14:24:22	88
	1.2				
-950	652.4	.03	-1027.3	14:24:53	88
	0.4				
-925	655.8	.04	-1026.2	14:25:14	88
	0.1				
-900	678.2	.04	-1025.9	14:25:33	88
	4.8				
-875	682.6	.03	-1024.8	14:25:57	88
	1.2				
-850	660.9	1.9	-1024.8	14:26:17	88
	181.2				
-825	657.2	.04	-1025.5	14:27:00	88
	1.1				
-800	652.3	.05	-1026.2	14:27:24	88
	0.0				
-775	650.3	.03	-1026.3	14:27:44	88
	-0.5				
-750	654.1	5.7	-1027.2	14:28:08	88
	274.7				
-725	651.1	.04	-1027.0	14:28:40	88
	0.7				
-700	649.5	.04	-1026.4	14:29:01	88
	1.0				
-675	648.1	.03	-1026.0	14:29:28	88
	0.0				
-650	640.4	.03	-1024.7	14:29:50	88
	-1.0				
-625	640.1	.04	-1024.3	14:30:13	88
	-0.7				
-600	636.3	.04	-1023.1	14:30:39	88
	-0.5				
-575	636.9	.04	-1023.0	14:31:00	88
	-0.4				
-550	644.1	.04	-1023.1	14:31:23	88
	1.6				
-525	646.3	.03	-1022.8	14:31:44	88
	0.4				
-500	645.5	.04	-1022.8	14:32:06	88
	-1.3				
-475	651.2	.03	-1023.1	14:32:28	88
	0.5				
-450	654.5	.03	-1023.0	14:33:09	88
	1.2				
-425	656.6	.03	-1023.0	14:33:39	88
	2.6				
-400	653.6	.04	-1022.3	14:34:04	88
	1.4				
-375	651.7	.04	-1022.7	14:34:39	88
	0.8				
-350	658.8	.04	-1020.6	14:35:22	88
	0.8				
-325	673.9	.03	-1020.5	14:35:49	88
	7.4				
-300	658.1	2.5	-1020.1	14:36:43	88
	78.6				
-275	650.6	.04	-1021.5	14:37:20	88
	-0.3				
-250	641.0	.04	-1022.4	14:37:46	88
	-0.3				
-225	643.7	.04	-1022.4	14:38:08	88
	1.4				
-200	643.3	.04	-1022.5	14:38:32	88
	1.6				
-175	637.9	1.6	-1021.6	14:39:02	88
	-25.5				
-150	638.1	.04	-1021.0	14:39:26	88
	-0.3				
-125	638.7	.04	-1020.6	14:39:54	88
	0.3				
-100	671.4	.04	-1020.6	14:40:16	88
	1.1				
-75	673.6	.03	-1020.6	14:40:40	88
	1.5				
-50	642.7	.03	-1020.8	14:41:02	88
	1.2				
-25	650.8	.04	-1020.9	14:41:23	88
	2.2				
0	643.8	.04	-1021.2	14:41:44	88
	0.0				

FIELD DATA, AGATE CREEK

Line: -1100 (L2) Date: 6 FEB 87 #24

POSITION	FIELD	ERR	DRIFT	TIME	DS
350	1146.0	.03	-1035.7	11:27:50	88
	0.8				
350	1145.8	.03	-1035.6	11:28:00	88
	1.2				
325	1144.5	.03	-1035.4	11:28:30	88
	4.4				
300	1149.0	.04	-1035.4	11:29:00	88
	4.8				
275	1159.9	.03	-1035.2	11:29:30	88
	2.0				
250	1154.5	.03	-1035.4	11:29:50	88
	1.6				
225	1140.5	.04	-1035.3	11:30:20	88
	-0.4				
200	1134.4	.03	-1034.9	11:31:30	88
	-0.7				
175	1134.6	.14	-1035.0	11:32:10	88
	-0.3				
150	1135.7	.04	-1034.9	11:33:00	88
	0.0				
150	1135.7	.05	-1034.8	11:33:10	88
	0.4				
150	1135.7	.03	-1034.7	11:33:20	88
	0.3				
125	1132.6	.03	-1034.6	11:33:50	88
	-1.0				
100	1135.4	.04	-1034.6	11:35:30	88
	0.1				
75	1136.2	.05	-1034.9	11:37:50	88
	-0.2				
50	1138.7	.03	-1034.6	11:39:10	88
	0.1				
25	1142.6	.03	-1034.9	11:39:40	88
	2.6				
<0>	1135.1	.03	-1034.9	11:40:10	88
	0.8				
0	1135.2	.03	-1034.9	11:40:20	88
	0.3				
-25	1138.8	.03	-1034.5	11:42:10	88
	-1.7				
-50	1139.0	.04	-1034.3	11:43:30	88
	-1.7				
-75	1133.3	.03	-1034.6	11:44:30	88
	-1.2				
-100	1138.2	.04	-1034.5	11:45:20	88
	-0.8				
-125	1139.9	.04	-1034.1	11:46:00	88
	0.2				
-150	1136.8	.04	-1034.2	11:46:30	88
	-0.5				
-175	1136.8	.03	-1034.2	11:47:00	88
	0.0				
-200	1134.4	.03	-1034.2	11:47:30	88
	-1.0				
-225	1136.9	.05	-1034.2	11:48:50	88
	-0.3				
-250	1137.0	.04	-1034.4	11:49:50	88
	-0.6				
-275	1137.1	.13	-1034.6	11:50:20	88
	-0.4				
-300	1136.0	.03	-1034.6	11:50:50	88
	-0.1				
-325	1135.0	.03	-1034.4	11:51:20	88
	-1.7				
-350	1143.5	.08	-1034.2	11:51:50	88
	0.3				
-375	1149.6	.04	-1034.1	11:52:20	88
	1.2				
-400	1145.8	.04	-1034.3	11:52:50	88
	1.1				
-425	1138.1	.04	-1034.3	11:53:20	88
	-1.6				
-450	1139.9	.03	-1034.6	11:53:50	88
	0.5				
-475	1140.8	.11	-1034.3	11:54:20	88
	-0.4				
-500	1141.9	.04	-1034.4	11:54:50	88
	0.5				
-525	1141.1	.12	-1034.4	11:55:20	88
	0.5				
-550	1140.9	.04	-1034.0	11:55:50	88
	0.1				
-575	1143.2	.03	-1033.4	11:56:20	88
	0.0				
-600	1146.3	.13	-1033.9	11:56:50	88
	1.2				
-625	1146.3	.06	-1034.1	11:57:20	88
	0.7				
-650	1144.4	.03	-1034.0	11:57:50	88
	0.0				
-675	1142.5	.03	-1034.6	11:58:20	88
	0.7				

