

# MAR 19980019: WANDERING RIVER

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OCT 05 1998

August 31, 1998

Mineral Finders Inc.  
1104 105 Street  
Edmonton, Alberta  
T6J 6J7

Alberta Energy  
Petroleum Plaza, North Tower  
9945 108 Street  
Edmonton, Alberta

Attn: Mr. Brian Hudson  
Manager, Mineral Agreements

Re: Assessment Work Report, Metallic and Industrial Permits  
Permit #9394080005

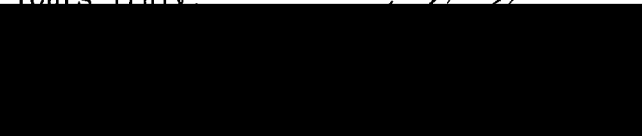
Dear Sir,

Through the work done over the past four years we have concluded permit number 9394080005 be retained for another two year term.

We have dropped permit numbers 9394080022, 9394080024 and 9394080004.

It is respectfully requested that permit number 9394080005 be renewed for another term of two years.

Yours Truly



Mineral Finders Inc.  
Walter Koleba, President

MINERAL FINDERS INC.

METALLIC MINERAL EXPLORATION  
PERMIT ASSESSMENT REPORT,  
WANDERING RIVER PROSPECT, ALBERTA

Walter Koleba, James Empson,  
John Kruszewski

August 30, 1998

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## SUMMARY

The following report outlines assessment work performed on the Wandering River Prospect in Northern Alberta. Much work was completed this period including, an area review, access availability, satellite imagery, surface prospecting, line cutting, subterranean isotope sensing, and a drilling program.

This work indicates the presence of gold, platinum, other precious metals and a large elongated anomaly which is believed to represent a kimberlite intrusion.

## INTRODUCTION

Mineral Finders Inc. carried out an extensive subterranean isotope sensor survey of this anomaly considered to be a kimberlite intrusion. The survey was conducted to accurately outline the limits of the diatreme. The diatreme had previously been identified by surface sediment sampling for kimberlite indicator minerals. Further isotope sensing was carried out to help prove the presence of precious metals.

## LOCATION AND ACCESS

The property is located in Northeastern Alberta, fifty (50) kilometers northeast of the town of Wandering River along highway #63. (See Figure 1) The property lies on one permit encompassing 9,216 hectares. The location and area of the permit are outlined in Table 1 and displayed in Figure 2.

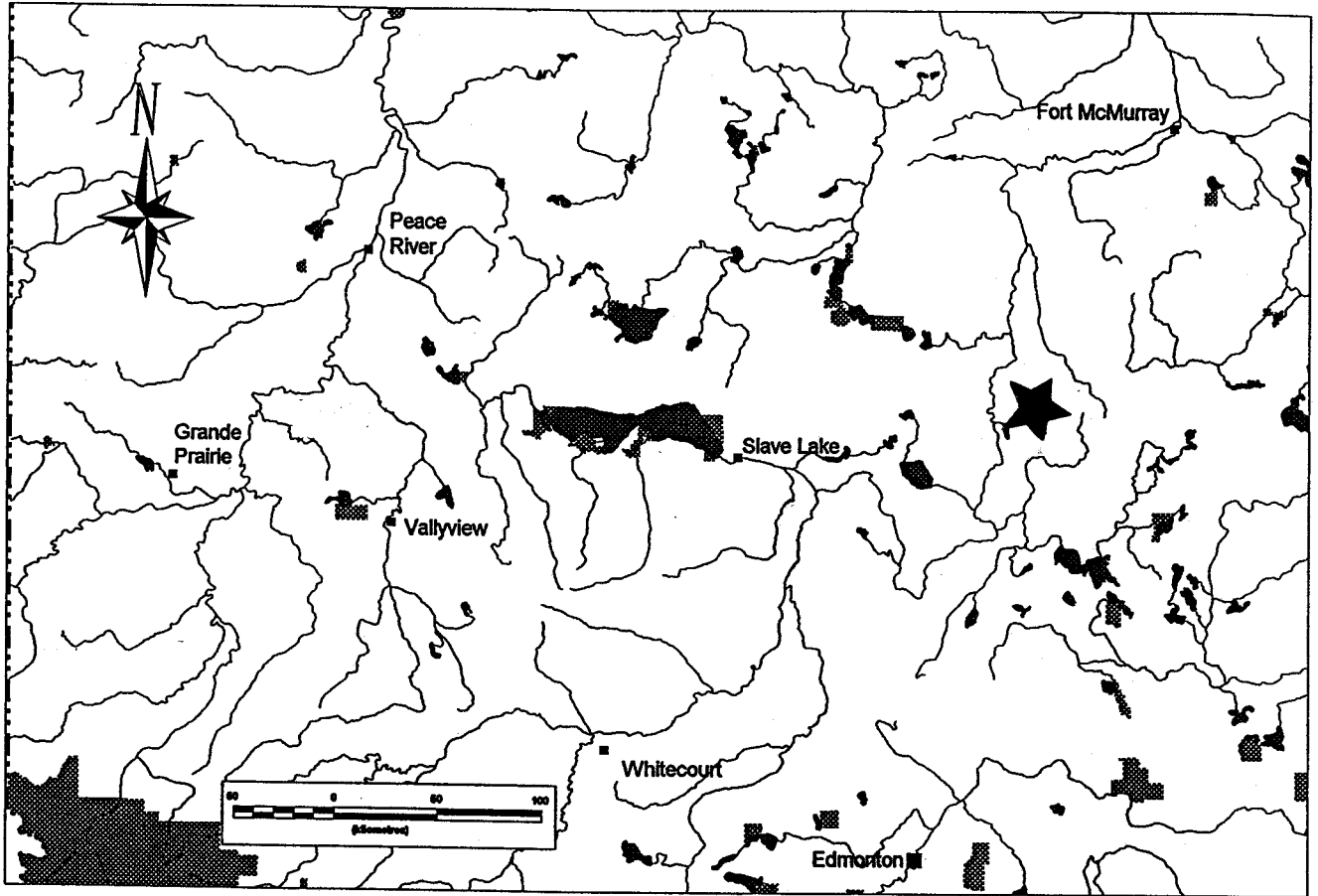
TABLE 1: LOCATION AND AREA OF PERMIT

Permit Number	Location	Area
9394080005	Twp 76 - Rge 15 - W4	9,216 Hectares

## PERMIT TABULATION

Permit #9394080005 is held by Mineral Finders Inc. This report is being submitted by Mr. Walter Koleba and Mr. James Empson, with consultation by Mr. John Kruszewski.

Figure 1: Location map for Wandering River Prospect



SCALE: 1 : 3 500 000

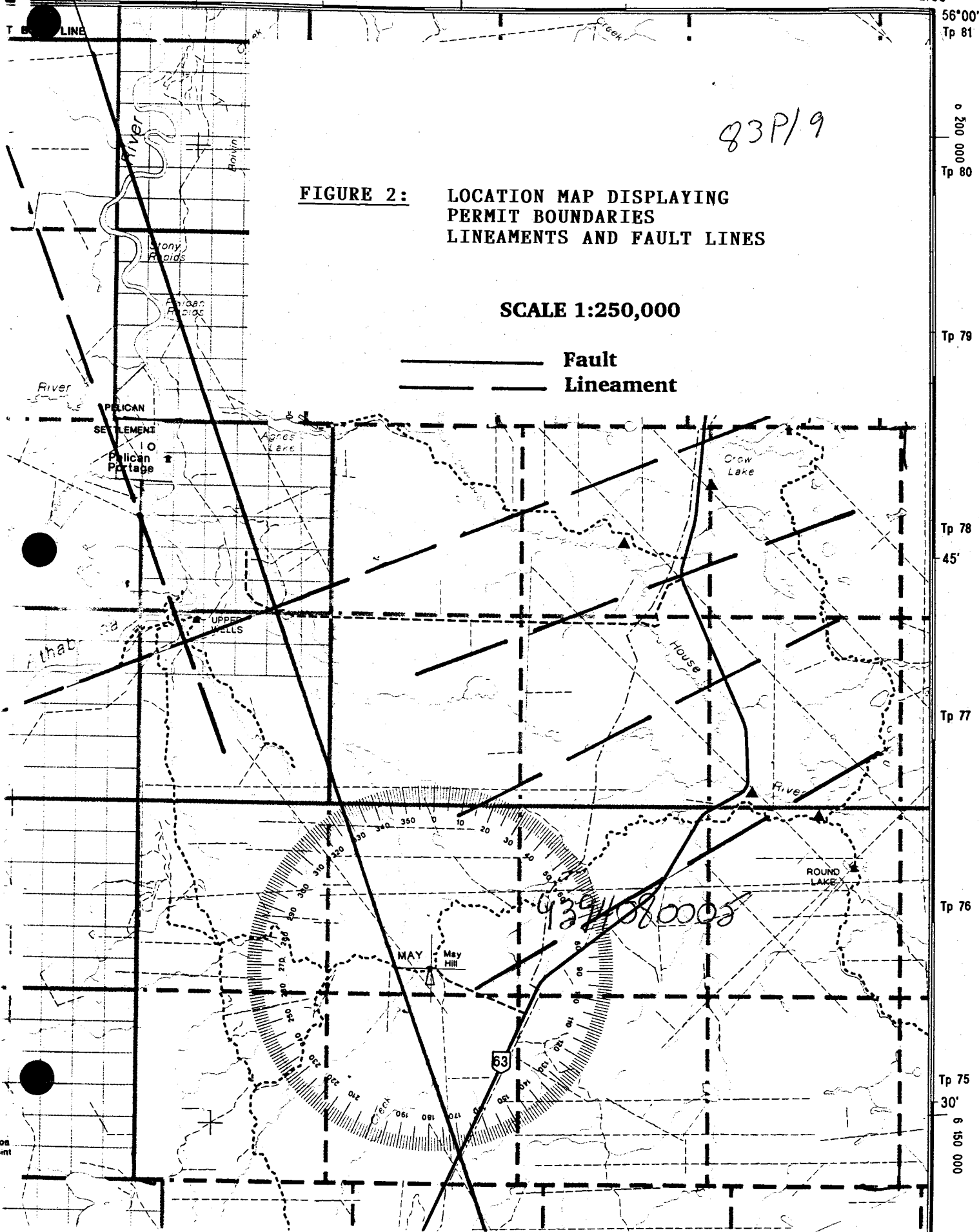
R 18 400 000 R 17 30' R 16 15' R 15 15' R 14 R 13 112.00' 56°00' Tp 81

