

**Report on Gravity Surveys**

**Rap Property**

**Sept 20, 1997**

British Columbia  
NTS 94 C/3  
56-06'North Latitude 125-02'West Longitude  
UTM 6222000N 370000E

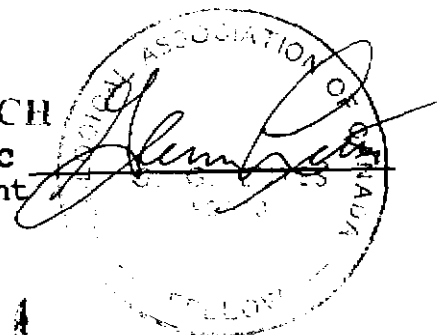
Prepared for

**Stratabound Minerals Corp.**  
Suite 518, 222-58th Avenue SW  
Calgary, Alberta T2H 2S3

Prepared by

**Glenn Lutes (MSC, FGAC), Geological Consultant**  
87 Venus Cres. Hanwell, N.B. E3C 1N1

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT  
Glenn Lutes, MSC FGAC  
Geological Consultant  
March, 1998



25,464

## TABLE OF CONTENTS

I.	INTRODUCTION.....	1
II.	LOCATION AND ACCESS.....	1
III.	CLAIMS.....	1
IV.	REGIONAL GEOLOGY.....	1
V.	PREVIOUS WORK.....	2
VI	SUMMARY OF PRESENT WORK.....	2
	GRAVITY SURVEY.....	2
VII.	CONCLUSIONS AND RECOMMENDATIONS.....	3
	REFERENCES.....	4
	STATEMENT OF EXPENDITURES.....	5
	STATEMENT OF QUALIFICATIONS.....	6

## FIGURES

	After Page
Figure 1.	Location Map..... 1
Figure 2.	Claim Map..... 1
Figure 3.	1997 Gravity Location Sketch..... 2
Figure 4.	1997 Gravity Program Line Location Map..... 2
Figure 5.	Gravity Line Profiles..... 2

## APPENDICES

Appendix I	Osilinka Gravity Program, Sept. 1997
Appendix II	Assessment of Gravity Data, Cygnet Project, B.C.

# Stratabound Minerals Corp. Rap Property

## Report on Gravity Survey September, 1997

### I. INTRODUCTION

This report documents work conducted on the Rap Property in September, 1997. This work comprised one day of gravity surveying along a logging road which cuts across the northern portion of the property. This was part of a broader programme of gravity surveying concentrated on Stratabound's Swan Property, which is located about 40 Km to the north.

### II. LOCATION AND ACCESS

The Rap Property is located in northern British Columbia at a latitude of 56 degrees 06 minutes north and a longitude of 125 degrees 02 minutes west (figure 1). It is approximately 40 Km by road northwest of Omineca Arm and 150 Km northwest of MacKenzie (94 C\3). Road access to the property is via logging roads from Windy Point on highway 97, past the Omineca logging camp and then west along the Osilinka Mainline to Km 21. At that point the Wasi Mainline road branches off and follows along the south side of the Osilinka River. This road crosses the boundary of the Rap Property at about Km 20. An access road branches to the south along the boundary between Rap 1 and 2 and the western part of Rap 1 is accessed by a rough logging road through a clearcut area.

Relief is approximately 650 metres with elevations ranging from 1,500 metres in the southwest to 850 metres along the Osilinka River.

### III. CLAIMS

The Rap Property is comprised of 2 contiguous claims totalling 28 units, located in the Omineca Mining Division (figure 2). These claims are held 100% by Stratabound Minerals Corp. and on renewal, will be in good standing to 1999:

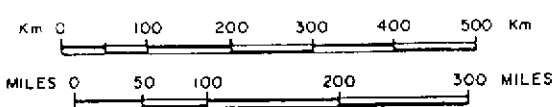
<u>Claim</u>	<u>Tenure No.</u>	<u>No. Units</u>	<u>Date of Record</u>	<u>Expiry</u>
Rap 1	308217	20	March 20\1992	1999
Rap 2	308218	8	March 20\1992	1999


### IV. REGIONAL GEOLOGY

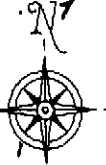
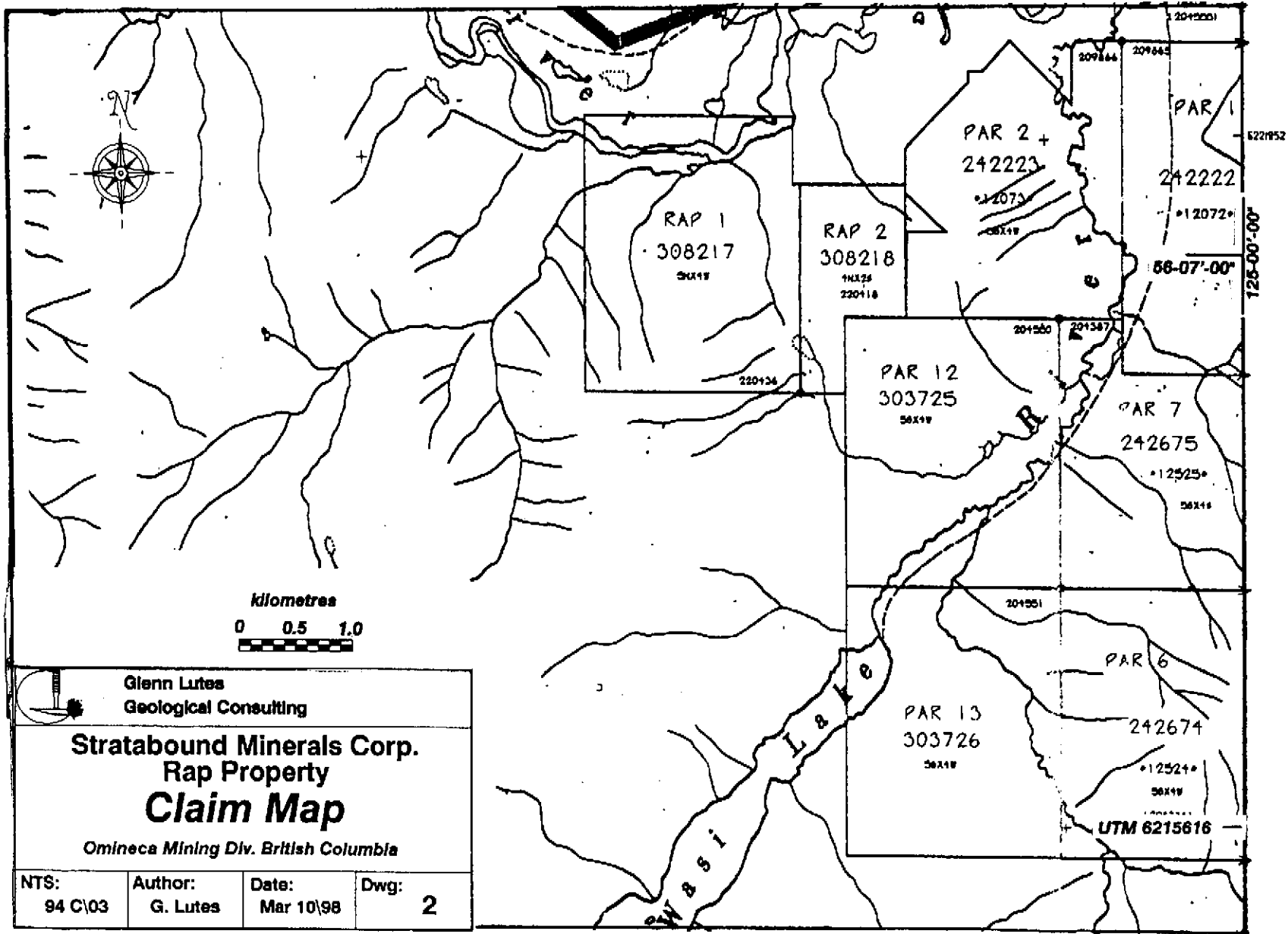
The Rap Property is located within the Cassiar Terrane, part of the ancestral North American continental margin. The property area was included in 1:50,000 scale regional mapping by the BCGS (Ferri et al, 1993). Property geology is discussed by Johnson (1996) who noted that "with the exception of the northeast corner of Rap 2, the entire property is believed to be underlain by Big




PROPERTY  
LOCATION



 <p><b>Glenn Lutes</b> Geological Consulting</p>			
<p><b>Stratabound Minerals Corp.</b> <b>Rap Property</b> <b>Location Map</b></p> <p><i>Omineca Mining Div. British Columbia</i></p>			
NTS:	Author:	Date:	Dwg:
94 C/03	G. Lutes	Mar 10/98	<b>1</b>



 <b>Glenn Lutes Geological Consulting</b>			
<b>Stratabound Minerals Corp. Rap Property Claim Map</b>			
<i>Omineca Mining Div. British Columbia</i>			
NTS:	Author:	Date:	Dwg:
94 C103	G. Lutes	Mar 10\98	2

Creek Group argillite and other clastic sediments".

#### V. PREVIOUS WORK

The property was staked in 1992 for David DuPre. Firesteel Resources conducted a limited programme of contour soil geochemistry with some silt sampling and reconnaissance prospecting-mapping, and located a number of anomalous Zn values (Olfert, 1992).

In 1993, the property was vended to Stratabound Minerals Corp. and then optioned to Cominco Ltd. Cominco conducted geological mapping and contour soil geochemical surveys (Rhodes, 1994). They noted that exposures on the property generally comprise very siliceous, carbonaceous mudstones with minor grits and sandstones, succeeded by a thick succession of dacitic to rhyolitic tuffs (Gilliland Tuff). Only minor barite associated with cherty felsic tuffs was noted on the southern margin of Rap 1. These returned values up to 22.5% Ba but with only low to background base metal values. The contour soil geochemistry showed weakly anomalous lead (66-168 ppm), silver (7.3 ppm) and zinc (303-1082 ppm) in the northern portion of the Rap 2 claim with some weakly anomalous silts noted in the same area.