AGATE CREEK

EDA OMNI-IV Tie-line MAG Ser #255030
TOTAL FIELD DATA (Base stn. corrected)
& GRADIENT
Date: 6 FEB 87
OPerator: 5001
Reference field: 58510.0
Datum subtracted: 57500.0
Records: 377
Bat: 16.0 Volt Lithium: 3.48 Volt
Last time uPdate: 2/06 9:09:00
Start of Print: 2/06 16:06:55

Base stn. Pos: 0 Line: 0
Last time uPdate: 2/06 9:09:00
Start of Print: 2/06 16:06:54

#1	914.1	5.8	-1035.1	10:48:25	88
	-3208.5				

Line: 1000 (L4) Date: 6 FEB 87 #2

POSITION	FIELD	ERR	DRIFT	TIME	DS
0	1136.8	.03	-1035.4	11:12:00	88
	0.7				
0	1136.6	1.3	-1035.5	11:12:30	88
	23.5				
0	1136.7	.04	-1035.7	11:12:50	88
	1.1				
0	1136.9	.04	-1035.9	11:13:00	88
	0.8				
0	1136.5	.04	-1035.7	11:13:10	88
	1.2				
25	1139.8	.04	-1035.8	11:14:00	88
	1.2				
50	1139.4	.03	-1035.6	11:14:30	88
	1.1				
75	1138.0	.05	-1035.6	11:15:00	88
	1.1				
100	1135.3	.03	-1035.6	11:15:40	88
	0.8				
125	1130.5	.04	-1035.7	11:16:10	88
	-0.5				
125	1130.3	.04	-1035.7	11:16:20	88
	-0.4				
150	1132.2	.10	-1035.6	11:17:00	88
	0.0				
175	1133.1	.04	-1035.7	11:17:30	88
	0.1				
200	1134.8	.04	-1035.6	11:18:00	88
	-0.4				
225	1136.2	.07	-1035.4	11:18:40	88
	0.5				
250	1135.2	.04	-1035.4	11:19:10	88
	-0.5				
275	1140.6	.04	-1035.4	11:19:40	88
	-0.2				
300	1147.2	.04	-1035.5	11:20:10	88
	1.0				
325	1147.8	.07	-1035.5	11:20:50	88
	2.5				
350	1137.1	.03	-1035.2	11:23:10	88
	-0.7				
350	1137.0	.03	-1035.2	11:23:20	88
	-0.9				
350	1136.9	.03	-1035.2	11:23:30	88
	-0.8				

Line: -1300 Date: 6 FEB 87 #148

POSITION	FIELD	ERR	DRIFT	TIME	DS
350	1131.2	.03	-1031.3	12:58:10	88
	-0.9				
350	1132.3	.03	-1031.2	12:58:40	88
	0.4				
325	1132.8	.04	-1031.0	12:59:10	88
	-0.6				
300	1130.4	.04	-1031.4	12:59:40	88
	-0.8				
275	1134.6	.03	-1031.5	13:00:10	88
	0.2				
250	1134.3	.03	-1032.0	13:01:10	88
	-0.6				
225	1133.9	.24	-1031.8	13:01:40	88
	0.0				
200	1133.1	.12	-1031.7	13:02:30	88
	-1.0				
175	1135.2	.03	-1030.9	13:04:00	88
	0.0				
150	1136.6	.07	-1031.0	13:04:30	88
	-0.7				
125	1139.6	.04	-1030.9	13:05:00	88
	0.1				
100	1140.5	.03	-1030.8	13:05:30	88
	1.0				
75	1141.4	.03	-1031.7	13:06:00	88
	1.1				
50	1137.2	.20	-1031.6	13:06:30	88
	0.6				
25	1133.4	.03	-1031.7	13:06:50	88
	-0.3				
-0	1129.7	.03	-1031.6	13:09:00	88
	-1.2				
0	1130.0	.03	-1031.5	13:09:10	88
	-1.1				
-25	1136.3	.03	-1031.4	13:09:40	88
	1.6				
-50	1133.4	.02	-1031.5	13:10:10	88
	0.4				
-75	1128.6	.14	-1031.3	13:10:40	88
	-1.6				
-100	1131.4	.04	-1031.3	13:11:20	88
	-0.1				
-125	1131.2	.03	-1031.2	13:12:00	88
	-0.3				
-150	1131.2	.07	-1031.1	13:12:30	88
	-1.1				
-175	1130.2	.04	-1031.4	13:13:00	88
	-1.8				
-200	1132.4	.03	-1031.7	13:13:30	88
	-0.9				
-225	1137.2	.03	-1031.3	13:14:50	88
	0.9				
-250	1137.4	.09	-1031.4	13:15:20	88
	0.4				
-275	1141.2	.04	-1031.2	13:15:50	88
	-1.4				
-300	1151.0	.03	-1031.1	13:16:20	88
	1.5				
-325	1153.5	.05	-1030.7	13:17:00	88
	0.5				
-350	1159.8	.03	-1031.0	13:17:30	88
	1.5				
-375	1165.7	.03	-1030.8	13:18:00	88
	3.7				
-400	1158.4	.03	-1031.2	13:18:30	88
	0.8				
-425	1152.2	.04	-1031.4	13:19:00	88
	0.4				
-450	1143.1	.03	-1030.5	13:19:40	88
	-3.1				
-475	1148.5	.04	-1031.3	13:20:20	88
	0.7				
-500	1146.4	.04	-1030.9	13:20:50	88
	-0.3				
-525	1145.5	.03	-1030.8	13:21:30	88
	-0.1				
-550	1144.3	.03	-1031.3	13:22:00	88
	-0.7				
-575	1148.1	.05	-1031.0	13:22:30	88
	0.8				
-600	1145.7	.03	-1030.8	13:23:00	88
	-0.3				
-625	1147.0	.04	-1030.5	13:23:30	88
	1.0				
-650	1146.0	.03	-1031.4	13:24:00	88
	0.1				
-675	1144.5	.04	-1030.8	13:24:30	88
	-0.2				
-700	1142.5	.04	-1031.0	13:25:10	88
	-1.1				
-725	1145.9	.03	-1031.6	13:25:40	88
	0.3				
-750	1145.1	.03	-1031.2	13:26:20	88
	0.1				
-775	1144.6	.03	-1030.9	13:26:50	88
	-0.4				
-800	1145.7	.04	-1031.3	13:27:20	88