83P/9

**FIGURE 2: LOCATION MAP DISPLAYING PERMIT BOUNDARIES LINEAMENTS AND FAULT LINES**

**SCALE 1:250,000**

**— Fault**  
**- - - Lineament**

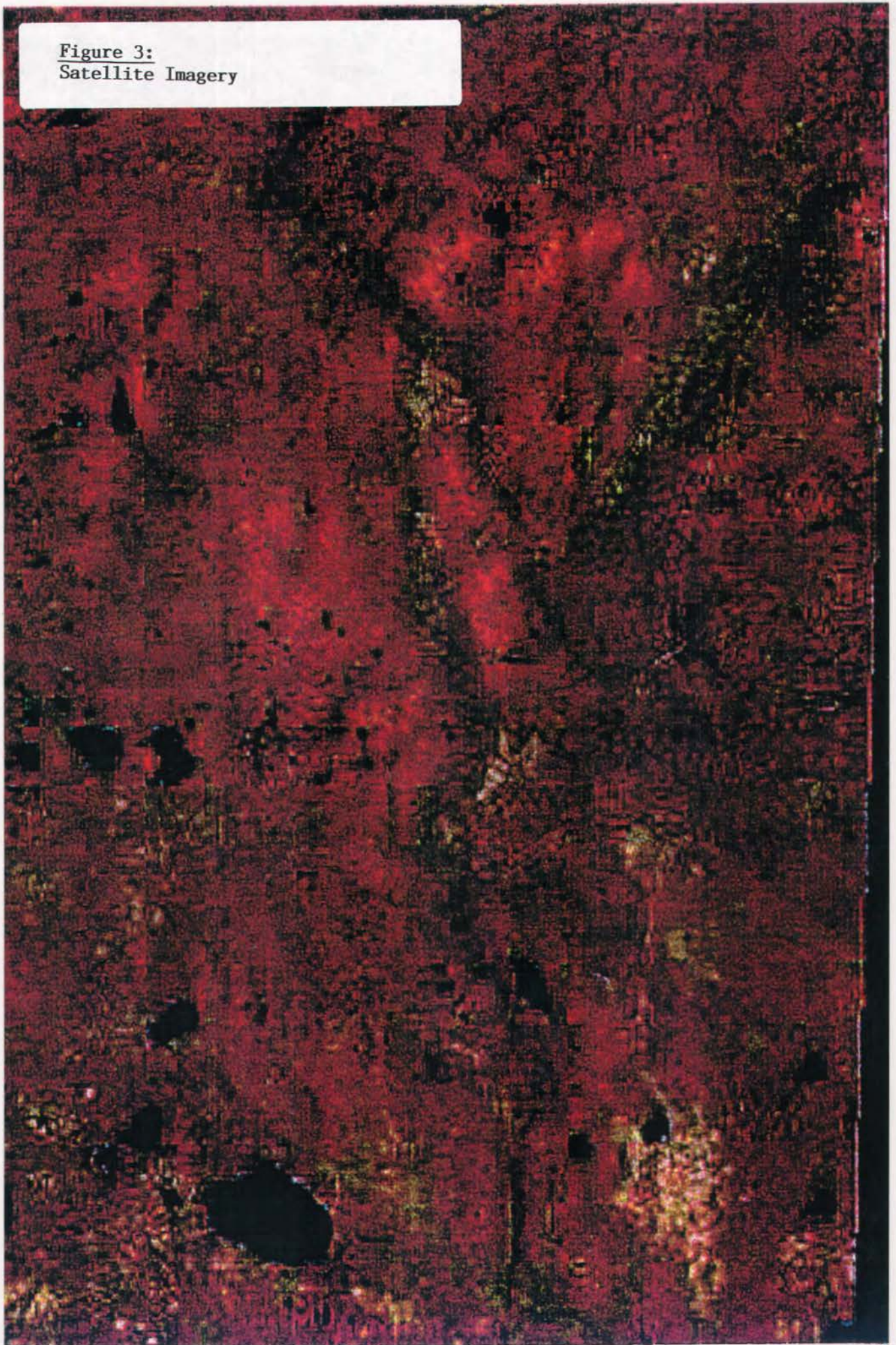


0 200 000 Tp 80  
Tp 79  
Tp 78 45'  
Tp 77  
Tp 76  
Tp 75 30' 6 150 000

63P/1080005

53

Figure 3:  
Satellite Imagery





## WORK PERFORMED

Over the past two year period, Mineral Finders Inc. conducted a program of till sampling and stream sediment sampling of its properties in Alberta. Since the company holds a rather large area in whole or in part under permit, sampling for most part was quite widely spread. The areas where samples were taken were generally chosen by the results of readings from a mobile Subterranean Isotope Sensor. The type of Isotope Sensor used was a Algor X110. The operator in most cases walked taking continuous readings. During this period the company with the use of available maps, published information, and aerial photography reviewed the areas from the office as well as the field. The first samples were taken from near surface, along side roads, trails, cutlines etc. These samples were transported to Edmonton, washed, screened, then reviewed by an Alberta Geologist.

The next step taken was to do low impact exploration in the House River area, along the May Tower Road and portions of borrow pits along Highway #63. Six inch auger holes were drilled using a drill mounted on a log skidder. Averaging 15 meters in depth, the holes were logged, samples taken at five foot intervals, (approx. five lbs. each) plugged and tagged. Using heavy down pressure the auger was drilled into the ground as smoothly and quickly as possible for at least one auger length, (five feet) then tripped out "dead". This preserves a sample on the auger flight maintaining a close control on stratigraphy. Changes in character of material and approximate layer thickness can be noted. Sample taking exceptions were made if there were no apparent changes in material, extending sampling intervals up to fifteen feet. All samples were then brought to Edmonton where they were catalogued and evaluated.

After review and evaluation of Satellite imagery and numerous field trips to get sensor readings, a second drilling program was initiated. Prior to this drilling program cutlines had to be made to allow access. This second drilling program was performed under the same perimeters as the first, with the exception of hole depth variances. Samples were handled in the same manner.

## CONCLUSION

Through the work performed to date, we have concluded that our energies should be directed towards the lands which are being retained.

The property shows the presence of gold, platinum and the presence of indicator minerals associated with diamonds.

This property definitely requires further exploration, with emphasis placed directly to what appears to be a large diatrema

With the different extraction techniques being tested today, we believe the potential to recover the gold and platinum could be economically viable.



Table 2 Drill Hole List  
(refer to figure 5)

<u>Hole</u>	<u>Depth</u>	<u>Hole</u>	<u>Depth</u>
0198	40 ft. ✓	B119	103 ft. ✓
0298	60 ft. ✓	B120	103 ft. ✓
0398	40 ft. ✓	B121	60 ft. ✓
1798	55 ft. ✓	B122	50 ft. ✓
1898	60 ft. ✓	B123	30 ft. ✓
1998	25 ft. ✓	B124	60 ft. ✓
2098	35 ft. ✓	B125	55 ft. ✓
2198	25 ft. ✓	B126	25 ft. ✓
2298	25 ft. ✓	B127	30 ft. ✓
2398	25 ft. ✓	B128	25 ft. ✓
2498	35 ft. ✓	B129	50 ft. ✓
2598	50 ft. ✓	B130	40 ft. ✓
2698	50 ft. ✓	B131	55 ft. ✓
2798	25 ft. ✓	B132	50 ft. ✓
2898	25 ft. ✓	B133	45 ft. ✓
2998	35 ft. ✓	B134	30 ft. ✓
3098	30 ft. ✓	B135	25 ft. ✓
3198	30 ft. ✓	B136	55 ft. ✓
3298	25 ft. ✓	B137	65 ft. ✓
3398	30 ft. ✓	B138	45 ft. ✓
3498	35 ft. ✓	B139	35 ft. ✓
3598	25 ft. ✓	B140	35 ft. ✓
3698	30 ft. ✓	B141	30 ft. ✓
3798	30 ft. ✓	B142	40 ft. ✓
3898	30 ft. ✓	B143	30 ft. ✓
3998	40 ft. ✓	B144	30 ft. ✓
4098	50 ft. ✓	B145	30 ft. ✓
4198	30 ft. ✓	B146	40 ft. ✓
		B147	45 ft. ✓
		B148	25 ft. ✓
		B149	35 ft. ✓
		B150	30 ft. ✓
		B151	35 ft. ✓
		B152	35 ft. ✓
		B153	25 ft. ✓
		B154	40 ft. ✓
		B155	35 ft. ✓
		B156	40 ft. ✓

Total Footage Drilled - 2611 Feet

**Appendix 1: Statement of Expenditures**

**Date:** Aug. 31, 1996 - Aug. 31, 1998

<b>Drilling:</b>	\$20.00/ft. X 2611 ft. (2 Men X 45 Days = 90 Man Days)	\$52,220.00
	90 Man Days at \$150.00/Day	\$13,500.00
	90 Man Days Rm. & Brd. at \$85.00/Day	\$ 7,650.00
	Truck Rental at \$500.00/Mth	\$ 750.00
<b>Line Cutting:</b>	Survey, Cutting, Clearing, Removal and Clean-up	\$26,200.00
<b>Satellite Imagery:</b>	Purchase & Professional Evaluation	\$ 5,100.00
<b>Isotope Sensing:</b>	\$500.00/Day	\$21,000.00
<b>Trucking:</b>	Equipment Hauling	\$ 3,700.00
<b>Field Work:</b>	Field Trips, Supplies, Sample Collection, Washing, Shipping, Evaluation, and Storage	\$16,000.00
<b>Travel:</b>	Hotels, Meals, Fuel	\$ 4,100.00
<b>Supervision:</b>	\$350.00/Day	\$ 7,350.00
<b>Office:</b>	Rent, Supplies, Wages, Administration	\$15,762.00
<b>Credit Carry-over:</b>	1994-1996 Assessment Report	<del>\$36,575.00</del>
<b>Total:</b>		<b><u>\$209,957.00</u></b>

173,332.-

To: Hazel Henson,

Here is the additional information you requested on the expenditures for our Permits.

Western Property - Permit #: ~~9~~396030002.

Maps & Projections: \$3,610.65

- 1) Procurement and layout of all relevant maps for designated permit area. Topographical, Geological & Phase 3 Forest cover maps. (88 man Hours).
- 2) Map reading and projections for probable areas of Geological interest. (226 man hours).
- 3) Meetings and feasibility studies on projected areas of Geological interest. (112 man hours).
- 4) Administrative Expenses: Phones, faxes, computer costs and office materials.
- 5) Operational Expenses: Travel expenses, fuel and other miscellaneous expenses.

Total of 426 man hours worked in this phase.

Planning & Development: \$7,760.50

- 1) Project logistical planning for permit area. (235 man hours).
- 2) Logistic development and financial projections for area. (254 man hours).
- 3) Financial development and continued in-office and on-site planning sessions. (200 man hours).
- 4) On site visual Geological assessments and inspections. (109 man hours)
- 5) Administrative Expenses: Same as above.
- 6) Operational Expenses. Travel expenses, equipment costs, fuel and other miscellaneous expenses.

Total of 798 man hours worked in this phase.

Forestry Proposals and Applications: \$11,465.90

- 1) Meetings and discussions with Forestry officials. (116 man hours).
- 2) Preparing and delivering plans & proposals to Forestry. (564 man hours).
- 3) Re-working and delivering proposed plans to Forestry for approvals. (379 man hours).
- 4) Administrative Expenses: Same as above.
- 5) Operational Expenses: Travel expenses, fuel and other miscellaneous expenses.
- 5) Extra administrative materials and over budget operational expenses: \$1,244.73

Total of 1059 man hours.

PROJECT CONSULTANTS: \$5,895.38

- 1) Invoiced share for this permit from Karen Heslop Consulting for financial planning and investor development. \$3,745.

- 2) Additional invoice for all permits from Karen Heslop Consulting for extra hours required due to repeated delays and missed deadlines. \$2,150.38

NOTE: Invoices can be provided if required.

TOTAL MAN HOURS THIS PERMIT TO DATE = 2,278.

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Permit #: 9396030003.

MAPS & PROJECTIONS: \$2,877.62

- 1) Procurement and layout of all relevant Geological, Topographical and Phase 3 Forest cover maps. (76 man hours).
  - 2) Map reading and projections on probable areas of main Geological interest. (131 man hours).
  - 3) Meetings and feasibility studies on projected areas of Geological interest. (89 man hours).
  - 4) Administrative Expenses: Same as previous permit.
  - 5) Operational Expenses: Same as previous permit.
- Total of 296 man hours.

Planning & Development: \$5,592.56

- 1) Project logistical planning and continued feasibility studies for permit area. (127 man hours).
  - 2) Logistics development and financial projections for area. (138 man hours).
  - 3) Financial development and continued in-office and on-site planning sessions. (209 man hours).
  - 4) On-site visual Geological inspections and assessments. (60 man Hours)
  - 5) Administrative and Operational Expenses: Same as above.
- Total of 534 man hours.

Forestry Proposal Applications: \$7235.89

- 1) Meeting and discussions with forestry officials. (29 man hours).
  - 2) Preparation and delivery of plans to Forestry Department. (336 man hours).
  - 3) Re-working and re-delivery of plans to Forestry. (267 man hours).
  - 4) Administrative and Operational Expenses: Same as above.
  - 5) Extra Administrative expenses of \$776.84
- Total of 632 man hours.

PROJECT CONSULTANT: \$3,745.00

- 1) Invoiced share for this permit from Karen Heslop Consulting.

TOTAL MAN HOURS THIS PERMIT TO DATE = 1,412.

PERMIT #: 9396030004.

Maps & Projections: \$2,877.60

- 1) Procurement and layout of all relevant maps for designated permit area. e.g. Topographical, Geological and Phase 3 Forest Cover maps. (70 man hours).
- 2) Map reading and projections for probable areas of Geological interest. (109 man hours).
- 3) Meetings and feasibility studies on projected areas of geological interest. (68 man hours).
- 4) Administrative and Operational Expenses: The same as the previous permits.

Total of 247 man hours.

Planning & Development: \$6,912.47

- 1) Project Logistical planning for this permit area. (137 man hours).
- 2) Logistics development and Financial projections for this permit area. (159 man hours).
- 3) Financial development and continued in-office and on-site planning sessions. (213 man hours).
- 4) On-site Visual Geological inspections and assessments. (80 man hours).
- 5) Administrative and Operational Expenses: The same as the previous permits.

Total of 589 man hours.

Forestry Proposals & Applications: 3,343.65

- 1) Meeting and discussions with Forestry staff. (16 man hours).
- 2) Preparations and delivery of plans and proposals to the Forestry Department. (154 man hours).
- 3) Re-working and delivery of plans and proposals to the Forestry Department for approval. (211 man hours).
- 4) Administrative and Operational Expenses: The same as the previous permits.
- 5) Extra administrative and Operational costs of \$718.29

Total of 381 man hours.

