



52E10NE8965 2.13399 CLEARWATER BAY

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2.13399

MINGOLD RESOURCES INC.

ABERNETHY PROJECT

Assessment Report

1988-90 PROGRAM

Geological Mapping, Geochemical Sampling,
VLF-EM and Magnetic Surveys

Clearwater Bay Area
Kenora Mining Division

NTS 52E/10

by

Brian Nelson

May 26, 1990

Qua | 2.12313



52E10NE8965 2.13399 CLEARWATER BAY

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1. SUMMARY

During the late summer of 1989 a program of geological mapping, geochemical sampling, VLF-EM and magnetic surveys was carried out over the 100 metre spaced grid covering the claim block. The VLF-EM and magnetic surveys were completed over the lakes and swamps in the winter of 1990. The 1989-90 program was undertaken in response to the positive results obtained by the 1988 three hole Mingold drill program in which hole ABE-1 intersected a 6.0 ft. interval assaying 0.59 oz Au/ton and hole ABE-3 located 200 ft. to the east ran 0.14 oz Au/ton over 2.5 ft. and 0.17 oz Au/ton over 2.0 ft. For summary of HBED work and 1988 Mingold drill and stripping programs see Bidwell, 1989.

Geological mapping outlined a thick pyroclastic volcanic sequence occupying the north half of the property overlain by clastic sediments to the south. The volcanic/sediment contact zone is marked by a sheared gossanous argillite. Coincident VLF-EM and magnetic anomalous zones together with soil geochemistry have outlined drill targets just north of the sediment/volcanic contact zone and along the trend of the 1988 drill intersections.

2. LOCATION AND ACCESS

The Abernethy claim block is situated in the north central part of the Lake of the Woods ten km southwest of Kenora, Ontario and two km south of the Trans Canada Highway (fig. 1). The claims cover the southwestern portion of Abernethy Lake and extend westward to Kendall Inlet on the Lake of the Woods. The property is bounded to the south by the Rat Portage Indian Reserve.

The claims are located within NTS 52E/10 and centred on the 49° 44' latitude and 94° 37' longitude.

Access to the eastern and northern portions of the property can be gained by private roads to camps on Abernethy and Little Rock Lakes. A skidder

trail from one of these roads passes around the west shore of Abernethy Lake to the vicinity of the 1988 drilling and stripping. The Kenricia Road skirts Kendall Inlet and provides good access to the western portion of the claim block. An ATV trail from the Kenricia Road goes to the unnamed lake in the west central part of the claim group. For district exploration history see Bidwell, 1989 pages 5-6.

3. PROPERTY OWNERSHIP (Fig. 2)

The property consists of 25 contiguous claims as shown on the Clearwater Bay Claim Map (M-2062). The ground was staked and recorded in May, 1987. The claims are held in the name of Mingold Resources Inc. (Lic. No. T-4617) located at P.O. Box 28, Toronto Dominion Centre, Toronto, Ontario M5K 1B8.

For a complete listing of the individual claims and their assessment status see Table I.

4. REGIONAL GEOLOGY (Fig. 4)

The most recent regional geological mapping in the area was carried out in 1985 by J. A. Ayer of the Ontario Geological Survey. His report is available as OGS Open File Report 5664 and contains 1:15,840 (1 inch = ¼ mile) mapping. The following description of the regional geology is taken from this report.

With the exception of several northwest trending Proterozoic diabase dikes, all bedrock in the area is of Archean age. The supracrustal succession can be subdivided into three major rock stratigraphic units:

- 1) The oldest is a basal platform of submarine, pillowed to massive tholeiitic basalts designated the Lower Mafic Unit.
- 2) The most abundant rocks are calc alkaline, intermediate to felsic volcanics designated the Upper Felsic Unit which conformably overlie the Lower Mafic Unit. They consists of reworked and primary pyroclastics, and pillowed to massive, amygdaloidal flows. Locally intercalated layers of turbiditic clastic and chemical sediments are also present.

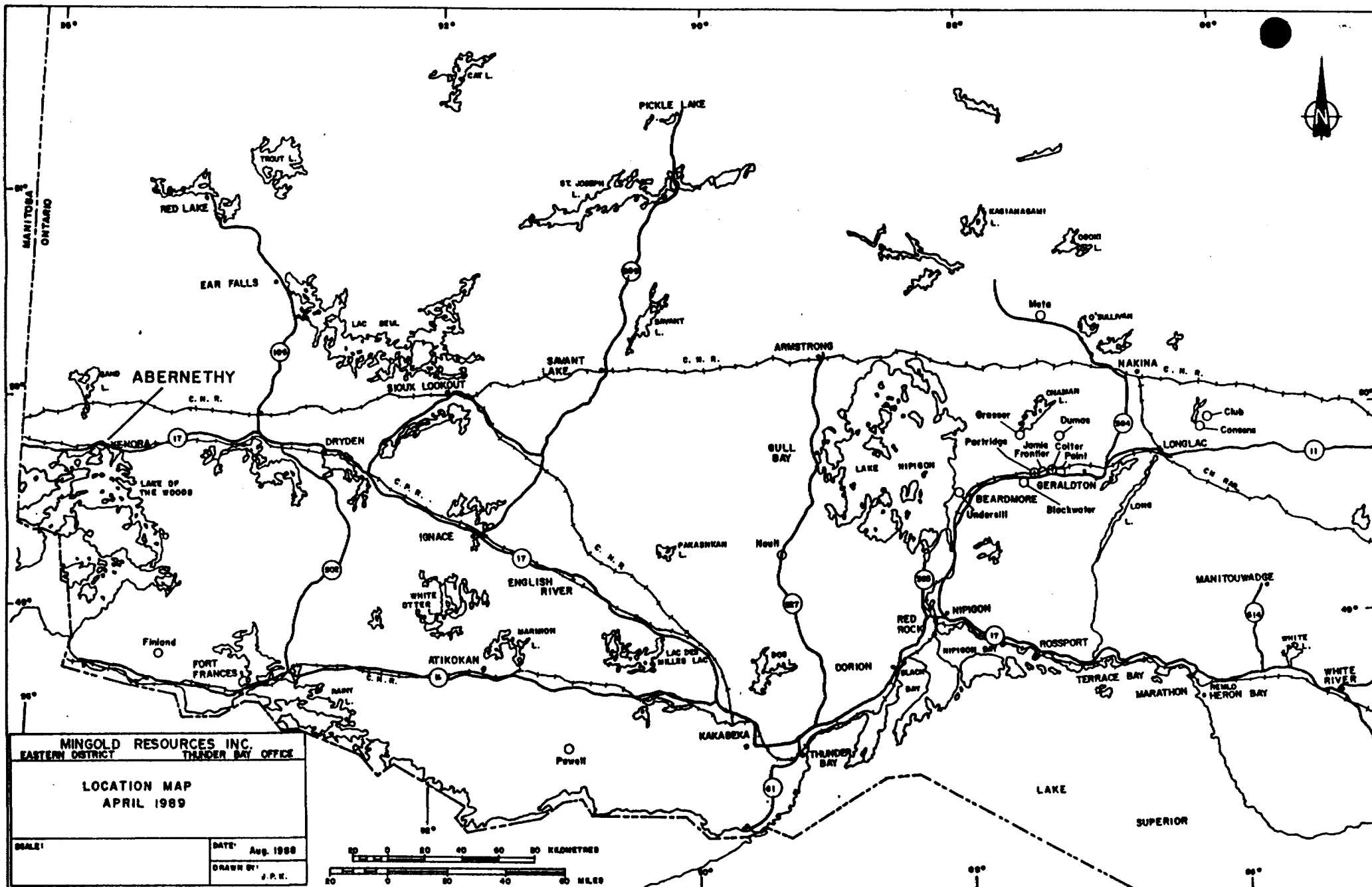


Fig. 1

Property: ABERNETHY

MINGOLD RESOURCES INC.

Date: June 26, 1990

Mining District: Kenora

Page 1 of 1

CLAIM DATA

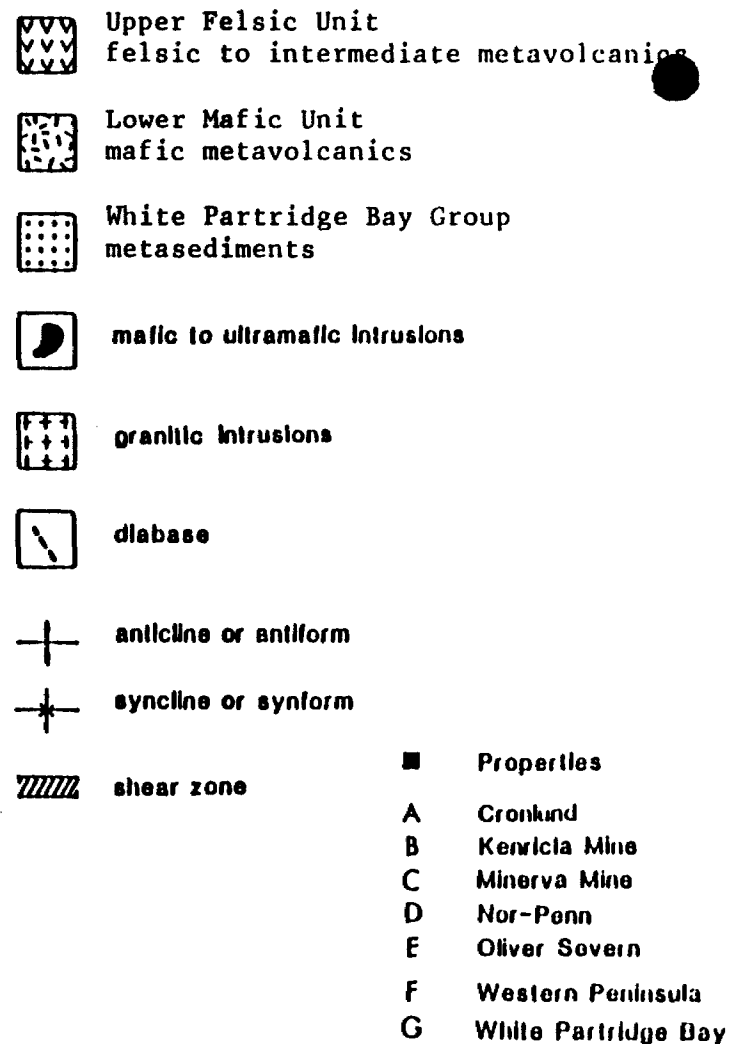
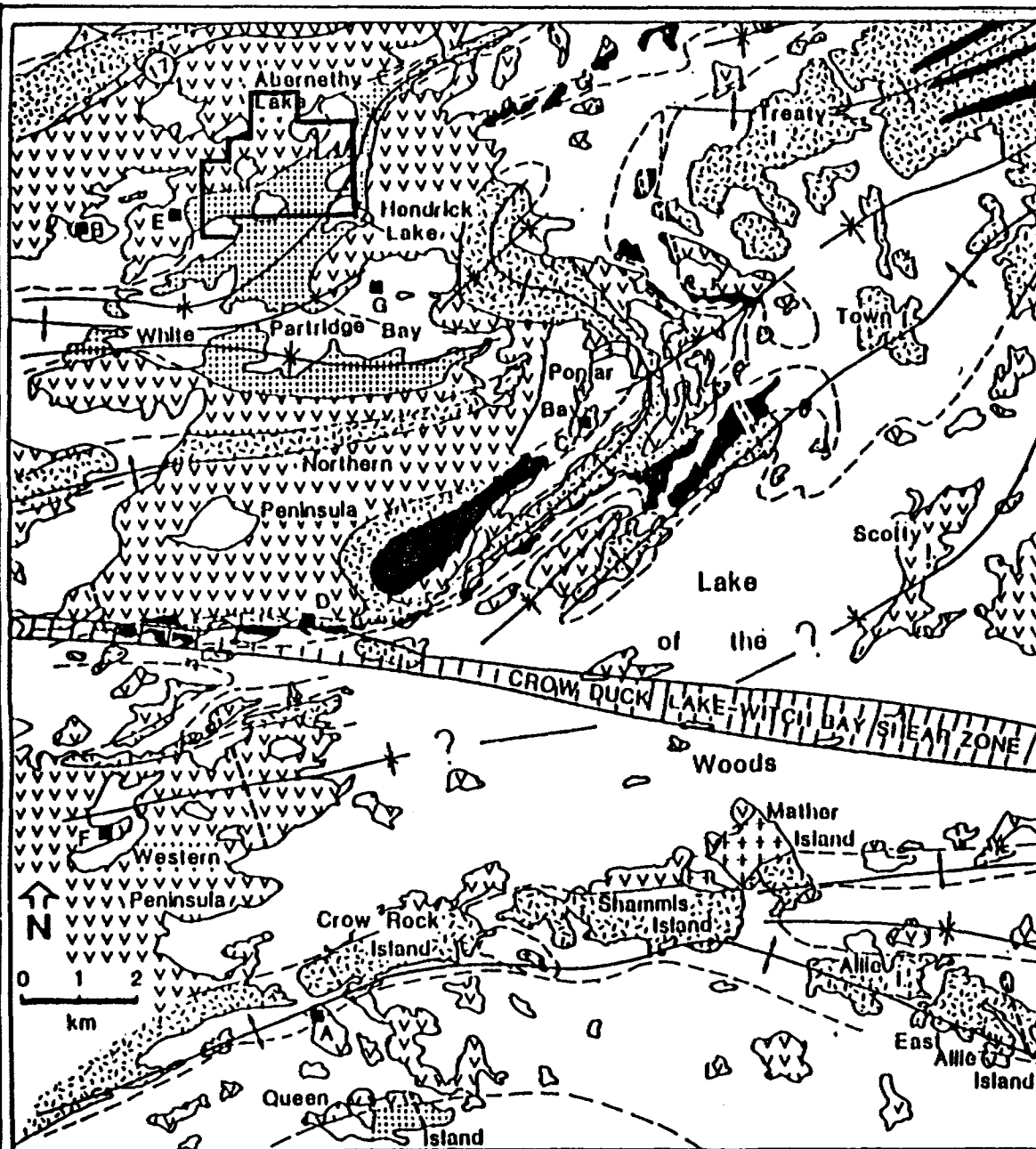
Claim Map: Clearwater Bay (N-2062)

N.T.S. 52E/10

Lat. 49° 44' Long 94° 37'

CLAIM NUMBER	STAKED		RECORDING DATE	TRANSFERRED		ASSESSMENT CREDITS (man-days)								TOTAL CREDITS	EXPIRY DATE							
	BY	DATE		TO	DATE	Manual	EM	Mag	Geophy	Geol.	Geochem	Drill	Strip		Mechan.	Expend	1988	1989	1990	1991	1992	1993
						Max. 80	Max. 40	Max. 40	Max. 100	Max. 60	Max. 200	20 days	40 days		40 days	40 days	60 days					
1004893	Bill Daley	May 19/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	113				195.5	X	X	X	X	X		
1004894	Bill Daley	May 19/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	100			20	182.5	X	X	X	X	X		
1004895	Bill Daley	May 19/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	100			20	182.5	X	X	X	X	X		
1004896	Bill Daley	May 19/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	100			20	182.5	X	X	X	X	X		
1004897	Bill Daley	May 19/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	100			20	182.5	X	X	X	X	X		
1004898	Bill Daley	May 19/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	100			20	182.5	X	X	X	X	X		
1004899	Bill Daley	May 19/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	100			20	182.5	X	X	X	X	X		
1005352	Bill Daley	May 19/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	100			20	182.5	X	X	X	X	X		
1005353	Bill Daley	May 20/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	100			20	182.5	X	X	X	X	X		
1005354	Bill Daley	May 20/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	100				182.5	X	X	X	X	X		
1005355	Bill Daley	May 20/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	100				182.5	X	X	X	X	X		
1005356	Bill Daley	May 20/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	100				182.5	X	X	X	X	X		
1005357	Bill Daley	May 20/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	98		2		182.5	X	X	X	X	X		
1005358	Bill Daley	May 20/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	20		80		182.5	X	X	X	X	X		
1005359	Bill Daley	May 20/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	20		80		182.5	X	X	X	X	X		
1005360	Bill Daley	May 20/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	20		80		182.5	X	X	X	X	X		
1005361	Bill Daley	May 21/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	20		66		182.5	X	X	X	X	X		
1005362	Bill Daley	May 21/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	20			60	182.5	X	X	X	X	X		
1005363	Bill Daley	May 21/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	20			60	162.5	X	X	X	X	X		
1005364	Bill Daley	May 21/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	20			60	162.5	X	X	X	X	X		
1005365	Bill Daley	May 21/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	20			60	162.5	X	X	X	X	X		
1005366	Bill Daley	May 21/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	20			60	162.5	X	X	X	X	X		
1005367	Bill Daley	May 21/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	20			60	162.5	X	X	X	X	X		
1005368	Bill Daley	May 21/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	20			60	162.5	X	X	X	X	X		
1005369	Bill Daley	May 21/87	May 25, 1987	MRI	June 4/87	40	20		20	2.5	20			60	162.5	X	X	X	X	X		

Table 1



MINGOLD RESOURCES INC.
EASTERN DISTRICT THUNDER BAY OFFICE

ABERNETHY PROJECT
REGIONAL GEOLOGY

From Ayer OGS OFR 5664

SCALE:

see map

DATE:

MAR 1989

DRAWN BY:

S.A.B.

Figure 3

- 3) A coarsening upwards succession of sediments, designated the White Partridge Bay Group, unconformably overlies the Upper Felsic Unit in the northwest part of the Map area (including the Abernethy Prospect area). These sediments consist of mudstone, fine wackes and siltstone at the base and grade upwards into massive medium-grained feldspathic wacke overlain at the top of the group by polymictic conglomerates with well rounded volcanic and granitic pebbles.

The Lower Mafic and Upper Felsic Units, but not the White Partridge Bay Group were intruded by mafic to ultramafic sills and synvolcanic felsic porphyries. The supracrustal succession was intruded by late metamorphic granitic stocks.

5. 1989 MINGOLD PROGRAM

The 1989 field program started in early August with 29.2 km of contract linecutting which included 4.6 km of baselines and tielines (Az-070°) and 24.6 km of 100 metre spaced section lines. All lines were picketed at 25 metre intervals. Mingold personal carried out all subsequent phases of the program. By early September geological mapping, VLF-EM and magnetic surveys were completed over the grid and later in February 1990 the VLF-EM and magnetic surveys were completed over the lakes and swamps. Soil geochem sampling was concentrated over the HBED EM-17 horizontal loop anomalies and rock sampling focused on old showings, quartz veins, sulphide mineralized rocks and the sheared argillitic sediment/volcanic contact zone.

6. PROPERTY GEOLOGY

The property geology consists of a thick sequence of intermediate volcanics overlain by a clastic sedimentary package to the south (see Fig. 4). The volcanic-sediment contact zone trends 060° and is marked by an intensely sheared and oxidized argillite some 30 to 100 metres thick which sub-parallel the HBED EM-17 horizontal loop anomaly. A fragment rich unit, presumably a debris flow, outcrops in the western half of the property along the argillite contact zone. The sediments to the south are dominated by fresh siltstone interbedded with pebble-cobble conglomerate

near the south claim boundary. Overall the sedimentary sequence exhibits reverse grading (coarsening) to the south while individual beds display a fining (younging) to the south. The volcanic sequence is comprised of ash, lapilli and bomb tuffs. Bedding contacts within the sediments strike 040° to 070° and dip steeply 85° to the north to vertical. Flattened fragments within the pyroclastics define an intense foliation that strikes 080° and dips 80° to the north. The intersection of bedding and foliation planes defines a property lineation trending 052° with a 70° plunge. An iron rich alteration assemblage of garnet, magnetite and chlorite encasing lapilli and bomb fragments occurs within the 1988 stripped area and just north of the argillitic contact zone. For detailed geology of the stripped-drilled area see Bidwell 1989.

Rock Types

Intermediate Volcanics

This pyroclastic sequence consists of ash, lapilli and bomb tuffs. The fragmental rocks are composed of 25 to 50% grey fine grained pitted (vesicular) flattened lapilli and bombs set in a fine grained greenish ash. The intensity of fragment deformation and fragment competence appears variable as the length to width ratio of the deformed fragments varies from 3:1 to 10:1. The fragments have been rotated and flattened within the foliation plane striking 080° and dipping 80° to the north. Occasionally finely bedded ash tuff beds are exposed within the fragmental sequence. In the 1988 stripped and drilled area and in one exposure just north of the volcanic/sediment contact the interfragment ash has been altered to an assemblage of chlorite, magnetite and garnet. In the northeast portion of the property the fragments tend to be feldspar phytic. Sulphide mineralization is quite rare with generally only minor disseminated pyrite but one old pit just north of the sediment/volcanic contact contained semi-massive pyrite and pyrrhotite.

Siltstone

This 0.5 km thick monotonous unit is predominantly massive to locally finely bedded. These fresh looking rocks are grey, fine grained to medium grained, granular and contain 30% small rounded quartz crystals. The

finely bedded siltstone strikes 040° to 070° and dips 080° N to vertical. Rarely the beds are deformed, folded or kinked. To the south the rocks contain up to 25% fine grained biotite.

Debris Flow

This unit consists of 10 to 50% fine grained grey-beige angular relatively undeformed feldspathic fragments and 5 to 10% flattened 1 to 10 cm scale black cherty argillite fragments suspended in a fine grained to medium grained mini quartz porphyritic - quartz feldspar porphyritic interfragment groundmass containing 10 to 30% mm scale quartz crystals. Local small sigmoidal tension gashes tend 330°.

Argillite

The very fine grained argillite is dark grey-black to rusty red, fissile and intensely sheared. It is finely bedded on a 0.5 cm to 10 cm scale and interbedded with siltstone near the southerly contact. Local minor white quartz veining, minor disseminated pyrite and local strong chlorite were observed.

Conglomerate

Conglomerate beds alternate with siltstone beds and contain 10 to 60% mafic to felsic sub-rounded pebbles and cobbles. The less competent pebbles and cobbles have been rotated and flattened within the conglomerate beds to define a foliation at 095°.

7. GEOCHEMISTRY

A total of 357 soil samples and 24 rock samples were collected and analyzed by Activation Laboratories Ltd. for gold plus a 33 element package plus copper. The soil sampling was concentrated across and down-ice of the HBED EM-17 horizontal loop conductors. Selective rock sampling was confined to old showings (pits and trenches), quartz veins and the sheared gossanous argillitic contact zone.

Fifty-nine of the soil geochem samples were considered anomalous (greater than 10 ppb Au). The volcanic regime yielded 46 anomalous samples and the remaining 13 came from the argillite - debris flow contact zone. The contoured soil geochem data produced well defined gold anomalies (see Fig. 5). The majority of these anomalies are directly related to geophysical anomalies with the best gold geochem anomalies occurring just north of the sediment/volcanic contact and in the area covered by the 1988 drilling and stripping. The highest assay from a soil geochem sample was 1760 ppb Au and was collected 150 metres grid south of the projected auriferous zone drilled in 1988. The gold geochem anomalies exhibit a moderate correlation with elevated iron. The high iron assays likely reflect either the iron rich alteration assemblage (magnetite - garnet - chlorite) or iron sulphide mineralization.

The most significant bedrock assays came from an old trench in which a grab sample from a 2 foot wide quartz vein containing a trace pyrite ran 1000 ppb Au and the host rock, a rusty silicified volcanic containing 10% combined pyrite plus pyrrhotite ran 358 ppb Au. This quartz vein strikes 100° and is located 250 metres east along strike from the 0.59 opt Au/6.0 ft. intersection in DDH ABE-1.

