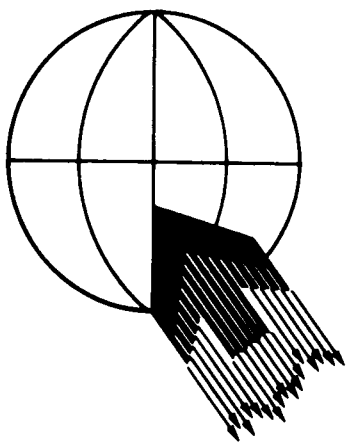
AIRBORNE ELECTROMAGNETIC SURVEY

HUDSON'S BAY OIL AND GAS CO. LTD.

ROSS RIVER AREA, YUKON TERRITORY

FILE NO: 19048 NOVEMBER, 1977

105 J



Questor Surveys Limited, 6380 Viscount Road, Mississauga, Ontario L4V 1H3

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INTRODUCTION

This report contains our interpretation of the results of an airborne electromagnetic survey flown in the Ross River Area, Yukon Territory, on June 8 and 9, 1977. A brief description of the survey procedure together with recommendations for ground follow-up is included.

The survey totalled 578 line kilometres and was performed by Questor Surveys Limited. The survey aircraft was a Shorts Skyvan C-FQSL and the operating base was Ross River, Yukon Territory.

The area outline is shown on a 1:250,000 map at the end of this report. This is part of the National Topographic Series sheet numbers 105F, G, J and K.

The personnel involved in the survey were:-

Michael Portalier	Pilot
Colin Reid	Navigator
Steve McKerrell	Instrument Operator
Dave Dawson	Aircraft Engineer
Steve Kilty	Geophysicist

MAP COMPILATION

The base maps are uncontrolled mosaics constructed from National Air Photo Library 1" = 1 mile photographs. The mosaics were reproduced at a scale of 1:20,000 on stable transparent film from which white prints can be made.

Flight path recovery was accomplished by comparison of the prints of the 35mm film with the mosaic in order to locate the fiducial points. These points are approximately 4500 feet apart.

SURVEY PROCEDURE

Terrain clearance was maintained as close to 400 feet as possible, with the E. M. Bird at approximately 150 feet above the ground. A normal S-pattern flight path using approximately one mile turns was used. The equipment operator logged the flight details and monitored the instruments.

A line spacing of 400 metres was used.

INTERPRETATION AND RECOMMENDATIONS

The survey area is located approximately 160 miles northwest of Watson Lake, Yukon Territory and roughly 15 miles east of Ross River. The author is unaware of any past exploration activity within the survey area but there is a good chance that there has been.

In the twenty year span between 1954 and 1974, four strata-bound stratiform lead-zinc-silver deposits have been found in the Anvil Range District. These four deposits are approximately 30 miles west-northwest of the survey area. The first important lead-zinc discovery, in 1954, was in the Vangorda Creek area and was optioned by Prospectors Airways Ltd. The deposit is estimated to contain 9.4 million tons of 8.16% combined Pb-Zn and 1.76 oz. of Ag. In 1963, Kerr Addison discovered the Swim Lake deposit, 10 miles southeast of the

Vangorda property. The Swim Lakes discovery was made by a combination of airborne magnetics and gravity surveys. Estimated tonnage is 5 million tons of 9.5% combined Pb-Zn and 1.5 oz. of Ag. In 1965, the Dynasty Syndicate and Cyprus Mines discovered the Faro deposit, estimated at 63 million tons of 9.5% combined Pb-Zn and 1.5 oz. Ag by doing follow-up geochemistry and geophysics. In 1973, the Grum deposit was discovered by the AEX syndicate by drilling the area between the Champ and the Firth zones on the Kerr Addison claims northwest of Vangorda. There is every possibility of other discoveries being made in this area.

Although the survey area is located several miles to the east of these discovery areas, the rocktypes could be much similar. Perhaps a description of the geology of the VANGORDA deposit of Kerr Addison's will be helpful at this stage:

> The host rocks comprise a flat-lying sedimentary assemblage which can be divided into two main zones, namely, one predominantly chloritic sericite schist, and the other predominantly graphitic schist. They are intimately associated with much intercalation at the edges of the graphitic horizon. The graphitic schist is minutely crumpled, breaks easily along cleavage planes, and contains narrow (up to 1 m.m.) quartz stringers which often are mineralized with pyrrhotite, with minor chalcopyrite and pyrite. This graphitic schist seems to have been produced by strong metamorphism of impure carbonaceous slate interbedded with thin, sandy layers. Calcite is present in small amounts and may have been

introduced with the sulphides.

The sericitic zone consists of light greenish-grey, chlorite schist and appears less deformed than the black schist. It is sparsely mineralized in siliceous bands (mainly pyrrhotite with some galena and chalcopyrite).

As a result of the INPUT survey, there were many anomalies intercepted. There is generally an east-west orientation to the conductors but, in a lot of areas, it is just mere confusion. I have attempted to put conductor axis on all of the trends, but it was not that simple. In a number of cases, the conductors are, in fact, long linear trends but it is also felt that a lot of the conductive horizons are merely short strike length situations. It is felt that overall, the E. M. responses are due to a flat lying sequence, more than likely graphitic schists. If, in fact one is looking for horizontal lenses of sulphides (Pb-Zn), it would be quite difficult to establish which areas, within the survey area, to do ground follow-up work. The conductive horizons do not really give any clues and, as has been established from ground follow-up on the known deposits, the magnetics have not helped a great deal either. The magnetic background within the survey area is generally flat with the exception of a few isolated linear trends or circular features. The magnetic trends traversing through the northwest portion of the survey area could be due to pyrrhotite and/or magnetite. The magnetic feature in the southeast corner appears to be due to magnetite within graphitic sediments. However, in the northeastern portion of the survey area, the long conductive trends are cut off at the western

edge of the high intensity magnetic feature. This could mean that the magnetic anomaly is due to magnetite within an intrusive rocktype or possibly skarn. It has been established in the Faro area that some of the deposits have magnetic association while others do not. On this basis, it is felt that the magnetics will play no part or very little in determining exploration targets. The conductance of the anomalous intercepts will not provide any clues either, in formulating which areas should be investigated.

It is suggested that further work in the field, in the form of reconnaissance geological mapping, if not already done so, soil and water sampling and possibly gravity surveys, be carried out. The latter type of survey should only be utilized when a target is worthy enough to warrant this type of survey as it is quite costly and time consuming.

QUESTOR SURVEYS LIMITED

R. J. de Carle

R. J. deCarle,
Chief Geophysicist.

APPENDIX

EQUIPMENT

The aircraft are equipped with Mark VI INPUT (R) airborne E.M. systems and Geometrics G 803 proton precession magnetometers. Radar altimeters are used for vertical control. The outputs of these instruments together with fiducial timing marks are recorded by means of galvanometer type recorders using light sensitive paper. Thirty-five millimeter continuous strip cameras are used to record the actual flight path.

(I) BARRINGER/QUESTOR MARK VI INPUT (R) SYSTEM

The Induced Pulse Transient (INPUT) system is particularly well suited to the problems of overburden penetration. Currents are induced into the ground by means of a pulsed primary electromagnetic field which is generated in a transmitting loop around the aircraft. By using half sine wave current pulses and a loop of large turns-area, the high output power needed for deep penetration is achieved.

The induced current in a conductor produces a secondary electromagnetic field which is detected and measured after the termination of each primary pulse. Detection is accomplished by means of a receiving coil towed behind the aircraft on four hundred feet of cable,

and the received signal is processed and recorded by equipment in the aircraft. Since the measurements are in the time domain rather than the frequency domain common to continuous wave systems, interference effects of the primary transmitted field are eliminated. The secondary field is in the form of a decaying voltage transient originating in time at the termination of the transmitted pulse. The amplitude of the transient is, of course, proportional to the amount of current induced into the conductor and, in turn, this current is proportional to the dimensions, the conductivity and the depth beneath the aircraft.

The rate of decay of the transient is inversely proportional to conductivity. By sampling the decay curve at six different time intervals, and recording the amplitude of each sample, an estimate of the relative conductivity can be obtained. By this means, it is possible to discriminate between the effects due to conductive near-surface materials such as swamps and lake bottom silts, and those due to genuine bedrock sources. The transients due to strong conductors such as sulphides exhibit long decay curves and are therefore commonly recorded on all six channels. Sheet-like surface materials, on the other hand, have short decay curves and will normally only show a response in the first two or three channels.

The samples, or gates, are positioned at 260, 480, 755, 1100, 1575 and 2100 micro-seconds after the cessation of the pulse. The widths of the gates are 225, 225, 320, 410, 500 and 540 micro-seconds respectively.

For homogeneous conditions, the transient decay will be exponential and the time constatnt of decay is equal to the time difference at two successive sampling points divided by the log ratio of the amplitudes at these points.

(II) GEOMETRICS G-803 PROTON PRECESSION MAGNETOMETER

The magnetometers which measure the total magnetic field have a sensitivity of 1 gamma and a range from 20,000 gammas to 100,000 gammas.