Line: -1200 Date: 6 FEB 87 #85

POSITION	FIELD	ERR	DRIFT	TIME	DS
-1000	1154.3	.03	-1033.2	12:19:30	88
	1.2				
-1000	1154.5	.04	-1033.3	12:20:10	88
	-1.0				
-975	1151.2	.03	-1033.1	12:20:40	88
	0.2				
-950	1146.6	.03	-1032.9	12:21:10	88
	-1.0				
-925	1147.0	.03	-1033.0	12:21:30	88
	-0.2				
-900	1147.4	.04	-1032.9	12:21:50	88
	0.0				
-875	1151.1	.04	-1032.6	12:22:20	88
	1.8				
-850	1146.6	.03	-1032.6	12:22:40	88
	-0.6				
-825	1142.8	.04	-1032.7	12:23:00	88
	-1.3				
-800	1141.8	1.5	-1032.9	12:23:30	88
	98.7				
-775	1140.8	.03	-1032.8	12:23:50	88
	-0.9				
-750	1141.6	.03	-1033.0	12:24:30	88
	0.4				
-725	1142.8	.04	-1032.8	12:24:50	88
	1.0				
-700	1140.8	.04	-1033.0	12:25:20	88
	-0.2				
-675	1140.5	.03	-1032.9	12:25:40	88
	-0.5				
-650	1145.8	.03	-1032.8	12:26:10	88
	0.1				
-625	1144.5	.04	-1032.8	12:26:30	88
	-0.4				
-600	1147.0	.04	-1033.0	12:26:50	88
	0.0				
-575	1146.5	.04	-1032.9	12:27:10	88
	0.9				
-550	1145.8	.03	-1032.7	12:27:30	88
	0.4				
-525	1142.4	.04	-1032.8	12:27:50	88
	-0.8				
-500	1140.6	.04	-1032.8	12:28:10	88
	0.0				
-475	1144.6	.04	-1032.7	12:28:30	88
	1.6				
-450	1142.4	.03	-1032.6	12:28:50	88
	0.3				
-425	1141.2	.04	-1032.7	12:29:10	88
	0.1				
-400	1141.8	.04	-1032.8	12:29:30	88
	0.7				
-375	1136.9	.04	-1032.9	12:30:00	88
	0.2				
-350	1134.4	.04	-1032.7	12:30:30	88
	-1.8				
-325	1141.6	.04	-1032.7	12:30:50	88
	0.3				
-300	1145.7	.03	-1032.6	12:31:10	88
	0.7				
-275	1145.8	.04	-1032.3	12:31:40	88
	0.5				
-250	1142.2	.04	-1032.2	12:32:20	88
	0.3				
-225	1136.1	.03	-1032.4	12:32:50	88
	-0.9				
-200	1136.7	.04	-1032.4	12:33:20	88
	-0.2				
-175	1135.4	.03	-1032.4	12:33:40	88
	-0.6				
-150	1137.4	.06	-1032.3	12:34:00	88
	0.5				
-125	1134.0	.04	-1032.1	12:34:30	88
	0.1				
-100	1134.9	.04	-1032.1	12:35:10	88
	0.4				
-75	1132.3	.03	-1032.2	12:36:10	88
	-1.0				
-50	1129.8	.05	-1032.2	12:36:30	88
	-0.7				
-25	1130.6	.04	-1032.2	12:37:20	88
	-0.2				
0	1131.7	.04	-1032.1	12:37:50	88
	0.6				
25	1131.3	.04	-1032.2	12:38:20	88
	0.0				
50	1131.3	.04	-1032.3	12:38:50	88
	0.5				
75	1130.7	.03	-1032.0	12:39:20	88
	0.2				
#130	1130.8	.05	-1032.3	12:39:40	88
	-0.7				
-0	1130.8	.04	-1032.1	12:39:50	88
	-0.2				
0	1131.0	.03	-1032.3	12:40:10	88
	-0.1				
25	1133.5	.04	-1032.4	12:40:40	88
	0.0				

