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1)



Assessment Report

Title Page and Summary

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

TOTAL COST: TYPE OF REPORT [type of survey(s)]: abowy signature(s): AUTHOR(S): YEAR OF WORK: 2011 NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): 5116226 STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 36 05. PROPERTY NAME: CLAIM NAME(S) (on which the work was done): COMMODITIES SOUGHT: Judec an MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 13E MINING DIVISION: wen NTS/BCGS: LONGITUDE: 125 · 45 LATITUDE: (at centre of work) OWNER(S): a Konowces Inc GIN anu CID BC. VGC IV5 MAILING ADDRESS: as above. above OPERATOR(S) [who paid for the work]: pourcy hr. 2) MAILING ADDRESS: dee above. PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude): Gold ande DOID hure 29785 REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			b
Ground, mapping			73000
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic	· · · · · · · · · · · · · · · · · · ·		
Induced Polarization			
Radiometric			
Seismic			
Other			5 10262 47
Airborne			777005.7
GEOCHEMICAL (number of samples analysed for.)		
5011			
Silt			
ROCK			
Other			
DRILLING (total metres; number of holes, size	ze)		
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 (kilometre	es)/trail		
Trench (metres)			
Underground dev. (metres)			
Other			1
		TOTAL CO	ST: \$52363-47
		B	angtro.

ASSESSMENT REPORT

TECHNICAL WORK – MAGNETOMETER SURVEY

PINCHI COPPER PROPERTY 2011

DM claims Omineca River, Omineca Mining Division Latitude 55° 54' N, Longitude 125° 45' W UTM: NAD 83 ZONE 10 6197661N 328721E

EVENT 5116226

WORK DONE Sept 4-Oct 18, 2011

DM CLAIM GROUP (see attached list of titles)

For

BC Geological Survey Assessment Report 33126

DONALD K. BRAGG

CLAIM OWNER

WORK DONE BY:

MERIDIAN MAPPING LTD. KEN MACDONALD, BARRY PRICEAND DON BRAGG

Assessment Report Prepared by:

B.J. PRICE GEOLOGICAL CONSULTANTS INC.

Barry James Price, M.Sc., P. Geo., Consulting Geologist Ste. 831 – 470 Granville St. Vancouver B.C., V6C 1V5 TEL: 604–682–1501 FAX: 604–642–4217 e-mail: <u>bpricegeol@telus.com</u>

JUNE 22, 2012

EVENT NUMBER

Event Number ID	5116226
Recorded Date	2011/oct/28
Work Type	Technical Work (T)
Technical Items	Geological (G), Geophysical (P)
Work Start Date	2011/sep/04
Work Stop Date	2011/oct/18
Total Value of Work	\$ 52363.47

ASSESSMENT REPORT

TECHNICAL WORK – MAGNETOMETER SURVEY

PINCHI COPPER PROPERTY 2011.

SUMMARY

At the request of Don Bragg (registered owner) and Sointula Resources Inc. (Optionor) the author has prepared this Assessment Report to describe a magnetometer survey completed by Meridian Mapping between 2011/sep/04 and 2011/oct/18 with a total value of Work of \$ \$52363.47. With this report the author presents a number of figures to illustrate the geology, geochemistry and magnetics of the property, contributed by Dr. Peter Fox and others. Ken MacDonald has completed a NI 43–101 technical report, part of which has been referred to in this report. A great deal of useful information has been gained from the Technical report by Gerald MacArthur P.Geo. on the adjacent Don Don and Grab claims for Lund Gold Ltd. In 2010.

No existing grid had been established in the immediate survey area. Survey lines were therefore run by GPS navigation with only the endpoints flagged. The survey grid was designed to adjoin a ground magnetics survey completed by Meridian in 2008 and extend the coverage to the south and east. A total of 16 lines were surveyed parallel to the UTM grid on a true north azimuth of 88°. 15 Lines were surveyed on 100 meter spacing and a single 50m spaced in-fill line was run in the center of the grid. A total of 37.1 line kilometers were surveyed over four field days.

The magnetic survey was conducted by two operators supervised by Don Bragg and Dugald Dunlop using two GPS equipped GSM Ver 7.0 19W Overhauser walking magnetometers measuring the earth"s magnetic field. Data was recorded at a 3 second interval at the base. This base data was used to apply diurnal correction to the rover data. A 250 meter length of overlap line was walked each morning by both units. Data from this overlap line was used to level the data between the two instruments, between survey days, and between the 2008 and 2011 surveys.

The magnetometer survey correlated well with the airborne survey and provides a number of targets to be examined in the field.

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ASSESSMENT REPORT TECHNICAL WORK – MAGNETOMETER SURVEY DM CLAIMS – PINCHI COPPER PROPERTY 2011.

INTRODUCTION

At the request of Don Bragg and Sointula Resources Inc. the author has prepared this Assessment Report to describe a magnetometer survey completed on the DM claims, Pinchi Copper property by Meridian Mapping in September to October 2011. With this report the author presents a number of figures to illustrate the geology, and magnetics of the property, kindly contributed by Dr. Peter Fox and others. A great deal of useful information has been gained from the Technical report by Gerald MacArthur P.Geo. on the adjacent Don Don and Grab claims for Lund Gold Ltd. In 2010 and contributions were made by prospector Donald K. Bragg, who managed the program Consultant Ken MacDonald who visited the property during the work program for Sointula Resources Inc.

THE COMPANY

Sointula Resources Inc. is at present a private company intending to become a public company on the TSXV subject to approval by the regulatory bodies.

Option Agreement

Sointula has entered into an option agreement, dated August 26th, with Don Bragg, Don Mustard, Barry Price, and Peter Fox (optionor group) for the acquisition of 36 claims collectively known as the DM claims. Sointula may earn a 75% undivided interest in and to the DM claims, subject to a 2% Net Smelter Return, through a combination of cash payments, share issuance and by incurring certain work costs. Prior to the execution date a director of Sointula, Donald Barker, paid to the optionor group a sum of \$10,000, the amount being one-half of the first payment required under the terms of the option agreement. One-half, or 1%, of the royalty may be purchased by Sointula by payment of \$1,000,000.00 at any time commencing upon the date of commercial production on the DM claims and expiring ten years thereafter. The option has a 5 year term during which time there shall be cumulative cash payments of \$200,000, the issuance of 500,000 shares of Sointula and exploration expenditures of \$1,500,000.00.

PROPERTY DESCRIPTION AND LOCATION

The DM property described here is 36 claims covering approximately 13,841 hectares. The claims are contiguous and have not been surveyed, but cell corners are referenced to geographical coordinates that may be precisely located in the field by GPS or theodolite surveys. The claims are listed below:

DM CLAIM GROUP								
Donald K Bragg								
Event 5116226								
Tenure Number	Claim Name	Owner	Map Number	Issue Date	Good To Date	Area (ha)		
832385	DM 1	103083 (100%)	093N	2010/aug/30	2012/oct/01	435.1059		
832386	DM2	103083 (100%)	093N	2010/aug/30	2012/oct/01	217.4853		
832388	DM 3	103083 (100%)	093N	2010/aug/30	2012/oct/01	434.8297		
832389	DM 4	103083 (100%)	093N	2010/aug/30	2012/oct/01	434.7963		
832390	DM 14	103083 (100%)	093N	2010/aug/30	2012/oct/01	290.2282		
832396	DM 15	103083 (100%)	093N	2010/aug/30	2012/oct/01	362.8919		
832400	DM 5	103083 (100%)	093N	2010/aug/30	2012/oct/01	434.6174		
832401	DM 36	103083 (100%)	093N	2010/aug/30	2012/oct/01	434.581		
832409	DM16	103083 (100%)	093N	2010/aug/30	2012/oct/01	435.6312		
832410	DM 39	103083 (100%)	093N	2010/aug/30	2012/oct/01	434.5822		
832413	DM 40	103083 (100%)	093N	2010/aug/30	2012/oct/01	434.389		
832415	DM 12	103083 (100%)	093N	2010/aug/30	2012/oct/01	453.2947		
832420	DM 13	103083 (100%)	093N	2010/aug/30	2012/oct/01	453.2921		
832421	DM 41	103083 (100%)	093N	2010/aug/30	2012/oct/01	434.4202		
832426		103083 (100%)	093N	2010/aug/30	2012/oct/01	434.2028		
832428	DM 6	103083 (100%)	093N	2010/aug/30	2012/oct/01	325.8506		
832430	DM7	103083 (100%)	093N	2010/aug/30	2012/oct/01	362.1076		
832433	DM 8	103083 (100%)	093N	2010/aug/30	2012/oct/01	434.3488		
832434		103083 (100%)	093N	2010/aug/30	2012/oct/01	434.5783		
832436	DM 18	103083 (100%)	093N	2010/aug/30	2012/oct/01	363.1005		
832437		103083 (100%)	093N	2010/aug/30	2012/oct/01	434.6299		
832439	DM 9	103083 (100%)	093N	2010/aug/30	2012/oct/01	271.3952		
832440	DM 10	103083 (100%)	094C	2010/aug/30	2012/oct/01	434.2459		
832441		103083 (100%)	093N	2010/aug/30	2012/oct/01	362.2047		
832442		103083 (100%)	093N	2010/aug/30	2012/oct/01	452.979		
832444	DM 11	103083 (100%)	094C	2010/aug/30	2012/oct/01	434.1674		
832445		103083 (100%)	093N	2010/aug/30	2012/oct/01	452.9081		
832446		103083 (100%)	093N	2010/aug/30	2012/oct/01	452.9154		
832447		103083 (100%)	093N	2010/aug/30	2012/oct/01	72.4291		
832448		103083 (100%)	093N	2010/aug/30	2012/oct/01	453.0826		
832449	DM 36	103083 (100%)	093N	2010/aug/30	2012/oct/01	452.9931		
832451		103083 (100%)	093N	2010/aug/30	2012/oct/01	452.9095		
832452	DM 37	103083 (100%)	093N	2010/aug/30	2012/oct/01	90.6208		
832454	DM 17	103083 (100%)	093N	2010/aug/30	2012/oct/01	362.8457		

MINERAL TITLES

B.J.Price Geological Consultants Inc.

832456	DM 38	103083 (100%)	093N	2010/aug/30	2012/oct/01	162.9592
832457		103083 (100%)	093N	2010/aug/30	2012/oct/01	453.2471
36 claims						13840.87

The claims are contiguous and have not been surveyed, but cell corners are referenced to geographical coordinates that may be precisely located in the field by GPS or theodolite surveys.

Sointula has submitted a notice of work for a permit to authorize planned 2012 exploration on the Pinchi Property. Low-impact exploration including mapping and geochemical sampling does not require a permit. Sointula has also consulted with the Takla native band.

Location

The DM property is located approximately 275 kilometers northwest of Prince George, B.C. in the Omineca Mining Division. The property runs along the east side of the Omineca River from Omnicetla River and Mount Ogden in the north, southwards. to Kelly Lake (Fig. 1a and 2).

The property has no road access but logging and mining access roads allow access to Ogden Mountain, to the west, and to Haha Creek to the east.

Ogden Mountain is accessed by paved and all weather gravel roads from Prince George through the town of Fort St. James, then north along the Leo Creek and Driftwood main forestry roads to Takla Landing and Lovell Cove. From Lovell Cove, travel east on the Fall River forestry access road to Kelly Lake where the east and west Ogden forestry roads give access to Ogden Mountain. Similarly, paved roads to Mackenzie and the Omineca Mine road give access to Osilinka River and branch logging roads extend to logging clearings on Haha Creek. This road is in disrepair or has been decommissioned; the cost of repairs may be excessive to consider access. Consequently most of the claims area requires a helicopter for access and for further work a camp may have to be set up at a convenient point on Omineca River.

Local Resources and Infrastructure

The area is somewhat isolated and there are no local resources for food, accommodation, fuel or propane. The Osilinka Forestry camp, is located 26 road kilometers east of the property but is presently closed and not expected to re-open in the near future. All supplies and services must be brought in from Prince George, Mackenzie or Fort St. James. Hydroelectric power is available 60 kilometres to the east from the Kemess Mine transmission line (230 kW). The CNR (BC) rail line and power exists (38.5 kW) along Takla Lake, 40 kilometres to the west.

Climate and Physiography

The climate in north central BC is typically cool and moderate with warm moist summers and cold winters. The lower claim elevations are snow free from May to November while at higher elevations snow may linger until June and occur again by September. Total snowfall is not excessive, usually less than one meter, and would not affect any mining.

Elevations on the property range from approximately 800 meters along the Omineca River to around 2000 meters at the height of land in the mountains north of Haha Creek.

Glacial till and fluvioglacial outwash material blanket the valley bottom and lower elevations limiting out crop exposure to occasional creek gullies and ridge tops. A thick growth of mature spruce, balsam and pine cover much of the lower elevation and extends up to the tree line at about 1650 meters elevation. There is sufficient room for any proposed type of mining exploration and development.

