

Ministry of Energy, Mines & Petroleum Resources
Mining & Minerals Division
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geophysical

TOTAL COST: \$ 10,768.57

AUTHOR(S): Scott Allan

SIGNATURE(S):



NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):

YEAR OF WORK: 2016

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): Oct 24 - Oct 31st

PROPERTY NAME: Parson

CLAIM NAME(S) (on which the work was done): Parson 1 (1042749) , Parson 2 (1043185)

COMMODITIES SOUGHT: Barite

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 082N002

MINING DIVISION: Golden

NTS/BCGS: 82N /02E

LATITUDE: 51 ° 01 ' 31 " LONGITUDE: 116 ° 39 ' 30 " (at centre of work)

OWNER(S):

1) Fireside Minerals Ltd.

2)

MAILING ADDRESS:

Box 32069, West Bank, BC, Canada, V4T- 3G2

OPERATOR(S) [who paid for the work]:

1) Fireside Minerals Ltd.

2)

MAILING ADDRESS:

Box 32069, West Bank, BC, Canada, V4T- 3G2

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Barite, Hydrothermal, Vein, Hamill Formation

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 23573,25564,23075,22940,23573

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other Gravity		Parson 1	\$ 10,768.57
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	\$ 10,768.57

Geophysical Report

Parson Mine
Claim 1022189
Fireside Minerals

Golden Mining Division

N.T.S. 82N/02

Latitude 51° 01' 31" N Longitude 116° 39' 30" W

Report by:

Scott Allan

(G.I.T)

February 9th, 2017

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Introduction:

The Parson barite mine was the flagship mine of Mountain Minerals Ltd. producing in excess of 750,000 tonnes of barite with few interruptions from 1941-1999 (Minfile, 082N 002). This property currently holds the title for the largest worked barite deposit in British Columbia. Extensive exploration took place, around the mine from 1990 to the mine closure in 1999. Public record highlighted that previous exploration efforts focussed on finding displaced veins to the NW, but did not look south east of the mine. Exploration is focussed along a quartzite ridge to the southeast of the mine deemed favorable for barite mineralization. The Parson Mine was originally held by three claims known as the Hilltop, Snow Drop, and Honest John, these claims can be seen in Appendix 2.

History

Mining was done by three open pits and an underground adit drove in 1957, all production after that time came from underground operations. The underground mining was done to a depth of 180 meters. During mining a fault was encountered to the north that cut off mineralization, known as north fault. Exploration consisted of soil sampling, very low frequency – electromagnetic (VLF-EM) surveys, trenching and drilling. There is no public report on the VLF-EM surveys, although these surveys are alluded to in assessment report 25,564.

Previous Exploration

The north fault was interpreted to have Sinistral (left hand) movement, as such exploration efforts were focussed to the NW to find a displaced offset of the mined veins. 244 soil samples were collected on the Hobo 1- 10 and Fillup Minerals Claims in 1992 and 1993. Soil samples were collected on 50 meter intervals at 100 or 200 meter spacing. The 1992 program highlighted 10 anomalous samples with 1993 only highlighting one anomalous value. In 1995, an underground drilling program was completed. This failed to encounter any economic mineralization, drilling the Donald formation showed calcite rich veining. In 1998 Highwood Resources completed 15 hole BQTK diamond drill program to test these anomalies and other prospects. This program failed to highlight any commercial intersects of barite, and in most cases of soil anomalies failed to reach bedrock due to excessive overburden. No exploration is noted after this time, prompting the mines closure in 1999.

Summary and Conclusions

Minor gravity anomalies coincide with high barium levels in soil, suggesting that barite or barium minerals are occurring with the observed quartz stock working in the Hamill formation. No immediate apparent barite was observed in the area of outcrops and no economic barite is inferred at this time due to the weak gravity signature. It is recommended that a base line be extended east-west across the property, exploration should consists of geochemical and gravity surveying as they appear complimentary. Further exploration may or may not be recommended depending on the success of this program.

Location and Access:

The parson mine is located in the Golden mining division , seven kilometers south west of Parson, BC and can be accessed by taking the Crest Brook forest service road from the Parson River crossing. The Parson River crossing is thirty five kilometers south of Golden BC.

Claims:

The Parson claims are held by two mineral tenures totalling 427 hectares, Parson 1 (1042749) is in good standing till March 11th 2017, and Parson 2 (1043185) in good standing until April 1st 2017. These claims are 100% owned by Fireside Minerals Ltd. Parson 1, covers the original claim group around the mine, whereas parson 2 was staked to cover favourably outcropping of the Hamill formation.

General Setting:

The quarries are located at the northern most point of a quartzite ridge south west of parson. This ridge is blanketed with moderate soil cover, jack pine and fir. The area to the SWW has been logged, thick regrowth makes walking difficult. In general the area topography favours open pit mining, with the northern most part of the property easily accessible. In the area of study, thickly regrown roads offer rough trails.

Local Geology and Mineralization;*Mineralization:*

White coarsely crystalline barite occurs in parallel fissure veins, with production coming from two principal veins known as the east and west, another mined section of the west vein is known as the w2 zone. These veins crosscut the Hamill quartzite and are interpreted as two low angle thrust faults (Brutenchuck , 1993). The veins are 60 - 100 meters apart on surface varying in width from 0.5 – 10 meters (Miree, 1998). These veins shallow and coalesce at depth dipping west before being terminated by the north fault (Harvey. 1994). Drilling has indicated that the north fault has sinistral displacement (Miree, 1998). Drilling across this fault in 1998, intersected only siltstones from the Donald formation which are not expected to have the structural characteristics to allow for the development of large fissure veins (Miree, 1998). The ore bodies are interpreted to have a southern strike with a west dip.

Stratigraphy:

The oldest unit on the property is the Horse Thief Creek Group consisting of shale with siltstone and sandstones. Overlying the Horse Thief Creek Group is the Cambrian Hamill quartzite. In general the quartzite are massive to coarse granular and at time consists of a pebble layers. Colour varies from blue, pink dark grey and white. Near the base of the formation thin beds of shale and dolomite alternate between one to one and half meter thick layers of quartzite. (MOM AR, 1954). It is common for beds to contain feldspar and sericite, be dolomitic or limy, or be flecked with limonite. Mine Sequence Hamill formation has been interpreted from H.Miree (1998) to be described as follows “medium to dark grey matrix with light grey quartz clasts, with varying degrees of recrystallized texture from partial to widespread with some relict clastic textures, +/- biotite and chlorite” The wide variety in the Hamill formation is attributed to differing basin conditions during deposition.

Regionally, the Hamill formation is split into three groups (Warren , 1996.) . A lower unit part of the Purcell anticlinorium is seen locally, it is feldspathic towards the base it thins fines and pinches out to the west. An upper unit is comprised of a mature shallow marine quartzite that unconformably overlies the Horse Thief Creek Group. A rusty weathering middle shale layer, separates the upper and lower portions of the Hamill formation in the black head mountain syncline. (Evans, 1933 Kubli and Simony, 1992). The third portion of the Hamill formation does not appear locally and is restricted to the Kootenany Arc. This lower portion of Hamill formation is mafic, and this implies that the two lower units were deposited in separate basins, bounded to the east by west dipping normal faults, separated by an uplifted and eastward tittle block of Horse Thief Creek Group. (Warren 1996). Overlying the Hamill quartzite are three to six meter beds of dark – grey slaty-shales, dolostones and limestones of the Donald formation.

Theory

Gravity surveying is a non-invasive method to investigate the subsurface by measuring changes in the gravitational field. The underlying concept is the causative body, which is a rock unit with different density than its surroundings. The causative body will cause local changes in the gravitational field known as a gravity anomaly. A wide variety of geologic situations can cause a gravity anomaly and as such solutions are non-unique, for example negative gravity anomalies could be caused by, a buried channel/valley, salt domes, coal, graphite or petroleum bearing sedimentary rocks; positive gravity anomalies could be caused by granite plutons, barite or metallic ore deposits. Gravity anomalies can be interpreted to allow for an assessment of probable depth and shape of the causative body.

The basis of a gravity measurement is Newton's Universal Law of Gravitation, the Law of Gravitation allows for force (F) to be related to mass (m) by gravitational acceleration (g), $F=mg$. On earth the mean value of gravity is 9.8m/s^2 with the unit of gravity being mGals ($1\text{mgal}=10^{-3}\text{cm/s}^2$) on a land survey accuracy of 0.1mGals or 9.8001 m/s^2 is readably attainable. The measurement of absolute gravity at a particular location is difficult instead measurement of relative gravity between two locations is a simpler and standard procedure for gravity surveying. A gravity meter contains a spring balance carrying a constant mass, variations in the weight of the mass caused by variations in local gravity (density) cause the length of the spring to change. The change in the length of the spring allows for a measurement of the relative change in gravity.