Line: -1500 Date: 6 FEB 87 #272

POSITION	FIELD	ERR	DRIFT	TIME	DS
-0	1134.2	.04	-1030.5	14:16:24	88
	-0.4				
0	1134.3	.04	-1030.7	14:16:36	88
	0.2				
-25	1133.9	.08	-1031.1	14:17:32	88
	-0.9				
-50	1132.9	.05	-1030.8	14:17:59	88
	-1.2				
-75	1134.7	2.1	-1031.1	14:18:46	88
	94.4				
-100	1131.8	.19	-1030.8	14:19:14	88
	-0.9				
-125	1133.9	.03	-1030.8	14:19:51	88
	-2.6				
-150	1138.5	.05	-1030.8	14:20:20	88
	-1.5				
-175	1139.0	.11	-1030.6	14:20:49	88
	-1.1				
-200	1131.9	.05	-1030.4	14:22:17	88
	-4.3				
-225	1178.5	1.3	-1031.0	14:23:32	88
	22.3				
-250	1141.8	.05	-1031.4	14:23:58	88
	-1.7				
-275	1142.6	.07	-1031.4	14:24:25	88
	-1.7				
-300	1142.4	.04	-1031.0	14:24:50	88
	-1.3				
-325	1152.7	.15	-1030.9	14:25:13	88
	0.3				
-350	1163.1	.15	-1031.0	14:25:37	88
	2.4				
-375	1167.3	.13	-1030.8	14:26:01	88
	2.3				
-400	1165.7	.06	-1030.3	14:26:53	88
	1.6				
-425	1156.7	.05	-1030.2	14:27:56	88
	0.0				
-450	1157.9	.04	-1030.8	14:28:24	88
	1.0				
-475	1150.2	.09	-1031.2	14:28:57	88
	-1.5				
-500	1148.8	.13	-1031.2	14:29:44	88
	-0.8				
-525	1148.7	.08	-1031.8	14:30:11	88
	-0.6				
-550	1147.3	.08	-1031.6	14:30:45	88
	-3.0				
-575	1151.7	1.7	-1031.9	14:31:32	88
	77.4				
-600	1151.9	.03	-1031.7	14:31:56	88
	-1.4				
-625	1153.2	.09	-1031.5	14:32:18	88
	0.6				
-650	1152.2	.17	-1031.8	14:32:43	88
	0.0				
-675	1154.0	.10	-1031.3	14:33:13	88
	1.1				
-700	1151.0	.06	-1031.3	14:33:39	88
	-0.8				
-725	1154.4	.10	-1031.4	14:34:08	88
	0.0				
-750	1157.1	.03	-1031.5	14:34:32	88
	0.5				
-775	1160.6	.04	-1031.4	14:34:58	88
	1.4				
-800	1161.1	.03	-1031.7	14:35:20	88
	-0.4				
-825	1162.9	.09	-1031.4	14:35:46	88
	-0.2				
-850	1173.7	.03	-1031.3	14:36:19	88
	2.5				
-875	1177.5	.03	-1031.2	14:36:42	88
	1.6				
-900	1190.7	.04	-1031.0	14:37:07	88
	5.0				
-925	1205.7	.03	-1031.5	14:37:31	88
	5.3				
-950	1218.2	.04	-1031.6	14:37:54	88
	8.7				
-975	1216.0	.04	-1031.4	14:38:27	88
	5.4				
-1000	1209.7	.04	-1031.4	14:38:53	88
	7.0				
-1025	1193.5	.03	-1031.1	14:39:16	88
	2.2				
-1050	1187.6	.04	-1031.0	14:39:41	88
	0.2				
-1075	1187.8	.04	-1031.0	14:40:05	88
	2.2				
-1100	1183.6	.03	-1030.8	14:40:29	88
	2.1				
-1125	1171.5	.04	-1030.9	14:40:53	88
	-0.3				
-1150	1171.4	.03	-1030.2	14:42:06	88