8. GEOPHYSICS - VLF - MAGNETICS

The 1973 HBED EM-17 horizontal loop survey outlined a 6600 foot conductor which sub-parallel the main sediment/volcanic contact. The remainder of the EM-17 anomalies occur within the volcanic sequence either as features up to 2000 feet long paralleling regional foliation (shearing) or as splay off the main EM-17 linear. The 1989 Mingold VLF-EM and magnetic surveys seem to indicate that the lengthy baseline geophysical anomaly is located just north of the sediment/volcanic contact and actually parallels the property foliation which cuts bedding and stratigraphic contacts at a low 20° angle.

VLF-EM

A VLF-electromagnetic survey was completed over the section lines in the summer of 1989 and the lakes and swamps in the winter of 1990. Readings were taken @ 25 m intervals. Transmitter NAA, Culter Maine, was used with all of the readings recorded while facing north.

The instrument used in the survey was the Geonics EM-16. This instrument is a very low frequency receiver which operates in the 15-25 KHZ band and makes use of a radio signal transmitted by a communications network operated by the U.S. Navy. Signals transmitted from vertical antenna produce concentric horizontal magnetic fields (the primary field) around the antenna. Under the influence of this primary field, conductive bodies generate weak secondary fields which are detected by the EM-16.

The EM-16 receiver consists of two receiving coils perpendicular to each other. The inputs of these coils are used to measure the secondary field. If the instrument is oriented properly, the signal from the vertical coil is minimized by tilting and the percentage of the tilt is recorded. This is the in-phase reading. The remaining signal in the coil is balanced out by a measured percentage of the signal in the other coil. This is the out-of-phase reading.

The survey outlined numerous VLF conductors trending 070° to 095° from short one line anomalies to extensive 600 metre anomalies (see Fig. 6). The majority of the conductors occur within the volcanics or proximal to the argillite-volcanic contact. Most anomalies parallel the foliation (shearing) trend which crosscuts bedding and stratigraphic contacts at a low 20° angle. Frequently the conductors tend to be stacked or splayed which may be the result of faulting and VLF conductors related to the sediment/volcanic contact zone tend to split and fork towards the west end of the property. Conductor breaks and offsets appear more precisely defined by the VLF survey than the EM-17 survey. The VLF conductors related to EM-17 anomalies display strong associated magnetics.

Magnetics

A geometrics G-816 proton magnetometer was used for the magnetic survey. Durinal corrections were made by looping to base line stations. Readings were taken every 25 m and on occasion were taken more frequently in order to detail magnetic anomalies.

The magnetic survey outlined numerous linear magnetic anomalies trending 070° to 090° (see Fig. 7). Except for a few isolated one line mag highs the magnetics relate to the EM conductors. A lengthy mag anomaly just north of the volcanic/sediment contact zone essentially mirrors the trend of the VLF and EM-17 conductors. A strong magnetic signature occurs in the area of the 1988 stripping and drilling. As with the EM conductors the mag anomalies do not parallel bedding or stratigraphy but rather align with the foliation trend. Field observations indicate that the magnetic anomalies are likely caused by either volcanic ash (mud) altered to an assemblage of chlorite-garnet-magnetite or pyrrhotite mineralization.

The strongest correlation between the EM-17, VLF and magnetic surveys is defined by the linear anomaly related to the sediment/volcanic contact zone. The broad EM-17 anomaly in the area of the 1988 stripping and drilling corresponds to numerous VLF conductors and magnetic highs. The EM-17 anomaly in the NE corner of the property also corresponds to a VLF conductor and exhibits a magnetic signature. It was previously thought that the 6600 foot long EM-17 anomaly was directly related to the sediment-volcanic contact. It now appears that the anomaly is located just to the north and trends at a low angle to the geological contact. It can be concluded that the EM-17, VLF-EM and magnetic anomalies do not appear stratabound but instead trend at a low 20° to stratigraphic contacts and bedding.

9. CONCLUSIONS

The VLF-EM and magnetic surveys have more precisely delineated the geophysical conductors outlined by the HBED EM-17 survey. The most significant VLF-EM anomalies are associated with strong magnetics and correlate well with the soil geochem results. The 1989 field programs have outlined two target areas: 1) the easterly and westerly extensions of the zone drilled and stripped in 1988 (0.59 opt/6.0 ft. in ABE 1) and 2) the 2000 metre linear geophysical conductor just north of the sediment/volcanic contact zone. The VLF-EM and magnetic anomalies parallel the property foliation at a 20 to 30° angle to stratigraphy. Frequently the VLF-EM conductors are either stacked or forked. It would appear that mineralization tends to be structurally controlled and related to the property foliation.

10. RECOMMENDATIONS

A 1990 field program including geochem sampling, detailed geological mapping, trenching and diamond drilling is recommended for the Abernethy property. Soil geochem sampling should be completed over VLF-EM conductors not covered in 89-90 together with detailed geological mapping and prospecting within geochemically and geophysically anomalous areas. Trenching and channel sampling should concentrate east and west along strike from the 1988 drilled - trenched area and within mineralized and altered zones along the northern flank of the sediment/volcanic contact.

A drill program totalling 1560 metres is proposed and should concentrate on two areas: 1) 3 holes (465 metres) west along strike of the intersection in ABE-1 (0.59 opt Au/6.0') and 2 holes (255 metres) east along strike from the intersections in ABE-3 (0.17 opt Au/2.0' and 0.14 opt Au/2.5') and 2) 5 holes (840 metres) within geochemically and geophysically anomalous areas along the 2000 metre contact anomaly just north of the sediment/volcanic contact.

Estimated Costs

Geological mapping and prospecting -	\$ 5,000.00
Geochem sampling and Assaying -	5,000.00
Trenching and Channel Sampling -	20,000.00
Diamond Drilling -	<u>170,000.00</u>
Total	\$200,000.00 =====

11. REFERENCES

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- Thompson, J. A.
1937: Geology of the North Central Part of the Lake of the Woods, in Forty-Fifth Annual Report of the Ontario Department of Mines, Vol XLV, Part III, 1936 p.1-43, includes Map No. 45b.

12. CERTIFICATE

BRIAN NELSON

Residence: 372 N. Algoma Street,
Thunder Bay, Ontario
P7A 5B6

Education: H BSc. Geology
Lakehead University 1984

Experience: 1984-1987 Corporation Falconbridge
Copper (Minnova) Inc.
1987- Matt Berry Mines Ltd.
1988- First General Mine Management
and Gold Corporation
1988-1990 Mingold Resources Inc.

Brian Nelson supervised the 1989-90 program on the Abernethy property and is the author of this report.

Brian Nelson

Qual 2.12313

APPENDIX I

ANALYTICAL RESULTS

ACTIVATION LABORATORIES LTD

Invoice No.: 1278
 Work Order: 1272
 Invoice Date: 03-OCT-89
 Date Submitted: 08-SEP-89
 Your Reference: SAMPLES
 Account Number: M-1

MI GOLD RESOURCES INC.
 935 COBALT CRESCENT
 THUNDERBAY, ONTARIO
 P7 5Z4
 ATTN: MR. GERRY BIDWELL

CERTIFICATE OF ANALYSIS

INAA package, elements and detection limits:

JU	5.	PPB	AG	5.	PPM	AS	2.	PPM	BA	100.	PPM
UR	1.	PPM	CA	1.	%	CO	5.	PPM	CR	10.	PPM
CS	2.	PPM	FE	0.02	%	HF	1.	PPM	HG	1.	PPM
IR	5.	PPB	MO	5.	PPM	NA	500.	PPM	NI	50.	PPM
B	30.	PPM	SB	0.2	PPM	SC	0.1	PPM	SE	5.	PPM
SR	0.05	%	TA	1.	PPM	TH	0.5	PPM	U	0.5	PPM
W	4.	PPM	ZN	50.	PPM	LA	1.	PPM	CE	3.	PPM
D	5.	PPM	SM	0.1	PPM	EU	0.2	PPM	TB	0.5	PPM
B	0.05	PPM	LU	0.05	PPM	CU	1.	PPM			

CERTIFIED BY :


 DR. ERIC L. HOFFMAN

ABERNETHY

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SR %
AL-1	<5	<5	<2	470	2	2	8	38	<2	1.77	8	<1	<5	<5	28300	<50	83	<0.2	5.9	<5	<0.05
AL-2	<5	<5	3	500	<1	<1	<5	29	<2	1.74	7	<1	<5	<5	28600	<50	48	<0.2	6.4	<5	<0.05
AL-3	<5	<5	6	560	3	<1	<5	41	<2	1.96	9	<1	<5	<5	28300	<50	70	<0.2	5.9	<5	<0.05
AL-4	<5	<5	9	550	<1	2	7	37	<2	2.08	8	<1	<5	<5	26600	<50	57	<0.2	5.7	<5	<0.05
AL-5	7	<5	4	520	3	<1	10	48	2	2.69	10	<1	<5	<5	22200	<50	51	0.3	7.1	<5	<0.05
AL-6	<5	<5	<2	420	<1	2	5	41	<2	2.20	8	<1	<5	<5	25700	<50	51	0.3	6.3	<5	<0.05
AL-7	<5	<5	<2	480	3	2	<5	35	2	1.97	8	<1	<5	<5	28100	<50	59	<0.2	6.1	<5	<0.05
AL-8	<5	<5	<2	440	1	<1	5	33	<2	1.73	8	<1	<5	<5	28600	<50	60	<0.2	6.4	<5	<0.05
AL-9	5	<5	54	660	7	<1	16	52	6	5.26	5	<1	<5	<5	9670	<50	150	0.7	8.2	<5	0.06
AL-10	11	<5	18	420	4	<1	11	65	5	6.09	6	<1	<5	<5	17300	<50	48	0.5	7.8	<5	<0.05
AL-11	<5	<5	36	750	9	<1	14	56	5	5.79	5	<1	<5	<5	18100	<50	80	0.6	7.3	<5	<0.05
AL-12	11	<5	42	580	13	<1	25	68	6	8.37	6	<1	<5	<5	14200	91	67	0.7	12	<5	<0.05
AL-13	26	<5	15	1100	10	<1	16	34	4	8.20	5	<1	<5	<5	9650	<50	73	0.7	6.1	<5	0.06
AL-14	32	<5	52	490	6	<1	12	37	3	10.07	5	<1	<5	<5	23700	<50	47	0.8	7.6	<5	<0.05
AL-15	13	<5	160	420	<1	<1	<5	42	3	19.97	7	<1	<5	<5	7930	<50	51	0.2	4.7	<5	<0.05
AL-16	7	<5	<2	520	2	<1	<5	30	2	1.53	8	<1	<5	<5	30100	<50	57	<0.2	5.4	<5	<0.05
AL-17	7	<5	4	520	22	<1	45	40	3	2.04	5	<1	<5	<5	12300	<50	47	0.3	9.3	<5	0.07
AL-18	<5	<5	6	460	7	<1	10	44	2	3.84	7	<1	<5	<5	26000	<50	41	0.3	6.8	<5	0.08
AL-19	18	<5	10	460	21	<1	38	53	5	7.60	5	<1	<5	<5	12900	<50	55	0.4	11	<5	<0.05
AL-20	<5	<5	9	600	8	<1	21	68	4	3.67	7	<1	<5	<5	19200	<50	150	0.3	12	<5	<0.05
AL-21	<5	<5	37	450	7	1	20	110	5	5.95	5	<1	<5	<5	27100	<50	47	0.6	10	<5	<0.05
AL-22	6	<5	5	440	9	2	55	48	2	2.50	7	<1	<5	<5	22400	<50	59	0.3	8.9	<5	0.09
AL-23	<5	<5	310	370	3	<1	9	76	3	5.38	5	<1	<5	<5	8860	<50	41	<0.2	11	<5	<0.05
AL-24	<5	<5	10	470	3	<1	22	50	3	2.73	8	<1	<5	<5	18900	<50	67	0.3	7.1	<5	<0.05
AL-25	<5	5	48	410	7	<1	29	54	5	3.82	6	<1	<5	<5	16300	<50	62	0.5	7.9	<5	<0.05
AL-26	<5	<5	4	510	7	<1	15	39	4	7.50	5	<1	<5	<5	17300	<50	46	0.5	8.2	<5	<0.05
AL-27	5	<5	6	460	6	<1	13	39	4	7.03	5	<1	<5	<5	17300	<50	73	0.5	9.6	<5	<0.05
AL-28	59	<5	4	800	9	<1	14	44	5	5.56	5	<1	<5	<5	15100	<50	91	0.6	8.6	<5	<0.05
AL-29	8	<5	2	700	4	<1	13	47	3	5.00	6	<1	<5	<5	20100	<50	64	0.3	7.6	<5	<0.05
AL-30	203	<5	9	650	6	<1	17	71	4	6.78	5	<1	<5	<5	15800	150	88	0.6	10	<5	<0.05
AL-31	<5	<5	<2	460	3	<1	10	50	3	3.04	8	<1	<5	<5	25800	<50	65	0.3	8.0	<5	<0.05
AL-32	<5	<5	2	410	<1	1	8	44	2	2.97	7	<1	<5	<5	21600	<50	61	<0.2	7.3	<5	<0.05
AL-33	1760	<5	9	480	10	2	36	58	11	5.75	5	<1	<5	<5	16800	<50	190	0.6	9.8	<5	<0.05
AL-34	<5	<5	14	370	3	<1	13	35	5	5.49	4	<1	<5	<5	14400	<50	62	0.5	8.1	<5	<0.05
AL-35	<5	<5	8	340	8	<1	8	33	3	3.00	6	<1	<5	<5	14500	<50	64	<0.2	9.3	<5	<0.05

SEP 22 '89 16:03 ACTIVATION LABS

SEPT 2 1991 16:05 ACTIVATION LABS

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Sample description	TA PPM	TH PPM	U PPM	V PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	CU PPM	Mass g
AL-1	<1	7.9	0.7	<4	<50	25	35	19	2.5	0.7	<0.5	1.28	0.17	7	30.00
AL-2	2	6.5	0.8	<4	<50	27	34	17	2.5	0.7	<0.5	0.85	0.19	5	30.00
AL-3	<1	7.0	1.0	<4	<50	24	31	18	2.3	0.6	<0.5	1.00	0.16	7	30.00
AL-4	1	7.1	0.8	<4	<50	20	25	12	2.0	0.6	<0.5	1.04	0.17	5	30.00
AL-5	<1	7.8	1.7	<4	110	25	34	15	2.5	0.7	<0.5	1.42	0.27	6	30.00
AL-6	1	7.1	1.1	<4	63	21	29	14	2.1	0.6	<0.5	1.18	0.20	6	30.00
AL-7	<1	6.8	0.8	<4	<50	22	28	14	2.1	0.6	<0.5	1.02	0.20	7	30.00
AL-8	<1	6.3	1.0	<4	<50	21	28	20	2.2	0.6	<0.5	0.95	0.22	7	30.00
AL-9	<1	4.0	1.4	<4	130	22	31	11	2.1	0.6	<0.5	1.33	0.26	40	30.00
AL-10	<1	6.9	1.4	<4	55	21	25	12	2.0	0.4	<0.5	1.34	0.23	8	30.00
AL-11	<1	6.1	1.2	<4	99	34	49	21	2.3	0.7	0.5	1.26	0.24	17	30.00
AL-12	<1	8.8	1.7	<4	110	61	65	42	6.2	1.7	<0.5	2.18	0.45	24	30.00
AL-13	<1	5.9	1.1	<4	170	30	46	17	2.5	0.7	<0.5	1.42	0.24	27	30.00
AL-14	<1	7.7	1.4	5	140	38	44	<5	2.3	0.7	<0.5	1.27	0.21	18	30.00
AL-15	<1	4.2	<0.5	<4	50	14	18	10	1.4	0.4	<0.5	0.76	0.15	24	30.00
AL-16	<1	6.1	0.7	<4	<50	21	30	13	2.3	0.7	<0.5	1.09	0.11	6	30.00
AL-17	<1	12	3.5	<4	73	73	100	58	8.9	2.1	1.3	1.91	0.32	26	25.00
AL-18	1	8.8	1.3	<4	64	30	36	19	3.3	0.9	<0.5	1.08	0.20	18	30.00
AL-19	<1	11	2.7	<4	85	36	55	37	5.9	1.3	<0.5	1.37	0.07	32	25.00
AL-20	<1	12	1.6	<4	<50	64	89	36	6.1	1.4	<0.5	1.73	0.32	33	30.00
AL-21	<1	5.1	1.8	<4	130	35	42	22	3.6	1.2	<0.5	1.50	0.25	32	25.00
AL-22	<1	10	2.0	<4	<50	63	130	34	6.0	1.4	1.0	1.74	0.33	23	30.00
AL-23	<1	5.5	1.8	<4	110	20	25	<5	1.6	0.6	<0.5	1.71	0.30	28	30.00
AL-24	<1	6.6	1.0	<4	84	22	30	14	2.4	0.6	<0.5	1.25	0.19	9	30.00
AL-25	<1	8.0	1.1	<4	120	41	52	15	3.7	0.8	0.6	1.80	0.28	28	30.00
AL-26	2	7.6	2.1	<4	71	37	43	12	2.6	0.8	<0.5	1.42	0.14	17	30.00
AL-27	<1	7.6	2.0	<4	130	29	41	12	2.3	0.8	<0.5	1.32	0.28	15	30.00
AL-28	<1	8.3	1.8	<4	150	40	51	17	2.8	0.6	<0.5	1.38	0.30	21	25.00
AL-29	<1	6.7	<0.5	<4	80	26	36	13	2.4	0.8	<0.5	1.39	0.27	7	30.00
AL-30	<1	8.0	1.7	<4	290	28	44	16	2.4	0.6	<0.5	1.22	0.21	27	25.00
AL-31	<1	7.7	<0.5	<4	130	28	38	15	2.6	0.7	<0.5	1.21	0.17	30.00	13.42
AL-32	<1	6.3	0.9	<4	<50	20	27	13	1.9	0.5	<0.5	1.21	0.23	7	30.00
AL-33	<1	10	2.0	<4	220	33	51	21	3.4	0.7	<0.5	1.69	0.34	17	30.00
AL-34	<1	5.3	1.2	<4	54	26	35	15	2.1	0.8	<0.5	0.96	0.23	18	25.00
AL-35	<1	8.5	3.1	<4	<50	190	96	150	17	3.3	<0.5	3.11	0.52	40	25.00

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SR %
AL-36	<5	<5	<2	500	<1	<1	<5	30	<2	1.19	7	<1	<5	<5 29700	<50	53	<0.2	5.2	<5	<0.05	
AL-37	<5	<5	2	540	3	<1	6	41	<2	1.62	5	<1	<5	<5 22300	<50	93	<0.2	6.3	<5	<0.05	
AL-38	<5	<5	2	390	2	<1	<5	29	<2	1.07	6	<1	<5	<5 24900	<50	67	0.3	4.5	<5	<0.05	
AL-39	<5	<5	<2	480	<1	2	<5	35	<2	1.64	6	<1	<5	<5 23500	<50	72	<0.2	6.3	<5	<0.05	
AL-40	<5	<5	<2	460	<1	2	<5	26	<2	0.99	6	<1	<5	<5 27700	<50	64	<0.2	4.7	<5	<0.05	
AL-41	<5	<5	6	470	2	<1	<5	30	2	1.54	7	<1	<5	<5 22400	<50	53	0.2	4.9	<5	<0.05	
AL-42	<5	<5	6	490	<1	<1	5	33	<2	1.51	7	<1	<5	<5 25600	71	37	<0.2	5.1	<5	<0.05	
AL-43	<5	<5	4	360	2	<1	6	39	2	1.67	5	<1	<5	<5 22200	<50	44	<0.2	6.5	<5	<0.05	
AL-44	13	<5	15	380	4	<1	17	32	5	6.12	4	<1	<5	<5 8470	87	100	0.6	8.3	<5	<0.05	
AL-45	10	<5	4	490	4	<1	13	33	4	7.57	4	<1	<5	32, 16100	<50	60	0.4	8.2	<5	<0.05	
AL-46	<5	<5	2	630	<1	2	13	42	3	2.81	5	<1	<5	<5 16900	<50	54	0.2	10	<5	<0.05	
AL-47	5	<5	5	280	3	<1	19	38	3	5.68	4	<1	<5	<5 13100	<50	48	0.5	6.8	<5	<0.05	
AL-48	<5	<5	5	360	4	<1	12	30	3	5.39	4	<1	<5	5 15300	<50	49	0.4	7.4	<5	<0.05	

Sample description	TA PPM	TH PPM	U PPM	V PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	CU PPM	Mass g
AL-36	<1	5.8	0.9	<4	<50	19	28	16	2.3	0.6	<0.5	0.93	0.13	4	30.00
AL-37	1	7.1	1.0	<4	<50	24	38	16	2.5	0.7	<0.5	1.05	0.20	17	30.00
AL-38	<1	4.6	0.8	<4	<50	16	24	10	1.8	0.5	<0.5	0.72	0.13	3	30.00
AL-39	<1	7.6	1.5	<4	62	26	36	24	2.8	0.7	<0.5	1.02	0.20	26	30.00
AL-40	<1	5.2	0.7	<4	<50	18	25	8	2.0	0.5	<0.5	0.87	0.17	4	30.00
AL-41	<1	5.4	<0.5	<4	<50	18	24	12	2.0	0.6	<0.5	0.98	0.18	6	30.00
AL-42	<1	5.4	0.9	<4	<50	17	27	9	1.9	0.7	<0.5	0.85	0.14	7	30.00
AL-43	<1	5.0	0.8	<4	52	17	23	11	1.7	0.6	<0.5	0.82	0.22	10	30.00
AL-44	<1	5.3	<0.5	<4	<50	23	39	14	2.0	0.6	<0.5	1.25	0.26	26	25.00
AL-45	<1	4.8	1.3	<4	63	26	31	15	2.1	0.6	<0.5	1.16	0.19	32	30.00
AL-46	<1	5.3	1.1	<4	<50	18	28	17	2.6	0.7	<0.5	1.28	0.29	10	30.00
AL-47	<1	4.7	1.2	<4	91	22	32	11	1.8	0.6	<0.5	0.99	0.22	23	30.00
AL-48	<1	5.3	0.9	<4	52	22	34	12	1.9	0.5	<0.5	1.07	0.17	32	30.00