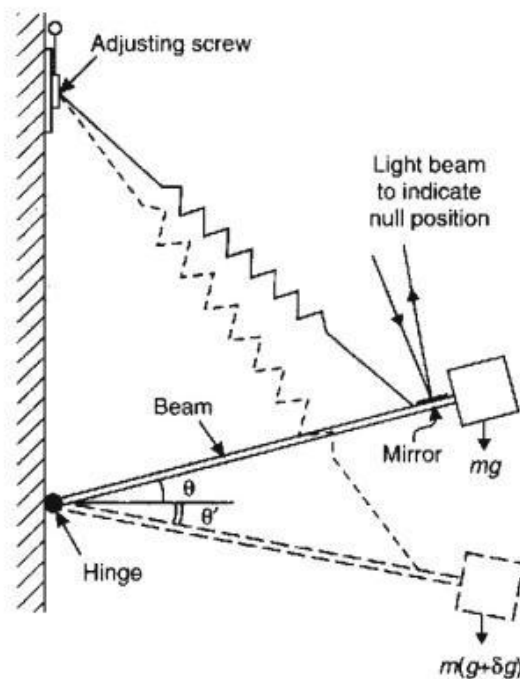


Figure 1 principle of the Lacoste and Romberg gravimeter

A short coming of gravity meters is the concept of drift. All meters drift to some degree due to imperfect elasticity in the spring. Drift can also result from temperature variations, the Lacoste and Romberg meter used in the survey utilizes an oven to keep the spring at a constant temperature. To monitor drift repeat measurements are made at a controlled point known as a base station throughout the day.



Figure 2. Lacoste and Romberg Gravity meter at base station

Gravity Reductions: once all reduction are made the resulting gravity reading is referred to as a bouger anomaly.

Drift Correction – the meter reading at the base station is plotted against time, with drift assumed to be linear between readings. This plot is used to remove the effect of drift from field measurements at differing times.

Tide Correction – Gravity measurements change with time in a fixed location due gravitational effects of the sun and moon, corrections for this must be made in a high precision survey.

Latitude Correction – The true shaped of the earth is a flattened ellipsoid, due to the non-spherical shape of the earth gravity varies with latitude because of changes in angular acceleration, area of the earth closer to the center such as the pole spin slower than areas of the earth that are further from the center such as the equator. A simple correction is applied to the data to correct for the variation in gravity due to latitude.

Elevation Corrections –

Free Air Correction - corrects for the decrease in gravity with an increase in elevation resulting from the increased distance from the center of the earth. As you increase your elevation your gravity reading will decrease and vice versa.

Bouguer Correction – approximates the rock layer beneath the observation point by applying a density to infinite horizontal slab with thickness equal to the elevation of the observation point.

Terrain Correction-accounts for topographic relief in the vicinity of the gravity station. This correction is always positive, classically terrain correction are applied using hammer charts which extend a circular graticule divided in to compartments ranging from 2 meters to 22 kilometres. This correction accounts for the bulk of time spent on gravity reductions. QC tool was used to automate this step, the terrain correction was broken into three parts 2-50m, 50m -2 km, and 2 – 22 km.

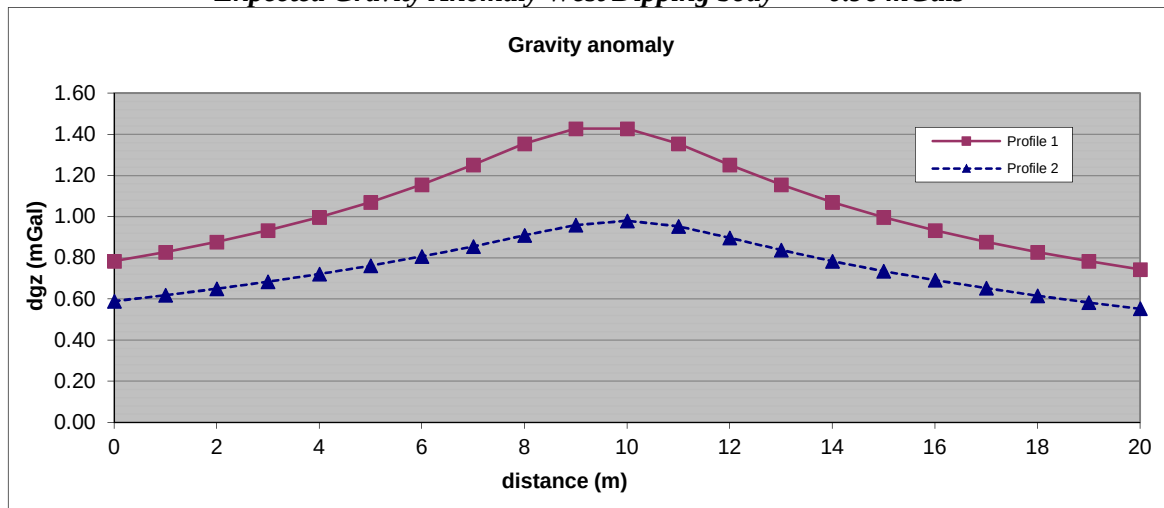
2-D Forward Modelling:

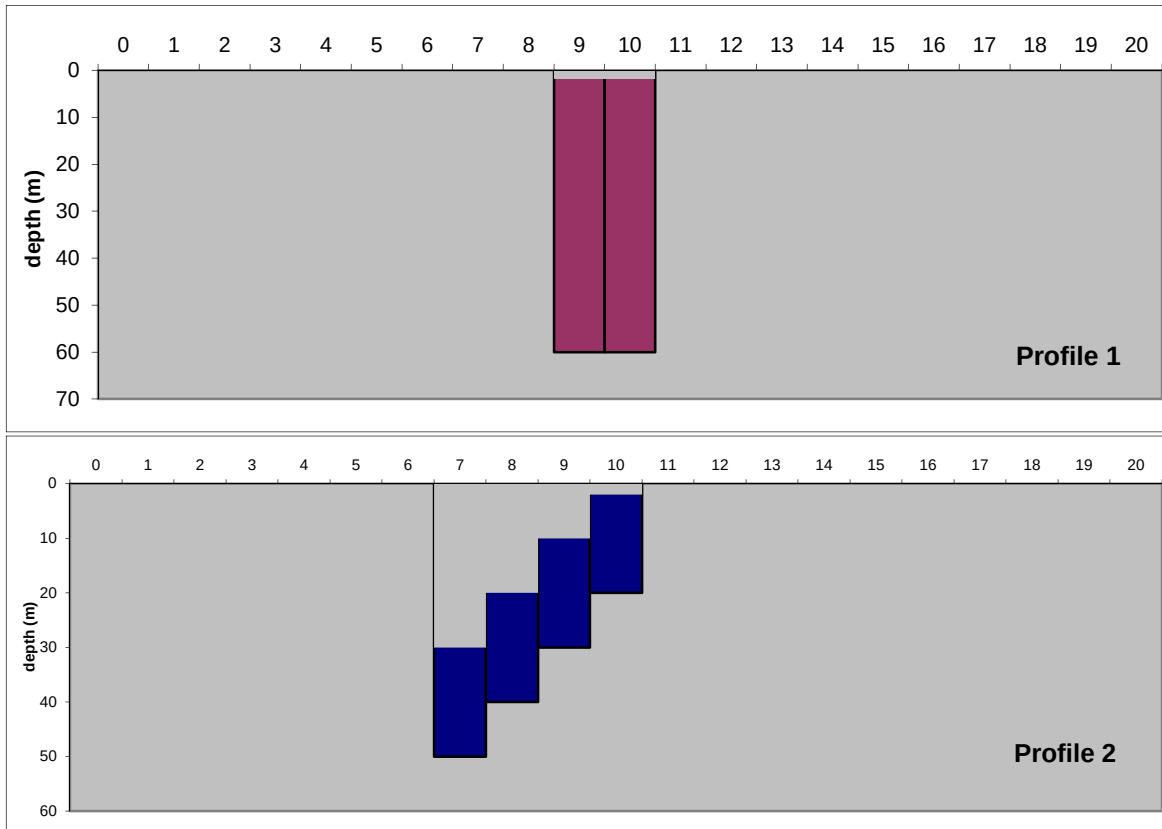
A two dimensional modelling process was utilized to model expected changes in the gravity field. This approach was split into two models one with a gravity contrasts of 1.6 g/cm^3 the expected difference between barite (4.2 g/cm^3) and quartzite (2.6 g/cm^3). From forward modelling it was learned that depth of overlying rock dramatically decrease's the gravity signature with depth, and that near surface bodies show the strongest anomalies.

Barite Model: 2 meters wide, 6 meters long assumed depth of 2 meters.

Expected Gravity Anomaly Vertical body – + 1.43 mGals

Expected Gravity Anomaly West Dipping body – + 0.96 mGals





Field Procedure:

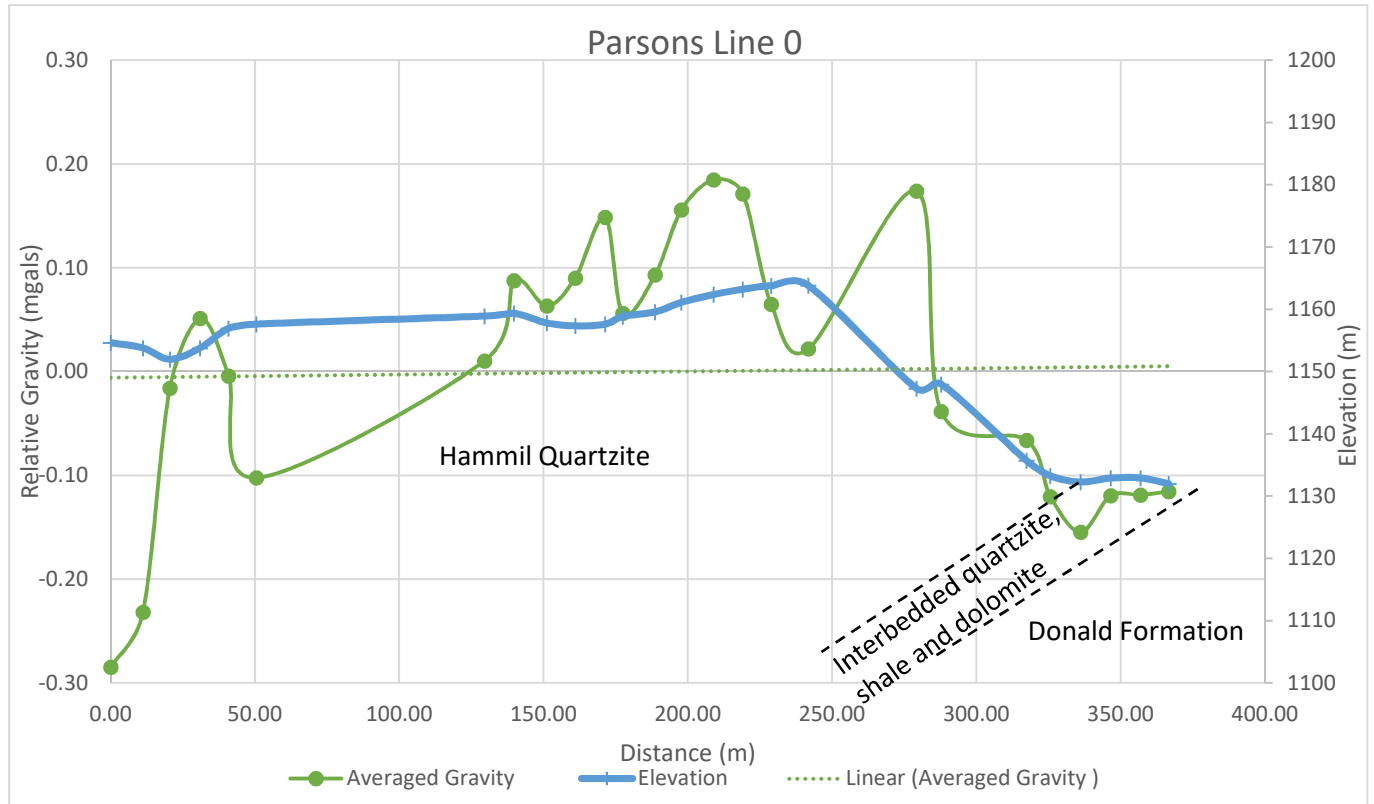
Gravity stations were laid out by chain and compass and then gravity readings were taken in proximity of the laid out station on favorable ground to allow for gravity measurement and surveying. A total station was used for surveying, as it allows for instantaneous repeatable data that does not need for post processing. Instead the data relies on a known point taken from GPS and a compass bearing ($\pm 1^\circ$), these windows of accuracy were accepted in the data as a onetime error. It is debatable if this method increased field time as, the total station constantly needs to be moved for line of site, but once set up should be able to get multiple stations in seconds, compared to GNSS survey gear, which is approximately 5 minutes per station. All gravity measurements were made on a tripod base plate at Waist level, the height of the meter would be recorded along with northing, easting, elevation and time.

Results:

The line's cannot be contoured as the positions of both start points have yet to be tied together by survey, stakes have been left behind in order to complete this task. Individually it can be seen that both lines image a similar section of the Hamill quartzite. This section is dictated by three small upticks in local gravity, to be followed by a fourth than a steep drop off to a low before the Donald formation. This low is interpreted to be interbedded dolomite, shales and quartzite forming the contact between the Hamill and Donald formations. From previous reporting it appears that this section of inter-bedding has been included in the Hamill formation. No considerable gravity anomalies were highlighted in the area of studies. With the maximum amplitude anomaly being 0.30 mgals with a 30 meter area of influence.

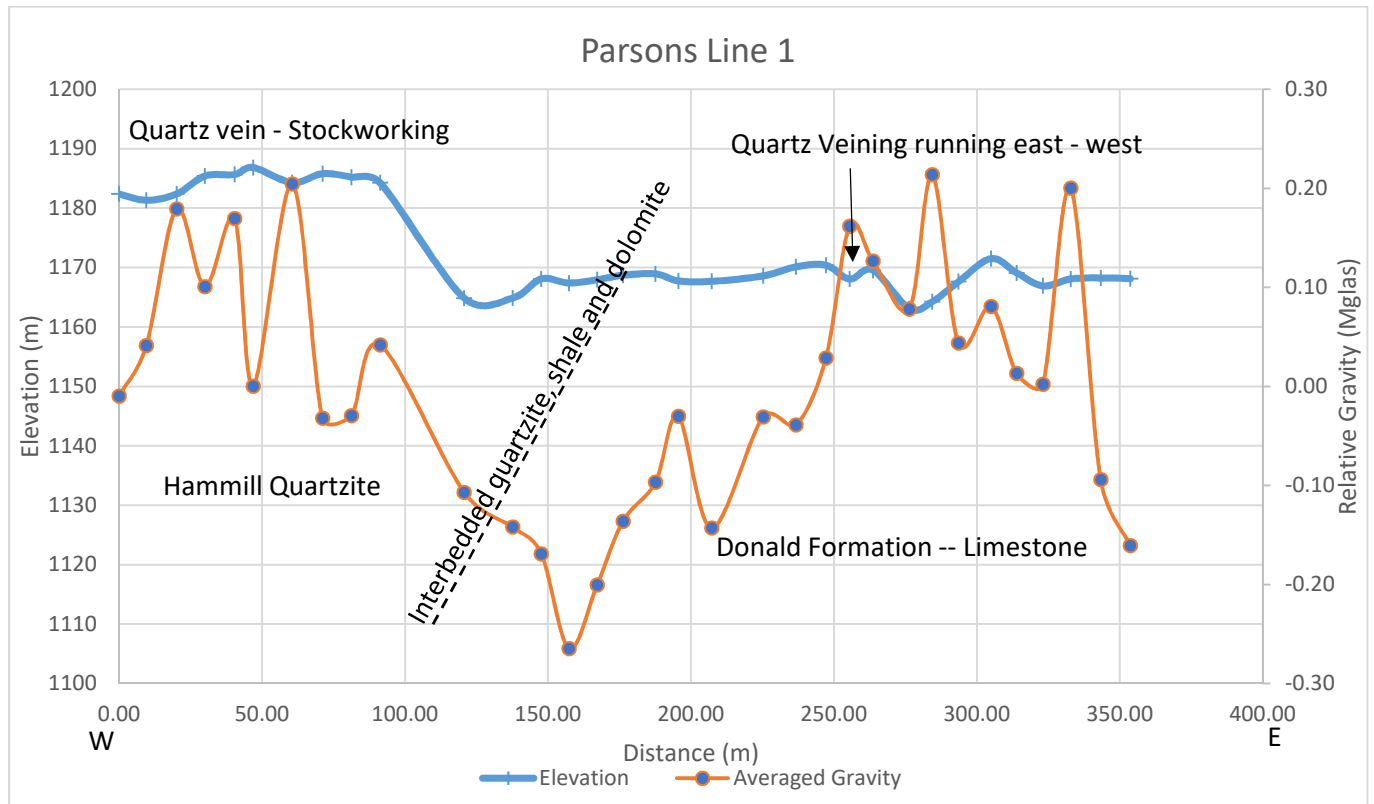
Line 0

No major changes in gravity are observed in Parson Line 0, minor changes are observed ranging from 0.1 mgals - 0.35 mgals. Most peaks have multiple data points forming the curve, and are interpreted to be true minor gravity anomalies. These gravity anomalies are attributed to quartz veins and stock working that were observed in the area.