HISTORY

The DM/ property is an early stage exploration project and there is no known historic record of any work being performed on much of the property apart from the small Mariposite zone on the west side of Omineca River. Previous work in the general area dates to the 1930's when mercury and gold were explored for along the Pinchi fault. Exploration in the late 1950's and early 1960's was focused on the many copper occurrences found in the area. In the 1970's exploration again focused on copper and numerous airborne and ground geophysical, geochemical and geological surveys were carried out on nearby properties such as Lorraine and Takla Rainbow. In the 1970's road access was gained to Ogden Mountain when good quality jade was discovered at several locations there. Results of these surveys are documented in the numerous assessment reports filed with the Mines branch of the BC government.

Recent exploration has increased significantly as a result of the discovery of the Mount Milligan copper-gold deposit in 1987 followed by the discovery of the Kwanika copper-gold deposit of Serengeti Resources in 2006 both in the same belt of rocks.

2005:

In 2005, Lysander Minerals Corp. staked the easterly adjacent Pinchi project to cover the extension of the Lorraine copper-gold occurrence optioned to Teck Corp. They initially completed geochemical sampling and prospecting. In 2007, Fugro Airborne Surveys conducted a heliborne magnetic and electromagnetic survey over the Pinchi property outlining several strong geophysical (magnetic) anomalies including a weak magnetic anomaly along the Omineca River. Peter E. Walcott and Associates, in 2008, carried out limited ground magnetic and induced polarization surveying for Lysander to further define some of the Pinchi project airborne geophysical anomalies. Adjacent claims to the south also had airborne magnetics and EM flown.

The Pinchi project was subsequently optioned to Amarc Resources in 2009. Amarc, as part of their option agreement, completed a two-hole drill program late in 2009, which tested a strong IP and magnetic geophysical anomaly near the Omineca River. Results were not encouraging but the drillholes may not have been placed in the best spot.

The Don-Don property area was covered by the wide spaced (4 km) magnetic and electromagnetic Quest airborne geophysical program funded by Geoscience BC. The Quest survey identified several EM conductors, which were staked by prospector Don Bragg.

2008-09

MacDonald states (2012): Lysander conducted a ground IP/Magnetometer survey in 2008 on their Pinchi Claim Block (Mustard, 2009). The work consisted of line cutting and induced polarization ("IP") survey in the Omineca River valley to test a prominent geophysical anomaly (the "Mustard Anomaly") derived from regional airborne magnetic and electromagnetic survey carried out by Lysander in 2007. The IP survey was conducted on ground that is now part of the DM claims group. A total of 40 line kilometres were cut and a total of 10.1 line kilometres of IP geophysical survey were conducted. The program was terminated early due to poor weather. The limited IP survey did confirm the "Mustard Anomaly" adjacent to the Pinchi Fault. Prior to commencement of the IP survey, Lysander had compiled regional government and industry geophysical data. They identified a strong magnetic high anomaly that conformed to the mapped extents of the Hogem Batholith (Figure 11). They loosely coined this anomaly the "Fist of God". Parallel lineaments in the data were suggestive of rift related faults – two of which (the West Fault and the Central Fault) appear related to the known margins of the Duckling Creek Complex.



FIGURE 1. LOCATION MAP

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GEOLOGICAL SETTING

Regional Geology

The Pinchi property is situated in the north-central portion of the Quesnel Terrane, part of the northwesterly trending Intermontane Belt and a major tectonic-metallogenic volcanic belt extending almost the full length of British Columbia (Figure 6 and Figure 7).

The Quesnel Terrane includes parts of the Paleozoic basement (Cache Creek – Asitka Groups), Upper Triassic and Lower Jurassic age volcanic and sedimentary lithologies comprising the Nicola, Takla and Stuhini Groups (locally Takla Group), granitic plutons of middle to late Mesozoic age, the Hogem Batholith and satellite Duckling Creek intrusions and Tertiary volcanic and sedimentary rocks. The northwest–elongate Late Triassic to Early Cretaceous Hogem Intrusive Complex, 170 kilometres long and 40 kilometres wide, is intruded into the Quesnel Terrane.

The Quesnel Terrane is host to several alkalic porphyry copper deposits notable for their significant gold content. Examples include

- Copper Mountain,
- Afton,
- Cariboo-Bell (Mt. Polley),
- Mt. Milligan,
- Lorraine and
- Kemess

Regional fault systems bound the Quesnel Terrane. The Pinchi Fault forms the west boundary and the Swannell Fault the east. The Pinchi fault, which in large part separates the Cache Creek Terrane from the Takla Group and Hogem batholithic intrusive rocks, cuts through the center of the property and may be a composite structure with several splays.

FIGURE 3. QUESNELLIA TERRANE WITH PORPHYRY COPPER GOLD DEPOSITS



(Contributed by Donald K. Mustard)

LIST OF COPPER GOLD ALKALIC PORPHYRY DEPOSITS IN B.C.

QUESNELLIA GOLD COPPER PORPHYRIES								
METAL	COPPER	GOLD	SILVER					
PRICES	\$3.00	\$1,500	\$30					
	COPPER	GOLD	SILVER	GMV \$				
PROPERTY	B POUNDS	M.OZ	M. OZ.	BILLION				
KERR SULPHURETS MITCHELL	12.7	49	261	\$119.43				
PRETIUM Brucejack/Snowfield	3	50	245	\$91.35				
RED CHRIS (M+I)	8.8	12.8	44	\$46.92				
GALORE CREEK	9	8	150	\$43.50				
MT MILLIGAN	5	13.5		\$35.25				
COPPER MOUNTAIN	6.43	2.1	24.5	\$23.18				
AJAX	3.04	2.8	0.07	\$13.32				
KWANIKA	2.5	2.6		\$11.40				
KEMESS NORTH/SOUTH	2.3	7	0.16	\$17.40				
AFTON	3	2.2	14	\$12.72				
MT. POLLEY	1.8	2.4	8	\$9.24				
WOODJAM								
LORRAINE								
TAS								
GJ								
AND OTHERS								
TOTALS rounded	57.57	152.4	746.73	\$423.71				

Local Geology

Local Geology of the Omenica River area is described by Amarc (2007) as follows:

The property is underlain by upper Paleozoic and lower Mesozoic oceanic rocks of the Cache Creek Complex – Phyllite, quartzite and metachert of the Early Permian to Late Jurassic Sowchea Succession contain lenses of limestone, marble, minor basalt and chert of the upper Pennsylvanian to lower Triassic Copley Limestone.

These fine-grained clastic and carbonate rocks are bounded on the northeast across the Pinchi fault by monzonitic to monzogranitic rocks of the Early Jurassic Hogem Plutonic suite and the

upper Triassic to Lower Jurassic Takla Group turbidites. The Cache Creek sedimentary packages are bounded to the southwest by Late Pennsylvanian to Middle Triassic serpentinized ultramafic rocks of the Cache Creek Trembleur Ultramafite Unit which also bound the sediments to the northeast at the north end of the claim group (Schiarizza, 1999).

Up until 2010, the only showing known was the Mariposite mercury occurrence. However the drill program by Lund Gold (McArthur 2010) revealed porphyry style copper gold mineralization in Drill hole No. 2, situated on the Omineca River (Grab 1 claim). The mineralization appears to be in Takla volcanic rocks affected by potassic alteration.

Of most interest in the area are a series of magnetic anomalies which are thought to be:

- Magnetic phases of the Duckling Creek mafic/alkalic igneous complex, or
- Magnetic basaltic volcanics of the Takla volcanic group, or
- Ultramafic lenses along the Pinchi fault system

The eastern part of the DM claims is underlain mainly by intrusive phases of the Hogem Batholith, including phases known as the Duckling Creek syenitic complex. The area is described by Ken MacDonald:

"Regionally, the Hogem Batholith, including the Lorraine, Tam, Dorothy, and Elizabeth prospects. Copper mineralization in the Duckling Creek syenite generally consists of chalcopyrite, bornite, chalcocite, covellite and malachite in strongly foliated and K-spar altered migmatite. Gold and silver values are commonly associated with the copper sulphides.

Limited drilling by Lund Gold in 2009 revealed weak but persistent chalcopyrite mineralization over an interval width of 80 meters in Takla Group volcanics; close to the fault bounded contact with the Hogem Batholith; and within the trace of the Pinchi Fault. This occurrence, although not strictly hosted in porphyritic intrusive rocks, may be indicative of stronger copper mineralization across the fault in intrusive rocks, or at depth in intrusive rocks beneath a roof pendant of volcanic rocks.

FIGURE 4. GEOLOGICAL SETTING AND MINERALIZATION

(From Lysander 2009)



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FIGURE 5. REGIONAL GEOLOGY (Price 2011)





FIGURE 6. LOCAL GEOLOGY (PETER FOX 2012)

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MINERALIZATION AND DEPOSIT TYPES

There are a variety of mineralization types in the area |:

- 1. Mercury mineralization (cinnabar) in altered ultramafics at Mariposite Creek
- 2. Nephrite Jade deposits at sediment and granite/ultramafic contacts
- 3. Placer gold
- 4. Stratiform mafic igneous vanadium layers in the Axelgold area.
- 5. Gold Silver polymetallic veins (Hawk and Dove property)
- 6. Porphyry copper mineralization (Grab 1 claim and nearby Lorraine Misty etc. deposits
- 7. Magnetite gold bodies associated with suspected porphyry gold/copper at Cat Mountain

Mariposite showing

As described by Minfile (MINFILE No 093N 065) the showing is located on Mariposite Creek, on the east side of Ogden Mountain, in a creek flowing eastward into Omineca River. Minfile Location is Latitude 55° 52' 37" N and Longitude 125° 42' 47" W or, UTM 10 (NAD 83) Northing 6195711 Easting 330279

The Mariposite occurrence is situated on Mariposite Creek, which drains into the Omineca River approximately 48 kilometres north-northeast of Takla Landing. Although sedimentary rocks assigned to the Carboniferous to Jurassic Cache Creek Complex predominate in the area, the occurrence is reported to be associated with a small sill(?) of altered serpentinite, formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions and now termed Mississippian to Triassic Oceanic Ultramafites.

Mineralization is reported to consist of crystals of cinnabar hosted by carbonatized serpentinite outcropping in Mariposite Creek (Geological Survey of Canada Memoir 252, page 171).

In 1983 Golden Porphyrite conducted work on their Jo claims which covered Mariposite Creek, including the plotted location of the Mariposite cinnabar occurrence. Work done by Golden Porphyrite in 1983 consisted of Geological mapping and prospecting. An area of 40 square kilometers was mapped, 760 soil samples, 73 rock chip samples and 6 heavy sediment samples were collected. In 1984, Golden Porphyrite conducted further work including mapping and prospecting over an area of approximately 40 square kilometers. A total of 71 geochemical rock chip, 874 soil and 38 heavy sediment samples were collected.

The Grand North property was acquired by Amarc Resources Ltd. by staking in 2007. The property consisted of 26 claims covering an area of 11,683.71 hectares, stretching over 30 kilometres along the southwest side of the Omenica River An airborne magnetic gradiometer survey was flown over the property by in April 2007. The survey comprised 230.7 line km at a spacing of 200 metres. A series of west-northwest trending magnetic highs were outlined by the survey that likely reflect contrasts between volcanic and sedimentary rocks.

The occurrence is described in the following ARIS reports: 12549, 13971, 29785

Burton documents positive gold values in heavy mineral samples from several creeks:

- Mariposite Creek: a weakly anomalous value of 260 ppb Au
- On the Jo 127 claim An unnamed creek flowing eastward had anomalous values of 11,400 ppb and 1,150 ppb Au.
- On the Jo 128 claim, An unnamed SE flowing creek has values of 40, 200, 560 and 2600 ppb Au with tributaries with values of 1,600 and 28,000 ppb Au.

MacDonald (2012) reports that "Placer gold is known from this area; as well as significant occurrences of mineable quantities of nephrite. It's possible there are listwanite gold occurrences in this area which has seen little exploration. Mineralization is known from Cache Creek Group rocks in the Spruce Creek placer mining area, near Atlin, BC. The mineralization at the Golden View prospect (MINFILE 104N 042) is hosted in a tectonically dismembered ophiolitic assemblage of rocks dominated by listwanite-altered ultramafic and meta-igneous units. Both structure and contact relationships are known to be important factors in confining the alteration and mineralized zones.

Porphyry targets

Regionally, the Duckling Creek complex within the Hogem Batholith is host to most of the alkalic porphyry copper gold deposits in the Hogem Batholith, including the Lorraine, Tam, Dorothy, and Elizabeth prospects. Copper mineralization in the Duckling Creek syenite generally consists of chalcopyrite, bornite, chalcocite, covellite and malachite in strongly foliated and K-spar altered migmatite. Gold and silver values are commonly associated with the copper sulphides.

MacDonald comments: The proximity of the Pinchi Property to the Pinchi Fault and to the Hogem Batholith suggests the primary exploration target is an alkalic porphyry copper-gold deposit hosted in foliated, migmatized and K-spar altered Duckling Creek Syenite Complex. Alkalic porphyry deposits in BC are typically characterized by stockworks, veinlets and disseminations of pyrite, chalcopyrite, bornite and magnetite in large zones of bulk-mineable mineralization, in or adjoining porphyritic intrusions of diorite to syenite composition.