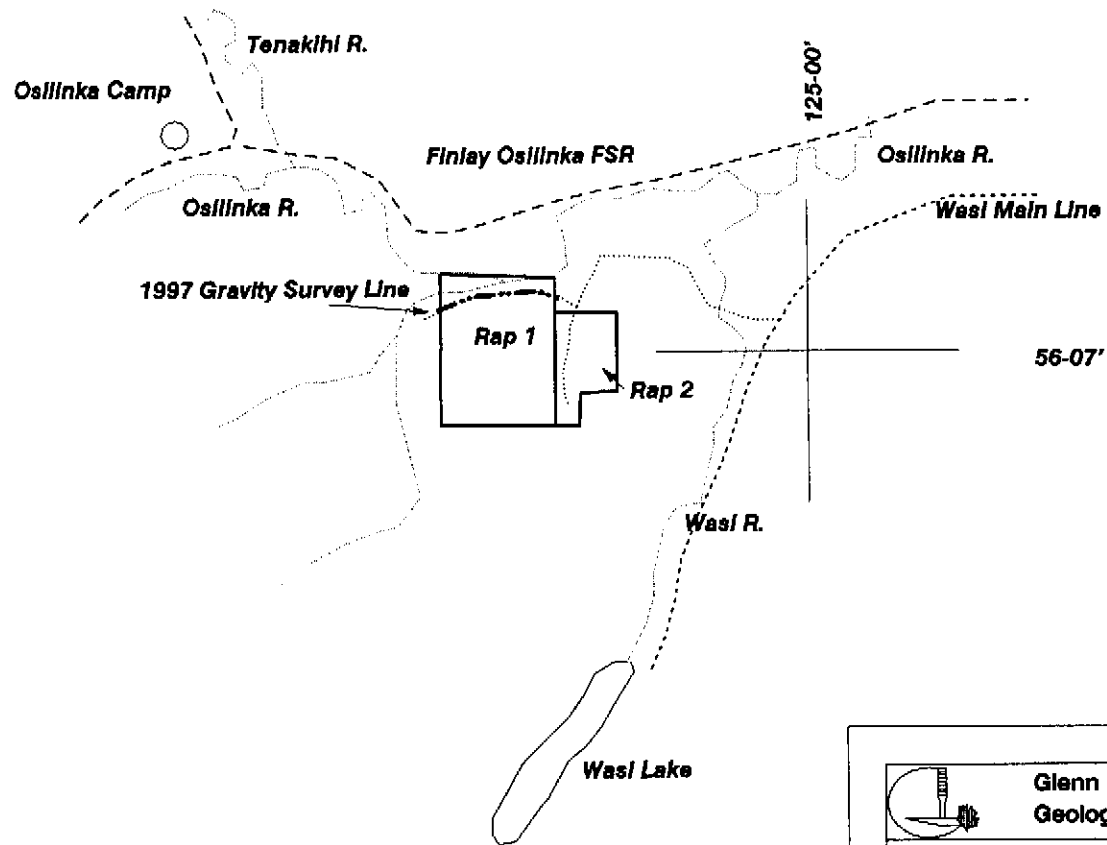
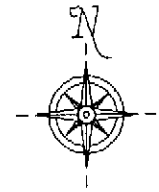
In 1995, Wayne Johnson conducted a programme of rock and soil sampling for Stratabound Minerals and confirmed anomalous base metals within soils near the northern boundary of the Rap 2 claim. He interprets these anomalies to be in an area underlain by Big Creek argillites, just west of a contact with carbonates of the Echo Lake Group.

#### VI. SUMMARY OF PRESENT WORK

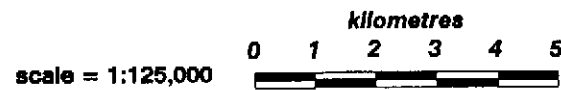
GRAVITY SURVEY: Gravity surveying was contracted to Excel Geophysics Inc. of High River, Alberta. They conducted gravity surveys primarily on Stratabound's Swan Property, located approximately 40 Km to the north of the Rap Property and spent one day surveying one line of gravity along a logging road across the northern portion of the Rap Property (figure 3). Their technical report is inclusive of both the Swan and Rap properties and is included as appendix I.

The Rap survey was conducted along a logging road with stations picketed at 50 metre intervals from west to east over a total of 2 Km with station zero located at the western claim boundary. The approximate location is shown on figure 3 and is accurately plotted on a UTM grid on figure 4. The gravity line profiles, including elevations and terrain corrections are presented on figure 5.

Allan Spector and Associates of Toronto, Ontario were contracted to evaluate the gravity data acquired by Excel Geophysics. This report is included as appendix II. A variety of positive gravity anomalies were identified and recommended for additional follow-up.



- main road
- - - secondary road
- ..... logging road
- ..... river



File: rapclaim.drw



Glenn Lutes  
Geological Consulting

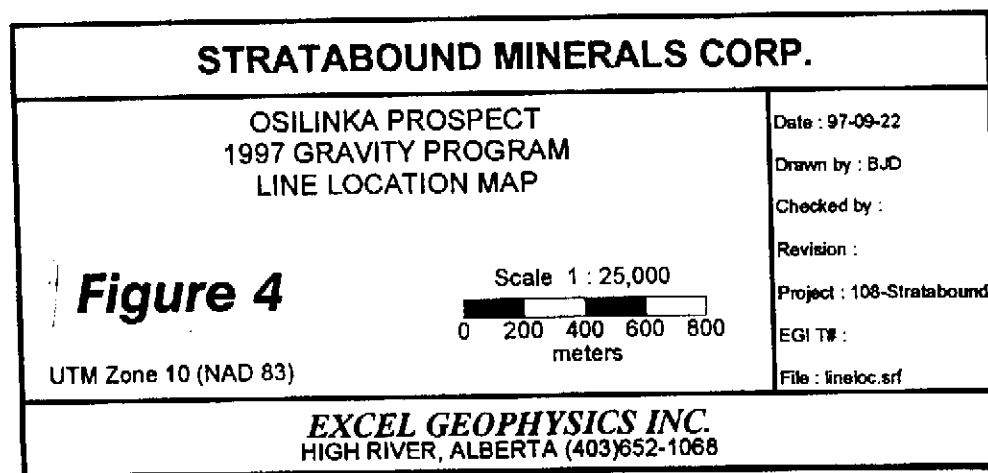
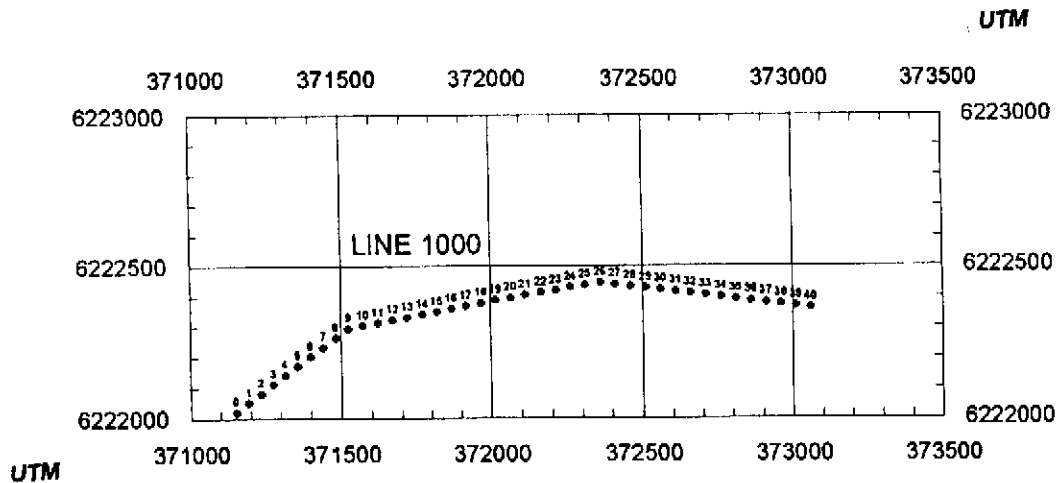
**Stratabound Minerals Corp.**

**Rap Property**

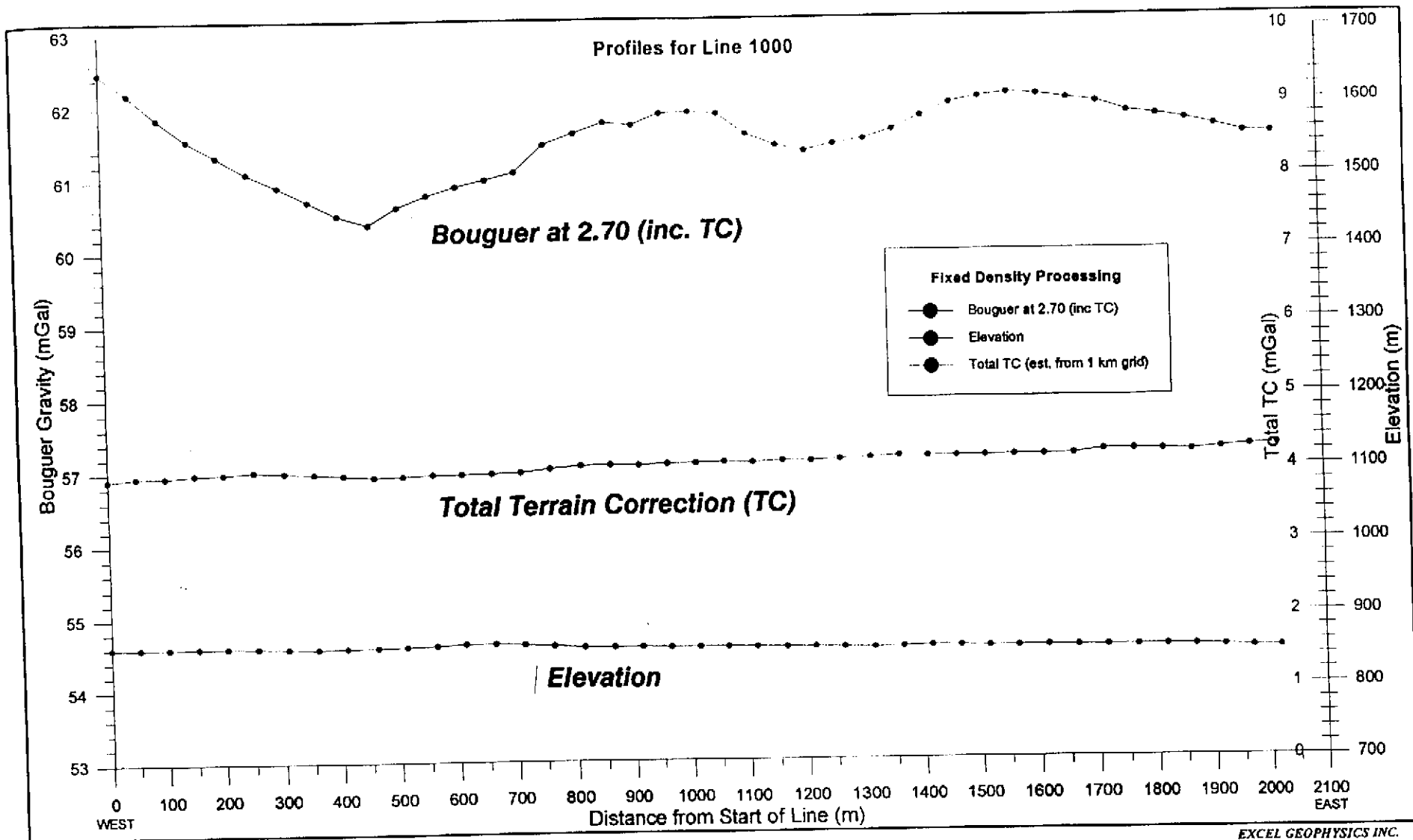
**1997 Gravity Location Sketch**

**Omineca Mining Div. British Columbia**

NTS:	Author:	Date:	Dwg:
94 C\03	G. Lutes	Mar 10\98	<b>3</b>







Sept 23, 1997

EXCEL GEOPHYSICS INC.  
High River, Alberta (403)852-1068

**Figure 5**

## VII. CONCLUSIONS AND RECOMMENDATIONS

The gravity profile obtained across the Rap Property contains two positive features which are estimated at about 0.7 mgal by the geophysical consultant. It should be noted that these are dependent on the accuracy of the hand drawn regional which is somewhat subjectively derived. Given also, the effect of variations in overburden thickness, the magnitude and relationship of these features to the underlying geology is questionable. Magnetic and VLF-Em surveys on a controlled grid are recommended in areas identified with anomalous soils and positive gravity anomalies in order to assist with geological interpretations and descriminate potential sulfide sources.