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	
AL-45 AL-49	20	<5	7	310	2	<1	8	36	3	3.27	4	<1	<5	<5	13500	<50	35	0.4	6.9	<5	0.07
AL-50	<5	<5	2	440	<1	<1	7	35	<2	1.91	6	<1	<5	<5	22300	<50	93	<0.2	5.7	<5	<0.05
AL-51	<5	<5	2	390	<1	<1	<5	26	<2	1.33	7	<1	<5	<5	20800	<50	85	<0.2	5.2	<5	<0.05
AL-52	7	<5	<2	360	<1	<1	<5	29	<2	1.44	5	<1	<5	<5	22000	<50	39	<0.2	5.0	<5	<0.05
AL-53	<5	<5	12	370	4	<1	12	33	3	2.85	4	<1	<5	<5	13800	<50	42	0.3	6.0	<5	<0.05
AL-54	<5	<5	<2	350	<1	2	5	31	<2	1.66	5	<1	<5	<5	23300	<50	64	<0.2	5.5	<5	<0.05
AL-55	<5	<5	<2	440	3	<1	8	40	2	1.97	5	<1	<5	<5	21500	<50	100	<0.2	6.4	<5	<0.05
AL-56	<5	<5	<2	410	<1	<1	<5	25	<2	1.36	5	<1	<5	<5	25000	<50	57	<0.2	4.4	<5	<0.05
AL-57	7	<5	2	420	<1	1	<5	24	<2	1.21	6	<1	<5	<5	25800	83	60	<0.2	4.3	<5	<0.05
AL-58	<5	<5	26	330	5	<1	11	45	2	2.48	4	<1	<5	<5	18900	<50	120	<0.2	8.5	<5	<0.05
AL-59	20	<5	<2	370	<1	<1	<5	16	<2	1.17	5	<1	<5	<5	25000	140	47	<0.2	3.6	<5	<0.05
AL-60	<5	<5	<2	390	<1	<1	<5	31	<2	1.39	6	<1	<5	<5	26000	<50	64	<0.2	5.0	<5	<0.05
AL-61	<5	<5	<2	440	3	1	8	45	<2	2.92	5	<1	<5	<5	21000	<50	59	<0.2	6.5	<5	<0.05
AL-62A	<5	<5	<2	510	4	2	10	59	3	2.84	4	<1	<5	<5	17600	<50	110	0.2	9.4	<5	<0.05
AL-62	<5	<5	3	480	4	<1	9	62	3	2.58	5	<1	<5	<5	16300	<50	130	<0.2	8.4	<5	<0.05
AL-63	<5	<5	<2	500	<1	<1	5	47	2	2.84	8	<1	<5	<5	24500	<50	57	<0.2	7.8	<5	<0.05
AL-64	12	<5	3	390	3	<1	11	48	2	3.85	5	<1	<5	<5	17300	<50	55	0.3	8.1	<5	<0.05
AL-65	200	<5	4	370	8	<1	15	45	4	4.31	5	<1	<5	<5	11390	110	110	0.4	10	<5	<0.05
AL-66	<5	<5	<2	370	<1	<1	6	39	<2	1.93	6	<1	<5	<5	19000	<50	<30	<0.2	6.1	<5	<0.05
AL-67	12	<5	4	290	5	<1	17	65	4	6.58	4	<1	<5	<5	10000	110	50	0.3	9.2	<5	<0.05
AL-68	<5	<5	<2	590	<1	<1	<5	37	3	1.56	6	<1	<5	<5	25100	<50	80	0.3	6.0	<5	<0.05
AL-69	<5	<5	<2	460	3	<1	8	49	<2	2.40	6	<1	<5	<5	25600	<50	74	<0.2	6.8	<5	<0.05
AL-70	26	<5	3	390	6	2	20	61	2	3.05	6	<1	<5	<5	20400	100	43	0.2	7.5	<5	<0.05
AL-71	10	<5	3	390	5	<1	12	96	4	10.2	4	<1	<5	<5	25200	<50	65	0.6	9.8	<5	<0.05
AL-72	18	<5	5	260	7	<1	12	81	3	4.21	6	<1	<5	<5	18800	160	53	0.3	11	<5	<0.05
AL-73	7	<5	6	180	5	<1	16	140	3	5.07	5	<1	<5	<5	19700	200	52	0.5	13	<5	<0.05
AL-74	<5	<5	<2	450	<1	<1	7	37	2	1.66	7	<1	<5	<5	29600	<50	51	0.3	6.3	<5	<0.05
AL-75	<5	<5	<2	520	2	2	<5	34	<2	1.45	7	<1	<5	<5	31500	<50	57	<0.2	5.4	<5	<0.05
AL-76	<5	<5	<2	500	<1	<1	<5	26	<2	0.92	6	<1	<5	<5	33000	<50	41	<0.2	4.7	<5	<0.05
AL-77	245	<5	3	580	<1	<1	9	70	4	2.77	6	<1	<5	<5	21100	83	100	0.3	10	<5	<0.05
AL-78	<5	<5	7	460	2	<1	6	46	<2	2.70	7	<1	<5	<5	25300	<50	47	0.2	6.3	<5	<0.05
AL-79	463	<5	370	<100	<1	<1	<5	32	3	31.8	2	<1	<5	31	3920	160	45	22	2.9	<5	0.05
AL-80	<5	<5	4	630	10	1	10	41	6	12.3	4	<1	<5	<5	12100	<50	90	0.8	5.7	<5	<0.05
AL-81	30	<5	13	270	3	<1	10	23	2	6.20	4	<1	<5	<5	12600	<50	<30	0.5	5.5	<5	<0.05
AL-82	<5	<5	5	170	5	<1	13	19	3	7.65	3	<1	<5	<5	10500	<50	<30	0.4	6.9	<5	<0.05

Sample description	TA PPM	TH PPM	U PPM	V PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	CU PPM
AL-45 AL-49	<1	4.1	1.8	<4	<50	24	29	15	1.9	0.5	<0.5	1.25	0.21	22
AL-50	<1	5.6	<0.5	<4	<50	17	26	10	1.7	0.5	<0.5	0.97	0.19	12
AL-51	<1	5.1	<0.5	<4	<50	19	24	11	1.9	0.5	<0.5	1.18	0.24	34
AL-52	<1	4.6	1.7	<4	63	16	22	10	1.6	0.4	<0.5	0.80	0.14	9
AL-53	<1	5.3	1.0	<4	170	21	30	14	1.7	0.4	<0.5	0.83	0.18	18
AL-54	<1	5.0	1.1	<4	<50	18	22	11	1.6	0.4	<0.5	0.76	0.16	4
AL-55	<1	6.5	1.1	<4	63	22	30	11	2.1	0.6	0.9	1.10	0.19	6
AL-56	<1	4.2	<0.5	<4	<50	15	19	15	1.7	0.4	<0.5	0.74	0.12	3
AL-57	2	4.4	0.5	<4	72	16	19	11	1.5	0.4	<0.5	0.65	0.13	2
AL-58	<1	7.0	<0.5	<4	<50	29	55	18	3.2	0.7	<0.5	1.46	0.21	21
AL-59	<1	4.4	<0.5	<4	<50	14	21	13	1.3	0.3	<0.5	0.71	0.11	2
AL-60	<1	5.7	<0.5	<4	<50	17	23	11	1.7	0.5	<0.5	0.87	0.14	2
AL-61	2	7.5	<0.5	<4	120	20	26	12	1.8	0.6	<0.5	1.15	0.19	10
AL-62A	<1	11	<0.5	<4	94	51	58	20	3.9	0.9	<0.5	1.62	0.28	29
AL-62	2	9.9	1.1	<4	67	28	45	16	2.2	0.6	<0.5	1.23	0.26	19
AL-63	<1	8.2	1.3	<4	<50	23	32	13	2.0	0.5	<0.5	1.23	0.15	14
AL-64	<1	6.6	1.4	<4	90	21	31	13	1.7	0.5	<0.5	1.26	0.17	13
AL-65	<1	10	2.3	<4	110	59	84	31	4.3	1.1	<0.5	2.14	0.34	21
AL-66	<1	5.7	<0.5	<4	59	18	23	12	1.6	0.6	<0.5	0.89	0.10	4
AL-67	<1	5.1	1.5	<4	130	16	29	10	1.3	0.5	0.6	1.24	0.15	17
AL-68	<1	5.8	<0.5	<4	<50	20	29	12	1.9	0.6	<0.5	1.14	0.18	6
AL-69	<1	8.9	0.9	<4	71	25	42	15	2.1	0.6	0.5	1.19	0.19	7
AL-70	<1	7.7	1.3	<4	76	31	41	18	2.8	0.7	<0.5	1.13	0.25	16
AL-71	<1	4.0	<0.5	<4	<50	22	28	13	1.9	0.6	1.0	0.87	0.12	21
AL-72	<1	8.3	1.2	<4	140	27	44	15	2.4	0.6	<0.5	1.23	0.28	25
AL-73	<1	5.7	1.2	<4	110	22	37	12	2.2	0.8	<0.5	1.32	0.25	30
AL-74	<1	6.1	<0.5	<4	<50	24	31	14	2.5	0.7	<0.5	1.19	0.18	10
AL-75	<1	6.5	0.9	<4	<50	21	28	12	2.5	0.7	<0.5	0.93	0.09	5
AL-76	<1	5.7	<0.5	<4	<50	19	25	15	1.9	0.5	<0.5	0.72	0.12	4
AL-77	<1	9.8	2.7	<4	75	40	50	26	3.8	1.0	<0.5	1.20	0.26	29
AL-78	<1	7.1	1.6	<4	62	22	28	12	1.9	0.6	<0.5	1.03	0.17	10
AL-79	<1	1.4	<0.5	<4	72	10	11	<5	1.1	0.6	<0.5	1.25	0.18	14
AL-80	<1	6.7	1.9	<4	180	27	32	15	2.0	0.6	<0.5	1.14	0.18	20
AL-81	1	3.3	0.7	<4	<50	14	15	<5	1.0	0.4	<0.5	0.77	0.16	8
AL-82	<1	3.7	1.3	<4	130	26	22	13	2.0	0.5	<0.5	1.00	0.20	24

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	
AL-83	<5	<5	2	390	<1	<1	5	35	<2	1.67	4	<1	<5	<5	19700	<50	74	<0.2	5.8	<5	0.05
AL-84	<5	<5	<2	370	<1	<1	<5	15	<2	0.75	5	<1	<5	<5	26300	<50	<30	<0.2	3.6	<5	<0.05
AL-85	<5	<5	<2	280	2	<1	<5	26	<2	1.15	4	<1	<5	<5	25200	<50	<30	<0.2	4.3	<5	<0.05
AL-86	<5	<5	<2	330	<1	<1	<5	19	<2	0.91	4	<1	<5	<5	23200	<50	<30	<0.2	4.1	<5	<0.05
AL-87	<5	<5	<2	310	<1	2	<5	16	<2	1.10	4	<1	<5	<5	23000	<50	36	<0.2	4.0	<5	0.06
AL-88	18	<5	<2	220	2	<1	20	61	2	2.45	3	<1	<5	<5	10700	<50	33	0.2	5.7	<5	<0.05
AL-89	<5	<5	2	230	2	<1	<5	22	<2	1.65	4	<1	<5	<5	22300	<50	<30	<0.2	4.4	<5	<0.05
AL-90	<5	<5	21	350	11	<1	7	32	3	9.43	3	<1	<5	<5	8550	<50	33	0.4	7.3	<5	<0.05
AL-91	<5	<5	6	180	5	<1	18	45	3	2.75	3	<1	<5	<5	12900	<50	62	<0.2	7.7	<5	<0.05
AL-92	<5	<5	3	540	4	<1	8	36	2	2.14	6	<1	<5	<5	22200	<50	95	0.3	7.5	<5	<0.05
AL-93	<5	<5	<2	630	<1	<1	<5	32	<2	1.33	7	<1	<5	<5	27000	<50	50	<0.2	5.7	<5	<0.05
AL-94	<5	<5	2	520	<1	1	6	29	<2	2.07	7	<1	<5	<5	24700	<50	69	0.2	5.8	<5	<0.05
AL-95	<5	<5	<2	600	<1	<1	6	40	<2	1.77	5	<1	<5	<5	25700	<50	59	<0.2	6.1	<5	<0.05
AL-96	<5	<5	<2	540	<1	<1	6	43	<2	2.15	7	<1	<5	<5	25000	<50	61	0.2	6.7	<5	<0.05
AL-97	<5	<5	<2	530	2	1	7	42	<2	2.06	6	<1	<5	<5	24500	<50	71	<0.2	6.1	<5	<0.05
AL-98	<5	<5	5	510	<1	2	5	35	<2	2.40	7	<1	<5	<5	27400	<50	59	<0.2	5.3	<5	<0.05
AL-99	7	<5	19	480	3	<1	7	42	3	11.17	5	<1	<5	<5	12300	<50	40	0.6	5.7	<5	<0.05

Sample description	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SH PPM	EU PPM	TB PPM	YB PPM	LU PPM	CU PPM
AL-83	<1	4.8	0.6	<4	<50	15	23	9	1.4	0.3	<0.5	0.74	0.14	15
AL-84	<1	3.9	0.8	<4	<50	13	19	8	1.3	0.4	<0.5	0.67	0.11	2
AL-85	<1	3.7	<0.5	<4	<50	14	17	5	1.4	0.3	<0.5	0.57	0.12	7
AL-86	<1	3.7	0.8	<4	<50	13	17	8	1.2	0.4	<0.5	0.66	0.10	2
AL-87	<1	3.6	<0.5	<4	<50	13	17	7	1.3	0.3	<0.5	0.60	0.14	2
AL-88	<1	3.6	1.0	<4	95	15	19	9	1.3	0.4	<0.5	0.87	0.17	11
AL-89	<1	4.3	<0.5	<4	<50	13	18	10	1.1	0.3	<0.5	0.36	0.09	47
AL-90	<1	8.1	1.1	<4	<50	21	23	7	1.5	0.4	<0.5	0.51	0.12	24
AL-91	<1	7.5	1.4	<4	52	30	40	13	1.9	0.5	<0.5	0.98	0.19	32
AL-92	<1	8.4	1.2	<4	90	33	50	21	2.9	0.7	<0.5	1.03	0.08	11
AL-93	<1	5.8	<0.5	<4	66	20	28	14	2.1	0.6	<0.5	1.10	0.18	2
AL-94	<1	6.3	<0.5	<4	120	18	27	10	1.8	0.5	<0.5	1.10	0.19	2
AL-95	<1	5.4	0.9	<4	<50	20	27	11	1.8	0.6	<0.5	1.11	0.18	3
AL-96	<1	8.3	1.7	<4	<50	25	35	14	2.0	0.6	<0.5	1.22	0.21	13
AL-97	<1	7.3	<0.5	<4	<50	23	37	13	2.0	0.5	<0.5	0.75	0.19	7
AL-98	<1	7.0	<0.5	<4	<50	19	32	9	1.6	0.5	<0.5	0.83	0.14	4
AL-99	<1	5.2	1.2	<4	110	18	23	9	1.4	0.4	0.9	1.18	0.10	22

Sample description	AU PPB	AG PPH	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SE PPM	SC PPM	SS PPM	SR %
AL200	200	<5	640	260	3	<1	<5	24	3 23.9	3	<1	<5	25	7010	<50	<30	20	3.7	<5	<0.05	
AL201	525	<5	59	240	2	<1	<5	24	3 31.9	<1	<1	<5	24	4250	<50	34	13	2.6	<5	<0.05	
AL202	12	<5	8	370	5	<1	6	43	4 18.2	4	<1	<5	<5	15700	<50	49	2.1	6.4	<5	<0.05	
AL203	<5	<5	5	500	5	<1	12	52	4 3.71	6	<1	<5	<5	16600	<50	55	0.5	8.1	<5	<0.05	
AL204	7	<5	7	350	9	<1	14	45	6 5.37	6	<1	<5	<5	17100	69	51	0.9	10	<5	<0.05	
AL205	<5	<5	3	480	5	<1	13	35	6 4.71	5	<1	<5	<5	13500	<50	62	0.6	8.8	<5	0.06	
AL206	<5	<5	3	450	<1	<1	10	47	2 2.86	7	<1	<5	<5	25300	<50	68	0.3	8.1	<5	<0.05	
AL207	<5	<5	<2	480	2	<1	8	57	<2 2.21	7	<1	<5	<5	33800	<50	71	<0.2	7.9	<5	0.07	
AL208	<5	<5	3	570	<1	<1	8	58	4 2.44	6	<1	<5	<5	25800	<50	130	0.2	9.6	<5	<0.05	
AL209	504	<5	<2	540	2	<1	6	40	<2 1.82	7	<1	<5	<5	33100	<50	53	<0.2	6.8	<5	<0.05	
AL210	<5	<5	<2	460	3	2	7	42	<2 1.89	7	<1	<5	<5	34900	<50	54	<0.2	6.8	<5	<0.05	
AL211	<5	<5	<2	410	<1	2	8	51	<2 2.15	9	<1	<5	<5	31500	73	90	<0.2	9.0	<5	<0.05	
AL212	7	<5	<2	500	<1	2	<5	34	<2 1.73	8	<1	<5	<5	31500	<50	75	<0.2	5.9	<5	<0.05	
AL213	<5	<5	<2	340	2	2	8	60	2 2.76	7	<1	<5	<5	26900	<50	37	0.2	8.5	<5	<0.05	
AL214	6	<5	<2	410	4	<1	29	34	<2 3.32	7	<1	<5	<5	29800	<50	42	0.3	11	<5	<0.05	
AL215	550	<5	26	530	6	<1	8	63	3 2.4	4	<1	<5	<5	19700	78	78	1.4	8.0	<5	<0.05	
AL216	9	<5	6	390	7	<1	28	97	5 4.95	5	<1	<5	<5	10300	<50	56	0.8	12	<5	0.07	
AL217	49	<5	4	190	5	<1	19	220	2 5.47	3	<1	<5	<5	16400	79	<30	0.5	14	<5	<0.05	
AL218	<5	<5	6	430	5	1	29	120	5 5.48	4	<1	<5	<5	14600	<50	43	0.8	13	<5	0.09	
AL219	<5	<5	2	590	2	<1	<5	39	<2 1.65	8	<1	<5	<5	29900	<50	45	<0.2	6.4	<5	<0.05	
AL220	<5	<5	2	530	2	2	6	43	2 1.81	8	<1	<5	<5	28500	<50	69	<0.2	7.3	<5	<0.05	
AL221	25	<5	17	580	4	<1	15	45	8 7.09	5	<1	<5	<5	16200	<50	88	0.9	9.4	<5	<0.05	
AL222	53	<5	7	350	6	<1	6	27	6 19.3	3	<1	<5	<5	8300	84	100	1.7	5.5	<5	<0.05	
AL223	7	<5	<2	520	5	2	11	49	3 2.81	7	<1	<5	<5	23300	<50	72	0.3	8.0	<5	<0.05	
AL224	<5	<5	<2	540	3	1	7	35	<2 1.71	8	<1	<5	<5	28100	<50	66	0.2	6.5	<5	<0.05	
AL225	<5	<5	<2	560	<1	2	<5	38	<2 1.43	7	<1	<5	<5	30100	<50	73	0.2	6.2	<5	0.07	
AL226	17	<5	6	620	10	<1	9	33	5 13.3	4	<1	<5	<5	16500	<50	96	0.5	6.1	<5	<0.05	
AL227	27	<5	14	190	2	<1	<5	32	<2 23.6	4	<1	<5	10	9660	<50	34	1.2	3.9	<5	<0.05	
AL228	<5	<5	<2	520	<1	1	5	31	<2 1.47	8	<1	<5	<5	30800	<50	44	<0.2	5.6	<5	<0.05	
AL229	6	<5	<2	520	<1	1	6	41	<2 1.77	6	<1	<5	<5	27700	<50	62	<0.2	6.7	<5	0.08	
AL230	<5	<5	90	420	7	<1	<5	40	4 7.40	6	<1	<5	<5	10700	59	63	1.5	5.4	<5	<0.05	
AL231	17	<5	410	380	2	<1	<5	35	<2 18.5	3	<1	<5	15	9730	<50	44	49	4.8	<5	<0.05	
AL232	14	<5	34	310	7	<1	11	38	4 8.59	5	<1	<5	8	12500	<50	40	1.5	6.0	<5	<0.05	
AL233	<5	<5	5	240	7	<1	14	29	4 8.47	4	<1	<5	<5	23500	<50	50	0.5	11	<5	0.06	
AL234	<5	<5	4	430	4	2	9	58	3 2.76	7	<1	<5	<5	26700	<50	54	<0.2	8.1	<5	0.06	

Sample description	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	CU PPM
AL200	<1	2.2	0.8	<4	<50	10	9	<5	0.8	0.2	<0.5	0.69	0.10	17
AL201	<1	1.6	<0.5	<4	<50	12	9	<5	1.1	0.6	<0.5	1.23	0.11	16
AL202	<1	5.5	0.9	<4	76	21	20	8	1.8	0.5	<0.5	0.92	0.20	14
AL203	<1	7.7	1.2	<4	110	34	45	17	2.8	0.6	<0.5	1.57	0.25	20
AL204	<1	8.8	1.9	<4	130	46	59	28	3.7	1.1	<0.5	1.74	0.31	23
AL205	<1	7.3	1.6	<4	280	30	38	17	2.6	0.8	0.5	1.49	0.29	26
AL206	<1	7.2	1.5	<4	91	24	32	13	2.2	0.6	<0.5	1.10	0.25	11
AL207	<1	4.9	<0.5	<4	<50	22	25	<5	2.2	0.7	<0.5	1.16	0.19	16
AL208	<1	11	1.7	<4	67	35	57	22	3.3	0.8	<0.5	1.45	0.29	27
AL209	<1	6.3	0.8	<4	80	21	28	13	2.1	0.7	<0.5	0.96	0.15	14
AL210	<1	6.3	<0.5	<4	<50	20	25	17	2.2	0.6	<0.5	0.90	0.19	17
AL211	<1	13	1.5	<4	<50	40	50	20	3.3	0.7	<0.5	1.32	0.28	13
AL212	1	6.7	1.2	<4	<50	21	25	12	2.0	0.5	<0.5	1.05	0.21	9
AL213	<1	6.1	1.0	<4	81	20	28	<5	1.9	0.6	<0.5	1.32	0.26	18
AL214	<1	8.3	1.6	<4	<50	49	96	20	4.2	1.1	<0.5	1.60	0.32	45
AL215	<1	6.2	<0.5	5	77	37	37	16	2.5	0.6	<0.5	1.21	0.21	21
AL216	<1	5.9	1.1	<4	160	35	40	18	3.2	0.8	<0.5	1.47	0.28	32
AL217	<1	4.1	<0.5	<4	<50	23	28	12	2.3	0.8	<0.5	1.22	0.22	29
AL218	<1	5.8	1.2	<4	150	31	52	19	2.6	0.8	<0.5	1.52	0.25	32
AL219	<1	6.8	0.7	<4	72	25	30	13	2.5	0.7	<0.5	1.21	0.27	8
AL220	<1	7.3	1.0	<4	<50	25	33	13	2.4	0.6	<0.5	1.06	0.22	9
AL221	<1	6.7	1.4	<4	150	26	30	14	2.2	0.8	<0.5	1.53	0.25	17
AL222	<1	4.8	1.2	<4	87	23	21	<5	1.4	0.5	<0.5	0.72	0.10	26
AL223	<1	6.8	1.8	<4	82	36	42	21	3.1	0.8	<0.5	1.58	0.27	55
AL224	1	7.0	<0.5	<4	<50	30	29	16	2.6	0.6	<0.5	1.19	0.16	8
AL225	<1	5.9	1.0	<4	<50	23	26	10	2.4	0.7	<0.5	0.96	0.14	30
AL226	<1	5.0	0.8	<4	120	28	29	10	2.2	0.6	<0.5	1.16	0.18	30
AL227	<1	3.1	<0.5	<4	71	10	11	<5	1.0	<0.2	<0.5	0.69	0.07	13
AL228	<1	5.8	1.0	<4	<50	22	27	12	2.0	0.6	<0.5	1.02	0.19	10
AL229	<1	5.6	1.2	<4	73	22	27	12	2.1	0.6	<0.5	1.00	0.19	7
AL230	<1	5.4	1.6	<4	110	21	23	14	1.9	0.4	<0.5	1.60	0.26	27
AL231	<1	3.1	<0.5	<4	98	15	18	<5	1.5	0.6	<0.5	1.54	0.24	24
AL232	<1	6.2	1.9	<4	130	24	28	11	1.9	0.5	0.6	1.17	0.18	23
AL233	<1	4.5	1.7	<4	150	29	31	19	2.8	0.9	<0.5	1.50	0.25	26
AL234	<1	6.2	<0.5	<4	100	23	32	13	2.1	0.7	<0.5	1.00	0.20	20