Because of the high intensity field produced by the INPUT transmitter, the magnetometer results are recorded on a time-sharing basis. The magnetometer head is energized while the transmitter is on, but the read-out is obtained during a short period when the transmitter is off. Using this technique, the head is energized for 1.15 seconds and then the transmitter is switched off for 0.15 seconds while the precession frequency is being recorded and converted to gammas. Thus a magnetic reading is taken every 1.3 seconds.

DATA PRESENTATION

The symbols used to designate the anomalies are shown in the legend on each map sheet, and the anomalies on each line are lettered in alphabetical order in the direction of flight. Their locations are plotted with reference to the fiducial numbers on the analog record.

A sample record is included to indicate the method used for correcting the position of the E.M. Bird and to identify the parameters that are recorded.

All the anomaly locations, magnetic correlations, conductivity-thickness values and the amplitudes of channel number 2 are listed on the data sheets accompanying the final maps.

GENERAL INTERPRETATION

The INPUT system will respond to conductive overburden and near-surface horizontal conducting layers in addition to bedrock conductors. Differentiation is based on the rate of transient decay, magnetic correlation and the anomaly shape together with the conductor pattern and topography.

Power lines sometimes produce spurious anomalies but these can be identified by reference to the monitor channel.

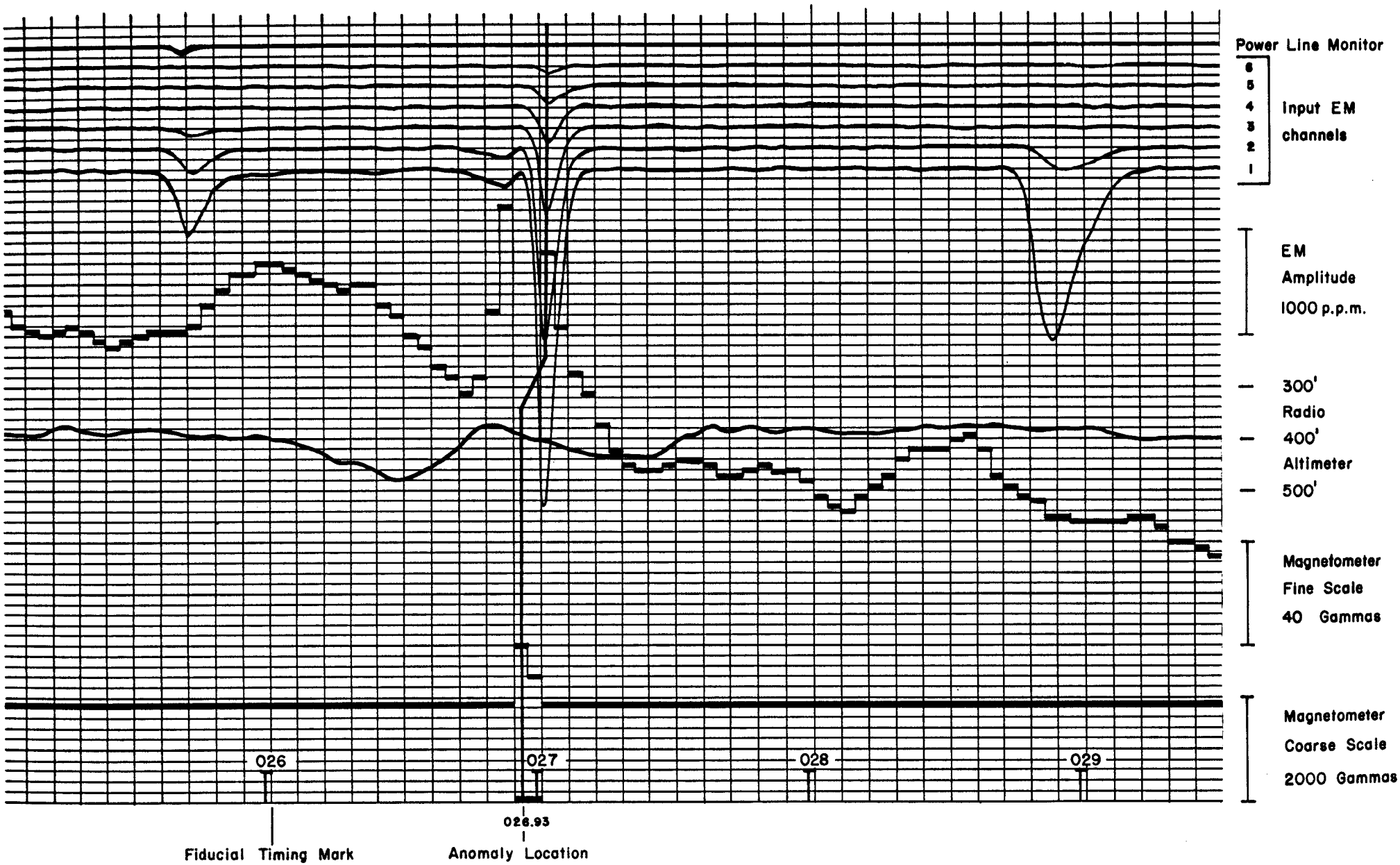
Railroad and pipeline responses are recognized by studying the film strips.

Graphite or carbonaceous material exhibits a wide range of conductivity. When long conductors without magnetic correlation are located on or parallel to known faults or photographic linears, graphite is most likely the cause.

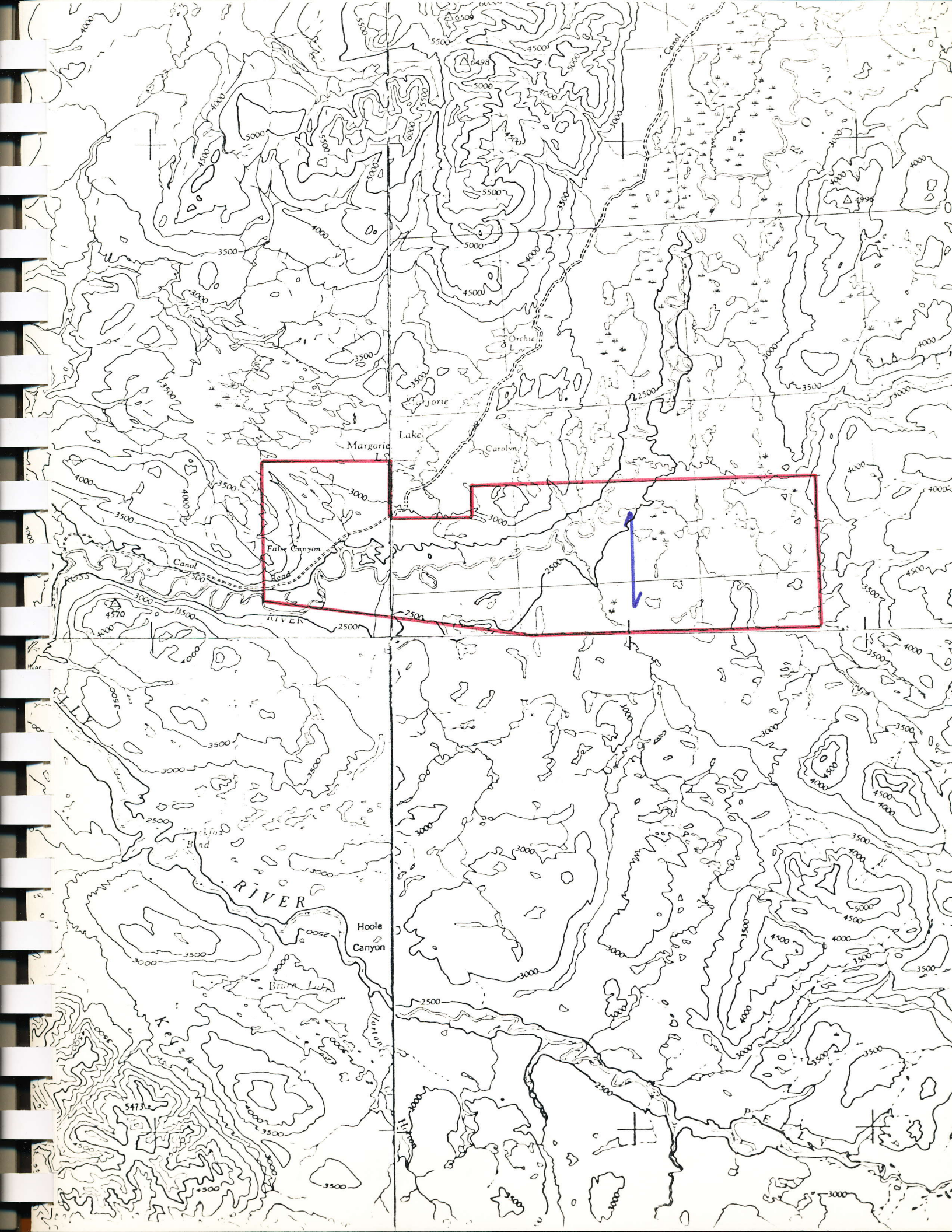
Contact zones can often be predicted when anomaly trends coincide with the lines of maximum gradient along a flanking magnetic anomaly. It is unfortunate that graphite can also occur as relatively short conductors and produce attractive looking anomalies. With no other information than the airborne results, these must be examined on the ground.