## REFERENCES

Clark, J.R. (1996): Savage Enzyme Leach Pilot Studies. Report prepared for Stratabound Minerals Corp.

Ferri, F. Dudka, S., Rees, C., and Meldrum, D. (1993): Preliminary Geology of the Aiken Lake and Osilinka River Areas, British Columbia. Open File 1993-2.

Ferri, F. Dudka, S., Rees, C., and Meldrum, D. (1993): Geology of the Aiken Lake and Osilinka River Areas, Northern Quesnel Trough (94C2,3,5,6,12) in Geological Fieldwork 1989. British Columbia Ministry of Energy, Mines and Petroleum Resources Paper 1993-1, p.109-134.

Johnson, W. (1996): Geology and Geochemistry, RAP 1 and 2 Claims, Target Exploration Services for Stratabound Minerals Corp. Assessment Report of Work. BC Ministry of Energy, Mines and Petroleum Resources.

Lutes, G.G. (1998): Report on Airborne and Gravity Surveys, Swan Property, June 21- Sept 21, 1997. Assessment Report of Work. BC Ministry of Energy, Mines and Petroleum Resources.

Olfert, E.G. (1992): Assessment Report on the Rap Property. British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report.

Pegg, R. (1992): Summary Report on the Swan and Rap Properties. Unpublished Report prepared for Dave G. Dupre.

Rhodes, D. (1994): 1993 Assessment Report, Rap 1 and 2, NTS 94-C/3; Unpublished report for Cominco.

**STATEMENT OF EXPENDITURES**  
Rap Property  
1997 Anniversary Year

**PROFESSIONAL FEES**

Glenn Lutes 5 days @ \$350/day (supervision & reporting)	1,750.00
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**EXPENSES**

Room and Board at Osilinka Camp	300.00
Helicopter	700.00

**SUB-CONTRACTS**

Excel Geophysics Ltd. (Sept 20)	2,600.00
Data Processing	300.00
Allan Spector & Assoc.	<u>300.00</u>
Subtotal	<u>5,950.00</u>
HST (15%)	262.50
GST (7%)	<u>294.00</u>
Total	<u>6,506.50</u>

STATEMENT OF QUALIFICATIONS

I, Glenn G. Lutes, of 87 Venus Crescent, Hanwell, in the Province of New Brunswick, DO HEREBY CERTIFY:

1. THAT I am a Consulting Geologist with offices at 87 Venus Cres. Hanwell, N.B.

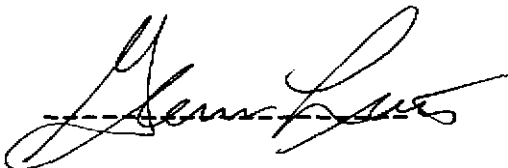
2. THAT I am a graduate of the University of New Brunswick with a Bachelor of Science degree (Geology) and a Master of Science degree (Geology).

3. THAT I am a fellow of the Geological Association of Canada and a member in good standing of the Association of Professional Geologists of New Brunswick.

4. THAT I have practised as a professional geologist for 25 years as both an employee and consultant for mineral exploration companies, and government.

5. THAT I am the author of the "Report on Gravity Surveys, Rap Property, Sept. 20, 1997" and supervised all work reported therein.

6. THAT I have provided project management and supervision for Stratabound Minerals for their Canadian projects on a contract\consulting basis since 1995.



Glenn G. Lutes MSc FGAC  
March 13, 1998



**APPENDIX I**

**OSILINKA GRAVITY PROGRAM, SEPT. 1997**

**STRATABOUND MINERALS CORP.**

**OSILINKA GRAVITY PROGRAM**

**SEPTEMBER 1997**

Submitted by: **EXCEL GEOPHYSICS INC.**  
**PO BOX 5056**  
**HIGH RIVER, ALBERTA**  
**T1V 1M3**

**phone (403) 652-1068**  
**fax (403) 652-1085**

**September 24 , 1997**

## TABLE OF CONTENTS

INTRODUCTION	1.
GRAVITY SURVEY PARAMETERS	2.
GRAVITY SURVEY PROCEDURE	3.
GRAVITY BASE STATION	3.
GPS PROCESSING	4.
TABLE OF TRAVERSE TIES	4.
GRAVITY DATA REDUCTION	5.
DATA QUALITY	6.
DIGITAL DATA FORMAT	6.



## **INTRODUCTION**

This report describes the gravity survey which was conducted by Excel Geophysics Inc. on the Osilinka Project during September, 1997. The Osilinka Project is located in northeast British Columbia approximately 250 km NW of Prince George. The property consists of nine pairs of lines, each line being 1 km in length, and separated by 200 m. However, the size of the survey was reduced to 5 pairs and 1 single line along a 2 km segment of road.

## **GRAVITY SURVEY PARAMETERS**

Survey Dates	September 10 to 20, 1997
Stations Acquired in the Field	270
Repeats	4
Final Station Total (after processing and editing)	265
Kilometers Surveyed	12 km
Inner Terrain Corrections	Zones B, C, D
Outer Terrain Corrections	40 km using 1 km pseudogrid
Nominal Station Spacing	50 m
Gravity Meters	LaCoste and Romberg G-472, G-232
Gravity Meter Operator Assistant	Dustin Rosa Deric Cameron
Gravity Data Reduction	Deric Cameron Brent Daignault
GPS System	Leica 299 Base and two Rovers
Ground Survey System	Semi total station
GPS / Ground Surveyors	Deric Cameron Zane Layman
GPS Data Reduction	Deric Cameron
Transportation	1 - 4WD truck provided by Excel, helicopter provided by the client, foot

## **GRAVITY SURVEY PROCEDURE**

The crew stayed at the Osilinka Forestry Camp, and used a helicopter to access the property. The pre-cut and chained lines were traveled by foot. The crew recorded gravity stations at 50 m intervals.

Each member of the crew was equipped with a two way radio, first aid kit, hard hat, and a fluorescent vest. No injuries, accidents, or incidents occurred during the survey.

## **GRAVITY BASE STATION**

We tied the gravity data to absolute base #9352-72 which is located in Germansen Landing. The parameters and description for this Government Base Station are included in the appendices of this report. The ties between the temporary gravity survey base and the Government Base were run on September 15, 1997. We used an ABA survey procedure (A:temporary B:absolute base) with the gravity meters. The estimated accuracy of the base tie is approximately 0.01 mgal.

## GPS PROCESSING

Three Leica Differential Geodetic 299 GPS receivers were used in a differential static mode to obtain the GPS data (latitude, longitude, ellipsoidal height). The occupation time for recording the data ranged from 5 to 15 minutes per station. The data were processed using Leica's post-processing software, and then edited. All coordinates are in WGS84 (NAD 83). The orthometric heights were calculated from ellipsoidal heights using GSD 91.

Due to the heavy tree cover and narrow line clearing requirements, GPS data collection at every point was not possible. Since the lines were only 1000 m in length, GPS points were established at the start and end of each line. Ground survey was then used to traverse between the two GPS points, picking up the elevations at each gravity station. The horizontal position of each station was established by interpolating the chaining distance along the line from the starting GPS point to the ending GPS point. For the line along the road, five GPS points were established to divide the road into 4 straight line segments. The elevation ties along each traverse are summarized in the table below.

Table of Traverse Ties

<u>Line Segment</u>	<u>Elevation Closure (m)</u>
3-1	-0.056
3-2	-0.133
4-1	-0.072
4-2	-0.100
5-1	-0.171
5-2	0.167
6-1	0.119
6-2A (700 - 1250)	0.064
6-2B (-50 - 700)	-0.033
7-1	-0.163
7-2	-0.155
Road A (0 - 9)	-0.027
Road B (9 - 19)	0.039
Road C (19 - 26)	0.009
Road D (26 - 40)	0.038

## GRAVITY DATA REDUCTION

The gravity data from the Lacoste Romberg meter #472 were first converted from instrument readings to mGal using the conversion tables supplied by the gravity meter manufacturer. A copy of this conversion table is included with this report. The data were then corrected for tides, drift, and the height of the instrument above ground. The other meter #232 was not used to collect field data.

After x, y, z coordinates were established for each station, the gravity data were reduced to Bouguer anomaly values using the following formulae in mGal:

Latitude Correction: standard latitude correction adopted by the International Association of Geodesy, 1967  
$$g = 978031.85 * (1 + 0.005278895 \sin^2(\text{lat}) + 0.000023462 \sin^4(\text{lat})) \text{ mGal}$$

Free Air Correction: elevation (m) \* 0.3086 mGal/m

Bouguer Correction: elevation (m) \* density (2.00) \*  
 $(2.0 * \pi * 0.006672) \text{ mGal/m}$

Water Correction: not required

Inner Terrain Corrections: Zones B, C, D

Outer Terrain Corrections: 40 km radius using 1 km pseudogrid

Final Bouguer Values: Bouguer anomaly = obs grav - lat corr  
+ free air corr + (Bouguer density - water density)  
/(density (2.00) - water density)\*  
Bouguer water corr + f\* [ Bouguer corr +  
inner terrain corr + outer terrain corr ]

where f is Bouguer density/density (2.0)

water density is = 1.0

NOTE: Bouguer density of 2.70 was selected as the final reduction density for this study.

## **DATA QUALITY**

The gravity survey was of excellent quality.

## **DIGITAL DATA FORMAT**

The gravity data are included with this report on two media: hard copy and 3.5 inch floppy diskette. The diskette contains the raw field readings and calculated observed gravity in Excel Spreadsheet format files obsgrav-report.xls, repeats-report.xls, and boug-report.xls, as well as in ASCII text files (.txt). Station locations, observed gravity, all intermediate corrections, and Bouguer anomaly values for six different rock densities are also included in another ASCII text file.

