ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT:

TOTAL COST: $110000

AUTHOR(S): Lindinger Leopold
SIGNATURE(S): *Leopold J. Lindinger*

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): MX-4-599
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): 5164529

YEAR OF WORK: 2011
PROPERTY NAME: BROKEB HILL, VISTA-NAVAN
CLAIM NAME(S) (on which work was done): 380753, 380754, 380755, 380756, 380757, 381799

COMMODITIES SOUGHT: ZINC LEAD SILVER

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN: 082M 280, 082M 281

MINING DIVISION: KAMLOOPS
NTS / BCGS: 082M14
LATITUDE: ____51______° ___50_______’ __________"
LONGITUDE: ___119_______° _____15_____’ __________" (at centre of work)
UTM Zone: 345500 EASTING: 5745540 NORTHING:

OWNER(S): INLET RESOURCFES LTD. 50%, KEVIN RUSSELL 50%

MAILING ADDRESS: 1550 - 200 Burrard St. Vancouver, BC V6C-3L6
9239 95 STREET EDMONTON
ALBERTA CANADA T6C 3W9
OPERATOR(S) [who paid for the work]: INLET RESOURCES LTD.

MAILING ADDRESS: SEE ABOVE

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude). **PROTEROZOIC METASEDIMENTS OF THE SHUSWAP METAMORPHIC COMPLEX HOST HIGH GRADE ZINC, LEAD SILVER ENRICHED MASSIVE SULPHIDE DEPOSITS THAT ARE DETECTABLE BY GRAVITY SURVEYING**

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:
26692, 27271, 28047, 28991, 30610, 9027,

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other	gravity	See page 1	80000
Airborne			
GEOCHEMICAL (number of samples analysed for …)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core	1 hole, 53.6 m, nq	381799	29400
Non-core			
RELATED TECHNICAL			
Sampling / Assaying core	23 sample, Zn Pb assay, icp	381799	600
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale/area)			
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
Other			
		TOTAL COST	110000

GRAVITY AND DIAMOND DRILLING ASSESSMENT REPORT

on the

Broken Hill – Leo Property
(VISTA, VISTA A, VISTA 1-8, 10, 11, 14-19; NAVAN 0-3, 5-11, 15, 17-26;
MIKE; MIK1; MIK2; MIKY; JIMM; DIAN; LEO 1, 2; LL1-8)
Kamloops Mining Division
Avola Area
N.T.S. 82M/14
Latitude 51^0 50' N
Longitude 119^0 15' W

For
INLET RESOURCES LTD.
1550 - 200 Burrard St.
Vancouver, BC V6C-3L6

Leopold J. Lindinger, P.Geo.

January 12, 2012

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Summary

The 133 unit (approximately 3,325 hectares) Broken Hill - Leo Mineral Property is located approximately 150 kilometres north-northeast of Kamloops and is centered 6 kilometres northeast to east of the village of Avola, British Columbia on NTS map sheet 082M/14.

The property covers eight mineral showings and occurrences discovered between September 2000 and September 2004 over a strike distance of 6 kilometers. These are the Vista (15.9% Zn over 0.3m), Navan A (21.5% Zn, 3.8% Pb and 11 g/t Ag in float), Navan B, Navan C (float), Navan D (float), Pautler (10.2% Zn over 0.33 meters), Mike (7 to 20% Zn in float over a 250 meter distance) and Denis (15.5 % zinc over 20 cm), 1.68 g/t Au in subcrop) occurrences. All showings were discovered by Leo Lindinger with the exception of the Pautler and Denis showings which were discovered by Jean Pautler and Denis Delisle respectively

The zinc mineralization that characterises the property was discovered in September 2000 in three areas over a 6 kilometre strike length. The property was optioned to Cassidy Gold Corp. later that year. Cassidy completed gridding, rock and soil sampling, prospecting, gravity surveying and diamond drilling programs from October 2000 to February 2001. Cassidy relinquished the option in early 2002.

On October 7, 2002, Cross Gold Corporation entered into an option agreement with Mr. Lindinger to acquire a 100 percent right, title and interest in the Broken Hill-Leo property, subject to a 2% purchasable Net Smelter Return (NSR). To fulfill the terms of the agreement, Cross Gold Corporation was to make $46,200 in cash payments and complete $270,000 in work commitments over a 4-year period. On October 25, 2003, B2B Solutions Inc. acquired the Option from Cross Gold Corp.. On August 10, 2004, B2B Solutions Inc. changed its name to Timer Explorations Inc.. In 2008 Timer explorations Inc. changed its name to Potash North Resource Corporation (Potash North). The original Option has been amended many times. Inlet Resources Ltd. (Inlet) acquired a 50% ownership of the property by funding the 2008 work program. On Nov 2, 2008 Potash North and Inlet fulfilled the terms of the amended Option and has earned the right to acquire the property which they completed. Potash North also in 2009 sold their 50% portion to Kevin Russell on behalf of Monster Uranium Corp.

The Broken Hill - Leo Property is underlain by highly deformed, high-grade metamorphic rocks of the Proterozoic to Paleozoic Shuswap Metamorphic Complex within the pericratonic Kootenay Terrane. Similar rocks to the east are assigned to the Proterozoic Horsethief Creek Group. The Group consists of three lithological packages; a lower amphibolite-biotite gneiss unit, a middle biotite gneiss - calc-silicate unit with minor marble and chert, and an upper mixed siliceous biotite schist and quartzite unit. The middle unit hosts most known zinc-lead-silver deposits in the region, including the nearby Ruddock Creek (discovered 1961), CK (discovered 1972) and Finn (discovered 1978) occurrences. Deep late Cretaceous-Early Tertiary burial and tectonism produced highly deformed upper amphibolite to granulate metamorphic grade lithologies including considerable migmatization of quartzo-feldspathic and carbonate stratigraphies. All lithologies are intruded by Devonian orthogneiss, Cretaceous and Tertiary felsic stocks, plugs, sills and dykes. Late Tertiary andesitic to mafic plugs and dykes, and lamprophyric dykes are locally common. Glacial till cover is extensive and varies from thin to large thick sheets with glacio fluvial and lacustrine deposits occupying most lower relief areas.

The Broken Hill - Leo Property covers a 9 kilometre strike extent of the carbonate stratigraphy on the east side of the North Thompson River valley. This stratigraphy hosts numerous high-grade zinc-lead-silver 'Shuswap-style' massive sulphide deposits such as the nearby Ruddock Creek, CK and Finn Deposits. To date eight showings are known. The Vista Showing is the most northwesterly known occurrence. The Pautler occurrence is 500 meters to the east, and the 4 Navan Showings are located 1.3 km southeast of the Vista Showing. The Mike float showing is located 4 kilometres south of the Navan occurrence and the Denis showing is 500 meters northeast of the Mike showing. The Denis showing also hosts gold enriched massive pyrrhotite veins. The Finn prospect lies 2 kilometers north of the property

The property has no recorded mineral exploration history prior to the September 2000 discovery of the Vista and Navan occurrences. During the subsequent nine years the property has received about $550,000 (including this program) of exploration expenditures comprising several surface geochemical programs, one ground magnetic survey, three local gravity survey, three backhoe trenching programs, and three diamond drill programs. Trench and drill testing of several of the many geochemical anomalies resulted in two significant but non economic occurrences being partially outlined to date.

In September and October 2011 portions of the Vista and Mike areas were gridded and gravity surveyed. The Vista survey did not produce gravity anomalies worth drill testing at this time. The Mike area produced an open ended gravity anomaly that was drill tested by one 53.6 metre hole in mid November 2011. The short drill hole which has probably not yet encountered the gravity anomaly intersected 4 (3 zinc bearing) thin, closely spaced mineralized zones between 25 and 30 metres deep. The nearby float mineralization indicate considerably thicker mineralization exists in the area.

Recommended is additional gravity testing of the open ended Mike anomaly, and the prospective area south of Fowler Lake. The gravity program is budgeted at $65,000.00. Also recommended is additional drill testing at the Mike area and if warranted the south Fowler Lake area. This phase is budgeted at $135,000. The Mike area would drill test the strongest part of the gravity anomaly including possibly extending the 2011 drill hole.

Introduction and Terms of Reference

This report documents the work, and discusses the results of a gravity survey and diamond drilling program completed on the Broken Hill-Leo property between September 10 and November 20, 2011. This exploration program was funded by Inlet Resource Ltd. a 50% owner of the property. The conclusions made, and recommendations for future exploration expenditures in this report are those of Leopold J. Lindinger, P.Geo.

Property Description and Location

The Broken Hill-Leo Property covers approximately 3325 hectares in east-central British Columbia, 150 kilometres north-northeast of Kamloops, B.C., within the Kamloops Mining Division (Figure 1). The centre of the property is at 51^{o} 50'N and 119^{o} 15'W on NTS map sheet 082M/14 and at UTM Grid Zone 11 (NAD 83) 5744540 N and 345500 E.

The property consists of eight 20-unit modified grid and 48 2-post contiguous "legacy" mineral claims (Figure 3) totaling 133 units. Table 1 contains information on the individual claims. The claims are currently 50% owned each by Inlet Resources Ltd. and Kevin Russell of Edmonton, Alberta on behalf of Monster Uranium Corp. No legal surveys have been completed on the property.

An underlying royalty of 2% exists on behalf of Leo Lindinger. The net smelter return royalty may be bought for $1,500,000. Inlet and Russell are obligated to pay an advance royalty of $5000.00 per year to Lindinger with the accumulated payments subtracted from any future royalty payments.

The Broken Hill-Leo property is not subject to any known environmental liabilities. A small portion of the property lies within an ecological reserve surrounding Fowler Lake. The surface rights are owned by the Crown.

The claims cover the recently discovered Vista, Navan, Mike, Pautler and Denis high grade carbonate associated zinc+/-lead+/-silver occurrences. There are also indications of intrusion associated low to high grade gold-bismuth-copper veins. There are no known mineral resources, mineral reserves or mine workings on the property.

The work program discussed in this report has been filed with the Ministry of Energy, Mines and Petroleum Resources under Statement of Work Event number 51264529 dated January 2012.

A $5000.00 reclamation bond with the Ministry of Energy and Mines (MX-4-599) has been created and maintained.

Table 1 -Broken Hill - Leo Property Mineral Claims

Claim	Record No.	Units	Expiry Date*	Claim	Record No.	Units	Expiry Date*
VISTA	380752	4	Nov. 10, 2017	NAVAN	380786	1	Nov. 10, 2017
VISTA 1	380753	1	Nov. 10, 2017	NAVAN	380788	1	Nov. 10, 2017
VISTA 2	380754	1	Nov. 10, 2017	NAVAN	380789	1	Nov. 10, 2017
VISTA 3	380755	1	Nov. 10, 2017	NAVAN	380790	1	Nov. 10, 2017
VISTA 4	380756	1	Nov. 10, 2017	NAVAN	380791	1	Nov. 10, 2017
VISTA 5	380757	1	Nov. 10, 2017	NAVAN	380792	1	Nov. 10, 2017
VISTA 6	380758	1	Nov. 10, 2017	NAVAN	380793	1	Nov. 10, 2017
VISTA 7	380759	1	Nov. 10, 2017	NAVAN	380794	1	Nov. 10, 2017
VISTA 8	380760	1	Nov. 10, 2017	NAVAN	380795	1	Nov. 10, 2017
VISTA	380762	1	Nov. 10, 2017	NAVAN	380796	1	Nov. 10, 2017
VISTA	380763	1	Nov. 10, 2017	NAVAN	380889	1	Nov. 10, 2017
VISTA	380766	1	Nov. 10, 2017	MIKE	380890	20	Nov. 10, 2017
VISTA	380767	1	Nov. 10, 2017	VISTA	380891	8	Nov. 10, 2017
VISTA	380768	1	Nov. 10, 2017	MIK1	381767	1	Nov. 10, 2017
VISTA	380769	1	Nov. 10, 2017	MIK2	381768	1	Nov. 10, 2017
VISTA	380770	1	Nov. 10, 2017	MIKY	381777	8	Nov. 10, 2017
VISTA	380771	1	Nov. 10, 2017	JIMM	381778	3	Nov. 10, 2017
NAVAN	380772	1	Nov. 10, 2017	DIAN	381779	2	Nov. 10, 2017
NAVAN	380773	1	Nov. 10, 2017	LEO 1	381891	20	Nov. 10, 2017
NAVAN	380774	1	Nov. 10, 2017	LEO 2	381892	20	Nov. 10, 2017
NAVAN	380775	1	Nov. 10, 2017	LL1	381393	1	Nov. 10, 2017
NAVAN	380776	1	Nov. 10, 2017	LL2	381894	1	Nov. 10, 2017
NAVAN	380777	1	Nov. 10, 2017	LL3	381895	1	Nov. 10, 2017
NAVAN	380778	1	Nov. 10, 2017	LL4	381896	1	Nov. 10, 2017
NAVAN	380779	1	Nov. 10, 2017	LL5	381897	1	Nov. 10, 2017
NAVAN	380780	1	Nov. 10, 2017	LL6	381898	1	Nov. 10, 2017
NAVAN	380781	1	Nov. 10, 2017	LL7	381899	1	Nov. 10, 2017
NAVAN	380782	1	Nov. 10, 2017	LL8	381900	1	Nov. 10, 2017

* upon acceptance for assessment credit of the work documented in this report under Statement of Work Event number 5164529

Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Broken Hill-Leo property is located on a plateau east of the steep-sided North Thompson River valley, 150 km north-northeast of Kamloops, and 6 km northeast and east of the village of Avola, British Columbia (Figure 2). The region lies at the northwest end of the Shuswap Highland portion of the Interior Plateau, in an area of moderate to steep topographic relief. The North Thompson River occupies a south draining, steeply incised valley, approximately 1200 metres below the surrounding plateau. The property ranges from 580 metres elevation in the North Thompson valley to 1,750 metres on the Mike, Jimm and Dian claims east and south of Dustin Lake. The vegetation on the lower parts of the property consists of lodgepole pine, interior fir and black spruce. Balsam predominates at upper elevations, with lodgepole pine on dry, substrate deficient cliffs. These pine groves are currently being impacted by the Mountain Pine beetle infestation.

Road access to the property is via Highway 5 (Yellowhead Highway) and east onto the Shannon Creek Forest Service Road, 0.5 kilometres north of Avola. The Shannon Creek FSR crosses through the property between 12.1 and 19 kilometres. The Cornice logging road originates at the 11.5 kilometres mark of the Shannon Creek FSR, and runs north onto the property near the 3 kilometre mark, accessing the areas west and north of Fowler Lake. The northeast directed now deactivated Fowler logging road originates at 17.5 kilometres on the Shannon Creek FSR used to and access the east-central side of the property eventually meeting the Cornice Logging road northeast of Fowler Lake. The south directed Dustin-Shannon spur originates at 15.5 kilometres on the Shannon Creek FSR and accesses the east side of Shannon Lake. Road access to the north part of the property is via Highway 5, 19 kilometres north of Avola, east onto the Finn Creek FSR, and south onto the Camp Creek logging road from the 10 kilometre mark.

Basic accommodation, food, and fuel are available in the village of Avola immediately southeast of the property. The village of Blue River 20 kilometres north of the property, has good accommodations, food and fuel, and is serviced by Greyhound Canada. Basic supplies can be obtained from Clearwater 70 kilometers west of the property. The City of Kamloops, located 190 road kilometres south, is the main centre of service and supply for the region. Logging is the primary resource activity in the region. Access to numerous equipment contractors are available on relatively short notice.

The CN Rail mainline in the north Thompson River valley is less than 2.5 kilometres west of the property. And passes thru Avola, Blue River and Clearwater. A medium sized high tension power line strikes through the west side of the valley. Gas and oil pipelines are located in the valley. Sufficient water and room for potential waste disposal, tailings storage, and processing pant sites and small scale hydro power all exist in the general project area.

The climate is moderately wet continental. Snowfall can exceed 4 metres at higher elevations, and rain showers are common in the summer and fall. Temperatures range from -25^{o}C in winter to $+30^{o}$C in summer. Most surface mineral exploration can be conducted between May and early November. Geophysical exploration, drilling and mining can take place year round.

Figure 1 - Property Location Map

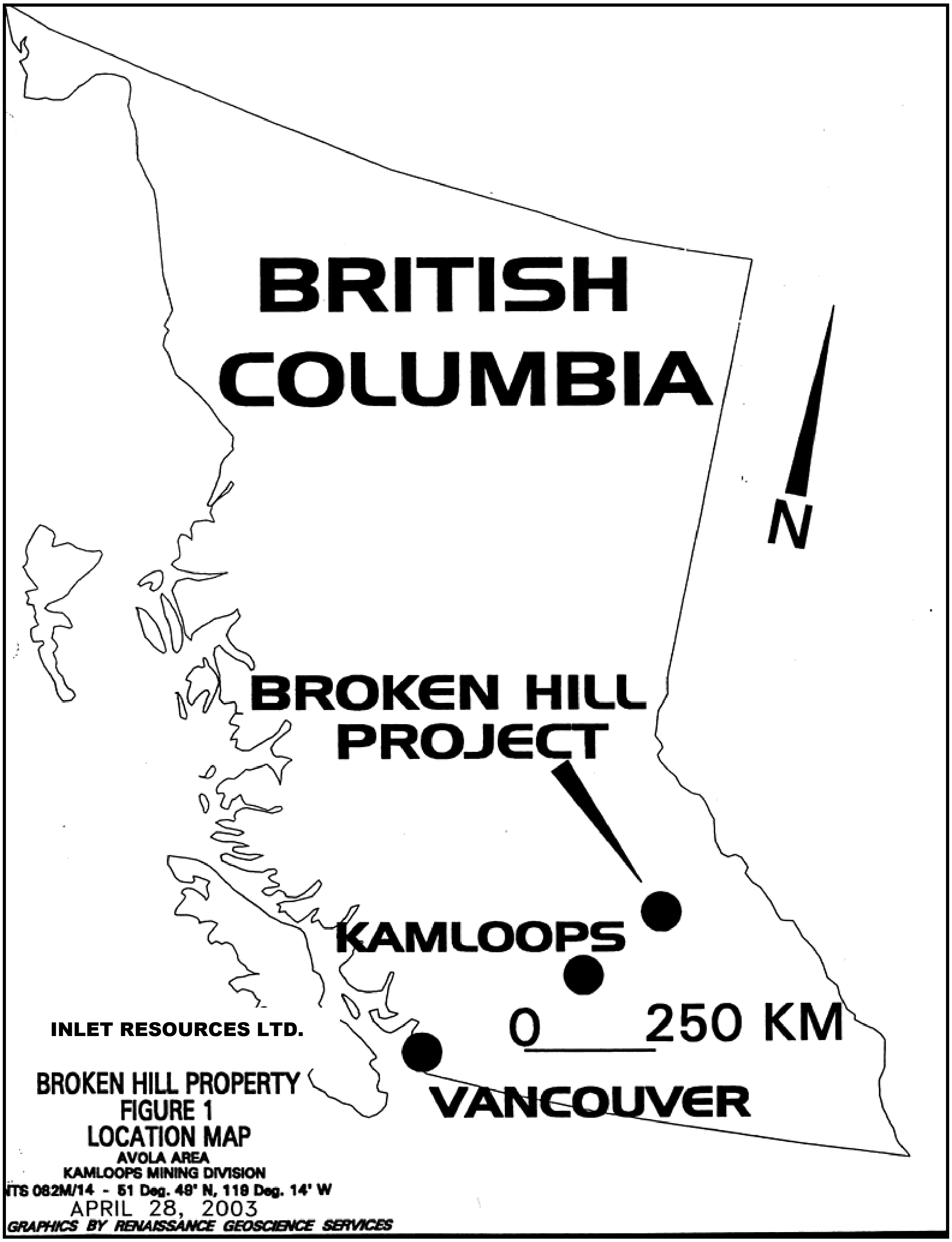


Figure 2 - Topography and Access

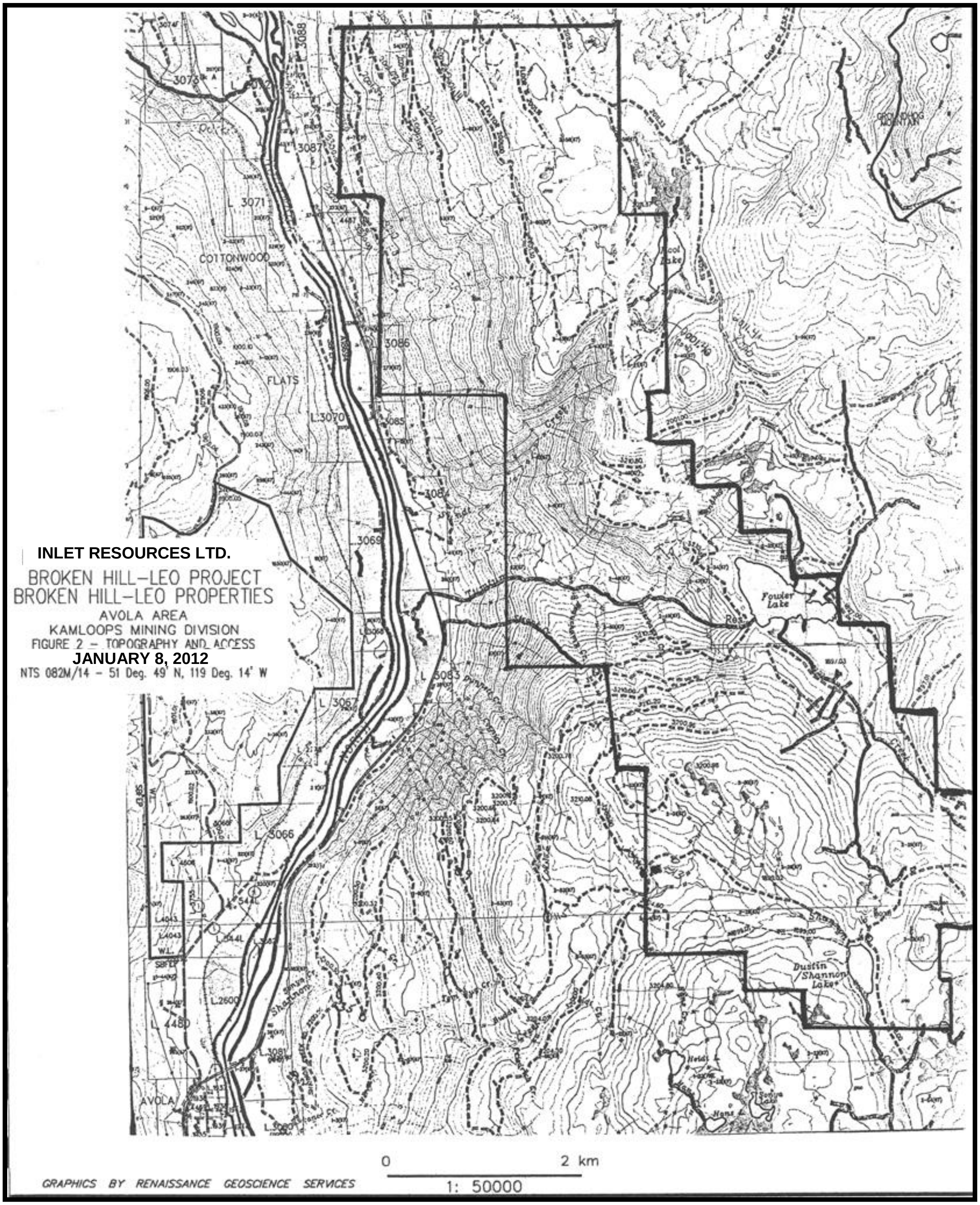
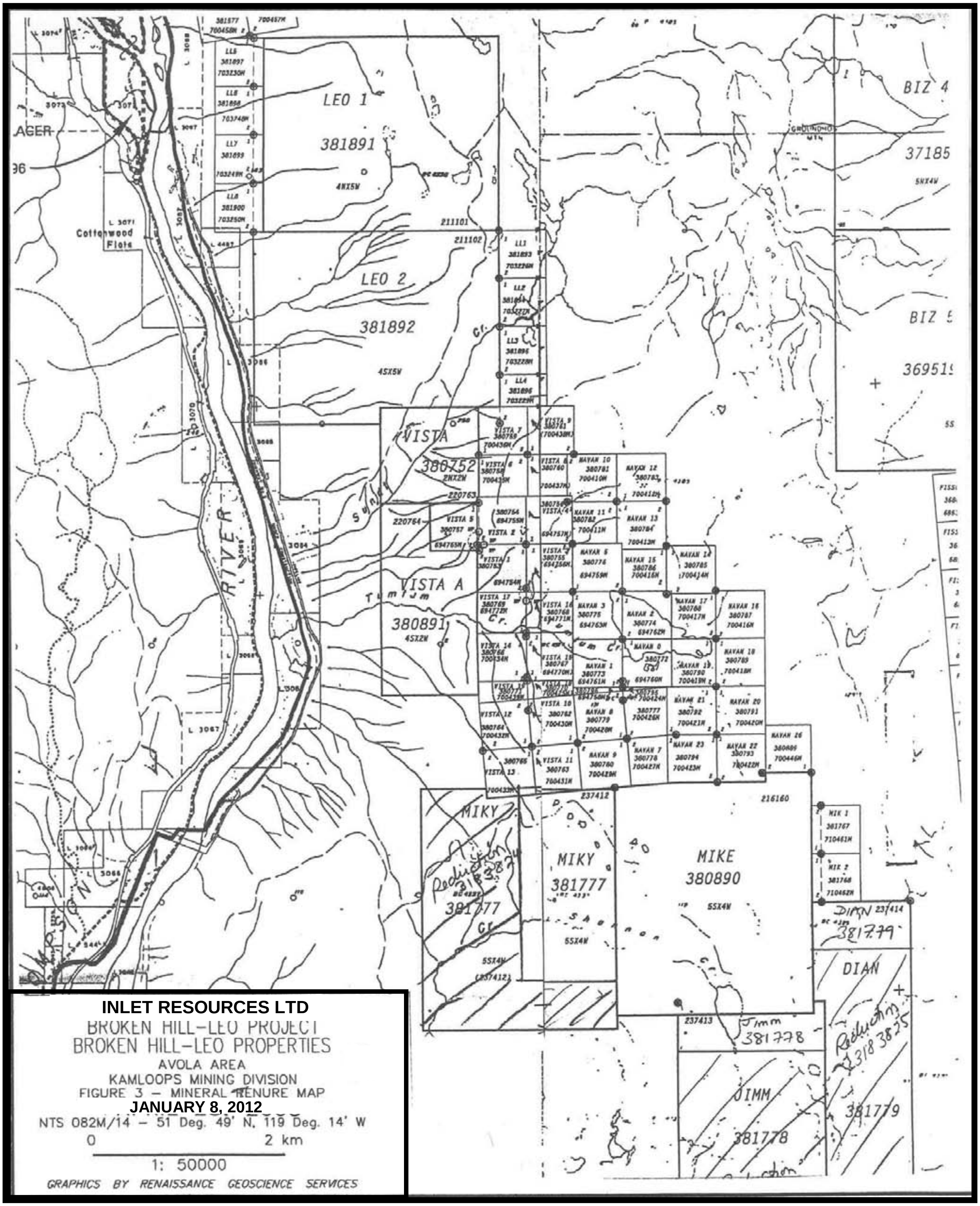


Figure 3 - Mineral Tenure Map



History

The oldest known significant base metal (zinc-lead)-silver massive sulphide discoveries in the region include Cottonbelt (1905) to the south and Ruddock Creek (1961) to the east in the Monashee Mountains. With increased access, due to logging activity, occurrences such as the CK (1972) and Finn (1978) zinc-lead-silver massive sulphide deposits, Dimac tungsten skarn, and the Trio and Hydro molybdenum prospects were discovered. More recent discoveries include the Bizar Au-Bi-Cu veins (1998) east of Ground Hog Mountain, the Readymix Au-Bi-Cu veins (2000) about 10 km to the west, and the Broken Hill massive sulphide showings (2000).

A government funded regional geochemical silt survey was completed in 1972. Results indicate that drainages originating from the current Broken Hill - Leo property are moderately to weakly anomalous in zinc, lead and gold. Since 1979, various prospectors and mining companies have staked claims north, south and east of the area now covered by the Broken Hill - Leo Property.

Prior to the discovery of the Vista, Navan and Mike (Broken Hill) zinc-lead-silver massive sulphide showings in September 2000, mineral exploration on the current Broken Hill - Leo Property was limited to prospecting.

In September 2000, the newly staked Broken Hill Property was optioned to Cassidy Gold Corporation. In October 2000, Cassidy conducted limited geological mapping and soil and rock sampling over approximately 5 square kilometres in the central part of the Broken Hill Property. A total of 479 soil samples and 30 rock samples were collected under the supervision of Warner Gruenwald, P.Geo. (Gruenwald, 2000). This program produced several open-ended soil anomalies. Subsequently, additional claims were staked, including the Leo claims north of the Vista area.

In December 2000, a gravity survey was completed by Discovery Geophysics Ltd. (Kubo and Woods, 2001). In late January and early February, 2001, a 13 hole, 930 metre diamond drill program was completed by LDS Diamond Drilling Ltd. of Kamloops, B.C. The drill program targeted gravity and geochemical anomalies and down dip extensions of the Vista and Navan mineralized horizons (Lindinger and Pautler, 2001). Two mineralized intersections in the newly discovered Pautler occurrences were intersected. Hole BH01-03, collared about 150 metres SE of the Vista showing intersected from 26.5 to 26.9 metres 4.76% zinc. Hole BH01-13 some 50 metres east of hole 3 intersected a folded portion of the mineralized horizon. This interval produced a weighted average from 24.5 to 28.4 m 2.52% zinc over 3.9 metres (estimated true width 2.3m). The down dip projection of the mineralization at the Navan showings appear to terminate at an intrusive contact less than 100 metres east of the showings. However a folded portion extends down to the west producing a very strong soil anomaly.

Cassidy terminated the Option Agreement on September 6, 2001.

On October 7, 2002, Cross Gold Corporation entered into an option agreement with Mr. Lindinger to earn a 100 percent right, title and interest in the Broken Hill - Leo property, subject to a 2% purchasable net smelter return royalty.

On November 5, 2002, B2B Solutions Inc. entered into an option to acquire a 100 percent right, title and interest in the property, subject to a 2% net smelter return royalty reserved in favour of the underlying owner.

On October 25, 2003, B2B Solutions Inc. acquired the Option from Cross Gold Corp. on the Broken Hill - Leo Property from Cross Gold Corp..

Between October 25 and November 1, 2003, a program of soil sampling, geological mapping and rock sampling was completed at a total cost of approximately $25,000.

On August 10, 2004 B2B Solutions Inc. changed its name to Timer Explorations Inc.

In Late August and September 2004, a program of soil, moss mat and rock sampling was completed at a total cost of approximately $20,000, prior to the September 15, amended date to fulfil the work commitment terms of the Option Agreement. Further exploration requirements under the Option Agreement were deferred till the summer of 2005.

During May and June 2005 a small diamond drilling and trenching program costing $33,000 was completed over the Vista, Pautler and Navan areas. This program was successful in extending the Pautler horizon with intersections of 5.88% zinc over a drill width of 0.83 meters and 10.2% zinc over a drill width of 0.33 meters within a wider interval grading 2.1% zinc over 1.9 meters, and discovering a mineralized horizon higher than the Vista.

During October 2006 a soil sampling, ground magnetometer and backhoe trenching program budgeted a $60,000.00 was completed. This program was concentrated over the Mike-Denis area with some ground magnetometer coverage over the north Navan and Pautler areas. This program was successful in defining the soil anomalies over the Denis area, defining magnetometer anomalies over the Denis and Mike areas that were probably produced by magnetic Quaternary mafic dykes. Three long trenches in the Mike area and several test pits in the Denis showing area failed to encounter bedrock zinc mineralization. Only one Mike trench uncovered a massive sphalerite bearing boulder. Once the trenches were refilled numerous cobble sized and smaller massive zinc sulphide fragments were exposed suggesting a shallow level of burial of the mineralized float in this location. The float size is apparently decreasing to the north and west.