Serpentinized peridotites often produce anomalies with a character that is fairly easy to recognize. The conductivity which is probably caused in part by magnetite, is fairly low so that the anomalies often have a fairly large response on channel #1; they decay rapidly, and they have strong magnetic correlation. INPUT E. M. anomalies over massive magnetites show a relationship to the total Fe content. Below 25 - 30%, very little or no response at all is obtained, but as the percentage increases the anomalies become quite strong with a characteristic rate of decay which is usually greater than that produced by massive sulphides.

Commercial sulphide ore bodies are rare, and those that respond to airborne survey methods usually have medium to high conductivity. Limited lateral dimensions are to be expected and many have magnetic correlation caused by magnetite or pyrrhotite. Provided that the ore bodies do not occur within formational conductive zones as mentioned above, the anomalies caused by them will usually be recognized on an E.M. map as priority targets.



Representative INPUT, Magnetometer and Altimeter Recording


Canol
Orchie L.
Margorie L.
Lake
Carolyn
False Canyon
Road
Canol
RIVER
Hoole
Canyon
Kegza
Horton
P E L

ANOM	FID	CHS	CH2.PPM	MHOS	MAC	VALUE
001A	937.90	4	950	2	0.00	0
001B	938.00	3	500	4	938.03	8
001C	938.40	3	300	9	0.00	0
001D	939.04	6	750	7	0.00	0
001E	939.30	6	2000	5	939.55	40
001F	939.46	4	400	7	0.00	0
002A	943.80	4	1000	2	0.00	0
002B	944.24	4	275	11	944.00	16
002C	945.08	4	750	2	0.00	0
002D	945.22	5	1000	5	945.40	30
003A	941.80	4	450	7	0.00	0
003B	941.98	4	400	9	0.00	0
003C	943.22	4	400	5	943.40	20
004A	926.73	3	200	3	0.00	0
004B	927.50	3	250	1	927.30	36
004C	927.72	4	325	3	0.00	0
004D	927.90	4	750	2	928.25	28
004E	928.64	3	350	1	928.63	7
004F	928.90	2	125	NC	0.00	0
004G	931.22	2	100	NC	0.00	0
004H	931.98	6	1050	9	931.75	72
005A	915.63	3	150	9	0.00	0
005B	916.24	3	500	1	916.20	24
005C	916.49	3	600	1	0.00	0
005D	916.83	4	400	5	0.00	0
005E	916.92	3	325	6	0.00	0
005F	917.32	3	300	2	917.40	8
005G	917.45	3	325	2	0.00	0
005H	918.00	3	300	1	0.00	0
005J	918.32	2	100	NC	0.00	0
005K	919.93	3	175	5	920.00	5
005L	920.50	4	625	3	920.55	45
005M	920.87	6	2700	4	0.00	0
006A	932.23	6	1700	6	0.00	0
006B	932.55	4	525	5	0.00	0
006C	932.87	3	300	1	0.00	0
006D	933.00	3	350	1	932.92	45
006E	933.55	3	150	9	0.00	0
006F	934.25	3	400	6	0.00	0
006G	934.96	3	275	3	0.00	0
006H	935.68	3	500	1	0.00	0
006J	936.00	3	325	2	935.90	8
006K	936.46	3	300	2	0.00	0
006L	936.68	3	200	9	0.00	0
006M	937.06	2	100	NC	0.00	0
007A	906.60	4	900	1	0.00	0
007B	906.74	3	875	1	0.00	0
007C	907.53	4	1300	1	907.65	10
007D	908.10	3	400	2	908.05	28
007E	908.48	5	2050	4	0.00	0
007F	908.79	3	1100	1	0.00	0
008A	921.50	6	2000	5	0.00	0
008B	921.60	6	2400	4	921.85	10
008C	921.91	4	700	3	0.00	0
008D	922.42	4	1000	2	922.25	5
008E	922.58	4	1300	2	0.00	0
008F	922.83	4	1000	2	922.75	36
008G	923.43	6	5250	5	0.00	0
008H	923.70	6	2775	6	0.00	0

ANOM	FID	CHS	CH2.PPM	MHOS	MAG	VALUE
008J	923.94	6	1950	5	0.00	0
008K	924.17	4	900	2	0.00	0
008L	924.56	4	1400	1	924.65	38
008M	924.75	5	1400	3	0.00	0
008N	925.20	3	300	2	925.25	40
010A	909.49	3	750	4	0.00	0
010B	909.64	5	1450	4	909.85	5
010C	910.13	6	2600	9	910.10	5
010D	910.70	5	1850	4	0.00	0
010E	910.90	6	3600	8	0.00	0
010F	911.30	6	3400	15	0.00	0
010G	911.42	6	4300	18	0.00	0
010H	911.86	6	3650	5	912.00	20
010J	912.12	6	4550	18	0.00	0
010K	912.30	5	1850	6	0.00	0
010L	912.83	3	450	5	913.15	56
010M	913.00	3	400	7	0.00	0
077A	947.90	3	500	2	947.87	5
077B	948.44	4	950	2	948.45	14
077C	948.71	6	2100	7	0.00	0
077D	949.00	6	2200	13	0.00	0
077E	949.20	5	1400	8	0.00	0
077F	949.60	5	2100	3	0.00	0
077G	949.80	5	2150	3	949.75	4
077H	950.10	5	1850	3	0.00	0
077J	950.36	5	3000	3	950.25	6
077K	950.62	4	2350	1	0.00	0
077L	951.33	5	2800	3	951.30	8
077M	951.78	5	3100	1	0.00	0
077N	952.05	4	3300	6	0.00	0
077P	952.38	5	3600	2	0.00	0
077R	952.56	5	3150	2	0.00	0
077S	952.83	5	2850	2	953.00	8
077T	953.50	6	2550	5	0.00	0
077W	954.00	5	1650	2	0.00	0
077X	954.38	4	550	4	0.00	0
077Y	955.03	3	250	4	955.00	4
077Z	955.32	4	700	6	955.35	6
077AA	955.94	4	450	4	0.00	0
077BB	956.90	5	1700	3	0.00	0
077CC	957.33	6	5250	9	0.00	0
077DD	957.60	6	3500	9	0.00	0
077EE	957.98	6	3300	6	0.00	0
077FF	958.43	3	1000	1	0.00	0
077GG	958.60	3	750	1	0.00	0
077HH	959.50	4	1300	3	0.00	0
077JJ	959.80	4	825	4	0.00	0
077KK	960.00	4	900	4	0.00	0
077LL	960.18	4	700	6	0.00	0
077MM	961.60	5	3250	4	0.00	0
077NN	961.88	6	4600	8	0.00	0
077PP	962.07	6	1600	10	0.00	0
077RR	962.46	6	5600	8	962.18	6
077SS	963.20	6	1000	19	963.20	4
077TT	963.40	6	2600	18	0.00	0
077WW	963.58	5	1000	7	0.00	0

ANOMALY	FID	CHS	CH2.AMP	MMOS	MAG	VALUE
7A	756.55	3	170	1		
7B	756.58	3	385	1	756.50	15
7C	756.85	4	1015	1	756.85	26
7D	757.70	3	435	3	757.55	38
7E	758.05	3	645	1		
7F	758.20	3	950	1		
9A	744.05	2	95	NC		
9B	744.35	3	160	1		
9C	744.68	4	895	1		
9D	744.93	5	1015	1	745.00	22
9E	745.40	6	4155	21		
9F	745.50	6	2750	24		
9G	745.80	6	7840	23		
9H	745.95	6	7205	22		
9J	746.15	6	4640	8	746.40	6
9K	746.85	4	905	2	746.85	21
9L	747.45	6	2545	6		
9M	747.70	6	2185	3		
11A	732.55	2	40	NC		
11B	732.90	3	155	6		
11C	733.05	3	225	3		
11D	733.45	3	390	1		
11E	733.68	4	1470	2		
11F	733.95	6	2220	25		
11G	734.05	6	5420	28		
11H	734.25	6	5385	8	734.20	20
11J	734.68	6	3560	22		
11K	734.83	6	1915	19		
11L	735.05	6	1825	16		
11M	735.28	6	2510	11		
11N	735.80	5	1700	5		
11P	735.98	5	1790	4		
11R	736.43	4	1715	1		
12A	748.75	4	1110	2		
12B	749.08	5	1280	4		
12C	749.28	5	1955	3		
12D	749.55	5	1760	2		
12E	749.68	4	1475	2		
12F	750.03	6	1455	31		
12G	750.40	6	2395	36		
12H	750.70	6	5070	12	750.55	11
12J	750.93	6	5865	17		
12K	751.25	6	5670	14	751.10	13
12L	751.48	6	9695	14		
12M	752.25	3	305	2	752.30	28
12P	755.25	2	40	NC		
13A	719.25	2	145	NC		
13B	719.55	3	170	3		
13C	719.63	3	210	1		
13D	720.00	2	120	NC		
13E	720.28	2	155	NC		
13F	720.75	5	980	2	720.65	16
13G	721.30	6	6200	21	721.25	13
13H	721.55	6	3860	17		

