ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE: GEOPHYSICAL AND GEOLOGICAL REPORT on the WEST VALLEY PROPERTY

TOTAL COST: $ 150,437.57

AUTHOR(S): Dan Meldrum, M.Sc., GIT

SIGNATURE(S): *"Dan Meldrum"*

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): No permit was required see correspondence file # 14675-20 / 1620810 (Ann Brunke dated Sept 21, 2009)

STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): 4540894

YEAR OF WORK: 2009

PROPERTY NAME: West Valley

CLAIM NAMES (on which work was done): 532667, 544901, 544902, 544903, 544905, 557380, 559581, 566312, 568146, 568147, 568148, 568149, 570358, 570359, 570360, 582066, 587379, 587380, 587382, 587383, 587384, 587385, 587386, 587387, 587388, 587389, 587390, 589580, 589581, 589723 , 589725, 589726, 589728, 589892, 589893, 589896, 589897, 589898, 589900, 589901, 589902 , 590283, 590284, 590285, 590286, 590287, 590949, 590952, 590953, 664743, 664864

COMMODITIES SOUGHT: Copper, Molybdenum, Gold, Rhenium

MINFILE NUMBERS: 092ISW 003, 006, 007, 018, 019, 024, 034, 044, 070

MINING DIVISION: Kamloops

NTS / BCGS: 092I/036, 046

LATITUDE: 50° 20' 20'' N **LONGITUDE:** 121° 05' 15'' W (at centre of work)

UTM: East: 635500; North: 5579300; Zone 10N

OWNER(S): Happy Creek Minerals Ltd. (FMC 203169)

MAILING ADDRESS: #460 – 789 West Pender St.; Vancouver, B.C.; V6C 1H2

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

MAILING ADDRESS: Same as above

REPORT KEYWORDS: .
The West Valley property is underlain by granodiorite, quartz diorite, quartz monzonite, and crowded quartz feldspar porphyry dykes. These lithologies are tentatively assigned to the Bethsaida, Skeena, Chataway and Border phases of the Upper Triassic - Lower Jurassic Guichon Creek batholith, a multi-phase calc-alkaline intrusion which hosts the Valley Copper and Lornex deposits to the north.

PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 158, 160, 230, 231, 407, 624, 625, 780, 786, 853, 1088, 1944, 2085, 2087, 2088, 2119, 2120, 2172, 2385, 2488, 2613, 2761, 3181, 3322, 4584, 5756, 6327, 6851, 7405, 9813, 10553, 30779.

TYPE OF WORK IN THIS REPORT	EXTENTOF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)	1:30K, 8,536.19 ha	all	$5,387.22
Ground, mapping	8,536.19 ha		
Photo interpretation	0 km		
GEOPHYSICAL (line-kilometres)	11 km	568146, 568147, 568148, 568149	$133,807.08
Ground	11 km		
Magnetic	11 km		
Electromagnetic	0 km		
Induced Polarization	11 km		
Radiometric	0 km		
Seismic	0 km		
Other	0 km		
Airborne	0 km		
GEOCHEMICAL			
Soil			
Silt			
Rock		568147, 568148, 582066, 589580, 589581	$5,387.22
Other	0		
DRILLING (total metres, number of holes, size, storage location)	0		
Core	0		
Non-core	0		
RELATED TECHNICAL			
Sampling / Assaying		544905, 557380, 559581, 566312, 568146, 568147, 568148, 568149, 570360, 582066, 587389, 587390, 589580 590949, 664864	$468.84
Petrographic	0		
Mineralographic	0		
Metallurgic	0		
PROSPECTING (scale/area)	8,536.19 ha	all	$5,387.22
PREPATORY / PHYSICAL	0		
Line/grid (km)	0		
Topo/Photogrammetric (scale, area)	0		
Legal Surveys (scale, area)	0		
Road, local access (km)/trail	0		
Trench (number/metres)			
Underground development (metres)	0		
Other	0		
		Total Cost	$150,437.57

GEOPHYSICAL AND GEOLOGICAL REPORT

on the

WEST VALLEY PROPERTY

Kamloops Mining Division
British Columbia

Map Sheet: 092I/036, 046
UTM East: 635500
UTM North: 5579300
UTM Zone 10N

for

HAPPY CREEK MINERALS LTD.
#460 – 789 West Pender Street
Vancouver, B.C.
V6C 1H2

by

Dan Meldrum, M.Sc., GIT.

2010 February 24

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1. SUMMARY

The property is located approximately 40 kilometres northwest of Merritt, B.C., and 10 kilometres south of the Valley Copper Mine (Figure 1) . The West Valley property consists of 48 contiguous mineral claims comprising 8,536.19 hectares (Figure 2). The claims are accessible by good gravel roads from Upper Nicola.

The West Valley property is underlain by granodiorite, quartz diorite, quartz monzonite, and crowded quartz feldspar porphyry dykes. These lithologies are tentatively assigned to the Bethsaida, Skeena, Chataway and Border phases of the Upper Triassic - Lower Jurassic Guichon Creek batholith, a multi-phase calc-alkaline intrusion which hosts the Valley Copper and Lornex deposits to the north (Figure 3).

Exploration in the area, dating from the 1950's to present, has covered prospecting, soil sampling, regional geochemical surveys, geological mapping, trenching, geophysical surveys, and limited diamond drilling.

During the period 2009 Aug 10th to 26th and 2009 October 6th to 13th two rounds of mapping were performed on the West Valley property. Several rock samples returned highly anomalous to potentially economic grades of copper. During the period Sept 26th to October 10th 2009 3D Induced Polarization and magnetic geophysics were run. A large "U" shaped chargeability feature occurs proximal to known mineral occurrences. Further exploration work is warranted.

2. INTRODUCTION AND TERMS OF REFERENCE

This report has been prepared in order to satisfy assessment requirements. It discusses the 2009 Geological mapping and sampling programs and the Magnetic and 3-D IP Geophysical surveys carried out on the West Valley Property.

The information for the accompanying report was obtained from sources cited under references and from field work conducted under the supervision of the author during the 2009 work program. The registered owner of the West Valley property is Happy Creek Minerals Ltd.

3. PROPERTY DESCRIPTION AND LOCATION

The West Valley property is located approximately 40 kilometres northwest of Merritt, B.C., and 10 kilometres south-southwest of the Valley Copper Mine, Highland Valley. The claims are centered at 635500 east and 5579300 north, UTM zone 10N on NTS map sheet 092I/036 and 092I/046. The West Valley property comprises 48 contiguous mineral claims (Figure 1) and covers an area of 8,536.19 hectares. The claims are in the Kamloops Mining Division. Complete claim information is listed in Table 1. All claims are recorded in the name of Happy Creek Minerals Ltd. The claims have not been legally surveyed.

Table 1: List of Claims

Claim #	Claim Name	Good to Date	Area (Ha)
532667	COPPER 10	2010/jun/30	82.49
544901	COPPER B	2010/jun/30	20.59
544902	COPPER C	2010/jun/30	20.59
544903	COPPER D	2010/jun/30	20.59
544905	COPPER F	2010/jun/30	20.61
566312	COPPER 8	2010/jun/30	535.96
568146	NEW COPPER 1	2010/jun/30	473.74
568147	NEW COPPER 3	2010/jun/30	494.35
568148	NEW COPPER 3	2010/jun/30	721.18
568149	NEW COPPER 4	2010/jun/30	1,030.45
570358	NEW COPPER 5	2010/jun/30	20.63
570359	NEW COPPER 6	2010/jun/30	20.63
570360	NEW COPPER 7	2010/jun/30	61.8
582066	HIGHLAND VALLEY	2010/jun/30	433.24
587379	COPPER 11	2010/jun/30	20.62
587380	COPPER 12	2010/jun/30	206.24
587382		2010/jun/30	41.24
587383		2010/jun/30	20.62
587384		2010/jun/30	61.87
587385		2010/jun/30	61.87
587386		2010/jun/30	20.62
587387		2010/jun/30	41.24
587388		2010/jun/30	82.51
587389		2010/jun/30	20.63
587390		2010/jun/30	20.63
589580	COPPER IB	2010/jun/30	412.76
589581	COPPER IA	2010/jun/30	392.04
589723	COPPER GA	2010/jun/30	495.18
589725	COPPER GB	2010/jun/30	268.17
589726	COPPER GC	2010/jun/30	41.25
589728	COPPER GD	2010/jun/30	20.63

Claim #	Claim Name	Good to Date	Area (Ha)
589892		2010/jun/30	20.64
589893		2010/jun/30	247.61
589896		2010/jun/30	20.63
589897	COPPER H B	2010/jun/30	330.25
589898		2010/jun/30	20.64
589900	COPPER H C	2010/jun/30	144.47
589901		2010/jun/30	20.63
589902		2010/jun/30	20.64
590283	COPPER GC	2010/jun/30	20.63
590284	COPPER GD	2010/jun/30	41.25
590285	COPPER GE	2010/jun/30	41.27
590286	COPPER HC	2010/jun/30	41.28
590287	COPPER HD	2010/jun/30	20.64
590949	COPPER 7A	2010/jun/30	453.57
590952	COPPER 7B	2010/jun/30	515.6
590953	COPPER 7C	2010/jun/30	20.61
664743	Nord West	2010/nov/04	370.86
		Total	**8,536.19**

4. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Access to the property from Merritt, B.C., is via highway 8 to Lower Nicola, then north along Aberdeen Road to Pimainus Lake Forest Service road. This all-weather logging road and recently built secondary logging roads transect the property near kilometre 34. With relative proximity to the Valley Copper Mine and operating mill, infrastructure in the surrounding area is excellent.

Situated within an upland plateau area of approximately 1,400 to 1,600 metres elevation, the West Valley property is underlain by a thick blanket of glacio-fluvial sand and gravel. Small lakes, swamps and seasonal creeks occur throughout the property. Forested areas locally contain fir, birch, poplar and spruce, however, lodgepole pine is predominant and pine beetle infestation encourages ongoing logging activity. Characterized by a dry interior climate, the area has burnt and re-grown several times. Temperatures range from –30 to +40 degrees centigrade, and 50-100 cm annual precipitation occurs primarily as snow during the winter. Water, in suitable quantities for all stages of exploration, is available year round from nearby creeks and lakes.

Well trained professional and field personnel as well as heavy equipment are available in Kamloops and Merritt. Most supplies needed for exploration are available at Kamloops.

5. HISTORY

From 1956 through 1985 the area covered by the West Valley property has been explored intermittently by several operators. The work conducted has generally been reconnaissance in nature and consisted in a large part of soil geochemical surveys, magnetic surveys, induced polarization (IP) surveys and VLF-EM surveys. In addition minor trenching and diamond drilling was conducted at the known showings. Much of this work is poorly documented and the locations of the work programs are somewhat ambiguous. In 2008 Happy Creek Minerals Ltd. conducted stream sediment and rock sampling program. Positive results from that sampling resulted in Happy Creek returning to carry out mapping and geophysics in 2009.

Table 2: Previous Exploration Work

Year	**Exploration Work**
1956	McPhar Geophysics conducted soil geochemistry on behalf of Udd Ramsay Syndicate. 489 soil samples collected. Ref: AR 158.
1956	McPhar Geophysics conducted a magnetic survey on behalf of the Udd Ramsay Syndicate. Rf: AR163.
1957	Phelps Dodge Corporation conducted a 6.59 line mile magnetic survey. Ref: AR 191.
1958	Geological mapping, stream sediment sampling, soil sampling, magnetic and dip needle surveys conducted for Northwestern Exploration Ltd. Ref: AR 231.
1964 - 1966	Buldozer trenching, diamond drilling (4 holes), soil sampling and IP conducted in the vicinity of the Fir occurrence. Ref: AR 786.
1966	Magnetic and soil sample surveys conducted by T. C. Explorations Ltd., in the area of the Pim occurrence. Ref: AR853.
1969	A 24.8 line mile IP survey was conducted for Highland Chief Mines Ltd. Ref: AR 2308.
1970	T. C. Explorations Ltd., conducted 9.5 line miles of VLF-EM, test seismic survey and geological mapping just to the north of the existing property. Ref: AR2793.
1970	Teck Corp., conducted soil surveys over the northern portion of the existing property. Ref: AR 3053.
1970	A VLF-EM survey was conducted for Highland Chief Mines. Ref: AR3322.
1973	Magnetic and geochemical surveys were conducted for Highland Chief Mines. Ref: AR 4584.
1977	VLF-EM and soil sample surveys were conducted by David Mark. Ref: AR 6327.
1977	An IP survey was conducted for Allstar Resources Ltd. Ref: AR 6352.
1978	Prospecting was done in the vicinity of the existing property. Ref: AR 6851.
1981	Diamond drilling (6 holes) was done by Canadian Overseas Mining Corp. This work appears to have been done in the vicinity of the Jay 2 occurrence. DDH 4 intersected 0.9m of 1.87% Cu & 0.9m of 1.29% Cu. DDH 5 intersected 1.07m of 0.56% Cu. Ref: AR 9813.
1985	Norsemont Mining Corp., conducted an airborne VLF-EM and magnetic survey over the eastern third of the existing claim group. Ref: AR 14231.
2008	Happy Creek Minerals conducted a stream silt and rock sampling program, Copper values in rock ranged from 19.8 ppm to 37,500 ppm (3.75%). Results from the stream sediment sampling program showed a high background for copper with values ranging from 38.5ppm to 497.1 ppm.

6. GEOLOGICAL SETTING

6.1 Regional Geology (Figure 3)

The West Valley property is underlain by the Upper Triassic - Lower Jurassic Guichon Creek batholith (198 +/- 8 my; McMillan, CIM Special Volume 15, 1976). This multi-phase calc-alkaline intrusion extends over an area of approximately 1,000 square kilometres and is elongated in a north-northwesterly direction. The nearly concentric phases have contacts ranging from gradational to locally sharp or partially brecciated, and are progressively younger and more felsic toward the central core of the batholiths (Figure 3). Textural and compositional criteria have been used to characterize the various intrusive phases after Northcote, 1969 (McMillan, 1976).

The oldest phase of the Guichon Creek batholith is the Border or Hybrid phase, a fine- to medium-grained, mafic-rich diorite to quartz diorite, which locally contains xenoliths of amphibolite and monzonite.

The Highland Valley phase consists of Guichon and Chataway varieties. The Guichon variety is a quartz diorite to granodiorite, typically containing 15% mafic minerals of uneven distribution. The Chataway variety is a hornblende granodiorite normally containing 12% evenly distributed mafic minerals.

The Bethlehem phase, a fine- to medium-grained granodiorite with approximately 8% mafic minerals, is characterized by amoeboid quartz crystals and several percent poikilitic hornblende crystals. The Skeena variety of granodiorite is texturally similar to the Bethlehem phase, but is distinguished by its coarser grain size, slightly lower mafic content, and subhedral to anhedral quartz.

The youngest intrusive phase of the Guichon Creek batholith is the Bethsaida, having a biotite +/- hornblende quartz monzonite to granodiorite composition, and containing approximately 6% mafic minerals, predominantly coarse-grained euhedral biotite books. The core of the Guichon Creek batholith is within a regional magnetic low.

A porphyry dyke swarm extending northward from Highland Valley cuts Bethlehem granodiorite, and to the south, dykes and small plugs of porphyry cut the Skeena variety. Some of these porphyries appear to be offshoots or derivatives of the Bethsaida phase (McMillan, 1976).

Alkaline and felsic volcanic dykes, flows and tuffs of Eocene-Miocene age cut the Guichon Creek batholith rocks. During the last glaciation, portions of the Tertiary and older rocks were eroded, and between one and upwards of 30 metres thickness of till, glaciofluvial and lacustrine cover was deposited toward a 165° azimuth.

North of Highland Valley, the large copper +/- molybdenum deposits are generally associated with the dyke swarm or occur within the contact zone of Bethsaida phase and related dykes. South of Highland Valley, however, deposits appear to post-date the Bethsaida phase rocks.

Dominant ore-controlling fracture sets at the Valley and Lornex deposits trend north-northwest to northeast and locally east-southeast. The north trending Lornex Fault cuts the length of the Guichon Creek batholith with a moderate to steep west dip and has a dextral sense slip. This fault apparently truncates the Lornex and Valley Copper deposits on the west and east respectively. Sulphide mineralization is strongly associated with veins, fractures, faults and/or breccias.

In the Highland Valley deposits, potassic alteration is variably developed and hydrothermal biotite or k-feldspar may be fracture-controlled, flooded and veined. Phyllic alteration is typified by quartz and flakey sericite occurring in fracture-associated zones or as vein envelopes (McMillan, 1976). In argillic zones, which often extend extensively beyond the mineralized zones, feldspars and locally mafic minerals are altered to sericite and kaolinite +/- montmorillonite. Sericite, carbonate and clay alteration of feldspars, as well as chlorite-carbonate alteration of mafic minerals is characteristic of propylitic alteration. Calcite and zeolites occur primarily as late-stage veins and fracture coatings.

Sulphide zoning is common in the Highland Valley deposits with bornite as the predominant sulphide, followed by chalcopyrite, and then outward to pyrite. Main hypogene copper sulphides include chalcopyrite, bornite and minor digenite. Topographically above hypogene mineralization, supergene enriched zones may contain limonite, malachite, chalcocite, native copper and occasionally tenorite. Pyrite occurs in a propylitic fringe to potassic alteration zone generally in concentrations less than one percent. Distribution and concentration of molybdenite is highly variable throughout the Highland Valley deposits, with economically significant occurrences having similar distribution as that of the copper.

7. 2009 EXPLORATION

Geological mapping and prospecting along with 3D induced polarization and Magnetics were performed on the property in the Summer and Fall of 2009.

7.1 Geological Mapping and Prospecting

During the period 2009 Aug 10th to 26th and 2009 October 6th to 13th two rounds of mapping were performed. The first round in August involved regional mapping and sampling. In general the mapping agreed well with the regional geology maps, that is, Diorite to Quartz diorite border phase intrusive (Figure 3 and Appendix III). During this period of mapping a new mineral occurrence was discovered called the NTP showing, samples from this location returned encouraging copper and gold grades of up to 0.365 g/t Au with 1.7% Cu in a grab sample (Table 3, Figure 4). Several other showings were investigated and sampled. The second round of mapping and sampling was focused on the IP Grid. Geologists carefully mapped the geophysics grid. During this mapping additional mineralization was observed between NTP and the PIM showings. This area is underlain by an IP anomaly.

Table 3: Rock Samples with Anomalous Copper Values

Area	Location	Assay #	Au (ppb)	Cu (%)	UTM E (m)*	UTM N (m)*
NTP	WV-21-310	12310	365	1.7	635071	5583713
NTP	WV-21-01	12307	268	1.4	635132	5583675
NTP	WV-21-05	12308	67	0.8	635994	5583280
FIR	VW-22-320	12311	4	0.5	636526	5575123

*UTM's are NAD83 Zone 10.

7.2 Geophysics

During the period 2009 September 26 to October 10 crews ran 22km of Magnetic using a GEM Systems GSM-19 magnetometer and 3D Induced Polarization (3DIP) using a SJ-24 full waveform digital IP receiver and a Walcer Tx9000 IP Transmitter. A modified pole-dipole 3DIP configuration array was used with 100m dipoles.

The magnetic survey suggests NW-SE trending structures. These features coincide well with the orientation of the various phases of the Batholith on the regional geology maps and with detailed property scale mapping performed. (see Apendix III) smaller amplitude linerar features are noted trending N-S. These may represent faults parallel to the regional faulting in the region. The IP survey resulted in the delineation of 4 chargeability anomalies in the NE of the grid (see Appendix IV). These anomalies coincide with several known showings.

8. CONCLUSIONS AND RECOMENDATIONS

Two phases of geological mapping on the property one regional and one detailed have added to the understanding of the geology and structure of the property. Sampling undertaken during each phase has resulted in a new showing, the NTP, which carried significant copper and gold grades. Mag and IP geophysical surveys carried out on the northern portions of the property were successful in delineating known geological features (phases of the batholiths and N-S features likely to be faults and several large chargeability anomalies coincident with known surface mineralization.

Areas of coincident surface copper – gold mineralization and areas of high chargeability should be drill tested as soon as is practical.

9. REFERENCES

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10. CERTIFICATE

DAN MELDRUM, M.Sc. GIT

#460 - 789 West Pender Street, Vancouver, BC, V6C 1H2
Ph: (604) 681-9996
E-mail: dan.g.meldrum@gmail.com

CERTIFICATE OF AUTHOR

I, Dan Meldrum, of Port Coquitlam, British Columbia, do hereby certify that:

1. I am a geologist with an office at #460 - 789 West Pender Street, Vancouver, BC, V6C 1H2
2. I graduated from the University of Alberta with a Masters of Science degree in Geology in 1997 and I have practiced my profession continuously since 1992.
3. I am a Geologist in Training with the Association of Professional Engineers and Geoscientists of British Columbia.
4. Since 1997, I have been involved in mineral exploration for base and precious metals. I have conducted this work in Canada, Mongolia, China, and Vietnam.
5. I am presently a contract geologist and have been so since 2003.
6. I managed the 2009 exploration programs on the Rateria property.
7. I am the author of the report titled "*Diamond Drilling and Geological Mapping Report on the Rateria Property*" dated 2010 February 24.
8. I have been granted Share options of Happy Creek Minerals Ltd.

Dated at Vancouver, British Columbia, this 24th day of February, 2010.

"*Dan Meldrum*" (Signed)

Dan Meldrum, M.Sc. GIT.

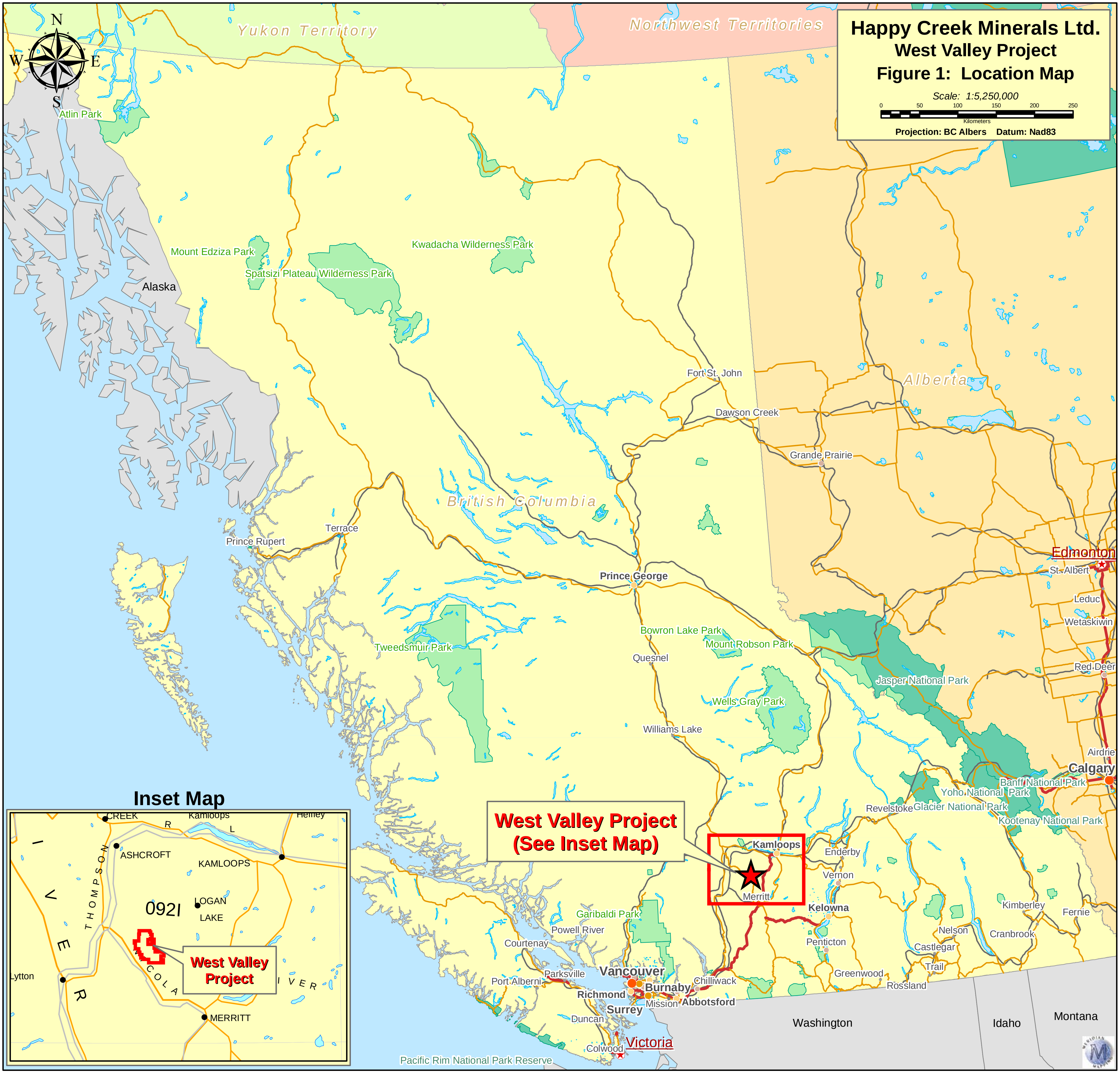
APPENDIX I

STATEMENT OF COSTS

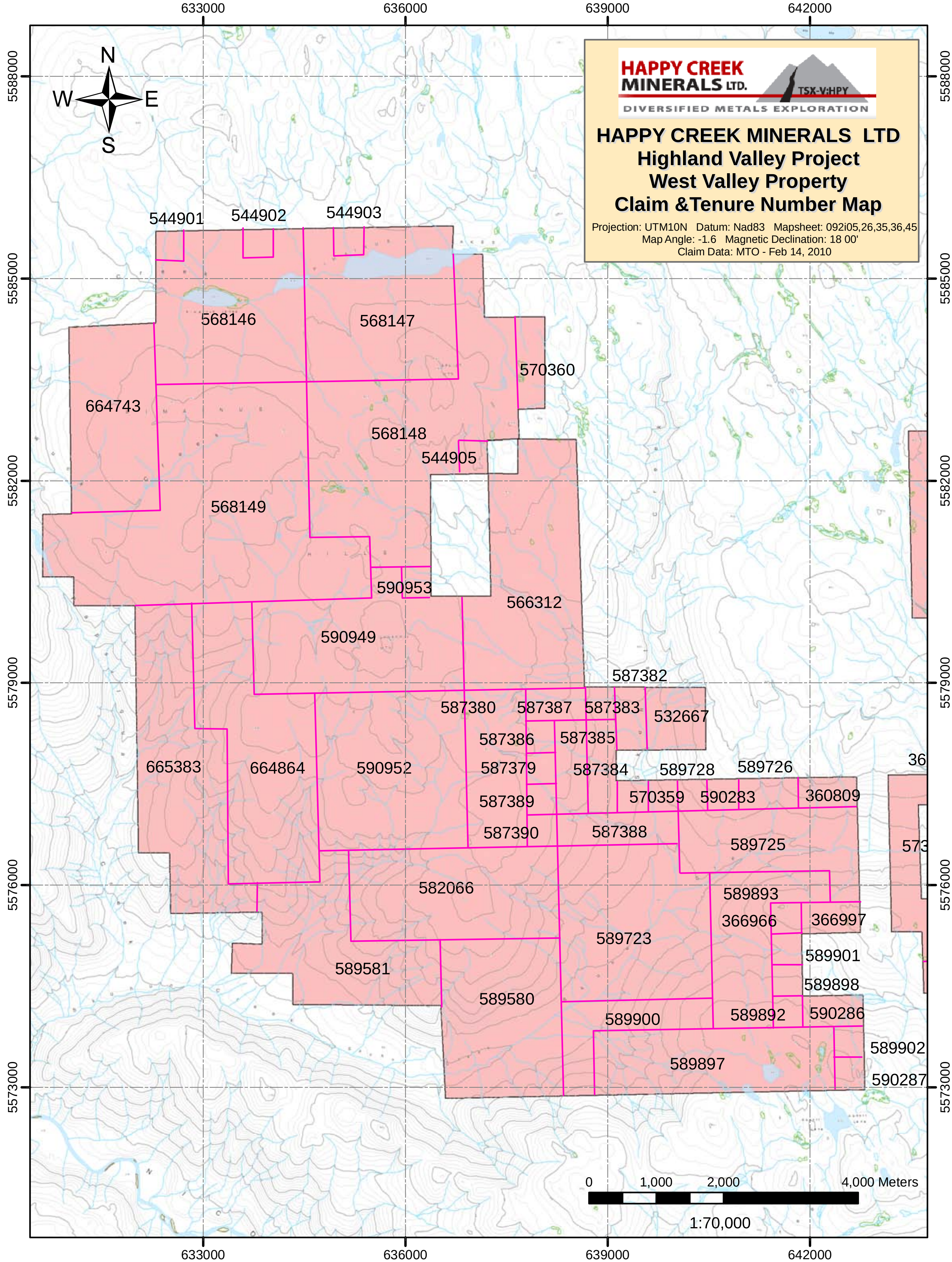
Name	# days		$/day		Amount
Shipping					
Greyhound Courier Express				$	65.00
Analytical Services					
Acme Analytical Laboratories Ltd.				$	286.97
sample disposal fee				$	15.00
Wages and Geology	**# days**		**$/day**		
Meridian Mapping Ltd. Geology and Linecutting				$	45,128.11
Westview Consulting Ltd. Paul Reynolds, P.Geo. Preparation and Permitting				$	3,250.00
Trevor Ridley field assistant/prospecting	8	$	225.00	$	1,800.00
David Blann, P.Eng. Geology and Supervision	10	$	500.00	$	5,000.00
Meldrum Geological Contracting Dan Meldrum, MSc. Geolog	10	$	350.00	$	3,500.00
Dan Meldrum, MSc. Geology	8	$	350.00	$	2,800.00
Sassan Liaghat, PhD Geology field mapping and drafting	21	$	350.00	$	7,350.00
Supplies, rentals, travel				$	4,714.62
room and Board	28.00	$	90.00	$	2,520.00
Geophysical Contractor (SJ Geophysics Ltd.)				$	59,604.94
communications				$	330.55
Mapping software- pro rata, printing				$	396.24
			Subtotal	$	136,761.43
			Overhead@ 10%	$	13,676.14
			total	$	150,437.57

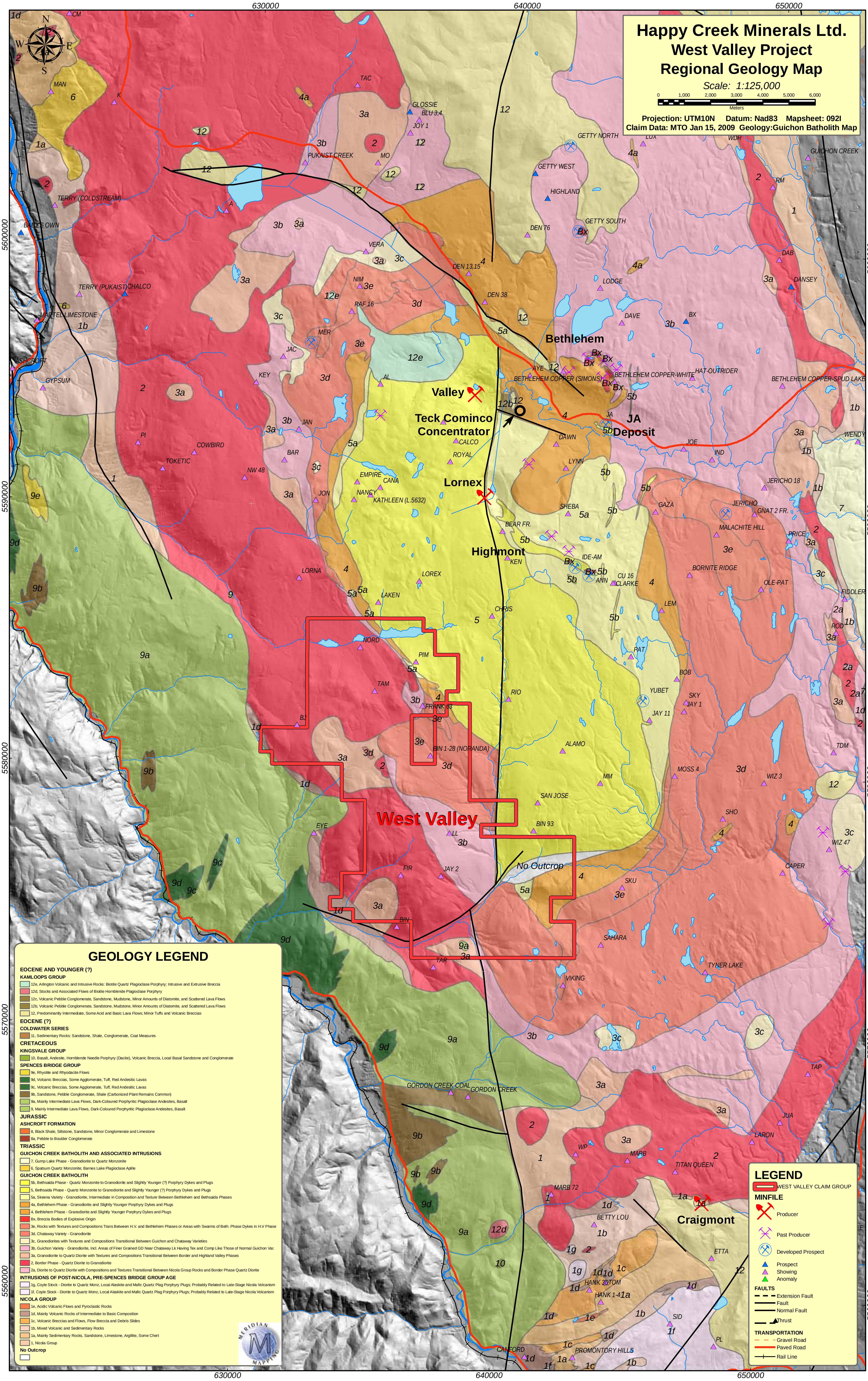
APPENDIX II

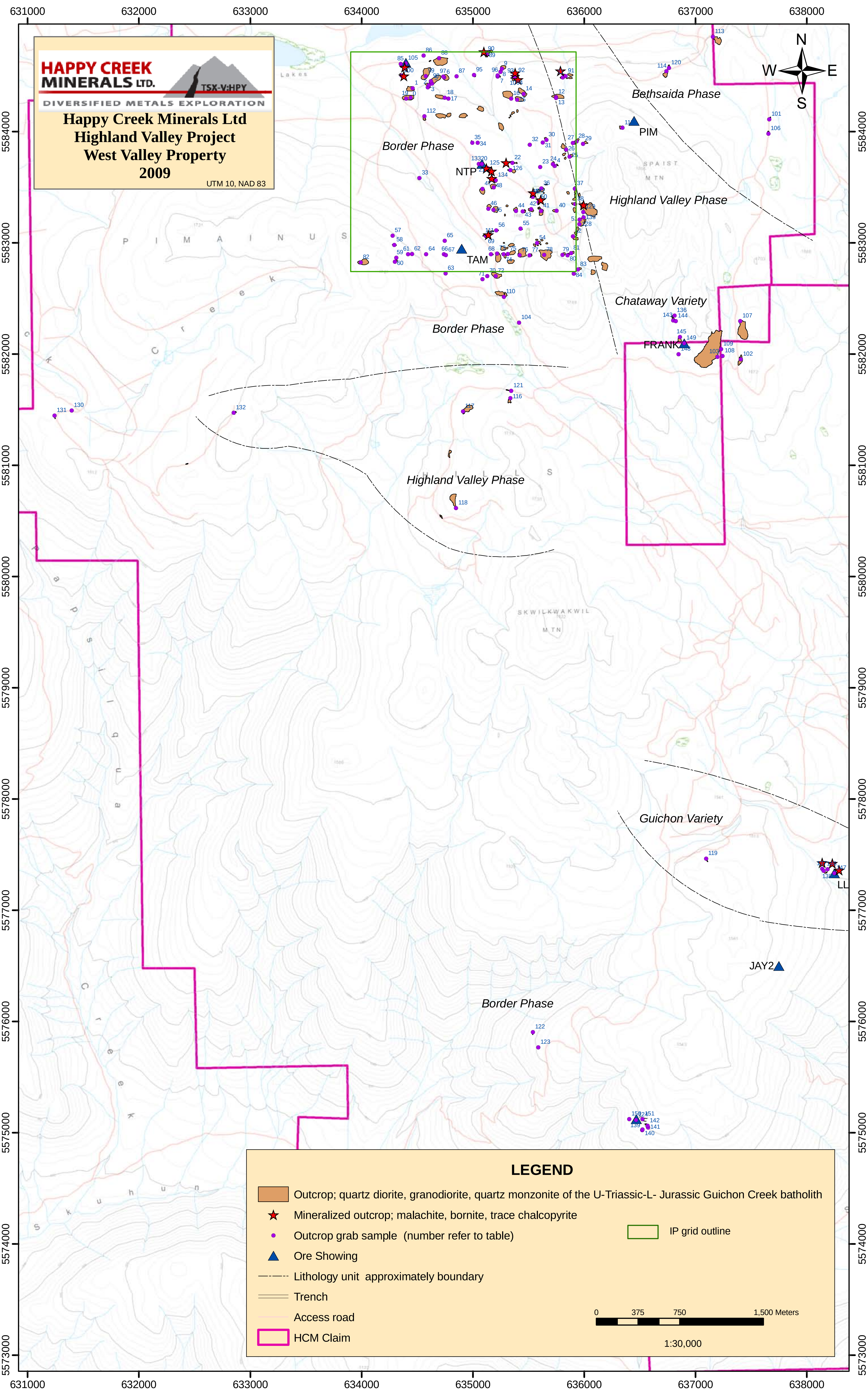
FIGURES 1-4



Happy Creek Minerals Ltd.
West Valley Project
Figure 1: Location Map
Scale: 1:5,250,000
0 50 100 150 200 250
Kilometers
Projection: BC Albers Datum: Nad83
Yukon Territory
Northwest Territories
Atlin Park
Alaska
Mount Edziza Park
Spatsizi Plateau Wilderness Park
Kwadacha Wilderness Park
Fort St. John
Dawson Creek
Alberta
Grande Prairie
British Columbia
Terrace
Prince Rupert
Prince George
Edmonton
St. Albert
Leduc
Wetaskiwin
Red Deer
Bowron Lake Park
Mount Robson Park
Tweedsmuir Park
Quesnel
Jasper National Park
Wells Gray Park
Williams Lake
Airdrie
Calgary
Banff National Park
Yoho National Park
Revelstoke
Glacier National Park
Kootenay National Park
West Valley Project
(See Inset Map)
Kamloops
Enderby
Vernon
Merritt
Kelowna
Kimberley
Fernie
Garibaldi Park
Powell River
Courtenay
Penticton
Nelson
Cranbrook
Castlegar
Trail
Greenwood
Rossland
Port Alberni
Parksville
Vancouver
Richmond
Burnaby
Chilliwack
Mission
Abbotsford
Surrey
Duncan
Colwood
Victoria
Washington
Idaho
Montana
Pacific Rim National Park Reserve
Inset Map
CREEK
Kamloops
Hefley
ASHCROFT
KAMLOOPS
THOMPSON
RIVER
092I
LOGAN
LAKE
West Valley
Project
NICOLA
RIVER
Lytton
MERRITT


HAPPY CREEK MINERALS LTD.
TSX-V:HPY
DIVERSIFIED METALS EXPLORATION
HAPPY CREEK MINERALS LTD
Highland Valley Project
West Valley Property
Claim &Tenure Number Map
Projection: UTM10N Datum: Nad83 Mapsheet: 092i05,26,35,36,45
Map Angle: -1.6 Magnetic Declination: 18 00'
Claim Data: MTO - Feb 14, 2010
N
S
E
W
633000
636000
639000
642000
5588000
5585000
5582000
5579000
5576000
5573000
544901
544902
544903
568146
568147
570360
664743
568148
544905
568149
590953
566312
590949
587382
587380
587387
587383
532667
587386
587385
665383
664864
590952
587379
587384
589728
589726
36
570359
590283
360809
587389
587390
587388
589725
573
582066
589893
366966
366997
589723
589901
589581
589898
589580
589892
590286
589900
589902
589897
590287
0
1,000
2,000
4,000 Meters
1:70,000


Happy Creek Minerals Ltd.
West Valley Project
Regional Geology Map
Scale: 1:125,000
0 1,000 2,000 3,000 4,000 5,000 6,000
Meters
Projection: UTM10N Datum: Nad83 Mapsheet: 092I
Claim Data: MTO Jan 15, 2009 Geology:Guichon Batholith Map
Bethlehem
Valley
Teck Cominco Concentrator
JA Deposit
Lornex
Highmont
West Valley
No Outcrop
Craigmont
GEOLOGY LEGEND
EOCENE AND YOUNGER (?)
KAMLOOPS GROUP
12e, Arlington Volcanic and Intrusive Rocks: Biotite Quartz Plagioclase Porphyry; Intrusive and Extrusive Breccia
12d, Stocks and Associated Flows of Biotite Hornblende Plagioclase Porphyry
12c, Volcanic Pebble Conglomerate, Sandstone, Mudstone, Minor Amounts of Diatomite, and Scattered Lava Flows
12b, Volcanic Pebble Conglomerate, Sandstone, Mudstone, Minor Amounts of Diatomite, and Scattered Lava Flows
12, Predominantly Intermediate, Some Acid and Basic Lava Flows; Minor Tuffs and Volcanic Breccias
EOCENE (?)
COLDWATER SERIES
11, Sedimentary Rocks: Sandstone, Shale, Conglomerate, Coal Measures
CRETACEOUS
KINGSVALE GROUP
10, Basalt, Andesite, Hornblende Needle Porphyry (Dacite), Volcanic Breccia, Local Basal Sandstone and Conglomerate
SPENCES BRIDGE GROUP
9e, Rhyolite and Rhyodacite Flows
9d, Volcanic Breccias, Some Agglomerate, Tuff, Red Andesitic Lavas
9c, Volcanic Breccias, Some Agglomerate, Tuff, Red Andesitic Lavas
9b, Sandstone, Pebble Conglomerate, Shale (Carbonized Plant Remains Common)
9a, Mainly Intermediate Lava Flows, Dark-Coloured Porphyritic Plagioclase Andesites, Basalt
9, Mainly Intermediate Lava Flows, Dark-Coloured Porphyritic Plagioclase Andesites, Basalt
JURASSIC
ASHCROFT FORMATION
8, Black Shale, Siltstone, Sandstone, Minor Conglomerate and Limestone
8a, Pebble to Boulder Conglomerate
TRIASSIC
GUICHON CREEK BATHOLITH AND ASSOCIATED INTRUSIONS
7, Gump Lake Phase - Granodiorite to Quartz Monzonite
6, Spatsum Quartz Monzonite; Barnes Lake Plagioclase Aplite
GUICHON CREEK BATHOLITH
5b, Bethsaida Phase - Quartz Monzonite to Granodiorite and Slightly Younger (?) Porphyry Dykes and Plugs
5, Bethsaida Phase - Quartz Monzonite to Granodiorite and Slightly Younger (?) Porphyry Dykes and Plugs
5a, Skeena Variety - Granodiorite, Intermediate in Composition and Texture Between Bethlehem and Bethsaida Phases
4a, Bethlehem Phase - Granodiorite and Slightly Younger Porphyry Dykes and Plugs
4, Bethlehem Phase - Granodiorite and Slightly Younger Porphyry Dykes and Plugs
Bx, Breccia Bodies of Explosive Origin
3e, Rocks with Textures and Compositions Trans Between H.V. and Bethlehem Phases or Areas with Swarms of Beth. Phase Dykes in H.V Phase
3d, Chataway Variety - Granodiorite
3c, Granodiorites with Textures and Compositions Transitional Between Guichon and Chataway Varieties
3b, Guichon Variety - Granodiorite, Incl. Areas of Finer Grained GD Near Chataway Lk Having Tex and Comp Like Those of Normal Guichon Var.
3a, Granodiorite to Quartz Diorite with Textures and Compositions Transitional Between Border and Highland Valley Phases
2, Border Phase - Quartz Diorite to Granodiorite
2a, Diorite to Quartz Diorite with Compositions and Textures Transitional Between Nicola Group Rocks and Border Phase Quartz Diorite
INTRUSIONS OF POST-NICOLA, PRE-SPENCES BRIDGE GROUP AGE
1g, Coyle Stock - Diorite to Quartz Monz, Local Alaskite and Mafic Quartz Plag Porphyry Plugs; Probably Related to Late-Stage Nicola Volcanism
1f, Coyle Stock - Diorite to Quartz Monz, Local Alaskite and Mafic Quartz Plag Porphyry Plugs; Probably Related to Late-Stage Nicola Volcanism
NICOLA GROUP
1e, Acidic Volcanic Flows and Pyroclastic Rocks
1d, Mainly Volcanic Rocks of Intermediate to Basic Composition
1c, Volcanic Breccias and Flows, Flow Breccia and Debris Slides
1b, Mixed Volcanic and Sedimentary Rocks
1a, Mainly Sedimentary Rocks, Sandstone, Limestone, Argillite, Some Chert
1, Nicola Group
No Outcrop
MERIDIAN MAPPING
LEGEND
WEST VALLEY CLAIM GROUP
MINFILE
Producer
Past Producer
Developed Prospect
Prospect
Showing
Anomaly
FAULTS
Extension Fault
Fault
Normal Fault
Thrust
TRANSPORTATION
Gravel Road
Paved Road
Rail Line


HAPPY CREEK MINERALS LTD.
TSX-V:HPY
DIVERSIFIED METALS EXPLORATION
Happy Creek Minerals Ltd
Highland Valley Project
West Valley Property
2009
UTM 10, NAD 83
N
W
E
S
Bethsaida Phase
Border Phase
Highland Valley Phase
Chataway Variety
Guichon Variety
NTP
TAM
PIM
FRANK
JAY2
LL
PIMAINUS
SPAIST MTN
SKWILKWAKWIL MTN
631000
632000
633000
634000
635000
636000
637000
638000
5584000
5583000
5582000
5581000
5580000
5579000
5578000
5577000
5576000
5575000
5574000
5573000
LEGEND
Outcrop; quartz diorite, granodiorite, quartz monzonite of the U-Triassic-L- Jurassic Guichon Creek batholith
Mineralized outcrop; malachite, bornite, trace chalcopyrite
Outcrop grab sample (number refer to table)
Ore Showing
Lithology unit approximately boundary
Trench
Access road
HCM Claim
IP grid outline
0
375
750
1,500 Meters
1:30,000

APPENDIX III

Geological Mapping Report

Geological Mapping of the West Valley Property (2009)

INTRODUCTION

From August 10th to August 26th, 2009, two geologists carried out property- wide geological mapping on the West Valley (and Rateria) properties and in October, one geologist completed a rock sampling program over the IP grid lines on the West Valley.

The West Valley property is located approximately 40 kilometres northwest of Merritt, B.C., The property is underlain by granodiorite, quartz diorite, quartz monzonite, and crowded quartz feldspar porphyry dykes. These lithologies are tentatively assigned to the Bethsaida, Skeena, Chataway and Border phases of the Upper Triassic - Lower Jurassic Guichon Creek batholith, a multi-phase calc-alkaline intrusion which hosts the copper deposits in the region.

Widespread glacial till obscures much of the bedrock in the area. Higher topographic relief provides much more rock exposure. Extensive and ongoing logging operations have been conducted on the area. In the first mapping program on August, given the size of the property and time constraints the majority of geological mapping was conducted near existing roads and ATV trails. Bush traverses were undertaken where it was deemed an efficient use of time. In addition to IP grids in the north part of the property, several other areas were studied in detail; these included the *Nord*, *Tam*, *Pim*, *Fir* and *Frank* showings all of which are situated in the northern portion of the property. In the southern half of the property mapping was undertaken along logging roads/clear cuts and in the vicinity of the *Fir* and *LL* occurrences. Note: the Jay showing was not mapped during the current program due to difficult access and time constraints.