During September 2008 a $100,000 diamond drilling program was completed targeting mineralization in the north Pautler, north Navan and Mike areas. 7 holes were completed. Thin massive sulphide mineralization was intersected in both north Pautler holes confirming continuity of the thin sulphide horizon intersected at shallower depths in past holes.

TABLE 2 – 2008 DRILLING HIGHLIGHTS

HOLE	FROM (m)	TO (m)	DRILLED WIDTH	Zn%	Pb%	Ag ppm	Mn	Cd	Cu
BH08-19	80.86	80.96	0.1	15.8	tr	1.4	736	319	31
BH08-20	97.8	97.9	0.1	1.64	tr	<0.2	431	42	10
BH08-20	98.25	98.45	0.2	6.97	0.04	0.90	334.00	169.50	20.50
INCL	98.35	98.45	0.1	11.50	0.02	0.2	214	289	24

No economic mineralization was intersected in the North Navan and Mike holes, although numerous intersections of the favourable carbonate horizon were intersected. One hole nearest to the float showing intersected a thick Palaeogene presumably steeply dipping dyke at the assumed target horizon.

Geological Setting

Regional Geology

The northern Monashee Mountains are underlain by rocks of the Shuswap Metamorphic Complex (SMC) part of the pericratonic Kootenay Terrane portion of the Omineca Belt. The Kootenay Terrane is comprised of late Proterozoic to early Paleozoic marine sediments and rare volcanic rocks deposited along the ancestral west margin of North America (Wheeler 1992). Nearly identical rocks in Australia hosting the world class Broken Hill mining district suggest a common provenance for these now disparate lithologies. The SMC rocks are also tentatively assigned to the Horsethief Creek Group (Gibson, 1991). The SMC has undergone extensive metamorphism and multiple episodes of deformation, due to collisional orogenic episodes during the Devonian, early Jurassic, mid to late Cretaceous and early to mid Tertiary times (Figure 4). Coincident with these orogenic episodes, magmatic rocks intruded the rock package. Deep burial and deformation until the earliest Tertiary times produced upper amphibolite to granulite grade rocks including large amounts of migmatized intrusive textured quartzo-feldspathic and carbonate rocks. Significant uplift and erosion occurring from the mid to late Tertiary exposed the SMC lithologies. The uplift was accompanied by north trending trans-tensional (basin and range) faulting and contemporaneous emplacement of felsic to intermediate stock and dikes, and more recent Quaternary basaltic and lamprophyric dykes.

Property Geology

The Broken Hill - Leo Property is underlain by deformed upper amphibolite to granulite grade metamorphic rocks of the Shuswap Metamorphic Complex. At least three phases of ductile to semi ductile deformation can be identified. The sequence is interpreted to consist of three distinct lithological packages that are usually but not universally strongly intruded by migmatite, and pegmatite sills and crosscutting dykes (Evans, 1993).

The overall stratigraphic sequence of the property has not been mapped in any detail (Figure 5). The general lithologic trend strikes to the north to west with moderate to steep east dips, however many local variations occur. A series of parallel late stage open and upright folds plunge to the east. The general stratigraphy near the mineralized horizons in the Vista and Navan areas is somewhat better known and is described by Lindinger and Pautler (2001) as follows:

> "The lowest structural package consists of amphibolite with lesser biotite gneiss and forms a thick monotonous sequence. This is overlain by a sequence dominated by biotite gneiss The third package consists of calc-silicate rocks with minor marble and chert. This package hosts the known zinc-lead-silver mineralization at the Vista, Navan and Mike Showings, on the property. The Broken Hill-Leo property covers an unexplored 9 km extent of the favourable

lithology. In addition the Finn and Pica zinc-lead-silver occurrences lie 4 km and 3 km to the north-northwest of the property, respectively (Evans, 1993).

The rocks, although highly folded, have a common north to northwesterly strike with moderate easterly dips. Secondary and tertiary fold structures observed elsewhere, include late easterly trending roll folds that may reflect larger structures.

Invading the host lithologies is an augen orthogneiss of assumed Devonian Age, which has been observed along the east side of the property. The rocks have been further intruded by weakly deformed to massive leucogranites of late Cretaceous and early Tertiary ages. Accompanying and/or post dating in part, the larger intrusive bodies, are at least two generations of coarse grained leucogranite intrusions, including pegmatite. These occur as tabular to highly irregular cross cutting and concordant pods, masses, dykes and sills. Undeformed mid Tertiary (and later?) intrusions include grey 'dacitic' feldspar porphyry stocks and dykes intrude steeply dipping brittle tensional fractures. Very late melanocratic lamprophyric dykes also intrude similar structures. (Wheeler 1992, pp. 508, 514, and Lindinger, personal observations).

The carbonate horizon associated with Mike Showing mineralization appears to be shallowly dipping near the showing, gradually steepening to the northwest becoming nearly vertical at the property boundary.

The southeast striking projection of the carbonate horizon from the Navan area to the Denis showing appears to be shallowly south west dipping west of the Denis showing and east dipping to the north. North of the north striking, east dipping Navan A showing is the northwest striking southwest dipping Navan B showing. The subparrallel slope and mineralized stratigraphy is probably responsible for the large zinc-lead soil anomaly in this area. These radical changes in dip may be caused by late rotational fault movement and or stoping by the large felsic plug underlying Fowler Lake to the east.

The carbonate horizon extending south of the Finn Occurrence 3 kilometers north of the Broken Hill property appears to be east dipping with both north and south plunging open fold sections. This fold pattern appears to be a stage 3 event. Tight to isoclinal F1-F2 folds were observed in massive carbonate horizons 1.5 km north of the property boundary.

Soil sampling of the prospective carbonate horizons at the Mike and Denis areas indicate possible F1 fold repetition of the mineralized horizon(s) and a F3 synform between and to the north of the Mike and Denis showings.

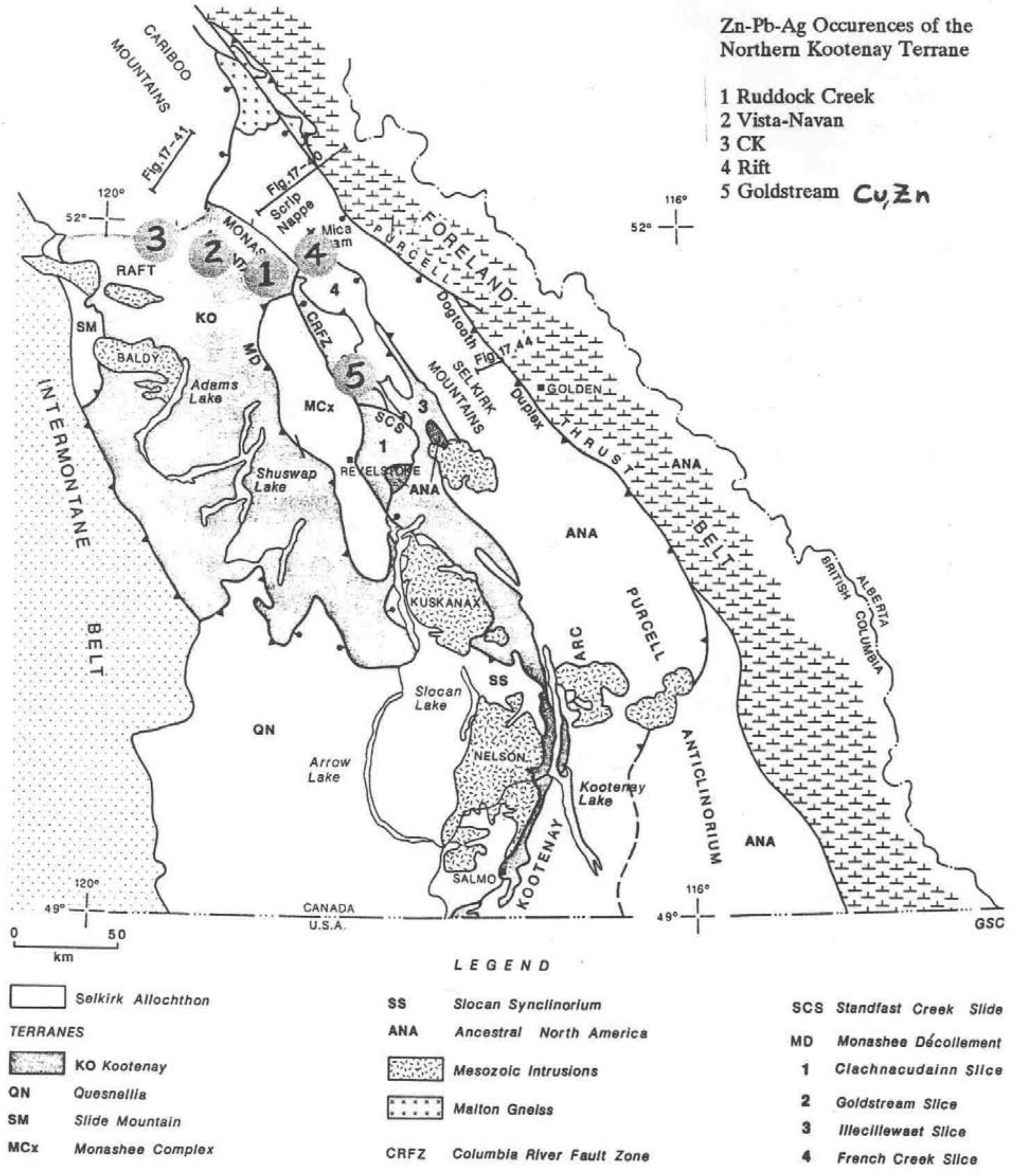


Figure 17.30. Southeastern Omineca Belt showing the distribution of terranes, some of the regional structures, and the location of structural cross-sections in Figures 17.40, 17.41 and 17.44.

FIGURE 4 - REGIONAL GEOLOGY From Wheeler, 1992: Page 608

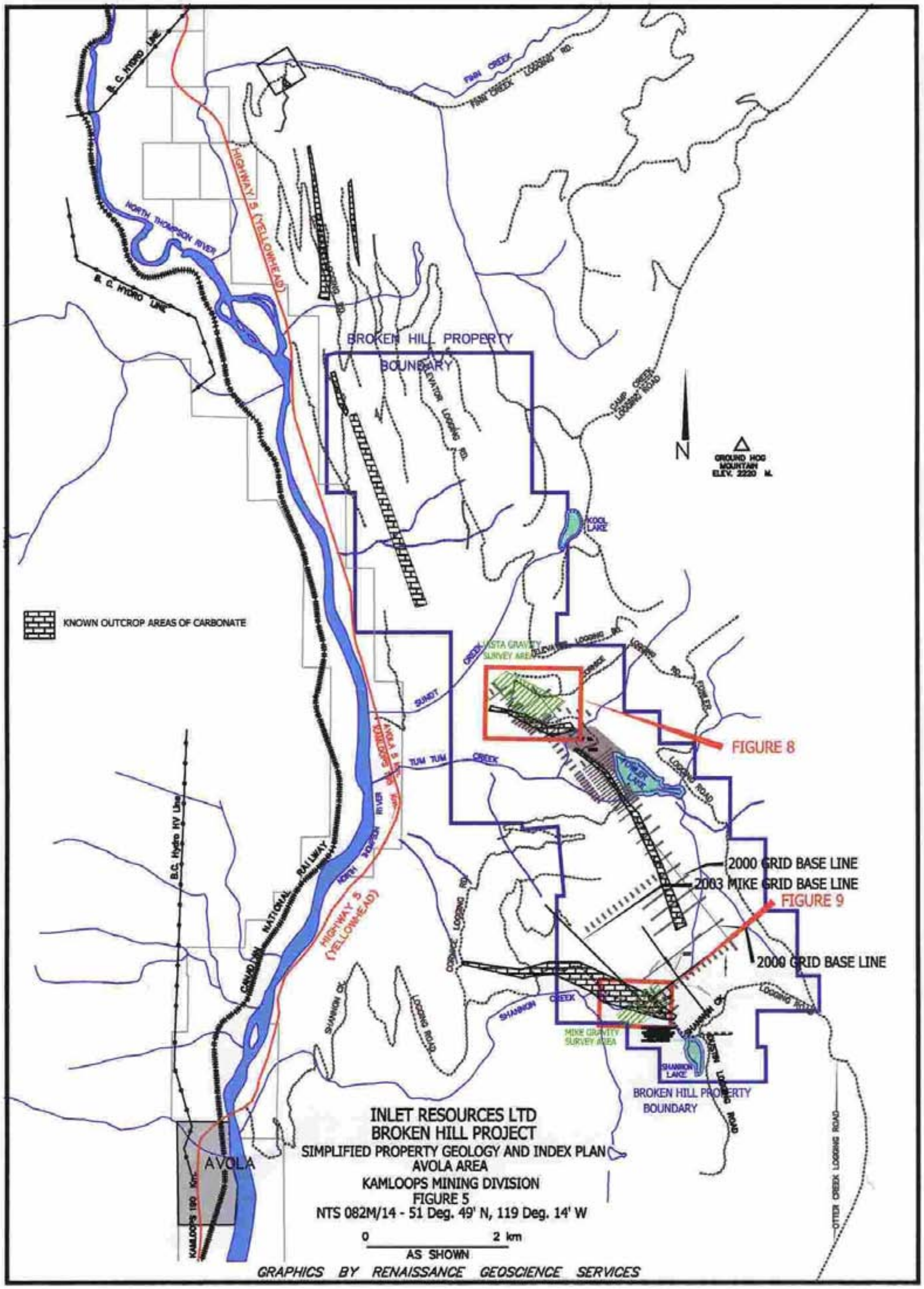

INLET RESOURCES LTD
BROKEN HILL PROJECT
SIMPLIFIED PROPERTY GEOLOGY AND INDEX PLAN
AVOLA AREA
KAMLOOPS MINING DIVISION
FIGURE 5
NTS 082M/14 - 51 Deg. 49' N, 119 Deg. 14' W
0
2 km
AS SHOWN
GRAPHICS BY RENAISSANCE GEOSCIENCE SERVICES
KNOWN OUTCROP AREAS OF CARBONATE
BROKEN HILL PROPERTY
BOUNDARY
FIGURE 8
FIGURE 9
2000 GRID BASE LINE
2003 MIKE GRID BASE LINE
2000 GRID BASE LINE
BROKEN HILL PROPERTY
BOUNDARY
AVOLA
N
HIGHWAY 5 (YELLOWHEAD)
NORTH THOMPSON RIVER
B. C. HYDRO LINE
CANADIAN NATIONAL RAILWAY
TUM TUM CREEK
SHANNON CREEK
MIKE GRAVITY SURVEY AREA
KOOL LAKE

FIGURE 6 – GEOLOGICAL LEGEND To accompany Figure 9

TERTIARY

TDYK – Melanocratic to medium grey fine to medium grained later Tertiary intrusive. Occurs as small plugs and steely dipping dykes. Highly magnetic.

TMIG - heterogeneous plagioclase quartz +/- garnet +/- biotite +/- muscovite+/- actinolite+/- wollastonite fine grained equigranular to porphyritic to megacrystic migmatite. Rock appears to derived from recrystallized siliceous and carbonate enriched sediments. Extremely variable grain size. (Pautler Unit 5)

TTON – Grey fine to medium grained tonalite Pale gray feldspar rich ~75% with 15% quartz and 10% anhedral biotite phaneritic fabric. Fine to medium grained hornblende and feldspars in a grey aphanitic groundmass. (Pautler unit 6)

CRETACEOUS AND/OR TERTIARY
PEG. -Pegmatite sills and dykes. Leucocratic medium but usually coarse grained quartz-plagioclase biotite or muscovite intrusive. Often 'contaminated' with partially assimilated wall rocks. (Pautler unit 5)

TGRN- Leucocratic fine grained granodioritic intrusive. (Pautler unit 4)

PROTEROZOIC to P ALAEOZOIC: KOOTENA Y TERRANE (Shuswap Metamorphic Complex)

DEVONIAN?

DOGN -Feldspar augen orthogneiss ranges from dioritic to quartz dioritic. (not seen in drill core).

PROTEROZOIC? -HORSETHIEF CREEK GROUP?

SBGF -Metapelitic medium grained usually siliceous biotite gneiss. (Pautler unit 2). refer to core log for additional details.

SCSL red-pink to green usually coarse grain coarsely banded garnet-amphibole-quartz calc silicate and skarn with remnant calcite rich pods. (Pautler unit 3)

SMRB -Leucocratic grey to white crystalline marble. (Pautler unit 3-Mb), Often partially replaced (especially less pure subunits) by calc-silicate and migmatite.

SCCS -Siliceous calc-silicate subunit of SCSL. Leucocratic laminated and banded moderately to highly siliceous rock. Over 35% free cryptocrystalline quartz. (incorporated into Pautler unit 3)

SCHT -Cryptocrystalline laminated siliceous rock. Possibly meta-exha1ite. Over 75% free quartz. (incorporated into Pautler unit 3). Common host rock for zinc sulphide mineralization.

SBGN, SBMG -Intermediate fine to medium grained biotite +/- lesser muscovite +/- hornblende banded to laminated metapelite. Similar to SBGF but with less quartz and the appearance of trace to 15% amph1"bole. (incorporated into Pautler unit 2)

SAMD -Melanocratic grey to grey-green fine to medium grained banded amphibole gneiss.
Often biotite rich. Trace quartz. (Pautler unit 1).

SMSZ, P – Massive Sphalerite (Z), or Pyrrhotite (P) sulphide. Brown to grey massive sulphide commonly very sphalerite rich but can vary from pure sphalerite to nearly pure galena (often very silver rich) to pure 'barren' pyrrhotite or marcasite.

Deposit Types

The Shuswap Metamorphic Complex hosts several significant Broken Hill type "syngenetic" sediment-volcanic-hosted zinc-lead-silver massive sulphide deposits, hosted within carbonate bearing lithologies at the transition between platformal carbonates and pelitic sediments. These occurrences include Ruddock Creek, Cottonbelt, King Fissure, Big Ledge, and CK. The Ruddock Creek deposits have seen significant recent development by several operators including Imperial Metals Ltd. Imperial in July 2009 released several estimates of the E zone deposit. At a cutoff of 4% lead plus zinc an indicated resource of 2.34 million tonnes grading 9.4% lead plus zinc and an inferred 1.49 million tones grading 7.76% lead plus zinc was released. Recent exploration ahs also occurred at CK and Cottonbelt.

Clusters of zinc rich sulphide occurrences are generally aligned along north-trending large-scale folds. The mineralized horizons tend to be laterally extensive but thin. Significant thicknesses may be present near inferred vent areas and fold hinges. Structurally induced thickening can occur over short distances. The newly discovered Vista, Navan, Mike and Denis Showings are located 25 kilometres west of Ruddock Creek and 25 kilometres east of the CK occurrences and are hosted in very similar rocks. Both properties are being actively explored.

Also occurring within similar lithologies are carbonatite-hosted niobium-tantalum showings and deposits like the Mount Grace and Blue River Occurrences which are actively being explored.

Other deposit types within Shuswap Metamorphic Complex lithologies in the region are epigenetic in origin, commonly related to one or more of many intrusive events. Some of these are medium to high grade gold-bismuth-copper-arsenic veins of possible late Cretaceous to early Tertiary age (e.g. Bizar, Readymix, Denis Gold), related? copper, tungsten (Dimac), molybdenum, zinc-lead-silver and gold bearing intrusive and associated skarn and wallrock-hosted deposits. Gemstone and industrial mineral (i.e. garnet) deposits are also known to occur.

Mineralization

The following descriptions of the Vista, Navan and Mike showings are from the MINFILE database administered by the Geological Survey Branch of the Ministry of Energy and Mines with additional information from Lindinger (2002, 2004, 2005 and 2006).

MINFILE Number: 082M 280
Names: VISTA, BROKEN HILL, VISTA A, VISTA B, VISTA C

The <u>Vista A showing</u> is a partially exposed band of very dark brown fine to medium grained massive sphalerite with subordinate galena, pyrrhotite, chalcopyrite and pyrite(?). The band was exposed by blasting to establish a road surface for the Cornice Logging road at about kilometre 9.3. The band is at the contact of sulphidic siliceous gneisses on the structural footwall, and an overlying 2 (plus) metre thick band of calc-silicate rocks that appear to be highly metamorphosed limestones. The showing appears to be part of a moderately (10-

20 degrees) southeast plunging partially eroded antiform or northeast dipping monocline. Rocks to the northeast change dip to moderate to steep northeast dips. Exposures to the south-west are eroded off, and covered by glacial debris, or have not been mapped.

The observed mineralization is in the form of planar to swirling bands of nearly massive sulphides up to 35 centimetres thick that grade up into bands of semi-massive sulphides in a calc-silicate host. The contact with the underlying silicate rock appears very sharp. The band of Vista A type mineralization is exposed discontinuously over about 20 metres; it is assumed to be continuous although it is truncated at surface to the northwest by a northwest striking, moderately northeast dipping fault that brings a pegmatite dyke into direct contact with the mineralization. To the southeast it plunges below the logging road. Selected grab samples from bedrock exposures assayed up to 24% zinc, 4.9% lead and 72 grams per tonne silver (Lindinger, personal communication, Jan. 2001).

Vista B type mineralization occurs 2 to 3 meters structurally above the Vista A horizon in calc-silicate rocks. This zone is also stratiform, exposed as a 5 to 10-centimetre thick band of dark brown coarse grained massive to semi-massive sphalerite. No lead, silver or copper is reported. This band is exposed in its unweathered form for at least 5 meters about 20 meters southeast of the Vista A discovery outcrop. To the northwest it is eroded off. To the south-east it also plunges below the road. To the northeast, if continuous it would dip to the northeast as part of the stratigraphic package and remains open in that direction. Trenching in 2005 exposed the down dip extension of the Vista horizon and it pinched out 30 meters down dip to the east. Structural observations suggest that the thickened exposures in the road cut may be near s small antiform.

Vista C type mineralization (discovered by Warner Gruenwald, P.Geo.) are fault-hosted(?) 4 to 6 centimetre thick silvery-grey medium to fine grained massive to semi-massive sphalerite and galena bands that appear to both occupy the top of and crosscut the calc-silicate horizon hosting the Vista A and B mineralization. Weathered exposures are visible over a planar 8 by 2.5 metre exposure of the top of the calc-silicate horizon above the fresh exposures of the Vista B mineral band. A sample (0.8 metres long by 8 centimetres thick) taken by Mr. Gruenwald yielded 6.6% zinc, 4.1% lead and 6.2 grams per tonne silver (Lindinger, personal communication, Jan. 2001).

The calc-silicate unit hosting the various types of zinc-rich sulphide mineralization appears to contain erratically distributed, weakly disseminated sphalerite with possibly galena. Traces of other iron and copper bearing sulphides are also present. This uncertainty is due to the generally well weathered nature of the surface exposures and lack of sample assay data.

Name UPPER VISTA

The drilling in 2006 intersected a thin mineralized horizon (that outcrops) about

30 meters stratigraphically above and 100 meters northeast of the Vista discovery horizon. The horizon did not occur in a steeper drill hole to the northwest. This horizons relationship to the Vista and Pautler horizon is unknown but if it represents a structural repetition above the Vista Pautler horizon with a possible fold closure (and a thickening of the zinc mineralization) to the northwest.

Name PAUTLER

The Pautler Showing was discovered by Jean Pautler in February 2001 in Hole BH DDH-01-13 while following up a zinc intercept in hole BH DDH-01-03. The mineralized intersection in DDH-BH-01-03 although interrupted by a pegmatite sill graded 1.2% Zn over 1.1 metres (true width). A weighted average of the folded cherty mineralized zone in hole DDH-BH-01-13 graded 2.5% Zn over 3.9 metres (2.3 metres true width). Soil sampling in 2004 outlined lead and zinc anomalies 50 to 100 meters to the west which could represent the up dip expressions of the mineralization intersected in these holes. Hole BH-05-14 intersected 5.88% zinc over a drill width of 0.83 meters. Hole BH 05-15 intersected 10.2% zinc over a drill width of 0.33 meters with a wider interval of 2.1% zinc over 1.9 meters. Both holes are near to and bracket to the northwest and southeast hole BH01-03. The intersection in Hole 15 is 25-30 meters down dip from the intersection in Hole BH-DDH-01-13. The mineralization is hosted within or adjacent to calc-silicate rocks near the top of a 30-50 meter thick carbonate sequence. Tentatively this is geologically very similar to the Vista showing which is true would indicate that the Vista may be in a late stage down dropped block of the same stratigraphy. This remains a priority drill target.

MINFILE Number: 082M 279
Names: NAVAN, NAVAN A, NAVAN B, BROKEN HILL

The Navan A showing is hosted within north striking moderately east dipping open carbonate antiform or dome. The sulphides occur as several poorly exposed, partially weathered bands of dark brown fine- grained massive sulphides (sphalerite and galena) hosted by disrupted (frost heaved?) calc-silicates and impure quartzites, probably correlative with the cover sequence of the dome. The grade and style of mineralization are very similar to the Vista A type showing (082M 280); however, the highest grade exposures of Navan A are totally within calc-silicate host rocks. Massive sulphide mineralization up to 25 centimetres across and grading up to 23% zinc, 4.05% lead and 17 grams per tonne silver occur as boulders that were excavated out of subcrop exposures during road construction. Exposed hangingwall rocks include thin, impure quartzite layers with minor disseminated pyrrhotite. A second 25 centimetre thick layer of semi massive sulphides occurs less than 1 metre above the massive sulphide horizon. Still higher are disseminated medium grained sulphides in highly weathered pitted (weathered sulphides?) garnetiferous calc-silicate rock.

The Navan B showing is about 130 meters north of the Navan A exposure. Here, a 1.5- metre long 5 to locally 22-centimetre thick band thick of massive sphalerite occurs in northwest striking south west-dipping quartz-rich schistose rock. A (2000) 0.3-metre thick sample which included the massive sulphide mineralization yielded 5.6% zinc, 0.6% lead and 8.4 grams per tonne silver. The host rocks are very different than those of the Navan A showing and mineralization is likely a distinct layer. More detailed examination in 2005 resulted in the discovery of 30 by 25 by 20 cm massive sphalerite boulders.

The Navan C float showing 200 meters grid north of the Navan A showing is a 30 centimetre diameter piece of siliceous calc-silicate and biotite gneiss float occurring in basal till that has on one side part of a massive sulphide layer. The remnant sulphide layer is about 12 centimetres thick. Based on glacial information the source of the boulder was to the northeast and away from the Navan A and Navan B showings.

The Navan D float showing occurs 300 metres south of the Navan A showing at approximately 7.4 kilometres on the Cornice logging road. Here clusters of fragments less than 10 centimetres in diameter of zinc-bearing semi-massive sulphides hosted by calc-silicate and chert occur in basal till and actinolite skarn and bleached marble subcrop rubble in a road cut. This is the area of the original rock sample taken by the writer in July 2000 that returned nearly 1% zinc, with anomalous copper, lead silver and tungsten values.

An open ended to the north soil anomaly immediately north (up ice) and west (down-hill) of the Navan B showing contains the highest zinc (2590 ppm) and lead (412 ppm) values in soil found to date. The intensity and shape of the soil anomaly here may reflect a surface expression of folded mineralized horizons.

MINFILE Number: 082M 281
Names: MIKE, BROKEN HILL, MIKE FLOAT

The Mike float showing contain cobbles and boulders of dark brown massive, semi massive and disseminated, fine to coarse grained sphalerite and pyrrhotite associated with garnetiferous calc-silicate, pyrrhotitic silicate and coarse grained pegmatitic rocks that are exposed over 250 meters in a series of pits dug for material to upgrade the Shannon Creek logging road between 15.1 and 15.35 km. The boulders and cobbles can be dug out of the bank and occur within discrete stratigraphic zones near to and overlying possibly disrupted pegmatitic bedrock. The western exposures of the boulders occur in a dense basal till that is overlain by several glaciofluvial and silty boulder till layers. The boulders appear to occur at higher levels in the till to the east indicating a source to the west and north. Northwest of the float occurrence is an area of nearly flat lying to northeast dipping calc-silicate float and bedrock extending for over 2 kilometres. The stratigraphy two kilometres west is subvertical to steeply north dipping. To the northeast, east and south-east is deep glacial till extending to Shannon Lake. This till terminates and may mask the soil anomaly. The significance of the soil anomalies from the higher till sheets are unknown.

One sample of a massive sphalerite (~ 15 cm thick) boulder returned 19.6% zinc and 352 ppm cadmium (Gruenwald, personal communication, 2000). The lead content of this and other samples have consistently lower lead values than the Navan (082M 279) and Vista (082M 280) prospects of the Broken Hill property, although moderate lead in soil anomalies occur here.

Names: DENIS ZINC, DENIS GOLD

The Denis Zinc showing was discovered by Denis Delisle in September 2004 and is 500 meters northeast of the Mike showing and is in the west uphill side of a road cut in an unreclaimed skidder road. The showing is a one meter square "outcropping" exposure of a 20 cm thick north striking subvertically dipping massive sphalerite slab that is truncated to the north by intrusives, but is open to the south and at depth. Representative samples returned from 11 to 15.5% zinc with lesser lead and silver. Partially defined moderate zinc and lead soil anomalies occur down hill to the northeast. The area is characterized by very large (4-5 meter) boulders. And trenching results indicate the stratigraphy is shallowly southwest dipping. Therefore the current interpretation is that the showing may be within a large rotated boulder or may be a rotated block contained within pegmatite.

The Denis Gold was also discovered by Denis Delisle and occurs as a west striking massive to semi massive pyrrhotite-quartz breccia vein hosted by pegmatite about 3 meters north of the Denis Zinc showing. Float samples of massive and semi massive pyrrhotite mineralized gneiss returned up to 1.28 g/t Au with associated bismuth (up to 896 ppm) and copper (up to 1160 ppm).

Backhoe trenching of this area exposed these showings as strongly frost fractured glacially or frost transported megaliths, presumably from some distance up hill to the west.

Other potential deposit types located on the property include tungsten skarn and intrusion associated gold zones. Known types of mineralization nearby include molybdenum stockwork veins and high grade intrusion associated gold veins such as the nearby Bizar, and Readymix gold occurrences, pyrrhotite hosted gold skarn mineralization, and copper bearing quartz veins and stockworks represented by the Denis gold and Mike gold showings. Carbonatite deposits prospective for Niobium and Tantalum are known to occur in the region, but not as yet on the property

2011 Exploration Progam

The 2011 program was designed to test for bedrock zinc mineralization at the Mike, and Vista-North Pautler areas by gravity surveying and if adequate targets were generated, by diamond drilling testing those targets.

Mike Grid

A small 350 m by 725 metre grid was cut to "IP standard" with one base line 2 end lines and 7 grid lines varying from 400 to 725 metres long using compass with GPS support to establish the end lines locations. Picketed stations were installed every 25 metres using slope corrected tight chain. The base and end lines were oriented at 325 degrees and the grid lines at 55 degrees. (see figure 7). A total of 4400 metres were cut and brushed.

Vista Grid

The Vista grid was an extension of the one established in 2000 and covered the remaining northwest portion of the ~ one km square plateau northwest of the Vista-Pautler area. The baseline 25+00 E striking 315 degrees was re-established from 86+00 N to 89+00 N and extended to 90+00N. To better cover the north end of the area a second base line 23+00 E originating at 2300E 90+00 N was established from 90+00 N to 93+00 N. Grid lines of variable length were made covering the flat plateau and extending a short distance into the slopes NE and SW of the grid. A total of 9500 metres were cut and/or brushed.

