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ASSESSMENT REPORT

describing

GEOCHEMICAL SAMPLING, GEOLOGICAL MAPPING, DIAMOND DRILLING AND GEOPHYSICAL SURVEYS

at the

NADALEEN TREND PROJECT
RACKLA GOLD PROPERTY

Sten 1-20	YC99501-YC99520
21-38	YC99523-YC99540
39-54	YD08485-YD08500
55-142	YD10405-YD10492
Dale 1-12	YD08533-YD08544
T 2958	YD32988
2960	YD32990
2962-2963	YD32992-YD32993
2968-3004	YD32998-YD33034
3006	YD33036
3008-3125	YD33038-YD33155
3264-3267	YD32994-YD32997
ST 1-431	YD26901-YD27331

NTS 106C/01 & 02
Latitude 64°11´N; Longitude 132°36´W

Mayo Mining District
Yukon Territory

prepared by

Archer, Cathro & Associates (1981) Limited

for

ATAC RESOURCES LTD.

by
J. Lane, B.Sc., GIT
April 2011

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INTRODUCTION

The Nadaleen Trend project covers an area of anomalous gold and arsenic stream sediment geochemistry that lies within a favourable geological belt, 100 km along trend of ATAC Resources Ltd.'s highly prospective Tiger Zone. They are both part of the Rackla Gold property which is wholly owned by ATAC.

This report describes work conducted on the west end of the Rackla Gold property at the Nadaleen Trend project between June 19 and October 11, 2010 by Archer, Cathro & Associates (1981) Limited on behalf of ATAC. Initial prospecting occurred on June 19, while follow up prospecting, soil sampling, regional- and detailed-scale geologic mapping and diamond drilling occurred between July 7 and September 22, 2010. The author participated in and directed components of the program, and her Statement of Qualifications is in Appendix I.

PROPERTY LOCATION, CLAIM DATA AND ACCESS

The Nadaleen Trend project consists of 749 contiguous mineral claims, which are located in central Yukon at latitude 64°11′ north, and longitude 132°36′ west on NTS map sheets 106C/01 and 106C/02 (Figure 1). In June 2009 the initial 20 claims were staked then added to that fall, the following spring and early summer. Collectively the project covers an area of approximately 15,300 hectares (153 sq km). The claims are all registered with the Mayo Mining Recorder in the name of Archer Cathro, which holds them in trust for ATAC. Specifics concerning claim registration are tabulated below while the locations of individual claims are shown on Figure 2.

Claim Name	Grant Number	Expiry Date
Sten 1-20	YC99501-YC99520	April 28,2017*
21-38	YC99523-YC99540	April 28,2015*
39-54	YD08485-YD08500	April 28,2015*
55-142	YD10405-YD10492	April 28,2015*
Dale 1-12	YD08533-YD08544	April 28, 2015
T 2958	YD32988	March 1, 2012
2960	YD32990	March 1, 2012
2962-2963	YD32992-YD32993	March 1, 2012
2968-3004	YD32998-YD33034	March 1, 2012
3006	YD33036	March 1, 2012
3008-3125	YD33038-YD33155	March 1, 2012
3264-3267	YD32994-YD32997	March 1, 2012
ST 1-431	YD26901-YD27331	July 22, 2011

*Expiry dates include 2010 work which have been filed for assessment credit but not yet accepted.

The Nadaleen Trend project lies 180 km east-northeast of Mayo, the nearest supply centre. The closest road access is at the community of Keno City situated about 49 km by road northeast of Mayo and 150 km by air west-southwest of the property. Mayo and Keno City can be reached in all seasons by two wheel drive vehicles using the Yukon highway system.

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FIGURE 1

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

PROJECT LOCATION

Nadaleen Trend Project - Rackla Gold Property

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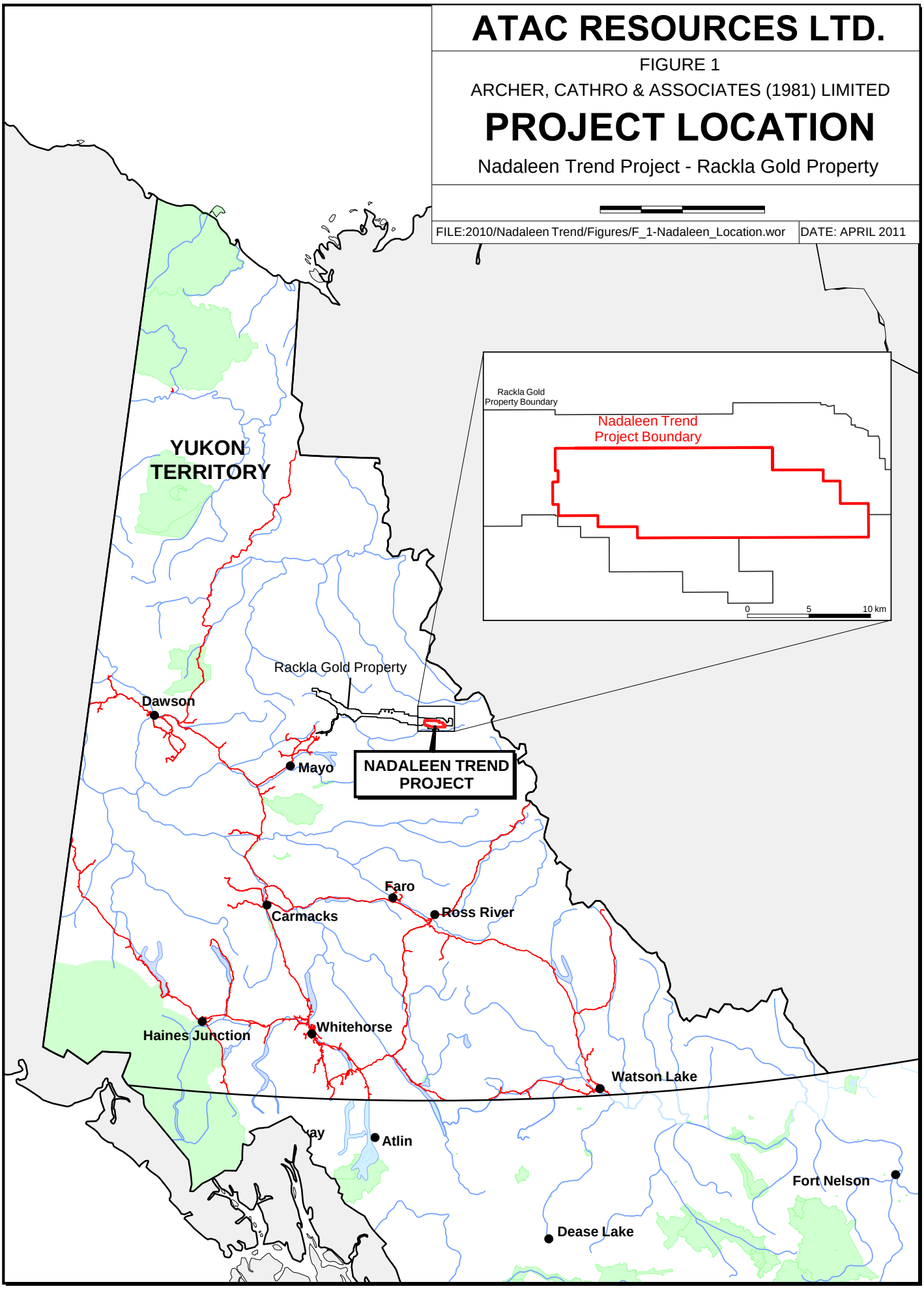

7120000 mN

RACKLA GOLD PROPERTY BOUNDARY

NADALEEN TREND PROJECT BOUNDARY

EIRA

7110000 mN

620000 mE

630000 mE

T.N.
2°28'
24°24' E
Grid north
Magnetic north
Annual change
decreasing 27.2'

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FIGURE 2

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CLAIM LOCATIONS

Nadaleen Trend Project - Rackla Gold Property

0 1 2 3 4 5 km

Contour Interval: 100 ft. UTM Zone 8, NAD 83, 106C/01, 02

FILE:2010/Nadaleen_Trend/Figures/F_2-Claim_Locations.wor | DATE: APRIL 2011

Access to the project in 2010 was by either float-equipped fixed-wing aircraft to Ortell Lake, 25 km west-southwest of the project, or fixed-wing aircraft on wheels to the Rackla airstrip, about 40 km to the west-northwest of the project and then by helicopter to the camp location. Daily access to work areas on the project was provided by a Hughes 500D helicopter operated by Fireweed Helicopters Ltd and stationed out of the Nadaleen Trend camp.

HISTORY AND PREVIOUS WORK

The earliest reported exploration in the vicinity of what is now the Nadaleen Trend project occurred in 1976 when a number of claim blocks were staked as a result of various silver-lead-zinc discoveries made in the area. Three of those claim blocks (Ida, Red and Eira) lay adjacent to or slightly overlapped the southern portion of the current Nadaleen Trend project. The Ida claims were staked by G. Bleiler, the Red claims by M. Bratlien and the Eira claims by the Ortell Syndicate (Deklerk and Traynor, 2005).

In 1977, the Ida claims were optioned by a joint venture between DeJour Mines Limited and Nova-Co Exploration Limited (Thompson, 1977), which explored with mapping and geochemical sampling. Work in the northwest portion of that property returned moderately anomalous zinc values (based on a 475 ppm threshold), with erratic lead and silver support. No values were reported for gold or arsenic.

In 1977, prospecting and stream sediment sampling were carried out on the Eira property by the Ortell Syndicate (Curry, 1977). Anomalous silver and zinc results (up to 2.4 and 680 ppm, respectively) led to a second phase of exploration, which comprised grid soil sampling and minor geological mapping. The second phase returned a number of moderate, non-coincident silver, zinc and lead anomalies. Again, no data was reported for gold or arsenic.

No record of work was found for the Red claims.

In 2001, the Geological Survey of Canada completed a regional stream sediment sampling program, which included coverage of the current Nadaleen Trend project (Heon, 2003). Creeks draining the area of the Nadaleen Trend claims returned strong gold and arsenic anomalies from that program.

ATAC's initial interest in the area was to follow up a strong arsenic silt anomaly collected by the Geological Survey of Canada in 2001. Over a three day period in 2009, 89 stream sediment, 1 rock and 9 soil samples were collected on or around what was then known as the Sten property. These samples returned a string of moderately to very strongly anomalous results ranging from 12 to 1775 ppb gold and 123 to 155,000 ppm arsenic (Eaton, 2010). As a result, additional claims were staked by ATAC.

GEOMORPHOLOGY AND CLIMATE

The Nadaleen Trend project is situated in the Selwyn Mountains and is drained by creeks that flow into the Nadaleen and Stewart Rivers, which are both part of the Yukon River watershed. Local topography is alpine to subalpine and features north- and south-trending rocky spurs and

valleys that flank a main east-west trending ridge. Elevations range from about 1000 to 2000 m above sea level. Outcrop is most abundant near ridge crests and in actively eroding creek beds. Most hillsides are talus covered at higher elevations and are blanketed by glacial till at lower elevations. Soil development is moderate to poor in most areas.

Treeline in the vicinity of the project is at about 1500 m. Slopes above that elevation are unvegetated. The density and size of vegetation gradually increases on lower slopes, and the valley floors are well treed with mature black spruce. Understorey typically consists of low shrubs and moss. Moderately steep, south facing slopes are well drained and are often lightly forested with poplar. Steep, north facing slopes are usually unvegetated.

The climate in the Nadaleen Trend area is typical of northern continental regions with long, cold winters, truncated fall and spring seasons and short, mild summers. Although summers are relatively mild, arctic cold fronts often cover the area and snowfall can occur in any month. The property is mostly snow free from early June to late September.

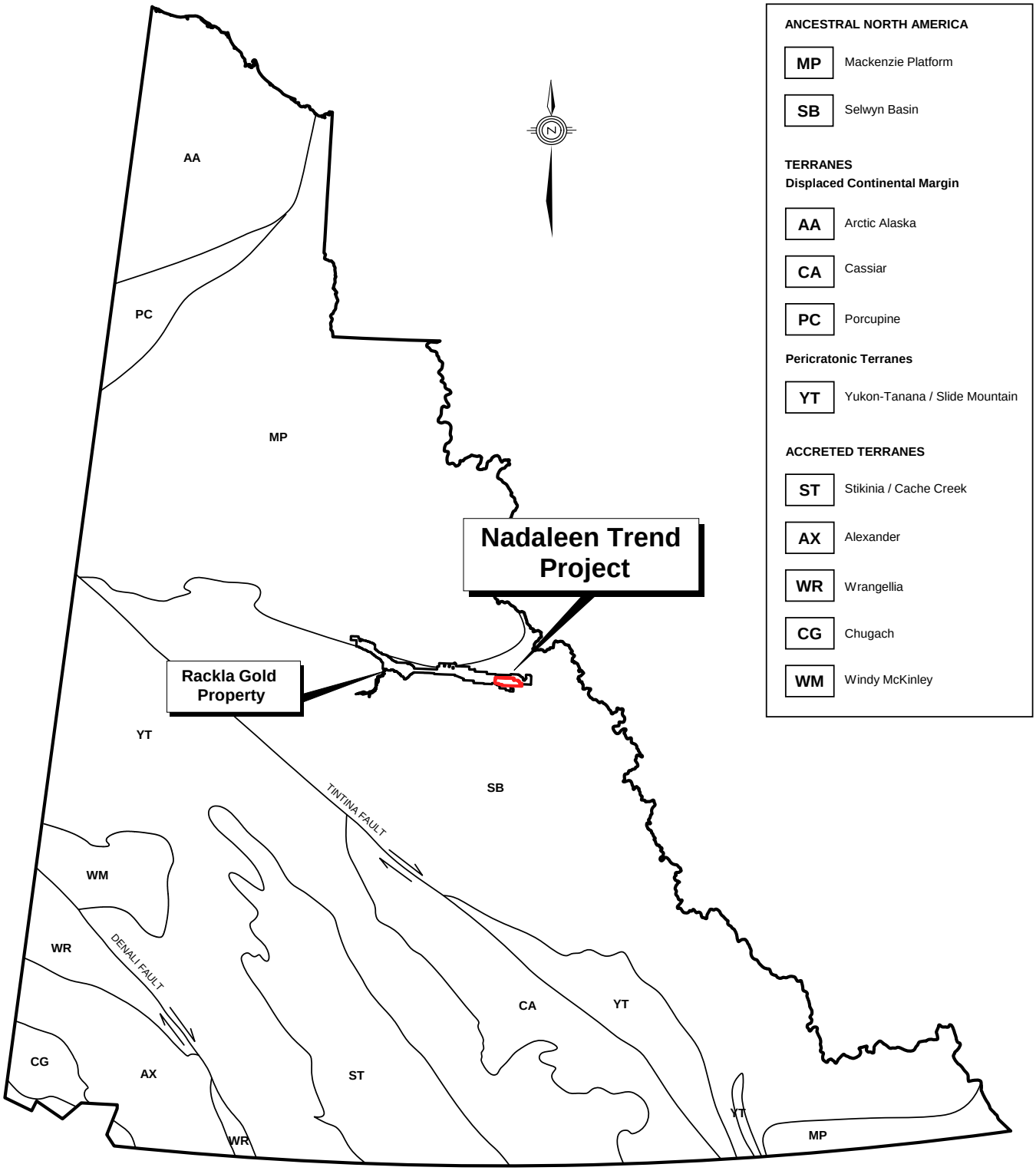
REGIONAL GEOLOGY

The Geological Survey of Canada performed geological mapping in the vicinity of the Nadaleen Trend project at 1:250,000 scale in the early 1970s (Blusson, 1974). In 1999, Gordey and Makepeace completed a compilation of Yukon-wide geology and updated the lithological unit names in the Nadaleen Trend area.

The Nadaleen Trend project lies immediately north of the Dawson Thrust Fault, a crustal break of probable Cambrian age that formed the edge of Selwyn Basin and later reactivated as a north directed thrust (Pyle et al., 2007). The Dawson Thrust Fault juxtaposes rocks of Selwyn Basin to the south against Mackenzie Platform to the north (Figure 3). Selwyn Basin stratigraphy consists of regionally metamorphosed, basinal sediments of Neoproterozoic to Paleozoic age. Mackenzie Platform stratigraphy comprises dominantly shallow water carbonate and clastic sediments that were deposited from Mid-Proterozoic through Paleozoic times. Both packages of sediments were deposited on the western margin of ancestral North America.

The geology in the region includes two main sedimentary units classified by Gordey and Makepeace (1999) as Bouvette Formation and Hyland Group (Figure 4).

The Hyland Group, which consists of the Yusezyu Formation and the conformably overlying Narchilla Formation, comprises the stratigraphic floor of the region. The Yusezyu Formation is typified by a variably metamorphosed, fine to coarse grained, gritty, quartz-rich succession of evenly interbedded sandstone and shale (PCH1) capped by a thin discontinuous limestone member (PCH2) (Lindsay, 2006). The sedimentary fabric and general morphology of the Yusezyu Formation are consistent with deposition by sedimentary gravity flows in an upper or mid submarine fan setting in shallow to moderately deep water (Gordey and Anderson, 1993). Primitive trace fossils found within the formation suggest that it is Upper Proterozoic in age (Fritz et al., 1983). The Narchilla Formation (PCH3) is characterized by recessive, maroon to green shale and sandstone. The sedimentary structures observed in this formation are indicative of deposition from sedimentary gravity flows, likely turbidites, under calm, relatively deep water



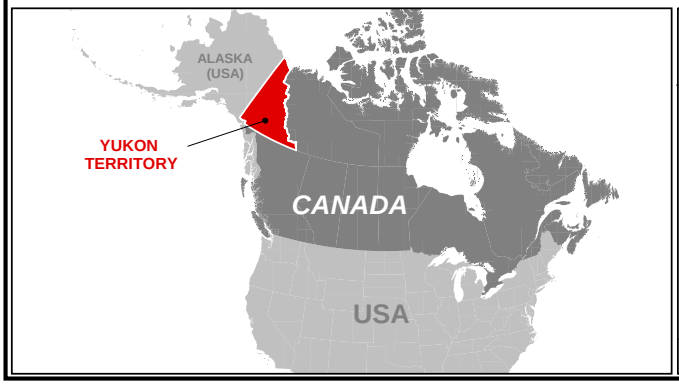


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FIGURE 3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

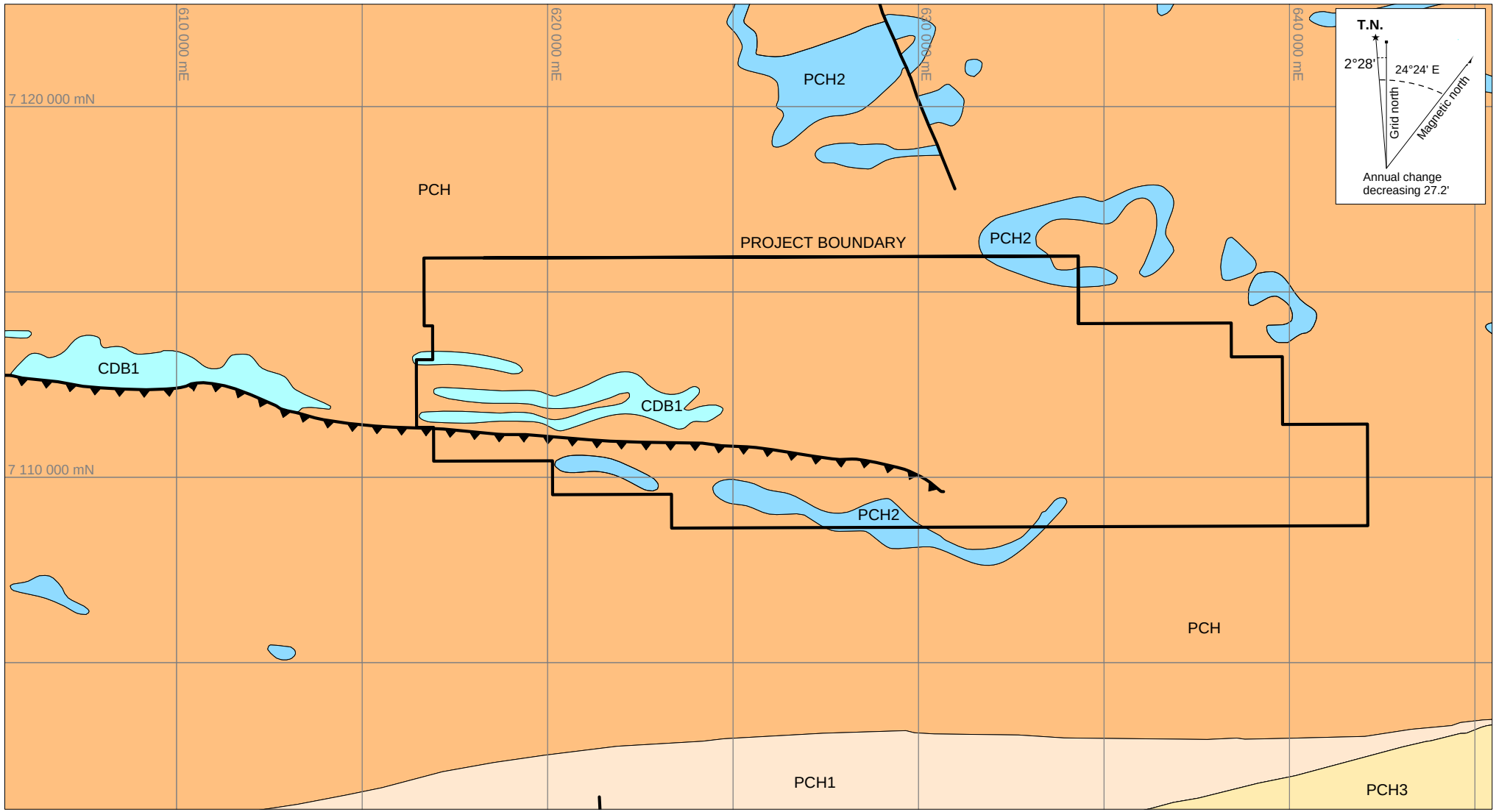
TECTONIC SETTING

Nadaleen Trend Project - Rackla Gold Property

0 200 km

FILE: ...2010/Nadaleen.../Figures/F_3-Tectonic_Setting.wor

DATE: APRIL 2011



UPPER CAMBRIAN TO LOWER DEVONIAN

CDB1 BOUVETTE FORMATION

UPPER PROTEROZOIC TO LOWER CAMBRIAN

PCH3 HYLAND GROUP - Narchilla Formation

PCH2 HYLAND GROUP - limestone member of Yusezyu Formation

PCH1 HYLAND GROUP - Yusezyu Formation

PCH HYLAND GROUP - undifferentiated

Thrust fault

Fault

*After Gordey and Makepeace, 1999.

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FIGURE 4

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

REGIONAL GEOLOGY

Nadaleen Trend Project - Rackla Gold Property

0 2.5 km 5 km 7.5 km 10 km

UTM ZONE 8, NAD 83, 106C/01 & 02

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DATE: APRIL 2011

conditions (Gordey and Anderson, 1993). Based on trace fossil evidence, the Narchilla Formation is classified as Late Precambrian to Early Cambrian in age (Fritz et al., 1983).

The Bouvette Formation unconformably (?) overlies the Hyland Group. It comprises grey- and buff-weathering dolomite and limestone with rare black shale.

Most areas in the vicinity of the Nadaleen Trend project are mapped as undifferentiated Hyland Group; however, specific sub-units are locally distinguished. Approximately 10 km south of the property there are thick east-west trending horizons of PCH1 and PCH3 and, scattered around it, there are irregularly shaped, moderately lenticular bodies of PCH2. The Bouvette Formation occurs as a set of sub-parallel, east-west trending, relatively thin, lenticular horizons within and to the west of the claims.

The two main units, with corresponding sub-units, are described in greater detail in the following table.

Table I – Lithological Units (*after Gordey and Makepeace, 1999*)

Unit Name	Map Name	Age	Description
Bouvette Formation	CDB1	Upper Cambrian to Lower Devonian	Grey- and buff-weathering dolomite and limestone, medium to thick bedded; white to light grey weathering, massive dolomite; minor platy black argillaceous limestone, limestone conglomerate and black shale; massive bluish-grey weathering dolostone.
Unconformity (?)			
Hyland Group	PCH (Undifferentiated)	Upper Proterozoic to Lower Cambrian	Consists upwards of coarse turbiditic clastics (PCH1); limestone (PCH2) and fine clastics typified by maroon and green shale (PCH3).
	PCH3 (Narchilla Formation)	Upper Proterozoic to Lower Cambrian	Distinctive, recessive, maroon weathering, interbedded maroon and apple-green shale; "Oldhamia" trace fossils; rare grey chert; locally basal member and interbeds of quartz siltstone, sandstone and quartz-pebble conglomerate.
	PCH2 (Limestone member of Yusezyu Formation)	Upper Proterozoic	Grey weathering, dark grey to grey-white, thin to thick bedded, very fine crystalline limestone, locally sandy; calc-silicate and marble; may locally include carbonate members within (PCH1).
	PCH1 (Yusezyu Formation)	Upper Proterozoic	Thin to thick bedded, brown to pale green shale, fine to coarse grained quartz-rich sandstone, grit and quartz-pebble conglomerate; minor argillaceous limestone; phyllite, quartzofeldspathic and micaceous psammite, gritty psammite and minor marble.

The main structural trend in the area is east-west. Both bedding and the Dawson Thrust Fault, which surfaces on the southwest portion of the project boundary, parallel this trend. The Dawson Thrust Fault is shown to truncate near the south-central part of the project. The nature of this truncation is uncertain but it may be related to an unidentified north-northwest trending normal fault because a few structures of this type have been mapped in the area. There are many linear drainages with northerly orientations that could mark faults of this type, but the lack of outcrops and relatively homogenous nature of the sediments make it difficult to recognize offsets.

PROJECT GEOLOGY

Until 2010, very little detailed geologic mapping has been conducted within the current project boundary. All mapping in 2010 (Figure 5) was conducted in a six square kilometre area over defined soil anomalies and mineralized showings that occur approximately 850 m east of the anomalous GSC stream sediment sample.

The mapping in 2010 identified a series of limestone debris flow and slump units interlayered with mudstone horizons. This interlayered package has then been folded and later intruded by a mafic dyke set. Numerous faults occur throughout the area, the most prominent of which is the newly named Nadaleen Fault, which lies on the northern edge of the mapped area. The Nadaleen Fault separates the folded carbonate package from an undifferentiated silty-shale unit. A set of right lateral strike slip faults were identified near the fold hinge; also, a northwest trending fault of unknown displacement was identified and is associated with a series of gossanous springs. Table II, provides a detailed description of the eight main rock units identified during mapping.

Table II –Rock Unit Descriptions

Unit	Rock Type	Descriptions
MI	Mafic Intrusive	Massive, fine grained to medium grained, weakly calcareous, greenish-grey-brown mafic intrusive.
stSHL	Silty Shale	Fine grained, non-calcareous grey silty shale.
dfLST	Debris Flow Limestone	Thin to medium bedded, buff to light grey limestone and dolomite with common (cobble to megaclast) debris flow textures. Mineralization is fracture frilling to vuggy and massive realgar>orpiment, with dull red-yellow hematite alteration.
SHL	Shale	Brown-black, non-calcareous shale.
gtLST	Gritty Limestone	Buff and light to dark grey sand to pebble limestone grit that is locally laminated with rare mudstone interbeds and pebble to cobble debris flow textures.
MST	Mudstone	Maroon-brown-green-grey platey, non-calcareous mudstone.
stSST	Silty Sandstone	Light grey, platey, gritty, laminated silty sandstone
DOL	Dolomite	Light grey, medium bedded to massive, locally strongly silicified (in massive portions) dolomite with boxwork to goethite-rich limonite mineralization.

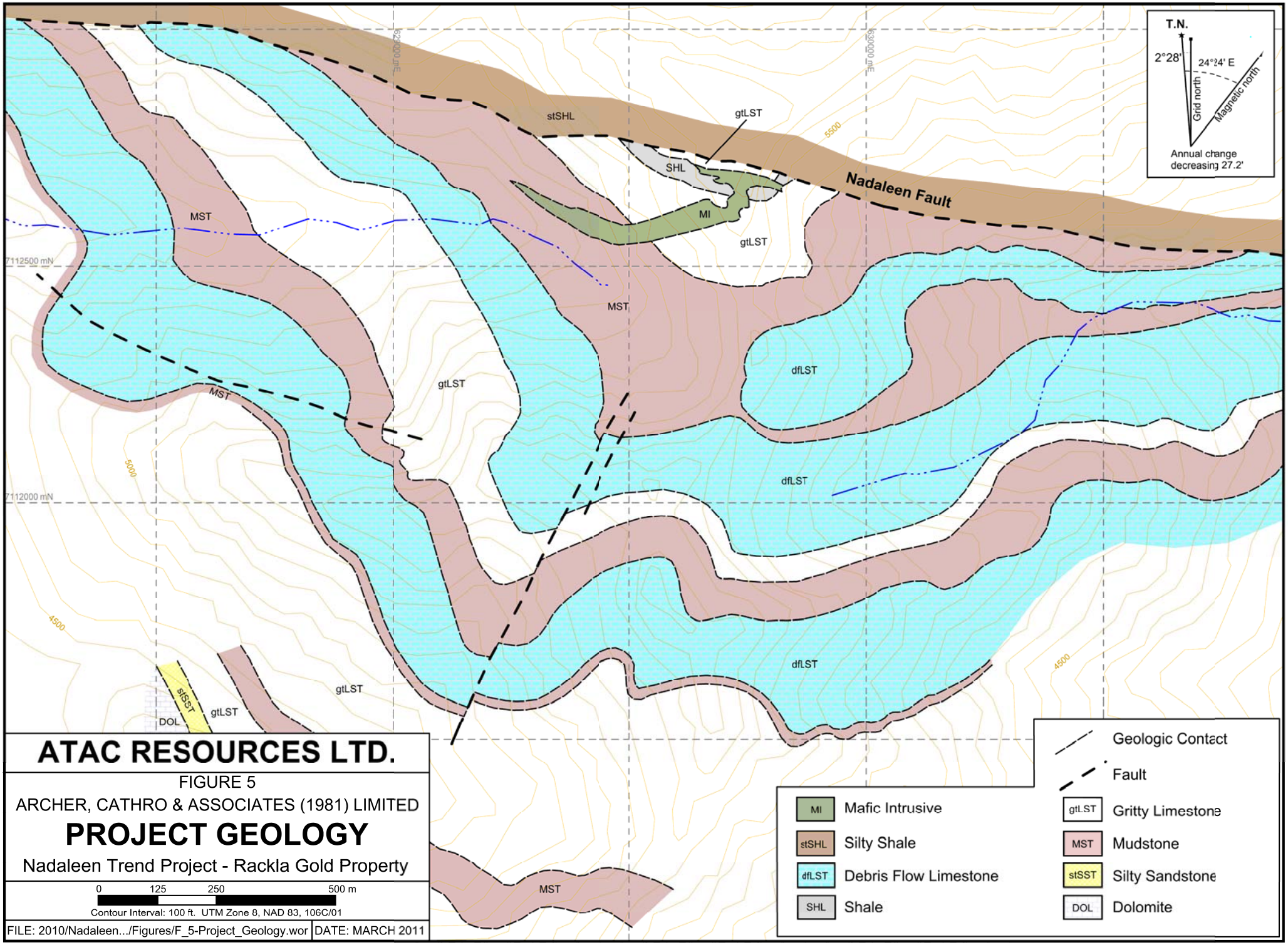

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FIGURE 5

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

PROJECT GEOLOGY

Nadaleen Trend Project - Rackla Gold Property

0 125 250 500 m

Contour Interval: 100 ft. UTM Zone 8, NAD 83, 106C/01

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SOIL AND ROCK SAMPLE GEOCHEMISTRY

A total of 109 rock and 3987 soil samples were collected on the Nadaleen Trend project in 2010. The locations of soil samples occur in Figures 6 and results for gold and arsenic in soil are illustrated thematically in Figures 7 and 8 respectively. Rock sample locations are displayed in Figure 9. Gold and arsenic in rock is shown in Figures 10 and 11. Sampling and Analytical Procedures are explained in Appendix II, rock sample descriptions are provided in Appendix III and Certificates of Analysis are given in Appendix IV.

Background and anomalous values for gold and arsenic were calculated for all soil samples collected. Background averages and weak, moderate, moderately strong and strongly anomalous thresholds approximately correspond to the 50th, 90th, 95th, 98th and 99th percentiles. The geochemical characteristics are summarized in the following table.

Table III - Thresholds for Soil Sample Values

Thresholds	Au (ppb)	As (ppm)
Background	30	46
Weak	200	461
Moderate	607	892
Moderately Strong	2867	1556
Strong	6161	2506
Peak Value	175000	68800

Grid soil samples collected in 2010 define three areas identified as the Osiris, Isis and Isis-East soil anomalies. A string of weakly to very strongly anomalous samples ranging from 209 to 175,000 ppb gold defines the Osiris soil anomaly. Similarly the Isis anomaly is defined by soils ranging from 223 to 2900 ppb gold and the Isis-East anomaly outlines samples that range between 268 and 3940 ppb gold.