The mineralization is typically spatially, temporally and genetically associated with hydrothermal alteration of the intrusive bodies and host rocks. A generalized alteration model of an alkalic porphyry deposit is shown in the following Figure. Typical features include:

- Pipe shaped geometry
- Multistage intrusive events with accompanying and increasingly complex multi-stage
- hydrothermal (and over-printing) alteration assemblages
- Potassic core enveloped by Propylitic zones
- Magnetite-rich core can be useful for detection by airborne-ground geophysical methods
- Low-sulphide content but distinctive sulphide zonation evident

British Columbia alkalic porphyry deposits range from <10 to >300 Mt and contain from 0.2 to 1.5 % Cu, 0.2 to 0.6 g/t Au and >2 g/t Ag. Median values for 22 British Columbia deposits with reported reserves (with a heavy weighting from a number of small deposits in the Iron Mask batholith) are: 15.5 Mt with 0.58 % Cu, 0.3 g/t Au and >2 g/t Ag (Panteleyev, 1995).



FIGURE 7 AND 8. DIAGRAMMATIC DEPOSIT MODELS (MDRU) (Fiannuala Devine 2011)



EXPLORATION 2011

In 2011, orthophoto map preparation was completed by Photosat, and following this, a preliminary ground magnetic survey was completed by Meridian Mapping Ltd. Using helicopter access, under the supervision of Don Bragg, prospector and Dugald Dunlop, P.Geo. Ken MacDonald, P.Geo. visited the property during the work and began preparation of a NI 43-101 report. Don Bragg compiled costs for the project. The assessment report was written by Barry Price, M.Sc., P.Geo.

Between October 6th and 10th 2011, Meridian Mapping Ltd. completed a ground magnetometer survey over a portion of the Pinchi Property in the Omineca region of British Columbia for Sointula Resources Inc.

Ken MacDonald, P.Geo. conducted a field examination of the Pinchi Property over a two-day period from October 5th, 2011 for the purpose of examining the project site, collecting representative geological samples, assessing the geology, styles of mineralization and alteration on the property, and to confirm location on certain of the mineral claims. MacDonald also examined and sampled select pieces of drill core from one diamond drill hole drilled in 2009 by Lund Gold. The drill core from the 4-hole drill program was removed from the property in 2009 and has since been in secure storage in a fenced and locked yard owned by Falcon Drilling, a diamond drill contractor located in Prince George, BC.

No existing grid had been established in the immediate survey area. Survey lines were therefore run by GPS navigation with only the endpoints flagged. A total of 20 lines were surveyed on an azimuth of 35.3°. 18 lines were surveyed on the north side of the Omineca River, 17 of them on 200m spacing and the 18th (southern most line) on 400m spacing. Two lines were established on the south side of the Omineca River on a 200m spacing. A total of 48.2 line kilometers were surveyed over five field days.

The program outlined a number of strong magnetic targets which are worthy of follow-up. Specifications of the survey are attached in Meridians logistics report. The anomalies are shown on the following pages.

FIGURE 9. REGIONAL MAGNETIC PLAN (MAP PLACE)





FIGURE 10. AIRBORNE MAGNETIC SURVEY (LYSANDER 2007)

FIGURE 11. MERIDIAN GROUND MAGNETIC SURVEY RAW DATA

(As received from Meridian)







FIGURE 13. 2011 MAGNETOMETER SURVEY

(Interpretation by BJ Price Geological for this report)



2011 SAMPLES

Due diligence samples from the Lund Gold DDH 2 mineralized intercept of 80 m x 0.10 % Copper are given below:

KEN MACDONALD SAMPLES FROM LUND GOLD CORE. 2011									
	Depth	Length			From	То	Length		
Sample #	(m)	(m)	DDH #	Sample #	(m)	(m)	(m)	Au ppb	Cu ppm
DL11-KM02	22.7	0.3	09DD 2	331228	22	23	1	300	2730
DL11-KM 03	41.6	0.4	09DD 2	331249	41	42	1	200	370
DL11-KM 04	54	0.35	09DD 2	331263	54	55	1	100*	3140
DL11-KM 05	70.3	0.4	09DD 2	331281	70	71	1	100	1450
DL11-KM 06	121	1	09DD 2	331335	121	122	1	100	382
DL11-KM 07	141.3	0.5	09DD 2	331357	141	142	1	100	2940

100 ppb = detection limit

The samples compare favorably with the Lund Gold sampling.

ADJACENT PROPERTIES

Don Don Grab Property

In 2009, Lund Gold Ltd. Explored the adjacent Don-Don and Grab claims owned by Don Bragg. Falcon Drilling of Prince George BC was contracted to drill test several of the Don-Don project geophysical anomalies located on the northern Grab 1 and 2 claims. A helicopter portable F-2000 drill was mobilized to the property November 15, 2009. The drill crew was based at the same Kelly Lake Atco trailer camp utilized for the line cutting and geophysics. Drill crews worked two shifts daily and mobilized by helicopter to the property.

Four holes were drilled from three set-ups (Fig. 6) and these holes tested two different geophysical anomalies. A total of 682 meters of BTW core (42mm) was drilled. Drill logs and assay sheets are located in Appendix 3.

Three holes 09DD-02, 3 and 4 tested the northern anomaly at two separate locations 400 meters apart. These holes intersected variably altered and mineralized volcanic rocks thought to be part of the Triassic-Jurassic age Takla group.

The western hole 09DD-02 intersected an eighty meter (20-100m) interval below cover, which averaged 80 ppb gold and 0.1% copper including an upper thirteen meters (20-35m) at 135 ppb gold and 0.13% copper. The adjacent two drill holes 09DD-03 and 4 tested the same geophysical anomaly 400 meters to the southeast. Both drill holes intersected variably altered and mineralized Takla volcanics but copper and gold values were weak and spotty. A drill test of the middle anomaly 09DD-01 intersected unmineralized but sheared and quartz-carbonate veined graphitic shale, siltstone and fine-grained sandstone thought to be part of the basal Takla formation (Fig. 7, 8, 9).

Drill results 09DD-02 from the northern geophysical anomaly are very interesting with locally anomalous copper-gold values occurring over an eighty meter interval.

Mineralization is of the porphyry copper gold type and the intercept offers promise for discovery of a larger body nearby on the east side of the Omineca River (i.e. on the DM claim block). This hypothesis can be tested by Induced polarization surveys and drilling.

The Don Don and Grab claims are now also owned by Sointula Resources, forming a large conjoined block of claims, although covered by a separate agreement from the DM claims.



FIGURE 14. LUND GOLD MAGNETIC SURVEY AND DRILLHOLES

B.J.Price Geological Consultants Inc. 604-682-1501

JUNE 2012

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INTERPRETATION AND CONCLUSIONS

Recommendations have been made by Consulting Geologist Ken MacDonald in his forthcoming NI 43-101 compliant report, which include:

- Data compilation, geochemical and geophysical
- Additional prospecting in Mariposite Creek area.
- 3D Induced Polarization surveys, and
- Diamond drilling (Proposed holes shown may be modified in the new report)

Ken MacDonald P.Geo. came to the following conclusions after his property visit:

"The Pinchi Property is considered a property of merit worthy of additional exploration. The property straddles the Pinchi Fault and is underlain by highly prospective geology on either side of the fault. Intrusive rocks to the east of the fault represent various phases of the large Hogem batholith which is recognized as an important metallogenic setting and is known to host porphyry copper-gold deposits such as the Lorraine and the Kwanika deposits. Porphyry copper-gold mineralization in the region is temporally related to migmatized and potassic-altered alkali pyroxenite to syenite intrusions of the Duckling Creek Syenite Complex, considered the most important lithology within the Hogem batholith to host economic concentrations of copper-gold mineralization. The key to unlocking the potential of the property will be systematic mapping, prospecting, and targeted geochemical/geophysical surveys that will assist in defining the extents and contacts of the prospective host syenite.

The property also demonstrates a potential for other mineral deposits types on the west side of the Pinchi Fault, including gold vein targets, gold-enriched alkalic intrusive targets, and listwanitic gold targets".
RECOMMENDATIONS

Based on the 2011 work program, consultants to Sointula have recommended a work program costing approximately \$100,000 which will include:

- Cutting additional grid lines including and to the north of the 2011 magnetic grid, with the same orientation
- Completion of a 3D Induced Polarization survey across the grid
- Prospecting Mapping and soil sampling
- Possible radiometric survey
- To be followed, if results warrant with diamond drilling of IP and/or magnetic targets
- If finances are available, complete 2 follow up drillholes to the copper/gold zone discovered by Lund gold on the Grab 1 claim in 2010.



FIGURE 15. PROPOSED DRILL HOLE LOCATION - PINCHI PROPERTY

B.J.Price Geological Consultants Inc. 604-682-1501

JUNE 2012



FIGURE 16. PROPOSED GRID (Peter Fox 2012)

SIGNATURE PAGE

Respectfully submitted



Barry J. Price, M.Sc., P.Geo. Qualified Person

June 22, 2012

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STATEMENT OF QUALIFICATIONS

I, BARRY JAMES PRICE, M.SC., P.GEO. do hereby certify that:

1. I am President of B.J. Price Geological Consultants Inc., with my office at Ste. 831 - 470 Granville Street, Vancouver BC., V6C 1V5.

2. I graduated with a B.Sc. Degree in Honors Geology from the University of British Columbia in 1965, and in addition, I completed a M.Sc. In Geology from UBC in 1972.

3. I am a registered as a Professional Geoscientist (P. Geo.) in the Province of British Columbia with the Association of Professional Engineers and Geoscientists of BC (APEGBC) No 19810 – 1992 and I am entitled to use the Seal, which has been affixed to this report.

4. I have worked as a geologist for a total of 46 years since my graduation from university. My experience includes work on similar porphyry deposits elsewhere in Mexico, Panama, and Canada and the US and have a broad consulting experience since 1969 in many foreign countries on a variety of geological targets. My experience in the subject area includes a field season at the Lorraine property adjacent to Cat Mountain

5. This report is for Assessment purposes and is not intended to be a NI 43-101 compliant report. Nevertheless it has been prepared with care.

6. I am responsible for the preparation of all sections of this report and have prepared the Statement of Costs assisted by Donald K. Bragg who was present during the survey and who compiled the expenses.

7. I have not visited the Pinchi property, but have worked extensively on Ogden Mountain to the west Lorraine property and Haha Creek to the east relied on numerous reports prepared by Gerald McArthur, P.Geo. Dr. Peter Fox, Donald K. Mustard and others.

8. I am not independent of the issuer as I am one of the participants in the vending group.

respectfully submitted June 22, 2012 B.J.PRICE GEOLOGICAL CONSULTANTS INC.



Barry J. Price, M.Sc., P.Geo. Qualified Person

APPENDIX I - ITEMIZED COST STATEMENT

ITEMIZED COST STATEMENT

DM AND GRAB CLAIMS

EVENT NO 5116226 work filed Oct 28, 2011

Sept 4, 2011-Oct 18,2	2011
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		UNITS AND			
	DETAILS	RATES	٨N	/IOUNT	
	Prorated preparation and planning and set up	8 hr. @ \$40/hr.	\$	320.00	
	Don Bragg prorated expenses		\$	2,010.49	
	Mobilization demob,	32.5 hr. @\$40/hr.	\$	1,300.00	
	Mobilization demob truck rental	\$100/day	\$	240.00	
	Mobilization and Demob expenses		\$	470.49	
	Food and Camp support	58 hrs. @ \$40/hr.	\$	2,320.00	
	Truck rental on job	\$100/day	\$	420.00	
	Trailer rent	\$70/DAY	\$	336.00	
	Camp and Kitchen Rent	\$90/day	\$	432.00	
	meals served	66 @\$15/ea.	\$	1,005.00	
	Camp supplies and expenses		\$	239.57	
	Helicopter		\$	9,667.57	
	Helicopter Fuel costs and tax		\$	1,589.71	
	Fuel delivery		\$	1,911.83	
	Meridian Mapping mag survey	Inv. 11-084	\$	15,712.29	
			\$	37,974.95	
	Management Fee	Don Bragg	\$	1,600.00	
	All items are prorated with other projects				
	Please see attached receipts and statements				
	Ken MacDonald P.Geo.	20% of 4538.31	\$	871.62	
	B.J. price, Geological and Assessment report	2 days	\$	2,000.00	
	TOTAL FOR SOINTULA		\$	42,446.57	
	AMOUNT USED IN FILING		\$	40,630.85	
	ADD PAC FROM DKBRAGG	30%	\$	12,189.26	
			\$	52,820.11	_
I	AMOUNT ACTUALY CLAIMED ON EVENT		Ś	52.363.47	Ĩ

BARRY J. PRICE FOR DONALD K. BRAGG

APPENDIX III – WORK FILING AND COPIES OF INVOICES

(PDF VERSION ONLY AS FILE WOULD BE TOO LARGE)

Dated Nov 17 2011

SOINTULA RESOURCES INC.