Gravity Survey

Discovery Intl Geophysics Ltd. was contracted to complete a ground gravity survey on the prepared grid lines. The survey began on September 26 and was completed on October 13 th.

Details of the Survey are taken directly from Discoveries' report which is appended to this report.

*"Gravity readings were taken at 25 m intervals for both the Mike and Vista grids. A total of 184 gravity observations were recorded over the Mike grid along 7 survey lines (lines 4900N to 5200N) with a 50- m line spacing (**Table 1**) using a Scintrex CG-5 AUTOGRAV meter. For the Vista gird, a total of 268 gravity observations were collected over 14 lines (lines 8650N to 9300N) with a 50-m line spacing using both a CG-5 AUTOGRAV meter and a LaCoste & Romberg Model G Gravity Meter (**Table 2**).*
All readings were taken as close as possible to flagged grid markers, which were generally marked pickets. The LaCoste & Romberg gravity meter was placed on a concave, long-legged, base-plate tripod, whose legs were sunk into the ground for stability. The gravity meter reading and the time of each reading were entered into a logbook. The CG-5 AUTOGRAV meter was placed on its own designated tripod stand that is sunk into the ground and used to level the gravity meter. The gravity observations are recorded digitally into the meter. The height to the bottom of the sensor was measured and then added to the known sensor height from the bottom of the meter and recorded as the instrument height. In the event that a station needed to be reoccupied, a 20 to 30 cm circle with a dot in the centre was spray-painted (fluorescent orange) on the ground to mark the station. The occasional station had to be relocated along the grid line or skipped entirely due to terrain complications. Such complications included, but not limited to, swampy areas where a steady reading could not be taken; steep ground where there was no convenient spot to place the gravity meter; and/or areas where it was unsafe to take a reading.

A base station was established at UTM 343,416E, 5,741,198N between the Mike and Vista grids. In order to monitor instrument drift throughout the day, a base station reading was repeated at the beginning and end of each survey day. A few stations were also re-read for additional drift monitoring or to check for tares (sudden shifts in the readings due to the gravity meter receiving a slight knock during the course of the survey).”...

...” A total of 119 station locations and elevations (spread over both survey areas) in NAD83 UTM were determined using the Trimble Differential GPS (DGPS). The DGPS could only occupy stations in areas of clear view of the sky and in view of the DGPS base station that remained in a stationary position. However, since much of the Mike and Vista grids are located in areas of tall trees and significant elevation variations, the remaining station elevations were surveyed using a GDD hydrostatic Chain+Level which measures the relative elevation between two points by sensing hydrostatic pressure within an oil filled tube and a survey chain. Furthermore, since the GDD level only measures relative elevations, every reading has to be tied to the network of stations, in order to calculate an elevation that is relative to a common point with a known elevation. On the other hand, to correct for cumulative errors due to instrument drift, all readings must be taken in closed loops that are tied into the network of known elevation points. This was done by collecting at least one DGPS station on each gird line which enables the Chain+Level data to be tied into “known” elevations designated by the DGPS. Base lines and cross lines were also surveyed to provide better control on elevation and reduce closure errors. These closure errors were determined by averaging over a number of stations between the DGPS elevation control points. The elevation surveyor worked ahead of the gravity operator setting up and marking the station; and also taking slope measurements. In order to map the near station terrain, the level operator took four slope readings at each station. A clinometer was used to sight the slope in the grid north, east, south and west directions. These readings were input for a near-station terrain correction using the sloping-wedge technique (Barrows and Fett 1991). In case of the CG-5 AUTOGRAV, it employs the hammer zone B method built into the software.”...

Table 1: Gravity Survey Coverage Mike Grid (Broken Hill Project)

Line	Stations	Length (m)
4900N	1700E to 2100E	400
4950N	1700E to 2100E	400
5000N	1475E to 2150E	675
5050N	1475E to 2150E	675
5100N	1475E to 2150E	675
5150N	1475E to 2150E	675
5200N	1825E to 2150E	325

Total: 184 Stations

Table 2: Gravity Survey Coverage Vista Grid (Broken Hill Project)

Line	Stations	Length (m)
8650N	2225E to 2600E	375
8700N	2200E to 2600E	400
8750N	2175E to 2600E	425
8800N	2125E to 2600E	475
8850N	2125E to 2600E	475
8900N	2100E to 2525E	425
8950N	2100E to 2500E	400
9000N	2100E to 2500E	400

9050N	2100E to 2500E	400
9100N	2175E to 2475E	275
9150N	2125E to 2475E	350
9200N	2150E to 2475E	325
9250N	2175E to 2450E	275
9300N	2200E to 2400E	200

Total: 268 Stations

Data Processing and Presentation

Station locations are determined from handheld GPS control points located on the chained grid supplied. The relative elevations from the GDD electronic level are entered into a spreadsheet at the end of each survey day. The relative elevation at each point in a loop is first determined relative to the starting point on the road by adding individual relative elevations. When the loop is closed off, the summed elevation for the loop is generally non-zero due to errors and instrument drift. This is corrected by dividing the loop error by the number of stations and then cumulatively adjusting each station elevation by that amount, thus bringing the summed elevation for the loop back to zero. The corrected relative elevations are then tied into the entire network through the road control points measured with the Trimble DGPS. This provides an absolute elevation at every point with a relative average accuracy of ±2 cm. DEM elevations were also considered in the final elevation determination. This resulted in a mean difference between DEM and gravity elevations that was as close to zero as possible.

The slope measurements are input into a spreadsheet routine that calculates the gravitational effect of a quarter wedge of uniform slope θ out to radius R (Barrows and Fett, 1991).

$$g_w = 1/2\pi G\rho R(1\ \cos\theta)$$

where G is the gravitational constant and ρ is the density of the terrain.

These near-station terrain corrections ranged from 0.01 to 0.4 mGals over the survey area for the selected radius of 20 m. A digital elevation model (DEM) was prepared using orthophoto techniques by Eagle Mapping Services Ltd. This model consisted of elevation data at a 25 m interval over a 7.4 km x 6.0 km area covering the Vista grid and surroundings. The Mike grid was recently surveyed at a 10 m interval over a 4.0 km x 5.8 km area covering the entire Mike grid and beyond. In addition, there was elevation data at a regular 50 m interval (plus along hydrological features) extending approximately 2 km past the more detailed area of the Vista grid. An accurate DEM allows a precise terrain correction to be calculated for every station using "RasterTC", a DEM-based, integrated-surface, terrain correction program (Cogbill, 1990). RasterTC performs terrain corrections over two zones, deemed the inner and outer zone. The inner zone extends from 20 m to 325 m out from the station and the outer zone extends from 325 m to 2000 m from the station. The supplied DEM is used to calculate an elevation surface in each of the zones. Terrain corrections are calculated independently for every station. The actual elevations of the gravity stations are not used. Instead, the elevation on the surface at the station location is used, thus avoiding any bias that may exist between actual and DEM elevations.

The final combined inner and outer zone terrain corrections ranged from 0.7 to 9.2 mGals over the Vista grid, which is located primarily on the side of an extremely steep slope. Hence, in this mountainous area, the terrain effect can produce false anomalies that are greater in size and amplitude than a real geological feature. The Mike grid, however, only spanned a range of 0.3 to 1.5 mGals for the combined inner and outer zone terrain corrections. This is because the Mike *grid is located in an area of relatively level terrain compared to that of the Vista grid. This leads to the discrepancy of the terrain corrections between the two grids.*

All gravity data processing was carried out using a specialized application from LaCoste & Romberg and Geotools Corp. called "GravMaster". This program uses MS-Excel spreadsheets for data input and output. The program first converts the gravity meter readings from arbitrary units to mGals using the scale factor chart supplied with the instrument. Earth tide corrections are then determined for each reading using the recorded date and time and the UTM station locations. The tide corrected gravity readings are then corrected for instrument drift and tares using the base station and repeat station readings, linearly interpolating any differences in these repeat readings over the time interval between readings. The station elevations, copied into the spreadsheet from the GDD level processing output, are used to determine the combined free-air and Bouguer slab, elevation corrections. The Bouguer correction is determined for a range of slab densities from 2.5 to 2.8 g/cm3 in order to determine the optimal density for the survey area (i.e. the density that results in the least correlation between final corrected gravity and elevation).

The corrected, relative, gravity readings are then converted to absolute gravity values by inputting into GravMaster the known absolute gravity value of 980798.190 mGals determined at the base station located at the Log-Inn Pub in Avola (Canadian Gravity Standardization Net Station No. 9471-75). As a result, the corrected, absolute gravity values at the Broken Hill property can be tied into the GSC regional gravity grid of Canada.

The final step of the gravity processing procedure is to calculate the theoretical gravity at every station using an internationally accepted formula for the gravity field of the World Geodetic System (1984) reference ellipsoid: i.e. the US National Imagery and Mapping Agency (1998) formula (Blakely, 1995, pg. 135). The gravity stations locations were used to calculate the theoretical gravity at each station.

The "simple Bouguer gravity" is calculated by subtracting the theoretical ellipsoid gravity from the observed and corrected absolute gravity at each station. The "complete Bouguer gravity" is found by adding the near-station wedge, and inner and outer zone DEM terrain corrections at each station to the simple Bouguer gravity. By comparing the complete Bouguer gravity to the elevation map, it was determined that a density of 2.7 g/cm3 showed the least correlation between Bouguer gravity and terrain features. The final accumulated error of the complete Bouguer gravity is estimated to be about ±0.03 mGals (reading error: 0.005 mGals; drift correction: 0.002 mGals; elevation correction: 0.008 mGals; terrain correction: 0.015 mGals; all other corrections have negligible errors).

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Diamond Drilling

A Longyear 44 diamond drill was contracted from Target Drilling Ltd. to test for bedrock zinc mineralization at the Mike area gravity anomaly. The hole was collared at UTM zone 11 U 5741051 N 345605 E elevation 1575 m and 20 metres SE of Mike gravity grid location 5150 N 1475E at a bearing of 315 and a dip of -55 deg. The hole was stopped at 53.64 metres in favourable lithologies and the casing was left in the hole.

The core was delivered by the driller to Kamloops and picked up by Renaissance Geoscience Services Inc. employee Adam Lyons and delivered to the core processing facility at 680 Dairy Road Kamloops B.C.. Core geoteching included core washing, reassembly to determine recovery) and location of core loss and quality of core handling by the drillers. Additional procedures included metric conversion, marking the core at one meter intervals, black light testing to determine the presence of tungsten (scheelite) and finally imaged using digital cameras. Usually 4 boxes were imaged at one time. All geotechnical data was entered into a laptop computer using appropriate programs. Core logging was completed with rock type, alteration, mineralization and assay sample intervals recorded. The logging was completed on site and the data was entered directly into a laptop computer using the Excel spreadsheet program.

Reclamation

No reclamation has been completed. The grid lines were established by removing dead fallen timber and clearing non merchantable undergrowth (alders and 'buck brush'.

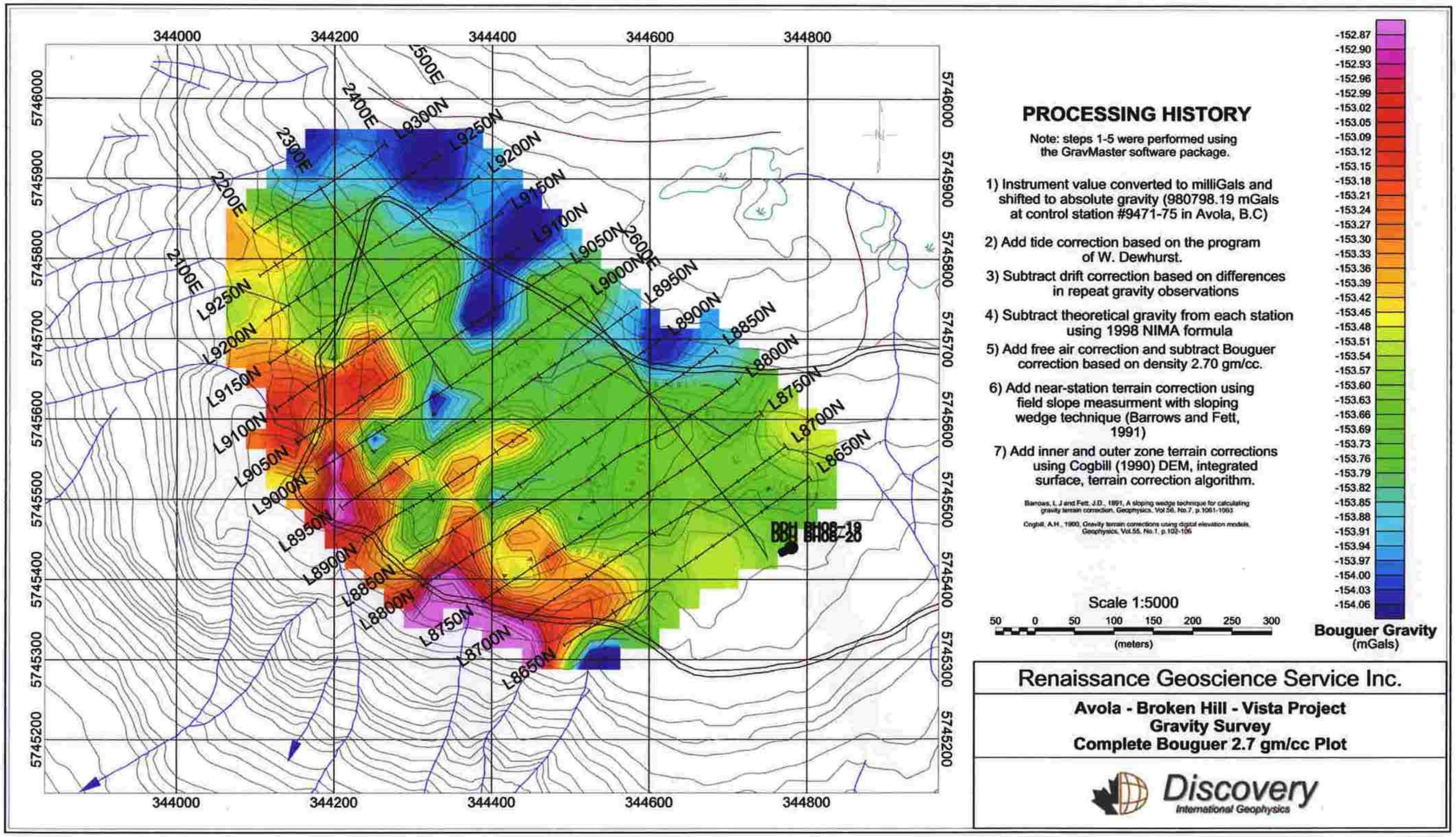
The 900 metre access trail to the drill hole (partially reclaimed logging road) and the 40 metre trail to the drill and 100 metre trail to the water pump have not been reclaimed. The trail to the water pump site dose not involve any soil disturbance. Seeding will take place early next year.

Sampling Method and Approach

Core samples.
Upon completion of logging of two to four boxes of core, samples if any were deemed appropriate were marked by writing a red line across the core at the beginning and end of the sample with arrows point towards the sample termination using a marker or grease pencil by the geologist. If a section of core had to be cut a certain way a red cut line was drawn on the length of the core in question. Otherwise the geotechnicians were instructed to cut the core so the core angles were best exposed as long as mineralization representativeness was retained.
The sample books, used had white plastic triplicate tags. Two tags had all pertinent information written on them and one had just the sample number. One information tag and the one number only tags were placed at the end of each sample next to the core.

Sample Preparation, Analyses and Security

The samples were cut by a 2 HP electric rock saw by employee Adam Lyons. After cutting, one half of the sample was placed into a 6 mil thick 8 by 13 or 12 by 18 inch sample bag depending on sample size, with the "number only" tag inserted facing out. The sample number was also prewritten on the bag. The second half of the core was placed sequentially in its original order back in the core box. The "information on" sample tag was stapled to the box at the end of each sample. Inserted blanks and duplicates were also added at the appropriate locations by stapling the tags into the core box. The sample bags were sealed using 10 inch plastic zap straps. Every sample was placed into a white fabrene sack to a maximum weight of 60 lbs and then sealed with 2 10-13 inch zap straps. The address of the destination laboratory was either pre labelled or written on each sack which were also numbered. Written record sheets were made for all samples and sacks for tracking purposes.


PROCESSING HISTORY
Note: steps 1-5 were performed using the GravMaster software package.
1) Instrument value converted to milliGals and shifted to absolute gravity (980798.19 mGals at control station #9471-75 in Avola, B.C)
2) Add tide correction based on the program of W. Dewhurst.
3) Subtract drift correction based on differences in repeat gravity observations
4) Subtract theoretical gravity from each station using 1998 NIMA formula
5) Add free air correction and subtract Bouguer correction based on density 2.70 gm/cc.
6) Add near-station terrain correction using field slope measurment with sloping wedge technique (Barrows and Fett, 1991)
7) Add inner and outer zone terrain corrections using Cogbill (1990) DEM, integrated surface, terrain correction algorithm.
Scale 1:5000
50 0 50 100 150 200 250 300
(meters)
Bouguer Gravity (mGals)
-152.87
-152.90
-152.93
-152.96
-152.99
-153.02
-153.05
-153.09
-153.12
-153.15
-153.18
-153.21
-153.24
-153.27
-153.30
-153.33
-153.36
-153.39
-153.42
-153.45
-153.48
-153.51
-153.54
-153.57
-153.60
-153.63
-153.66
-153.69
-153.73
-153.76
-153.79
-153.82
-153.85
-153.88
-153.91
-153.94
-153.97
-154.00
-154.03
-154.06
Renaissance Geoscience Service Inc.
Avola - Broken Hill - Vista Project
Gravity Survey
Complete Bouguer 2.7 gm/cc Plot
Discovery
International Geophysics
344000
344200
344400
344600
344800
5746000
5745900
5745800
5745700
5745600
5745500
5745400
5745300
5745200
2100E
2200E
2300E
2400E
2500E
2600E
L9300N
L9250N
L9200N
L9150N
L9100N
L9050N
L9000N
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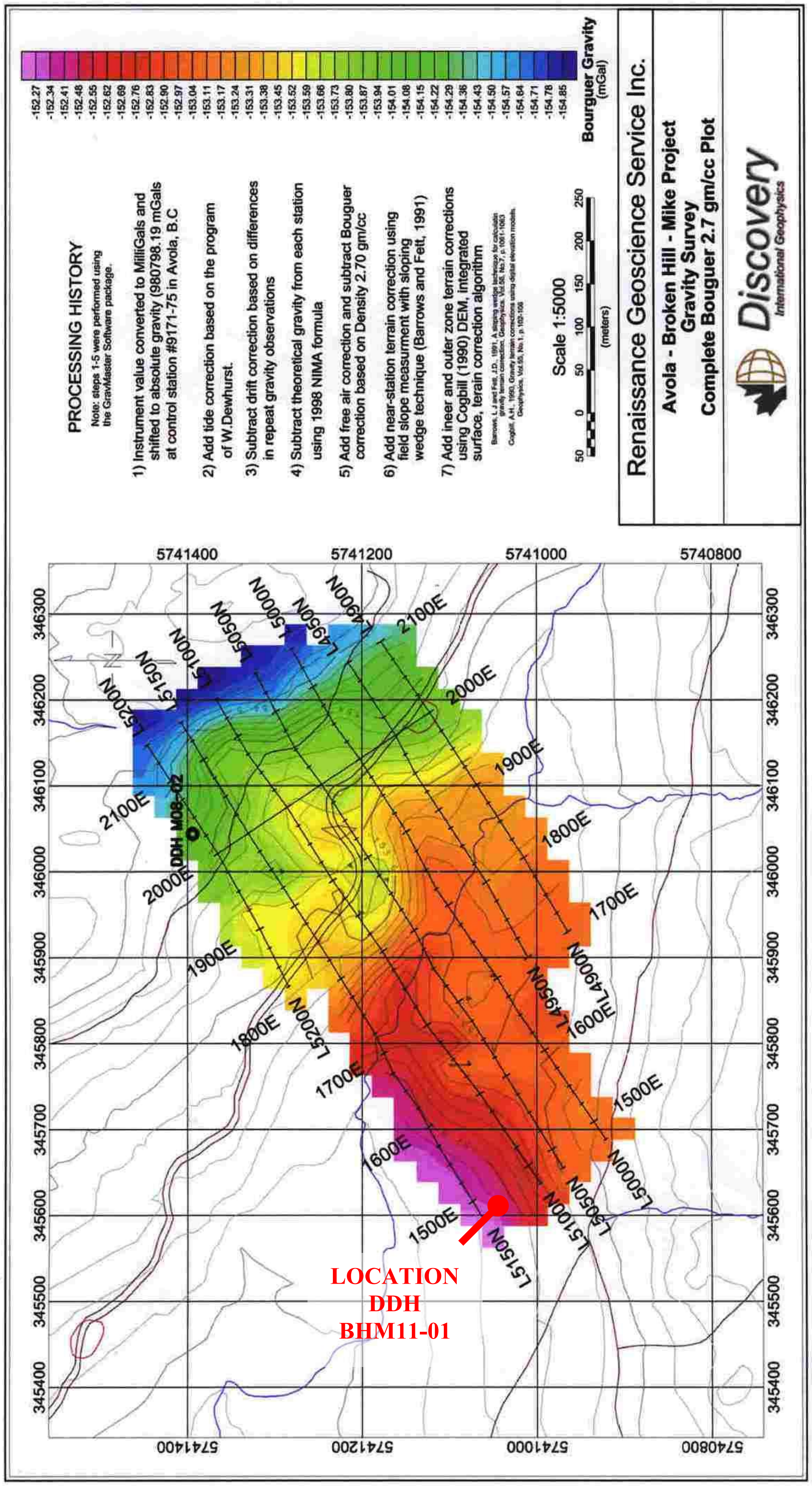
L8650N
DDH BH08-19
DDH BH08-20


PROCESSING HISTORY
Note: steps 1-5 were performed using the GravMaster Software package.
1) Instrument value converted to MilliGals and shifted to absolute gravity (980798.19 mGals at control station #9171-75 in Avola, B.C
2) Add tide correction based on the program of W.Dewhurst.
3) Subtract drift correction based on differences in repeat gravity observations
4) Subtract theoretical gravity from each station using 1998 NIMA formula
5) Add free air correction and subtract Bouguer correction based on Density 2.70 gm/cc
6) Add near-station terrain correction using field slope measurment with sloping wedge technique (Barrows and Fett, 1991)
7) Add ineer and outer zone terrain corrections using Cogbill (1990) DEM, integrated surface, terain correction algorithm
Scale 1:5000
(meters)
Bourguer Gravity (mGal)
Renaissance Geoscience Service Inc.
Avola - Broken Hill - Mike Project
Gravity Survey
Complete Bouguer 2.7 gm/cc Plot
Discovery
International Geophysics
DDH M08-02
LOCATION
DDH
BHM11-01

Blanks comprised of washed cement sand were inserted into the sample stream after strongly mineralized samples to test for downstream contamination. This material provided an extremely cost effective and highly reproducible blank material. A WCM Minerals Ltd. Pb 113 analytical standard was inserted at every 23 samples. A blank followed the standard and also after every high grade interval. The blanks and standard were made in advance by carefully placing at least 25 grams of material into a 2 inch by 4 inch kraft paper sealable envelope. At the appropriate sample the numbered tag was stapled to the craft envelope and placed into 8 by 13 inch sampled bags which were in turn stapled shut. The blacks and standards were then placed into the sample stream prior to departure to the lab. The blank or standard was recorded in the sample book and stapled into the core boxes at the proper location. The samples were transported directly to EcoTech Laboratory Ltd. 10041 Dallas Drive Kamloops B.C. by employee Adam Lyons. All samples were analyzed for 34-elements using a standard multi-element ICP procedure. Several samples reporting overlimits for zinc and lead were fire assayed using procedures specific for that element.

The following list of procedures was supplied by Eco-Tech Laboratories Ltd.. (Now ALS).

...”Sample Preparation

Samples are catalogued and dried. Soils are prepared by sieving through an 80 mesh screen to obtain a minus 80 mesh fraction. Samples unable to produce adequate minus 80 mesh material are screened at a coarser fraction. These samples are flagged with the relevant mesh. Rock and core samples are 2 stage crushed to minus 10 mesh and a 250 gram subsample is pulverized on a ring mill pulverize to -140 mesh. The subsample is rolled, homogenized and bagged in a prenumbered bag.

Multi-Element ICP Analysis

A 0.5 gram sample is digested with 3M of a 3:1:2 (HCl:HN03:H20), which contains beryllium, which acts as an internal standard for 90 minutes in a water bath at 95°C. The sample is then diluted to 10ml with water. The sample is analyzed on a Jarrell Ash ICP unit.

Results are collated by computer and are printed along with accompanying quality control data (repeats and standards). Results are printed on a laser printer and are faxed and/or mailed to the client.

Result data is entered along with standards and repeat values and are faxed and/or mailed to the client”....

Data Verification

All samples were taken by independent field technician Adam Lyons, and transported directly to ALS’s preparatory facility in Kamloops, B.C. There the samples were prepped and the pulverized subsamples were sent directly to ALS in Vancouver. ALS is a globally recognized certified analytical laboratory. Certificates of Analyses are appended in this report (Appendix 1).

The author arranged to have both the field standard and "blanks" inserted into the core sample sequence by Adam.

Interpretation and Conclusions

Gravity Survey

The following discussion of results is excerpted from the 2011 report by Discovery Intl Geophysics Ltd.

*..." **Discussion of Results***
The Vista grid data was merged with a previous dataset collected to the south of the grid. This new compiled dataset maps out the previous known anomaly in the area limiting its extents to the north. In order to properly merge these two datasets, a common data point was measured for gravity and DGPS measurements at station 2325E along line 8600N. The results show no major anomalous zones to the north of the grid. Only a few small anomalies are seen to the west end of the grid along lines 8900N, 9050N, and 9100N. However, due to the size of the anomalies and their proximity to severe terrain conditions, they are most likely related to artifacts resulting from the data processing and edge effects. In severe terrain zones, residual terrain effects are completely removed by the terrain correction procedure; mainly because of minor inaccuracies inherent in the DEM.
The most significant results are observed on the Mike grid. An anomalous zone of 1.4 mGal difference is measured in the western portion of the grid up at 5100N and 5150N. The anomaly is most likely to be caused by either a flat lying dense body at depth or a shallow flat layer with gradual increase of sulphide mineralization within the layer. Assuming a constant density of 3.5 g/cc for the sulphides and a density of 2.7 g/cc for the surrounding rock; that is a 0.8 mGals difference, a ~42-m thick layer would be needed to produce such anomaly. Based on these observations, this anomaly may be interpreted as a formational feature such as a mafic intrusion. However, further processing and analysis are recommended to better characterize this anomaly and its interpretation.
Terrain effects are more dominant in the Vista grid due to the significant elevation variability in and around this area. This is clearly visible just by looking at the difference between the simple and complete Bouguer maps. To further investigate these observations, a DEM map of the entire Broken Hill property was prepared. This DEM map shows a distribution of elevation change near the grids when computing the far terrain corrections. The results show an elevation change of approximately 250 m and 1100 m for the Mike and Vista grids respectively. Consistent with the actual terrain conditions observed at the Vista (steep terrain) and Mike (more level terrain) grids."...

V***ista Area (Figure 7)***

In addition to the statements above the author noted that the strongest anomalies of the Vista showing occur directly over the along strike and down dip projections indicating the mineralization probably continues for a short distance from the showing.

Mike Area (Figure 8)

The limited gravity survey partially outlined a moderate gravity anomaly along the northern most line of the surveyed area. This anomaly although only partially defined is the strongest so far outlined on the entire property.

Drilling- Mike Area (Figure 9)

Drill hole collar location for hole BHM11-01 is plotted on Figure 8 and the drill log is appended to this report.

Hole BHM11-01 intersected 4 narrow mineralized horizons (three with high grade zinc) with highlight results tabulated below. The hole was stopped at 53.6 metres (167 ft) still in the favourable horizon that hosted the mineralization. It is probable that the gravity target based on the lithologies and mineralization so far encountered has not yet been intersected.

TABLE 3 – DRILLING HIGHLIGHTS HOLE BHM11-01

FROM	TO	WIDTH	Zn%	Pb%	Ag ppm
38.65	38.85	0.2	8.07	0.01	1.11
38.85	39.8	0.95	0.00	0.01	0.00
39.8	40.05	0.25	5.98	1.21	16.00
40.05	40.45	0.4	0.00	0.00	0.00
40.45	40.55	0.1	5.21	1.24	12.15
40.55	40.85	0.3	0.25	0.17	2.50
Weighted averages		2.2	1.68	0.22	2.81

Reclamation

All previously disturbed sites and access trails have been reclaimed with a backhoe and seeded with forest range mix and have been accepted as reclaimed by the Ministry. No reclamation for the 2011 work has been completed.