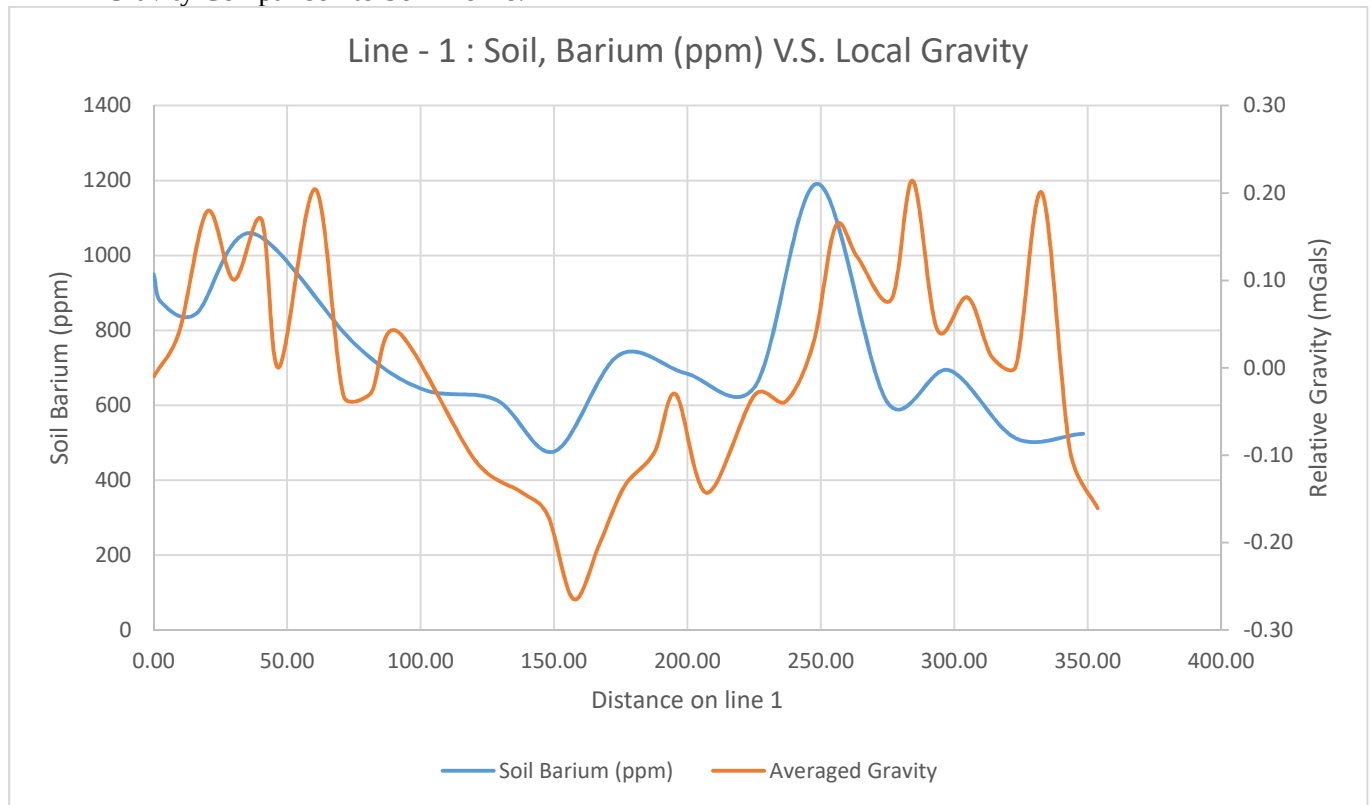


Line 1

The line shows two areas of an irregular gravity signature, separated by a gravity low. These peaks and are interpreted to be true minor gravity anomalies, attributed to quartz veins and stock working that were observed in the area. Two barium highs occur on the soil profile that would be considered anomalous, 1051 and 1191 ppm barium. These peaks coincide with minor gravity anomalies that have also been attributed to quartz stock working. It can be inferred that in the area of gravity anomalies, barium minerals are co-existing with the quartz rich stock working.



Gravity Comparison to Soil Profile:



Discussion:

Two prominent vein systems have been observed in the surrounding rocks of the parson mine. The youngest a larger east-west quartz rich vein system that occasionally crosscuts a narrower north – south quartz vein system, at time these two systems form a stock working texture. It is thought that the north-south vein system is sympathetic to the mined barite structure. Prospecting has shown that veining is not be limited to Hamill formation, but is also observed in the Donald Formation. For the most part a thicker soil over top of the Donald formation hinders out cropping.

No barite has been observed in the area of study. Chemically, the stock working must to some degree host barium as soil with high barium concentrations have been found, correlatable to minor gravity anomalies. Oxidized sulphides have been observed in the north-south vein system as well as limonite flecked quartzite in near proximity. A vein system that would of one time hosted sulphide minerals would of sufficiently provided heat to mobilize barite into hot meteoric, once in solution barite would become available for transport and deposition along fault planes. In order to allow for deposition the waters would have to change from an acidic/sulphide environment to a basic/sulphate environment, becoming oxidizing. Further prospecting to the south should look for an increase or decrease in vein stock working specifically looking for north – south striking veins, care should be spent determining the location of oxidized veins. As it is unclear, if we are looking at the peripheries of a “hot” ore body from the nearby parson mine or traces of another mineralized body. It is reported in 1998, by H. Miree that it was common for quartz veins and breccia to run parallel to the mined barite bodies.

Multiple anomalous soil barium values up to 12,000 ppm obtained by mountain minerals in the early 1990s still remain unexplained. Drilling these anomalies failed to reach bedrock due to inadequate drill placement and deep overburden. Results and a discussion from the 1993 survey can be found in assessment report 25,564 and 23,075.

Conclusions:

Observations, and testing have shown that the veining is not limited to the Hamill formation. This congruent with soil sampling done in 1992 by Brutenchek that shows a soil sample with barium measuring 12,000 ppm in the Donald formation. Gravity lines positioned north-south did not image any discernible gravity anomalies, and it is recommended that gravity lines be extended across the claim group east-west. This should be done in a fashion that minimizes topographic relief for ease of operation. Soil sampling suggest that barite or other barium minerals are occurring with observed stock working in the Hamill and Donald formation, although no barite has been confirmed visually. It appears at this time that both prospecting tools complement each other.

Recommendations:

1. Geophysical/Geochemical surveying: \$15,000

Extended one baseline 2800 meters east west across the property to allow for a long section to be made of the Hamill formation. The line should be cut to a maximum width of 1 meter, to allow for faster surveying and ease of travel. Gravity readings and soil samples for barium should be taken every 20 meters along the line. Following results and interpretation from this line two more lines should be run to highlight flanks of any anomalous values. It is expected that if any anomalous values are found the search area could be narrowed.

2. Mapping (5.5 km²): \$12,500

Topographic mapping in the area offers limited detail, a light detection and ranging (LIDAR) fitted unmanned aerial vehicle (UAV) should be acquired to map and contour the project to 1 meter before commencing the exploration. A LIDAR UAV can capture ground positions with an accuracy of +/- 5cm, flying the survey area plus 2 kilometers on every side will allow for a very accurate local terrain correction for gravity surveying. It is estimated that this could be done in half a day at the cost of \$12,500 dollars. Further time should be spent mapping the location of and structural characteristics of the veins systems observed in the Hamill formation with particular care spent looking for evidence of oxidization.

Statement of qualifications:

I, Scott Allan, geologist, with business address of box 32069 Kelowna BC, V4T 3G2 and residential address of 331 Silver Valley Rise NW, Alberta, T3B 4B1 certify that,

I have obtained a Bachelor of Science degree from the University of Calgary in 2013

That I am a registered geologist in training with Alberta Professional Engineers and geoscientist association (APEGA, member # 116181)

From 2010 to present I have been involved in Production and Exploration for Fireside Minerals Ltd.

I have personally participated in field acquisition of data and data interpretation.

References

Miree, Heather. , July 1998

Report on 1997 and 1998 drilling on the Parson Barite Property; Hilltop, Snowdrop, Honest John, Fillup 1 and Hobo 1 through 10 mining claim. Golden Mining division. Assessment report 25,564, 11 pages, 3 maps and drill logs.

Brutenchek, Stephen B., 1997

Barite in British Columbia, Open File 1997-16

Warren M.J. , 1996

Geology of the West-Central Purcell Mountains, British Columbia.
(NTS 82K/2,7 and parts of 8 and 10, BCMEMPR Open File 1996-16

Harvey P. , 1994

Mountain Minerals Company Ltd. , Parson Mine, Assessment technical report Diamond Drilling, assessment report 23573, 9 pages, 4 maps and drill logs.

Brutenchek, Stephen B., June 1993

Geological and Geochemical Report on the Hobo-Fillup Mineral Claims, Golden Mining Division. Assessment Report 23,075, 8 pages and 2 maps