PROJECT CONSULTANT: \$3,745.00

- 1) Invoiced share for this permit from Karen Heslop Consulting.

TOTAL MAN HOURS FOR THIS PERMIT TO DATE = 1,217 Hours.

JOHN KRUSZEWSKI

Mr. kruszewski is a practicing prospecting Geological Consultant of [REDACTED] SW Calgary, Alberta. T2P 105

He attended two years of university at the University of Toronto in Ontario and two years at Mount Royal College in Calgary. He does not have a degree, however, has worked in geological exploration since 1962 and received a certificate from Idaho School of Mines, in Moscow Idaho.

Mr. Kruszewski has been involved with Mineral Finders Inc. on a consultation basis for the past two years.

Previous geological experience includes:

- staking and initial geological exploration of Baymag Mines, 2 years;
- staking and initial geological exploration of Aurun Mines Perlite;
- staking and initial testing of the diatomite mine near Kamloops, B.C.;
- acquiring coal leases, field supervisor in mapping, trenching, drilling, logging core. Gulf Minerals (coal) 2 years;
- research and field examination of rare earth prospects in Montana and Wyoming with Orhan Baykal;
- staking to drilling of Blue River B.C. carbonatites rare earth joint venture with Anshutz of Denver, Colorado;
- is a member of Mineral Exploration Group (Calgary, AB.)
- served as director of Kemano Gold Corp., now Purcell Energy;
- grass roots placer exploration to production at 24K, Cariboo, M.D. +2000 Au, 1990 - 96;
- research and locate diatremes at Crossing Creek, B.C. in a joint venture with Dr. Charles Newmarch et al now operated by Quest International in a joint venture with Anvil to complete the diamond phase;
- implemented and carried out geological field programs for Birch Mtn. Resources for the '94/'95 seasons, Ft. Steele M.D., with Dr. R. Garnett;
- 1996, Geological research, evaluation and staking program for a gold tungsten project (Sanca Gold Corp.).



**WALTER KOLEBA**

Mr. Walter Koleba of [REDACTED] Edmonton, is the President of Mineral Finders Inc. Mr. Koleba has over fifty years experience as a businessman. He has been prospecting for the past thirty years, with finds in Alberta, N.W.T., British Columbia and the United States.

**JAMES EMPSON**

Mr. James Empson has been a businessman in Alberta for twenty-five years with much of that time spent in the oil and gas industry. Starting as a hobby, his interest in mineral exploration has evolved into a business venture, with investment in Mineral Finders Inc.

## OPERATIONAL PROCEDURES

1. Always check the operational condition of the sensor before starting.  
Let "Operate Switch" on "Standby," adjust sensor .N.- Meter to "50" (halfscale) no fluctuations should be present. Battery meter must be in red sector.  
When .N.- Meter is fluctuating or Battery - Meter is out of red sector, the instrument is not in operational condition.
2. When the above is set accurately, connect the sensing tube to the sensor and switch to operate position.
  - a) Adjust N-Meter and P-Meter to Zero
  - b) Adjust background meter to green Sector
  - c) Set sensitivity to 6 or 7 and meter speed to "medium."

Warm-up time is two to five minutes depending upon the outside temperature. (Read also "Condensed Operation Procedures," Step 1 - 8 and Important Rules in the book.)

## SENSING PROCEDURES:

Demonstrated on Sample Isotope Log #347 for minerals and on Sample Isotope Log #436 for oil and gas.

Log #347 for minerals:

Observe!

- a) Sensitivity switch was set on "5".
- b) The neutral setting was set one mile away from the hauling area.
- c) The reading on the "zero adjust" dial was "500" and on the P-Meter "0".
- d) The background-meter was in the green sector.

## EXAMPLE:

P-meter indicated readings of more than 100 divisions shows the location of a vein of minerals. To measure the width of a vein, don't readjust the instrument to zero. Stay on the highest P-meter reading. Go slowly back to approximately 80 divisions reading on the P-meter. Drive slowly forward. When P-meter indicates more than "100" put a marker into the ground.

Drive or go further slowly forward until the P-meter comes back to it's own to approximately 80-90 divisions.

The distance between P-Meter "80" - over the saturation, back to "80" indicates the vein or placer deposits width (see Figure 6).

Example interpreted by Al on Page 347 "Minerals."

When P-Meter is saturated by more than 100 divisions stop the car (or walking), adjust P-Meter to Zero on the Zero Dial (read 456)

Neutral was "500" for this area. The ratio was  $500/456 = 44$ . Observe, the background count was 128, Neutral was 73, and the background meter was saturated.

Example A-3 was the same procedure as A-2. "Neutral 500." vein registered 369 on Zero Dial. By adjustment, the P-Meter to zero, the ratio was  $500/368 = 131$ . The result is: Vein A2 is less concentrated than Vein A3, and A 3 was recommended for mining.

NOTICE: Minerals in metallic form are always indicated on the P-Meter and sulfides are read mostly on the N-Meter. The isotope count increases and the background meter becomes saturated (i.e.: over 50) in both cases.

#### PROCEDURES FOR OIL AND GAS - LOG 436

1. Adjust and Calibrate same as procedures on Log 347 (for minerals).
2. Meter readings for oil and gas are determined by reading N-Meter, ONLY.
3. The sensitivity setting may be set lower (4 or 5) depending upon the area.

The neutral point for this area (Log 436) was "470" at the T-F location. The zero adjustment was "535", and the ratio  $470/535$  is  $-65$ .

The highest N-Meter readings were (8-North Trailer Location) at  $470/580 = 110$ . Therefore, the North Trailer location was recommended for drilling.

NOTICE: The mineral location ratio decreased ( $500/369$ )  
The oil location ratio increased ( $470/580$ )  
The background isotope "count" for minerals increased  $77/183$ .

The background isotope "count" for oil, same as neutral or lower.

The background meter for minerals - saturated.

The background meter for oil indicated from green zone to zero.

IMPORANT: When N-Meter and background meter is saturated, no oil or gas is present at this location. Maybe sulfides. In some instances when N-Meter is saturated and the background meter moves from green to zero, oil could be present, depending upon geologic evaluation. Gas is present when N-Meter and background Meter moving erratic.

# A L G O R E X P L O R E R " X "

## THE SUPERSENSITIVE SUBTERRANEAN ISOTOPE SENSOR

### CONDENSED OPERATION PROCEDURES FOR FIELD USE.

- Step 1. Start in a neutral zone approximately 1/4 to 1 mile from the area you intend to explore with the Sensor.
- Step 2. Turn "SENSITIVITY" to 6-8 by low counting ( 10-20pps) or 3-6 by high counting ( 40-100 pps) normal= 5
- Step 3. Turn Meter-Switch to " ON "  
Turn Operate -Switch to Standby or Test by Sensor @  
Turn Meter-Speed to " Medium " and adjust " N " Meter-needle in the middle of the scale and observe no fluctuation on the Meter
- Instrument is in operating condition "if"
- Step 4. a) Background-Display read " 000 "  
b) Background-Meter read " 0 "  
c) Battery-Meter read 10 Volt plus ( in red sector) depress Recorder-Switch for 5 second, if needle drops out of the red sector Battery need charged
- Step 5. If the Meters are all steady, YOU ARE READY FOR SENSING
- Step 6. After leaving the neutral zone, never adjust " SENSITIVITY " or Background during sensing. It is advisable to make a note on the Isotope-Log of the calibration of these settings. Otherwise you would have to go back and re-set the Sensor in your neutral zone
- Step 7. Zero Adjust; turn only back and forward when "N" or "P" meter is saturated (over 100) "N" or "P" meter should indicate a maximum reading between 60-90 on the meter to calculate the width of a vein.
- Step 8. Battery meter should be at all times in red sector, during operation. Charge Battery after 8-10 hour operation (over night) or 16 hour if the Recorder was in use. Battery will stay charged for appr. 24 hour operation; without Recorder use, and only 3 hours with Recorder  
Use Recorder only by important events By Airplane or Car operation use Airplane or Car 12 Volt Battery, also every time the instrument was turned off, allow, two minutes to stabilize the the Sensor before continuing to operate.

After twenty to forty hours of practice, the operator should be able to understand the relationship of the readings on the meters and the adjustments of the dials and Switches to evaluate data. It is recommended that he study the Instrument on an existing, well known mining operation, oil well and water well.

## IMPORTANT RULES:

- A. Never operate the sensor at more than 100° F. outside temperature  
Protect the " P M Tube " from too long Sunheat exposure.  
When not in use, store sensor and tube in shadow.
  
- B. The best time to explore is early morning or late afternoon.  
The X rays of the sun will flucturate the sensor in the time period  
from appr. 11:00 A. M. to 2:00 P. M.
  
- C. If you want to compare your exploration data the next day( but not  
later than 48 hours ) use the same time as the previous day.  
( Time is kept in the log-sheet.) † 1 hour.  
Example: Log # 36, location R 7 W # 8 - same setting --  
Time: 10:00 A. M. ( never check this point at 4:00 P. M. , when it was  
checked the previous day at 10:00 A. M. )
  
- D. Magnetic storms of the sun will flucturate the " Background " setting  
and " Count" . Before important explorations it is advisable to inquire  
the next observatory of the sun activities.  
Explore only early in the morning or late afternoon.
  
- E. To explore high mineralized zones set " Sensitivity " above "5" and  
" P " meter between 0 -- 10 starting point.
  
- F. To explore oil water and sulfite zones set " Sensitivity " below " 5 " and  
" N " meter between 0--10 starting point.

Slide variations may occur from the type of structure of the location  
also the amount of experience the operator has to make appropriate  
allowances for any given conditions.

SUBTERRANEAN ISOTOPE SENSOR "ALGOR"

Area Sutro Star & Mouth of Six Mile Canyon

Map location Wadsworth Sloppyweather Claims Olinghouse Quadrangle

Elevation 4800-5200 ft. Engineer A. J Bickel Date 30 Aug. 81 Time 8am-6pm

Instrument setting & reading Minerals XX Water X Oil

Location	Sensi	Zero	Backgr.	Meter	Meter	Neutral set.			Remarks
	dial	dial	count	neg.	pos.	1	2	3	
	1	2	3	4	5				
Neutral	5 +	450	77	0	00	5+	450	77	1 mile befor claim
Car pos. (1)	" "	450/ 478	84	0	80	"	"	"	low placer dep.os.
Car pos (2)	" "	450/ 447	102	0	100+	"	"	"	pin-point (AA) strong vain. ?
Sloppyweather - Olinghouse claims									
Neutral	5+	500	73	0	0	5+	500	73	1 mile bef. Haul loc
Haul location	5+	500/ 545	96	0	90	"	"	"	placer deposits ++
A1	"	500/ 456	128	0	100+	"	"	"	vain app. 20 ft.
A2	"	500/ 406	158	0	100++	"	"	"	vain " 40 ft.
A3	"	500/ 369	183	0	100+++	"	"	"	stronges vain recoment for cut.
A4	"	500/ 456	118	0	100	"	"	"	vain everage 10 ft
A5	"	500/ 464	130	0	100+	"	"	"	" " " 20 ft
point A1 - A3 intecating also placer deposits									
All Sensor pointings on the Mountain more as 1 mile away need more investication									
+= average									
++= " " plus									
+++ = exellend									



Notice; Mark Neutral set first. Example; (1)=7 (2)=345 (3)= 56-62

Example

ISOTOPE LOG #...436....

DATE 1&2 Nov. 80

AREA ..... K 7 S Farm<sup>s</sup> ..... Livingston, Tenn.

TIME 9<sup>00</sup> am - 4<sup>00</sup> pm

MAP LOCATION ..... Overton County ..... (7 diff. Farm-land area<sup>s</sup>)

SEARCHING FOR ..... Oil & Gas .....