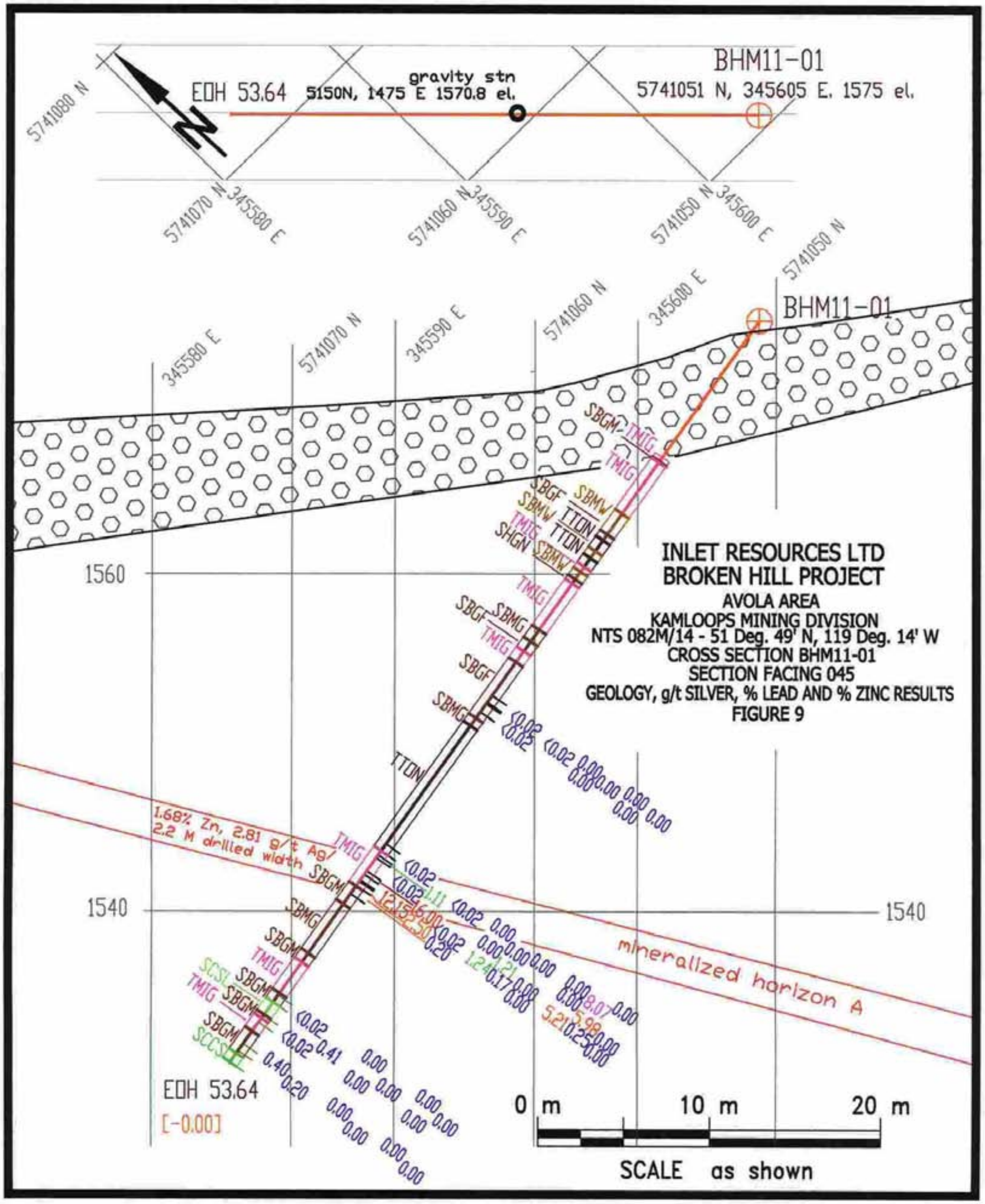

BHM11-01
5741051 N, 345605 E. 1575 el.
gravity stn
5150N, 1475 E 1570.8 el.
EOH 53.64
INLET RESOURCES LTD
BROKEN HILL PROJECT
AVOLA AREA
KAMLOOPS MINING DIVISION
NTS 082M/14 - 51 Deg. 49' N, 119 Deg. 14' W
CROSS SECTION BHM11-01
SECTION FACING 045
GEOLOGY, g/t SILVER, % LEAD AND % ZINC RESULTS
FIGURE 9
1.68% Zn, 2.81 g/t Ag/
2.2 M drilled width
mineralized horizon A
1560
1540
EOH 53.64
[-0.00]
0 m
10 m
20 m
SCALE as shown

TABLE 4 - 2011 PROGRAM EXPENDITURES		
EXPENSE ITEM	DETAILS	CHARGE
2011 EXPLORATION PROGRAM		
Renaissance Geoscience Services Inc. Project supervision and geological services	115 hrs @ $ 80/hr	$ 9,200.00
CONTRACTORS		
Eagle Mapping Ltd. topographic plan preparation	per invoice	$ 6,775.00
Macdonald Contracting Ltd. Line cutting. Sept 15-25, 2011	8 km per invoice	$ 11,000.00
Discovery Intl Consulting Ltd. gravity survey (Sept 20-oct 4)	9 km 452 stns per invoice	$ 39,390.00
Target Drilling Ltd. incl. mobilization LY 44 drill (November 10-15, 2011)	one hole 53.64 m per invoice	$ 9,995.98
Willie Winn Ranch Ltd. D 7 incl. mobilization D7 dozer $185/hr	Mob $1000 labour $350, 29 hrs per invoice	$ 6,717.50
Field assistants		
Senior geotech A Lyons (cut grid establishment) Sept 12-Oct 1, 2011	18 days @ $250 per day	$ 4,500.00
Field labourer Marthy Boivin (field assistant) Sept 17-Oct 1), 2011	14 days @ $190 per day	$ 2,660.00
brush saw Sept 18-Sept 30, 2011	13 days @ $30/ day	$ 390.00
Nissan 4X4, Chevy 4x4 (days)	30 vehicle days @ $100/day	$ 3,000.00
Core shack rental Dec 10-11, 2011	2 days @ $30 per day	$ 60.00
Food and accommodation	36 mandays @ $120/day	$ 4,320.00
Supplies (sample bags, flagging, analytical standards, pickets)		$ 800.00
Analytical core analyses	per invoice	$ 509.73
INLET RESOURCES LTD. Management costs ~5%		$ 5,000.00
Report writing		$ 4,200.00
Report drafting		$ 1,500.00
Total 2011 field program		$110,018.21

Recommendations

The following is excerpted from Discovery Intl Geophysics Ltd. report

*…"**Conclusions and Recommendations***

An anomalous zone was identified on the western portion of the Mike grid along lines 5100N and 5150N. Based on the observations, this anomaly may be interpreted as a possible formational feature such as a mafic intrusion. However, further processing and analysis are recommended to better characterize this anomaly and its interpretation. It seems that this anomalous zone extends to the north-west of the Mike grid and only a portion of it has been mapped by the current survey.
Therefore, it is also recommended an extension of the Mike grid to the north and west. No major anomalies are observed in the Vista grid extension. Nonetheless, the current survey shows that the previously known anomaly located to the south of the Vista grid does not extend to the north."...

The results of the 2011 program indicated in the parts of the property tested by gravity surveying that a partially defined anomaly at the Mike showing is considered a drillable target. The results from the new part of the Vista survey indicate that no large deep gravity anomalies were detected in the area surveyed. The prospective horizon and a several hundred metre down dip extension continues south of Fowler Lake for at least 3 km. The following $200,000 phased exploration program is recommended.

Phase 1

A proposed $75,000 surficial exploration program including the establishment and re-establishment of an expanded grid north and west of the 2011 Mike area gravity anomaly and the south Fowler Lake – east Denis area. The south Fowler – east Denis grid would cover the deeply overburden covered area east to the old Fowler logging road. The high ground east of this road is largely underlain by intrusives. Work on this grid would include float mapping, and gravity surveys. Any significant positive gravity anomalies would then be drill tested in Phase 2.

Phase II

Pending successful outlining of any new gravity anomalies a proposed Phase II drill program budgeted at about $125,000 to test these anomalies would be recommended. Hole BHM11-01 should be extended for at least an additional 100 metres. Additional expenditures are contingent on the successful development of the targets recommended to be explored.

TABLE 5 BROKEN HILL PROJECT RECOMMENDED EXPENDITURES			
Item	**Amount**	**Charge**	**Total**
GRAVITY SURVEYING			
Mobilization – demobilization			$4,000.00
Line cutting grid work kilometres Mike area	5	$1,500.00	$7,500.00
Line cutting grid work kilometres South Navan area	8	$1,500.00	$12,000.00
Gravity surveying Mike area (150 stations)	150	$75.00	$11,250.00
Gravity surveying South Navan area (200 stations)	200	$75.00	$15,000.00
Geological mapping (mandays)	2	$1,000.00	$2,000.00
Vehicles 30 vehicle days	30	$100.00	$3,000.00
Prospecting 4 mandays	4	$500.00	$2,000.00
Project management mandays	4	$1,000.00	$4,000.00
Supplies flagging and pickets			$1,000.00
Contingency @ 10%			$6,000.00
Total surface program			**$67,750.00**
DIAMOND DRILLING			
Diamond drilling (feet)	2000	$35.00	$70,000.00
Geological and logistical support (mandays)	8	$1,000.00	$8,000.00
Core geotech and sampling (mandays)	5	$400.00	$2,000.00
Core samples	60	$40.00	$2,400.00
Supplies and equipment chargeouts			$2,000.00
mobe and demobe			$4,000.00
Project management (Mandays)	8	$1,000.00	$8,000.00
Bulldozer and/or back hoe for drill moves			$8,000.00
survey tool rental			$2,000.00
Total Drilling Program			**$106,400.00**
Report			$10,000.00
Contingency @ 7.5%			$15,000.00
Grand Total			**$199,150.00**
Mandays includes Logistical support at $150.00 per manday			

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Wild, C.J. and Lindinger, J.E.L. 2003, Report on Exploration Activities, 32 pages plus attachments.

CERTIFICATE AND SIGNATORY PAGE

I, Leopold Joseph Lindinger, P.Geo.
of 680 Dairy Road, Kamloops, B.C. V2B-8N5
Tel. 250-579-9680
Fax 250-579-9628
Email joslind@telus.net

HEREBY DO CERTIFY THAT:

1. I graduated in 1980 from the University of Waterloo, Ontario with a Bachelor of Sciences (BSc) in Honours Earth Sciences.

2. I am a member in good standing as a Professional Geoscientist (#19155) with the Association of Professional Engineers and Geoscientists of the Province of British Columbia since 1992.

3. I have worked continuously as a geoscientist since graduating in 1980.

4. I am responsible for presenting the exploration results in the "**Gravity and Diamond Drilling Assessment Report on the Broken Hill - Leo Property"** and dated 10Th day of January 2012 I have participated in, directly, or in a supervisory capacity in all of the exploration programs discussed in the report between September 2000 and October 2011 with the exception of work completed by Avola Industries Ltd. in August 2002 on the Leo Claims.

Dated this 12th day of January 2012

'Leopold J. Lindinger, P.Geo.'
____
Signature of L. J. Lindinger, P.Geo

Appendix 1
Analytical Results

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: RENAISSANCE GEOSCIENCE
680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 20-DEC-2011
Account: RENGEO

CERTIFICATE VA11255720

Project: Broken Hill
P.O. No.:
This report is for 1 Pulp sample submitted to our lab in Vancouver, BC, Canada on 5-DEC-2011.
The following have access to data associated with this certificate:

D BAKER	LEO LINDINGER	EARL TERRIS

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: RENAISSANCE GEOSCIENCE
ATTN: LEO LINDINGER
680 DAIRY RD
KAMLOOPS BC V2B 8N5

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Minerals

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: RENAISSANCE GEOSCIENCE
680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 20-DEC-2011
Account: RENGEO

Project: Broken Hill

CERTIFICATE OF ANALYSIS VA11255720

Sample Description	Method	WEI-21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
	Units	kg	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
	LOR	0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
11S170625		0.06	25.5	0.63	143	<10	150	<0.5	4	3.31	80.6	3	11	4990	2.13	<10

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: RENAISSANCE GEOSCIENCE
680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 20-DEC-2011
Account: RENGEO

Project: Broken Hill

CERTIFICATE OF ANALYSIS VA11255720

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20
11S170625		1	0.36	10	0.23	3050	130	0.04	2	370	>10000	2.48	23	1	210	<20

ALS Minerals
ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: RENAISSANCE GEOSCIENCE
680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 20-DEC-2011
Account: RENGEO

Project: Broken Hill

CERTIFICATE OF ANALYSIS VA11255720

Sample Description	Method Analyte Units LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
11S170625		0.02	<10	<10	14	<10	>10000

ALS Minerals

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: RENAISSANCE GEOSCIENCE
680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 27-DEC-2011
Account: RENGEO

CERTIFICATE VA11255721

Project: Broken Hill

P.O. No.:

This report is for 6 Pulp samples submitted to our lab in Vancouver, BC, Canada on 5-DEC-2011.

The following have access to data associated with this certificate:

D BAKER	LEO LINDINGER	EARL TERRIS

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
ME-MS41	51 anal. aqua regia ICPMS

To: RENAISSANCE GEOSCIENCE
ATTN: LEO LINDINGER
680 DAIRY RD
KAMLOOPS BC V2B 8N5

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Minerals
ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: RENAISSANCE GEOSCIENCE
680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 27-DEC-2011
Account: RENGEO

Project: Broken Hill

CERTIFICATE OF ANALYSIS VA11255721

Sample Description	Method	WEI-21	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Recvd Wt.	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs
	Units	kg	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.01	0.01	0.1	0.2	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1	0.05
11S170623		0.26	1.11	0.58	3.3	<0.2	<10	20	1.25	7.23	0.41	157.0	5.97	8.9	133	0.56
1983-1-R/S		0.24														
11S170627		0.26	16.00	0.51	2.0	<0.2	<10	10	2.32	159.0	0.53	132.5	2.45	8.7	126	0.29
11S170630		0.26	12.15	0.32	2.1	<0.2	<10	20	0.25	92.9	0.15	86.9	11.50	6.2	110	0.65
11S170635		0.26	0.41	1.52	0.2	<0.2	<10	40	0.72	1.42	1.43	0.32	16.90	34.2	115	2.82
1983-C-TEST		0.28														

***** See Appendix Page for comments regarding this certificate *****

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To: RENAISSANCE GEOSCIENCE
680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 27-DEC-2011
Account: RENGEO

Project: Broken Hill

CERTIFICATE OF ANALYSIS VA11255721

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
	LOR	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01	0.05
11S170623		76.4	3.95	3.15	0.16	<0.02	0.25	1.720	0.04	2.9	7.2	0.05	408	1.81	0.10	1.33
1983-1-R/S																
11S170627		54.1	2.33	2.55	0.28	0.09	0.01	0.385	0.04	1.1	4.8	0.04	430	14.25	0.08	1.87
11S170630		83.5	2.85	2.38	0.08	0.06	0.01	0.297	0.12	5.3	11.4	0.07	422	1.06	0.08	1.29
11S170635		266	12.65	6.06	0.37	0.03	<0.01	0.020	0.45	11.2	20.7	0.40	1600	1.68	0.04	2.41
1983-C-TEST																

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Finalized Date: 27-DEC-2011
Account: RENGEO

Project: Broken Hill

CERTIFICATE OF ANALYSIS VA11255721

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti
	Units	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	LOR	0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01	0.2	0.005
11S170623		18.9	360	772	5.8	0.001	4.66	<0.05	1.2	9.6	0.4	13.8	0.01	0.10	1.5	0.010
1983-1-R/S																
11S170627		9.7	390	>10000	3.3	0.021	3.69	<0.05	1.0	9.1	2.4	19.5	0.03	2.85	0.8	0.005
11S170630		11.9	380	>10000	10.3	0.001	3.35	<0.05	1.3	7.1	0.7	6.0	<0.01	1.01	2.7	0.012
11S170635		121.0	3010	26.4	47.3	0.010	6.20	<0.05	3.0	6.4	0.8	76.0	0.01	0.25	3.1	0.117
1983-C-TEST																

***** See Appendix Page for comments regarding this certificate *****

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680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 27-DEC-2011
Account: RENGEO

Project: Broken Hill

CERTIFICATE OF ANALYSIS VA11255721

Sample Description / Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
Analyte	Tl	U	V	W	Y	Zn	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
LOR	0.02	0.05	1	0.05	0.05	2	0.5
11S170623	0.10	3.39	3	52.5	3.05	>10000	<0.5
1983-1-R/S							
11S170627	0.45	2.92	3	0.25	4.31	>10000	0.9
11S170630	0.88	3.27	3	0.15	5.79	>10000	0.8
11S170635	0.90	1.46	45	0.13	8.58	212	0.5
1983-C-TEST							

***** See Appendix Page for comments regarding this certificate *****

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Finalized Date: 27-DEC-2011
Account: RENGEO

Project: Broken Hill

CERTIFICATE OF ANALYSIS VA11255721

Method	CERTIFICATE COMMENTS
ME-MS41	Gold determinations by this method are semi-quantitative due to the small sample weight used (0.5g).

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To: RENAISSANCE GEOSCIENCE
680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 22-DEC-2011
Account: RENGEO

CERTIFICATE VA11255722

Project: Broken Hill
P.O. No.:
This report is for 4 Pulp samples submitted to our lab in Vancouver, BC, Canada on 5-DEC-2011.
The following have access to data associated with this certificate:

D BAKER	LEO LINDINGER	EARL TERRIS

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: RENAISSANCE GEOSCIENCE
ATTN: LEO LINDINGER
680 DAIRY RD
KAMLOOPS BC V2B 8N5

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: RENAISSANCE GEOSCIENCE
680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 22-DEC-2011
Account: RENGEO

Project: Broken Hill

CERTIFICATE OF ANALYSIS VA11255722

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10
11S170624		0.08	0.2	0.08	2	<10	30	<0.5	<2	0.03	<0.5	3	2	2	0.37	<10
11S170628		0.08	<0.2	0.09	2	<10	30	<0.5	<2	0.03	<0.5	3	3	1	0.43	<10
11S170631		0.08	<0.2	0.08	2	<10	30	<0.5	<2	0.02	<0.5	3	2	<1	0.30	<10
11S170636		0.08	0.4	0.09	<2	<10	30	<0.5	2	0.03	<0.5	3	3	1	0.44	<10

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Finalized Date: 22-DEC-2011
Account: RENGEO

Project: Broken Hill

CERTIFICATE OF ANALYSIS VA11255722

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th
	Units	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
	LOR	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
11S170624		1	0.01	<10	0.02	39	<1	0.01	3	80	3	<0.01	<2	<1	5	<20
11S170628		<1	0.02	<10	0.02	46	<1	0.01	1	70	2	<0.01	<2	<1	6	<20
11S170631		<1	0.01	<10	0.02	28	<1	0.01	1	70	<2	0.01	<2	<1	5	<20
11S170636		1	0.02	<10	0.02	46	<1	0.01	2	70	<2	<0.01	<2	<1	6	<20

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KAMLOOPS BC V2B 8N5

Finalized Date: 22-DEC-2011
Account: RENGEO

Project: Broken Hill

CERTIFICATE OF ANALYSIS VA11255722

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Ti	Tl	U	V	W	Zn
	Units	%	ppm	ppm	ppm	ppm	ppm
	LOR	0.01	10	10	1	10	2
11S170624		0.01	<10	<10	3	<10	7
11S170628		<0.01	<10	<10	2	<10	4
11S170631		<0.01	<10	<10	2	<10	4
11S170636		<0.01	<10	<10	2	<10	4

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To: RENAISSANCE GEOSCIENCE
680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 5-JAN-2012
Account: RENGEO

CERTIFICATE VA11261683

Project: BHM-11-01 11-1995
P.O. No.: Broken Hill
This report is for 17 Pulp samples submitted to our lab in Vancouver, BC, Canada on 13-DEC-2011.
The following have access to data associated with this certificate:

LEO LINDINGER	EARL TERRIS	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
PUL-QC	Pulverizing QC Test
LOG-24	Pulp Login - Rcd w/o Barcode
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um
WSH-22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Zn-OG46	Ore Grade Zn - Aqua Regia	VARIABLE
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES
Pb-OG46	Ore Grade Pb - Aqua Regia	VARIABLE
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES

To: RENAISSANCE GEOSCIENCE
ATTN: LEO LINDINGER
680 DAIRY RD
KAMLOOPS BC V2B 8N5

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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To: RENAISSANCE GEOSCIENCE
680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 5-JAN-2012
Account: RENGEO

Project: BHM-11-01 11-1995

CERTIFICATE OF ANALYSIS VA11261683

Sample Description / Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Pb-OG46 Pb % 0.001	Zn-OG46 Zn % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
11S170618	0.30			<0.2	1.25	<2	<10	130	<0.5	<2	0.27	<0.5	6	100	7
1995-R/S-1	0.30														
11S170619	0.26			<0.2	3.25	<2	<10	290	1.0	2	1.42	<0.5	12	124	30
11S170620	0.28			<0.2	2.85	<2	<10	380	<0.5	<2	0.52	<0.5	15	139	20
11S170621	0.30			<0.2	0.44	<2	<10	30	<0.5	<2	0.08	<0.5	1	54	4
11S170622	0.28			<0.2	0.38	<2	<10	20	0.7	4	0.17	<0.5	3	61	71
11S170626	0.28			<0.2	0.20	<2	<10	10	<0.5	2	0.09	<0.5	<1	68	12
11S170629	0.30			<0.2	0.21	<2	<10	10	<0.5	<2	0.09	<0.5	<1	57	19
11S170632	0.28			2.5	0.75	<2	<10	150	0.7	17	0.40	10.0	4	103	26
11S170633	0.28			0.2	2.38	<2	<10	470	<0.5	2	0.27	<0.5	14	103	51
11S170634	0.30			<0.2	1.99	<2	<10	120	<0.5	5	0.19	<0.5	14	90	14
11S170637	0.30			<0.2	0.85	<2	<10	80	<0.5	<2	0.14	<0.5	6	74	26
11S170638	0.28			0.4	3.20	<2	<10	230	<0.5	3	0.16	<0.5	24	137	41
11S170639	0.28			0.2	5.75	<2	<10	390	3.2	<2	3.74	<0.5	10	71	46
11S170640	0.06	1.120	1.365												
11S170641	0.08			<0.2	0.04	<2	<10	<10	<0.5	<2	0.01	<0.5	<1	2	1
1995-C-TEST	0.36														

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To: RENAISSANCE GEOSCIENCE
680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 5-JAN-2012
Account: RENGEO

Project: BHM-11-01 11-1995

CERTIFICATE OF ANALYSIS VA11261683

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
11S170618		2.04	10	<1	0.63	10	0.51	361	<1	0.07	19	160	5	0.08	<2	5
1995-R/S-1																
11S170619		2.86	10	<1	0.96	10	0.86	454	<1	0.18	32	310	5	0.38	<2	6
11S170620		3.76	10	<1	1.58	10	1.12	513	1	0.14	40	390	6	0.21	2	10
11S170621		0.78	<10	<1	0.18	<10	0.11	172	<1	0.07	2	130	9	0.03	<2	1
11S170622		2.40	<10	<1	0.06	<10	0.06	102	<1	0.08	10	290	20	1.34	<2	1
11S170626		0.49	<10	<1	0.09	<10	0.02	76	<1	0.07	2	190	129	0.17	<2	<1
11S170629		0.48	<10	<1	0.10	<10	0.02	48	1	0.06	3	110	72	0.19	<2	<1
11S170632		1.57	<10	<1	0.45	10	0.34	199	<1	0.06	11	1260	1700	0.43	<2	3
11S170633		4.50	10	<1	1.61	10	0.98	423	<1	0.06	33	950	65	0.61	<2	9
11S170634		3.57	10	<1	1.35	10	0.73	310	<1	0.05	27	360	7	0.20	<2	7
11S170637		2.10	<10	<1	0.54	10	0.29	233	1	0.07	13	240	6	0.49	<2	4
11S170638		6.22	10	<1	2.33	10	1.53	725	1	0.08	49	500	3	0.94	<2	17
11S170639		2.56	20	<1	0.53	10	0.67	303	2	0.40	30	1410	11	0.83	<2	4
11S170640																
11S170641		0.22	<10	<1	0.01	<10	0.01	23	<1	<0.01	1	20	<2	0.01	<2	<1
1995-C-TEST																

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680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 5-JAN-2012
Account: RENGEO

Project: BHM-11-01 11-1995

CERTIFICATE OF ANALYSIS VA11261683

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
11S170618		10	<20	0.17	<10	<10	33	<10	44
1995-R/S-1									
11S170619		49	<20	0.22	<10	<10	43	<10	53
11S170620		17	<20	0.35	<10	<10	68	<10	75
11S170621		9	<20	0.03	<10	<10	4	<10	21
11S170622		16	<20	0.01	<10	<10	1	<10	12
11S170626		6	<20	<0.01	<10	10	<1	<10	12
11S170629		8	<20	<0.01	<10	10	1	<10	5
11S170632		15	<20	0.09	<10	<10	18	<10	2460
11S170633		8	<20	0.37	10	<10	75	<10	192
11S170634		7	<20	0.33	<10	<10	46	<10	130
11S170637		9	<20	0.13	<10	<10	30	<10	53
11S170638		10	<20	0.54	<10	<10	111	<10	172
11S170639		277	<20	0.14	<10	<10	45	<10	79
11S170640									
11S170641		3	<20	<0.01	<10	<10	1	<10	<2
1995-C-TEST									

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680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 6-JAN-2012
Account: RENGEO

CERTIFICATE VA11263283

Project: Broken Hill
P.O. No.:
This report is for 1 Pulp sample submitted to our lab in Vancouver, BC, Canada on 29-DEC-2011.
The following have access to data associated with this certificate:

D BAKER	LEO LINDINGER	EARL TERRIS

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND-02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Pb-OG46	Ore Grade Pb - Aqua Regia	VARIABLE
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Zn-OG46	Ore Grade Zn - Aqua Regia	VARIABLE

To: RENAISSANCE GEOSCIENCE
ATTN: LEO LINDINGER
680 DAIRY RD
KAMLOOPS BC V2B 8N5

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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Finalized Date: 6-JAN-2012
Account: RENGEO

Project: Broken Hill

CERTIFICATE OF ANALYSIS VA11263283

Sample Description	Method Analyte Units LOR	Pb-OG46 Pb % 0.001	Zn-OG46 Zn % 0.001
11S170625		1.165	1.420

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Finalized Date: 6-JAN-2012
Account: RENGEO

CERTIFICATE VA11263284

Project: Broken Hill
P.O. No.:
This report is for 3 Pulp samples submitted to our lab in Vancouver, BC, Canada on 30-DEC-2011.
The following have access to data associated with this certificate:

D BAKER	LEO LINDINGER	EARL TERRIS

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND-02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Pb-OG46	Ore Grade Pb - Aqua Regia	VARIABLE
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Zn-OG46	Ore Grade Zn - Aqua Regia	VARIABLE

To: RENAISSANCE GEOSCIENCE
ATTN: LEO LINDINGER
680 DAIRY RD
KAMLOOPS BC V2B 8N5

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: RENAISSANCE GEOSCIENCE
680 DAIRY RD
KAMLOOPS BC V2B 8N5

Finalized Date: 6-JAN-2012
Account: RENGEO

Project: Broken Hill

CERTIFICATE OF ANALYSIS VA11263284

Sample Description	Method / Analyte / Units / LOR	Pb-OG46 / Pb / % / 0.001	Zn-OG46 / Zn / % / 0.001
11S170623			8.07
11S170627		1.210	5.98
11S170630		1.240	5.21

Appendix 2
Diamond Drill Logs

INLET RESOURCES LTD.				DDH BHM11-01	BROKEN HILL PROJECT, AVOLA, B.C.	
UTM ZONE	NOR-THING	EASTING	ELEV	BEARING/DIP		
11	5741051	345605	1575	315/-55	*TARGET*	
Metres	Metres	STRUCTURE			*TESTING GRAVITY ANOMALY SW OF MIKE FLOAT SHOWING FOR BEDROCK MINERALIZATION.*	Analytical Results and Assays (ppm unless otherwise shown)

FROM	TO	FR. C.A.	CODE	GEOLOGICAL DESCRIPTION	ALTERATION AND VEINING	MINERALIZATION	SAMP#	FROM	TO	Zn%	Pb%	Ag	Mn	Cu
0.00	9.14		CASG	CASING NO RECOVERY										
9.15	9.86			RUBBLE VERY POOR RECOVERY										
9.86	10.15		TMIG	HETEROGENEOUS PLAGIOCLASE QUARTZ +/- GARNET +/- BIOTITE +/- MUSCOVITE FINE GRAINED EQUIGRANULAR PORPHYRITIC TO MEGACRYSTIC MIGMATITE. Rock appears to derived from recrystallized siliceous and carbonate enriched sediments. Extremely variable grain size.	Biotite is chloritized	None noted								
				Undulating sub planar contact - 65 deg. to C.A.										
10.15	10.22	gneissocity - 65	SBGM	MEDIUM GRAINED BIOTITE GNEISS Well foliated gneiss. Medium grained quartz - feldspar (plagioclase) 65% with lesser subhedral biotite lenses and stringers.	Weak erratic chloritization of biotite.	1-2 % very fine to medium grained pyrite as wispy to subangular gneissocity aligned porphyroblasts.								
10.22	13.95		TMIG	HETEROGENEOUS PLAGIOCLASE QUARTZ +/- GARNET +/- BIOTITE +/- MUSCOVITE FINE GRAINED EQUIGRANULAR PORPHYRITIC TO MEGACRYSTIC MIGMATITE. Rock appears to derived from recrystallized siliceous and carbonate enriched sediments. Extremely variable grain size. may in part be intrusive (11.67 m)	Biotite is chloritized. Plagioclase commonly weakly sausseritized.	Very rare trace pyrite. Often as hairline planar late fracture-slip coatings.								
		~85 deg. to C.A.		10.65-10.6 Relict massive biotite gneiss interval		~5% fine grained disseminated pyrite								
				10.85 - 11.35 Heterogeneous biotite gneiss mixed with migmatite. Several small siliceous migmatite intervals		Strong trace erratically fine grained stringers of pyrite.								
				13.95 - curviplanar contact. 25 deg. to C.A. parted.										
13.95	15.45		SBMW	MEDIUM TO COARSE GRAINED CONTORTED BIOTITE - MUSCOVITE GNEISS. Muscovite derived from biotite. Similar to contorted unit that forms FW of New Showing of CK deposit. May be a fold hinge or part of buckle fold complex. Secondary fabric 25 grading to 80 deg. to C.A. from 14-15.5 m.	Locally bleached biotite altered to muscovite	Strong trace to 3% platy fabric aligned biotite associated disseminated pyrite.								
				Gradational contact										
15.45	15.88		SBGF	MIXED FINE GRAINED SILICEOUS AND CONTORTED BIOTITE-MUSCOVITE GNEISS.	Weak erratic chloritization of biotite.	Strong trace to 3% platy fabric aligned biotite associated disseminated pyrite especially in contorted intervals								
				Crosscutting welded intrusive contact - undulating 30 deg. to C.A. ~80 deg. to fabric.										
15.88	16.65		TTON	FINE GRAINED TONALITE Pale gray feldspar (plagioclase) rich ~75% with 15% quartz and 10% anhedral biotite phaneritic fabric.	Weak erratic chloritization of biotite.	None noted.								
				Crosscutting welded intrusive contact - undulating 30 deg. to C.A. ~80 deg. To fabric										

FROM	TO	FR. C.A.	CODE	GEOLOGICAL DESCRIPTION	ALTERATION AND VEINING	MINERALIZATION	SAMP#	FROM	TO	Zn%	Pb%	Ag	Mn	Cu
16.65	17.15		SBMW	MIXED FINE GRAINED SILICEOUS AND CONTORTED BIOTITE-MUSCOVITE GNEISS.	Weak erratic chloritization of biotite.	Strong trace to 3% platy fabric aligned biotite associated disseminated pyrite, especially in contorted intervals at kink fold hinges.								
				Bleached quartz sericite altered contact - 20 cm thick somewhat amorphous. 45 deg. to C.A.										
17.15	17.78		TTON	FINE TO MEDIUM GRAINED TONALITE Pale gray feldspar rich ~75% with 15% quartz and 10% anhedral biotite phaneritic fabric. Weakly migmatized in part.	Weak erratic chloritization of biotite.	None noted.								
				Sheared contact - chloritized biotite - 60 deg. to C.A.										
17.78	18.15		TMIG	HETEROGENEOUS PLAGIOCLASE QUARTZ +/- GARNET +/- BIOTITE +/- MUSCOVITE FINE GRAINED EQUIGRANULAR PORPHYRITIC TO MEGACRYSTIC MIGMATITE. Rock appears to derived from recrystallized siliceous and carbonate enriched sediments. Extremely variable grain size.	Biotite is chloritized. Plagioclase commonly weakly sausseritized.	Very rare trace pyrite. Often a hairline planar late fracture-slip coatings.								
				Planar sheared annealed contact - 65 deg. to C.A.										
18.15	18.70	65 deg. to C.A.	SBMW	SHEARED CONTORTED BIOTITE-MUSCOVITE GNEISS. 65 deg. to C.A.	Weak erratic chloritization of biotite.	3% platy fabric aligned biotite associated disseminated pyrite especially in contorted intervals								
				gradational contact - over 15 cm										
18.70	19.00	65 Deg. to C.A.	SHGN	CATACLASTIC INTERBANDED HORNBLENDE AND QUARTZ ZONE GNEISS. 55 deg. to C.A.		Trace pyrite								
				Planar sheared annealed contact - 55 deg. to C.A.										
19.00	22.35		TMIG	HETEROGENEOUS PLAGIOCLASE QUARTZ +/- GARNET +/- BIOTITE +/- MUSCOVITE FINE GRAINED EQUIGRANULAR PORPHYRITIC TO MEGACRYSTIC MIGMATITE. Rock appears to derived from recrystallized siliceous and carbonate enriched sediments. Extremely variable grain size.	Biotite altered to greenish flakes. Rock is pervasively bleached.	Very rare trace pyrite associated with faint relict remnant chloritized biotite flakes.								
				22.35 - undulating subplanar contact - 85 deg. to C.A.										
22.35	23.20	gneissocity - 65+/- 10.	SBMG	MEDIUM TO COARSE GRAINED BIOTITE - MUSCOVITE GNEISS. Muscovite derived from biotite. Same as contorted unit higher up hole.	Locally bleached. Biotite altered to muscovite	Strong trace to 3% platy fabric aligned biotite associated disseminated pyrite.								
				Gradational contact.										
23.20	23.90	~70 deg. To C.A.	SBGF	FINE GRAINED SILICEOUS BIOTITE GNEISS. Heterogeneous, varying from very fine grained biotite poor to medium grained. With 25% interlocking laminated and foliated biotite.	Weak erratic chloritization of biotite.	2-3% platy pyrite associated with biotite laminations.								
		55 deg. to C.A.		23.6 - 23.7 4 cm white marble interval with 3-4 cm green actinolite calc silicate contacts.		None noted.								
				Irregular 'digested' contact - 55 deg. To C.A.										