Line: -1400 Date: 6 FEB 87 #218

POSITION	FIELD	ERR	DRIFT	TIME	DS
-1300	1203.1	.03	-1028.9	13:49:50	88
	5.5				
-1300	1203.2	.04	-1028.5	13:50:10	88
	-5.3				
-1275	1226.6	.03	-1029.1	13:51:10	88
	10.7				
-1250	1232.5	.04	-1029.5	13:51:40	88
	12.4				
-1225	1196.4	.03	-1030.6	13:52:10	88
	4.3				
-1200	1191.9	.03	-1031.6	13:52:40	88
	5.4				
-1175	1182.7	.04	-1032.8	13:53:20	88
	1.6				
-1150	1183.3	.03	-1033.8	13:53:50	88
	4.1				
-1125	1169.9	.04	-1033.1	13:54:10	88
	-1.8				
-1100	1175.2	.04	-1033.2	13:54:30	88
	0.8				
-1075	1165.0	.03	-1032.7	13:55:00	88
	-1.5				
-1050	1164.3	.03	-1031.8	13:55:30	88
	-1.4				
-1025	1162.2	.04	-1031.6	13:55:50	88
	-1.6				
-1000	1161.5	.03	-1031.2	13:56:20	88
	-0.4				
-975	1157.3	.03	-1031.0	13:56:50	88
	-1.4				
-950	1149.1	.03	-1030.7	13:57:10	88
	-2.9				
-925	1150.3	.03	-1031.0	13:57:40	88
	-1.9				
-900	1156.8	.04	-1031.5	13:58:10	88
	0.0				
-875	1159.8	.04	-1031.8	13:58:30	88
	1.5				
-850	1152.2	.04	-1032.3	13:59:00	88
	-0.8				
-825	1149.9	.08	-1032.9	13:59:20	88
	-0.2				
-800	1145.2	.04	-1032.9	13:59:50	88
	-1.2				
-775	1146.3	.04	-1032.9	14:00:10	88
	-1.0				
-750	1143.8	.03	-1032.4	14:00:40	88
	-0.5				
-725	1141.1	.04	-1032.2	14:01:00	88
	-0.9				
-700	1142.9	.03	-1032.1	14:01:20	88
	-0.2				
-675	1144.3	.04	-1032.0	14:01:40	88
	0.1				
-650	1144.4	.04	-1031.6	14:02:00	88
	-0.6				
-625	1144.3	1.0	-1031.3	14:02:20	88
	12.8				
-600	1147.8	.03	-1031.1	14:02:40	88
	-0.1				
-575	1142.7	.19	-1031.0	14:03:00	88
	-1.7				
-550	1143.3	.04	-1031.1	14:03:30	88
	-0.8				
-525	1145.9	.04	-1031.3	14:04:00	88
	0.8				
-500	1143.9	.12	-1031.1	14:04:30	88
	-0.9				
-475	1141.5	.03	-1031.4	14:05:00	88
	-1.7				
-450	1147.0	1.5	-1031.4	14:05:20	88
	-39.1				
-425	1156.9	.05	-1031.7	14:05:40	88
	2.9				
-400	1154.3	.04	-1031.5	14:06:10	88
	2.5				
-375	1144.4	.04	-1031.4	14:06:30	88
	0.3				
-350	1139.6	.04	-1031.6	14:07:00	88
	0.0				
-325	1141.5	.04	-1031.6	14:07:35	88
	0.2				
-300	1141.2	.03	-1031.9	14:07:56	88
	0.0				
-275	1145.4	.04	-1032.0	14:08:20	88
	1.6				
-250	1139.1	.07	-1031.4	14:09:10	88
	-4.3				
-225	1139.8	.04	-1031.4	14:09:31	88
	-0.5				
-200	1139.5	.04	-1031.4	14:09:50	88
	0.0				
-175	1141.2	.03	-1031.3	14:10:12	88
	-0.6				
-150	1140.7	.03	-1031.3	14:10:35	88

Line: -1600 Date: 6 FEB 87 #326

POSITION	FIELD	ERR	DRIFT	TIME	DS
-1300	1161.5	.03	-1030.7	14:55:09	88
	-0.6				
-1275	1159.9	.04	-1030.5	14:56:08	88
	-0.1				
-1250	1160.3	.03	-1030.0	14:56:32	88
	-0.4				
-1225	1159.5	.04	-1030.0	14:57:03	88
	-0.5				
-1200	1157.3	.09	-1029.7	14:57:26	88
	-0.1				
-1175	1156.4	.04	-1029.4	14:58:37	88
	-0.2				
-1150	1156.7	.04	-1029.6	14:59:02	88
	0.4				
-1125	1160.9	.03	-1029.9	14:59:25	88
	1.2				
-1100	1157.4	.03	-1029.6	14:59:50	88
	0.1				
-1075	1157.0	.04	-1029.6	15:00:15	88
	0.1				
-1050	1159.2	.03	-1030.1	15:00:44	88
	1.1				
-1025	1157.7	.04	-1029.9	15:01:11	88
	-0.8				
-1000	1153.8	.04	-1029.8	15:01:40	88
	-1.2				
-975	1155.0	.03	-1029.9	15:02:05	88
	-0.5				
-950	1156.0	.05	-1029.1	15:02:30	88
	-0.4				
-925	1157.3	.04	-1028.9	15:03:01	88
	-0.2				
-900	1154.3	.04	-1029.1	15:03:33	88
	0.2				
-825	1155.9	.03	-1029.2	15:03:58	88
	1.0				
-800	1153.9	.03	-1029.2	15:05:00	88
	0.8				
-775	1153.0	.04	-1029.0	15:05:32	88
	0.5				
-750	1153.8	.04	-1029.3	15:05:55	88
	0.2				
-725	1153.9	.04	-1029.8	15:06:15	88
	0.5				
-700	1153.6	.03	-1029.3	15:06:37	88
	0.0				
-675	1157.5	.03	-1029.5	15:07:05	88
	0.4				
-650	1154.9	.03	-1029.1	15:07:39	88
	-0.2				
-625	1153.3	.03	-1029.4	15:08:03	88
	0.2				
-600	1154.0	.04	-1029.1	15:08:27	88
	0.1				
-575	1154.5	.03	-1029.3	15:08:58	88
	0.7				
-550	1150.3	.03	-1028.9	15:09:36	88
	-0.8				
-525	1153.4	.03	-1028.9	15:09:59	88
	1.5				
-500	1152.5	.03	-1028.9	15:10:28	88
	0.1				
-475	1151.2	.04	-1028.5	15:10:55	88
	0.5				
-450	1149.1	.04	-1028.8	15:11:24	88
	0.0				
-425	1148.4	.04	-1028.5	15:11:55	88
	-0.7				
-400	1149.4	.04	-1028.8	15:12:25	88
	0.4				
-375	1147.5	.04	-1029.0	15:12:54	88
	-1.4				
-350	1151.8	.03	-1029.5	15:13:25	88
	2.7				
-325	1153.4	.04	-1029.0	15:13:54	88
	2.5				
-300	1156.6	.03	-1028.4	15:14:25	88
	1.8				
-275	1145.8	.04	-1028.5	15:14:56	88
	-0.8				
-250	1143.6	.04	-1028.2	15:15:20	88
	-0.1				
-225	1142.9	.03	-1027.6	15:15:46	88
	-0.6				
-200	1141.4	.04	-1027.5	15:16:08	88
	-0.3				
-175	1141.4	.04	-1027.9	15:16:51	88
	0.5				
-150	1139.6	4.5	-1027.4	15:17:28	88
	973.6				
-125	1147.5	.11	-1027.9	15:17:59	88
	0.8				
-100	1154.2	.04	-1027.7	15:18:24	88
	2.5				
-75	1150.9	.03	-1027.5	15:18:47	88
	0.6				
-50	1146.2	.04	-1027.7	15:19:08	88
	-0.9				
-25	1150.3	.03	-1027.7	15:19:36	88
	0.0				
-0	1151.1	1.5	-1027.8	15:20:24	88
	1.5				