INSTRUMENT SETTING & READING: MINERALS ..... WATER ..... OIL. XXX GAS. XXX

NEUTRAL SETTING SENSITIVITY 1. 5 + DIGITAL 2. 87 BACKGROUND 3. 6@34 MAIN 4. 470/540

LOCATION	SENSI DIAL 1.	DIGITAL COUNT 2.	BACKGR. COUNT 3.	MAIN DIAL 4.	NEG. METER 5.	POS. METER 6.	REMARKS
1) Brown-well	5+	87	6@34	470-540	100 +	0	existing high producing oil-well. Instr. adj. & cal
2) Garrett-well	"	92	6@29	470-550	100 +	0	" " "
3) T. F.	"	87	5@91	470-535	100 -	0	well-location - <sup>+</sup>
4) Libery	"	100	6@32	470/540	100+	0	" " — ++ # (2)
5) B. L.	"	100+	6@19	470/ 510	80/100	0	" " +
6) B. S. -B. L.	"	98	6@9	470/500	100	0	" " +
7) Grain-bend	"	78	6@18	470/580	90/100	0	" " 0-+
8) North-Trailer	"	96	6@34	470/580	100+	0	propost well # (1) -+++ stacket 24 Nov. 80 (oil-channel)
1-7 are re-checket on			23 & 24	Nov. 80			appr. 50 feet width
Webb-Farm	"	124	6@42	470/595	100+	45-0	proposet exploration by Air-plane

FORM 4077 TPC 4/1/80

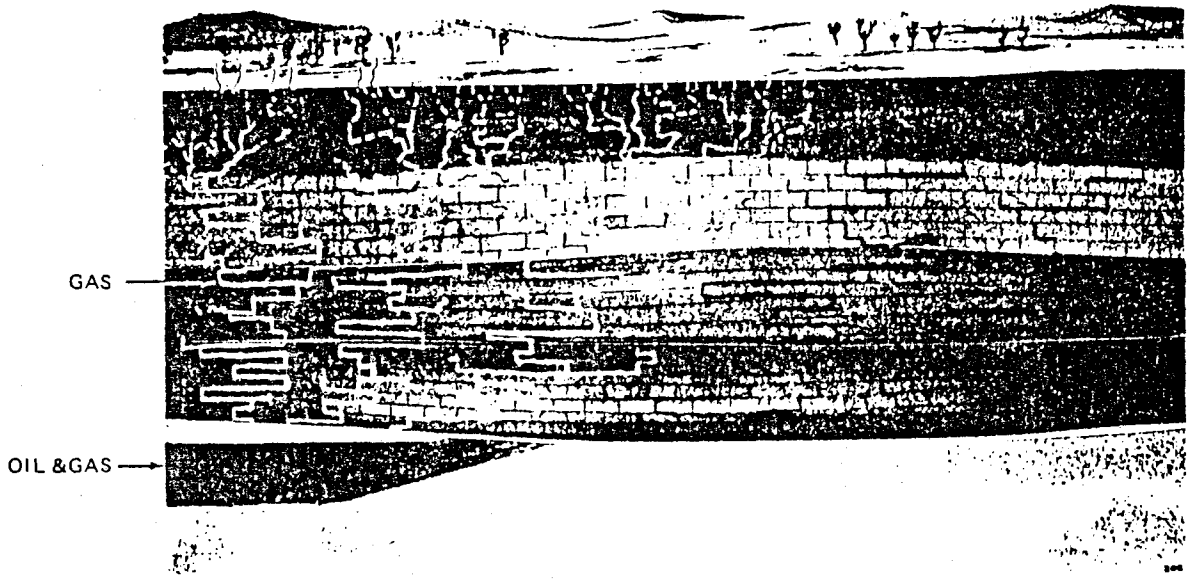
+++ = very good  
++ = good

+ = need more check-out  
-+ = mineral interf.

Gamma log =average @ = ionisation (high readings are gas also oil & gas

-+ = mineral interf. from Zn & Fe. oxide





Invisible Seeps

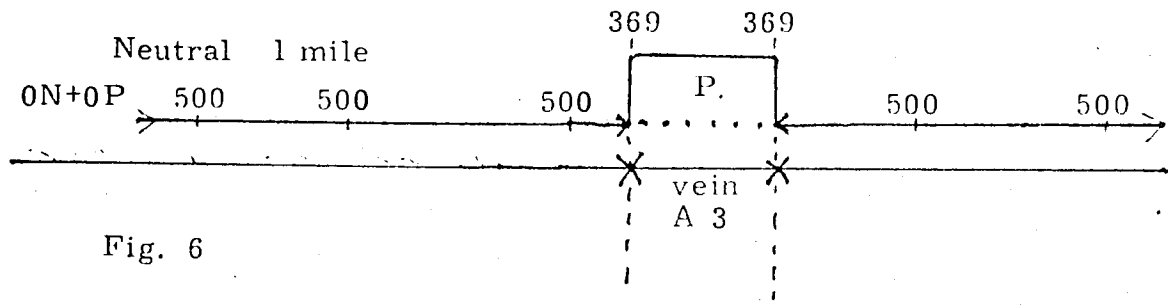
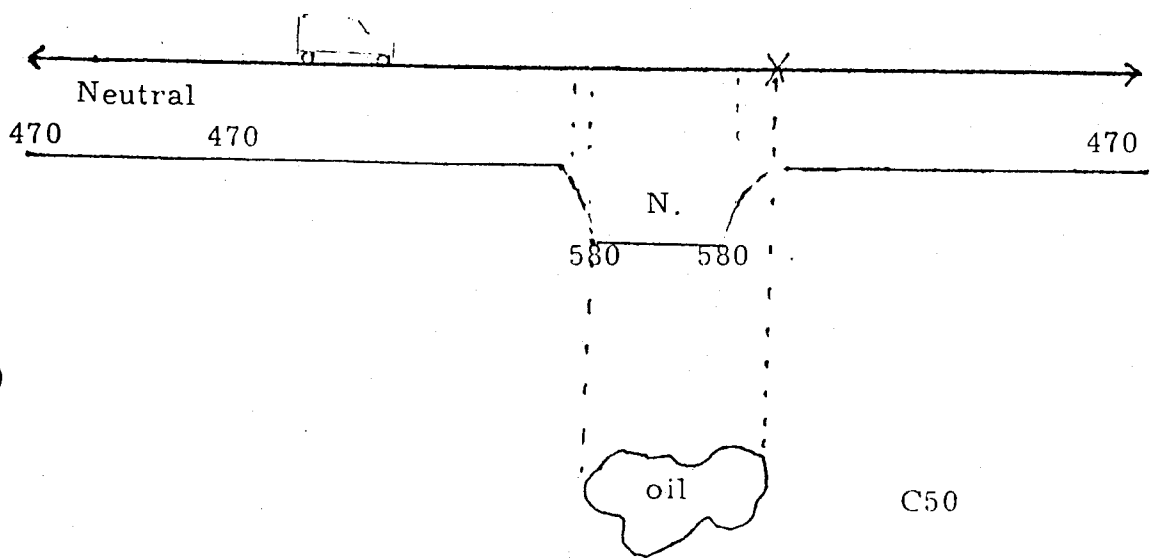


Fig. 6





## ALGOR X CHECK-OUT BEFORE SURVEY

- |     |     |  |    |       |
|-----|-----|--|----|-------|
| 1)  | Set | Sensitivity  | to | 5     |
| 2)  | Set | Meter-Switch   | to | On    |
| 3)  | Set | Ion-Switch   | to | On    |
| 4)  | Set | Operate-Switch   | to | St-By |
| 5)  |     | Battery-meter must be in red section.  |    |       |
| 6)  |     | Adjust Main-Dial to 500 if okay.<br>N-meter should be at 50-middle of scale. |    |       |
| 7)  |     | Adjust background meter in green section.                                    |    |       |
| 8)  |     | Isotope counter should read "000".   |    |       |
| 9)  |     | Press Comp-Test to read "256".   |    |       |
| 10) |     | Meter-speed to "med".  |    |       |

If no fluctuation, connect PMT and switch to "Operate", start survey.

Computer PC2 and printer Interface.

Read instruction manual carefully.

The Algor Program is stored in the memory; before any field trip, check the writing pen, make Algor Log Test.

## OPERATION

- a) Power on.
- b) Type Run (Mode in Run position).  
ENTER
- c) Type No-If no cassette required.  
ENTER
- d) Type Log # or let Log sequence run.  
ENTER
- e) Start survey - write in the instrument readings.

RARE METALS CORPORATION  
76161 BASELINE ROAD  
29 PALMS, CALIFORNIA 92277  
P.O. BOX 669

DCP SPECTRASPAN VI ANALYSIS

DATE: 2-19-97  
LOG # : L-97-50-1  
CLIENT: WALTER KOLEBA

SAMPLE DESCRIPTION: B 130  
20-25 FT.

SAMPLE PREPARATION: GROUND -100 MESH  
DIGESTED IN AQUA REGIA NASTY  
2 HOUR DIGEST


SAMPLE WEIGHT: 2.5 Gram(s)

SAMPLE VOLUME: 100 ml's

oz. per ton of sample  
-----

Gold	0.024
Platinum	0.000
Rhodium	0.000
Palladium	0.000

ANALYZED BY

  
MICHAEL J. SNYDER

RARE METALS CORPORATION  
76161 BASELINE ROAD  
29 PALMS, CALIFORNIA 92277  
P.O. BOX 669

DCP SPECTRASPAN VI ANALYSIS

DATE: 2-19-97  
LOG # : L-97-50-1  
CLIENT: WALTER KOLEBA

SAMPLE DESCRIPTION: B 130  
20-25 FT.

SAMPLE PREPARATION: AQUA REGIA NASTY DIGEST

SAMPLE WEIGHT: 2.5 Gram(s)  
SAMPLE VOLUME: 100 ml's

BASE METAL'S	ppm's of Sample	PERCENT %
	-----	-----
Aluminium	32,798.95	3.2799%
Arsenic	46.34	0.0046%
Zinc	59.21	0.0059%
Copper	98.88	0.0099%
Nickel	45.22	0.0045%
Cobalt	12.34	0.0012%
Iron	25,597.96	2.5598%
Manganese	643.19	0.0643%
Chromium	68.31	0.0068%
Vanadium	176.98	0.0177%
Titanium	1,236.85	0.1237%
Molybdenum	15.30	0.0015%
Antimony	13.30	0.0013%
Bismuth	0.00	0.0000%
Lead	185.17	0.0185%
Magnesium	5,852.67	0.5853%
Tellurium	0.00	0.0000%

RARE METALS CORPORATION  
76161 BASELINE ROAD  
29 PALMS, CALIFORNIA 92277  
P.O. BOX 669

DCP SPECTRASPAN VI ANALYSIS

DATE: 2-19-97  
LOG # : L-97-50-2  
CLIENT: WALTER KOLEBA

SAMPLE DESCRIPTION: # 124  
5FT.

SAMPLE PREPARATION: GROUND -100 MESH  
DIGESTED IN AQUA REGIA NASTY  
2 HOUR DIGEST

SAMPLE WEIGHT: 2.5 Gram(s)

SAMPLE VOLUME: 100 ml's

oz. per ton of sample  
-----

Gold	0.044
Platinum	0.000
Rhodium	0.024
Palladium	0.000

ANALYZED BY

  
MICHAEL J. SNYDER

RARE METALS CORPORATION  
76161 BASELINE ROAD  
29 PALMS, CALIFORNIA 92277  
P.O. BOX 669

DCP SPECTRASPAN VI ANALYSIS

DATE: 2-19-97  
LOG # : L-97-50-2  
CLIENT: WALTER KOLEBA

SAMPLE DESCRIPTION: #124  
5 FT.