Rock samples collected during prospecting and mapping define a further two areas of mineralization; the Conrad and Eaton Showings, as well as reinforce the Osiris and Isis soil anomalies. All four showings have mineralization characteristics similar to those found in Nevada's Carlin Trend; defined by decalcification alteration of the host carbonate with visible realgar +/- orpiment and subtle dark grey sooty pyrite mineralization.

Samples collected over a 500 m long area from the Osiris Showing typically consist of pale grey, vuggy, sintery quartz alunite with rare fragments of realgar +/- orpiment. One sample collected near the top of a ridge returned 39.20 g/t gold and 21,700 ppm arsenic.

The Isis Showing is located approximately 600 m to the west of the Osiris Showing on the north facing slope of a moderately dipping hillside. Rock samples collected from this area typically consist of decalcified limestone with weak to intense limonite alteration and realgar mineralization associated with calcite in small vugs and fractures. Intensely altered samples consisting of boxwork limonite graded up to 2.50 g/t gold, while less altered samples of decalcified limestone graded up to 23.90 g/t gold.

T.N.
2°28'
24°24' E
MAGNETIC NORTH
Annual change decreasing 27.2'

7114000 mN

7112000 mN

5000

5000

5000

T.N.
2°28'
24°24' E
Grid north
Magnetic north
Annual change decreasing 27.2'

7114000 mN

7112000 mN

ISIS SOIL ANOMALY

OSIRIS SOIL ANOMALY

ISIS EAST SOIL ANOMALY

GSC Stream Sample

5000

4500

2.90
1.08
1.91
1.46
1.27
1.21
5.75
1.62
17.50
4.95
1.02
2.44
3.43
3.05
1.81
2.44
1.65
3.22
1.22
13.15
1.18
1.52
3.94
2.98
2.84
1.34

Soil Geochemistry
Au (ppb)

- ≥ 1000
- ≥ 500 <1000
- ≥ 200 <500
- ≥ 100 <200
- ≥ 30 <100
- < 30

1.81 (Au in g/t)

Gold Soil Anomaly >200 ppb Au

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FIGURE 7

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GOLD SOIL GEOCHEMISTRY

Nadaleen Trend Project - Rackla Gold Property

0 50 100 200 500 m

Contour Interval: 100 ft. UTM ZONE 8, NAD 83, 106C/01

FILE: 2010/Nadaleen Trend/Figures/F_7-Soil_Gold.wor | DATE: APRIL 2011

629000 mE

629800 mE

630000 mE

T.N.
2°28'
24°24' E
Grid north
Magnetic north
Annual change decreasing 27.2'

7114000 mN

7112000 mN

ISIS SOIL ANOMALY

OSIRIS SOIL ANOMALY

ISIS EAST SOIL ANOMALY

GSC Stream Sample

11,700
5,530
5,920
9,700
6,730
6,800
8,270
9,460
15,200
25,700
5,030
6,940
6,360
6,010

626000 mE
628000 mE
630000 mE

Soil Geochemistry
As (ppm)

- ≥ 5000
- ≥ 1000 <5000
- ≥ 500 <1000
- ≥ 200 <500
- ≥ 100 <200
- ≥ 50 <100
- < 50
- 5,200 (As in ppm)

Gold Soil Anomaly >200 ppb Au

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FIGURE 8

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

ARSENIC SOIL GEOCHEMISTRY

Nadaleen Trend Project - Rackla Gold Property

0 50 100 200 500 m

Contour Interval: 100 ft. UTM ZONE 8, NAD 83, 106C/01

FILE: 2010/Nadaleen.../Figures/F_8-Soil_Arsenic.wor | DATE: APRIL 2011

T.N.
2°28'
24°24' E
Grid north
Magnetic north
Annual change decreasing 27.2'

7113000 mN
7112000 mN
7111000 mN
627000 mE
628000 mE
629000 mE
630000 mE

GSC Stream Sample ★

4000
4500
5000
5500

G285151 G285152 G285153 G285154 G285155 G285156 G285157 G285158 G285160 G285161 G285162 G285186 G285159 G285185 G285264 G285188 G285187 G285190 G285189 G285191 G285192 G285193 G285194 G285258 G285257 G285256 G285259 G285268 G285263 G285261 G285267 G285262 G285266 G285265

J980140 J980142 J980141 J980143 J980144 J980145 J980170 J980164 J980163 G285255 J980167 J980169 J980162 J980166 J980165 J980168 J980109 J980139 J980136 J980161 J980138 J980134 J980137 J980135 J980133 J980112 J980132 J980131 J980130 J980160 J980159 J980113 J980114 J980115 J980107 J980106 J980105 J980108 J980179 J980123 J980122 J980124 J980173 J980121 J980174 J980172 J980119 J980129 J980177 J980171 J980120 J980176 J980128 J980116 J980175 J980125 J980127 J980117 J980126 J980104 J980103 J980158 J980156 J980157 J980153 J980154 J980150 J980149 J980151 J980152 J980148 J980155 J980147 J980146 J980178

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FIGURE 9

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

ROCK SAMPLE LOCATIONS

Nadaleen Trend Project - Rackla Gold Property

0 200 400 1000 m

Contour Interval: 100 ft. UTM ZONE 8, NAD 83, 106C/01

FILE:2010/Nadaleen_Trend/Figures/F_9-Rock_Location.wor | DATE: APRIL 2011

T.N.
2°28'
24°24' E
Grid north
Magnetic north
Annual change decreasing 27.2'

GSC Stream Sample ★

ISIS SOIL ANOMALY

ISIS SHOWING

ISIS EAST SOIL ANOMALY

OSIRIS SOIL ANOMALY

OSIRIS SHOWING

CONRAD SHOWING

EATON SHOWING

7113000 mN
7112000 mN
7111000 mN
627000 mE
628000 mE
629000 mE
630000 mE

Rock Geochemistry Au (g/t)
- ≥10.00
- ≥1.00 <10.00
- <1.00

Gold Soil Anomaly >200 ppb Au

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FIGURE 10

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GOLD ROCK GEOCHEMISTRY

Nadaleen Trend Project - Rackla Gold Property

0 100 200 500 m

Contour Interval: 100 ft. UTM ZONE 8, NAD 83, 106C/01

FILE: 2010/Nadaleen.../Figures/F_10-Rock_Gold.wor

DATE:APRIL 2011

T.N.
2°28'
24°24' E
Grid north
Magnetic north
Annual change decreasing 27.2'

7113000 mN
7112000 mN
7111000 mN
627000 mE
628000 mE
629000 mE
630000 mE

GSC Stream Sample

ISIS SOIL ANOMALY
ISIS SHOWING
ISIS EAST SOIL ANOMALY
OSIRIS SOIL ANOMALY
OSIRIS SHOWING
CONRAD SHOWING
EATON SHOWING

4000
4500
5000
5500

122
25.2
53.5
131
18.6
144
99
3,300
34.4
8,780
158
2,450
4,820
11,250
13,400
3,180
36,300
310
6,940
2,410
3,180
625
3,060
8,790
1,230
5,710
141
5,800
302
2,220
3,430
3,080
1,960
14,550
2,230
3,010
300,005
8,390
8,000
5,480
300,005
2,300
3,930
2,150
778
272
60.0
190
142
38.4
411
553
167
99.2
323
526
300,005
243,000
21,100
5,780
5,790
297,000
37,100
11,250
21,400
300,005
300,005
21,700
9,330
14,700
979
3,960
58.0
1,530
90.7
470
347
294
641
5,590
11,300
14,650
42,700
64,600
15,750
29,600
56,400
40,500
9,560
14,650
57,600
1,685
5,040
9,370
6,140
33,800
1,640
729
34,600
804
7,940
809
1,275
1,700
24,200
35,700
227
50,400
77.9

Rock Geochemistry As (ppm)
- ≥50,000
- ≥10,000 <50,000
- <10,000

Gold Soil Anomaly >200 ppb Au

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FIGURE 11

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

ARSENIC ROCK GEOCHEMISTRY

Nadaleen Trend Project - Rackla Gold Property

0 100 200 500 m

Contour Interval: 100 ft. UTM ZONE 8, NAD 83, 106C/01

FILE:2010/Nadaleen.../Figures/F_11-Rock_Arsenic.wor

DATE:APRIL 2011

The Conrad Showing, discovered during prospecting, occurs on a fairly steep grass and buckbrush covered slope approximately 1 km east of the Osiris Showing. There is no obvious gold soil geochemical anomaly in the area as a fine talus cover likely masks the soil geochemical response. A 2.30 m trench dug into the hillside uncovered intensely clay altered material. Three chip samples collected in the trench averaged 14.89 g/t gold over 2.30 m. Rock samples collected from both float and outcrop on the adjacent hillside generally consisted of light to medium grey strongly decalcified limestone with moderate clay alteration and small patches and pockets of realgar mineralization throughout. One such sample graded 66.6 g/t gold.

The Eaton Showing, 200 m to the southwest of the Conrad Showing, occurs in a creek cut that exposes realgar rich outcrop. Samples consist of weakly to non-calcareous gritty sandstone with minor to moderate associated realgar. Samples collected range up to 1.02 g/t gold.

DIAMOND DRILLING

Drilling was conducted at the Osiris, Isis, Conrad and Eaton Showings between August 5 and September 22, 2010 by Beaudoin Diamond Drilling Ltd. of Courtenay, BC. The work was completed using NTW and BTW equipment on a heli-portible JKS-300 drill. A total of 1898.28 m of diamond drilling was completed in nine holes. Six of the holes, totaling 1351.47 m, were drilled at the Osiris Showing, while one hole was drilled in each of the Isis, Conrad and Eaton Showings, totaling 260.60 m, 109.73 m and 176.48 m respectively. The drill was set up on a platform of 8" x 8" timbers covered with 2" x 8" planks, which was constructed on a site dug by hand.

Drill collar locations are plotted on Figure 12 and key data for the holes is listed in Table IV. Cross-sections showing the 2010 drill holes are illustrated on Figures 13-16 and significantly mineralized intervals are listed in Table V. QA/QC results are summarized in Appendix V and geological and geotechnical logs are given in Appendix VI.

Table IV: 2010 Drill Hole Data

Hole	Easting	Northing	Elevation (m)	Azimuth	Dip	Depth (m)	Size
OS-10-01	629368	7112057	1789	270°	-50°	219.45	NTW,BTW
OS-10-02	629466	7112034	1795	270°	-50°	143.25	NTW,BTW
OS-10-03	629239	7112082	1767	090°	-50°	256.03	NTW
OS-10-04	629470	7112034	1795	090°	-50°	248.41	NTW
OS-10-05	629565	7112036	1798	270°	-50°	243.54	NTW
OS-10-06	629372	7112056	1789	090°	-50°	240.79	NTW
OS-10-07	628518	7112293	1488	085°	-50°	260.60	NTW
OS-10-08	630372	7112560	1499	220°	-45°	109.73	NTW
OS-10-09	630763	7112325	1297	340°	-50°	176.48	NTW

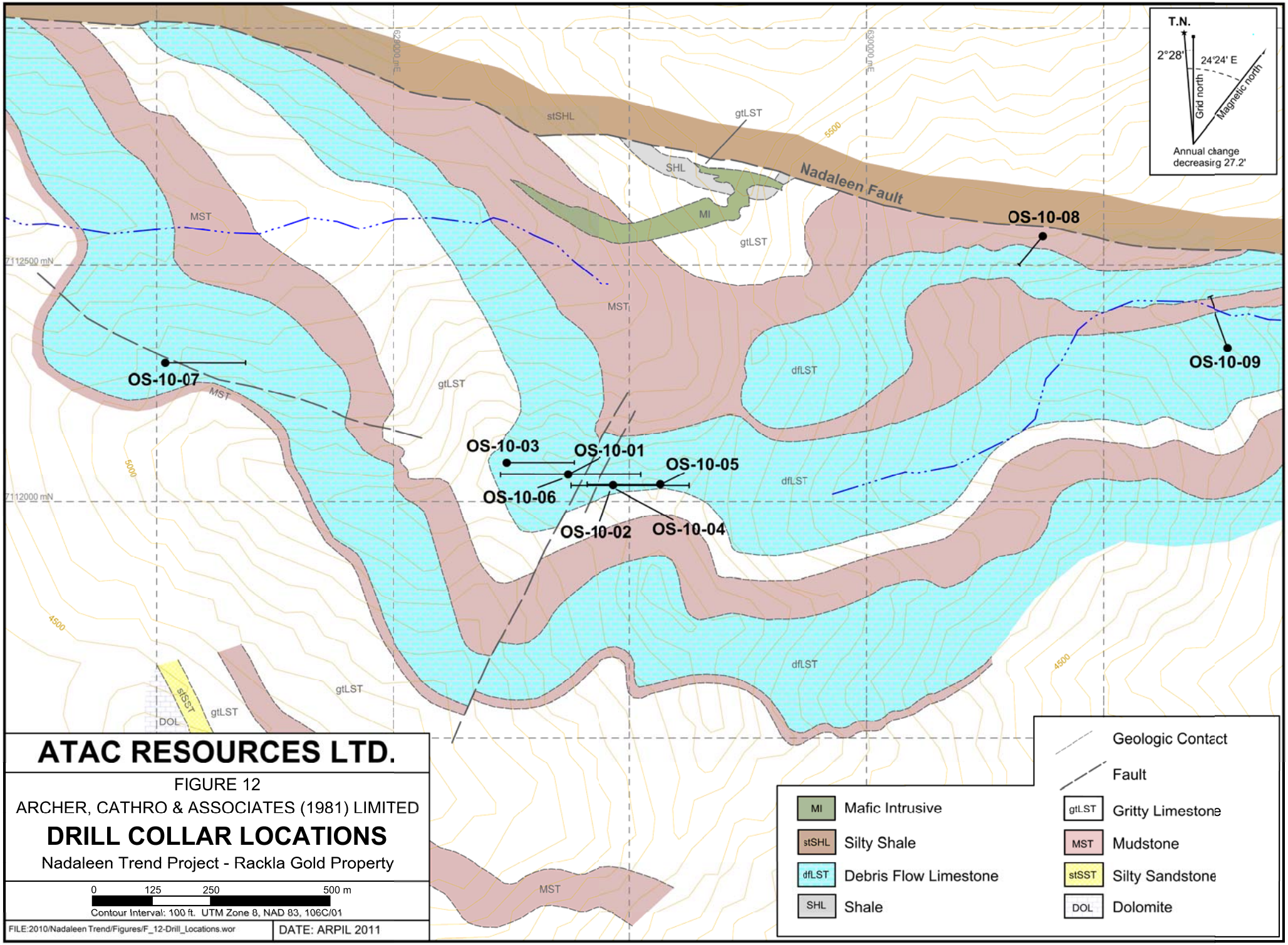

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FIGURE 12

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

DRILL COLLAR LOCATIONS

Nadaleen Trend Project - Rackla Gold Property

0 125 250 500 m

Contour Interval: 100 ft. UTM Zone 8, NAD 83, 106C/01

FILE:2010/Nadaleen Trend/Figures/F_12-Drill_Locations.wor

DATE: ARPIL 2011

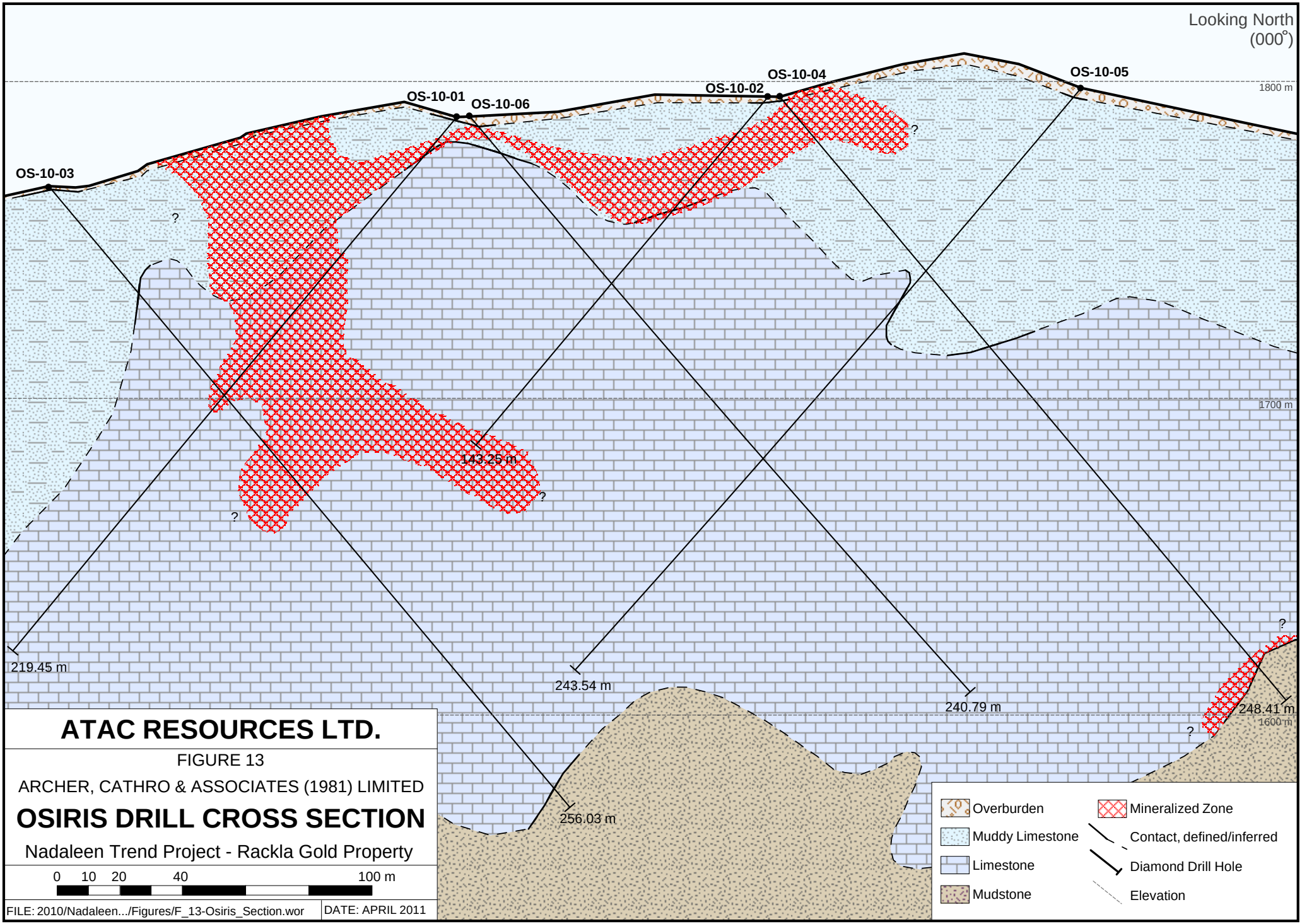

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FIGURE 13

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

OSIRIS DRILL CROSS SECTION

Nadaleen Trend Project - Rackla Gold Property

0 10 20 40 100 m

FILE: 2010/Nadaleen.../Figures/F_13-Osiris_Section.wor

DATE: APRIL 2011

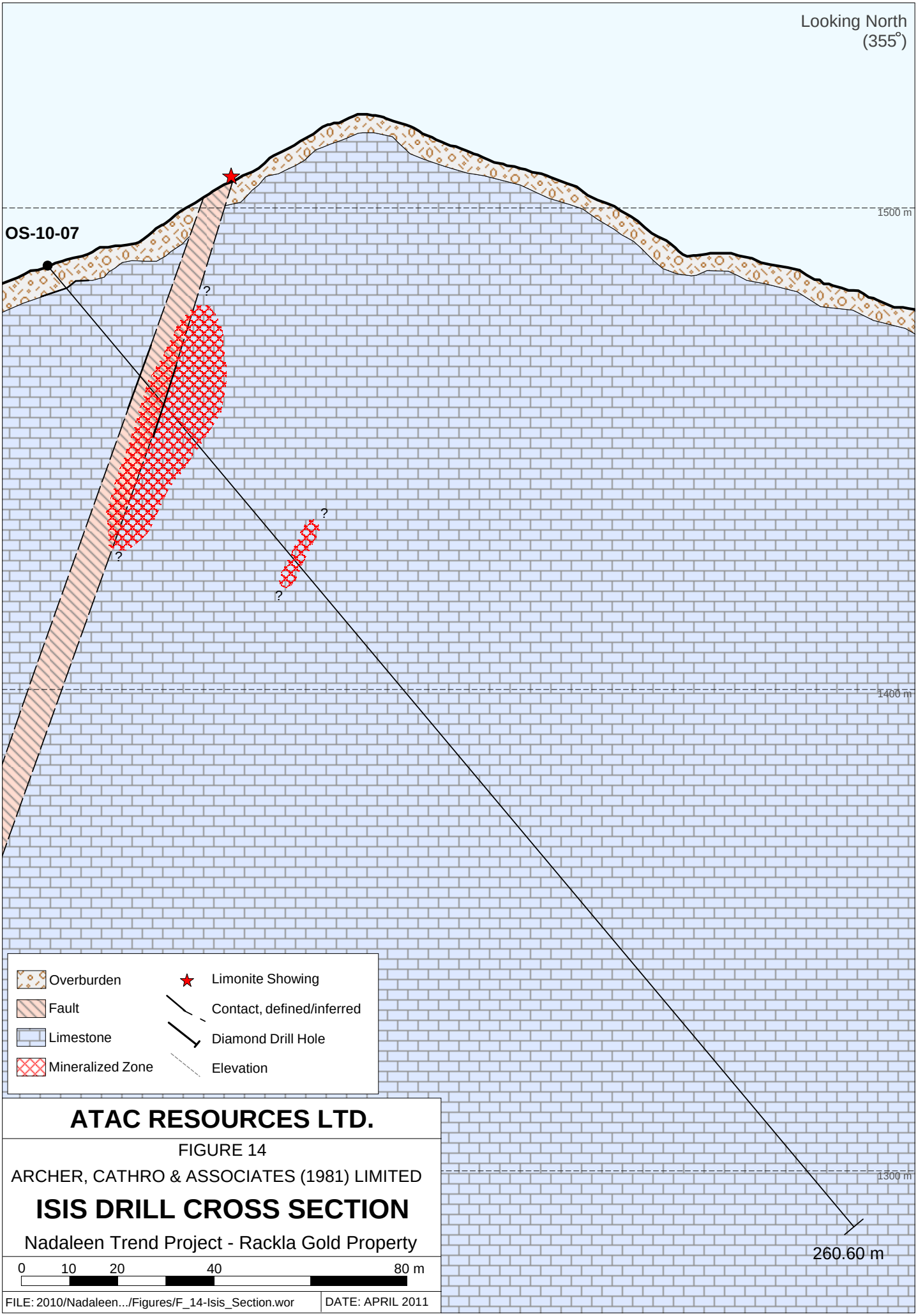

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FIGURE 14

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

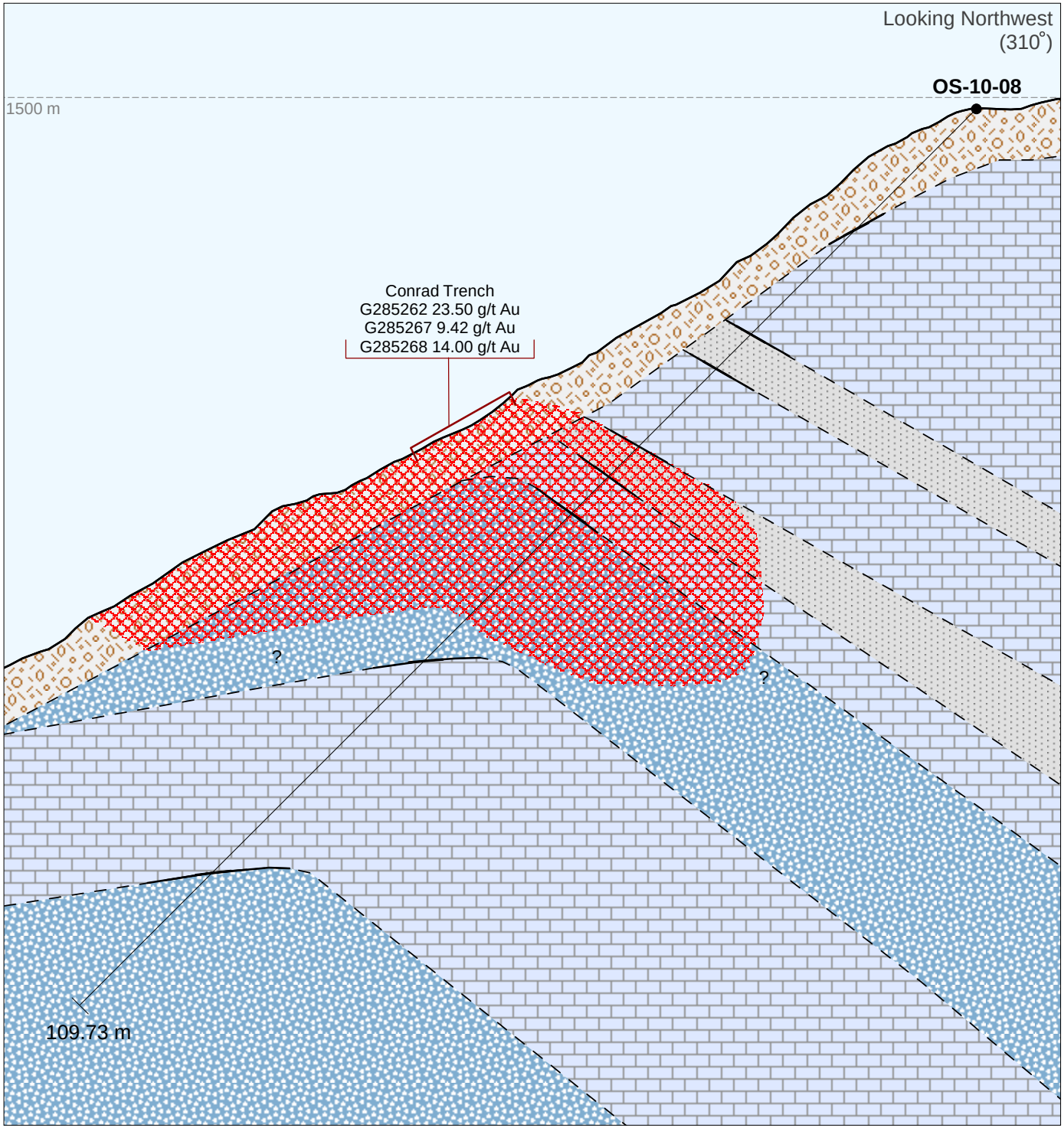
ISIS DRILL CROSS SECTION

Nadaleen Trend Project - Rackla Gold Property

0 10 20 40 80 m

FILE: 2010/Nadaleen.../Figures/F_14-Isis_Section.wor

DATE: APRIL 2011



Overburden

Limestone

Shale

Calcareous Grit

Mineralized Zone

Contact, Known/Inferred

Diamond Drill Hole

Elevation

ATAC RESOURCES LTD.

FIGURE 15

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

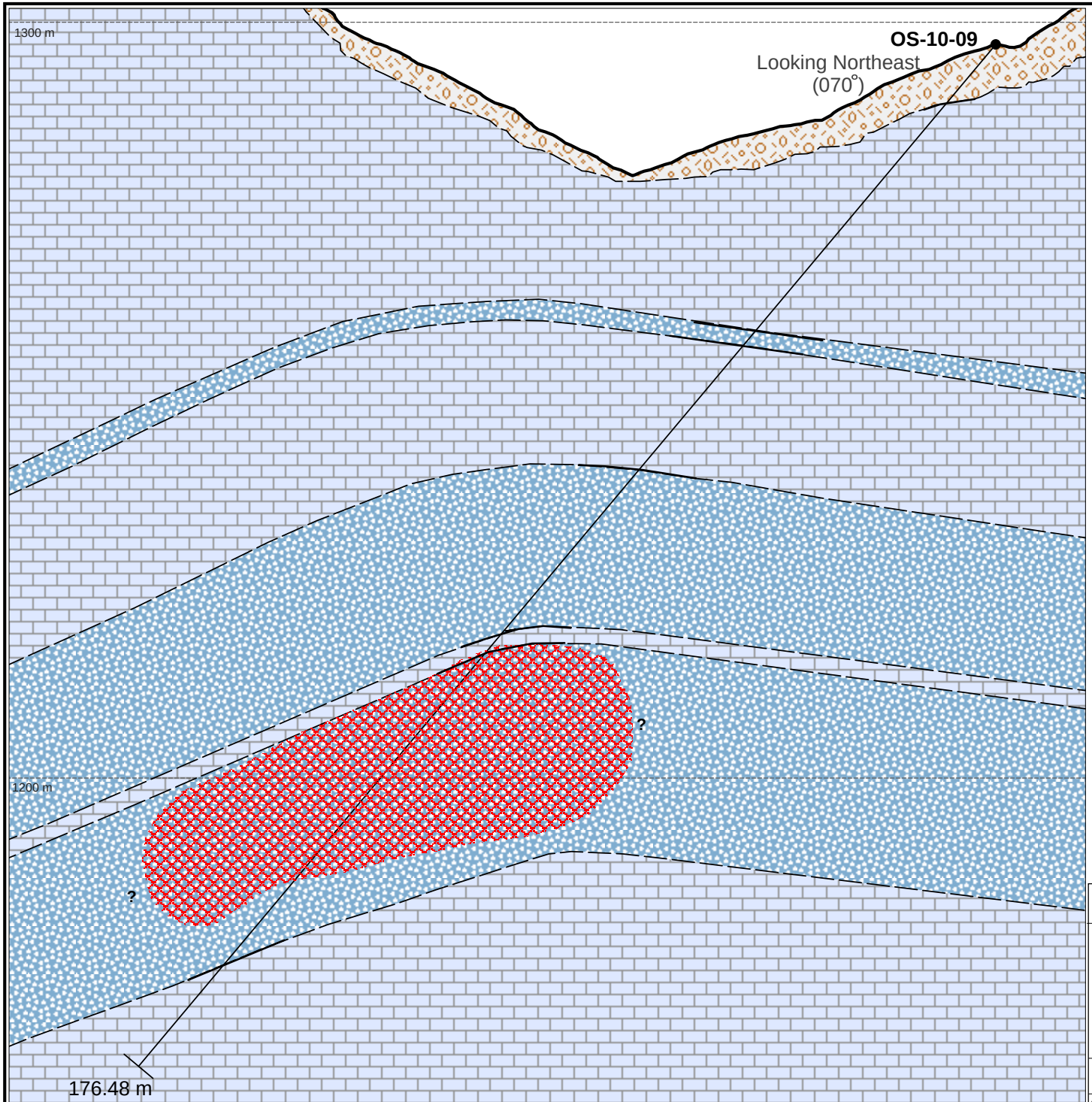
CONRAD DRILL CROSS SECTION

Nadaleen Trend Project - Rackla Gold Property

0 5 10 20 30 m

FILE: 2010/Nadaleen Trend/Figures/F_15-Conrad_Section.wor

DATE: APRIL 2011



Overburden

Limestone

Calcareous Grit

Mineralized Zone

Contact, Known/Inferred

Diamond Drill Hole

Elevation

ATAC RESOURCES LTD.

FIGURE 16

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

EATON DRILL CROSS SECTION

Nadaleen Trend Project - Rackla Gold Property

0 10 20 30 50 m

FILE: 2010/Nadaleen Trend/Figures/F_16-Eaton_Section.wor

DATE: APRIL 2011

RESULTS

In general, mineralization is hosted in relatively thick, folded limestone debris flow and slump packages defined as the Osiris and Isis Horizons; and occur adjacent to possible fault zones. Mineralization in the Osiris Horizon is distinguished by highly variable quantities of the arsenic sulphide minerals orpiment and realgar, with lesser amounts of sooty fine-grained pyrite. Alteration consists of distal calcite flooding of the limestone with proximal decalcification. The Osiris Horizon is between 100 – 200 m thick and is composed of interlayers of silty and muddy-limestone with individual debris flow units up to 18 m thick. Debris flow textures within the horizon range widely with pebble to gravel sized, sub angular to sub rounded clasts that are matrix to clast supported. Decalcification is variable; however, the more strongly decalcified limestone tends to be better mineralized. Of the six holes drilled in the Osiris Horizon, five intersected significant gold mineralization with OS-10-01 having both the highest grade and thickest interval of mineralization (9.26 g/t gold over 31.13 m and 4.65 g/t gold over 65.20 m respectively).

The Isis Horizon which occurs stratigraphically above the Osiris Horizon was the subject of one drill hole in 2010. The hole intersected a wide fault zone with peripheral limonitic and clay alteration. The fault zone was defined by rusty orange-grey to black, intensely decalcified, gritty to rubbly gouge that contained strongly disseminated very fine grained black sooty pyrite and banded medium grained brassy yellow pyrite. A 17.00 m interval over the lower contact of the fault returned 0.92 g/t gold. The remainder of the hole consisted of variably decalcified fine grained limestone with zones of strong to intense calcite veining. Mineralization included trace to weakly concentrated fine to medium grained disseminated and veined pyrite, with weak to fair fracture filling and vein related orpiment and lesser realgar. The hole was terminated in weakly mineralized limestone when there were no drill rods available to continue.