OBJECTIVE

A reconnaissance mapping program on the West Valley property had several objectives:

- to investigate property to look for new areas of favorable alteration/mineralization and to figure out general structure of areas by gaining a better understanding of the various phases of the Guichon Batholith and associated mineralization which underlie the properties.
- assess the property regarding the priorities for a first pass geophysical survey.
- visit known showings and map the alteration/mineralization in these areas with consideration given to the geological importance of each area.
- collection of typical samples from the various phases of the Guichon Batholith.
- detailed mapping of outcrops in the north part of the West Valley property along the IP grids

SAMPLING AND DESCRIPTION OF ROCKS

At least 75 outcrops throughout the property were mapped and a total of 200 chip samples were collected. Portion of samples were ‘stained’ to test for primary K-feldspar as well as secondary K-feldspar alteration. Rock-type of specimen, as well as alteration and mineralization were documented. A complete list of rock samples and field description is included at the end of this report. Rock sample locations and outcrops are plotted on Figure 4 Appendix III

Overall, phases of the Guichon Batholith mapped on the West Valley property during the 2009 program agree very closely with lithologies indicated on the regional geological map. Diorite to quartz diorite Border phase intrusive, (hornblende rich (hb>>bi), magnetite rich and quartz poor) are mapped in the most part of claim particularly in west and central portions of the property; that is included the IP grid area, particularly the west part of the grids. Distribution of mafic minerals is variable throughout the Border phase rocks. Locally, large patches of coarse hb intergrowth. Epidote and quartz veins and patches, with intense to moderate chlorite alteration are common in the western part of the area and toward the east, the outcrops become least altered. Border phase host rocks are mapped at the most part of IP grid area including NTP, Nord and Tam showings. Some outcrops from eastern part of the property are mapped as the Highland Valley phase, Bethsaida and Chataway granodiorite. They are mafic poor, coarse gained, magnetite low, with coarse grained euhedral biotite and rounded quartz. Bethsaida phase rocks are mapped in the extreme north east portions of the claim block. Further to the south the host rocks of the Fir showing consist of a finer grained, mafic rich Border variety. This LL showing is hosted by sheared and altered Guichon phase rocks. Rocks collected from the Frank showing are of the Chataway variety. The contact between the two phases was not noted and is likely obscured by glacial till.

Weak to moderate prophylitic alteration (epidote/chlorite +/-calcite) is noted throughout much of the West Valley property Border phase rocks. Moderate to intense K-spar/quartz alteration in the form of veins and fracture fillings is seen in the Highland Valley phase. Intense iron oxides (limonite +/- jarosite) are associated with quartz veins at some mineralization showing. Locally minor secondary flaky muscovite is seen within Border phase rocks. Locally late stage pink zeolite veinlets locally cut Border phase.

A new mineral occurrence was discovered in the northern portion of the property between the Nord and Tam showings. This occurrence does not appear to have been previously documented. The showing is described below and has been termed the *NTP* (as it lies nearly equidistant between the Nord, Tam and Pim showings). Several rock samples from this showing, returned highly anomalous to potentially economic grades of copper and gold. Copper values ranged up to 1.7%cu, and gold value reach to 365 ppb (see below for detail).

ORE SHOWING GEOLOGY

Nord:

No outcrop was seen in the vicinity of the Nord; however a large number of angular boulders/subcrop (up to 1m) were located near the eastern margin of a 10 year old plantation. These were spread over an area of ~50x50 metres. Malachite and minor bornite are associated with veins of epidote +/- quartz. Irregular fracture fillings of chlorite are common. Rare k-spar alteration. The Nord is hosted within hornblende, biotite, and magnetite rich Border phase rocks. This mafic rich phase is variably fine to coarse grained with irregular patches of large intergrown amphibole crystals to 2cm. Several injections of hornblende/biotite/magnetite rich mafic magma have occurred; volatiles and hydrothermal fluids appear to have been very active.

Tam:

The Tam is also hosted by Border phase rocks. Large angular boulders and subcrops contain local fracture coatings of malachite. Outcrops adjacent to the mineralization are moderately epidote/chlorite altered.

Pim:

The Pim showing is indicated to lie on the North West flank of Spaist Mountain however the showing could not be located. Rocks collected in the area are medium grained chlorite altered Bethlehem phase. Minor K-spar alteration envelopes are seen along fractures. No mineralization noted in the vicinity of the showing.

Frank:

Although the Frank showing is mapped as a minfile occurrence within the claim block; evidence suggests it lies just south of the property boundary. Two separate cross stacks of Bq core were found on flat bed rock areas approximately 50 metres from each other. One wooden block was found indicating a depth of ~285'. None of the drilled core was split.

It seems likely that the actual drill collars were in close proximity to each stack of core (If the drill collars were located further to the north and the core transported, it would likely be stacked in one area). No mineralization or significant alteration was noted in the area of the core or further up the slope to the north. A prominent gulley lineation trends northwest from the core area and may represent a fault.

NTP:

The NTP is a new mineral occurrence located ~1.2 km southeast of the Nord showing along a road cut (photo 1). Malachite and bornite are found within mafic rich Border phase rocks (photo 2). At least three separate pulses or injections of magma are noted at the showing. Local coarse crystalline amphibole intergrowths are noted. Locally semi-massive secondary magnetite occurs with malachite. Mineralized outcrop occurs over a distance of ~200 metres in the southwest ditch line of the logging road. The NTP showing is host to weak proplyitic alteration, minor k-spar and widely spaced quartz veinlets. Fe oxides are also common on fractures. Sporadic, narrow, locally limonitic quartz veins cut the host rock. Three following sample from road-side outcrops at NTP zone with approximately 1000 m distance sent for analysis. The assay result returned with significant values of gold and copper.
Sample WV-21-310 (Lab #: 12310), Au (365 ppb), Cu (1.7%) E: 635071, N: 5583713
Sample WV-21-01 (Lab #: 12307) Au (268 ppb), Cu (1.4%) E: 635132, N: 5583675
Sample WV-21-05 (Lab #: 12308) Au (67ppb), Cu (0.8%) E: 635994, N: 5583280
Description of samples : Diorite, Quartz Diorite, hb, mag rich and qtz, Kspar poor
Mafic minerals : hb>mag +/_ bi (40%) are variable throughout the rock, locally large irregular patches of coarse hb intergrowths. Overall the rock is moderate-strongly magnetic rich especially in mafic-rich sections. Chlorite alteration is common in fractures and replacing hb. Ep+/- qtz as irregular patches. K-spar not present in significant amounts. Malachite in fractures are common, rare diss, vein filling cpy, locally belbs of bn up to 1cm, bn also with malachite on fractures.

LL:

Mineralization occurs within a highly altered/sheared Guichon host. Moderate to strong malachite/bornite mineralization is seen across a width of approximately 2 metres. Local weak k-spar alteration, hematite on fractures and as stain on clay altered plagioclase. Pink, late stage zeolites (?) seen on fractures. Two prominent joints sets are noted within strongly sheared/clay altered granodiorite: 165°/65° and 220°/30°.

Fir:

Access to the Fir is via a very steep, rough switchback road from the south west or alternatively an overgrown exploration road from the north. The latter cuts through an area of low relief with very little outcrop and if slashed would be the preferred access.
Intermittent Cu mineralization at the Fir extends over a significant width (~1km). The most significant exposure is seen at the site of historical workings (mid to late sixties) situated on a moderate to steep south west slope. Trenching and bulldozer pushes have exposed malachite +/- azurite, chalcopyrite, and bornite within altered medium grained Border phase rocks. These host rocks are cut by several post mineral porphyritic intermediate to mafic dykes. Locally intense iron oxides are associated with narrow (up to 5cm) quartz veins (220°/20°). K-spar/epidote veins up to 4cm.

One sample (VW-22-320) from trench outcrop at Fir sent for assay analysis (Lab # 12311) returned with gold value of 4 ppb and copper 0.5% .

Sample VW-22-320 (E: 636526, N: 5575123):

Medium to coarse grained granodiorite. Quartz veins locally limonitic up to 2.5 cm, associated with K-spar veins and local euhedral K-spar crystals up to 7m often. Locally strong Fe-oxid intense with quartz veins. Generally Cu mineralization associated with high K-spar alteration (veins, patchy, irregular). Copper mineralization include diss cpy, bn (cpy>>bn), mal, azo in fractures, veins of quartz-carbonate and joint planes. Local Ep veins (about 3cm) with qtz. Chlorite alteration in some parts is intense. Plagioclase altered to clay locally. Altered rocks contain less magnetite than the others.

CONCLUSION

The 2009 West Valley mapping program indicate to highly anomalous to potentially economic copper (+gold) mineralization of several outcrops in the northern portion of the property. This area was followed with 3D IP survey program which in turn indicates the presence of a zone with significant mineral potential exists in the area between Nord Tam and NTP. The southern portion of West Valley Property (particularly in vacancy of Fir showing) will need to be followed up with detailed geological mapping, further sampling and geophysical IP survey.

No	Date	Sample	Easting	Northing	Rock Group	Ore	Altertion	outcrop (m)	Description
0	Oct-06	WV 1	634441	5584308	Border Phase (BP)		Chl, Ep,Qtz	30x15	Diorite to Quartz Diorite (Border Phase rock unit), hornblende, mag-rich, qtz- Kspar-poor. Medium to coarse grained texture. Mafic minerals 40% to 60% (hb>mag +/_ bi) . Unequigranular sized and inhomogeneous distribution of mafic minerals throughout the rock, locally large irregular patches of coarse hb and bi intergrowths. Overall the rock is moderate to strongly magnetic rich, especially in mafic-rich parts. Chlorite alteration is common in fractures and replacing hb. ep+/- qtz are as irregular patches throughout the rock. Potassic alteration is present locally. Secondary biotite after amphibole is common. Epidote present in fractures and veins ,2-3cm (locally oriented 100N). Quartz veins 2-3 cm. Carbonate fills some fractures.
1	Oct-06	WV 2	634458	5584393	Border Phase		Chl,Ep,Qtz	50x50	General character same as WV1 , ep veins 10cm wide (locally subvertical),lots of qtz, epi veins, big crystals of biotite.
2	Oct-06	WV 3	634595	5584400	Border Phase		Chl,Ep,Qtz	10x5	General character same as WV1, with lower variation in size and distribution of mafic minerals.
3	Oct-06	WV 4	634605	5584420	Border Phase		Chl,Ep,Qtz	10x10	General character same as WV1, 2 cm felsic dike cut the unit (145d), Veins of ep and qtz are common.
4	Oct-06	WV 5B	635736	5583694	Border Phase		Chl,Ep,Qtz	20x50	General character same as WV1,
5	Oct-06	WV 6	634635	5584433	Border Phase		Chl,Ep,Qtz	10x20	General character same as WV1,
6	Oct-06	WV 7	634744	5584489	Border Phase		Chl,Ep,Qtz	20x20	General character same as WV1,
7	Oct-06	WV 8	635225	5584498	Border Phase		Chl,Ep,Qtz	30x20	General character same as WV1. Medium to fine grained
8	Oct-06	WV 9	635248	5584539	Border Phase		Chl,Ep	20x30	General character same as WV1, Medium to fine grained
9	Oct-06	WV 10	635262	5584567	Border Phase		Chl,Ep	50x50	General character same as WV1, Medium to fine grained
10	Oct-06	WV 11	635371	5584491	Border Phase			50x50	General character same as WV1, Medium to fine grained
11	Oct-06	WV 12	635809	5584489	Highland Valley phase (HV)			50x50	Medium to coarse grained, light coloured, granodiorite (Highland Valley Phase). Equigranular texture, 20% qtz, 50% fspar incl Kspar, 20% euhedral-subhedral amph+bio, some parts Kspar is abundant in groundmass and in fractures. Quartz veins locally limonitic up to 2.5 cm, associated with Kspar veins and local euhedral Kspar crystals up to 7mm often. Locally strong Fe-oxid with quartz veins. Intense to moderate sericite alteration, Secondary muscovite may observe. Chlorite alteration in some parts is intense. Plagioclase altered to clay locally. Local ep veins (about 3cm) with qtz. Highly altered rocks contain less magnetite than the others.
12	Oct-06	WV 13	635749	5584313	BF+HV			50x50	The outcrop shows both Border Phase, a fine-grained, dark-green unit and Highland Valley phases; a light-colored felsic unit. No contact were observed.
13	Oct-06	WV 15	635748	5584304	Border Phase		Chl,Ep	50x50	General character same as WV1,
14	Oct-06	WV 16	635456	5584340	Border Phase		Chl,Ep	100x50	General character same as WV1,
15	Oct-06	WV 17	635398	5584290	Border Phase		Chl,Ep	50x50	General character same as WV1,
16	Oct-06	WV 18	635346	5584300	Border Phase		Chl,Ep	50x50	General character same as WV1,
17	Oct-06	WV trench	634782	5584299	Border Phase				About 3 m wide trench observed
18	Oct-06	WV 19	634749	5584308	Border Phase		Chl,Ep	50x30	General character same as WV1,
19	Oct-06	WV 20	634400	5584300	Border Phase		Chl,Ep	100x50	General character same as WV1,
20	Oct-07	WV 21	635054	5583713	Border Phase			10x20	General character same as WV1, no epidote altertion found
21	Oct-07	WV 22	635080	5583710	Border Phase	mal,cp, az,bn	Chl, Ep, Qtz	100x10	Rock characters same as Border Phase. Copper mineralization include diss cpy, bn (cpy>>bn), mal, azo in fractures, veins of quartz-carbonate and joint planes . Malachite in fractures are common, rare diss, vein filling cpy, locally concentration of bn grains up to 1cm, bn also with malachite on fractures. Surface mineralization samples are mostly collected from road sides outcrops in NTP showing. Some of the samples collected from the nearby outcrops are also show signs of mineralization.
22	Oct-07	WV 23	635355	5583721	Border Phase		Chl, Ep	few20x20	Few outcrops in this area show similar charactristic as Border Phase.
23	Oct-07	WV 24	635605	5583683	HV		Chl, Ep	5x5	Same as sample WV12
24	Oct-07	WV 25	635721	5583710	Border Phase		Chl, Ep	10x10	General character same as WV1,
25	Oct-07	WV 26	635870	5583778	Border Phase		Chl, Ep	10x10	General character same as WV1,
26	Oct-07	WV 27	635839	5583841	Border Phase		Chl, Ep	few30x20	Few outcrops in this area show similar charactristic as Border Phase.

No	Date	Sample	Easting	Northing	Rock Group	Ore	Altertion	outcrop (m)	Description
27	Oct-07	WV 28	635901	5583899	Border Phase		Chl, Ep,Qtz	20x20	General character same as WV1, Fine-gained, light green, epidotized, common in qtz veins (some trend to the North), 5 cm in wide, An aplite dike(5 cm wide) cut the unit .
28	Oct-07	WV 29	635932	5583914	HV			50x30	Some characters like WV12. Probably subcrop, coarse-grained, light-colored, almost fresh GD,
29	Oct-07	WV 30	635990	5583891	HV			50x30	Some characters like WV12. Probably subcrop, coarse-grained, light-colored, almost fresh GD,
30	Oct-07	WV 31	635662	5583927	HV			50x50	Some characters like WV12. Probably subcrop, coarse-grained, light-colored, almost fresh GD,
31	Oct-07	WV 32	635629	5583905	Border Phase			20x10	General character same as WV1,
32	Oct-07	WV 33	635512	5583885	Border Phase			20x10	General character same as WV1,
33	Oct-07	WV 34	634521	5583586	HV			20x10	Some characters like WV12. Probably subcrop, coarse-grained, light-colored, almost fresh GD,
34	Oct-07	WV 35	635045	5583903	Border Phase		Chl, Ep	10x10	General character same as WV1,
35	Oct-07	WV 36	634995	5583903	Border Phase			10x10	General character same as WV1,
36	Oct-08	A1	635616	5583492	Border Phase			10x20	General character same as WV1,
37	Oct-08	A2	635918	5583489	Border Phase			50x50	General character same as WV1,
38	Oct-08	A3	635919	5583351	Border Phase			50x50	General character same as WV1,
39	Oct-08	A4	635940	558310	Border Phase			50x50	General character same as WV1, finer-grained
40	Oct-08	A5	635754	5583291	Border Phase			50x50	General character same as WV1,
41	Oct-08	A6	635614	5583289	Border Phase			50x50	General character same as WV1,
42	Oct-08	A7	635525	5583305	Border Phase			50x50	General character same as WV1,
43	Oct-08	A8	635450	5583285	Border Phase		Chl,Ep	50x50	General character same as WV1,
44	Oct-08	A9	635388	5583289	Border Phase		Chl,Ep	50x50	General character same as WV1,
45	Oct-08	A10	635185	5583300	Border Phase		Chl,Ep	50x50	General character same as WV1,
46	Oct-08	A11	635141	5583309	Border Phase		Chl,Ep	50x50	General character same as WV1,
47	Oct-08	A12	635087	5583486	Border Phase		Chl,Ep	50x50	General character same as WV1,
48	Oct-08	A13	635188	5583501	Border Phase		Chl,Ep	50x50	General character same as WV1,
49	Oct-09	B1	635536	5583417	Border Phase	mal	Chl,Ep	few25x50	General character same as WV1, Malachite locally coating the goundmass of rock and filling the fractures.
50	Oct-09	B2	635590	5583367	Border Phase	mal	Chl,Ep	few50x50	General character same as WV1, Malachite locally coating the goundmass of rock and filling the fractures.
51	Oct-09	B3	635957	5583171	Border Phase		Chl,Ep	few50x50	Few outcrops in this area show similar charactristic as Border Phase.
52	Oct-09	B4	635899	5583061	Border Phase		Chl,Ep	few50x50	Few outcrops in this area show similar charactristic as Border Phase.
53	Oct-11	C1	635604	5830922	Border Phase			10x10	General character same as WV1,
54	Oct-11	C2	635579	5583000	Border Phase			few10x20	Few outcrops in this area show similar charactristic as Border Phase.
55	Oct-11	C3	635430	5583129	Border Phase			20x10	General character same as WV1, finer-grained
56	Oct-11	C4	635211	5583114	HV,BP			20x10	Same as sample WV13
57	Oct-11	C5	634279	5583066	Border Phase			20x10	Medium-grained BF, mafic minerals show directive texture
58	Oct-11	C6	634294	5582982	Border Phase			20x10	General character same as WV1,
59	Oct-11	C7	634313	5582868	Border Phase			20x10	General character same as WV1,
60	Oct-11	C8	634299	5582834	Border Phase			20x10	General character same as WV1,
61	Oct-11	C9	634419	5582898	Border Phase			20x10	General character same as WV1,
62	Oct-11	TAM cabin	634453	5582902					Old exploration cabin, can't find any outcrop and mineralization in nearby.
63	Oct-11	C10	634755	5582727	Border Phase			5x10	General character same as WV1,, some parts rich in carbonate and epidote
64	Oct-11	C11	634582	5582898	Border Phase			5x10	General character same as WV1, small to medium-grained rock
65	Oct-11	C13	634747	5583021	Border Phase			5x10	General character same as WV1,
66	Oct-11	C14	634740	5582899	Border Phase			5x10	General character same as WV1,
67	Oct-11	C15	634759	5582892	Border Phase			5x10	General character same as WV1, small to medium-grained rock
68	Oct-11	C16	635162	5582899	Border Phase			5x10	General character same as WV1, small to medium-grained rock
69	Oct-11	C17 tam	635118	5583063	Border Phase	mal		5x10	General character same as WV1, Malachite locally coating the rock goundmass and filling the fractures.
70	Oct-11	C18	635130	5582703	Border Phase			5x10	General character same as WV1, small to medium-grained rock
71	Oct-11	C19	635088	5582676	Border Phase			50x30	General character same as WV1, small grained rock

No	Date	Sample	Easting	Northing	Rock Group	Ore	Altertion	outcrop (m)	Description
72	Oct-11	C20	635206	5582703	Border Phase			5x10	Fine to coarse garined BF, some parts may show transition to felsic phase
73	Oct-11	C21	635218	5582906	Border Phase			100x50	General character same as WV1,
74	Oct-11	C22	635276	5582898	Border Phase			few10x10	Few outcrops in this area show similar charactristic as Border Phase.
75	Oct-11	C23	635315	5582901	Border Phase			few50x50	Few outcrops in this area show similar charactristic as Border Phase.
76	Oct-11	C24	635422	5582891	Border Phase			few75x50	Few outcrops in this area show similar charactristic as Border Phase.
77	Oct-11	C25	635511	5582890	Border Phase			25x50	General character same as WV1,
78	Oct-11	C26	635641	5582894	Border Phase			50x50	General character same as WV1,
79	Oct-11	C27	635805	5582894	Border Phase			10x10	General character same as WV1,
80	Oct-11	C28	635852	5582889	Border Phase			10x10	General character same as WV1,
81	Oct-11	C29	635885	5582910	Border Phase		Chl, Ep	10x10	General character same as WV1,
82	Oct-11	C30	633993	5582827	Border Phase			50x75	General character same as WV1,
83	Oct-11	C31	635946	5582763	Border Phase			few20x50	Few outcrops in this area show similar charactristic as Border Phase.
84	Oct-11	C32	635907	5582725	Border Phase				General character same as WV1,
85	Oct-13	D1	634354	5584611	Border Phase	cp,mal		5x5	General character same as WV1, Malachite locally coating the rock goundmass and with chalopyrite filling the fractures + diss cpy
86	Oct-13	D2	634558	5584686	Border Phase			5x5	General character same as WV1,
87	Oct-13	D3	634853	5584500	Border Phase			5x5	General character same as WV1,
88	Oct-13	D4	634696	5584662	Border Phase			50x100	General character same as WV1,
89	Oct-13	D5	635124	5584700	Border Phase			5x5	General character same as WV1, Fine-grained BF
90	Oct-13	D6	635117	5584700	Border Phase	mal		5x5	General character same as WV1, with trace of malachite
91	Oct-13	D7	635835	5584501	HV+BP	cp		few20x10	General character same as WV1, Malachite locally coating the rock goundmass and with chalopyrite filling the fractures in Border phase.
92	Oct-13	D8	635391	5584505	Highland-V			10x10	Fine-garined BF, locally show irregular vein-shape mafic rich domain
93	Oct-13	D9	635369	5584501	Border Phase	mal	Chl, Ep,Qtz	few10x10	General character same as WV1. In some area malachite locally coating the rock goundmass and filling the fractures.
94	Oct-13	D10	635372	5584490	Border Phase	mal		25x50	General character same as WV1, malachite locally coating the rock goundmass and filling the fractures.
95	Oct-13	D11	635010	5584511	Border Phase			10x10	General character same as WV1,
96	Oct-13	D12	635224	5584506	Border Phase		Chl, Ep	10x11	General character same as WV1,
97	Oct-13	D13	634736	5584498	Border Phase		Chl, Ep	10x12	General character same as WV1,
98	Oct-13	D14	634624	5584456	Border Phase		Chl, Ep	50x20	General character same as WV1,
99	Oct-13	D15	634579	5584503	Border Phase		Chl, Ep	50x20	General character same as WV1,
100	Oct-13	D16	634360	5584505	Border Phase	cp	Chl, Ep	30x20	General character same as WV1, Malachite locally coating the rock goundmass and with chalopyrite filling the fractures.
101	Aug-18	WV-18-01	637664	5584112	Bethsaida	_	Ksp,Ser,Chl,Ep		Coarse-grained, anhedral amboidal quartz grains (5 mm). Composition: 25% qtz, 10% Kspar (primary), 5% mafic: bio (euhedral, subhedral, local book to 4mm); Hbl (euhedral, chloritized). Plagioclase partly altered to sericite and clay. Locally chlorite and epidote on fractures. No mineralization.
102	Aug-18	WV-18-02	637409	5581954	Chataway	_	Ser,Clay		Medium-grained, 30% fine-garined qtz, 10% primary Kspar, secondary K-spar w/t qtz in veins (4-5 cm wide). Mafic minerals : 15-20% hb altered to chl; 10% bi. Altered plag to ser and clay 40%. No mineralization.
103	Aug-18	WV-18-03	637199	5581978	Chataway	_	Ser,Ksp		Medium-grained, 30% fine-garined qtz, 10% primary K-spar, secondary K-spar w/t qtz in veins (4-5 cm wide). Mafic minerals : 15-20% hb altered to chl; 10% bi. Altered plag to ser and clay 40%. No mineralization.
104	Aug-18	WV-18-04	635417	5582284	Border Phase	_	Chl,Ep		Mafic rock, diorite, qtz-diorit, 30% mafic hb>>bi, amph fresh, 5 to 10% qtz small anhydral phenos; 5% mag. No mineralization.
105	Aug-18	WV-18-05	634399	5584615	Border Phase	cp	Chl,Ep		Outcrops and subcrops. Medium to coarse gained, distribution of mafic minerals are non-homogeneous and size of mafic crystals are variable throughout the sample Mafic minerals more than 50% (hb>>bi , 90-10%); 40% plag; 5% mag. 20-30 cm wide vein show crack-sealing and comb structures. Trace diss of cp.
106	Aug-18	WV-18-300	637658	5583982	Bethsaida	_	Ksp,Ser,Chl,Ep		Same as WV18-1

No	Date	Sample	Easting	Northing	Rock Group	Ore	Altertion	outcrop (m)	Description
107	Aug-18	WV-18-301	637405	5582299	Chataway	_	Chl, Ep, Ser,Clay		Medium-grained, 30% fine-garined qtz, 10% primary Kspar, secondary Kspar w/t qtz in veins (4-5 cm wide). Mafic minerals : 15-20% hb altered to chl; 10% bi. Altered plag to ser and clay 40%. No mineralization.
108	Aug-18	WV-18-302	637245	5581984	Chataway	_	Ser,Clay		Same as WV18-301,
109	Aug-18	WV-18-303	637232	5582047	Chataway	_	Ser,K		Same as WV18-301 but less altered. With 2.5 cm aplite dike, sharp contact.
110	Aug-18	WV-18-304	635279	5582517	Border Phase	_	Chl,Ep		Same as WV18-301, but finer grained and higher mafics (40%)
111	Aug-18	WV-18-305	635118	5583065	Border Phase	mal	Chl,Ep		Mafic rock, diorite, qtz-diorit, distribution of mafic minerals are non-homogenious and size of mafic crystals are variable throughout the sample (up to 10 mm) 5-7% magnetite; 5% creamy white qtz (2mm) 30% mafic hb>>bi. Mal mineralization.
112	Aug-18	WV-18-306	634565	5584140	Border Phase	_	Chl,Ep		Same as WV-18-04, strongly magnetic; SE of Nord showing in road cut.
113	Aug-19	WV-19-01	637158	5584853	Bethsaida	_	Ksp,Ser,Chl,Ep		same as WV-18-01
114	Aug-19	WV-19-02	636740	5584546	Bethsaida	_	Ksp,Ser,Chl,Ep		same as WV-18-01
115	Aug-19	WV-19-03	636346	5584036	Bethlehem	_	Ser		10 to 15% qtz; 10% mafic (bi=hb) chloritized; 50% plag weakly altered; 2% mag; 5% Kspar primary, interstitial, No mineralization found.
116	Aug-19	WV-19-04	635339	5581606	Highland-V	_	Mus,Ser		Medium-coarse gained. Mafic minerals: 25% bi-hb (50-50 ratio), bi altered to chl; 50% plag; 5-105 Kspar; 5% qtz; secondary muscovite , ser.
117	Aug-19	WV-19-05	634912	5581487	Highland-V	_	Mus,Ser		Same as WV19-04
118	Aug-19	WV-19-06	634850	5580618	Highland-V	_	Mus,Ser		Same as WV19-04
119	Aug-19	WV-19-07	637098	5577465	Guichon	_	Chl, Ep		General character same as WV-22-02
120	Aug-19	WV-19-307	636763	5584575	Border Phase	_	Chl, Ep		General character same as WV1,
121	Aug-19	WV-19-308	635345	5581670	Highland -V	_	Mus,Ser		Same as WV19-04
122	Aug-20	WV-20-01	635540	5575907	Border Phase	mal,bn,cp	Chl,Ep,Ksp,Ser		Medium to coarse grained granodiorite. This sample took from trench outcrop. Dikes of pale pink cut the rock and create chill margin in some places. Quartz veins locally limonitic up to 2.5 cm, associated with Kspar veins and local euhedral Kspar crystals up to 7m often. Locally strong Fe-oxid intense with quartz veins. Generally Cu mineralization associated with high K-spar alteration (veins, patchy, irregular). Copper mineralization include diss cpy, bn (cpy>>bn), mal, azo in fractures, veins of quartz-carbonate and joint planes . Local ep veins (about 3cm) with qtz. Chlorite alteration in some parts is intense. Plagioclase altered to clay locally. Altered rocks contains less magnetite than the others. Qtz-car-zeo veins are up to 2.5 cm wide, measured in 180/85 and 40/76. Locally strong iron-oxide alteration observed. Epidote and chlorite alterations in are common. The Border phase in this area is contain less mafic minerals (+ magnetite) compare with north part of claim.
123	Aug-20	WV-20-02	635589	5575769	Border Phase	mal,bn,cp	Chl,Ep,Ksp,Ser		General charachter same as WV-20-01
124	Aug-20	WV-20-03	636467	5575115	Border Phase	mal,bn,cp	Chl,Ep,Ksp,Ser		General charachter same as WV-20-01
125	Aug-21	WV-21-01	635132	5583675	Border Phase	mal	Chl,Ep		Diorite, Quartz Diorite, hb, mag rich and qtz, kfld poor. Mafic minerals : hb>mag +/_ bi (40%) are variable throughout the rock, locally large irregular patches of coarse hb intergrowths. Overall the rock is moderate-strongly magnetic rich especially in mafic-rich sections. Alteration: Chlorite alteration is common in fractures and replacing hb. Ep+/- qtz as irregular patches. K-feld not present in significant amounts. Mineralization: Malachite in fractures are common, rare diss, vein filling cpy, locally belbs of bn up to 1cm, bn also with malachite on fractures
126	Aug-21	WV-21-02	635338	5583656	Border Phase	mal	Chl,Ep		General charachter same as WV-21-01
127	Aug-21	WV-21-03	635540	5583415	Border Phase	mal,azo	Chl,Ep		General charachter same as WV-21-01
128	Aug-21	WV-21-04	635961	5583211	Border Phase	_	Chl,Ep		General charachter same as WV-21-01. No mineralization
129	Aug-21	WV-21-05	635994	5583280	Border Phase	_	Chl		General charachter same as WV-21-01. No mineralization
130	Aug-21	WV-21-06	631395	5581494	Border Phase	_	_		General charachter same as WV-21-01. No mineralization
131	Aug-21	WV-21-07	631242	5581448	Border Phase	_	_		General charachter same as WV-21-01. No mineralization
132	Aug-21	WV-21-08	632852	5581475	Highland-V	_	_		General character same as WV19-04

No	Date	Sample	Easting	Northing	Rock Group	Ore	Altertion	outcrop (m)	Description
133	Aug-21	WV-21-310	635081	5583713	Border Phase	mal,bn	Chl,Ep,Ksp,Ser		General charachter same as WV-20-01
134	Aug-21	WV-21-311	635206	5583566	Border Phase	azo	Chl,Ep		General character same as WV-20-01
135	Aug-21	WV-21-312	635995	5583231	Border Phase	_	Chl		General character same as WV-21-01. No mineralization
136	Aug-22	WV-22-01	636814	5582348	Chataway	_	Ser,Clay		Same as WV18-301,
137	Aug-22	WV-22-02	638141	5577375	Guichon	mal,bn	Chl,Ep,Ksp,Ser		Medium to coarse grained granodiorite. 25% mafic minerals (hb-bi, 50/50). 10% Kspar primary and some secondary in farctures with malachaite. 10% qtz; 50% palgiclase, weakly altered to Ser, Clay.
138	Aug-22	WV-22-03	638153	5577357	Guichon	mal,bn	Chl,Ep,Ksp,Ser		Same as WV-22-02
139	Aug-22	WV-22-04	636523	5575026	Border Phase	mal,bn,cp	Chl,Ep,Ksp,Ser		General character same as WV-20-00
140	Aug-22	WV-22-05	636525	5575029	Border Phase	mal,bn,cp	Chl,Ep,Ksp,Ser		General character same as WV-20-01
141	Aug-22	WV-22-06	636576	5575047	Border Phase	mal,bn,cp	Chl,Ep,Ksp,Ser		General character same as WV-20-01
142	Aug-22	WV-22-07	636570	5575064	Border Phase	mal,bn,cp	Chl,Ep,Ksp,Ser		General character same as WV-20-01
143	Aug-22	WV-22-313	636800	5582303	Chataway	_	Ser,Clay		General character same as WV18-301,
144	Aug-22	WV-22-314	636824	5582298	Chataway	_	Ser,Clay		General character same as WV18-301,
145	Aug-22	WV-22-315	636861	5582155	Chataway	_	Ser,Clay		General character same as WV18-301,
146	Aug-22	WV-22-316	638188	5577369	Bethsaida	_	_	3x5	Probably boulder, coase gained, leucocratic , porphyry qtz , bi book Kspar 5% primary. No minertalization
147	Aug-22	WV-22-317	638249	5577333	Guichon	mal,bn, spec	Chl		General charachter same as WV-22-03. I n the north flank of E-W survey trench in the area, medium-garined, intensive chloritized rock conains malachite and bornite mineralization in 2m and 6m wide (10m apart).
148	Aug-22	WV-22-318	636850	5582000	Chataway	_	Ser	core samples	Two drill holes cores were located (one of them 283feet), but they lie south of the property boundary, in an area about 250m south of the FRANK showing (plotted in 2008 and older map). No mineralization seen in drill cores. No split core was evident. These boxes are located near two big outcrops in the area . We believe that core is located close to actual drill collar. Probably these outcrops were drill targets. FRANK drill core specimen are similar to WV18-301 rock type.
149	Aug-22	WV-22-318C	636900	5582100	Chataway	_	Ser		General character same as WV18-301,
150	Aug-22	WV-22-319	636406	5575124	Border Phase	mal,bn,cp	Chl,Ep,Ksp,Ser	20x30	General character same as WV-20-01
151	Aug-22	WV-22-320	636526	5575123	Border Phase	mal,bn,cp	Ch,Ep,Ksp,Ser	50x20	General character same as WV-20-01

APPENDIX IV

WEST VALLEY 3D- INDUCED POLARIZATION AND MAG GEOPHYSICAL REPORT

Geophysical Report
for
Happy Creek Minerals Ltd.

Magnetic and 3DIP Surveys
on the
West Valley Grid

N50.39° W121.1°
NTS Sheet 092I06
BCGS Sheet 092I035
Mining Zone Kamloops

Merritt, BC, Canada

Survey conducted by
SJ Geophysics Ltd.
September-October 2009

Report written by
Charlotte Thibaud, S.J.V. Consultants Ltd.
January 2010

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Illustration Index

1. Introduction

Magnetic and 3D Induced Polarization (3DIP) surveys were conducted for Happy Creek Minerals Ltd. on its West Valley project by SJ Geophysics Ltd. between September and October, 2009. On the proposed grid, a total of 22 line kilometres were surveyed with both geophysical methods.

This particular portion of the West Valley property has been isolated to be investigated with a magnetic survey to help in delineating the transition between felsic and mafic environments that is happening in the area. Three major sulphidation showings are covered by the 3DIP grid and it was expected that this survey would help in delineating more sulphidated areas.

Initial quality control was performed on site by the field geophysicist, while the final data processing and inversions were carried out in the offices of S.J.V. Consultants Ltd. in Delta, BC.

This geophysical report summarizes the operational aspects of the survey and the survey methodologies used, presents an interpretation of the data and gives recommendations on future work to be done on the property.

2. Location and line information

2.1. Access to property and grid information

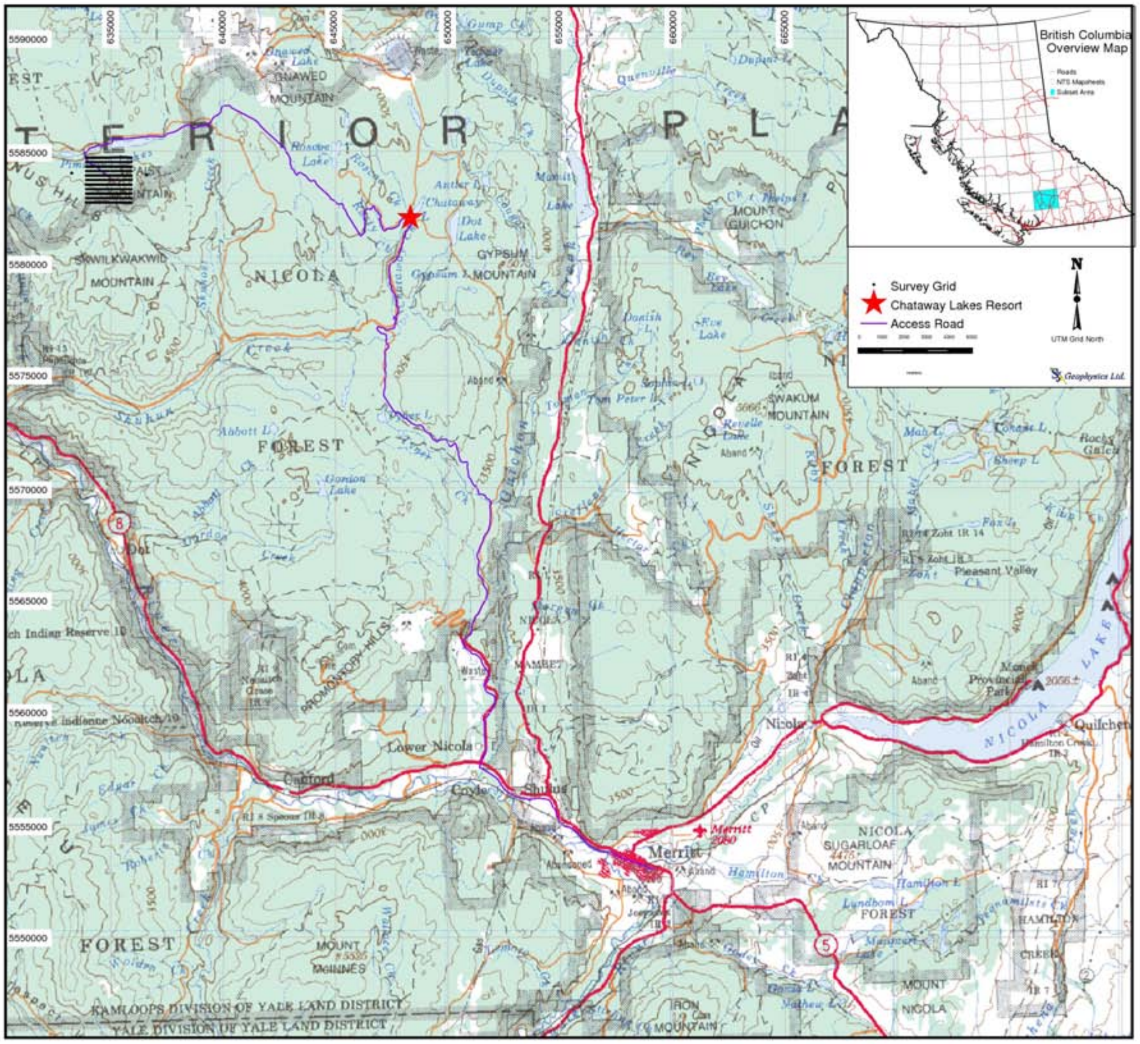

Illustration 1: Location map of the West Valley grid.

The West Valley project is located approximately 50 km northwest of Merritt, BC. From town, follow Highway #8 west for ten kilometres to Lower Nicola. Turn north on Aberdeen Road. You will pass by the Craigmont Mine. As you continue you will notice kilometre markings which begins at kilometre 1. The logging road starts at kilometre 7 and it is not paved. Continue on the Pimanuis road for 40.2 kilometres. The Pimanius road is an active logging road with radio control, frequency 153.470. At the 40.2 km sign turn south onto a minor road for access to the grid. Please refer to Illustration 1 for access map to the grid.

The crew was accommodated at the Chataway Lakes Resort (red star on Illustration 1) located along the Pimanuis road approximately 15 km east as a crow flies from the survey grid.

2.2. Grid information

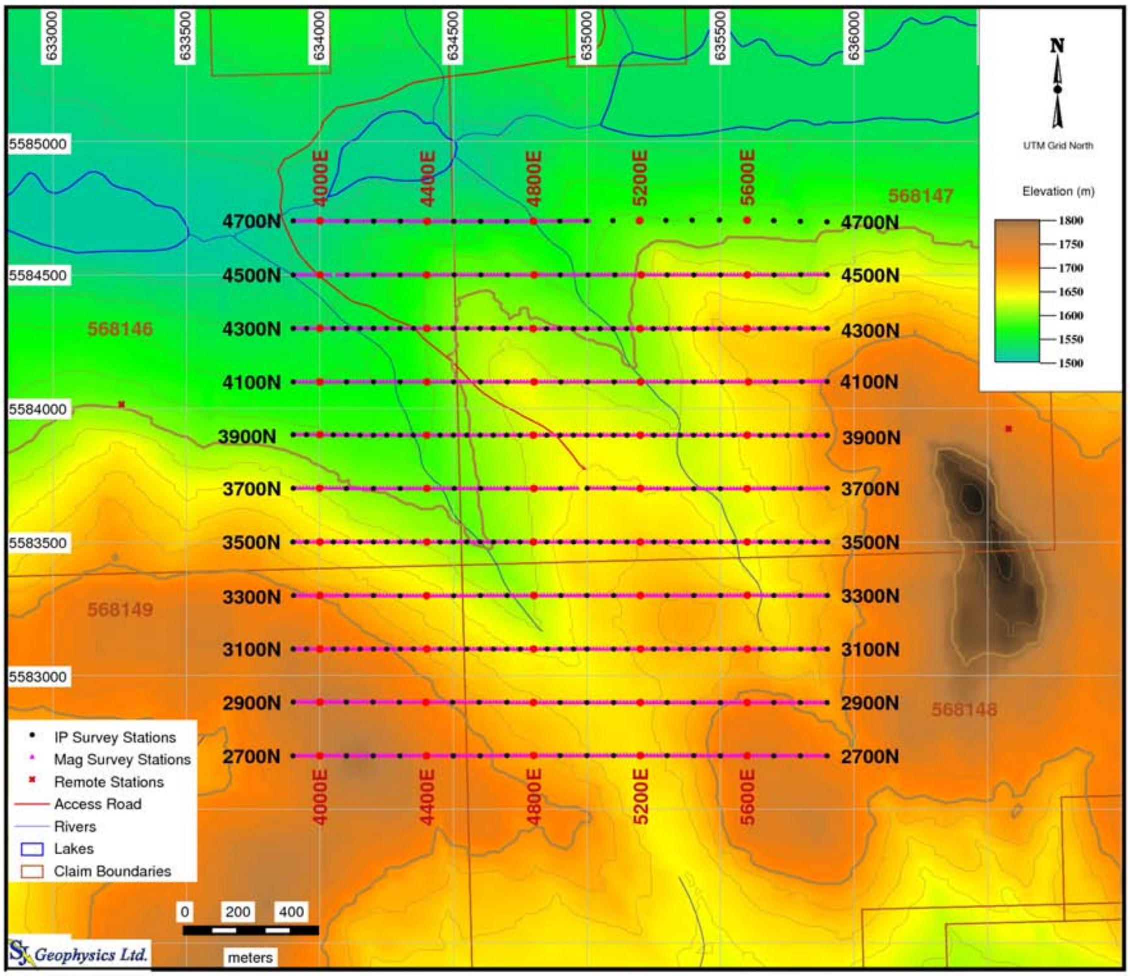

Illustration 2: Map of the 3DIP and Magnetic surveys.

The grid on the West Valley project consisted of 11 2 kilometres long lines, labelled from 2700N to 4700N, with stations from 3900E to 5900E (see Appendix A for details of the lines). The norther-west corner of the grid was crossed by a northwest to southeast logging road that was used for equipment and people's transportation and as a base line for the magnetic survey.

For the magnetic survey, only part of the most northern line was surveyed, reducing the total production for the magnetic survey to 21.9 line kilometres. The 3DIP survey consisted of 5 receiver lines alternating with 7 transmitter lines. All the lines were surveyed on their whole length, totalling 22 line-kilometres of production

The grid was marked with wood pickets and flag tape every 25m. All locations had been taken with differential GPS by Meridian Mapping Ltd. prior to the 3DIP and magnetometer surveys. However, the SJ Geophysics Ltd. crew also took the measurements with handheld GPS and clinometres as a backup for the survey and to calculate the resistivity values while waiting for the differential GPS data.

The grid was crossed by rolling hills, clear cut with blown down trees, outcrop and pine forests. No major geographical difficulties were present on this grid. Some areas of the grid are scattered by numerous outcrops, making ground contact difficult for the 3DIP survey.

3. Field work and instrumentation

3.1. Field logistics

The crew who worked on the West Valley grid consisted for the majority of the survey of seven SJ Geophysics Ltd. employees: Alexandre Jego (geophysicist), Rene Poulin (operator), Liam Fowlie, Morgan Bezembinder, Vernon Prince and Shane Thomas. Rolf Krawinkel (senior geophysicist) joined the crew for the last three days.

On September 26th the SJ Geophysics crew mobilized from a previous survey. They arrived to their accommodations for the survey (cabins at the Chataway Lakes Resort located near Merritt) the same day. The crew cooked all their meals and regularly had to drive to town to buy supplies.

On September 27th, the crew setup the grid for the 3DIP survey (remotes, mother line, current line) and started the magnetic survey. From September 28th to October 2nd the two first receiver lines (L2900N and L3300N) were surveyed with 3DIP method. Quality control in field of the chargeability data detected odd noisy readings. To determine the source of these readings the following day (October 3rd) Alexandre and Rene spent their day checking the gear, while the rest of the crew continued the magnetic survey and setup the rest of the grid for the 3DIP survey. After checking all the gear the cause of these strange readings were still unsolved and therefore the office assisted in determining the source. Since the issue was with the occasional chargeability readings and the resistivity data were fine, the crew resumed the 3DIP survey the next day. Jayson Prince demobilized to Merritt late that night. The next day the crew surveyed the last 3DIP receiver line, line 4500N, and carried out some further transmitter tests. Late that night Rolf Krawinkel mobilized from Delta to Chataway Lake Resort with two transmitters of different brands in order to carry out some testing and attempt to understand the noisy chargeability data issues. Further discussion on the data quality and some thoughts on the noisy readings are discussed in Section 3.3. On Oct 7th the IP crew surveyed the receiver line L4500N again, using different transmitters and the quality of the chargeability data greatly improved. However, the decision was made in agreement with the client, not to resurvey the entire grid with one of these other two transmitters.

The next day was spent picking up the gear and packing the equipment. Alexandre and

Rolf demobilized back to Delta the same day while the rest of the crew drove to their next project.

In order to avoid the cables being chewed by animals and thus assuring the quality of the data, all cables were picked up at the end of each day and laid out again every morning. Despite these precautions the remote and current wires were frequently broken.

The SJ Geophysics crew completed the survey on the West Valley grid in an efficient manner despite extra effort in resolving an apparent noise problem. Testing the equipment pulled part of the crew away from actual production on 3 days, slowing down the IP production. The production days had to be shortened to allow the crew to carry out further testing and to drive to Merritt where they were able to have access to phone and internet connection to communicate with the office which was actively assisting them in finding the reason of the noisy data problem.

3.2. Survey parameters and field instrumentation

A modified pole-dipole 3DIP configuration array was used with 100m dipoles, that could be extended to 200m occasionally in areas where the signal was weak. The IP data was collected using two SJ Geophysics SJ-24 Full Waveform receiver kits set up in series. The closest receiver to the current injection was recording the data collected by 12 dipoles while the other receiver was recording the data collected by 8 dipoles, giving a total array span of 2km. The current was injected with a 2 seconds on, 2 seconds off duty cycle into the ground via a transmitter. A Walcer TX9000 voltage-regulated transmitter was used for most of the survey. The last receiver line was resurveyed with V.I.P. and GDD transmitters (see Appendix B for instruments specification).

For the production phase, the 3DIP configuration consists of two current lines being recorded into the receiver line. The current lines were located on either side of the receiver line, and subsequent lines were surveyed with a single current line overlap.

The potential array was implemented using specialized 8 conductor IP cables configured with 100m takeouts for the potential electrodes. At each current station, electrodes consisted of three 1.0m stainless steel rods, 15mm in diameter. For the potential line, the electrodes consisted of stainless steel pins, 50cm long and 10mm in diameter, which were hammered into the ground.

Two IP remote stations were used located off the east and west ends of the grid. In an effort to achieve better depth penetration and cleaner data, the eastern remotes were used when surveying the western side of the lines and vice versa. Gradient shots were also taken using the eastern and western remotes as the two current injection locations.

The remote current locations consisted of four 1m stainless steel rods, 15mm in diameter. The exact locations of the remote currents were acquired by GPS for use in the geophysical calculations.