SAMPLE PREPARATION: AQUA REGIA NASTY DIGEST

SAMPLE WEIGHT: 2.5 Gram(s)  
SAMPLE VOLUME: 100 Ml's

BASE METAL'S	ppm's of Sample	PERCENT %
Aluminium	32,798.95	3.2799%
Arsenic	46.34	0.0046%
Zinc	59.21	0.0059%
Copper	98.88	0.0099%
Nickel	45.22	0.0045%
Cobalt	12.34	0.0012%
Iron	25,597.96	2.5598%
Manganese	643.19	0.0643%
Chromium	68.31	0.0068%
Vanadium	176.98	0.0177%
Titanium	1,236.85	0.1237%
Molybdenum	15.30	0.0015%
Antimony	13.30	0.0013%
Bismuth	0.00	0.0000%
Lead	185.17	0.0185%
Magnesium	5,852.67	0.5853%
Tellurium	0.00	0.0000%

17 Elements

Last Modified: November 9, 1996 04:16:42 pm

Autosampler:	Off	Background:	Off
Normalization:	Off	Continuous Flow:	Off
Interelement:	Off	Calibration:	On
Weighting:	Off	Internal Standard:	Off
Disk Save:	On		

## Solution # 1 Peaking

02:51:04 pm

Al39 Peaking Success  
 As28 Peaking Success  
 Zn20 Peaking Success  
 Ni36 Peaking Success  
 Co34 Peaking Success  
 Fe23 Peaking Success  
 Mn29 Peaking Success  
 Cr35 Peaking Success  
 V-30 Peaking Success  
 Ti32 Peaking Success  
 Mo37 Peaking Success  
 Sb23 Peaking Success  
 Bi22 Peaking Success  
 Pb36 Peaking Success  
 Mg Peaking Success  
 Cu62 Peaking Success  
 Te21 Peaking Success

## Solution # 2 Standard 1

02:54:52 pm

Al39	182171 pA	+/-1.79%	178488	183349	184675
As28	50402 pA	+/-1.72%	49560	50350	51296
Zn20	99814 pA	+/-1.55%	100953	100442	98046
Ni36	167664 pA	+/-2.00%	170252	163874	168865
Co34	59223 pA	+/-1.49%	58266	59998	59404
Fe23	78288 pA	+/-0.88%	79001	78243	77620
Mn29	154879 pA	+/-0.52%	154890	155678	154070
Cr35	157750 pA	+/-1.61%	155215	157757	160279
V-30	160360 pA	+/-3.48%	166407	159269	155404
Ti32	87914 pA	+/-3.19%	84780	90189	88772
Mo37	203963 pA	+/-2.02%	205656	206971	199262

Sb23	74152 pA	+/-3.79%	77134	73776	71547
Bi22	33900 pA	+/-2.33%	34147	33015	34537
Pb36	80049 pA	+/-1.95%	81626	78513	80009
Mg27	58157 pA	+/-1.73%	57661	57493	59316
Cu32	240870 pA	+/-5.28%	230994	255221	236396
Te21	26786 pA	+/-1.78%	26733	26337	27287

Solution # 3 Standard 2

02:58:12 pm

Al39	7291 pA	+/-12.8%	6489	7065	8320
As28	14804 pA	+/-5.45%	13972	15582	14858
Zn20	2692 pA	+/-4.54%	2613	2833	2631
Ni36	8506 pA	+/-6.26%	8398	9084	8035
Co34	3533 pA	+/-2.42%	3579	3435	3586
Fe23	5339 pA	+/-2.88%	5369	5476	5173
Mn29	2516 pA	+/-3.99%	2611	2411	2527
Cr	6944 pA	+/-1.07%	6935	6874	7022
V-30	4926 pA	+/-0.95%	4875	4936	4966
Ti32	2313 pA	+/-2.35%	2353	2335	2251
Mo37	7890 pA	+/-3.19%	7902	7633	8136
Sb23	11475 pA	+/-0.70%	11494	11387	11545
Bi22	8723 pA	+/-1.67%	8875	8585	8707
Pb36	17786 pA	+/-3.98%	17804	18484	17070
Mg27	1385 pA	+/-2.63%	1393	1416	1345
Cu32	2386 pA	+/-1.44%	2356	2423	2378
Te21	15771 pA	+/-2.39%	16176	15432	15706

Solution # 4 Unknown 50-1 koleba

03:02:50 pm

Al39 Over Range

			Over/R	Over/R	Over/R
As28	1.16	ppm	+/-22.8%		
			0.89548	1.159	1.425

Zn20	1.482	ppm	+/-5.87%	16398	16868	17341
				1.56	1.388	1.498
				10270	9435	9969
Ni36	1.132	ppm	+/-7.61%	1.108	1.06	1.227
				17327	16943	18275
Co34	0.30989	ppm	+/-1.30%	0.31408	0.30607	0.30952
				4408	4385	4395
Fe23	Over Range			Over/R	Over/R	Over/R
Mn29	16.1	ppm	+/-2.44%	15.93	15.81	16.54
				123923	123024	128593
Cr35	1.716	ppm	+/-0.62%	1.724	1.72	1.703
				19945	19914	19792
V-30	4.43	ppm	+/-5.62%	4.698	4.205	4.387
				41439	37613	39020
Ti32	30.96	ppm	+/-2.69%	31.18	30.03	31.65
				135792	130884	137802
Mo37	0.38317	ppm	+/-1.48%	0.38924	0.38229	0.37798
				11706	11638	11596
Sb23	0.33306	ppm	+/-15.1%	0.31973	0.38864	0.29079
				12477	12693	12387
Bi32	-0.0091	ppm	+/- 888%	0.0018	0.06587	-0.095
				8725	8806	8603
Pb36	4.635	ppm	+/-6.86%	4.885	4.743	4.278
				32996	32554	31105
Mg27	146.5	ppm	+/-1.15%	147.3	144.5	147.6
				419617	411731	420391
Cu32	2.475	ppm	+/-5.14%	2.617	2.371	2.438
				33602	30665	31463
Te21	-1.03	ppm	+/- 232%	-0.2088	0.84471	-3.75
				15714	16004	14738

Solution # 5 Unknown 50-2 koleba

03:05:14 pm

Al39 Over Range

As28	0.96637	ppm	+/-31.7%	Over/R	Over/R	Over/R
				1.317	0.75676	0.82466
				17149	16151	16272
Zn20	1.35	ppm	+/-4.78%	1.278	1.404	1.366
				8903	9513	9329
Ni36	1.227	ppm	+/-1.25%	1.215	1.221	1.244



Co34	0.4395	ppm	+/-4.98%	18181	18223	18410
				0.41503	0.45725	0.44621
				4689	4806	4776
Fe23	Over Range					
Mn29	16.08	ppm	+/-1.95%	Over/R	Over/R	Over/R
				15.9	15.89	16.44
				123687	123613	127778
Cr35	1.652	ppm	+/-1.65%			
				1.627	1.648	1.682
				19219	19376	19627
V-30	3.474	ppm	+/-2.07%			
				3.48	3.4	3.543
				31977	31350	32467
Ti32	19.96	ppm	+/-2.91%			
				19.31	20.43	20.13
				84974	89788	88476
Mo37	0.38428	ppm	+/-3.32%			
				0.39888	0.37867	0.37529
				11801	11603	11570
Sb23	0.56209	ppm	+/-22.0%			
				0.42208	0.60877	0.65541
				12798	13383	13529
Bi22	0.20613	ppm	+/- 236%			
				0.67647	-0.2934	0.23531
				9574	8353	9019
Pb36	3.233	ppm	+/-3.40%			
				3.218	3.131	3.349
				27804	27536	28215
Mo	112.0	ppm	+/-0.79%			
				113.0	111.5	111.5
				322349	317904	318142
Cu32	2.444	ppm	+/-4.64%			
				2.316	2.485	2.531
				30007	32029	32570
Te21	-1.07	ppm	+/-95.8%			
				0.08371	-1.42	-1.88
				15794	15379	15251

Solution # 6 Unknown #1 25:1 dilution

03:08:00 pm

Al39	32.84	ppm	+/-2.13%			
				33.55	32.82	32.15
				300703	294349	288491
Fe23	25.63	ppm	+/-2.03%			
				25.04	26.01	25.85
				96672	100211	99642

Solution # 7 Unknown #2 25:1 dilution

03:09:40 pm

Al39	25.88	ppm	+/-3.42%			
				25.42	25.32	26.9
				229598	228730	242548
Fe23	18.48	ppm	+/-4.31%			
				17.86	18.19	19.38

70510

71700

76035

8 Elements

Last Modified: February 18, 1997 03:51:42 pm

Autosampler:	Off	Background:	On
Normalization:	On	Continuous Flow:	Off
Interelement:	Off	Calibration:	On
Weighting:	Off	Internal Standard:	Off
Disk Save:	On		

Normalization weight: 1.0000  
 Normalization volume: 1.0000

## Solution # 1 Peaking

03:11:48 pm

Weight: 1.0000  
 Volume: 1.0000

Au26 Peaking Success  
 Pt26 Peaking Success  
 Rh34 Peaking Failure  
 Pd34 Peaking Success

## Solution # 2 Peaking

03:12:44 pm

Weight: 1.0000  
 Volume: 1.0000

Rh34 Peaking Success

## Solution # 3 Standard 1

03:13:56 pm

Weight: 1.0000  
 Volume: 1.0000

Au26	400802 pA	+/-0.22%			
			401633	400886	399886
Pt26	56582 pA	+/-1.48%			
			56849	55641	57257
Rh34	238895 pA	+/-2.29%			
			234412	244984	237289
Pd34	288398 pA	+/-2.10%			
			287511	282844	294839

## Solution # 4 Standard 2

03:16:28 pm

Weight: 1.0000  
 Volume: 1.0000

Au26 16854 pA +/-1.54%

Pt26	2980 pA	+/-4.67%	16712	17153	16696
			3137	2871	2934
Rh34	15 pA	+/-7812%	-1320	874	491
Pd34	-3046 pA	+/-9.84%	-3268	-2705	-3165

Solution # 5 Unknown 50-1 koleba b130

03:18:26 pm

Weight: 2.5000  
Volume: 100.0000

Au26	0.02106	ppm	+/-29.9%		
			0.01394	0.02336	0.02587
			17389	17750	17847
Pt26	-0.1251	ppm	+/-43.8%		
			-0.0876	-0.1879	-0.0997
			2511	1973	2446
Rh34	-0.0016	ppm	+/- 820%		
			-0.0111	-0.0065	0.01292
			-249	-141	324
Pd34	-0.0656	ppm	+/-11.9%		
			-0.0684	-0.0568	-0.0716
			-5038	-4701	-5134

Solution # 6 Unknown 50-2 koleba 124

03:20:50 pm

Weight: 2.5000  
Volume: 100.0000

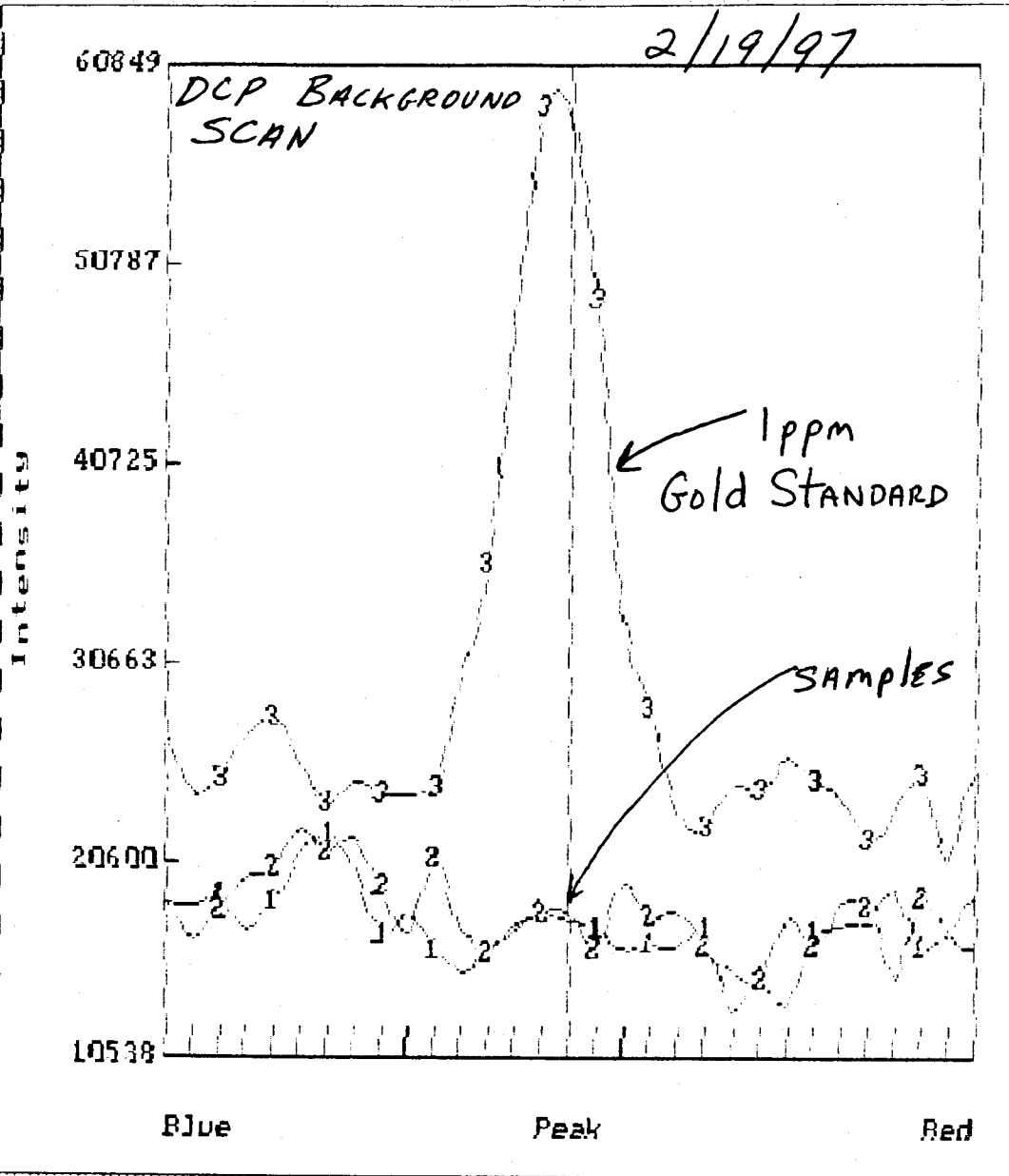
Au26	0.03803	ppm	+/-14.1%		
			0.03237	0.03864	0.04306
			18097	18337	18507
Pt26	-0.1089	ppm	+/-94.2%		
			-0.1336	0.00377	-0.197
			2265	3001	1925
Rh34	0.02114	ppm	+/-26.1%		
			0.01844	0.01748	0.02749
			456	433	672
Pd34	-0.0348	ppm	+/-23.7%		
			-0.0443	-0.0313	-0.0289
			-4337	-3957	-3889