MacCammon, J.W. 1954

Ministry of Mines Annual Report, 2 pages, 1 map

Hora, Z.D., Year Unknown

Summary of Parson Mine with Maps, Property File 16158, 2 pages, 3 maps

Parson

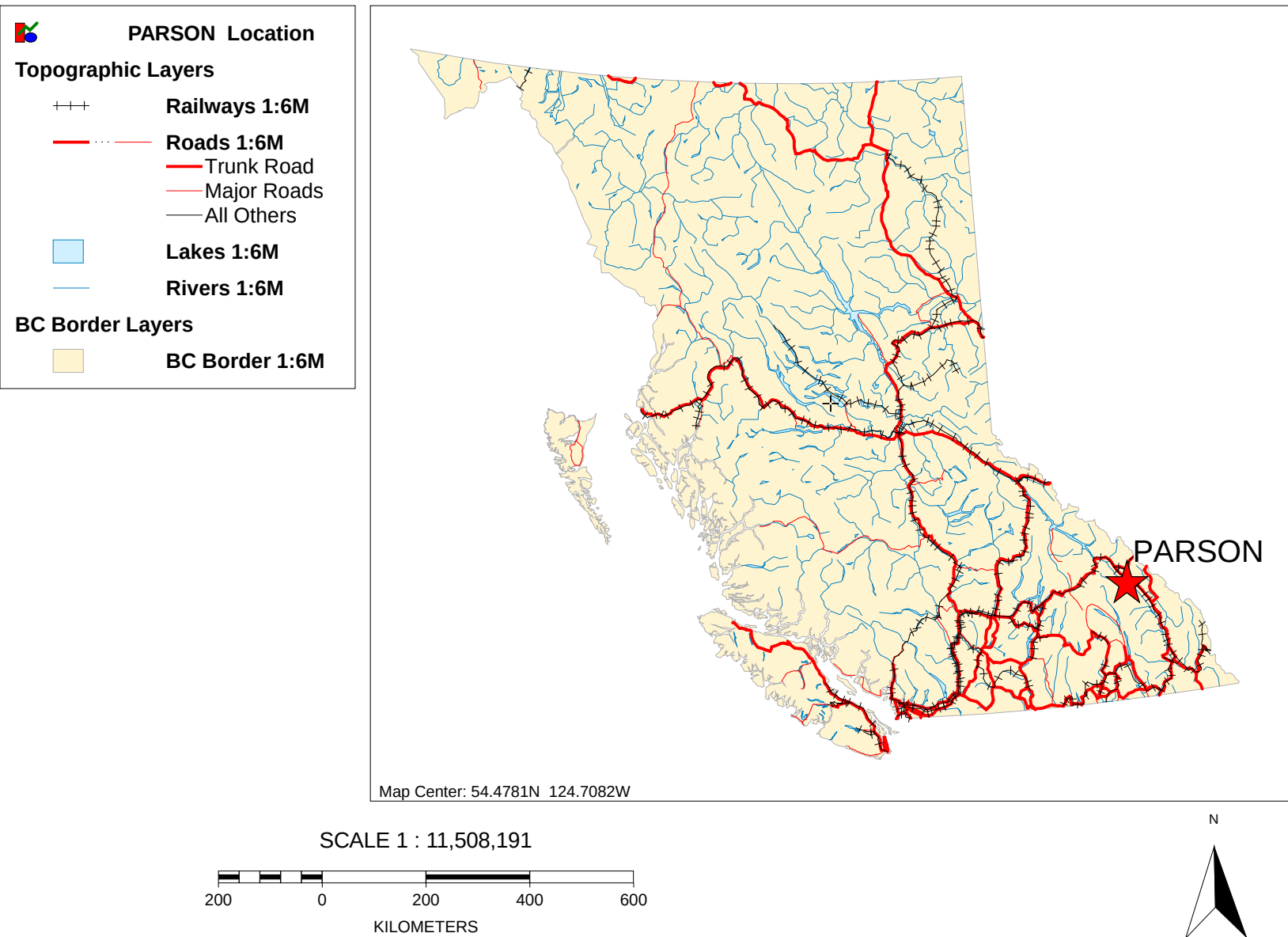
Year total

\$10,768.57

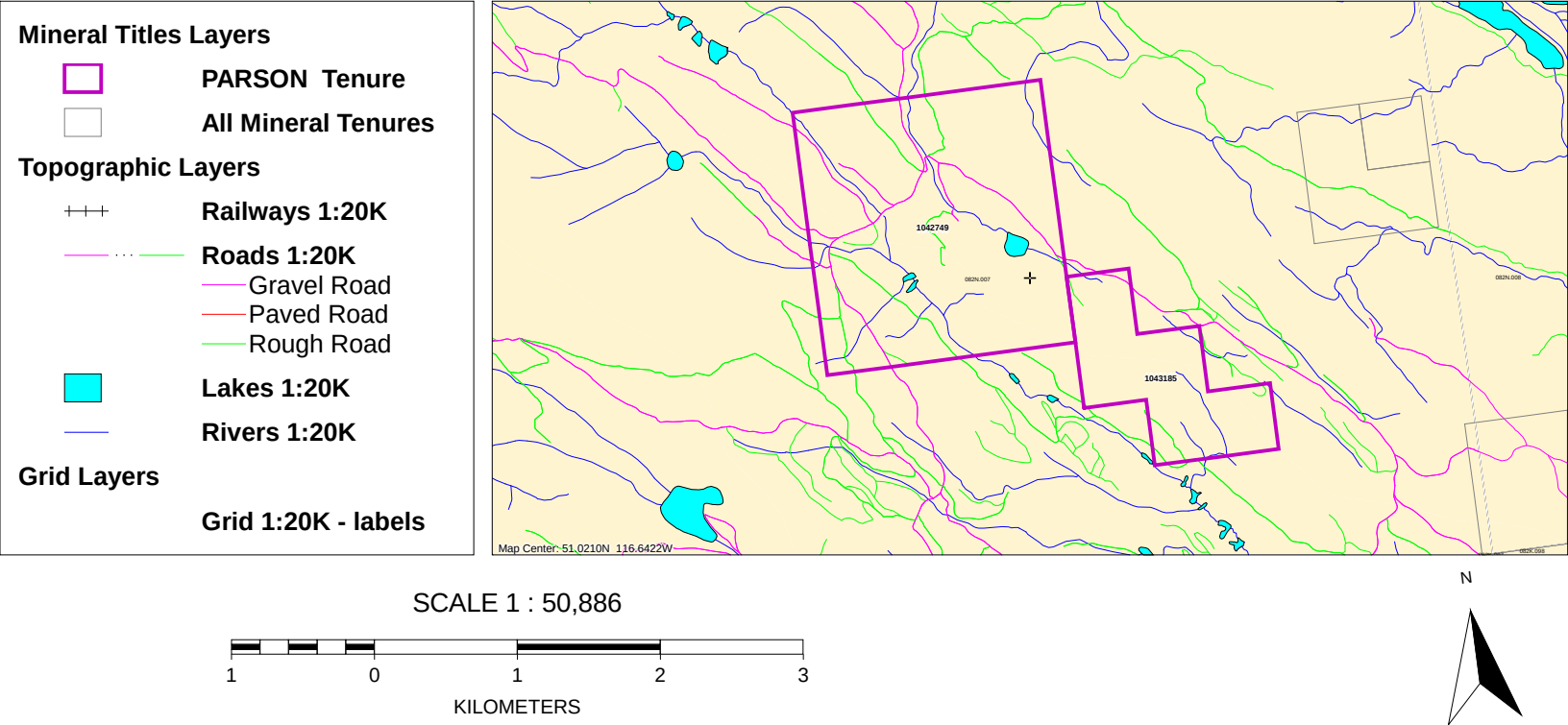
	Budget	Oct 24-31st
Scott Allan -Geo	500 / day x 1	\$2,500.00
Andrew Allan- President	700 / day x 1	\$0.00
Jemma Allan - CFO	700 / day x 1	\$0.00
Frank Zhang - Helper	300/ day x 1	\$1,500.00
Diesel Fuel - minesite (L)	1.10 / L	-
Gasoline - Minesite (L)	1.10 / L	-
Fuel- Gas Station	1.10/ L	\$198.67
Quad		-
Truck	1330 kms	\$798.00
Helicopter	\$1100/ hr	-
<i>Loring Labs</i>		
<u>Assaying Rock</u>		
Log in Fee	\$0.50	\$0.00
Rehomoginize Samples	\$1.25	\$0.00
Whole Rock ICP - Total Digestion	\$60.00	\$0.00
30 Element ICP Analyses - Total Digestion	\$108.25	\$0.00
Specific Gravity Determinations	\$32.00	\$0.00
Sample Disposal Fee	\$1.00	\$0.00
<u>Samples Soil</u>		\$0.00
Log in Fee	\$0.50	\$0.00
Sample Perparation	\$4.70	\$0.00
Barium	\$11.00	\$0.00
Lead & Zinc Geochem	\$7.45	
<i>Fireside Labs</i>		
Thin Section Analysis	\$200.00	
Specific Gravity Determinations	\$25.00	
Water Solubule Alkaline earthmetals as calcium	\$100.00	
Sample Prepartion	\$7.00	
<i>Calgary Rock</i>		
Thin Section preperation	\$50.00	
Detailed thin sections analysis	\$350.00	
Brief thin sections analysis	\$250.00	
Equipment		
Gravity Meter	\$175.00	\$1,225.00
Base Station	\$175.00	\$0.00
Prep Fee	\$55.00	\$0.00
Survey stakes		\$0.00
Survey Supplies		\$654.15
Total Station Survery Equipment (owned By fireside)	\$200.00	\$1,400.00
Lodging	\$ 100 person	\$792.00
Food Camp (\$25 / person)	\$ 25 / person	-
Food Sub (\$50 / person)	\$ 50 / person	\$ 200.75
Report Costs	\$1,500	\$ 1,500.00