The Conrad Showing was drilled based on the results of the 2.30 m long surface trench. The hole intersected a light grey and brownish black intensely clay altered zone with visible realgar, orpiment and sooty pyrite mineralization surrounding the lower contact. Below this, a light to medium grey moderately to strongly clay altered zone of massive slightly gritty looking material contained 8.03 g/t gold over 21.13 m, including 11.99 m of 13.60 g/t gold.

One hole drilled at the Eaton Showing intersected fine grained variably decalcified limestone with layers up to 26 m thick of fine to very coarse grained, moderately to strongly silicified matrix supported quartz grit. Very fine grained, disseminated realgar and pyrite occurred within the matrix of the grit. Realgar was also seen in thin quartz +/- calcite veinlets that cut the unit. One of these grit intervals intersected 9.64 m of 3.36 g/t gold within a wider interval of 39.76 m of 1.61 g/t gold.

A complete list of significantly mineralized intervals intersected in 2010 is given below:

Table V: Significant Drill Intervals

Hole	Showing	From (m)	To (m)	Interval (m)	Au Grade (g/t)
OS-10-01	Osiris	7.62	16.38	8.76	1.81
and	Osiris	56.08	121.28	65.20	4.65
including	Osiris	72.20	103.33	31.13	9.26
OS-10-02	Osiris	14.07	49.15	35.08	2.31
including	Osiris	33.07	45.57	12.50	5.29
and	Osiris	138.60	143.25	4.65	2.48
OS-10-03	Osiris	104.79	127.09	22.30	2.21
including	Osiris	106.74	117.00	10.26	4.14
OS-10-04	Osiris	1.52	18.28	16.76	2.03
including	Osiris	13.63	18.28	4.65	5.77
and	Osiris	229.00	236.22	7.22	8.37
OS-10-06	Osiris	4.20	9.14	4.94	1.76
OS-10-07	Isis	32.00	49.00	17.00	0.92
and	Isis	77.72	80.77	3.05	1.49
OS-10-08	Conrad	41.35	62.48	21.13	8.03
including	Conrad	41.35	53.34	11.99	13.60
OS-10-09	Eaton	104.47	144.23	39.76	1.61
including	Eaton	108.20	117.84	9.64	3.36

GEOPHYSICAL SURVEY

In June 2010, a ZTEM airborne geophysical survey was conducted over part of the Nadaleen Trend project area as part of a larger survey at various locations on the Rackla Gold property. The aim of the survey was to assist in the mapping of structures and lithologies controlling gold mineralization and potentially generate additional targets. Condor Consulting Inc., was asked to complete processing, analysis and interpretation of EM and magnetic data obtained from the ZTEM survey. A copy of Condor's report can be found in Appendix VII.

A major east-west trending magnetic boundary with more magnetic rocks to the north and less magnetic rocks to the south was identified. This magnetic boundary passes close to the mineralized Nadaleen Trend area and coincides closely with the Nadaleen Trend Fault identified through mapping in 2010. The Nadaleen Trend mineralized area did not show any clear ZTEM signature.

DISCUSSION AND CONCLUSIONS

The Nadaleen Trend project lies at the boundary between Mackenzie Platform and Selwyn Basin, within geomorphological and geological settings that resemble those at the Carlin gold deposits in Nevada.

In 2010, soil sampling and prospecting at the Nadaleen Trend project identified the possible sources of the very high gold and arsenic values collected from silt samples in 2009. In addition, four mineralized showings were identified, and through drilling all were proven to contain moderate to significant gold mineralization.

The Nadaleen Trend project definitely warrants additional work to better assess the character and extent of the currently identified geochemical anomalies and mineralized showings, as well as to search for additional areas of mineralogical interest. Soil sampling has proven to be a very effective technique at the Nadaleen Trend project and therefore an extensive soil sampling survey is recommended over a broader area. The survey should consist of closely spaced contour and grid soil sampling, prospecting and detailed geological mapping to extend coverage beyond where work was completed in 2010. To accomplish this, widely spaced contour and grid soil sampling and prospecting should be completed along the proposed mineralized trend combined with stream sediment sampling and prospecting on creeks that have not been sampled to date. Detailed mapping should be conducted around all geochemical anomalies. If mineralized showings are found, they should be extensively drill tested to define the source and extent of mineralization at depth.

Fonseca (1998) stresses the importance of recognizing folds, faults and favourable carbonate strata, since they are the principal controls over the location of mineralization in gold-rich, carbonate-hosted replacement deposits. As such, particular emphasis should be placed on identifying these features.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

Julia Lane, B.Sc., GIT

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APPENDIX I

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Julia Lane, geologist, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia and residential address in Vancouver, British Columbia, hereby certify that:

1. I graduated from the University of British Columbia in 2008 with a B.Sc. in Earth and Ocean Science.

2. From 2006 to present, I have been actively engaged in mineral exploration in Yukon Territory, British Columbia and Ontario.

3. I am a Geoscientist in Training (GIT) with the Association of Professional Engineers and Geoscientists of British Columbia (Member Number 157127).

4. I have personally participated in the field work reported herein and have interpreted all data resulting from this work.

Julia Lane, B.Sc., GIT

APPENDIX II

SAMPLING AND ANALYTICAL PROCEDURES

2010 Core Geochemical Samples

Core was transported by helicopter from the drill sites to a logging area on the property where recovery was measured and geological and geotechnical logging was performed. Geologically and mineralogically favorable intervals from each hole were split in half using a manual core splitter with one half sent for analysis and the other returned to the core box. All core is stored on the property.

Core samples were double bagged in plastic sample bags and batched up into rice bags for transport. Batches were flown out by helicopter to either a staging area at McQuesten Lake or to the Mayo float docks via Ortell Lake. Core samples were then transported from the Mayo float docks or McQuesten Lake by truck to Whitehorse escorted by a representative from Archer Cathro. The samples were then shipped from Whitehorse to ALS Chemex in North Vancouver. Core samples where dried and crushed to 70% minus 2 mm before a 1.5 kg split was taken and pulverized to better than 85% minus 75 microns. To reduce contamination, equipment was twice washed with silica sand between samples. Splits pulverized were routinely dissolved in four-acid "near-total" digestion and analyzed for 49 elements using the ME-MS61m method which includes combined inductively coupled plasma (ICP) with mass spectroscopy (MS) and atomic adsorption spectroscopy (AES). Mercury was analyzed for using HG-CV41 methods by aqua regia digestion and atomic adsorption spectroscopy. Samples were analyzed for gold by fire assay finished with atomic adsorption spectroscopy (Au-AA26). Certificates of Analysis are found in Appendix IV

2010 Rock Geochemical Samples

Rock geochemical sample sites on the property were marked with orange flagging tape labelled with the sample number. The location of each sample was determined using a handheld GPS unit.

The rock samples were submitted to ALS Chemex in North Vancouver, British Columbia where they were dried and fine crushed to 70% passing 2 mm. A 250 g split of the crushed material was then pulverized to better than 85% passing 75 microns. Separate splits of the pulverized fraction were analyzed for gold by fire assay and atomic absorption spectroscopy (Au-AA26) and for 49 other elements using a four acid near total digestion technique (ME-MS61m). Mercury was analyzed for using HG-CV41 methods by aqua regia digestion and atomic adsorption spectroscopy.

2010 Soil Geochemical Samples

Soil samples were collected with 50 m spacing along lines 50 m apart over the central and eastern blocks of the sample grid, and every 50 m along lines with 100 m spacing in the western end of the sample grid. Relative line positions were established using handheld GPS and sample spacing was maintained using compass and topofil. Sample sites were marked with wooden lath bearing aluminum tags inscribed with the sample number and grid coordinates, where appropriate. All soil samples were collected from holes dug by mattock or augered to depths of 20 to 40 cm below surface. Soil was taken for sample from the bottom of the hole and placed in pre-numbered Kraft paper bags.

The soil samples were sent to ALS Chemex, where they were dried, screened to -35 mesh to produce a fine fraction which was then pulverized to 85% passing 75 microns. The samples were dissolved in aqua regia solution and then analyzed for 33 elements using the inductively coupled plasma with atomic emission spectroscopy technique (ME-ICP41). An additional 30 g charge was further analysed for gold by fire assay with inductively coupled plasma-mass spectroscopy finish (Au-ICP21).

Stream Sediment Samples (Heon, 2003)

Using helicopters, stream sediments were collected from 321 sites on NTS map sheet 106C/01 during the summer of 2001. Sample sites were distributed at an average of one sample per 15 km2. Sample site duplicate samples were routinely collected in each analytical block of twenty samples. The data are published as part of a compilation released by the Yukon Government: Yukon Regional Geochemical Database 2003 (Héon, compiler). The samples were analyzed by instrumental neutron activation (INAA).

APPENDIX III

ROCK SAMPLE DESCRIPTIONS

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
J980103	UTM:	629873	E	UTM:	7111598	N	Float	
	Elevation:		m				Sample Width:	Abundance:

Comments: Dull red-orange hematite with calcite flooding in light grey limestone.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
J980104	UTM:	629987	E	UTM:	7111621	N	Outcrop grab	
	Elevation:		m				Sample Width:	Abundance:

Comments: Dull red-orange hematitic limonite with secondary calcite in bedding in light grey limestone. Minor dark grey fractures. Horizon is about 1 m thick.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
J980105	UTM:	630090	E	UTM:	7112026	N	Creek float	
	Elevation:		m				Sample Width:	Abundance:

Comments: Rusty-brown, compact goethite(?) with small, light yellow clay clasts. 1 small fragment in creek bed.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
J980106	UTM:	630013	E	UTM:	7112017	N	Creek float	
	Elevation:		m				Sample Width:	Abundance:

Comments: Greenish-brown weathering, strongly calcareous grit with grey-black, porous, non-calcareous, decalcified sponge veins(?).

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
J980107	UTM:	630005	E	UTM:	7112012	N	Creek float	
	Elevation:		m				Sample Width:	Abundance:

Comments: 3 pieces of porous yellow-orange jarositic limonite with minor calcite veining in creek bed.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
J980108	UTM:	629982	E	UTM:	7112003	N	Creek float	
	Elevation:		m				Sample Width:	Abundance:

Comments: Brown weathering, gritty weathered surface, spongey, rusty-brown limonite(?).

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980109	UTM: 628736	E	UTM: 7112234	N	Sample Width:	Abundance:
	Elevation:	m				

Type: Gouge

Comments: Grey-black gouge with red iron skim.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980112	UTM: 628846	E	UTM: 7112009	N	Sample Width:	Abundance:
	Elevation:	m				

Type: Float

Comments: Several fragments to cobbles of orange-brown, boxwork limonite to goethite in float along linear trending parallel to bedding. Coincides with elevated Au-As geochemistry.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980113	UTM: 629317	E	UTM: 7112077	N	Sample Width:	Abundance:
	Elevation:	m				

Type: Float

Comments: On ridge, adjacent to tight S fold in limestone stratigraphy - 1 cobble of light brown weathering, light dull green-yellow and gray on fresh surface, vuggy, porous quartz-alunite(?) in float. Rare small fragments of orpiment>>realgar also present.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980114	UTM: 629317	E	UTM: 7112077	N	Sample Width:	Abundance: plentiful
	Elevation:	m				

Type: Float

Comments: Same setting as J980113. Several fragments of rusty-greenish-grey, non-calcareous, strongly weathered quartz alunite(??). Can't get a fresh face.

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980115	UTM: 629458	E	UTM: 7112052	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Brown-gray weathering, silificied, porous rock - don't know what it is (too altered). With light grey, calcite veined dolomite talus. Several similar cobbles within a 2 m wide zone.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980116	UTM: 630382	E	UTM: 7112316	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 2 cobbles of rusty-grey weathering, strongly weathered, strongly limonitic, non-calcareous sandy grit(?). Adjacent to similar outcrop (less limonitic). Adjacent to black shale talus.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980117	UTM: 630423	E	UTM: 7112303	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 small cobble (5 x 3 x 3 cm) of nearly massive pyrite, with quartz, in float.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980119	UTM: 630730	E	UTM: 7112372	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 3 cobbles (several in immediate area) of rusty ferricrete with mudstone(?) fragments. In float at upper end of showing in creek cut.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980120	UTM: 630733	E	UTM: 7112369	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 block of rusty weathering, medium grey, decalcified gritty limestone(?) or sandstone with minor disseminated arsenopyrite and limonite. In talus adjacent to subcrop of similar material.

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980121	UTM: 630740	E	UTM: 7112371	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Massive, rusty weathering, grey sandstone(?) with abundant green-rusty staining and minor realgar. From approximately 1.5 m wide outcrop. Sample appears to be quite representative.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980122	UTM: 630740	E	UTM: 7112371	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Along NW edge of J980121 - band of weakly folded, light to dark grey sandstone(?) with abundant limonite and minor realgar. At least 15 cm wide. Some parts are black and greasy.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980123	UTM: 630740	E	UTM: 7112371	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 cobble of grey weathering, greenish to light-medium grey sandstone(?) with moderate realgar, locally light grey and porous.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980124	UTM: 630740	E	UTM: 7112371	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Light grey, moderately porous, non-calcareous, silicified sandstone(?) with weak realgar and local light yellow stain.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980125	UTM: 630740	E	UTM: 7112371	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Porous, light grey sandstone(?) with quartz veins with well developed quartz and realgar crystals.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980126	UTM: 630740	E	UTM: 7112371	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Light grey, laminated, weakly green stained, porous sandstone(?) with local realgar (realgar often seen in areas of weak brecciation).

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980127	UTM: 630740	E	UTM: 7112371	N	Sample Width:	Abundance:
	Elevation:	m				

Type: Talus

Comments: Rusty-grey-black, locally porous sandstone(?) with trace arsenopyrite.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980128	UTM: 630740	E	UTM: 7112371	N	Sample Width:	Abundance:
	Elevation:	m				

Type: Talus

Comments: Weakly calcareous, quartz-pebble grit with local, minor to moderate light orange limonite.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980129	UTM: 630883	E	UTM: 7112385	N	Sample Width:	Abundance:
	Elevation:	m				

Type: Muck

Comments: "Sludge" from bottom of very rusty gossanous spring. Fine sediment.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980130	UTM: 629386	E	UTM: 7111926	N	Sample Width:	Abundance:
	Elevation:	m				

Type: float

Comments: 1 cobble of greenish-brown weathering, porous, non-calcareous, strongly altered rock?

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980131	UTM: 629066	E	UTM: 7111835	N	Sample Width:	Abundance:
	Elevation:	m				

Type: O/C composit

Comments: 6 fragments from sheeted, 2 to 7 cm wide, visibly barren calcite veins collected within a 50 x 50 cm area adjacent to an anomalous gold-in-soil anomaly.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980132	UTM: 628837	E	UTM: 7111959	N	Sample Width:	Abundance:
	Elevation:	m				

Type: Float

Comments: 1 cobble of grey weathering, brown altered, weakly limonitic, locally porous dolomite. At gold-in-soil anomaly.

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980133	UTM: 628861	E	UTM: 7112041	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 20 small fragments (mostly 0.5 x 1 cm) of boxwork limonite in float. Too steep to follow up. No rep. Rare limonite fragments in soil continue to west and down to soil sample with 536 ppb gold.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980134	UTM: 628782	E	UTM: 7112159	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 small cobble of orange boxwork limonite in float. Locally small fragments in area as well, not sampled.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980135	UTM: 628774	E	UTM: 7112158	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 small boulder of greenish-grey weathering, light grey, fine grained limestone with fracture hosted and blebby realgar.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980136	UTM: 628770	E	UTM: 7112177	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 cobble of rusty weathering, medium grey limestone matrix with white dolomite(?) clasts. Appears brecciated. Local light green stain. In an area that looks suspicious - many small fragments of limonite and pale green fragments. Sandy to gougey green to grey soil.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980137	UTM: 628766	E	UTM: 7112177	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Grey, knubbly weathering, green-brown-grey, vuggy, moderately calcite veined rock with trace realgar with well developed crystals.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980138	UTM: 628766	E	UTM: 7112177	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Grey, knubbly weathering, green, vuggy to porous rock with minor blebby realgar in vugs and calcite veining. Looks like a strongly altered debris flow.

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980139	UTM: 628771	E	UTM: 7112185	N	Sample Width:	Abundance:
	Elevation:	m				

Type: Float

Comments: Weakly greenish-grey weathering, light grey, bleached and silicified dolomite. Locally abundant.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980140	UTM: 628701	E	UTM: 7112506	N	Sample Width:	Abundance:
	Elevation:	m				

Type: float

Comments: 1 cobble of knubbly grey-brown weathering, light grey to beige, heavy, fine grained limestone with calcite >> realgar filled vugs. Also minor limonite in float.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980141	UTM: 628751	E	UTM: 7112472	N	Sample Width:	Abundance:
	Elevation:	m				

Type: float

Comments: 1 cobble of orange-grey weathering, grey dolomite with 1 bleb of realgar and weak limonite alteration.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980142	UTM: 628729	E	UTM: 7112492	N	Sample Width:	Abundance:
	Elevation:	m				

Type: float

Comments: 1 small cobble of boxwork limonite in float.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980143	UTM: 628775	E	UTM: 7112442	N	Sample Width:	Abundance:
	Elevation:	m				

Type: float

Comments: 1 cobble of orange-grey weathering, weakly to moderate limonitic limestone trace calcite veining.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980144	UTM: 628767	E	UTM: 7112423	N	Sample Width:	Abundance:
	Elevation:	m				

Type: float

Comments: 1 small boulder (30 x 30 x 30 cm) of grey-brown weathering, moderately dolomitized limestone with moderate realgar dominantly on fracture faces but also as vugs. Locally weakly limonitic.

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980145	UTM: 628768	E	UTM: 7112414	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 small cobble of grey-greenish-purple, porous, heavy limonite.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980146	UTM: 628973	E	UTM: 7111095	N	Composite	Abundance:
	Elevation:	m			Sample Width:	

Comments: Several fragments (up to 6 x 4 x 3 cm) of goethite-rich limonite exposed in talus over a 1 m width at the contact between a light grey sillicified dolomite and silty sandstone.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980147	UTM: 628940	E	UTM: 7111116	N	Composite	Abundance:
	Elevation:	m			Sample Width:	

Comments: Opposite side of synclinal dolomite unit from J980148 - several small fragments of boxwork to goethitic limonite along contact.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980148	UTM: 628705	E	UTM: 7111298	N	Composite	Abundance:
	Elevation:	m			Sample Width:	

Comments: 10 fragments of boxwork limonite in small gossan (7 x 7 m).

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980149	UTM: 628668	E	UTM: 7111350	N	Composite	Abundance:
	Elevation:	m			Sample Width:	

Comments: In 5 x 2 m gossan at top of small dolomite outcrop - 7 fragments of boxwork limonite.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980150	UTM: 628628	E	UTM: 7111376	N	Composite	Abundance:
	Elevation:	m			Sample Width:	

Comments: At heart of approximately 10 x 8 m gossan with abundant limonite fragments. 10 pieces of boxwork to goethite-rich limonite collected across width of gossan.

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980151	UTM: 628805	E	UTM: 7111327	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 cobble of rusty-brown, porous but heavy limonite in float with dolomite talus. About 20 m below base of dolomite outcrop.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980152	UTM: 628833	E	UTM: 7111311	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 6 fragments of goethite-rich limonite in float near contact between dolomite and silty-sandstone.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980153	UTM: 628449	E	UTM: 7111629	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: In float in creekbed - 1 broken up boulder of rusty-grey weathering, silicified dolomite with semi-massive to locally massive pyrite and limonite. May not only be pyrite - there are the typical cubes and intergrowths of cubes, but also a radial pattern more typical of marcasite.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980154	UTM: 628601	E	UTM: 7111495	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Several fragments of geothite-rich limonite collected from float within a soil exposure on a grassy slope. Very near contact between dolomite and silty sandstone.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980155	UTM: 628875	E	UTM: 7111266	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 2 cobbles of boxwork and goethite-rich limonite in float near assumed dolomite-silty sandstone contact. 1/2 of each cobble was sampled. Several smaller fragments of limonite also present in float, but were not sampled.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980156	UTM: 630022	E	UTM: 7111598	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 x 0.75 m pod of pervasively dull red with minor yellow, heavy, hematite altered carbonate. Minor calcite veining within altered areas.

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980157	UTM: 632022	E	UTM: 7111598	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 5 fragments of greenish-grey weathering, brecciated(?) altered carbonate with local black staining. Collected adjacent to hematite alteration.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980158	UTM: 630046	E	UTM: 7111595	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 x 1 m pocket of yellow/orange to dull red hematite altered carbonate. 10 pieces collected.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980159	UTM: 629361	E	UTM: 7112242	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Drab green-grey, weakly calcite-veined dolomite with moderate to strong realgar throughout. Zone is at least 30 cm and may be wider, but is covered by talus.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980160	UTM: 629326	E	UTM: 7112260	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Realgar-healed breccia with angular light grey dolomite clasts. Very heavy.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980161	UTM: 628569	E	UTM: 7112190	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Several small fragments and 1 cobble of boxwork limonite in float on slope with limestone grit >> light grey dolomite talus. Picked up over 50 m (up-down slope).

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980162	UTM: 628563	E	UTM: 7112292	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Gossanous soil and several fragments of boxwork limonite (along with light grey dolomite) exposed in gopher hole.

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
J980163	UTM:	628504	E	UTM:	7112349	N	Float	
	Elevation:		m				Sample Width:	Abundance:

Comments: Grassy slope with dolomite talus and several fragments of limonite. 2 cobbles of rusty-red, boxwork limonite to ferricrete with dolomite fragments were picked up in float.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
J980164	UTM:	628537	E	UTM:	7112358	N	Float	
	Elevation:		m				Sample Width:	Abundance:

Comments: 1 block (25 x 15 x 7 cm) of boxwork limonite. Abundant smaller fragments also present in float (not sampled).

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
J980165	UTM:	628606	E	UTM:	7112287	N	Composite	
	Elevation:		m				Sample Width:	Abundance:

Comments: 10 fragments of boxwork limonite from gossan. Limonite comprises about 5% of rocks.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
J980166	UTM:	628606	E	UTM:	7112287	N	Float	
	Elevation:		m				Sample Width:	Abundance:

Comments: 1 cobble of red-grey weathering dolomite with a pyrite (? Seems too washed out - marcasite?) filled nodule.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
J980167	UTM:	628638	E	UTM:	7112288	N	Composite	
	Elevation:		m				Sample Width:	Abundance:

Comments: 6 fragments of boxwork limonite from 1 x 3 m gossan.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
J980168	UTM:	628672	E	UTM:	7112264	N	Float	
	Elevation:		m				Sample Width:	Abundance:

Comments: Several cobbles and fragments (1 sampled) of greenish-white weathering, knubbly dolomite float.

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980169	UTM: 628672	E	UTM: 7112264	N	Sample Width:	Abundance:
	Elevation:	m				

Type: Composite

Comments: 10 fragments of boxwork limonite in float.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980170	UTM: 628308	E	UTM: 7112488	N	Sample Width:	Abundance:
	Elevation:	m				

Type: float

Comments: 1 cobble of tan weathering, grey dolomite with minor shiny metallic silver mineral (moly?) along fracture face.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980171	UTM: 630421	E	UTM: 7112340	N	Sample Width: 0-1.8 m (1.8 m)	
	Elevation:	m				

Type: Chip

Comments: Dominantly grey weathering, locally brown, shattered grey mudstone or decalcified carbonate?

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980172	UTM: 630421	E	UTM: 7112340	N	Sample Width: 1.8-2.8 m (1.0 m)	
	Elevation:	m				

Type: Chip

Comments: Orange-brown to grey weathering, soft limonite altered carbonate?? And strong, highly silicified rock with minor realgar.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980173	UTM: 630421	E	UTM: 7112340	N	Sample Width: 2.8 - 3.05 (0.25 m)	
	Elevation:	m				

Type: Chip

Comments: Greenish light grey to dark grey, porous "sponge" with strong (locally massive) realgar.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980174	UTM: 630421	E	UTM: 7112340	N	Sample Width: 3.05-3.61 (0.56 m)	
	Elevation:	m				

Type: Chip

Comments: Grey weathering, strongly fractured, highly decomposed, weakly laminated rock - mudstone or decalcified carbonate?

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980175	UTM: 630421	E	UTM: 7112340	N	Sample Width:	3.61-4.61 (1.0 m)
	Elevation:	m				

Comments: Grey-brown weathering, strongly broken up, laminated, sandy decalcified carbonate?

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980176	UTM: 630476	E	UTM: 7112342	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 block of pale emerald green to grey weathering, light grey dolomite with minor fracture-coating realgar, in float at bast of talus train.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980177	UTM: 630518	E	UTM: 7112365	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 cobble of rusty-brown weathering, porous, "sandy" light grey decalcified carbonate? With minor limonite alteration.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980178	UTM: 630248	E	UTM: 7111044	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Rusty-brown weathering, limonitic quartz vein(?). (Ryan)

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
J980179	UTM: 630347	E	UTM: 7112531	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 block of grey weathering, spongy altered carbonate(?) with minor to moderate vuggy to fracture-filling realgar. (Conrad)

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
G285151	UTM: 627835	E	UTM: 7112656	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 piece of quartz flooded grit. Quartz is white to clear vein quartz with orange carbonate pactches, clots, and fractur filling. Trace Py.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
G285152	UTM: 627885	E	UTM: 7112653	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 1 piece of weakly banded clear/white quartz vein with blebby, patchy, fracture filled brown-orange carbonate. Cross cutting fractures may have minor aspy.

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
G285153	UTM:	627885	E	UTM:	7112653	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Orange weathering carbonate-wuartz breccia (5-7 cm wide). Breccia clasts are dark sub-angular grit/carbonate??

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
G285154	UTM:	628161	E	UTM:	7112598	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Rounded 1 cm thick quartz-ankerite vein. Rusty weathering with traces py + aspy?

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
G285155	UTM:	628315	E	UTM:	7112593	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Rusty weathering cream-orange quartz-carbonate vein approx 15 cm wide. Patches of grit as pseudo breccia clasts contain disseminated patchy py. Minor limonite pitting along selvage of the vein.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
G285156	UTM:	628483	E	UTM:	7112576	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: minor orange surface ferricrete coating rotten black shale. Approx 4 mm thick.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
G285157	UTM:	628831	E	UTM:	7112594	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: 7 cm wide calcite vein with minor brown carbonate fractures and dark grey filled fractures. Possible sulphide in the fractures but very fine.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
G285158	UTM:	628939	E	UTM:	7112581	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: two small 1 cm fragments of dark to medium brown clay weathered grit?? Too small to keep a rep.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension: 20x10x10
G285159	UTM:	629016	E	UTM:	7112607	N	Sample Width:	Abundance:
	Elevation:		m					

Rock Sample Descriptions Project: Rau Property: Sten

Comments: 20X10X10 piece of massive Realgar with a minor bit of green mudstone at one of the contacts.

Sample Number:	Grid East:	E	Grid North:	N	Type: Float	Dimension:
G285160	UTM: 629162	E	UTM: 7112932	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Creamy-brown highly porous quartz-carbonate “sinter” looking float. Traces py+cpy+mal.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
G285161	UTM: 629172	E	UTM: 7112591	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 10x12 cm piece of semi-massive realgar bedding parallel in green mudstone. Look like irregular injection along bedding planes.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension: 10x10
G285162	UTM: 629016	E	UTM: 7112607	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 10x10 piece of dark green grit/volcanic with 1% patchy red crystalline realgar.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
G285185	UTM: 629078	E	UTM: 7112606	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Approximately 10 m upstream into the grey dolomitized limestone, a bedding parallel vein of fine-grained mafic volcanic containing pockets of realgar within the volcanic and later calcite veins and lenses. Minor orpiment occurs within the realgar. The vein is approximately 20 cm wide and pinches and swells along the 3 m exposure. This is likely the source of sample G285162. Vein orientation – 330/78 NE.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
G285186	UTM: 629078	E	UTM: 7112606	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Approximately 10 m upstream into the grey dolomitized limestone, a bedding parallel vein of fine-grained mafic volcanic containing pockets of realgar within the volcanic and later calcite veins and lenses. Minor orpiment occurs within the realgar. The vein is approximately 20 cm wide and pinches and swells along the 3 m exposure. This is likely the source of sample G285162. Vein orientation – 330/78 NE.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
G285187	UTM: 629400	E	UTM: 7112442	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 90% oxidized bright orange-yellow realgar mush. Approx 4 cm thick.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:			Grid North:			Type:	Dimension:
G285188	UTM:	629400	E	UTM:	7112442	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: fibrous bright yellow orpiment with minor blebby realgar. Also found a large crystalline aggregate of Orpiment roughly 13 cm across. Definitely did no break this up for the sample!!

Sample Number:	Grid East:			Grid North:			Type:	Dimension:
G285189	UTM:	629400	E	UTM:	7112385	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: 10 cm wide piece of vuggy pale grey quartz-alunite (sinter appearance) containing 4-5% blebby realgar and traces of orpiment. Unknown black coatings on some of the sinter faces and minor calcite filled fractures. Realgar is very loosely held in the vugs and when samples are broken open, much of the realgar falls out.

Sample Number:	Grid East:			Grid North:			Type:	Dimension:
G285190	UTM:	629440	E	UTM:	7112403	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: 7 m thick piece of weakly altered medium grained tan limestone (slightly re-crystaillized ??) ½ cm edge is grey limestone with realgar pits and traces of disseminated pyrite. Starting to see minor fluorite veining with realgar in vugs. Also seeing realgar in grey limestone as clots and blebs.

Sample Number:	Grid East:			Grid North:			Type:	Dimension: 70x50x30 cm
G285191	UTM:	629453	E	UTM:	7112364	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: 70x50x30 cm block of white-grey vuggy quartz-alunite. Surface vugs are empty while freshly exposed vugs contain realgar and lesser orpiment. Some vugs are up to 2 cm diameter. This block was located on the top of the rock glacier. Nearby the sinter block are boulders of realgar bearing mafic volcanic float.

Sample Number:	Grid East:			Grid North:			Type:	Dimension:
G285192	UTM:	629452	E	UTM:	7112206	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: 5 cm thick piece of sucrosic tan limestone that has been intensely fractured and filled with clear to smokey grey sintery quartz and green fluorite. Several of the vugs are filled with crystalline realgar and there are fine traces of residual sulphide (py?).

Sample Number:	Grid East:			Grid North:			Type:	Dimension:
G285193	UTM:	629414	E	UTM:	7112117	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: collection of orpiment chunks up to 1 cm across with 7-9% realgar blebs. No split taken. Just below the top of the ridge about 20 m above this station the soil is saturated with multi size fragments of realgar and orpiment. A lot of massive chunks up to 8 cm across. This area is ready to trench to find the nature of the mineralization.

Sample Number:	Grid East:			Grid North:			Type:	Dimension:
G285194	UTM:	629396	E	UTM:	7112075	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Massive orpiment and realgar fragments and vein chunks up to 4 cm thick to within 5 m of ridge top. Also seeing grey sinter with realgar filled vugs.

Rock Sample Descriptions Project: Rau Property: Sten

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
G285255	UTM:		E	UTM:		N	Sample Width:	Abundance:
	Elevation:		m					

Comments:

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
G285256	UTM:	626907	E	UTM:	7112263	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Conrad's dark brown porous limonite found in bedrock.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
G285257	UTM:	626911	E	UTM:	7112282	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Conrad's medium brown limonitic breccia with limonite cemented dark grey cherty limestone fragments.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
G285258	UTM:	626823	E	UTM:	7112301	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Conrad's medium brown porous limonite fragments in among and attached to grey limestone. Found in Talus.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
G285259	UTM:		E	UTM:		N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Dark brown porous limonite rinds and pockets on and within dark grey limestone. Found in bedrock

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
G285261	UTM:	630348	E	UTM:	7112525	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Dark grey-black spongy carbonate with abundant realgar. ((Black sooty carbonate with abundant realgar. Approximately 15x10x10 cm in size and abundant if a person dug into the killzone))

Sample Number:	Grid East:		E	Grid North:		N	Type: Chip	Dimension: 60 cm
G285262	UTM:	630332	E	UTM:	7112528	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Insitu exposure of moderately banded grey-black weakly sheared and gougy decarb limestone with abundant black sooty layers with pockets of realgar.

Rock Sample Descriptions Project: Rau Property: Sten

(In-situ exposure of highly sheared and very well mineralized dark grey spongy carbonate with abundant black sooty partings and realgar. The main mineralizer appears to associated with a strong shear oriented at 300/58 NE. The section of mineralization is not fully exposed – only what could be exposed quickly with a rock hammer.)

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension: 15x10x10 cm
G285263	UTM: 630321	E	UTM: 7112527	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Dark grey-black spongy carbonate with abundant realgar. Talus grab of same style of mineralization as G285261.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
G285264	UTM: 629995	E	UTM: 7112915	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: orange-white gouge from 5 m wide fault zone in saddle along ridge top cutting through at 315 degree trend and appears to be steeply dipping. (Orange-white gouge from 5 m fault zone cutting across the mudstone at roughly 315/steep.)

Sample Number:	Grid East:	E	Grid North:	N	Type: Chip	Dimension:
G285265	UTM: 630745	E	UTM: 7112369	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: 40 cm chip sample across creek exposure well mineralized with realgar.