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	%
AL235	6	<5	<2	560	<1	<1	7	43	3	1.96	7	<1	<5	<5 24800	<50	81	<0.2	7.2	<5	0.05	
AL236	<5	<5	<2	540	<1	3	<5	27	<2	1.23	7	<1	<5	<5 31000	<50	67	<0.2	5.2	<5	<0.05	
AL237	<5	<5	3	500	3	3	8	44	<2	2.95	8	<1	<5	<5 25500	<50	58	<0.2	6.7	<5	0.06	
AL238	6	<5	<2	550	4	2	5	33	<2	1.22	8	<1	<5	<5 31000	<50	72	<0.2	5.9	<5	<0.05	
AL239	<5	<5	6	510	3	<1	8	74	2	2.04	7	<1	<5	<5 24100	<50	<30	<0.2	7.4	<5	0.09	
AL240	<5	<5	<2	540	<1	2	<5	36	<2	1.33	10	<1	<5	<5 29100	<50	57	<0.2	5.7	<5	<0.05	
AL241	11	<5	3	410	3	2	7	53	2	2.71	7	<1	<5	<5 22600	<50	52	0.3	7.3	<5	<0.05	
AL242	<5	<5	5	540	3	<1	8	44	2	2.38	7	<1	<5	<5 25100	<50	48	0.3	6.8	<5	<0.05	
AL243	<5	<5	3	480	2	2	9	41	2	2.34	7	<1	<5	<5 25000	<50	71	0.3	6.7	<5	<0.05	
AL244	<5	<5	4	560	<1	2	<5	38	<2	1.91	8	<1	<5	<5 27500	<50	<30	0.3	6.1	<5	0.06	
AL245	<5	<5	5	550	3	2	<5	36	<2	2.09	7	<1	<5	<5 27900	<50	<30	<0.2	5.6	<5	<0.05	
AL246	<5	<5	11	340	5	<1	26	140	4	6.51	5	<1	<5	<5 12100	<50	66	0.4	22	<5	<0.05	
AL247	<5	<5	8	560	4	2	10	51	2	2.89	7	<1	<5	<5 22700	<50	42	0.2	8.2	<5	<0.05	
AL248	<5	<5	8	610	3	<1	<5	36	3	2.48	7	<1	<5	<5 17800	<50	62	0.3	6.0	<5	<0.05	
AL249	9	<5	13	440	3	<1	<5	37	<2	2.19	8	<1	<5	<5 29300	<50	61	<0.2	5.6	<5	<0.05	
AL250	<5	<5	<2	540	2	<1	6	49	2	2.19	7	<1	<5	<5 29900	<50	61	<0.2	7.3	<5	0.06	
AL251	<5	<5	2	600	<1	<1	6	36	<2	1.66	8	<1	<5	<5 27800	<50	58	<0.2	5.7	<5	<0.05	
AL252	7	<5	10	580	3	<1	6	44	2	4.20	8	<1	<5	<5 25200	<50	81	0.4	6.2	<5	<0.05	
AL253	186	<5	27	470	6	<1	<5	31	3	23.9	3	<1	<5	<5 8510	<50	43	1.5	5.1	<5	<0.05	
AL254	<5	<5	<2	540	<1	<1	<5	36	<2	1.74	8	<1	<5	<5 33900	<50	36	<0.2	6.1	<5	<0.05	
AL255	6	<5	<2	520	1	2	<5	32	<2	1.33	8	<1	<5	<5 32000	<50	78	<0.2	5.5	<5	0.06	
AL256	<5	<5	<2	520	<1	2	<5	33	<2	1.22	7	<1	<5	<5 30000	<50	79	<0.2	5.7	<5	<0.05	
AL257	<5	<5	<2	600	<1	<1	<5	27	<2	1.15	8	<1	<5	<5 31000	<50	53	<0.2	5.2	<5	<0.05	
AL258	<5	<5	<2	580	3	2	<5	38	<2	1.37	8	<1	<5	<5 31900	<50	64	<0.2	6.1	<5	<0.05	
AL259	27	<5	<2	530	<1	<1	<5	37	<2	1.62	8	<1	<5	<5 30100	<50	62	0.2	6.5	<5	<0.05	
AL260	<5	<5	2	490	<1	2	7	46	<2	2.29	8	<1	<5	<5 26500	<50	43	0.2	7.2	<5	0.09	
AL261	<5	<5	3	370	3	1	12	48	3	4.85	6	<1	<5	<5 15300	<50	85	0.2	9.1	<5	<0.05	
AL262	<5	<5	<2	400	<1	<1	7	40	<2	1.97	8	<1	<5	<5 26400	<50	50	0.3	7.2	<5	<0.05	
AL263	9	<5	2	320	<1	2	12	46	2	2.86	6	<1	<5	<5 31500	<50	42	0.3	9.7	<5	0.09	
AL264	6	<5	2	450	4	1	9	65	2	2.55	7	<1	<5	<5 23600	<50	49	<0.2	8.4	<5	0.06	
AL265	6	<5	<2	300	3	3	12	48	2	5.82	5	<1	<5	<5 17400	<50	44	<0.2	8.1	<5	<0.05	
AL266	<5	<5	5	380	2	<1	7	36	2	3.13	5	<1	<5	<5 21800	<50	69	<0.2	6.2	<5	<0.05	
AL267	<5	<5	3	370	4	<1	12	59	3	3.90	5	<1	<5	<5 11900	<50	36	<0.2	8.9	<5	<0.05	
AL268	<5	<5	<2	510	2	<1	6	35	<2	1.81	5	<1	<5	<5 22600	<50	72	0.3	6.2	<5	<0.05	
AL269	<5	<5	<2	430	<1	2	<5	29	<2	1.46	5	<1	<5	<5 27100	<50	59	<0.2	6.0	<5	<0.05	

Sample description	TA PPM	TH PPM	U PPM	V PPM	ZN PPM	LA PPM	CE PPM	NO PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	CU PPM
AL235	<1	7.4	<0.5	<4	<50	28	38	19	2.6	0.7	<0.5	1.13	0.25	20
AL236	<1	5.5	1.0	<4	<50	20	24	13	2.1	0.6	<0.5	1.06	0.10	26
AL237	<1	7.2	0.6	<4	<50	23	36	17	2.1	0.6	<0.5	1.05	0.15	13
AL238	<1	5.8	0.7	<4	<50	23	31	<5	2.5	0.7	<0.5	1.23	0.20	13
AL239	<1	5.9	0.8	<4	99	23	30	16	2.2	0.6	<0.5	1.16	0.22	8
AL240	<1	7.6	<0.5	<4	<50	25	31	15	2.4	0.6	<0.5	1.05	0.17	15
AL241	<1	6.6	1.2	<4	61	23	30	15	2.2	0.6	<0.5	1.16	0.17	6
AL242	<1	7.3	0.7	<4	77	23	29	16	2.3	0.6	<0.5	1.09	0.24	26
AL243	<1	6.7	1.3	<4	64	22	28	14	2.1	0.6	<0.5	1.22	0.20	15
AL244	<1	6.0	0.9	<4	85	19	26	7	1.9	0.6	<0.5	0.92	0.18	14
AL245	<1	6.0	<0.5	<4	52	18	27	9	1.8	0.5	<0.5	0.85	0.12	41
AL246	<1	2.9	1.3	<4	170	13	18	10	1.3	0.5	<0.5	1.61	0.31	60
AL247	<1	6.5	1.1	<4	110	20	30	15	2.1	0.6	<0.5	1.19	0.25	16
AL248	<1	7.1	1.9	<4	120	24	32	13	2.2	0.5	0.7	1.50	0.22	32
AL249	<1	7.0	0.7	<4	86	21	28	13	2.1	0.6	<0.5	0.94	0.11	15
AL250	<1	8.6	1.3	<4	<50	27	37	17	2.7	0.8	<0.5	1.29	0.26	26
AL251	<1	6.6	<0.5	<4	<50	22	29	10	2.4	0.7	<0.5	1.08	0.20	19
AL252	<1	7.7	1.1	<4	64	22	32	16	1.8	0.6	<0.5	0.92	0.15	10
AL253	<1	3.7	<0.5	<4	110	18	22	15	1.6	0.5	<0.5	1.34	0.22	28
AL254	<1	7.1	1.3	<4	<50	25	34	13	2.6	0.8	<0.5	0.85	0.20	4
AL255	<1	6.2	0.5	<4	<50	21	25	7	2.2	0.6	<0.5	0.99	0.20	17
AL256	<1	5.7	<0.5	<4	<50	19	25	12	2.1	0.6	<0.5	0.96	0.18	11
AL257	<1	5.9	1.1	<4	<50	21	27	11	2.1	0.6	<0.5	0.95	0.22	20
AL258	<1	7.8	1.3	<4	54	25	32	14	2.6	0.7	<0.5	1.08	0.22	21
AL259	<1	6.3	<0.5	<4	<50	21	27	16	2.1	0.6	<0.5	1.11	0.17	8
AL260	<1	6.3	<0.5	<4	<50	25	28	14	2.3	0.5	<0.5	0.97	0.19	23
AL261	<1	8.4	1.4	<4	130	29	50	10	2.2	0.6	<0.5	1.04	0.23	24
AL262	<1	6.5	1.3	<4	68	22	28	14	2.1	0.6	<0.5	1.09	0.23	15
AL263	<1	4.2	1.0	<4	55	13	17	9	1.4	0.7	<0.5	0.96	0.19	30
AL264	<1	5.8	1.4	<4	55	24	28	14	2.2	0.6	<0.5	1.13	0.22	14
AL265	1	5.5	<0.5	<4	85	23	27	12	2.1	0.7	<0.5	0.92	0.20	15
AL266	<1	5.3	1.5	<4	<50	17	21	7	1.4	0.4	<0.5	0.90	0.17	13
AL267	<1	6.6	2.1	<4	91	25	35	13	1.8	0.6	0.7	1.20	0.16	14
AL268	1	6.2	1.1	<4	<50	23	31	12	1.9	0.6	<0.5	0.83	0.14	9
AL269	<1	4.9	<0.5	<4	<50	17	22	11	1.6	0.5	<0.5	0.90	0.12	15

Activation Laboratories Ltd. Work Order: 1292 Report: 1292

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	S %
AL270	<5	<5	4	260	4	<1	10	48	3	3.63	5	<1	<5	<5	12700	<50	40	0.3	7.9	<5	<0.05
AL271	<5	<5	<2	470	2	<1	<5	32	<2	1.57	5	<1	<5	<5	24000	<50	43	<0.2	6.1	<5	<0.05
AL272	10	<5	2	450	4	<1	7	42	<2	2.90	6	<1	<5	<5	16800	<50	44	<0.2	6.7	<5	<0.05
AL273	<5	<5	<2	490	<1	<1	<5	32	<2	1.47	5	<1	<5	<5	25300	<50	67	0.2	5.8	<5	0.07
AL274	<5	<5	<2	470	<1	<1	<5	23	<2	1.62	7	<1	<5	<5	28500	<50	38	<0.2	4.9	<5	<0.05
AL275	<5	<5	<2	390	1	1	7	41	2	3.44	7	<1	<5	<5	22500	<50	73	0.2	7.5	<5	0.05
AL276	<5	<5	<2	490	<1	1	5	29	<2	1.58	7	<1	<5	<5	25400	<50	56	<0.2	5.5	<5	<0.05
AL277	<5	<5	10	320	3	<1	12	53	3	6.83	3	<1	<5	<5	19600	<50	69	0.2	9.1	<5	0.05
AL278	<5	<5	<2	300	<1	2	12	43	<2	3.15	4	<1	<5	<5	24800	<50	37	<0.2	8.2	<5	<0.05
AL279	<5	<5	<2	390	<1	3	12	49	2	3.42	5	<1	<5	<5	23300	<50	49	<0.2	11	<5	<0.05
AL280	<5	<5	<2	630	<1	<1	<5	26	<2	1.27	6	<1	<5	<5	26300	<50	52	<0.2	5.3	<5	<0.05
AL281	<5	<5	<2	590	<1	2	<5	17	<2	1.06	7	<1	<5	<5	27500	<50	<30	<0.2	4.6	<5	<0.05
AL282	26	<5	3	400	3	<1	14	50	3	3.46	5	<1	<5	<5	16700	<50	38	0.2	8.6	<5	<0.05
AL283	<5	<5	<2	520	<1	1	<5	30	<2	1.43	7	<1	<5	<5	21700	<50	53	<0.2	5.3	<5	<0.05
AL284	51	<5	3	390	4	<1	9	49	<2	3.66	7	<1	<5	<5	22000	<50	75	<0.2	7.9	<5	0.07
AL285	16	<5	<2	520	<1	<1	7	36	<2	2.11	7	<1	<5	<5	22400	<50	58	<0.2	6.3	<5	0.05
AL286	<5	<5	2	190	3	1	10	49	<2	3.01	4	<1	<5	<5	21700	69	33	<0.2	6.5	<5	<0.05
AL287	10	<5	<2	370	2	2	11	44	<2	3.41	5	<1	<5	<5	23200	<50	37	<0.2	8.1	<5	<0.05
AL288	<5	<5	5	270	4	1	10	59	6	2.1	5	<1	<5	<5	20900	<50	110	0.6	7.8	<5	<0.05
AL289	<5	<5	2	550	<1	<1	<5	36	<2	1.72	9	<1	<5	<5	32000	<50	67	<0.2	6.1	<5	<0.05
AL290	5	<5	2	520	<1	<1	15	67	3	2.78	8	<1	<5	<5	20900	<50	72	0.2	10	<5	<0.05
AL291	<5	<5	<2	470	<1	<1	8	51	2	2.08	7	<1	<5	<5	20000	<50	56	0.3	8.0	<5	<0.05
AL292	<5	<5	<2	520	<1	2	8	46	3	2.27	7	<1	<5	<5	30900	<50	100	<0.2	9.4	<5	<0.05
AL293	<5	<5	<2	510	<1	1	7	38	2	2.12	8	<1	<5	<5	25200	<50	48	<0.2	6.6	<5	0.08
AL294	<5	<5	3	420	5	<1	12	65	2	3.72	7	<1	<5	<5	20000	<50	36	0.3	9.3	<5	<0.05
AL295	<5	<5	<2	420	3	2	12	60	4	5.57	5	<1	<5	<5	23000	<50	61	0.4	11	<5	<0.05
AL296	<5	<5	3	690	6	<1	14	60	3	5.23	6	<1	<5	<5	18600	<50	80	0.3	9.1	<5	0.09
AL297	<5	<5	<2	270	<1	<1	17	54	4	3.92	5	<1	<5	<5	30100	<50	40	0.3	10	<5	<0.05
AL298	<5	<5	<2	560	<1	2	8	46	<2	2.07	8	<1	<5	<5	31700	<50	61	<0.2	7.5	<5	<0.05
AL299	<5	<5	<2	490	<1	<1	<5	25	<2	1.68	7	<1	<5	<5	30700	<50	58	0.3	5.5	<5	<0.05
AL300	<5	<5	17	670	8	2	36	52	5	4.36	6	<1	<5	5	20500	170	85	0.2	9.0	<5	<0.05
AL301	10	<5	10	630	5	2	29	75	5	5.05	6	<1	<5	<5	12800	<50	110	0.5	13	<5	0.08
AL302	<5	<5	5	460	4	<1	8	62	4	2.90	6	<1	<5	<5	22200	<50	98	<0.2	9.5	<5	<0.05
AL303	<5	<5	<2	510	<1	<1	10	50	5	2.38	8	<1	<5	<5	27500	<50	53	0.3	7.1	<5	0.08
AL304	<5	<5	4	390	4	<1	10	51	3	2.39	5	<1	<5	<5	25500	<50	59	0.4	7.5	<5	<0.05

Sample description	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	CU PPM
AL270	<1	5.4	1.0	<4	99	16	22	10	1.5	0.4	<0.5	1.20	0.23	18
AL271	<1	7.3	1.7	<4	<50	22	29	10	1.7	0.4	<0.5	0.70	0.07	46
AL272	<1	7.9	<0.5	<4	<50	24	35	13	1.9	0.5	<0.5	0.94	0.13	15
AL273	<1	5.8	<0.5	<4	<50	23	31	11	1.9	0.6	<0.5	0.77	0.14	23
AL274	<1	6.9	<0.5	<4	<50	20	26	<5	1.6	0.5	<0.5	0.84	0.13	8
AL275	<1	7.8	1.0	<4	<50	19	26	13	1.6	0.5	<0.5	1.03	0.17	21
AL276	<1	5.8	1.2	<4	<50	19	25	11	1.6	0.5	<0.5	1.00	0.17	12
AL277	<1	4.2	<0.5	<4	93	12	16	8	1.1	0.5	<0.5	0.81	0.14	32
AL278	<1	4.3	<0.5	<4	65	12	18	6	1.2	0.6	<0.5	0.94	0.15	25
AL279	<1	6.0	1.7	<4	<50	27	37	16	1.9	0.7	<0.5	1.15	0.20	39
AL280	<1	6.7	1.7	<4	<50	30	36	17	2.2	0.6	<0.5	1.06	0.15	68
AL281	<1	6.1	1.0	<4	<50	18	24	7	1.6	0.5	<0.5	0.77	0.14	16
AL282	<1	6.8	1.4	<4	77	28	36	11	2.0	0.5	<0.5	1.28	0.19	26
AL283	<1	5.9	1.0	<4	<50	21	26	10	1.7	0.5	<0.5	1.04	0.20	14
AL284	<1	11	1.2	<4	<50	27	48	15	2.2	0.7	<0.5	1.14	0.15	23
AL285	<1	6.2	<0.5	<4	<50	19	26	11	1.6	0.6	<0.5	0.87	0.16	11
AL286	<1	4.9	1.4	<4	<50	15	16	7	1.3	0.5	<0.5	1.14	0.19	18
AL287	<1	5.6	1.1	<4	<50	25	34	12	1.3	0.5	<0.5	0.91	0.16	19
AL288	<1	4.5	0.8	<4	72	16	17	13	1.5	0.6	<0.5	0.93	0.19	45
AL289	<1	7.2	1.6	<4	<50	22	29	<5	2.2	0.7	<0.5	0.93	0.22	5
AL290	2	7.0	1.7	<4	140	28	34	16	2.7	0.7	<0.5	1.72	0.26	23
AL291	<1	7.1	0.8	<4	<50	23	30	15	2.4	0.6	<0.5	1.19	0.23	17
AL292	<1	8.8	1.4	<4	<50	26	31	17	2.6	0.6	<0.5	1.38	0.27	14
AL293	<1	7.0	1.4	<4	61	27	30	13	2.2	0.7	<0.5	1.12	0.22	10
AL294	<1	9.1	1.9	<4	99	30	39	11	2.5	0.7	<0.5	1.44	<0.05	27
AL295	<1	6.4	2.0	<4	<50	100	55	57	7.8	1.7	0.9	1.76	0.31	26
AL296	<1	7.8	1.3	<4	81	30	49	15	2.6	0.7	<0.5	1.42	0.08	16
AL297	<1	5.1	<0.5	<4	71	18	25	10	2.3	1.0	<0.5	1.11	0.20	31
AL298	<1	6.3	<0.5	<4	<50	28	33	15	2.6	0.7	<0.5	1.10	0.19	18
AL299	<1	5.8	1.0	<4	57	21	25	16	2.0	0.7	<0.5	0.83	0.19	7
AL300	<1	11	1.3	<4	160	77	100	41	5.9	1.3	<0.5	1.80	0.34	23
AL301	1	11	1.8	<4	84	57	81	29	4.6	1.0	0.7	1.43	0.27	19
AL302	1	8.7	1.5	<4	<50	33	38	19	3.1	0.8	<0.5	1.35	0.21	14
AL303	<1	5.8	<0.5	<4	73	23	30	15	2.3	0.6	0.7	1.19	0.26	13
AL304	<1	6.0	1.8	<4	140	29	43	<5	2.8	0.7	<0.5	0.99	0.17	17

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	%
AL305	<5	<5	10	440	5	<1	6	41	7	3.02	5	<1	<5	<5	20000	<50	53	0.4	6.2	<5	<0.05
AL306	<5	<5	<2	520	<1	3	<5	27	<2	1.34	8	<1	<5	<5	32000	<50	55	<0.2	5.4	<5	0.06
AL307	<5	<5	34	450	5	<1	25	60	6	4.03	6	<1	<5	<5	10600	<50	73	0.6	9.0	<5	0.05
AL308	<5	<5	4	580	3	<1	11	48	3	2.06	7	<1	<5	<5	23100	<50	82	0.3	8.1	<5	<0.05
AL309	<5	<5	<2	620	<1	2	5	44	2	2.55	7	<1	<5	<5	25600	<50	68	<0.2	7.3	<5	<0.05
AL310	39	<5	3	440	<1	<1	<5	18	<2	1.69	5	<1	<5	<5	24500	<50	<30	<0.2	3.9	<5	<0.05
AL311	<5	<5	<2	440	<1	<1	<5	30	<2	1.46	5	<1	<5	<5	21200	<50	74	<0.2	5.6	<5	<0.05
AL312	<5	<5	<2	490	<1	<1	<5	27	<2	1.36	5	<1	<5	<5	24200	<50	58	<0.2	5.0	<5	<0.05
AL313	<5	<5	<2	380	<1	<1	7	34	<2	2.04	5	<1	<5	<5	21700	<50	63	0.2	5.5	<5	<0.05
AL314	<5	<5	<2	440	<1	<1	<5	24	<2	1.41	6	<1	<5	<5	25200	<50	50	<0.2	4.7	<5	<0.05
AL315	5	<5	10	400	3	<1	12	53	2	3.04	4	<1	<5	<5	17200	<50	42	0.3	7.2	<5	<0.05
AL316	<5	<5	33	420	3	<1	6	46	3	2.84	5	<1	<5	<5	16500	<50	48	<0.2	6.4	<5	<0.05
AL317	38	<5	47	230	3	<1	<5	18	3	19.0	3	<1	<5	<5	5300	<50	35	1.6	4.9	<5	<0.05
AL318	<5	<5	<2	440	<1	1	<5	27	<2	1.50	5	<1	<5	<5	24000	<50	56	<0.2	5.1	<5	0.08
AL319	<5	<5	3	410	<1	<1	<5	29	<2	1.73	6	<1	<5	<5	22800	<50	74	<0.2	5.4	<5	<0.05
AL320	<5	<5	8	500	5	<1	9	44	2	2.64	5	<1	<5	<5	17500	<50	59	<0.2	6.6	<5	<0.05
AL321	<5	<5	<2	390	<1	<1	6	36	<2	2.16	6	<1	<5	<5	23900	<50	54	<0.2	6.1	<5	<0.05
AL322	<5	<5	11	400	4	<1	7	35	2	5.23	4	<1	<5	<5	17300	<50	<30	0.3	7.3	<5	<0.05
AL323	<5	<5	4	470	4	<1	9	41	2	2.42	6	<1	<5	<5	16500	<50	42	<0.2	6.3	<5	<0.05
AL324	5	<5	<2	270	<1	<1	10	46	2	2.69	6	<1	<5	<5	24600	<50	100	<0.2	8.5	<5	<0.05
AL325	<5	<5	<2	530	<1	1	<5	33	<2	1.38	6	<1	<5	<5	26300	<50	71	<0.2	5.5	<5	<0.05
AL326	<5	<5	3	530	2	<1	<5	30	<2	1.46	6	<1	<5	<5	25900	<50	47	<0.2	5.1	<5	<0.05
AL327	<5	<5	<2	350	<1	<1	<5	24	<2	0.96	6	<1	<5	<5	26500	<50	62	<0.2	4.7	<5	<0.05
AL328	6	<5	240	490	2	1	6	39	<2	2.54	6	<1	<5	<5	21500	<50	70	<0.2	6.0	<5	<0.05
AL329	<5	<5	11	480	7	<1	5	49	3	3.43	7	<1	<5	<5	12500	<50	35	0.4	6.8	<5	<0.05
AL330	<5	<5	29	320	6	<1	12	51	6	5.74	5	<1	<5	<5	11200	<50	57	1.8	7.7	<5	<0.05
AL331	<5	<5	210	310	5	<1	15	99	7	7.43	4	<1	<5	<5	6550	<50	34	1.5	8.3	<5	<0.05
AL332	<5	<5	16	320	6	<1	22	55	6	7.20	4	<1	<5	<5	11900	<50	35	0.6	8.5	<5	<0.05
AL333	<5	<5	26	290	3	<1	25	46	4	7.11	4	<1	<5	<5	20100	<50	40	0.7	8.8	<5	<0.05
AL334	<5	<5	7	270	5	<1	17	42	4	5.61	5	<1	<5	<5	19600	<50	59	0.5	9.1	<5	<0.05
AL335	<5	<5	<2	420	2	3	9	46	2	2.20	7	<1	<5	<5	25700	<50	53	<0.2	7.4	<5	<0.05
AL336	5	<5	2	400	3	<1	8	59	3	2.43	6	<1	<5	<5	21100	<50	38	0.2	7.3	<5	<0.05
AL337	<5	<5	3	390	3	2	10	65	<2	2.48	6	<1	<5	<5	25800	<50	51	<0.2	8.5	<5	<0.05
AL338	26	<5	2	290	5	<1	22	130	3	7.11	4	<1	<5	<5	16500	<50	<30	0.5	13	<5	<0.05
AL339	<5	<5	8	430	6	<1	45	49	4	3.54	6	<1	<5	<5	17900	<50	70	0.2	7.1	<5	<0.05