INSTRUMENT DATA

OMNI IV "Tie Line" Gradiometer/Magnetometer console S/N C030

PPX-528 0.5m Gradient Sensor S/N B158

OMNI IV "Tie Line" Magnetometer w/Base Stn. Capability Console S/N C203

PPX-326R Remote Sensor S/N B389

DCU-400 40 char. Thermal Printer Console S/N 027

Statement of Expenses

Equipment Rental:	2,779.71	
Geophysicist: 7 days @ $300.00/day:	2,100.00	
Technician: 7 days @ $200.00/day:	1,400.00	
Food:	250.00	
Report Time: 3 days @ $400.00/day:	1,200.00	
	7,729.71	7,729.71
Travel Related Expenses:		
3 days crew at $500/day:	1,500.00	
Hotel and Food:	361.08	
Car Rental; Whitehorse/Dawson:	830.85	
Helicopter; Dawson/Barker Creek:	1,693.60	
	4,385.53	4,385.53
Total All Expenses:		12,115.24

STATEMENT OF QUALIFICATIONS

I, ANDE RYCHTER, hereby certify that:

1. I Am a geological consultant specializing in geophysics. I either performed or participated in the work involved in this project.

2. I obtained a Bachelors degree in Geological Engineering in 1982 from The University of British Columbia in Vancouver.

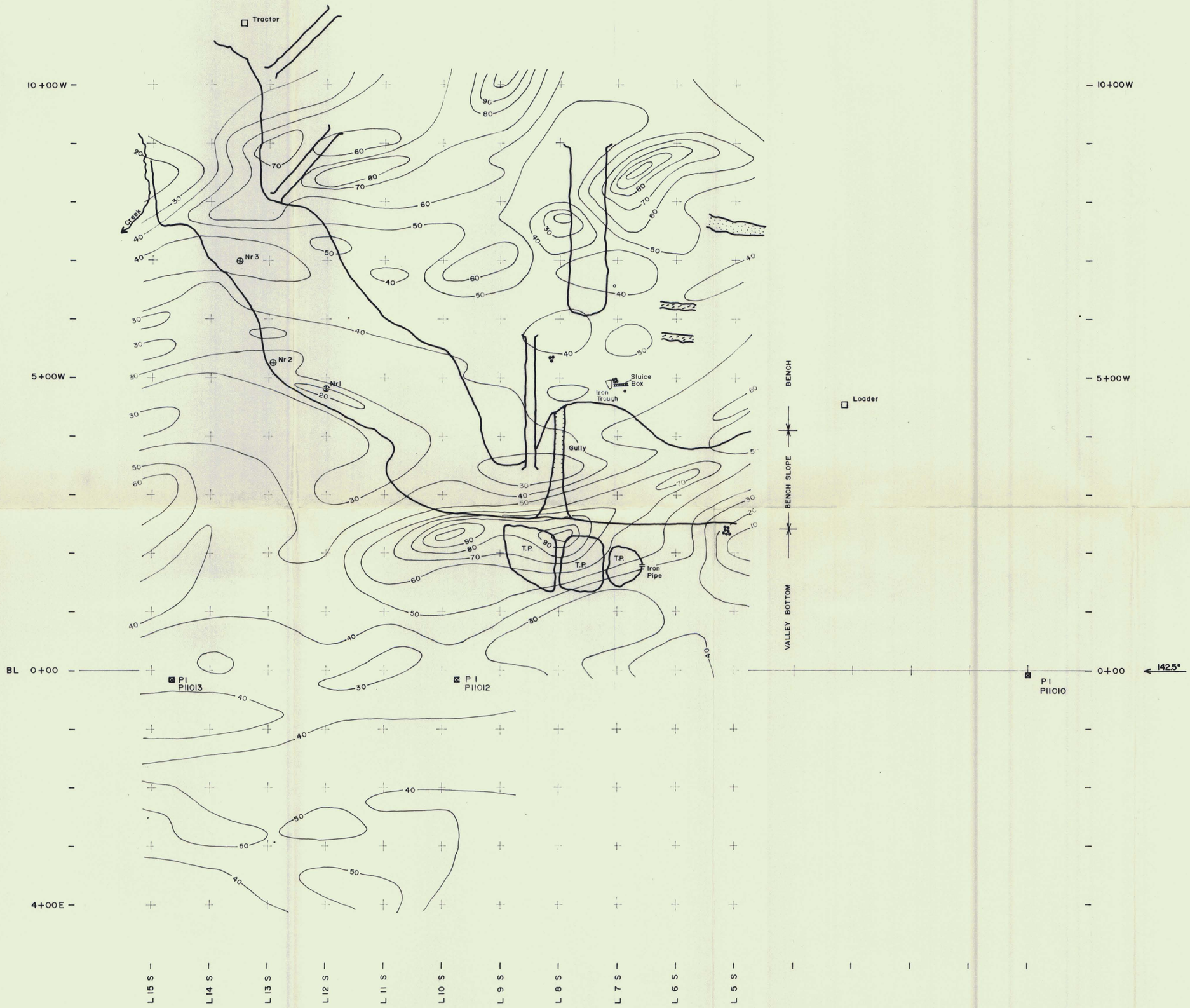
3. For two and a half years, I worked as a geophysicist with Digicon Geophysical Corporation in Houston, Texas. For one-half year I worked as a senior geophysicist in the research department of the same company.