INVOICE

PINCHI PROPERTY WORK 2011

6588 152 St, Surrey , B.C. V3S 3L1

TEL: (604) 597-7490 donbragg@amebc.ca

soint -1

	Donald K.Bragg			
DATES	DETAILS	DAYS		
24-Aug-11 preparir	ng and Planning for trip	1.5		
Aug 26-28 Planning	3			
30-Aug-11 Planning	D-Aug-11 Planning, re Mag surveys, phoning			
31-Aug-11				
02-Sep-11 Re Mag	netometer survey, phoning	2		
03-Sep-11				
·		8		

PAGE	DETAILS	UNITS AND RATES	AMC	UNT
a1	Prorated preparation and planning and set up	8 hr @ \$40/hr	\$	320.00
a1	Mobilization demob,	32.5 hr @\$40/hr	\$	1,300.00
a1	Mobilization demob truck rental	\$100/day	\$	240.00
a2	Mobilization and Demob expenses		\$	470.49
a3	Food and Camp support	58 hrs @ \$40/hr	\$	2,320.00
a3	Truck rental on job	\$100/day	\$	420.00
a3	Trailer rent	\$70/DAY	\$	336.00
a3	Camp and Kitchen Rent	\$90/day	\$	432.00
a4	meals served	66 @\$15/ea	\$	1,005.00
a5	Camp supplies and expenses		\$	239.57
a6	Helicopter		\$	9,667.57
a7	Helicopter Fuel costs and tax		\$	1,589.71
a7	Fuel delivery		\$	1,911.83
	PACused	20% x 11732.62	\$	2,346.52
	Filing assessment Fee to government	Pd by D. Bragg	\$	5,096.47
	Cash in lieu on Title 832455	Pd by D. Bragg	\$	1,741.58
	Filing fee for above		\$	174.63
	Management Fee		\$	1,600.00
	All items are prorated with other projects			
	Please see attached receipts and statements			

TOTAL FOR SOINTULA

Braa

DONALD K. BRAGG Payable on receipt, Interest will be added at 1%/mo after 30 days \$ 31,211.37

INVOICE

SOINTULA RESOURCES INC

Aug 24 Preparing & planning for trip, phoning Interior Helicopters Milten Markowski, Meridian Mapping, etc. 1.5 Aug 26+29 Planning Pinchi grid for Mag Survey - phoning etc. 3 Aug 30 + 31 Phoning re Magnetometer Surveys, planning etc. 1.5 2 Sept 213 Re Mag Grid, phoning & planning Total Protated preparing and planning + setup 8 hs @ 40.00/hr 320.00 al Provated Mobilization & Demobilization 32.5 hr @ 40.00/hr 1300:00 as Provated Mobilization & Densobilization Truck rental 240.00 az Provated Mobilization & Demobilization Expension 470.49 DIC a 3 Provated Field and Camp Support 58 kr @ HO.00/hr Bragg 2320.00 420.00 a 3 Provated truck rent a3 Prorated trailer rent 336.00 a 3 Provated camp and Kitchen year rent 432.00 1005.00 and Meals Served 66 @ \$15.00/meal as Provated Camp Supplies and expenses 239.57 9667.57 a6 Helicopter an Helicopter fuel costs + Tax H5 1589.71 an prorated fuel delivery 191183 PAC used #11,732.62 @ 204/#1.00 2346.52 Filing assessment \$52363.47 Filing fee 5096.47 Paying Cash in lein on 832455 1741.58 174.63 Filing Fee Management Fee 1600.00 31211.37

Som tula Stat ment of Costs

Filed

	Mobilization & Demobilization Costs including the	following	
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ar	Prorated Expensis	470.49	2010.49
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23	Provated truck rent		420.00
23	Prorated trailer rent		336.00
23	Provated camp and kitchen gear resit		432.00
24	Meals served 67 @ #15.00 Imeal		1005.00
05	Pro rated camp supplies & expensis		239.57
26	Helicopter		9667.57
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	Report		2520.00
	Magnietometer Survey		15712.29
	Management fee		16.00.00
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Mobilization & Demobilization Costs D.K. Bragg time

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Sept 5 Surrey to Mackenzie	2	4	7	13
6 Mackenzie to Camp	1	2	1	4.
9 Camp to Surrey	2	8	6	16
Sept 30 Buying Supplies, Pack truck	4.5	4	3	11.5
Det 1 Pack truck, Surrey to Prince Geor	ye 5	5	4	14
Oct 2 Prince George to Camp	5	5.5	5	15.5
14 Camp to Prince George	4	4	2.5	10.5
15 Prince George to Fort St. James	5	3	2	10
16 Casche Creek to Surrey & unload truck	3	4	3	10
	32.5 hrs	40.5 hrs	35.5 hrs	108.5
Bragg time percentage	30 %	378	33%	
Bragg time in field	30 %	32%	38 %	
Average used for prorating all other costs y expensis	30%	34.5	35.5	
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PreAuthorization

#**********9224 Exp **/** C VISA CREDIT 00:09 2011 14:45:03 651965EK 65 RESF:001 IS0:00 Ref:034001001003 Auth:050549 ATD: A00000003101001 IVH: 000008000 ISI: F800

BLAR'S CLAU LODGE PO BOX 520 CACHE CREEK - BC

8

Term ID: 28173678

Purchase

xxxxxxxxxx9224 VISA	Entry	Method: C
Total:	\$	23,90
2011/09/09 Sea II: 0011630260 Resp Code: 01/027	Apur Cod	20:07:19 e: 015409
VISA CREDIT		

AGDECECCO 3101001 6E FS 3A 0A 83 5A 42 00 00 00 00 80 80 00 2E B4 65 39 98 76 D8 D2

APPROVED

Husky Energy

KM

9

Canyon Husky 321840 48165 Trans Canada Highway Boton Bar, BC VOK 1CO

(604) 867 9288 Store# Batch Seq Register#

S11p# 0756 877 1 65 70539 Loyalty LAA 620273######4014 GST #820989671RT

Item	Amount
87 Fuel - Full Serve 74.339 litres x \$1.279	\$95.08 #
HST INC.: \$4.53 Sub Total:	\$95.08

Purchase

\$95.08

#*********** Exp **/** C VISA CREDIT 09/09/2011 21:56:31 075665EK 65 RESP:001 IS0:00 Ref:032001001001 Auth:089112 AID: A00000003101001 TVR: 0000008000 TSI: F800

NOM NAME	Th	0-0			
ADRESSE ADDRESS					
VENDU BAR SOLD BY	C.R COD	FACTURER CHARGE	A CRÉDIT ON ACCOUNT	MONTANT R AMOUNT	eforté PWD
1 1	1m		1	17	DC
2 1	2115	JAS	· · · · · ·	19	R
3 /	ast	SSP	2,	10	12
4	<u>. 100 1</u>			10	F
5				au	/
6	2	7		20	10
7	Y.	2		0.0	0
8				26	RR
9				- 0	9.0
10			THE LOCAL		-
			TVH/HST		-
Nº DE TAXE TAX REG. No			TVP/PST		
117			TOTAL		
14 L	REC	U PAR EIVED BY			
	LIVE	PET D	E VENTE	13. 201. 2 M ar 1	301

150 Mile Husim

10 Settle	3226181	lm
ts. Mite	s de la Jacobi	n
GST# Kozius Stanpt 72	- 71460	11
Loyalty Nation		
US Nome	Pitur Total	
i mpi Litres	3 23,504	
a) uel), v 1.44	
(d)	\$ 30.30	

runchase 3 30.30 #***********9224 Exp **/** S ISA 10/01/2011 18:00:07 270972HK 72 RESP:001 IS0:00 Ref:220001001015 45077 Auth:001783 Approved - Thank you

Husky	Travel Cen	tre
1335 CG Willia (250 GST# 82899866 ORIGINAL Receipt 710364 Type: SALE Loyalty Number	aribou Hwy 97 S ams Lake, BC V2G 1A2 D) 392-7600 56RT0001 Merchant ID 406 620273****45401-	12 :4846 4
Oty Name	Price T	otal
1 87 GAS Pump: Litres: Price / Litr	\$ 1.289 \$ 1 6 65.113 e; \$ 1.289	B3_93
Subtotal HST Fuel	\$ 85 \$ 4	3.93 4.00
Total	\$ 8:	3.93
Purchase #***********9224 VISA 908471HK 71 Ref:090001001035 Approved	\$ 83.93 Exp **/** S 10/01/2011 18:29:5 RESP:001 IS0:00 42426 Auth:086069 - Thank you	3
10/1/11	6:29:59 PM	

Pos:71 Cashier:16 Store:9084

HUSKY HOUSE RESTAURANT #6541 PRINCE GLORGE, BC 13

Olli 2 #Party 1 ANITA CK. 37 21:07 10/01/11

1	HAMBURGLE	SILAK, add soup	12 98
1	COFFEE		2.00
1	spaghetti	meat sauce	10 99

		Sub	Total	26	26
		HST		3	15
10/01	21:50	TUIAL :	29		

PLEASE PAY YOUR SERVER

GSINHST#848936027 R10001 WIN FUEL FOR LIFE KHLP RECEIPT TO WIN ENTER AT MYHUSKY.CA IHANK YOU! EARN CAA DOLLARS HERE

HUSKY HO	USE RESTAURY : 6541	PETRO-CANADA 75 CENNTENNIAL DR MACKENZIE BC VOJ 2CO 323075 Km E-HST: Pending
111-01-00 111-11 1112 AA G2 491 8041001/2020	Rog. con# \$11p# 28462 2027:3######	2011-10-02 PC0597171:9146201 11:37 TERMINAL: 019146201 OPER: A
Lten	Amount	Pump 6 Regular 29,777 1,279 38,08+
Restaurant	\$25.03	Total Owed 38.08
Sub Total:	\$25.03	COTAL PAID
TIP:	1	GREDIT CARD 38.08
Total:	*	*TAXES INCL. #IAXL
PreAuthor1zatio	on \$25.03	F-HST TOTAL \$ 1.81
# ****92 VISA chi 10/02/2011 07;5 601965EK 65 *****07900100100 Alia A000000003 EVR 0003008000	224 Exp **/** 0 51:50 RESP:001 IS0:00 03 Auth:044798 3101001 0 TST: F80%	VISA ************************************
Husky T 1148 Pac Prince (250) GST# R84583252 ORIGINAL Receipt 7265110 Type: SALE Vaity Number	ravel Centre bific Street 15 George, BC V2N 26 553-5521 26 Merchant ID:45-12273 33 620273****454014 620273****454014	VERIFIED BY PIN 00 APPROVED - THANK YOU Date 10/02/2011 M T-3 UILLAGE GARDEN RESTAURANT 17 530 MACKENZIE BOULEVARD MACKENZIE BC
ûty Name	Price Total	SELDEY COD CHARGE ON ACOT ACCT. PND. REPORTE CARD ************************************
1 87 GAS Pump: Litres. 1 87 GAS Pump: res: 1 87 GAS Pump: 1 tres: Su 451 -	\$ 1.279 \$ 0.07 5 .051 \$ 1.279 \$ 11.61 9.077 1.279 \$ 116.18 90.000 \$ 127.86 \$ 6.09	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Total	\$ 127 86	11 42 15
Purchase #***********9224 VISA 1 651972HK 72 F Re 76001001008 40 Approved -	\$ 127.8 Exp **/** S 10/02/2011 08:34:39 RESP:001 IS0:00 0412 Auth:031552 Thank yes	12 HSI UISA CHEDIT 13 47 21 49 14 0020008000 15 67FA62978E01384B

/2/11 8:34:42 AM

MONTE P	ROSA RE	STAURAN	AT S
520 MACKE	ENZIE B	OULEVAR	RD
MACK	ENZIE	BC	18
CARD *	*****	*****92	224
CARD TYPE		VI	SA
DATE	2	011/10/	14
TIME	9501	09:38:	:48
RECEIPT N	UMBER		
03087203	5-001-	190-009	9-0
PURCHASE			
AMOUNT		\$7.	56
TIP		\$1.	50
TOTAL		34	

\$9.06

VISA CREDIT A000000003101001 DC5A9D9F28538055 0000008000 6AC28EBE58A5EF03

Husky Travel Centre

148 Paci ince G (250) csit# P848936(27	fic Street /9 eorge, BC V2% 2KE 563-5521 Merchaet ID:4512273
ORIGINAL Recent 1102-12 Type: Sal:	324091
Loyalty Numb	620273***454014
nty Name	Price Tctal
1 89 GAS Pump: Litres:	\$ 1.359 \$ 93.85 3 69.057
Subtotal HST Fuel	\$ 93.85 \$ 4.47
Tuta	\$ 93.85
Purchase #*** 9224 VISA 651971 W 71 f Ref:085001001004 19 Approved -	\$ 93.85 Exp **/** S 10/14/2011 13:20:57 RESP:001 IS0:00 9560 Auth:016883 Thank you
10/14/11 1	:21:02 i d

Husky Travel Centre

1148 Pacif Prince Ge (250) 5 GST# R845632520 DRIGINAL Receipt 72656705 Tvie Sale	ic Street orge, BC V2N 663-5521 Merchant ID: 3244	2,6 2K8 4512273 2<i>B</i>
uty Name	Price	Total
1 87 GAS Pump: Litres:	\$ 1.279 3 56.414	\$ 72.15
Subtotal HST Fuel		\$ 72. \$ 3.4
Total		\$ 72.15

10/15/11	1:42:31 PM	
Hus Ky	Fravel C	entre
1148 Pa Prince 250 GST# 75 325 ORIGINAL	cific Strea George, BC V2M) 563-5521 26 Merchant ID:	2K8 4512273
Receipt 726567	97 3244	28
Type: SALE Loyalty Number	620273****	\$54014
Diy Name	Price	Total
1 CHENRON MIG S	UPREM \$ 6.99	\$ 6.9
1 EeC 1 INVIRONMENTAL	\$ 0.05 CHRG \$ 0.10	\$ 0.05 \$ 0.10
Subtotal HST		\$7.14 ∳⊓∷
Total		\$ 8.00
Purchase #** = *********9224	\$ 4 Exp **/** 10/15/2011 13	8.00 S 3:50:00

65137246 72 RESP:001 IS0:00 Ref:089001001011 47486 th:087778 Approved - Thank and

10/15/11 1:50:04 PM

GUEST ACCOUNT	
---------------	--

Thank you for choosing to stay at

Are you planning a:

Corporate Retreat

20a

Esther's Inn.