The outer sections of the kill zone are marked by strongly decarbed limestone exhibiting a pale yellow-green hue likely associated with scorodite alteration.

Sample Number:	Grid East:	E	Grid North:	N	Type:	Dimension:
G285266	UTM: 630529	E	UTM: 7112473	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: small collection of black spongy carbonate fragments in-situ up to 2 cm across with minor residual oxidized realgar disseminations.

Sample Number:	Grid East:	E	Grid North:	N	Type: Chip	Dimension: 80 cm
G285267	UTM: 630332	E	UTM: 7112528	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Insitu exposure of moderately banded grey-black weakly sheared and gougy decarb limestone with abundant black sooty layers with pockets of realgar.

Sample Number:	Grid East:	E	Grid North:	N	Type: Chip	Dimension: 90 cm
G285268	UTM: 630332	E	UTM: 7112528	N	Sample Width:	Abundance:
	Elevation:	m				

Comments: Insitu exposure of moderately banded grey-black weakly sheared and gougy decarb limestone with abundant black sooty layers with pockets of realgar.

APPENDIX IV

CERTIFICATES OF ANALYSIS

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
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North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: **ATAC RESOURCES LTD.**
C/O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 27-JUN-2010
Account: RCM

CERTIFICATE VA10083961

Project: RAU TREND

P.O. No.: STEN

This report is for 12 Rock samples submitted to our lab in Vancouver, BC, Canada on 23-JUN-2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME-MS61	48 element four acid ICP-MS	
Hg-CV41	Trace Hg - cold vapor/AAS	FIMS
ME-OG62	Ore Grade Elements - Four Acid	ICP-AES
As-OG62	Ore Grade As - Four Acid	VARIABLE
Au-AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016-510 W HASTINGS ST
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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VANCOUVER BC V6B 1L8

Project: RAU TREND

Finalized Date: 27-JUN-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10083961

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA26 Au ppm 0.01	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Be ppm 0.05	ME-MS61 Bi ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Ce ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05	ME-MS61 Cu ppm 0.2
G285151		1.02	0.01	0.03	0.68	18.6	130	0.36	0.02	6.03	0.21	8.08	2.0	16	0.70	6.3
G285152		0.18	0.01	0.16	1.41	144.0	990	0.19	0.26	8.82	0.07	14.50	11.9	13	0.32	4.7
G285153		0.50	<0.01	0.06	2.22	99	1050	0.48	0.08	16.25	<0.02	45.7	4.1	14	2.32	5.5
G285154		0.10	0.01	0.03	0.18	3300	80	0.22	0.01	18.25	0.13	7.38	5.8	<1	0.14	3.3
G285155		1.58	<0.01	0.03	0.43	34.4	30	0.10	0.02	3.17	0.18	3.96	1.9	16	0.29	4.1
G285156		0.18	0.03	0.08	4.62	8780	270	0.95	0.14	9.81	0.35	54.7	46.1	29	8.14	20.9
G285157		0.42	0.53	0.16	0.30	302	40	0.07	0.01	30.8	0.02	15.00	1.5	4	0.36	2.1
G285158		0.04	0.01	0.46	7.99	3010	220	1.12	0.04	0.84	0.22	126.0	60.6	109	6.44	88.0
G285159		0.94	2.52	1.98	0.88	>10000	30	<0.05	0.14	0.50	0.91	10.30	1.8	14	1.20	13.9
G285160		0.92	<0.01	0.03	0.46	2300	2100	0.15	0.02	19.05	1.54	117.5	2.2	2	0.18	796
G285161		1.24	0.63	0.54	0.84	>10000	40	0.67	0.02	0.88	0.31	8.67	1.4	13	0.93	14.5
G285162		0.30	6.09	0.79	1.31	8390	140	0.33	0.06	8.26	0.88	14.50	2.4	12	2.19	12.7

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

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VANCOUVER BC V6B 1L8

Project: RAU TREND

Finalized Date: 27-JUN-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10083961

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	Hg-CV41	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
G285151		1.60	1.85	0.09	0.4	0.02	0.005	0.27	3.9	17.1	2.71	663	0.33	0.02	1.0	2.4
G285152		6.14	3.73	0.13	0.5	0.01	0.038	0.14	7.6	160.0	3.99	1830	1.03	0.04	1.7	15.6
G285153		7.63	5.61	0.20	0.9	0.01	0.032	1.00	18.2	13.8	4.06	2500	0.14	0.10	3.0	6.8
G285154		5.98	0.77	0.15	0.1	2.62	0.012	0.04	1.8	7.4	8.36	5360	0.11	0.03	0.3	3.6
G285155		1.41	0.91	0.06	0.4	0.04	0.007	0.10	1.8	7.9	1.32	680	0.94	0.01	1.2	2.1
G285156		4.45	12.75	0.15	1.9	1.32	0.051	1.74	28.1	39.6	4.72	10350	1.47	0.18	7.2	44.8
G285157		0.39	0.89	0.09	0.2	1.20	0.008	0.14	5.7	2.8	0.29	600	0.13	0.01	0.7	2.4
G285158		12.30	24.9	0.30	5.5	1.36	0.120	0.51	61.1	46.0	0.19	785	3.30	0.03	71.1	144.5
G285159		0.72	4.51	1.50	0.6	6.85	0.448	0.41	5.9	27.3	0.09	30	0.89	0.01	1.8	4.7
G285160		5.62	2.02	0.25	0.2	0.04	0.311	0.02	30.5	5.1	8.02	3580	0.08	0.06	0.7	2.8
G285161		0.45	4.22	1.50	0.4	2.48	0.547	0.41	4.4	24.2	0.13	82	0.34	0.01	1.6	3.0
G285162		1.06	3.91	0.05	0.7	29.0	0.026	0.60	8.6	26.9	0.44	3810	1.01	0.01	1.9	5.9

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

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VANCOUVER BC V6B 1L8

Project: RAU TREND

Finalized Date: 27-JUN-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10083961

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
G285151		80	4.2	12.6	<0.002	0.02	0.20	1.9	2	0.3	46.2	0.07	<0.05	1.0	0.035	0.10
G285152		120	102.5	7.4	<0.002	0.05	0.60	5.9	2	0.4	356	0.12	<0.05	2.2	0.058	0.10
G285153		100	6.2	42.0	<0.002	0.12	0.33	4.4	1	0.6	219	0.22	<0.05	4.0	0.084	0.27
G285154		50	3.4	1.8	<0.002	0.21	3.84	3.7	2	<0.2	118.0	<0.05	<0.05	0.3	0.006	8.03
G285155		70	3.0	5.3	<0.002	0.04	0.22	1.4	2	0.2	41.2	0.06	<0.05	1.0	0.037	0.09
G285156		640	12.8	81.2	<0.002	0.05	1.69	8.3	1	1.4	152.5	0.52	0.05	7.9	0.245	6.51
G285157		50	1.2	5.1	<0.002	0.04	1.23	1.5	2	<0.2	1845	<0.05	<0.05	0.8	0.017	1.39
G285158		2880	4.4	36.6	0.003	0.38	6.94	30.6	2	2.3	205	4.54	<0.05	6.5	2.12	6.07
G285159		310	7.7	23.8	<0.002	>10.0	1270	4.2	21	21.3	41.6	0.10	<0.05	1.6	0.055	35.7
G285160		140	7.4	1.1	0.002	0.16	3.38	51.3	3	<0.2	128.5	0.05	<0.05	0.4	0.031	0.11
G285161		280	4.6	24.1	<0.002	>10.0	1310	4.3	22	21.6	30.9	0.10	0.32	1.6	0.040	9.47
G285162		390	22.0	27.4	<0.002	0.47	54.3	1.3	2	0.6	56.8	0.13	0.05	2.6	0.055	70.7

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

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Project: RAU TREND

Finalized Date: 27-JUN-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10083961

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	As-OG62
	Analyte	U	V	W	Y	Zn	Zr	As
	Units	ppm	ppm	ppm	ppm	ppm	ppm	%
	LOR	0.1	1	0.1	0.1	2	0.5	0.001
G285151		0.4	10	0.2	13.4	22	12.8	
G285152		0.9	23	0.6	12.6	93	16.8	
G285153		0.9	23	0.6	23.8	13	30.4	
G285154		0.2	9	0.7	16.1	34	1.4	
G285155		0.4	7	0.1	5.0	13	13.3	
G285156		3.8	58	1.2	12.6	275	65.5	
G285157		0.9	7	0.2	11.5	8	8.3	
G285158		4.6	314	11.7	24.5	121	271	
G285159		6.5	19	1.0	2.4	37	19.1	>30.0
G285160		0.2	32	0.1	58.6	13	5.0	
G285161		4.6	16	0.8	2.6	45	16.6	>30.0
G285162		22.5	26	2.6	7.1	100	24.1	

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

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Project: RAU TREND

Finalized Date: 27-JUN-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10083961

Method	CERTIFICATE COMMENTS
ME-MS61	Interference: Ca>10% on ICP-MS As,ICP-AES results shown.
ME-MS61	REE's may not be totally soluble in this method.
Hg-CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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To: **ATAC RESOURCES LTD.**
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VANCOUVER BC V6B 1L8

Finalized Date: 16-JUL-2010
Account: RCM

CERTIFICATE VA10089876

Project: RAU TREND(STEN)

P.O. No.: STEN

This report is for 10 Rock samples submitted to our lab in Vancouver, BC, Canada on 11-JUL-2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
PUL-QC	Pulverizing QC Test
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME-MS61	48 element four acid ICP-MS	
Hg-CV41	Trace Hg - cold vapor/AAS	FIMS
ME-OG62	Ore Grade Elements - Four Acid	ICP-AES
As-OG62	Ore Grade As - Four Acid	VARIABLE
Hg-CV42	High Grade Hg - cold vapor/AA	FIMS
Au-AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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Project: RAU TREND(STEN)

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Account: RCM

CERTIFICATE OF ANALYSIS VA10089876

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA26 Au ppm 0.01	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Be ppm 0.05	ME-MS61 Bi ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Ce ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05	ME-MS61 Cu ppm 0.2
G285185		0.56	0.15	0.06	0.41	8000	30	0.41	0.02	19.30	0.24	7.26	0.9	2	0.58	4.7
G285186		0.78	0.20	0.13	0.55	5480	390	0.38	0.03	22.0	0.31	11.10	1.5	8	0.73	6.8
G285187		0.14	7.43	0.87	0.45	>10000	40	<0.05	0.07	1.48	0.37	6.92	0.9	5	0.91	10.6
G285188		0.14	0.17	0.21	0.07	>10000	20	0.06	0.24	0.05	0.07	1.07	0.1	<1	0.23	7.5
G285189		1.06	9.42	1.94	0.61	>10000	50	0.17	0.05	12.05	0.26	4.23	1.0	5	1.60	8.6
G285190		1.48	1.92	0.70	0.88	5780	150	0.17	0.03	0.28	0.06	7.51	0.4	12	1.28	5.9
G285191		2.56	1.95	0.62	1.05	5790	60	0.42	0.06	8.50	0.14	9.05	1.6	8	1.68	6.1
G285192		0.28	12.15	3.99	0.26	>10000	20	0.10	0.02	16.15	0.41	4.77	1.4	2	0.34	6.4
G285193		0.34	0.62	0.63	0.06	>10000	10	0.14	0.19	0.18	0.32	0.77	0.3	<1	0.30	4.9
G285194		0.60	0.13	0.05	0.25	>10000	30	<0.05	0.02	0.12	<0.02	2.99	0.5	2	1.20	5.1

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

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To: **ATAC RESOURCES LTD.**
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1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Project: RAU TREND(STEN)

Finalized Date: 16-JUL-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10089876

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	Hg-CV41	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
G285185		1.13	1.12	0.06	0.2	>100	0.020	0.16	3.6	14.3	0.64	1670	1.68	0.01	0.7	1.4
G285186		0.71	1.55	0.05	0.5	36.7	0.037	0.23	6.3	15.1	1.11	2150	0.35	0.01	0.9	3.4
G285187		0.79	1.50	<0.05	0.4	7.0	0.168	0.18	3.9	19.0	0.51	935	0.63	0.01	0.7	3.2
G285188		0.08	0.58	<0.05	<0.1	2.83	0.107	0.03	0.7	0.8	0.02	18	0.25	0.01	0.2	0.7
G285189		0.98	1.65	0.07	0.2	17.5	0.027	0.22	1.9	25.1	0.57	1160	0.58	0.01	0.8	2.1
G285190		0.63	2.81	0.05	0.7	6.02	0.007	0.34	4.5	33.2	0.09	85	0.41	0.01	1.6	1.0
G285191		0.69	3.10	0.07	0.6	10.1	0.008	0.45	4.8	23.4	0.89	2710	0.65	0.01	1.3	4.6
G285192		1.22	1.12	0.05	0.2	10.9	0.012	0.10	2.0	9.9	6.98	5190	0.32	0.01	0.4	3.2
G285193		0.05	0.73	<0.05	<0.1	8.88	0.076	0.03	0.5	1.3	0.07	55	0.08	0.01	0.2	1.5
G285194		0.09	1.26	<0.05	0.2	0.73	0.141	0.12	1.6	1.6	0.06	44	0.35	0.01	0.5	1.8

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1016-510 W HASTINGS ST
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Project: RAU TREND(STEN)

Finalized Date: 16-JUL-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10089876

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
G285185		350	3.5	6.5	<0.002	0.51	11.05	0.6	2	0.5	98.9	<0.05	<0.05	0.6	0.014	93.5
G285186		350	8.8	9.3	<0.002	0.38	4.99	0.9	3	0.5	102.5	0.05	<0.05	1.0	0.021	49.9
G285187		150	4.5	7.9	<0.002	>10.0	427	1.6	4	2.1	71.9	<0.05	<0.05	0.7	0.017	18.55
G285188		10	1.7	1.5	<0.002	>10.0	1165	1.0	4	1.9	2.1	<0.05	0.22	0.2	<0.005	1.51
G285189		100	4.4	10.4	<0.002	0.67	54.4	1.2	3	0.3	97.3	0.05	0.06	0.9	0.019	39.4
G285190		170	4.6	16.3	<0.002	0.06	37.2	0.9	2	0.4	40.4	0.11	<0.05	1.8	0.045	7.79
G285191		480	5.6	21.0	<0.002	0.18	34.3	2.8	3	0.3	61.1	0.10	<0.05	1.3	0.034	33.3
G285192		120	5.1	4.5	<0.002	0.29	21.5	5.0	2	0.2	103.5	<0.05	<0.05	1.3	0.007	17.95
G285193		<10	2.0	1.5	<0.002	>10.0	1060	1.0	4	2.0	9.7	<0.05	0.14	0.2	<0.005	1.81
G285194		40	1.1	5.2	<0.002	>10.0	317	1.1	10	4.7	10.5	<0.05	<0.05	0.5	0.013	3.14

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Project: RAU TREND(STEN)

Finalized Date: 16-JUL-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10089876

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	As-OG62	Hg-CV42
	Analyte	U	V	W	Y	Zn	Zr	As	Hg
	Units	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	0.1	1	0.1	0.1	2	0.5	0.001	1
G285185		5.2	7	2.2	4.4	46	7.8		109
G285186		8.3	11	1.9	4.7	100	15.5		
G285187		2.0	6	0.2	1.8	84	9.9	24.3	
G285188		0.1	1	<0.1	0.2	32	0.7	>30.0	
G285189		7.5	9	0.9	4.2	32	6.7	2.11	
G285190		5.9	37	1.4	1.3	18	17.5		
G285191		13.0	24	1.5	4.5	14	15.9		
G285192		3.5	12	0.3	11.8	37	4.3	1.125	
G285193		0.3	1	<0.1	0.3	36	0.7	>30.0	
G285194		0.7	4	0.2	0.6	9	3.9	>30.0	

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Project: RAU TREND(STEN)

Finalized Date: 16-JUL-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10089876

Method	CERTIFICATE COMMENTS
ME-MS61	Interference: Ca>10% on ICP-MS As,ICP-AES results shown.
ME-MS61	REE's may not be totally soluble in this method.
Hg-CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.
Hg-CV42	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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Finalized Date: 5-AUG-2010
Account: RCM

CERTIFICATE VA10100191

Project: RAU

P.O. No.: STEN

This report is for 1 Rock sample submitted to our lab in Vancouver, BC, Canada on 24-JUL-2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME-MS61	48 element four acid ICP-MS	
Hg-CV41	Trace Hg - cold vapor/AAS	FIMS
ME-OG62	Ore Grade Elements - Four Acid	ICP-AES
As-OG62	Ore Grade As - Four Acid	VARIABLE
Au-AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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VANCOUVER BC V6B 1L8

Project: RAU

Finalized Date: 5-AUG-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10100191

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA26 Au ppm 0.01	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Be ppm 0.05	ME-MS61 Bi ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Ce ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05	ME-MS61 Cu ppm 0.2
G285255		0.22	4.66	0.60	0.37	>10000	220	0.12	0.06	0.29	0.36	8.00	4.0	3	0.52	22.2

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

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Project: RAU

Finalized Date: 5-AUG-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10100191

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	Hg-CV41	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
G285255		44.0	1.24	0.66	0.2	34.9	0.023	0.13	4.9	0.8	0.20	274	176.5	0.01	0.9	6.5

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

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VANCOUVER BC V6B 1L8

Project: RAU

Finalized Date: 5-AUG-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10100191

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
G285255		1460	287	7.4	<0.002	0.15	10.00	0.4	2	0.4	243	<0.05	0.16	0.9	0.008	42.4

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VANCOUVER BC V6B 1L8

Project: RAU

Finalized Date: 5-AUG-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10100191

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	As-OG62
	Analyte	U	V	W	Y	Zn	Zr	As
	Units	ppm	ppm	ppm	ppm	ppm	ppm	%
	LOR	0.1	1	0.1	0.1	2	0.5	0.001
G285255		4.0	7	1.7	4.2	1040	8.6	1.125

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Project: RAU

Finalized Date: 5-AUG-2010
Account: RCM

CERTIFICATE OF ANALYSIS VA10100191

Method	CERTIFICATE COMMENTS
ME-MS61	REE's may not be totally soluble in this method.
Hg-CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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To: **ATAC RESOURCES LTD.**
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Finalized Date: 10- AUG- 2010
Account: RCM

CERTIFICATE VA10108305

Project: RAU

P.O. No.: OSIRIS

This report is for 4 Rock samples submitted to our lab in Vancouver, BC, Canada on 6- AUG- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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Finalized Date: 10- AUG- 2010
Account: RCM

Project: RAU

CERTIFICATE OF ANALYSIS VA10108305

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
G285256		0.16	<0.01	3.10	0.29	53.5	3850	0.21	0.08	0.71	5.83	3.30	1.8	10	0.12	110.0
G285257		0.22	<0.01	0.88	0.17	25.2	180	0.09	0.05	0.84	1.73	3.19	2.7	20	0.45	26.4
G285258		0.12	<0.01	1.18	0.50	122	630	0.33	0.10	13.50	4.07	19.20	2.6	15	0.68	31.0
G285259		0.18	<0.01	4.86	0.19	131.0	260	0.32	0.05	1.61	4.87	7.08	12.8	17	0.38	112.5

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Finalized Date: 10- AUG- 2010
Account: RCM

Project: RAU

CERTIFICATE OF ANALYSIS VA10108305

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
G285256		47.8	0.75	0.68	0.1	0.7	<0.005	0.04	6.1	0.3	0.15	<5	21.2	0.06	0.5	95.8
G285257		6.40	0.56	0.09	0.1	0.15	<0.005	0.04	4.4	3.3	0.06	50	56.8	0.02	0.4	247
G285258		25.8	1.45	0.28	0.2	1.7	<0.005	0.18	19.7	2.2	0.39	16	60.9	0.03	0.9	77.8
G285259		28.5	1.65	0.46	0.2	0.7	0.008	0.06	12.1	1.7	0.08	16	177.0	0.01	0.5	1665

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CERTIFICATE OF ANALYSIS VA10108305

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
G285256		740	20.7	1.9	0.024	0.26	22.6	0.5	18	<0.2	30.1	<0.05	0.16	0.3	0.007	4.61
G285257		540	5.5	1.9	0.011	0.10	7.87	0.2	12	<0.2	16.7	<0.05	0.13	0.2	0.008	1.76
G285258		430	28.0	8.2	0.007	0.51	39.5	2.1	13	0.3	101.0	0.05	<0.05	0.8	0.021	2.77
G285259		900	7.6	2.9	0.067	0.29	47.8	1.7	41	0.2	26.8	<0.05	0.29	0.4	0.009	16.60

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 10- AUG- 2010
Account: RCM

Project: RAU

CERTIFICATE OF ANALYSIS VA10108305

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	U	V	W	Y	Zn	Zr
	Units	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.1	1	0.1	0.1	2	0.5
G285256		9.4	156	0.2	9.6	165	4.5
G285257		3.1	149	0.2	6.8	731	4.9
G285258		15.3	165	0.2	17.7	169	8.0
G285259		14.4	1250	0.5	20.5	3830	7.2

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

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Finalized Date: 10- AUG- 2010
Account: RCM

Project: RAU

CERTIFICATE OF ANALYSIS VA10108305

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- AUG- 2010
Account: RCM

CERTIFICATE VA10111430

Project: Sten- Osiris

P.O. No.:

This report is for 7 Rock samples submitted to our lab in Vancouver, BC, Canada on 12- AUG- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111430

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J980103		0.30	0.88	0.12	0.77	347	840	0.22	0.04	30.4	0.17	10.50	3.0	9	0.55	7.3
J980104		1.42	2.51	0.14	0.69	470	240	0.26	0.02	26.3	0.17	9.82	2.2	8	0.54	5.8
J980105		0.06	0.04	0.23	0.97	1530	170	0.85	0.06	0.38	0.33	36.3	2.8	36	1.77	19.2
J980106		1.10	6.36	1.65	1.35	3960	260	0.30	0.03	6.21	0.09	13.95	2.3	10	1.57	4.4
J980107		0.30	0.02	0.05	1.15	58	4090	0.57	0.04	25.5	0.26	30.5	3.9	15	1.29	29.9
J980108		0.08	0.06	0.06	0.78	90.7	140	0.32	0.04	0.33	0.04	32.6	2.0	9	0.95	6.4
J980109		1.40	<0.01	0.15	6.93	2410	390	2.03	0.30	1.80	0.22	91.0	16.6	67	24.2	36.0

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

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C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111430

Sample Description	Method / Analyte / Units / LOR	ME- MS61 Fe % 0.01	ME- MS61 Ga ppm 0.05	ME- MS61 Ge ppm 0.05	ME- MS61 Hf ppm 0.1	Hg- CV41 Hg ppm 0.01	ME- MS61 In ppm 0.005	ME- MS61 K % 0.01	ME- MS61 La ppm 0.5	ME- MS61 Li ppm 0.2	ME- MS61 Mg % 0.01	ME- MS61 Mn ppm 5	ME- MS61 Mo ppm 0.05	ME- MS61 Na % 0.01	ME- MS61 Nb ppm 0.1	ME- MS61 Ni ppm 0.2
J980103		0.73	1.81	<0.05	0.4	5.15	0.011	0.31	6.7	3.6	2.29	480	0.40	0.02	1.1	6.0
J980104		0.84	1.76	<0.05	0.4	3.95	0.008	0.27	5.5	6.5	1.06	982	0.24	0.01	1.0	5.0
J980105		>50	3.03	2.46	0.5	NSS	0.011	0.10	17.4	5.7	0.42	247	6.29	0.01	2.2	33.3
J980106		0.84	3.16	<0.05	1.4	1.88	0.007	0.54	7.6	13.8	3.48	632	0.37	0.01	1.6	4.2
J980107		2.00	3.09	0.06	0.7	0.17	0.011	0.28	15.5	10.3	0.97	714	0.35	0.03	1.7	11.4
J980108		3.37	2.47	0.07	0.4	0.06	0.008	0.21	14.8	31.2	0.10	1640	0.39	0.02	1.1	6.9
J980109		3.93	18.80	0.12	3.9	0.19	0.071	3.27	46.9	21.7	1.13	146	0.93	0.03	11.4	48.5

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

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VANCOUVER BC V6B 1L8

Finalized Date: 17- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111430

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J980103		480	8.6	10.4	<0.002	0.02	2.82	1.9	1	0.3	622	0.07	<0.05	1.7	0.030	0.74
J980104		290	8.0	10.0	<0.002	<0.01	6.18	2.1	1	0.3	573	0.07	<0.05	1.4	0.027	1.15
J980105		1440	8.5	5.8	<0.002	0.01	1.14	5.4	10	0.4	1600	0.11	0.06	4.2	0.046	6.11
J980106		350	8.1	24.0	<0.002	0.01	4.85	2.5	2	0.4	112.5	0.12	<0.05	2.2	0.043	2.44
J980107		170	5.8	15.0	<0.002	0.13	0.22	2.4	2	0.4	919	0.12	<0.05	2.5	0.044	1.79
J980108		630	5.9	12.6	<0.002	0.01	0.58	2.2	2	0.3	27.8	0.07	<0.05	1.9	0.034	0.16
J980109		570	35.2	123.5	<0.002	3.12	0.80	10.2	2	2.1	121.0	0.85	0.05	15.7	0.375	1.86

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

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1016- 510 W HASTINGS ST
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Finalized Date: 17- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111430

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5
J980103		19.6	18	0.9	3.7	25	17.2
J980104		15.3	18	1.7	6.2	34	14.4
J980105		18.2	72	2.4	19.0	38	32.9
J980106		2.7	23	0.7	4.6	10	45.6
J980107		4.0	28	0.6	13.6	36	27.2
J980108		0.8	10	0.2	10.0	25	15.9
J980109		48.8	86	3.1	17.3	166	121.0

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

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VANCOUVER BC V6B 1L8

Finalized Date: 17- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111430

Method	CERTIFICATE COMMENTS
ALL METHODS	NSS is non- sufficient sample.
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.

ALS Canada Ltd.

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 19- AUG- 2010
Account: RCM

CERTIFICATE VA10111431

Project: Sten- Osiris

P.O. No.:

This report is for 2 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- AUG- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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

To: **ATAC RESOURCES LTD.**
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Finalized Date: 19- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111431

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J998302		9.96	0.21	0.06	3.44	1180	160	1.24	0.21	10.55	0.09	46.0	18.6	36	13.40	14.4
J998303		5.80	2.91	0.24	4.37	>10000	190	1.18	0.13	9.39	0.28	50.9	9.5	49	13.70	25.3

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

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VANCOUVER BC V6B 1L8

Finalized Date: 19- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111431

Sample Description	Method Analyte Units LOR	ME- MS61 Fe % 0.01	ME- MS61 Ga ppm 0.05	ME- MS61 Ge ppm 0.05	ME- MS61 Hf ppm 0.1	Hg- CV41 Hg ppm 0.01	ME- MS61 In ppm 0.005	ME- MS61 K % 0.01	ME- MS61 La ppm 0.5	ME- MS61 Li ppm 0.2	ME- MS61 Mg % 0.01	ME- MS61 Mn ppm 5	ME- MS61 Mo ppm 0.05	ME- MS61 Na % 0.01	ME- MS61 Nb ppm 0.1	ME- MS61 Ni ppm 0.2
J998302		1.46	9.20	0.14	3.4	2.31	0.029	1.67	22.4	20.8	5.09	829	1.95	0.03	6.7	27.1
J998303		1.47	11.70	0.15	3.7	14.4	0.030	1.96	26.3	25.1	3.40	1000	0.83	0.02	7.7	19.9

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

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 19- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111431

Sample Description	Method Analyte Units LOR	ME- MS61 P ppm 10	ME- MS61 Pb ppm 0.5	ME- MS61 Rb ppm 0.1	ME- MS61 Re ppm 0.002	ME- MS61 S % 0.01	ME- MS61 Sb ppm 0.05	ME- MS61 Sc ppm 0.1	ME- MS61 Se ppm 1	ME- MS61 Sn ppm 0.2	ME- MS61 Sr ppm 0.2	ME- MS61 Ta ppm 0.05	ME- MS61 Te ppm 0.05	ME- MS61 Th ppm 0.2	ME- MS61 Ti % 0.005	ME- MS61 Tl ppm 0.02
J998302		590	11.5	60.6	<0.002	0.35	4.03	5.7	2	1.3	166.5	0.48	0.17	9.5	0.168	9.45
J998303		670	10.9	78.2	0.002	1.39	56.1	7.0	4	1.5	212	0.61	0.07	12.0	0.207	55.8

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

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VANCOUVER BC V6B 1L8

Finalized Date: 19- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111431

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
J998302		3.7	53	4.2	15.8	19	119.0	
J998303		8.4	73	5.4	15.9	36	126.0	1.355

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

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Finalized Date: 19- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111431

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

ALS Canada Ltd.