ANOMALY	FID	CHS	CH2.AMP	MHOS	MAG	VALUE
13J	721.75	6	4350	11		
13K	721.95	6	3345	14		
13L	722.05	6	2725	15		
13M	722.25	6	1650	17		
13N	722.65	5	1315	2		
13P	722.80	5	2210	2		
13R	722.98	5	2210	3		
13S	723.20	5	1540	4		
13T	723.48	5	1510	2		
13W	723.65	4	1270	1		
14A	736.85	4	1290	1		
14B	737.10	5	1330	2		
14C	737.60	5	1960	4		
14D	737.93	4	2840	1		
14E	738.55	6	2220	14		
14F	738.90	6	5145	11		
14G	739.15	6	6495	19		
14H	739.33	6	5415	16		
14J	739.50	6	5110	21	739.60	6
14K	739.90	4	1010	1		
14L	740.28	4	1615	1	740.30	26
14M	740.40	4	1300	1		
14N	741.30	3	260	1		
14P	741.63	3	270	1		
14R	742.30	2	100	NC		
15A	706.80	3	125	1		
15B	707.28	3	120	1		
15C	707.85	3	230	1		
15D	708.43	4	1255	2	708.55	52
15E	708.78	4	1215	1		
15F	708.98	6	1260	3		
15G	709.23	6	3985	24		
15H	709.58	6	3400	19		
15J	709.63	6	2925	22		
15K	710.00	4	660	7		
15L	710.30	4	1375	1		
15M	710.53	6	2485	3		
15N	710.65	6	2305	8		
15P	710.80	6	1975	6		
15R	711.03	4	1460	2		
15S	711.33	4	1385	1		
16A	724.45	5	1730	2		
16B	724.60	5	1480	2		
16C	724.83	4	1100	2		
16D	725.08	5	1535	2		
16E	725.23	5	1755	4		
16F	725.55	5	2565	1		
16G	725.78	4	2545	1		
16H	725.95	5	1195	4		
16J	726.25	6	1755	17		
16K	726.40	6	2700	20		
16L	726.53	6	3035	21		
16M	726.85	6	5120	19	726.70	10
16N	727.35	4	1065	2		
16P	727.65	4	1425	1	727.80	79

ANOMALY	FID	CHS	CHG.AMP	MHOS	MAG	VALUE
16K	728.00	4	955	1		
16S	728.45	3	280	1		
16T	729.03	3	155	1		
16X	729.65	3	265	1		
16Y	730.18	2	45	NC		
17A	696.63	2	120	NC		
17B	697.78	2	165	NC		
17L	698.18	4	665	1		
17D	698.43	4	1625	1		
17E	698.63	4	1190	2	698.55	55
17F	699.18	5	2020	2	699.30	10
17G	699.60	6	1235	14		
17H	699.88	5	1190	3	699.90	8
17J	700.20	5	2050	2		
17K	700.48	6	2660	5		
17L	700.65	6	2160	8		
17M	700.93	4	1420	2		
17N	701.15	5	1310	2		
17P	701.43	5	1795	2		
17R	701.58	4	1675	2	701.50	16
18A	712.00	5	1065	3		
18B	712.73	4	1340	2	712.70	17
18C	713.38	5	5165	3		
18D	713.93	4	740	1		
18E	714.60	6	1000	16		
18F	714.95	4	1120	1		
18G	715.13	4	1195	1		
18H	715.58	5	1550	1		
18J	715.73	4	1680	1	715.80	43
18K	716.03	3	595	1		
18L	716.90	3	255	3		
18N	718.40	3	85	1		
19A	686.15	3	540	7		
19B	686.75	3	350	18		
19C	687.00	3	345	8		
19D	687.60	3	400	7		
19E	688.15	5	1030	3		
19F	688.28	5	1110	2	688.35	94
19G	688.48	4	1185	1		
19H	688.63	5	1130	3	688.65	19
19J	688.95	4	980	3		
19K	689.10	4	845	2		
19L	689.28	3	505	2	689.20	35
19[illegible]	689.60	4	760	5	689.85	12
19[illegible]	690.18	6	2900	4		
19P	690.80	4	1405	1	690.90	19
19[illegible]	691.58	4	1075	4		
20A	702.18	3	440	7		
20B	702.35	4	615	4		
20C	702.80	5	1320	2	702.70	23
20D	703.05	5	1605	3		
20E	703.25	5	2260	3		
20F	703.53	4	1155	1	703.40	10
20G	703.88	5	1040	2	703.80	10

ANOMALY	FID	CHS	CH2.AMP	MHOS	MAG	VALUE
20H	704.18	3	710	1		
20J	704.58	4	945	2	704.50	16
20K	704.90	5	1390	1	704.80	21
20L	705.08	4	1205	1		
20M	705.45	4	1770	1	705.30	31
20N	705.68	4	685	1	705.70	89
20P	706.18	3	255	1		
21A	676.80	4	605	6		
21B	677.23	5	2155	2	677.20	24
21C	677.35	5	1950	2		
21D	677.65	4	770	2	677.55	10
21E	677.93	4	1260	3		
21F	678.18	4	715	6	678.10	15
21G	678.43	4	1065	3	678.70	13
21H	679.10	5	2710	3		
21J	679.43	5	1345	2		
21K	679.65	4	1245	2	679.60	52
21L	679.95	3	855	3		
21M	680.68	5	1280	3	680.50	17
22A	691.95	3	515	1	692.05	11
22B	692.78	4	950	4		
22C	693.00	5	1575	3	692.90	34
22D	693.30	5	2455	2		
22E	693.45	5	2575	1		
22F	693.68	4	2180	1		
22G	693.88	5	1775	2		
22H	694.25	4	1435	2	694.10	10
22J	694.55	4	1105	2		
22K	695.13	5	3140	1	695.10	15
22L	695.55	5	1945	1	695.55	150
23A	667.20	3	475	6	667.40	12
23B	667.90	4	580	8	668.05	210
23C	668.30	6	1570	6	668.40	15
23D	668.53	5	1925	1		
23E	668.73	5	1715	2		
23F	668.98	6	1865	7		
23G	669.40	6	2115	6	669.20	11
23H	669.93	6	3100	3		
23J	670.35	5	1795	2	670.30	9
23K	670.65	4	1225	2		
23L	671.10	3	600	6		
24A	681.05	4	1630	1	680.85	15
24B	681.23	5	1175	6	681.20	21
24C	681.53	4	675	6		
24D	681.73	4	800	4	681.65	17
24E	681.88	4	930	4		
24F	682.28	5	1490	5	682.30	20
24G	682.68	5	3810	2		
24H	683.00	5	3195	2		
24J	683.53	5	2485	2	683.50	12
24K	684.05	5	2140	1		
24L	684.55	5	1420	5	684.55	22
24M	684.85	4	1260	2		
24N	685.53	3	540	4	685.00	105

29K	657.65	5	1500	2		
29L	657.95	5	1375	4		
29M	658.30	6	2560	43		
30A	599.65	6	2055	16		
30B	599.88	4	1010	1		
30C	600.10	6	1310	5		
30D	600.25	6	1545	10		
30E	600.55	6	2680	5		
30F	600.70	6	3740	4		
30G	600.98	5	2520	1		
30H	601.10	6	2645	3		
30J	601.28	5	2575	1		
30K	601.45	5	2740	1		
30L	601.65	4	1805	1		
30M	601.85	4	1190	2		
30N	602.05	5	1160	6		
30P	602.26	5	1245	3		
30R	602.63	6	1710	2		
30S	602.98	6	1460	5		
30T	603.20	5	2225	2		
30W	603.55	6	2415	4		
31A	645.75	5	1925	2		
31B	646.15	5	1330	1		
31C	646.45	6	1595	8		
31D	646.75	6	1870	14		
31E	647.28	6	2870	4		
31F	647.55	6	2650	5	647.70	9
31G	647.88	6	3235	5		
31H	648.15	6	3515	5		
31J	648.45	6	3020	5		
31K	648.85	6	2555	3		
31L	649.03	6	2285	4		
32A	591.10	5	2260	4		
32B	591.60	5	5155	2		
32C	592.05	5	3160	2		
32D	592.23	5	2615	2		
32E	592.55	5	2505	1		
32F	592.78	5	1505	3		
32G	593.30	6	6370	11		
32H	593.58	6	2625	7		
32J	593.90	4	1040	1		
32K	594.23	5	1985	1		
32L	594.50	5	2170	1		
33A	641.50	6	3400	12		
33B	641.85	6	1865	15		
33C	642.05	6	3920	7		
33D	642.28	6	6175	10		
33E	642.45	6	5870	14		
33F	642.68	6	6230	1		
33G	643.05	5	1755	2		
33H	643.43	5	2470	2		
33J	643.60	5	2650	2		
33K	643.58	6	3090	5		
33L	644.03	6	3910	4		
33M	644.30	5	2955	1		
33N	644.63	6	1245	9		