**APPENDIX II**

**ASSESSMENT OF GRAVITY DATA, CYGNET PROJECT, B.C.**



## ALLAN SPECTOR AND ASSOCIATES LTD.

24 STRATHALLAN BOULEVARD, TORONTO, ONTARIO, CANADA M5N 1S7

(416) 487-9598

FAX (416) 487-7616

Mr. Stan Stricker  
Stratabound Minerals Corporation  
222-58th Ave SW,  
Calgary Alberta T2H 2S3

October 8, 1997

Dear Stan;

RE: Assessment of gravity data, Cygnet Project BC

This report consists of an assessment of gravity data collected by Excell Geophysics last August over magnetic anomaly prospects that I recommended in my report to Stratabound of July 1997 from the AERODAT helicopter magnetic data.

For a variety of reasons, Excell was only able to collect data over five of the eight prospective magnetic anomalies; A3, A4, A5, A6 and A7. They also ran a line across the RAP prospect, line 1000. The data is portrayed in the form of 1:4,000 scale profiles of elevation, terrain correction and corrected Bouguer gravity. I will contact Excell to obtain a digital recording of this data so that I can make a contour map of the gravity data. This will help to refine the regional/residual gravity anomaly separation.

Excell employed a LaCoste & Romberg gravimeter and a DGPS system for positioning and elevation determination. For the most part the data as viewed in *profile form* seems to be of high quality. However I must fault the Excell crew for lack of determination in not completing line 7.2 and not finding alternative means for completing the surveying as requested.

Included with this report are copies of the Excell profiles showing features that I have identified that merit follow-up investigation. Also included is a line location map on which is shown lines recommended for additional gravity surveying. I would also suggest that ground EM surveying be done in conjunction with this further gravity work.

The following abbreviations are used in the attached figures; mgal = milligals, utc = possible uncorrected terrain effect.

### Anomaly A3

A 0.3 mgal anomaly is resolved in line 3.1. It appears to be associated with the magnetic anomaly prospect. In line 3.2 the anomaly is diminished. I recommend further surveying in line R3.3 to the north, at a minimum.

### Anomaly A4

A fairly impressive 0.7 mgal anomaly is resolved in line 4.1. It appears to be associated with the magnetic anomaly prospect. In line 4.2 the anomaly is diminished. I recommend further surveying in line R4.3 to the east, at a minimum.

### Anomaly A5

A 0.8 mgal anomaly is expressed in line 5.2. It appears to be associated with the magnetic anomaly prospect. However a large component of the gravity anomaly is



seen to be terrain correction making me feel somewhat insecure about this prospect. In line 5.1, the anomaly is diminished. I recommend further surveying on line R5.3 to the south, with attention given to accurate terrain correction.

Anomaly A6

A 0.2 to 0.4 mgal anomaly is expressed in lines 6.1 and 6.2. The gravity feature appears to be associated with a magnetic "halo", ie the magnetization is flanking the gravity anomaly suggestive of an alteration pattern. I recommend further surveying by lines R6.3 and R6.4 to the east and west.

Anomaly A7

A fairly impressive 0.5 mgal anomaly is resolved in line 7.1. It appears to be associated with the magnetic anomaly prospect. Regrettably line 7.2 was aborted due to a "boulder field?". Further surveying is required to the east and to the west as well as completing the central part of 7.2 by a more determined survey crew.

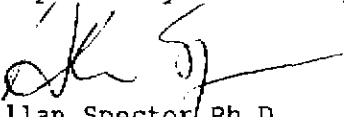
Line 1000; RAP Property

Two large 0.7 mgal anomalies are depicted in the data, in fairly close association with a geochem prospect. To the west a gravity low is associated with a fault zone. Further gravity work seems warranted over this property.

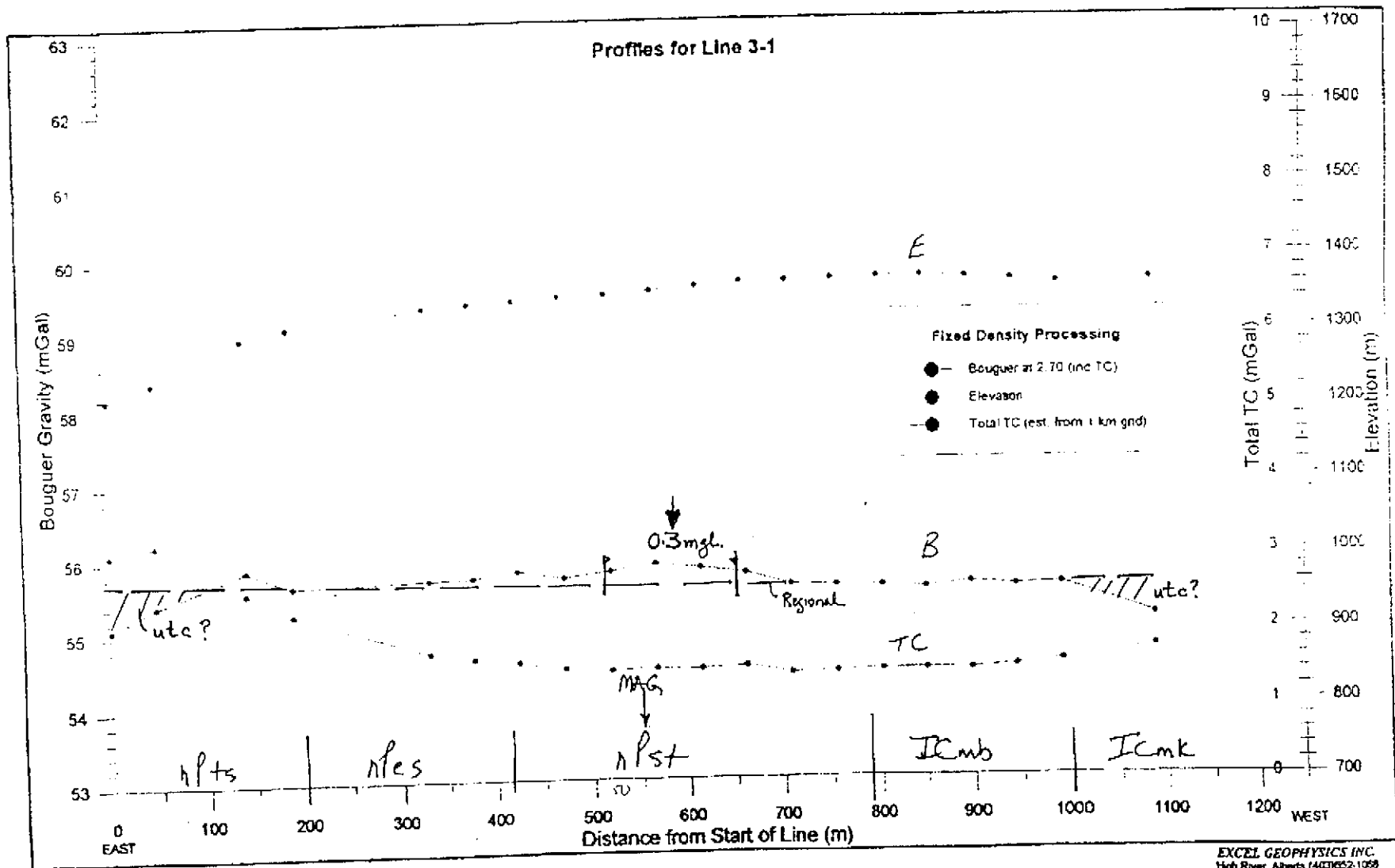
About 7 km of further gravity surveying is recommended as follow-up to the existing data coverage. Another 6 km. of surveying is needed to cover anomalies A1, A2 and A8 that were omitted in this year's effort.

All in all I find the results of the Excell surveying very encouraging about mineral prospects in this area.

Respectfully submitted,

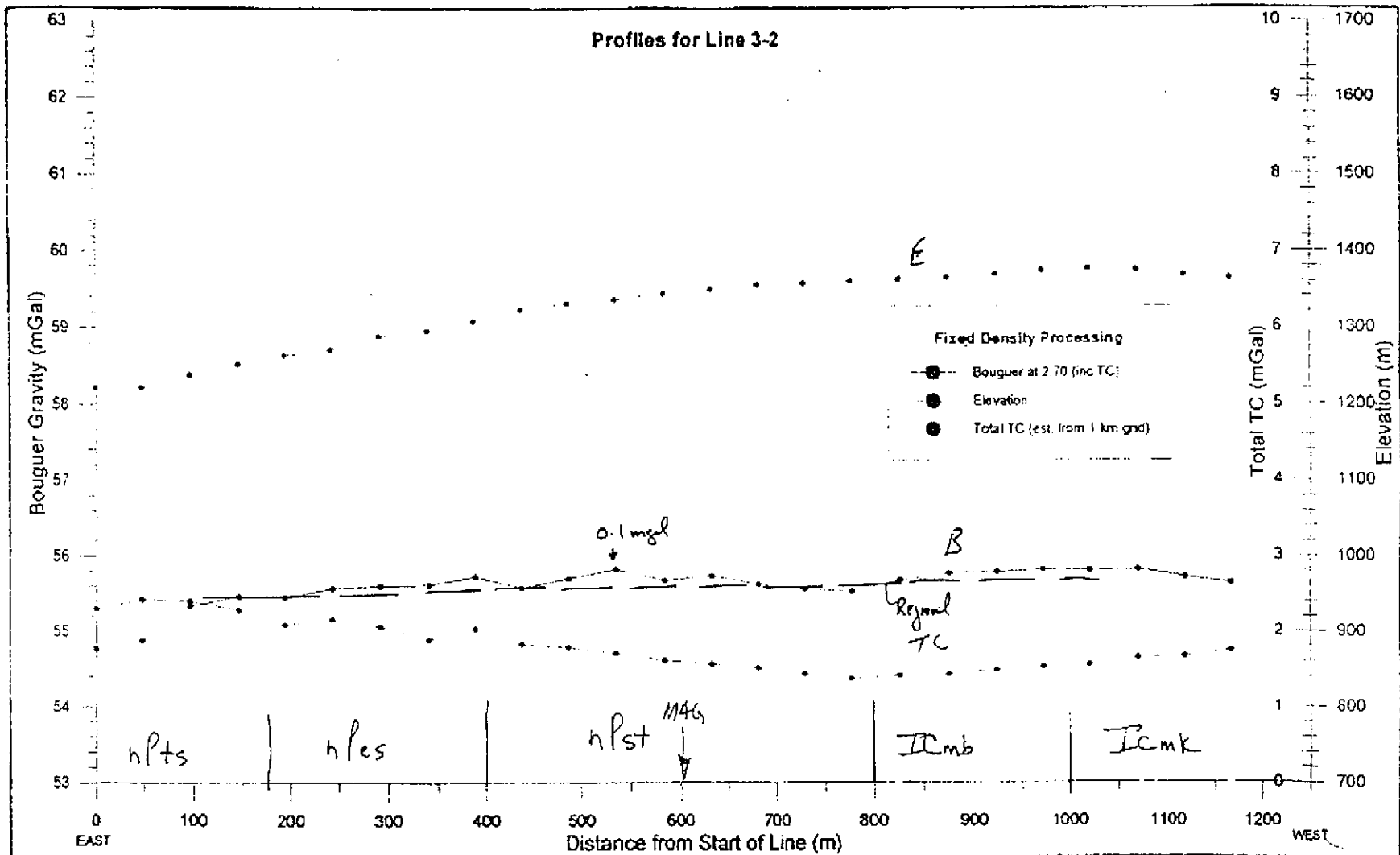


Allan Spector Ph.D.