3.3. Data Quality

3.3.1: Magnetic data

The quality of the magnetic data was relatively good. A few magnetic storm happened for two days before the survey starts but none occurred during the survey. The magnetometer used as a base station exhibited slightly noisy readings (+/- 10nT in average). However this noise was considered as insignificant compared to the amplitude of the anomalies detected by the rover unit, consequently no thorough cleaning was carried out on the base station data.

The data collected by the rover unit were weakly noisy and only few readings had to be deleted on line 3700N.

3.3.2: 3DIP data

Early on the survey, it was noticed that occasional chargeability readings did not really fit the other data and thus raised some concerns. After a thorough testing of the equipment and an intensive study of the data by the staff geophysicists in the office, it was determined that this problem was related to the specific ground conditions which allowed the instrumentation noise of the transmitter to become relevant.

Illustration 3 below shows a dot plot from SJ Geophysics' internal quality control package that highlights an erroneous reading (the striped vertical green line).

The ground conditions on the West Valley project consisted of a very narrow, low chargeability data range (2ms to 8ms) with a background of approximately 3ms. It was discovered that these erroneous readings had a pattern associated with them. When the crew experienced a current injection site with poor contact (typically a highly resistive region) and they pushed the instrument to its limit in attempt to maximize the current injection, it was noticed that the chargeability values dropped by approximately 1ms.

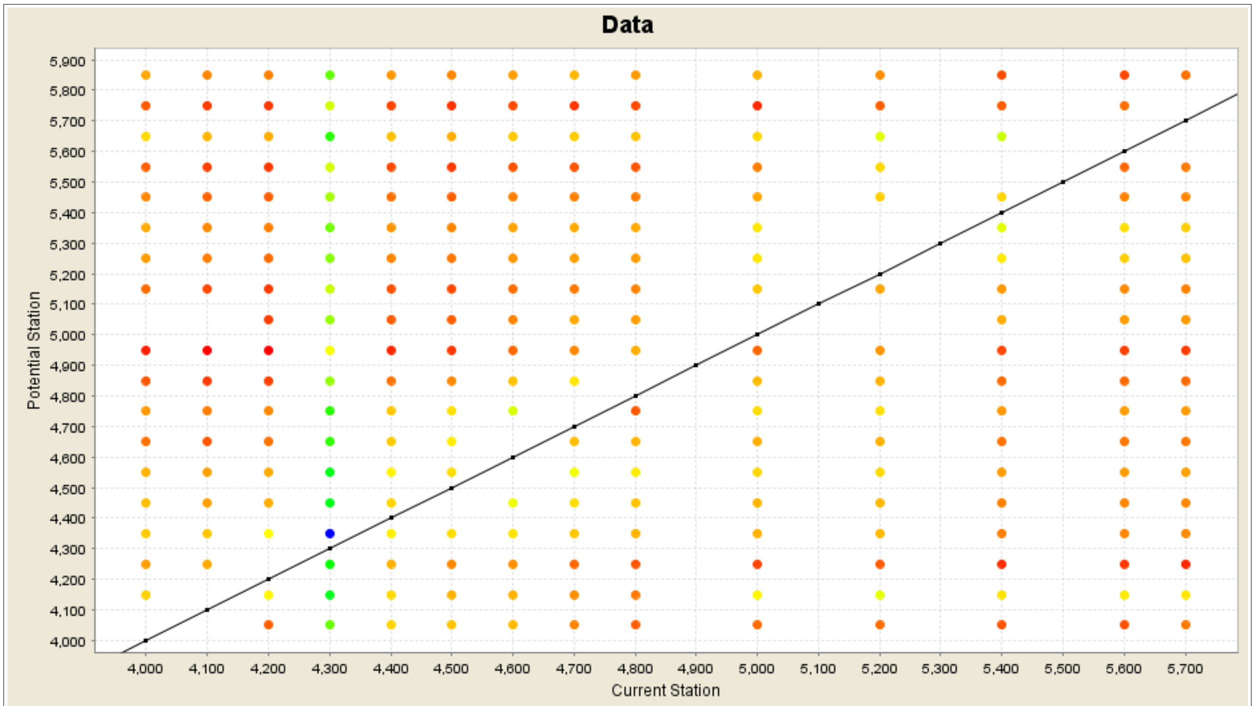

Illustration 3: Example of Noisy Chargeability reading

(Receiver line 3700N, Transmitter line 3900N)

Each line of dots corresponds to a given dipole, each column of dots corresponds to all the readings for a given current injection. For all readings the chargeability values are around 3-4 mV/V except when the current is injected on station 4300E the whole reading is lower than the rest with values lower than 1mV/V.

Essentially with the narrow, low chargeability range of the property, the signal to noise ratio was near parity. Therefore, when the instrumentation was used at its maximum to counteract contact issues associated with high resistivity zones, the instrumentation noise became significant enough to influence the readings. It should be noted we are talking about 1ms of error with the instrument, which in this case can be greater than 30% error.

The testing of the different transmitters (VIP and GDD) on the last line, clearly showed that the lower powered transmitters had less noise associated with them. However, under certain circumstances they may not be able to inject enough current into the ground to achieve an acceptable reading. When the Walcer was not set at its maximum setting the data were consistent with the other two instruments.

For the noisy readings (Walcer transmitters at maximum power), it would be recommended to remove them from the inversion to ensure the model is not influenced by these and create a false anomaly. Although a number of chargeabilty readings will be removed, sufficient data is left to conduct a satisfactory inversion.

4. Geophysical techniques

4.1. IP method

The time domain IP technique energizes the ground surface with an alternating square wave pulse via a pair of current electrodes. On most surveys, such as this one, the IP measurements are made on a regular grid of stations along survey lines.

After the transmitter (Tx) pulse has been transmitted into the ground via the current electrodes, the IP effect is measured as a time diminishing voltage at the receiver electrodes. The IP effect is a measure of the amount of IP polarizable materials in the subsurface rock. Under ideal circumstances, IP changeability responses are a measure of the amount of disseminated metallic sulphides in the subsurface rocks.

Unfortunately, there are other rock materials that give rise to IP effects, including some graphitic rocks, clays and some metamorphic rocks (serpentinite for example). So from a geological point of view, IP responses are almost never uniquely interpretable. Because of the non-uniqueness of geophysical measurements it is always prudent to incorporate other data sets to assist in interpretation.

Also, from the IP measurements the apparent (bulk) resistivity of the ground is calculated from the input current and the measured primary voltage. IP measurements are generally considered to be repeatable to within about five percent. However, they will exceed that if field conditions change due to variable water content or variable electrode contact.

IP measurements are influenced, to a large degree, by the rock materials nearest the surface (or, more precisely, nearest the measuring electrodes), and the interpretation of the traditional pseudosection presentation of IP data in the past has often been uncertain. This is because stronger responses that are located near surface could mask a weaker one that is located at depth.

4.2. 3DIP method

Three dimensional IP surveys are designed to take advantage of the interpretational functionality offered by 3D inversion techniques. Unlike conventional IP, the electrode arrays are no longer restricted to in-line geometry. Typically, current electrodes and receiver electrodes are located on adjacent lines. Under these conditions, multiple current locations can be applied to a single receiver electrode array and data acquisition rates can be significantly improved over conventional surveys.

In a common 3DIP configuration, a receiver array is established, end-to-end along a survey line while current electrodes are located on two adjacent lines. The survey typically starts at one end of the line and proceeds to the other end. A typical 12 dipole array normally consists of four 200m dipoles, followed by eight 100m dipoles. In some areas these spacings are modified to compensate for local conditions such as inaccessible sites, streams, and overall conductivity of the ground. Current electrodes are advanced along the adjacent lines at 100m increments. Receiver arrays are typically established on every second line (200m apart).

4.3. Magnetic survey method

Magnetic intensity measurements are taken along survey traverses (normally on a regular grid) and are used to identify metallic mineralization related to magnetic materials in the ground (e.g., magnetite and/or pyrrhotite). Magnetic data are also used as a mapping tool to distinguish rock types and to identify faults, bedding, structure and alteration zones. Line and station intervals are usually determined by the size and depth of the exploration targets.

The magnetic field has both an amplitude and a direction. The most common technique used in mineral exploration is to measure just the amplitude component using an Overhauser magnetometer. The instrument digitally records the survey line, station, total magnetic field and time of day at each station. After each day of surveying, data are downloaded to a computer for archiving and further processing.

The earth's magnetic field is continually changing (diurnal variations) so field measurements are calibrated to these variations. The most accurate technique is to establish a stationary magnetometer (base station) to continually monitor and record the magnetic field over the course of a day. The base station and field magnetometers are synchronized on the basis of time and computer software is used to correct the field data for the diurnal variations.

5. Brief description of the geology of the area

The West Valley property is part of the Highland Valley Porphyry system and is located in one of the oldest phases (Border Phase) of the Grichon Creek Batholith.

The Batholith itself is crossed from north to south by the major Lornex fault which corresponding splay faults have been actively mined for gold. It was thus expected that more secondary faults of this kind would cross the West Valley property (Illustration 4).

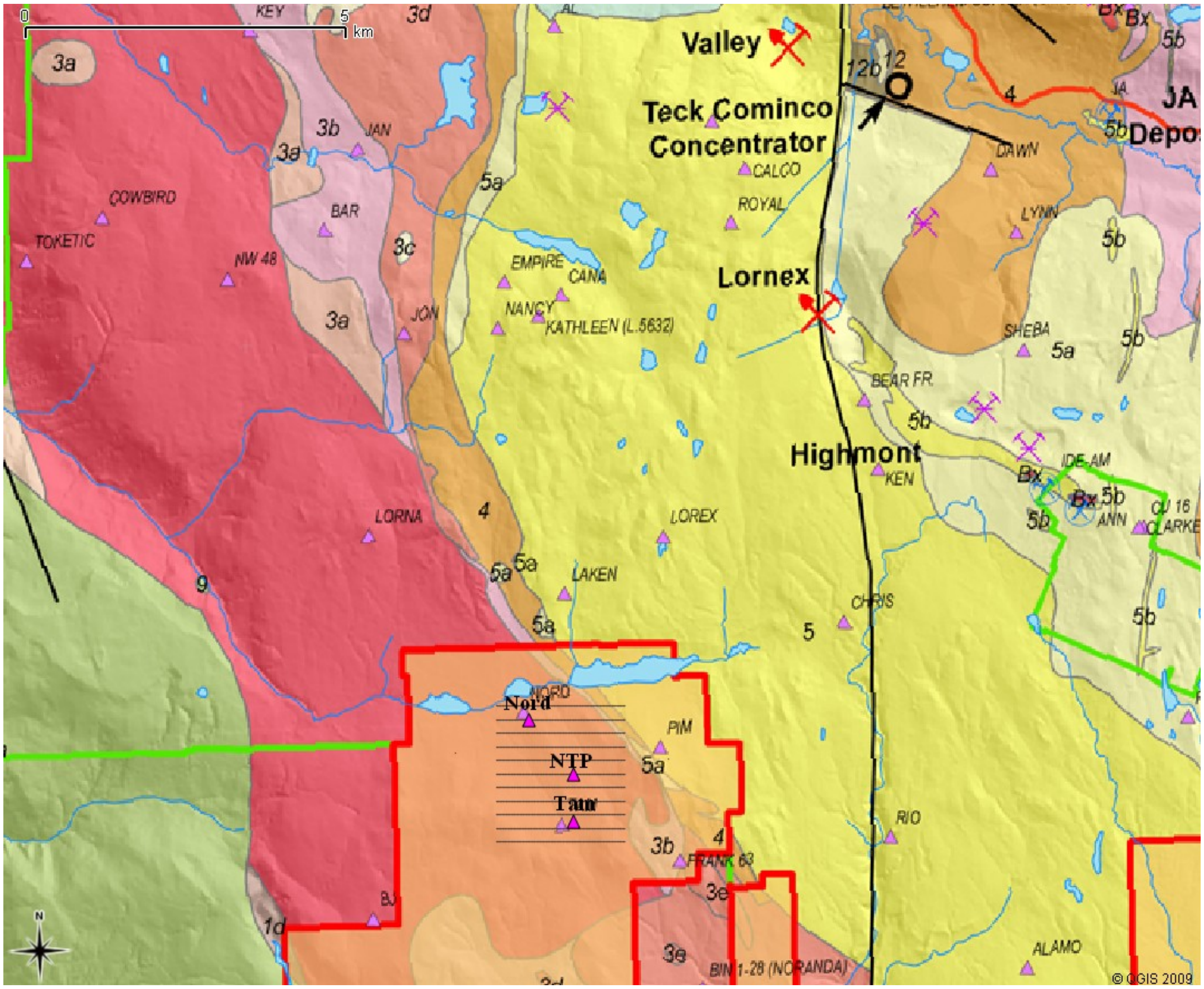

Illustration 4: View of the regional geological map.

(Zoom on map located on http://www.happycreekminerals.com/s/Rateria.asp?ReportID=163646)

Yellow: young phase of the intrusive (felsic), Dark Salmon: older phase -Border Phase- of the intrusive (mafic),

Pink triangles: showings (the ones indicated on the regional geological map are slightly off compared to the GPS points provided by the client)

Detailed geological and geochemical surveys have been carried out throughout the property and the 3DIP and magnetic surveys conducted by SJ Geophysics Ltd. are centered on three showings: Nord, NTP and Tam (Illustration 5). The first two exhibit relatively high levels of sulphidation, mainly chacocyte and malachite, whereas the Tam showing exhibits a lower level of sulphidation. A transition between felsic and mafic environments has been noticed on the grid but the lack of outcrops made it difficult to precisely delineate the geological boundary.

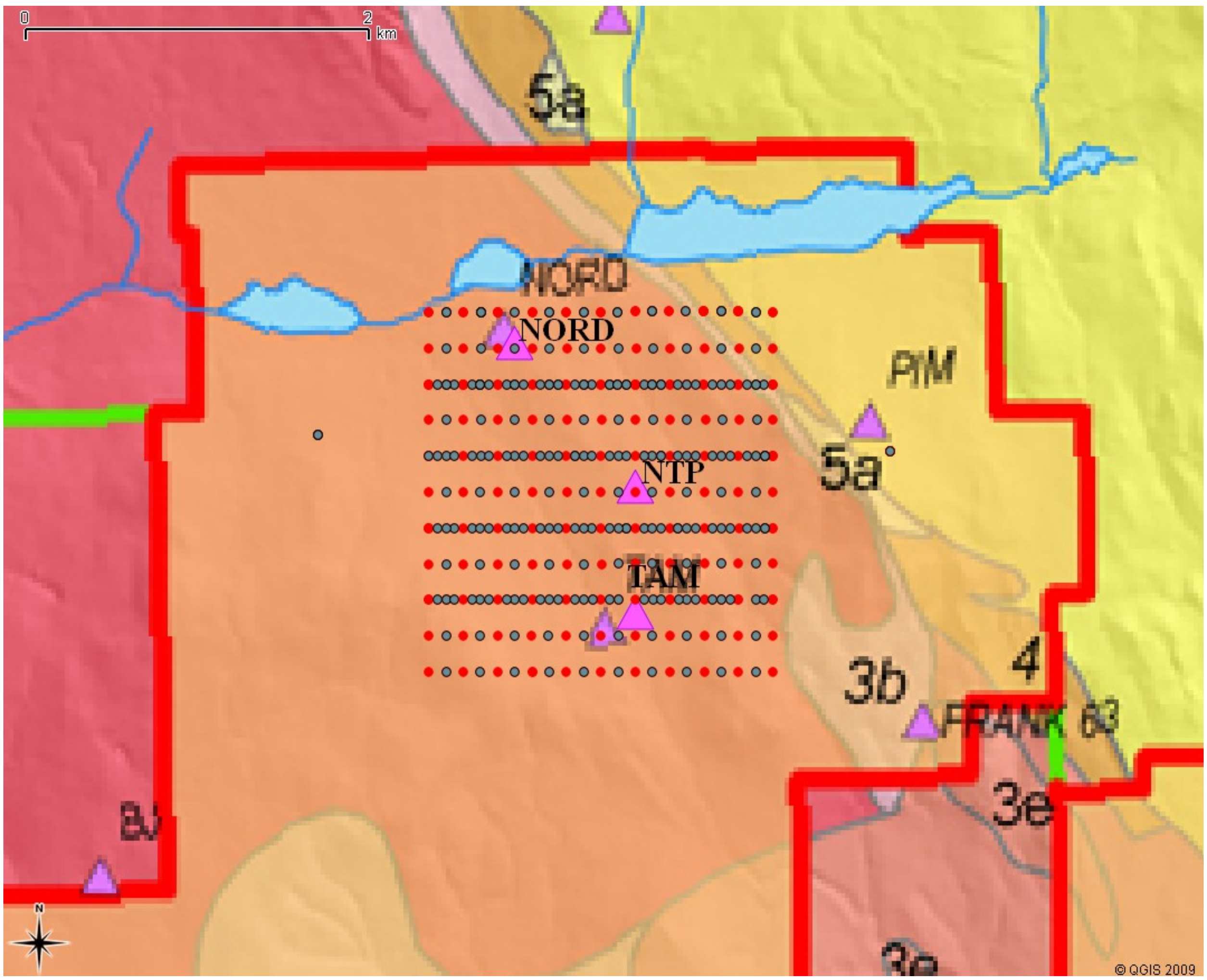

Illustration 5: View of the survey grid over the geological map.

(Zoom on map located on http://www.happycreekminerals.com/s/Rateria.asp?ReportID=163646)

Distance between 2 red dots=200m

Yellow: young phase of the intrusive (felsic), Dark Salmon: older phase of the intrusive (mafic)

Pink triangles: showings (the ones indicated on the regional geological map are slightly off compared to the GPS points provided by the client)

The magnetic survey was thus expected to help map the transition between the felsic (low magnetite content) and mafic (high magnetite content) environments as well as more subtle breaks or contacts within the different environments. The 3DIP survey was expected to help in detecting possible faults and breaks usually appearing with a low resistivity response, the high resistivity response being related to the presence of high density material and sulphidation zones revealed by high chargeability features.

6. Magnetic Surface Map

The magnetic data show a good correlation from one line to another, highlighting low frequency features oriented northwest-southeast that can be related to major geological breaks or faults (Illustration 6).

It should be noted that the resolution along the lines (one measurement every 12.5m) is much greater than the resolution between the lines (lines spaced 200m appart).

Presented as a simple map, the large amplitude variations of the magnetic data (from less than 53300nT to more than 5630nT) only allows to mapping of the strongest and largest features and hides most of the weaker ones.

The low frequency variations of the magnetic data outline two distinct magnetic environments that can be related to a geological contact. A distinct transition between a magnetic low area (<54500nT) to the east and a magnetic high area (>54500nT) to the west runs approximately from line 4700N station 4800E down to the eastern end of line 2700N (thick black dashed line on Illustration 6), following the eastern-most river crossing the grid. This break could be related to a transition between felsic (low magnetic background due to low magnetite content of the rocks) and mafic (high magnetic background due to the high magnetic content of the rocks) environments.

In the magnetic high area, two additional magnetic breaks are apparent as weaker amplitude values and cross the grid parallel to the previously mentioned transition (thin black dashed lines on Illustration 6). They both can be related to faults crossing the mafic area running parallel to the geological bedding.

The longest of the two runs approximately from the northwest corner of the grid down to line 2700N station 5000E, following the western-most river crossing the grid.

The second break, located further west, is almost parallel to the previous two. It runs from the western edge of line 3900N down to line 2900N station 4600E.

The two highest magnetic features (>56000nT), located to the south of the survey grid can be related to topographic highs crossing the grid.

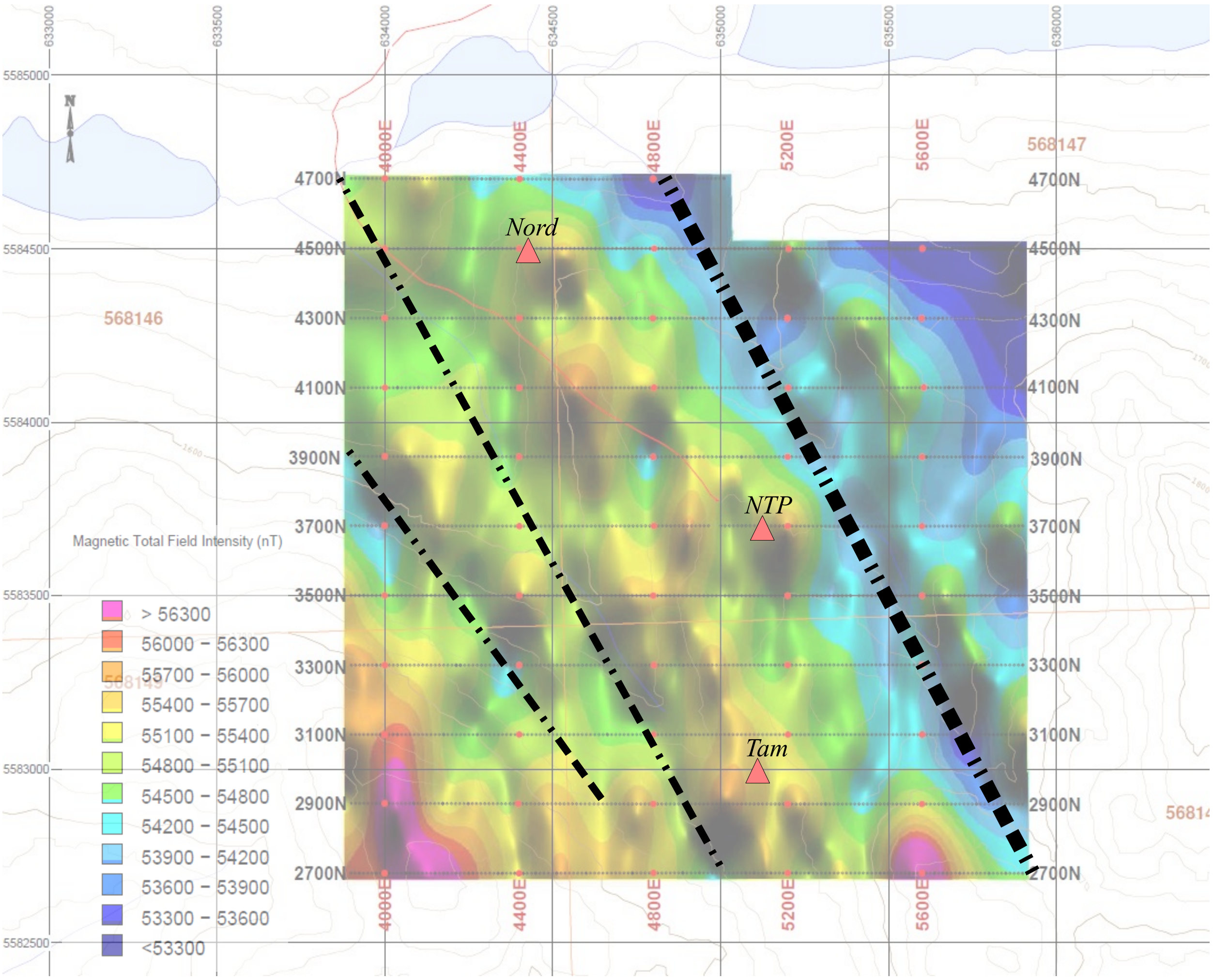

Illustration 6: Magnetic surface map of the area with topography.

(Mapping by S.J.V. Consultants Ltd.)

Thick black dashed line: main magnetic break

Thin black dashed lines: secondary magnetic breaks

Pink triangles: chalcocyte and malachite showings

7. The 3DIP models

7.1. Inversion process

The inversion software requires multiple files, created by the user, in order to carry out the inversion calculation. Amongst these files, the mesh is the base of the inversion. It consists of a geo-referenced cube divided vertically and horizontally into multiple cells of different sizes, the smallest ones being located in the survey area. The mesh is built larger than the survey area and the cells located outside of this zone, called padding cells, are used by the inversion to reduce the edge effects inherent to the iterative inversion calculation. During the inversion, each cell is “filled”" with a value calculated from the measured data.

The inversion also requires a topographic file that covers a surface that matches the mesh and also covers the gaps inbetween the lines. This topography file was created based on a 30m accuracy NTS (National Topographic System) elevation contour.

The inversion was calculated using the code developed by the University of British Columbia's Geophysical Inversion Facility. Due to the large line and station spacing, the thinnest structures cannot be expected to be detailed, making it difficult to estimate the actual thickness, orientation and nature of small geological structure (such as veins) causing this geophysical response.

It is important to note that the models presented in the following sections are only some of multiple possible models. Indeed, for logistical reasons, the amount of data collected during the survey is always smaller than the amount of equations that the inversion algorithm has to solve (under-determined problem). However, it is estimated that the final model is the most geologically realistic.

All the cells are not influenced by the same amount of measured data, the further away from the center of the grid the fewer the data. The distribution of the influence of the data on the mesh is determined by the sensitivity model, created after each iteration. It is a useful tool to determine the level of confidence for any area of the model at any depth.

In order to have an overview of the geophysical features detected by the survey and to test the data, two preliminary inversions were carried out. The cell dimensions of the preliminary inversion mesh were relatively large (40m in the horizontal direction over the survey area and

20m vertically at the subsurface, progressively increasing with depth) to minimize the size of the mesh and thus decrease the inversion time. The first preliminary inversion was carried out with all the surveyed lines, including the repeated line 4500N (surveyed with three different brands of transmitters). As it was suspected that the information provided by this later line might hide the weaker pattern detected by the other survey lines, a second preliminary inversion was carried out without this repeated line.

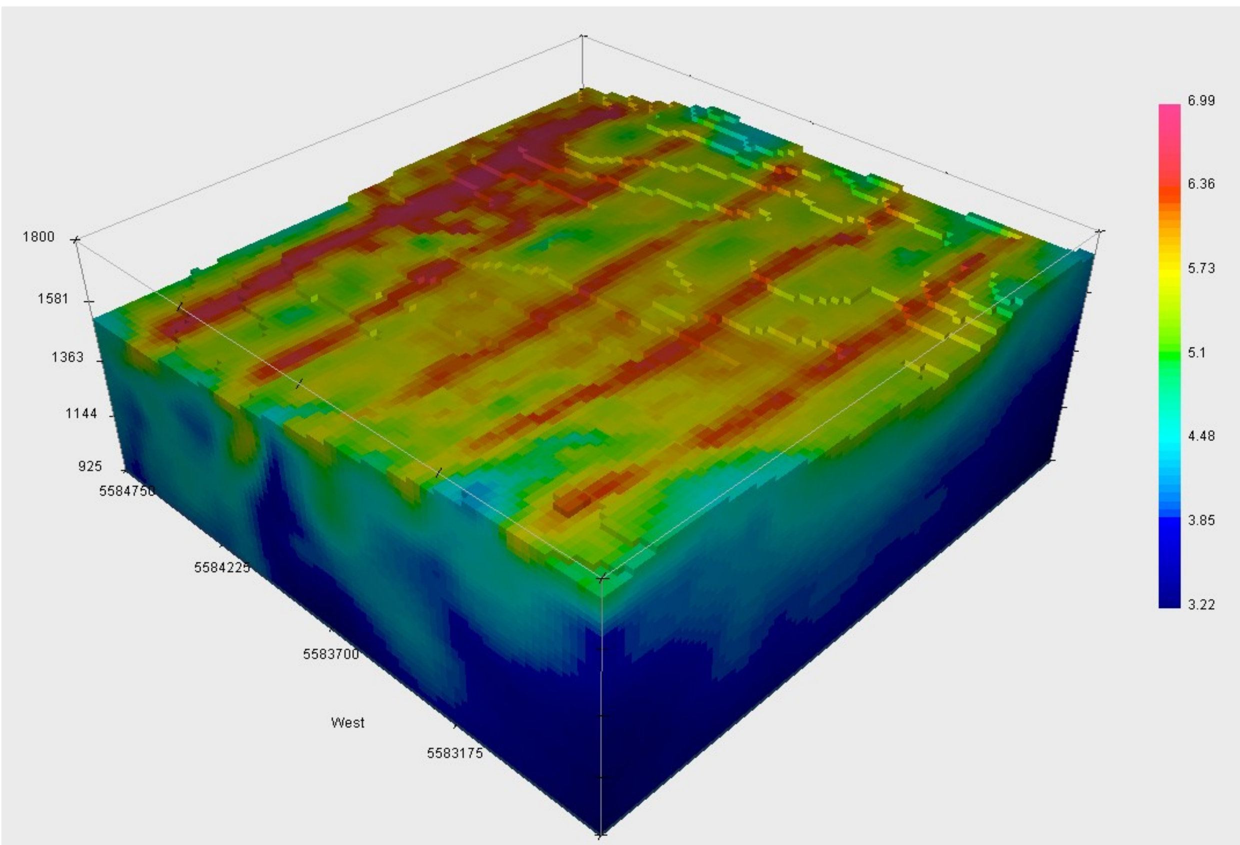

Illustration 7: Southwest view of the sensitivity model produced by the IP inversion.
(view from Meshtool3D)
The highest sensitivity zones are located along the survey lines, especially the receiver lines.

Comparison between these two preliminary sensitivity models eventually showed that the influence of the data on the model is similar with and without repeated line 4500N. A decision was thus made to keep the redundant data of repeated line 4500N in the final inversion. The chargeability features were similar between the two preliminary models and looked realistic enough not try to level the suspicious data that were deleted during quality control.

The final inversion was carried out using 25m cells in the horizontal direction and 20m vertically at the subsurface, progressively increasing with depth.

7.2. Data presentations

False colour contour maps of the inverted resistivity and chargeability results can be produced for selected depth. Data are positioned using UTM coordinates gathered during the field work. This display illustrates the spatial distribution of the geophysical trends at the scale of the survey grid, outlining strike orientation and possible fault offsets.

The topography variations add a level of complexity to the interpretation, especially with the use of maps. Plan maps can be displayed in two ways: depth below the topography or as horizontal slices at constant elevation.

Plan maps plotted for both resistivity and chargeability at apparent depths of 75m, 100m, 150m, 200m, 250m, 300m and 400m are attached in Appendix D.

Vertical slices of the resistivity and chargeability models are also plotted as false colour sections for each survey line (Tx and Rx). This allows a direct comparison of the resistivity and chargeability variations. These 2D sections are provided in Appendix D.

With the computer technology that exists today, the 3D inversion results can also be easily viewed using a 3D visualization program such as UBC-GIF's Meshtool3D program or open-source software such as Paraview. These programs allow one to plot contours and thresholds of the resistivity and chargeability models simultaneously. It enhances the interpretation process by illustrating the direct association between the different parameters.

7.3. Resistivity Model

The Resistivity Model, presented at 200m below topography on Illustration 8, exhibits a relatively high resistivity background. The model is composed of two distinct zones exhibiting distinct resistivity properties.

The northern half of the model (north of line 3700N) is scattered by several high resistivity zones clearly standing out from the background whereas the resistivity features visible on the southern half (south of line 3700N) are less prominent and closer to the background value.

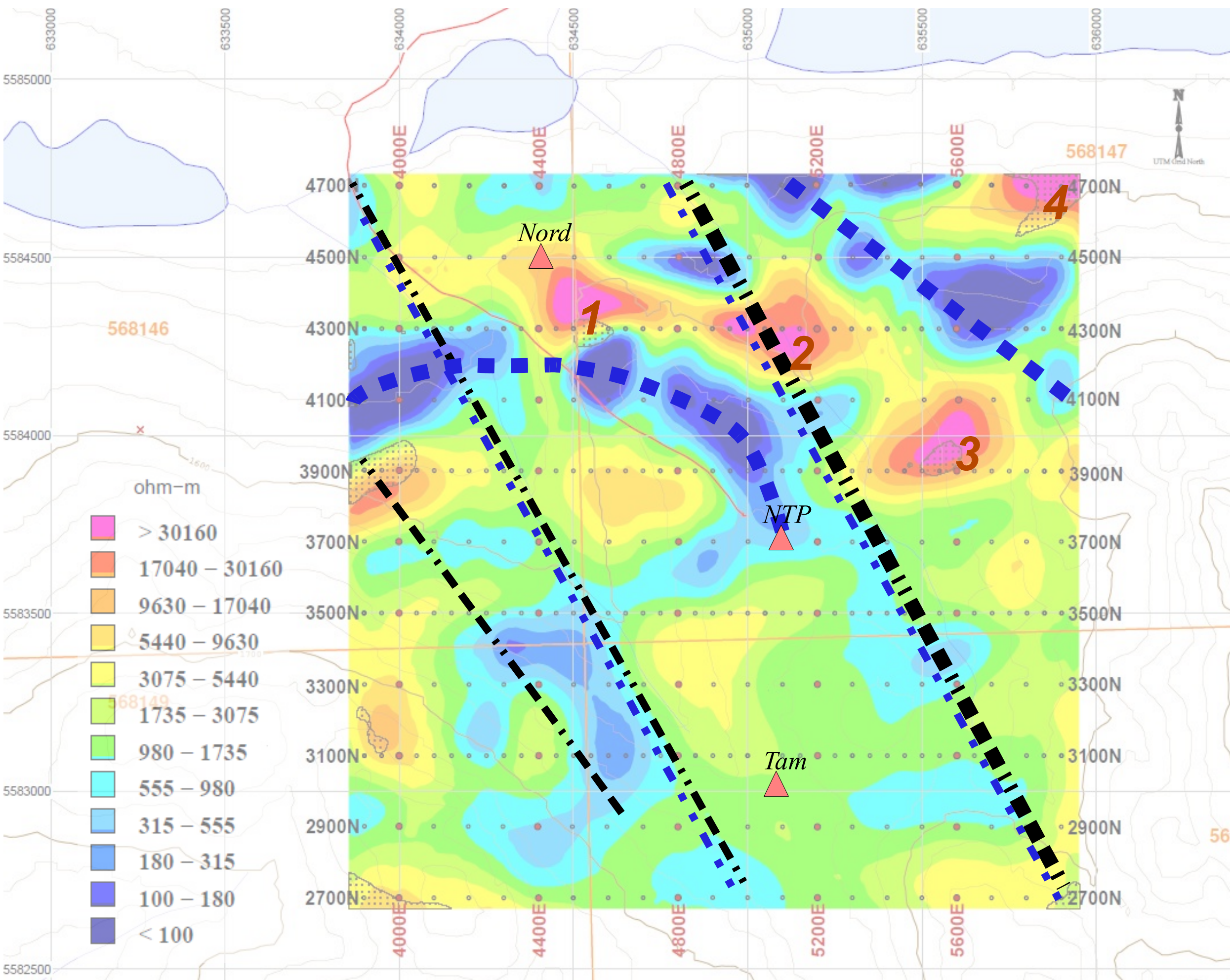

Illustration 8: Plan Map of the Resistivity Model at 200m below the topography.

(Mapping by S.J.V. Consultants Ltd.)

Thick black dashed line: main magnetic break, Thin black dashed lines: secondary magnetic breaks

Thick Blue dashed lines: main resistivity lows, Thin Blue dashed lines: secondary resistivity lows

Red triangles: chalcocyte and malachite showings

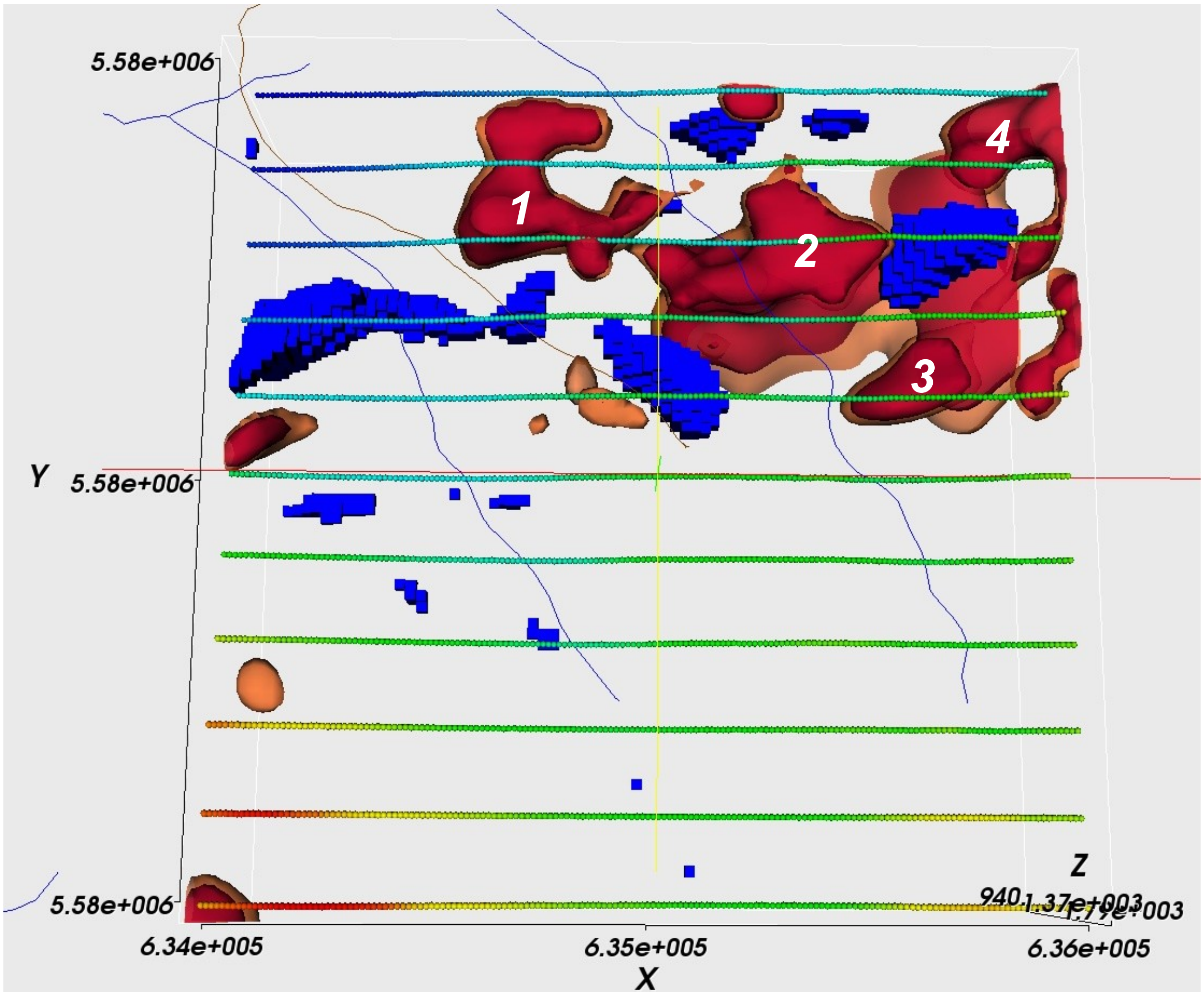

Illustration 9: Top view of the main Resistivity Model features.

(View from Paraview)

Blue Threshold: low resistivity [1;150] ohm-m

Orange Isocontour: 15000 ohm-m

Red Isocontour: 20000 ohm-m

The northern half of the model exhibits four distinct features of relatively high resistivity (Features 1, 2, 3 and 4, >1700 ohm-m) and two major low resistivity trends (<150 ohm-m). The high resistivity features are concentrated in the two eastern-most thirds of this zone (see Illustration 9). Three of them (Features 1, 2 and 3) are located between lines 3900N and 4900N and between stations 4200E and 5800E. They are aligned along a northwest-southeast trend, intersecting the major magnetic break described earlier with a narrow angle. Feature 2 coincides with this break whereas the Feature 1 almost coincides with the “Nord” showing.

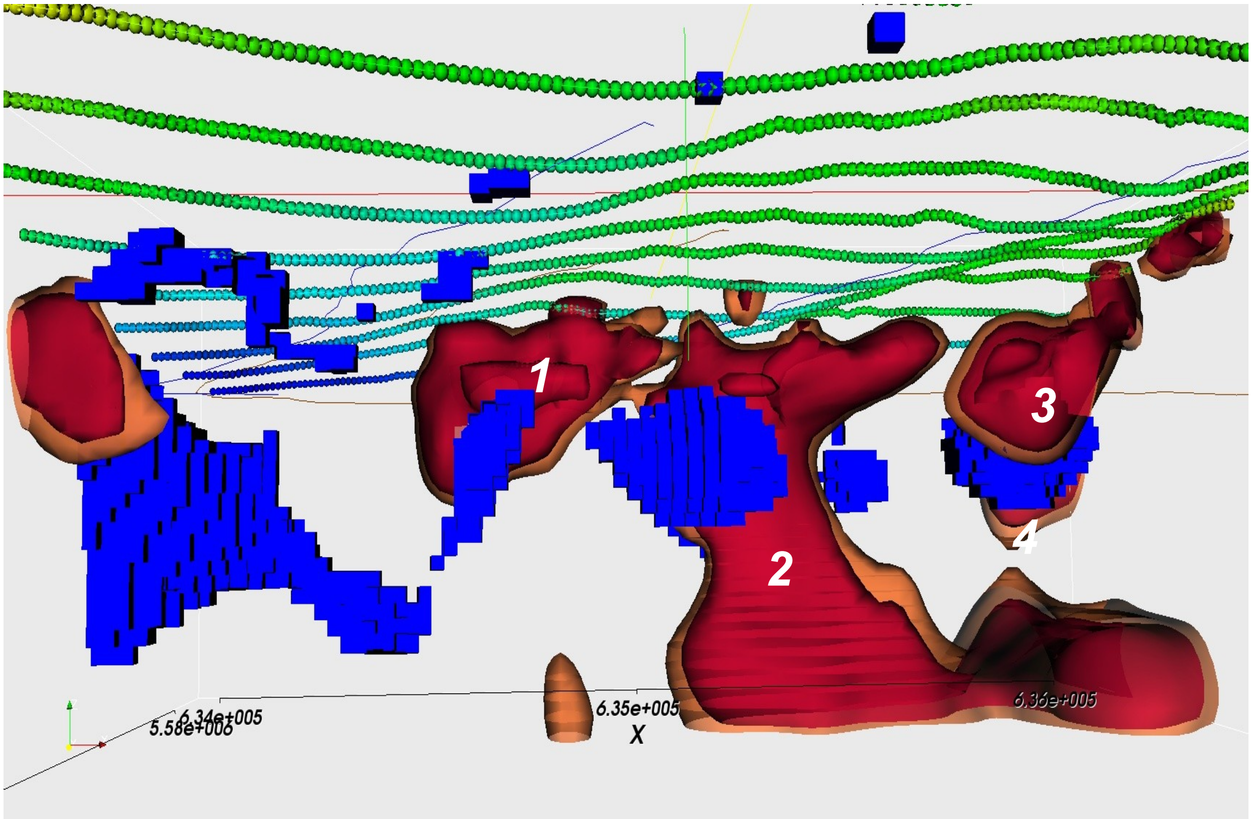

Illustration 10: South view of the main Resistivity Model features.

(View from Paraview)

Blue Threshold: low resistivity [1;150] ohm-m

Orange Isocontour: 15000 ohm-m

Red Isocontour: 20000 ohm-m

All three features are visible from the surface but their extent at depth varies from one feature to another. Features 1 and 3 appear to close at approximately 300m below the topography whereas Feature 2 joins an extended and deep resistivity feature at approximately 400m below the topography and seems to extend past the depth of investigation (see Illustration 10).

It remains difficult to determine if these three features are independent from each other or if they join at the near surface as they appear connected in the inversion model. However, this connection may also be related to an inversion artifact.

The fourth high resistivity feature, 4, is located in the northeast corner of the survey grid. Because of its limited extent and its location, it should be considered carefully. It is visible from the surface and seems to extend at depth where, alike Feature 2, it almost joins the deep and extended high resistivity feature mentioned previously.

The low resistivity trends (<150 ohm-m) crossing the north zone of the grid do not stand out clearly at the surface but appear with more intensity at approximately 200m below the topography (thick blue dashed lines on Illustration 8).

The western-most one is arc-shaped and extends from the western edge of line 4100N down to line 3700N station 5100E. It flanks the three aligned high resistivity features described earlier to the southwest and its southern extremity coincides with the “NTP” showing.

The other trend runs approximately from line 4700N station 5100E down to the eastern end of line 4100N.

The three magnetic discontinuities delineated previously are partially visible here as low resistivity trends confirming the presence of breaks or faults (thin dashed blue line on Illustration 8).

7.4. Chargeability model

The Chargeability Model is represented at 200m below topography on Illustration 11. The quality of the inversion model did not seem to be affected by the few sparse reading regions where some data had to be deleted.

Despite the very low background (approximately 3ms) and the narrow range of values (approximately 9ms at the maximum), two chargeability zones of relatively high intensity (>5ms) stand out (see Illustrations 11 and 12).

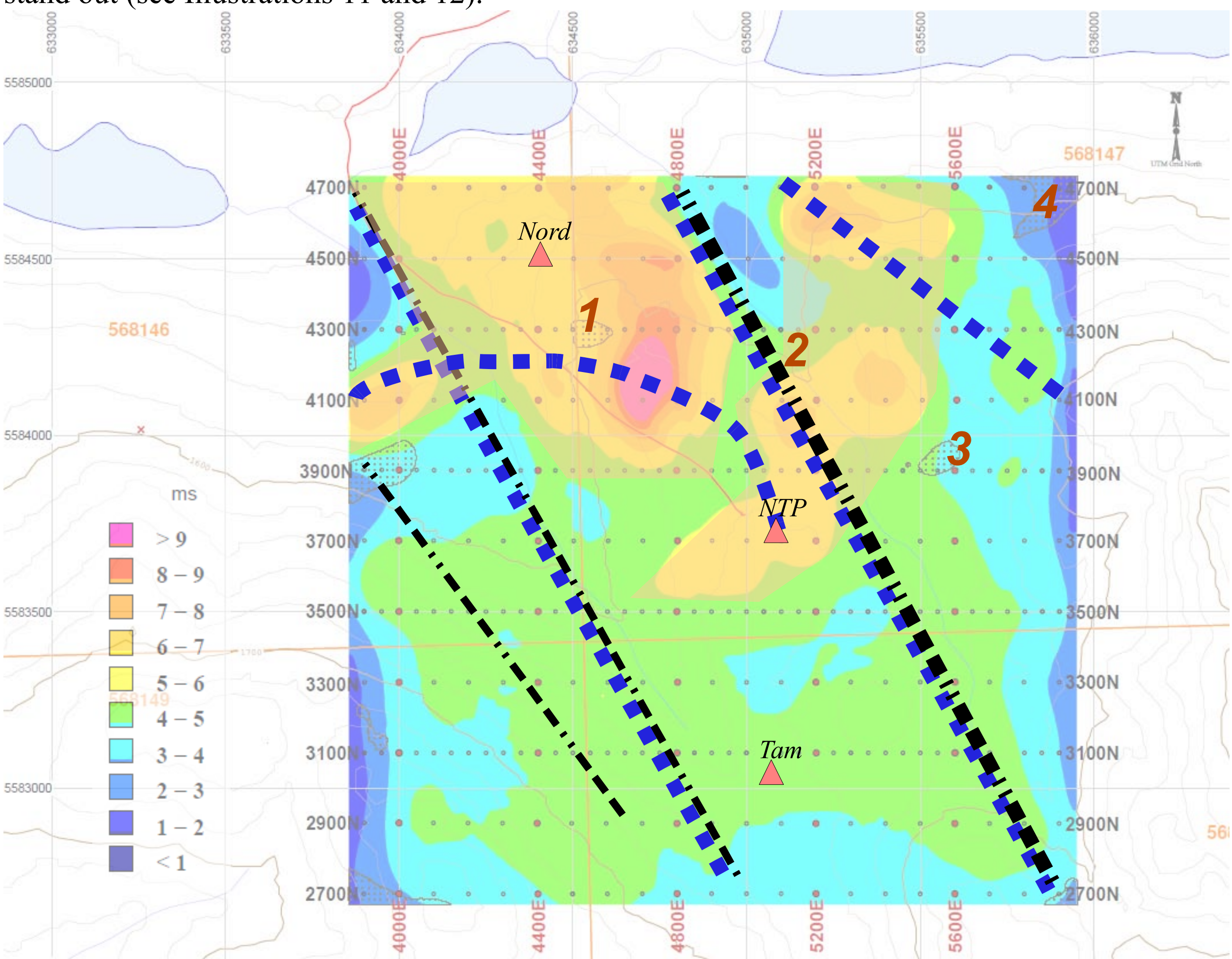

Illustration 11: Plan Map of the Chargeability Model at 200m below the topography.

(Mapping by S.J.V. Consultants Ltd.)