1151 Commercial Crescent Prince George, B.C. V2M 6W6

Phone (250) 562-4131 Fax (250) 562-4145 Toll Free 1-800-663-6844



Your Tropical Oasis in Northern BC info@esthersinn.com www.esthersinn.com

Arrive 10/14/11 Depart 10/15/11

Meeting CLERK DEPARTMENT DESCRIPTION AMOUNT DATE 1-INCIDENTALS Convention 12.20 21 7-Rest. Tick 10/14/11 CBW 1.46 On Rest. Ticket 41-12% HST Re CBW 10/14/11 Retirement Party 1.50 21 9-Rest. Grat 10/14/11 CBW 18.55 45 7-Rest. Tick 10/14/11 HAR Anniversary 2.23 41-12% HST Re On Rest. Ticket 10/14/11 HAR 45 2.00 9-Rest. Grat 10/14/11 HAR Concert 12.95 7-Rest. Tick 12 10/15/11 KMR 1.55 Family Reunion 41-12% HST Re On Rest. Ticket 10/15/11 KMR 1.50 12 9-Rest. Grat 10/15/11 KMR -53.94 Christmas Party 92-Visa 10/15/11 TH # R137413522 Tax Reg. or Wedding? Allow our professional catering team to assist you with all your planning needs. To discover how 0.00 **BILLING INSTRUCTIONS** BALANCE DUE easy it is, go to COMPANY I agree that my liability for this bill is not waived and agree to be held personally liable in the event that the indicated person, www.esthersinn.com company or association fails to pay for any part or the full amount of these charges. or contact us directly ADDRESS at (250) 564-3311. POSTAL CITY SIGNATURE ATTENTION X We look forward to your next visit! FOR CASH OR DEBIT CARD PREPAYMENT GUESTS ONLY

I hereby acknowledge receipt of \$ _____

refund due from pre-authorization charged at check-in.

Thank you for staying at Esther's Inn See you next time!

SURREY, BC V3S 3L1 LUND GOLD

BRAGG DON

6288-152

Room # 144 Invoice # 437980-1

711	FOT	AC	col	INT
JU	EDI	AU	UU	

Thank you for

choosing to stay at

20 b Esther's Inn.

BRAGG DON 6288-152

> SURREY, BC V3S 3L1 LUND GOLD

Room # 144 Invoice # 437980-2

Are you planning a: Corporate Retreat

1151 Commercial Crescent Prince George, B.C. V2M 6W6

Sthers

Your Tropical Oasis in Northern BC

Fax (250) 562-4145 Toll Free 1-800-663-6844



Phone (250) 562-4131

Arrive 10/14/11 Depart 10/15/11

DATE	CLERK	DEPARTMENT	DESCRIPTION	AMOUNT	Meeting
2-ROOM AND 10/14/11 10/14/11 10/14/11 10/15/11	TAX RVR RVR RVR TH	2-Room Char 40-2% AHRT 39-12% HST Ro 92-Visa	On Room Charge On Room Charge Tax Reg. # R137413	91.00 1.82 11.14 -103.96	Convention Retirement Party Anniversary Concert
					Family Reunion
					Christmas Party
	ES 1454	THER'S INN IMMERCIAL DRIVE ICE GEORGEBO			or Wedding?
		NOE GEORGEBO			Allow our professional
	CARD TYPE	E VISA			catering team to assist
	TIME	4202 13:44:00			you with all your
	CLERK ID RECEIPT 1 CO66264	01 NUMBER 24-001-026-030-0			planning needs.
	PRE-ÁUTHI AMOUNT	0R1ZAT 1013 4178.96		0.00	To discover how
	11100111		BALANCE DUE		easy it is, go to
COMPANY	TIP		be held personally liable in the event that company or association fails to pay for a	waived and agree to it the indicated person, iny part or the full	www.esthersinn.com
ADDRESS	TOTHL	157.90	amount of these charges.		or contact us directly
CITY	UISA CREI	UTT 03101001	SIGNATURE		- at (250) 564-3311.
ATTENTION	1AEDC2F7 00000080	11DB1B7E 00	x		We look forward
	81080145	EUOF7004 [D PREPAYMENT GUESTS ONLY		to your next visit!
l hereby acknow	APPR	OVED	refund due from pre-authorizatio	on charged at check-in.	

Thank you for staying at Esther's Inn See you next time!



as Wages in Field

	DR. Drag	9	Rift	DUGUN	Total
		Jointula	Valley	H V A I IA	hrs
Sept	6		В		8
М.	7		11		11
	8			14	14
Oct	3	4	1	3	13
	24	12	1	1.5	14.5
	5	13.5	1	2	16.0
	Б	9	5	1	15
	7	4		10	14
	8	5,5		8	13.5
	9	5		10	15
	10		18	4,5	14.:
	11		5.5	11	16-3
	12		10	H	14
/	13		9	H	13
Tota	15	58 hr	61.5	73	192.
Pri	proted truck rent.	30 %	34.5	°6 35.5	%
///	14 days \$1400.00 \$	420.00	AN83.	00 49	7.00
Pr	orated trailer rent 16 days \$ \$ 70.00 day= 1120.00	336.00	, = 3 <i>8</i> 6	6.40 # 3	397.60
PI	corated Camp & Kitchen gear rent 16 daya @ #90:00/day = # 1440.00	432.00	# 496	.80 \$	511,20

at Meals Served

		No of Men in camp	No of Meals Served	Som tula	Rift Vailey	DKSYN
Sep	+6	1	2		2	
	7	1	3		3	
	8	1	3			3
	9	1	1			1
Oct	2	2	in the second	2	1	
	3	2	6	2	2	2
	4	6	14	6	6	2
	5	6	18	16	/	(
	6	6	16	в	7	1
	7	4	12	9		3
	8	4	12	9		3
	9	4	12	9		3
	10	4	11	6	2	3
	,1	3	9		6	3
	12	3	9		B	/
	13	1	3		2	1
	14	1	1		1	
	Totals		135	67	41	27

a.5

Camp Supplies & Expensis To be Prorated

Sept 6 Duct tape & floater lamp 1 21.25 6 Fix I con radio 2 16,80 Naptha, tolet seat, tarps etc 17 3 75,28 4 30.15 30 Extra groceries Oct 2 Camp supplies, chain oil, damper ect 5 42.57 Gas from Heath Cornell 20 gal No receipt 90.00 10 $\frac{1/2}{2}$ bottle of propane from home 2 tins noptha from home Regular gas $\frac{1}{3}$ 43,54 + H5 = # 17.18 0.1 $\frac{1}{2}$ 60.00 + H5 = # 7.20 25.00 31.00 360.72 67.20 Oct 15 Meal in Prince George 6 18.61 Phone calls 20.00 198.58 \$ 239,57 \$ 275.51 Sointula # 198.58 × 30% Rift Valley # 198.58 × 34.5% 275.51 283.50 DKSYN 198.58 X 35.5%

		1
HAGEN'S HOME HARDWAR BOX 1720 700A MACKE MACKENZIE, B.C. VOJ PH:(250)997-4555 FAX P- 3 GST #R1	CASH INVOICE 1781690 09/06/2011 10:05 C- 4 W- 4 P- 1 20370408RT	1
CASH SALE	1,000	
LANTERN,FLOAT 41-2087 5330607 2.000 TAPE,DUCT CLOTH HH 48M 5540220 1.000	W/6V A H 5,99 EA 11.98 MX50M A H 6.99 EA 6.99	
	SUBTOTAL 18,97 H.S.T. 2,28	
VISA	TOTAL 21.25 21.25	
THANK YOU FOR SHOPPING HOME HARDWARE/THE SOUR	AT HAGEN'S CE C965	
HAGEN'S HOME HARDW BOX 1720 700A MAC MACKENZIE, B.C. T: 250 997 F: 250 997	ARE/THE SOURCE CKENZIE BLVD • V0J 2C0 -4555 -4212	
TYPE: PURCHASE		
ACCT: VISA	\$ 21.25	
CARD NUMBER: ***** DATE/TIME : 11/09/ REFERENCE #: 66169 AUTHOR. # : 021463	*******9224 /06 10:07:39 407 0013520070 F 3	
CHIP CARD SWIPED		
01/027 APPROVED	- THANK YOU	
X SIGNATURE		
CARDHOLDER WILL PAY CA AMOUNT PURSUANT TO CARI	ARD ISSUER ABOVE DHOLDER AGREEMENT	
IMPORTANT - Retai for your re	in this copy ecords	
CUSTOMER COPY	- 1781698	

Ph	ALPHA-O (Division of I G MACKE one 250-997	NE MOB Lokken Inv Box 2167 NZIE, B.C. '-5997 Fi	VOJ 2CO ax 250-99	10 Ltd.) 7-6409	~
NAME		DATE	1sep.s	01	11
ADDRESS			303	27	
CITY PROV	INCE	POSTAL CODE	TEI	LEPHONE	
	MODEL	leep			
MAKE	MODEL	JER	IAC NUMBER		
I LI	6HTEI	R PLU	C	5	0
CUANTIY I LI	<u>GHTEI</u>	R PLU	6	5	0
CUANTIY I LI Zoeh Louken	GHTEI	r PLU	6	5	0
SPECIAL INSTRUCTIONS	GHTEI	r PLU	TOTAL	5	0
CUANTITY I LI L LI SPECIAL INSTRUCTIONS	GHTEI JUSI	r PLU	TOTAL MATERIAL TECHNICAL SERVICE TIME	5	0
SPECIAL INSTRUCTIONS	GHTEI JUSI	r PLU	TOTAL MATERIAL TECHNICAL SUBTOTAL	5	000000000000000000000000000000000000000
SPECIAL INSTRUCTIONS	GHTEI JUSI	r PLU	TOTAL MATERIAL TECHNICAL SERVICE TIME SUBTOTAL HST / GST	5 5 10 15 1	000000000000000000000000000000000000000
SPECIAL INSTRUCTIONS R C	GHTEI JUSI	r PLU	TOTAL MATERIAL TECHNICAL SERVICE TIME SUBTOTAL HST / GST PST	5	00

being satisfactory - and that equipment has been left in good condition.

			RE	443		3
	SURREY, BC V3	W 5A8 60	4-572-	3739	_	
	SAME TENDER (ILL BE REF AND CREDIT	CARD	in Thi As	2	
	ORIGINAL PURC	HASE- EXCE	PTION 37:53	DEBIT	#·189	
	OPERATOR #: 4	43705 Floa	t: 001	l	******	
	052 5497-4	BULB 100/	300W M	1\$	6.29	
	2X052-5675-0	8 \$ BULB 60₩	3. SW LL	.490 ei	a. 6.98	
	2X076-0054-2		15.	290 e	30 E9	
	2X098-0760-8	@ \$	0.	400 ea	30.30 B.	
	052-7223-4	PWR BAR V	ALUE C	- \$) \$	0.80 5.77	-
	099-0070-8	BAT EXTEN	D WARE	\$ \$	9.99	
	THERE ARE NO I	REDUCE	BATTE	RIES.		
	3X040-5030	€ \$	I <u>LE.</u> 2			
	(COUPD & 1	9X12' TAR	IP .		8.67	1
	063-105 9-6	TOILSEAT,	WOOD, B) \$	15.79	4
	051 5-2 098 922-6	24X500ML WATER BTI	NTR JM	1 \$	2.77	V I
	098-3924-2	WATER BIL	DEP \$	5	1.70	jah
		SUBTOTH:		\$ 2	209 54	
		5% HST		5	0.00	
		D T A L M/C TE	ND	\$ 2	234.13	
	CT M/C PURCHAS	SE	0.27			
	CARD READ	**************	921			
	2011/09/17 18 REFERENCE #: (:40:00 00100-00-0	S			
	AUTHORIZATION	#: 000518		006		
	UU HFFR	IMPORTAN	IT	000		
	Retain this BASE CT MONEY	S COPY for ON THE CA	your RD	record	2.80	
	PRODUCT BONUS	HONEY-CAR	ш ¢	0 40		
	1X 9X12'	TARP	\$	0.40		
	TOTAL PRODUCT	BONUS MON	\$ EY-CAR	0.40 D\$	1_20	
	TOTAL NEW CT N	MONEY ON C	ARD	\$	4.00	
		ie onto bri	LINGE		0.00	
	-					
٨	ight bulb	JUAY YOU S	AVED	11	20	
0.7		,		6.1	0	
1	Vaptha			30.	58	
1	Enviromer	ital		. 8	30	
	Tarps			8.	67	
-	Toilet Se	at		15.	79	
	24x 500.ml	Water		2.	77	
	Reposit			1.9	12	
	12 % Hsi	T		7.	77	
	Total		9	75.	28	
	10100					