2103 Dollarton Hwy
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To: **ATAC RESOURCES LTD.**
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Finalized Date: 20- AUG- 2010
Account: RCM

CERTIFICATE VA10111435

Project: Sten- Osiris

P.O. No.: BATCH 1

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- AUG- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Hg- CV42	High Grade Hg - cold vapor/AA	FIMS
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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

To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 20- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111435

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J998339		1.62	16.55	0.88	5.72	>10000	370	1.39	0.14	2.01	0.67	90.0	11.5	71	14.80	33.6
J998340		1.64	10.95	0.52	2.63	>10000	370	0.58	0.09	1.32	0.84	50.1	7.9	43	7.44	18.6
J998341		7.70	0.02	0.01	0.07	140	30	<0.05	0.05	20.9	0.07	1.62	2.5	1	0.25	2.4
J998342		1.80	15.70	1.08	4.49	>10000	470	1.01	0.12	1.67	0.89	85.3	9.0	59	14.40	38.0
J998343		1.90	14.10	0.59	3.94	>10000	310	0.92	0.10	2.52	0.73	54.6	7.6	51	10.95	27.9
J998344		1.26	14.50	0.31	4.13	>10000	400	1.01	0.10	2.18	0.77	47.8	6.3	53	12.15	27.3
J998345		0.92	19.05	0.53	4.27	>10000	370	0.96	0.12	1.37	0.92	45.5	9.5	57	13.00	31.8
J998346		2.04	29.5	1.99	3.43	>10000	310	0.68	0.10	0.75	2.53	32.8	7.9	45	8.54	30.2
J998347		1.86	39.8	5.80	2.19	>10000	200	0.41	0.10	1.93	3.17	32.3	4.1	33	5.12	32.2
J998348		0.18	NSS	11.10	3.82	594	760	0.83	0.05	0.18	0.10	17.40	8.7	41	6.34	48.8
J998349		1.60	28.4	3.73	2.01	>10000	240	0.35	0.07	3.47	2.15	24.2	3.2	29	4.49	26.5
J998350		1.10	39.0	5.44	1.65	>10000	250	0.29	0.07	2.76	2.31	19.20	2.7	29	3.64	25.1
J998351		1.40	16.85	2.19	1.38	>10000	250	0.24	0.04	1.16	1.33	15.40	2.5	21	3.43	17.0
J998352		1.78	16.05	1.99	1.48	>10000	240	0.29	0.06	1.54	1.59	15.45	3.0	20	4.12	17.6
J998353		1.46	13.70	1.68	2.15	>10000	290	0.45	0.08	1.82	1.29	21.8	3.7	28	5.99	22.1
J998354		0.62	13.40	1.65	2.19	>10000	280	0.48	0.08	2.17	1.33	22.7	3.5	30	5.75	21.9
J998355		6.14	15.10	2.18	2.57	>10000	120	0.55	0.09	5.19	1.04	33.5	5.3	35	7.39	23.3
J998356		5.42	13.65	1.94	1.98	>10000	390	0.40	0.06	3.80	1.07	21.1	3.5	26	5.37	17.7
J998357		7.50	0.04	0.03	0.07	149	20	0.09	0.01	20.9	0.09	1.24	1.1	2	0.20	3.5
J998358		8.36	1.80	0.67	2.03	1580	310	0.46	0.05	20.0	0.24	23.8	4.0	27	5.65	14.3
J998359		8.42	0.56	0.34	1.90	351	190	0.47	0.05	27.6	0.11	20.9	3.6	22	5.66	13.5
J998360		5.98	0.41	0.11	0.94	316	90	0.32	0.03	32.6	0.11	11.25	1.7	12	2.33	7.1
J998361		7.54	5.02	0.61	2.10	>10000	220	0.46	0.07	10.05	0.29	14.80	3.7	26	4.33	15.1
J998362		6.48	3.60	0.72	2.14	>10000	220	0.52	0.06	12.10	0.52	19.65	4.0	26	6.03	19.4
J998363		3.96	4.37	0.35	0.57	>10000	60	0.20	0.02	15.30	0.36	10.35	1.5	7	1.27	6.4
J998364		0.28	1.52	1.77	0.11	>10000	30	<0.05	339	12.20	0.94	55.0	1.6	7	0.76	16.8
J998365		9.58	0.17	0.24	1.51	4070	150	0.44	0.47	19.05	0.04	18.40	2.7	15	4.24	11.9
J998366		10.14	0.33	0.37	0.76	4860	40	0.24	0.09	21.2	0.05	10.80	2.2	9	1.67	6.3
J998367		10.34	0.36	0.16	0.46	1550	20	0.20	0.04	20.4	0.09	7.43	1.4	6	1.03	4.0
J998368		3.96	0.21	0.13	0.37	693	30	0.20	0.03	22.1	0.07	6.52	1.4	5	0.89	3.9
J998369		3.74	0.18	0.12	0.37	2780	40	0.18	0.02	25.8	0.03	6.14	1.3	4	0.81	4.0
J998370		3.90	0.28	0.30	0.99	>10000	120	0.33	0.03	18.10	0.07	11.90	2.3	11	2.26	8.2
J998371		5.22	0.29	0.58	1.94	1060	160	0.53	0.05	21.2	0.26	18.95	3.5	16	5.49	16.6
J998372		5.96	0.36	0.39	2.60	6390	220	0.73	0.07	15.60	0.13	29.7	4.9	24	7.58	26.0
J998300		4.50	0.02	0.03	1.94	1040	120	0.61	0.06	20.4	0.07	22.8	3.4	17	6.06	9.9
J998301		8.72	0.04	0.04	5.42	1430	270	1.69	0.10	8.41	0.09	53.3	7.8	50	19.70	27.2

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

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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 20- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111435

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J998339		2.06	16.25	0.22	4.3	73.1	0.045	2.73	43.2	35.4	1.26	546	1.51	0.02	11.0	29.9
J998340		1.51	7.29	0.15	2.6	63.6	0.043	1.23	25.3	23.0	0.52	371	0.68	0.01	5.6	17.9
J998341		0.46	0.26	0.05	<0.1	0.10	0.005	0.03	0.7	1.1	12.40	271	0.24	0.01	0.4	3.6
J998342		2.07	12.35	0.50	3.8	79.1	0.035	2.10	45.3	29.7	0.98	387	0.82	0.01	7.7	22.5
J998343		1.87	10.55	0.15	3.4	66.4	0.044	1.87	27.5	26.4	1.40	585	0.56	0.01	6.9	18.7
J998344		1.89	10.95	0.14	3.5	66.0	0.035	1.94	24.4	31.2	1.29	567	0.62	0.01	7.0	17.4
J998345		1.98	11.65	0.14	3.1	89.6	0.039	1.99	24.1	30.8	0.91	369	0.71	0.01	7.1	23.3
J998346		2.34	9.72	0.13	2.1	>100	0.045	1.56	17.9	25.4	0.29	64	1.01	0.01	5.5	18.8
J998347		2.62	6.12	0.13	1.1	>100	0.046	1.01	19.0	21.9	0.22	85	1.15	0.01	3.6	11.1
J998348		3.25	7.92	0.19	1.9	0.29	0.032	3.12	9.2	48.7	0.17	148	5.48	0.08	6.8	19.0
J998349		2.25	5.46	0.11	1.1	>100	0.028	0.93	13.7	21.5	0.34	289	1.13	0.01	3.0	9.1
J998350		2.31	4.69	0.11	1.0	>100	0.035	0.75	12.1	22.9	0.23	92	1.58	0.01	2.7	9.4
J998351		1.47	3.75	0.09	0.8	75.9	0.021	0.60	9.6	28.2	0.16	93	1.13	0.01	2.0	7.0
J998352		1.27	4.11	0.09	0.8	80.3	0.033	0.66	9.7	26.4	0.14	80	0.77	<0.01	2.4	8.0
J998353		1.09	6.01	0.11	1.0	57.0	0.038	0.98	12.3	27.3	0.22	41	0.59	0.01	3.4	11.5
J998354		1.22	6.01	0.11	0.9	58.8	0.042	1.01	12.7	25.5	0.22	65	0.59	<0.01	3.4	11.6
J998355		1.55	7.11	0.28	2.0	61.0	0.070	1.19	19.5	24.4	1.92	794	1.13	0.01	4.1	15.3
J998356		1.54	5.14	0.09	1.4	81.0	0.025	0.91	12.1	26.0	1.11	416	0.86	0.01	3.4	8.9
J998357		0.59	0.52	0.19	<0.1	0.06	<0.005	0.03	0.6	1.1	12.45	244	0.18	<0.01	0.3	2.2
J998358		0.78	5.19	0.08	1.7	20.3	0.015	0.97	14.5	12.4	1.49	1400	0.92	0.01	3.8	8.3
J998359		0.57	4.81	0.08	1.3	6.13	0.014	0.87	12.7	11.5	1.11	720	0.80	0.01	3.6	7.4
J998360		0.33	2.60	0.06	0.7	3.82	0.011	0.46	7.0	4.3	0.84	1480	0.67	0.01	1.8	3.3
J998361		1.11	5.59	0.08	1.4	11.40	0.020	0.93	9.5	19.5	1.57	1500	1.22	0.01	3.4	10.2
J998362		0.87	5.87	0.09	1.5	7.04	0.023	0.95	12.0	16.3	4.50	1960	1.25	0.01	3.9	9.0
J998363		0.60	1.96	0.06	0.4	6.07	0.024	0.24	6.1	7.6	6.56	4450	0.52	<0.01	1.0	3.0
J998364		16.55	0.98	0.28	0.1	0.05	0.087	0.07	34.6	2.1	6.82	2250	5.79	<0.01	0.7	6.8
J998365		0.67	3.92	0.07	1.1	3.08	0.013	0.68	11.9	9.2	8.60	1920	0.79	0.01	2.8	5.8
J998366		0.49	2.42	0.07	0.5	2.0	0.008	0.34	6.4	4.6	9.74	4920	0.72	0.01	1.4	4.5
J998367		0.23	1.37	0.06	0.3	1.3	0.005	0.21	4.6	3.9	10.70	1380	0.35	0.01	0.9	2.6
J998368		0.28	1.22	0.07	0.2	1.1	0.005	0.17	4.4	2.7	10.05	2140	0.37	0.01	0.7	2.5
J998369		0.23	1.49	0.06	0.2	1.4	0.008	0.17	4.3	2.3	7.37	4550	0.84	0.01	0.8	2.2
J998370		0.46	2.84	0.08	0.7	2.5	0.016	0.46	7.1	6.4	10.05	898	1.53	0.01	1.8	5.0
J998371		0.79	5.63	0.08	1.3	2.8	0.021	0.91	10.6	11.6	4.75	8240	2.21	0.01	3.3	8.9
J998372		1.12	7.27	0.10	1.8	5.3	0.023	1.22	14.9	16.7	6.29	3310	2.34	0.02	4.6	12.6
J998300		0.58	5.23	0.07	1.2	0.7	0.014	0.90	15.0	12.4	5.99	270	0.32	0.01	3.4	5.8
J998301		1.31	14.20	0.12	3.6	1.9	0.034	2.65	27.6	33.6	4.25	199	0.51	0.03	9.3	16.3

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

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 20- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111435

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J998339		870	11.5	114.0	0.003	2.47	154.0	6.0	3	2.2	257	0.81	0.09	14.3	0.279	238
J998340		770	7.8	47.7	0.003	3.46	163.0	2.3	3	1.2	173.5	0.39	0.10	7.9	0.134	208
J998341		180	1.7	1.8	<0.002	0.02	0.39	0.2	1	<0.2	42.5	<0.05	<0.05	<0.2	<0.005	0.53
J998342		960	12.1	102.5	<0.002	3.02	180.5	4.4	3	3.2	261	0.61	0.10	13.9	0.219	283
J998343		760	10.0	71.2	<0.002	2.96	176.0	4.5	3	1.6	187.5	0.53	0.09	10.4	0.186	230
J998344		690	13.0	76.5	0.002	2.23	165.0	4.6	3	1.6	223	0.55	0.09	10.9	0.192	229
J998345		630	13.3	81.8	0.003	2.76	219	3.6	3	1.7	197.5	0.55	0.18	10.8	0.193	313
J998346		430	13.4	65.6	0.004	4.12	412	1.9	3	1.8	161.0	0.44	0.27	7.6	0.152	610
J998347		490	21.8	40.9	0.004	3.99	434	1.2	3	1.8	124.5	0.28	0.31	5.2	0.094	710
J998348		520	5.3	115.0	0.002	2.36	44.1	7.1	17	2.6	76.7	0.46	0.11	1.7	0.300	4.99
J998349		590	15.9	36.1	0.003	2.69	324	1.5	3	1.4	140.5	0.24	0.21	5.3	0.083	510
J998350		640	16.7	30.9	0.004	3.06	394	0.9	4	1.5	120.5	0.21	0.23	4.5	0.070	630
J998351		400	9.5	24.2	0.002	1.67	162.5	0.7	3	0.9	118.0	0.16	0.13	3.1	0.055	226
J998352		300	9.2	27.9	0.004	3.04	195.5	0.8	3	0.9	118.5	0.18	0.14	3.3	0.061	228
J998353		430	8.1	42.4	0.003	3.92	175.5	1.4	3	1.0	198.0	0.27	0.12	4.5	0.087	148.0
J998354		460	8.0	41.7	0.002	4.13	178.5	1.3	3	1.0	213	0.26	0.12	4.6	0.088	158.5
J998355		450	11.4	61.5	0.004	6.76	250	3.6	4	2.3	208	0.32	0.05	7.1	0.113	184.5
J998356		490	10.0	35.8	0.002	2.13	153.5	1.6	3	1.0	202	0.25	0.09	5.6	0.087	226
J998357		200	1.5	1.7	<0.002	0.02	0.72	0.6	2	0.7	40.0	<0.05	<0.05	<0.2	<0.005	0.79
J998358		680	8.6	36.1	0.003	0.70	32.1	3.6	3	0.8	351	0.27	<0.05	5.2	0.093	53.6
J998359		440	7.2	30.7	0.003	0.44	12.20	2.9	3	0.6	470	0.25	<0.05	4.7	0.085	22.0
J998360		200	4.7	21.2	0.003	0.33	6.23	1.6	2	0.4	521	0.12	<0.05	2.4	0.043	11.00
J998361		590	14.0	36.7	0.003	2.09	47.6	2.9	2	0.7	203	0.24	<0.05	4.9	0.088	31.6
J998362		500	10.1	36.5	0.004	2.49	53.7	3.6	2	0.7	180.5	0.28	<0.05	5.4	0.096	18.90
J998363		300	5.2	13.0	0.002	2.98	85.3	3.5	2	0.2	75.4	0.07	<0.05	1.8	0.022	15.75
J998364		120	14.5	8.8	0.005	>10.0	22.6	0.4	5	1.2	88.5	<0.05	0.80	0.6	0.008	0.13
J998365		320	6.4	30.5	0.002	0.66	47.2	2.8	2	0.5	194.5	0.20	<0.05	3.7	0.066	18.05
J998366		150	6.0	14.9	0.002	0.75	18.80	1.5	2	0.3	87.3	0.10	<0.05	1.9	0.033	5.37
J998367		70	3.9	9.2	<0.002	0.28	6.88	1.2	2	0.2	81.5	0.06	<0.05	1.0	0.018	2.20
J998368		100	3.9	7.2	0.002	0.25	2.98	0.9	2	0.2	93.2	0.05	<0.05	0.8	0.015	1.60
J998369		140	3.1	7.5	0.002	0.37	5.39	0.8	1	0.2	98.1	<0.05	<0.05	0.9	0.014	2.72
J998370		330	6.1	19.9	0.007	1.69	20.7	1.5	2	0.4	128.0	0.13	<0.05	2.4	0.042	3.43
J998371		590	11.3	28.4	0.003	0.75	5.69	3.3	3	0.7	121.0	0.26	<0.05	4.9	0.083	4.32
J998372		910	13.5	40.7	0.002	1.21	9.98	4.4	2	0.9	104.5	0.36	<0.05	6.8	0.115	6.60
J998300		290	5.1	37.4	<0.002	0.07	3.04	3.2	2	1.2	245	0.22	<0.05	4.1	0.082	2.36
J998301		830	9.9	90.1	<0.002	0.09	4.77	8.7	2	1.7	116.0	0.67	<0.05	12.3	0.243	5.96

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CERTIFICATE OF ANALYSIS VA10111435

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	As- OG62	Hg- CV42
	Analyte	U	V	W	Y	Zn	Zr	As	Hg
	Units	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	0.1	1	0.1	0.1	2	0.5	0.001	1
J998339		9.7	104	7.0	14.6	70	148.5	2.61	
J998340		9.1	50	3.6	9.7	80	89.0	5.72	
J998341		0.3	3	0.1	0.9	16	0.7		
J998342		16.7	73	5.3	13.7	72	129.0	3.80	
J998343		11.6	64	4.6	11.9	72	119.0	4.11	
J998344		11.4	67	4.9	11.3	90	119.5	2.63	
J998345		16.9	76	6.1	9.5	87	103.0	3.02	
J998346		19.4	66	7.9	8.8	254	66.0	4.81	164
J998347		20.9	79	11.1	20.2	261	36.5	3.20	210
J998348		0.7	57	11.9	10.8	46	72.7		
J998349		23.4	82	8.4	26.0	167	34.9	1.400	160
J998350		19.5	73	9.3	32.8	160	31.6	1.975	192
J998351		15.0	54	5.1	11.4	129	25.2	1.350	
J998352		22.1	40	3.9	9.8	146	25.6	4.49	
J998353		22.8	58	5.0	14.5	123	31.7	6.38	
J998354		23.6	60	5.0	15.8	128	29.6	6.96	
J998355		20.7	57	4.6	22.9	92	64.2	11.60	
J998356		16.4	49	4.7	23.4	87	46.0	2.03	
J998357		0.5	3	0.1	0.8	14	<0.5		
J998358		19.0	61	2.3	13.8	17	58.5		
J998359		15.4	47	1.8	8.9	10	46.7		
J998360		19.1	21	1.1	7.7	11	26.7		
J998361		20.6	42	2.8	6.1	26	46.0	2.09	
J998362		21.8	47	2.7	6.7	95	48.6	3.37	
J998363		11.4	21	0.9	8.8	31	15.5	5.07	
J998364		1.0	7	210	7.4	136	3.3	2.60	
J998365		13.7	32	1.9	7.4	6	38.4		
J998366		13.6	18	1.2	3.9	5	18.4		
J998367		11.3	10	0.6	2.7	12	8.5		
J998368		12.9	12	0.6	2.7	7	5.8		
J998369		20.5	16	0.7	3.4	3	7.2		
J998370		16.0	40	1.1	4.4	7	23.1	2.72	
J998371		12.9	61	1.9	8.2	39	41.6		
J998372		12.0	47	2.7	12.6	23	60.8		
J998300		6.2	34	1.5	8.8	29	49.8		
J998301		6.0	80	5.9	18.0	38	134.5		

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 20- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10111435

Method	CERTIFICATE COMMENTS
ALL METHODS	NSS is non- sufficient sample.
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.
Hg- CV42	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 27- AUG- 2010
Account: RCM

CERTIFICATE VA10115244

Project: Sten- Osiris

P.O. No.: BATCH 1

This report is for 36 Other samples submitted to our lab in Vancouver, BC, Canada on 18- AUG- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND- 03	Find Reject for Addn Analysis
LOG- 24	Pulp Login - Rcd w/o Barcode
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Hg- CV42	High Grade Hg - cold vapor/AA	FIMS
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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To: **ATAC RESOURCES LTD.**
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VANCOUVER BC V6B 1L8

Finalized Date: 27- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10115244

Sample Description	Method	Au- AA26	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%
	LOR	0.01	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01
J998339		13.30	0.85	5.48	>10000	360	1.13	0.14	1.94	0.60	102.0	9.7	66	16.40	31.8	2.10
J998340		12.25	0.49	2.49	>10000	350	0.43	0.07	1.32	0.78	56.3	4.9	38	6.56	15.4	1.31
J998341		0.02	0.01	0.08	1050	30	<0.05	0.02	21.0	0.07	1.45	1.6	2	0.24	2.3	0.48
J998342		15.60	0.95	4.20	>10000	400	0.87	0.11	1.73	0.73	89.5	7.9	53	12.80	30.1	1.96
J998343		14.70	0.52	3.92	>10000	320	0.78	0.10	2.58	0.67	63.3	6.8	49	10.65	25.7	1.87
J998344		14.30	0.28	3.85	>10000	390	0.77	0.09	2.12	0.72	53.7	5.9	47	10.70	24.4	1.73
J998345		18.40	0.52	4.18	>10000	370	0.80	0.12	1.52	0.83	51.2	8.4	50	12.20	29.2	1.89
J998346		34.6	1.98	3.30	>10000	270	0.55	0.10	0.74	2.24	36.2	7.2	43	7.93	26.0	2.26
J998347		45.9	5.52	2.13	>10000	190	0.30	0.09	1.97	2.85	35.5	3.5	30	4.70	28.3	2.52
J998348		16.25	0.90	2.05	1160	530	0.36	0.57	15.55	0.69	34.2	4.4	38	2.61	66.7	3.78
J998349		35.9	3.55	1.93	>10000	230	0.28	0.07	3.42	2.07	25.8	2.9	27	4.02	23.6	2.13
J998350		46.4	5.43	1.69	>10000	250	0.21	0.07	2.76	2.12	21.2	2.4	26	3.40	23.1	2.33
J998351		17.85	2.04	1.35	>10000	260	0.17	0.04	1.16	1.10	16.15	2.1	19	3.06	14.1	1.20
J998352		18.20	1.90	1.49	>10000	240	0.24	0.06	1.55	1.40	16.45	2.5	21	3.69	14.7	1.20
J998353		14.65	1.62	2.15	>10000	270	0.35	0.08	1.86	1.22	23.5	3.4	28	5.55	19.6	1.27
J998354		14.10	1.59	2.24	>10000	310	0.37	0.09	2.34	1.22	26.6	3.2	29	5.72	19.9	1.15
J998355		14.95	2.04	2.60	>10000	200	0.48	0.07	5.37	0.98	35.1	5.2	32	7.11	19.4	1.50
J998356		14.30	1.95	2.04	>10000	380	0.32	0.07	3.98	1.02	23.9	3.4	26	5.09	16.7	1.46
J998357		0.07	0.01	0.08	152	20	<0.05	0.02	20.6	0.06	1.35	1.4	1	0.19	2.8	0.48
J998358		1.61	0.60	1.86	1260	270	0.38	0.06	20.9	0.19	26.6	4.1	24	4.95	13.3	0.76
J998359		0.57	0.30	1.85	365	180	0.44	0.05	25.1	0.09	23.7	3.9	20	5.49	12.3	0.57
J998360		0.41	0.11	0.92	237	90	0.28	0.03	30.1	0.09	11.65	2.0	10	2.09	6.9	0.34
J998361		5.42	0.57	2.11	>10000	230	0.35	0.07	10.10	0.23	16.75	3.6	25	3.94	13.4	1.11
J998362		3.67	0.68	2.02	>10000	220	0.39	0.06	12.35	0.45	20.5	4.0	23	5.15	16.7	0.86
J998363		4.62	0.32	0.61	>10000	70	0.15	0.02	15.35	0.31	12.50	1.7	7	1.33	6.1	0.61
J998364		2.39	1.73	4.10	272	1270	1.10	0.16	0.42	0.22	60.6	3.8	50	8.24	34.0	1.07
J998365		0.18	0.22	1.56	2940	160	0.39	0.05	18.80	0.04	21.8	3.0	15	4.04	11.3	0.66
J998366		0.32	0.31	0.71	2510	40	0.19	0.02	20.6	0.07	10.90	2.4	7	1.45	5.4	0.48
J998367		0.39	0.18	0.49	1360	30	0.19	0.02	21.3	0.06	8.38	1.8	6	1.08	4.0	0.25
J998368		0.23	0.12	0.39	465	30	0.19	0.01	22.8	0.07	7.47	1.8	5	0.91	4.0	0.27
J998369		0.20	0.11	0.37	2080	40	0.14	0.01	26.0	0.03	6.73	1.6	4	0.78	3.9	0.25
J998370		0.29	0.21	1.04	>10000	130	0.30	0.03	18.90	0.07	13.30	2.7	10	2.25	8.2	0.49
J998371		0.31	0.55	1.92	852	170	0.45	0.05	21.2	0.29	22.0	3.9	17	5.15	15.8	0.81
J998372		0.36	0.38	2.69	4710	210	0.63	0.07	16.15	0.09	35.7	5.4	25	7.46	24.4	1.26
J998300		0.02	0.05	1.86	940	110	0.51	0.04	21.1	0.08	25.2	3.7	19	6.19	9.6	0.59
J998301		0.04	0.09	5.52	1455	280	1.64	0.12	9.00	0.09	62.2	8.5	51	21.2	27.8	1.38

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

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 27- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10115244

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P
	Units	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm
	LOR	0.05	0.05	0.1	1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2	10
J998339		15.70	0.14	3.8	69	0.040	2.70	48.9	32.4	1.25	466	1.34	0.02	10.8	26.8	860
J998340		6.60	0.05	2.3	59	0.037	1.21	28.4	22.5	0.53	250	0.36	0.01	5.4	12.0	780
J998341		0.29	0.07	<0.1	1	0.005	0.06	0.7	1.1	12.75	214	0.08	<0.01	0.4	1.9	180
J998342		11.30	0.10	3.2	71	0.037	2.08	44.3	30.2	1.02	359	0.86	0.01	7.7	18.1	940
J998343		10.80	0.06	3.2	68	0.038	1.96	31.4	28.0	1.47	539	0.47	0.01	7.0	17.2	770
J998344		10.85	0.06	3.1	63	0.031	1.89	27.5	28.8	1.26	509	0.58	0.01	6.7	15.7	690
J998345		11.95	0.07	2.7	82	0.034	2.02	27.2	30.5	0.98	348	0.73	0.01	7.2	19.7	630
J998346		9.34	0.06	1.7	>100	0.047	1.63	19.5	24.9	0.30	44	1.00	0.01	5.2	16.5	430
J998347		5.91	<0.05	1.0	>100	0.044	1.02	20.6	20.5	0.22	58	1.13	0.01	3.3	9.5	470
J998348		4.15	0.06	0.9	9	0.057	0.41	19.9	42.6	0.72	473	13.95	0.01	3.9	22.0	680
J998349		5.19	<0.05	0.9	>100	0.028	0.92	15.5	20.4	0.34	239	1.08	0.01	2.9	8.1	580
J998350		4.51	<0.05	0.9	>100	0.033	0.80	13.0	21.5	0.24	64	1.58	0.01	2.6	6.8	650
J998351		3.42	<0.05	0.6	77	0.018	0.61	9.4	24.7	0.17	54	0.99	0.01	1.9	5.5	400
J998352		3.80	<0.05	0.6	80	0.034	0.68	9.9	24.4	0.15	56	0.74	<0.01	2.2	6.7	310
J998353		5.60	<0.05	0.9	58	0.039	1.02	14.1	27.1	0.23	53	0.63	0.01	3.1	10.0	430
J998354		5.97	<0.05	0.9	58	0.043	1.07	15.7	25.2	0.23	48	0.58	0.01	3.3	9.7	460
J998355		7.18	<0.05	1.7	59	0.059	1.26	19.0	24.9	1.97	778	1.19	0.01	4.3	12.6	450
J998356		5.21	<0.05	1.3	81	0.027	0.96	14.6	26.6	1.18	398	0.87	0.01	3.3	8.5	500
J998357		0.31	0.07	<0.1	2	0.005	0.03	0.7	1.2	12.30	218	0.09	<0.01	0.4	1.8	190
J998358		4.87	<0.05	1.5	19	0.013	0.91	15.5	11.6	1.57	1340	0.97	0.01	3.6	7.1	660
J998359		4.80	<0.05	1.3	7	0.013	0.88	13.5	11.2	1.13	682	0.77	0.01	3.6	6.2	450
J998360		2.69	<0.05	0.7	4	0.009	0.45	7.1	3.7	0.83	1480	0.74	0.01	1.9	2.3	190
J998361		5.45	<0.05	1.3	11	0.017	0.96	9.7	18.1	1.70	1520	1.31	0.02	3.5	8.9	610
J998362		5.42	<0.05	1.3	7	0.023	0.93	11.8	14.6	4.53	1960	1.15	0.01	3.6	7.6	490
J998363		2.13	<0.05	0.4	6	0.023	0.27	7.4	7.1	6.70	4300	0.53	<0.01	1.1	2.4	310
J998364		10.60	0.08	2.3	1	0.040	1.37	29.7	32.6	0.22	31	26.2	0.06	6.8	22.1	480
J998365		4.22	<0.05	1.1	3	0.012	0.72	12.6	8.5	8.48	1920	0.77	0.01	2.9	6.2	340
J998366		2.39	<0.05	0.5	1	0.008	0.33	6.3	4.1	9.53	4640	0.71	0.01	1.4	3.9	140
J998367		1.64	0.10	0.3	1	0.007	0.23	5.1	3.6	11.45	1480	0.39	0.01	1.0	2.3	80
J998368		1.55	0.11	0.2	1	0.005	0.18	5.0	2.6	10.80	2180	0.41	0.01	0.9	2.9	110
J998369		1.78	0.05	0.2	1	0.006	0.17	4.6	2.1	7.36	4560	0.89	0.01	0.8	2.0	130
J998370		3.05	0.07	0.7	3	0.017	0.50	7.8	5.9	10.70	901	1.63	0.01	1.9	5.2	350
J998371		5.89	<0.05	1.2	3	0.020	0.93	11.1	11.0	4.75	8110	2.41	0.01	3.4	9.1	600
J998372		7.28	0.05	1.7	5	0.022	1.33	19.2	16.5	6.66	3290	2.43	0.02	4.8	12.5	980
J998300		5.04	<0.05	1.3	1	0.015	0.86	14.4	11.6	6.02	285	0.25	0.01	3.3	5.6	280
J998301		14.45	0.09	3.9	1	0.035	2.74	30.0	35.2	4.56	205	0.49	0.03	9.6	16.4	850

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 27- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10115244

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U
	Units	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1
J998339		11.5	112.5	0.002	2.29	154.5	5.5	4	2.1	236	0.69	0.08	14.2	0.278	243	10.3
J998340		6.9	45.0	<0.002	2.92	152.0	2.1	3	1.0	163.0	0.32	0.08	6.9	0.134	207	9.6
J998341		1.3	1.7	<0.002	0.02	0.43	0.3	2	<0.2	40.5	<0.05	<0.05	<0.2	0.006	0.57	0.7
J998342		10.3	81.5	0.002	2.58	165.5	4.0	4	1.6	238	0.52	0.11	11.6	0.213	254	15.4
J998343		10.2	77.5	<0.002	2.77	175.0	4.5	3	1.5	180.5	0.48	0.09	10.3	0.191	253	16.0
J998344		10.3	74.7	<0.002	2.01	159.5	4.2	3	1.5	203	0.48	0.09	9.7	0.188	235	13.7
J998345		13.0	83.8	0.002	2.52	210	3.5	3	1.6	186.0	0.47	0.17	10.0	0.198	316	19.6
J998346		12.9	66.3	0.003	3.68	396	1.8	3	1.7	155.5	0.36	0.31	6.7	0.151	590	21.1
J998347		20.2	40.7	0.004	3.63	417	1.2	4	1.7	114.5	0.23	0.33	4.7	0.093	690	22.8
J998348		21.3	29.6	0.007	2.05	158.0	4.2	4	2.1	46.2	0.24	0.41	4.0	0.114	4.22	3.6
J998349		14.7	35.0	0.003	2.39	302	1.4	4	1.3	128.0	0.19	0.23	4.4	0.081	500	24.3
J998350		16.9	31.0	0.003	2.90	412	0.9	4	1.5	114.5	0.18	0.28	4.1	0.073	670	22.1
J998351		9.1	28.2	0.002	1.46	159.0	0.6	3	0.8	110.0	0.13	0.12	2.7	0.054	235	15.7
J998352		9.0	27.4	0.004	3.08	192.5	0.8	3	0.8	109.0	0.15	0.14	2.8	0.063	245	23.9
J998353		8.2	41.4	0.002	3.66	176.5	1.3	4	0.9	189.5	0.22	0.12	4.1	0.088	167.0	25.8
J998354		7.9	44.1	<0.002	3.97	183.0	1.4	4	0.9	203	0.23	0.13	4.3	0.093	166.5	26.8
J998355		10.1	51.4	0.002	6.32	252	3.4	4	1.1	200	0.30	0.12	6.0	0.118	179.5	21.1
J998356		9.9	36.7	0.002	2.15	161.5	1.7	3	1.0	196.0	0.23	0.10	5.1	0.092	253	18.7
J998357		1.3	1.6	<0.002	0.02	1.08	0.3	2	<0.2	38.2	<0.05	<0.05	<0.2	<0.005	1.63	0.6
J998358		8.0	40.1	0.003	0.65	29.5	3.7	3	0.7	327	0.23	<0.05	4.6	0.088	60.8	22.1
J998359		7.0	38.6	0.002	0.40	11.85	3.4	3	0.6	404	0.22	<0.05	4.5	0.086	23.1	19.4
J998360		4.5	19.4	0.003	0.30	6.00	1.9	3	0.3	459	0.11	<0.05	2.3	0.042	11.05	23.0
J998361		13.2	37.7	0.003	1.88	45.9	3.0	2	0.6	190.5	0.23	<0.05	4.6	0.092	32.0	24.1
J998362		10.0	35.9	0.003	2.46	59.5	3.6	3	0.6	168.0	0.23	<0.05	4.7	0.094	19.75	24.5
J998363		5.4	13.4	<0.002	2.90	87.5	3.6	2	0.2	76.1	0.07	<0.05	1.8	0.025	16.75	13.8
J998364		25.6	56.0	0.002	0.75	171.5	7.7	3	1.5	160.5	0.44	0.32	8.3	0.194	12.45	5.8
J998365		6.0	29.7	0.002	0.63	51.1	2.9	3	0.5	185.5	0.19	<0.05	3.7	0.074	20.8	17.8
J998366		5.8	13.5	<0.002	0.67	15.45	1.5	2	0.2	79.1	0.09	<0.05	1.7	0.033	4.85	14.6
J998367		4.3	9.5	<0.002	0.30	8.41	1.4	2	0.2	79.8	0.05	<0.05	1.1	0.021	2.59	14.9
J998368		3.9	7.5	0.002	0.25	3.23	1.0	2	0.2	93.2	<0.05	<0.05	0.8	0.017	1.76	16.0
J998369		3.1	7.4	0.002	0.36	5.26	0.9	2	0.2	93.7	<0.05	<0.05	0.9	0.015	2.80	25.9
J998370		6.4	20.2	0.007	1.68	22.2	1.5	3	0.4	124.5	0.11	<0.05	2.4	0.047	4.24	20.2
J998371		10.8	37.2	0.003	0.70	5.74	3.4	3	0.7	112.5	0.23	<0.05	4.8	0.086	4.47	15.6
J998372		15.5	45.4	0.002	1.17	9.37	4.5	3	0.9	104.0	0.33	<0.05	6.9	0.125	6.83	16.1
J998300		4.5	35.4	<0.002	0.08	2.87	3.3	2	0.6	224	0.21	<0.05	4.2	0.083	2.11	6.9
J998301		10.1	99.1	<0.002	0.10	5.06	8.6	3	1.8	116.5	0.67	<0.05	13.1	0.261	5.55	6.9

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 27- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10115244

Sample Description	Method Analyte Units LOR	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001	Hg- CV42 Hg ppm 0.1
J998339		100	6.4	14.9	67	139.5	2.26	
J998340		46	3.1	9.2	78	84.0	4.45	
J998341		4	0.1	0.9	17	0.6		
J998342		67	4.7	12.7	66	115.5	2.79	
J998343		63	4.7	11.9	74	115.5	3.65	
J998344		62	4.7	10.9	92	110.0	1.970	
J998345		74	5.6	9.3	83	99.8	2.36	
J998346		61	7.3	7.9	232	57.8	4.34	166.5
J998347		75	10.1	19.7	259	32.8	2.77	235
J998348		114	236	17.1	79	32.2		
J998349		79	7.4	25.7	181	31.0	1.190	165.0
J998350		74	8.8	30.6	161	29.6	1.325	201
J998351		53	4.4	10.3	109	20.8	1.125	
J998352		40	3.2	8.0	152	20.7	4.48	
J998353		57	4.5	14.1	128	27.4	5.54	
J998354		59	4.6	17.0	128	29.5	6.87	
J998355		57	4.5	21.7	95	57.1	11.25	
J998356		52	4.6	23.5	89	42.0	1.635	
J998357		4	0.1	0.9	14	0.5		
J998358		56	2.2	13.4	15	50.4		
J998359		46	1.8	8.7	11	45.2		
J998360		21	1.1	7.3	11	24.4		
J998361		43	2.7	5.9	26	43.1	1.735	
J998362		47	2.4	6.2	99	42.1	3.44	
J998363		22	0.9	8.4	30	13.9	4.98	
J998364		169	24.7	13.7	61	81.7		
J998365		33	1.8	7.1	5	35.6		
J998366		17	1.1	3.6	4	15.8		
J998367		11	0.6	2.7	10	8.1		
J998368		13	0.6	2.8	7	5.7		
J998369		16	0.7	3.3	4	6.5		
J998370		42	1.1	4.4	7	22.1	2.72	
J998371		62	1.9	8.3	60	42.5		
J998372		49	2.7	13.1	19	59.5		
J998300		29	1.4	8.5	28	44.5		
J998301		81	6.3	18.9	39	141.5		

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

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 27- AUG- 2010
Account: RCM

Project: Sten- Osiris

CERTIFICATE OF ANALYSIS VA10115244

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

ALS Canada Ltd.