Yellow zones: relatively high chargeability zones

Thick black dashed line: main magnetic break, Thin black dashed lines: secondary magnetic breaks

Thick Blue dashed lines: main resistivity lows, Thin Blue dashed lines: secondary resistivity lows

Red triangles: chalcocyte and malachite showings

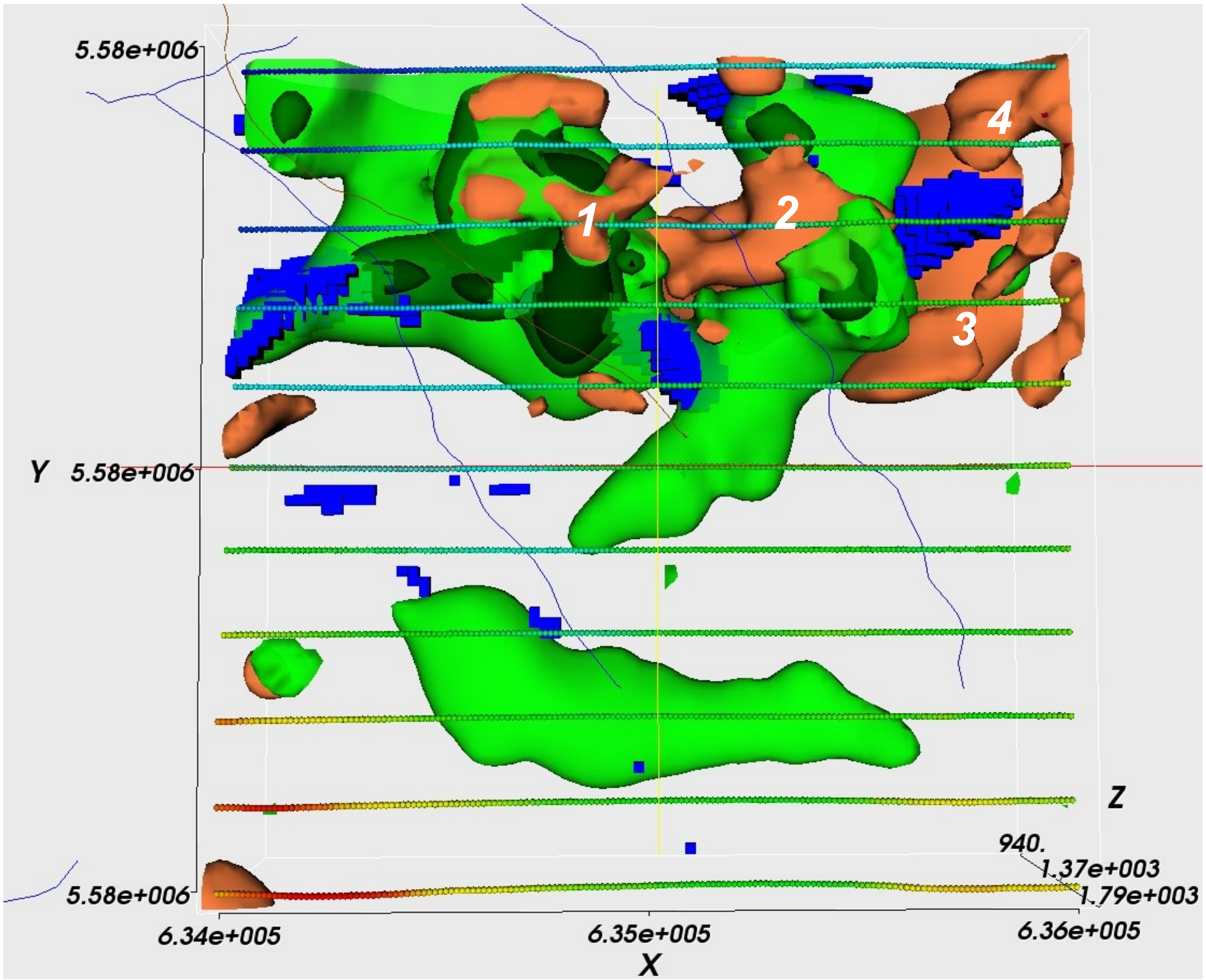

Illustration 12: Top view of the main Resistivity and Chargeability Model features.

(View from Paraview)

Blue Threshold: low resistivity [1;150] ohm-m

Orange Isocontour: 15000 ohm-m

Light Green Isocontour: 5ms, Medium Green Isocontour: 6ms, Dark Green Isocontour: 7ms

The most eastern zone (between 5 and 6ms) runs north of line 3500N, between stations 4800E and 5600E. Part of this feature is visible at the surface but the whole feature is visible from 200m below the topography down to approximately 400m. Two small features (6ms) stand out from this zone. The northern-most one is located between lines 4100N and 4300N, and between stations 5200E and 5400E, while the southern-most one runs between lines 4500N and 4700N, and between stations 5400E and 5600E.

The whole feature partially coincides with resistivity Feature 2 described earlier, the two small chargeability highs flanking it to the north and south. It also intersects the eastern-most of the low resistivity trends described earlier.

The western-most chargeability zone extends north of line 3900N and is flanked to the east by the eastern-most northwest-southeast breaks/faults described earlier and remains open to the west. It is visible from approximately 50m below the topography and extends down to approximately 400m, dipping toward the west (see Illustration 13). From this zone, a feature of higher chargeability (>6ms) stands out between line 4100N and 4500N and between stations 4600E and 4900E. The whole feature coincides with the most western of the low resistivity trends and resistivity Features 1 and 2.

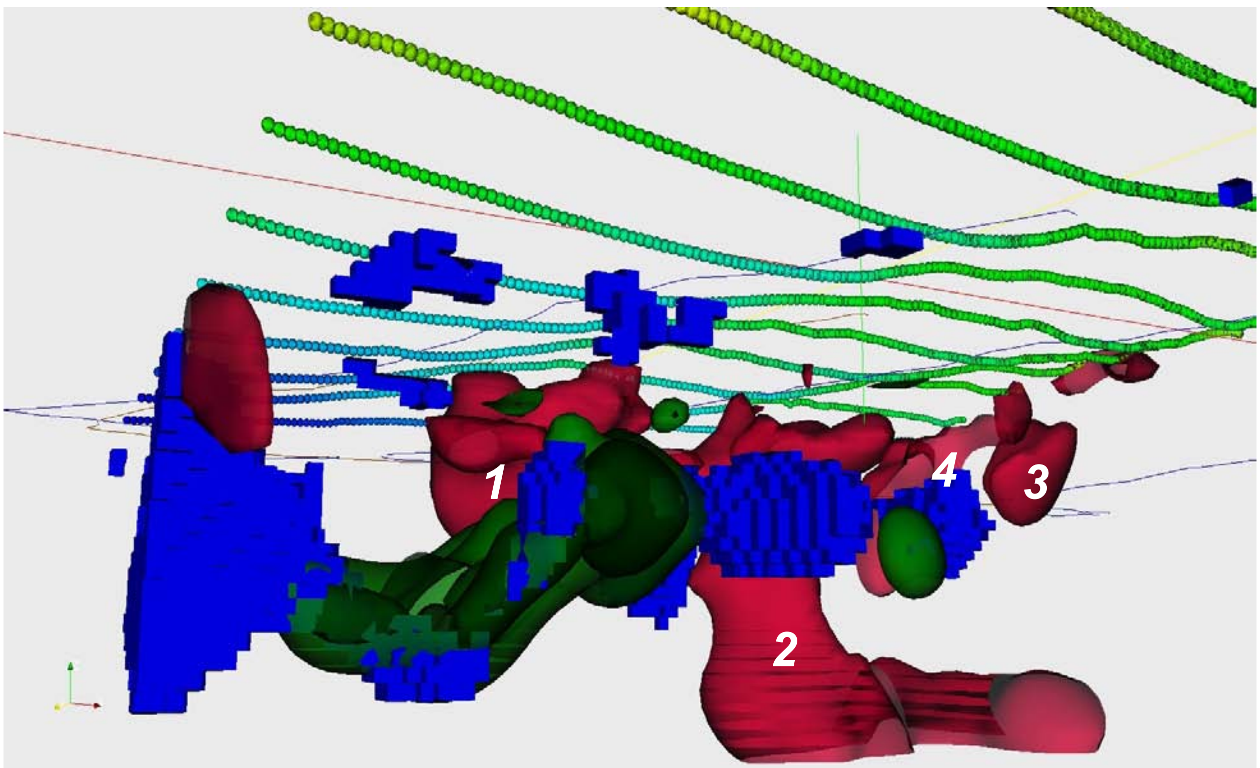

Illustration 13: South view of the main Resistivity and Chargeability Model features.

(View from Paraview)

Blue Threshold: low resistivity [1;150] ohm-m

Red Isocontour: 20000 ohm-m

Medium Green Isocontour: 6ms, Dark Green Isocontour: 7ms

8. Conclusion and recommendations

The magnetic and 3DIP surveys conducted on the West Valley grid allowed the outlining of several magnetic breaks, high and low resistivity trends and high chargeability zones.

The regional geological map indicates a transition between felsic, to the east, and mafic, to the west of the grid. The magnetic map based on the data collected by SJ Geophysics Ltd. in Fall 2009 suggests that the transition between the two environments may occur further west than what is suggested on the geology map.

The 3DIP survey, also carried out by SJ Geophysics Ltd. in Fall 2009, was used to to build two geophysical models, respectively describing the resistive and chargeable properties of the ground. From the resistivity model, four relatively, high resistivity features clearly stand out in the north half of the grid. Three of them (1, 2 and 3) are clearly defined by the survey whereas a fourth one (4), located in the northeast corner of the grid, remains open. The main resistivity feature, 2, seems to be extruding from an extended feature located at depth, whereas the two other well defined features, 1 and 3, are relatively shallow. The nature of Feature 2 should be investigated as well as its relation to Features 1 and 3. The last feature, 4, seems to also be extruding from the deep resistivity feature but the survey does not allow us to delineate it properly. If feature 2 coincides with geological features of interest, the survey should be extended to properly delineate resistivity Feature 4, determine if it is really intruding as the resistivity model suggests and if it also represents a feature of interest.

The survey grid is also scattered by several fault/breaks detected by the magnetic and the 3DIP surveys. The presence of resistivity features 1, 2 and 3 along or close to faults/breaks may be associated with the presence of mineralization. When these features also coincide with high chargeability trends, as it is the case for resistivity Feature 2 and less strongly for Features 1 and 3, this may indicate the presence of sulphidation among the mineralization and thus represents a feature of interest. If these geophysical features coincide with geological features of interest, they should be investigated with drilling. If the drill results correspond to the features of interest, the northern half of the survey should be extended further north, west and east in order to close the high chargeability trends that have been partially detected by the Fall 2009 3DIP survey and possibly find other high resistivity features associated with the high chargeability features.

When some more detailed geological data (detailed maps and/or core assays) become available for this property, the geophysical data should definitely be revisited. Examination of the geophysical data together with geological data acts as a control and greatly enhances the interpretation of the geophysics by relating them with the geophysical properties of the ground and then tracking the associated trends.

Respectfully submitted,
As per S.J.V. Consultants Ltd.
Charlotte Thibaud, Msc. Geophysics.

Appendix A: Statement of qualifications

Charlotte Thibaud

I, Charlotte Thibaud, of the city of Vancouver, British Colombia, hereby certify that:

- I graduated from the Ecole et Observatoire des Sciences de la Terre de Strasbourg I, Strasbourg, France, in September 2007.
- I have been working in geophysics since 2007.
- I have no interest in Happy Creek Minerals Ltd. or in any property within the scope of this report, nor do I expect to receive any.

Signed by: ___________________________

Charlotte Thibaud

Msc. Geophysics

Date: January 18th , 2010

Appendix B: Survey summary tables

Magnetometer Survey

Line	Series	Start station	End Station	Surveyed length	Survey date(s)
2700	N	3900E	5900E	2000	27/09/09
2900	N	3900E	5900E	2000	27/09/09
3100	N	3900E	5900E	2000	27/09/09
3300	N	3900E	5900E	2000	27/09-03/10/09
3500	N	3900E	5900E	2000	27/09/09
3700	N	3900E	5900E	2000	27/09/09
3900	N	3900E	4900E	1000	27/09/09
		4900E	5900E	1000	03/10/09
4100	N	3900E	5900E	2000	03/10/09
4300	N	4700E	5900E	1200	03/10/09
		3900E	4700E	800	08/10/09
4500	N	3900E	5900E	2000	03/10/09
4700	N	3900E	5000E	1100	03/10/09
Base line	/	Road			08/10/09

Total linear metres = 21100

3DIP Survey

Line	Series	Start station	End Station	Surveyed length	Rx lines Survey date(s)
2700	N	3900E	5900E	2000	
2900	N	3900E	5900E	2000	28-29/09/09
3100	N	3900E	5900E	2000	
3300	N	3900E	5900E	2000	30/09-1/10/09
3500	N	3900E	5900E	2000	
3700	N	3900E	5900E	0	30/12/99
3900	N	3900E	5900E	2000	
4100	N	3900E	5900E	2000	04/10/09
4300	N	3900E	5900E	2000	
4500	N	3900E	5900E	2000	6-7/10/09
4700	N	3900E	5900E	2000	

Total linear metres = 22000m

Appendix C: Instrument specifications

GEM Systems GSM-19 magnetometer

Resolution:	0.01 nT (magnetic field and gradient)
Accuracy:	0.2 nT over operating range
Gradient tolerance:	up to 5000 nT/m
Operating interval:	4 seconds minimum, faster optional
Reading:	Initiated by keyboard depression, external trigger or carriage return via RS-232C.
Input/Output:	6-pin weatherproof connector, RS-232C and optional analog output.
Power requirements:	12V 300 mA peak (during polarization) 35 mA standby 600 mA peak in gradiometer
Power source:	Internal 12V, 1.9Ah sealed lead-acid battery standard, other optional external 12V power source can be used.
Battery charger:	Input: 110/220 VAC, 50/60 Hz and/or 12VDC Output: 12V dual level charging
Operating range:	-40 to +60°C
Battery voltage:	10V min. to 15V max
Dimensions:	223 x 69 x 240mm (console) 4 x 450mm sections (sensor staff) 170 x 71mm diameter (sensor)
Weight:	2.1kg (console) 0.9kg (staff) 1.1kg (sensor)

SJ-24 full waveform digital IP receiver

Technical:	
Input impedance:	10Ω
Input overvoltage protection:	up to 1000V
External memory:	Unlimited readings
Number of dipoles:	4 to 16 +, expandable
Synchronization:	Software signal post-processing user selectable
Common mode rejection:	More than 100 dB (for Rs=0)
Self potential (Sp):	Range: -5V to +5V
	Resolution: 0.1mV
	Proprietary intelligent stacking process rejecting strong non-linear SP drifts.
Primary voltage:	Range: 1µV – 10V (24bit)
	Resolution: 1µV
	Accuracy: typ. <1.0%
Chargeability:	Resolution: 1µV/V
	Accuracy: typ. <1.0%
General (4 dipole unit):	
Dimensions:	18x16x9cm
Weight:	1.1kg
Battery:	12V external
Operating temperature range:	-20°C to 40°C

Walcer Tx9000 IP Transmitter

Input voltage:	120V / 400 Hz, three phase
Output power:	9.0 kW maximum
Output voltage:	150 to 3200 Volts
Output current:	30mA to 20A
Time domain:	1,2,4,8 sec ON/OFF cycle
Operating temp. range:	-40^0 to $+65^0$ C
Display:	Digital LCD read to 0.01A
Dimensions (h w d):	90 x 40 x 20 cm
Weight:	20kg

IRIS VIP-3000 IP Transmitter

Output Ratings	
Output power:	3000 VA maximum
Output voltage:	3000V maximum, auto voltage range selection
Output current:	20 ma to 5A, current regulated to better than 1 %
Dipoles:	9, push button selected
Output connectors:	Uniclip connectors accept bare wire or plug of up to 4 mm diameter
Waveforms:	see figure 4.1
Fall times:	better than 1 msce in resistive load.
Time domain:	Pre-programmed on and off times from 0.25 to 8 seconds, by factor of 2 Other cycles programmable by user. Automatic circuit opening in off time
Frequency domain:	Pre-programmed frequencies from 0.0625 Hz to 4Hz, by factor of 2 Alternate or simultaneous transmission of two frequencies Other frequencies programmable by user
Time and frequency stability:	0.01 % 1 PPB optional
Other	
Display:	Alphanumeric liquid crystal display
Power source:	175 to 270 VAC, 45-450 Hz, single phase
Operating temperature:	-40º to +50º C.
Protection:	short circuit at 20 Ω, open loop at 60 000 Ω, thermal, input overvoltage and undervoltage
Remote control:	full duplex RS232C, 300-19 200 bps
Dimensions (h w d):	410 x 320 x 240 m
Weight:	16kg

GDD Tx II IP Transmitter

Input voltage:	120V / 60 Hz or 240V / 50Hz (optional)
Output power:	3.6 kW maximum
Output voltage:	150 to 2400 Volts
Output current:	0.030 to 10Amperes
Time domain:	1,2,4,8 second on/off cycle
Operating temp. range:	-40^0 to $+65^0$ C
Display:	Digital LCD read to 0.001A
Dimensions (h w d):	34 x 21 x 39 cm
Weight:	20kg

Appendix D: Maps

Magnetic Plan Maps
Stacked profile M-1
Stacked Profile with topography M-1
Magnetic with topography M-2
Interpreted Resistivity Plan Maps
75m below the topography R-1
100m below the topography R-2
150m below the topography R-3
200m below the topography R-4
250m below the topography R-5
300m below the topography R-6
400m below the topography R-7
Interpreted Chargeability Plan Maps
75m below the topography C-1
100m below the topography C-2
150m below the topography C-3
200m below the topography C-4
250m below the topography C-5
300m below the topography C-6
400m below the topography C-7
Interpreted Res and Chg Cross Sections
Section 2700N
Section 2900N
Section 3100N
Section 3300N
Section 3500N
Section 3700N
Section 3900N
Section 4100N
Section 4300N
Section 4500N
Section 4700N

APPENDIX V

Assay Certificates

AcmeLabs Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada
Phone (604) 253-3158 Fax (604) 253-1716
www.acmelab.com

Client: **Happy Creek Minerals Ltd.**
Suite 2300 - 1066 W. Hastings St.
Vancouver BC V6E 3X2 Canada

Submitted By:	David Blann
Receiving Lab:	Canada-Vancouver
Received:	September 01, 2009
Report Date:	September 16, 2009
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN09003940.1

CLIENT JOB INFORMATION

Project:	West Valley
Shipment ID:	
P.O. Number	
Number of Samples:	9

SAMPLE DISPOSAL

DISP-PLP	Dispose of Pulp After 90 days
DISP-RJT	Dispose of Reject After 90 days

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200	9	Crush, split and pulverize rock to 200 mesh			VAN
3B	9	Fire assay fusion Au by ICP-ES	30	Completed	VAN
7AR	9	1:1:1 Aqua Regia digestion ICP-ES analysis	1	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Happy Creek Minerals Ltd.
Suite 2300 - 1066 W. Hastings St.
Vancouver BC V6E 3X2
Canada

CC: Sassan Liaghat

AcmeLabs Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada
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Client: **Happy Creek Minerals Ltd.**
Suite 2300 - 1066 W. Hastings St.
Vancouver BC V6E 3X2 Canada

Project: West Valley
Report Date: September 16, 2009

CERTIFICATE OF ANALYSIS VAN09003940.1

	Method	WGHT	3B	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Sr	Cd	Sb	Bi	Ca	P	Cr	Mg
	Unit	kg	ppb	%	%	%	%	gm/mt	%	%	%	%	%	%	%	%	%	%	%	%	%
	MDL	0.01	2	0.001	0.001	0.01	0.01	2	0.001	0.001	0.01	0.01	0.01	0.001	0.001	0.001	0.01	0.01	0.001	0.001	0.01
12303	Rock	1.55	<2	<0.001	<0.001	<0.01	<0.01	<2	<0.001	<0.001	0.06	1.95	<0.01	0.012	<0.001	<0.001	<0.01	0.68	0.077	0.002	0.54
12304	Rock	1.01	83	<0.001	0.487	<0.01	<0.01	2	<0.001	<0.001	0.03	1.77	<0.01	0.005	<0.001	<0.001	<0.01	0.61	0.057	<0.001	0.48
12305	Rock	2.35	12	<0.001	0.185	<0.01	<0.01	<2	<0.001	<0.001	0.03	2.41	<0.01	0.007	<0.001	<0.001	<0.01	0.98	0.063	0.001	0.65
12306	Rock	1.20	6	<0.001	0.030	<0.01	<0.01	<2	<0.001	<0.001	0.05	2.09	<0.01	0.005	<0.001	<0.001	<0.01	2.97	0.058	<0.001	0.87
12307	Rock	1.47	268	<0.001	1.418	<0.01	<0.01	4	0.002	0.001	0.03	4.59	<0.01	0.023	<0.001	<0.001	<0.01	1.62	0.070	0.006	0.62
12308	Rock	0.68	67	0.001	0.765	<0.01	<0.01	<2	<0.001	0.001	0.02	4.22	<0.01	0.011	<0.001	<0.001	<0.01	0.65	0.044	0.001	0.76
12309	Rock	0.42	3	<0.001	0.034	<0.01	<0.01	<2	<0.001	<0.001	0.03	0.51	<0.01	<0.001	<0.001	<0.001	<0.01	0.15	0.006	0.002	0.06
12310	Rock	0.64	365	<0.001	1.711	<0.01	<0.01	8	0.001	0.001	0.04	2.53	<0.01	0.024	<0.001	<0.001	<0.01	1.29	0.083	0.001	0.99
12311	Rock	0.89	4	<0.001	0.528	<0.01	<0.01	<2	<0.001	<0.001	0.01	1.53	<0.01	0.002	<0.001	<0.001	<0.01	0.22	0.025	0.002	0.50

AcmeLabs Acme Analytical Laboratories (Vancouver) Ltd.
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Suite 2300 - 1066 W. Hastings St.
Vancouver BC V6E 3X2 Canada

Project: West Valley
Report Date: September 16, 2009

CERTIFICATE OF ANALYSIS VAN09003940.1

	Method	7AR	7AR	7AR	7AR	7AR	7AR
	Analyte	Al	Na	K	W	Hg	S
	Unit	%	%	%	%	%	%
	MDL	0.01	0.01	0.01	0.001	0.001	0.05
12303	Rock	1.55	0.32	0.77	<0.001	<0.001	<0.05
12304	Rock	0.98	0.15	0.23	<0.001	<0.001	0.14
12305	Rock	1.40	0.18	0.31	<0.001	<0.001	<0.05
12306	Rock	0.59	0.08	0.12	<0.001	<0.001	<0.05
12307	Rock	2.27	0.37	0.03	<0.001	<0.001	0.42
12308	Rock	1.37	0.09	0.04	<0.001	<0.001	0.18
12309	Rock	0.20	0.01	0.14	<0.001	<0.001	<0.05
12310	Rock	1.93	0.14	0.11	<0.001	<0.001	0.22
12311	Rock	0.79	0.08	0.12	<0.001	<0.001	0.13

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Client: **Happy Creek Minerals Ltd.**
Suite 2300 - 1066 W. Hastings St.
Vancouver BC V6E 3X2 Canada

Project: West Valley
Report Date: September 16, 2009

QUALITY CONTROL REPORT VAN09003940.1

Method		WGHT	3B	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR
Analyte		Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Sr	Cd	Sb	Bi	Ca	P	Cr	Mg
Unit		kg	ppb	%	%	%	%	gm/mt	%	%	%	%	%	%	%	%	%	%	%	%	%
MDL		0.01	2	0.001	0.001	0.01	0.01	2	0.001	0.001	0.01	0.01	0.01	0.001	0.001	0.001	0.01	0.01	0.001	0.001	0.01
Pulp Duplicates																					
12305	Rock	2.35	12	<0.001	0.185	<0.01	<0.01	<2	<0.001	<0.001	0.03	2.41	<0.01	0.007	<0.001	<0.001	<0.01	0.98	0.063	0.001	0.65
REP 12305	QC		11																		
Reference Materials																					
STD OXE56	Standard		633																		
STD OXE56	Standard		658																		
STD OXH55	Standard		1359																		
STD OXH55	Standard		1274																		
STD R4A	Standard			0.061	0.507	1.54	3.28	88	0.354	0.040	0.06	23.48	0.02	0.004	0.018	0.014	<0.01	0.95	0.043	0.012	0.85
STD R4A	Standard			0.061	0.511	1.54	3.28	88	0.355	0.039	0.06	23.57	0.02	0.004	0.018	0.015	<0.01	0.97	0.043	0.012	0.86
STD R4A Expected				0.062	0.502	1.5	3.31	86	0.334	0.04	0.06	23.38	0.023	0.004	0.017	0.0135	0.0024	0.94	0.042	0.012	0.83
STD OXE56 Expected			611																		
STD OXH55 Expected			1282																		
BLK	Blank		<2																		
BLK	Blank		<2																		
BLK	Blank			<0.001	<0.001	<0.01	<0.01	<2	<0.001	<0.001	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.01	<0.01	<0.001	<0.001	<0.01
BLK	Blank		<2																		
BLK	Blank		<2																		
Prep Wash																					
G1	Prep Blank	<0.01	<2	<0.001	0.008	<0.01	<0.01	<2	<0.001	<0.001	0.03	1.72	<0.01	0.005	<0.001	<0.001	<0.01	0.56	0.048	<0.001	0.50

AcmeLabs Acme Analytical Laboratories (Vancouver) Ltd.

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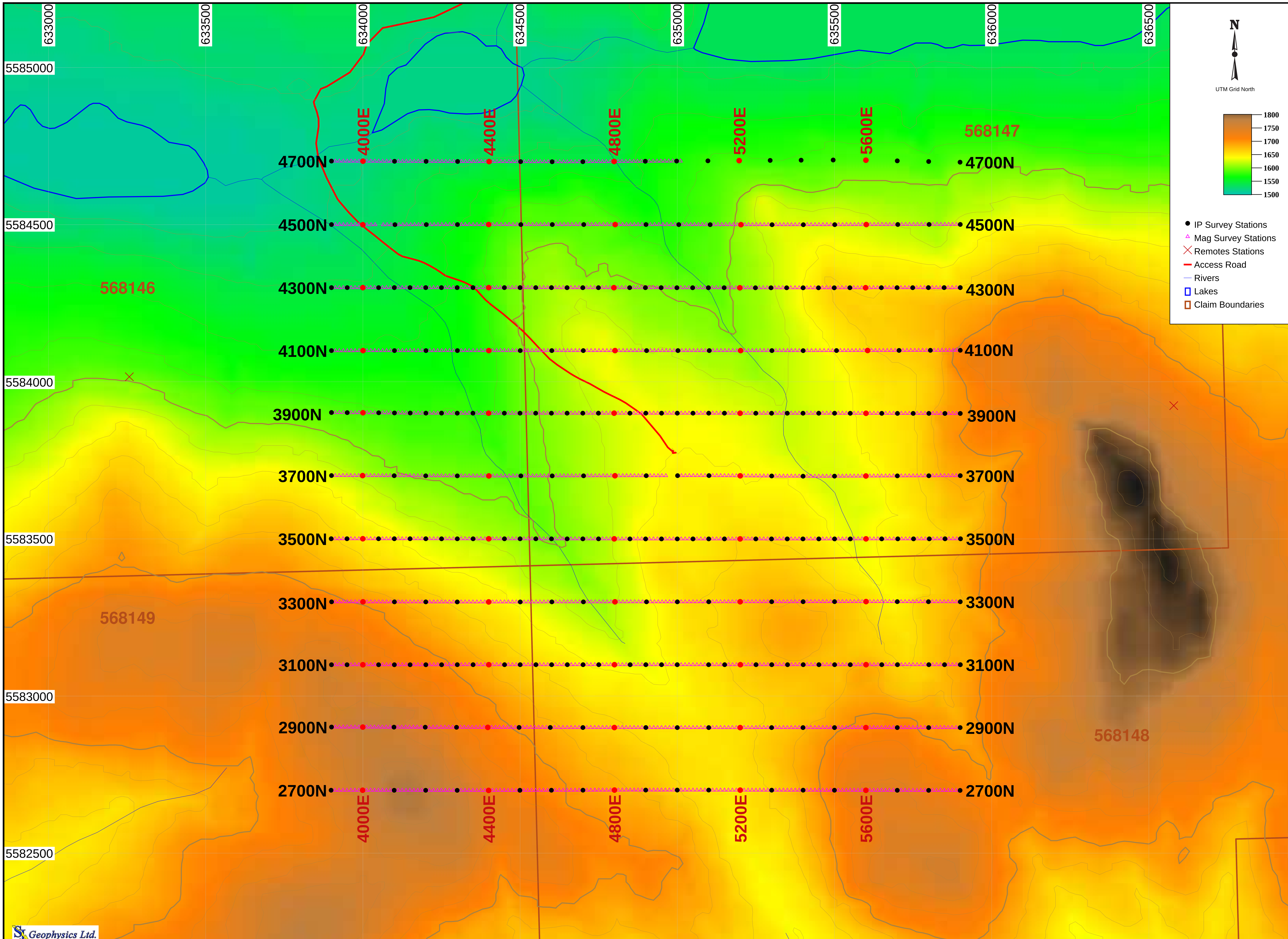
Client: **Happy Creek Minerals Ltd.**
Suite 2300 - 1066 W. Hastings St.
Vancouver BC V6E 3X2 Canada

Project: West Valley
Report Date: September 16, 2009

QUALITY CONTROL REPORT VAN09003940.1

	Method	7AR	7AR	7AR	7AR	7AR	7AR
	Analyte	Al	Na	K	W	Hg	S
	Unit	%	%	%	%	%	%
	MDL	0.01	0.01	0.01	0.001	0.001	0.05
Pulp Duplicates							
12305	Rock	1.40	0.18	0.31	<0.001	<0.001	<0.05
REP 12305	QC						
Reference Materials							
STD OXE56	Standard						
STD OXE56	Standard						
STD OXH55	Standard						
STD OXH55	Standard						
STD R4A	Standard	1.28	0.07	0.50	0.004	0.001	16.11
STD R4A	Standard	1.29	0.07	0.51	<0.001	0.001	16.19
STD R4A Expected		1.25	0.07	0.51	0.0011	0.001	16.7
STD OXE56 Expected							
STD OXH55 Expected							
BLK	Blank						
BLK	Blank						
BLK	Blank	<0.01	<0.01	<0.01	<0.001	<0.001	<0.05
BLK	Blank						
BLK	Blank						
Prep Wash							
G1	Prep Blank	0.88	0.13	0.23	<0.001	<0.001	<0.05

British Columbia Overview Map
Roads
NTS Mapsheets
Subset Area
N
UTM Grid North
0 2 4 6 8 10
kilometers
Project Information:
Survey by: SJ Geophysics Ltd.
Survey Date: Sept-Oct, 2009
Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
NTS Sheet: 092I06
BCGS Sheet: 092I035
Mining Zone: Kamloops
Mapping Date: October, 2009
Data Source: NRCan NTS Topographic Map Series
Survey Grid
Chataway Lakes Resort
Access Road
Happy Creek Minerals Ltd.
West Valley Grid
Merritt, British Columbia
Location Map
SJ Geophysics Ltd.
5590000
5580000
5570000
5560000
5550000
640000
650000
660000
670000
680000
Merritt
Lower Nicola
Nicola
Quilchena
Nicola Lake
Gypsum Mountain
Mount Guichon
Swakum Mountain
Promontory Hills
Sugarloaf Mountain
Mount McInnes
Kamloops Division of Yale Land District
Yale Division of Yale Land District



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept–Oct, 2009

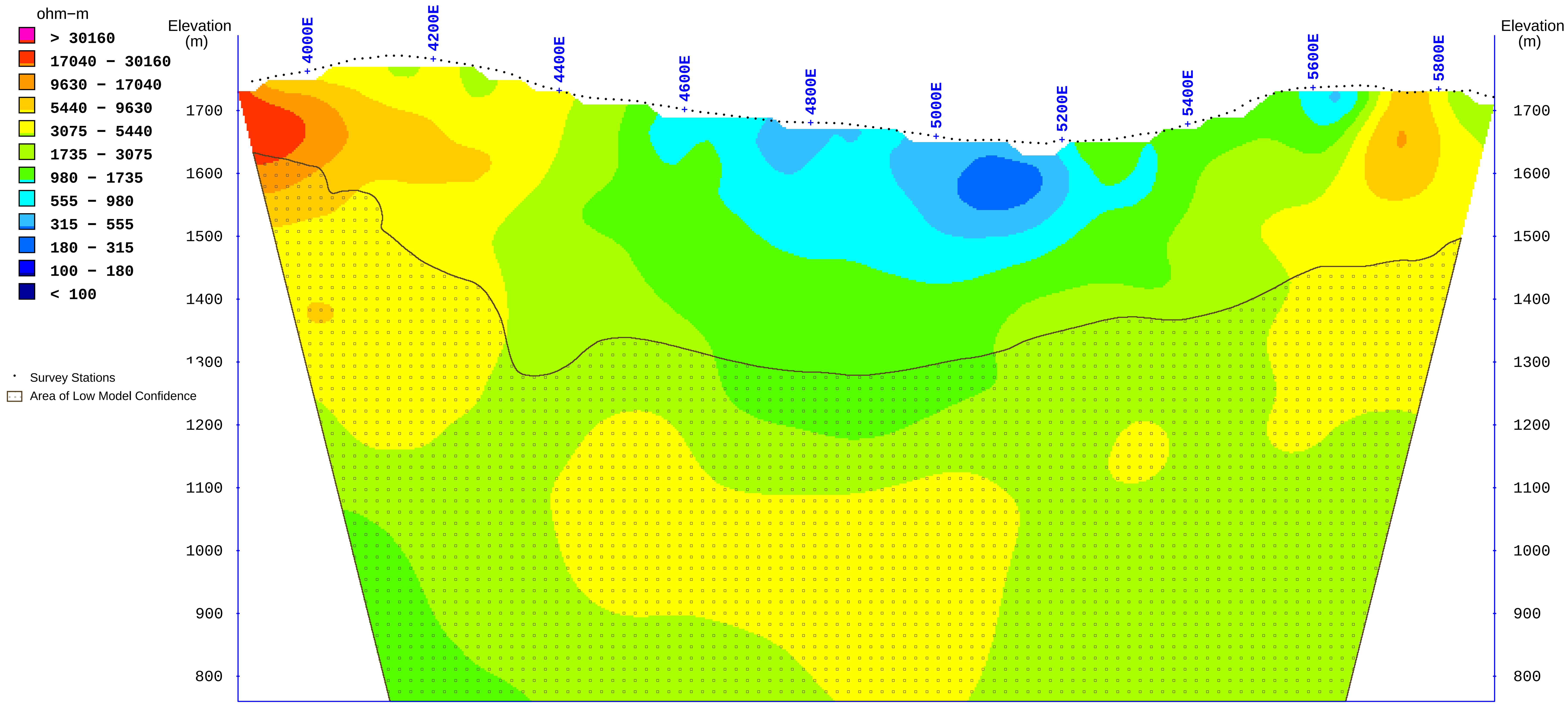
Instrumentation:
Receiver: SJ–24 Full–Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

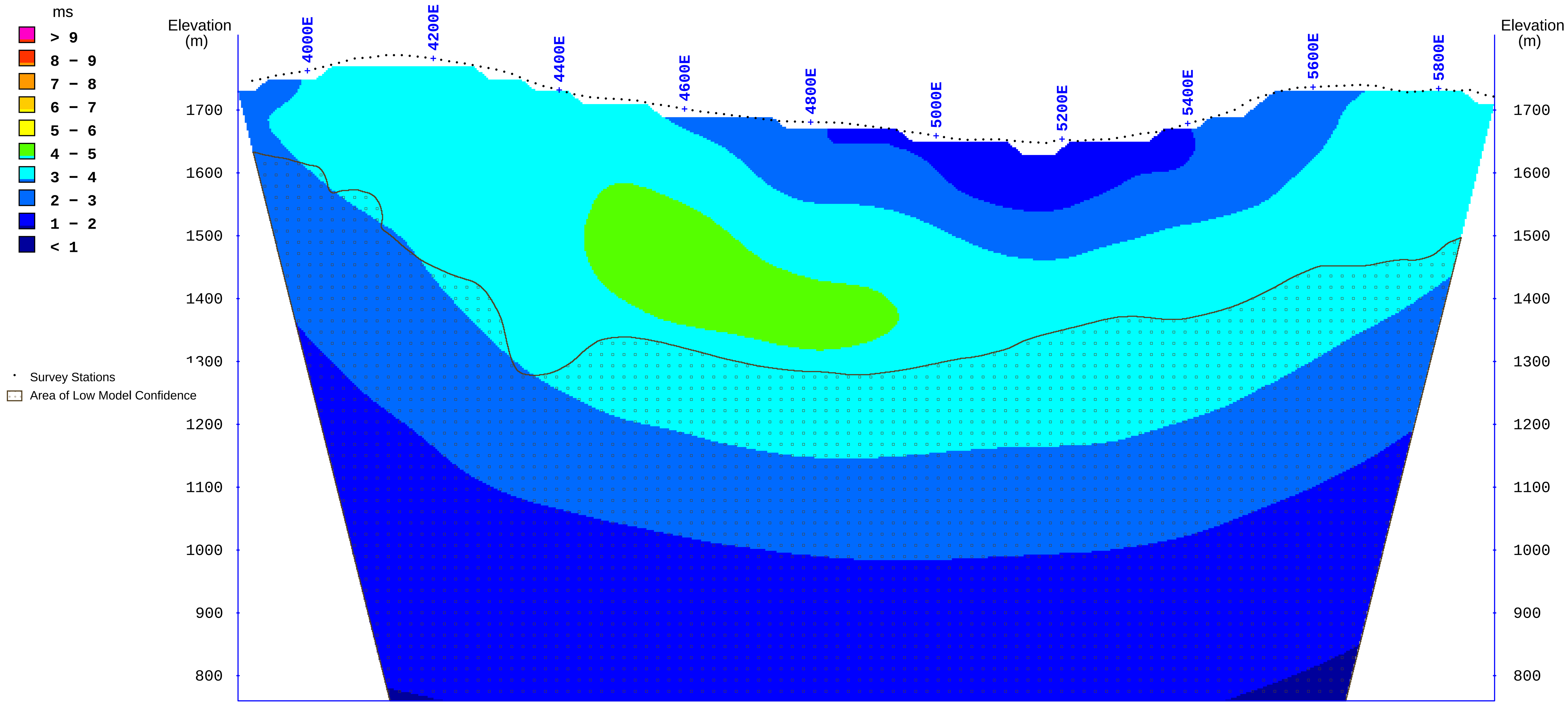
BCGS Sheet: 092I035
NTS Sheet: 092I06
Mining Zone: Kamloops

0 100 200 300 400 500
meters

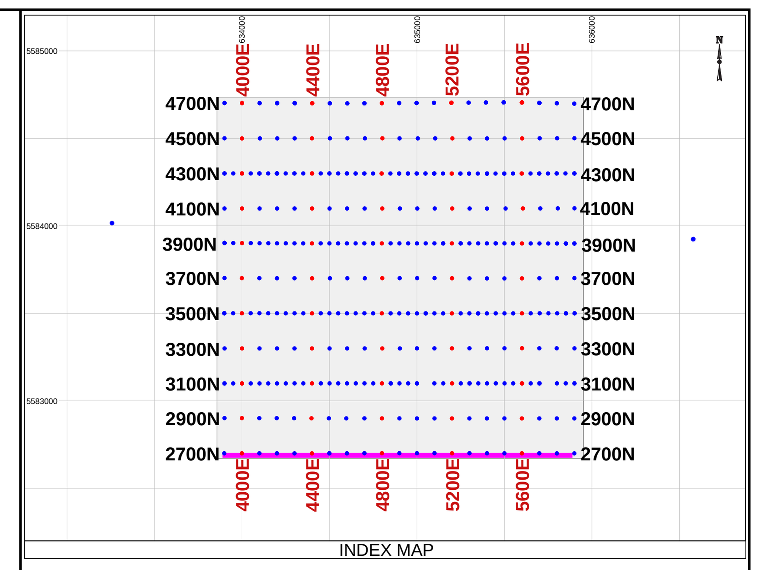
Happy Creek Minerals Ltd.
3D IP and Magnetic Survey Grids
West Valley Grid
Merritt, British Columbia



Interpreted Resistivity (ohm−m)



Interpreted Chargeability (ms)



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10

0 100 200 300 400
meters

Happy Creek Minerals Ltd.

West Valley Grid

Merritt, British Columbia

3D Inversion Model

of

Interpreted

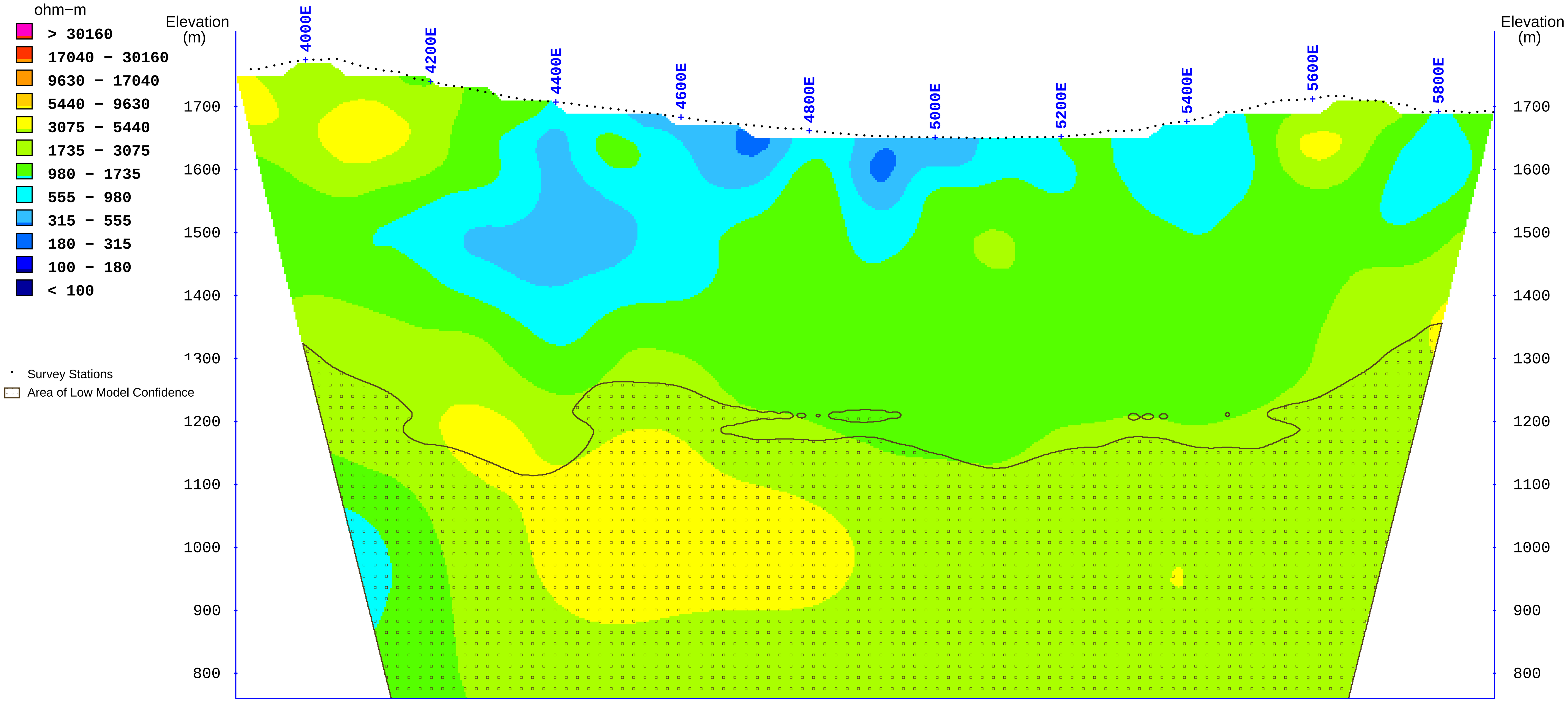
Resistivity & Chargeability

Cross Section Map

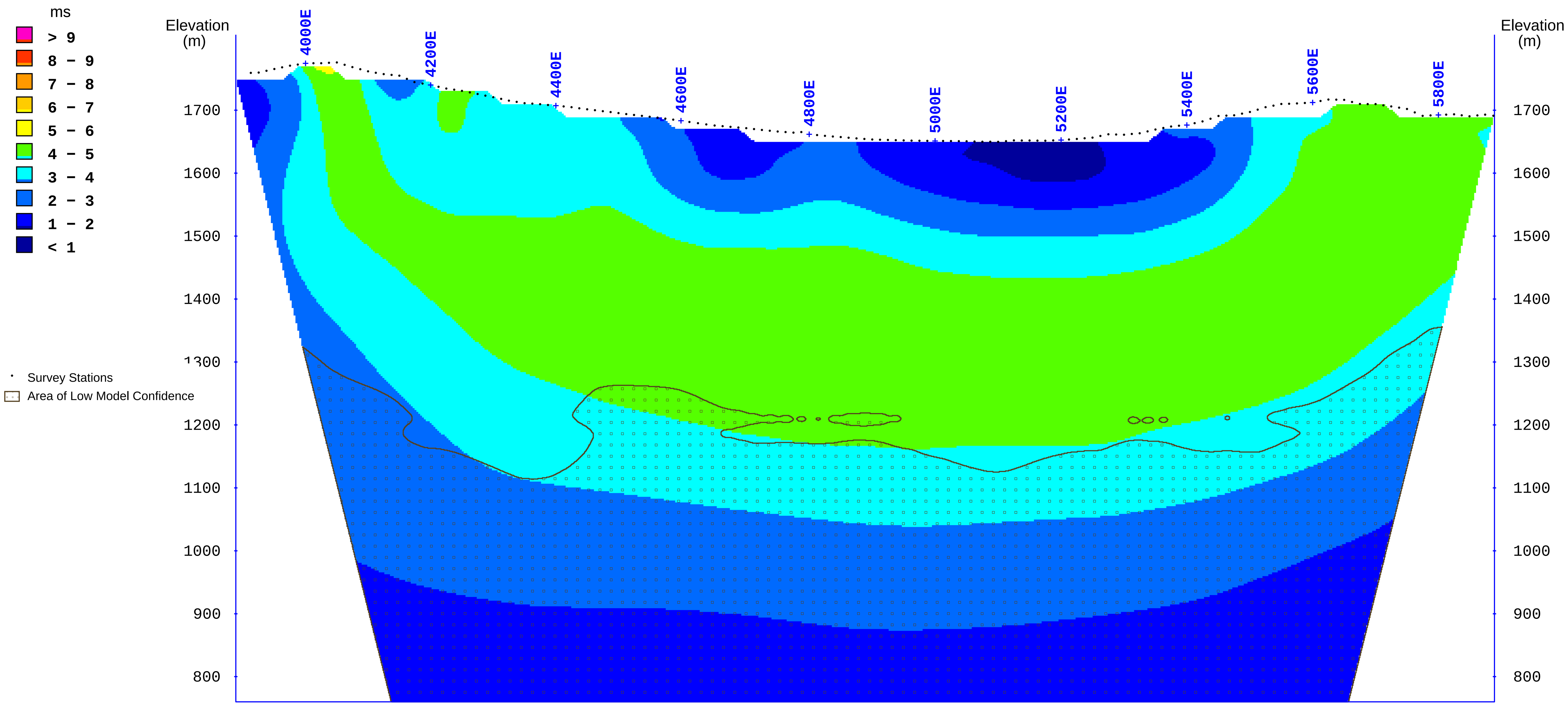
Section: 2700N

SJ Geophysics Ltd.

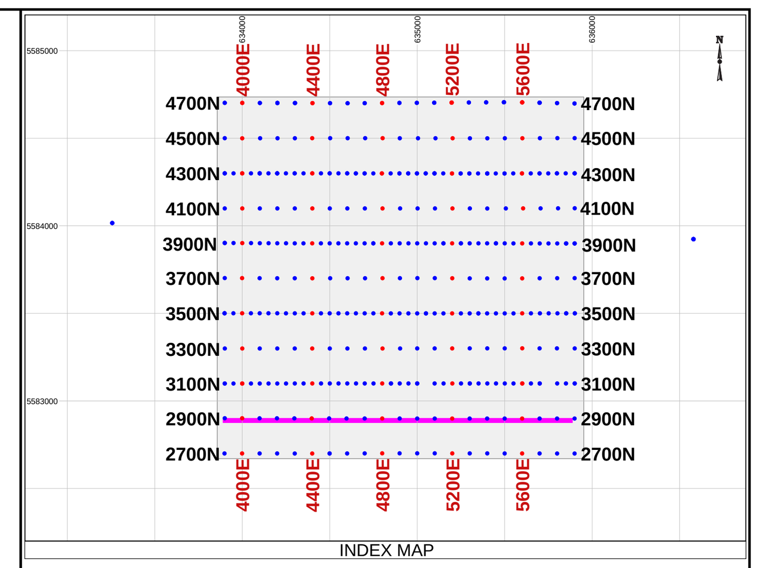
Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Interpreted Resistivity (ohm−m)



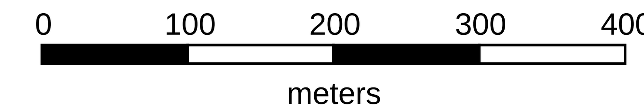
Interpreted Chargeability (ms)



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10



Happy Creek Minerals Ltd.