2/19/97

1 Au26 267.595  
 471.133 Au  
 KOLEBA Au

2 Au26 267.595  
 50.233 Au  
 KOLEBA Au

3 Au26 267.595  
 177.110 Au, SSN  
 IPON



MR. WALTER KOLEBA  
 #1 B 130  
 #2 124  
 #3 1ppm Gold STANDARD

K.N. THANSTROM & COMPANY  
Engineers

13427 Wheeler Avenue  
Sylmar, CA 91342

(818) 367-5189  
(818) 367-1269 Fax

KNTA@AOL.COM

MR. WALTER KOLEBA  
1104 - 105 ST.  
EDMONTON, ALTA.  
CANADA - T6J6J7  
403-430-8534

OCTOBER 3, 1996

DEAR MR. KOLEBA,

I HAVE ASSAYED THE ORE SAMPLES YOU SUBMITTED AND HAVE FOUND THE FOLLOWING RESULTS:

DARK SAMPLE: THE SAMPLE WAS LEACHED IN A THREE STEP PROCESS:  
(CLAY)

- A. H2O AND H2O2 WAS USED AS A PRE-LEACH TO REMOVE POSITIVE CHARGES ASSOCIATED WITH THE HUMIS IN THE ORE.
- B. H3PO4 PLUS Br WAS USED TO LEACH FOR 4.5 HOURS USING TAP H2O.
- C. RECOVERY WAS BY ELECTROWINNING AN THEN A ZERO DROP USING NH3

RECOVERY = 1.65 OZ. AU PLUS .22 OZ. PT-GROUP PER TON OF ORE.

LIGHT TAN SAMPLE: THE SAMPLE WAS LEACHED USING THE SAME FORMULA AS ABOVE.

RECOVERY = 2.6 OZ <sup>AU</sup> PLUS .7 OZ PT GROUP PER TON OF ORE.

OBSERVATIONS AND RECOMMENDATION:

DARK SAMPLE (CLAY): SAMPLE APPEARS TO BE A VOLCANIC TUFF, WITH LARGE AMOUNTS OF SULFIDES (FREE) AND HUMIS. I RECOMMEND THAT A PRE-TREATMENT WITH A HIGH TEMPERATURE AT 900 DEGREES C FOR ONE HOUR AND QUENCH IN A FORMULA OF H2O PLUS H3P04 PLUS BR.

LIGHT TAN SAMPLE (CLAY): SAMPLE APPEARS TO BE A FINELY GROUND FE OXIDE HIGHLY SELICIOUS WITH MICOUS INTRUSIVE VEINLETS, WITH FREE AU PRESENT IN QUANTITY.

RECOMMENDATIONS: A LONGER LEACH PERHAPS 24 TO 48 HOURS.

THANK YOU FOR GIVING ME THE OPPORTUNITY TO DO THIS SAMPLE.

BEST REGARDS

  
KENNETH N. THANSTROM

# K. N. THANSTROM & COMPANY

## Engineers

13427 Wheeler Ave.  
Sylmar, CA 91342

Internet Address  
knta@qnet.com

(818) 367-5189  
(818) 367-1144 FAX

Mr. Walter Koleba

3-24-97

Fax# ~~403-8534~~ 403-430-8534

Dear Mr. Koleba:

Your long awaited assays are done they are as follows:

May tower 30 feet--	.06 Au P/T
May tower--	0.00 " "
# 124--	0.00 " "

Now that it is dry up there, you can send more samples?.

write down my address, things will get here much faster if you use it!.

Best Regards,



K. N. THANSTROM

# K.N. THANSTROM & COMPANY

## Engineers

13427 Wheeler Avenue  
Sylmar, CA 91342

(818) 367-5189  
(818) 367-1249 Fax

KNTA@AOL.COM

Mr. Walter Koleba  
1104- 105 St.  
Edmonton, Alta.  
Canada- T6J6J7

11-11-96

403-430-8534

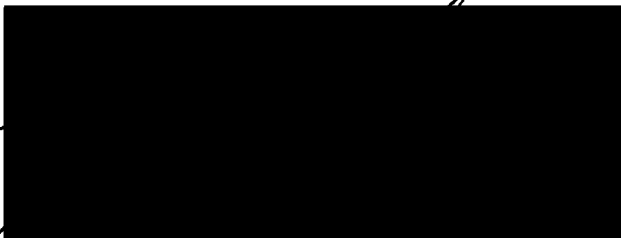
Dear Mr. Koleba,

Your three samples were prepared using the formula as  
stated in the letter of 10-3-96.

Sample # 1

.03 gold

Best Regards,





K.N. THANSTROM & COMPANY  
Engineers

13427 Wheeler Avenue  
Sylmar, CA 91342

(818) 367-5189  
(818) 367-1299 Fax

KNTA@AOL.COM

Mr. Walter Koleba  
1104- 105 St.  
Edmonton, Alta.  
Canada- T6J6J7

11-11-96

403-430-8534

Dear Mr. Koleba,

Your three samples were prepared using the formula as  
stated in the letter of 10-3-96.

Sample # 2

.45 Gold

.15 Ptg

Leach time 7 Hr.

Best Regards, *A*



# K.N. THANSTROM & COMPANY

## Engineers

13427 Wheeler Avenue  
Sylmar, CA 91342

(818) 367-5189  
(818) 367-1249 Fax

KNTA@AOL.COM

Mr. Walter Koleba  
1104- 105 St.  
Edmonton, Alta.  
Canada- T6J6J7

11-11-96

403-430-8534

Dear Mr. Koleba,

Your three samples were prepared using the formula as stated in the letter of 10-3-96.

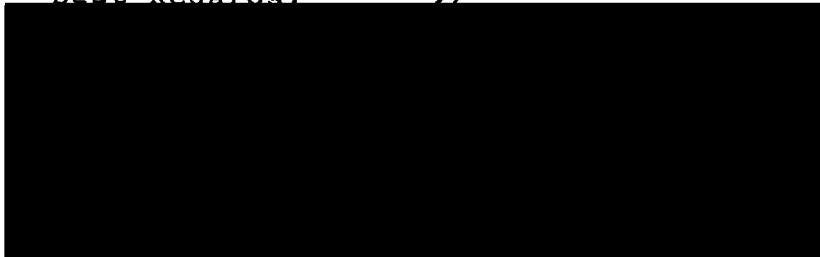
Sample # 3

.75 Gold

.10 Ptg

Leach time 5.3 Hr.

Best Regards,



**PARKER TECHNOLOGY CORPORATION**

75850 BASELINE ROAD  
P. O. BOX 965  
29 PALMS, CA 92277  
619-367-1143 FAX 619-367-0067

April 18, 1997

**CONFIDENTIAL**

Attached are two assays on your ore.

If you will please fax us your mailing address we will mail you the original.

Thanks



**PARKER TECHNOLOGY CORPORATION**

75850 BASELINE ROAD

P. O. BOX 965

29 PALMS, CA 92277

619-367-1143 FAX 619-367-0067

**ASSAY REPORT**

DATE: APRIL 18, 1997

CUSTOMER:

# 1

SAMPLE: HEAD ORE,

**CONFIDENTIAL**

PROCESS: DIGEST 1 ASSAY TON OF HEAD ORE,  
ANALYZE WITH DIRECT CURRENT PLASMA , ATOMIC  
EMISSION SPECTROMETER.

RESULTS: Ounces per Ton

Au 26 .12057 Oz./Ton

Pt 26 .14821 Oz./Ton

Pd 36 .17020 Oz./Ton

Rh 34 .01323 Oz./Ton



APRIL 18, 1997

# PARKER TECHNOLOGY CORPORATION

75850 BASELINE ROAD

P. O. BOX 965

29 PALMS, CA 92277

619-367-1143 FAX 619-367-0067

## ASSAY REPORT

DATE: APRIL 18, 1997

CUSTOMER:


# 2

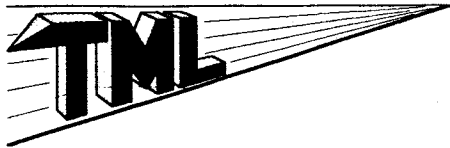
**CONFIDENTIAL**

SAMPLE: CONCENTRATED HEAD ORE,

PROCESS: START WITH 908 GRAMS OF HEAD ORE  
GRAVITY CONCENTRATE TO 4.5504 GRAMS  
MAGNETIC SEPARATION OF CONCENTRATE  
MAGS .59151 GRAMS  
NON MAGS 3.9589 GRAMS  
DIGEST 4.5504 GRAMS OF CONCENTRATE  
ANALYZE WITH DIRECT CURRENT PLASMA,  
ATOMIC EMISSION SPECTROMETER.

RESULTS:		Ounces per Ton
Au 26	.37861	Oz./Ton
Pt 26	.46246	Oz./Ton
Pd 36	.95031	Oz./Ton
Rh 34	.06271	Oz./Ton

  
April 18, 1997



**TERRAMIN RESEARCH LABS LTD.**

**ANALYTICAL REPORT**

**Pelican Resources  
1104 - 105 Street  
Edmonton, Alberta  
T6J 6J7**

**Walter Koleba**

**Date: May 11, 1998**

**Job No: 98-053**

**Project:**

**P.O. #:**

**Gold, Platinum, Palladium Assays**

**Signed:**

A black rectangular box redacts the signature. Below the box, a handwritten signature in cursive is visible, appearing to read 'Walter Koleba'.

**14, 2235 30th Avenue N.E., Calgary, AB, T2E 7C7  
Phone: (403)250-9460 Fax: (403)291-7064**



TERRAMIN RESEARCH LABS Ltd.

Job No: 98-053

Client: Pelican Resources  
Project:

Sample Number		Au ppb	Pt ppb	Pd ppb
Heads	80 B-2	4	< 20	< 10
Heads	B-129	4	< 20	< 10
Heads	B-131	2	< 20	< 10
Heads	B-137	2	< 20	< 10
Tails	80 B-2	2	< 20	< 10
Tails	B-129	2	< 20	< 10
Tails	B-131	2	< 20	< 10
Tails	B-137	2	< 20	< 10
Ppte	80 B-2	.05 ug	< 0.5 ug	< 0.25 ug
Ppte	B-129	.05 ug	< 0.5 ug	< 0.25 ug
Ppte	B-131	.05 ug	< 0.5 ug	< 0.25 ug
Ppte	B-137	.05 ug	< 0.5 ug	< 0.25 ug
		1.55	15.5	7.75

12 03 1  
2000/1/1 x Tow

Hole #	Tag #	LSD	GPS	Material	Contour	Depth	Comments
✓ 119B	422		55° 32' 25" N 112° 19' 44" W			5'	Sandy Brown Gravel. Rock Sigs
						10'	1"-2" in Sigs. Dark Brown
						15'	DRY
						20'	
						25'	
						30'	
						35'	
						40'	
						45'	
						50'	Material Change in Section
						55'	Darker Finer Brown Sand few
						60'	ROCKS.
						65'	DARK BLACK BLUE SHALE
						70'	DRY CLAY
						75'	
						80'	} Shale continues
						85'	
						90'	
						95'	
						100'	B. B Clay
						103'	END HOLE.
✓ 120B	420		55° 32' 20" N 112. 19 04 W			10	119 B + 120 B. Very close however.
						20	Terrain in altitude is approx 50 ft.
						30	Differences
						40	
						50	Sandy Brown Till at 0-15 ft.
						60	Some Rocks 1"-2" in size.
						70	DRY material
						80	Very Brown Sand &
						90	Dark Brown No change
						100	DRY Brown Sand. No change
						103	END HOLE.