FROM	TO	FR. C.A.	CODE	GEOLOGICAL DESCRIPTION	ALTERATION AND VEINING	MINERALIZATION	SAMP#		FROM	TO	Zn%	Pb%	Ag	Mn	Cu
23.90	24.70		TMIG	HETEROGENEOUS PLAGIOCLASE QUARTZ +/- GARNET +/- BIOTITE +/- MUSCOVITE FINE GRAINED EQUIGRANULAR PORPHYRITIC TO MEGACRYSTIC MIGMATITE. Rock appears to derived from recrystallized siliceous and carbonate enriched sediments. Extremely variable grain size.	Biotite altered to greenish flakes. Rock is pervasively bleached.	Very rare trace pyrite associated with faint relict remnant chloritized biotite flakes.									
				Irregular biotitic contact.											
24.70	28.75	75-80 deg. To C.A.	SBGF	FINE GRAINED SILICEOUS BIOTITE GNEISS. Heterogeneous highly laminated varying from very fine grained biotite poor to medium grained with 25% interlocking laminated and foliated biotite.	Weak erratic chloritization of biotite.	2-3% platy pyrite associated with biotite laminations.									
				Interval interrupted by small (<10 cm) migmatite intervals.											
				25.95 - 26.33 - pale coarse grained migmatite interval.											
				Thin weak calc silicate intervals at 27.65, 28.5 - 28-8 m.			11S	170618	27.1	27.6	0.004	0.001	tr	361	7
				28.75 - Planar contact - 80 deg. to C.A.			11S	170619	27.6	27.7	0.005	0.001	tr	454	30
28.75	29.30	55 deg. to C.A.	SBMG	MEDIUM TO COARSE GRAINED BIOTITE - MUSCOVITE GNEISS. Weakly contorted. Muscovite derived from biotite. Same as contorted unit higher up hole.	Locally bleached biotite altered to muscovite	Strong trace to 3% platy fabric aligned biotite associated disseminated pyrite.	11S	170620	27.7	28.3	0.008	0.001	tr	513	20
					29.1 - 29.3 - strong quartz sericite alteration.										
				29.3 intrusive contact - 70 deg. to C.A.											
29.3	38.35	weak fabric ~80 deg. to C.A.	TTON	MEDIUM GRAINED TONALITE Pale gray feldspar rich ~75% with 15% quartz and 10% anhedral biotite phaneritic fabric. Megacrystic migmatite in part. Several strongly assimilated small biotite gneiss zones (xenoliths?)	Weak erratic chloritization of biotite. Erratic almost pervasive and locally very strong quartz-sericite alteration.	None noted.									
				Migmatite contact			11S	170621	37.85	38.35	0.002	0.001	tr	172	4
38.35	40.90	80+/-10	TMIG	LEUCOCRATIC MIGMATITE ZONE. Chaotic mixture of megacrystic and fine grained more feldspathic migmatite.	Weak sausseritization	Highly variable. Detailed below	11S	170622	38.35	38.65	0.001	0.002	tr	102	71
						38.37-38.40 - Aligned (core subparrallel) stringers and disseminations of 3% pyrite and hard dark black mineral (hornblende?) with strong trace chalcopyrite									
						38.40 - 38.72 Strong trace pyrite and rare trace chalcopyrite as late fracture filling and weak core aligned stringer disseminations.									
		85 deg. To C.A.				38.72 - 38.76 - MASSIVE SPHALERITE ZONE. 60% dark brown sphalerite, 4% pyrrhotite (concentrated at lower contact and 35% pale cherty and dark siliceous fragments (durchbewegung texture). Trace galena at upper contact. Strong trace pyrite in upper 1/2. Trace chalcopyrite associated with pyrrhotite.	11S	170623	38.65	38.85	8.07	0.077	1.11	408	76.4

FROM	TO	FR. C.A.	CODE	GEOLOGICAL DESCRIPTION	ALTERATION AND VEINING	MINERALIZATION	SAMP#		FROM	TO	Zn%	Pb%	Ag	Mn	Cu
						38.76-39.86 - Rare trace pyrite and pyrrhotite in late fractures	11S	170624	BLANK		0.001	tr	0.2	39	2
							11S	170625	STD PB113		1.42	1.165	25.5	3050	4990
							11S	170626	38.85	39.8	0.001	0.013	tr	76	68
		65 deg. to C.A.				39.86 - 39.89 - MASSIVE SPHALERITE ZONE 75% sheared dark and pale brown sheared sphalerite and 25% dark cherty quartz fragments.	11S	170627	39.8	40.05	5.98	1.21	16	430	54.1
		80+/- 10				39.89 - 40.03 Stringers to locally semi massive sphalerite (avg ~10% with strong trace galena and pyrite in a grey recrystallized cherty gangue. 10% pale grey-green actinolite? Strong trace chloritized biotite? With silica hosted sulphide stringers.	11S	170628	BLANK		0.000	0.000	tr	46	1
						40.03 - 40.46 - Very weak trace sulphides.	11S	170629	40.05	40.45	0.001	0.0072	tr	48	19
						40.46 - 40.57 - SEMI MASSIVE SULPHIDE ZONE. 10% total sulphides. Interconnected fault associated 25-45 deg. to C.A., 2 to 15 mm sheared masses of sphalerite 75%, galena 2%, pyrrhotite 5%, pyrite 2%.	11S	170630	40.45	40.55	5.21	1.24	12.15	422	83.5
				Irregular contact 80 deg. to C.A.			11S	170631	BLANK		0.000	tr	tr	28	tr
40.90	42.20	80 +/- 10	SBGM	MEDIUM TO FINE GRAINED BIOTITE GNEISS. Dark 60% feldspar and quartz with 35% biotite with minor hornblende? and strong trace to locally 5% pyrite.		Strong trace to locally 5% pyrite as interstitial fine disseminations and platy grains.	11S	170632	40.55	40.85	0.25	0.17	2.5	199	26
				Gradational contact - 75 deg. to C.A.			11S	170633	40.85	41.45	0.019	0.0065	0.2	423	51
42.20	45.75		SBMG	MEDIUM TO COARSE GRAINED BIOTITE - MUSCOVITE GNEISS. Locally contorted. Muscovite derived from biotite. Same as contorted unit higher up hole. Possible fold hinge at 43.6 m but also rotated xenoliths?	Locally bleached. Biotite altered to muscovite	Strong trace to 3% platy fabric aligned biotite associated disseminated pyrite.									
		85		42.35 - 44.5 Leucocratic migmatite interval											
				42.95 - 43.3 migmatite grading to fine grained intrusive - 45 deg. to C.A.	Moderate (quartz?) sericitic alteration										
				43.3 - 43.5 - Megacrystic migmatite. Invaded lower crosscutting contact with SBGM											
				43.8 - 44.25 Fine grained quartz-diorite. Locally migmatized.	Biotite totally replaced by muscovite and sericite. Minor weak hornblende needles 'unaltered'.	None noted.									
				Gradational contact - 80 deg. to C.A.											
45.75	46.40	75+/-10	SBGM	MEDIUM GRAINED BIOTITE GNEISS Well foliated to locally cherty matrix gneiss.		3% platy fine grained foliation parallel pyrite.									
				Invaded lower contact. Very irregular											
46.40	48.65		TMIG	LEUCOCRATIC MEGACRYSTIC MIGMATITE ZONE. Dominated by coarse plagioclase and dark quartz porphyroblasts. Quartz aligned 85 deg. +/- 5 to C.A. Locally 5% fine grained disseminated garnet.	Weak sausseritization	Rare fine to medium grained locally concentrated pyrite masses. Core axis subparallel fracture fillings?									
				Cross cutting invasive contact. 40 deg. to C.A.. 70 deg. to fabric.											

FROM	TO	FR. C.A.	CODE	GEOLOGICAL DESCRIPTION	ALTERATION AND VEINING	MINERALIZATION	SAMP#	FROM	TO	Zn%	Pb%	Ag	Mn	Cu
48.65	49.30	75+/-10	SBGM	MEDIUM TO COARSE GRAINED BIOTITE - MUSCOVITE GNEISS. Locally contorted. Muscovite derived from biotite. Same as contorted unit higher up hole.	Locally bleached biotite altered to muscovite	Strong trace to 3% platy fabric aligned biotite associated disseminated pyrite.	11S 170634	48.8	49.3	0.013	0.0007	tr	310	14
				48.8 - 48.95 - Megacrystic migmatite zone										
				Gradational lower contact										
49.30	50.20	85	SCSL	MIXED ACTINOLITE, WOLLASTONITE GARNET AND SILICEOUS CALCSILICATE WITH MARBLE ZONES. Highly variable, but generally crudely banded texture due to skarnification, recrystallization and segregation of actinolite, garnet, quartz and carbonate. Relict pale ivory marble is finer grained.		Highly variable - described separately below								
						49.3 - 49.5 - 3% finely disseminated pyrite and pale grey sulphide (marcasite?).	11S 170635	49.3	50.25	0.001	0.0021	0.41	1600	266
						49.5 - 49.7 massive cryptocrystalline marcasite? or odd coloured pyrite. 75% sulphides and 25% dark semi translucent cherty quartz masses.	11S 170636	BLANK		0.000	tr	0.4	46	1
						49.7 - 50.1 4 Grading to trace grey marcasite or pyrite.								
				Gradational contact. -85 deg. to C.A.										
50.20	50.45		SBGM	MEDIUM GRAINED BIOTITE GNEISS Well foliated to dark gneiss.		Trace minute disseminated pyrite in remnant cherty laminations in migmatite. ~80 deg. to C.A.	11S 170637	50.25	50.75	0.005	0.0006	tr	233	26
50.45	51.40		TMIG	LEUCOCRATIC MEDIUM GRAINED TO MEGACRYSTIC QUARTZ-FELDSPAR +/- BIOTITE MIGMATITE.		Rare trace pale grey pyrite.								
				Curviplanar contact. 85 deg. to C.A.		Trace very fine grained disseminated pyrrhotite and pyrite associated with cherty laminations.	11S 170638	52.3	52.8	0.017	0.0003	0.4	725	41
51.40	53.00		SBGM	MEDIUM GRAINED BIOTITE GNEISS Well foliated to locally cherty matrix gneiss. Hosts small cherty and green actinolite calc silicate bands and small pegmatite-migmatite injection zones.			11S 170639	52.8	53.64	0.008	0.0011	0.2	303	46
				Gradational contact - 85 deg. to C.A.			11S 170640	STD PB113		NA	NA	NA	NA	NA
53.00	53.64	80	SCCS	MIXED BIOTITE GNESS AND ACTINOLITE, WOLLASTONITE GARNET AND SILICEOUS CALCSILICATE. Highly variable but generally crudely banded texture due to skarnification recrystallization and segregation of actinolite, garnet, quartz and carbonate. Relict pale ivory marble is finer grained.		4% foliation subparrallel finely to medium grained pyrite. Concentrated in contact zones between biotite gneiss and calc silicate.	11S 170641	BLANK		tr	tr	tr	23	1
53.64			EOH	END OF HOLE										

Appendix 3

GRAVITY REPORT – DISCOVERY INTL. GEOPHYSICS LTD.

RENAISSANCE GEOSCIENCE SERVICES INC.

LOGISTICS REPORT

BROKEN HILL PROJECT

SOUTHERN BRITISH COLUMBIA, CANADA

GRAVITY SURVEY

WORK COMPLETED BETWEEN SEPTEMBER TO OCTOBER 2011

380757, 380754, 380756, 380753, 380755, 381779

UTM ZONE 11 NAD 1983

MIKE GRID: 346,000E 5,741,000N

VISTA GRID: 344,000E 5,746,000N

Prepared by: Discovery Int'l Geophysics Inc.
147 Robin Crescent, Saskatoon, SK, S7L 6M3, CA
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DIG.CA.RGS.11.01
December 10, 2011

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1.0 Introduction

During the period of September 25th to October 14th, 2011, Discovery Int'l Geophysics Inc. carried out a gravity survey on the Broken Hill project for Renaissance Geoscience Services Inc. The Broken Hill property is located in the southern British Columbia region approximately 190 km north-northeast of the city of Kamloops and 39 km south of Blue River (**Figure 1**). A total of 452 gravity stations were recorded on 21 lines over the span of both the Vista and Mike grids.

The gravity survey was conducted using both, a Scintrex CG5 AUTOGRAV gravity meter and a LaCoste & Romberg gravity meter. The elevations were surveyed using a Trimble Differential GPS (DGPS) and a GDD Chain+Level. Detailed technical information of the survey procedures and equipment used can be found in **Section 3** and **Appendix A** respectively.

1.1 Property Location and Access

The Broken Hill property is located in the SE region of Southern British Columbia on NTS map sheet 82M/14 at approximately 51° 49 N latitude and 119° 24' W longitude (UTM coordinates: 346,000E, 5,744,000 N, Zone: 11N, Datum: NAD83), 190 km north-northeast of the city of Kamloops, and about 39 km south-southwest of Blue River (**Figure 1**). Accommodations and meals were provided in Blue River, BC, at the Blue River Motel and the Glacier Mountain Lodge. Other amenities were also provided at the town of Avola, BC, located about 4 km south of the property.

The Broken Hill property is accessible by logging roads from Avola via Highway 5 (Yellowhead Highway and east onto the Shannon Creek Forest Service Road). Four wheel drive vehicles are best suited for travel to the grids as with much precipitation, roads can become very messy. Once at the property the survey was carried out on foot.

1.2 Physiography

The Broken Hill project lies at the northwest end of the Shuswap Highland portion of the Interior Plateau, in an area of moderate to steep topographic relief with elevations raging between 580 m and 1,750 m on the North Thompson valley and Mike claims respectively. Major topographic reliefs are particularly observed on the Vista grid which is partially located on a steep mountain side. In general, the terrain consists of steep mountainous terrain separated by a number of low-lying areas filled with muskegs and creeks. The vegetation in this region is typical to the high elevation mountain area of southern British Columbia. In the lower parts, the vegetation consists of lodgepole pine, interior fir and black spruce while Balsam predominates at upper levels. The Mike grid is mostly covered with forest while the Vista grid is covered by recovering clear cut from the logging industry accompanied by a left-over forestry area. Areas covered with muskeg made gravity observations difficult to measure due to their soft and/or swampy soils.

1.3 Personnel

The Discovery Int'l Geophysics crew consisted of:

September 24th to October 14th, 2011:

- John Kuttai (Crew Chief\Geophysicist)
- Kevin Mouldey (Geophysical Assistant)
- Richard Benson (Geophysical Assistant)
- C.J Mikkelsen (Geophysical Assistant)
- Gilles Leger (Geophysical Assistant)

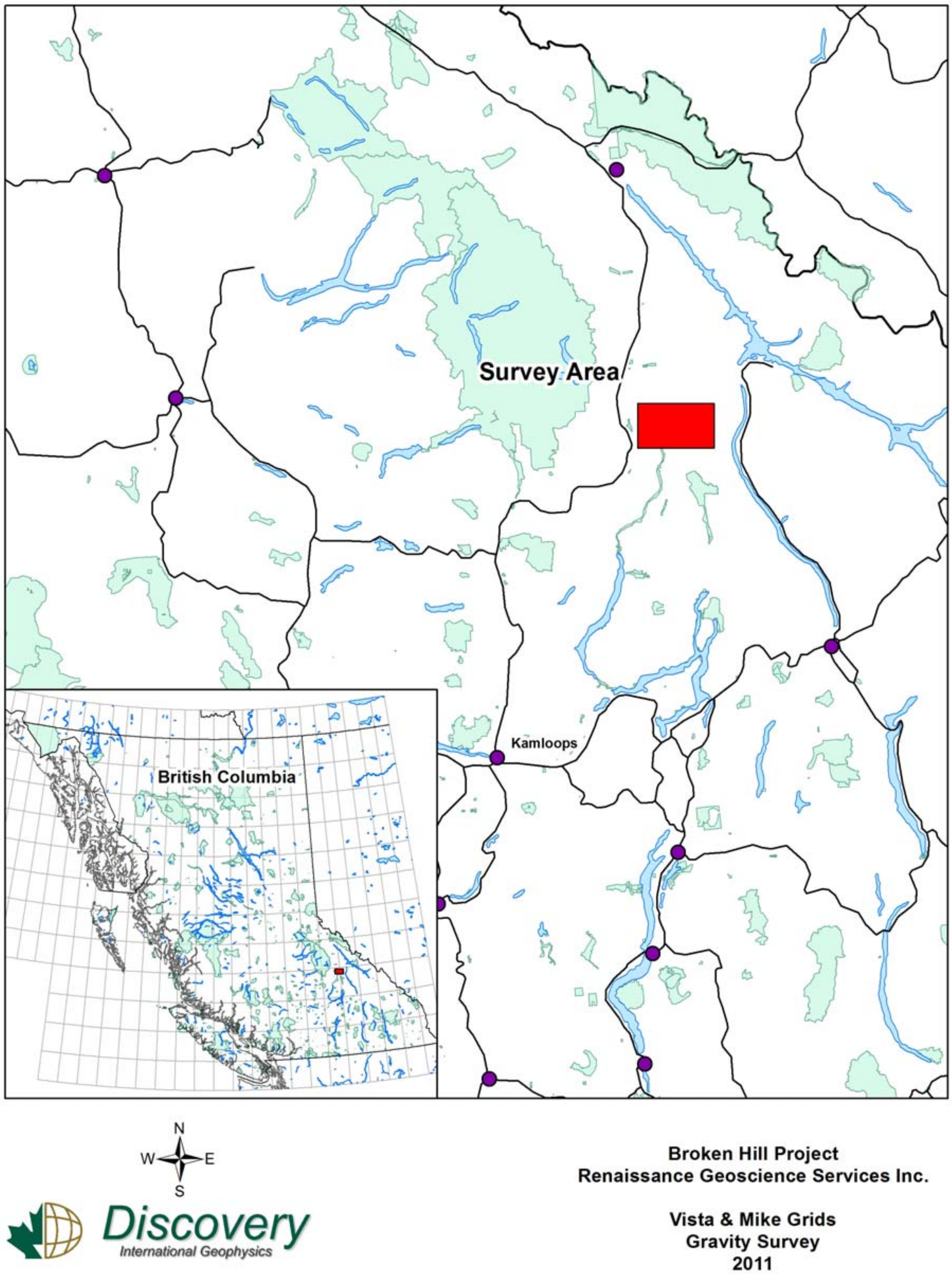

Figure 1: Location Map – Broken Hill Project – British Columbia.

2.0 Survey Methodology

The gravity method is conceptually one of the simplest of the geophysical methods. This potential field method uses the measured gravity response to find variations in subsurface structure due to small changes in density. A body that has a density that is greater than the surrounding rock will exert a larger gravitational pull at the surface, which is measured by the gravity meter. Similarly, a density low such as a void will result in decreased gravitational pull at the surface. Gravity measurements are sensitive to many factors including latitude, elevation, topography, earth tides and the quantity of interest, subsurface density variations. The former four factors must be accounted for before a meaningful result can be obtained. For a comprehensive resource on the gravity method, please refer to Applied Geophysics (Telford et al., 1990, pp. 6-61).

The gravity meter measures changes in the gravitational pull due to variations in subsurface density. Gravity meters are essentially a fine mechanical balance consisting of a mass supported by a spring. Changes in gravity pull the mass against the restoring force of the spring. The amount of adjustment necessary to bring the spring back to its null position is an indicator of the strength of the gravity field. The LaCoste & Romberg gravimeter uses a zero-length spring, which theoretically collapses to a length of zero in the absence of any outside forces, that is, the tension is directly proportional to the length of the spring. In case of the CG-5 AUTOGRAV meter, which is based on a fused quartz system, the gravitational force on the proof-mass is balanced by a spring and an electrostatic restoring force. This permits the meter to operate without any clamping.

3.0 Survey Procedures

Gravity readings were taken at 25 m intervals for both the Mike and Vista grids. A total of 184 gravity observations were recorded over the Mike grid along 7 survey lines (lines 4900N to 5200N) with a 50-m line spacing (**Table 1**) using a Scintrex CG-5 AUTOGRAV meter. For the Vista gird, a total of 268 gravity observations were collected over 14 lines (lines 8650N to 9300N) with a 50-m line spacing using both a CG-5 AUTOGRAV meter and a LaCoste & Romberg Model G Gravity Meter (**Table 2**). All readings were taken as close as possible to flagged grid markers, which were generally marked pickets. The LaCoste & Romberg gravity meter was placed on a concave, long-legged, base-plate tripod, whose legs were sunk into the ground for stability. The gravity meter reading and the time of each reading were entered into a logbook. The CG-5 AUTOGRAV meter was placed on its own designated tripod stand that is sunk into the ground and used to level the gravity meter. The gravity observations are recorded digitally into the meter. The height to the bottom of the sensor was measured and then added to the known sensor height from the bottom of the meter and recorded as the instrument height. In the event that a station needed to be reoccupied, a 20 to 30 cm circle with a dot in the centre was spray-painted (fluorescent orange) on the ground to mark the station. The occasional station had to be relocated along the grid line or skipped entirely due to terrain complications. Such complications included, but not limited to, swampy areas where a steady reading could not be taken; steep ground where there was no convenient spot to place the gravity meter; and/or areas where it was unsafe to take a reading.

A base station was established at UTM 343,416E, 5,741,198N between the Mike and Vista grids. In order to monitor instrument drift throughout the day, a base station reading was repeated at the beginning and end of each survey day. A few stations were also re-read for additional drift monitoring or to check for tares (sudden shifts in the readings due to the gravity meter receiving a slight knock during the course of the survey). Further details about the survey coverage are listed below in **Table 1** and **2**. Survey grids are also shown in **Figure 2** and **3**.

During the course of the gravity survey, several difficulties were encountered. For instance, at the Vista grid on line 9100N, significant damage was caused to the CG-5 AUTOGRAV due to a fall resulting from the inappropriate line cutting in the grid. The operator slipped/tripped on uncut bush and fell with the gravity meter (please refer to **Appendix C** for more details) which impacted on a log leaving it non-operational. As a result, survey production was delayed until a LaCoste & Romberg gravity meter was located and shipped to Blue River to complete with the remaining of survey.

A total of 119 station locations and elevations (spread over both survey areas) in NAD83 UTM were determined using the Trimble Differential GPS (DGPS). The DGPS could only occupy stations in areas of clear view of the sky and in view of the DGPS base station that remained in a stationary position. However, since much of the Mike and Vista grids are located in areas of tall trees and significant elevation variations, the remaining station elevations were surveyed using a GDD hydrostatic Chain+Level which measures the relative elevation between two points by sensing hydrostatic pressure within an oil filled tube and a survey chain. Furthermore, since the GDD level only measures relative elevations, every reading has to be tied to the network of stations, in order to calculate an elevation that is relative to a common point with a known elevation. On the other hand, to correct for cumulative errors due to instrument drift, all readings must be taken in closed loops that are tied into the network of known elevation points. This was done by collecting at least one DGPS station on each gird line which enables the Chain+Level data to be tied into "known" elevations designated by the DGPS. Base lines and cross lines were also surveyed to provide better control on elevation and reduce closure errors. These closure errors were determined by averaging over a number of stations between the DGPS elevation control points. The elevation surveyor worked ahead of the gravity operator setting up and marking the station; and also taking slope measurements.

Table 1: Gravity Survey Coverage Mike Grid (Broken Hill Project)

Line	Stations	Length (m)
4900N	1700E to 2100E	400
4950N	1700E to 2100E	400
5000N	1475E to 2150E	675
5050N	1475E to 2150E	675
5100N	1475E to 2150E	675
5150N	1475E to 2150E	675
5200N	1825E to 2150E	325

Total: 184 Stations

Table 2: Gravity Survey Coverage Vista Grid (Broken Hill Project)

Line	Stations	Length (m)
8650N	2225E to 2600E	375
8700N	2200E to 2600E	400
8750N	2175E to 2600E	425
8800N	2125E to 2600E	475
8850N	2125E to 2600E	475
8900N	2100E to 2525E	425
8950N	2100E to 2500E	400
9000N	2100E to 2500E	400
9050N	2100E to 2500E	400
9100N	2175E to 2475E	275
9150N	2125E to 2475E	350
9200N	2150E to 2475E	325
9250N	2175E to 2450E	275
9300N	2200E to 2400E	200

Total: 268 Stations

In order to map the near station terrain, the level operator took four slope readings at each station. A clinometer was used to sight the slope in the grid north, east, south and west directions. These readings were input for a near-station terrain correction using the sloping-wedge technique (Barrows and Fett 1991). In case of the CG-5 AUTOGRAV, it employs the hammer zone B method built into the software.

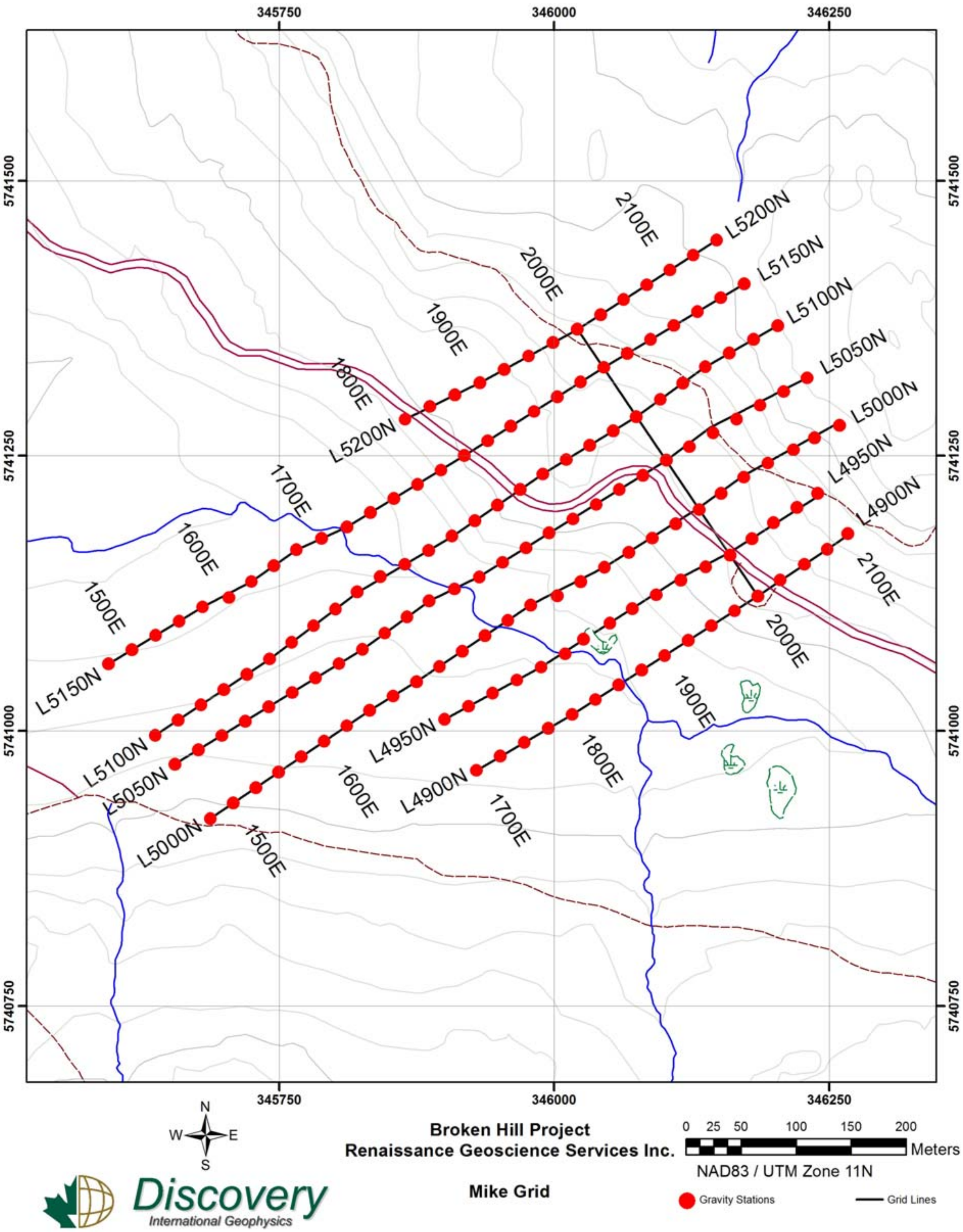

Figure 2: Gravity Survey Mike Grid (Broken Hill Project)

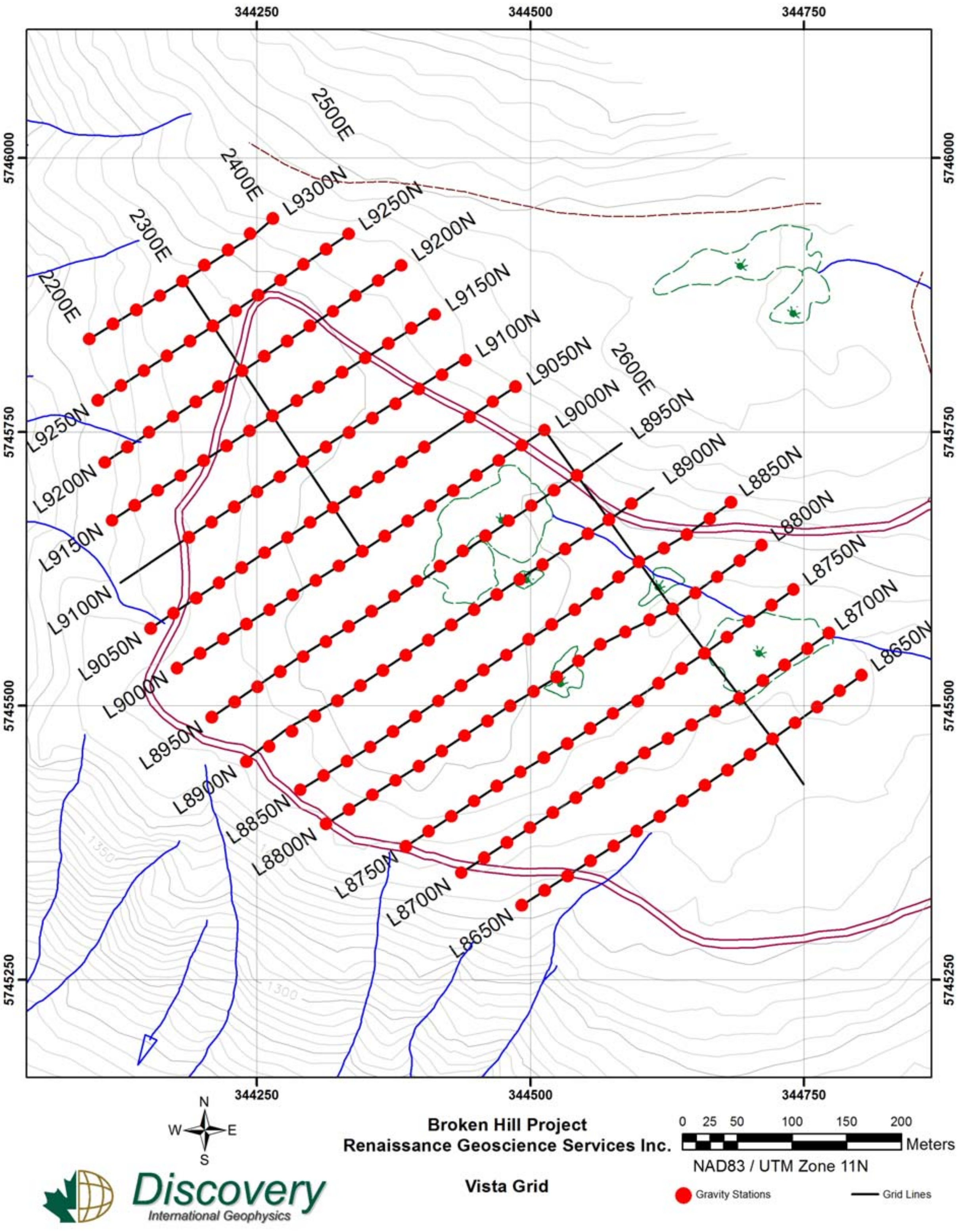

Figure 3: Gravity Survey Vista Grid (Broken Hill Project)

4.0 Data Processing and Presentation

Station locations are determined from handheld GPS control points located on the chained grid supplied. The relative elevations from the GDD electronic level are entered into a spreadsheet at the end of each survey day. The relative elevation at each point in a loop is first determined relative to the starting point on the road by adding individual relative elevations. When the loop is closed off, the summed elevation for the loop is generally non-zero due to errors and instrument drift. This is corrected by dividing the loop error by the number of stations and then cumulatively adjusting each station elevation by that amount, thus bringing the summed elevation for the loop back to zero. The corrected relative elevations are then tied into the entire network through the road control points measured with the Trimble DGPS. This provides an absolute elevation at every point with a relative average accuracy of ±2 cm. DEM elevations were also considered in the final elevation determination. This resulted in a mean difference between DEM and gravity elevations that was as close to zero as possible.