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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 28- AUG- 2010
Account: RCM

CERTIFICATE VA10117953

Project: RAU (OSIRIS)

P.O. No.:

This report is for 35 Rock samples submitted to our lab in Vancouver, BC, Canada on 23- AUG- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Hg- CV42	High Grade Hg - cold vapor/AA	FIMS
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 28- AUG- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10117953

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J980110		0.58	<0.01	0.82	3.72	113.5	150	0.51	0.37	0.07	0.06	22.4	61.7	26	1.28	2650
J980111		0.46	<0.01	0.02	0.22	<5	70	0.05	0.02	19.70	0.17	5.16	1.0	4	0.05	4.8
J980112		0.62	0.07	0.10	3.10	2150	930	10.65	0.11	0.66	1.21	25.0	5.5	36	2.76	105.0
J980113		0.14	14.60	0.45	2.48	>10000	330	0.40	0.07	0.54	0.15	18.40	0.7	32	3.67	15.6
J980114		0.18	39.2	2.18	1.65	>10000	320	0.45	0.07	6.20	2.26	19.40	2.3	22	2.71	33.7
J980115		0.48	14.95	2.56	0.87	9330	100	0.18	0.09	0.53	1.73	18.15	1.9	12	1.20	10.9
J980116		0.36	0.23	0.02	1.74	1275	110	0.39	0.07	0.03	0.52	17.95	5.7	37	4.61	87.7
J980117		0.14	0.27	0.10	0.76	227	50	0.20	0.06	0.58	0.12	108.0	4.4	13	2.66	25.5
J980118		0.08	0.02	0.07	4.78	31.4	160	2.12	0.14	0.32	0.17	35.5	15.5	69	2.85	159.0
J980119		0.52	0.42	<0.01	7.44	6140	310	1.49	0.25	0.43	0.08	67.7	29.0	96	23.1	119.5
J980120		0.68	0.09	<0.01	4.17	804	100	0.75	0.12	0.15	0.04	39.8	9.3	74	14.95	44.3
J980121		0.32	0.58	<0.01	2.07	5040	110	0.24	0.07	0.05	0.04	22.4	1.5	39	3.04	9.9
J980122		0.78	0.96	0.01	4.70	>10000	200	0.60	0.17	0.03	<0.02	50.4	1.2	76	9.68	15.0
J980123		0.72	0.65	0.10	2.34	>10000	100	0.21	0.09	0.07	0.03	27.6	1.7	42	2.86	69.9
J980124		0.38	0.74	0.02	1.83	>10000	110	0.21	0.08	0.10	<0.02	21.5	0.4	26	2.09	5.5
J980125		0.50	0.87	0.06	1.91	>10000	150	0.20	0.10	0.09	0.02	20.0	1.3	30	2.29	31.0
J980126		0.30	1.02	0.03	4.98	>10000	200	0.61	0.25	0.10	0.04	45.3	3.1	69	6.40	87.3
J980127		0.60	0.82	0.01	4.35	>10000	230	0.46	0.16	0.22	0.07	41.3	3.0	66	5.39	33.3
J980128		0.42	0.03	<0.01	2.41	809	200	0.50	0.07	4.23	0.17	26.3	6.1	26	4.00	18.3
J980129		0.34	0.04	0.09	2.29	>10000	230	1.79	0.16	5.61	0.26	25.6	18.3	24	17.05	32.4
J980130		0.32	17.00	3.00	0.66	>10000	140	0.22	0.06	0.75	3.68	17.45	3.4	12	1.25	9.4
J980131		0.36	0.26	0.01	0.18	272	950	0.14	<0.01	39.8	0.37	5.01	0.7	4	0.49	1.5
J980132		0.42	0.16	0.05	0.38	778	120	0.23	0.02	2.76	0.21	6.94	7.8	6	0.59	5.4
J980133		0.08	0.34	1.17	1.51	3930	280	0.34	0.06	0.91	0.84	11.25	24.6	20	2.75	80.6
J980134		0.08	0.03	1.02	5.87	141.0	400	1.20	0.19	0.36	0.11	48.0	106.5	53	20.8	72.5
J980135		0.84	2.67	0.11	1.05	5800	40	0.68	0.05	17.70	0.06	5.37	4.7	10	1.72	15.9
J980136		0.64	0.10	0.01	0.47	1230	490	0.23	0.01	24.6	0.02	11.45	5.7	5	1.39	3.9
J980137		0.44	7.09	0.21	0.91	5710	60	0.47	0.16	13.40	0.37	17.65	3.6	11	2.08	25.5
J980138		0.94	2.70	0.16	1.29	8790	130	0.40	0.08	9.86	0.19	10.80	4.3	15	2.62	13.6
J980139		0.54	0.11	0.01	0.26	625	30	0.10	<0.01	19.65	0.03	5.44	0.8	4	0.38	1.8
J980140		0.36	1.48	0.02	0.63	2220	40	0.29	0.03	21.0	0.11	10.50	2.8	4	1.29	15.3
J980141		0.78	23.9	0.17	0.71	3080	110	0.33	0.02	19.50	0.21	8.77	6.8	4	1.59	5.9
J980142		0.10	0.26	0.95	1.75	3430	170	0.29	0.06	0.51	0.14	12.70	15.6	19	5.26	65.8
J980143		0.28	0.19	0.01	2.78	1960	270	0.71	0.10	6.41	0.02	92.4	15.7	29	5.44	20.5
J980144		0.54	8.24	0.34	0.35	>10000	100	0.13	0.26	10.10	0.18	8.92	5.2	6	0.66	53.1

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

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 28- AUG- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10117953

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J980110		6.80	7.90	0.11	2.2	0.22	0.018	0.53	10.1	73.8	0.55	936	1.56	0.67	4.4	48.1
J980111		0.74	0.44	0.07	0.1	0.06	<0.005	0.02	3.2	36.9	11.70	749	0.05	0.02	0.2	<0.2
J980112		12.15	5.20	0.25	0.9	4.5	0.160	0.82	10.5	8.1	0.26	196	0.55	0.02	2.0	33.9
J980113		1.43	7.04	0.06	1.5	93.3	0.046	1.00	11.7	18.9	0.32	75	0.30	0.01	4.0	3.5
J980114		3.12	4.44	0.08	1.0	>100	0.078	0.77	11.4	19.0	0.13	317	0.84	0.01	2.5	4.7
J980115		2.91	2.25	0.06	0.8	83.3	0.021	0.36	10.4	36.7	0.11	460	0.47	0.01	1.2	6.0
J980116		8.05	4.25	0.12	1.1	5.3	0.062	0.68	8.4	14.5	0.10	126	0.26	0.01	2.9	12.1
J980117		18.10	2.57	0.32	0.4	4.9	0.014	0.36	47.0	2.4	0.20	334	1.54	0.01	1.1	12.2
J980118		29.7	12.30	0.96	1.7	0.2	0.123	1.20	17.5	86.2	0.64	324	1.29	0.14	3.6	41.2
J980119		11.90	24.1	0.24	3.6	3.58	0.126	2.28	32.4	62.7	1.17	345	1.62	0.37	21.1	63.4
J980120		6.34	11.00	0.15	2.3	1.43	0.041	1.81	18.3	16.1	0.22	253	0.47	0.02	7.0	16.5
J980121		1.81	5.84	0.07	1.6	6.44	0.025	0.99	11.5	13.4	0.11	35	0.47	0.01	4.1	2.9
J980122		5.10	13.45	0.15	2.8	7.2	0.033	2.23	23.2	14.8	0.26	33	0.57	0.02	8.9	2.5
J980123		2.26	6.30	0.09	1.5	16.7	0.051	1.06	12.8	13.5	0.12	29	0.53	0.01	4.2	3.9
J980124		1.21	4.77	0.07	1.0	8.2	0.033	0.84	9.7	10.9	0.11	49	0.18	0.01	2.9	1.4
J980125		2.13	5.41	0.08	1.0	13.9	0.041	0.86	9.6	16.9	0.09	38	0.26	0.01	3.1	3.2
J980126		4.17	14.20	0.15	2.8	29.8	0.092	2.34	21.2	16.5	0.26	25	0.43	0.02	9.2	6.7
J980127		6.17	14.35	0.15	2.5	8.9	0.130	1.89	19.9	13.5	0.21	82	0.45	0.02	7.1	6.3
J980128		3.65	5.39	0.09	1.3	0.40	0.020	1.01	13.1	57.1	0.17	1220	0.61	0.02	3.3	11.3
J980129		30.1	5.61	0.39	1.0	1	0.065	0.98	12.2	6.2	0.58	10100	1.98	0.04	3.8	35.5
J980130		2.29	1.83	0.07	0.6	46.4	0.025	0.23	9.1	40.7	0.06	626	0.47	0.01	1.0	8.5
J980131		0.21	0.48	0.05	0.1	0.77	0.017	0.09	2.7	1.2	0.27	537	0.05	0.02	0.5	<0.2
J980132		1.54	0.68	<0.05	0.1	6.82	0.008	0.08	3.0	18.2	1.22	1140	0.13	0.01	0.4	11.5
J980133		48.2	3.55	1.34	0.9	17	0.018	0.74	5.9	5.1	0.74	868	3.61	0.01	3.1	106.5
J980134		25.6	14.65	0.40	3.0	3.6	0.051	2.99	28.9	11.8	0.60	510	1.29	0.04	8.1	115.0
J980135		1.36	2.71	0.05	0.5	8.0	0.019	0.52	2.7	7.0	3.19	3720	0.77	0.01	1.6	3.6
J980136		5.60	1.29	0.10	0.2	0.20	0.012	0.22	4.3	1.8	4.57	1080	0.15	0.01	0.7	6.8
J980137		1.77	3.09	0.10	0.2	38.4	0.042	0.45	6.7	13.2	0.45	2980	0.17	0.01	1.2	4.6
J980138		1.56	3.16	0.06	0.9	15.7	0.027	0.61	4.6	9.6	3.10	2640	0.39	0.01	1.9	4.8
J980139		0.43	0.70	0.08	0.1	1.48	<0.005	0.12	3.0	1.6	11.85	423	0.06	0.01	0.4	<0.2
J980140		1.17	1.83	0.07	0.4	5.84	0.012	0.31	5.0	3.4	8.63	4250	0.13	0.02	1.1	<0.2
J980141		2.86	2.09	0.07	0.3	56.4	0.018	0.37	4.7	4.4	9.28	4240	0.16	0.03	1.3	8.3
J980142		47.1	3.98	0.86	0.9	9	0.017	0.86	7.8	3.9	0.46	565	6.72	0.01	3.2	45.2
J980143		3.92	7.65	0.16	2.1	1.50	0.048	1.41	41.7	9.1	0.49	560	0.46	0.02	5.9	36.5
J980144		3.18	0.86	0.07	0.1	77.9	0.039	0.11	4.0	8.1	4.56	2500	0.27	0.01	0.4	7.8

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 28- AUG- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10117953

Sample Description	Method Analyte Units LOR	ME- MS61 P ppm 10	ME- MS61 Pb ppm 0.5	ME- MS61 Rb ppm 0.1	ME- MS61 Re ppm 0.002	ME- MS61 S % 0.01	ME- MS61 Sb ppm 0.05	ME- MS61 Sc ppm 0.1	ME- MS61 Se ppm 1	ME- MS61 Sn ppm 0.2	ME- MS61 Sr ppm 0.2	ME- MS61 Ta ppm 0.05	ME- MS61 Te ppm 0.05	ME- MS61 Th ppm 0.2	ME- MS61 Ti % 0.005	ME- MS61 Tl ppm 0.02
J980110		160	9.2	27.2	<0.002	0.01	0.75	4.0	1	0.9	30.8	0.33	<0.05	7.0	0.111	0.20
J980111		160	643	0.6	<0.002	0.05	0.10	0.7	1	<0.2	104.5	<0.05	<0.05	0.2	<0.005	0.03
J980112		8010	20.8	31.2	<0.002	0.08	2.35	59.8	3	0.7	95.9	0.14	0.06	17.2	0.065	7.77
J980113		940	19.7	35.1	<0.002	0.02	68.2	1.8	1	1.5	218	0.27	<0.05	4.9	0.115	70.2
J980114		750	24.0	31.2	<0.002	0.07	265	1.7	4	2.3	246	0.17	0.20	4.5	0.064	530
J980115		370	43.7	14.9	<0.002	0.03	123.0	0.5	3	0.8	57.7	0.08	0.43	1.7	0.033	107.5
J980116		450	14.2	29.2	0.002	0.15	4.21	7.4	2	0.5	27.8	0.18	<0.05	3.6	0.219	14.60
J980117		180	12.6	16.4	<0.002	>10.0	1.69	1.7	2	0.6	78.1	0.06	<0.05	1.3	0.039	5.81
J980118		1460	34.6	49.5	0.002	0.33	0.54	14.8	3	1.1	39.7	0.26	0.06	12.5	0.129	1.14
J980119		1660	17.3	116.0	0.002	0.10	28.7	25.3	2	2.3	112.0	1.31	0.17	9.4	0.760	20.9
J980120		410	7.8	90.7	0.002	0.62	3.01	13.4	1	1.2	35.2	0.47	<0.05	5.3	0.476	5.34
J980121		290	6.2	40.6	<0.002	0.38	5.02	7.4	1	0.8	50.8	0.27	<0.05	3.4	0.286	14.90
J980122		350	43.6	94.3	0.004	0.33	16.95	11.1	2	1.5	75.6	0.56	0.05	6.8	0.510	6.54
J980123		100	6.8	43.1	<0.002	1.69	57.2	4.2	2	0.9	38.7	0.27	<0.05	3.3	0.289	29.1
J980124		130	5.0	33.8	<0.002	0.53	12.00	4.7	1	0.7	41.2	0.18	<0.05	2.2	0.190	6.60
J980125		200	15.6	37.2	<0.002	0.95	26.7	5.7	2	0.7	59.2	0.21	<0.05	2.8	0.189	9.35
J980126		130	13.7	101.5	0.002	1.09	37.3	9.2	2	1.8	74.1	0.59	<0.05	6.6	0.480	26.0
J980127		900	25.1	84.0	0.002	1.32	17.40	28.9	1	1.3	92.5	0.48	0.05	7.3	0.381	32.0
J980128		260	4.0	40.9	<0.002	0.19	1.17	7.4	1	0.6	83.9	0.22	<0.05	4.4	0.216	1.32
J980129		680	14.3	43.5	0.002	0.13	3.09	8.3	1	1.0	335	0.24	0.05	4.0	0.124	3.70
J980130		330	46.0	10.7	<0.002	0.03	56.3	0.7	2	0.6	43.6	0.07	0.08	1.5	0.030	33.6
J980131		40	1.9	4.9	<0.002	0.03	0.34	0.5	2	0.2	720	<0.05	<0.05	0.4	0.010	0.60
J980132		680	5.6	4.4	<0.002	0.01	1.67	2.1	1	0.2	164.0	<0.05	<0.05	0.5	0.009	4.77
J980133		400	289	25.7	0.002	1.43	17.95	2.0	20	1.0	17.2	0.20	0.05	2.3	0.073	38.6
J980134		560	117.5	116.0	<0.002	1.21	3.47	9.9	3	1.9	45.0	0.54	0.08	8.4	0.257	2.04
J980135		250	7.7	22.2	0.002	0.54	1.42	3.3	3	0.4	188.5	0.11	<0.05	1.8	0.041	19.90
J980136		190	1.4	8.9	<0.002	0.05	0.28	2.5	2	0.2	166.5	<0.05	<0.05	0.7	0.018	4.77
J980137		>10000	16.6	21.2	<0.002	0.23	3.26	2.1	2	1.4	121.5	0.06	0.08	3.8	0.038	56.9
J980138		920	10.2	25.4	<0.002	0.02	0.95	4.4	3	0.6	141.5	0.13	<0.05	3.0	0.050	29.8
J980139		180	1.7	4.0	<0.002	0.02	0.15	0.8	1	<0.2	100.0	<0.05	<0.05	0.4	0.010	1.33
J980140		420	4.1	12.7	<0.002	0.05	0.43	4.1	2	0.3	163.5	0.07	<0.05	1.4	0.027	7.52
J980141		360	4.1	13.5	<0.002	0.40	4.14	2.0	2	1.0	195.5	0.08	0.06	1.3	0.032	82.7
J980142		340	219	29.8	0.002	1.50	3.46	2.3	6	0.7	28.6	0.21	<0.05	2.7	0.075	13.40
J980143		140	19.8	60.2	<0.002	0.09	0.76	6.6	2	0.9	56.5	0.43	<0.05	7.7	0.256	4.99
J980144		960	39.0	5.4	<0.002	0.42	7.37	3.9	2	1.2	128.0	<0.05	0.07	0.7	0.008	115.5

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

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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 28- AUG- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10117953

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	As- OG62	Hg- CV42
	Analyte	U	V	W	Y	Zn	Zr	As	Hg
	Units	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	0.1	1	0.1	0.1	2	0.5	0.001	0.1
J980110		10.3	55	0.7	10.9	92	64.7		
J980111		0.4	4	<0.1	3.1	54	1.9		
J980112		42.1	34	2.0	28.6	268	30.3		
J980113		10.8	52	3.2	2.8	30	47.4	2.14	
J980114		21.9	41	7.6	52.8	153	33.3	2.17	310
J980115		11.5	12	1.7	2.9	120	24.1		
J980116		0.7	51	3.5	7.8	102	39.9		
J980117		0.5	14	0.3	4.6	52	12.6		
J980118		3.1	49	0.5	15.3	234	50.8		
J980119		3.2	234	5.7	21.7	126	130.5		
J980120		1.1	141	6.0	13.3	62	75.7		
J980121		0.7	81	3.9	6.5	5	51.5		
J980122		1.4	132	8.5	13.0	9	101.0	0.956	
J980123		0.7	78	5.1	8.2	12	48.4	4.05	
J980124		0.6	54	3.6	5.2	3	32.7	1.465	
J980125		0.6	58	4.1	5.2	3	34.8	2.42	
J980126		1.3	130	15.6	14.1	18	95.6	5.04	
J980127		1.3	142	10.6	10.9	8	81.1	3.57	
J980128		0.9	61	2.0	10.7	33	44.0		
J980129		1.0	41	4.6	14.5	78	33.2	3.38	
J980130		8.9	11	3.7	4.6	358	21.5	1.470	
J980131		1.3	6	0.7	2.0	16	5.0		
J980132		1.1	9	0.4	5.6	56	4.1		
J980133		31.7	40	3.0	5.0	2000	31.6		
J980134		8.8	88	1.1	13.1	203	100.0		
J980135		20.5	26	1.7	8.9	14	18.3		
J980136		2.3	11	0.2	14.5	15	6.9		
J980137		20.6	19	1.9	26.8	150	6.9		
J980138		13.5	32	1.2	11.3	60	32.4		
J980139		3.3	10	0.3	3.0	8	4.6		
J980140		3.3	18	0.6	6.8	21	12.6		
J980141		3.0	14	0.6	4.9	13	13.4		
J980142		72.5	51	1.8	4.2	37	26.4		
J980143		5.0	34	1.5	20.2	21	68.8		
J980144		6.6	16	0.6	7.7	37	4.9	1.455	

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

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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 28- AUG- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10117953

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- AUG- 2010
Account: RCM

CERTIFICATE VA10117955

Project: RAU (OSIRIS)

P.O. No.:

This report is for 7 Rock samples submitted to our lab in Vancouver, BC, Canada on 23- AUG- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
CRU- QC	Crushing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
Zn- OG62	Ore Grade Zn - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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North Vancouver BC V7H 0A7
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- AUG- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10117955

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J980146		0.50	<0.01	0.17	0.16	526	2190	0.82	0.01	0.20	9.63	3.15	2.0	6	0.30	16.9
J980147		0.22	<0.01	0.35	0.90	323	200	1.06	0.08	0.62	16.70	10.70	4.5	14	1.90	32.7
J980149		0.38	<0.01	0.47	0.10	166.5	70	0.19	0.02	0.15	6.70	2.05	0.6	6	0.26	11.2
J980148		0.28	<0.01	0.40	0.48	38.4	60	0.14	0.05	0.24	9.58	7.04	3.0	1	1.49	7.2
J980150		0.48	<0.01	0.63	0.60	142.0	110	0.21	0.04	0.22	11.70	9.55	4.5	4	1.45	11.8
J980151		0.22	<0.01	0.27	0.20	411	100	1.26	0.02	0.16	5.78	5.38	0.7	3	0.69	23.6
J980152		0.28	<0.01	0.27	0.12	553	1010	1.83	0.02	0.18	16.70	1.54	2.6	4	0.18	28.0

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

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Finalized Date: 26- AUG- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10117955

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J980146		>50	1.18	1.09	0.1	6	0.005	0.04	2.4	0.3	0.30	363	23.4	0.04	0.7	12.0
J980147		>50	4.96	3.30	0.5	5	0.013	0.28	7.5	1.4	0.52	443	6.28	0.01	1.7	26.8
J980149		>50	1.04	2.34	<0.1	9	0.008	0.03	1.9	0.4	0.17	67	4.92	<0.01	1.1	4.9
J980148		45.5	2.03	8.32	0.2	3	0.026	0.20	4.1	2.4	0.22	495	0.42	0.01	1.3	11.6
J980150		49.3	4.47	3.86	0.3	9	0.065	0.24	6.5	1.9	0.22	1640	4.62	<0.01	1.7	13.3
J980151		>50	2.43	2.83	0.1	6	0.014	0.05	3.5	1.0	0.24	580	9.09	0.01	1.4	6.4
J980152		>50	5.55	4.36	0.1	6	0.064	0.02	1.5	0.3	0.23	333	7.19	0.01	1.2	14.5

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

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Finalized Date: 26- AUG- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10117955

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J980146		380	281	1.4	<0.002	0.08	1.39	1.4	3	0.7	14.2	<0.05	0.07	0.2	<0.005	1.23
J980147		700	675	9.8	<0.002	0.03	1.84	4.4	3	0.5	13.4	0.08	0.05	1.7	0.028	2.68
J980149		360	1170	1.4	<0.002	0.03	0.80	0.6	2	0.4	3.0	<0.05	<0.05	0.2	<0.005	1.03
J980148		520	1305	6.0	<0.002	0.47	0.15	0.9	2	0.5	3.4	<0.05	<0.05	0.9	0.013	1.53
J980150		570	1015	9.1	<0.002	0.09	0.32	1.4	2	0.7	6.4	0.07	<0.05	1.5	0.021	10.80
J980151		660	435	2.7	<0.002	0.03	0.77	1.1	3	0.4	8.9	<0.05	0.10	0.4	0.006	1.09
J980152		350	907	0.9	0.002	0.05	1.20	0.9	3	0.5	6.7	<0.05	0.05	<0.2	<0.005	1.15

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

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VANCOUVER BC V6B 1L8

Finalized Date: 26- AUG- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10117955

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	Zn- OG62 Zn % 0.001
J980146		2.9	15	1.2	7.1	5020	5.4	
J980147		4.1	33	1.7	10.8	>10000	24.3	1.090
J980149		5.6	4	0.5	4.6	5380	1.6	
J980148		3.9	4	0.1	5.3	9960	8.5	
J980150		4.5	6	0.4	7.5	6900	9.9	
J980151		4.7	7	1.5	6.2	5360	7.8	
J980152		4.6	8	2.1	4.8	>10000	4.9	1.290

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Page: Appendix 1
Total # Appendix Pages: 1
Finalized Date: 26- AUG- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10117955

Method	CERTIFICATE COMMENTS
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

ALS Canada Ltd.

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 9- SEP- 2010
Account: RCM

CERTIFICATE VA10120381

Project: OSIRIS

P.O. No.: BATCH 4

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 26- AUG- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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

To: **ATAC RESOURCES LTD.**
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VANCOUVER BC V6B 1L8

Finalized Date: 9- SEP- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10120381

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J998410		5.50	<0.01	0.15	7.27	51.8	240	2.16	0.36	5.18	0.02	74.4	14.1	59	25.6	33.4
J998411		5.06	<0.01	0.16	6.35	824	250	1.51	0.28	8.70	0.06	73.3	13.0	49	15.50	31.1
J998412		5.62	0.01	0.11	6.52	119.5	230	1.57	0.26	7.02	0.05	79.5	11.2	53	15.95	30.1
J998413		3.84	0.01	0.17	7.33	39.9	260	1.84	0.32	5.92	0.02	83.6	13.6	58	19.90	29.5
J998414		1.68	0.22	0.17	0.41	884	50	0.13	0.01	18.95	0.10	8.30	1.6	4	0.72	3.5
J998415		8.46	0.23	0.15	0.96	1200	70	0.28	0.03	16.80	0.08	14.90	2.2	9	1.82	5.7
J998416		9.74	0.09	0.11	0.73	980	80	0.19	0.08	17.50	0.05	10.80	2.0	7	1.30	5.8
J998417		0.28	1.67	1.67	0.10	>10000	20	<0.05	324	12.30	0.77	48.7	1.7	6	0.62	16.1
J998418		8.56	0.11	0.08	0.28	1100	60	0.09	0.37	19.95	0.06	5.32	1.6	4	0.28	2.7
J998419		4.04	0.14	0.07	0.21	787	30	0.14	0.06	20.2	0.08	5.57	1.4	2	0.25	2.1
J998420		1.16	3.97	0.47	1.39	3260	200	0.43	0.06	14.20	0.31	16.50	3.3	12	2.48	8.6
J998421		2.28	1.39	0.20	0.73	1440	80	0.21	0.04	15.40	0.06	12.85	1.9	7	1.10	3.2
J998422		4.22	1.14	0.21	0.98	1170	90	0.33	0.04	16.30	0.08	15.80	2.5	9	1.67	4.4
J998423		1.88	0.35	0.25	1.37	1680	190	0.46	0.05	18.25	0.17	22.4	3.2	13	2.96	8.2
J998424		6.60	<0.01	<0.01	0.08	8	30	0.09	0.02	20.7	0.06	1.66	1.5	1	0.19	2.0
J998425		7.00	0.09	0.08	0.31	628	30	0.15	0.03	19.80	0.03	7.50	1.4	3	0.54	2.5
J998426		10.54	0.11	0.05	0.18	337	20	0.11	0.02	20.1	0.02	6.10	1.3	2	0.22	1.7
J998427		6.24	0.40	0.11	0.21	743	20	0.10	0.01	18.80	0.09	6.89	1.4	3	0.26	2.4
J998428		5.92	0.45	0.13	0.23	840	30	0.14	0.01	20.3	0.11	9.16	1.6	3	0.27	2.5
J998429		2.74	0.38	0.13	0.23	749	30	0.08	0.01	20.4	0.23	8.88	1.5	3	0.29	2.7
J998430		4.76	0.76	0.17	0.17	1400	10	0.08	0.01	19.25	0.11	5.20	1.6	2	0.23	2.8
J998431		5.42	0.67	0.23	0.17	1160	10	0.08	0.02	20.3	0.29	4.87	1.3	2	0.18	2.7
J998432		2.78	0.26	0.10	0.13	765	10	0.08	<0.01	20.5	0.14	3.60	1.3	2	0.14	2.2
J998433		3.14	4.90	0.43	0.32	3550	70	0.10	0.02	18.90	0.72	10.70	2.2	4	0.48	5.8
J998434		0.14	14.15	7.60	3.80	490	770	0.74	0.06	0.23	0.09	18.45	8.0	34	5.75	47.2
J998435		2.42	1.11	0.15	0.20	1260	20	0.09	0.01	19.80	1.95	6.84	1.5	3	0.26	3.6
J998436		2.24	0.94	0.13	0.22	1440	30	0.10	0.01	19.80	0.16	4.88	1.2	2	0.28	2.3
J998437		3.64	1.14	0.15	0.18	2820	30	0.10	<0.01	19.95	0.13	4.93	1.2	2	0.26	2.5
J998438		2.20	3.45	0.24	0.17	4360	30	0.08	<0.01	19.40	0.31	5.67	1.1	2	0.23	2.4
J998439		2.32	5.31	0.29	0.17	4000	30	0.09	0.01	18.00	0.15	5.84	1.2	3	0.23	2.8
J998440		1.50	6.26	0.43	0.21	6310	50	0.10	0.01	17.70	0.35	8.70	1.4	3	0.33	5.0
J998441		1.52	7.86	0.68	0.22	8700	60	0.08	0.01	17.90	0.55	10.00	1.8	3	0.35	5.6
J998442		7.08	0.03	0.02	0.09	27	20	0.07	0.01	20.7	0.05	1.60	1.6	<1	0.17	1.9
J998443		0.86	3.58	0.36	0.25	6400	70	0.11	0.01	18.10	0.18	7.80	2.2	3	0.44	5.2
J998444		0.96	5.33	0.63	0.34	6340	130	0.11	0.01	17.55	0.27	9.32	2.6	4	0.83	11.7
J998445		2.46	0.56	0.11	0.21	1370	20	0.10	0.01	19.95	0.04	5.49	1.5	3	0.28	2.9

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

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Finalized Date: 9- SEP- 2010
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Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10120381

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J998410		2.54	23.8	0.25	3.2	0.42	0.057	3.73	38.5	21.7	0.97	264	0.28	0.04	11.1	34.3
J998411		3.20	19.05	0.19	3.0	2.47	0.051	2.95	38.4	17.9	0.92	507	0.60	0.03	9.4	31.0
J998412		2.43	19.75	0.21	3.2	0.90	0.046	3.11	41.7	19.5	0.92	299	0.24	0.03	10.7	24.8
J998413		2.65	22.6	0.30	3.2	0.79	0.058	3.59	45.2	16.9	1.23	244	0.37	0.04	11.2	32.7
J998414		0.33	1.53	0.07	0.4	3.29	<0.005	0.18	4.7	2.9	11.10	1860	0.17	0.01	0.8	<0.2
J998415		0.67	2.83	0.06	1.4	2.74	0.007	0.44	7.5	5.1	9.11	547	0.35	0.02	1.8	<0.2
J998416		0.56	2.08	0.09	0.9	1.77	0.005	0.30	6.2	3.7	9.95	398	0.13	0.01	1.3	<0.2
J998417		16.00	1.26	0.34	0.1	0.04	0.089	0.06	31.9	1.8	6.68	2100	5.17	0.01	0.8	2.7
J998418		0.60	0.81	0.10	0.3	1.37	<0.005	0.10	3.0	1.7	11.45	478	0.09	0.01	0.6	<0.2
J998419		0.24	0.76	0.31	0.2	2.10	0.008	0.08	3.2	1.9	11.45	411	0.08	0.01	0.4	<0.2
J998420		0.97	3.75	0.10	2.1	18.0	0.012	0.63	8.8	11.7	2.75	2050	0.31	0.01	2.5	7.7
J998421		0.76	1.59	0.09	1.6	4.98	0.008	0.32	6.6	4.7	6.40	1170	0.30	0.01	1.4	3.5
J998422		0.62	2.32	0.10	2.0	5.69	0.008	0.44	7.9	5.7	6.29	1290	0.29	0.01	2.0	4.5
J998423		0.61	3.74	0.13	1.4	3.74	0.010	0.61	11.3	7.8	7.66	1350	0.28	0.01	2.4	7.4
J998424		0.38	0.40	0.35	<0.1	0.03	<0.005	0.03	0.8	1.4	12.55	177	0.05	0.01	0.4	3.5
J998425		0.32	0.96	0.31	0.3	1.57	<0.005	0.13	4.1	2.4	11.00	563	0.13	0.01	0.6	3.0
J998426		0.26	0.69	0.42	0.2	1.04	<0.005	0.07	3.5	1.5	11.70	603	0.10	0.01	0.4	3.4
J998427		0.35	0.79	0.41	0.2	3.77	<0.005	0.09	3.6	2.3	11.35	517	0.11	0.01	0.4	4.2
J998428		0.42	0.80	0.31	0.2	3.96	<0.005	0.09	4.5	2.0	11.45	891	0.17	0.01	0.5	4.5
J998429		0.42	0.79	0.32	0.2	3.75	<0.005	0.10	4.6	2.1	11.55	981	0.15	0.01	0.6	4.4
J998430		0.74	0.69	0.20	0.1	3.90	<0.005	0.07	2.8	1.9	11.30	905	0.12	0.01	0.5	<0.2
J998431		0.72	0.71	0.17	0.2	5.11	<0.005	0.07	2.8	1.4	11.50	1140	0.09	0.02	0.5	<0.2
J998432		0.61	0.64	0.26	0.1	5.19	<0.005	0.05	2.3	1.2	12.15	685	0.07	0.02	0.4	<0.2
J998433		1.10	1.10	0.11	0.3	17.3	0.007	0.13	6.4	2.3	11.10	1300	0.21	0.02	0.8	<0.2
J998434		3.24	8.12	0.15	1.9	0.48	0.030	3.17	8.9	39.0	0.20	148	5.45	0.08	6.3	16.0
J998435		0.81	0.84	0.11	0.2	6.62	<0.005	0.08	4.6	1.7	11.70	978	0.11	0.02	0.5	<0.2
J998436		0.79	0.77	0.13	0.2	4.46	<0.005	0.08	2.8	1.7	11.65	985	0.15	0.03	0.6	<0.2
J998437		0.71	0.72	0.17	0.1	4.72	<0.005	0.07	2.9	1.8	11.85	843	0.14	0.02	0.5	<0.2
J998438		0.82	0.75	0.14	0.1	11.1	0.007	0.07	3.4	2.3	11.45	1140	0.13	0.02	0.5	<0.2
J998439		0.75	0.67	0.12	0.1	16.1	0.006	0.06	3.3	3.8	10.65	1220	0.09	0.02	0.4	<0.2
J998440		0.84	0.94	0.11	0.2	40.1	0.010	0.08	5.0	4.1	10.45	2350	0.14	0.01	0.5	2.6
J998441		1.14	0.97	0.06	0.1	38.0	0.016	0.08	5.8	2.7	10.35	2100	0.20	0.02	0.5	0.9
J998442		0.40	0.51	0.42	<0.1	0.05	<0.005	0.04	0.8	1.1	12.75	184	0.33	0.01	0.5	<0.2
J998443		0.99	1.00	0.10	0.2	28.4	0.010	0.09	4.5	3.0	10.55	1640	0.18	0.02	0.6	6.0
J998444		1.50	1.37	0.05	0.3	40.2	0.015	0.13	5.4	3.8	10.20	2640	0.45	0.01	0.7	12.2
J998445		0.79	0.79	0.12	0.2	4.29	<0.005	0.09	3.2	1.5	11.75	1040	0.23	0.02	0.6	0.5