WELCOME TO MACKENZIE CO G.S.T. #R10343712 PROMO 40 SEPT 30 - OCT 7, 20 YOUR LOCAL FRESH MAF RED HOT SALE	и-ор 4 25 011 акет
NON MEMBER MEMBER#: 2	
PUREX BATH TIS DBL ADVERTISED SPECIAL SPONGETOWEL ENVIRO ADVERTISED SPECIAL NV CHEWY BAR NV CHEWY BAR ROGERS OAT FLAKE ADVERTISED SPECIAL	\$6.99 H \$7.99 H \$4.19 H \$4.19 H \$4.19 H \$3.99
BALANCE DUE	\$30.15
TYPE: Purchase	
ACCT: VISA \$	30.15
CARD NUMBER: ************************************	224 :56:38 C
VERIFIED BY PIN	
VISA CREDIT 01 Approved - Thank you IMPORTANT: retain this copy for your	027 records
CUSTOMER COPY ************************************	*****
VISA	\$30.15
Seq. $\# = 091135$ CHANGE	\$0.00
TAX-CODE TAXABLE-VAL HST 12% \$23.36 Today You Save \$4.95	TAX-VALUE \$2.80 H ≩d
C0114 #6652 12:52:47 S01560 R002	20CT2011

HAGEN'S HOME HARDWAR BOX 1720 700A MACKE MACKENZIE, B.C. VØJ 10/02/2011 PH:(250)997-4555 FAX 11:09 P- 3 C- 8 W- 8 P- 1 GST #R120370408RT	5 HUSKY HOUSE RESTAN	Inergy IRANT 6541
CASH SALE 1.000	()	2
DAMPER, STOVE CAST 1406 6IN A H 5538661 1.000 5.49 EA 5.49 OIL, CHAIN LIGHT 4L UNIVAL WINTE A H 8650097 2.000 12.49 EA 24.98	Store# Batch Seq Reg 6519 1023 65 Loyalty: CAA 620273###### 651 #845832526	ster# Slip# 2926 4014
ENV40 2.000 .40 EA .80	Iten	Anount
8645317 1.000 6.69 EA 6.69	Re- Laurant	\$17.11
ENV15 1.000 .15 EA .15	TOR .	\$17.11
SUBTOTAL 38.11 H.S.T. 4.46	112	150
TOTAL 42.57 VISA 42.57	Tutar	18.61
	PreAuthorization	\$17.11
THANK YOU FOR SHOPPING AT HAGEN'S HOME HARDWARE/THE SOURCE C965	# Exp VISA UREDIT 10/15/2011 14 16 13 K ES RESP 00 11001(4) Auto 02 0000003101001	1 IS0:00 5142

Algu oved

6

HAGEN'S HOME HARDWARE/THE SOURC	Ε
BOX 1720 700A MACKENZIE BLVD	
MACKENZIE, B.C. VØJ 2CØ	
T: 250 997-4555	
F: 250 997-4212	

TYPE: PURCHASE

ACCT:	\$ 42.57

CARD NUMBER: DATE/TIME : REFERENCE #: 11/10/02 11:08:40 66169407 AUTHOR. # :

TRANSACTION NOT COMPLETED

CUSTOMER COPY - 1786018

HAGEN'S HOME HARDWARE/THE SOURCE BOX 1720 700A MACKENZIE BLVD MACKENZIE, B.C. V0J 2C0 T: 250 997-4555 F: 250 997-4212

TYPE: PURCHASE

		100 000 000 000	and the part one was done and	
ACCT: VISA		\$	42.57	
CARD NUMBER:	*****	******	9224	
DATE/TIME :	11/10	/02 11:	12:16	
REFERENCE #:	66169	407 001	3789919	С
AUTHOR. # :	86463	L.		

INTERIOR HELICOPTERS LTD.

PO Box 1478 Fort St James V0J 1P0

637,39, 42, 43,44,45 Oct 15, 2011

1 of 1

SSointula Resources 6588 - 152 Street Surrey, B.C. SSointula Resources 6588 - 152 Street Surrey, B.C.

206	1.6	hour(s)	#637 - Oct. 5	HS	950.00	1.520.00
fort	57.0	litre(s)	Fuel Surcharge	HF	1,53	87.21
206	2.1	hour(s)	#639 - Oct. 6	HS	950.00	1,995.00
206	0.8	hour(s)	#642 - Oct. 7	HS	950.00	760.00
206	1.5	hour(s)	#643 - Oct. 8	HS	950.00	1,425.00
206	1.0	hour(s)	#644 - Oct. 9	HS	950.00	950.00
206	2.0	hour(s)	#645 - Oct. 10	HS	950.00	1,900.00
			HF - HST 5%			
			HS - HST 12 %			

HST

26

1.030.36

INTERIOR HELICOPTERS LTD. HST: #893470070

9,667.57

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Sands Bulk Sales Ltd.

1059 Eastern Street Prince George, British Columbia V2N 5R8

INVOICE

 Invoice No.:
 11338-1

 Date:
 10/02/2011

 Ship Date:
 1

 Page:
 1

 Re: Order No.
 1

Sold to:

Cash Sales

Ship to:

Don Bragg 6588 152nd Street Surrey, B.C. V3S 3L1

Business No	690200040	0					······	
Item No.	Unit	Quantity	Description	Tax	Base Price	Disc %	Unit Price	Amount
005-JETA 005-JETA.1	Litres	-1,601	JET A Fuel (Includes FET at \$0.0400, BC PFT at \$0.0200, BC CBT at \$0.0653) Delivered 2748.8 out of Tank 6 1147.8L was used by Don Bragg balance to Yellowhead Heliconters	H5	1.6299		1.6299	-2,609.47
005-9175 005-9175.1	Litres	205	Regular Gas Dyed with Ethanol (Includes FET at \$0.1000, BC PFT at \$0.0300, BC CBT at \$0.0556)	H5	1.6758		1.6758	343.54
004-TR 004-FRTH 005-220112-012	Each Each Each	12 14 1	Trailer Rental 12 days @ \$65 14 Hours Pick UP Unit Chevron Syn Supreme 5x30 6x.946L EHC/P Included at \$.015/L 11338	н н н	65.0000 95.0000 60.0000		65.0000 95.0000 60.0000	780.00 1,330.00 60.00
			Subtotal: H - HST 12%					-95.93
			HST 5%					147.11
Shipped By: Comment: "Tha Sold By:	Track nk For Your E	ing Number: Business"					Total Amount	51.18

Sands Bulk Sales Ltd.

1059 Eastern Street Prince George V2N 5R8 Canada

INVOICE

Sold to:

Cash Sales

Ship to:

Don Bragg Working with Interior Helicopters

Business No.:

89025 6548 RT0001

Item No.	Unit	Quantity	Description	Tax	Unit Price	Amount
JETA JETA.1 JETA.2 JETA.3	Litres Litres Litres Litres	2,748.8	JET A Fuel FET Included at \$0.0400 BC PFT Included at \$0.0200 BC CBT Included at \$0.0653 BOL 11338 Working with Inrterior Helicopters (To be paid by credit card) H5 - HST 5% Exempt from Provincial Portion	H5	1.6299	4,480.27
			HST			224.01
	-					14
				1		a.
Sands Bulk Sales L	td. HST: #8902565	48RT0001				
Shipped By:	Tracking N	umber:				
Comment: "Tha	ank You For Your B	usiness"			Total Amount	4,704.28

-564-2978 • Toll Free: 1-877-564-76	ery Advice aquipment: Truck: <u>/8</u> Trailer: <u>308</u> Co. Bowser: <u>308</u>	301#: Total Hours:	Litres Start Dip	PIN:
Phone: 250-563-2855 • Fax: 250	Pet 306201 Bellive En Breg mo Alen Ushell.	End:End:End:End:End:	Product A Red 20 Der	A. RHOKN.

\$11p# 02440 Amount \$4,704.28 \$4,704.28 \$4,704.28 ISU:00 Exp **/** C Ausky Energy Sands Distribution Ltd. 1059 EASTERN STREET PRINCE GEORGE, BC V2N 5R8 (250) 563 2855 Register# 65 Store# Batch Seq 6570 50 2 637 # Non Loyalty Sub Total: Purchase

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Approved

1



Total ha of 36 DM claims 13840,8659 ha

statment of	Costs	\$ 40.630,85
PAC	28.87 %	\$ 11732.62
		\$ 52363.47



9400 Bel Air Drive, Coldstream, BC, V1B-1C3 Tel: (250)558-5068 Fax: (250)558-5068 www.MeridianMapping.ca

INVOICE

c/o Barry Price, P.Geo Bill To: Sointula Resources Inc. Suite 810 – 675 West Hastings St. Vancouver, BC V6B 1N2

Invoice: 11-0084 Date: 10/27/2011 Project: Pinchi Page: 1 of 2

Pinchi Project Ground Mag 2011 - Invoice #1 - 10/01/2011 to 10/12/2011

GIS:

Date	By	Work Description	Work Code	Hours	Rate	Total
10-05	DD	Draft proposed grid	ArcView GIS	1	\$75.00	\$75.00
10-20	DD	Generate final preliminary map & email	ArcView GIS	1.5	\$75.00	\$112.50
10-24	DD	Compose 1:35K map showing final prelim data and IP	ArcView GIS	1	\$75.00	\$75.00
					Total	\$262.50
					HST	\$31.50

Time:

Dates	Description	Rate	Units	Cost
10-01 to 10-12	Geologist/Project Manager	\$600.00	5.5	\$ 3,300.00
10-01 to 10-12	Senior Field Tech	\$500.00	6.5	\$ 3,250.00
			Total	\$6,550.00
			HST	\$ 786.00

Rentals:

Dates	Description	Rate	Units	Cost
10-01 to 10-12	Basic Field Equipment	\$12.50/m.d.	12	\$ 150.00
10-01 to 10-12	4wd Vehicles	\$35/day	8	\$ 280.00
10-01 to 10-12	Vehicle Mileage	\$0.35/Km	878	\$ 307.30
10-01 to 10-12	Chainsaws/Tools	\$25/day	8	\$ 200.00
10-01 to 10-12	Generator	\$25/day	8	\$ 200.00
10-01 to 10-12	Travel Trailer	\$100/day	8	\$ 800.00
10-01 to 10-12	Laptop/Printer	\$30/day	8	\$ 240.00
10-01 to 10-12	VHF road radios	\$5/day	16	\$ 80.00
10-01 to 10-12	Satellite Internet system	\$20/day	8	\$ 160.00
10-01 to 10-12	Iridium satellite telephone	\$10/day	8	\$80.00
			Total	\$2497.30
			HST	\$ 299.68

Expenses:

Dates	Description	Rate	Units	Cost
10-01 to 10-12	Accommodation	At Cost		\$ 40.00
10-01 to 10-12	Meals	At Cost		\$ 13.72
10-01 to 10-12	Groceries	At Cost		\$ 0.00
10-01 to 10-12	Fuel & oil	At cost		\$ 373.88
10-01 to 10-12	Field Supplies	At cost		\$ 0.00
10-01 to 10-12	Hub International –Mag Insur Rider	19% of cost		\$ 28.53
10-01 to 10-12	Magnetometer rental. (13% of monthly rate)	19% of cost		\$ 1,787.55
10-01 to 10-12	Welke Enterprises – Initial mag processing	At cost		\$ 600.00
10-01 to 10-12	Petra Geophysical – final processing	At cost		\$ 600.00
			Total	\$3,443.68
			HST	\$ 413.24

Sub-Total : \$ 12,753.48 Project Admin (10%) : \$ 1,275.35 GST on Project Supervision (12%): \$ 153.04

> Total : \$ 14,028.83 Total HST : \$1,683.46

Grand Total : \$ 15,712.29

Thank you for your business. We accept: Cash or Cheque
APPENDIX IV – LOGISTICAL DATA FOR MAGNETIC SURVEY

(Pdf version only)



LOGISTICS REPORT

On

GROUND MAGNETIC SURVEY

PINCHI PROJECT OMINECA MINING DISTRICT, BC 55° 56" N Lat, 125° 46" W Long NAD 83 UTM Zone 10 327000E, 6202000N NTS Mapsheet(s): 93N/13 BCGS Mapsheet(s): 093N.082 & 92

October 6th to 10th 2011

For

SOINTULA RESOURCES INC. Suite 810 – 675 West Hastings Street Vancouver, British Columbia V6B 1N2

By

Meridian Mapping Ltd.

Coldstream, British Columbia

INTRODUCTION:

Between October 6th and 10th 2011, Meridian Mapping Ltd. completed a ground magnetometer survey over a portion of the Pinchi Property in the Omineca region of British Columbia for Sointula Resources Inc.