35P	645.13	6	4315	18			
35R	645.33	6	6655	15			
34A	582.68	6	3520	10			
34B	582.85	6	4920	11			
34C	583.45	6	4375	3			
34D	583.85	5	2500	1			
34E	584.08	5	3235	2			
34F	584.20	4	3100	1			
34G	584.48	4	1605	1			
34H	584.80	5	2420	1			
34J	585.08	6	6260	4			
34K	585.33	6	7855	13			
34L	585.55	6	8610	11			
34M	585.88	6	6835	9			
34N	586.03	6	6940	26			
34P	586.18	6	6650	15			
35A	594.98	6	6175	7			
35B	595.08	6	4805	6			
35C	595.70	6	5410	25			
35D	595.88	6	2525	10			
35E	596.00	6	4615	8			
35F	596.35	6	7695	30			
35G	596.50	6	8415	14			
35H	596.75	5	4520	1			
35J	597.20	3	385	1			
35K	597.68	5	2335	2			
35L	597.90	6	3320	3			
35M	598.28	4	2655	2			
35N	598.45	5	3025	1			
35P	598.58	5	2690	3			
35R	598.85	6	4055	10			
35S	598.98	6	3520	11			
35T	599.23	4	1110	1			
36A	574.23	6	3830	41	574.10	80	
36B	574.35	6	4450	30			
36C	574.48	6	5345	23			
36D	574.75	4	2855	1			
36E	575.15	6	3640	3			
36F	575.45	5	1970	1			
36G	575.63	4	1495	1			
36H	575.93	3	395	1			
36J	576.55	6	4875	3			
36K	576.90	6	3715	34			
36L	577.18	6	7925	22			
36M	577.53	6	3075	11			
36N	577.68	6	8195	10			
36P	577.80	6	9530	5			
36R	578.00	6	4985	9			
36A	573.43	3	130		570.40	17	Scurb
37A	586.90	6	1855	7			(Off Map)
37B	587.15	6	7070	14			
37C	587.30	6	6675	12			
37D	587.75	6	6780	14			
37E	587.95	6	8820	11			
37F	588.15	6	9275	4			

37G	589.05	4	375	2		
37H	589.38	4	1600	2		
37J	589.63	5	2770	1		
37K	589.75	5	2990	1		
37L	590.23	5	2970	2		
37M	590.65	6	6115	38		
38A	578.40	5	1340	4		
38B	578.58	6	5725	31		
38C	578.73	6	5340	8		
38D	578.83	6	4370	9		
38E	579.18	6	3845	19		
38F	579.33	6	5780	15		
38G	579.50	6	9175	8		
38H	579.70	6	8110	6		
38J	580.45	4	500	2		
38K	580.68	5	1150	5		
38L	581.10	5	1785	2		
38M	581.68	6	2725	4		
38N	581.83	6	2220	9		
38P	582.08	6	3170	41	582.30	40
39A	560.60	6	1215	20	560.70	50
39B	560.93	6	2350	4		
39C	561.18	6	2495	2		
39D	561.43	5	2570	1		
39E	561.88	6	1220	5		
39F	562.00	6	1270	6		
39G	562.10	6	1275	5		
39H	562.45	5	1115	2		
39J	562.90	4	820	1		
39K	563.28	6	4170	9		
39L	563.40	6	4210	8		
39M	563.60	6	3305	10	563.50	50
39N	563.80	6	3565	10	563.80	15
39P	563.95	6	2090	7		
39R	564.38	5	1190	4	564.40	4
39S	564.70	3	465	1	564.60	32
40A	547.45	3	295	1	547.40	130
40B	547.80	6	3695	23		
40C	547.98	6	3310	6		
40D	548.20	4	2495	1		
40E	548.50	4	2225	1		
40F	548.73	4	1505	1		
40G	549.00	4	1115	2		
40H	549.25	5	1835	4		
40J	549.40	5	1900	2		
40K	549.70	4	745	1		
40L	550.23	4	835	1		
40M	550.50	6	1710	6	550.40	30
40N	551.00	4	1150	1		
40P	551.13	4	1260	1		
40R	551.55	5	1750	1		
41A	565.53	4	535	1	565.00	20
41B	565.68	4	1435	1		
41C	565.93	4	1525	1	565.90	20
41D	566.30	4	1355	1		
41E	566.48	4	1070	1		

41F	566.70	4	540	1	566.80	30
41G	567.55	3	505	1	567.55	90
41H	568.08	6	1795	18		
41J	568.40	6	1395	15		
41K	568.75	4	1290	1		
41L	568.98	5	2045	1		
41M	569.13	5	2860	1		
41N	569.58	6	3380	20		
41P	569.80	3	390	1	569.90	150
42A	535.63	3	175	4	535.25	60
42B	535.55	6	1860	8		
42C	535.85	5	3320	1		
42D	536.08	5	2915	1		
42E	536.40	5	2170	2		
42F	536.75	6	1250	33		
42G	537.03	6	2910	9		
42H	537.18	6	2915	11		
42J	537.33	4	1000	8		
42K	537.55	3	505	1		
42L	537.80	3	680	1	537.80	80
42M	538.78	3	330	1	538.70	40
42N	539.20	3	720	1		
42P	539.55	3	1080	1		
42R	539.73	3	905	1	539.65	28
42S	539.85	3	905	1		
43A	552.53	3	320	1	552.50	9
43B	553.35	3	300	1	553.05	49
43C	554.30	3	395	1	554.20	19
43D	554.43	3	455	1	554.60	40
43E	554.98	4	575	6		
43F	555.50	6	1530	16		
43G	555.70	5	1920	3		
43H	555.98	5	3490	1		
43J	556.38	5	2190	1	556.50	31
43K	556.80	3	265	1		
44A	523.95	6	2055	5		
44B	524.35	5	3525	1	524.25	26
44C	524.58	5	2140	1		
44D	524.95	5	1255	2		
44E	525.18	6	1540	12		
44F	525.68	5	665	8		
44G	526.05	4	845	1		
44H	526.48	4	540	1	526.30	60
44J	527.55	3	340	1	527.00	45
44K	528.05	3	290	1	527.95	57
45A	540.18	4	540	1		
45B	540.45	3	320	1		
45C	540.73	3	550	1	540.65	54
45D	541.00	4	795	1	541.10	19
45F	541.48	4	590	2		
45H	541.75	4	550	3		
45G	541.95	5	815	3	541.95	17
45H	542.50	6	1650	11		
45J	542.63	6	1550	19		
45K	542.90	6	3306	17		
45L	543.35	6	2575	17		

45M	545.55	6	2305	30		
45N	545.95	6	3725	2		
45P	544.10	5	3825	2	544.10	27
45R	544.50	5	885	1		
46A	511.30	6	5485	2		
46B	511.53	5	4445	1	511.55	16
46C	511.85	5	2135	3		
46D	512.28	6	3840	32		
46E	512.43	6	4720	17		
46F	512.85	6	5360	10		
46G	513.30	6	3935	9		
46H	513.58	5	1895	2		
46J	513.90	5	1485	4		
46K	514.13	6	2435	6		
46L	514.25	6	1680	12		
46M	514.43	5	1370	4		
46N	514.65	5	1025	4		
46P	515.13	6	2355	2	515.10	13
46R	515.68	6	2415	3	515.70	7
47A	529.00	5	1020	1		
47B	529.45	6	1515	3		
47C	529.98	6	2820	8		
47D	530.23	5	1885	2		
47E	530.50	5	1440	4		
47F	531.00	6	4180	9		
47G	531.35	6	3290	9		
47H	531.55	6	2635	4		
47J	532.08	6	2085	11		
47K	532.53	4	1655	7		
47L	532.83	5	3260	1	532.80	26
47M	533.13	5	4570	1		
47N	533.45	5	1010	1		
48A	498.28	4	630	9		
48B	498.98	6	3055	3		
48C	499.18	6	5740	3		
48D	499.48	4	3550	1		
48E	499.63	4	3220	1		
48F	501.08	6	2785	11		
48G	501.25	4	3940	3		
48H	501.63	6	4870	15		
48J	501.75	6	5080	9		
48K	502.20	5	3220	2		
48L	502.50	6	2595	9		
48M	502.70	6	3525	7		
48N	502.85	6	3150	8		
48P	503.13	5	1110	4		
48R	503.43	4	1440	1		
48S	503.73	6	1545	5		
49A	516.23	6	1665	5		
49B	516.38	5	1510	1		
49C	516.63	5	1105	2		
49D	517.03	5	1565	1	517.05	12
49E	517.15	6	2160	5		
49F	517.50	6	1950	7		
49G	517.73	6	5565	6		
49H	517.98	5	2580	3		