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	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J998410		320	20.5	136.5	<0.002	1.22	0.51	15.4	1	2.0	159.0	0.82	0.05	12.8	0.348	1.66
J998411		570	33.2	129.5	<0.002	2.29	1.71	14.3	1	1.6	214	0.69	0.05	11.9	0.313	6.12
J998412		250	15.7	136.5	0.002	1.36	0.54	14.3	1	1.6	175.0	0.75	<0.05	13.0	0.357	1.86
J998413		220	26.9	156.5	0.002	1.39	0.63	15.7	2	1.9	154.0	0.79	0.05	14.0	0.358	1.72
J998414		200	3.7	7.6	<0.002	0.01	4.30	1.7	1	<0.2	89.5	<0.05	<0.05	0.8	0.017	7.25
J998415		300	8.4	17.6	<0.002	0.01	3.13	2.2	1	0.3	125.0	0.12	<0.05	2.4	0.044	5.43
J998416		300	7.2	12.0	<0.002	0.01	3.21	1.6	1	0.2	104.0	0.08	<0.05	1.6	0.031	4.94
J998417		110	13.0	8.4	0.007	>10.0	18.95	0.6	5	1.0	89.5	<0.05	0.81	0.4	0.008	0.10
J998418		280	4.1	3.8	<0.002	0.01	2.18	0.8	1	<0.2	96.2	<0.05	<0.05	0.6	0.010	5.95
J998419		200	3.0	3.2	<0.002	<0.01	2.25	0.6	1	<0.2	70.7	<0.05	<0.05	0.5	0.008	4.71
J998420		400	12.1	21.8	<0.002	0.01	13.15	2.6	2	0.5	188.5	0.19	<0.05	3.4	0.065	14.15
J998421		190	8.2	10.1	<0.002	0.01	6.33	1.4	2	0.2	128.5	0.11	<0.05	2.1	0.037	8.83
J998422		280	9.3	14.1	<0.002	0.01	4.59	1.9	2	0.3	142.0	0.15	<0.05	2.8	0.050	5.12
J998423		470	11.7	21.1	<0.002	<0.01	9.24	2.6	2	0.5	137.5	0.18	<0.05	3.4	0.061	15.55
J998424		250	1.3	1.4	<0.002	<0.01	0.06	0.3	2	<0.2	53.3	<0.05	<0.05	<0.2	<0.005	0.05
J998425		220	5.2	4.3	<0.002	<0.01	2.24	0.6	2	<0.2	80.5	<0.05	<0.05	0.7	0.013	2.36
J998426		120	3.3	2.4	<0.002	0.01	1.92	0.4	2	<0.2	69.6	<0.05	<0.05	0.4	0.007	2.60
J998427		200	4.4	2.9	<0.002	0.01	3.97	0.6	2	<0.2	71.2	<0.05	<0.05	0.5	0.009	6.18
J998428		250	3.9	3.3	<0.002	0.02	3.08	0.7	2	<0.2	108.0	<0.05	<0.05	0.6	0.010	3.56
J998429		190	3.8	3.3	<0.002	0.01	2.54	0.7	2	<0.2	95.7	<0.05	<0.05	0.7	0.012	3.73
J998430		150	3.9	2.7	<0.002	0.02	5.45	0.7	1	<0.2	68.5	<0.05	<0.05	0.4	0.006	6.11
J998431		190	3.6	2.6	<0.002	<0.01	3.92	0.8	1	<0.2	65.7	<0.05	<0.05	0.4	0.007	4.10
J998432		140	3.0	2.0	<0.002	<0.01	3.87	0.5	1	<0.2	58.7	<0.05	<0.05	0.3	0.005	2.64
J998433		190	6.8	5.5	<0.002	0.02	11.80	1.0	3	0.2	138.5	<0.05	<0.05	0.9	0.016	15.20
J998434		540	4.9	116.5	0.003	2.21	41.7	7.9	18	2.3	74.8	0.40	0.19	1.5	0.310	4.54
J998435		120	3.3	3.3	<0.002	0.01	3.58	0.8	1	<0.2	78.5	<0.05	<0.05	0.5	0.008	7.35
J998436		170	2.5	3.4	<0.002	0.02	4.53	0.7	1	<0.2	82.2	<0.05	<0.05	0.5	0.010	8.31
J998437		160	3.4	2.8	<0.002	0.02	7.38	0.8	1	<0.2	73.7	<0.05	<0.05	0.4	0.007	14.35
J998438		150	2.6	2.9	<0.002	0.01	11.90	1.0	2	0.2	74.1	<0.05	<0.05	0.4	0.007	24.4
J998439		120	3.8	2.6	<0.002	0.01	12.00	0.9	2	<0.2	66.9	<0.05	<0.05	0.4	0.006	40.4
J998440		150	5.4	3.5	<0.002	0.01	115.0	1.3	3	0.2	77.6	<0.05	<0.05	0.5	0.008	188.0
J998441		230	4.5	3.8	<0.002	0.01	38.7	1.4	2	0.4	107.5	<0.05	0.05	0.5	0.008	126.0
J998442		230	1.2	1.8	<0.002	<0.01	0.22	0.4	1	<0.2	50.8	<0.05	<0.05	0.2	<0.005	0.47
J998443		250	2.7	4.2	<0.002	0.01	33.2	1.3	2	0.2	97.9	<0.05	<0.05	0.6	0.011	126.5
J998444		400	5.6	6.1	<0.002	0.01	54.5	1.5	2	0.4	167.0	<0.05	0.06	0.8	0.015	249
J998445		180	2.4	3.5	<0.002	0.03	6.95	0.8	1	<0.2	73.4	<0.05	<0.05	0.5	0.009	21.8

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 9- SEP- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10120381

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
J998410		3.0	85	2.3	18.7	51	112.5	
J998411		3.4	74	4.1	21.6	93	108.0	
J998412		2.8	77	2.4	20.7	85	116.5	
J998413		2.9	85	1.5	20.0	37	120.5	
J998414		3.9	11	0.5	3.4	122	12.7	
J998415		6.4	16	0.8	5.8	38	48.6	
J998416		6.3	11	0.7	5.1	20	32.9	
J998417		0.8	6	231	6.9	125	3.4	2.45
J998418		4.5	7	0.6	2.8	26	9.1	
J998419		7.6	5	0.3	3.0	17	8.8	
J998420		12.8	19	2.0	9.7	57	82.9	
J998421		10.4	9	0.8	6.8	14	66.6	
J998422		8.7	13	1.1	8.1	14	79.4	
J998423		11.9	19	2.1	8.0	37	52.7	
J998424		0.4	2	0.1	1.1	12	0.5	
J998425		6.2	7	0.6	3.6	7	14.7	
J998426		4.4	4	0.3	2.8	3	7.6	
J998427		3.8	6	0.5	3.1	14	8.1	
J998428		7.1	7	0.5	4.3	12	9.4	
J998429		6.1	8	0.5	3.9	13	10.4	
J998430		5.0	6	0.3	2.4	23	4.7	
J998431		9.1	6	0.4	3.0	26	5.9	
J998432		5.3	5	0.4	2.4	21	3.7	
J998433		8.8	10	0.9	2.2	71	10.4	
J998434		0.8	56	9.5	10.0	44	79.0	
J998435		5.4	6	0.3	2.2	99	5.3	
J998436		5.7	6	0.4	1.8	37	5.1	
J998437		5.8	6	0.5	1.8	38	4.1	
J998438		5.7	6	0.5	1.9	50	5.1	
J998439		5.0	5	0.5	1.6	28	4.5	
J998440		5.7	7	0.5	2.1	36	6.0	
J998441		6.2	9	0.9	2.1	77	4.5	
J998442		0.6	2	0.1	0.9	12	<0.5	
J998443		5.4	9	0.7	2.3	36	5.1	
J998444		7.9	12	0.8	2.7	22	7.5	
J998445		4.6	7	0.3	2.1	4	4.5	

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

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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 9- SEP- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10120381

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2010
Account: RCM

CERTIFICATE VA10120383

Project: OSIRIS (RAU)

P.O. No.:

This report is for 9 Rock samples submitted to our lab in Vancouver, BC, Canada on 26- AUG- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
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Finalized Date: 1- SEP- 2010
Account: RCM

Project: OSIRIS (RAU)

CERTIFICATE OF ANALYSIS VA10120383

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J980171		1.18	0.01	0.15	8.03	1640	310	1.80	0.35	0.12	0.06	86.0	3.6	92	27.0	50.5
J980172		1.06	0.12	0.07	2.03	9370	220	0.57	0.09	0.13	0.17	25.9	9.1	35	6.21	31.6
J980173		0.42	0.22	0.18	6.07	>10000	400	1.01	0.30	0.05	0.10	64.1	1.4	80	13.30	34.4
J980174		0.56	0.03	0.13	7.89	1685	590	1.68	0.35	0.10	0.05	87.0	4.0	95	16.95	14.5
J980175		0.98	0.03	0.15	6.44	1700	470	1.21	0.26	0.08	0.08	65.9	6.2	95	15.65	70.5
J980176		0.52	0.06	0.12	1.75	7940	170	0.26	0.08	0.04	0.03	24.3	1.0	34	1.99	12.6
J980177		0.48	0.03	0.07	3.09	729	140	0.88	0.08	0.05	0.09	28.9	2.3	57	8.04	60.1
J980178		0.24	<0.01	0.23	0.18	77.9	490	0.08	0.01	0.31	7.73	1.41	1.1	3	0.41	18.1
J980179		1.54	21.4	0.19	5.92	>10000	380	0.84	0.31	0.12	0.06	82.0	0.8	56	6.74	42.6

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

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2010
Account: RCM

Project: OSIRIS (RAU)

CERTIFICATE OF ANALYSIS VA10120383

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J980171		6.92	24.5	0.27	3.8	4.54	0.076	3.64	37.2	56.2	0.53	52	0.89	0.04	12.9	8.3
J980172		2.47	5.92	0.10	1.6	6.50	0.041	0.86	11.4	19.0	0.11	44	0.17	0.01	3.9	10.4
J980173		2.66	19.60	0.34	4.6	24.3	0.132	2.74	28.7	22.4	0.36	37	0.41	0.03	11.2	2.8
J980174		2.28	24.1	0.20	4.3	3.62	0.059	3.54	37.4	22.4	0.49	42	0.55	0.03	14.1	8.1
J980175		6.54	18.50	0.21	3.1	3.78	0.063	2.81	28.2	33.0	0.34	116	0.59	0.02	10.5	14.4
J980176		1.21	5.12	0.10	1.3	3.94	0.018	0.72	9.9	24.0	0.09	44	0.30	0.01	3.6	2.3
J980177		3.68	8.91	0.12	1.7	4.34	0.061	1.33	12.4	19.3	0.22	48	0.32	0.01	4.5	7.0
J980178		20.8	1.85	0.26	0.1	2.76	0.009	0.06	0.6	3.6	0.21	154	3.89	0.01	0.3	2.8
J980179		1.58	18.20	0.17	3.1	11.9	0.072	2.59	39.0	22.7	0.31	41	0.92	0.04	11.2	2.7

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

ALS Canada Ltd.
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2010
Account: RCM

Project: OSIRIS (RAU)

CERTIFICATE OF ANALYSIS VA10120383

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J980171		670	31.6	169.0	<0.002	0.10	2.95	20.9	4	2.9	80.9	0.93	0.06	12.1	0.579	9.09
J980172		200	8.6	40.4	<0.002	0.34	7.75	5.9	3	0.8	94.8	0.29	<0.05	3.6	0.236	9.03
J980173		390	16.9	135.5	<0.002	1.85	73.8	16.3	5	2.6	205	0.85	0.12	11.6	0.520	12.70
J980174		640	25.3	159.5	<0.002	0.06	6.28	21.3	3	2.8	374	1.02	0.06	11.9	0.673	6.97
J980175		650	11.3	126.0	<0.002	0.06	5.03	18.3	3	2.1	273	0.73	<0.05	8.7	0.571	7.23
J980176		180	5.2	34.5	<0.002	0.25	7.35	3.5	3	0.8	73.3	0.25	<0.05	2.4	0.262	2.06
J980177		330	19.8	57.4	<0.002	0.07	4.27	17.5	3	0.9	34.1	0.32	<0.05	4.4	0.331	3.23
J980178		50	273	2.2	<0.002	0.34	0.24	0.3	3	0.3	357	<0.05	<0.05	0.2	0.005	6.30
J980179		200	31.2	115.5	<0.002	1.22	187.0	8.9	4	2.4	70.4	0.83	0.13	11.0	0.344	6.73

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2010
Account: RCM

Project: OSIRIS (RAU)

CERTIFICATE OF ANALYSIS VA10120383

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	As- OG62
	Analyte	U	V	W	Y	Zn	Zr	As
	Units	ppm	ppm	ppm	ppm	ppm	ppm	%
	LOR	0.1	1	0.1	0.1	2	0.5	0.001
J980171		2.2	173	4.7	19.9	51	135.0	
J980172		0.9	61	3.8	7.9	44	53.1	
J980173		2.3	165	9.7	28.7	20	153.0	5.76
J980174		2.3	186	13.4	23.6	46	151.0	
J980175		1.6	167	9.1	18.1	100	107.0	
J980176		0.5	65	9.3	5.4	11	44.6	
J980177		0.9	90	4.2	10.5	99	58.0	
J980178		1.7	2	0.1	1.2	9440	2.1	
J980179		3.1	77	5.3	16.3	18	106.0	4.27

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

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VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2010
Account: RCM

Project: OSIRIS (RAU)

CERTIFICATE OF ANALYSIS VA10120383

Method	CERTIFICATE COMMENTS
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 2- SEP- 2010
Account: RCM

CERTIFICATE VA10120389

Project: OSIRIS (RAU)

P.O. No.:

This report is for 19 Rock samples submitted to our lab in Vancouver, BC, Canada on 26- AUG- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 2- SEP- 2010
Account: RCM

Project: OSIRIS (RAU)

CERTIFICATE OF ANALYSIS VA10120389

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J980145		0.10	0.01	0.07	3.79	2230	240	0.37	0.08	0.19	<0.02	37.6	4.5	31	6.11	67.6
J980153		0.78	0.01	0.13	0.13	60	10	0.24	0.01	15.25	0.04	3.84	1.1	1	0.12	6.9
J980154		0.36	<0.01	0.25	1.03	189.5	530	0.55	0.03	0.38	4.89	13.10	4.8	11	1.70	10.3
J980155		0.46	0.01	0.37	0.11	99.2	30	0.29	<0.01	0.74	5.75	2.99	0.4	<1	0.20	8.8
J980156		0.64	2.34	0.16	1.45	641	910	0.33	0.05	19.75	0.21	16.15	2.4	17	1.61	9.2
J980157		0.34	2.15	0.20	1.90	5590	190	0.39	0.06	12.45	0.26	16.90	3.5	22	1.26	13.3
J980158		0.30	0.13	0.11	0.63	294	70	0.18	0.02	30.5	0.13	9.37	1.5	10	0.99	4.4
J980159		1.06	7.61	0.02	1.74	>10000	210	0.46	0.04	10.20	0.08	34.5	2.3	17	4.14	13.5
J980160		0.52	0.40	0.03	0.47	>10000	70	0.16	0.04	7.04	0.08	6.90	0.7	10	1.44	5.2
J980161		0.24	1.77	0.46	0.74	3060	80	0.21	0.04	0.29	4.72	11.90	10.4	5	1.55	9.6
J980162		0.14	0.56	0.39	0.78	3180	80	0.18	0.08	1.25	0.46	7.68	9.1	8	0.81	95.6
J980163		0.40	2.50	0.42	0.11	4820	40	0.11	0.03	8.18	10.15	6.10	3.3	4	0.17	6.6
J980164		0.56	1.14	1.56	0.06	2450	10	<0.05	0.01	0.31	1.00	1.34	0.6	2	0.05	2.0
J980165		0.50	1.39	0.62	0.24	6940	60	0.05	0.03	0.27	0.90	4.42	3.0	3	0.42	36.1
J980166		0.22	0.05	0.09	0.57	310	20	0.19	0.03	16.60	0.07	12.00	1.9	8	1.21	6.3
J980167		0.20	0.23	0.25	0.44	>10000	60	0.10	0.03	0.71	0.21	5.53	2.4	5	0.72	23.0
J980168		0.28	0.12	0.03	0.43	3180	60	0.18	0.01	13.10	1.97	6.71	0.6	6	0.60	2.9
J980169		0.30	0.63	0.43	2.17	>10000	370	1.71	0.08	1.14	23.7	21.7	10.5	26	4.22	44.0
J980170		0.62	<0.01	0.03	0.09	158	10	0.11	0.01	21.1	15.75	4.55	1.3	5	0.11	4.2

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

ALS Canada Ltd.
2103 Dollarton Hwy
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 2- SEP- 2010
Account: RCM

Project: OSIRIS (RAU)

CERTIFICATE OF ANALYSIS VA10120389

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J980145		15.00	10.05	0.20	2.4	1.61	0.048	1.64	19.3	6.2	0.24	144	1.30	0.02	5.3	7.4
J980153		12.25	0.46	0.12	0.1	0.59	<0.005	0.05	2.8	0.6	8.25	835	4.84	0.01	0.6	0.6
J980154		50.0	3.22	2.65	0.4	1.37	0.009	0.37	9.8	3.7	0.40	3800	7.83	0.10	2.3	14.9
J980155		>50	1.93	0.78	0.1	3.64	0.007	0.03	1.8	0.4	0.43	478	3.56	0.01	0.9	3.1
J980156		1.18	3.98	0.07	0.7	3.50	0.012	0.63	10.1	10.1	1.14	1160	0.33	0.02	2.1	7.0
J980157		0.78	5.27	0.10	1.0	27.3	0.015	0.77	11.8	13.6	3.22	1320	1.77	0.02	2.7	5.3
J980158		0.58	1.79	0.07	0.4	1.22	0.006	0.29	5.5	5.1	0.69	403	0.37	0.01	1.1	2.3
J980159		1.23	4.71	0.11	2.0	5.80	0.030	0.89	16.4	12.8	4.11	2090	0.42	0.01	2.9	4.5
J980160		0.29	1.25	0.10	0.4	1.57	0.091	0.19	4.0	8.5	2.79	1140	0.09	0.01	0.8	1.2
J980161		>50	4.60	2.78	0.3	37.0	0.080	0.28	7.7	3.7	0.21	860	2.24	0.01	1.3	21.7
J980162		47.9	2.21	0.56	0.4	26.1	0.011	0.26	4.8	4.0	0.96	696	76.6	0.01	1.7	12.1
J980163		32.4	1.38	0.32	0.1	30.2	0.037	0.04	3.5	1.1	5.00	836	1.08	0.01	0.7	3.7
J980164		>50	1.02	0.74	<0.1	48.5	0.005	0.02	0.7	0.6	0.24	124	4.79	<0.01	0.9	0.9
J980165		45.2	1.08	0.58	0.1	25.1	0.015	0.09	3.1	1.3	0.25	322	85.9	<0.01	1.0	6.8
J980166		7.90	1.60	0.14	0.3	1.47	<0.005	0.24	8.4	3.8	9.94	441	30.7	0.02	1.2	2.1
J980167		>50	1.43	0.54	0.2	5.32	0.013	0.19	4.2	1.6	0.54	350	133.0	0.01	1.6	3.6
J980168		0.79	1.21	0.05	0.1	32.4	0.005	0.17	4.6	7.1	7.67	1020	0.34	0.01	0.5	0.3
J980169		31.4	9.02	0.37	1.0	55.2	0.078	0.79	15.7	10.2	0.23	437	50.2	0.01	2.9	40.8
J980170		0.93	0.63	0.06	<0.1	1.29	0.008	0.03	2.9	1.0	12.20	1440	0.14	0.01	0.3	0.5

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 2- SEP- 2010
Account: RCM

Project: OSIRIS (RAU)

CERTIFICATE OF ANALYSIS VA10120389

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J980145		1100	16.3	43.2	<0.002	0.12	0.56	1.6	2	0.9	60.8	0.37	<0.05	8.7	0.153	2.97
J980153		340	29.0	1.5	<0.002	>10.0	0.12	0.2	1	<0.2	69.8	<0.05	<0.05	0.2	0.005	43.8
J980154		380	554	16.8	<0.002	0.11	1.10	2.2	2	0.4	24.8	0.11	<0.05	1.7	0.050	9.61
J980155		670	119.5	1.2	<0.002	0.23	0.20	0.2	2	0.5	4.7	<0.05	<0.05	0.2	<0.005	3.22
J980156		590	15.1	25.3	<0.002	0.03	7.17	2.3	2	0.7	893	0.13	<0.05	2.3	0.053	4.28
J980157		810	16.1	31.6	<0.002	0.01	17.25	3.6	2	0.8	1270	0.18	<0.05	4.3	0.070	16.35
J980158		130	6.8	11.9	<0.002	<0.01	1.76	2.0	2	0.2	433	0.06	<0.05	1.8	0.024	0.99
J980159		210	4.5	28.7	<0.002	2.26	31.8	4.1	3	0.5	121.5	0.19	<0.05	4.3	0.074	19.20
J980160		140	3.9	9.2	<0.002	>10.0	383	1.2	10	0.2	47.1	0.05	0.10	1.1	0.019	2.44
J980161		470	538	12.6	<0.002	0.19	2.73	1.3	2	1.0	37.4	0.05	<0.05	1.5	0.025	5.01
J980162		460	226	10.5	0.010	0.40	4.87	1.1	3	0.5	86.0	0.08	<0.05	1.7	0.035	36.0
J980163		580	215	1.5	<0.002	0.22	9.06	0.5	2	0.3	63.2	<0.05	<0.05	0.2	<0.005	9.15
J980164		130	1030	0.7	<0.002	0.20	25.4	0.1	1	0.3	4.5	<0.05	<0.05	<0.2	<0.005	9.67
J980165		750	411	4.0	0.005	0.19	8.44	0.4	3	0.3	80.3	<0.05	<0.05	0.6	0.009	26.9
J980166		390	43.5	9.0	<0.002	7.08	0.58	1.5	2	0.2	88.2	0.06	<0.05	1.3	0.024	19.55
J980167		720	70.5	7.2	0.002	0.31	4.50	0.7	2	0.2	53.0	0.05	<0.05	1.1	0.021	25.8
J980168		810	10.9	8.3	<0.002	0.02	0.63	0.9	2	0.2	153.5	<0.05	<0.05	0.7	0.009	8.18
J980169		1060	303	34.6	0.003	0.12	22.4	3.9	4	0.9	303	0.16	<0.05	5.1	0.072	45.8
J980170		50	837	1.1	<0.002	0.34	0.13	0.4	2	<0.2	64.6	<0.05	<0.05	0.2	<0.005	0.18

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 2- SEP- 2010
Account: RCM

Project: OSIRIS (RAU)

CERTIFICATE OF ANALYSIS VA10120389

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	As- OG62
	Analyte	U	V	W	Y	Zn	Zr	As
	Units	ppm	ppm	ppm	ppm	ppm	ppm	%
	LOR	0.1	1	0.1	0.1	2	0.5	0.001
J980145		17.8	50	1.5	7.1	46	89.2	
J980153		1.2	3	0.1	2.4	53	2.6	
J980154		4.5	20	0.6	7.4	3490	15.4	
J980155		2.7	4	0.2	2.7	5540	3.5	
J980156		23.8	29	1.8	4.0	80	30.2	
J980157		20.8	44	1.8	7.4	49	37.0	
J980158		16.1	15	0.5	4.9	30	18.4	
J980159		3.6	29	1.6	9.5	13	70.8	3.71
J980160		4.2	13	0.7	3.2	14	13.5	29.7
J980161		3.6	12	1.1	5.7	3470	11.1	
J980162		4.1	14	1.2	3.3	591	15.6	
J980163		2.5	5	0.6	3.9	3510	3.1	
J980164		0.8	5	0.7	1.0	1920	1.5	
J980165		3.2	8	1.1	2.3	1920	5.4	
J980166		1.8	7	0.4	5.3	74	11.8	
J980167		3.5	8	1.7	3.0	108	9.2	1.340
J980168		2.8	4	0.5	5.8	199	5.1	
J980169		18.2	24	4.9	16.9	4500	40.8	3.63
J980170		0.8	3	0.1	4.3	4650	1.1	

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Finalized Date: 2- SEP- 2010
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Project: OSIRIS (RAU)

CERTIFICATE OF ANALYSIS VA10120389

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 8- SEP- 2010
Account: RCM

CERTIFICATE VA10120433

Project: OSIRIS

P.O. No.: BATCH 3

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 26- AUG- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 8- SEP- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10120433

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J998374		6.54	0.06	0.15	0.53	1860	60	0.16	0.04	19.95	0.11	7.91	2.0	8	1.12	8.1
J998375		6.40	0.04	0.15	0.55	3920	50	0.22	0.03	20.6	0.14	7.99	1.8	7	1.03	5.5
J998376		11.82	0.02	0.09	0.49	100	30	0.21	0.02	20.6	0.05	6.96	1.8	6	0.98	4.2
J998377		11.22	0.02	0.08	0.50	132	40	0.20	0.02	19.45	0.14	6.86	1.8	6	1.19	4.2
J998378		3.58	0.03	0.06	0.85	60	60	0.30	0.03	20.2	0.02	11.20	2.3	8	2.18	5.6
J998379		0.28	1.55	1.69	0.10	>10000	30	<0.05	348	12.30	0.84	52.9	1.5	7	0.63	14.0
J998380		5.62	0.07	0.10	0.91	80	60	0.33	0.57	19.00	0.02	12.10	1.9	9	2.55	6.4
J998381		4.62	0.08	0.05	0.93	62	70	0.28	0.10	17.00	0.04	15.50	1.6	14	2.12	5.1
J998382		5.48	0.44	0.30	2.42	860	230	0.65	0.11	15.35	0.23	25.3	4.1	22	5.54	14.2
J998383		5.88	0.05	0.13	0.87	608	80	0.19	0.04	17.35	2.58	14.55	1.6	10	1.87	5.4
J998384		7.86	<0.01	<0.01	0.10	7	20	0.09	0.07	21.2	0.08	1.34	1.4	4	0.27	2.2
J998385		5.90	0.01	0.05	0.85	110	80	0.21	0.05	17.75	1.02	15.00	1.3	8	1.88	3.5
J998386		6.54	<0.01	0.02	0.92	36	70	0.27	0.04	16.90	0.08	14.55	1.6	7	1.90	3.4
J998387		5.28	<0.01	0.01	1.12	33	60	0.39	0.05	18.25	0.19	16.10	1.9	8	2.98	4.5
J998388		6.84	<0.01	0.01	0.86	39	60	0.33	0.08	19.65	0.08	13.85	1.9	7	2.25	4.1
J998389		5.38	<0.01	0.01	0.59	25	40	0.21	0.02	19.65	0.13	9.33	1.7	6	0.79	3.8
J998390		4.56	<0.01	0.02	0.41	20	30	0.15	0.02	19.30	0.04	7.47	1.6	5	0.50	3.4
J998391		3.62	<0.01	0.02	0.90	68	70	0.28	0.04	18.60	0.21	14.65	2.5	10	2.28	8.4
J998392		4.74	0.02	0.09	8.68	248	460	2.79	0.39	1.10	0.04	81.6	16.4	75	26.7	33.8
J998393		5.32	<0.01	0.13	7.18	96.4	370	1.99	0.28	7.43	0.08	68.1	13.1	58	18.95	26.6
J998394		6.00	<0.01	0.06	3.94	19	210	1.06	0.13	15.75	0.05	36.1	6.5	30	10.75	12.1
J998395		6.44	<0.01	0.19	2.40	15	130	0.67	0.08	25.0	0.14	22.5	3.8	19	7.95	9.5
J998396		2.76	<0.01	0.35	2.95	20	170	0.82	0.07	15.50	0.13	34.4	4.8	30	9.97	11.3
J998397		6.12	<0.01	0.37	2.80	20	170	0.80	0.07	16.10	0.15	33.2	4.6	29	9.27	11.3
J998398		6.36	<0.01	0.39	2.95	31	120	0.80	0.07	14.00	0.14	34.7	4.7	31	10.35	11.7
J998399		0.12	14.65	8.55	3.97	500	800	0.68	0.06	0.24	0.10	17.95	8.4	34	5.73	44.7
J998400		5.42	0.01	0.50	2.49	30	140	0.73	0.06	19.20	0.42	30.0	4.0	26	8.56	10.1
J998401		5.38	<0.01	0.22	1.88	30	110	0.48	0.06	28.3	0.24	18.55	3.7	16	6.54	7.1
J998402		6.20	0.01	0.08	3.87	50	190	1.00	0.13	17.55	0.06	36.4	6.1	28	10.25	17.0
J998403		5.98	0.01	0.08	3.25	59	170	0.93	0.11	18.80	0.05	29.9	6.2	24	9.96	16.6
J998404		7.60	<0.01	0.01	0.07	<5	10	0.05	0.02	20.7	0.07	1.17	1.3	2	0.17	3.4
J998405		5.80	0.21	0.09	7.36	2590	300	1.67	0.39	7.85	0.05	66.7	11.0	56	14.60	28.3
J998406		4.70	0.02	0.10	4.80	527	220	1.08	0.20	14.20	0.24	59.3	8.6	36	10.40	17.8
J998407		4.14	0.01	0.14	4.48	113	150	1.03	0.19	12.60	0.12	68.0	7.9	44	10.80	17.3
J998408		4.44	<0.01	0.05	6.20	28	220	1.38	0.24	13.00	<0.02	74.8	7.3	42	18.95	20.6
J998409		5.62	<0.01	0.07	6.27	30	210	1.48	0.26	13.65	<0.02	71.2	10.2	41	18.25	20.3

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 8- SEP- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10120433