Sample description	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	CU PPM
AL305	1	5.9	1.7	<4	92	18	24	9	1.8	0.5	<0.5	0.78	0.12	21
AL306	<1	6.6	<0.5	<4	60	24	31	11	2.5	0.7	<0.5	1.16	0.19	9
AL307	<1	7.7	1.7	<4	400	33	44	14	3.0	0.8	0.8	1.67	0.26	69
AL308	1	6.9	1.5	<4	<50	31	48	19	3.1	0.8	<0.5	1.41	0.31	15
AL309	<1	8.2	1.6	<4	<50	29	35	<5	2.6	0.6	<0.5	1.26	0.16	11
AL310	<1	5.1	<0.5	<4	<50	14	17	5	1.1	0.4	<0.5	0.70	0.11	6
AL311	<1	5.8	0.9	<4	<50	18	23	11	1.5	0.4	<0.5	0.98	0.16	9
AL312	<1	4.2	0.9	<4	<50	16	22	8	1.4	0.4	<0.5	0.90	0.14	8
AL313	<1	6.2	<0.5	<4	<50	17	26	8	1.5	0.4	<0.5	0.79	0.17	10
AL314	<1	5.2	1.0	<4	<50	17	23	11	1.5	0.4	<0.5	0.81	0.14	2
AL315	<1	5.0	<0.5	<4	70	20	34	9	1.5	0.4	<0.5	0.89	0.15	12
AL316	<1	6.3	1.1	<4	<50	19	28	10	1.7	0.5	<0.5	1.01	0.20	21
AL317	<1	2.8	1.1	<4	53	10	11	<5	0.6	0.2	<0.5	0.72	0.07	22
AL318	<1	4.8	<0.5	<4	<50	17	22	8	1.6	0.6	<0.5	0.81	0.15	10
AL319	<1	6.4	<0.5	<4	<50	21	34	13	1.8	0.4	<0.5	0.75	0.12	23
AL320	<1	6.3	1.5	<4	67	22	31	9	1.7	0.5	<0.5	0.89	0.10	18
AL321	1	5.8	1.0	<4	<50	19	25	11	1.7	0.5	<0.5	0.88	0.15	23
AL322	<1	9.1	2.0	<4	<50	24	33	14	2.3	0.6	<0.5	0.88	0.10	18
AL323	1	6.6	1.5	<4	53	21	29	11	1.7	0.5	0.5	1.22	0.20	9
AL324	<1	7.4	1.4	<4	61	22	31	13	1.9	0.5	<0.5	1.24	0.19	23
AL325	<1	5.1	0.8	<4	<50	19	28	<5	1.8	0.5	<0.5	0.83	0.17	16
AL326	<1	5.3	<0.5	<4	<50	21	26	15	1.9	0.5	<0.5	0.87	0.13	6
AL327	<1	5.1	<0.5	<4	<50	17	20	11	1.6	0.5	<0.5	1.03	0.17	5
AL328	<1	6.4	<0.5	<4	160	20	31	10	1.7	0.5	<0.5	1.01	0.17	10
AL329	1	7.1	1.8	<4	100	25	34	18	2.1	0.6	<0.5	1.48	0.26	22
AL330	<1	6.5	1.3	<4	200	22	29	11	1.8	0.5	<0.5	1.41	0.22	22
AL331	<1	6.0	1.8	<4	300	23	36	14	1.8	0.5	<0.5	1.34	0.24	27
AL332	<1	6.2	1.5	<4	82	21	31	14	1.8	0.6	<0.5	1.06	0.17	20
AL333	<1	4.4	1.4	<4	<50	20	29	<5	1.7	0.6	<0.5	1.18	0.20	12
AL334	<1	6.2	1.4	<4	82	43	45	22	3.3	0.9	<0.5	1.42	0.26	28
AL335	<1	4.7	1.1	<4	<50	25	28	16	2.2	0.7	<0.5	1.27	0.25	9
AL336	<1	5.4	1.5	<4	66	23	31	14	2.3	0.7	<0.5	1.54	0.36	14
AL337	<1	6.3	<0.5	<4	85	23	34	13	2.4	0.7	<0.5	1.17	0.23	15
AL338	<1	8.2	1.7	<4	110	29	66	14	2.6	0.8	<0.5	1.40	0.23	30
AL339	<1	7.9	1.3	<4	170	28	40	19	2.7	0.7	<0.5	1.37	0.26	32

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SE PPM	SC PPM	SI PPM	SR %
AL340	<5	<5	25	370	8	1	11	54	3	4.60	5	<1	<5	<5	15200	<50	37	0.4	7.2	<5	<0.05
AL341	<5	<5	10	470	3	<1	16	57	4	4.21	6	<1	<5	<5	20300	<50	39	0.4	8.4	<5	<0.05
AL342	8	<5	16	410	13	<1	17	53	3	3.71	5	<1	<5	<5	16300	<50	39	0.7	7.0	<5	<0.05
AL343	<5	<5	18	280	9	<1	12	31	3	2.93	4	<1	<5	5	9560	<50	<30	1.0	5.3	<5	<0.05
AL344	<5	<5	40	320	12	<1	15	60	5	4.75	6	<1	<5	<5	13300	<50	<30	1.2	8.1	<5	<0.05
AL345	<5	<5	68	280	5	<1	10	44	3	3.97	5	<1	<5	<5	14100	<50	<30	1.0	6.6	<5	<0.05
AL346	<5	<5	64	280	19	<1	24	33	3	4.32	3	<1	<5	<5	9770	<50	49	0.9	5.6	<5	<0.05
AL347	<5	<5	42	390	18	<1	17	53	6	4.07	4	<1	<5	<5	10100	<50	50	0.6	8.7	<5	<0.05
AL348	<5	<5	4	350	<1	<1	11	55	3	2.74	8	<1	<5	<5	22600	<50	59	0.3	7.7	<5	<0.05
AL349	<5	<5	10	470	5	<1	<5	35	7	3.26	6	<1	<5	<5	15500	<50	61	0.4	5.7	<5	<0.05
AL350	<5	<5	12	430	8	<1	6	41	4	3.12	5	<1	<5	<5	19100	<50	48	0.4	5.9	<5	<0.05
AL351	<5	<5	6	1100	13	<1	42	75	4	5.42	9	<1	<5	<5	30000	<50	93	0.8	13	<5	<0.05
AL352	<5	<5	4	280	7	<1	8	25	5	2.45	3	<1	<5	<5	8910	<50	<30	<0.2	4.8	<5	<0.05
AL353	<5	<5	4	400	2	<1	7	47	3	2.20	9	<1	<5	<5	24300	<50	80	0.2	7.7	<5	<0.05

Sample description	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	CU PPM
AL340	<1	6.4	1.8	<4	280	26	33	14	2.4	0.7	0.7	1.40	0.26	48
AL341	<1	6.0	1.6	<4	110	26	32	13	2.5	0.7	<0.5	1.69	0.29	32
AL342	1	7.8	2.0	<4	120	48	57	23	4.4	1.0	0.6	1.49	0.28	41
AL343	<1	4.2	<0.5	<4	150	24	31	16	2.5	0.6	<0.5	1.02	0.21	40
AL344	<1	7.1	2.3	<4	350	29	36	15	2.5	0.7	0.5	1.70	0.31	31
AL345	<1	4.5	1.7	<4	140	24	31	<5	2.1	0.5	<0.5	1.50	0.21	34
AL346	<1	4.7	1.7	<4	220	25	41	20	3.0	0.8	<0.5	0.96	0.21	59
AL347	2	7.5	2.9	<4	130	53	52	26	4.6	1.2	<0.5	1.69	0.21	68
AL348	<1	6.6	1.5	<4	59	26	38	15	2.5	0.8	<0.5	1.36	0.24	23
AL349	<1	4.9	1.0	<4	<50	19	23	9	2.0	0.6	<0.5	1.14	0.21	20
AL350	<1	5.3	2.3	<4	110	26	27	<5	2.2	0.6	<0.5	1.13	0.19	19
AL351	<1	13	3.0	<4	120	110	120	58	8.6	2.1	<0.5	3.05	0.54	56
AL352	<1	4.7	1.7	<4	59	18	26	12	2.2	0.2	<0.5	0.70	0.29	19
AL353	<1	7.4	1.7	<4	<50	27	36	18	2.7	0.7	<0.5	1.60	0.25	11

Sample description	AU PPB	AG PPH	AS PPH	BA PPH	BR PPH	CA %	CO PPH	CR PPH	CS PPH	FE %	HF PPH	HG PPH	IR PPB	MO PPH	NA PPH	NI PPH	RD PPH	SS PPH	SC PPH	SE PPH	SF %
A-100	<5	<5	3	560	<1	2	7	54	2	2.42	7	<1	<5	<5	29900	<50	65	0.3	7.2	<5	<0.05
A-101	6	<5	<2	480	<1	3	5	37	<2	1.92	9	<1	<5	<5	34300	<50	58	<0.2	6.5	<5	<0.05
A-102	<5	<5	<2	590	<1	2	9	51	<2	2.12	8	<1	<5	<5	29600	<50	43	<0.2	7.2	<5	<0.05
A-103	10	<5	7	490	3	<1	12	68	3	4.11	4	<1	<5	<5	23500	<50	<30	0.6	8.8	<5	<0.05
A-104	<5	<5	24	250	3	<1	15	78	5	4.99	4	<1	<5	<5	26800	<50	<30	0.6	9.2	<5	<0.05
A-105	<5	<5	39	300	4	<1	13	69	5	4.42	4	<1	<5	<5	14500	<50	45	0.6	9.4	<5	<0.05
A-106	11	<5	62	360	2	<1	29	120	7	7.73	4	<1	<5	<5	25100	<50	100	0.4	11	<5	0.07
A-107	<5	<5	9	480	4	<1	31	83	5	2.9	4	<1	<5	<5	28600	120	49	0.8	10	<5	<0.05
A-108	<5	<5	3	390	4	<1	<5	23	5	1.14	4	<1	<5	<5	10100	<50	33	0.3	7.7	<5	<0.05
A-109	16	<5	12	450	8	1	26	60	8	10.4	4	<1	<5	<5	11500	110	83	0.8	9.8	<5	<0.05
A-110	20	<5	10	490	50	<1	110	31	9	5.48	4	<1	<5	25	6230	710	51	1.5	14	<5	<0.05
A-111	6	<5	10	690	29	4	28	42	8	4.42	4	<1	<5	<5	18500	120	63	0.7	9.9	<5	<0.05
A-112	<5	<5	5	560	6	<1	10	29	9	1.70	5	<1	<5	<5	26300	<50	58	0.3	5.7	<5	<0.05
A-113	<5	<5	4	420	5	2	23	64	9	10.6	6	<1	<5	<5	11600	<50	<30	0.4	7.8	<5	<0.05
A-114	<5	<5	20	940	12	<1	25	26	6	3.90	4	<1	<5	<5	19000	<50	63	0.7	5.0	<5	<0.05
A-115	13	<5	4	460	4	<1	14	33	6	10.4	6	<1	<5	<5	19000	<50	120	0.8	7.2	<5	<0.05
A-116	<5	<5	5	640	8	2	20	33	5	8.68	4	<1	<5	<5	21500	<50	61	0.6	8.2	<5	0.06
A-117	<5	<5	7	240	3	<1	17	42	5	7.16	4	<1	<5	<5	14500	<50	60	0.6	8.4	<5	<0.05
A-118	<5	<5	5	360	4	2	20	39	5	8.75	4	<1	<5	<5	15600	<50	100	0.7	8.8	<5	<0.05
A-119	<5	<5	17	400	7	<1	15	40	8	5.58	6	<1	<5	<5	15500	<50	64	0.6	8.0	<5	<0.05
A-120	<5	<5	8	350	3	<1	15	54	5	4.99	6	<1	<5	<5	19400	<50	73	0.4	11	<5	<0.05
A-121	<5	<5	23	510	6	2	32	73	4	4.62	7	<1	<5	<5	17900	<50	83	0.5	10	<5	<0.05
A-122	<5	<5	5	570	5	3	26	40	3	2.50	6	<1	<5	<5	22700	<50	78	<0.2	6.1	<5	0.07
A-123	<5	<5	7	450	13	<1	39	30	3	2.22	5	<1	<5	<5	17400	<50	48	0.3	8.0	<5	<0.05
A-124	<5	<5	3	590	6	<1	29	41	3	2.48	6	<1	<5	<5	23300	<50	130	0.2	7.8	<5	<0.05
A-125	10	<5	4	580	4	<1	16	54	3	2.55	7	<1	<5	<5	18500	78	120	0.3	10	<5	<0.05
A-126	<5	<5	<2	480	2	2	<5	37	<2	1.45	8	<1	<5	<5	32800	70	72	<0.2	6.0	<5	<0.05
A-127	<5	<5	<2	580	<1	2	<5	24	<2	1.07	7	<1	<5	<5	33000	<50	71	<0.2	4.8	<5	<0.05
A-128	<5	<5	3	460	1	2	<5	33	<2	1.78	6	<1	<5	<5	28200	<50	92	<0.2	5.7	<5	<0.05
A-129	<5	<5	29	530	4	<1	<5	29	4	2.71	4	<1	<5	<5	16300	<50	36	0.7	4.7	<5	<0.05
A-130	12	<5	15	520	4	<1	5	32	4	11.9	4	<1	<5	13	13400	<50	55	1.0	5.6	<5	<0.05
A-131	8	<5	6	480	4	<1	<5	35	4	10.1	4	<1	<5	<5	12700	<50	30	0.9	5.1	<5	<0.05
A-132	<5	<5	180	550	3	1	17	47	6	9.20	4	<1	<5	<5	27000	<50	74	0.7	9.2	<5	<0.05
A-133	<5	<5	52	570	5	<1	11	62	7	11.1	4	<1	<5	<5	15100	<50	84	0.5	7.3	<5	0.06
A-134	<5	<5	29	640	6	<1	15	64	6	8.87	4	<1	<5	<5	21800	<50	91	0.5	7.8	<5	<0.05

Sample description	TA PPM	TH PPM	U PPM	V PPM	ZN PPM	LA PPM	CE PPM	NO PPM	SH PPM	EU PPM	TB PPM	YB PPM	LV PPM	CU PP	Mas
A-100	<1	6.2	1.2	<4	<50	20	30	14	1.9	0.6	<0.5	0.95	0.16	10	30.00
A-101	<1	7.1	1.5	<4	<50	26	38	19	2.9	0.8	<0.5	1.12	<0.05	7	30.00
A-102	<1	5.8	<0.5	<4	<50	21	31	14	2.2	0.6	<0.5	0.95	0.06	3	30.00
A-103	<1	3.7	1.2	<4	95	17	28	14	1.9	0.7	<0.5	1.29	0.24	18	30.00
A-104	<1	2.5	1.0	<4	160	10	16	<5	1.2	0.6	<0.5	1.14	0.12	12	30.00
A-105	<1	4.5	1.2	<4	120	25	34	15	2.5	0.6	<0.5	1.28	0.24	23	30.00
A-106	<1	3.5	<0.5	<4	92	16	22	<5	1.3	0.5	<0.5	0.80	0.08	16	30.00
A-107	<1	4.8	1.0	<4	<50	32	45	20	2.6	0.9	<0.5	1.07	0.21	22	30.00
A-108	<1	6.4	2.0	<4	72	75	69	51	5.7	1.4	<0.5	1.62	0.06	40	15.00
A-109	<1	4.8	0.6	4	210	29	51	12	2.1	0.8	<0.5	0.93	0.18	33	30.00
A-110	<1	8.2	7.0	<4	330	390	130	260	32	8.3	3.6	5.53	1.24	190	25.00
A-111	<1	8.6	2.2	<4	170	200	130	100	11	2.8	1.7	3.10	0.07	44	30.00
A-112	<1	4.6	1.7	<4	<50	21	31	13	2.3	0.6	1.0	1.07	0.11	43	25.00
A-113	<1	6.5	1.8	<4	99	21	27	9	2.0	0.6	<0.5	1.17	0.17	18	30.00
A-114	<1	5.7	1.2	<4	240	26	85	20	2.3	0.7	<0.5	1.18	0.16	39	25.00
A-115	<1	10	2.1	<4	110	45	65	21	2.9	1.0	<0.5	1.08	0.10	20	30.00
A-116	<1	4.6	1.4	<4	100	26	40	12	2.0	0.7	<0.5	1.24	0.25	19	25.00
A-117	<1	3.5	1.0	<4	78	13	19	6	1.3	0.6	<0.5	0.97	0.17	14	30.00
A-118	<1	3.7	0.8	<4	<50	18	32	13	1.7	0.8	<0.5	0.86	0.21	23	30.00
A-119	<1	7.4	1.8	<4	170	35	65	21	3.0	0.9	<0.5	1.42	0.13	40	25.00
A-120	1	6.5	1.6	<4	88	63	77	44	5.5	1.4	<0.5	1.83	0.27	48	30.00
A-121	2	8.6	1.3	<4	250	36	66	15	3.4	1.0	<0.5	1.75	0.35	25	25.00
A-122	1	7.2	1.1	<4	110	41	74	23	3.2	0.8	<0.5	1.32	0.23	27	30.00
A-123	1	7.7	1.8	<4	200	77	110	56	7.1	1.9	<0.5	1.95	0.28	25	30.00
A-124	<1	8.2	1.5	<4	160	42	93	24	3.7	1.0	<0.5	1.75	0.22	19	30.00
A-125	<1	10	1.3	<4	85	46	79	27	4.0	0.9	<0.5	1.35	0.23	23	30.00
A-126	<1	6.1	1.4	<4	<50	24	33	18	2.7	0.7	<0.5	1.03	0.17	6	30.00
A-127	<1	6.1	1.4	<4	<50	21	29	15	2.4	0.7	<0.5	1.02	0.19	4	30.00
A-128	<1	5.9	0.7	<4	<50	21	29	12	2.2	0.7	<0.5	0.77	0.08	3	30.00
A-129	<1	4.1	0.9	<4	150	17	24	12	1.7	0.6	<0.5	1.00	0.12	17	20.00
A-130	<1	4.6	1.7	<4	90	19	30	9	1.7	0.7	<0.5	1.12	0.20	12	30.00
A-131	2	5.3	0.7	<4	63	24	31	10	1.6	0.7	<0.5	1.00	0.21	17	30.00
A-132	1	3.8	<0.5	5	81	19	30	5	1.6	0.7	<0.5	0.89	0.18	25	30.00
A-133	<1	4.2	<0.5	<4	65	17	24	11	1.4	0.5	<0.5	1.02	0.21	13	30.00
A-134	<1	4.6	1.1	<4	90	24	32	14	1.9	0.5	<0.5	1.09	0.18	17	30.00

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SR %
A-135	<5	<5	19	260	4	<1	16	53	4	6.21	4	<1	<5	<5 18600	<50	61	0.4	7.7	<5	<0.05	
A-136	<5	<5	29	480	4	<1	24	45	7	7.19	4	<1	<5	5 13900	<50	71	0.4	9.3	<5	<0.05	
A-137	<5	<5	4	340	5	2	16	48	4	6.44	5	<1	<5	<5 13800	100	43	0.4	7.9	<5	<0.05	
A-138	10	<5	14	420	5	<1	29	24	4	11.9	4	<1	<5	<5 22700	<50	<30	1.0	7.3	<5	<0.05	
A-139	110	<5	<2	230	3	<1	15	57	4	7.13	4	<1	<5	<5 24400	<50	<30	0.5	12	<5	<0.05	
A-140	<5	<5	3	230	4	<1	12	99	3	4.20	3	<1	<5	<5 21700	<50	46	0.5	9.2	<5	<0.05	
A-141	<5	<5	100	300	5	<1	<5	44	3	3.80	5	<1	<5	<5 15600	<50	<30	1.2	6.4	<5	<0.05	
A-142	<5	<5	43	460	5	<1	16	54	4	4.44	5	<1	<5	6 8110	<50	68	0.9	8.4	<5	<0.05	
A-143	<5	<5	22	390	18	<1	16	43	5	5.24	5	<1	<5	<5 5500	<50	53	0.8	7.4	<5	<0.05	
A-144	<5	<5	29	230	10	<1	33	30	3	2.32	3	<1	<5	<5 5430	<50	34	0.6	4.1	<5	<0.05	
A-145	7	<5	2	380	3	<1	11	53	2	2.26	7	<1	<5	<5 28000	<50	44	<0.2	7.6	<5	0.05	
A-146	11	<5	17	350	11	<1	9	65	4	4.57	5	<1	<5	5 7010	<50	35	1.1	9.5	<5	<0.05	
A-147	20	<5	3	330	<1	<1	<5	40	4	5.5	4	<1	<5	<5 9500	<50	43	0.8	4.6	<5	<0.05	
A-148	<5	<5	3	740	6	<1	7	37	4	8.39	5	<1	<5	5 9210	<50	80	0.7	6.1	<5	<0.05	
A-149	9	<5	7	640	5	<1	13	37	7	8.14	5	<1	<5	<5 10600	<50	140	0.4	7.2	<5	<0.05	
A-150	<5	<5	28	790	5	<1	16	93	11	10.2	4	<1	<5	<5 23900	<50	140	0.6	9.1	<5	<0.05	
A-151	<5	<5	16	420	3	<1	18	48	4	5.11	5	<1	<5	<5 25700	<50	95	0.3	7.6	<5	<0.05	
A-152	<5	<5	32	670	4	3	16	61	5	6.98	5	<1	<5	<5 19900	<50	62	0.6	8.7	<5	<0.05	
A-153	<5	<5	11	390	2	2	9	61	<2	4.88	5	<1	<5	<5 29000	<50	72	0.2	8.9	<5	0.11	
A-154	11	<5	3	500	3	<1	19	49	3	3.24	7	<1	<5	<5 22100	<50	45	0.3	8.8	<5	<0.05	
A-155	<5	<5	2	380	4	2	15	53	3	2.92	6	<1	<5	<5 20100	<50	86	0.3	8.5	<5	<0.05	
A-156	<5	<5	<2	300	<1	2	11	63	3	3.21	5	<1	<5	<5 23800	<50	51	<0.2	9.4	<5	<0.05	
A-157	<5	<5	<2	300	4	<1	12	98	6	5.13	4	<1	<5	<5 16700	<50	46	0.4	8.9	<5	<0.05	
A-158	<5	<5	24	360	15	<1	7	46	4	3.52	5	<1	<5	<5 14900	<50	<30	0.6	7.4	<5	<0.05	
A-159	<5	<5	10	470	6	<1	18	52	3	3.64	5	<1	<5	<5 9010	<50	56	0.6	9.1	<5	<0.05	
A-160	<5	<5	4	480	3	1	11	45	2	2.31	5	<1	<5	<5 26800	<50	61	<0.2	7.1	<5	<0.05	
A-161	<5	<5	13	380	5	<1	5	49	3	3.24	6	<1	<5	<5 7730	<50	52	0.9	8.2	<5	<0.05	
A-162	<5	<5	2	380	<1	2	10	49	4	2.24	8	<1	<5	<5 24600	<50	<30	0.2	7.7	<5	<0.05	
A-163	<5	<5	9	540	3	2	11	57	3	2.94	6	<1	<5	<5 20200	<50	130	<0.2	9.4	<5	<0.05	
A-164	<5	<5	4	470	3	<1	15	51	3	2.89	6	<1	<5	<5 19700	<50	120	<0.2	8.8	<5	<0.05	
A-165	22	<5	18	<100	49	<1	21	35	4	2.79	3	<1	<5	<5 4460	<50	33	0.5	17	<5	<0.05	
A-166	6	<5	12	430	4	<1	9	34	6	2.10	6	<1	<5	<5 13500	<50	61	0.5	5.4	<5	<0.05	
A-167	<5	<5	17	320	5	<1	12	31	5	3.60	5	<1	<5	<5 13400	<50	<30	0.6	4.5	<5	0.11	
A-168	<5	<5	3	<100	13	<1	<5	20	<2	0.35	2	<1	<5	<5 2030	<50	<30	0.3	5.7	<5	<0.05	
A-169	24	<5	<2	<100	5	<1	<5	59	<2	6.51	3	<1	<5	INT 1820	<50	39	<0.2	21	<5	<0.05	