West Valley Grid

Merritt, British Columbia

3D Inversion Model

of

Interpreted

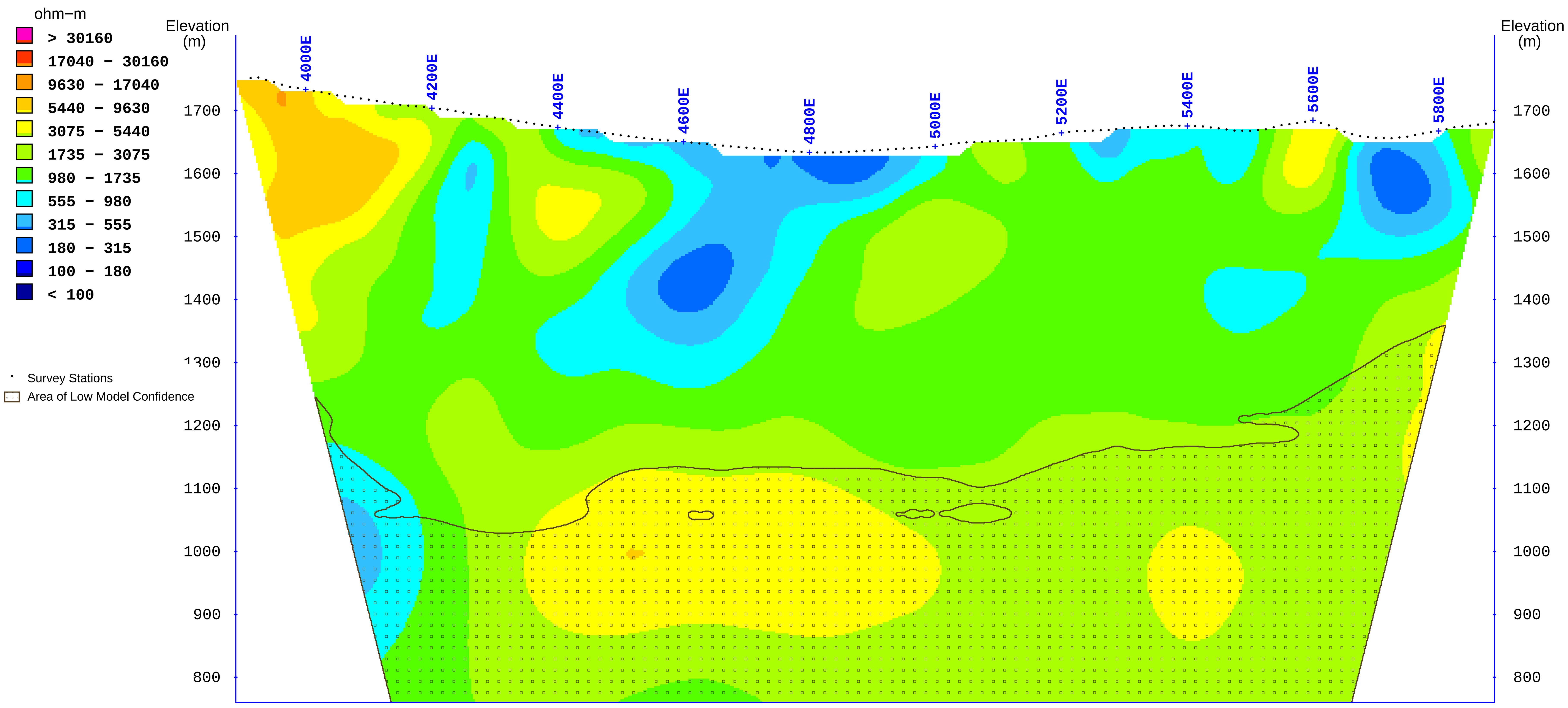
Resistivity & Chargeability

Cross Section Map

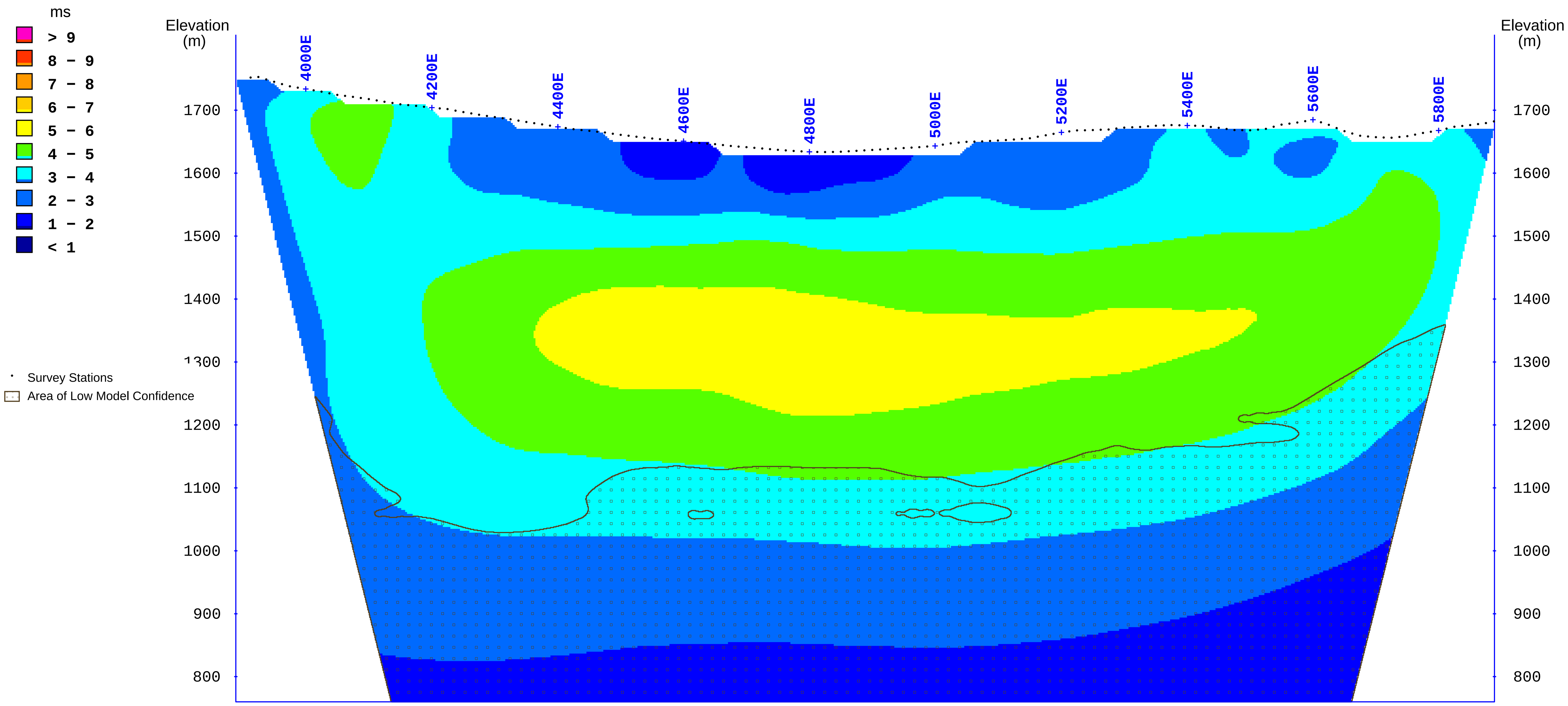
Section: 2900N

SJ Geophysics Ltd.

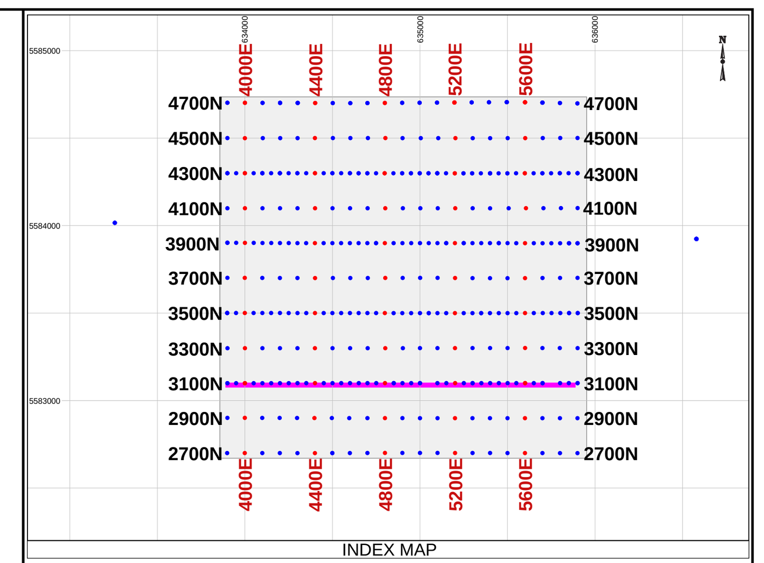
Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Interpreted Resistivity (ohm−m)



Interpreted Chargeability (ms)



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10

0 100 200 300 400
meters

Happy Creek Minerals Ltd.

West Valley Grid

Merritt, British Columbia

3D Inversion Model

of

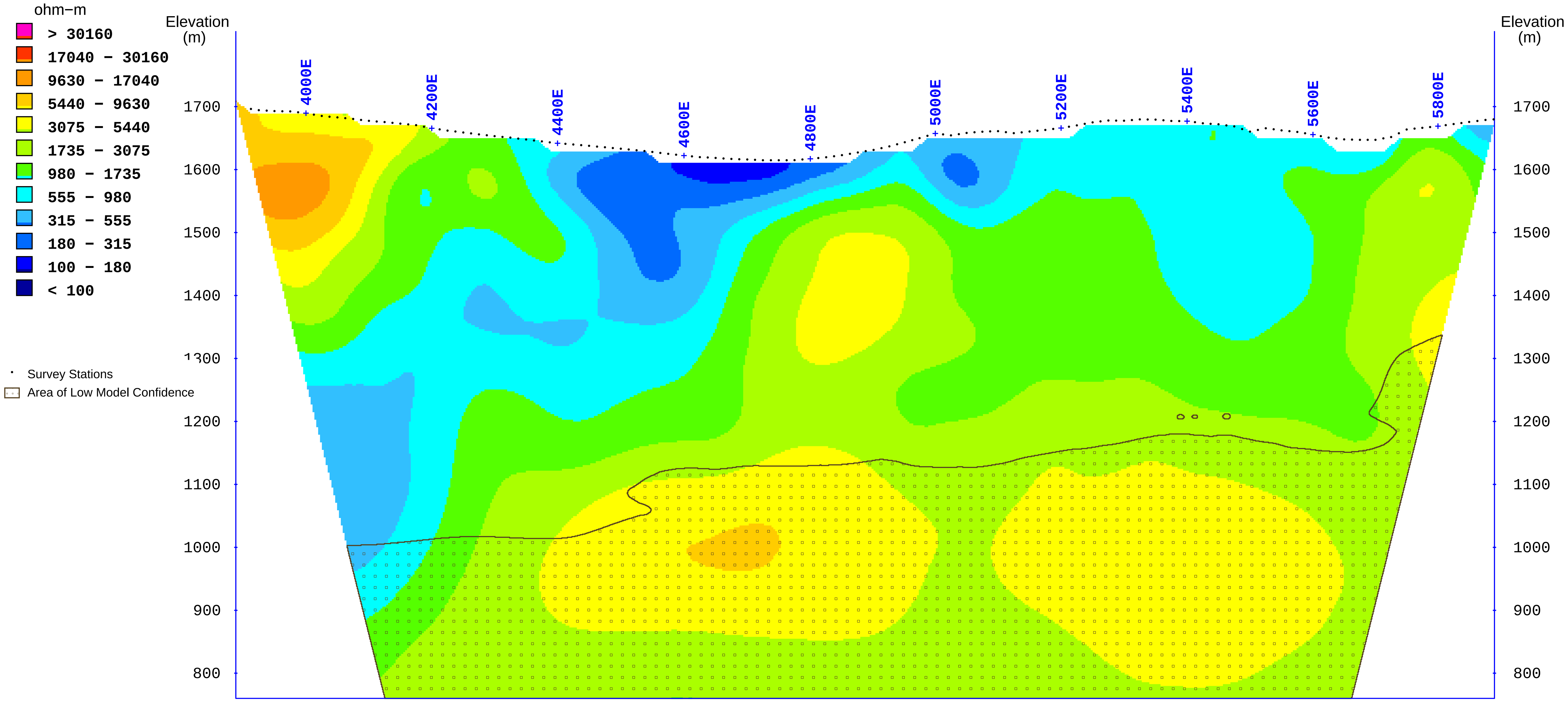
Interpreted

Resistivity & Chargeability

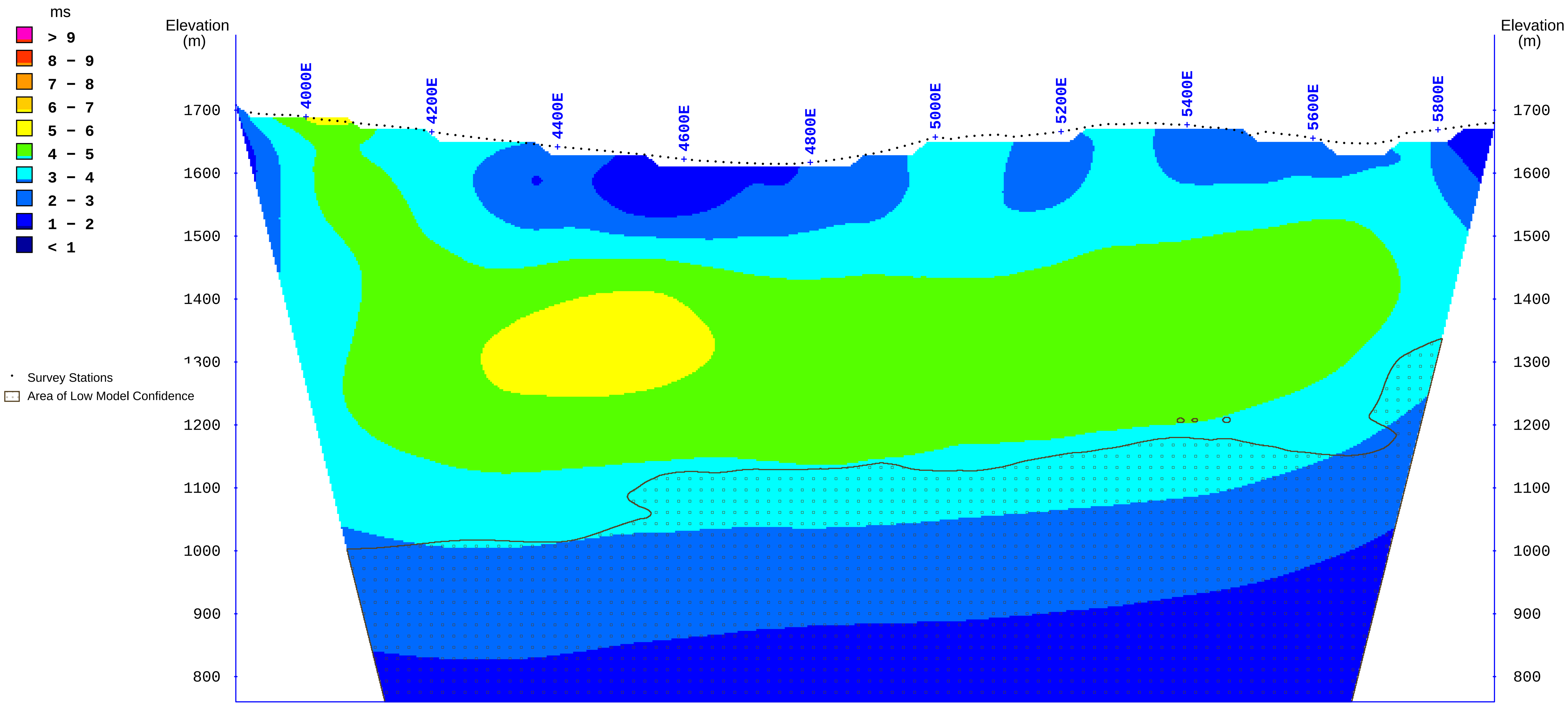
Cross Section Map

Section: 3100N

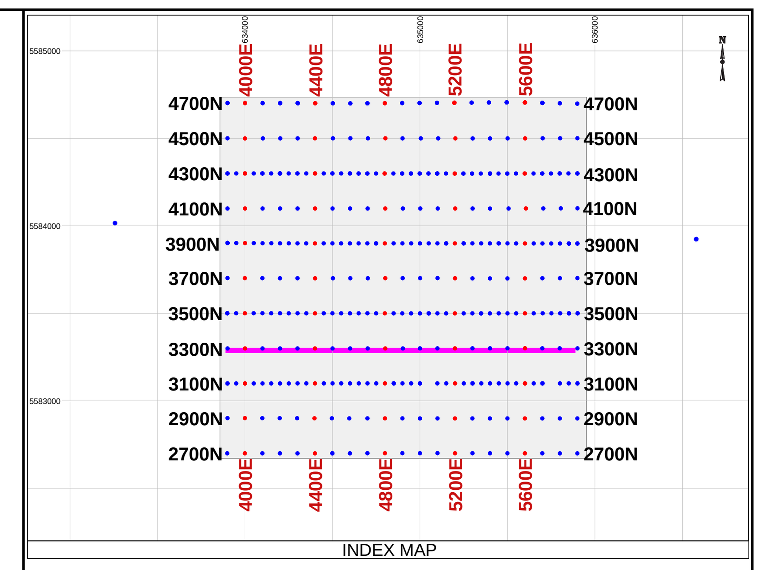
SJ Geophysics Ltd.



Interpreted Resistivity (ohm−m)



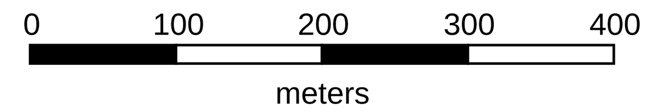
Interpreted Chargeability (ms)



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10



Happy Creek Minerals Ltd.

West Valley Grid

Merritt, British Columbia

3D Inversion Model

of

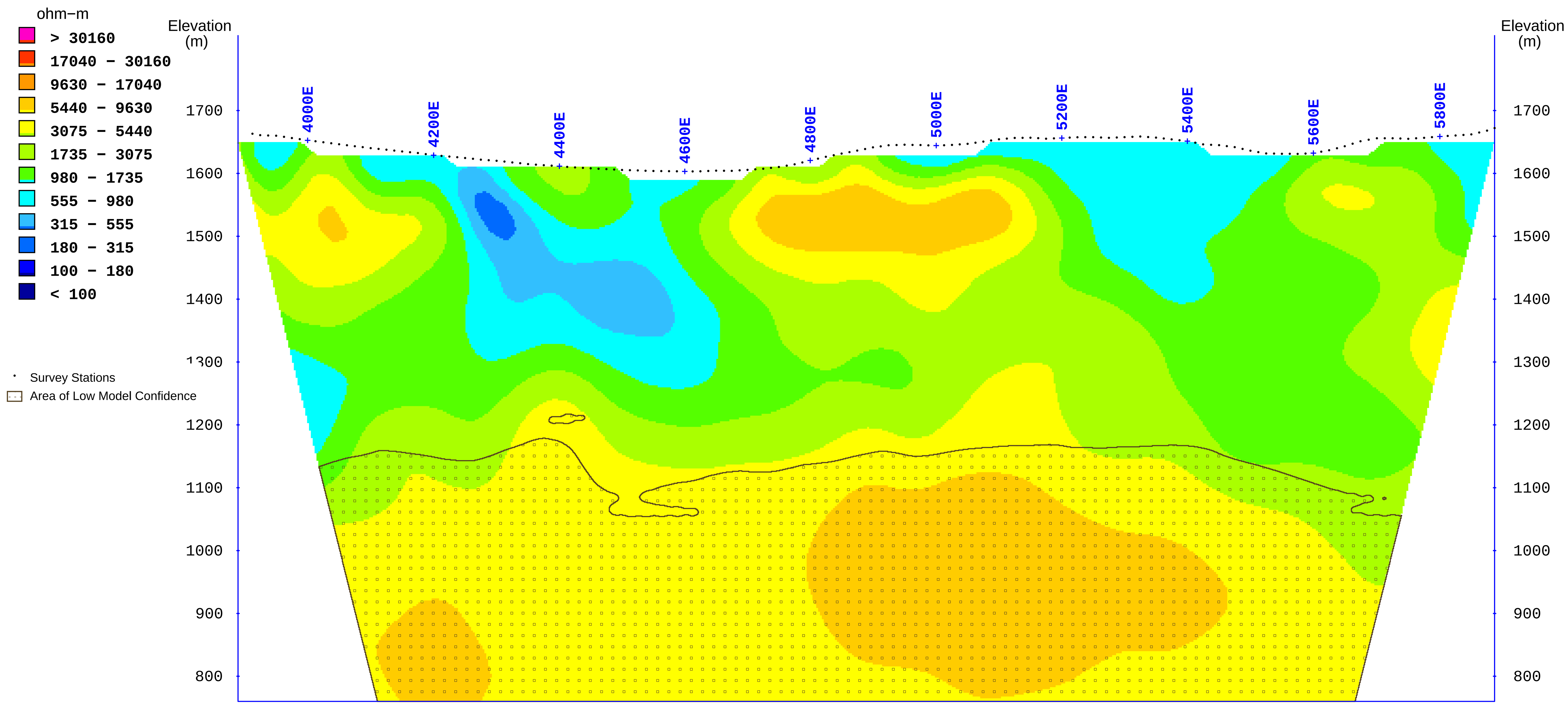
Interpreted

Resistivity & Chargeability

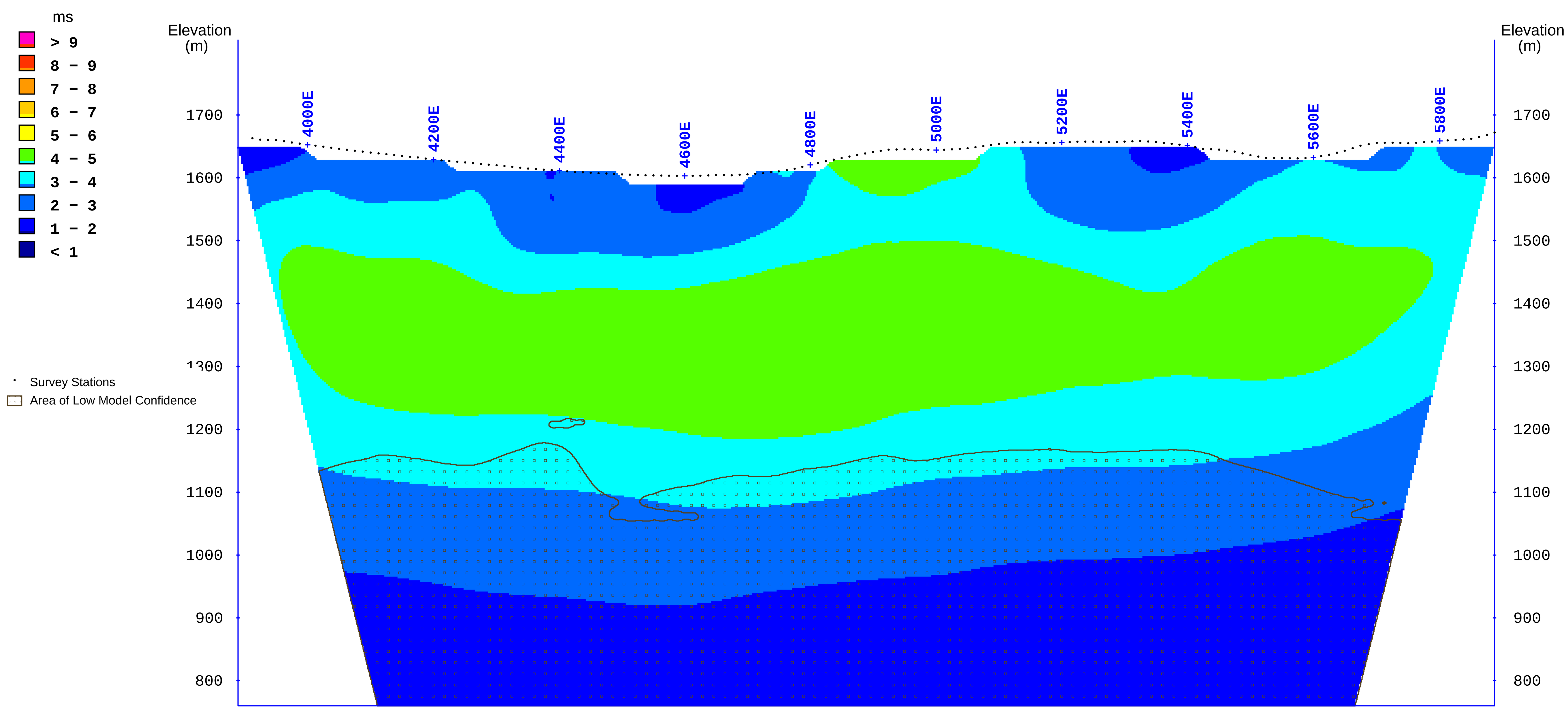
Cross Section Map

Section: 3300N

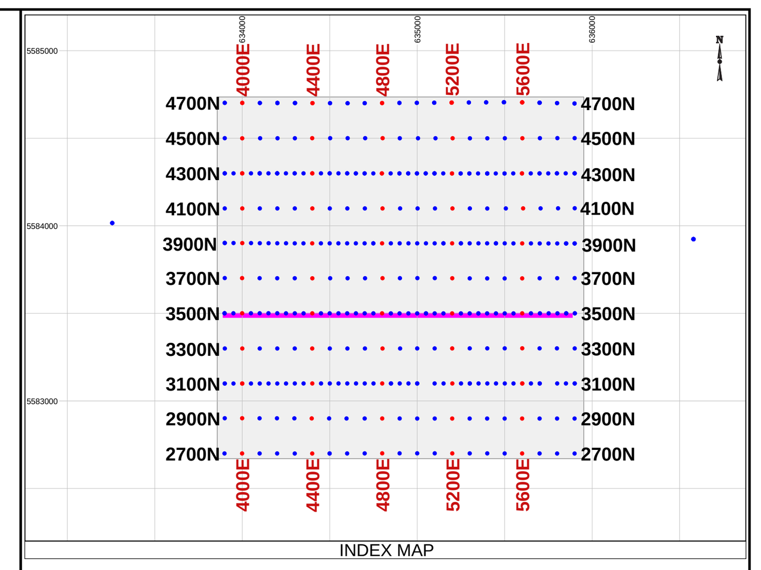
SJ Geophysics Ltd.



Interpreted Resistivity (ohm−m)



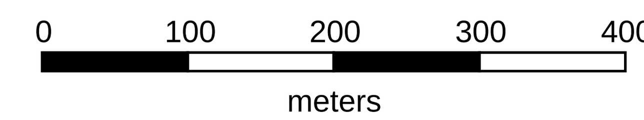
Interpreted Chargeability (ms)



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10



Happy Creek Minerals Ltd.

West Valley Grid

Merritt, British Columbia

3D Inversion Model

of

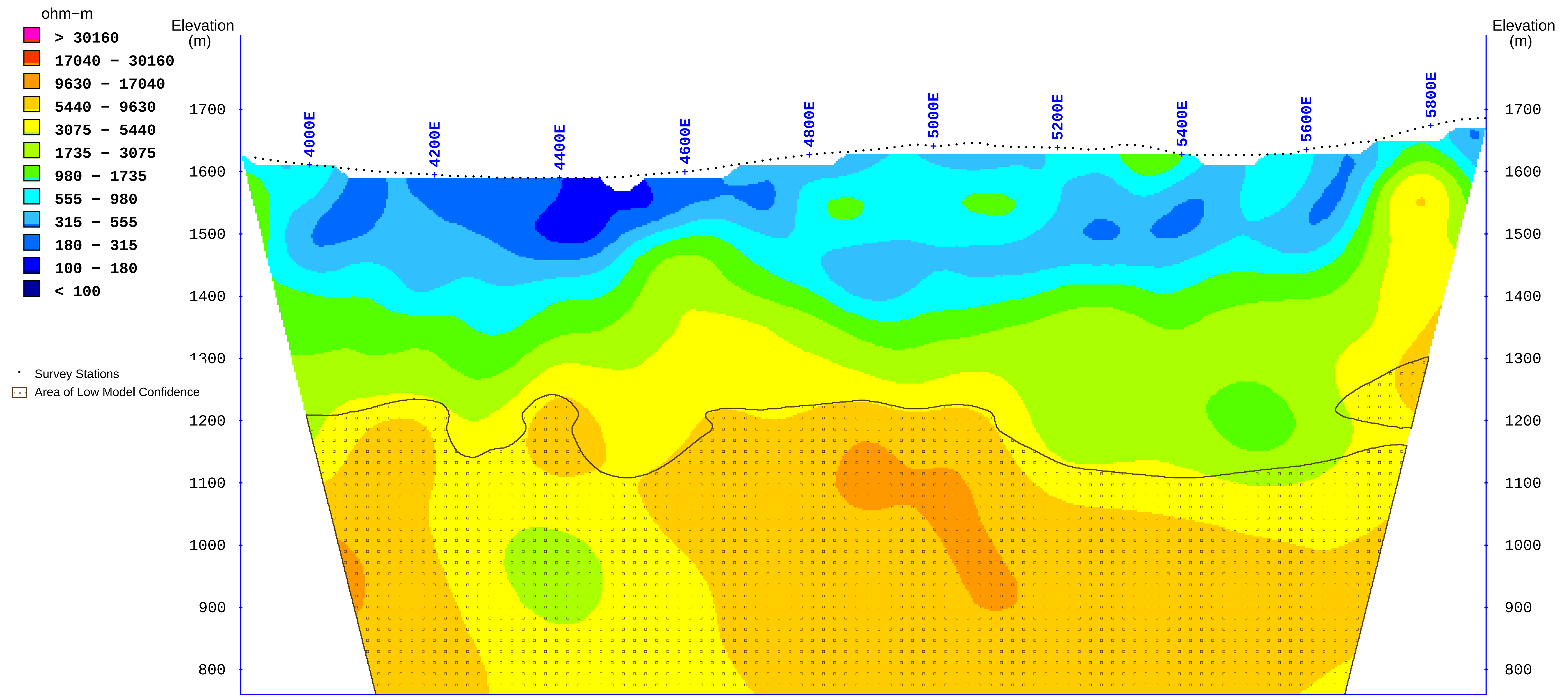
Interpreted

Resistivity & Chargeability

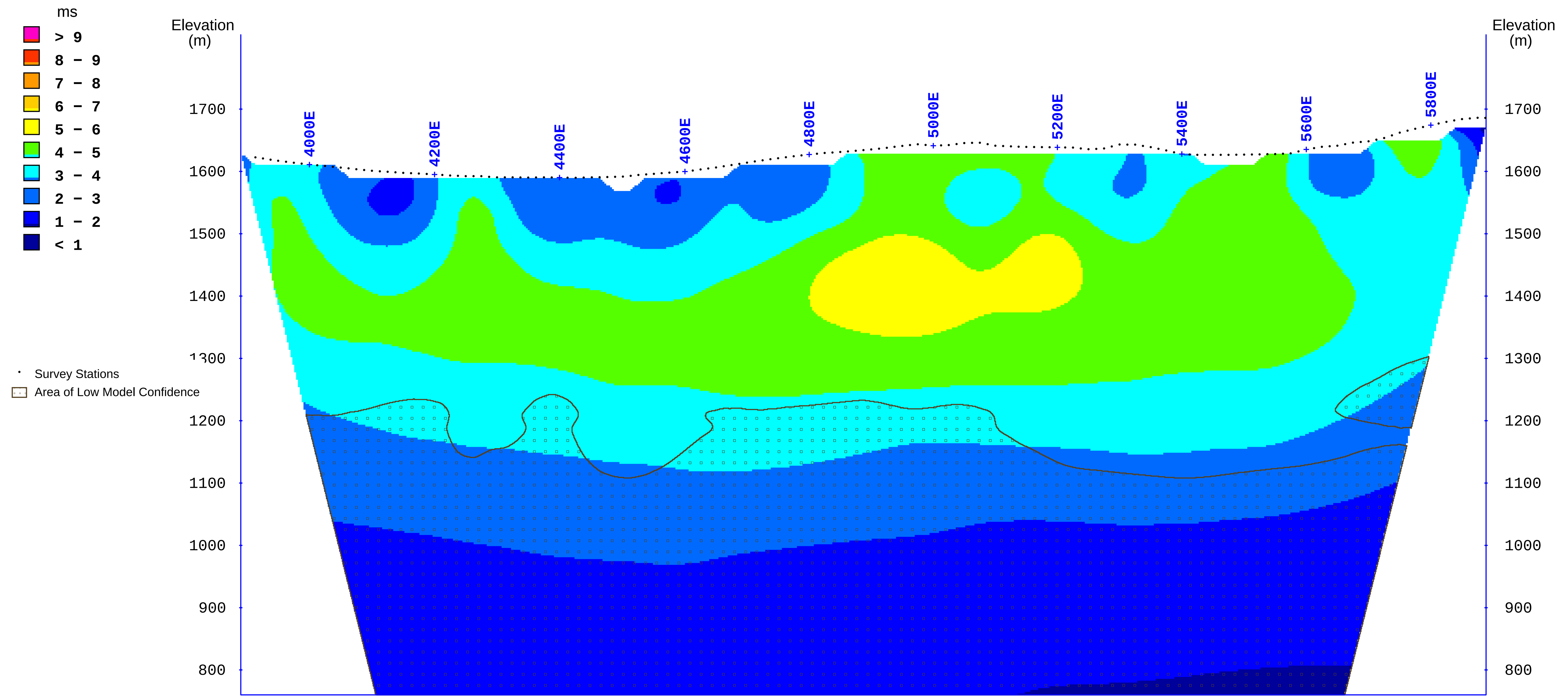
Cross Section Map

Section: 3500N

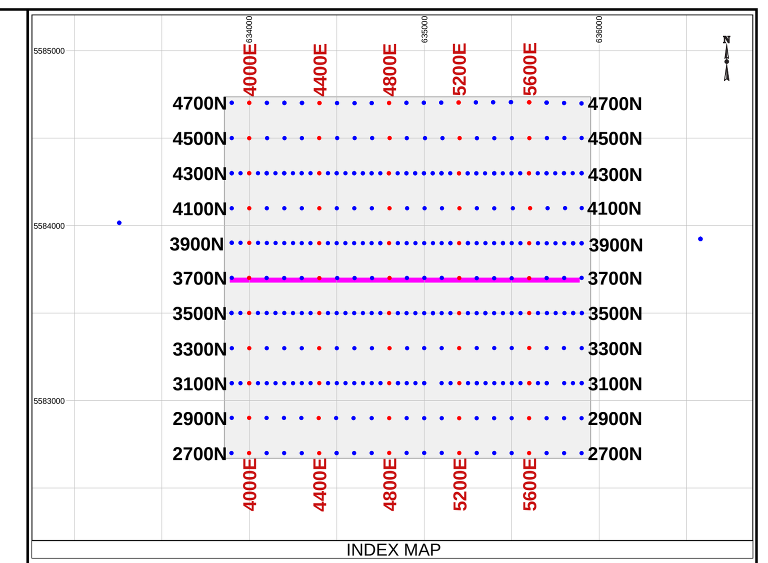
SJ Geophysics Ltd.



Interpreted Resistivity (ohm−m)



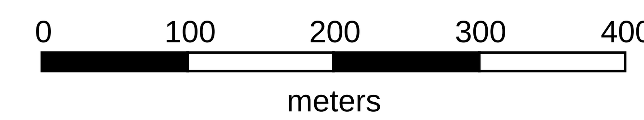
Interpreted Chargeability (ms)



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10



Happy Creek Minerals Ltd.

West Valley Grid

Merritt, British Columbia

3D Inversion Model

of

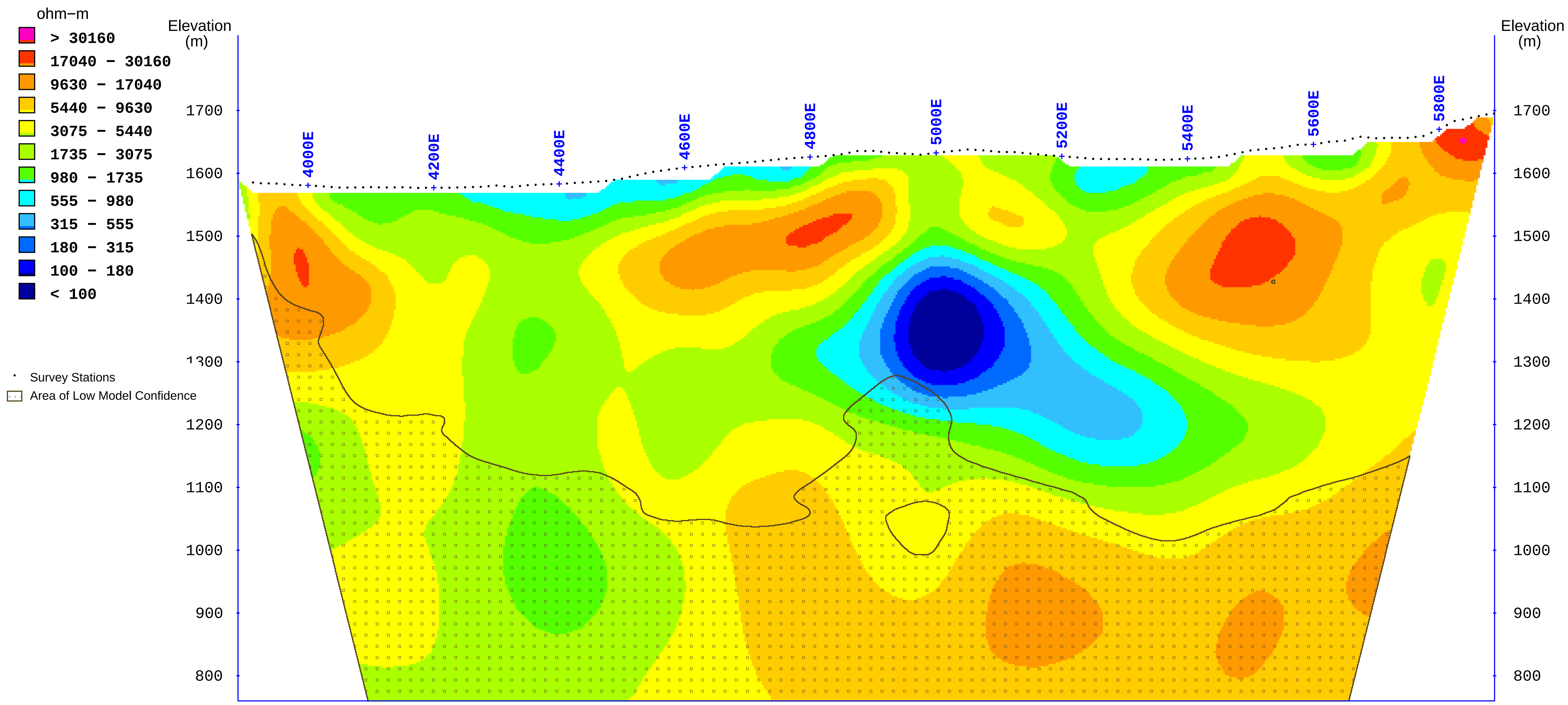
Interpreted

Resistivity & Chargeability

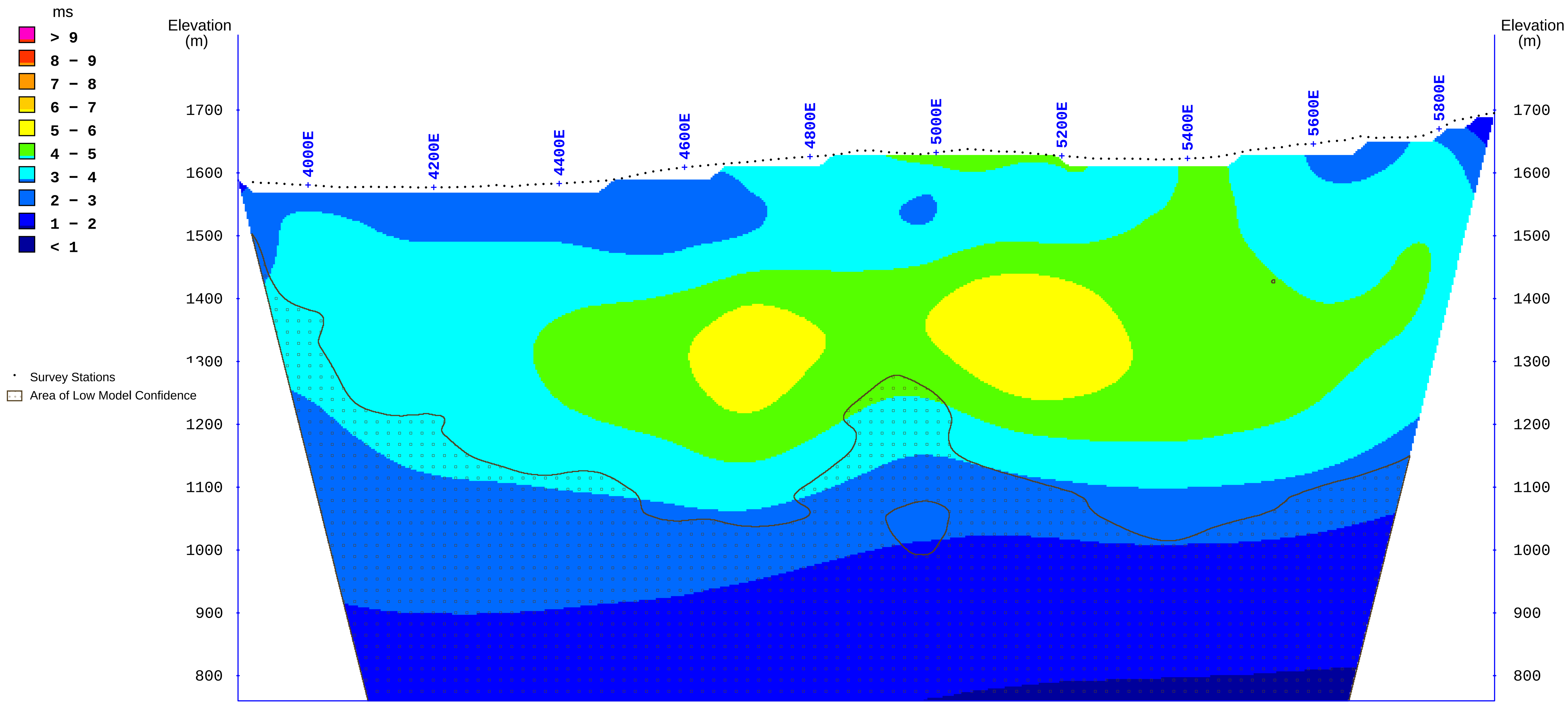
Cross Section Map

Section: 3700N

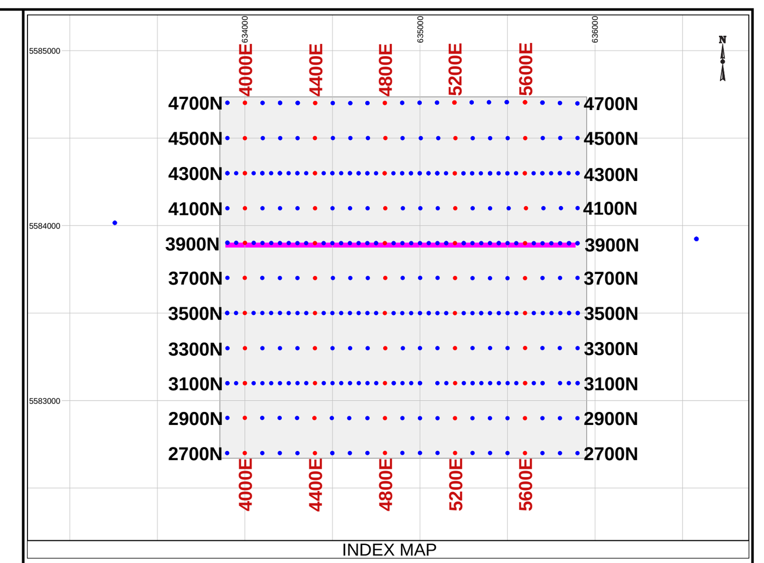
SJ Geophysics Ltd.



Interpreted Resistivity (ohm−m)



Interpreted Chargeability (ms)



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10

0 100 200 300 400
meters

Happy Creek Minerals Ltd.