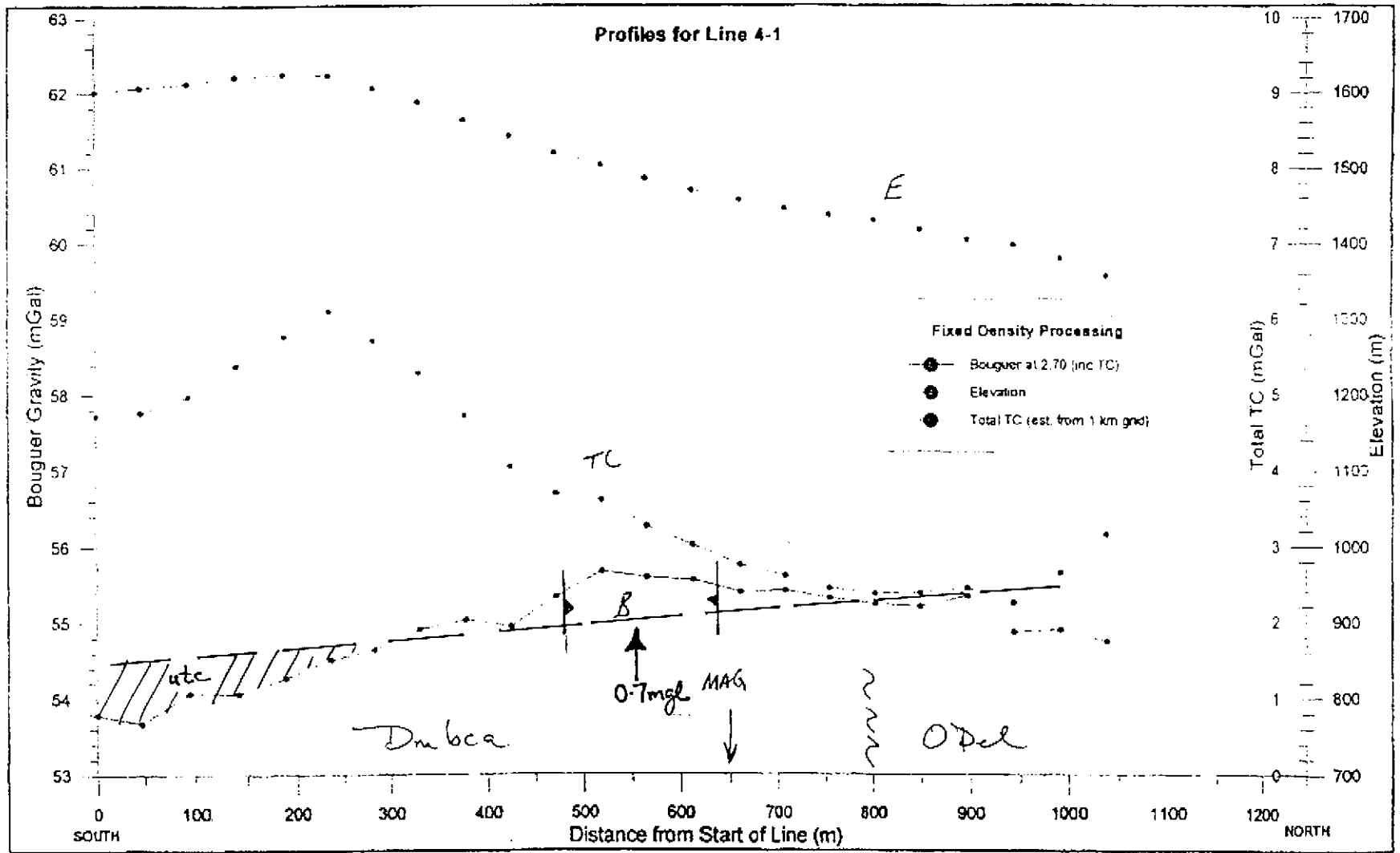
Sept 23, 1997

EXCEL GEOPHYSICS INC.  
High River, Alberta (403)652-1058



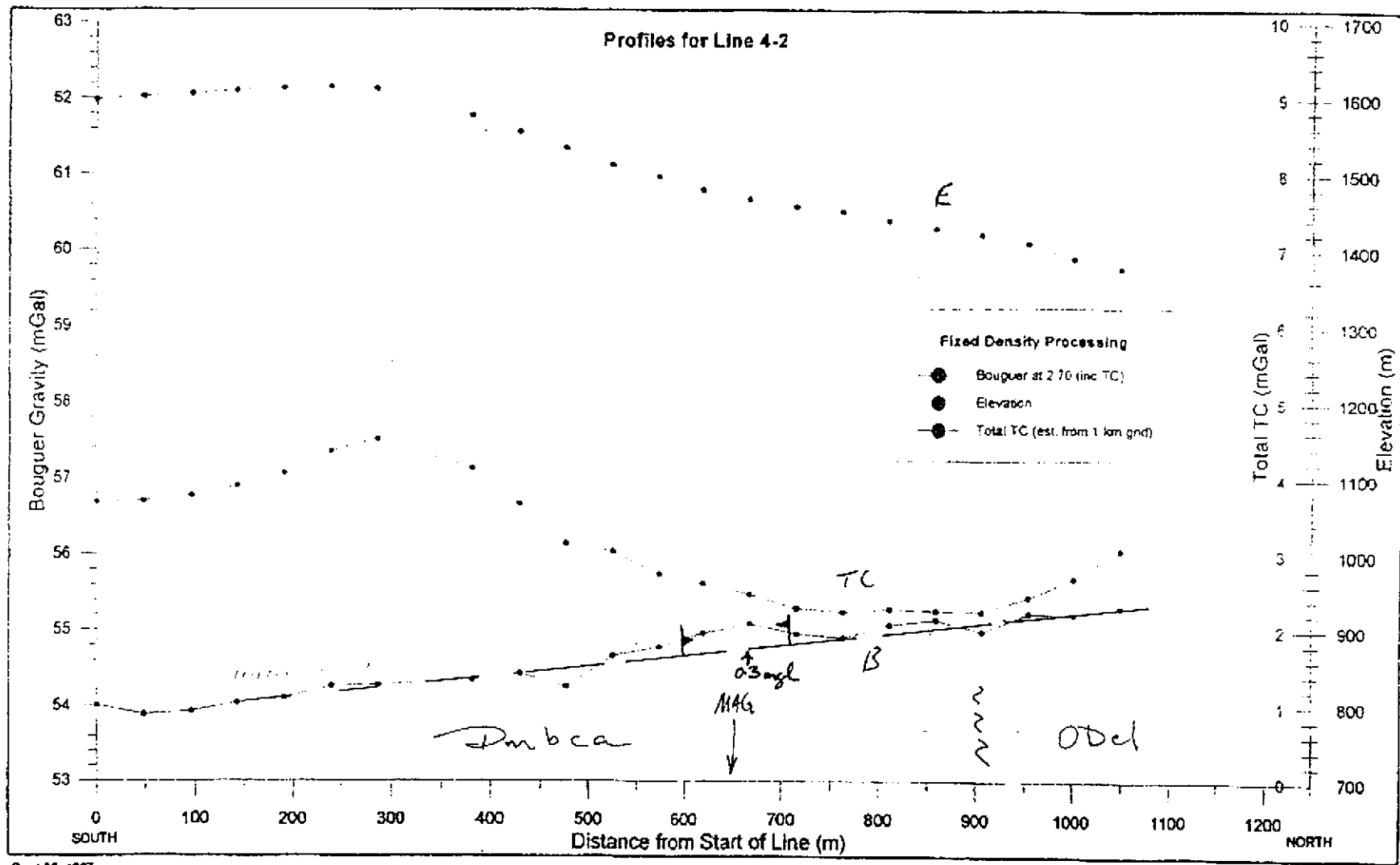
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High River, Alberta (403)652-1068