49J	518.25	5	2490	3		
49K	518.45	6	5710	8		
49L	518.68	6	5870	15		
49M	519.08	5	3275	4		
49N	519.18	5	3340	4		
49P	519.58	6	2030	22		
49R	519.70	6	2175	15		
49S	519.83	5	1505	5		
491	520.10	6	1680	29		
49W	520.28	6	2180	9		
49Y	520.40	5	2155	4	520.40	28
497	520.63	5	3120	2		
49AA	520.80	5	3860	1		
49BB	520.90	5	3930	1	520.90	13
49CC	520.98	5	3945	1		
49DD	521.20	4	3475	1		
50A	486.15	5	2705	1		
50B	486.38	5	2755	1		
50C	486.73	5	4380	1	486.80	60
50D	486.98	5	3250	2		
50E	487.20	6	2040	12		
50F	487.35	4	2015	4	487.50	8
50G	487.65	6	1765	18		
50H	487.95	6	2435	37		
50J	488.08	6	2310	26		
50K	488.28	6	2495	23		
50L	488.53	6	2735	14		
50M	488.80	6	4750	13		
50N	489.20	6	5310	8		
50P	489.40	6	3510	6		
50R	489.90	6	2595	7		
50S	490.33	6	5275	5		
50T	490.63	4	2845	1		
50W	491.03	4	1535	1		
50Y	491.18	6	1250	11		
50Z	491.60	6	4705	3		
51A	504.25	6	3870	1		
51B	504.70	6	1040	9		
51C	504.98	6	1120	4		
51D	505.23	6	3320	6		
51E	505.53	5	2415	4		
51F	505.75	5	2080	2		
51G	506.23	5	1955	3		
51H	506.48	6	2860	7		
51J	506.68	6	2650	6		
51K	506.88	6	2545	14		
51L	507.23	6	3320	23		
51M	507.45	6	2090	25		
51N	507.65	6	1950	26		
51P	507.95	6	1385	25		
51R	508.18	5	1585	5	508.15	8
51S	508.48	5	2195	3		
51T	508.70	5	2870	1	508.70	7
51W	509.03	5	2655	1		
51Y	509.25	5	2720	1		
51Z	509.45	5	1545	1	509.50	7
51AA	509.65	4	850	1		

52A	473.15	5	2200	1		
52B	473.35	5	2460	1		
52C	473.53	5	2905	1		
52D	473.78	4	3045	1		
52E	473.95	4	2415	1		
52F	474.28	4	1625	1	474.35	40
52G	474.50	4	1510	3		
52H	474.75	4	1075	5		
52J	475.00	4	1165	8	475.10	6
52K	475.30	5	2115	8		
52L	475.58	6	3190	25		
52M	475.73	6	2350	25		
52N	475.88	6	2145	21		
52P	476.08	6	2590	26		
52R	476.23	6	2195	12		
52S	476.45	5	1990	3		
52T	477.05	4	1505	2		
52V	477.43	4	1785	2		
52Y	477.68	6	2765	6		
52Z	477.85	5	3030	1		
52AA	478.28	4	830	8		
52BB	478.88	5	1645	2		
52CC	479.23	6	4910	6	479.20	18
53A	492.05	6	4455	4		
53B	492.63	4	905	3		
53C	493.10	6	2085	12		
53D	493.55	4	1910	1		
53E	493.78	4	1420	1		
53F	494.08	4	925	3		
53G	494.38	4	1030	4	494.30	20
53H	494.75	5	1500	4		
53J	494.98	6	1840	9		
53K	495.40	6	2325	23		
53L	495.73	6	2410	41		
53M	496.13	6	1325	23	496.20	12
53N	496.30	5	1215	5		
53P	496.75	4	1190	1		
53R	497.20	4	2240	1		
53S	497.63	4	2410	1		
53T	497.78	4	3060	1		
54A	460.98	4	1405	1		
54B	461.23	4	1190	1		
54C	461.45	4	1085	1		
54D	461.98	4	735	6		
54E	462.25	5	1155	3		
54F	462.63	6	1525	21		
54G	462.90	6	1840	29		
54H	463.25	6	2160	21		
54J	463.68	6	1660	17		
54K	463.98	5	1065	3		
54L	464.60	4	765	5		
54M	465.10	5	1150	2		
54N	465.60	6	2590	10		
54P	465.78	6	4000	8		
54R	466.55	3	815	1		
55A	479.73	4	725	2		
55B	480.13	4	785	6		

55C	480.70	6	5965	3		
55D	481.05	4	1370	1		
55E	481.90	5	835	1		
55F	482.63	3	955	1		
55G	482.88	6	1680	21		
55H	483.10	6	2350	21		
55J	483.33	6	3020	23		
55K	483.63	6	1815	13		
55L	483.75	6	1510	15		
55M	483.90	5	1465	4		
55N	484.35	4	1060	1	484.20	50
55P	484.55	4	1155	1		
55R	484.73	6	1115	7		
55S	485.10	4	1115	2		
55T	485.33	4	1435	1		
56A	448.68	5	1270	1		
56B	449.03	3	1310	1		
56C	449.68	4	1650	4	449.50	19
56D	450.03	6	2840	16		
56E	450.38	6	4215	17	450.30	6
56F	450.55	6	2445	12		
56G	451.45	3	665	1		
56H	452.08	5	1805	3		
56J	452.23	5	925	8		
56K	452.60	3	820	1		
56L	453.10	5	1635	3		
56M	453.23	6	2140	4		
56N	453.38	6	1995	6		
56P	453.65	5	1295	2		
56R	453.90	4	1750	1	453.90	18
56S	454.18	5	890	1		
57A	467.08	5	1855	1		
57B	467.58	6	9465	2		
57C	467.83	6	6255	4	467.95	20
57D	468.28	4	995	5		
57E	468.65	4	1055	4		
57F	469.18	5	1865	2		
57G	469.43	4	615	6		
57H	470.25	4	910	6		
57J	470.45	4	1045	9		
57K	470.85	6	5660	17		
57L	471.03	6	5525	16		
57M	471.23	6	3470	45		
57N	471.65	5	2300	4		
57P	471.80	4	2160	2	471.80	17
57R	472.28	4	1260	2		
57S	472.73	4	1435	3		
58A	435.50	6	2165	9		
58B	435.65	4	1430	4		
58C	435.98	4	920	3		
58D	436.25	6	1645	13	436.30	18
58E	436.65	6	4415	26		
58F	437.03	6	3920	31		
58G	437.33	6	4685	25		
58H	437.53	6	3930	15		
58J	437.73	6	3205	16		
58K	437.98	6	2035	24		

58L	438.15	3	1755	3		
58M	439.10	4	840	5	439.20	6
58N	439.35	6	2470	6		
58P	439.55	6	2260	6	439.50	4
58R	439.88	3	1320	1		
58S	440.10	5	1340	3		
58T	440.55	4	1735	2		
58W	440.85	5	3845	2	440.70	20
58Y	441.05	6	7830	12		
58Z	441.23	6	8055	7	441.20	37
59A	455.00	6	6295	6		
59B	455.25	4	2535	1		
59C	455.60	4	740	3		
59D	455.95	4	1045	2		
59E	456.18	6	2665	7		
59F	456.55	6	3600	6		
59G	456.80	4	1575	2		
59H	457.40	4	670	5		
59J	457.60	5	1165	9		
59K	457.88	6	2585	37		
59L	457.98	6	2170	33		
59M	458.35	6	3985	24		
59N	458.50	6	4240	13		
59P	458.88	6	3920	22		
59R	459.10	6	5260	25		
59S	459.48	5	2355	3	459.60	10
59T	459.78	6	1850	13		
59W	460.03	5	1785	4		
59Y	460.15	5	1595	5		
59Z	460.33	4	900	9		
60A	422.68	4	675	9		
60B	423.23	4	995	8		
60C	423.50	3	1320	1	423.50	12
60D	423.70	6	2480	17		
60E	423.98	6	2920	20		
60F	424.25	6	3535	12		
60G	424.73	6	5345	15		
60H	424.88	6	5950	16		
60J	425.28	6	4560	16		
60K	425.43	6	4385	36		
60L	425.78	3	920	1		
60M	426.05	3	495	1		
60N	426.33	4	1060	3		
60P	426.80	6	3985	5		
60R	426.95	6	4065	8		
60S	427.25	4	1245	2		
60T	427.88	6	1995	8		
60W	428.18	5	1320	2		
60Y	428.45	6	1865	7		
60Z	428.73	4	9785	1		
60AA	428.83	6	7385	2		
61A	441.93	6	4760	5		
61B	442.10	6	8900	1		
61C	442.73	6	2245	4	442.70	7
61D	443.13	4	995	7		
61E	443.33	3	925	2		
61F	443.78	6	2885	6		