Hole #	Tag #	LSD	GPS	Material	Contour	Depth	Comments	
121B	40		55° 32' 30" N 112° 20' 06" W			5'	Till Samples: Brown Sandy Gravel.	
						10'		
						15'		
						20'		
						25'		Material changes at approx 20' into Blue Shale Band To 35'
						30'		Blue Shale
						35'		Blue Shale. Material change at 35' Back into GOLDEN BROWN.
						40'		Sand. To 45' 45' - TO 60'
						45'		Blue Shale
						50'		Hit water material unable to collect last 10-15 ft. END HOLE.
B122	42		55° 33' 12" N 112° 20' 09" W	12415788 E 6156814 N		5'	Brown clay Top 10 FT. Darker Darker clay To 20 FT. Brown Material To 45 ft. Hit Sp Water at approx 45 ft. Samples in use collected TO 45' END HOLE TO WPT.	
						10'		
						15'		
						20'		
						25'		
						30'		
						35'		
						40'		
* B123			55° 34' 33" N 112° 15' 11" W			5'	Brown Sandy Till Black BLUE SHALE 9'	
						10'		
MOUND	EAST SIDE					15'	Material of B.B. Shale ENDS AT 25-27 ft. LIGHT BROWN Material. Tanned wet. pull out at 30 B. Shale. B. Shale.	
						20'		
						25'		
						30'		
						35'		
						40'		

Hole #	Tag #	LSD	GPS	Material	Contour	Depth	Comments
B124	5802		55° 34' 17N 112° 14' 30W			5'	Brown Sandy Light (GOLDEN)
						10'	Brown Sand Med in colour.
						15'	Gray Sand Wet Light gravel
						20'	Grey Sand Wet Med Gravel
						25'	Sand Gravel. (Some)
						30'	Sand Gravel (Some)
						35'	Sand Gravel. (Some)
						40'	Sandy Gravel some
						50'	Sandy Gravel (some)
						60'	Sand + Gravel getting Wet. (OUT) END HOLE
B125	V		55° 34' 07N 112° 14' 22W			5'	Light Brown Sand
						10'	Dark Brown Sand
						15'	Dark Brown Sand
						20'	17-18 Turning in Hard Dark Blue Clay
						25'	Back into Brown clay (MED DARK)
						30'	Back to Blue clay lighter in colour.
						35'	Blue clay Darker in colour.
						40'	Blue clay same colour.
						45'	Blue clay getting wet.
						55'	Blue clay wet with sand. Blue Brown Sandy wet clay out. END HOLE.
B126	V		55° 33' 18N 112° 13' 51W	12422335 E 6157027 N		5'	Brown clay
						10'	Brown clay little wet.
						15'	Darker Brown clay wet.
						20'	Brown clay (mucky).
						25'	Brown clay Too wet.
B127	V		55° 33' 10N 112° 15' 04W CLEARING ON NORTH SIDE.	12421071 E 56702 N		5'	Golden Brown Sand
						10'	Brown sand clay. (Some Rocks)
						15'	Brown clay
						20'	Brown clay
						25'	Brown getting wet from about 20 ft.
						30'	Brown clay Too wet to continue

Hole #	Tag #	LSD	GPS	Magn. Decl.	Contour	Depth	Comments
B128	✓		55° 32' 42N		W. of Cont.	5'	Brown Sand
			112° 15' 49W	420 207E		10'	Brown clay (sandy)
				61 55 9510		15'	Colden Brown Sand
						20'	Brown clay
						25'	Water Brown clay END OF HOLE For wet.
B129	✓		55° 33' 15N	420 513E		5'	Sandy Brown clay
			112° 15' 36W	6166 967		10'	Darker sandy Brown clay
						15'	Sand Brown clay
						20'	Brown sandy clay
						25'	Mineral waste into charcoal oven
						30'	Blue clay
						35'	Blue clay
						40'	Sand charcoal. Dry Blue
						45'	Turn into Darker Black Blue clay
						50'	Black Blue clay
B130			55° 34' 07N	422 101E		5'	Brown sandy clay
			112° 14' 07W	6158 546 N		10'	Brown sand clay (turning wet)
			" 14"			15'	Wet Sand. Blue clay
						20'	Blue clay GRITTY
						25'	21' Turn in Hard Packed Brown light in
						30'	Color at 25-26 ft. Turning into Blue clay with
						35'	Streaks of grey. 30 ft. Back into Colden
						40'	Brown clay 30-35" Grey streaks off white streaks (TAKE NOTE OF THIS HOLE)
B131			55° 34' 18N	421 459E		5'	Brown Sand
			112° 14' 44W	6158 898N		10'	Brown sandy clay
						15'	Change into Blue clay
						20'	Black Blue clay
						25'	" " "
						30'	" " "
						35'	" " "
						40'	" " "
						45'	" " "
						50'	" " "
						55'	Black Blue clay (Hole END)

Hole #	Tag #	LSD	GPS	Magnetic	Contour	Depth	Comments
B132	Yes		55° 34' 07N	421979E		5'	Brown clay
			112° 17' 14W	615382N		10'	Brown clay
						15'	Blue clay
						20'	Blue clay
						25'	Blue clay showing some pebbles
						30'	Blue clay fairly wet.
						35'	Blue clay wet.
						40'	Blue clay (wet wet)
						45'	Blue clay
						50'	Blue clay end of hole.
B133	Yes		55° 33' 37N	418966E		till	Sand To 5-7'
			112° 17' 05W	615767N		5'	DRY BROWN CLAY (Some Rocks)
						10'	" " " " " " " "
						15'	" " " " " " " "
						20'	Turning into Dry Blue Clay
						25'	Blue Clay
						30'	Blue Clay quartz showing
						35'	HARD pack Rocks.
						40'	Micas showing
						45'	(Brown clay sand Dry)
B134	Yes	South of B133 1/4 KM				5'	Sandy Brown Clay (DRY)
						10'	Light gravel sandy
						15'	Wet Clay. Low oxidation
						20'	Stems
						25'	Brown to Blue shale
						30'	Wet hole end
B135	Yes		55° 33' 20N			25 ft	Brown sand, clay
			112° 15' 38W				yellow wet at 15 ft
							25 ft Brown wet sticky
							end.

LOCATION.

Hole #	Tag #	LSD	GPS	Material	Section	Depth	Comments
B136	410		No Reading	76 15 W 4	Sec 5 S/E		Brown Sand Clay To 12-15 ft
				EAST of well	SITE		Blue clay No interruptions
						55 ft	Blue clay to 55 ft
B137	400		No Reading	76 15 W 4	SEC 5 SE		Brown Sandy Clay
				NEVT to TOB136		65 ft	Blue Clay all 15 ft to 65-75 45 ft getting wet
						70 ft	Sample
						80 ft	Sample
B138						30 ft	Brown Sand. Brown Clay
						35 ft	To 15 ft
						40 ft	Black Blue Silt to bottom
						45 ft	Sample over 5-10 ft
B139	400		No Reading	ENTRANCE	76-15 W 4		Brown Till To 10-13 ft
				ROAD APPROX	SEC 10		Brown Clay Sand + some grey
				52 N	N/W	35 ft	30 ft. Hard Drilling Gravel
							35 ft. Black Clay again
							all
B140	400		No Reading	76 16 W 4	Sec 4 S/W		Brown Sandy Clay To 12 ft
						35 ft	Blue Silt To 35 ft
							Wet out

Hole #	Tag #	LSD	GPS	Material	Contour	Depth	Comments
B141	7a		West of B1401				Brown Sandy Clay to 15 ft. Blue Shale to 30 ft sitting wet out.
						20ft	
B142			West of 141	76-15-04 Sec. 5 S/E ONLINE West of well			Brown Blue Clay To 15 ft. 15-30 ft. Blue clay 30ft to 38 ft. Brown wet sandy clay
						40ft	
B143			West of Sec 5 p 142 Near W Site	S/W online			PURSTIC Brown T Row STAIN. Till. Change at 12 ft. 30ft to grey shale. 25-30ft Sand wet!
						30ft	
B144			76-15-04 Sec 3 S/W				Brown Sandy Clay, 7-10 ft changing into Blue Clay
						30ft	

Hole #	Tag #	LSD	GPS	Material	Contour	Depth	Comments
B145	Yes.						Tell Bright Gold. 10.5K Material changed 30ft. 20+ Blue Clay 30ft. out.
B146	Yes.					40ft.	Brown Sandy Clay.
B147			55 34 25 N 112 14 13 W			45ft.	Brown Sandy Clay Dark Brown Clay Blue Clay with 27 33 ft. 45ft. 10.5K wet Sandy Brown Sand.
B148	Well Site		55 35 11 N 112 14 34 W			25ft.	Tell Sandy Brown Sand Blue Clay from 15-25ft
B149	NEW ROAD		55 35 51 N 112 11 36 W			25ft.	Tell Golden Brown Sand R.P. only 2-3ft 10ft. Brown 100lb Sandy 25ft 1:0 Change 35ft old material

Hole #	Tag #	LSD	GPS	Material	Contour	Depth	Comments
B150	40		55 36 14 112 11 28			30ft	9-10 ft Golden Brown sand 10-15 ft clay clean 15-26 ft Dark Brown sand 20-30 ft Blue Clay wet out
B151	40		55 36 61 N 112 11 58 W			35ft	Sandy Top Hill GOLDEN BRY Sand for 10 ft 15-18 ft Material has changed to darker material 32-35 ft Blue clay + wet out
B152	40 Gravel Part			12427506 E 616764 N		35ft	First 10 ft coarse rocks 12 ft Golden Sand 18 ft Brown Sand 20 ft Back to Golden Sand 30-35 ft Coarser Sand wet
B153	40		55 38 40 N 112 09 06 W			25ft	5 ft Brown Sand 10 ft Brown Sand Dry 20 ft Brown Sand coarse rocks 25 ft Brown Sand
B154			55 38 47 N 112 09 16 W			40ft	Dark Brown Sand & Gravel coarse 10-15 ft Brown Sand & Gravel 15-20 ft light coarse gravel Some clay 20-40 ft gravel (small later fill 00-100 20-25 ft)



Hole #	Tag #	LSD	GPS	Material	Contour	Depth	Comments
B153	NO		55 28 48 N 112 09 03 W			35 ft.	Rocks on Surface Sand & Gravel to 35 ft.
B156	NO		SAME AS B152 30 ft. Away South Due to Collapse			40 ft	Sand & Gravel, To 35-40 ft went out.
B157	YES					45 ft	Brown Clay Light amount of Sand 10 ft Brown clay 25 ft Grey clay 20-45 ft Black Blue Clay.
B158			55 26 05 N 112 10 40 W			30 ft.	Tell Brown Clay, with streaks of blue Heavy - Red Stains going Blue at 15 ft - to 30 ft
B159	yes		55 26 23 N 112 10 07 W			20 ft	Brown wet clay out at 20 ft!
B160	yes		55 26 16 N 112 10 47 W			25 ft.	Brown Tell clay Brown to Blue at 12-15 ft. to 25 ft.

Hole #	Tag #	LSD	GPS	Material	Contour	Depth	Comments
B3161	yes		55 26 12 N 112 10 55 W			40 ft	Known clay wet 10 ft Brown clay getting dry 15 ft Blue clay 20-30 ft Dark Brown Sand Small rocks.
B3162	yes		55 26 12 N 112 11 37 W			40 ft	Light Brown-Sand Light Sand Nothing getting wet 30 ft Too wet. Surely no more
B3163	yes		55 23 05 N 112 12 13 W			40 ft	Light Sand Golden Brown Sand 15 ft Chancery Brown Clay 30-40 ft Brown or Blue Clay
B3164	yes		EAST OF 165 NO GPS.			35 ft	Brown clay for 5 ft or so 10-15 ft Blue Shale 15-35 ft
B3165	yes		55 23 26 N 112 18 16 W			35 ft	Brown clay shale 70-10-12 12-35 13-23 shale Clay.