4. I am a member of The Society of Exploration Geophysicists.

Ande Rychter

Ande Rychter

Vancouver, B.C.
March 7, 1987



Map 1

HAVILAH GOLD MINES LTD.

TOTAL MAGNETIC FIELD

INSTRUMENT TYPE:	EDA OMNI IV
DATE SURVEY:	Feb. 7, 1987
LOCATION:	Barker Creek, Yukon T.
NTS SHEET:	115 O/2, 1:50,000
CLAIM NUMBERS:	P11010 - P11013
LINE SPACING	100 ft
READING INTERVAL:	25 ft
MAGNETIC DECLINATION:	33° 22'
MAGNETIC INCLINATION:	80°
OPERATOR:	J. Devlin
DATUM SUBTRACTED:	57,600 gamma
DIURNAL CORRECTION:	Base Station
DRAFTING, DATE:	A. Rychter, J. Devlin, Feb 18, 87
APPROVED, DATE:	A. Rychter, Feb. 19, 1987

SCALE 1:1,200

0 50 100 200 ft

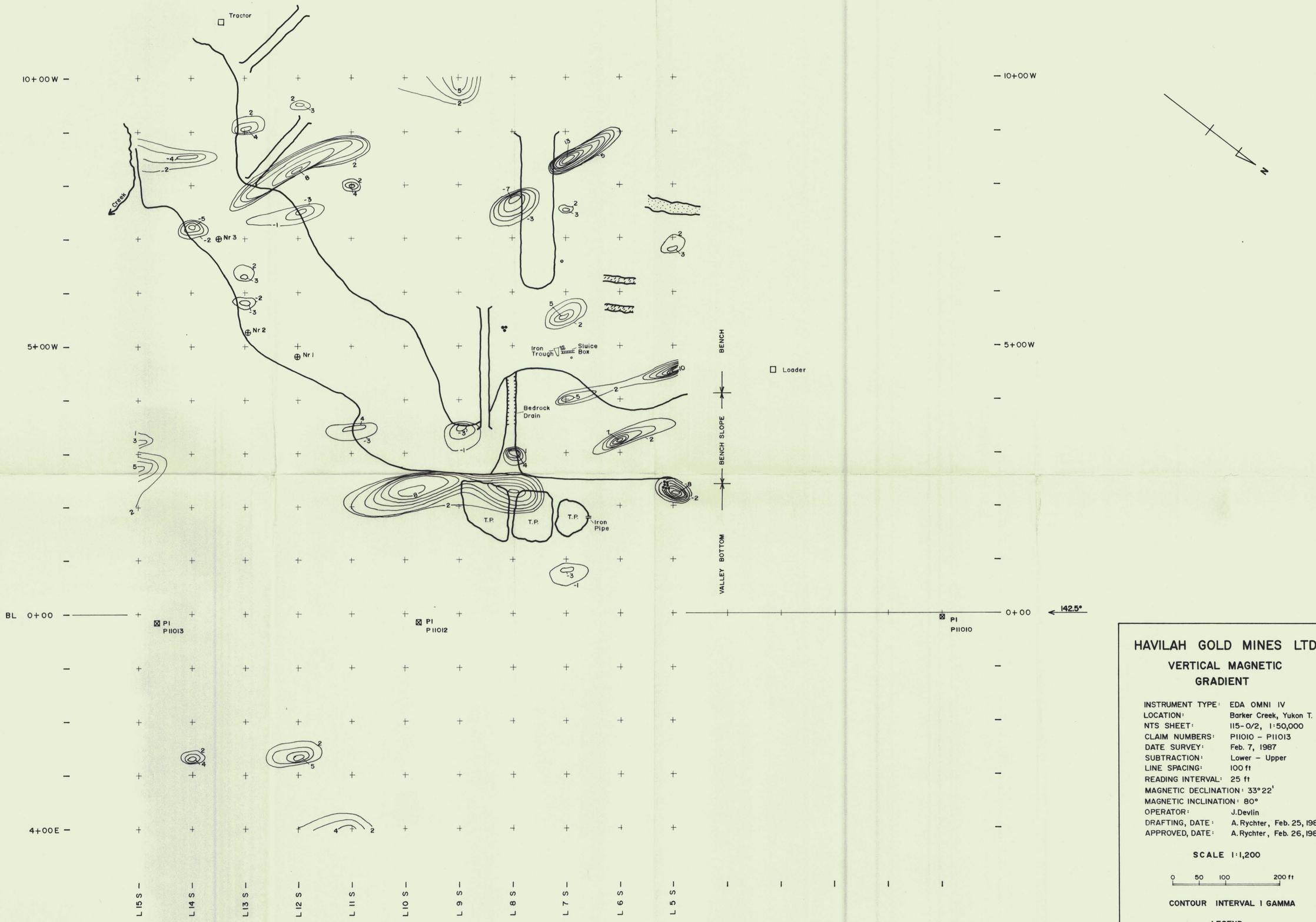
CONTOUR INTERVAL 10 GAMMA

LEGEND

- Organic Debris
- Black Muck
- Trench
- T.P. Tailings Pond
- Claim Post
- Fuel Barrels
- Buckets
- Rock Sample

120082 (30)

M001G



Map 2

HAVILAH GOLD MINES LTD.