61G	444.40	5	520	1		
61H	445.10	6	7620	26		
61J	445.55	6	5315	15		
61K	445.75	6	5560	12		
61L	446.28	6	4515	16		
61M	446.65	6	4660	15		
61N	447.15	5	1420	5	446.90	8
61P	447.80	3	455	1		
62A	409.88	4	990	3		
62B	410.05	4	1100	2		
62C	410.38	5	1320	3		
62D	410.75	6	5310	9		
62E	410.88	6	3730	6		
62F	411.30	6	1765	16		
62G	411.68	6	3260	14		
62H	411.88	6	4355	11		
62J	412.08	5	6760	4		
62K	412.25	6	5720	13		
62L	412.48	6	9800	4		
62M	412.85	6	2325	4		
62N	413.88	6	3230	7		
62P	414.13	6	1540	10		
62R	414.45	6	1175	9		
62S	414.83	6	1825	7		
62T	415.15	4	1305	2		
62W	415.55	5	4160	1		
62Y	415.85	6	9900	4		
63A	429.50	4	2640	2		
63B	429.95	5	1760	3		
63C	430.35	4	950	4		
63D	430.68	6	1955	10		
63E	430.85	6	5195	5		
63F	431.73	6	4085	27		
63G	432.03	6	5455	8		
63H	432.13	6	5035	16		
63J	432.25	6	4450	18		
63K	432.45	6	5450	16		
63L	432.65	6	5950	8		
63M	432.83	6	6605	11		
63N	433.05	6	5855	10		
63P	433.26	6	2985	25		
63R	433.78	6	2905	5		
63S	434.55	3	1395	1		
63T	434.75	5	1165	3		
64A	396.85	5	1765	1		
64B	397.03	5	2015	1		
64C	397.35	4	1070	2		
64D	397.65	4	845	2		
64F	398.08	6	1065	13		
64H	398.68	6	3540	50		
64G	398.88	6	4470	42		
64M	399.25	6	6265	16		
64J	399.55	6	6205	16		
64K	399.65	6	6030	17		
64L	399.78	6	5460	19		
64R	399.95	6	5960	19		
64N	400.06	6	5390	19		

64P	400.38	6	5595	15		
64R	401.35	6	4550	7		
64S	401.53	6	2015	8		
64T	402.05	6	1535	9		
64U	402.33	6	3910	5		
64Y	402.43	6	3515	7		
65A	416.33	6	7260	5		
65B	416.55	6	4700	3	416.60	4
65C	416.88	6	3765	5		
65D	416.98	6	3865	5	417.00	9
65E	417.43	6	1410	13		
65F	417.58	6	1820	13		
65G	417.80	6	4330	18		
65H	418.93	6	3525	6		
65J	419.20	6	5275	10		
65K	419.35	6	3920	7		
65L	419.55	4	2335	3		
65M	420.00	6	3995	13		
65N	420.30	6	4075	20		
65P	420.58	6	3350	13		
65R	420.95	6	4220	3		
65S	421.45	4	1460	2		
65T	422.15	3	1195	1		
66A	383.88	4	1090	2		
66B	384.33	3	1105	1	384.20	80
66C	384.78	4	1290	1		
66D	385.05	4	1245	1		
66E	385.30	4	1060	1		
66F	385.88	5	1175	2		
66G	386.30	6	3405	19		
66H	386.55	6	3175	17		
66J	387.03	6	5275	10		
66K	387.33	6	2750	14		
66L	387.63	6	3080	7		
66M	387.78	5	2715	2		
66N	388.18	3	385	1		
66P	388.68	6	4590	10		
66R	389.00	6	4885	6		
66S	389.30	4	1555	1		
661	389.83	6	4555	7	389.85	14
66Y	390.05	5	2935	1		
66Y	390.38	6	2305	7		
67A	403.45	6	1980	10	403.50	16
67B	403.58	6	2060	10		
67C	404.10	6	2250	6		
67D	404.28	6	2885	9	404.25	1
67E	404.65	6	1455	8		
67F	405.08	6	1780	11		
67G	405.40	6	3750	6		
67H	405.88	6	1715	11		
67J	406.23	6	1645	7	406.20	11
67K	406.48	6	1805	16		
67L	406.68	6	1190	14		
67M	406.90	4	800	5		
67N	407.28	3	560	1		
67P	407.60	5	620	1		
67R	408.05	3	125	1		

67S	408.55	4	750	3		
67I	408.75	4	840	3		
68A	371.10	3	400	1	371.10	42
68B	372.48	4	610	1		
68C	373.03	4	445	2		
68D	373.58	5	880	2		
68E	374.13	5	3695	3		
68F	374.23	6	3960	6		
68G	374.48	6	3515	8		
68H	374.65	5	2955	4		
68J	375.28	6	1285	10		
68K	375.55	6	4160	13		
68L	376.08	4	1490	2		
68M	376.43	6	5155	5	376.40	100
68N	376.58	6	4545	8		
68P	376.88	4	4040	2	376.90	70
68R	377.23	6	6095	4	377.30	26
69A	390.78	6	3365	9		
69B	391.08	6	4465	7	390.95	70
69C	391.28	4	5110	2	391.15	40
69D	391.55	6	4065	7	391.30	70
69E	391.73	6	4280	9	391.70	36
69F	391.93	6	3540	8		
69G	392.25	6	5775	5	392.10	110
69H	392.40	6	6335	4	392.30	10
69J	392.60	6	2915	5		
69K	392.83	6	2700	7		
69L	393.05	6	6695	3		
69M	393.20	6	4445	10		
69N	393.45	6	1840	8		
69P	393.65	6	1325	9		
69R	393.90	4	795	3		
69S	394.18	3	525	1		
69T	394.45	3	770	1	394.55	6
70A	358.05	3	235	1	358.50	100
70B	360.00	4	665	1		
70C	360.33	4	630	1		
70D	360.48	5	760	2		
70E	361.25	5	2270	4		
70F	361.50	6	3920	12		
70G	361.65	6	4205	13	361.75	39
70H	362.08	6	3880	5	362.10	24
70J	362.53	6	5255	4		
70K	362.55	6	7740	5		
70L	362.70	6	9540	5		
70M	363.00	6	6230	6	362.95	160
70N	363.58	6	5600	6	363.40	80
70P	363.83	6	4870	7	363.60	31
70R	364.10	6	4220	8		
71A	377.85	6	5875	7	377.90	50
71B	378.08	6	4475	6	378.20	32
71C	378.50	6	3415	7		
71D	378.75	6	3585	7	378.65	160
71E	378.93	6	5350	6		
71F	379.08	6	5455	6		
71G	379.38	6	3415	4		

71H	379.55	6	2770	8		
71J	379.75	6	1825	11	379.65	47
71K	379.98	4	1115	2		
71L	380.13	4	890	2		
71M	380.55	4	540	4		
71N	380.75	4	810	2	380.80	15
71P	381.05	3	410	1		
71R	381.35	3	255	1		
71S	383.08	2	325	NL	382.80	20
71T	383.38	3	425	1		
72A	344.55	3	480	1	344.45	150
72B	347.03	3	480	1		
72C	347.28	4	655	1		
72D	347.65	4	775	2		
72E	348.28	2	900	NL		
72F	348.38	5	1130	1		
72G	348.75	6	2115	13		
72H	348.95	6	2965	10		
72J	349.10	4	3190	2		
72K	349.35	6	4200	8		
72L	349.55	5	5320	2	349.55	180
72M	349.68	4	4620	1		
72N	349.98	5	2625	2	350.00	610
72P	350.30	6	5185	5		
72R	350.80	6	6740	6		
73A	364.48	6	5425	9		
73B	364.78	6	4995	6	364.70	180
73C	365.20	6	4350	6	365.10	83
73D	365.53	6	3585	5		
73E	365.66	6	2615	8	365.65	350
73F	366.03	6	2550	10		
73G	366.18	6	3870	5		
73H	366.53	6	2095	5		
73J	366.93	6	1905	41		
73K	367.15	6	1090	34		
73L	367.33	6	1290	18		
73M	367.70	6	4140	6		
73N	367.85	6	3455	7	367.80	8
73P	368.25	3	360	1		
73R	369.78	2	240	NL	369.60	580
73S	370.65	3	395	1	370.65	19
74A	333.63	4	595	1		
74B	334.40	6	5545	5		
74L	334.70	6	5235	13		
74D	334.98	6	6435	22		
74E	336.15	4	880	1		
74F	336.40	6	5525	10	336.30	60
74G	336.70	6	2750	10		
74H	336.95	4	3060	2		
74J	337.25	6	6345	7	337.15	170
74K	337.55	6	7225	7		
75A	351.40	5	1385	2		
75B	351.60	5	3340	2		
75C	351.75	6	3715	14	351.70	30
75D	352.08	6	5050	15		
75E	352.38	4	4630	2		