Sample description	TA PPM	TH PPM	U PPM	V PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	CU PP	Mas
A-135	<1	4.7	1.2	<4	150	17	28	12	1.6	0.6	<0.5	1.00	0.16	25	30.00
A-136	<1	4.6	<0.5	<4	120	19	31	15	1.6	0.6	<0.5	0.86	0.16	22	25.00
A-137	<1	5.6	<0.5	<4	150	20	31	15	2.2	0.7	<0.5	1.30	0.11	18	25.00
A-138	<1	3.9	1.0	<4	97	17	30	15	1.7	0.7	<0.5	1.13	0.11	28	25.00
A-139	<1	3.6	<0.5	<4	120	13	18	9	1.1	0.5	<0.5	1.15	0.21	39	30.00
A-140	<1	2.6	1.3	<4	120	11	16	5	1.2	0.5	0.6	0.78	0.15	48	30.00
A-141	<1	4.8	1.7	<4	110	18	23	8	1.5	0.5	<0.5	1.08	0.16	22	30.00
A-142	<1	5.6	1.3	<4	200	29	38	22	2.8	0.7	<0.5	1.54	0.18	36	25.00
A-143	<1	6.3	1.2	<4	160	37	58	23	3.9	0.9	0.8	1.53	0.23	78	20.00
A-144	<1	3.9	1.2	<4	140	32	46	22	2.9	0.7	<0.5	1.03	0.15	73	30.00
A-145	<1	6.4	1.4	<4	92	23	35	15	2.2	0.7	<0.5	1.19	0.18	26	30.00
A-146	<1	5.9	2.0	<4	170	26	39	15	2.6	0.7	<0.5	1.34	0.14	38	20.00
A-147	<1	3.8	<0.5	<4	67	14	19	7	1.2	0.4	<0.5	0.82	<0.05	18	30.00
A-148	<1	6.0	1.4	<4	120	24	33	13	2.1	<0.2	<0.5	1.23	0.24	31	30.00
A-149	<1	8.6	2.6	6	110	48	89	24	3.1	1.0	<0.5	1.02	0.09	29	20.00
A-150	<1	5.5	<0.5	<4	<50	24	50	14	2.2	0.7	<0.5	1.06	0.09	25	25.00
A-151	<1	3.6	<0.5	<4	94	16	23	9	1.7	0.6	<0.5	1.38	0.19	16	25.00
A-152	<1	6.1	1.6	<4	200	22	45	14	2.2	0.7	<0.5	1.27	0.31	30	30.00
A-153	<1	5.9	<0.5	<4	110	19	29	14	2.1	0.7	<0.5	1.09	0.18	13	30.00
A-154	<1	7.7	1.6	<4	92	32	55	22	3.0	0.9	<0.5	1.58	0.30	24	30.00
A-155	<1	5.8	0.7	<4	110	28	48	18	2.9	0.7	<0.5	1.38	0.23	14	30.00
A-156	<1	5.3	0.7	<4	140	23	39	14	2.4	0.7	<0.5	1.02	0.17	25	30.00
A-157	<1	4.0	<0.5	<4	67	16	24	12	1.8	0.6	<0.5	1.11	0.20	15	25.00
A-158	<1	8.0	2.6	<4	130	37	52	27	3.9	1.0	<0.5	1.43	0.24	41	25.00
A-159	<1	5.3	2.0	<4	110	29	40	16	2.7	0.6	<0.5	1.51	0.20	75	20.00
A-160	<1	6.0	<0.5	<4	<50	27	37	16	2.4	0.6	<0.5	0.75	0.14	15	30.00
A-161	1	5.1	1.6	<4	160	19	29	12	2.1	0.6	<0.5	1.65	0.23	22	25.00
A-162	<1	4.9	1.4	<4	110	22	35	15	2.2	0.7	<0.5	1.31	0.22	11	25.00
A-163	<1	9.2	1.2	<4	<50	35	52	24	3.4	0.9	<0.5	1.22	0.29	27	30.00
A-164	<1	6.9	1.5	<4	160	31	46	23	2.9	0.7	0.7	1.47	0.14	11	30.00
A-165	<1	19	6.4	<4	<50	40	68	48	8.1	1.9	<0.5	1.54	0.30	42	25.00
A-166	<1	5.8	2.0	<4	90	26	33	16	2.4	0.7	<0.5	1.66	0.22	38	25.00
A-167	<1	5.0	1.5	<4	140	22	27	15	2.1	<0.2	<0.5	1.28	0.23	34	25.00
A-168	<1	4.2	2.4	<4	<50	82	110	53	7.9	1.8	<0.5	1.09	0.27	12	15.00
A-169	<1	12	7.1	<4	56	30	46	31	4.7	1.4	1.0	0.83	0.20	66	15.00

Sample description	AU PPB	AG PPH	AS PPM	BA PPH	BR PPH	CA %	CO PPM	CR PPH	CS PPM	FE %	HF PPH	HG PPM	IR PPB	MO PPM	NA PPH	NI PPM	RB PPH	SB PPH	SC PPH	SE PPH	SR %
A-170	12	<5	5	370	9	<1	6	47	3	6.28	6	<1	<5	<5	14800	<50	80	0.4	7.6	<5	<0.05
A-171	<5	<5	5	560	9	<1	22	50	8	8.86	4	<1	<5	<5	16200	<50	140	0.5	7.3	<5	<0.05
A-172	8	<5	5	440	4	<1	12	46	5	4.05	5	<1	<5	<5	14800	<50	94	<0.2	7.9	<5	<0.05
A-173	<5	<5	7	510	8	<1	15	74	7	5.45	5	<1	<5	<5	6910	<50	58	0.4	9.7	<5	<0.05
A-174	12	<5	4	400	6	<1	23	97	9	5.61	4	<1	<5	<5	16600	<50	43	0.5	11	<5	<0.05
A-175	<5	<5	6	300	4	1	13	150	6	5.85	5	<1	<5	<5	16300	<50	74	0.6	9.0	<5	<0.05
A-176	<5	<5	5	410	6	<1	14	140	5	5.33	5	<1	<5	<5	12400	<50	34	0.6	10	<5	<0.05

Sample description	TA PPH	TH PPH	U PPH	V PPH	ZN PPH	LA PPH	CE PPH	ND PPH	SM PPH	EU PPH	TB PPH	YB PPH	LU PPH	CU Mas PP
A-170	<1	6.7	1.9	<4	71	46	38	35	5.2	1.3	<0.5	1.47	0.21	22 25.00
A-171	<1	4.6	1.1	<4	95	29	40	15	1.9	0.6	<0.5	1.26	0.19	23 25.00
A-172	<1	5.8	1.6	<4	110	21	30	11	2.2	0.9	<0.5	1.48	0.20	13 25.00
A-173	<1	9.7	1.6	<4	80	44	53	21	3.5	0.8	1.2	1.53	0.28	34 25.00
A-174	<1	4.5	1.2	4	160	22	33	18	2.2	0.7	<0.5	1.85	0.23	16 25.00
A-175	<1	4.0	1.2	<4	75	17	22	10	1.8	0.6	<0.5	1.47	0.24	5 25.00
A-176	<1	5.1	2.0	<4	88	21	26	<5	2.1	0.8	<0.5	1.50	0.17	22 25.00

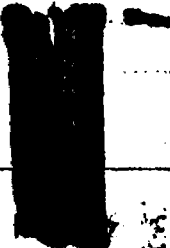
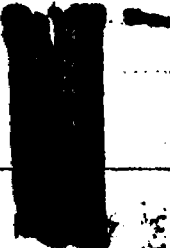
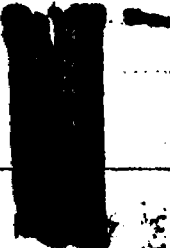
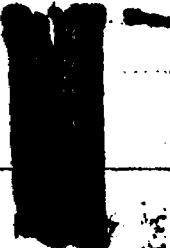
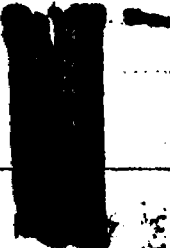
Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SR %
A-403	<5	<5	10	460	<1	<1	6	46	2	4.08	7	<1	<5	<5 25200	<50	<30	0.6	6.9	<5	0.14	
A-404	10	<5	5	450	9	<1	30	60	5	6.92	5	<1	<5	<5 12100	100	63	0.5	11	<5	<0.05	
A-405	<5	<5	<2	600	3	<1	5	39	<2	1.61	7	<1	<5	<5 26600	<50	64	<0.2	6.1	<5	<0.05	
A-406	<5	<5	5	490	5	<1	8	48	2	3.16	7	<1	<5	<5 17600	<50	<30	0.3	7.0	<5	<0.05	
A-407	7	<5	<2	500	<1	<1	5	38	<2	1.52	6	<1	<5	<5 26600	<50	47	<0.2	6.3	<5	<0.05	
A-408	<5	<5	3	370	2	2	13	69	<2	3.22	6	<1	<5	<5 29200	<50	52	0.3	10	<5	<0.05	
A-409	<5	<5	<2	540	<1	<1	6	37	<2	1.65	7	<1	<5	<5 29200	<50	76	<0.2	6.4	<5	<0.05	
A-410	8	<5	<2	480	3	<1	6	42	2	1.71	8	<1	<5	<5 28100	<50	57	<0.2	6.3	<5	<0.05	
A-411	10	<5	85	520	4	<1	7	52	3	9.91	6	<1	<5	5 18200	<50	42	5.1	5.4	<5	<0.05	
A-412	<5	<5	13	610	5	<1	9	51	5	3.51	8	<1	<5	<5 11400	<50	88	0.6	6.7	<5	<0.05	
A-413	<5	<5	34	350	<1	<1	<5	43	<2	8.69	7	<1	<5	<5 18900	<50	39	1.0	4.9	<5	<0.05	
A-414	100	<5	32	450	9	<1	8	42	3	15.1	3	<1	<5	<5 4900	<50	52	1.6	6.4	<5	<0.05	
A-415	<5	<5	6	380	<1	<1	10	31	5	5.24	4	<1	<5	<5 14000	<50	31	0.4	7.2	<5	<0.05	
A-416	<5	<5	22	230	3	<1	11	33	3	6.15	4	<1	<5	<5 13900	<50	59	0.8	7.6	<5	<0.05	
A-417	<5	<5	3	330	<1	<1	10	36	2	2.38	4	<1	<5	<5 18800	<50	53	<0.2	5.4	<5	<0.05	
A-418	<5	<5	<2	410	<1	<1	10	44	3	2.47	4	<1	<5	<5 17800	<50	<30	0.3	6.7	<5	<0.05	

Sample description	TA PPM	TH PPM	U PPM	V PPM	ZN PPM	LA PPM	CE PPM	NO PPM	SM PPM	EV PPM	TB PPM	YB PPM	LU PPM	CU PPM	Mass g
A-403	<1	6.9	<0.5	<4	<50	21	33	13	2.0	0.6	<0.5	0.92	<0.05	11	30.00
A-404	<1	9.1	1.8	<4	190	69	110	59	7.7	2.0	<0.5	2.19	0.20	25	30.00
A-405	<1	5.7	1.4	<4	<50	32	47	22	3.9	0.9	<0.5	0.87	0.20	12	30.00
A-406	<1	6.3	1.7	<4	190	22	30	15	2.2	0.6	<0.5	1.22	0.26	12	30.00
A-407	<1	6.1	0.9	<4	93	25	38	18	2.4	0.8	<0.5	1.06	0.21	13	30.00
A-408	1	4.2	1.2	<4	110	19	27	10	2.0	0.7	<0.5	1.16	0.27	17	30.00
A-409	<1	7.1	0.7	<4	<50	27	39	23	2.3	0.7	<0.5	1.04	0.19	19	30.00
A-410	<1	6.4	0.7	<4	<50	22	32	13	2.5	0.8	<0.5	1.08	0.20	10	30.00
A-411	<1	5.4	0.8	<4	91	18	28	<5	1.7	0.5	<0.5	1.09	0.17	37	30.00
A-412	1	6.4	2.1	<4	290	28	43	21	2.9	0.7	<0.5	2.13	0.30	41	25.00
A-413	<1	5.4	1.1	<4	69	17	26	<5	1.7	0.4	<0.5	0.88	0.19	20	30.00
A-414	<1	3.9	1.3	<4	80	21	26	10	1.7	0.5	<0.5	1.29	0.20	24	30.00
A-415	<1	4.7	2.1	<4	<50	22	24	9	1.6	0.5	<0.5	1.24	0.24	16	30.00
A-416	<1	5.2	1.1	<4	<50	16	22	<5	1.4	0.4	<0.5	1.40	0.17	17	25.00
A-417	<1	3.8	<0.5	<4	<50	15	18	<5	1.1	<0.2	<0.5	0.85	0.14	10	30.00
A-418	<1	4.0	<0.5	<4	<50	22	19	9	1.5	0.5	<0.5	0.95	0.18	14	30.00

Activation Laboratories Ltd. Work Order: 1393 Report: 1400

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	%
501	6	<5	7	620	3	<1	8	65	3	2.73	6	<1	<5	7	20100	<50	57	0.3	11	<5	<0.05
502	<5	<5	4	540	<1	<1	8	67	4	2.65	6	<1	<5	<5	19500	<50	64	0.3	10	<5	<0.05
503	12	<5	13	610	<1	<1	11	73	3	3.09	6	<1	<5	<5	21400	<50	32	0.2	11	<5	<0.05
504	5	<5	4	610	3	2	9	66	4	2.60	7	<1	<5	<5	22100	<50	74	0.3	10	<5	<0.05
505	<5	<5	4	640	3	<1	8	72	3	2.76	5	<1	<5	<5	19300	<50	65	0.3	10	<5	<0.05
ABE																					
506	<5	<5	5	510	3	<1	11	71	4	2.90	7	<1	<5	<5	21100	<50	75	0.3	10	<5	<0.05
507	<5	<5	6	610	2	<1	9	67	4	2.69	7	<1	<5	<5	21000	<50	89	0.4	9.8	<5	<0.05
508	<5	<5	4	590	4	<1	11	71	3	2.76	7	<1	<5	<5	23600	93	83	0.2	9.8	<5	<0.05
509	<5	<5	6	690	4	<1	13	64	3	2.51	7	<1	<5	<5	25000	<50	62	0.4	9.3	<5	<0.05
510	<5	<5	6	670	2	<1	13	59	2	2.99	7	<1	<5	<5	23000	<50	99	0.2	9.7	<5	<0.05
	<5	<5	7	460	5	<1	20	94	4	4.99	9	<1	<5	<5	17000	<50	97	0.3	10	<5	<0.05
	5	<5	<2	390	4	2	11	59	<2	3.11	9	<1	<5	<5	18600	<50	62	<0.2	8.6	<5	<0.05
	<5	<5	6	310	3	<1	15	62	3	3.94	8	<1	<5	<5	19500	88	76	0.4	9.8	<5	<0.05
	<5	<5	3	450	2	2	8	58	2	2.41	9	<1	<5	<5	24200	<50	44	0.2	7.7	<5	<0.05
	<5	<5	<2	280	<1	2	7	45	<2	1.90	11	<1	<5	<5	20000	<50	39	<0.2	7.0	<5	<0.05
	<5	<5	<2	440	1	1	5	44	<2	1.75	11	<1	<5	<5	20000	<50	63	<0.2	6.4	<5	<0.05

P.3/4
NOV 14 '89 15:20 ACTIVATION LABS

Sample description	TA PPM	TH PPM	V PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	CU PPM
501	<1	13	<0.5	<4	<50	78	92	56	7.8	1.7	<0.5	2.47	0.38	68
502	<1	10	2.0	<4	99	45	58	29	4.7	1.0	<0.5	1.76	0.28	28
503	<1	12	1.3	<4	<50	47	69	29	5.1	1.2	0.7	1.87	0.20	18
504	<1	11	2.1	<4	<50	48	64	36	5.1	1.3	<0.5	1.87	0.28	16
505	<1	11	2.6	<4	<50	51	64	36	5.2	1.2	<0.5	1.63	0.05	11
505	<1	10	2.0	<4	110	42	59	27	4.2	1.0	<0.5	1.55	0.20	14
507	<1	11	1.6	<4	<50	46	65	31	4.8	1.2	<0.5	1.66	0.34	23
508	2	11	2.2	<4	93	51	73	36	5.5	1.3	0.8	1.88	0.25	12
509	2	11	1.3	<4	<50	43	60	30	4.6	1.1	<0.5	1.54	0.20	11
510	<1	11	2.2	<4	<50	47	70	29	5.0	1.2	<0.5	1.71	0.24	12
	1	8.3	1.1	<4	160	27	44	25	3.3	0.9	0.6	1.39	0.28	15
	<1	5.5	1.9	<4	54	23	42	15	2.8	0.8	<0.5	1.30	0.29	26
	<1	5.9	1.8	<4	64	21	42	11	2.6	0.8	1.0	1.45	0.24	12
	<1	3.6	1.0	<4	94	18	30	12	2.5	0.6	<0.5	1.09	0.20	22
	<1	4.9	1.1	<4	<50	18	28	13	2.3	0.5	<0.5	1.26	0.26	12
2	4.6	1.7	<4	<50	20	32	13	2.4	0.7	<0.5	1.52	0.26	4	

ACTIVATION LABS



ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

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30747

Gerald Bidwell
Mingold Resources Inc.
935 Cobalt Cres.
Thunder Bay, Ontario
P7B 5Z4

Date: June 8 19 90


Work Order # : T900316
Project :

SAMPLE NUMBERS		Gold
Accurassay	Customer	ppb
520861	AS-1	24
520862	AS-2	<5
520863	AS-3	326
520864	AS-4	7
520864	AS-4	12 Check


Blaine Duncanson

Per: Blaine Duncanson

Activation Laboratories Ltd. Work Order: 1257 Report: 1253

Sample description	AV PPB	AG PPH	AS PPH	BA PPH	BR PPH	CA %	CO PPM	CR PPH	CS PPH	FE %	HF PPM	HG PPH	IR PPB	MO PPH	NA PPH	NI PPH	RB PPH	SO PPH	SC PPH	SE PPH	SR %
60040	6	<5	710	<100	<1	<1	<5	240	<2	0.31	<1	<1	<5	<5	644	<50	<30	<0.2	0.6	<5	<0.05
60041	12	<5	58	420	<1	2	27	170	4	5.61	5	<1	<5	<5	14200	<50	82	1.1	26	<5	<0.05
60042	358	<5	6	370	<1	5	23	86	2	7.71	4	<1	<5	<5	37100	<50	<30	0.6	16	<5	<0.05
60043	1000	<5	3	<100	1	<1	<5	190	<2	1.04	<1	<1	<5	19	<500	<50	<30	0.3	0.9	<5	<0.05
60044	10	<5	64	470	<1	<1	12	140	3	4.03	5	<1	<5	<5	12700	<50	60	1.0	15	<5	0.05
60045	<5	<5	9	300	<1	1	37	210	3	8.03	2	<1	<5	<5	11200	97	39	0.3	31	<5	<0.05
60046	<5	<5	27	410	<1	<1	12	110	5	3.94	5	<1	<5	<5	12500	<50	98	1.6	14	<5	<0.05
60047	14	<5	13	160	5	<1	<5	96	<2	22.2	<1	<1	<5	<5	1020	<50	<30	1.2	2.1	<5	<0.05
60048	8	<5	5	260	<1	2	12	340	3	1.44	3	<1	<5	<5	11200	<50	54	0.9	7.8	<5	<0.05
60049	65	<5	5	400	<1	3	24	270	2	6.53	3	<1	<5	<5	15500	130	78	0.6	16	<5	<0.05
 NELSON Rd. 7440	<5	16000	600	<1	9	27	110	<2	6.60	<1	<1	<6	<5	<500	<50	<30	56	0.9	<5	<0.05	
WHITEFISH L.	31	<5	20	200	<1	3	22	340	<2	4.07	2	<1	<5	<5	7630	500	<30	<0.2	13	<5	<0.05
	7	<5	22	<100	<1	1	6	410	<2	1.25	<1	<1	<5	<5	6660	54	<30	<0.2	2.9	<5	<0.05
	<5	<5	4	690	<1	4	11	300	<2	1.45	<1	<1	<5	<5	19000	<50	<30	<0.2	5.0	<5	<0.05
M. STEWART	107	<5	10	160	<1	3	19	120	<2	4.39	2	<1	<5	7	22600	<50	<30	3.6	8.7	<5	<0.05