The slope measurements are input into a spreadsheet routine that calculates the gravitational effect of a quarter wedge of uniform slope θ out to radius R (Barrows and Fett, 1991).

$$g_w = \frac{1}{2}\pi G \rho R(1 - \cos\theta)$$

where G is the gravitational constant and ρ is the density of the terrain.

These near-station terrain corrections ranged from 0.01 to 0.4 mGals over the survey area for the selected radius of 20 m.

A digital elevation model (DEM) was prepared using orthophoto techniques by Eagle Mapping Services Ltd. This model consisted of elevation data at a 25 m interval over a 7.4 km x 6.0 km area covering the Vista grid and surroundings. The Mike grid was recently surveyed at a 10 m interval over a 4.0 km x 5.8 km area covering the entire Mike grid and beyond. In addition, there was elevation data at a regular 50 m interval (plus along hydrological features) extending approximately 2 km past the more detailed area of the Vista grid (**Figure 4**).

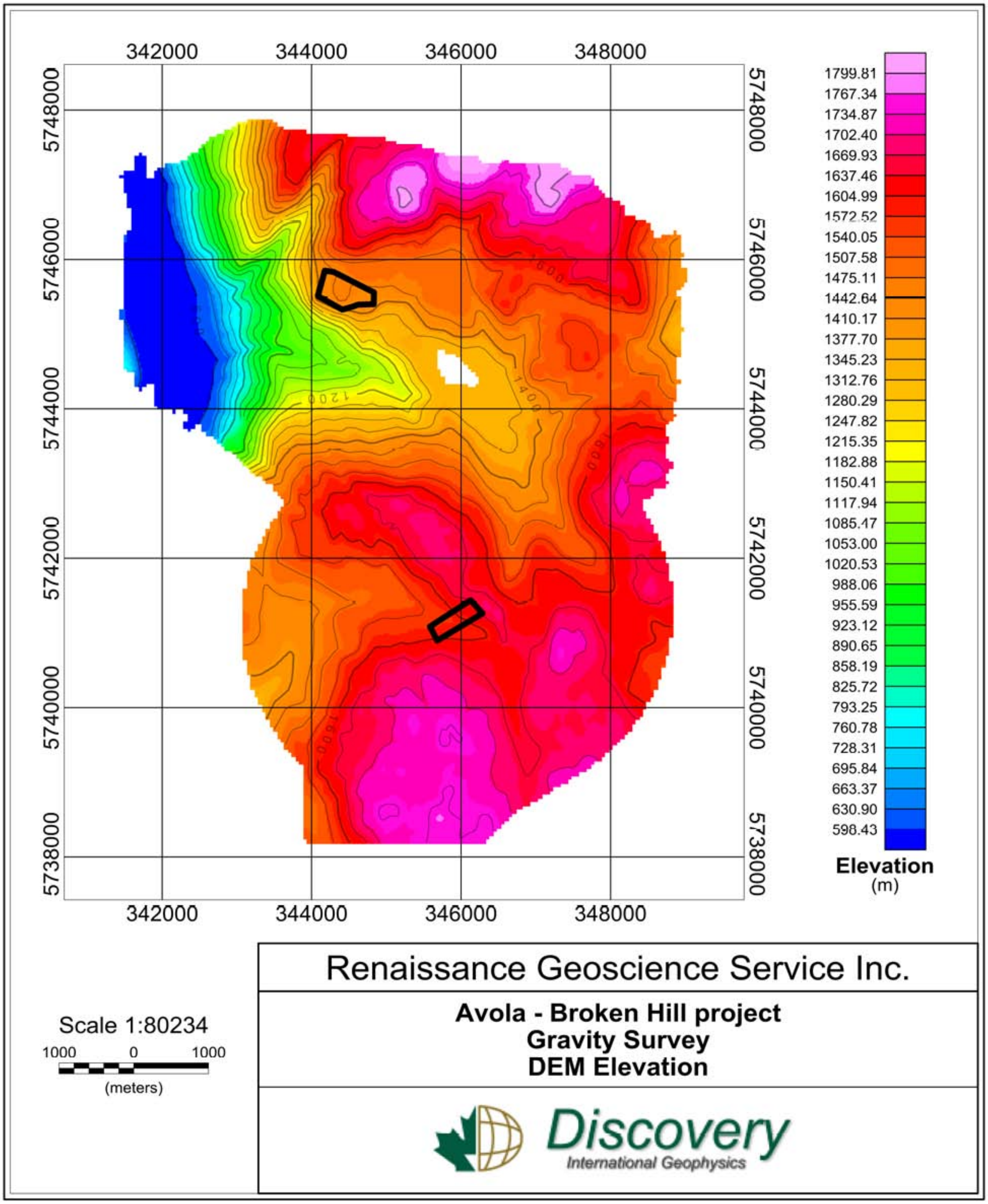

Figure 4: Combined DEM (Broken Hill Project)

An accurate DEM allows a precise terrain correction to be calculated for every station using "RasterTC", a DEM-based, integrated-surface, terrain correction program (Cogbill, 1990). RasterTC performs terrain corrections over two zones, deemed the inner and outer zone. The inner zone extends from 20 m to 325 m out from the station and the outer zone extends from 325 m to 2000 m from the station. The supplied DEM is used to calculate an elevation surface in each of the zones. Terrain corrections are calculated independently for every station. The actual elevations of the gravity stations are not used. Instead, the elevation on the surface at the station location is used, thus avoiding any bias that may exist between actual and DEM elevations.

The final combined inner and outer zone terrain corrections ranged from 0.7 to 9.2 mGals over the Vista grid, which is located primarily on the side of an extremely steep slope. Hence, in this mountainous area, the terrain effect can produce false anomalies that are greater in size and amplitude than a real geological feature. The Mike grid, however, only spanned a range of 0.3 to 1.5 mGals for the combined inner and outer zone terrain corrections. This is because the Mike grid is located in an area of relatively level terrain compared to that of the Vista grid. This leads to the discrepancy of the terrain corrections between the two grids.

All gravity data processing was carried out using a specialized application from LaCoste & Romberg and Geotools Corp. called “GravMaster”. This program uses MS-Excel spreadsheets for data input and output. The program first converts the gravity meter readings from arbitrary units to mGals using the scale factor chart supplied with the instrument. Earth tide corrections are then determined for each reading using the recorded date and time and the UTM station locations. The tide corrected gravity readings are then corrected for instrument drift and tares using the base station and repeat station readings, linearly interpolating any differences in these repeat readings over the time interval between readings. The station elevations, copied into the spreadsheet from the GDD level processing output, are used to determine the combined free-air and Bouguer slab, elevation corrections. The Bouguer correction is determined for a range of slab densities from 2.5 to 2.8 g/cm^3 in order to determine the optimal density for the survey area (i.e. the density that results in the least correlation between final corrected gravity and elevation).

The corrected, relative, gravity readings are then converted to absolute gravity values by inputting into GravMaster the known absolute gravity value of 980798.190 mGals determined at the base station located at the Log-Inn Pub in Avola (Canadian Gravity Standardization Net Station No.

9471-75). As a result, the corrected, absolute gravity values at the Broken Hill property can be tied into the GSC regional gravity grid of Canada.

The final step of the gravity processing procedure is to calculate the theoretical gravity at every station using an internationally accepted formula for the gravity field of the World Geodetic System (1984) reference ellipsoid: i.e. the US National Imagery and Mapping Agency (1998) formula (Blakely, 1995, pg. 135). The gravity stations locations were used to calculate the theoretical gravity at each station.

The "simple Bouguer gravity" is calculated by subtracting the theoretical ellipsoid gravity from the observed and corrected absolute gravity at each station. The "complete Bouguer gravity" is found by adding the near-station wedge, and inner and outer zone DEM terrain corrections at each station to the simple Bouguer gravity. By comparing the complete Bouguer gravity to the elevation map, it was determined that a density of 2.7 g/cm^3 showed the least correlation between Bouguer gravity and terrain features. The final accumulated error of the complete Bouguer gravity is estimated to be about ±0.03 mGals (reading error: 0.005 mGals; drift correction: 0.002 mGals; elevation correction: 0.008 mGals; terrain correction: 0.015 mGals; all other corrections have negligible errors).

The grid elevation, simple Bouguer gravity, and complete Bouguer gravity are displayed as a colour gridded and contoured map in **Appendices D**, **E**, and **F** respectively.

5.0 Discussion of Results

The Vista grid data was merged with a previous dataset collected to the south of the grid. This new compiled dataset maps out the previous known anomaly in the area limiting its extents to the north. In order to properly merge these two datasets, a common data point was measured for gravity and DGPS measurements at station 2325E along line 8600N. The results show no major anomalous zones to the north of the grid. Only a few small anomalies are seen to the west end of the grid along lines 8900N, 9050N, and 9100N. However, due to the size of the anomalies and their proximity to severe terrain conditions, they are most likely related to artifacts resulting from the data processing and edge effects. In severe terrain zones, residual terrain effects are not completely removed by the terrain correction procedure; mainly because of minor inaccuracies inherent in the DEM.

The most significant results are observed on the Mike grid. An anomalous zone of 1.4 mGal difference is measured in the western portion of the grid up at 5100N and 5150N. The anomaly is most likely to be caused by either a flat lying dense body at depth or a shallow flat layer with gradual increase of sulphide mineralization within the layer. Assuming a constant density of 3.5 g/cc for the sulphides and a density of 2.7 g/cc for the surrounding rock; that is a 0.8 mGals difference, a ~42-m thick layer would be needed to produce such anomaly. Based on these observations, this anomaly may be interpreted as a formational feature such as a mafic intrusion. However, further processing and analysis are recommended to better characterize this anomaly and its interpretation.

Terrain effects are more dominant in the Vista grid due to the significant elevation variability in and around this area. This is clearly visible just by looking at the difference between the simple and complete Bouguer maps. To further investigate these observations, a DEM map of the entire Broken Hill property was prepared (**Figure 4**). This DEM map shows a distribution of elevation change near the grids when computing the far terrain corrections. The results show an elevation change of approximately 250 m and 1100 m for the Mike and Vista grids respectively. Consistent with the actual terrain conditions observed at the Vista (steep terrain) and Mike (more level terrain) grids.

6.0 Conclusions and Recommendations

An anomalous zone was identified on the western portion of the Mike grid along lines 5100N and 5150N. Based on the observations, this anomaly may be interpreted as a possible formational feature such as a mafic intrusion. However, further processing and analysis are recommended to better characterize this anomaly and its interpretation. It seems that this anomalous zone extends to the north-west of the Mike grid and only a portion of it has been mapped by the current survey. Therefore, it is also recommended an extension of the Mike grid to the north and west.

No major anomalies are observed in the Vista grid extension. Nonetheless, the current survey shows that the previously known anomaly located to the south of the Vista grid does not extend to the north.

The merged dataset is concluded to be viable due to both the similarities in the background response measured in both datasets and the lack of steep gradients at the merge line which would be expected if the two datasets were truly different.

Respectfully submitted,

Johnathan C. Kuttai, B.Sc.

Geophysicist

7.0 References

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Blakely, R.J.: *Potential Theory in Gravity and Magnetics Applications,* Cambridge University Press, 1995.

Cogbill, A.H.: Gravity terrain corrections calculated using Digital Elevation Models, *Geophysics*, vol. 55, no. 1, pp. 102-106, 1990.

Telford, W.M., Geldarti, L.P. and Sheriff, R.E.: *Applied Geophysics Second Edition*, Cambridge University Press, 1990.

8.0 Certificate of Qualifications:

Johnathan C. Kuttai

I, Johnathan C. Kuttai of the municipality of Saskatoon, in the province of Saskatchewan, hereby certify as follows:

1. I am a Geophysicist with Discovery International Geophysics office at 147 Robin Crescent Saskatoon, Saskatchewan, S7L 6M3.
2. I hold the following university degree: Bachelor of Science, Geophysics, University of Saskatchewan, 2010.
3. I am a registered Geoscientist-in-training with The Association of Professional Engineers and Geoscientists of the Province of Saskatchewan. (Reg. # 21809)
4. I have no direct interest in Renaissance Geoscience Services Inc. or the above described properties and projects that are the subject to neither this report, nor do I intend to have any direct interest.

Dated at Surrey, in the Province of British Columbia, this 10st day of December, 2011.

Johnathan C. Kuttai, B.Sc.

Geophysicist

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Appendices

Appendix A: Instrument Specifications

GDD CHAIN+LEVEL
SPECIFICATIONS
• **Measurement range**: ± 10 m (33 ft.) • **Reading resolution**: 1 mm (0.005 ft.) • **Calibration stability**: ± 0.2 % or 5 mm (0.2 in) (less than 2 cm for a difference of elevation of 10 meters) • **Typical closure error:** (sigma) per 1 km traverse: < 10 cm (4 in) • **Elevation precision per station**: 1 km traverse: < 1 cm (0.4 in) • **Operating temperature range**: -40 to 65 degrees Celsius
READING UNITS
• **Size**: 25.7 x 11.1 x 12 cm • **Weight**: 1.1 kg • **Case**: Aluminium, shock resistant • **Power source**: 3 to 6 AA batteries • **Use**: Up to 12 hours at 20 degrees Celsius • **Charger**: 110 V or 220 V AC
CABLE
• **Length**: 25 m, 50 m, 100 ft. or custom order. • **Weight:** 2.1 kg. 25 m • **Graduated**: every 0.1 m

SCIENTREX CG-5 AUTOGRAV

GENERAL SPECIFICATIONS

- **Reading resolution**: 0.001 mGal
- **Minimum operating range**: 8000 mGals, without resetting
- **Residual long-term drift**: < 0.02 mGals per day
- **Typical repeatability in field use:** < 0.01 mGals standard deviation
- **Range of automatic tilt correction**: ± 200 arc seconds
- **Noise rejection**: Samples of more than 4 standard deviations (6 if the seismic filter is selected) from the average are rejected, if this feature is selected upon initialization of the instrument.
- **Displayed and recorded data**:
  - Corrected gravity
  - Standard deviation
  - Tilt about the X-axis
  - Tilt about the Y-axis
  - Gravity sensor temperature
  - Tidal correction
  - Duration of measurement
  - Terrain correction
  - Time at start of measurement and header information (including data and initialization constants)
- **Sensor type**: Fused quartz using electrostatic nulling
- **Reading resolution**: 1 microGal
- **Standard deviation**: < 5 microGal
- **Operating range**: Worldwide (8,000 mGal without resetting)
- **Residual long-term drift (static)**: < 0.02 mGal per day
- **Range of automatic tilt compensation**: ± 200 arc seconds
- **Tares**: Typically < 5 microGals for shocks up to 20G
- **Automatic corrections**: Tide, instrument tilt, temperature, noisy sample filter, seismic noise filter.
- **GPS accuracy**: Standard: < 15 m; DGPS (WAAS): < 3 m
- **Touch free operation**: Keyfob transmits up to 30 m line of sight
- **Battery capacity**: 2 x 6.6 Ah (11.1 V) rechargeable Lithium smart batteries. Full day aperation at 25 degrees Celsius.
- **Power consumption**: 4.5 Watts at 25 degrees Celsius
- **Operating temperature**: -40 to +45 degrees Celsius
- **Size**: 30 cm (H) x 21 cm x 22 cm
- **Weight**: 8.0 kg including batteries

STANDARD SYSTEM

- CG-5 AUTOGRAV console
- GPS antenna
- Leveling tripod
- Battery charger
- External power
- USB stick adaptor
- RS-232 and USB cables
- Keyfob; Carrying bag; Transit case

LACOSTE & ROMBERG MODEL D GRAVITY METER
SPECIFICATIONS
• **Mass and spring system**: Zero length spring attached to some mass • Coarse and fine screw calibration • Capacitance beam positioning indicator • LED reading lamps • Digital thermometer • **Batteries**: Two 12 volt gel-type batteries (rated 9-amp hours) • Battery charger • **Aluminium carrying case**: Two compartments • **Aluminium base plate**: Three legs with bullseye bubble at center • **Cables**: Extension cables for batteries • **Calibration table**: Used to convert to raw gravity readings • Operational range of 250 mGals

TRIMBLE R8 GNSS SYSTEM
SPECIFICATIONS
• Trimble R-Track technology • Advanced Trimble Maxwell™ custom survey GNSS chip • High precision multiple correlator for GNSS pseudo-range measurements • Very low noise GNSS carrier phase measurement with < 1 mm precision in a 1 Hz bandwidth • Signal-to-noise ratios reported in dB-Hz • Proven Trimble low elevation tracking technology • 72 channels • 4 additional channels for SBAS WAAS/EGNOS support
CODE DIFFERENTIAL GPS POSITIONING
• **Horizontal**: ± 0.25 m + 1 ppm RMS • **Vertical**: ± 0.50 m + 1 ppm RMS • **WASS differential positioning accuracy**: Typically < 5 m 3DRMS
STATIC AND FASTSTATIC GPS SURVEYING
• **Horizontal**: ± 5 mm + 0.5 ppm RMS • **Vertical**: ± 5 mm + 1 ppm RMS
KINEMATIC SURVEYING
• **Horizontal**: ± 10 mm + 1 ppm RMS • **Vertical**: ± 20 mm + 1 ppm RMS • **Initialization time**: Typically < 10 seconds • **Initialization reliability**: Typically > 99.9 %
HARDWARE
• Trimble TSC2 controller • Trimble HPB450 radio

Appendix B: Production Notes

Discovery International Geophysics
Project: Renaissance Geoscience Services Inc. – Broken Hill: Mike and Vista Grids
Date: Sept 25 to Aug 15, 2011
Submitted by: John Kuttai (Geophysicist)

Crew: John Kuttai (crew chief), Richard Benson, Kevin Mouldey, Gilles Leger, CJ Mikkelsen

Sat, Sept 24, 2011 – Broken Hill – Richard Benson departed from Saskatoon, SK and drove as far as Edmonton, where he picked up a rental Trimble DGPS in Edmonton from Cansel.

Sun, Sept 25, 2011 – Broken Hill – Gravity meter was prepped and packed, and John Kuttai and Dennis Woods drove up to Blue River from Surrey. Stopped briefly in Avola on the way through and found the GSC absolute gravity base station 9471-1975 at the front of the Avola General Store, which is now the Log Inn Pub, and took a base reading. Upon arrival at Blue River, found the GSC absolute gravity base station 9051-1975 at the back of the Sandman Inn and took another base reading. These base readings, at GSC control stations with known absolute gravity, will be used to correct the gravity survey results from the Mike and Vista grids to the national datum, so that the Vista grid data can be accurately tied into the previous Fowler Lake gravity data collected for Cassidy Resources in 2000. John and Dennis checked into the Blue River Motel and met with the Renaissance Geoscience technicians. Richard obtained some instruction on using the DGPS from Cansel in the morning and then drove to Blue River via Jasper, arriving after dinner. Checked into the Blue River Motel and met with John and Dennis. Unpacked all the equipment and prepared for surveying tomorrow (i.e. charge batteries, etc). Gravity meter was set up to record overnight to monitor drift rate.

Mon, Sept 26, 2011 – Broken Hill – Met with the Renaissance technicians at about 7:30am in the morning and arranged to meet at the Avola Log Inn Pub base station. Took a base reading at the Blue River Sandman Inn base station and then drove to Avola and took a base reading at the Log Inn Pub. Drove up to the Broken Hill property from Avola with the Renaissance technicians leading the way. Leo Lindinger arrived from Kamloops at about this time. Arrived at the property and established the Shannon base station near the junction of the road between the Mike and Vista grids, which will be used for gravity observations at the start and end of each day, and to monitor and correct for instrument drift. By taking repeated base readings at Blue River, Avola and the new base station at Shannon, an absolute gravity value will be established at the Shannon station, and from there to both the Mike and Vista grids. Attempted to take DGPS readings along the road going back down to a known elevation point on the highway near Avola, using the Shannon base station as an RTK-DGPS base, but quickly determined that this was not going to work. Lost radio contact after a few bends in the road, and lost satellites behind a steep forested slope. As a result, the absolute elevations will not be known to centimeter accuracy, and the relative elevation of the Vista grid will have to be tied into the previous Fowler Lake grid at a known station. A static elevation can be taken on the Mike grid, but it won't be accurate to better than 10 cm. Established a DGPS base station on the road near line 5100N of the Mike grid and then took DGPS readings along the road to establish an elevation control line. Accurate DGPS could not be taken in forest cover, so gravity observations were made without the DGPS for the remainder of the afternoon on lines 4900N and 4950N of the Mike grid. At the end of the day, took a base reading at Shannon, and then more base readings at Avola Log Inn Pub and Blue River Sandman Inn on the way back to the Blue River Motel. Gravity meter was set up to record overnight to monitor drift rate.

Tue, Sept 27, 2011 – Broken Hill – John and Richard departed Blue River Motel at about 8:30am, taking base gravity readings at Blue River Sandman Inn, Avola Log Inn Pub, and at Shannon base station. Trimble RTK-DGPS base station was set up again on the road near line 5100N for a static reading. Gravity stations were collected on the rest of lines 4900N & 4950N and on 5000N & 5050N of the Mike grid. Took base readings at Shannon, Avola Log Inn Pub and Blue River Sandman Inn. Moisture was noted on the inside of the screen display of the gravity meter, so the meter was opened up and allowed to dry out overnight.

Wed, Sept 28, 2011 – Broken Hill – John and Richard departed Blue River Motel at about 8:30am and took base readings at Blue River Sandman Inn, Avola Log Inn Pub, and at Shannon base station, on the way to the Mike grid. DGPS was set up again on the road at about 5100N to record static GPS elevation. Gravity observations were collected on lines 5100N, 5150N, and 5200N of the Mike grid. A protective plastic sheet was placed over the gravity meter keypad and screen to stop the water leak. Took base readings at Shannon, Avola Log Inn Pub and Blue River Sandman Inn on the way back to Blue River Motel.

Thu, Sept 29, 2011 – Broken Hill – John Kuttai and Dennis Woods departed Blue River for Surrey, leaving Richard and a temporary helper to complete the survey. Since the Trimble DGPS was unsuitable for collecting elevations in forested areas, a Chain+Level was ordered from Instrumentation GDD and was being sent to Vancouver. The plan was to return with the GDD Chain+Level after it arrives in Vancouver. Richard departed Blue River for Broken Hill property at about 8:30am, and picked up his new helper, Gilles Leger, in Avola. Base station readings were taken at Blue River Sandman Inn, Avola Log Inn Pub, and Shannon at the start and end of the day. Gravity readings completed at all the remaining stations on lines 5000N and 5050N. Static GPS readings were taken with the Trimble at the DGPS base station on the road near line 5100N. Gravity meter was set up to record overnight to monitor drift rate.

Fri, Sept 30, 2011 – Broken Hill – Richard departed Blue River at about 7:30am and picked up Gilles in Avola. Base station readings were taken at Blue River Sandman Inn, Avola Log Inn Pub, and Shannon at the start and end of the day. Gravity observations were collected at the remaining stations on lines 5100N and 5150N, thus completing the Mike grid. Additional static GPS recording was completed at the DGPS base station on the road near line 5100N. Richard moved into accommodations at the Avola Log Inn Pub. Gravity meter was set up to record overnight to monitor drift rate.

Sat, Oct 01, 2011 – Broken Hill – Richard and Gilles departed Avola at about 8:00am for the Vista grid. Base station readings were taken at Avola Log Inn Pub, and Shannon at the start and end of the day. No additional base station readings will be taken at the Blue River Sandman Inn base station because the comparison of readings between the two GSC absolute gravity stations is now well established. The morning was spent collecting DGPS on the Vista grid along the road to create a network of absolute elevation control stations. The RTK-DGPS base station was set up beside the road at the west end of line 9100N. Gravity readings were collected on lines 9300N and 9250N, along with RTK-DGPS because this area is recent clear-cut and relatively open. Gravity meter was set up to record overnight to monitor drift rate.

Sun, Oct 02, 2011 – Broken Hill – Richard departed Avola at about 7:30am and picked up a new hired hand CJ Mikkelsen on the way to the property. Gilles is no longer on the crew due to illness. Base station readings were taken at Avola Log Inn Pub, and Shannon at the start and end of the day. On the way up to the grid, it was noticed a hole in one of the tires and the better part of the morning was spent putting on the spare tire. Gravity observations were collected on lines 8850N and 8800N. These lines are covered by tall trees and no DGPS could be collected. Richard moved to the Glacier Mountain Lodge in Blue River from Avola due to a lack of high speed internet at the Avola Log Inn Pub. Gravity meter was set up to record overnight to monitor drift rate.

Mon, Oct 03, 2011 – Broken Hill – Richard departed Blue River at about 7:30am and picked up CJ in Avola. Base station readings were taken at Avola Log Inn Pub, and Shannon at the start and end of the day. Gravity observations were collected on lines 9200N and 9150N together with DGPS because this northern end of the grid is relatively open clear-cut. Additional stations were collected on 8900N. Richard wanted to go home to Saskatoon, and he had to return the Trimble RTK-DGPS rental unit on his way back through Edmonton, so wanted to get as much done as was possible with the Trimble before leaving. Gravity meter was set up to record overnight to monitor drift rate.

Tue, Oct 04, 2011 – Broken Hill – Richard departed Blue River at about 7:30am and picked up CJ in Avola. Base station readings were taken at Avola Log Inn Pub, and Shannon at the start and end of the day. Day was spent collecting the remaining possible DGPS stations simultaneously with gravity observations in the clear-cut portions of the grid on lines 9100N, 9050N, 8950N, and 8900N. John Kuttai picked up the GDD Chain+Level at Vancouver airport and drove to Blue River, arriving in the evening. Kevin Mouldey departed from Saskatoon and arrived in Blue River about the same time.

Wed, Oct 05, 2011 – Broken Hill – Richard departed back to Saskatoon leaving Kevin and John to finish the survey. John and Kevin departed Blue River at about 9:00am and picked up CJ in Avola. Base station readings were taken at Avola Log Inn Pub, and Shannon at the start and end of the day. John operated the gravity survey while Kevin and CJ collected the Chain+Level data. Gravity observations were collected on lines 9000N, 8950N, and 8900N. Chain+Level data were collected on 9000N and 8950N. Gravity meter was set up during the night to record the drift rate but due to the unstable floor in the Glacier Mountain Lodge the reading was neglected.

Fri, Oct 06, 2011 – Broken Hill – John and Kevin departed Blue River at about 8:30am and picked up CJ in Avola. Base station readings were taken at Avola Log Inn Pub, and Shannon at the start and end of the day. John spent the day collecting gravity observations on lines 9150N, 9050N, 8750N, 8700N, and 8650N. Kevin and CJ collected Chain+Level data on lines 9050N, 8850N, 8800N, 8750N, 8700N, 8650N, and the base line 2500E. That night the gravity meter was opened up and was set out to dry its interior to prevent water damage. Even with the plastic covering the face of the gravity meter, water still manages to get into the meter, through the screen.

Sat, Oct 07, 2011 – Broken Hill – Kevin and John departed Blue River at about 8:30am in individual vehicles destined for each grid. Kevin picked up CJ in Avola on the way to the Mike grid. John collected base station readings at the Avola Log Inn Pub and at Shannon on the way to the Vista Grid. The CHAIN+LEVEL data were collected for the majority of the Mike grid on lines 4900N, 4950N, 5000N, 5050N, 5100N, 5150N, and 5200N. While surveying on Vista, John took a tumble and gravity meter was damaged (see separate discussion in Appendix B2). The rest of the day was spent accessing the damage to the gravity meter and then trying to locate another gravity meter to finish the survey. By mid-afternoon a gravity meter was located for rent by Zlatco Tomicic in Cochrane, AB, but because it is a long weekend, the shipment is not scheduled to arrive in Blue River until Tuesday. CJ left to go back home to Vavenby and his assistance was no longer needed.

Sun, Oct 08, 2011 – Broken Hill – No Surveying. Waiting for replacement of the gravity meter. **Standby day.**

Mon, Oct 09, 2011 – Broken Hill – No Surveying. Waiting for replacement of the gravity meter. **Standby day.**

Tue, Oct 10, 2011 – Broken Hill – Kevin and John departed Blue River at about 8:30am for the Broken Hill property to collect Chain+Level data. Some of the previous data from Vista was found to have errors and lines 8600N, 8650N, 8700N, 8750N, 8800N, and base line 2500N were redone. This was decided to create better control on the elevation for post processing of the gravity data. The remaining Mike grid Chain+Level datum were collected on lines 5100N, 5150N, 5200N, and baseline 2000E. Upon arriving back into Blue River the replacement LaCoste & Romberg Model D gravity meter was picked up and tested out for any damage that could have occurred during shipping. It was concluded that the gravity meter is in full working order and put on charge for operation the next day.

Wed, Oct 11, 2011 – Broken Hill – Kevin and John departed Blue River at about 8:30am. Base station readings were taken at Avola Log Inn Pub, and Shannon at the start and end of the day. John and Kevin spent the day collecting gravity observations on lines 9150N, 9100N, 9050N, and 9000N. John operated the gravity meter while Kevin recorded the readings from the meter in a notebook along with the clinometer readings at each station. It rained on and off all day, and the vegetation was completely soaked, which made it very difficult to keep the LaCoste-Romberg gravity meter dry. We attempted to cover the meter with a plastic bag, but the face of the L&R gravity meter cannot be operated when covered so the plastic bag was removed when observations were taken. As a result, the meter did get wet, but no water got inside. Meter was set up to charge at night and dried off of any existing water droplets.

Fri, Oct 12, 2011 – Broken Hill – John and Kevin departed Blue River at about 8:30am. Base station readings were taken at Avola Log Inn Pub, and Shannon at the start and end of the day. John operated the gravity meter while Kevin recorded the data and the clinometer readings into a log book. The day was spent collecting gravity observations on lines 8950N, 8900N, 8850N, 8800N, 8750N, and 8700N. That night, back at the motel, the outside of the gravity meter was dried off and the battery was plugged in to charge.