75F	352.70	5	355	1	352.55	50
75G	352.95	4	400	4		
75H	353.65	3	350	1	353.85	32
75J	354.08	6	8750	7		
75K	354.23	6	8500	18		
75L	354.65	6	1535	7		
75M	355.00	5	735	1		
75N	355.35	5	405	1		
75P	356.30	6	915	25	356.00	100
75R	356.45	6	555	28	356.60	80
76A	338.08	5	965	2		
76B	336.55	6	4700	20	338.35	5
76C	338.75	6	7600	20	338.70	20
76D	339.05	5	2960	1		
76E	339.20	6	2570	14		
76F	339.55	3	375	1	339.40	46
76G	339.83	4	405	4		
76M	340.83	3	460	1	340.90	60
76J	341.28	6	6935	24		
76K	341.43	6	5605	13		
76L	341.85	6	2080	22		
76M	342.28	5	680	1		
76N	343.08	6	4060	11	343.40	11
76P	343.83	5	1025	7		
78A	629.20	4	725	1	629.00	11
78B	629.48	3	325	3		
78C	629.70	5	310	2		
78D	630.33	4	1355	1	630.10	75
78E	630.53	6	2370	5		
78F	630.75	6	2630	4		
78G	631.13	5	1370	2		
78H	631.45	5	1155	2		
78J	631.65	6	3365	9		
78K	631.75	6	3825	7		
78L	632.25	4	1140	1		
78M	632.45	4	1610	2		
78N	632.65	5	2075	2		
78P	632.80	5	2610	2		
78R	633.00	5	2495	3		
78S	633.23	5	1070	2		
78T	633.43	4	925	1	633.40	15
78W	633.88	5	2120	2		
78Y	634.05	6	1705	31		
78Z	634.60	6	4320	26		
78AA	635.08	6	4995	20	635.00	150
78BB	635.30	6	7380	4	635.40	210
78CC	635.80	6	1955	12		
78DD	636.05	6	4385	6		
78EE	636.23	6	3250	8	636.15	95
78FF	636.45	6	2500	9	636.50	14
78GG	636.68	5	1425	1		
78HH	637.23	6	1410	21	637.00	9
78JJ	637.40	6	1770	9		
78KK	637.55	6	1465	25	637.70	92
78LL	637.90	6	4510	26		
78MM	638.25	6	4725	18		
78NN	638.50	6	4855	15		
78PP	638.78	6	4400	24		

78KK	639.00	6	5160	25		
78SS	639.20	6	4950	9		
78II	639.40	6	4765	15		
78WW	639.80	6	4345	12		
78YY	640.30	4	875	1		
78ZZ	640.75	6	1655	17	640.55	110
79A	624.95	4	1740	1		
79B	625.30	5	1320	2		
79C	625.60	6	2645	8		
79D	625.95	6	2575	9		
79E	626.80	4	920	1		
79F	627.00	4	1390	1		
79G	627.45	6	3275	10	627.55	8
79M	627.60	6	5225	17		
79J	628.55	5	1225	1		
79K	628.60	5	835	1		
80A	608.95	6	3160	5		
80B	609.15	5	2125	2	609.05	25
80C	609.60	4	990	2		
80D	610.00	5	2505	1	610.20	11
80E	610.35	4	2185	1		
80F	610.65	4	1805	1		
80G	611.10	4	1015	1		
80H	611.50	4	905	1	611.55	8
80J	612.50	4	1290	1	612.55	21
80K	613.15	5	1370	2		
80L	613.40	6	3835	5		
80M	613.60	6	4120	8		
80N	613.80	6	5740	5		
80P	614.25	5	945	2	614.40	17
80R	614.70	6	8480	11		
80S	614.95	6	2870	7		
80T	615.30	6	3610	31		
80W	615.48	6	5860	54	615.50	19
80Y	615.75	6	4380	23		
80Z	615.80	6	3485	25		
80AA	616.55	6	1915	15		
80BB	616.55	5	1345	5		
80CC	616.85	6	1235	25		
80DD	617.15	6	1420	45		
80EE	617.35	6	1400	26		
80FF	617.50	5	735	2		
80GG	618.15	4	465	1		
80HH	618.60	5	1520	5	618.55	68
80JJ	618.90	5	995	2	618.95	31
80KK	619.30	6	5195	8	619.30	8
80LL	619.70	6	4225	15		
80MM	619.85	6	3805	18		
80NN	620.05	6	4100	9		
80PP	620.40	6	2720	18		
80RR	620.65	6	6565	10		
80SS	620.85	6	6545	21		
80TT	621.20	6	3530	10		
80WW	621.60	6	2480	14		
80YY	621.80	4	650	1		
80ZZ	622.10	5	1815	1		
80AAA	622.60	4	515	2	622.60	10
80BBB	623.00	5	915	4	623.20	610

80CCC	623.40	5	1570	2	623.60	120
80DDD	623.75	5	1590	1		
80EEE	624.45	4	935	3		
002CX	944.80	3	400	1	944.70	8
003AX	941.27	2	100	NC	000.00	0
004BX	927.35	2	150	NC	000.00	0
004EX	928.50	2	200	NC	000.00	0
006EX	933.30	2	100	NC	000.00	0
007G	758.90	3	1200	2	759.00	12
012GX	750.25	6	2100	41	000.00	0
012FX	749.90	6	1200	10	000.00	0
014EX	738.13	5	1700	1	000.00	0
016TX	728.90	2	150	NC	000.00	0
016WX	729.40	2	50	NC	000.00	0
018CX	712.96	4	1300	2	000.00	0
018DX	713.55	5	2700	1	000.00	0
019DX	687.45	3	250	1	000.00	0
019EX	687.65	3	250	1	000.00	0
019NX	689.70	5	800	10	000.00	0
019PX	690.30	5	2300	1	000.00	0
019RX	691.00	4	900	1	000.00	0
026FX	673.20	4	1700	1	000.00	0
038MX	581.33	5	2500	1	000.00	0
041HX	567.73	4	350	1	000.00	0
043JX	556.10	4	2900	1	000.00	0
043BX	552.77	2	100	NC	000.00	0
043BY	553.04	2	100	NC	000.00	0
043EX	554.60	3	300	1	000.00	0
048FW	499.99	6	1900	8	000.00	0
048FX	500.35	5	1700	1	000.00	0
048FY	000.50	5	2000	1	000.00	0
048FZ	000.65	5	1400	1	000.00	0
050SX	490.10	6	2500	1	000.00	0
053KX	495.20	6	1400	1	000.00	0
057EX	468.40	4	500	1	000.00	0
055CX	480.30	4	700	1	000.00	0
055EX	481.55	3	250	1	000.00	0
055FX	482.05	2	300	NC	000.00	0

060TX	427.35	4	900	1	000.00	0
063FX	431.35	4	150	20	000.00	0
068CX	372.89	3	200	1	000.00	0

MARJORIE LAKE

ROSS RIVER

CANOL ROAD

ROSS RIVER

40°

45°

45°

Legend

- 6 Channel Anomaly
- 5 Channel Anomaly
- 4 Channel Anomaly
- 3 Channel Anomaly
- 2 Channel Anomaly
- Magnetic Correlation
- Anomaly Letter — B 1.5 — Apparent Conductivity-Width
- 1800 — Ch. 2 Amplitude P.P.M.
- M--- Magnetic Peak

N

QUESTOR SURVEYS LIMITED

Airborne Mk VI Input Survey

ROSS RIVER AREA

Scale – 1 20,000

Drawn By	Dataplotting
Dates Flown	June, 1977
Flight Path Recovery	K.B.
Data Reduction	Dataplotting
Completed	December, 1977
Checked	R.D.
File No.	19048
	Map 1 of 2

ROSS RIVER

Legend

- 6 Channel Anomaly
- 5 Channel Anomaly
- 4 Channel Anomaly
- 3 Channel Anomaly
- 2 Channel Anomaly
- Magnetic Correlation
- Anomaly Letter
- Apparent Conductivity-Width
- Ch. 2 Amplitude P.P.M.
- Magnetic Peak

QUESTOR SURVEYS LIMITED

Airborne Mk VI Input Survey

ROSS RIVER AREA

Scale - 1 : 20,000

Drawn By	Dataplotting
Dates Flown	June, 1977
Flight Path Recover	M.I., R.G.
Data Reduction	Dataplotting
Completed	December, 1977
Checked	R.D.
File No.	19048
	Map 2 of 2

ROSS RIVER AREA

Map 1 of 2

ISOMAGNETIC INTERVAL

(TOTAL FIELD)

10 GAMMA CONTOUR LINE

50 GAMMA CONTOUR LINE

500 GAMMA CONTOUR LINE

MAGNETIC DEPRESSION L

FLIGHT ALTITUDE 400' ABOVE TERRAIN

N

ROSS RIVER AREA

Map 2 of 2

ISOMAGNETIC INTERVAL

(TOTAL FIELD)

10 GAMMA CONTOUR LINE

50 GAMMA CONTOUR LINE

500 GAMMA CONTOUR LINE

MAGNETIC DEPRESSION

FLIGHT ALTITUDE 400' ABOVE TERRAIN

77E

41N 42S 43N 44S 45N 46S 47N 48S 49N 50S 51N 52S 53N 54S 55N 56S 57N 58S 59N 60S 61N 62S 63N 64S 65N 66S 67N 68S 69N 70S 71N 72S 73N 74S 75N 76N