APPENDIX 1

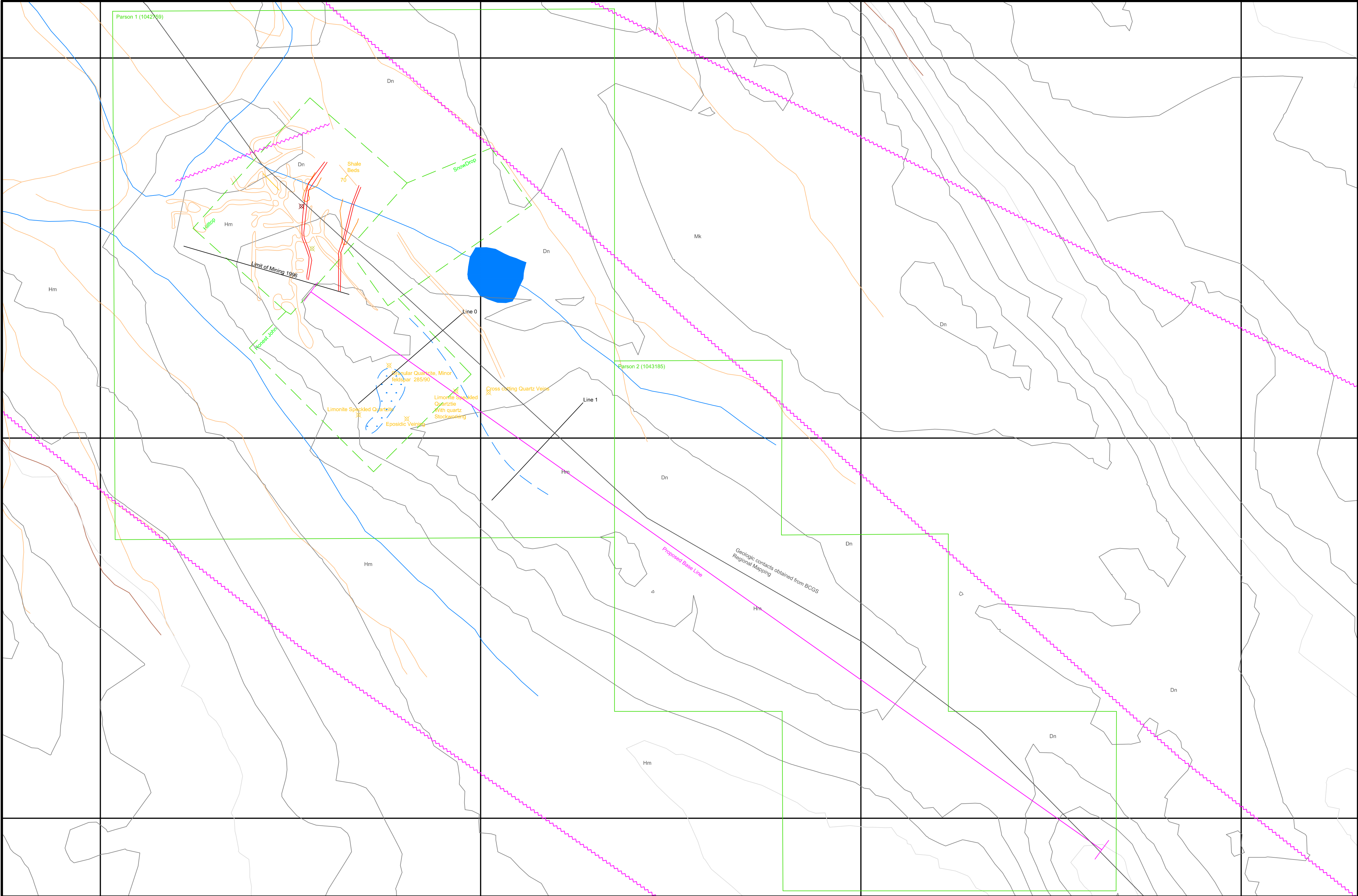
PARSON Location Map



PARSON Claim Map



APPENDIX 2



FIRESIDE MINERALS
Parson propety map

Drawn by SCA
Date Novemeber 2017
Scale 1:6000
Revision 1
Reference UTM NAD 83

Legend

- | | | | | | |
|--|------------------|--|----------------------|--|--------------------|
| | Roads | | Old Claim Boundaries | | Mckay Group. |
| | Water | | Gravty Line | | Donald Formation |
| | Contour Minor | | Proposed Gravty Line | | Hammil Formation |
| | Contour Major | | Geologic Contact | | Thrust Faults |
| | Claim Boundaries | | Pits | | Mined barite Appx. |

Scale meters



0

500



Figure 3 Episodic veining larger east west vein.



Figure 4 Cross cutting quartz veins, larger vein fifteen centimeters wide



Figure 5 Quartz Stock working



Figure 6 Extensive Quartz Stock working

APPENDIX 3

Station	UTM		Distance from first station	Lat/Long		Date and time				Elevation				
	Northing	Easting		Latitude	Longitude	Date	Hours	Minutes	Time	Height	Difference in L	Instrument Height cm	Elevation_DE M	Elevation
GBS1	5651859	525097.7		51.01775	-116.642	2016-10-26	14	4	14:04	1184.18	-6.18	24	1178.00	1184.18
P1.380	5651808	525060.4	91.26423	51.01728	-116.643	2016-10-26	14	13	14:13	1182.11	-8.37	26	1174.00	1182.37
P1.370	5651814	525067	81.75553	51.01734	-116.643	2016-10-26	14	17	14:17	1181.073	-7.32	25	1174.00	1181.323
P1.360	5651821	525075	71.23223	51.01741	-116.643	2016-10-26	14	21	14:21	1182.108	-3.37	26	1179.00	1182.368
P1.350	5651828	525082.2	61.34449	51.01747	-116.642	2016-10-26	14	29	14:29	1185.145	-6.40	26	1179.00	1185.405
P1.340	5651837	525088.5	50.88269	51.01754	-116.642	2016-10-26	14	35	14:35	1185.425	-6.65	23	1179.00	1185.655
P1.330	5651842	525092.1	44.39701	51.01759	-116.642	2016-10-26	14	40	14:40	1186.539	-7.82	28	1179.00	1186.819
P1.320	5651852	525101.3	30.75655	51.01768	-116.642	2016-10-26	14	46	14:46	1184	-6.29	29	1178.00	1184.29
P1.310	5651859	525109.1	20.15565	51.01775	-116.642	2016-10-26	14	53	14:53	1185.553	-7.79	24	1178.00	1185.793
P1.300	5651867	525116	10.0191	51.01781	-116.642	2016-10-26	15	2	15:02	1184.935	-8.21	28	1177.00	1185.215
P1.290	5651874	525123	0	51.01788	-116.642	2016-10-26	15	8	15:08	1184	-7.26	26	1177.00	1184.26
GBS1	5651859	525097.7		51.01775	-116.642	2016-10-26	15	28	15:28	1184.18	-6.18	24	1178.00	1184.18
GBS2	5652023	525212.5		51.01921	-116.641	2016-10-27	10	11	10:11	1169.33	-3.33	24	1166.00	1169.33
P1.280	5651917	525110.5	236.7601	51.01827	-116.642	2016-10-27	10	36	10:36	1164.604	5.14	26	1170.00	1164.864
P1.270	5651931	525121	219.485	51.01839	-116.642	2016-10-27	10	42	10:42	1164.625	5.13	25	1170.00	1164.875
P1.260	5651939	525127.4	209.2918	51.01846	-116.642	2016-10-27	10	47	10:47	1167.844	-2.08	24	1166.00	1168.084
P1.250	5651946	525134.6	199.1335	51.01853	-116.642	2016-10-27	10	51	10:51	1167.154	-1.39	24	1166.00	1167.394
P1.240	5651952	525144	188.3374	51.01858	-116.642	2016-10-27	10	55	10:55	1167.69	-1.95	26	1166.00	1167.95
P1.230	5651960	525148.6	179.4414	51.01865	-116.641	2016-10-27	11	4	11:04	1168.456	-2.72	26	1166.00	1168.716
P1.220	5651967	525158.5	167.4397	51.01872	-116.641	2016-10-27	11	11	11:11	1168.679	-2.93	25	1166.00	1168.929
P1.210	5651972	525165.6	158.9941	51.01876	-116.641	2016-10-27	11	16	11:16	1167.495	-1.76	26	1166.00	1167.755
P1.200	5651981	525174.2	147.0529	51.01884	-116.641	2016-10-27	11	21	11:21	1167.433	-1.67	24	1166.00	1167.673
GBS2	5652023	525212.5		51.01921	-116.641	2016-10-27	11	29	11:29	1169.33	-3.33	24	1166.00	1169.33
P1.180	5651993	525188.6	128.665	51.01894	-116.641	2016-10-27	11	43	11:43	1168.363	-2.59	23	1166.00	1168.593
P1.170	5652001	525197.4	117.0377	51.01901	-116.641	2016-10-27	11	48	11:48	1169.873	-4.12	25	1166.00	1170.123
P1.160	5652009	525203	106.616	51.01909	-116.641	2016-10-27	11	55	11:55	1170.11	-4.38	27	1166.00	1170.38
P1.150	5652017	525207.4	98.38055	51.01916	-116.641	2016-10-27	12	4	12:04	1167.798	-2.06	26	1166.00	1168.058
P1.145	5652023	525212.5	90.16357	51.01921	-116.641	2016-10-27	12	10	12:10	1169.329	-3.55	22	1166.00	1169.549
GBS2	5652023	525212.5		51.01921	-116.641	2016-10-27	12	10	12:10	1169.33	-3.33	24	1166.00	1169.33
P1.140	5652032	525221.4	77.3804	51.0193	-116.64	2016-10-27	12	23	12:23	1162.852	3.92	23	1167.00	1163.082
P1.130	5652041	525223.4	69.62532	51.01937	-116.64	2016-10-27	12	31	12:31	1164.015	2.76	23	1167.00	1164.245
P1.120	5652048	525229.2	60.41742	51.01944	-116.64	2016-10-27	12	39	12:39	1167.362	0.38	26	1168.00	1167.622
P1.110	5652057	525235.5	49.22949	51.01952	-116.64	2016-10-27	12	56	12:56	1171.236	-4.50	26	1167.00	1171.496
P1.100	5652064	525241.4	40.17164	51.01958	-116.64	2016-10-27	13	0	13:00	1168.817	-2.09	27	1167.00	1169.087
P1.90	5652070	525248.3	30.84511	51.01964	-116.64	2016-10-27	13	3	13:03	1166.632	0.09	28	1167.00	1166.912
P1.80	5652077	525255.4	20.98443	51.0197	-116.64	2016-10-27	13	7	13:07	1167.819	-2.08	26	1166.00	1168.079
P1.70	5652086	525261.5	10.59285	51.01978	-116.64	2016-10-27	13	11	13:11	1167.988	-1.26	27	1167.00	1168.258
P1.60	5652093	525269.4	0	51.01984	-116.64	2016-10-27	13	17	13:17	1167.852	-1.11	26	1167.00	1168.112
GBS2	5652023	525212.5		51.01921	-116.641	2016-10-27	13	30	13:30	1169.33	-3.33	24	1166.00	1169.33
GBS3	5652281	524708		51.02156	-116.648	2016-10-28	13	57	13:57	1166	-3.00	26	1163.00	1166
P2.0	5652072	524695	366.6146	51.01967	-116.648	2016-10-28	14	11	14:11	1155.989	-8.62	137	1146.00	1154.619
P2.10	5652079	524703.4	355.5318	51.01974	-116.648	2016-10-28	14	18	14:18	1155.31	1.21	152	1155.00	1153.79
P2.20	5652084	524711.3	346.5176	51.01978	-116.648	2016-10-28	14	26	14:26	1153.494	3.03	152	1155.00	1151.974
P2.30	5652091	524719.3	336.2261	51.01984	-116.648	2016-10-28	14	32	14:32	1155.122	3.22	134	1157.00	1153.782
P2.50	5652103	524734.6	317.1411	51.01995	-116.647	2016-10-28	14	39	14:39	1158.994	1.39	138	1159.00	1157.614
P2.40	5652097	524727	326.529	51.0199	-116.647	2016-10-28	14	39	14:39	1158.2	2.06	126	1159.00	1156.94
P2.60	5652184	524759.6	240.7658	51.02068	-116.647	2016-10-28	14	55	14:55	1160.26	-0.90	136	1158.00	1158.9
P2.70	5652191	524767.7	230.0102	51.02074	-116.647	2016-10-28	15	0	15:00	1160.626	-1.35	128	1158.00	1159.346
P2.80	5652204	524767.7	221.2004	51.02086	-116.647	2016-10-28	15	7	15:07	1159.222	0.19	141	1158.00	1157.812
GBS3	5652281	524708		51.02156	-116.648	2016-10-28	15	16	15:16	1166	-3.00	26	1163.00	1166
P2.90	5652211	524775.5	210.7531	51.02092	-116.647	2016-10-28	15	35	15:35	1158.671	0.66	133	1158.00	1157.341
P2.100	5652218	524783.7	199.8616	51.02099	-116.647	2016-10-28	15	44	15:44	1158.924	1.39	131	1159.00	1157.614
P2.110	5652222	524789.1	193.2661	51.02102	-116.647	2016-10-28	15	51	15:51	1160.136	0.15	129	1159.00	1158.846
P2.120	5652229	524799.1	181.1612	51.02108	-116.646	2016-10-28	16	1	16:01	1160.976	-0.59	139	1159.00	1159.586
P2.130	5652236	524805.5	171.9822	51.02114	-116.646	2016-10-28	16	11	16:11	1162.4	-2.11	129	1159.00	1161.11
P2.140	5652243	524814.2	160.4286	51.02121	-116.646	2016-10-28	16	16	16:16	1163.592	-1.37	122	1161.00	1162.372
P2.150	5652250	524821.6	150.1594	51.02127	-116.646	2016-10-28	16	24	16:24	1164.57	-3.22	135	1160.00	1163.22
P2.160	5652257	524828.9	140.1438	51.02134	-116.646	2016-10-28	16	30	16:30	1165.077	-3.78	130	1160.00	1163.777
P2.170	5652266	524838.9	126.922	51.02141	-116.646	2016-10-28	16	37	16:37	1165.056	-8.82	124	1155.00	1163.816
GBS3	5652281	524708		51.02156	-116.648	2016-10-28	16	47	16:47	1166	-3.00	26	1163.00	1166
GBS3	5652281	524708		51.02156	-116.648	2016-10-29	9	16	9:16	1166	-3.00	26	1163.00	1166
GBS3	5652281	524708		51.02156	-116.648	2016-10-29	12	41	12:41	1166	-3.00	26	1163.00	1166
P2.250	5652349	524935.2	0	51.02215	-116.644	2016-10-29	13	8	13:08	1133.243	3.01	125	1135.00	1131.993
P2.240	5652342	524927.7	9.899453	51.0221	-116.645	2016-10-29	13	13	13:13	1134.219	3.09	130.5	1136.00	1132.914
P2.230	5652335	524920.2	20.26456	51.02203	-116.645	2016-10-29	13	20	13:20	1134.212	4.10	131	1137.00	1132.902
P2.220	5652328	524912.6	30.70757	51.02197	-116.645	2016-10-29	13	25	13:25	1133.555	6.73	129	1139.00	1132.265
P2.210	5652320	524905.1	41.22729	51.0219	-116.645	2016-10-29	13	30	13:30	1134.542	6.76	130	1140.00	1133.242
P2.200	5652315	524898.2	49.70484	51.02186	-116.645	2016-10-29	13	37	13:37	1136.985	4.30	128	1140.00	1135.705
P2.190	5652296	524875.5	79.71185	51.02168	-116.645	2016-10-29	13	48	13:48	1149.283	-1.97	131	1146.00	1147.973
P2.180	5652290	524868.9	88.39656	51.02163	-116.645	2016-10-29	13	55	13:55	1148.629	-1.29	134	1146.00	1147.289
GBS3	5652281	524708		51.02156	-116.648	2016-10-29	14	12	14:12	1166	-3.00	26	1163.00	1166