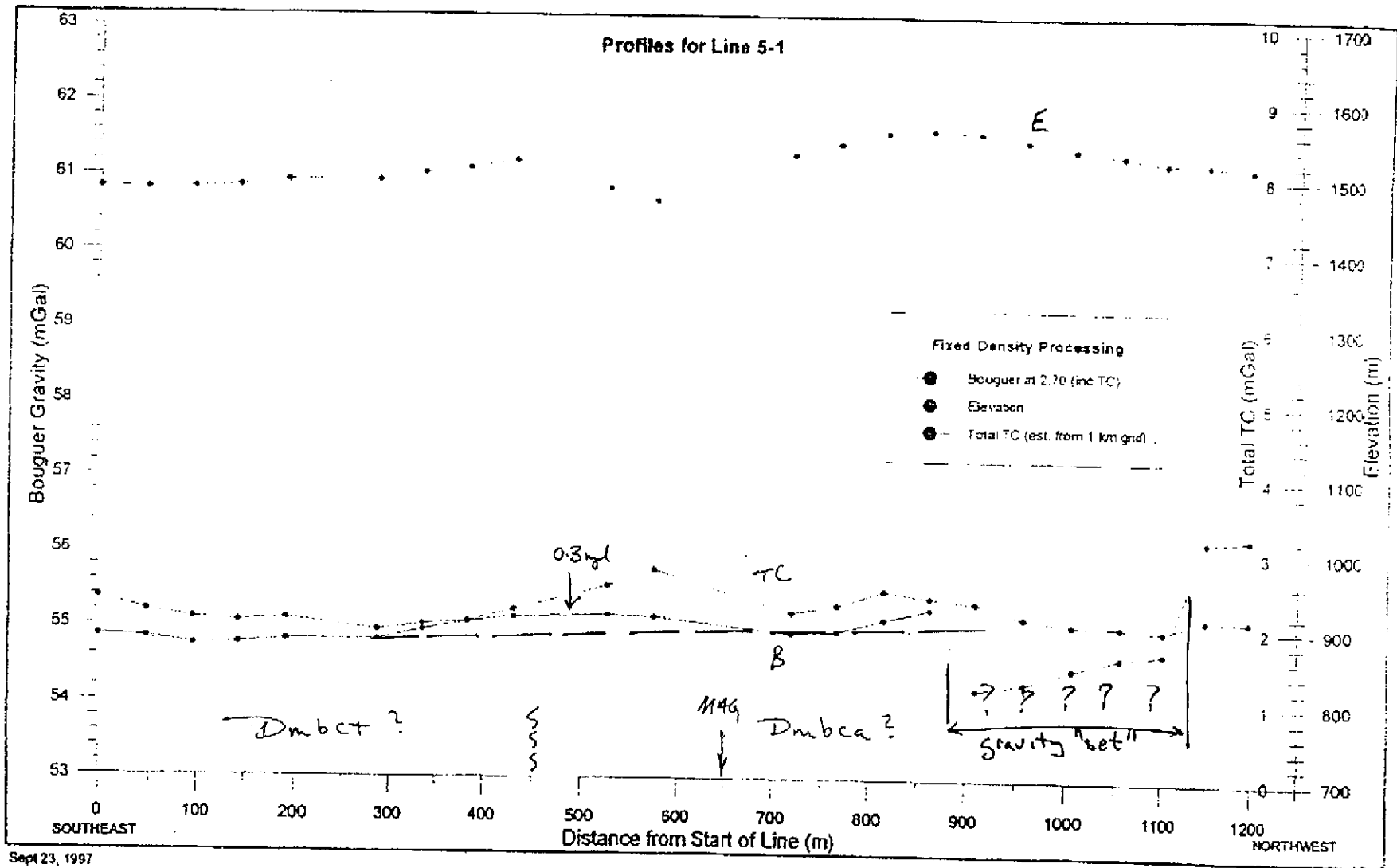


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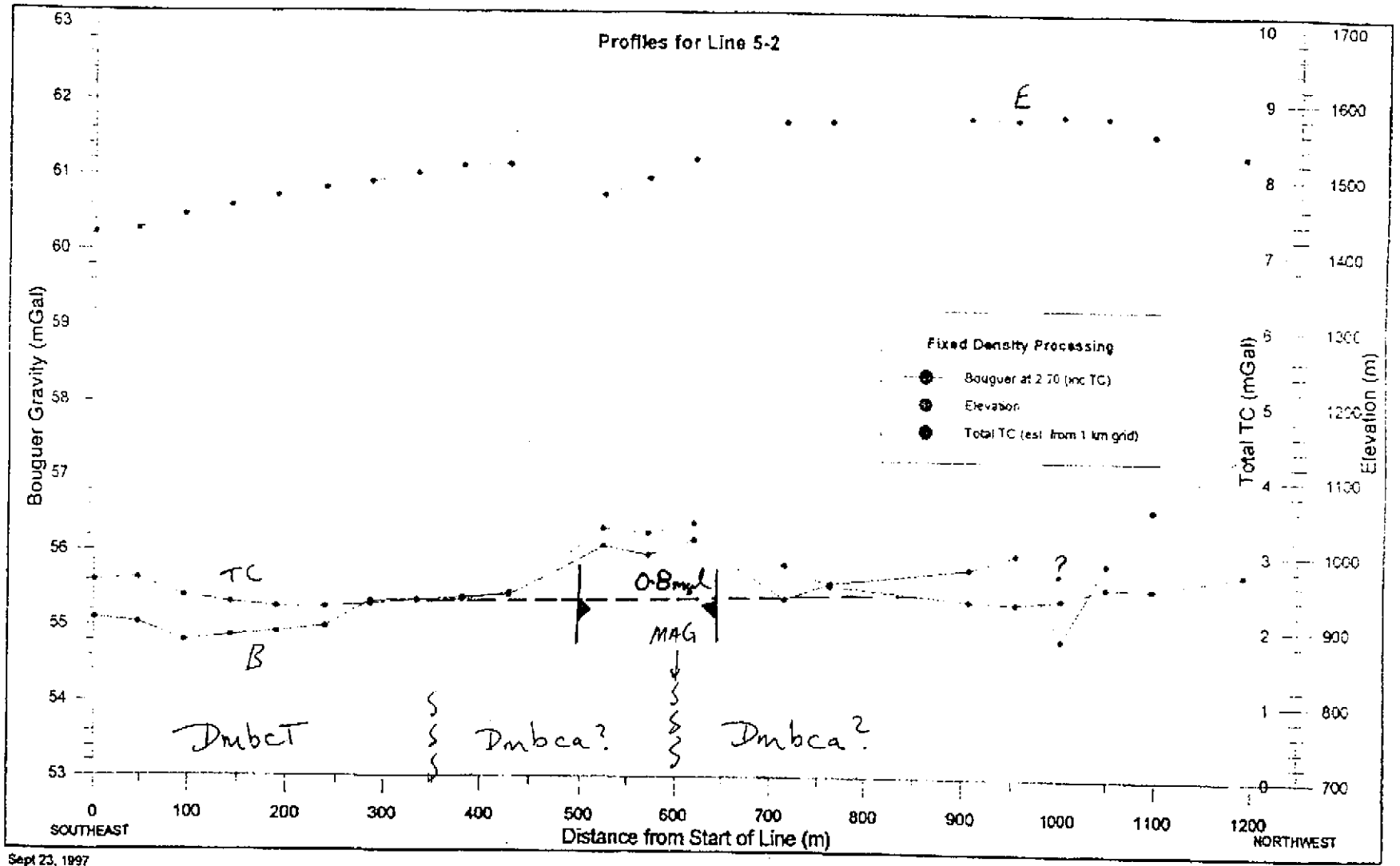
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High River, Alberta (403)652-1008



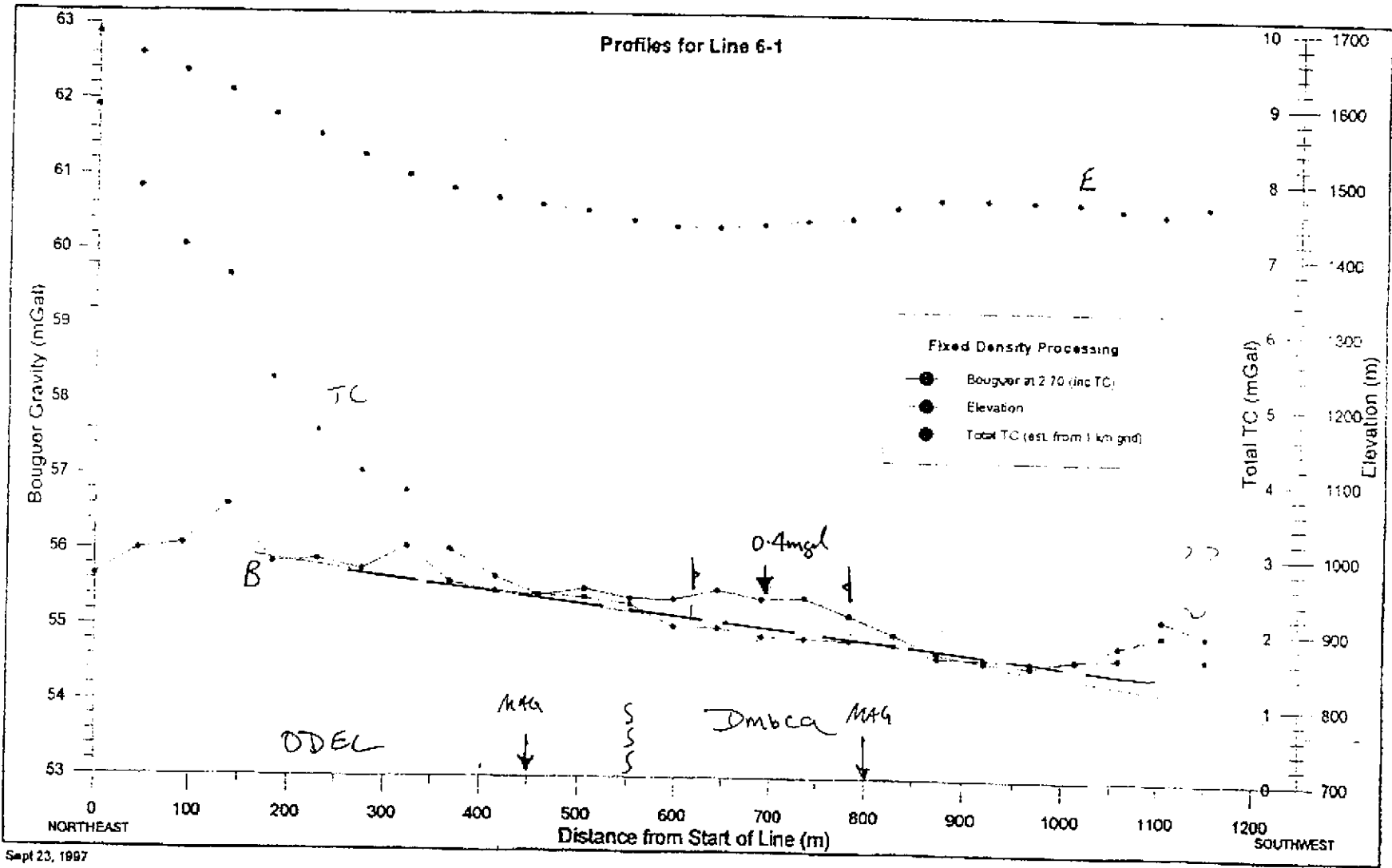
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Sept 23, 1997