PROPERTY LOCATION & ACCESS:

The Pinchi Property is located on the Omineca River in the Omineca Mining Division approximately 300 Km northwest of Prince George, BC.

Access was gained from Mackenzie BC via the Kemess Mine, Osilinka and Thane Creek Forest Service Roads. A secondary logging road branching north off the Thane Creek FSR at kilometer 7 provided access to the Cat Mountain mining camp which was used as a base during the survey. Daily helicopter flights provided access to the Pinchi property 28 kilometers to the southwest.

SURVEY SPECIFICATIONS:

Survey Grid:

No existing grid had been established in the immediate survey area. Survey lines were therefore run by GPS navigation with only the endpoints flagged.

A total of 20 lines were surveyed on an azimuth of 35.3°. 18 lines were surveyed on the north side of the Omineca River, 17 of them on 200m spacing and the 18th (southern most line) on 400m spacing. Two lines were established on the south side of the Omineca River on a 200m spacing.

A total of 48.2 line kilometers were surveyed over five field days.

Magnetic Survey:

The magnetic survey was conducted by two operators using two GPS equipped GSM Ver 7.0 19W Overhauser walking magnetometers manufactured by GEM Systems of Richmond Hill, Ontario (see Appendix I for detailed instrument specifications). This instrument measures variations in the total intensity of the earth's magnetic field to an absolute accuracy of +/- 0.1 nT. They were used in "walking mode" and set to record a reading every 2 seconds. A third GSM 19 magnetometer was employed as a stationary base to measure the diurnal variations in the earth's magnetic field. Data was recorded at a 3 second interval at the base. This base data was used to apply diurnal correction to the rover data. A 250 meter length of overlap line was walked each morning by both units. Data from this overlap line was used to level the data between the two instruments as well as between survey days.

Positional Control:

The GSM 19W magnetometers are equipped with Novatel SuperStar II DGPS boards. The GPS attaches 3dimensional coordinates, differentially corrected in real-time using the WAAS service, to each magnetometer reading. Accuracies of +/- 1.5m can be achieved in ideal conditions, however ~5m is more typical under tree canopy. Garmin GPSMap 60CSx units, which provide a similar accuracy, were also used for navigation and recorded track data at a 2 second interval for backup.

DATA PROCESSING:

<u>Preliminary Processing:</u>

Preliminary processing of the field data included:

- Diurnal correction of the rover data using data from the stationary base.
- Leveling of data from the individual units and multiple survey days using data from the overlap line.
- Cleaning GPS "spikes" and extrapolating positions to fill GPS gaps.

- Trimming of unnecessary data.
- Preliminary QA/QC of both magnetic and positional data to ensure quality and completeness of field data prior to the field crew leaving the project.

Final Processing:

Final processing of the total field magnetometer data was performed in Geosoft Oasis Montaj, and followed conventional processing techniques. Processing steps were as follows:

- Diurnally corrected total magnetic profile data was despiked either manually, or by a non-linear filter, as required. This step removes one-station spikes that are caused by instrument dropouts or sensor "knocks".
- The despiked data was then lightly smoothed using a 7 fiducial-long low pass filter. This step removed the 10 to 15nT saw-tooth noise which is inherent in walking magnetometer data.
- A total magnetic intensity (TMI) grid was generated by gridding the final filtered data using the minimum curvature algorithm, with a grid cell size typically 1/5 of the line separation.
- A calculated 1st vertical derivative (1VD) grid was generated from the TMI grid using a convolution grid filter.
- An analytic signal (AS) grid was generated from the TMI grid using a fast Fourier transform algorithm.
- Geotiff maps of TMI profiles, TMI colour grid, TMI B&W contours, 1VD colour grid, 1VD B&W contours, AS colour grid, AS B&W contours, and line path maps were exported.

DATA DELIVERABLES:

Deliverable data includes:

- 1. Total Magnetic Intensity
- 2. Calculated 1st Vertical Derivative
- 3. Analytic Signal
- 4. B&W Contour Plots of above three.
- 5. Profiles of Total Magnetic Intensity
- 6. Survey Line Path Plot

Respectfully Submitted, Meridian Mapping Ltd.

11 July

Dugald Dunlop B.Sc. (Geology)

APPENDIX I – EQUIPMENT SPECIFICATIONS



Our World is Magnetic.

GEM's unique Overhauser system combines data quality, survey efficiency and options into an instrument that takes the leading place in the industry.

And the latest v7.0 technology upgrades provide even more value:

Data export in standard XYZ (i.e. line-oriented) format for easy use in standard commercial software programs

Programmable export format for full control over output

GPS elevation values provide input for geophysical modeling Enhanced GPS positioning resolution

Standard GPS: <1.5m SBAS (WAAS, EGNOS, MSAS) High resolution CDGPS Option: <0.6m SBAS (WAAS, EGNOS, MSAS) <0.6m CDGPS (Canada, USA, Mexico) <0.7m OmniStar VBS2

Multi-sensor capability for advanced surveys to resolve target geometry

Picket and line marking / annotation for capturing related surveying information on-the-go

And all of these technologies come complete with the most attractive savings and warranty in the business!

Overhauser

Magnetometer / Gradiometer / VLF (GSM-19 v7.0)



Overhauser (GSM-19) console with sensor and cable. Can also be configured with additional sensor for gradiometer (simultaneous) readings.

The GSM-19 v7.0 Overhauser instrument is the total field magnetometer / gradiometer of choice in today's earth science environment -- representing a unique blend of physics, data quality, operational efficiency, system design and options that clearly differentiate it from other quantum magnetometers.

With data quality exceeding standard proton precession and comparable to costlier optically pumped cesium units, the GSM-19 is a standard (or emerging standard) in many fields, including:

- Mineral exploration
 (ground and airborne base station)
- Environmental and engineering
- Pipeline mapping
- Unexploded Ordnance Detection
- Archeology
- Magnetic observatory measurements
- Volcanology and earthquake prediction

Taking Advantage of the Overhauser Effect

Overhauser effect magnetometers are essentially proton precession devices except that they produce an order-of magnitude greater sensitivity. These "supercharged" quantum magnetometers also deliver high absolute accuracy, rapid cycling (up to 5 readings / second), and exceptionally low power consumption.

Version 7.0

The Overhauser effect occurs when a special liquid (with unpaired electrons) is combined with hydrogen atoms and then exposed to secondary polarization from a radio frequency (RF) magnetic field.

The unpaired electrons transfer their stronger polarization to hydrogen atoms, thereby generating a strong precession signal -- that is ideal for very highsensitivity total field measurements.

In comparison with proton precession methods, RF signal generation also keeps power consumption to an absolute minimum and eliminates noise (i.e. generating RF frequencies are well out of the bandwidth of the precession signal).

In addition, polarization and signal measurement can occur simultaneously which enables faster, sequential measurements. This, in turn, facilitates advanced statistical averaging over the sampling period and/or increased cycling rates (i.e. sampling speeds).

Other advantages are described in the section called, "GEM's Commercial Overhauser System" that appears later in this brochure.

Maximizing Your Data Quality with the GSM-19

Data quality is a function of five key parameters that GEM has taken into consideration carefully in the design of the GSM-19. These include sensitivity, resolution, absolute accuracy, sampling rates and gradient tolerance.



Data from Kalahari Desert kimberlites. Courtesy of MPH Consulting (project managers), IGS c. c. (geophysical contractor) and Aegis Instruments (Pty) Ltd., Botswana.

Sensitivity is a measure of the signal-tonoise ratio of the measuring device and reflects both the underlying physics and electronic design. The physics of the Over-hauser effect improves sensitivity by an order of magnitude over conventional proton precession devices. Electronic enhancements, such as high-precision precession frequency counters (see the v6.0 & v7.0 - New Milestones section) enhance sensitivity by 25% or more.

The result is high quality data with sensitivities of 0.02 nT / \sqrt{Hz} . This sensitivity is virtually the same as the sensitivity of costlier optically-pumped cesium systems.

Resolution is the minimum step of the counter used to measure precession frequency and its conversion into magnetic field. It is generally higher than the sensiti-vity to avoid a contribution of the counter to overall system noise. The GSM-19 has unmatched resolution (0.01 nT).

This level of resolution translates into well-defined, characteristic anomalies; impro-ved visual display; and enhanced numeri-cal data for processing and modeling.

Absolute accuracy defines maximum deviation from the true value of the measu-

knows the true value of the field, absolute accuracy is determined by considering factors involved in determining the field value and their accuracy, including the gyromagnetic constant, maximum offset of the time base frequency, etc.

With an absolute accuracy of +/- 0.1 nT, the GSM-19 is ideal for total field work and gradient measurements maintain the same high standard of quality. Both configurations are also specially designed to minimize overall system noise, so you can be sure that results truly reflect the geologic signal that is of most interest to you.

Sampling rates are defined as the fastest speed at which the system can acquire da-ta. This is a particularly important parame-ter because high sampling rates ensure accurate spatial resolution of anomalies and increase survey efficiency.

GEM's Overhauser system has 3"measurement modes" or maximum sampling rates - "Standard" (3 sec. / reading), "Walking" (0.5 sec. / reading) and "Fast" (0.2 sec. / reading). These rates make the GSM-19 a versatile system for all ground uses (including vehicle-borne applications).

Gradient tolerance is the ability to obtain reliable measurements in the presence of extreme field variations. GSM-19 tolerance is maintained through internal



Total Field and Stationary Vertical Gradient showing the gradient largely unaffected by diurnal variation. Absolute accuracy is also shown to be very high (0.2 nT/meter).

signal counting algorithms, sensor design and Overhauser physics. For example, the Overhauser effect produces high amplitude, long-duration signals that facilitate measurement in high gradients.

The system's tolerance (10,000 nT/m) makes it ideal for many challenging environments, such as highly magnetic rocks in mineral exploration or near cultural objects in environmental, UXO or archeological applications.



Near-Continuous Surveys Improve Definition of

Much like an airborne acquisition system, the GSM-19 "Walking" magnetometer option delivers very highly-sampled, high sensitivity results that enable very accurate target location and / or earth science decision-making.

Increasing Your Operational Efficiency

Many organizations have standardized their magnetic geophysical acquisition on the GSM-19. This reflects enhancements such as memory capacity; light weight; GPS and navigation; no warm-up time; no dead zones or heading errors; easy dumping and processing.

Memory capacity controls the efficient daily acquisition of data, acquisition of positioning results from GPS and the ability to acquire high volumes of data to meet daily survey objectives.

V7.0 upgrades have established the GSM-19 as the commercial standard for memory with over 838,000 readings (based on a basic configuration of memory, a survey with time, coordinate and field values).

Optional increments of memory to over 2 million readings making the GSM-19 an ideal system for acquisition of data with integrated GPS readings (when required).

Portability characteristics (ruggedness, light weight and power consumption) are essential for operator productivity in both normal and extreme field conditions.



GEM's Overhauser magnetometer is established globally as a robust scientific instru-ment capable of withstanding temperatu-re, humidity and terrain extremes. It has the reputation as the lightest and lowest power system available, reflecting Overhau-ser effect and RF polarization advantages.

In comparison with other systems, the GSM-19 is the choice of operators as an easy-to-use and robust instrument

GPS and navigation options are very important for earth science professionals. GPS technologies are revolutionizing data acquisition, productivity, increasing spatial resolution and providing a new level of data quality for informed decision-making.

GEM has made GPS a cornerstone of its magnetic R&D program. Real time GPS and DGPS options are now available in different survey resolutions. For more details, see the GPS and DGPS section.

GEM has also developed a GPS Navigation feature with real-time coordinate transformation to UTM, local X-Y coordinate rotations, automatic end-of-line flag, guidance to the next line, and survey "lane" guidance with cross-track display and audio indicator.

Other enhancements include way point preprogramming of up to 1000 points. Professionals can define a complete survey on PC and download points to the magnetometer via RS-232 before leaving for the field.

The operator performs the survey using the way points as a survey guide. This capability decreases survey errors, improves efficiency and ensures more rapid survey completion.

Dumping and processing effectiveness is also critical consideration. Historically, up to 60% of an operator's "free" time can be spent on data dumping. Data dumping times are significantly reduced through GEM's implementation of high-speed, digital data links (up to 115 kBaud).

This functionality is facilitated through a new RISC processor and GEM's proprietary GEMLinkW acquisition/display software. This software serves as a bi-directional RS-232 terminal. It also has integrated processing functionality to streamline key processing steps, including diurnal data reduction. GEMLinkW is provided free to all GSM-19 customers. Regular updates are



Navigation and Lane Guidance

The figure above shows the Automatic Grid (UTM, Local Grid, and Rotated Grid). With the Rotated Grid, you can apply an arbitrary origin of your own definition. Then, the coordinates are always in reference to axes parallel to the grid. In short, your grid determines the map, and not the NS direction.

The Local Grid is a scaled down, local version of the UTM system, and is based on your own defined origin. It allows you to use smaller numbers or ones that are most relevant to your survey.

The figure below shows how programmable waypoints can be used to plan surveys on a point-by-point basis.

Initially, you define waypoints and enter them via PC in the office or via PC in the field or office. When you perform your survey, the unit guides you to each point.