Sat, Oct 13, 2011 – Broken Hill – John and Kevin departed Blue River at about 8:30am. Base station readings were taken at Avola Log Inn Pub and Shannon at the start and end of the day. John operated the gravity meter while Kevin recorded the data and the clinometer readings into a log book. The beginning of the day was spent collecting the remaining Vista gravity observations on lines 8650N, 8900N, 9000N, 9050N, and 9100N. The afternoon was used to collect the remaining Chain+Level data on the Vista grid that contained errors from the previous collected data. This was decided to create better control on the elevation for post processing of the gravity data. The data were recollected on line 8850N, 8900N, 8950N, 9050N, and, 9100N. After completion of the Vista grid, John and Kevin moved over to the Mike grid to collect Chain+Level data on line 1475E across line 5150N, 5100N, 5050N, and 5000N to get better control on the elevation data. Upon arriving back into Blue River, gear was prepped for departure the following day. The gravity meter was dried off and the battery was plugged in to charge to ensure the meter had full charge to keep the operating temperature constant during its shipment back to Cochrane.

Sun, Oct 14, 2011 – Broken Hill – Kevin and John packed up the gear into two vehicles and departed Blue River for the Mike property at about 9:30am. It was decided to gather one more cross lines of Chain+Level data on the Mike grid again to obtain better control on the elevation data. Kevin and John collected Chain+Level data starting down line 5150N to 1700E, then over to 4900N on 1700E, and finally up 4900N to a control station designated by the DGPS. John and Kevin then departed to Vancouver making a quick stop on the way in Kamloops to courier the gravity meter to Cochrane and the Chain+Level instrument to GDD in Quebec City.

Survey Coverage: Mike Grid

Date	Line	Station	UTM-X	UTM-Y	Elevation
Sept 26 (23 Stations)	0	0	343416.00	5741198.00	1426.50
	4900	2000	346185.14	5741122.51	1610.679
	4950	2000	346158.77	5741161.49	1610.57
	4950	2025	346179.84	5741174.94	1616.80
	4950	2050	346200.92	5741188.40	1623.55
	4950	2075	346221.99	5741201.85	1628.91
	4950	2100	346243.06	5741215.30	1637.85
	4900	2100	346268.01	5741178.47	1634.56
	4900	2075	346247.29	5741164.48	1626.07
	4900	2075	346247.29	5741164.48	1626.07
	4900	2050	346226.58	5741150.49	1618.548
	4900	2025	346205.86	5741136.50	1612.833
	4900	2000	346185.14	5741122.51	1610.679
	4900	1975	346164.07	5741109.06	1605.09
	4900	1950	346142.99	5741095.61	1596.53
	4900	1925	346121.92	5741082.16	1589.67
	4900	1900	346100.84	5741068.71	1583.78
	4950	1900	346114.13	5741138.97	1586.91
	4950	1925	346093.09	5741125.47	1591.42
	4950	1950	346114.13	5741138.97	1599.64
	4950	1975	346136.45	5741150.23	1605.14
	4950	2000	346158.77	5741161.49	1610.57
	0	0	343416.00	5741198.00	1426.50
Sept 27 (33 Stations)	0	0	343416.00	5741198.00	1426.50
	4900	1875	346079.77	5741055.26	1580.30
	4900	1850	346058.69	5741041.81	1579.33
	4900	1825	346037.62	5741028.36	1580.64
	4900	1800	346016.54	5741014.91	1581.51
	4900	1775	345994.95	5741002.31	1584.24
	4900	1750	345973.36	5740989.72	1584.69
	4900	1725	345951.76	5740977.12	1585.35
	4900	1700	345930.17	5740964.52	1586.03
	4950	1700	345899.95	5741010.35	1581.44
	4950	1725	345921.94	5741022.25	1582.98
	4950	1750	345943.92	5741034.16	1582.20
	4950	1775	345965.91	5741046.06	1582.16
	4950	1800	345987.89	5741057.96	1580.32
	4950	1825	346008.93	5741071.46	1577.52
	4950	1875	346051.01	5741098.47	1582.86
	4950	2000	346158.77	5741161.49	1610.57
	5050	1975	346080.50	5741232.64	1606.52
	5050	2000	346101.73	5741245.83	1611.38
	5050	2025	346121.79	5741260.76	1617.31
	5050	2050	346141.84	5741275.69	1620.07
	5050	2075	346164.07	5741287.13	1627.97
	5050	2100	346186.30	5741298.57	1644.06
	5050	2125	346208.53	5741310.00	1656.56
	5050	2150	346230.76	5741321.44	1660.51

	5000	2150	346259.06	5741280.22	1658.53
	5000	2125	346237.20	5741268.10	1650.61
	5000	2100	346215.34	5741255.98	1641.31
	5000	2075	346193.47	5741243.85	1629.58
	5000	2050	346171.61	5741231.73	1617.75
	5000	2025	346151.34	5741217.10	1615.41
	5000	2000	346131.06	5741202.47	1611.29
	0	0	343416.00	5741198.00	1426.50
Sept 28 (44 Stations)	0	0	343416.00	5741198.00	1426.50
	5100	1875	345968.97	5741219.19	1603.50
	5100	1900	345989.57	5741233.36	1609.20
	5100	1925	346010.88	5741246.43	1613.48
	5100	1950	346032.20	5741259.49	1609.59
	5100	1975	346053.51	5741272.56	1610.06
	5100	2000	346074.82	5741285.62	1615.43
	5100	2025	346095.06	5741300.30	1620.96
	5100	2050	346115.30	5741314.98	1626.53
	5100	2075	346135.54	5741329.66	1630.41
	5100	2100	346157.23	5741342.09	1640.87
	5100	2125	346178.92	5741354.51	1651.71
	5100	2150	346200.61	5741366.94	1658.27
	5150	2150	346173.62	5741406.96	1653.21
	5150	2125	346152.14	5741394.18	1646.26
	5150	2100	346130.65	5741381.39	1641.07
	5150	2075	346109.17	5741368.61	1636.09
	5150	2050	346087.68	5741355.83	1631.29
	5150	2025	346066.20	5741343.04	1628.08
	5150	2000	346044.71	5741330.26	1618.66
	5150	1975	346023.59	5741316.89	1620.38
	5150	1950	346002.47	5741303.51	1614.58
	5150	1925	345981.35	5741290.14	1608.25
	5150	1900	345960.22	5741276.77	1606.46
	5150	1875	345939.10	5741263.39	1603.08
	5150	1850	345917.98	5741250.02	1600.88
	5100	1875	345968.97	5741219.19	1603.50
	5200	1825	345866.05	5741284.00	1596.10
	5200	1875	345910.97	5741305.97	1603.75
	5200	1900	345933.43	5741316.95	1604.87
	5200	1925	345955.34	5741328.99	1608.17
	5200	1950	345977.25	5741341.03	1617.56
	5200	1975	345999.16	5741353.07	1622.53
	5200	2000	346021.07	5741365.11	1630.45
	5200	2025	346042.13	5741378.58	1633.68
	5200	2050	346063.19	5741392.05	1637.79
	5200	2075	346084.26	5741405.52	1645.28
	5200	2100	346105.32	5741418.98	1648.20
	5200	2125	346126.38	5741432.45	1649.53
	5200	2150	346147.44	5741445.92	1651.20
	5150	2000	346044.71	5741330.26	1618.66
	5150	1875	345939.10	5741263.39	1603.08
	5100	1875	345968.97	5741219.19	1603.50

	0	0	343416.00	5741198.00	1426.50
Sept 29 (48 Stations)	0	0	343416.00	5741198.00	1426.50
	5000	1975	346109.92	5741189.13	1606.89
	5000	1950	346088.78	5741175.80	1601.13
	5000	1925	346067.63	5741162.46	1593.33
	5000	1900	346046.49	5741149.12	1588.27
	5000	1875	346024.23	5741137.75	1584.18
	5000	1850	346001.96	5741126.37	1580.33
	5000	1825	345979.70	5741115.00	1578.830
	5000	1800	345958.95	5741101.06	1576.20
	5000	1775	345938.20	5741087.11	1576.594
	5000	1750	345917.44	5741073.17	1579.06
	5000	1725	345896.69	5741059.22	1581.72
	5000	1700	345875.94	5741045.28	1582.33
	5000	1675	345854.61	5741032.26	1581.10
	5000	1650	345833.27	5741019.23	1581.38
	5000	1625	345812.59	5741005.18	1583.52
	5000	1600	345791.91	5740991.14	1585.77
	5000	1575	345771.23	5740977.09	1588.01
	5000	1550	345750.54	5740963.04	1588.87
	5000	1525	345729.86	5740948.99	1597.10
	5000	1500	345709.18	5740934.95	1599.79
	5000	1475	345688.50	5740920.90	1601.81
	5050	1475	345655.50	5740970.06	1591.07
	5050	1500	345676.83	5740983.10	1587.49
	5050	1525	345698.16	5740996.14	1583.58
	5050	1550	345719.49	5741009.18	1581.70
	5050	1575	345740.82	5741022.22	1580.93
	5050	1600	345762.15	5741035.25	1581.74
	5050	1625	345783.48	5741048.29	1581.88
	5050	1650	345804.81	5741061.33	1581.78
	5050	1675	345826.14	5741074.37	1581.70
	5050	1700	345846.42	5741088.99	1579.70
	5050	1725	345866.69	5741103.62	1576.672
	5050	1750	345886.97	5741118.24	1574.598
	5050	1775	345909.41	5741129.27	1572.82
	5050	1800	345931.85	5741140.29	1575.14
	5050	1825	345953.09	5741153.48	1582.61
	5050	1825	345953.09	5741153.48	1582.61
	5050	1850	345974.32	5741166.68	1590.72
	5050	1850	345974.32	5741166.68	1590.72
	5050	1875	345995.56	5741179.87	1601.60
	5050	1875	345995.56	5741179.87	1601.60
	5050	1900	346016.79	5741193.06	1603.41
	5050	1925	346038.03	5741206.25	1604.01
	5050	1950	346059.26	5741219.45	1602.54
	5050	1975	346080.50	5741232.64	1606.52
	5000	1975	346109.92	5741189.13	1606.89
	0	0	343416.00	5741198.00	1426.50
Sept 30	0	0	343416.00	5741198.00	1426.50
	5100	1875	345968.97	5741219.19	1603.501

(36 Stations)	5100	1850	345948.38	5741205.02	1601.493
	5100	1825	345927.78	5741190.85	1594.68
	5100	1800	345907.18	5741176.68	1581.51
	5100	1775	345885.65	5741163.97	1572.64
	5100	1750	345864.13	5741151.26	1570.243
	5100	1725	345842.60	5741138.55	1570.88
	5100	1700	345821.07	5741125.84	1572.014
	5100	1675	345801.18	5741110.70	1577.488
	5100	1650	345781.28	5741095.56	1580.785
	5100	1625	345761.39	5741080.42	1578.88
	5100	1600	345741.49	5741065.28	1578.29
	5100	1575	345720.65	5741051.47	1577.96
	5100	1550	345699.82	5741037.65	1578.25
	5100	1525	345678.98	5741023.84	1577.86
	5100	1500	345658.15	5741010.02	1581.03
	5100	1475	345637.31	5740996.21	1583.16
	5150	1475	345594.87	5741060.81	1570.80
	5150	1500	345616.25	5741073.76	1572.29
	5150	1525	345637.64	5741086.72	1569.96
	5150	1550	345659.02	5741099.67	1570.16
	5150	1575	345680.40	5741112.62	1568.71
	5150	1600	345702.59	5741124.15	1569.70
	5150	1625	345724.77	5741135.67	1569.08
	5150	1650	345745.16	5741150.14	1568.13
	5150	1675	345765.55	5741164.60	1565.99
	5150	1700	345788.35	5741174.87	1567.03
	5150	1725	345811.14	5741185.14	1565.98
	5150	1750	345832.51	5741198.12	1567.86
	5150	1775	345853.88	5741211.09	1571.93
	5150	1800	345875.24	5741224.07	1586.33
	5150	1825	345896.61	5741237.04	1594.80
	5150	1850	345917.98	5741250.02	1600.87
	5100	1875	345939.10	5741263.39	1603.08
	0	0	343416.00	5741198.00	1426.50

Total: 184 Stations

Survey Coverage: Vista Grid

Date	Line	Station	UTM-X	UTM-Y	Elevation
Oct 01 (24 Station)	0	0	343416.000	5741198.000	1429.750
	9250	2350	344251.193	5745874.837	1447.768
	9250	2325	344230.497	5745860.813	1444.068
	9250	2300	344209.800	5745846.790	1439.775
	9250	2275	344188.816	5745833.198	1436.034
	9250	2250	344167.832	5745819.606	1430.958
	9250	2225	344146.848	5745806.014	1426.124
	9250	2200	344125.864	5745792.422	1418.239
	9250	2175	344104.880	5745778.830	1410.057
	9300	2200	344097.450	5745835.340	1412.497
	9300	2225	344118.733	5745848.455	1419.820
	9300	2250	344140.015	5745861.570	1427.047
	9300	2275	344161.298	5745874.685	1434.171
	9300	2300	344182.580	5745887.800	1439.777
	9300	2325	344203.573	5745901.373	1447.402
	9300	2350	344224.567	5745914.947	1455.147
	9300	2375	344245.560	5745928.520	1465.037
	9300	2400	344264.530	5745944.810	1475.504
	9250	2450	344333.980	5745930.930	1476.270
	9250	2425	344313.283	5745916.907	1468.839
	9250	2400	344292.587	5745902.883	1461.154
	9250	2375	344271.890	5745888.860	1453.805
	9250	2350	344251.193	5745874.837	1447.768
	0	0	343416.000	5741198.000	1429.750
Oct 02 (29 Stations)	0	0	343416.000	5741198.000	1429.750
	8850	2550	344642.670	5745656.220	1455.273
	8850	2575	344662.870	5745670.950	1460.515
	8850	2600	344683.070	5745685.680	1471.903
	8800	2600	344711.200	5745646.800	1450.603
	8800	2575	344690.885	5745632.230	1448.926
	8800	2550	344670.570	5745617.660	1443.570
	8800	2525	344650.255	5745603.090	1442.271
	8800	2500	344629.940	5745588.520	1447.915
	8800	2475	344607.523	5745577.450	1450.058
	8800	2450	344585.107	5745566.380	1449.601
	8800	2425	344562.690	5745555.310	1450.549
	8800	2400	344542.715	5745540.280	1450.450
	8800	2375	344522.740	5745525.250	1450.355
	8800	2350	344501.345	5745512.315	1451.457
	8800	2325	344479.950	5745499.380	1453.574
	8800	2300	344459.100	5745485.585	1455.001
	8850	2300	344434.817	5745517.601	1458.983
	8850	2325	344455.521	5745531.614	1458.425
	8850	2350	344476.226	5745545.627	1456.345
	8850	2375	344496.930	5745559.640	1453.542
	8850	2400	344517.990	5745573.110	1454.389
	8850	2425	344539.050	5745586.580	1453.863
	8850	2450	344559.227	5745601.340	1450.871

	8850	2475	344579.403	5745616.100	1448.768
	8850	2500	344599.580	5745630.860	1447.407
	8850	2525	344621.125	5745643.540	1448.610
	8850	2550	344642.670	5745656.220	1455.273
	0	0	343416.000	5741198.000	1429.750
Oct 03 (32 Stations)	0	0	343416.000	5741198.000	1429.750
	9150	2400	344349.070	5745817.697	1454.628
	9150	2425	344370.260	5745830.961	1458.782
	9150	2450	344391.450	5745844.226	1463.443
	9150	2475	344412.640	5745857.490	1471.106
	9200	2475	344382.740	5745902.670	1470.787
	9200	2450	344361.911	5745888.843	1464.365
	9200	2425	344341.083	5745875.016	1459.219
	9200	2400	344320.254	5745861.189	1454.629
	9200	2375	344299.426	5745847.361	1450.229
	9200	2350	344278.597	5745833.534	1448.035
	9200	2325	344257.769	5745819.707	1445.782
	9200	2300	344236.940	5745805.880	1443.772
	9200	2275	344216.113	5745792.052	1441.929
	9200	2250	344195.287	5745778.223	1438.871
	9200	2225	344174.460	5745764.395	1433.911
	9200	2200	344153.633	5745750.567	1427.534
	9200	2175	344132.807	5745736.738	1418.404
	9200	2150	344111.980	5745722.910	1409.707
	9150	2125	344117.510	5745669.360	1412.168
	9150	2150	344138.481	5745682.971	1420.447
	9150	2175	344159.453	5745696.583	1428.641
	9150	2200	344180.424	5745710.194	1434.553
	9150	2225	344201.396	5745723.806	1435.905
	9150	2250	344222.367	5745737.417	1441.020
	9150	2275	344243.339	5745751.029	1444.072
	9150	2300	344264.310	5745764.640	1446.307
	9150	2325	344285.500	5745777.904	1447.566
	9150	2350	344306.690	5745791.169	1449.578
	9150	2375	344327.880	5745804.433	1451.988
	9150	2400	344349.070	5745817.697	1454.608
	0	0	343416.000	5741198.000	1429.750
Oct 05 (31 Stations)	0	0	343416.000	5741198.000	1429.750
	9000	2500	344512.910	5745751.710	1464.278
	9000	2475	344492.083	5745737.883	1456.477
	9000	2450	344471.255	5745724.055	1454.662
	9000	2425	344450.428	5745710.228	1455.191
	9000	2400	344429.600	5745696.400	1454.966
	9000	2375	344408.773	5745682.573	1455.231
	9000	2350	344387.945	5745668.745	1458.185
	9000	2325	344367.118	5745654.918	1459.272
	9000	2300	344346.290	5745641.090	1459.987
	8950	2275	344355.423	5745585.515	1457.698
	8950	2300	344376.730	5745598.590	1456.943
	8950	2325	344397.454	5745612.569	1456.705
	8950	2350	344418.178	5745626.548	1455.785

	8950	2375	344438.901	5745640.526	1454.801
	8950	2400	344459.625	5745654.505	1454.067
	8950	2425	344480.349	5745668.484	1453.202
	8950	2450	344501.073	5745682.463	1452.789
	8950	2475	344521.796	5745696.441	1452.683
	8950	2500	344542.520	5745710.420	1456.122
	9000	2475	344492.083	5745737.883	1456.487
	8950	2550	344583.150	5745739.560	1479.712
	8900	2500	344571.660	5745669.790	1452.141
	8900	2475	344550.826	5745655.972	1449.890
	8900	2450	344529.992	5745642.153	1451.655
	8900	2425	344509.158	5745628.335	1454.142
	8900	2400	344488.323	5745614.517	1454.400
	8900	2375	344467.489	5745600.698	1455.834
	8900	2350	344446.655	5745586.880	1456.159
	9000	2475	344492.083	5745737.883	1456.477
	0	0	343416.000	5741198.000	1429.760
Oct 06 (49 Stations)	0	0	343416.000	5741198.000	1429.760
	8750	2600	344741.710	5745607.150	1441.582
	8750	2575	344721.393	5745592.580	1438.056
	8750	2550	344701.075	5745578.010	1436.842
	8750	2525	344680.758	5745563.440	1437.118
	8750	2500	344660.440	5745548.870	1437.804
	8750	2475	344639.550	5745535.137	1440.140
	8750	2450	344618.660	5745521.403	1441.396
	8750	2425	344597.770	5745507.670	1444.365
	8750	2400	344576.880	5745493.937	1444.803
	8750	2375	344555.990	5745480.203	1449.217
	8750	2350	344535.100	5745466.470	1451.981
	8750	2325	344513.697	5745453.553	1448.771
	8750	2300	344492.293	5745440.637	1448.089
	8700	2300	344521.580	5745403.245	1431.129
	8700	2325	344542.480	5745416.964	1433.883
	8700	2350	344563.380	5745430.683	1435.735
	8700	2375	344584.280	5745444.401	1435.071
	8700	2400	344605.180	5745458.120	1435.264
	8700	2425	344626.828	5745470.628	1434.409
	8700	2450	344648.475	5745483.135	1433.352
	8700	2475	344670.123	5745495.643	1434.047
	8700	2500	344691.770	5745508.150	1434.303
	8750	2500	344660.440	5745548.870	1437.804
	8700	2525	344712.085	5745522.720	1435.188
	8700	2550	344732.400	5745537.290	1435.406
	8700	2575	344752.715	5745551.860	1435.011
	8700	2600	344773.030	5745566.430	1433.856
	8650	2600	344802.610	5745527.970	1433.987
	8650	2575	344782.290	5745513.410	1435.982
	8650	2550	344761.970	5745498.850	1435.711
	8650	2525	344741.650	5745484.290	1432.420
	8650	2500	344721.330	5745469.730	1430.456
	8650	2475	344700.708	5745455.596	1428.739

	8650	2450	344680.086	5745441.462	1428.756
	8650	2425	344659.464	5745427.328	1428.675
	8650	2400	344638.842	5745413.194	1428.529
	8650	2375	344618.220	5745399.060	1426.132
	8650	2350	344597.190	5745385.540	1422.048
	8650	2325	344576.160	5745372.020	1418.320
	8650	2300	344555.130	5745358.500	1414.580
	8650	2275	344534.100	5745344.980	1412.995
	8750	2500	344660.440	5745548.870	1437.814
	9050	2450	344444.798	5745763.918	1458.362
	9050	2500	344486.530	5745791.450	1475.425
	9050	2475	344465.664	5745777.684	1466.367
	9100	2425	344397.196	5745790.371	1457.331
	8650	2275	344534.100	5745344.980	1412.995
	0	0	343416.000	5741198.000	1429.730
Oct 11 (32 Stations)	0	0	343416.000	5741198.000	1429.910
	9150	2400	344349.070	5745817.697	1454.768
	9150	2375	344327.880	5745804.433	1452.108
	9150	2350	344306.690	5745791.169	1449.748
	9150	2325	344285.500	5745777.904	1447.716
	9150	2300	344264.310	5745764.640	1446.487
	9100	2300	344291.410	5745723.800	1451.166
	9100	2325	344312.567	5745737.114	1452.486
	9100	2350	344333.724	5745750.429	1453.481
	9100	2375	344354.881	5745763.743	1454.211
	9100	2400	344376.039	5745777.057	1456.464
	9100	2425	344397.196	5745790.371	1457.466
	9150	2400	344349.070	5745817.697	1454.778
	9100	2175	344187.616	5745654.150	1434.509
	9100	2200	344208.375	5745668.080	1440.454
	9100	2225	344229.134	5745682.010	1443.685
	9100	2250	344249.893	5745695.940	1446.561
	9100	2275	344270.651	5745709.870	1449.892
	9050	2300	344319.600	5745681.320	1456.472
	9050	2275	344298.774	5745667.494	1455.731
	9050	2250	344277.948	5745653.668	1453.198
	9050	2225	344257.121	5745639.841	1449.717
	9050	2200	344236.295	5745626.015	1447.430
	9050	2175	344215.469	5745612.189	1443.858
	9050	2150	344194.643	5745598.363	1433.332
	9050	2125	344173.816	5745584.536	1428.022
	9100	2175	344187.616	5745654.150	1434.509
	9000	2100	344177.040	5745534.530	1434.872
	9000	2125	344198.196	5745547.850	1434.168
	9000	2150	344219.353	5745561.170	1438.230
	9000	2100	344177.040	5745534.530	1434.872
	0	0	343416.000	5741198.000	1429.910
Oct 12 (52 Stations)	0	0	343416.000	5741198.000	1429.910
	8600	2325	344606.230	5745327.220	1414.319
	8700	2200	344437.980	5745348.370	1423.554
	8700	2225	344458.880	5745362.089	1424.313

	8700	2250	344479.780	5745375.808	1427.658
	8700	2275	344500.680	5745389.526	1428.798
	8700	2300	344521.580	5745403.245	1431.269
	8750	2300	344492.293	5745440.637	1448.244
	8750	2275	344470.890	5745427.720	1446.963
	8750	2250	344450.048	5745413.915	1447.048
	8750	2225	344429.205	5745400.110	1442.922
	8750	2200	344408.363	5745386.305	1437.636
	8750	2175	344387.520	5745372.500	1429.449
	8700	2200	344437.980	5745348.370	1423.554
	8800	2125	344311.640	5745391.380	1432.207
	8800	2150	344332.868	5745404.585	1435.365
	8800	2175	344354.095	5745417.790	1444.096
	8800	2200	344375.323	5745430.995	1453.102
	8800	2225	344396.550	5745444.200	1460.228
	8800	2250	344417.400	5745457.995	1461.151
	8800	2275	344438.250	5745471.790	1458.111
	8800	2300	344459.100	5745485.585	1455.161
	8850	2300	344434.817	5745517.601	1459.153
	8850	2275	344414.113	5745503.589	1461.615
	8850	2250	344393.409	5745489.576	1465.461
	8850	2225	344372.704	5745475.563	1460.017
	8850	2200	344352.000	5745461.550	1454.372
	8850	2175	344330.680	5745448.493	1449.852
	8850	2150	344309.360	5745435.437	1445.730
	8850	2125	344288.040	5745422.380	1435.185
	8800	2125	344311.640	5745391.380	1432.207
	8900	2100	344238.080	5745449.450	1433.890
	8900	2125	344258.085	5745464.440	1434.343
	8900	2175	344299.870	5745491.700	1454.277
	8900	2200	344321.650	5745503.970	1455.941
	8900	2225	344342.484	5745517.788	1457.795
	8900	2250	344363.318	5745531.607	1458.235
	8900	2275	344384.153	5745545.425	1458.283
	8900	2300	344404.987	5745559.243	1457.341
	8900	2325	344425.821	5745573.062	1456.988
	8900	2350	344446.655	5745586.880	1456.319
	8950	2275	344355.423	5745585.515	1457.848
	8950	2250	344334.115	5745572.440	1457.881
	8950	2225	344312.808	5745559.365	1457.694
	8950	2200	344291.500	5745546.290	1458.054
	8950	2175	344270.878	5745532.158	1451.691
	8950	2150	344250.255	5745518.025	1442.134
	8950	2125	344229.633	5745503.893	1437.319
	8950	2100	344209.010	5745489.760	1435.286
	8900	2100	344238.080	5745449.450	1433.890
	8600	2325	344606.230	5745327.220	1414.319
	0	0	343416.000	5741198.000	1429.910
Oct 13 (19 Stations)	0	0	343416.000	5741198.000	1429.910
	9050	2400	344403.065	5745736.385	1456.041
	9050	2375	344382.199	5745722.619	1455.645

	9050	2350	344361.333	5745708.853	1455.770
	9050	2325	344340.466	5745695.086	1456.402
	9000	2275	344325.134	5745627.770	1461.053
	9000	2250	344303.978	5745614.450	1458.555
	9000	2225	344282.821	5745601.130	1454.123
	9000	2200	344261.665	5745587.810	1453.022
	9000	2175	344240.509	5745574.490	1448.249
	9050	2100	344152.990	5745570.710	1424.541
	9000	2125	344198.196	5745547.850	1434.138
	9100	2450	344418.353	5745803.686	1463.865
	9100	2475	344439.510	5745817.000	1470.309
	8900	2525	344591.975	5745684.360	1458.185
	9050	2400	344403.065	5745736.385	1456.046
	8650	2250	344513.070	5745331.460	1411.233
	8650	2225	344492.040	5745317.940	1409.339
	0	0	343416.000	5741198.000	1429.910

Total: 268 Stations

Appendix C: CG-5 AUTOGRAV Accident

On October 7th, 2011, during the acquisition of gravity observations over the Broken Hill Project, for Renaissance Geological Services Inc., an accident with the gravity meter occurred on line 9100N after recording the gravity observation at station 2150E. The operator attempted to walk down the line towards station 2125E and slipped/tripped on uncut bush and fell forward downhill into an uncut log. As a result, the CG-5 Autograv landed sharply on the other side of the log causing some damage to the equipment as displayed in the photos below.

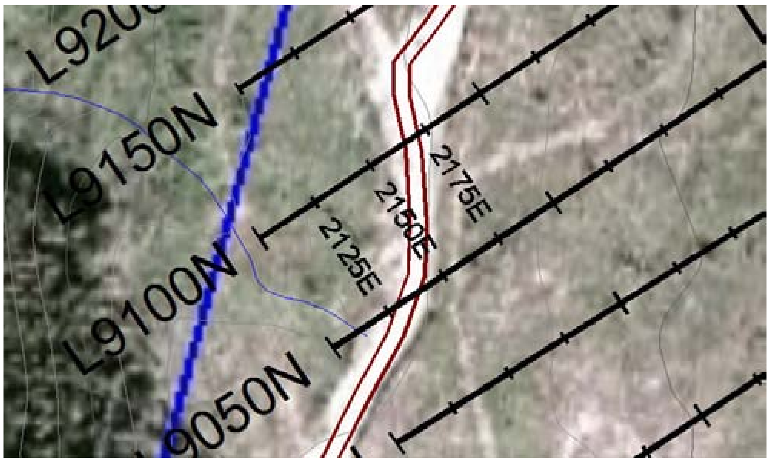


Photo 1: Line 9100N, station 9175E picket on the east side of the road.

Photo 2: Looking west from station 2175E to station 2150E. Note flagging marking line 9100N.

Photo 3: Looking from road down toward station 2150E picket, located past the flagging at the edge of the thick brush.

Photo 4: Picket at station 2150E. Line 9100N continues down into the brush with nothing cut or cleared.

Photo 5: Location where the slip took place.

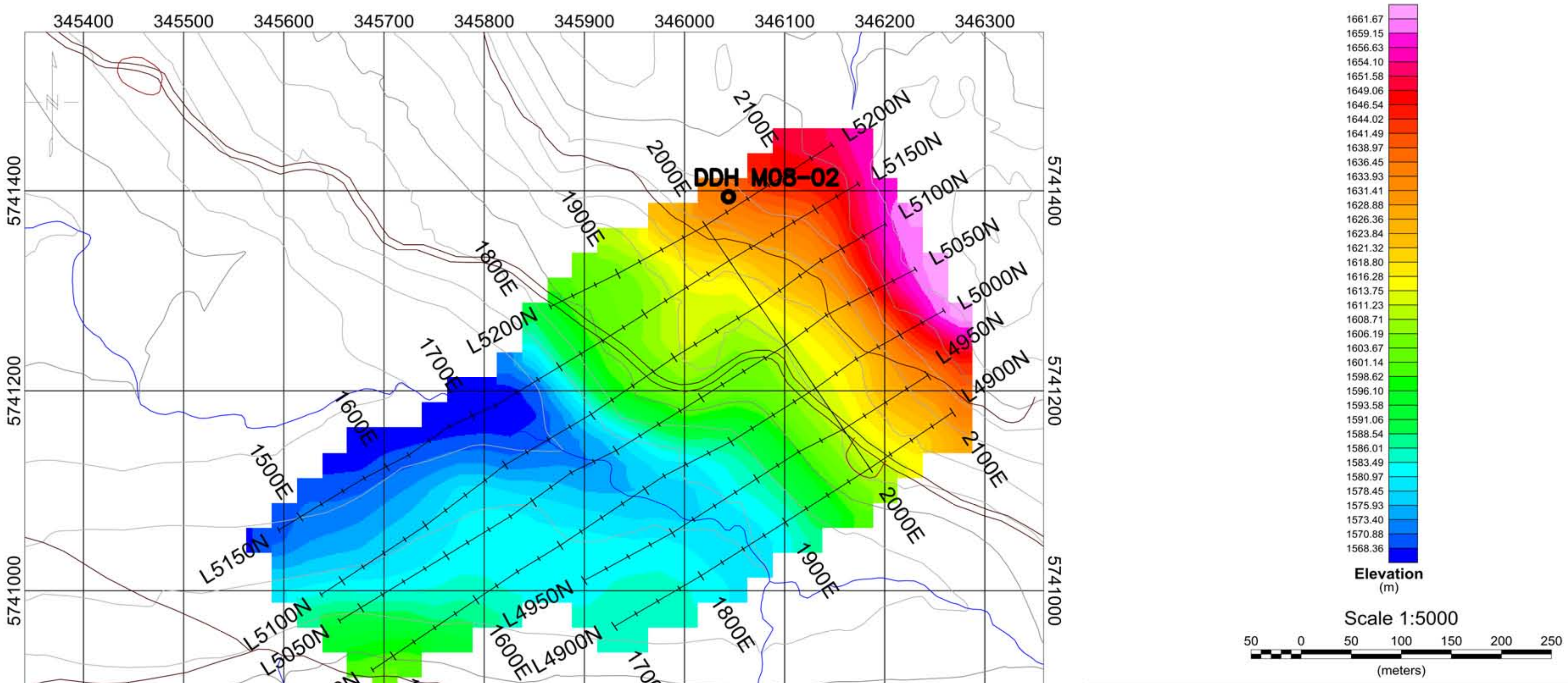
Photo 6: Looking down at the landing site.