Sept 23, 1997

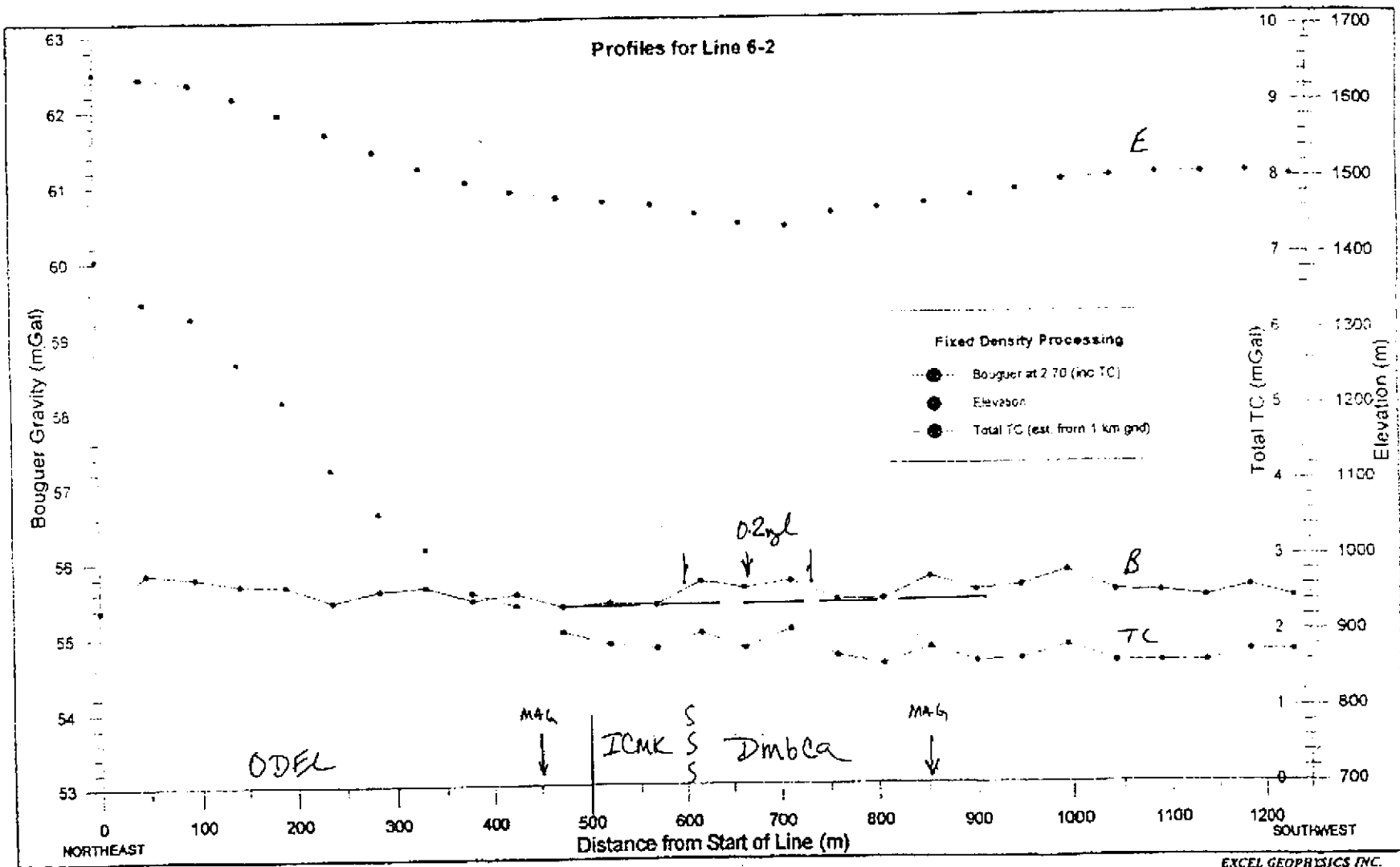


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EXCEL GEOPHYSICS INC.  
High River, Alberta T4G 0G2-1028

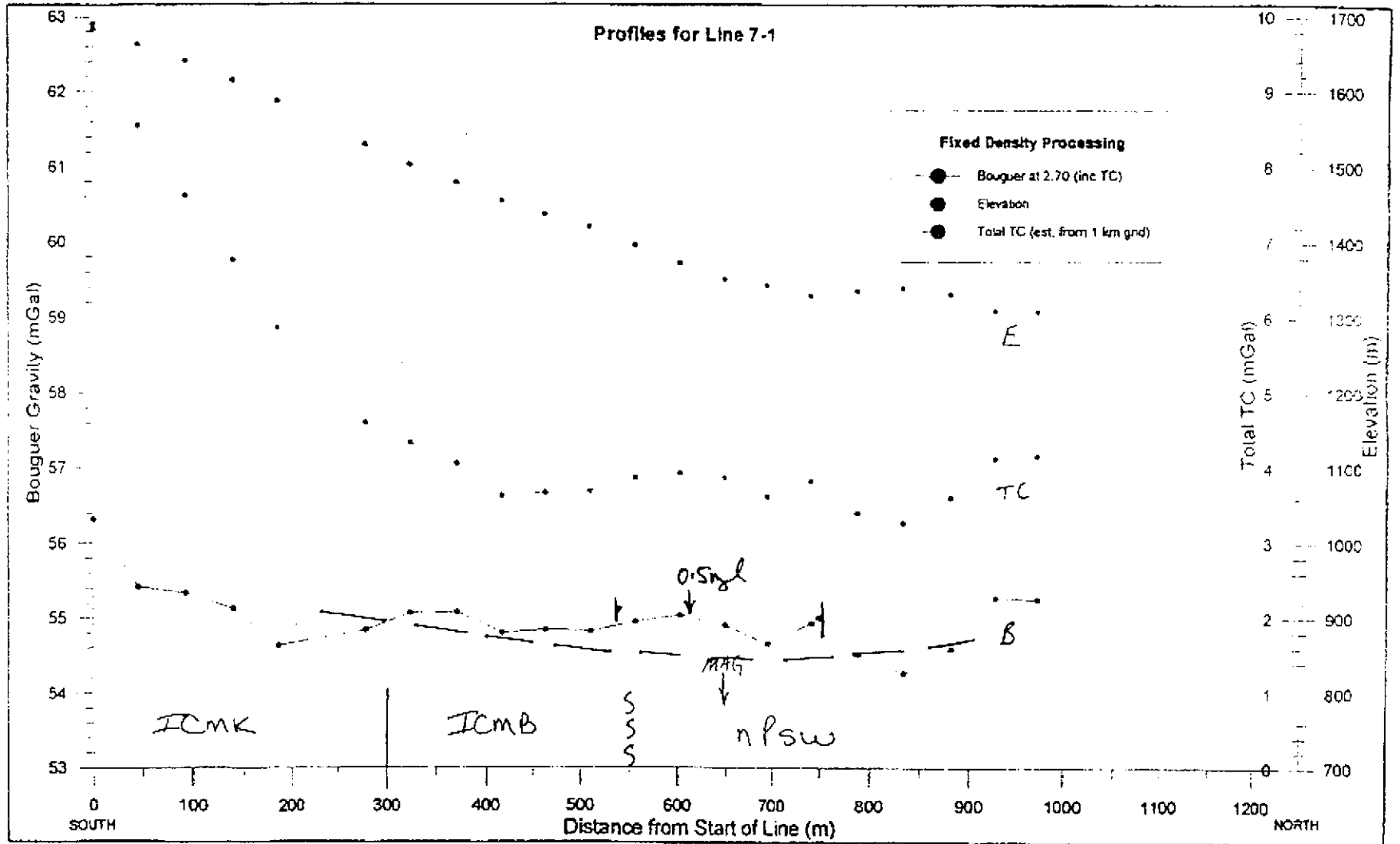
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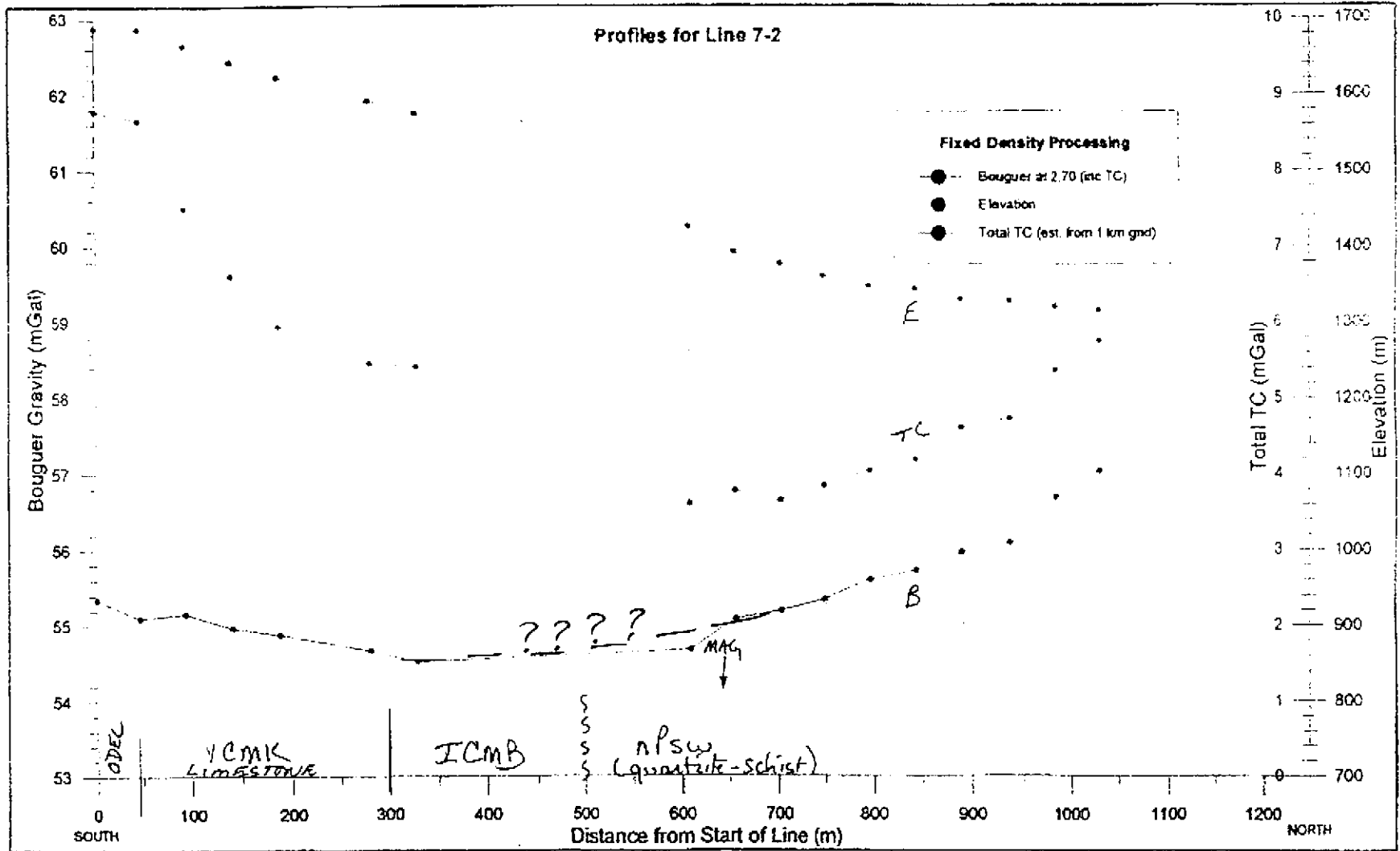
Sept 23, 1997