VERTICAL MAGNETIC GRADIENT

INSTRUMENT TYPE:	EDA OMNI IV
LOCATION:	Barker Creek, Yukon T.
NTS SHEET:	115-O/2, 1:50,000
CLAIM NUMBERS:	P11010 – P11013
DATE SURVEY:	Feb. 7, 1987
SUBTRACTION:	Lower – Upper
LINE SPACING:	100 ft
READING INTERVAL:	25 ft
MAGNETIC DECLINATION:	33°22'
MAGNETIC INCLINATION:	80°
OPERATOR:	J.Devlin
DRAFTING, DATE:	A. Rychter, Feb. 25, 1987
APPROVED, DATE:	A. Rychter, Feb. 26, 1987

SCALE 1:1,200

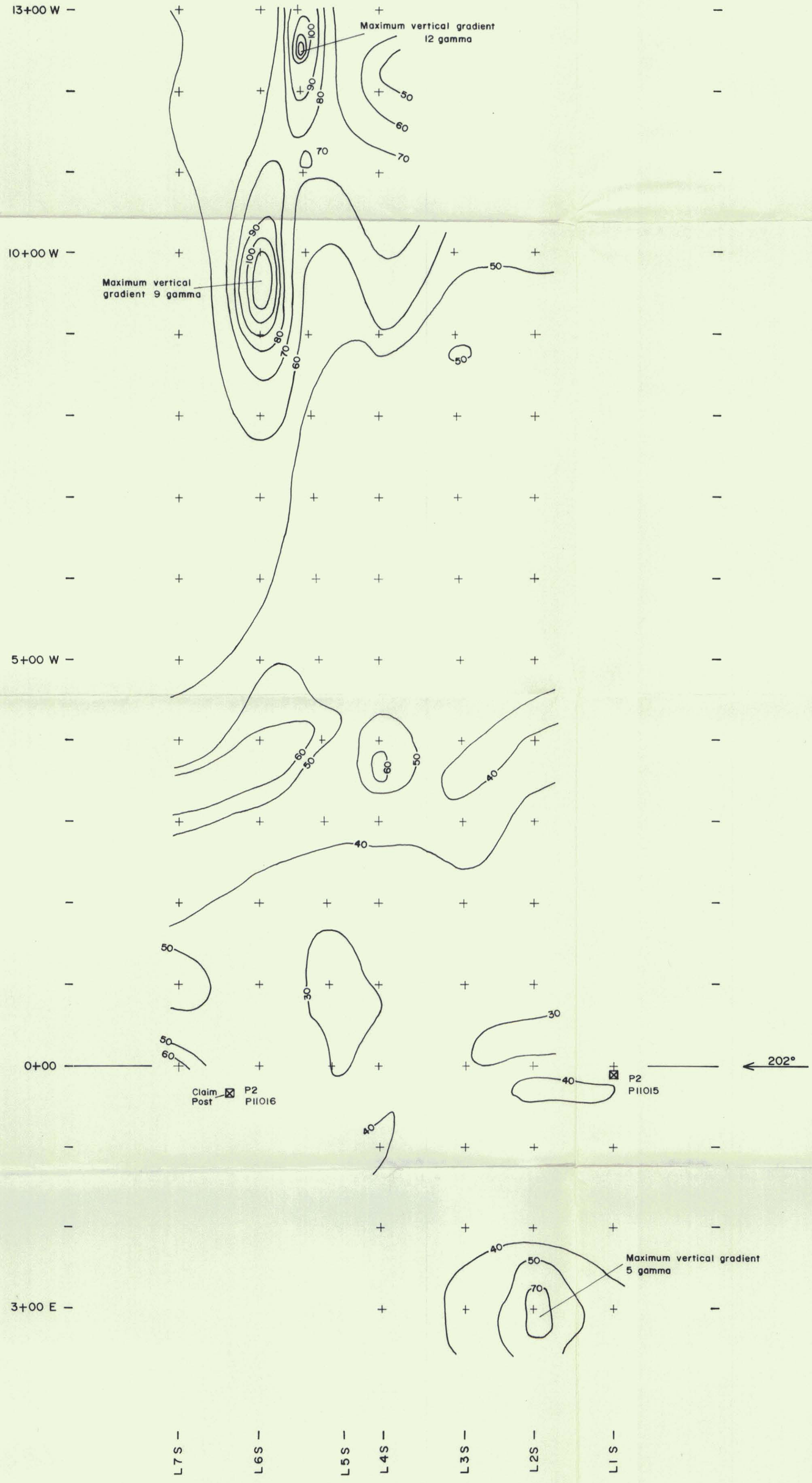
0 50 100 200 ft

CONTOUR INTERVAL 1 GAMMA

LEGEND

- Organic Debris
- Black Muck
- Trench
- T.P. Tailings Pond
- Claim Post
- Fuel Barrels
- Buckets
- Rock Sample

M001G 120082 (28)



Map 3

HAVILAH GOLD MINES LTD.

TOTAL MAGNETIC FIELD

INSTRUMENT:	EDA OMNI IV
LOCATION:	Agate Creek, Yukon T.
NTS SHEET:	115-0/2, 1:50,000
CLAIM NUMBERS:	P11015-P11016
DATE SURVEY:	Feb. 6, 1987
LINE SPACING:	100 ft (appx.)
READING INTERVAL:	25 ft (appx.)
DIURNAL CORRECTION:	Base Station
DATUM SUBTRACTED:	58,600 gamma
MAGNETIC DECLINATION:	33°22'
MAGNETIC INCLINATION:	80°
OPERATOR:	J. Devlin
DRAFTING, DATE:	A. Rychter, Feb. 2, 1987
APPROVED, DATE:	A. Rychter, Feb. 2, 1987

SCALE 1:1,200

0 50 100 200 ft

CONTOUR INTERVAL 10 GAMMA