Photo 7: Looking back up from where CG-5 Autograv landed.

Photo 8: Looking further along line 9100N towards the next station at 2125E. Note that the line is flagged only.

Photo 9: The external damage to the CG-5 Autograv.

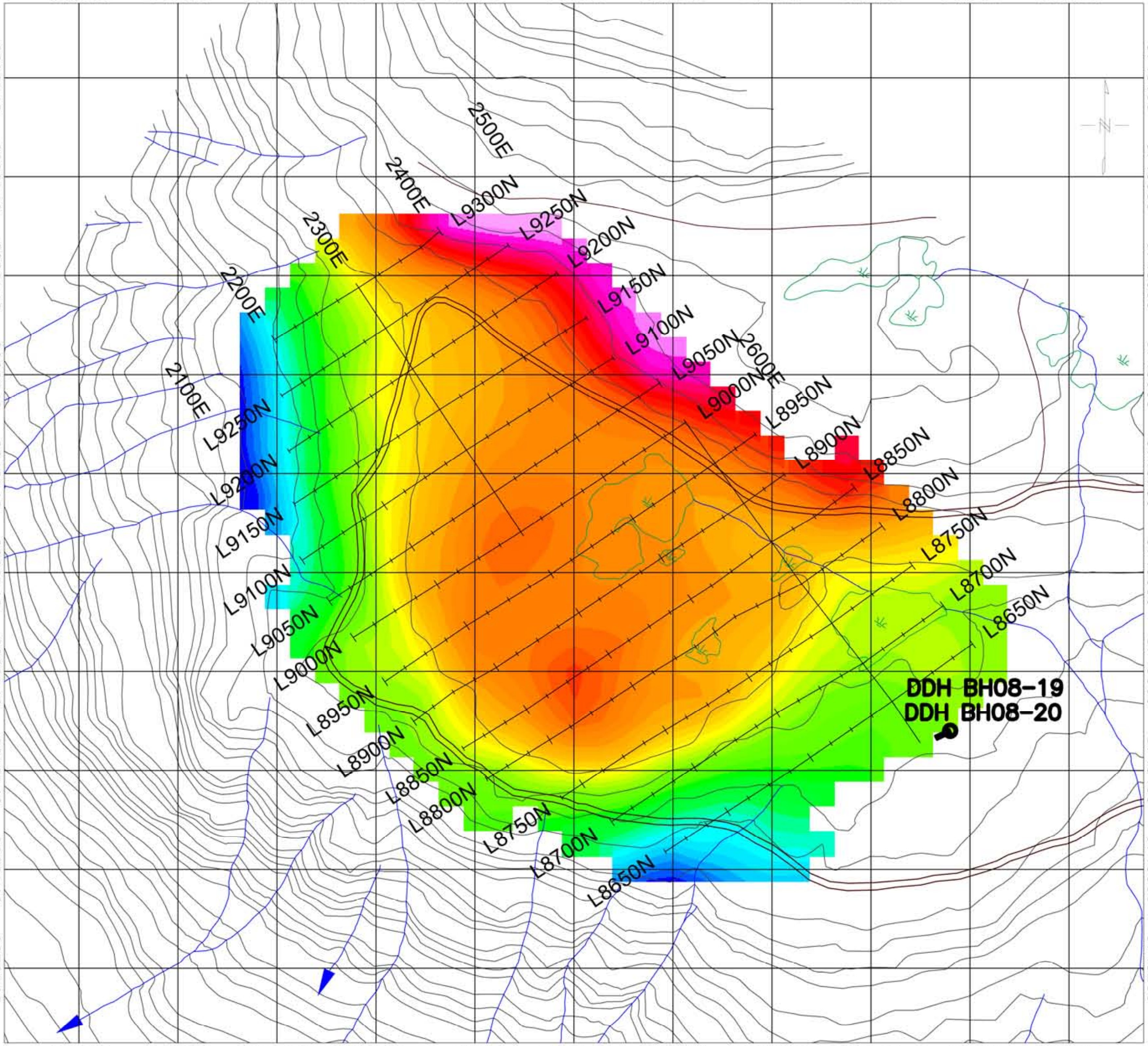
Appendix D: Elevation Maps



Renaissance Geoscience Service Inc.

Avola - Broken Hill - Mike Project
Gravity Survey
Elevation Plot

Discovery
International Geophysics



1476.81
1474.66
1472.51
1470.36
1468.21
1466.06
1463.91
1461.76
1459.61
1457.46
1455.32
1453.17
1451.02
1448.87
1446.72
1444.57
1442.42
1440.27
1438.12
1435.97
1433.82
1431.68
1429.53
1427.38
1425.23
1423.08
1420.93
1418.78
1416.63
1414.48
1412.33
1410.19
1408.04
1405.89
1403.74
1401.59
1399.44
1397.29

Elevation
(m)

Scale 1:5000

50 0 50 100 150 200 250 300
(meters)

Renaissance Geoscience Service Inc.

Avola - Broken Hill - Vista Project
Gravity Survey
Elevation Plot

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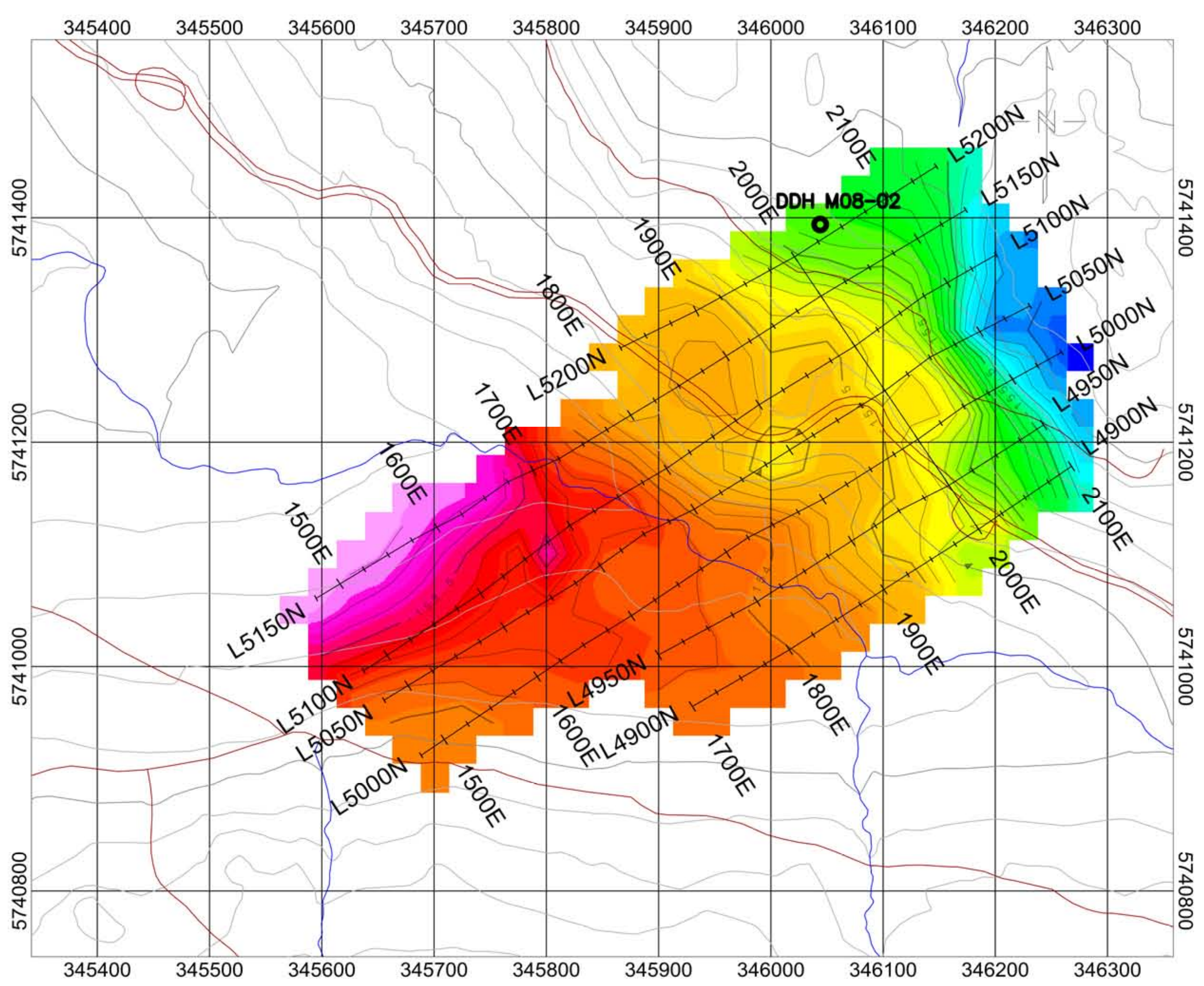
Appendix E: Simple Bouguer Gravity Maps



PROCESSING HISTORY

Note: steps 1-5 were performed using the GravMaster Software package.

1) Instrument value converted to MilliGals and shifted to absolute gravity (980798.19 mGals at control station #9171-75 in Avola, B.C

2) Add tide correction based on the program of W.Dewhurst.

3) Subtract drift correction based on differences in repeat gravity observations

4) Subtract theoretical gravity from each station using 1998 NIMA formula

5) Add free air correction and subtract Bouguer correction based on Density 2.70 gm/cc

Scale 1:5000

50 0 50 100 150 200 250

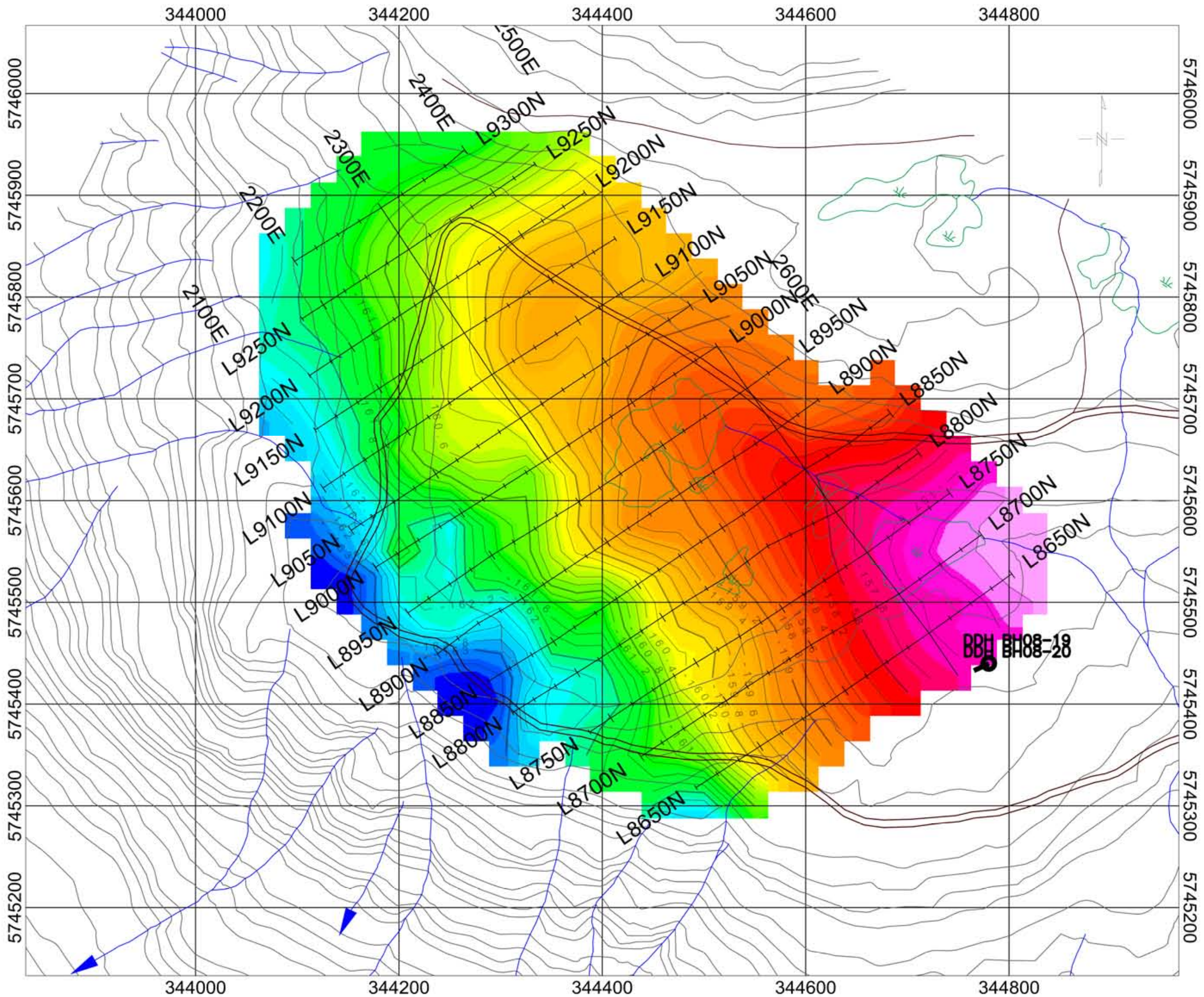
(meters)

Bourguer Gravity
(mGal)

Renaissance Geoscience Service Inc.

Avola - Broken Hill - Mike Project
Gravity Survey
Simple Bouguer 2.7 gm/cc Plot

Discovery International Geophysics



PROCESSING HISTORY

Note: steps 1-5 were performed using the GravMaster software package.

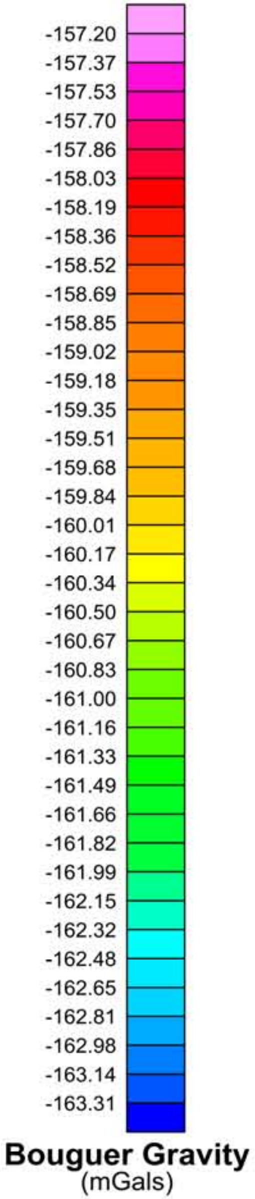
1) Instrument value converted to milliGals and shifted to absolute gravity (980798.19 mGals at control station #9471-75 in Avola, B.C)

2) Add tide correction based on the program of W. Dewhurst.

3) Subtract drift correction based on differences in repeat gravity observations

4) Subtract theoretical gravity from each station using 1998 NIMA formula

5) Add free air correction and subtract Bouguer correction based on density 2.70 gm/cc.



Scale 1:5000

50 0 50 100 150 200 250 300

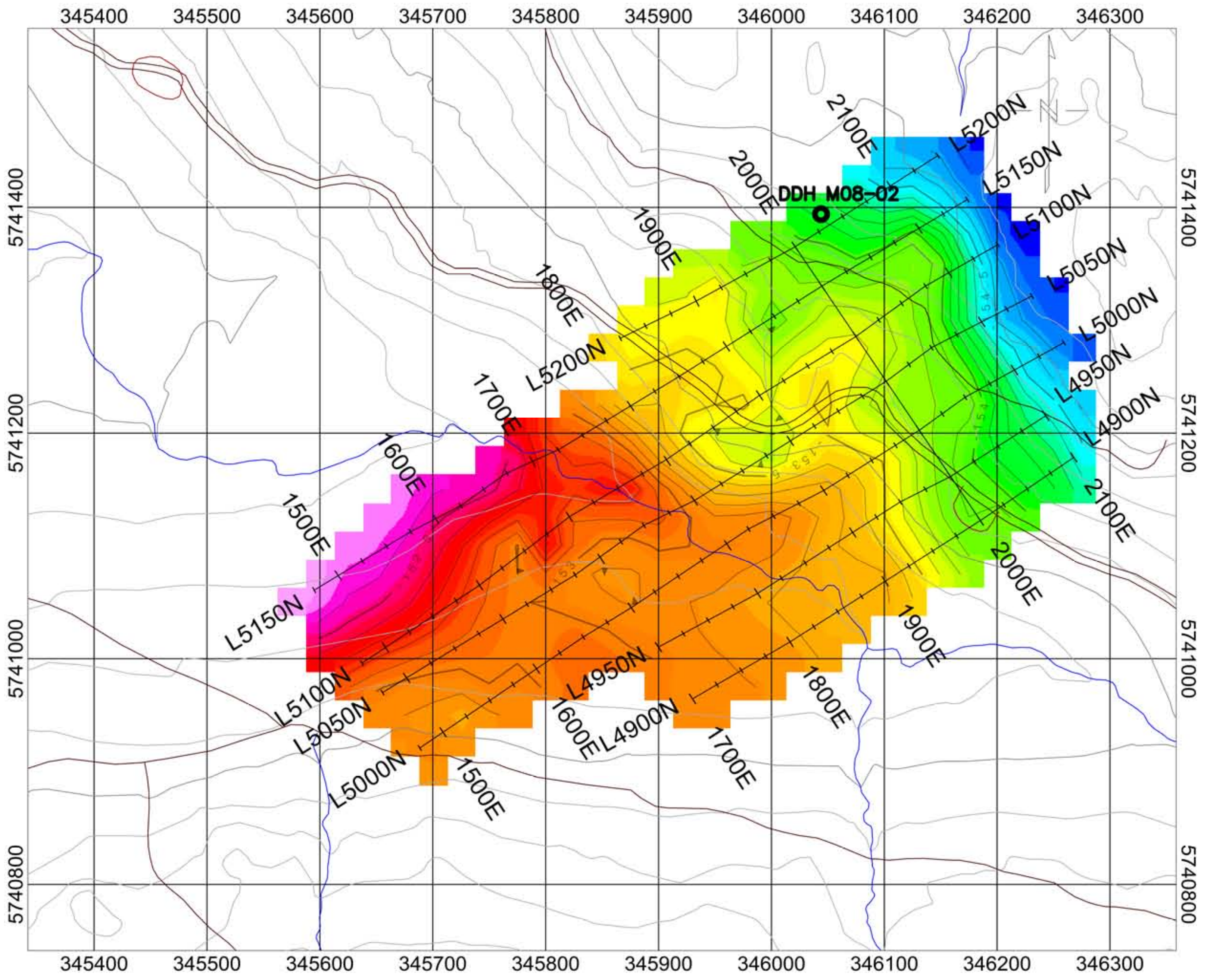
(meters)

Renaissance Geoscience Service Inc.

Avola - Broken Hill - Vista Project
Gravity Survey
Simple Bouguer 2.7 gm/cc Plot

Discovery International Geophysics

Appendix F: Complete Bouguer Gravity Maps



PROCESSING HISTORY

Note: steps 1-5 were performed using the GravMaster Software package.

1) Instrument value converted to MilliGals and shifted to absolute gravity (980798.19 mGals at control station #9171-75 in Avola, B.C
2) Add tide correction based on the program of W.Dewhurst.
3) Subtract drift correction based on differences in repeat gravity observations
4) Subtract theoretical gravity from each station using 1998 NIMA formula
5) Add free air correction and subtract Bouguer correction based on Density 2.70 gm/cc
6) Add near-station terrain correction using field slope measurment with sloping wedge technique (Barrows and Fett, 1991)
7) Add ineer and outer zone terrain corrections using Cogbill (1990) DEM, integrated surface, terain correction algorithm

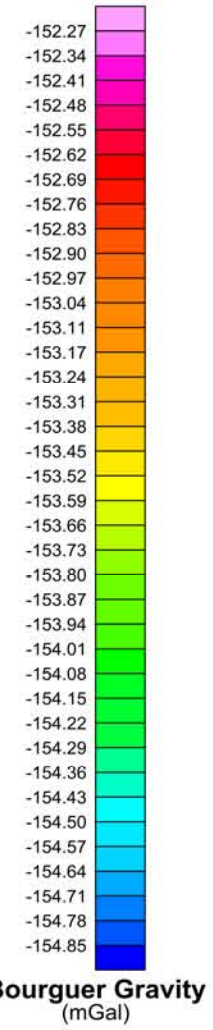
Barrows, L J and Fett, J.D., 1991, A sloping wedge technique for calculatin gravity terrain correction, Geophysics, Vol.56, No.7, p.1061-1063

Cogbill, A.H., 1990, Gravity terrain corrections using digital elevation models, Geophysics, Vol.55, No.1, p.102-106

Scale 1:5000

50 0 50 100 150 200 250

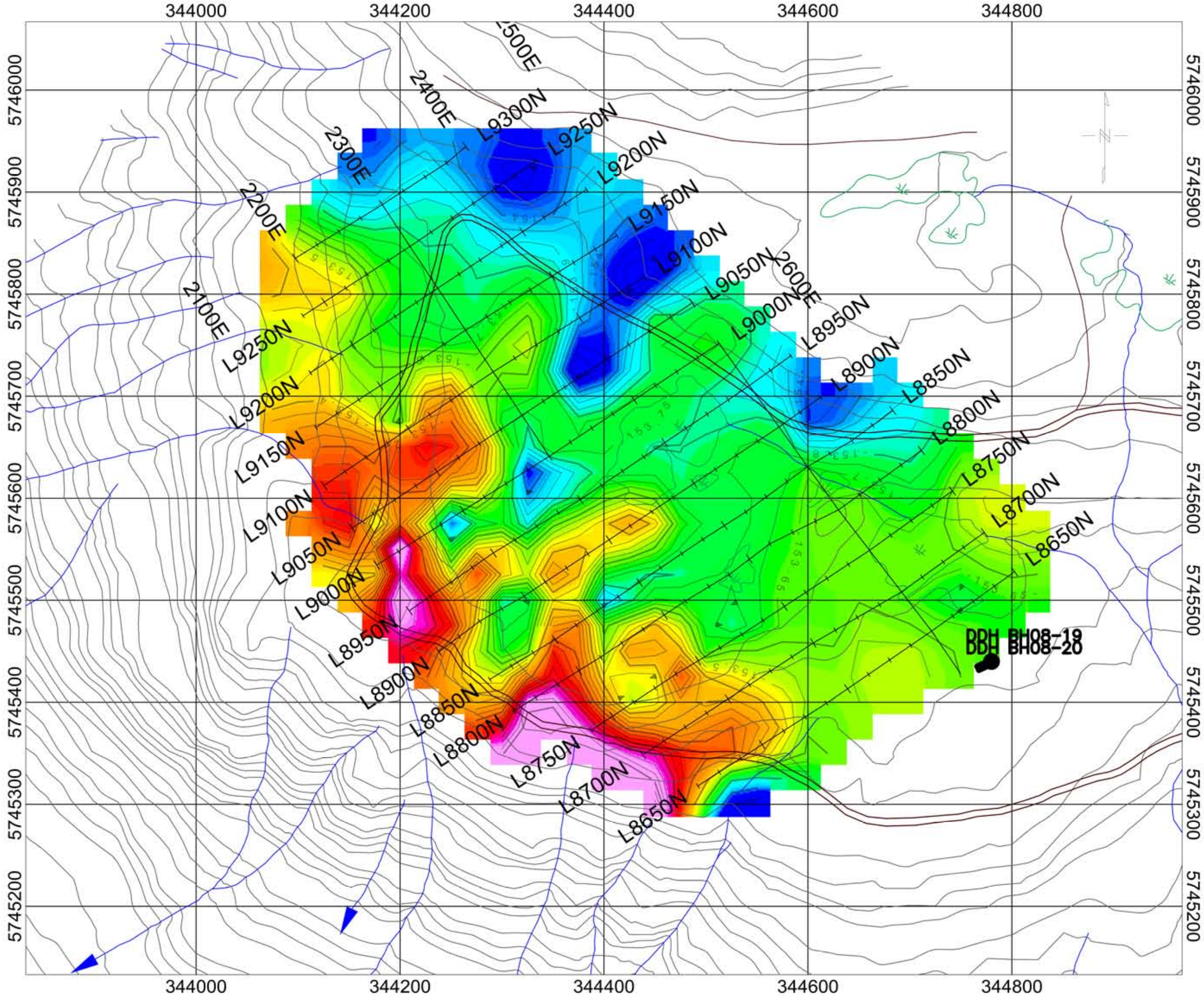
(meters)



Renaissance Geoscience Service Inc.

Avola - Broken Hill - Mike Project
Gravity Survey
Complete Bouguer 2.7 gm/cc Plot

Discovery International Geophysics



PROCESSING HISTORY

Note: steps 1-5 were performed using the GravMaster software package.

1) Instrument value converted to milliGals and shifted to absolute gravity (980798.19 mGals at control station #9471-75 in Avola, B.C)

2) Add tide correction based on the program of W. Dewhurst.

3) Subtract drift correction based on differences in repeat gravity observations

4) Subtract theoretical gravity from each station using 1998 NIMA formula

5) Add free air correction and subtract Bouguer correction based on density 2.70 gm/cc.

6) Add near-station terrain correction using field slope measurment with sloping wedge technique (Barrows and Fett, 1991)

7) Add inner and outer zone terrain corrections using Cogbill (1990) DEM, integrated surface, terrain correction algorithm.

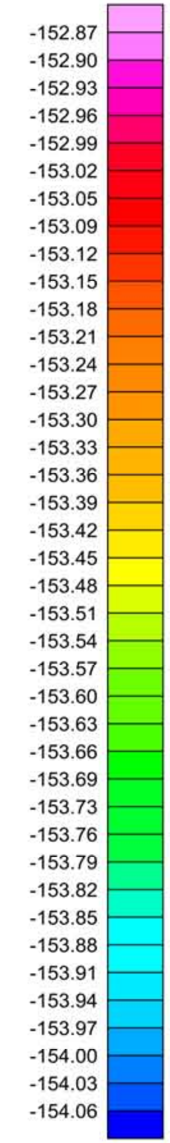
Barrows, L J and Fett, J.D., 1991, A sloping wedge technique for calculating gravity terrain correction, Geophysics, Vol.56, No.7, p.1061-1063

Cogbill, A.H., 1990, Gravity terrain corrections using digital elevation models, Geophysics, Vol.55, No.1, p.102-106

Scale 1:5000

50 0 50 100 150 200 250 300

(meters)

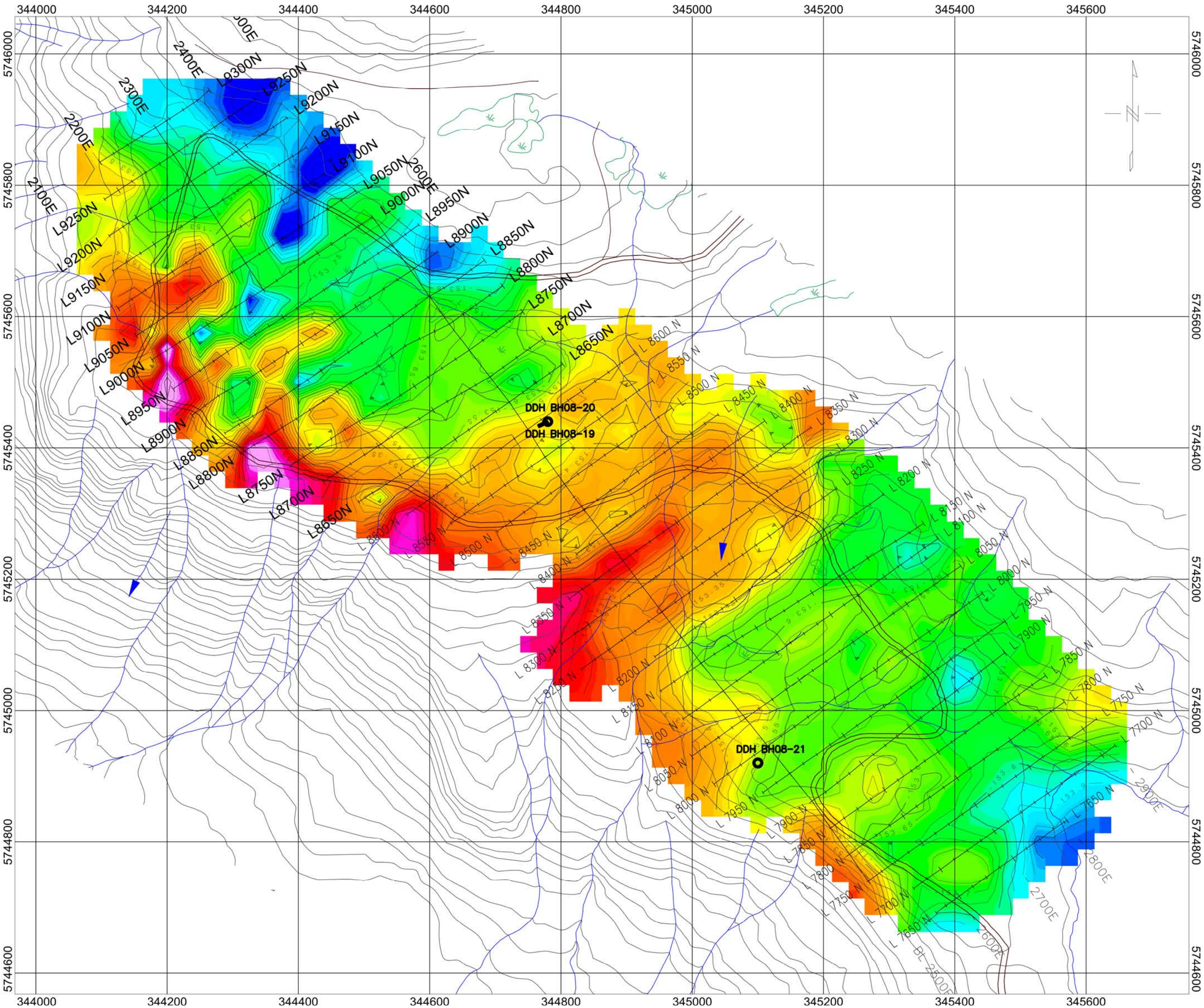


Bouguer Gravity
(mGals)

Renaissance Geoscience Service Inc.

Avola - Broken Hill - Vista Project
Gravity Survey
Complete Bouguer 2.7 gm/cc Plot

Discovery
International Geophysics



-152.87
-152.90
-152.93
-152.96
-152.99
-153.02
-153.05
-153.09
-153.12
-153.15
-153.18
-153.21
-153.24
-153.27
-153.30
-153.33
-153.36
-153.39
-153.42
-153.45
-153.48
-153.51
-153.54
-153.57
-153.60
-153.63
-153.66
-153.69
-153.73
-153.76
-153.79
-153.82
-153.85
-153.88
-153.91
-153.94
-153.97
-154.00
-154.03
-154.06

Bouguer Gravity
(mGals)

Scale 1:5000

100 0 100 200 300
(meters)

Renaissance Geoscience Service Inc.

Avola - Broken Hill - Vista Project
Gravity Survey
Complete Bouguer 2.7 gm/cc Plot

Discovery International Geophysics