While walking between waypoints, lane guidance keeps you within a lane of pre-defined width using arrows (< - or - >) to indicate left or right. The display also shows the distance (in meters) to the next waypoint.



Adding Value through Options

When evaluating the GSM-19 as a solution for your geophysical application we recommend considering the complete range of options offered by GEM. These options can be added at time of original purchase or later to expand capabilities as your needs change or grow.

GEM's approach with options is to provide you with an expandable set of building blocks:

o Gradiometer

o Walking Magnetometer / Gradiometer o Fast Magnetometer / Gradiometer

- o VLF (3 channel)
- o GPS (built-in or external)

GSM-19G Gradiometer Option

The GSM-19 gradiometer is a versatile, entry level system that can be upgraded to a full-featured "Walking" unit (model GSM-19GW) in future. The GSM-19G configuration comprises 2 sensors and a "Standard" console that reads data to a maximum of 1 reading every 3 seconds.



An important GEM's design feature allows gradiometer sensors measure the 2 magnetic fields concurrently to avoid any temporal variations that could distort gradiometer readings. Other features, such as single-button data recording, are included for operator ease-of-use.

GSM-19W / GW "Walking" Magnetometer / Gradiometer Option

GEM Systems pioneered the innovative "Walking" option that enables the acquisi-tion of nearly continuous data on survey lines. Since introduction, the GSM-19W and GSM-19GW have become one of the most popular magnetic instruments in the world.

Similar to an airborne survey in principle, the system records data at discrete time intervals (up to 5 readings per second) as the instrument is carried along the line.

At each survey picket (fiducial), the operator touches a designated key. The system automatically assigns a picket coordinate to the reading and linearly interpolates the coordinates of all intervening readings (following survey completion during postprocessing). A main benefit is that the high sample den-sity improves definition of ge-ologic struc-tures and other targets (UXO, archeological relics, drums, etc.).

It also increases survey efficiency because the operator can record data almost continuously. Another productivity feature is the instantaneous recording of data at pickets. This is a basic difference between the "Walking" version and the GSM-19 / GSM-19G (the "Standard" mode version which requires 3 sec. to obtain a reading each time the measurement key is pressed).

GSM-19W / GW Magnetometer

The GSM-19 reads up to 5 readings per sec. (sensors and console are the same as other models.) This system is ideal for vehicle-borne surveys, such as UXO, archaeological or some mineral exploration applications, where high productivity is required.

GSM-19 "Hands-Free" Backpack Option

The "Walking" Magnetometer and Gradiometer can be configured with an optional backpack-supported sensor. The backpack is uniquely constructed - permitting measurement of total field or gradient with free hands.

This option provides greater versatility and flexibility, which is particularly valuable for high-productivity surveys or in rough terrain.

GSM-19V / GV "VLF" Option

With GEM's omnidirectional VLF option, up to 3 stations of VLF data can be acquired without orienting. Moreover, the operator is able to record both magnetic and VLF data with a single stroke on the keypad.

3rd Party Software - A One-Stop Solution for Your Potential Field Needs

Now it's even easier to take data from the field and quality control stage through to final map preparation and modeling.



GEM-VIS provides links to fast 3D modeling via Encom's professional QuickPro software.

GEM provides very comprehensive solution available for working with magnetometer data:

o Free GEMLinkW Transfer and Internet Upgrade software

o Optional, low-cost GEM-VIS Quality Cont-

rol, Visualization and Analysis

o Optional Data Processing

o Optional QuickMag Pro Automated Modeling and Inversion



V7.0 and V6.0 - Technology Developments

One of the main differences between GEM and other manufacturers is GEM's 30 years consistent focus on developing leading-edge magnetic technologies.

This commitment has led to many innovations in sensor technology; signal counting; firmware and software; and hardware and console design, culminating in the release of v7.0.

v7.0 and the previous release (v6.0) of the GSM-19 system provides many examples of the ways in which GEM continues to advance magnetics technologies for its customers.

Enhanced data quality:

o 25% improvement in sensitivity (new frequency counting algorithm) o new intelligent spike-free algorithm (in contrast to other manufacturers, GEM does not apply smoothing or filtering to achieve high data quality)

Improved operational efficiency:

o Enhanced positioning (GPS engine with optional integrated / external GPS and real-time navigation) o 16 times increase in memory to 32 Mbytes standard o 1000 times improvement in processing and display speed (RISC microprocessor with 32-bit data bus) 2 times faster digital data link (115 kBaud through RS-232)

Innovative technologies:

o Battery conservation and survey flexibility (base station scheduling option with 3 modes - daily, flexible and immediate start)

o Survey pre-planning (up to 1000 programmable waypoints that can be entered directly or downloaded from PC for greater efficiency)

o Efficient GPS synchronization of field and base units to Universal Time (UTC) o Cost saving with firmware upgrades

GEM's Proven Overhauser System

In a standard Proton magnetometer, current is passed through a coil wound around a sensor containing a hydrogen-rich fluid. The auxiliary field created by the coil (>100 Gauss) polarizes the protons in the liquid to a higher thermal equilibrium.

When the current, and hence the field, is terminated, polarized protons precess in the Earth's field and decay exponentially until they return to steady state. This process generates precession signals that can be measured as described below. Overhauser magnetometers use a more efficient method that combines electron-proton coupling and an electron-rich liquid (containing unbound electrons in a solvent con-taining a free radical). An RF magnetic field that corresponds to a specific energy level transition, stimulates the unbound electrons.

Instead of releasing this energy as emitted radiation, the unbound electrons transfer it to the protons in the solvent. The resulting polarization is much larger, leading to stronger precession signals.

Overhauser and proton precession, measure the scalar value of the magnetic field based on the proportionality of precession frequency and magnetic flux density (which is linear and known to a high degree of ac-curacy). Measurement quality is calculated using signal amplitude and its decay cha-racteristics. Values are averaged over the sampling



As the world's experienced manufacturer of commercial Overhauser systems, GEM's technical focus on the GSM-19 has resulted in a superior magnetic measuring device with high sensitivity, high cycling speed, low noise, and very low power consumption over a wide temperature range.

With minor software modifications (i.e. addition of a small auxiliary magnetic flux density while polarizing), it can be easily configured for high sensitivity readings in low magnetic fields (for equatorial work).

GPS - Positioning You for Effective Decision Making

The use of GPS technology is increasing in earth science disciplines due to the ability to make better decisions in locating anomalies, and in improving survey cost effectiveness and time management.



Examples of applications include:

o Surveying in remote locations with no grid system (Arctic for diamond exploration)

o High resolution exploration mapping

o High productivity ferrous ordnance (UXO) detection

o Ground portable magnetic and gradient surveying for environmental and engineering applications

o Base station monitoring for observing diurnal magnetic activity and disturbances with integrated GPS time

GEM addresses requests for GPS and highresolution Differential GPS (DGPS) through internal and external options. Customer units can also be integrated. GPS surveys return a variety of real data to the user, including Time, Latitude and Longi-tude, UTM, Elevation and # of Satellites. This data is available to be applied in various ways by the user. The table below shows GPS modes, ranges and services.

Description	Range	Services		
GPS Option A		Time reception only		
GPS Option B	<1.5m	DGPS*		
GPS Option C	<0.6m	DGPS*, OmniStar		
GPS Option D	<0.6m <0.6m <0.7m	CDGPS, DGPS*, OmniStar		
Output				
Time, Lat / Long, UTM, Elevation and number of Satellites				
*DGPS with SBAS (WAAS / EGNOS / MSAS)				

Key System Components

Key components that differentiate the GSM-19 from other systems on the market include the sensor and data acquisition console. Specifications for components are provided on the right side of this page.

Sensor Technology

GEM's sensors represent a proprietary innovation that combines advances in electronics design and quantum magnetometer chemistry.

Electronically, the detection assembly includes dual pick-up coils connected in series opposition to suppress far-source electrical interference, such as atmospheric noise. Chemically, the sensor head houses a proprietary hydrogen-rich

Our World is Magnetic.

About GEM Advanced Magnetometers

GEM Systems, Inc. delivers the world's only magnetometers and gradiometers with built-in GPS for accurately positioned ground, airborne and stationary data acquisition. The company serves customers in many fields including mineral exploration, hydrocarbon exploration, environmental and engineering, Unexploded Ordnance Detection, archeology, earthquake hazard prediction and observatory research.

Key products include the Proton Precession, Overhauser and Optically-Pumped Potassium instruments.

Each system offers unique benefits in terms of sensitivity, sampling, and acquisition of high-quality data. These core benefits are complemented by GPS technologies that provide metre to sub-metre positioning.

With customers in more than 50 countries globally and more than 25 years of continuous technology R&D, GEM is known as the only geophysical instrument manufacturer that focuses exclusively on magnetic technology advancement.



liquid solvent with free electrons (free radicals) added to increase the signal intensity under RF polarization.

From a physical perspective, the sensor is a small size, light-weight assembly that houses the Overhauser detection system and fluid. A rugged plastic housing protects the internal components during operation and transport.

All sensor components are designed from carefully screened non-magnetic materials to assist in maximization of signal-tonoise. Heading errors are also minimized by ensuring that there are no magnetic inclusions or other defects that could result in variable readings for different orientations of the sensor.

Optional omni-directional sensors are available for operating in regions where the magnetic field is near-horizontal (i.e. equatorial regions). These sensors maximize signal strength regardless of field direction.

Data Acquisition / Console Technology

Console technology comprises an external keypad / display interface with internal firmware for frequency counting, system control and data storage / retrieval. For operator convenience, the display provides both monochrome text as well as real-time profile data with an easyto-use interactive menu for performing all survey functions.

The firmware provides the convenience of upgrades over the Internet via the GEMLinkW software. The benefit is that instrumentation can be enhanced with the latest technology without returning the system to GEM -- resulting in both timely implementation of updates and reduced shipping / servicing costs.



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Specifications

Performance

Sensitivity:	0.022 nT / √Hz
Resolution:	0.01 nT
Absolute Accuracy:	+/- 0.1 nT
Range:	20,000 to 120,000 nT
Gradient Tolerance:	< 10,000 nT/m
Samples at:	60+, 5, 3, 2, 1, 0.5, 0.2 sec
Operating Temperate	ure: -40C to +50C

Operating Modes

Manual: Coordinates, time, date and reading stored automatically at minimum 3 second interval. Base Station: Time, date and reading stored at 1 to 60 second intervals. Remote Control: Optional remote control using RS-232 interface. Input / Output: RS-232 or analog (optional) output using 6-pin weatherproof connector.

Storage - 32 MB (# of Readings)

1,465,623
5,373,951
1,240,142
2,686,975

Dimensions

Console:	223 x 69 x 240 mm
Sensor:	175 x 75mm diameter cylinder

Weights

Console with Belt:	2.1 kg
Sensor and Staff Assembly:	1.0 kg

Standard Components

GSM-19 console, GEMLinkW software, batteries, harness, charger, sensor with cable, RS-232 cable and USB adapter, staff, instruction manual and shipping case.

Optional VLF

Frequency Range: Up to 3 stations between 15 to 30.0 kHz. Parameters: Vertical in-phase and out-of-phase components as % of total field. 2 components of horizontal field amplitude and total field strength in pT. Resolution:

0.1% of total field





Walking GPS Magnetometer Survey







INSTRUMENTATION: GSM-19 Walking GPS (two) units GSM-19 Base Station unit

CONTOUR INTERVAL: 2 & 10 nT/m

SOINTULA RESOURCES INC.

Pinchi Project North-Central British Columbia NTS 93 N/13 Ogden Creek

Calculated 1st Vertical Derivative Walking GPS Magnetometer Survey







Analytic Signal Walking GPS Magnetometer Survey







INSTRUMENTATION: GSM-19 Walking GPS (two) units GSM-19 Base Station unit

CONTOUR INTERVAL: 2 & 10 nT/m

SOINTULA RESOURCES INC.

Pinchi Project North-Central British Columbia NTS 93 N/13 Ogden Creek

Analytic Signal Walking GPS Magnetometer Survey







Pinchi Project North-Central British Columbia NTS 93 N/13 Ogden Creek

Total Magnetic Intensity Walking GPS Magnetometer Survey







INSTRUMENTATION: GSM-19 Walking GPS (two) units GSM-19 Base Station unit

CONTOUR INTERVAL: 200 & 1000 nT

SOINTULA RESOURCES INC.

Pinchi Project North-Central British Columbia NTS 93 N/13 Ogden Creek

Total Magnetic Intensity Walking GPS Magnetometer Survey







INSTRUMENTATION: GSM-19 Walking GPS (two) units GSM-19 Base Station unit

CONTOUR INTERVAL: 200 & 1000 nT

SOINTULA RESOURCES INC.

Pinchi Project North-Central British Columbia NTS 93 N/13 Ogden Creek

Total Magnetic Intensity Walking GPS Magnetometer Survey







INSTRUMENTATION: GSM-19 Walking GPS (two) units GSM-19 Base Station unit

PROFILE SCALE: 400 nT/mm (56,800 nT base level)

SOINTULA RESOURCES INC.

Pinchi Project North-Central British Columbia NTS 93 N/13 Ogden Creek

Total Magnetic Intensity Walking GPS Magnetometer Survey