EXCEL GEOPHYSICS INC.  
High River, Alberta (403)652-1088



Sept 23, 1997

EXCEL GEOPHYSICS INC.  
High River, Alberta (403)852-1058

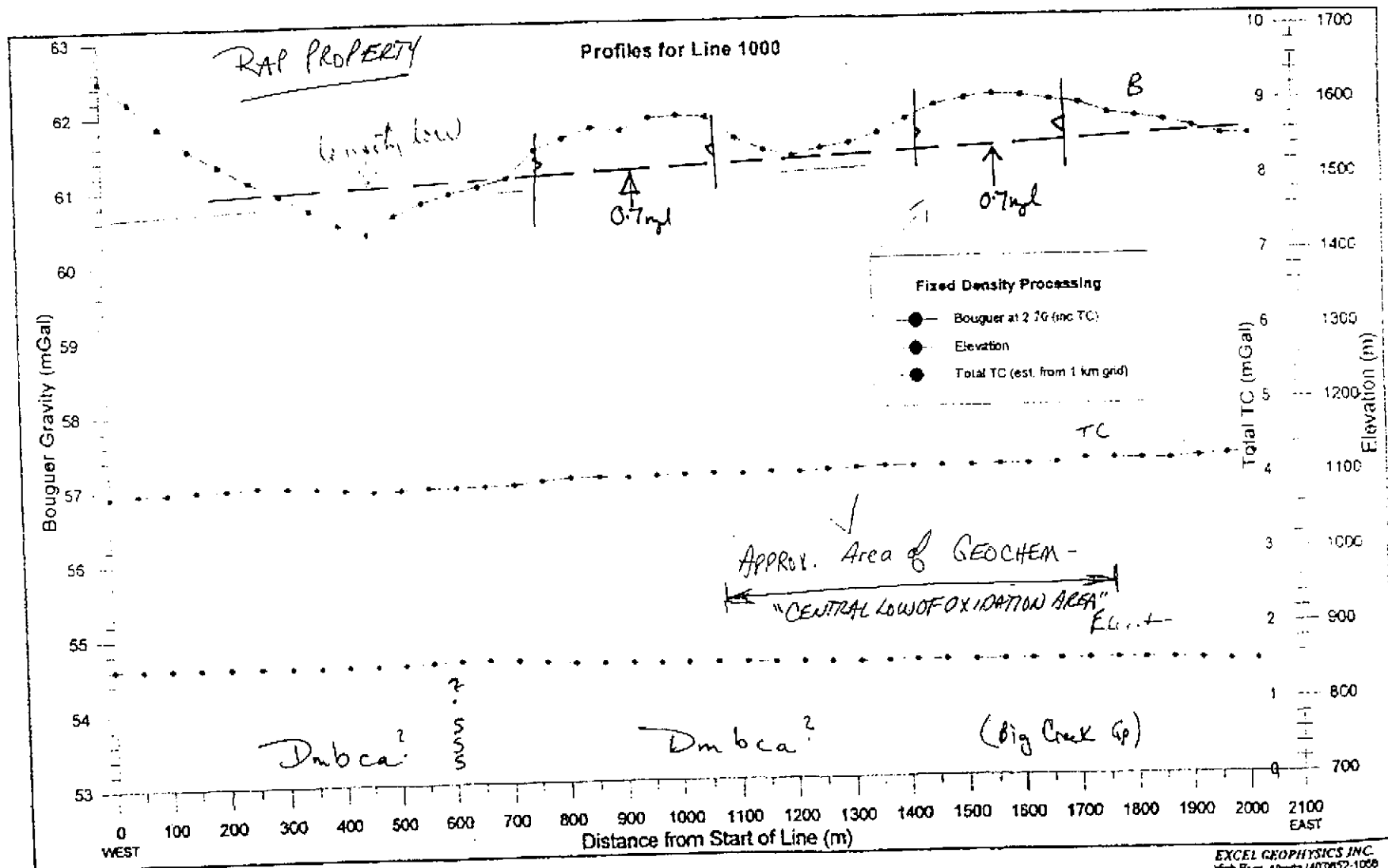


Sept 23, 1997

EXCEL GEOPHYSICS INC.  
High River, Alberta (403) 652-1052

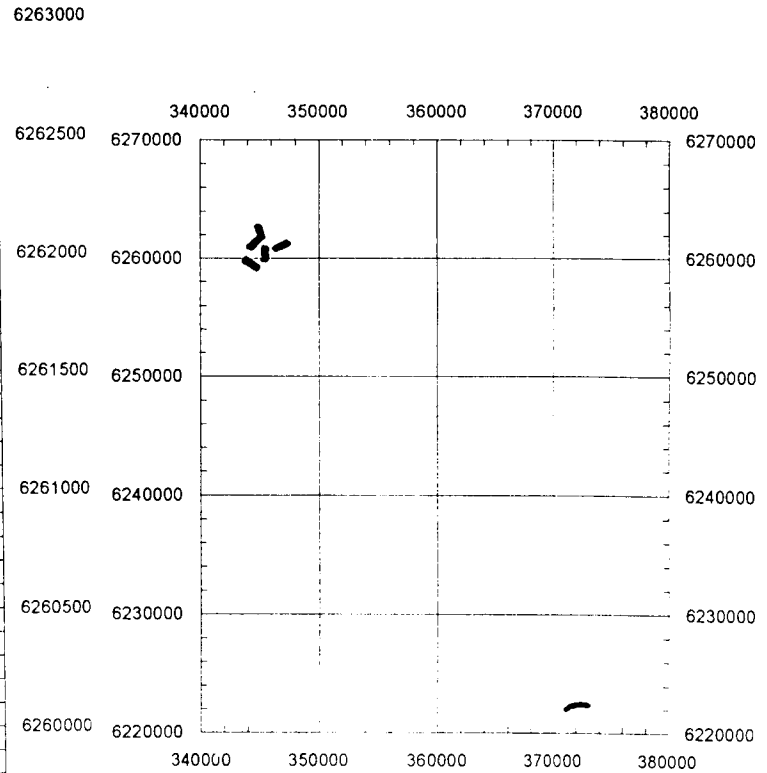
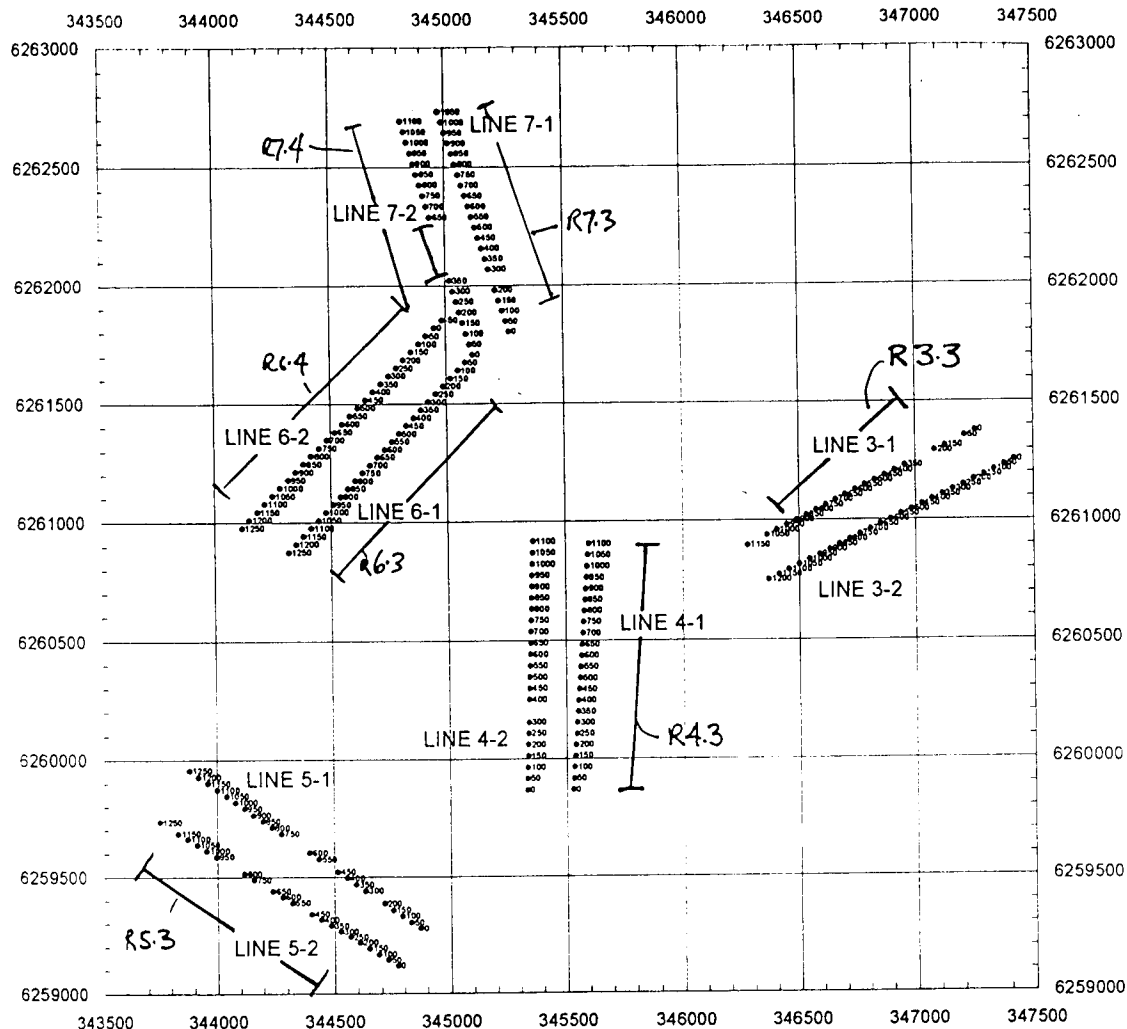
Line 7-2 Profile

Line 7-2

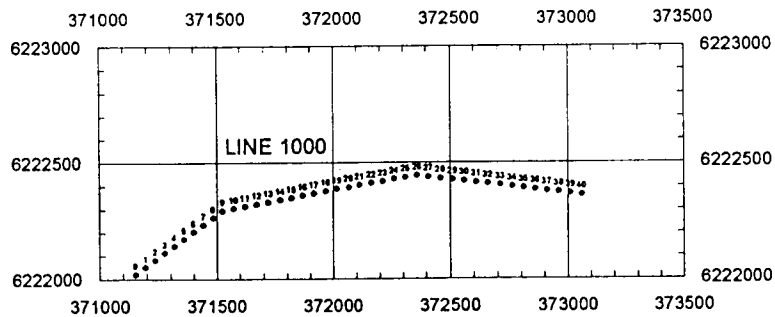


Sept 23, 1997

EXCEL GEOPHYSICS INC.  
High River, Alberta (403) 652-1059



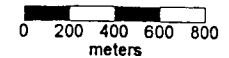
Scale 1 : 500,000



**STRATABOUND MINERALS CORP.**

**OSILINKA PROSPECT  
1997 GRAVITY PROGRAM  
LINE LOCATION MAP**

Lines : 11  
Nominal Station Spacing : 50 m  
Line Pair Separation : 200 m  
Total Station Count : 266



UTM Zone 10 (NAD 83)

**EXCEL GEOPHYSICS INC.**  
HIGH RIVER, ALBERTA (403)652-1068

Date : 97-09-22

Drawn by : BJD

Checked by :

Revision :

Project : 108-Stratabound

EGI T# :

File : linebc.srf

+ Recommended Follow-Up Lines

A. Spector 10/01