Figure 5:  
Map Of Drill Hole Locations

SHEET NO. 83-P-09

**Alberta**  
ENVIRONMENTAL PROTECTION  
Resource Information Management Branch

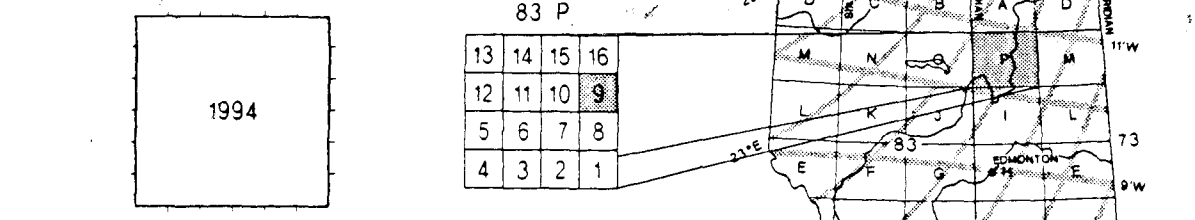
**RESOURCE ACCESS MAP**  
1:50 000



- Highway Designation - Primary / Secondary ..... [Symbol]
- Hard Surface - All-weather ..... [Symbol]
- Loose or Stabilized Surface - All-weather (Main route) ..... [Symbol]
- Loose or Stabilized Surface - All-weather ..... [Symbol]
- Loose Surface - Dry weather ..... [Symbol]
- Truck Trail ..... [Symbol]
- Seismic Line, Trail, Outline ..... [Symbol]
- Highway Interchange ..... [Symbol]
- Bridge ..... [Symbol]
- Ford Crossing (Subject to Conditions) ..... [Symbol]
- Railway, Railway Point ..... [Symbol]
- Railway (Abandoned, Condition of use unknown) ..... [Symbol]
- Pipeline ..... [Symbol]
- Transmission Line (Major) ..... [Symbol]
- Communication Tower (100 metres) ..... [Symbol]
- Recreation Area ..... [Symbol]
- Helipad ..... [Symbol]
- Airstrip (Condition unknown) ..... [Symbol]
- Township Line - Surveyed ..... [Symbol]
- Township Line - Unsurveyed ..... [Symbol]
- Section Line - Surveyed/Unsurveyed ..... [Symbol]
- Quarter Section Line with Section Number ..... [Symbol]
- Major River ..... [Symbol]
- Perennial River or Stream ..... [Symbol]
- Intermittent or Indefinite Stream ..... [Symbol]
- Lake (Water level in metres ASL) ..... [Symbol]
- Intermittent Lake ..... [Symbol]
- Sand or Gravel Bar ..... [Symbol]
- Oil and Gas Activity Site ..... [Symbol]
- Clearing (Manmade) ..... [Symbol]
- Permanent Sample Plots (PSP) ..... [Symbol]
- Mill Site ..... [Symbol]
- Gravel Pit, Sand Pit, Mine or Quarry ..... [Symbol]
- Lookout Tower ..... [Symbol]
- Forest Headquarters ..... [Symbol]
- Ranger Station ..... [Symbol]
- 28 40 (9) 121

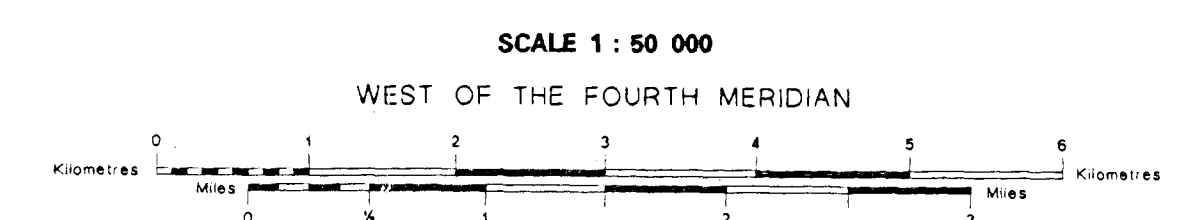
PRODUCED JULY 1995

Map Base created from 1:20,000 Provincial Digital Base  
Alberta township survey current to 1994  
LATEST aerial photography used  
in revising ACCESS ONLY



Magnetic Chart of Alberta for Epoch 1990.0  
Average Declination of the Compass in Degrees  
Average Decrease of Declination in Minutes of Arc

NOTE: Information as depicted is subject to change, therefore the Government of Alberta assumes no responsibility for discrepancies at time of use.



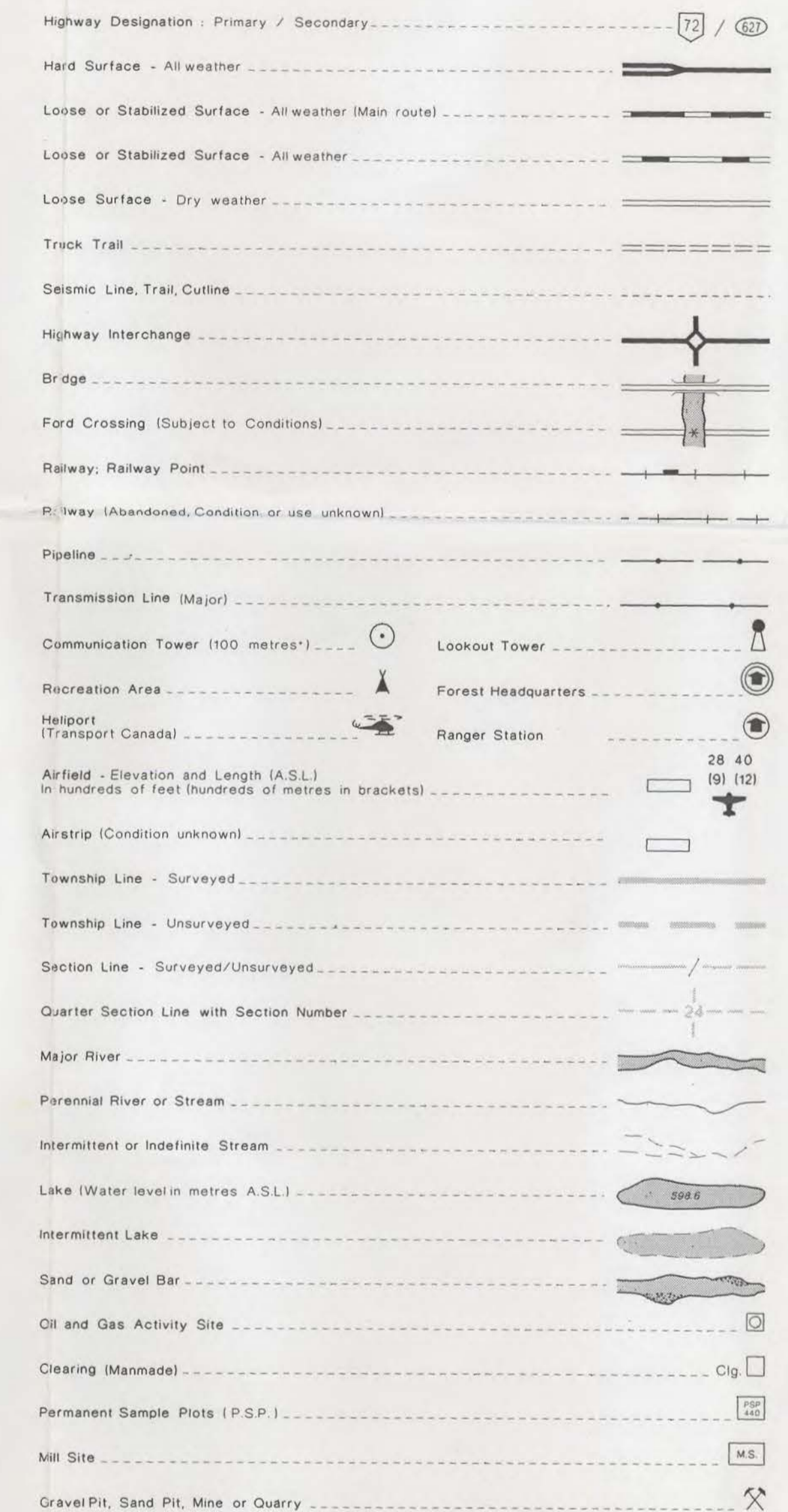
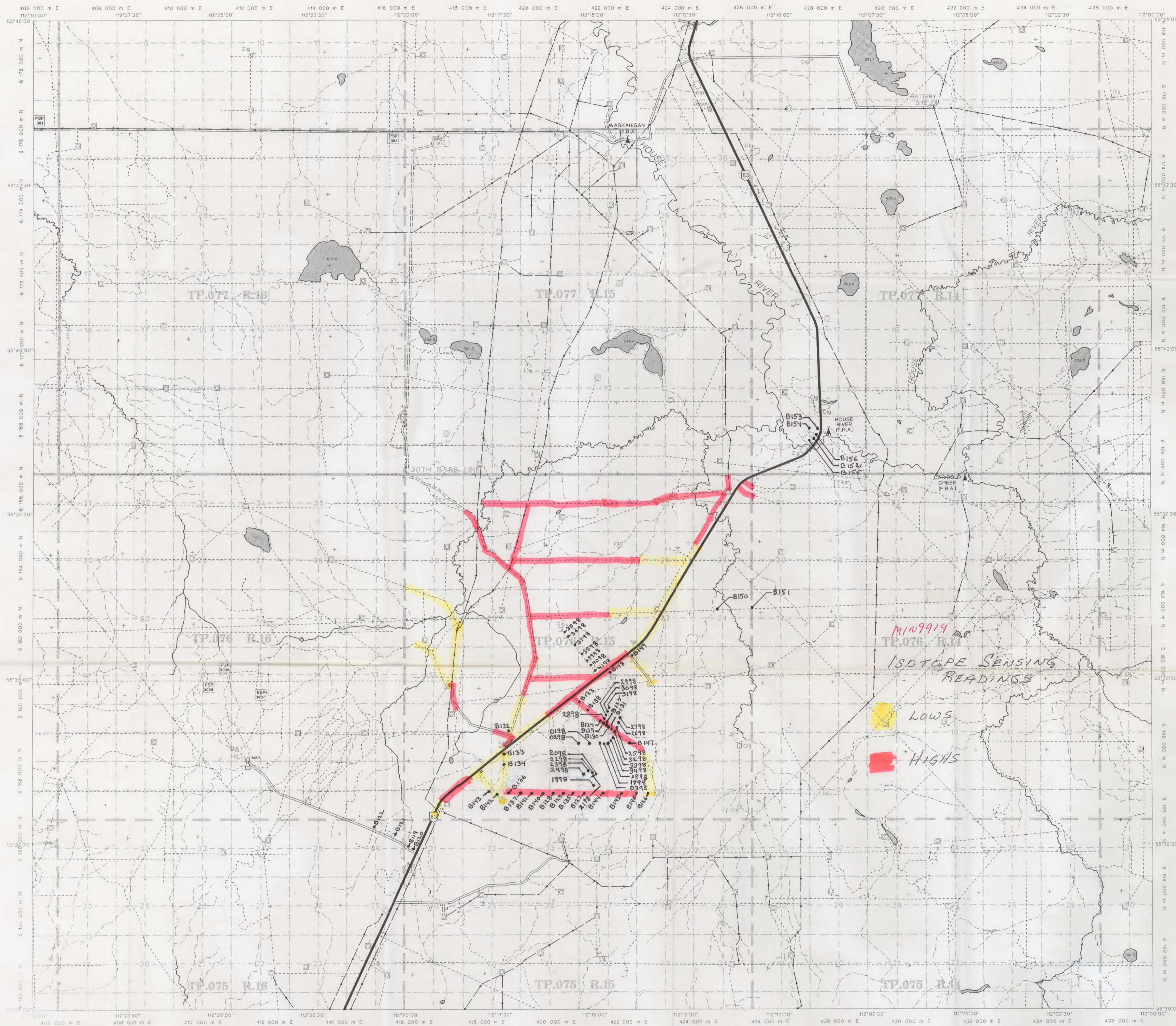
Universal Transverse Mercator Projection

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SHEET NO. 83-P-09

83-P-09

**RESOURCE ACCESS MAP**  
1:50 000



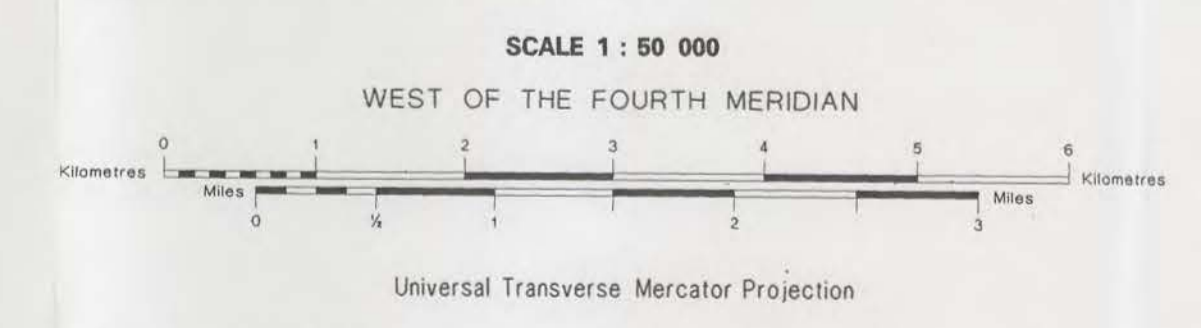
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