West Valley Grid

Merritt, British Columbia

3D Inversion Model

of

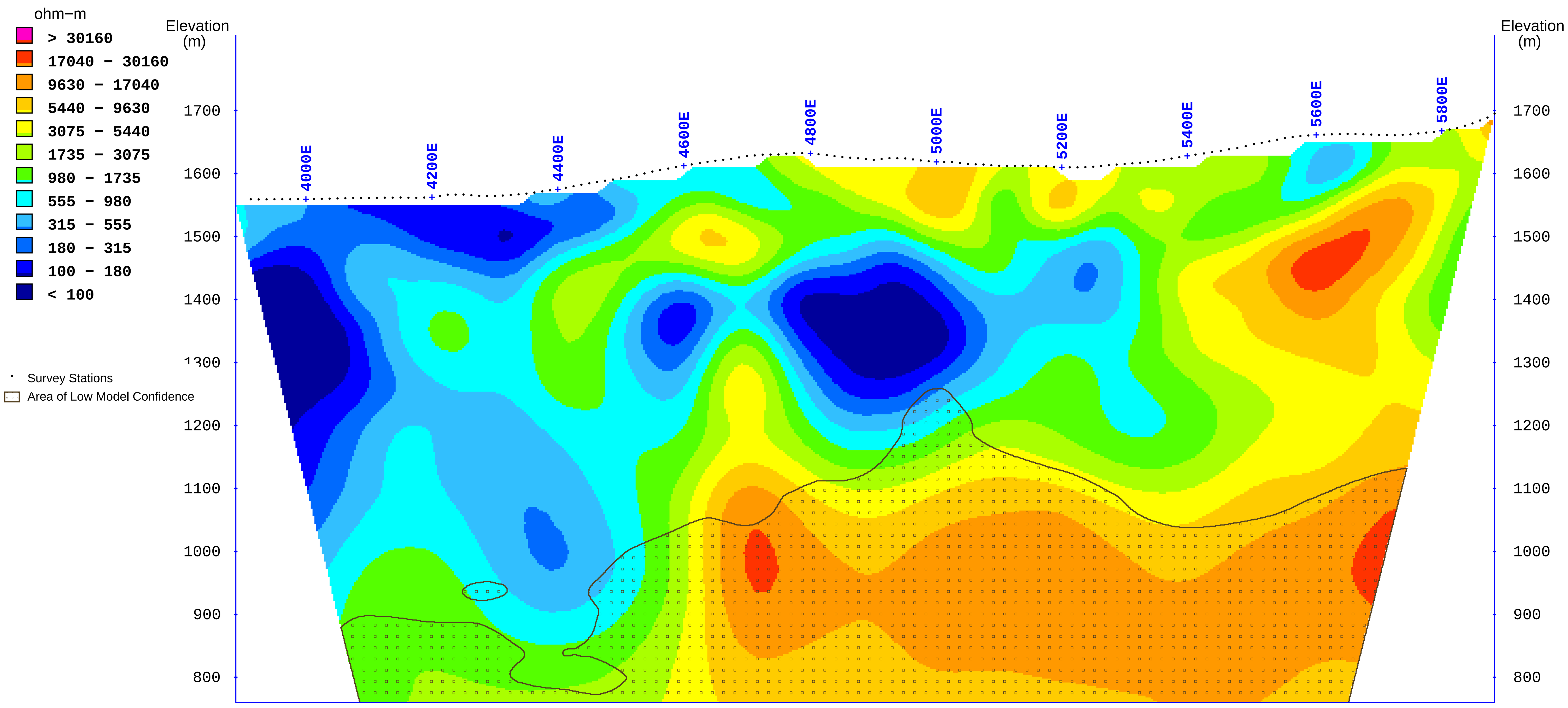
Interpreted

Resistivity & Chargeability

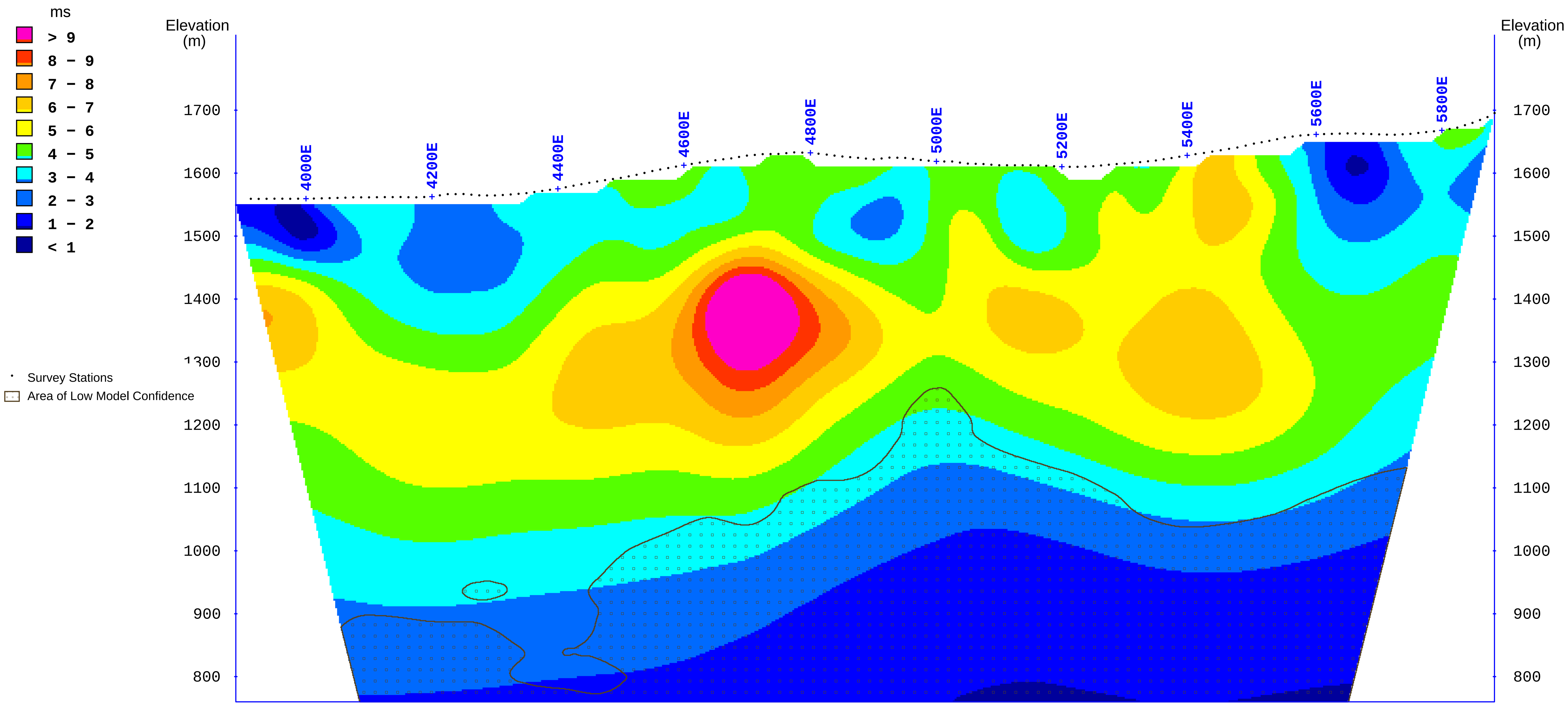
Cross Section Map

Section: 3900N

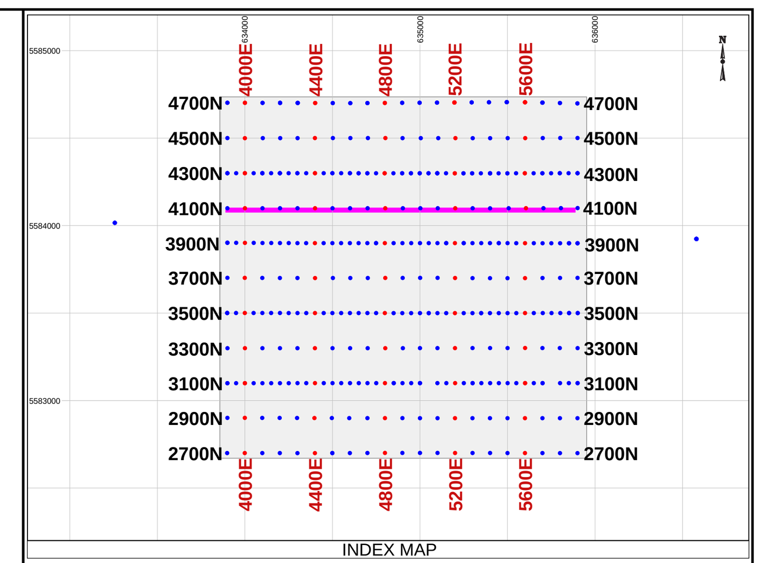
SJ Geophysics Ltd.



Interpreted Resistivity (ohm−m)



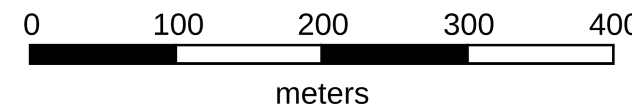
Interpreted Chargeability (ms)



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10



Happy Creek Minerals Ltd.

West Valley Grid

Merritt, British Columbia

3D Inversion Model

of

Interpreted

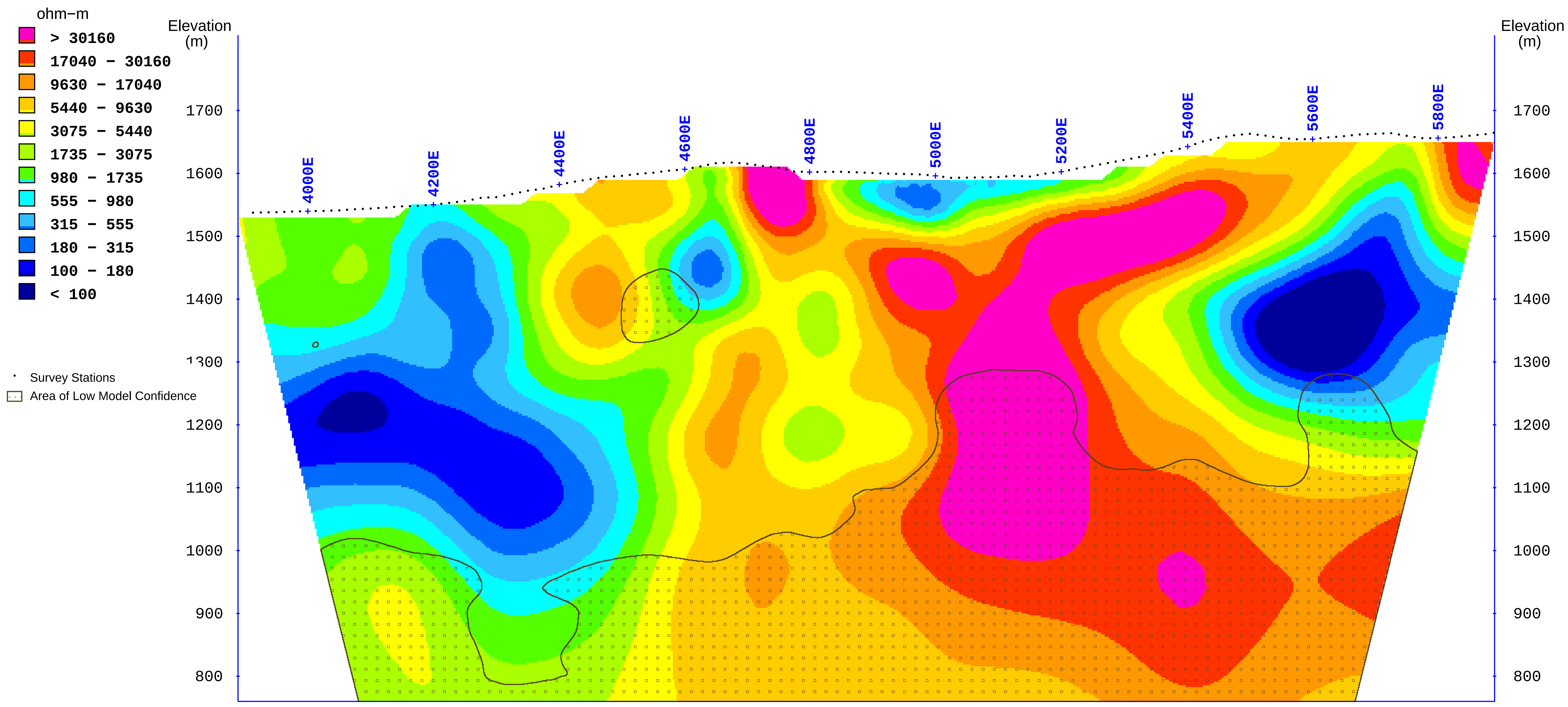
Resistivity & Chargeability

Cross Section Map

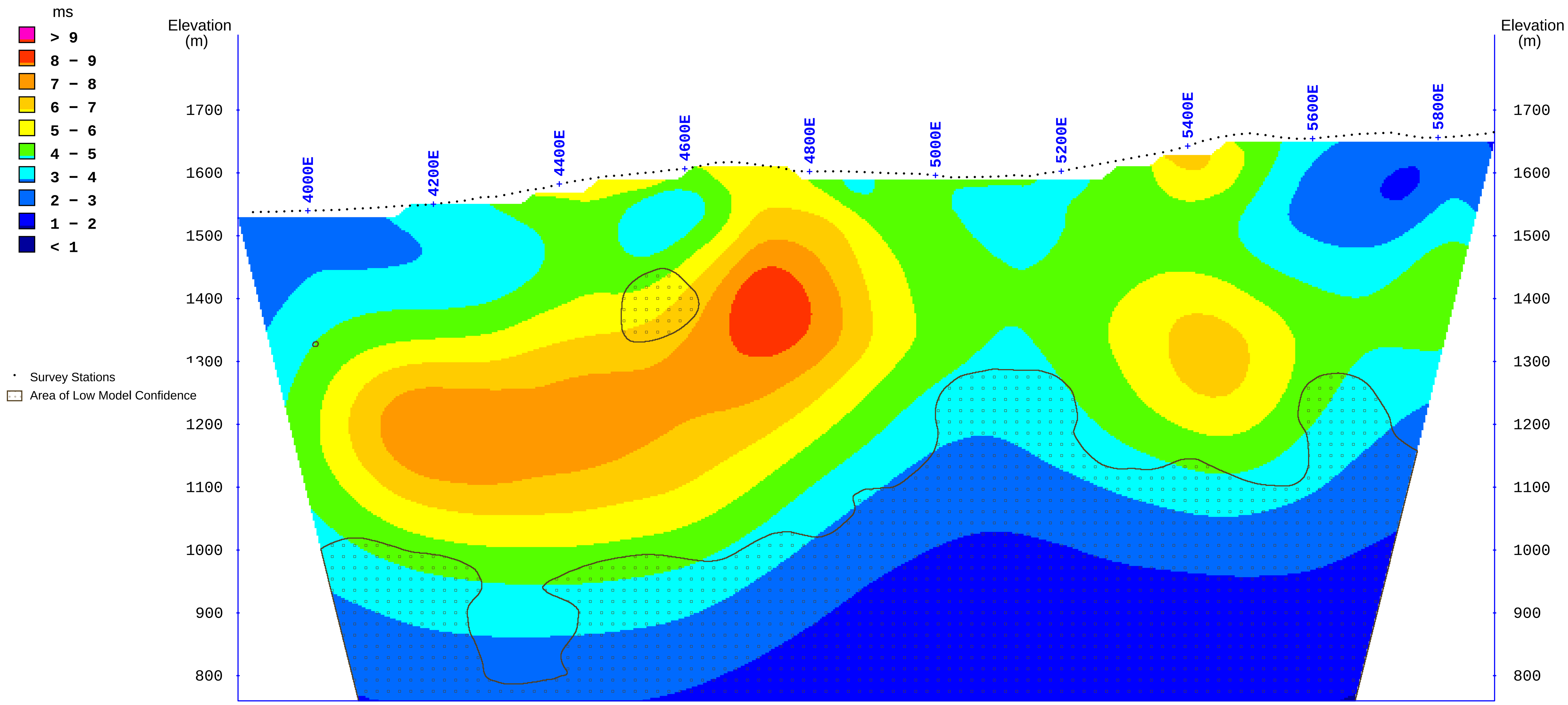
Section: 4100N

SJ Geophysics Ltd.

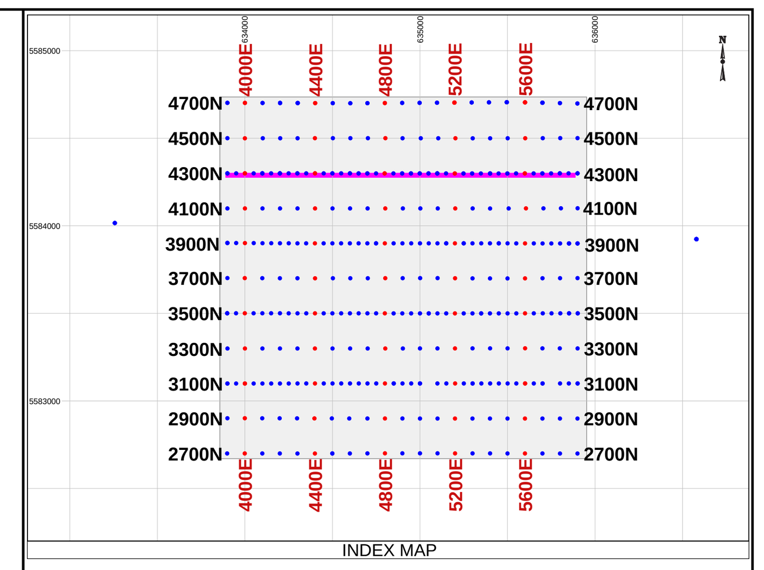
Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Interpreted Resistivity (ohm−m)



Interpreted Chargeability (ms)



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10

0 100 200 300 400
meters

Happy Creek Minerals Ltd.

West Valley Grid

Merritt, British Columbia

3D Inversion Model

of

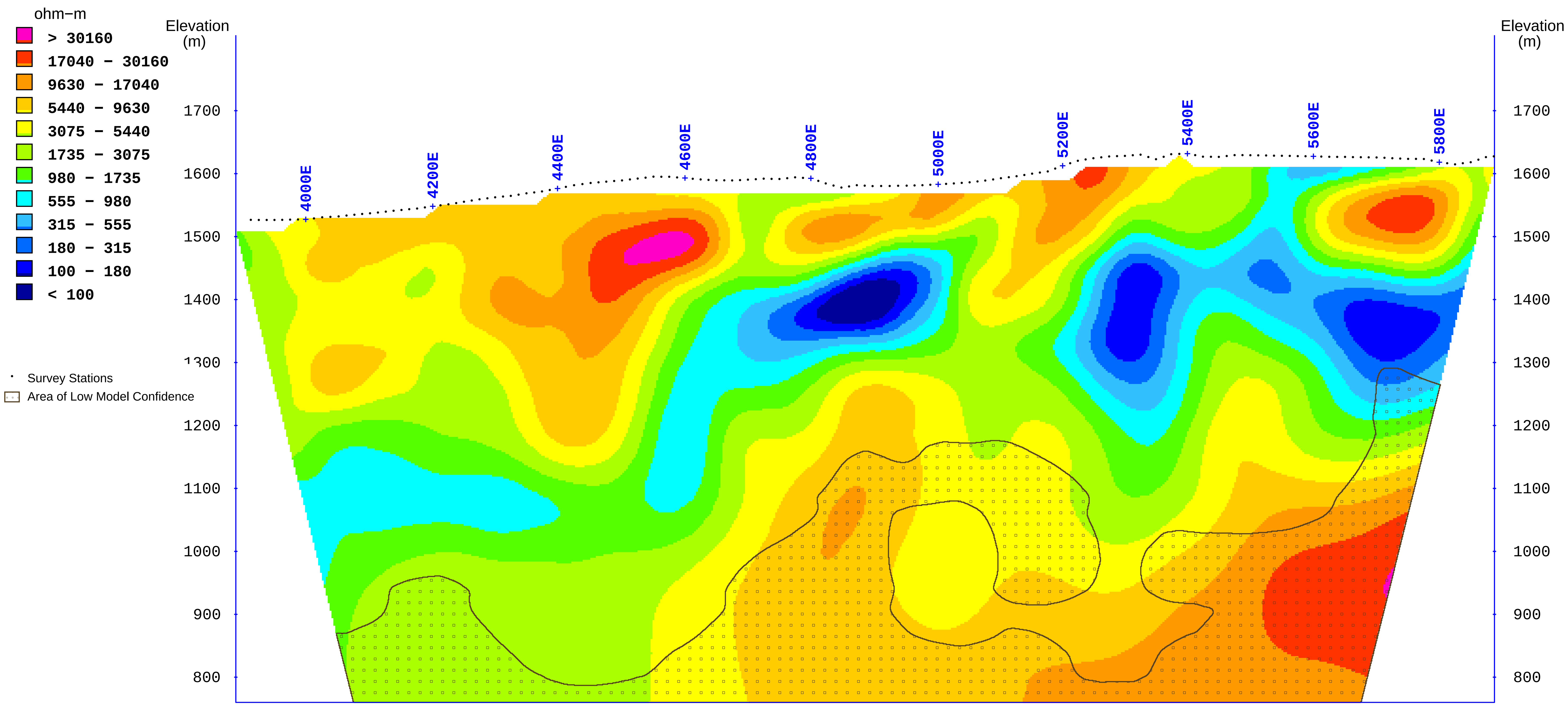
Interpreted

Resistivity & Chargeability

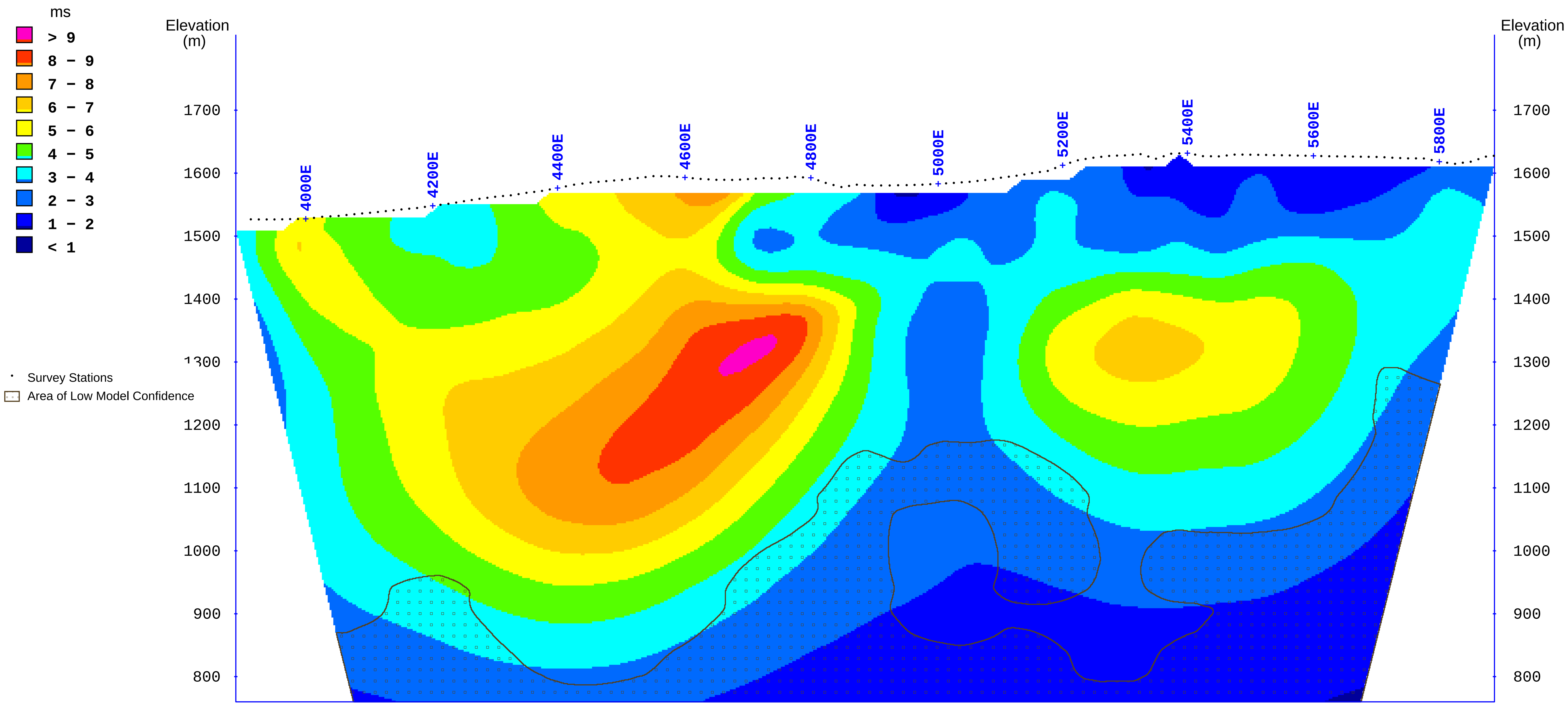
Cross Section Map

Section: 4300N

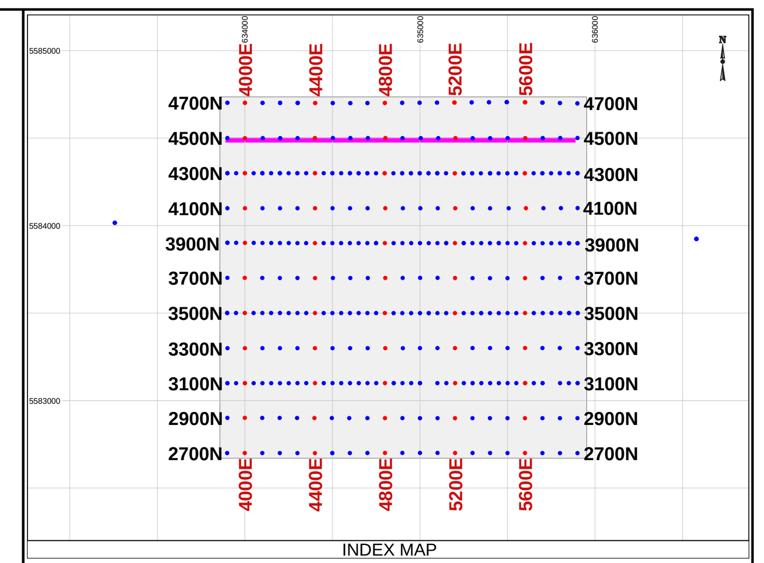
SJ Geophysics Ltd.



Interpreted Resistivity (ohm−m)



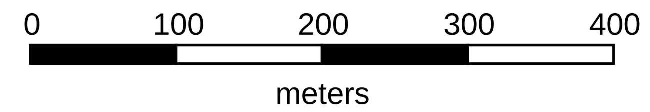
Interpreted Chargeability (ms)



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10



Happy Creek Minerals Ltd.

West Valley Grid

Merritt, British Columbia

3D Inversion Model

of

Interpreted

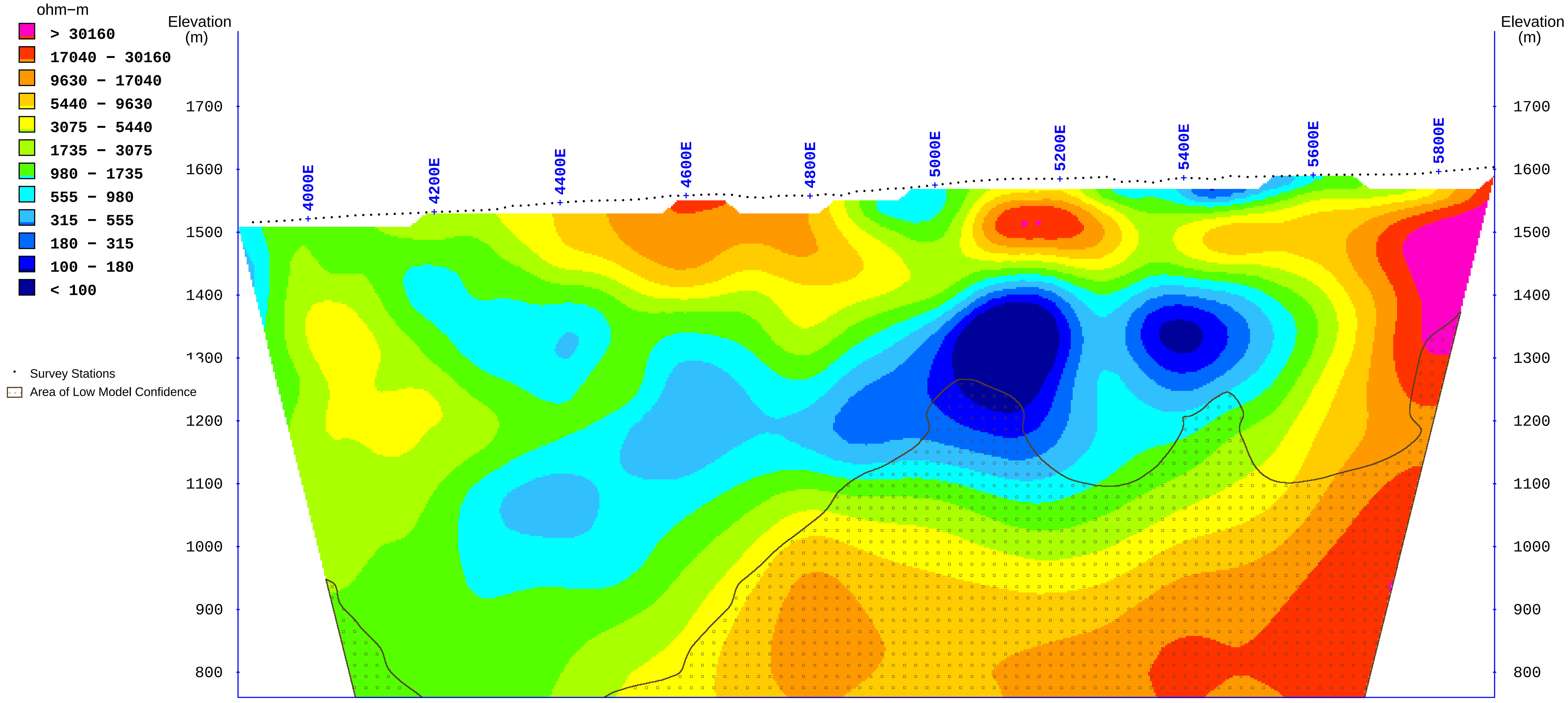
Resistivity & Chargeability

Cross Section Map

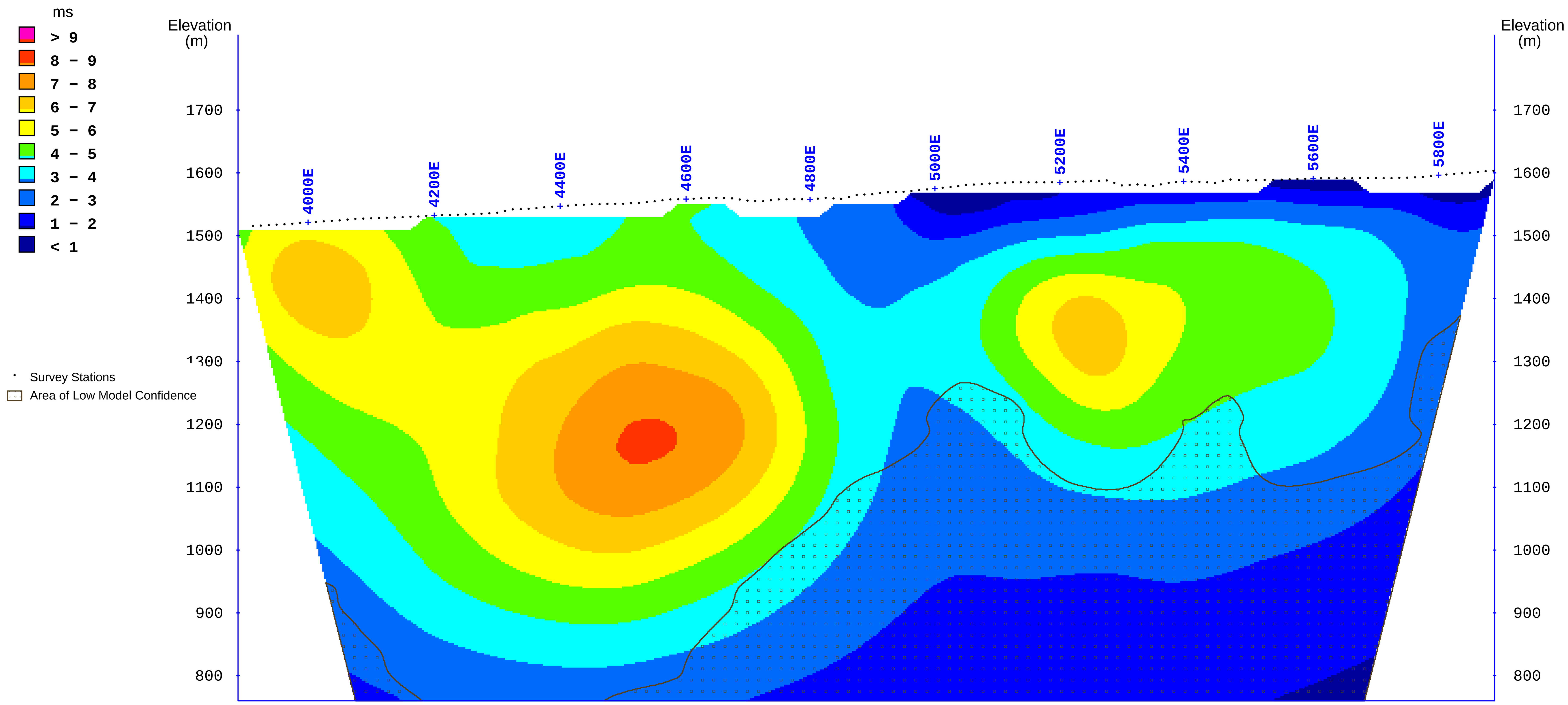
Section: 4500N

SJ Geophysics Ltd.

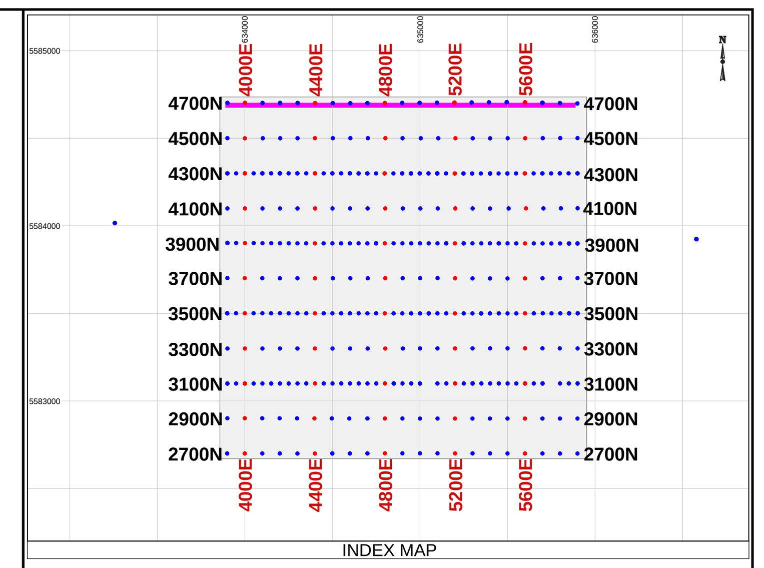
Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Interpreted Resistivity (ohm−m)



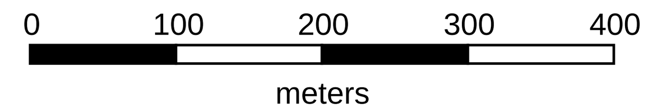
Interpreted Chargeability (ms)



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10



Happy Creek Minerals Ltd.

West Valley Grid

Merritt, British Columbia

3D Inversion Model

of

Interpreted

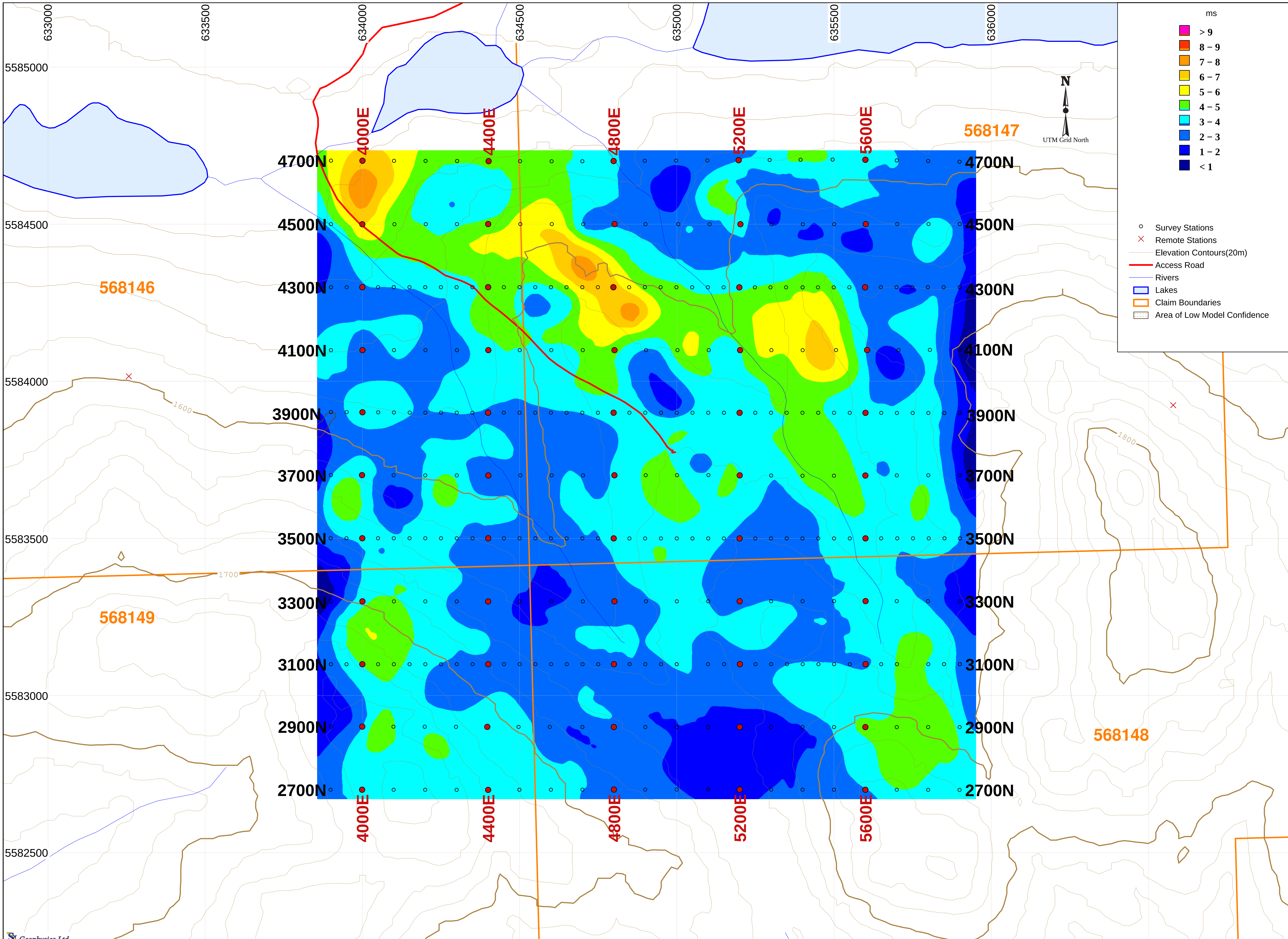
Resistivity & Chargeability

Cross Section Map

Section: 4700N

SJ Geophysics Ltd.

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept–Oct, 2009

Instrumentation:
Receiver: SJ–24 Full–Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 75m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

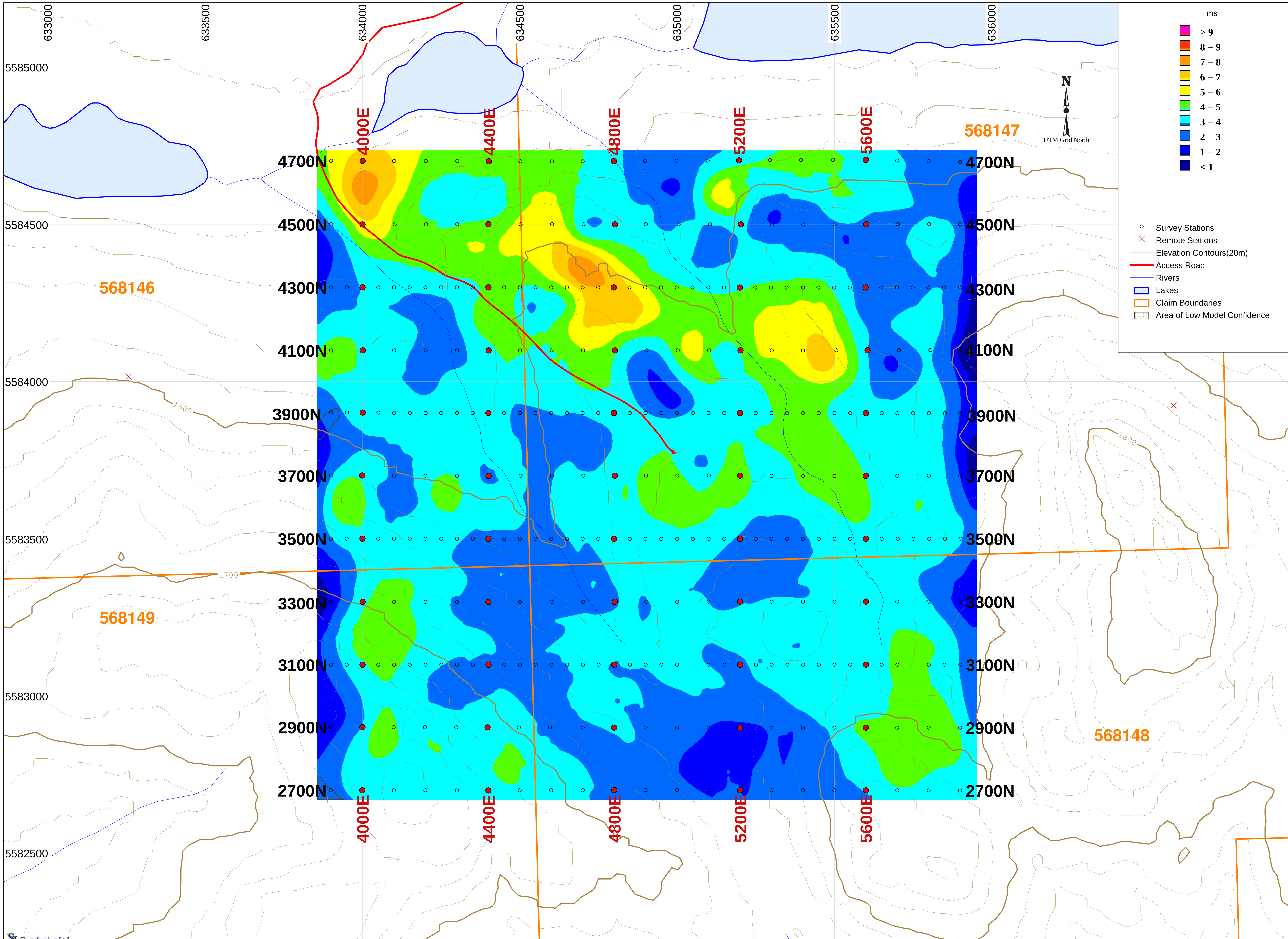
Interpreted Chargeability (ms)

West Valley Grid

Merritt, British Columbia

Plate C–1

Mapping By : S.J.V. Consultants Ltd. 11966–95A Avenue, Delta, British Columbia, V4C 3W2 (604)582–1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept–Oct, 2009

Instrumentation:
Receiver: SJ–24 Full–Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

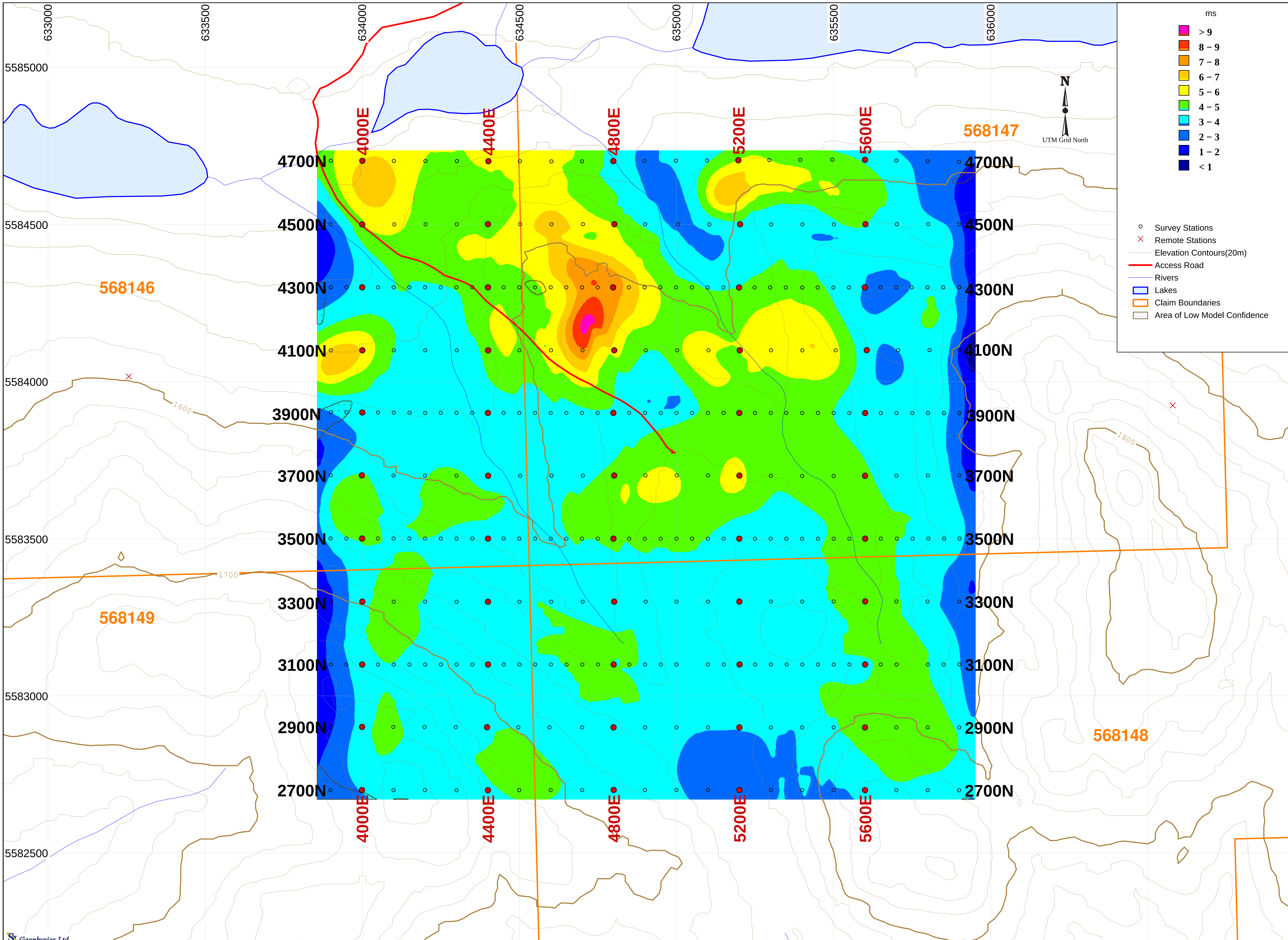
Planmap
3D Inversion Model
Depth: 100m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.
Interpreted Chargeability (ms)
West Valley Grid
Merritt, British Columbia

Plate C–2

Mapping By : S.J.V. Consultants Ltd. 11966–95A Avenue, Delta, British Columbia, V4C 3W2 (604)582–1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept–Oct, 2009

Instrumentation:
Receiver: SJ–24 Full–Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 150m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

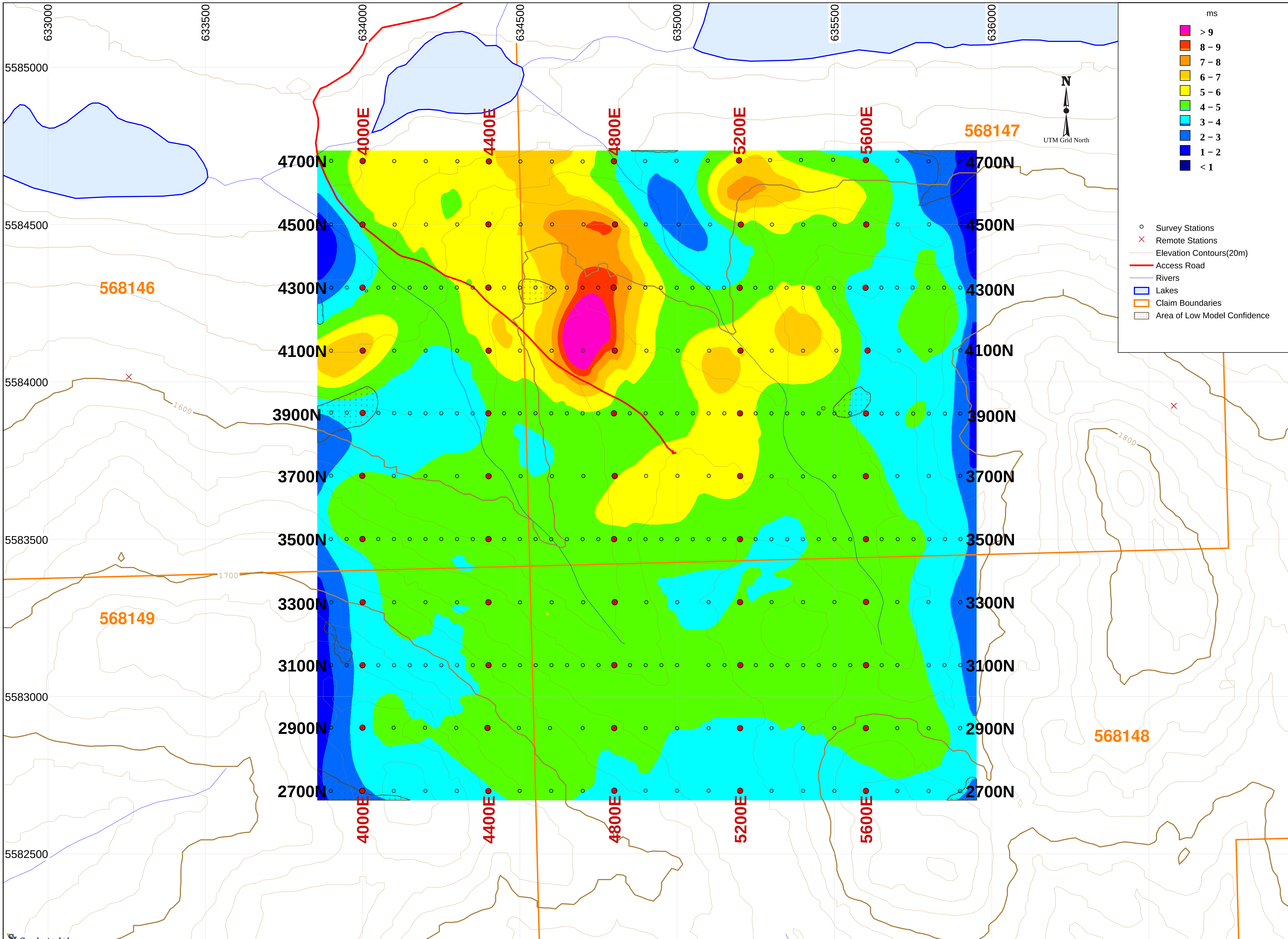
Interpreted Chargeability (ms)