Activation Laboratories Ltd. Work Order: 1257 Report: 1253

Sample description	TA PPM	TH PPM	U PPM	V PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	CU PPM	Mass g
60040	<1	<0.5	<0.5	<4	<50	1	<3	<5	0.2	<0.2	<0.5	<0.05	<0.05	1	30.00
60041	<1	5.4	1.4	<4	110	22	35	23	2.8	0.9	<0.5	1.81	0.16	98	30.00
60042	<1	11	<0.5	5	<50	99	130	62	8.1	2.1	<0.5	1.46	0.15	75	30.00
60043	<1	0.5	<0.5	<4	<50	5	6	<5	0.4	<0.2	<0.5	0.16	<0.05	6	30.00
60044	<1	6.8	1.9	<4	140	22	34	16	2.2	0.8	<0.5	1.55	0.13	48	30.00
60045	<1	3.1	1.1	<4	140	12	22	15	2.0	0.7	<0.5	2.00	0.10	140	30.00
60046	<1	7.3	1.6	<4	96	25	38	15	2.4	0.8	<0.5	1.80	0.23	55	30.00
60047	<1	0.6	1.1	<4	78	5	7	<5	0.7	0.5	<0.5	0.71	0.07	3	30.00
60048	<1	2.2	<0.5	<4	100	16	25	12	1.8	0.7	<0.5	1.05	0.10	25	30.00
60049	<1	3.7	<0.5	5	67	27	39	22	2.8	1.0	<0.5	1.24	0.09	44	30.00
	<1	<0.5	1.4	<4	800	15	14	<5	1.9	<0.2	<0.5	<0.20	<0.05	30.00	15.97
	<1	2.0	2.1	<4	98	26	41	30	4.6	1.2	<0.5	1.39	<0.05	4100	30.00
	<1	<0.5	<0.5	<4	<50	6	11	10	1.3	0.4	<0.5	0.33	<0.05	17	30.00
	<1	0.7	0.6	<4	<50	15	34	31	5.8	1.7	0.6	0.73	0.06	96	30.00
	<1	4.3	<0.5	8	51	47	70	41	5.7	1.6	<0.5	0.99	0.16	120	30.00

ACTIVATION LABORATORIES LTD.
 1000 SHEPPARD AVENUE EAST
 SCARBOROUGH, ONTARIO M1S 1T7
 CANADA
 TEL: (416) 291-1212
 FAX: (416) 291-1213
 E-MAIL: SALES@AL-LTD.COM
 WWW.AL-LTD.COM

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SR
✓60050	118	<5	46	<100	2	<1	27	86	<2	38.7	<1	<1	<5	<5	529	320	<30	0.9	0.7	<5	<0.05
✓60051	11	<5	41	370	<1	<1	7	120	3	3.36	3	<1	<5	<5	19500	<50	<30	0.9	9.8	<5	<0.05
✓60052	<5	<5	8	480	18	<1	<5	87	<2	1.33	<1	<1	<5	<5	35300	<50	<30	<0.2	2.3	<5	<0.05
✓60053	<5	<5	2	<100	2	<1	<5	230	<2	0.39	<1	<1	<5	<5	1650	160	<30	<0.2	0.6	<5	<0.05
✓60054	<5	<5	<2	360	<1	<1	10	130	5	2.63	2	<1	<5	<5	28200	<50	<30	0.5	15	<5	<0.05
✓60055	<5	<5	3	440	<1	<1	6	84	<2	2.35	2	<1	<5	21	3890	<50	<30	0.9	8.9	<5	<0.05
✓60056	14	<5	42	480	<1	2	16	110	<2	3.45	1	<1	<5	<5	38200	300	<30	0.5	14	<5	<0.05
✓60057	<5	<5	34	360	2	2	6	100	4	3.01	3	<1	<5	<5	25100	190	54	0.9	9.2	<5	<0.05
✓60058	<5	<5	15	470	<1	<1	12	110	5	3.25	2	<1	<5	<5	26100	<50	<30	<0.2	9.2	<5	<0.05
✓60059	<5	<5	44	<100	3	<1	<5	310	<2	0.32	<1	<1	<5	<5	<500	200	<30	0.5	0.1	<5	<0.05
✓60060	<5	<5	<2	<100	<1	3	22	270	<2	3.98	2	<1	<5	<5	28900	<50	<30	<0.2	18	<5	<0.05
✓60061	10	<5	43	270	<1	<1	10	130	<2	5.16	3	<1	<5	<5	13000	<50	54	0.7	15	<5	<0.05
✓60062	<5	<5	680	320	<1	<1	10	120	2	4.96	2	<1	<5	<5	8430	<50	<30	2.2	13	<5	<0.05
✓60063	<5	<5	300	<100	2	<1	<5	250	<2	0.46	<1	<1	<5	<5	<500	120	<30	1.1	0.5	<5	<0.05

Sample description	TA PPM	TH PPM	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	CU PPM	Mass g
60050	<1	0.6	<0.5	<4	<50	3	6	<5	0.2	<0.2	<0.5	0.37	0.10	24	30.00
60051	<1	6.0	2.1	<4	68	23	31	<5	1.8	0.6	<0.5	1.65	0.25	46	30.00
60052	<1	2.5	<0.5	<4	<50	15	16	<5	0.9	0.3	<0.5	0.35	<0.05	15	30.00
60053	<1	0.6	<0.5	<4	<50	2	4	<5	0.2	<0.2	<0.5	0.11	<0.05	11	30.00
60054	<1	2.2	0.9	<4	<50	14	17	8	1.1	0.4	<0.5	1.04	0.10	25	30.00
60055	<1	2.2	<0.5	<4	<50	14	19	8	1.2	<0.2	<0.5	0.72	0.15	36	30.00
60056	<1	2.5	<0.5	5	59	26	29	15	2.0	0.5	<0.5	<0.00	0.19	92	30.00
60057	<1	3.9	1.6	<4	<50	19	23	<5	1.3	0.5	<0.5	1.01	0.14	44	30.00
60058	<1	4.6	<0.5	<4	<50	31	35	21	2.3	0.7	<0.5	1.10	0.18	49	30.00
60059	<1	<0.5	<0.5	<4	<50	<1	<3	<5	<0.1	<0.2	<0.5	<0.05	<0.05	3	30.00
60060	<1	2.1	<0.5	<4	<50	20	26	<5	1.7	0.6	<0.5	1.07	0.21	42	30.00
60061	<1	5.6	<0.5	<4	88	23	28	10	1.6	0.5	<0.5	1.47	0.25	52	30.00
60062	<1	4.5	<0.5	<4	95	16	19	<5	1.5	0.4	<0.5	1.31	0.16	71	30.00
60063	<1	<0.5	<0.5	<4	<50	<1	<3	<5	<0.1	<0.2	<0.5	<0.05	<0.05	4	30.00

APPENDIX II

ANALYTICAL COSTS

APPENDIX II - ANALYTICAL COSTS

Activation Laboratories Ltd.

Invoice #	✓1262	\$ 657.60 ✓
	✓1253	166.50 ✓
	✓1278	219.20 ✓
	✓1277	605.80 ✓
	✓1273	1,054.90 ✓
	✓1279	163.10
	✓1292	2,109.80
	✓1393	<u>132.00</u>
		\$5,108.90
	Total	=====

MINGOLD RESOURCES INC.
935 COBALT CRES. PH. 807-623-8060
THUNDER BAY, ONTARIO P7B 5Z4

0999

October 2 19 89

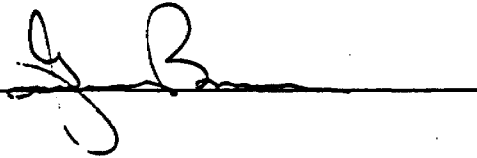
PAY -----THIRTEEN HUNDRED THIRTY-TWO-----05 \$ 1,332.05

ACTIVATION LABORATORIES LTD.
P.O. Box 1420, 383 Elgin St., Unit 17
BRANTFORD, Ontario
N3T 5T6

MINGOLD RESOURCES INC.

CANADIAN IMPERIAL BANK OF COMMERCE
MEMORIAL & HARBOUR EXPRESSWAY
THUNDER BAY, ONTARIO

PER



⑆00687⑆010⑆62⑆00915⑆

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW

DATE	DESCRIPTION	AMOUNT
Oct. 2/89	Invoice # 1262, 1253, 1257 - Assay Charges	
	80054-258 \$424.70	
	80054-251 \$824.10	
	80054-202 \$ 83.25	
		\$1,332.05

LABS

ACTIVATION LABORATORIES LTD

P.O. Box 1420, 383 Elgin St., Unit 17, Brantford, Ontario, Canada N3T 5T6

Telephone (519) 758-0310 ■ Fax (519) 758-8766

Invoice No.: 1253
Work Order: 1257
Invoice Date: 22-SEP-89
Date Submitted: 30-AUG-89
Your Reference: SAMPLES
Account Number: M-1

INGOLD RESOURCES INC.
5 COBALT CRESCENT
UNDERBAY, ONTARIO
B 24
ATTN: MR. GERRY BIDWELL

Q. samples	Description	Unit Price	Total
15	1D PACKAGE - LARGE	\$ 10.50	\$ 157.50
15	SAMPLE PREPARATION	\$ 4.00	\$ 60.00
15	CU ANALYSIS	\$ 2.15	\$ 32.25
Subtotal			: \$ 249.75

AMOUNT DUE : \$ 249.75

Net 30 days 1 1/2 % per month charged on overdue accounts.

80054-251 - 2/3
80054-202 1/3

MINGOLD RESOURCES INC.
935 COBALT CRES. PH. 807-623-8060
THUNDER BAY, ONTARIO P7B 5Z4


1010
October 11 19 89

PAY ~~-----EIGHTEEN HUNDRED SEVENTY-NINE-----~~ 90 \$ 1,879.90

TO ACTIVATION LABORATORIES LTD.
1336 Sandhill Dr.,
ANCASTER, Ontario
L9G 4V5

MINGOLD RESOURCES INC.

CANADIAN IMPERIAL BANK OF COMMERCE
MEMORIAL & HARBOUR EXPRESSWAY
THUNDER BAY, ONTARIO

PER 

⑆00687⑆0⑆0⑆ 62⑆009⑆5⑆

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW

DATE	DESCRIPTION	AMOUNT
Sept. 28/89	Invoice # 1273, 1278, 1277 Assay charges 80054-251	1,879.90

ACTIVATION LABORATORIES LTD

Invoice No.: 1278
Work Order: 1272
Invoice Date: 03-OCT-89
Date Submitted: 08-SEP-89
Your Reference: SAMPLES
Account Number: M-1

GOLD RESOURCES INC.
5 COBALT CRESCENT
UNDERBAY, ONTARIO
L5Z4
ATTN: MR. GERRY BIDWELL

samples	Description	Unit Price	Total
16	1D PACKAGE - LARGE	\$ 10.50	\$ 168.00
16	SAMPLE PREPARATION	\$ 1.05	\$ 16.80
16	CU ANALYSIS	\$ 2.15	\$ 34.40
Subtotal			: \$ 219.20

AMOUNT DUE : \$ 219.20

30 days 1 1/2 % per month charged on overdue accounts.

80054-251

ACTIVATION LABORATORIES LTD

Invoice No.: 1277
Work Order: 1277
Invoice Date: 03-OCT-89
Date Submitted: 08-SEP-89
Your Reference: SAMPLES
Account Number: M-1

INGOLD RESOURCES INC.
55 COBALT CRESCENT
HUNDERBAY, ONTARIO
B 5Z4
ATTN: MR. GERRY BIDWELL

samples	Description	Unit Price	Total
52	1D PACKAGE - LARGE	\$ 9.50	\$ 494.00
52	CU ANALYSIS	\$ 2.15	\$ 111.80
		Subtotal	: \$ 605.80

AMOUNT DUE : \$ 605.80

at 30 days 1 1/2 % per month charged on overdue accounts.

80054-257

LABS

ACTIVATION LABORATORIES LTD

P.O. Box 1420, 383 Elgin St., Unit 17, Brantford, Ontario, Canada N3T 5T6

Telephone (519) 758-0310 ■ Fax (519) 758-8766

Invoice No.: 1273
Work Order: 1271
Invoice Date: 28-SEP-89
Date Submitted: 08-SEP-89
Your Reference: ABERNETHY
Account Number: M-1

INGOLD RESOURCES INC.

5 COBALT CRESCENT
UNDERBAY, ONTARIO

7B 5Z4

ATTN: MR. GERRY BIDWELL

samples	Description	Unit Price	Total
77	1D PACKAGE - LARGE	\$ 10.50	\$ 808.50
77	SAMPLE PREPARATION	\$ 1.05	\$ 80.85
77	CU ANALYSIS	\$ 2.15	\$ 165.55
Subtotal			: \$ 1054.90

AMOUNT DUE : \$ 1054.90

30 days 1 1/2 % per month charged on overdue accounts.

80054-251

MINGOLD RESOURCES INC.
935 COBALT CRES. PH. 807-623-8060
THUNDER BAY, ONTARIO P7B 5Z4

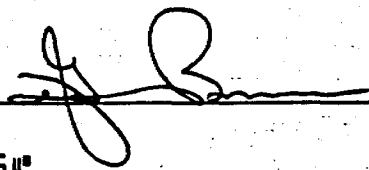
1029
November 1 19 89

PAY TWO THOUSAND TWO HUNDRED SEVENTY-TWO-----90 \$ 2,271.90

TO ACTIVATION LABORATORIES LTD.
1336 Sandhill Drive
ANCASTER, Ont.
L9G 4V5

MINGOLD RESOURCES INC.

CANADIAN IMPERIAL BANK OF COMMERCE
MEMORIAL & HARBOUR EXPRESSWAY
THUNDER BAY, ONTARIO

PER 

⑆00687⑆⑆0⑆0⑆ 62⑆⑆009⑆5⑆⑆

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW

DATE	DESCRIPTION	AMOUNT
Oct. 3/89	Invoice # 1279, 1292 Assay charges 80054-251	\$2,272.90

ACTIVATION LABORATORIES LTD

Invoice No.: 1279
Work Order: 1273
Invoice Date: 03-OCT-89
Date Submitted: 08-SEP-89
Your Reference: SAMPLES
Account Number: M-1

MINGOLD RESOURCES INC.
935 COBALT CRESCENT
THUNDERBAY, ONTARIO
P7B 5Z4
ATTN: MR. GERRY BIDWELL

No. samples	Description	Unit Price	Total
14	1D PACKAGE - LARGE	\$ 9.50	\$ 133.00
14	CU ANALYSIS	\$ 2.15	\$ 30.10
	Subtotal		: \$ 163.10

AMOUNT DUE : \$ 163.10

Net 30 days 1 1/2 % per month charged on overdue accounts.

80051-251

ACTIVATION LABORATORIES LTD

Invoice No.: 1292
Work Order: 1292
Invoice Date: 17-OCT-89
Date Submitted: 08-SEP-89
Your Reference: NONE
Account Number: M-1

MINGOLD RESOURCES INC.
35 COBALT CRESCENT
THUNDERBAY, ONTARIO
P7B 5Z4
ATTN: MR. GERRY BIDWELL

Qp. samples	Description	Unit Price	Total
154	SOIL SEIVING	\$ 1.05	\$ 161.70
154	1D PACKAGE LARGE	\$ 10.50	\$ 1617.00
154	CU GEOCHEM	\$ 2.15	\$ 331.10

AMOUNT DUE : \$ 2109.80

Net 30 days 1 1/2 % per month charged on overdue accounts.

80054-257

MINGOLD RESOURCES INC.
935 COBALT CRES. PH. 807-623-8060
THUNDER BAY, ONTARIO P7B 5Z4

1048

November 20 19 89

PAY SEVEN HUNDRED TWENTY-TWO ----- 10\$ 722.10

TO ACTIVATION LABS LTD.
1336 Sandhill Drive,
ANCASTER, Ontario
L9G 4V5

MINGOLD RESOURCES INC.

CANADIAN IMPERIAL BANK OF COMMERCE
MEMORIAL & HARBOUR EXPRESSWAY
THUNDER BAY, ONTARIO

PER 

⑆00687⑆010⑆ 62⑆00915⑆

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECKUE IS IN PAYMENT OF ITEMS DESCRIBED BELOW

DATE	DESCRIPTION	AMOUNT
Nov. 14/89	Invoice # 1400, 1330, 1356 Assay charges	
	80054-255 \$ 82.50	
	80054-258 \$507.60	
	80054-251 \$132.00	
		\$722.10



ACTIVATION LABORATORIES LTD

Invoice No.: 1400
 Work Order: 1393
 Invoice Date: 14-NOV-89
 Date Submitted: 30-OCT-89
 Your Reference: ABE&FL
 Account Number: M-1

MINGOLD RESOURCES INC.
 935 COBALT CRESCENT
 THUNDERBAY, ONTARIO
 P4B 5Z4
 ATTN: MR. GERRY BIDWELL

No. samples	Description	Unit Price	Total
16	SOIL SEIVE	\$ 1.05	\$ 16.80
16	1D PACKAGE LARGE	\$ 10.00	\$ 160.00
16	CU GEOCHEM	\$ 2.15	\$ 34.40
Subtotal			: \$ 211.20

 AMOUNT DUE : \$ 211.20

Net 30 days 1 1/2 % per month charged on overdue accounts.

10/16 80054-251
6/16 80054-258

DOCUMENT W9001-213



300

Mining Act
Report of Work
 (Geophysical, Geological and Geochemical Surveys)

Mining Lands Section, Mineral Development and Lands Branch

Type of Survey(s) VLF-EM, MAGNETIC, GEOLOGICAL, GEOCHEMICAL	Mining Division Kenora	Township or Area Clearwater Bay (M-2062)
Recorded Holder(s) MINGOLD RESOURCES INC.	2.13399	Prospector's Licence No. T-4617
Address Box 28, Toronto Dominion Centre, Toronto, Ontario M5K 1B8		Telephone No. (416) 362-2192
Survey Company MINGOLD RESOURCES INC.		
Name and Address of Author (of Geo-Technical Report) Brian Nelson, 935 Cobalt Crescent Thunder Bay, Ontario P7B 5Z4		Date of Survey (from & to) 22 May 89 02 Jun 90

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey:	- Electromagnetic	40
Enter 40 days. (This includes line cutting)	- Magnetometer	20
For each additional survey: using the same grid:	- Other	
Enter 20 days (for each)	Geological	20
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Other	
	Geological	
	Geochemical	2.5
Airborne Credits	Electromagnetic	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Magnetometer	
	Other	
Total miles flown over claim(s):		
Date	Recorded Holder or Agent (Signature)	
May 14, 1990	<i>[Signature]</i>	

Mining Claim		Mining Claim		Mining Claim	
Prefix	Number	Prefix	Number	Prefix	Number
K	1004893	K	1005362		
	1004894		1005363		
	1004895		1005364		
	1004896		1005365		
	1004897		1005366		
	1004898		1005367		
	1004899		1005368		
	1005352		1005369		
	1005353				
	1005354				
	1005355				
	1005356				
	1005357				
	1005358				
	1005359				
	1005360				
	1005361				

RECEIVED
 MAY 28 1990
 MINING LANDS SECTION

Total number of mining claims covered by this report of work. 25

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in this Report of Work, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying
Brian Nelson, 935 Cobalt Crescent, Thunder Bay, Ontario P7B 5Z4

Telephone No. (807) 623-8060 Date May 14, 1990 Certified By (Signature) *[Signature]*

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
2063	May 25/90	<i>[Signature]</i>
	Date Approved as Recorded	Provincial Manager, Mining Lands
	See revised work statements	

Received Stamp

KENORA MINING DIV.

RECEIVED

MAY 25 1990

AM 15 PM

789101112123456



Recorded Holder
MINGOLD RESOURCES INC

Township or Area
CLEARWATER BAY

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic <u>40</u> days	K 1004894 to 1004899 incl. <i>6</i>
Magnetometer _____ days	1005352 to 1005369 incl. <i>2/2</i>
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input type="checkbox"/> Ground <input type="checkbox"/>	
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

30 days electromagnetic - K 1004893

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.



Recorded Holder
MINGOLD RESOURCES INC.

Township or Area
CLEARWATER BAY

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ days	K 1004893 to 1004899 incl. 7
Magnetometer <u>20</u> days	1005352 to 1005361 incl. 10
Radiometric _____ days	1005363 to 1005369 incl. 7
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input type="checkbox"/> Ground <input type="checkbox"/>	
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

15 days magnetometer - K 1005362

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.



Recorded Holder
MINGOLD RESOURCES INC.

Township or Area
CLEARWATER BAY

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ days	K 1004894 1
Magnetometer _____ days	1004896 - 97 2
Radiometric _____ days	1005352 to 1005354 incl. 3
Induced polarization _____ days	1005356 to 1005360 incl. 5
Other _____ days	1005365 to 1005368 incl. 4
	15
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical <u>4.2</u> _____ days	
Man days <input type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input type="checkbox"/> Ground <input type="checkbox"/>	
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

K 1004893, 1004895, 1004898 - 99
1005355, 1005361 to 1005364 incl.
1005369

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.



Recorded Holder
MINGOLD RESOURCES INC

Township or Area
CLEARWATER BAY

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological <u>15.5</u> days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input type="checkbox"/> <input checked="" type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	K 1004893 to 1004899 incl. 1005352 to 1005369 incl.

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.



Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

September 13, 1990

Mining Lands Section
3rd Floor, 880 Bay Street
Toronto, Ontario
M5S 1Z8

(416) 965-4888

Your File: W 9001.213
Our File: 2.13399

Mining Recorder
Ministry of Northern Development & Mines
808 Robertson Street
P. O. Box 5200
KENORA, Ontario
P9N 3X9

Dear Madam/Madam:

RE: Notice of Intent dated August 13, 1990 for Geophysical
(Electromagnetic) Survey submitted on Mining Claim:
K 1004894 et al in the Clearwater Bay Area.

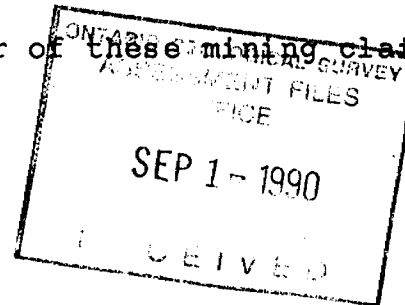
The assessment work credits, as listed with the above-mentioned
Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so
indicate on your records.

Yours sincerely,

Ron C. Gashinski
Provincial Manager, Mining Lands
Mines & Minerals Division

RJS
LJS: zm



cc: Mr. W. D. Tieman
Mining & Lands Commissioner
Toronto, Ontario

Resident Geologist
KENORA, Ontario

cc: Mingold Resources Inc
Toronto, Ontario

Brian Nelson
Thunder Bay, Ontario

Assessment Work Breakdown

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey											
Technical Days	X		Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
9			63		0		63		25		2.5

Type of Survey											
Technical Days	X		Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
<input type="text"/>			<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>

Type of Survey											
Technical Days	X		Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
<input type="text"/>			<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>

Type of Survey											
Technical Days	X		Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
<input type="text"/>			<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>

MINING RIGHTS OPEN
JUNE 1/87
D. 269

PELLATT TP. M.2020

AREA OF

CLEARWATER BAY
(LAKE OF THE WOODS)

DISTRICT OF
KENORA

KENORA
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

- PATENTED LAND ● or ⊙
- CROWN LAND SALE C.S.
- LEASES ⊙
- LOCATED LAND L.C.
- LICENSE OF OCCUPATION L.O.
- MINING RIGHTS ONLY M.R.O.
- SURFACE RIGHTS ONLY S.R.O.
- ROADS —
- IMPROVED ROADS —
- KING'S HIGHWAYS —
- RAILWAYS —
- POWER LINES —
- MARSH OR MUSKEG —
- MINES —
- CANCELLED —
- PATENTED S.R.O. —

NOTES

400' Reservation of Surface Rights around all lakes & rivers from the contour of 1064'

400' shown thus S.R.O. Reserved File 163473.