READING		TIDE		DC SHIFT			QC TOOLS CALCULATED VALUES						
							2.6 g/cm3						
Insturment t Reading	Mgals	Tidal_corr	Corrected	Slope	factor	corrected value	Gravity	Free Air	Bouguer	Bouguer_	Terrain Corr	50m-	Near Terrain Corr
							Theoretical	correction	Corr	Cap	5km		
4237.18	4363.998	-0.0049	4363.993										0.00000000
4237.29	4364.111	-0.006624	4364.104	-0.17402	-0.00109	4364.103	981160.7	-364.664	128.8344	1.20579	0.84988400		0.00000000
4237.51	4364.338	-0.007439	4364.330	-0.00725	-6.5E-05	4364.330	981160.7	-364.341	128.7204	1.205147	0.84610600		0.03616200
4237.47	4364.297	-0.008281	4364.288	-0.00725	-8.6E-05	4364.288	981160.7	-364.664	128.8342	1.205788	0.83931100		0.01457900
4236.82	4363.627	-0.010045	4363.617	-0.00725	-0.00013	4363.617	981160.7	-365.6	129.1651	1.207647	0.81312200		0.03055600
4236.91	4363.719	-0.011432	4363.708	-0.00725	-0.00016	4363.708	981160.7	-365.677	129.1924	1.2078	0.76182500		0.00989900
4236.53	4363.328	-0.012626	4363.315	-0.00725	-0.00018	4363.315	981160.7	-366.036	129.3192	1.20851	0.72782000		0.03602300
4237.27	4364.09	-0.014102	4364.076	-0.00725	-0.00021	4364.076	981160.7	-365.256	129.0437	1.206965	0.67204200		0.03769800
4236.8	4363.606	-0.015876	4363.590	-0.00725	-0.00025	4363.590	981160.7	-365.72	129.2074	1.207884	0.64079400		0.01942700
4236.9	4363.709	-0.018231	4363.691	-0.00725	-0.00029	4363.691	981160.7	-365.541	129.1444	1.207531	0.60708600		0.07069900
4237.19	4364.008	-0.01984	4363.988	-0.00725	-0.00032	4363.988	981160.7	-365.247	129.0404	1.206947	0.57017000		0.07092700
4237.19	4364.008	-0.025357	4363.983										0.00000000
4240.43	4367.347	-0.025123	4367.322										0.00000000
4240.95	4367.883	-0.014977	4367.868	-0.98987	-0.01719	4367.851	981160.8	-359.267	126.9269	1.194952	0.44407300		0.13971700
4240.98	4367.914	-0.012634	4367.901	-0.04124	-0.00089	4367.900	981160.8	-359.27	126.9281	1.194959	0.40856900		0.08883300
4240.41	4367.327	-0.010717	4367.316	-0.04124	-0.00103	4367.315	981160.8	-360.259	127.2778	1.196961	0.38179700		0.03700900
4240.49	4367.409	-0.009208	4367.400	-0.04124	-0.00115	4367.399	981160.8	-360.047	127.2026	1.196531	0.36800900		0.00757100
4240.455	4367.373	-0.007724	4367.365	-0.04124	-0.00126	4367.364	981160.8	-360.218	127.2632	1.196878	0.36504400		0.00408200
4240.37	4367.285	-0.004481	4367.281	-0.04124	-0.00152	4367.279	981160.8	-360.454	127.3467	1.197355	0.35536700		0.00622700
4240.357	4367.272	-0.002059	4367.270	-0.04124	-0.00172	4367.268	981160.8	-360.52	127.3699	1.197487	0.34919700		0.02007600
4240.655	4367.579	-0.000388	4367.579	-0.04124	-0.00186	4367.577	981160.8	-360.158	127.2419	1.196756	0.34484800		0.01573600
4240.57	4367.491	0.001231	4367.493	-0.04124	-0.002	4367.491	981160.8	-360.133	127.233	1.196705	0.33844600		0.01135900
4240.35	4367.265	0.003707	4367.268										0.00000000
4240.49	4367.409	0.007676	4367.417	1.442669	0.014026	4367.431	981160.8	-360.416	127.3333	1.197278	0.33701300		0.00286500
4240.18	4367.09	0.008974	4367.098	0.060111	0.000793	4367.099	981160.8	-360.888	127.5	1.19823	0.33549200		0.02357100
4240.18	4367.09	0.010677	4367.100	0.060111	0.001085	4367.101	981160.8	-360.967	127.528	1.19839	0.33678600		0.03676600
4240.75	4367.677	0.012667	4367.690	0.060111	0.001461	4367.691	981160.8	-360.251	127.275	1.196945	0.34060100		0.03776000
4240.38	4367.296	0.013865	4367.309	0.060111	0.001712	4367.311	981160.8	-360.711	127.4374	1.197873	0.34619300		0.08032800
4240.38	4367.296	0.013865	4367.309										0.00000000
4241.56	4368.512	0.01609	4368.528	-0.83486	-0.00754	4368.520	981160.8	-358.717	126.7328	1.193837	0.35460200		0.09967800
4241.49	4368.44	0.0172	4368.457	-0.03479	-0.00051	4368.456	981160.8	-359.076	126.8595	1.194565	0.36074200		0.06181900
4240.8	4367.728	0.018108	4367.747	-0.03479	-0.0007	4367.746	981160.9	-360.117	127.2275	1.196673	0.36375400		0.02815000
4240.03	4366.935	0.019354	4366.954	-0.03479	-0.00111	4366.953	981160.9	-361.311	127.6496	1.199083	0.36159200		0.09041700
4240.5	4367.419	0.019509	4367.439	-0.03479	-0.00121	4367.438	981160.9	-360.569	127.3871	1.197586	0.36336200		0.01454300
4240.88	4367.811	0.019592	4367.831	-0.03479	-0.00128	4367.829	981160.9	-359.898	127.1501	1.196231	0.36470400		0.04344700
4240.87	4367.801	0.019656	4367.820	-0.03479	-0.00138	4367.819	981160.9	-360.258	127.2773	1.196958	0.37072600		0.01370500
4240.55	4367.471	0.019667	4367.490	-0.03479	-0.00147	4367.489	981160.9	-360.313	127.2968	1.19707	0.37869800		0.00580500
4240.53	4367.45	0.019587	4367.470	-0.03479	-0.00162	4367.468	981160.9	-360.268	127.2809	1.196979	0.36788800		0.00000000
4240.33	4367.244	0.019014	4367.263										0.00000000
4239.54	4366.43	0.034729	4366.465										0.00000000
4240.8	4367.728	0.033167	4367.762	-2.19554	-0.02135	4367.740	981160.9	-356.108	125.8106	1.188512	0.60334200		0.00000000
4240.96	4367.893	0.032119	4367.925	-0.09148	-0.00133	4367.924	981160.9	-355.852	125.7203	1.187988	0.62422800		0.01338000
4241.49	4368.44	0.030714	4368.470	-0.09148	-0.00184	4368.468	981160.9	-355.292	125.5224	1.186837	0.61250700		0.05784400
4241.26	4368.203	0.029517	4368.232	-0.09148	-0.00222	4368.230	981160.9	-355.85	125.7194	1.187982	0.59687800		0.01944800
4240.43	4367.347	0.02797	4367.375	-0.09148	-0.00267	4367.372	981160.9	-357.031	126.137	1.190402	0.54400600		0.01502000
4240.605	4367.528	0.02797	4367.555	-0.09148	-0.00267	4367.553	981160.9	-356.823	126.0635	1.189977	0.57898200		0.03179500
4240.53	4367.45	0.023855	4367.474	-0.09148	-0.00368	4367.470	981161	-357.428	126.2771	1.191212	0.40073900		0.01685400
4240.525	4367.445	0.022413	4367.467	-0.09148	-0.004	4367.463	981161	-357.565	126.3257	1.191492	0.39197500		0.02163400
4240.82	4367.749	0.020277	4367.769	-0.09148	-0.00445	4367.765	981161	-357.092	126.1585	1.190527	0.39022100		0.00256200
4239.44	4366.327	0.017339	4366.344										0.00000000
4240.93	4367.862	0.010501	4367.873	0.084549	0.001116	4367.874	981161	-356.947	126.1072	1.19023	0.38939600		0.01458500
4240.93	4367.862	0.006996	4367.869	0.003523	6.85E-05	4367.870	981161	-357.031	126.137	1.190402	0.39090300		0.02216700
4240.62	4367.543	0.00417	4367.547	0.003523	8.56E-05	4367.547	981161	-357.411	126.2712	1.191178	0.39163500		0.00600100
4240.51	4367.43	-0.000001	4367.430	0.003523	0.00011	4367.430	981161	-357.639	126.3518	1.191643	0.39873200		0.00648700
4240.27	4367.182	-0.004303	4367.178	0.003523	0.000135	4367.178	981161	-358.109	126.5179	1.192601	0.41285500		0.00379700
4240.045	4366.95	-0.006496	4366.944	0.003523	0.000147	4366.944	981161	-358.498	126.6554	1.193392	0.42291300		0.00598900
4239.77	4366.667	-0.010047	4366.657	0.003523	0.000166	4366.657	981161	-358.76	126.7478	1.193923	0.42336700		0.01099640
4239.65	4366.543	-0.01274	4366.531	0.003523	0.000181	4366.531	981161	-358.931	126.8085	1.194272	0.40792200		0.03523100
4239.58	4366.471	-0.015902	4366.455	0.003523	0.000198	4366.455	981161	-358.943	126.8127	1.194297	0.38097500		0.08684200
4239.48	4366.368	-0.018542	4366.350										0.00000000
4239.4	4366.286	-0.056313	4366.229										0.00000000
4239.3	4366.183	0.038177	4366.221										0.00000000
4245.74	4372.82	0.044926	4372.865	-0.63365	-0.01188	4372.853	981161.1	-349.131	123.3452	1.174033	0.35738900		0.00000000
4245.53	4372.603	0.045881	4372.649	-0.0264	-0.00059	4372.649	981161.1	-349.415	123.4456	1.174629	0.35727300		0.01794300
4245.54	4372.614	0.047058	4372.661	-0.0264	-0.00072	4372.660	981161.1	-349.411	123.4443	1.174621	0.36003600		0.00580900
4245.6	4372.675	0.047782	4372.723	-0.0264	-0.00081	4372.722	981161.1	-349.215	123.3749	1.174209	0.36191200		0.03266400
4245.41	4372.48	0.048406	4372.528	-0.0264	-0.0009	4372.527	981161.1	-349.516	123.4813	1.174841	0.36281000		0.06713500
4244.98	4372.036	0.049113	4372.086	-0.0264	-0.00103	4372.084	981161.1	-350.276	123.7497	1.176432	0.36540100		0.07145600
4242.66	4369.645	0.049824	4369.695	-0.0264	-0.00123	4369.694	981161.1	-354.058	125.0864	1.184295	0.35938100		0.05825200
4242.92	4369.913	0.05002	4369.963	-0.0264	-0.00136	4369.962	981161	-353.848	125.0119	1.18386	0.36240400		0.03464200
4239.25	4366.131	0.049664	4366.181										0.00000000