West Valley Grid

Merritt, British Columbia

Plate C–3

Mapping By : S.J.V. Consultants Ltd. 11966–95A Avenue, Delta, British Columbia, V4C 3W2 (604)582–1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept–Oct, 2009

Instrumentation:
Receiver: SJ–24 Full–Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 200m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

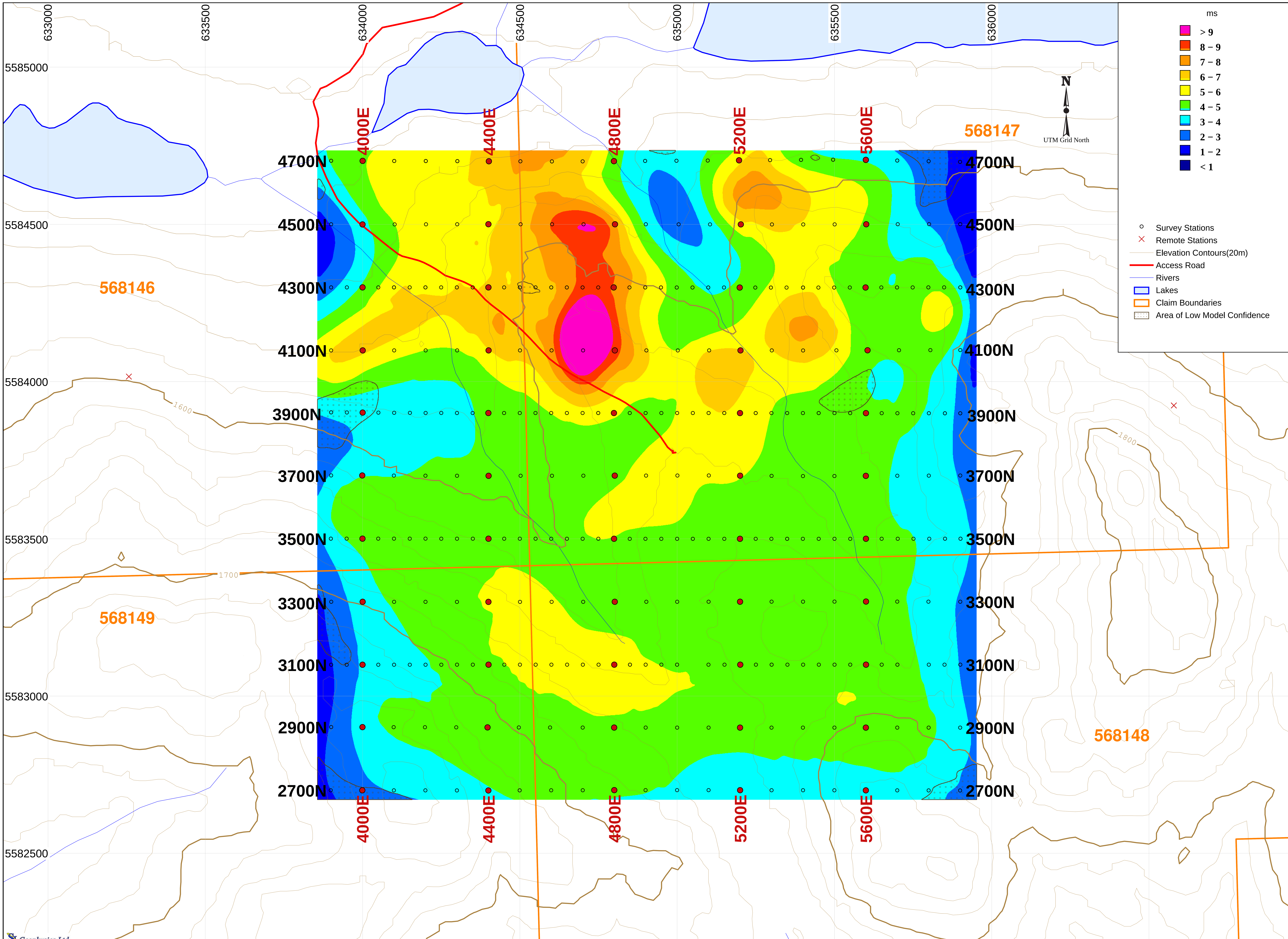
Interpreted Chargeability (ms)

West Valley Grid

Merritt, British Columbia

Plate C–4

Mapping By : S.J.V. Consultants Ltd. 11966–95A Avenue, Delta, British Columbia, V4C 3W2 (604)582–1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept–Oct, 2009

Instrumentation:
Receiver: SJ–24 Full–Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 250m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

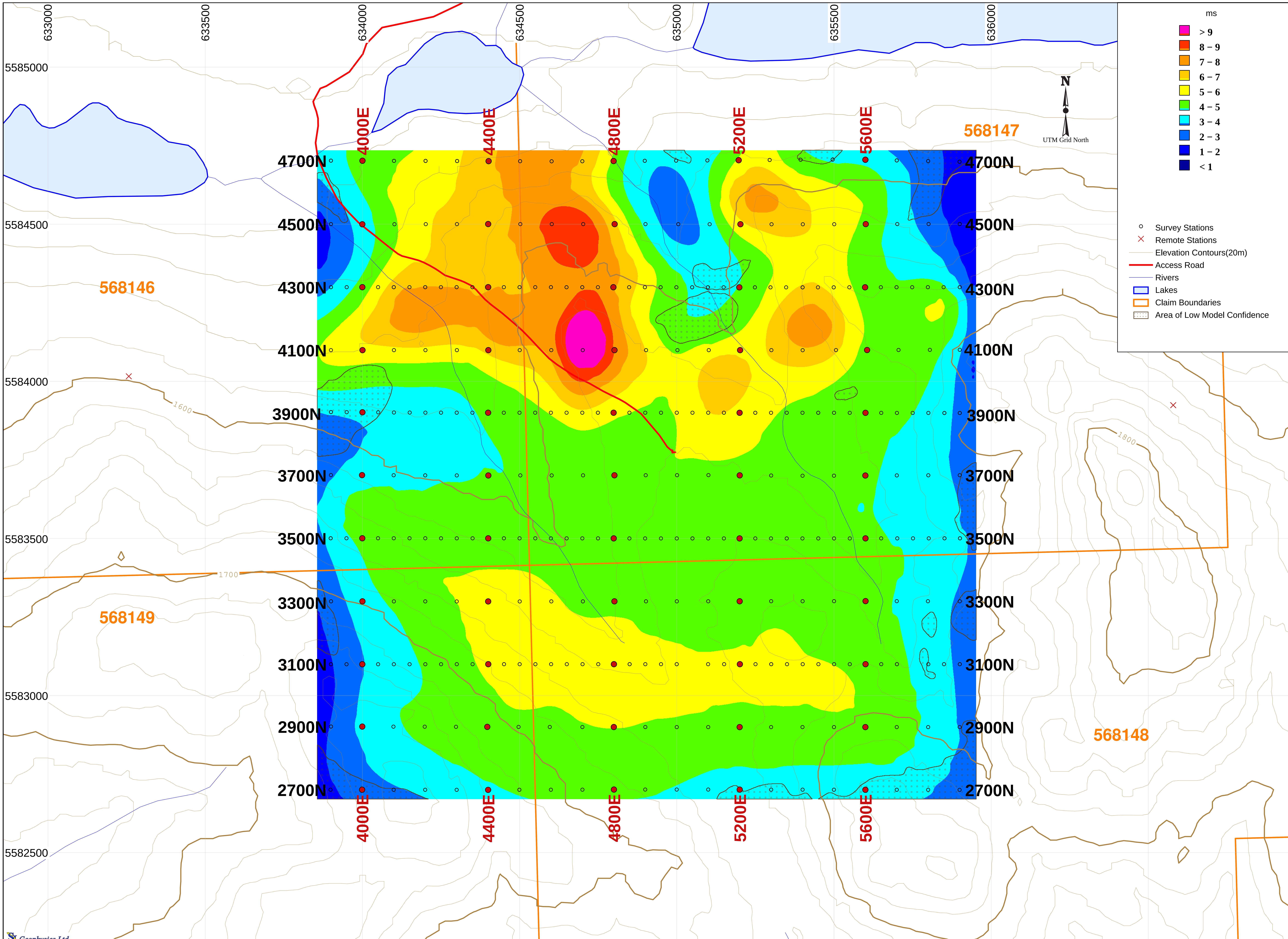
Interpreted Chargeability (ms)

West Valley Grid

Merritt, British Columbia

Plate C–5

Mapping By : S.J.V. Consultants Ltd. 11966–95A Avenue, Delta, British Columbia, V4C 3W2 (604)582–1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept–Oct, 2009

Instrumentation:
Receiver: SJ–24 Full–Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 300m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

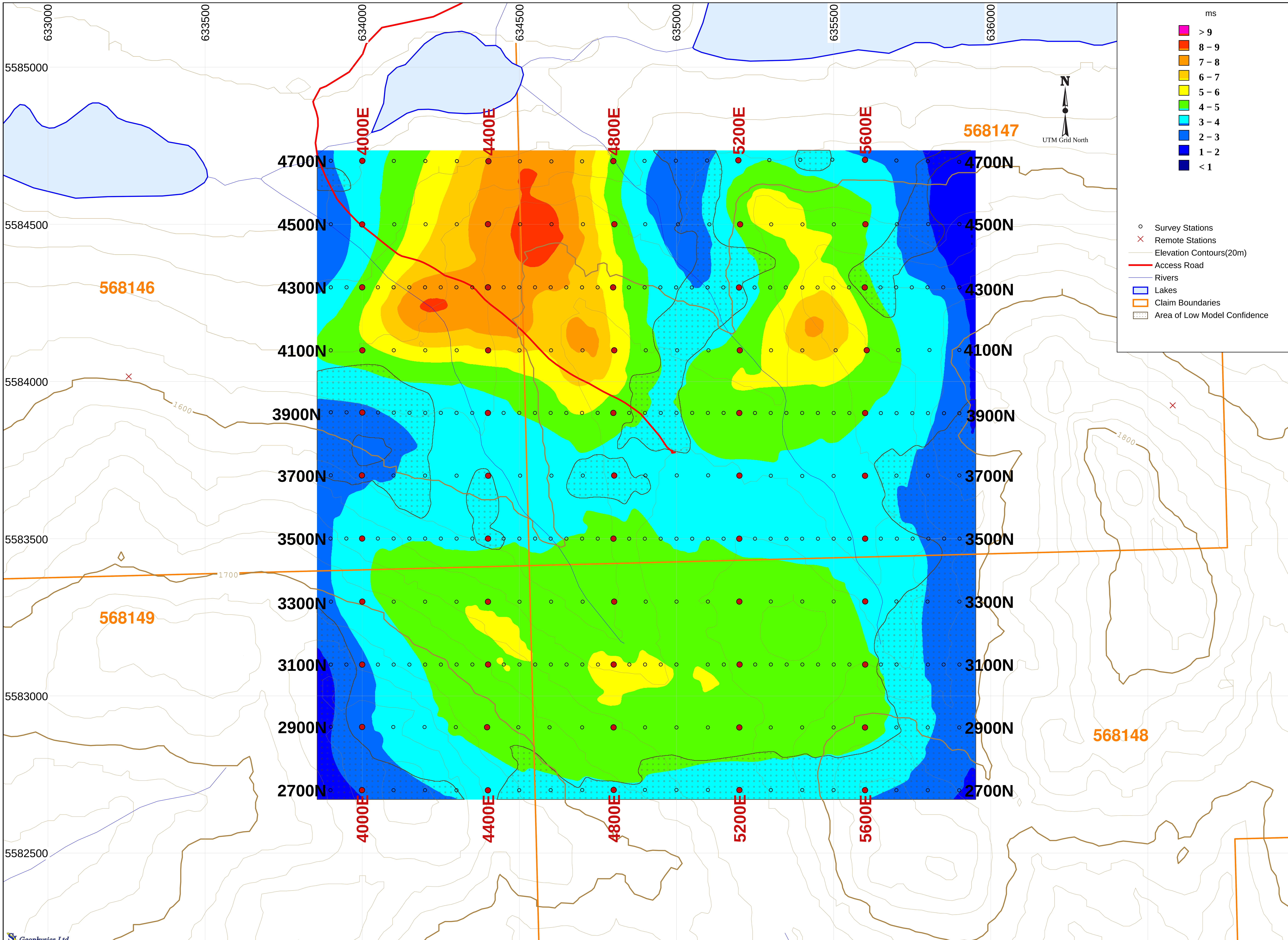
Interpreted Chargeability (ms)

West Valley Grid

Merritt, British Columbia

Plate C–6

Mapping By : S.J.V. Consultants Ltd. 11966–95A Avenue, Delta, British Columbia, V4C 3W2 (604)582–1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept–Oct, 2009

Instrumentation:
Receiver: SJ-24 Full-Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

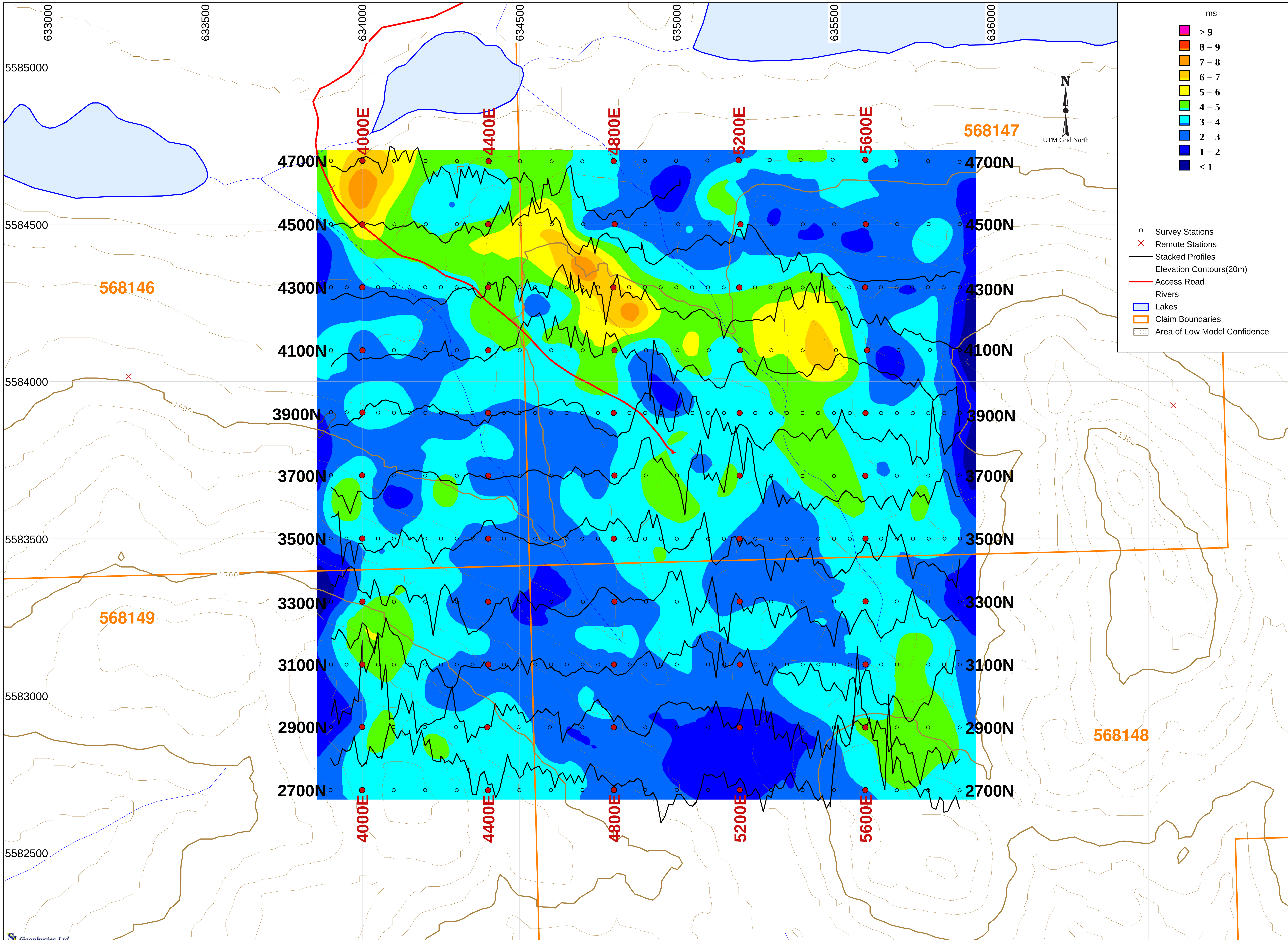
Planmap
3D Inversion Model
Depth: 400m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.
Interpreted Chargeability (ms)
West Valley Grid
Merritt, British Columbia

Plate C-7

Mapping By : S.J.V. Consultants Ltd. 11966–95A Avenue, Delta, British Columbia, V4C 3W2 (604)582–1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept–Oct, 2009

Instrumentation:
Receiver: SJ–24 Full–Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 75m Below Topography

Happy Creek Minerals Ltd.

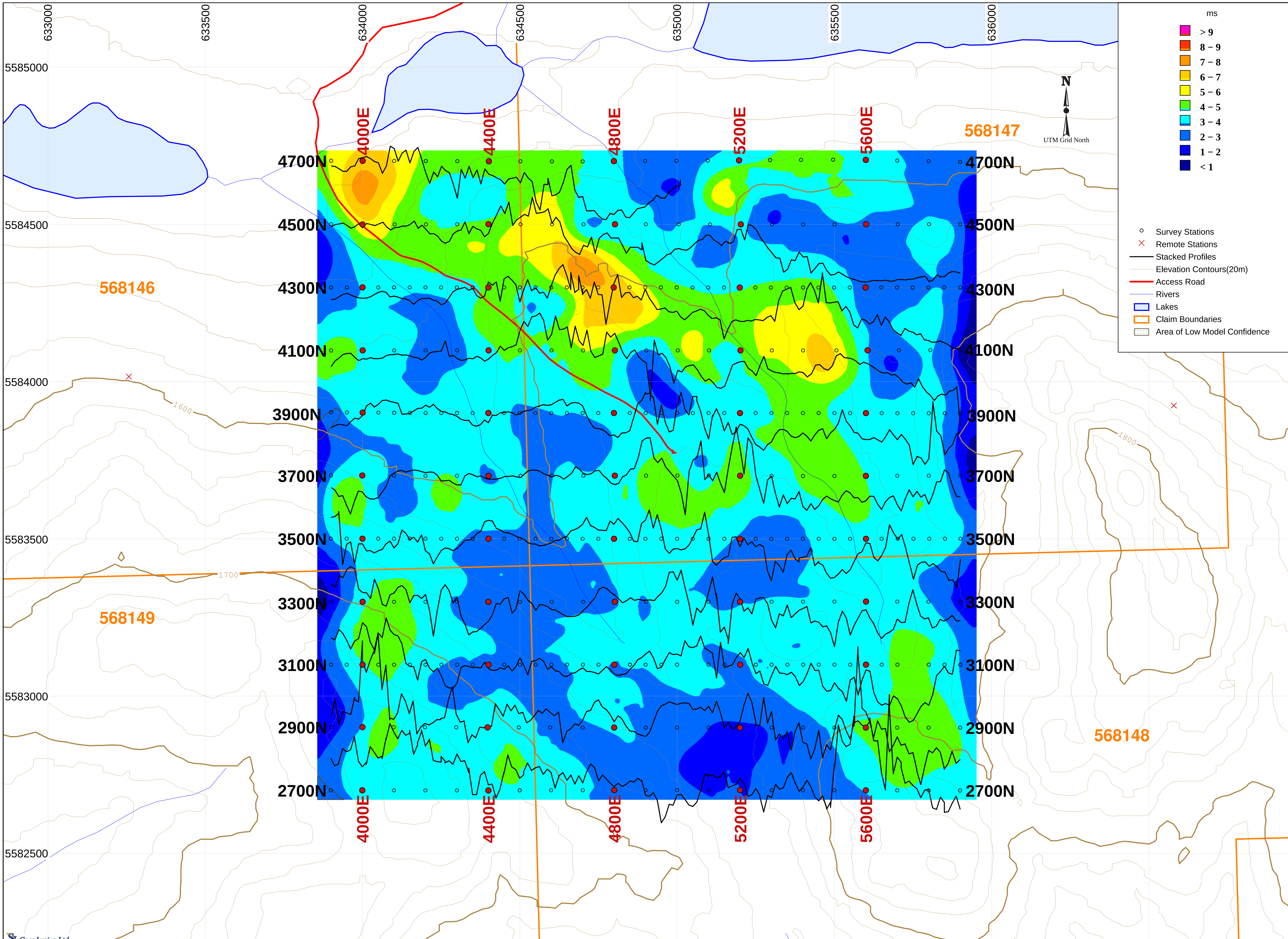
Interpreted Chargeability (ms)

West Valley Grid

Merritt, British Columbia

Plate C–1

Mapping By : S.J.V. Consultants Ltd. 11966–95A Avenue, Delta, British Columbia, V4C 3W2 (604)582–1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept–Oct, 2009

Instrumentation:
Receiver: SJ–24 Full–Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 100m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

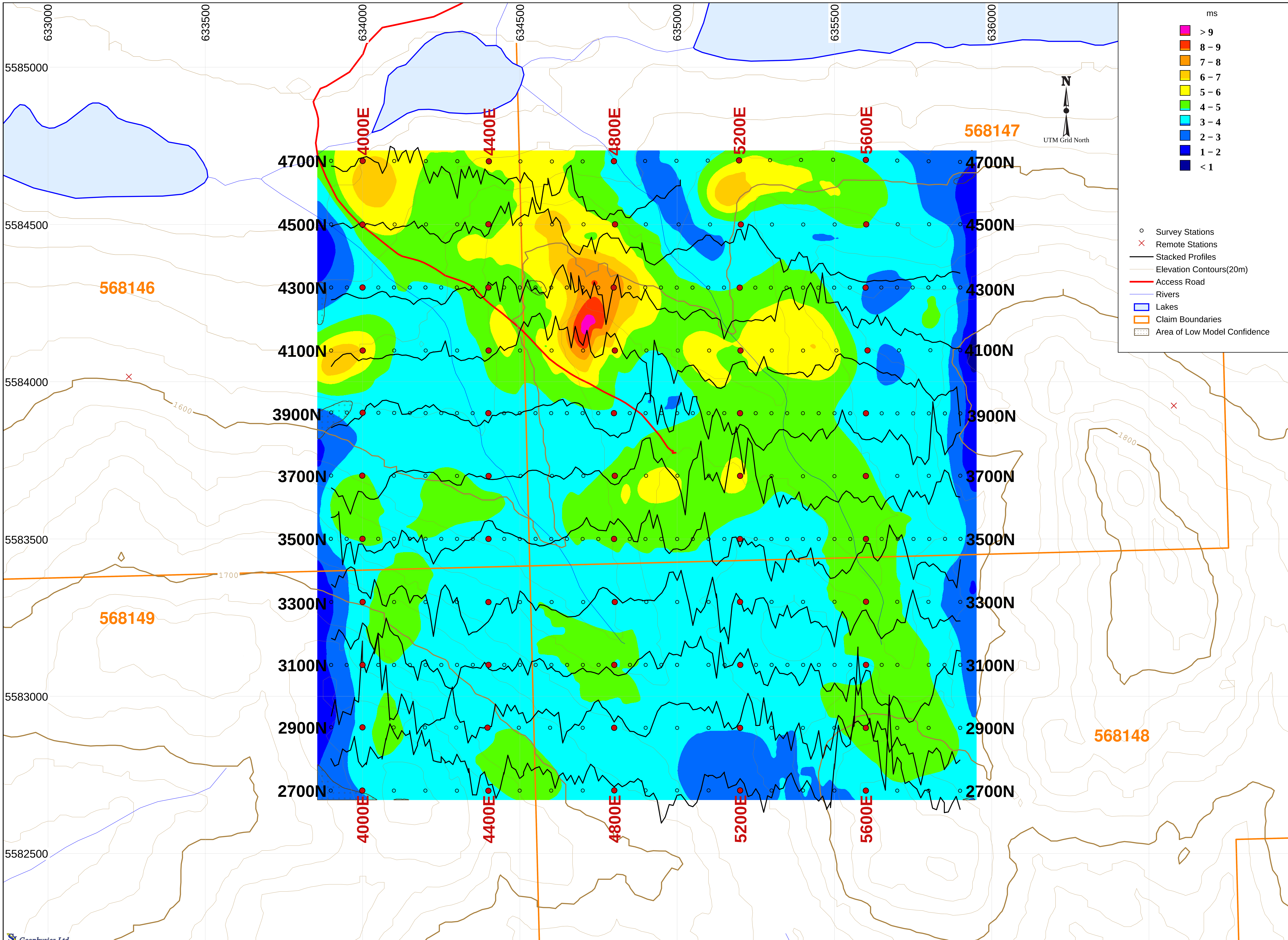
Interpreted Chargeability (ms)

West Valley Grid

Merritt, British Columbia

Plate C–2

Mapping By : S.J.V. Consultants Ltd. 11966–95A Avenue, Delta, British Columbia, V4C 3W2 (604)582–1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept–Oct, 2009

Instrumentation:
Receiver: SJ–24 Full–Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 150m Below Topography

Happy Creek Minerals Ltd.

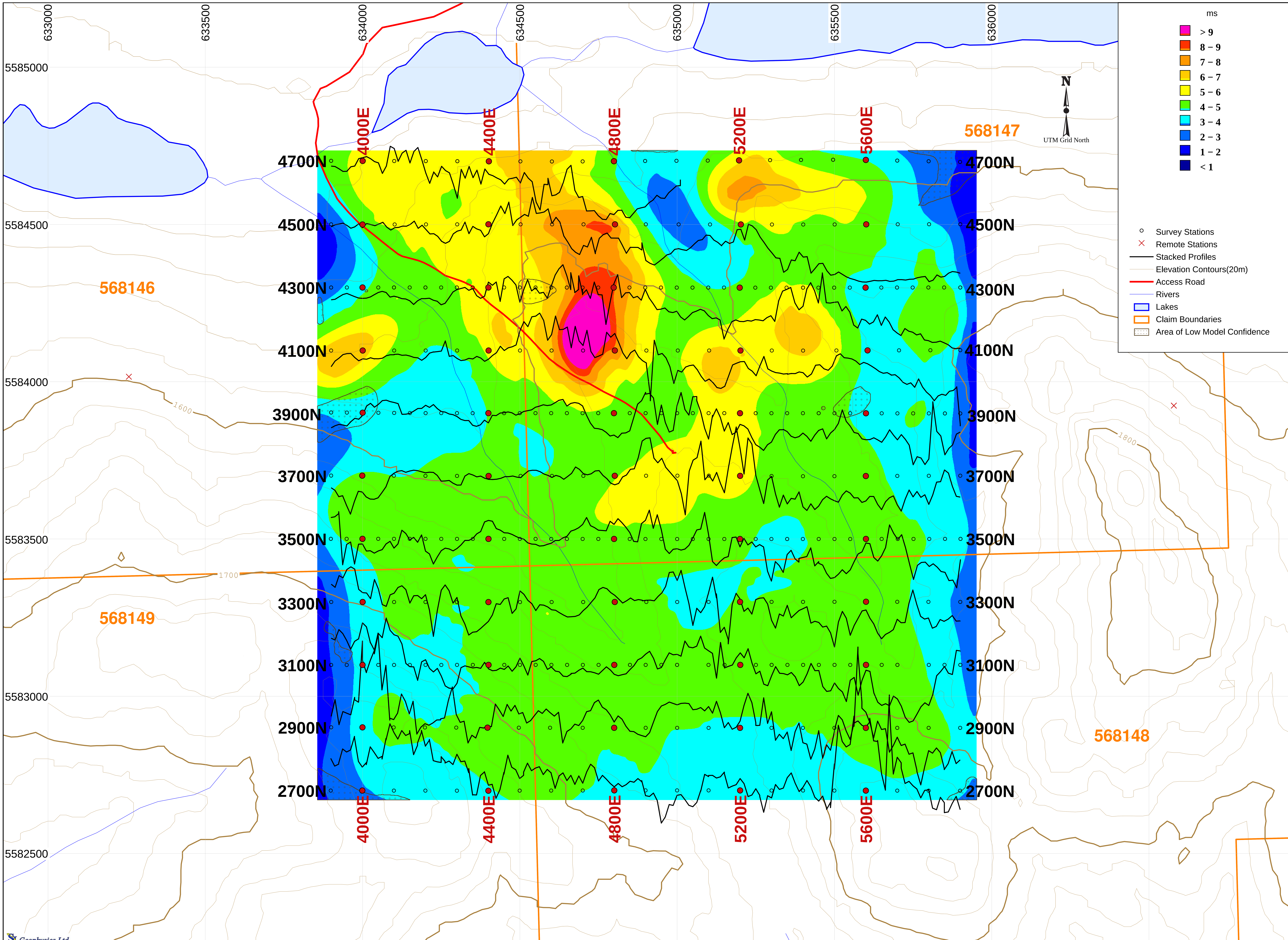
Interpreted Chargeability (ms)

West Valley Grid

Merritt, British Columbia

Plate C–3

Mapping By : S.J.V. Consultants Ltd. 11966–95A Avenue, Delta, British Columbia, V4C 3W2 (604)582–1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept–Oct, 2009

Instrumentation:
Receiver: SJ–24 Full–Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 200m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

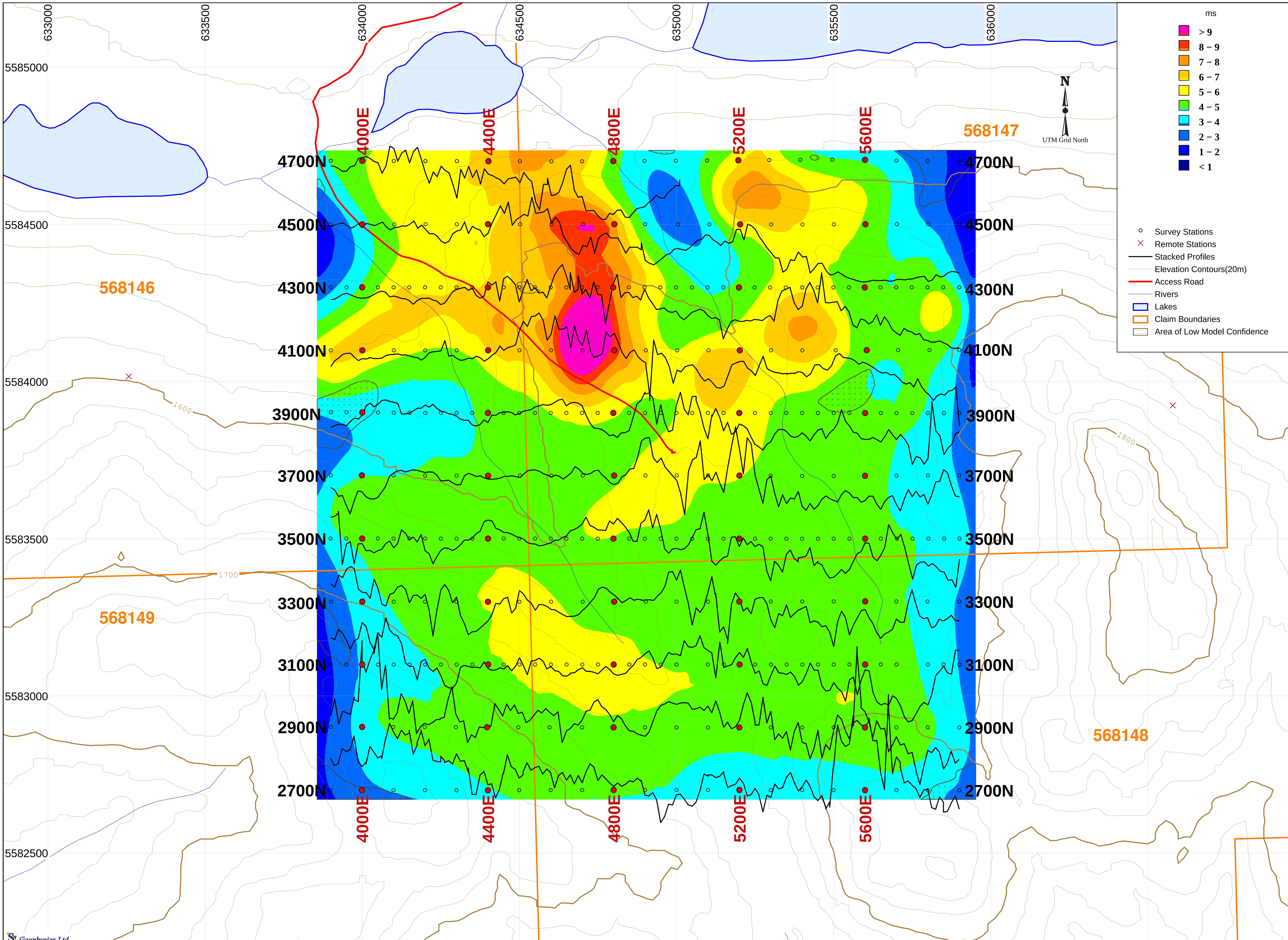
Interpreted Chargeability (ms)

West Valley Grid

Merritt, British Columbia

Plate C–4

Mapping By : S.J.V. Consultants Ltd. 11966–95A Avenue, Delta, British Columbia, V4C 3W2 (604)582–1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 250m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

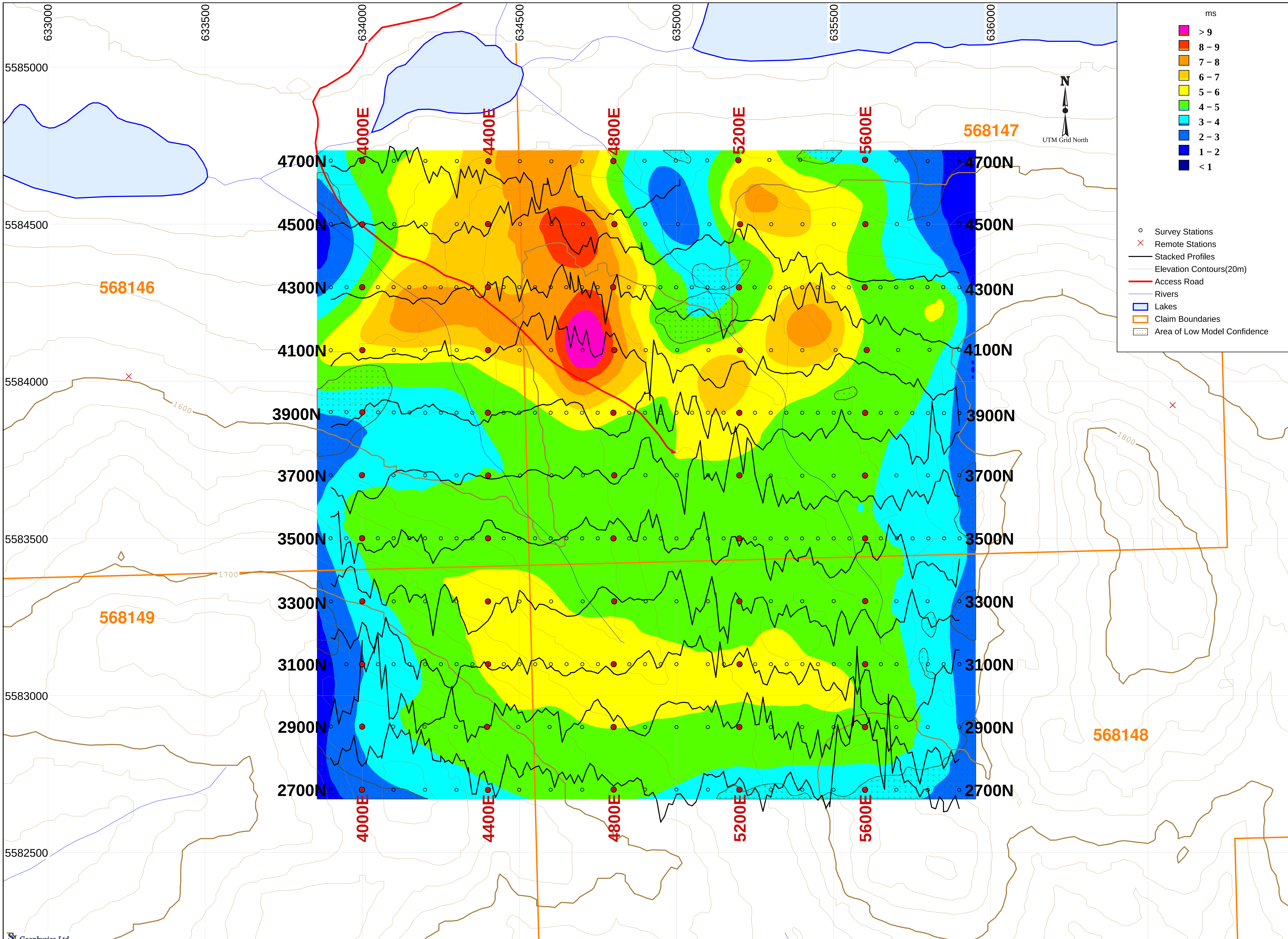
Interpreted Chargeability (ms)

West Valley Grid

Merritt, British Columbia

Plate C−5

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 300m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

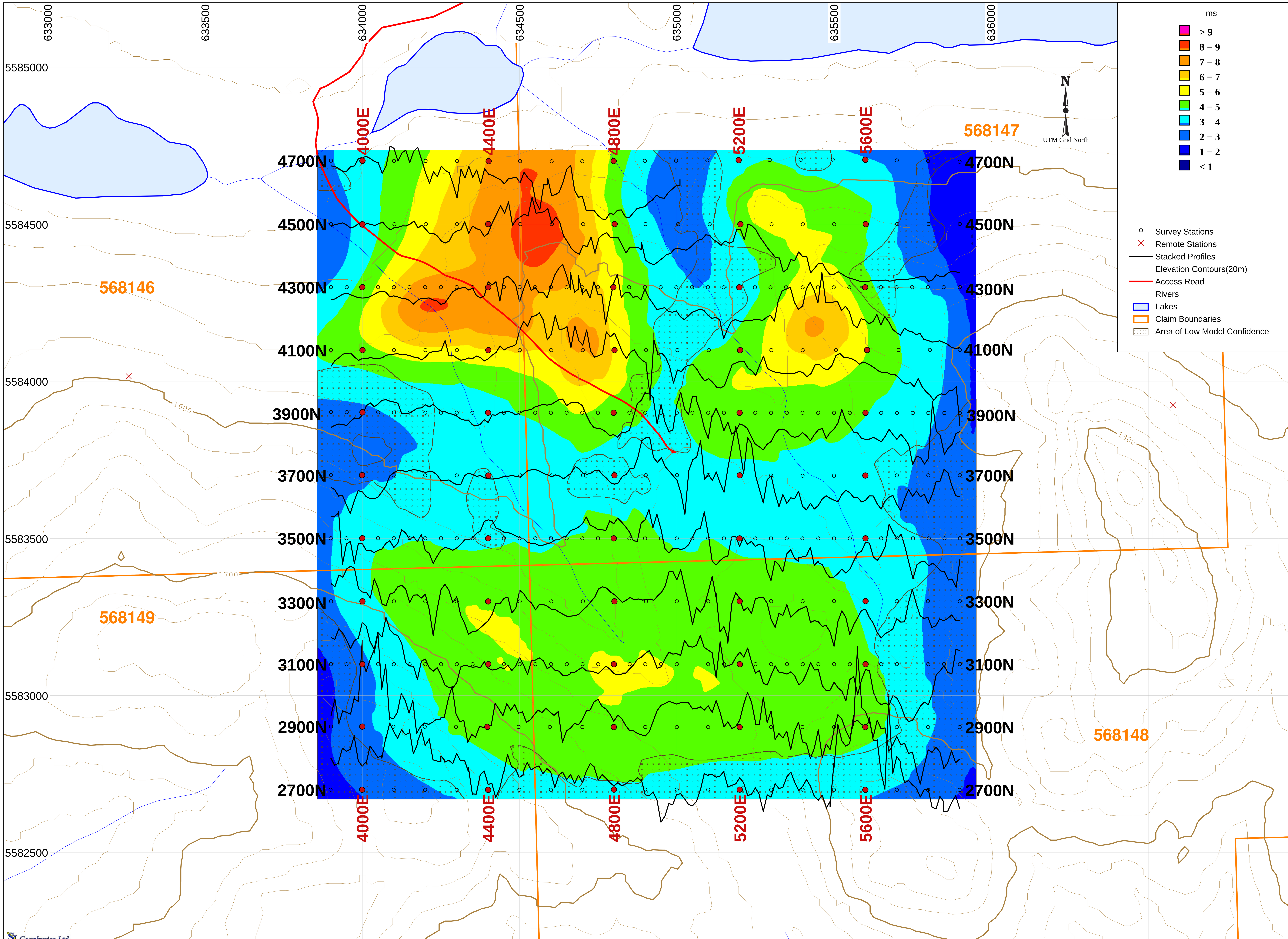
Interpreted Chargeability (ms)

West Valley Grid

Merritt, British Columbia

Plate C−6

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept–Oct, 2009

Instrumentation:
Receiver: SJ–24 Full–Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

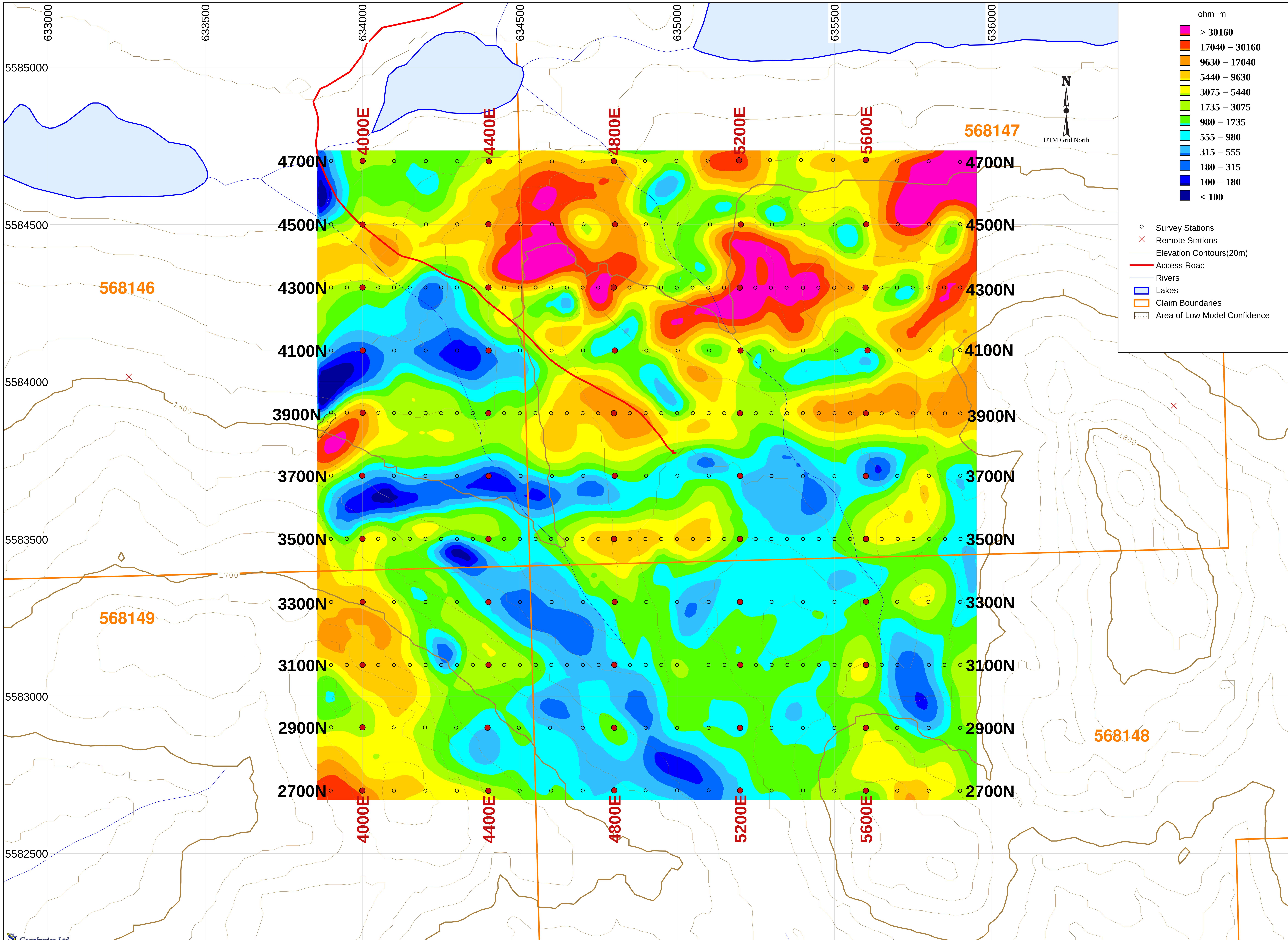
Planmap
3D Inversion Model
Depth: 400m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.
Interpreted Chargeability (ms)
West Valley Grid
Merritt, British Columbia

Plate C–7

Mapping By : S.J.V. Consultants Ltd. 11966–95A Avenue, Delta, British Columbia, V4C 3W2 (604)582–1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 75m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

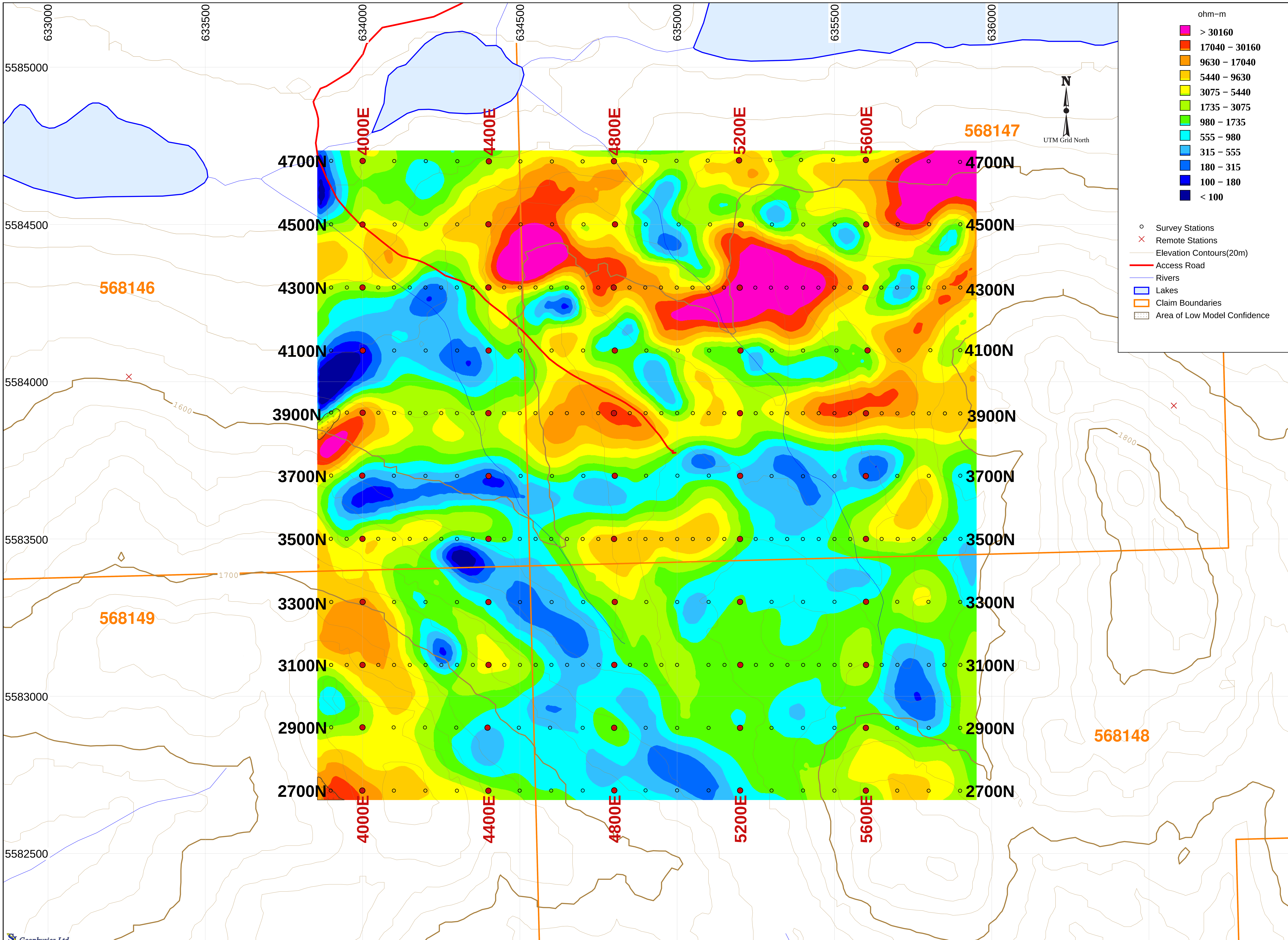
Interpreted Resistivity (ohm−m)