For status of S.R. Subdivisions, please enquire at Min. of Natural Resources.

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970).

Order No.	File	Date	Disposition
①	W 65/76	181.21	19/11/76 S.R.O.
②	W 21/85	168521	9/8/85 S.R.O. & M.R.
③	W 21/87	15255	1/1/87 S.R.O.

SAND and GRAVEL

- ① M.N.R. Gravel Pit No.151
- ② Gravel File 108094
- ③ Gravel File 163473
- ④ M.T.C. Gravel Pit No. 10-21 MINING DIV.
- ⑤ Gravel File 35255
- ⑥ QUARRY PERMIT

RECEIVED
JUN 01 1990
AM 7:49:10 PM 12:23:45
Feb 7 1989

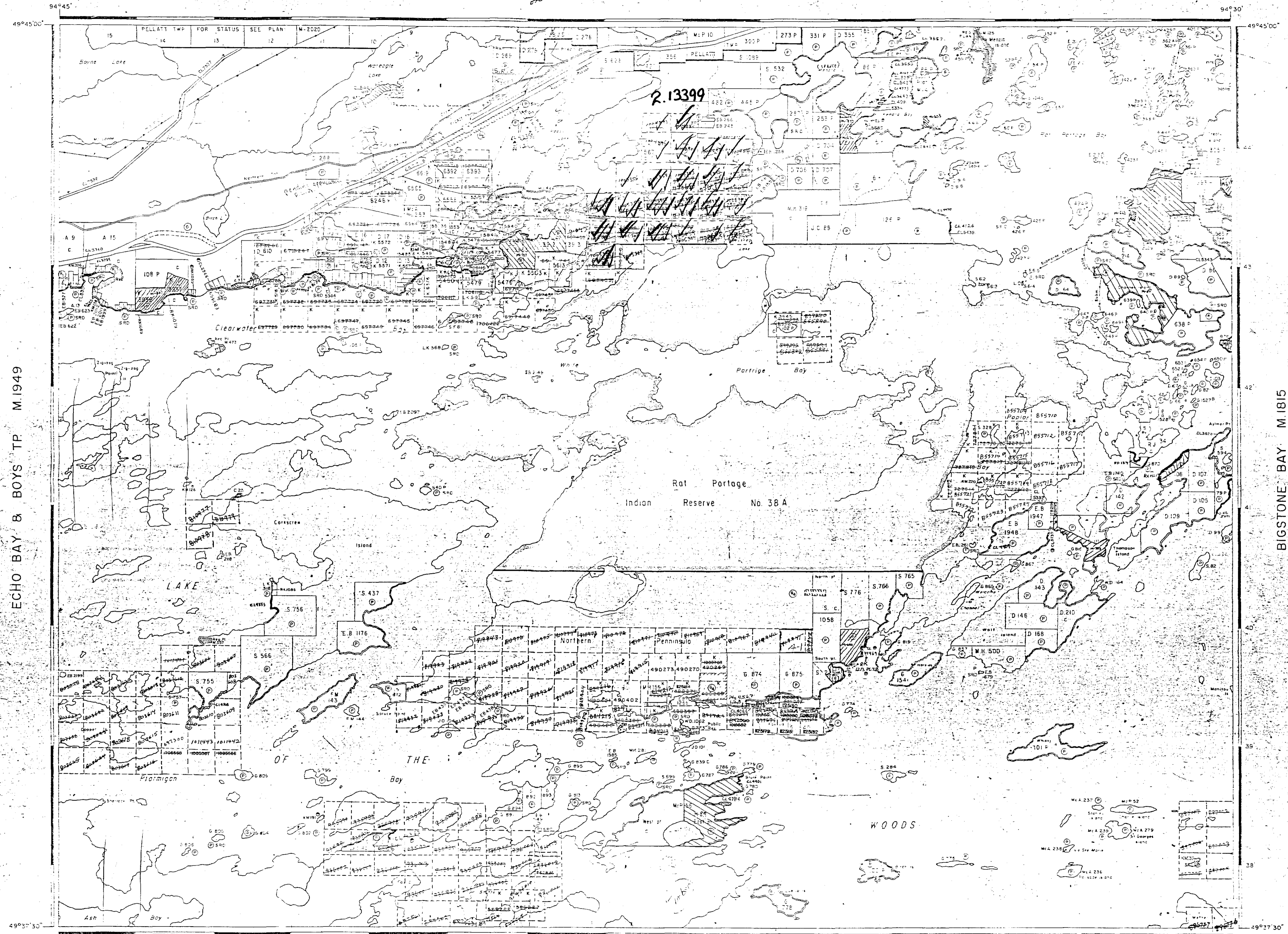
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

KENORA MINING DIV.
RECEIVED
JUN 01 1990
AM 7:49:10 PM 12:23:45

NATIONAL TOPOGRAPHIC SERIES 52 E 10

PLAN NO. M-2062

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



200

WILEY BAY M.2337

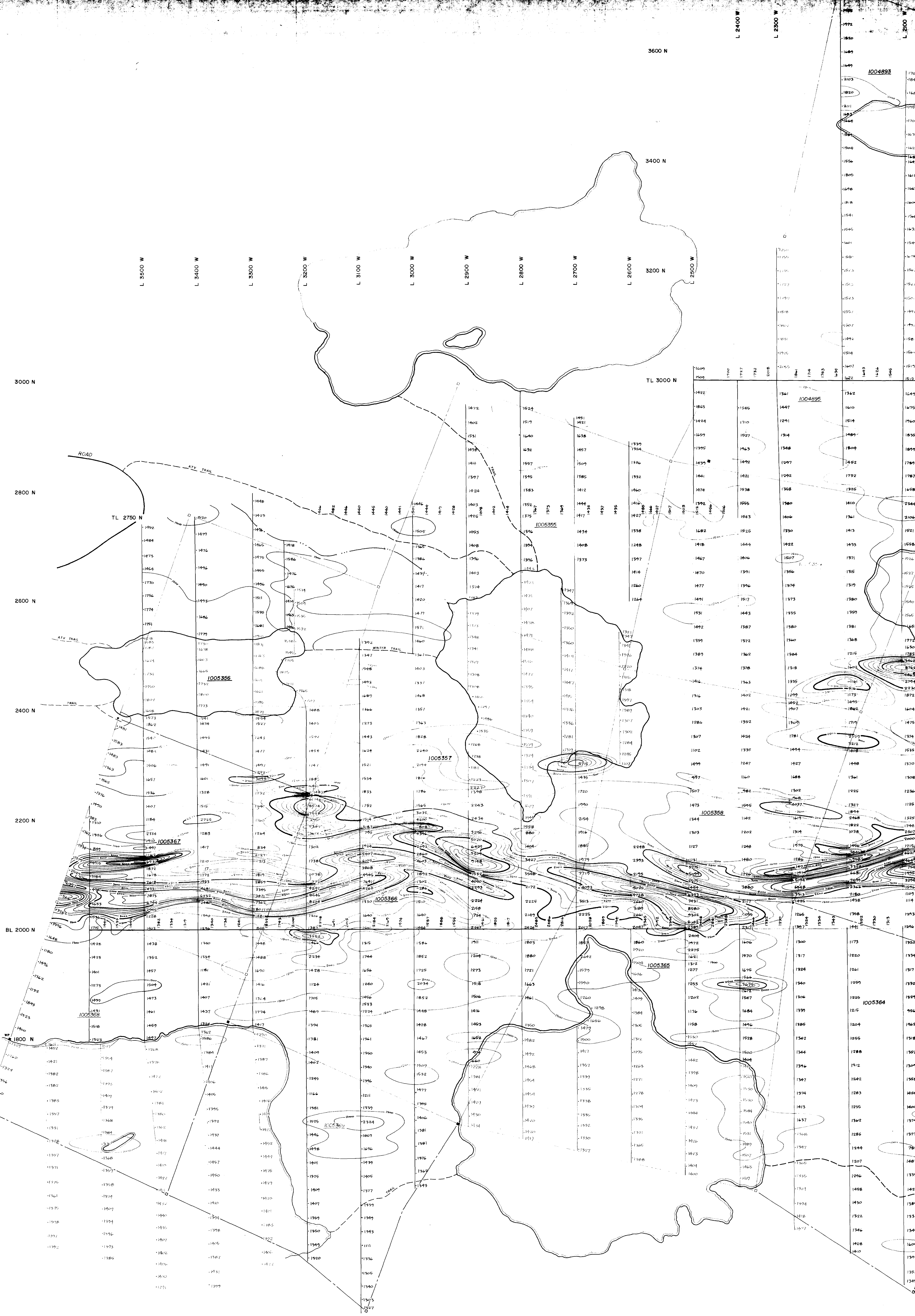


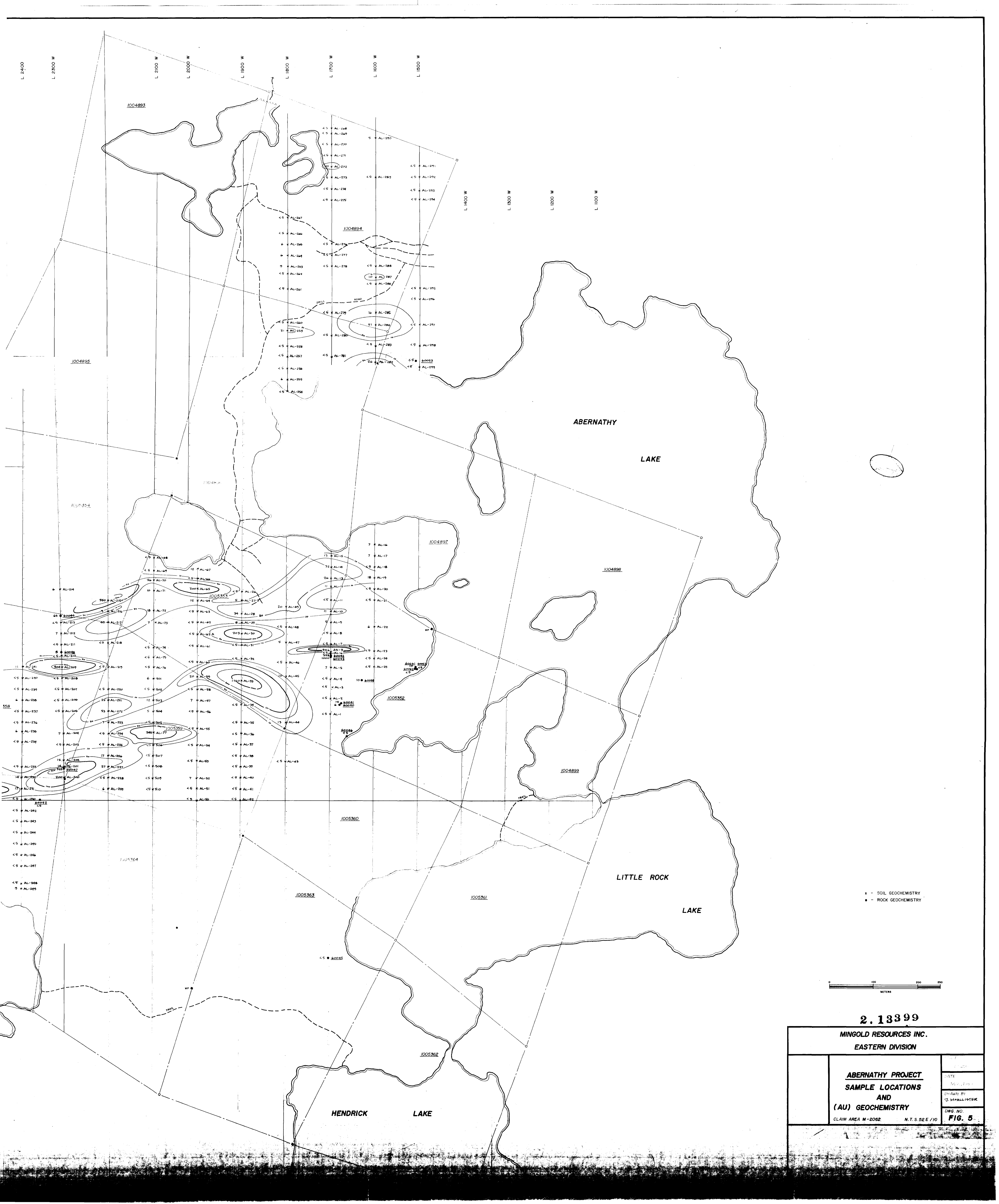
CLEARWATER BAY
(LAKE OF THE WOODS)

CLEARWATER BAY
(LAKE OF THE WOODS)

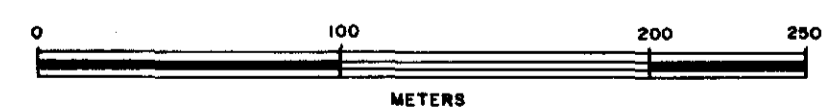


CLEARWATER BAY
(LAKE OF THE WOODS)





x - SOIL GEOCHEMISTRY
 • - ROCK GEOCHEMISTRY



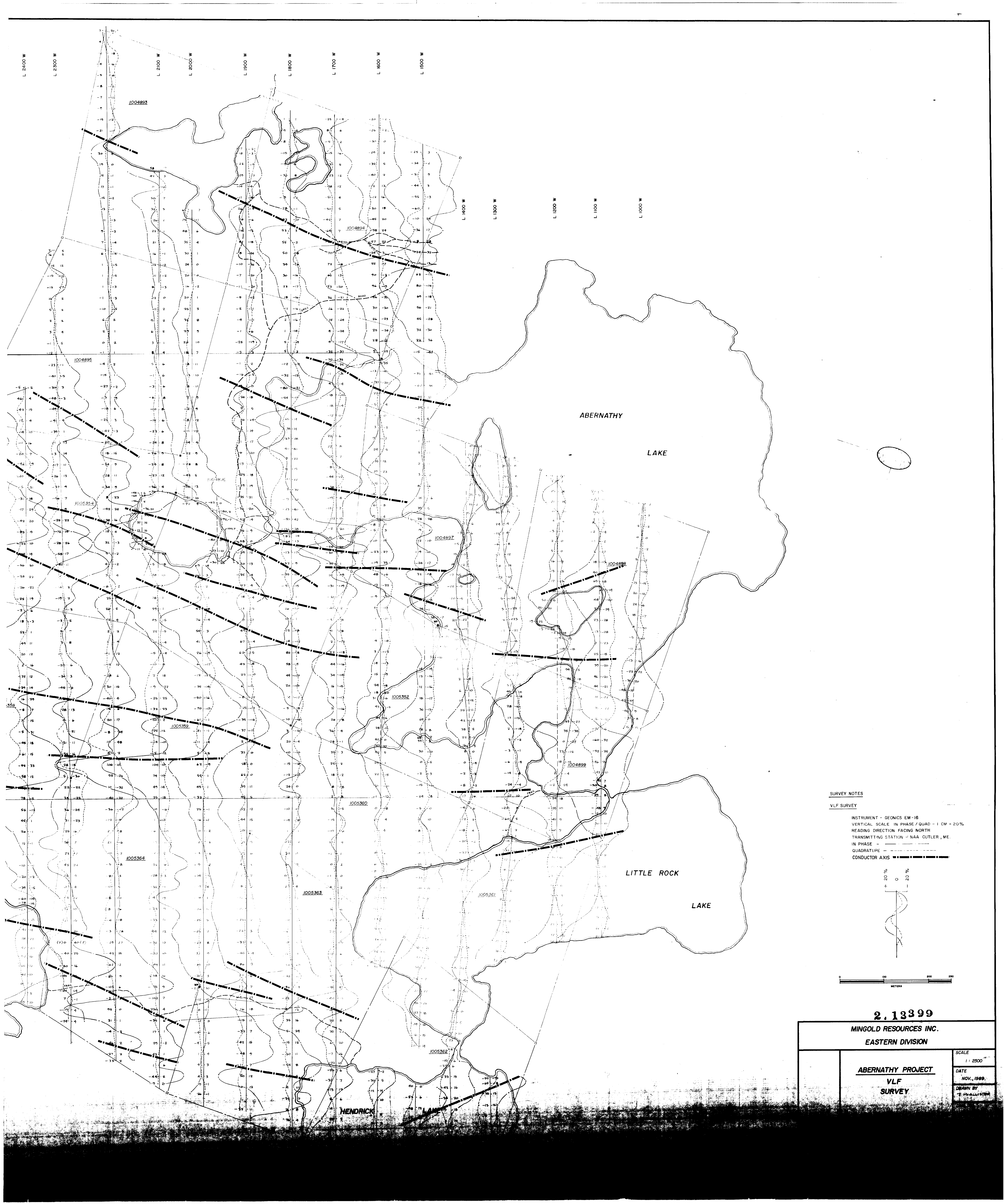
2.13399

MINGOLD RESOURCES INC.
EASTERN DIVISION

ABERNATHY PROJECT
SAMPLE LOCATIONS
AND
(AU) GEOCHEMISTRY




DATE: _____
 DRAWN BY: J. McALLISTER
 DWG. NO. _____

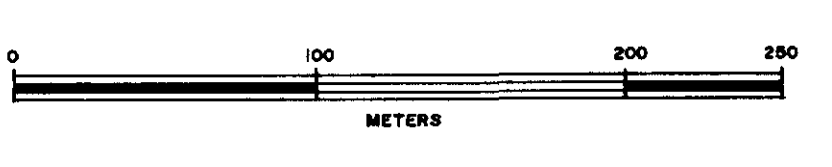
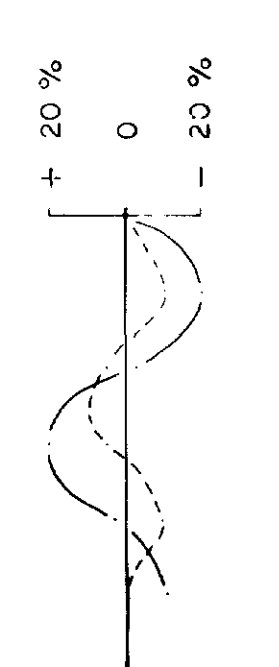
CLAIM AREA M-2062 N.T.S. 52 E / 10 **FIG. 5**



SURVEY NOTES

VLF SURVEY

INSTRUMENT - GEONICS EM-16
 VERTICAL SCALE IN PHASE / QUAD - 1 CM = 20%
 READING DIRECTION FACING NORTH
 TRANSMITTING STATION - NAA CUTLER, ME
 IN PHASE - 
 QUADRATURE - 
 CONDUCTOR AXIS - 

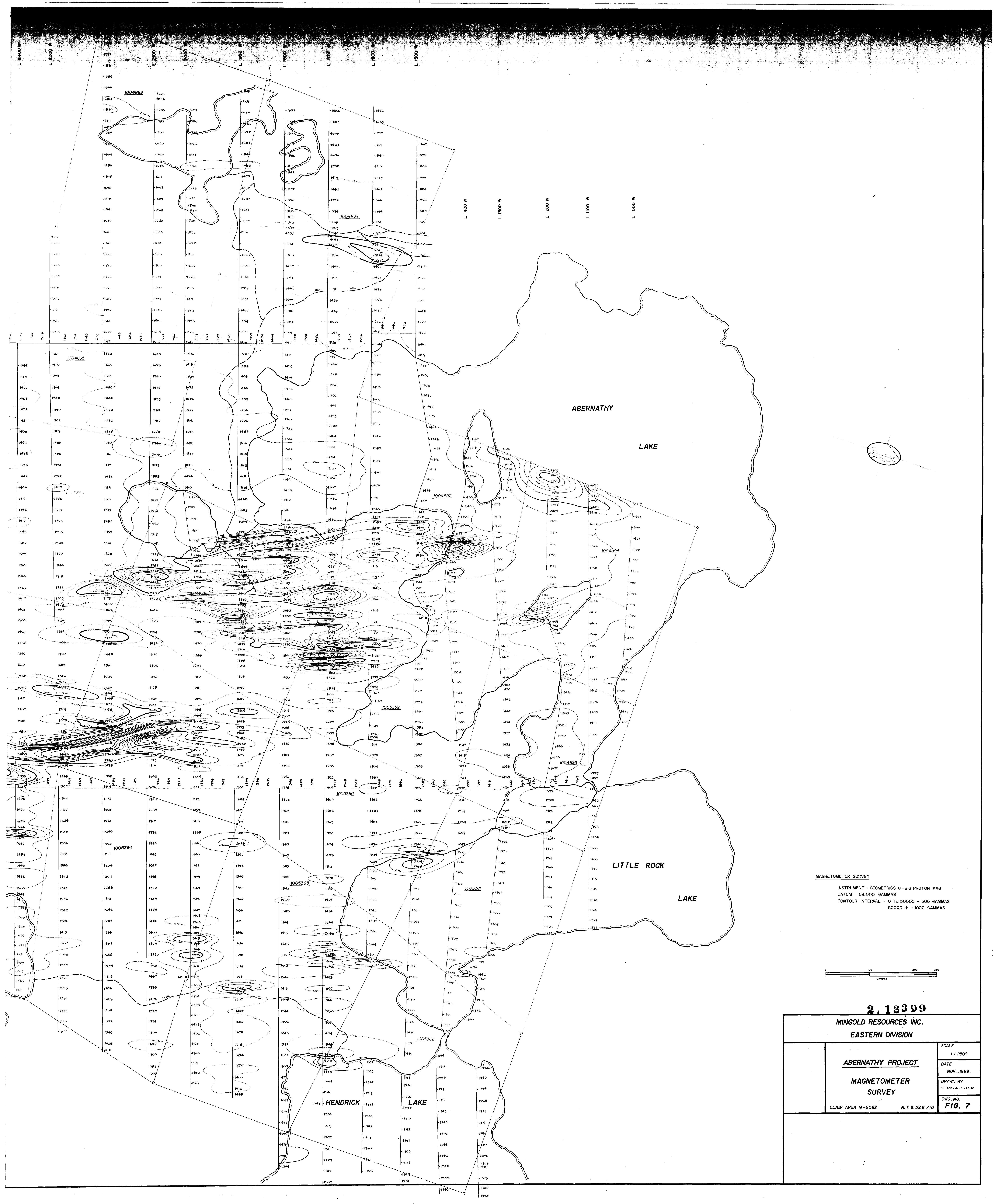


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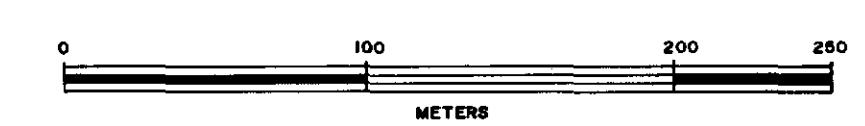
MINGOLD RESOURCES INC.
EASTERN DIVISION

ABERNATHY PROJECT
VLF
SURVEY

SCALE
 1 : 2500
 DATE
 NOV., 1989
 DRAWN BY
 T. McALLISTER



MAGNETOMETER SURVEY
 INSTRUMENT - GEOMETRICS G-816 PROTON MAG
 DATUM - 58 000 GAMMAS
 CONTOUR INTERVAL - 0 TO 50000 - 500 GAMMAS
 50000 + - 1000 GAMMAS



2.13399

MINGOLD RESOURCES INC.
 EASTERN DIVISION

ABERNATHY PROJECT
 MAGNETOMETER
 SURVEY

CLAIM AREA M-2062 N.T.S. 52 E /10

SCALE
 1 : 2500
 DATE
 NOV., 1989.
 DRAWN BY
 J. McALLISTER
 DWG. NO.
FIG. 7