Final Data

Observed abs gravity	COMPLETE BOUGUER ANOMALY	bouguer with local terr	
-976561.123	-976561.123	0.93	0.89
-976561.108	-976561.072	0.94	0.94
-976560.948	-976560.934	1.10	1.08
-976561.043	-976561.013	1.01	1.00
-976560.954	-976560.944	1.10	1.07
-976561.149	-976561.113	0.90	0.90
-976560.946	-976560.909	1.10	1.11
-976561.165	-976561.145	0.88	0.87
-976561.213	-976561.143	0.84	0.87
-976561.142	-976561.071	0.91	0.94
	0.00	0.00	0.00
	0.00	0.00	0.00
-976561.360	-976561.220	0.69	0.80
-976561.344	-976561.255	0.71	0.76
-976561.319	-976561.282	0.73	0.73
-976561.385	-976561.378	0.66	0.64
-976561.318	-976561.314	0.73	0.70
-976561.255	-976561.249	0.79	0.77
-976561.230	-976561.210	0.82	0.81
-976561.159	-976561.143	0.89	0.87
-976561.268	-976561.256	0.78	0.76
	0.00	0.00	0.00
-976561.147	-976561.144	0.90	0.87
-976561.175	-976561.152	0.87	0.86
-976561.121	-976561.085	0.93	0.93
-976560.989	-976560.952	1.06	1.06
-976561.067	-976560.987	0.98	1.03
	0.00	0.00	0.00
-976561.135	-976561.035	0.91	0.98
-976560.961	-976560.899	1.09	1.12
-976561.098	-976561.069	0.95	0.95
-976561.123	-976561.033	0.93	0.98
-976561.115	-976561.100	0.93	0.92
-976561.154	-976561.111	0.89	0.91
-976560.927	-976560.913	1.12	1.10
-976561.213	-976561.207	0.84	0.81
-976561.274	-976561.274	0.78	0.74
	0.00	0.00	0.00
	0.00	0.00	0.00
-976563.447	-976563.447	-1.40	-1.43
-976563.408	-976563.395	-1.36	-1.38
-976563.236	-976563.178	-1.19	-1.16
-976563.131	-976563.111	-1.08	-1.09
-976563.280	-976563.265	-1.23	-1.25
-976563.199	-976563.167	-1.15	-1.15
-976563.169	-976563.152	-1.12	-1.14
-976563.097	-976563.075	-1.05	-1.06
-976563.102	-976563.099	-1.05	-1.08
	0.00	0.00	0.00
-976563.087	-976563.072	-1.04	-1.06
-976563.036	-976563.014	-0.99	-1.00
-976563.113	-976563.107	-1.06	-1.09
-976563.076	-976563.070	-1.03	-1.05
-976563.011	-976563.007	-0.96	-0.99
-976562.984	-976562.978	-0.93	-0.96
-976563.101	-976562.991	-1.05	-0.98
-976563.133	-976563.098	-1.08	-1.08
-976563.228	-976563.141	-1.18	-1.12
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
-976563.278	-976563.278	-1.23	-1.26
-976563.299	-976563.282	-1.25	-1.27
-976563.288	-976563.282	-1.24	-1.27
-976563.350	-976563.317	-1.30	-1.30
-976563.350	-976563.283	-1.30	-1.27
-976563.300	-976563.229	-1.25	-1.21
-976563.259	-976563.201	-1.21	-1.18
-976563.023	-976562.989	-0.97	-0.97
			0.00