West Valley Grid

Merritt, British Columbia

Plate R−1

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 100m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

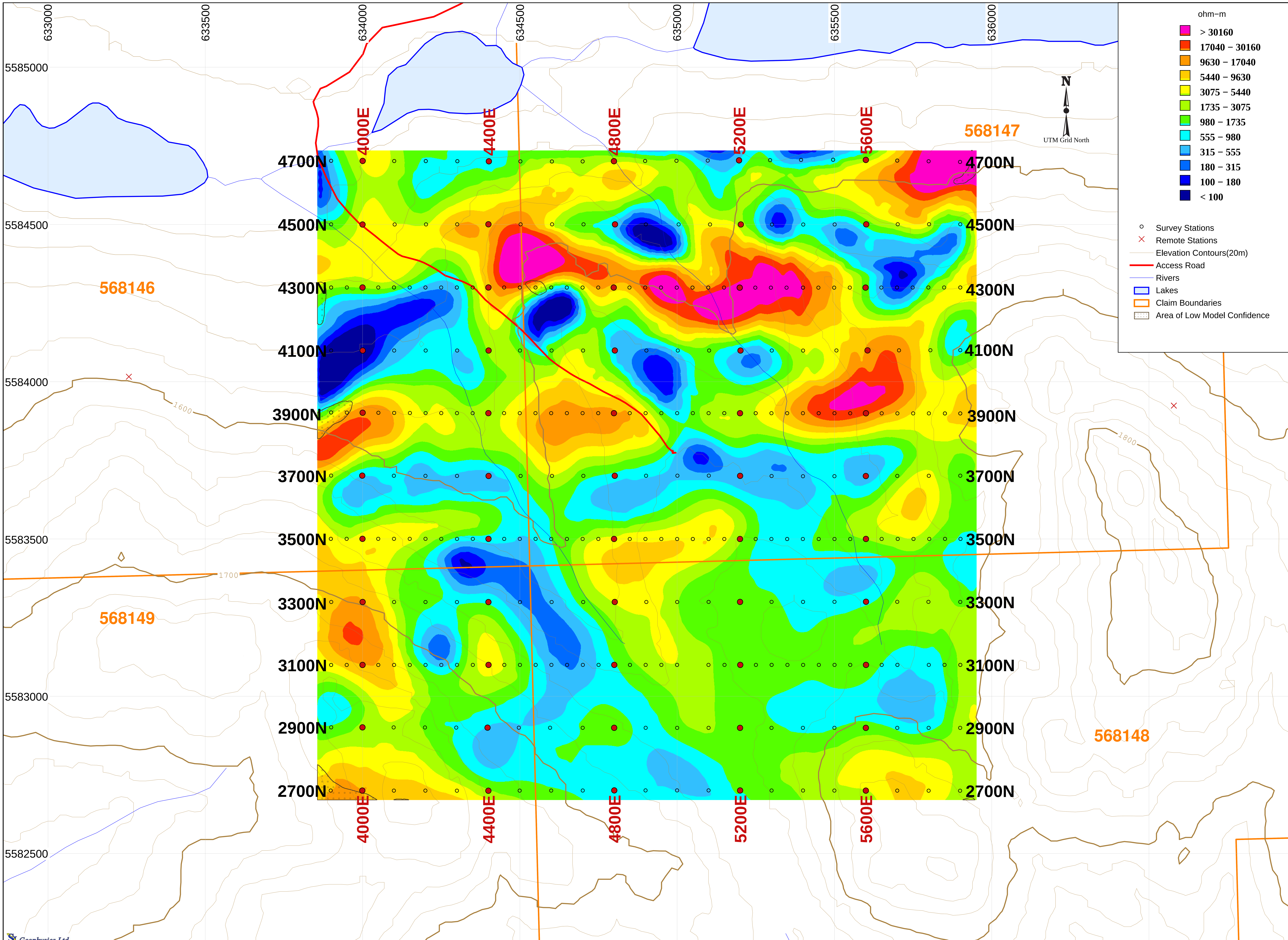
Interpreted Resistivity (ohm−m)

West Valley Grid

Merritt, British Columbia

Plate R−2

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

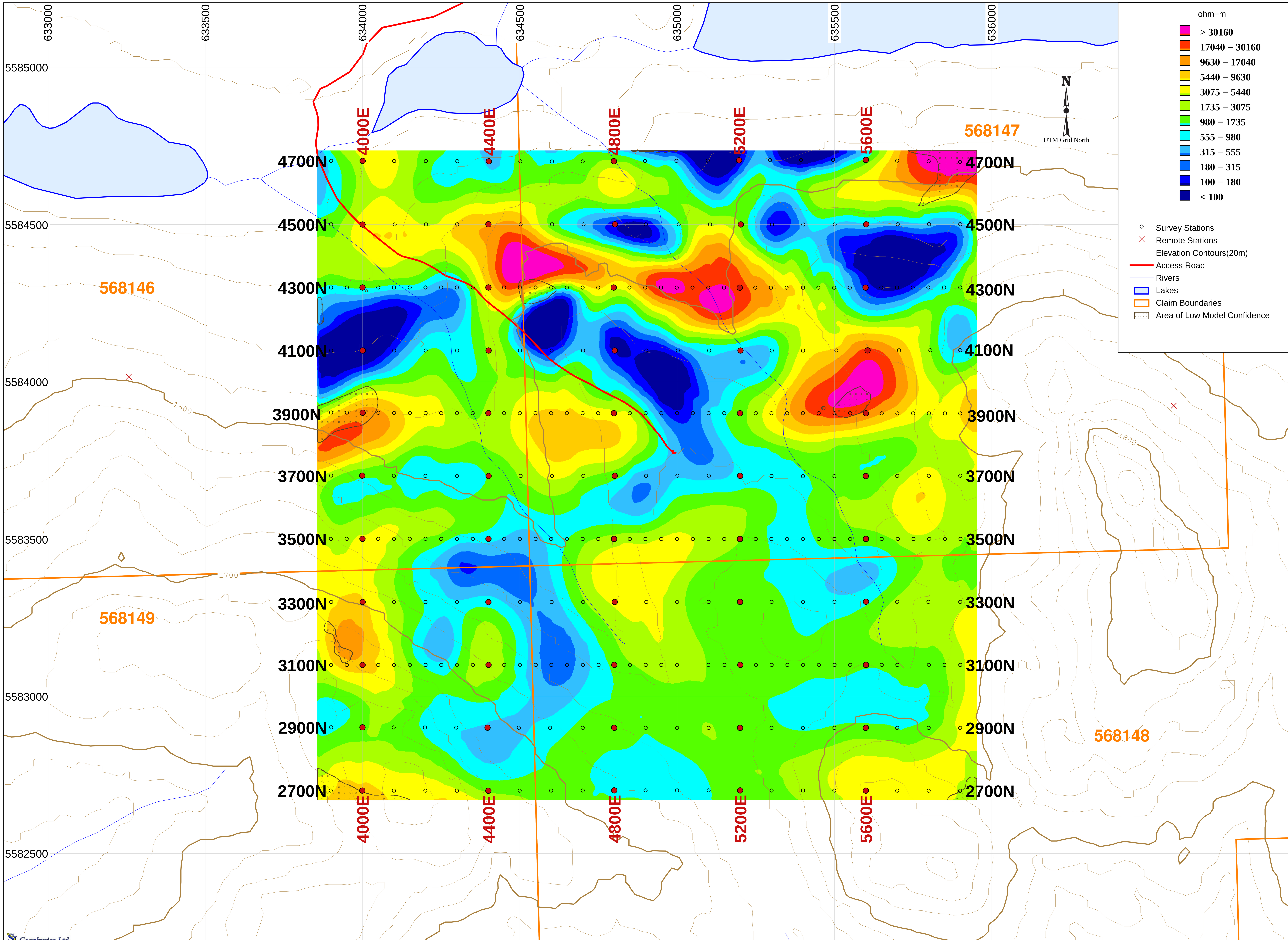
Planmap
3D Inversion Model
Depth: 150m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.
Interpreted Resistivity (ohm−m)
West Valley Grid
Merritt, British Columbia

Plate R−3

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 200m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

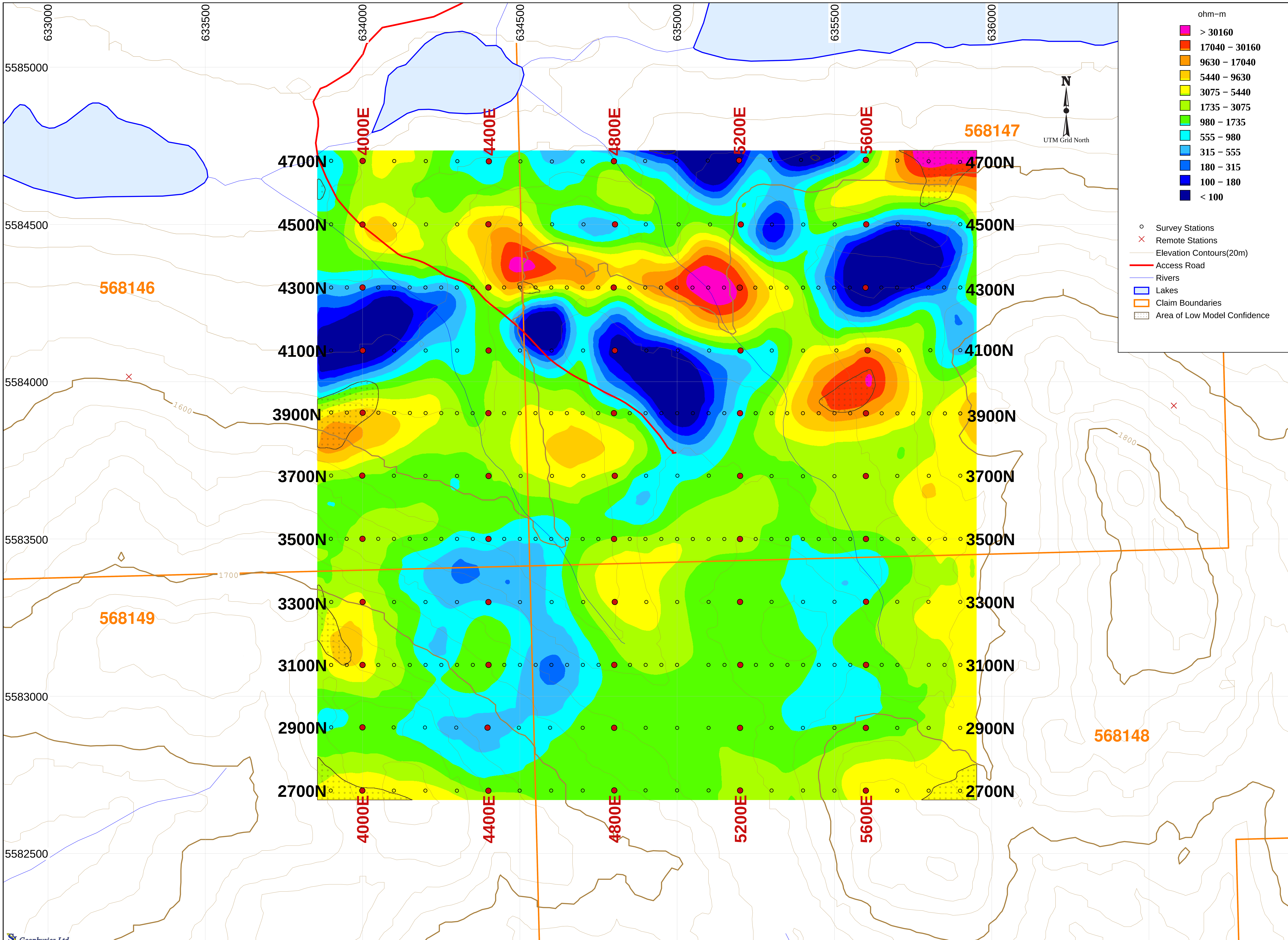
Interpreted Resistivity (ohm−m)

West Valley Grid

Merritt, British Columbia

Plate R−4

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 250m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

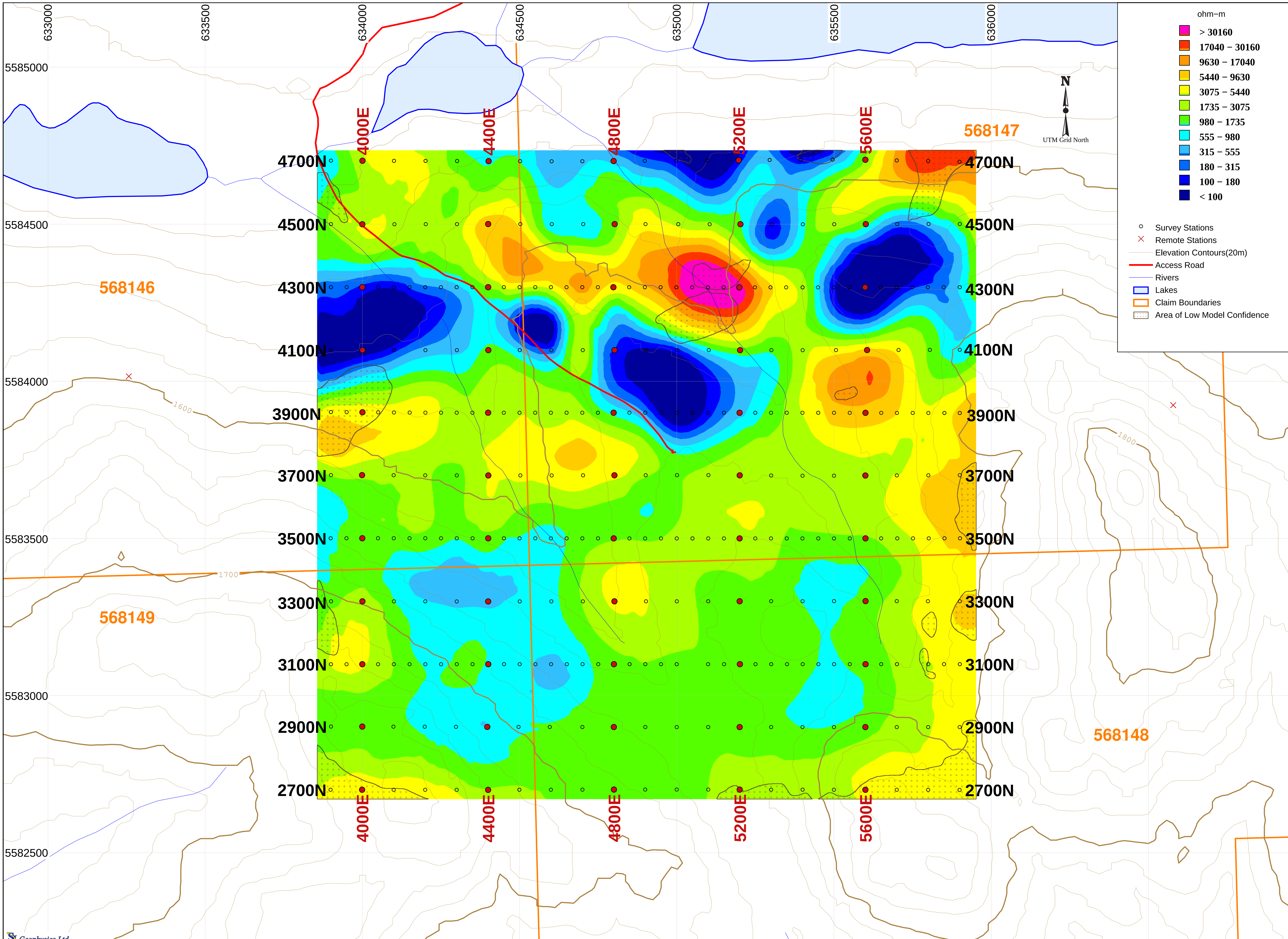
Interpreted Resistivity (ohm−m)

West Valley Grid

Merritt, British Columbia

Plate R−5

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 300m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

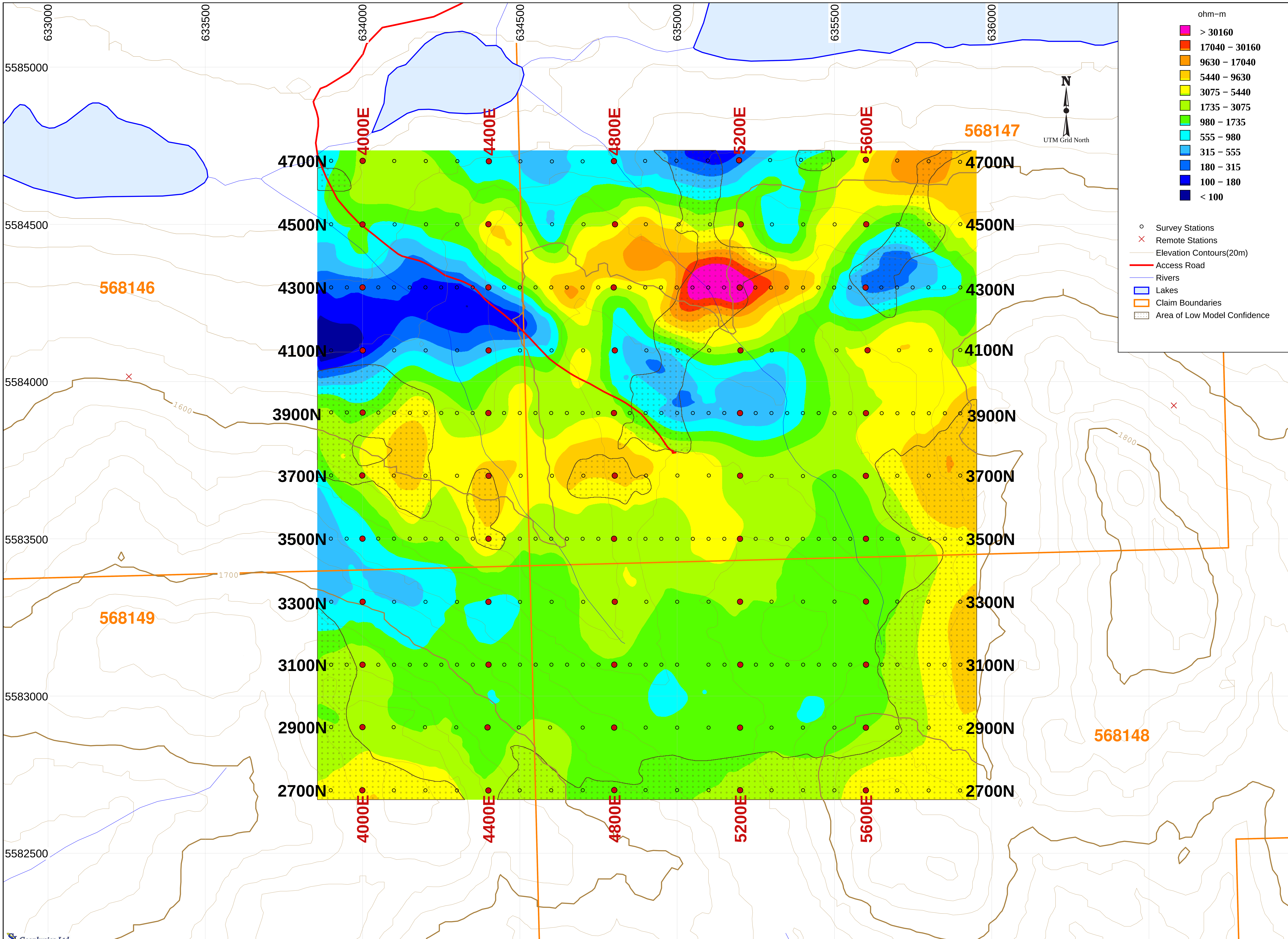
Interpreted Resistivity (ohm−m)

West Valley Grid

Merritt, British Columbia

Plate R−6

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

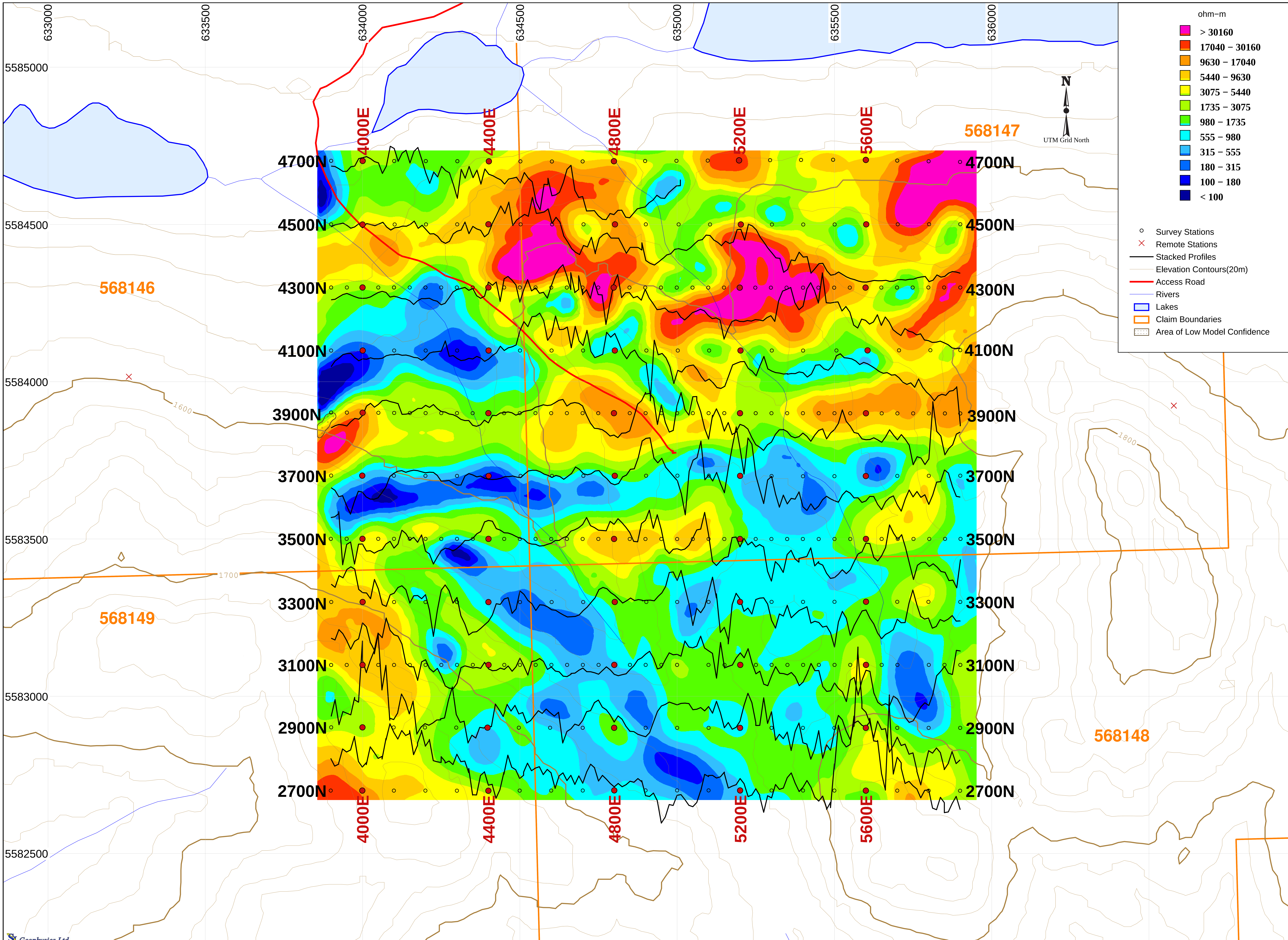
Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 400m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.
Interpreted Resistivity (ohm−m)
West Valley Grid
Merritt, British Columbia

Plate R−7



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

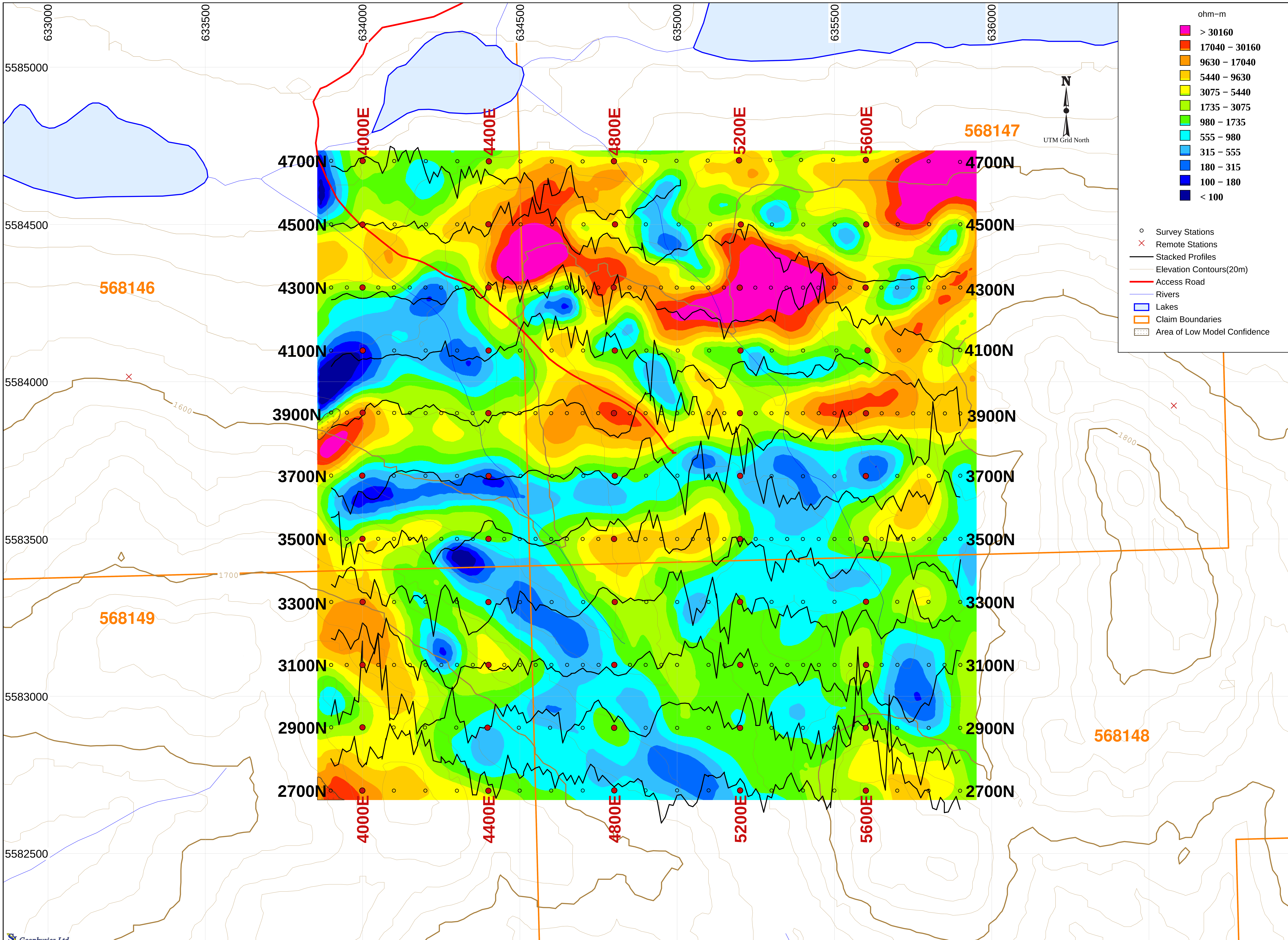
Planmap
3D Inversion Model
Depth: 75m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.
Interpreted Resistivity (ohm−m)
West Valley Grid
Merritt, British Columbia

Plate R−1

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

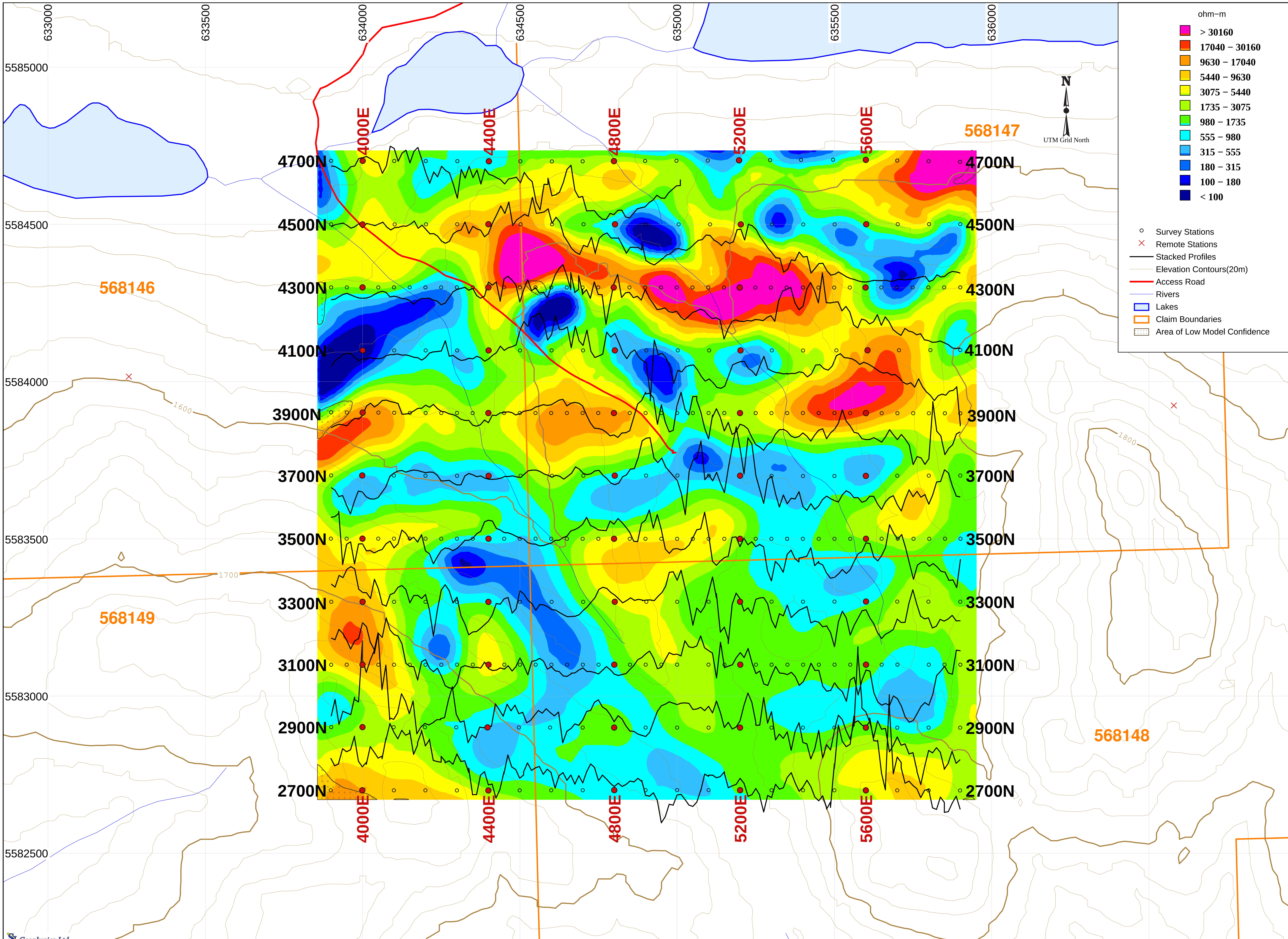
Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 100m Below Topography

Happy Creek Minerals Ltd.
Interpreted Resistivity (ohm−m)
West Valley Grid
Merritt, British Columbia

Plate R−2

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 150m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

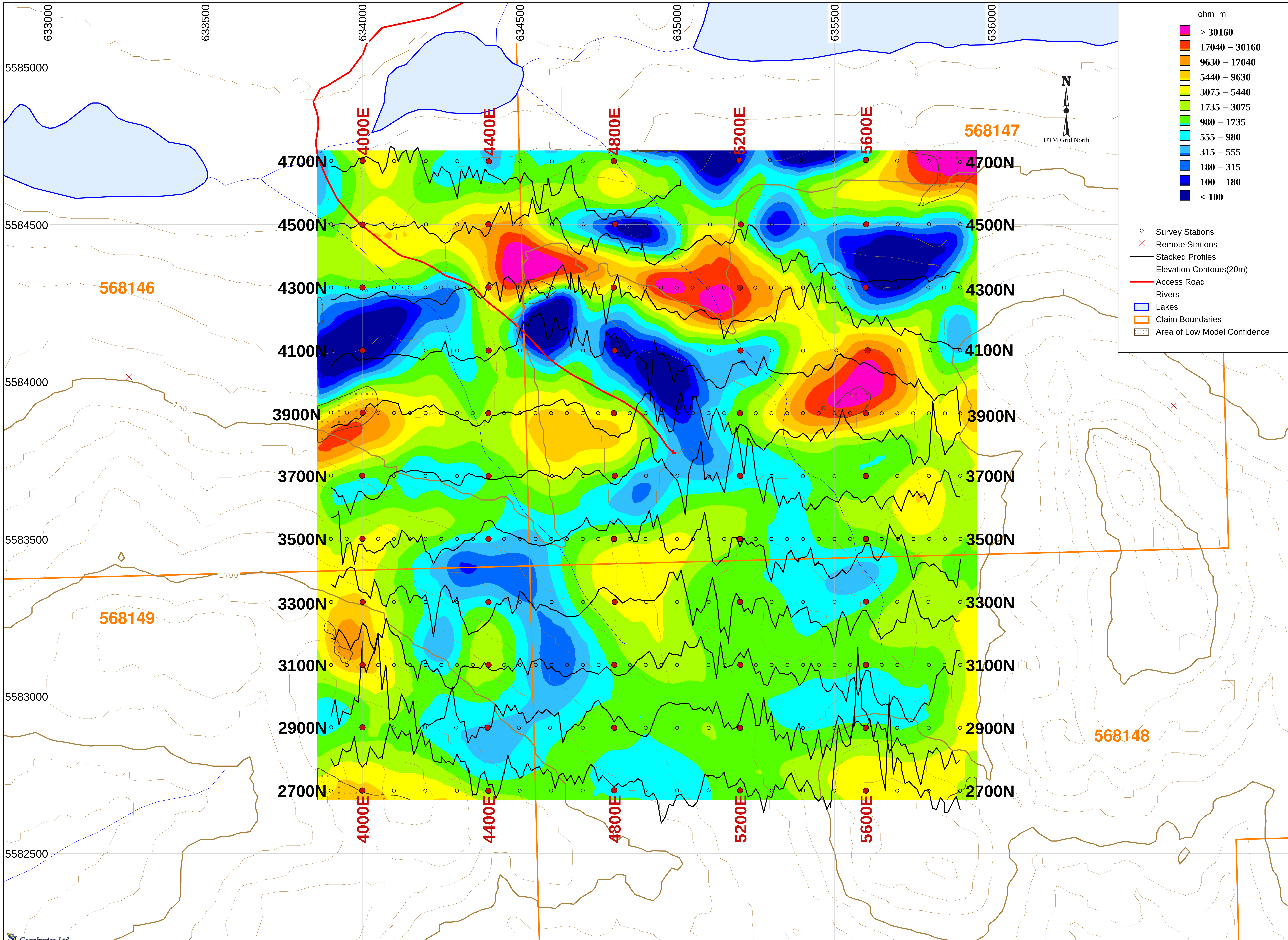
Interpreted Resistivity (ohm−m)

West Valley Grid

Merritt, British Columbia

Plate R−3

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 200m Below Topography

Happy Creek Minerals Ltd.

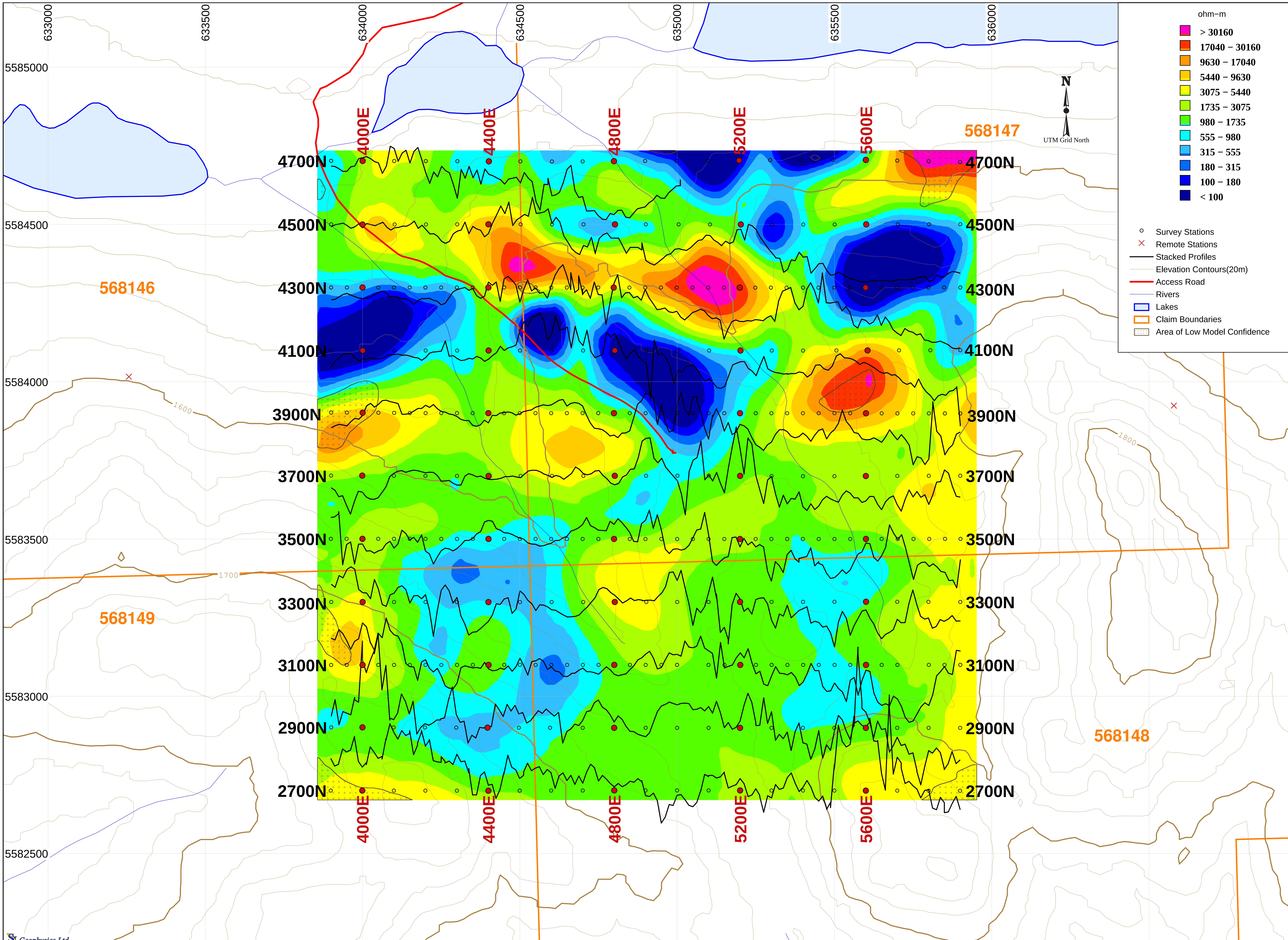
Interpreted Resistivity (ohm−m)

West Valley Grid

Merritt, British Columbia

Plate R−4

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

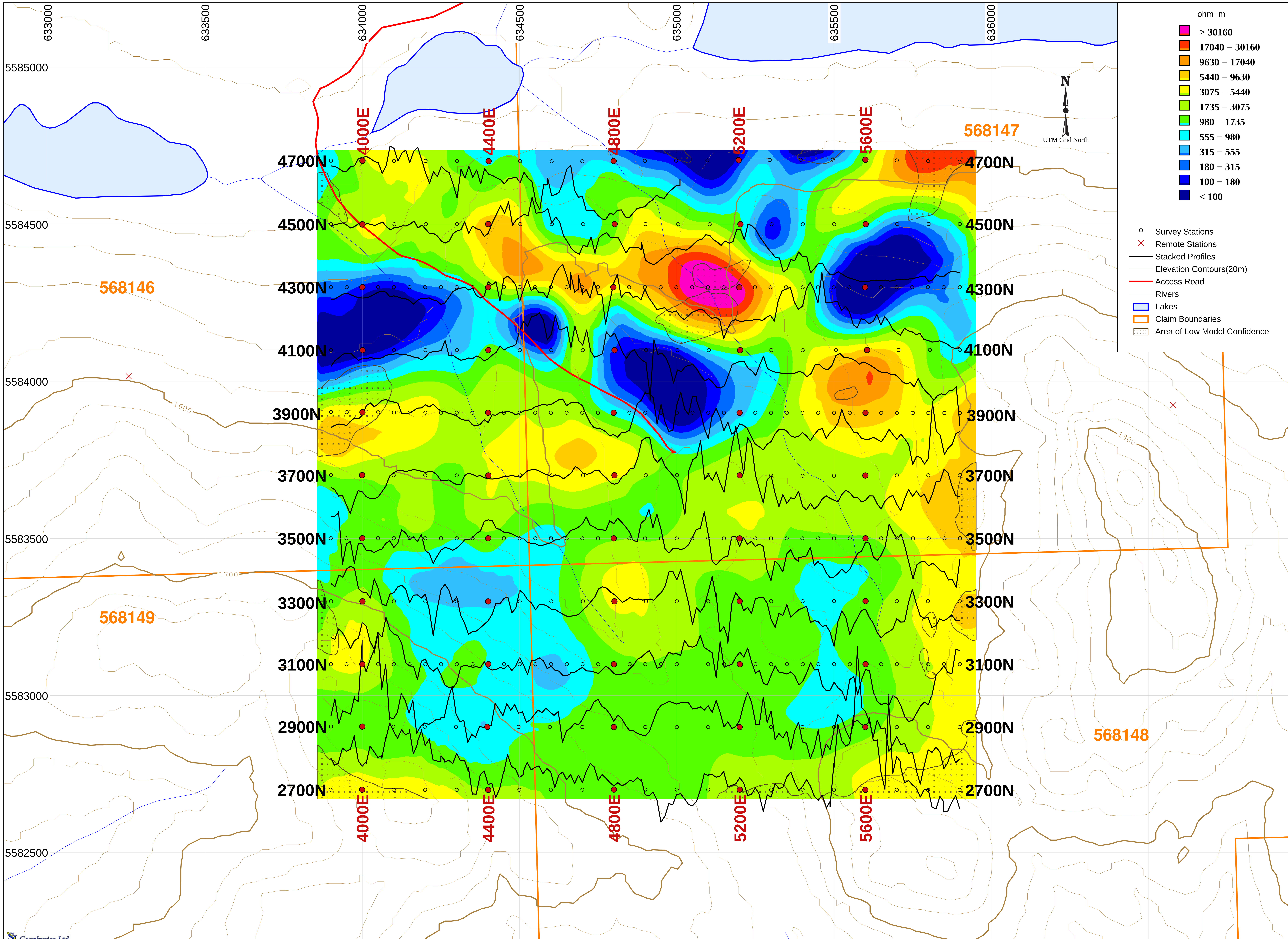
Planmap
3D Inversion Model
Depth: 250m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.
Interpreted Resistivity (ohm−m)
West Valley Grid
Merritt, British Columbia

Plate R−5

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 300m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.

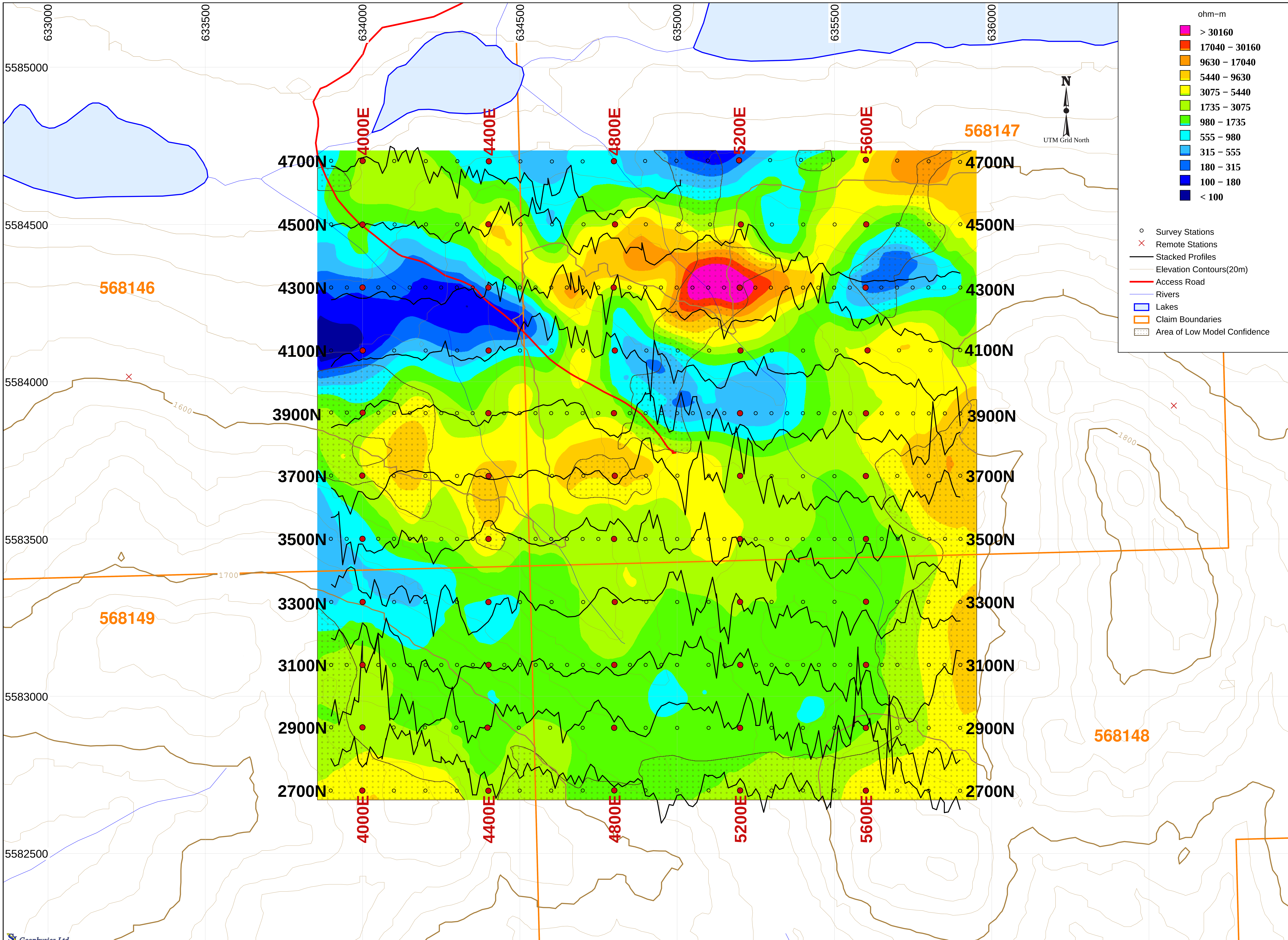
Interpreted Resistivity (ohm−m)

West Valley Grid

Merritt, British Columbia

Plate R−6

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: Sept−Oct, 2009

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: Walcer Tx9000
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: October, 2009

Planmap
3D Inversion Model
Depth: 400m Below Topography

0 100 200 300 400 500
meters

Happy Creek Minerals Ltd.
Interpreted Resistivity (ohm−m)
West Valley Grid
Merritt, British Columbia

Plate R−7

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, V4C 3W2 (604)582−1100 www.sjgeophysics.com