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J998374		0.48	1.53	0.21	0.3	1.16	0.009	0.25	4.8	3.5	11.70	625	0.61	0.01	1.0	4.6
J998375		0.29	1.63	0.32	0.3	1.20	0.007	0.26	5.4	4.0	12.00	727	0.55	0.02	1.1	2.2
J998376		0.30	1.45	0.46	0.3	0.81	<0.005	0.23	4.4	3.5	12.10	486	0.35	0.01	0.9	2.5
J998377		0.32	1.50	0.42	0.2	1.91	0.005	0.23	4.5	3.7	11.45	336	0.43	0.02	1.0	2.5
J998378		0.36	2.45	0.35	0.5	1.97	0.006	0.41	7.1	6.2	11.40	277	0.52	0.02	1.6	3.6
J998379		16.00	0.97	0.23	0.1	0.08	0.084	0.06	35.2	1.8	6.73	2190	5.59	0.01	0.8	5.0
J998380		0.40	2.46	0.28	0.6	1.41	0.006	0.45	7.5	5.6	11.30	326	0.47	0.02	1.7	3.2
J998381		0.58	2.30	0.22	1.1	1.67	0.006	0.45	9.3	6.3	9.40	455	0.41	0.02	1.7	3.4
J998382		0.84	6.47	0.19	1.9	7.76	0.017	1.19	15.4	13.3	7.07	862	2.37	0.02	4.4	8.9
J998383		1.02	2.66	0.18	0.7	3.32	0.015	0.43	8.1	5.3	10.20	525	0.78	0.01	1.5	2.7
J998384		0.47	0.53	0.61	<0.1	0.02	0.007	0.05	0.7	1.7	12.70	226	0.17	0.01	0.4	1.9
J998385		0.76	2.47	0.21	0.6	1.74	0.011	0.40	8.9	4.5	10.65	464	0.38	0.01	1.5	1.0
J998386		0.52	2.44	0.27	1.0	0.51	0.015	0.45	8.6	4.9	10.05	353	0.24	0.01	1.7	1.6
J998387		0.59	3.16	0.27	0.9	0.55	0.014	0.56	10.1	6.1	10.70	407	0.40	0.02	2.1	2.3
J998388		0.67	2.41	0.26	0.7	0.33	0.012	0.43	7.9	5.1	10.70	457	0.21	0.02	1.6	2.0
J998389		0.82	1.76	0.23	0.4	0.43	0.010	0.28	5.3	3.2	11.20	736	0.28	0.02	1.1	1.2
J998390		0.69	1.22	0.24	0.3	0.14	0.008	0.20	4.3	2.5	11.45	698	0.23	0.01	0.8	1.7
J998391		1.28	2.65	0.19	0.6	0.49	0.015	0.45	7.7	5.0	11.00	801	0.18	0.02	1.6	4.0
J998392		2.96	27.2	0.25	3.5	1.50	0.074	4.63	43.5	41.1	1.24	75	1.32	0.06	13.5	34.8
J998393		2.10	18.85	0.25	2.9	1.00	0.061	3.56	38.2	27.2	3.86	272	0.85	0.06	10.3	27.9
J998394		1.52	10.10	0.17	1.6	0.44	0.031	1.93	20.1	14.2	5.77	396	0.35	0.04	5.6	11.6
J998395		1.06	6.08	0.16	1.1	0.11	0.020	1.22	13.8	9.5	3.50	311	0.61	0.03	3.7	6.4
J998396		1.39	7.66	0.18	2.3	0.20	0.022	1.43	18.5	15.7	5.35	261	1.37	0.03	5.3	10.5
J998397		1.34	7.32	0.16	2.3	0.19	0.022	1.38	17.9	14.0	5.36	261	1.42	0.03	5.2	10.4
J998398		1.69	7.61	0.18	2.1	0.15	0.024	1.47	19.0	16.6	5.43	288	1.23	0.03	4.9	10.2
J998399		3.29	8.29	0.23	1.8	0.41	0.032	3.27	9.9	49.5	0.20	152	6.05	0.10	7.1	15.5
J998400		1.20	6.46	0.16	2.1	0.15	0.020	1.24	16.0	11.5	4.13	233	1.72	0.03	4.6	8.4
J998401		1.08	4.79	0.15	0.8	0.08	0.018	0.94	12.1	5.6	1.83	312	1.60	0.02	3.0	5.1
J998402		2.01	9.94	0.16	1.8	0.09	0.034	1.89	19.8	10.7	4.73	488	0.47	0.04	5.5	10.9
J998403		1.93	8.27	0.14	1.4	0.33	0.028	1.59	16.6	9.2	4.43	469	0.51	0.03	4.7	11.3
J998404		0.47	0.41	0.50	<0.1	<0.01	0.005	0.03	0.6	1.0	12.50	218	<0.05	0.01	0.3	1.6
J998405		3.61	19.30	0.23	2.8	6.7	0.056	3.57	37.5	18.5	2.33	688	0.39	0.05	10.0	22.5
J998406		3.40	12.50	0.16	1.8	1.93	0.042	2.28	32.0	12.1	2.44	631	0.59	0.03	6.7	15.5
J998407		2.39	11.70	0.18	2.0	0.82	0.033	2.13	36.2	12.4	0.77	283	0.50	0.03	6.9	17.7
J998408		1.76	15.85	0.19	2.5	0.16	0.046	3.05	41.0	18.5	0.93	311	0.24	0.04	9.3	14.4
J998409		2.18	16.35	0.20	2.5	0.16	0.047	3.11	39.5	19.3	0.99	342	0.27	0.04	9.1	20.5

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

ALS Canada Ltd.
2103 Dollarton Hwy
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 8- SEP- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10120433

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J998374		170	8.8	9.5	<0.002	0.39	3.36	1.0	2	0.2	93.1	0.06	<0.05	1.1	0.022	1.88
J998375		180	6.2	10.2	0.002	0.43	4.53	1.0	1	0.2	109.5	0.06	<0.05	1.1	0.023	1.22
J998376		140	6.2	8.5	<0.002	0.29	1.15	0.8	2	0.2	88.3	0.05	<0.05	0.9	0.020	0.93
J998377		120	7.2	8.9	<0.002	0.28	1.02	0.9	1	0.2	87.1	0.06	<0.05	0.9	0.020	1.72
J998378		160	6.9	15.3	<0.002	0.30	1.60	1.4	2	0.3	111.0	0.10	<0.05	1.5	0.036	1.73
J998379		120	14.7	8.4	0.003	>10.0	22.9	0.4	4	1.2	86.1	<0.05	0.75	0.6	0.008	0.10
J998380		200	6.5	17.3	<0.002	0.24	0.97	1.5	2	0.3	89.7	0.11	<0.05	1.9	0.040	1.67
J998381		520	5.3	16.4	<0.002	0.24	1.14	1.4	2	0.3	104.5	0.11	<0.05	2.2	0.041	3.12
J998382		780	10.7	35.9	0.003	0.46	7.43	3.7	2	0.8	174.0	0.29	<0.05	5.2	0.105	18.65
J998383		690	4.3	17.1	<0.002	0.56	1.78	1.4	2	0.3	87.6	0.10	<0.05	2.0	0.038	2.72
J998384		210	1.4	2.5	<0.002	0.01	0.05	0.3	1	<0.2	42.7	<0.05	<0.05	<0.2	<0.005	0.04
J998385		760	2.5	15.3	<0.002	0.31	0.74	1.4	2	0.3	103.0	0.09	<0.05	1.8	0.035	1.13
J998386		560	3.2	16.5	<0.002	0.16	0.54	1.5	1	0.3	84.8	0.11	<0.05	2.3	0.042	0.50
J998387		490	4.2	22.5	<0.002	0.33	0.48	1.9	1	0.4	98.5	0.14	<0.05	2.5	0.050	0.75
J998388		420	4.1	17.1	<0.002	0.25	0.32	1.4	1	0.3	110.0	0.11	<0.05	1.9	0.040	0.54
J998389		530	2.4	11.3	<0.002	0.19	0.30	1.0	2	0.2	81.5	0.07	<0.05	1.3	0.027	0.35
J998390		660	2.3	7.7	<0.002	0.20	0.27	0.7	1	0.2	65.1	0.05	<0.05	0.9	0.019	0.26
J998391		710	6.1	19.4	<0.002	1.14	0.71	2.3	2	0.3	95.6	0.10	<0.05	1.8	0.041	0.83
J998392		520	21.2	154.0	0.002	2.49	1.80	16.5	2	3.0	82.6	0.94	0.09	13.6	0.424	5.73
J998393		670	24.4	143.5	0.002	1.33	0.62	12.1	2	2.2	117.5	0.73	0.06	11.3	0.319	3.14
J998394		870	10.8	73.9	0.002	0.65	0.24	6.3	1	1.3	255	0.37	<0.05	6.4	0.165	1.43
J998395		450	8.2	43.9	<0.002	0.40	0.19	3.8	2	0.8	1100	0.24	<0.05	4.1	0.101	0.80
J998396		870	22.4	46.7	0.002	0.60	0.37	4.6	3	1.0	461	0.36	<0.05	6.7	0.135	1.47
J998397		900	22.9	43.8	<0.002	0.59	0.36	4.3	3	1.0	475	0.35	<0.05	6.6	0.129	1.51
J998398		1100	19.9	47.1	<0.002	0.56	0.34	4.4	3	1.1	438	0.35	<0.05	6.6	0.132	1.54
J998399		550	5.7	115.0	0.002	2.30	46.6	7.2	17	2.8	76.6	0.44	0.12	1.6	0.310	5.02
J998400		870	19.7	40.2	0.002	0.53	0.49	3.9	3	0.8	768	0.33	<0.05	5.8	0.114	1.76
J998401		390	7.3	33.6	<0.002	0.21	0.31	2.9	2	0.6	1420	0.19	<0.05	3.2	0.079	0.65
J998402		560	7.6	76.6	<0.002	0.15	0.38	6.4	1	1.2	430	0.38	<0.05	6.6	0.161	0.90
J998403		500	7.2	62.0	<0.002	0.19	0.37	5.4	1	1.0	455	0.32	<0.05	5.4	0.136	0.86
J998404		200	1.1	1.6	<0.002	0.01	<0.05	0.2	1	<0.2	40.8	<0.05	<0.05	<0.2	<0.005	<0.02
J998405		810	13.1	140.5	<0.002	2.16	9.41	12.6	2	2.2	222	0.71	0.08	11.9	0.314	28.1
J998406		270	20.9	86.6	<0.002	1.43	1.88	7.6	1	1.4	282	0.47	<0.05	8.8	0.218	6.46
J998407		380	31.9	83.5	<0.002	1.78	0.73	6.5	2	1.4	258	0.50	<0.05	9.1	0.251	2.83
J998408		270	11.0	125.5	<0.002	0.51	0.34	9.4	1	1.8	373	0.68	0.05	12.0	0.285	1.03
J998409		680	14.6	132.5	<0.002	0.65	0.40	9.5	1	1.8	409	0.65	0.05	11.8	0.261	0.99

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

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 8- SEP- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10120433

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
J998374		16.6	14	0.9	3.2	40	9.4	
J998375		18.1	17	0.7	3.1	31	9.4	
J998376		12.8	10	0.5	2.7	8	9.1	
J998377		12.6	13	0.5	2.7	33	8.7	
J998378		15.2	14	0.7	4.2	5	20.5	
J998379		2.2	7	185.5	7.1	138	3.1	2.63
J998380		13.6	21	0.8	4.5	7	24.3	
J998381		8.2	15	0.6	6.4	5	43.2	
J998382		15.6	51	2.3	11.6	32	71.8	
J998383		10.3	24	0.8	7.1	1200	22.8	
J998384		0.6	5	0.1	0.9	22	0.5	
J998385		5.9	21	0.8	7.9	431	22.8	
J998386		5.2	13	0.6	7.6	8	35.3	
J998387		8.0	23	0.8	7.7	27	31.9	
J998388		7.7	18	0.7	5.9	15	25.0	
J998389		5.2	12	0.5	4.4	23	16.7	
J998390		3.9	9	0.3	4.0	5	12.0	
J998391		3.7	15	0.7	9.8	75	21.6	
J998392		4.9	127	6.6	18.4	30	136.5	
J998393		5.3	89	3.2	18.7	42	108.0	
J998394		8.7	54	0.8	13.6	18	60.6	
J998395		11.7	44	0.5	8.9	25	40.8	
J998396		7.0	42	0.6	13.2	26	84.0	
J998397		7.3	42	0.6	13.1	33	83.0	
J998398		6.9	46	0.6	14.2	33	77.3	
J998399		0.8	59	10.1	10.6	48	70.3	
J998400		9.3	45	0.7	11.6	72	74.1	
J998401		12.1	32	0.4	7.5	54	31.3	
J998402		8.0	52	1.0	13.3	25	63.7	
J998403		7.0	44	1.2	11.1	19	52.6	
J998404		0.5	4	0.1	0.8	15	<0.5	
J998405		5.5	97	6.1	20.2	38	101.0	
J998406		2.6	50	3.5	16.8	217	65.0	
J998407		2.6	51	2.3	14.3	133	70.6	
J998408		2.6	64	1.3	17.1	43	89.2	
J998409		3.3	64	1.2	17.5	42	91.9	

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 8- SEP- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10120433

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- SEP- 2010
Account: RCM

CERTIFICATE VA10126939

Project: RAU (OSIRIS)

P.O. No.: CONRAD

This report is for 4 Rock samples submitted to our lab in Vancouver, BC, Canada on 9- SEP- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
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VANCOUVER BC V6B 1L8

Finalized Date: 15- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10126939

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
G285261		1.64	66.6	0.11	0.94	>10000	450	0.17	0.14	0.18	0.13	8.91	0.3	15	1.08	47.4
G285262		2.72	23.5	0.07	7.06	>10000	320	1.07	0.39	0.16	0.04	89.1	2.0	67	7.55	19.8
G285263		1.34	21.9	0.05	1.76	>10000	160	0.30	0.08	0.10	0.08	26.0	3.3	30	2.52	85.0
G285264		0.68	0.14	0.07	7.25	979	170	0.98	0.22	0.01	0.02	55.3	0.7	77	11.95	2.0

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Finalized Date: 15- SEP- 2010
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Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10126939

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
G285261		1.76	3.38	0.28	0.3	79.0	0.051	0.37	5.1	34.7	0.12	62	0.64	0.01	1.5	1.3
G285262		1.16	20.0	0.12	3.7	26.8	0.053	3.24	50.0	19.8	0.39	68	0.48	0.07	13.7	7.1
G285263		1.54	4.54	0.05	1.3	25.5	0.021	0.77	13.4	19.0	0.10	78	0.48	0.01	3.1	8.0
G285264		2.27	20.7	0.13	2.6	8.8	0.071	3.38	24.7	38.0	0.32	13	0.26	0.01	16.0	2.0

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CERTIFICATE OF ANALYSIS VA10126939

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
G285261		160	34.0	22.0	<0.002	2.08	415	2.1	5	0.8	30.6	0.12	0.63	1.1	0.027	11.40
G285262		260	32.0	151.0	0.002	1.12	155.5	9.7	2	2.2	71.8	0.99	0.26	12.8	0.418	6.67
G285263		80	12.3	36.2	<0.002	1.14	80.3	2.6	2	0.7	24.4	0.23	0.05	2.8	0.149	23.7
G285264		520	10.1	184.0	0.002	0.43	3.00	26.9	2	2.3	351	1.03	0.18	4.4	1.045	21.3

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10126939

Sample Description	Method / Analyte / Units / LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
G285261		1.7	12	2.1	5.0	7	11.0	6.46
G285262		3.4	96	6.1	15.0	7	120.5	2.96
G285263		0.8	28	1.6	5.2	14	41.0	1.465
G285264		1.1	248	26.3	16.9	<2	91.1	

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Finalized Date: 15- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10126939

Method	CERTIFICATE COMMENTS
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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Finalized Date: 21- SEP- 2010
Account: RCM

CERTIFICATE VA10127791

Project: RAU (OSIRIS)

P.O. No.: BATCH 5

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 9- SEP- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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Finalized Date: 21- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10127791

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J998446		3.46	1.69	0.19	0.23	1540	20	0.12	0.06	19.55	0.16	6.48	1.5	4	0.33	5.2
J998447		1.70	19.10	1.49	1.25	>10000	70	0.32	0.07	12.75	1.21	20.0	3.3	14	2.45	10.1
J998448		1.42	12.50	1.57	1.52	>10000	90	0.31	0.05	10.05	1.18	20.0	5.4	18	4.92	12.3
J998449		4.24	5.33	0.48	0.22	3760	20	0.10	0.06	19.30	0.55	6.71	1.4	5	0.29	2.9
J998450		7.32	0.01	0.01	0.07	23	20	0.07	0.02	21.4	0.06	1.49	1.1	<1	0.13	2.8
J998451		2.80	0.99	0.21	2.14	2110	130	0.60	0.05	15.95	0.21	26.7	3.4	19	5.38	10.3
J998452		3.88	0.38	0.12	0.65	845	70	0.17	0.02	17.95	0.10	14.65	1.3	8	1.33	5.3
J998453		3.00	1.40	0.65	0.94	6270	170	0.22	0.04	17.25	1.27	14.40	1.3	12	2.36	25.1
J998454		7.10	0.02	0.04	0.82	214	60	0.31	0.03	31.3	0.10	11.45	2.0	8	2.36	4.7
J998455		11.26	0.01	0.04	0.83	519	50	0.30	0.07	31.1	0.05	12.00	2.4	10	2.37	3.9
J998456		0.28	1.48	1.82	0.11	>10000	30	0.06	333	12.60	0.92	54.0	1.9	7	0.72	16.4
J998457		10.30	0.03	0.07	1.28	830	80	0.39	0.04	29.6	0.07	13.60	2.6	12	3.13	7.1
J998458		10.54	<0.01	0.05	1.20	509	70	0.39	0.10	28.1	0.05	14.70	2.6	13	4.32	6.1
J998459		8.12	0.02	0.03	1.33	567	80	0.44	0.10	27.0	0.05	16.60	2.7	14	4.37	5.0
J998460		11.32	0.01	0.07	4.18	532	200	1.27	0.11	18.85	0.02	44.5	7.8	36	30.3	17.3
J998461		12.50	0.01	0.09	5.46	162	250	1.57	0.14	14.50	0.02	57.9	12.0	44	39.9	20.7
J998462		10.92	0.03	0.06	4.63	105	240	1.37	0.10	18.25	0.02	49.8	9.0	36	30.7	17.6
J998463		3.84	0.04	0.05	4.19	123	210	1.31	0.09	18.30	0.02	45.6	8.3	32	26.5	16.6
J998464		9.90	<0.01	0.04	4.72	102	250	1.64	0.12	14.25	0.02	44.7	11.0	37	31.0	18.4
J998465		10.82	0.01	0.08	4.76	286	320	1.46	0.12	11.85	0.04	50.6	8.4	42	26.6	25.5
J998466		1.32	0.01	0.08	3.49	587	270	1.00	0.11	18.10	0.05	39.0	5.4	33	18.65	21.4
J998467		0.12	13.95	7.08	3.72	467	510	0.80	0.04	0.20	0.08	17.95	8.5	33	5.64	44.8
J998468		2.36	0.07	0.06	0.63	355	80	0.24	0.02	30.3	0.05	12.30	1.8	7	2.12	6.8
J998469		4.08	0.01	0.05	0.78	105	50	0.37	0.02	32.8	0.21	10.60	1.9	10	2.74	3.9
J998470		4.34	0.01	0.02	0.62	60	60	0.30	0.02	32.0	0.19	9.56	1.6	9	2.14	3.4
J998471		3.70	2.20	0.07	1.18	958	40	0.32	0.03	27.1	0.38	11.95	2.9	13	2.45	6.0
J998472		1.88	5.32	0.20	1.08	>10000	30	0.25	0.04	15.15	0.73	12.55	2.2	13	2.23	8.7
J998473		1.56	2.36	0.07	1.34	>10000	40	0.29	0.04	8.92	0.66	13.70	2.6	17	2.85	8.5
J998474		7.08	<0.01	0.01	0.09	57	30	0.07	0.02	21.2	0.05	1.42	1.1	<1	0.19	4.0
J998475		1.58	0.54	0.03	0.88	>10000	60	0.23	0.02	19.85	0.11	12.85	1.9	12	1.74	4.6
J998476		11.26	<0.01	0.08	4.62	138	220	1.18	0.16	18.60	0.07	46.5	6.9	32	16.50	12.8
J998477		11.10	<0.01	0.05	4.14	163	190	1.35	0.16	17.40	0.08	42.2	6.4	32	16.50	16.3
J998478		10.90	<0.01	0.06	5.39	107	220	1.88	0.20	12.10	0.05	55.3	9.0	39	20.0	25.9
J998479		5.28	0.05	0.05	4.16	197	180	1.42	0.16	14.75	0.15	45.9	8.8	30	15.30	16.1
J998480		10.88	<0.01	0.01	0.76	146	60	0.38	0.03	27.2	0.09	13.10	2.0	6	2.74	9.0
J998481		3.36	0.01	0.04	6.24	209	300	3.28	0.30	9.28	0.07	65.0	11.1	44	26.8	20.3

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VANCOUVER BC V6B 1L8

Finalized Date: 21- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10127791

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J998446		0.68	0.79	<0.05	0.1	5.05	0.006	0.09	4.0	2.9	11.90	1140	0.24	0.03	0.4	3.5
J998447		0.97	4.04	<0.05	0.9	20.0	0.034	0.56	12.2	18.4	3.25	4890	0.22	0.02	2.0	6.8
J998448		1.58	4.52	<0.05	1.2	22.2	0.044	0.66	12.2	23.4	2.10	2400	0.59	0.01	2.3	10.2
J998449		0.93	0.95	<0.05	0.2	9.75	0.008	0.08	4.1	3.2	11.40	2090	0.31	0.02	0.4	2.7
J998450		0.49	0.28	0.10	<0.1	0.02	<0.005	0.03	0.7	0.9	12.75	192	0.50	<0.01	0.3	0.9
J998451		0.68	6.44	<0.05	1.3	3.96	0.012	1.03	17.2	9.4	8.57	3370	0.16	0.02	3.4	6.8
J998452		0.81	1.80	<0.05	0.4	5.37	0.008	0.29	8.0	3.2	9.64	835	0.07	0.01	1.0	1.4
J998453		0.98	2.69	<0.05	0.5	58.8	0.020	0.41	9.9	9.2	7.21	1200	0.14	0.01	1.5	1.4
J998454		0.35	2.29	<0.05	0.7	2.27	0.006	0.39	7.3	3.6	1.20	298	0.34	0.01	1.5	2.0
J998455		0.49	2.33	<0.05	0.7	0.20	0.008	0.41	7.4	4.0	1.58	185	0.48	0.01	1.5	3.5
J998456		16.50	1.17	0.26	0.1	0.02	0.103	0.06	36.2	1.8	6.83	2190	5.76	0.01	0.7	6.5
J998457		0.52	3.19	0.11	0.8	0.21	0.009	0.63	7.8	5.3	1.83	216	0.46	<0.01	2.1	4.1
J998458		0.54	3.38	<0.05	0.8	0.09	0.011	0.59	9.2	6.1	2.15	157	0.40	0.01	2.0	2.9
J998459		0.61	3.51	<0.05	0.9	0.13	0.010	0.66	9.9	6.6	2.54	252	0.53	0.02	2.1	2.9
J998460		1.72	11.25	0.07	1.5	0.63	0.027	2.26	24.0	26.9	1.91	484	0.84	0.03	5.4	18.5
J998461		2.16	15.05	0.10	1.7	0.40	0.035	3.04	31.5	36.7	2.13	281	0.62	0.03	6.8	25.7
J998462		1.78	12.35	0.07	1.4	0.35	0.030	2.49	27.2	30.6	1.80	282	0.50	0.03	5.7	19.7
J998463		1.64	11.25	0.07	1.3	0.37	0.027	2.26	24.4	27.7	1.63	328	0.45	0.02	5.3	18.2
J998464		1.79	13.10	0.08	1.4	0.44	0.030	2.55	25.1	33.0	2.00	288	0.43	0.03	5.9	22.2
J998465		1.90	13.30	0.09	2.7	0.68	0.031	2.55	26.1	37.0	3.21	392	1.04	0.04	6.7	21.1
J998466		1.44	9.25	0.07	1.9	2.10	0.023	1.77	21.1	22.3	2.55	664	0.96	0.03	5.1	14.4
J998467		3.17	7.95	0.13	1.9	0.42	0.030	3.09	9.9	50.3	0.17	144	5.54	0.08	6.2	16.3
J998468		0.76	1.69	<0.05	0.3	1.44	0.007	0.30	7.8	2.6	1.26	579	0.45	0.01	1.1	2.0
J998469		0.32	2.12	<0.05	0.5	0.30	0.005	0.39	6.8	4.3	0.80	259	0.30	0.01	1.4	3.2
J998470		0.32	1.70	<0.05	0.4	0.42	0.005	0.32	6.3	3.3	0.82	209	0.21	0.01	1.1	1.8
J998471		0.69	3.47	<0.05	0.7	13.6	0.017	0.49	6.8	6.6	1.23	2870	0.44	0.03	1.7	5.0
J998472		0.75	3.37	<0.05	0.6	26.9	0.124	0.53	7.3	7.5	1.44	3040	0.58	0.02	1.8	4.6
J998473		0.62	4.08	<0.05	0.8	15.5	0.157	0.64	7.9	9.3	1.40	1800	0.66	0.03	2.1	6.2
J998474		0.42	0.39	0.29	<0.1	0.01	<0.005	0.04	0.7	1.3	12.60	194	0.24	<0.01	0.4	1.0
J998475		0.77	2.71	<0.05	0.5	3.72	0.094	0.44	7.8	4.4	2.07	1940	0.43	0.02	1.5	3.0
J998476		1.32	11.40	0.14	2.0	0.26	0.036	2.28	25.2	13.2	2.91	272	0.50	0.01	6.5	12.9
J998477		1.49	11.15	0.07	2.0	0.29	0.034	1.97	23.1	16.2	3.43	303	0.45	0.03	6.0	11.9
J998478		1.54	14.95	0.09	2.7	0.44	0.044	2.61	30.5	20.4	3.12	245	0.84	0.04	8.0	17.5
J998479		1.67	11.65	0.09	1.9	0.61	0.036	1.98	25.0	19.5	4.42	559	0.60	0.04	6.1	18.1
J998480		0.74	2.14	<0.05	0.4	0.38	0.010	0.36	7.2	4.6	4.10	615	0.22	0.01	1.3	1.6
J998481		2.51	17.80	0.11	2.8	0.94	0.042	3.06	37.2	47.5	5.00	320	0.94	0.04	9.0	28.0

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Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10127791

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J998446		180	9.3	4.2	<0.002	0.03	6.76	0.9	3	<0.2	74.3	<0.05	<0.05	0.5	0.010	31.3
J998447		210	11.4	26.0	<0.002	2.86	573	3.4	4	0.5	103.5	0.15	0.07	3.0	0.054	206
J998448		230	20.7	30.3	0.002	4.69	398	1.7	4	0.6	105.5	0.16	0.08	3.0	0.063	127.0
J998449		190	4.0	3.7	<0.002	0.11	29.8	1.1	5	<0.2	77.8	<0.05	<0.05	0.5	0.008	33.9
J998450		260	3.8	1.2	<0.002	<0.01	0.14	0.3	2	<0.2	50.2	<0.05	<0.05	<0.2	<0.005	0.06
J998451		380	4.4	36.5	<0.002	0.13	26.8	4.2	3	0.6	144.5	0.25	<0.05	4.7	0.093	13.60
J998452		210	3.4	12.8	<0.002	0.05	8.74	1.3	2	0.2	130.5	0.07	<0.05	1.5	0.028	12.60
J998453		320	3.7	19.4	0.002	0.12	33.4	1.8	3	0.4	220	0.10	<0.05	2.1	0.039	50.5
J998454		130	4.9	18.9	<0.002	0.15	4.26	1.6	3	0.3	570	0.10	<0.05	2.0	0.036	3.59
J998455		130	4.3	18.7	<0.002	0.10	3.05	1.5	3	0.3	900	0.10	<0.05	1.9	0.036	1.26
J998456		110	15.3	10.2	0.006	>10.0	22.6	0.6	6	1.2	94.2	<0.05	0.91	0.6	0.009	0.16
J998457		170	4.9	20.3	<0.002	0.07	5.64	1.9	2	0.5	608	0.14	<0.05	2.4	0.055	2.25
J998458		160	4.4	27.7	<0.002	0.07	4.14	2.1	3	0.4	503	0.14	<0.05	2.7	0.052	0.65
J998459		160	6.0	29.5	<0.002	0.07	4.30	2.2	3	0.4	497	0.15	<0.05	3.1	0.058	1.20
J998460		440	6.1	101.0	<0.002	0.52	2.96	6.8	2	1.0	544	0.40	<0.05	8.3	0.155	2.51
J998461		540	8.4	138.0	<0.002	0.64	0.85	9.2	2	1.3	492	0.53	<0.05	11.0	0.202	1.61
J998462		450	6.7	115.5	<0.002	0.59	0.52	7.8	2	1.1	576	0.43	<0.05	8.8	0.166	1.58
J998463		400	5.3	101.0	<0.002	0.53	0.54	7.0	2	1.0	569	0.41	<0.05	8.1	0.152	1.49
J998464		470	7.4	121.0	<0.002	0.53	0.42	8.1	2	1.1	452	0.45	<0.05	9.3	0.171	1.69
J998465		720	8.5	112.0	0.002	0.55	1.23	8.0	3	1.2	394	0.53	<0.05	10.6	0.196	1.56
J998466		600	6.7	82.0	0.002	0.43	2.82	5.9	3	0.9	392	0.37	<0.05	7.9	0.142	5.91
J998467		520	5.0	115.0	<0.002	2.29	40.4	7.5	17	2.3	73.7	0.43	0.14	1.7	0.296	4.42
J998468		120	3.1	16.6	0.002	0.16	1.59	1.3	2	0.2	784	0.07	<0.05	1.4	0.026	4.95
J998469		300	8.0	20.9	<0.002	0.12	0.62	1.4	3	0.3	1320	0.09	<0.05	1.7	0.033	0.67
J998470		260	3.0	17.0	<0.002	0.11	0.39	1.1	2	0.2	1295	0.07	<0.05	1.4	0.027	0.77
J998471		380	8.6	28.0	0.002	0.34	11.65	3.3	3	0.5	880	0.12	<0.05	2.3	0.059	43.1
J998472		350	8.1	30.2	<0.002	9.38	157.5	1.9	5	0.7	464	0.12	<0.05	2.4	0.045	70.0
J998473		440	5.2	33.9	0.002	>10.0	233	1.6	7	0.7	513	0.15	<0.05	3.0	0.055	47.3
J998474		240	1.2	1.6	<0.002	<0.01	0.14	0.3	2	<0.2	51.7	<0.05	<0.05	<0.2	<0.005	0.03
J998475		340	3.3	24.0	<0.002	6.48	101.0	1.8	4	0.3	534	0.10	<0.05	2.0	0.035	14.25
J998476		650	8.7	83.1	<0.002	0.23	0.46	7.8	2	1.4	563	0.45	<0.05	7.2	0.208	1.12
J998477		870	10.7	89.6	0.002	0.52	0.46	8.0	2	1.2	462	0.45	<0.05	8.0	0.184	1.01
J998478		620	14.4	119.0	0.002	0.66	0.64	10.7	2	1.6	285	0.59	0.06	10.4	0.251	1.85
J998479		1820	13.8	91.7	<0.002	0.94	1.36	8.7	2	1.2	220	0.44	<0.05	7.9	0.189	2.75
J998480		870	3.9	18.8	<0.002	0.32	0.25	1.9	2	0.3	240	0.08	<0.05	1.7	0.037	0.34
J998481		1230	13.9	139.5	<0.002	2.39	1.08	13.4	2	1.8	109.0	0.68	0.11	12.8	0.307	3.53

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10127791

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
J998446		4.0	7	0.3	2.4	24	4.6	
J998447		14.4	21	1.8	5.8	119	29.1	4.11
J998448		13.2	22	2.1	4.8	123	40.3	5.65
J998449		5.0	7	0.4	2.9	83	5.6	
J998450		0.6	4	0.1	0.9	14	<0.5	
J998451		8.3	30	1.4	7.0	28	38.8	
J998452		4.4	14	0.4	4.6	18	12.5	
J998453		13.8	28	1.0	6.8	140	17.6	
J998454		14.6	17	0.6	5.8	20	23.9	
J998455		13.9	13	0.6	4.7	8	22.3	
J998456		1.0	6	208	7.9	133	3.4	2.61
J998457		13.2	24	0.5	4.7	11	27.1	
J998458		12.7	20	0.4	5.6	8	28.7	
J998459		12.0	20	0.6	6.3	13	32.3	
J998460		10.0	58	1.3	12.4	28	52.8	
J998461		9.1	72	1.3	14.2	35	60.9	
J998462		9.0	60	0.8	13.0	27	49.8	
J998463		8.4	56	0.8	12.1	25	44.8	
J998464		6.9	62	1.0	11.5	26	49.9	
J998465		8.5	71	1.5	15.3	29	91.6	
J998466		9.8	51	1.5	12.7	22	64.7	
J998467		0.8	55	9.6	10.9	44	69.5	
J998468		10.6	14	0.4	4.6	11	12.0	
J998469		7.9	15	0.4	4.3	8	17.6	
J998470		7.3	12	0.4	3.9	6	15.3	
J998471		11.3	25	0.9	9.9	31	23.7	
J998472		11.4	19	1.3	8.2	80	21.2	16.55
J998473		13.1	24	1.0	4.2	67	24.9	26.1
J998474		0.5	4	0.1	0.9	13	<0.5	
J998475		9.5	17	0.6	6.0	10	17.5	11.05
J998476		8.1	64	1.8	13.3	50	73.8	
J998477		8.3	53	0.9	16.3	46	70.5	
J998478		7.1	71	2.0	17.6	29	90.3	
J998479		4.6	50	2.6	19.0	27	69.2	
J998480		3.3	11	0.4	8.8	12	16.2	
J998481		5.5	83	5.4	19.2	14	99.0	

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

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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10127791

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- SEP- 2010
Account: RCM

CERTIFICATE VA10128347

Project: RAU (OSIRIS)

P.O. No.: EAST

This report is for 4 Rock samples submitted to our lab in Vancouver, BC, Canada on 10- SEP- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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

To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
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Finalized Date: 15- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10128347

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
G285265		0.92	0.64	0.07	1.44	>10000	90	0.19	0.09	0.07	0.10	14.70	5.4	31	2.32	138.5
G285266		0.28	40.3	0.21	2.65	>10000	170	0.45	0.32	0.64	0.69	21.3	2.5	31	4.73	18.0
G285267		2.10	9.42	0.03	8.66	>10000	310	1.25	0.48	0.10	0.03	103.5	1.1	67	11.95	4.5
G285268		3.30	14.00	0.04	8.81	>10000	360	1.25	0.52	0.09	0.04	109.5	1.0	69	13.80	10.0

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

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10128347

Sample Description	Method Analyte Units LOR	ME- MS61 Fe % 0.01	ME- MS61 Ga ppm 0.05	ME- MS61 Ge ppm 0.05	ME- MS61 Hf ppm 0.1	Hg- CV41 Hg ppm 0.1	ME- MS61 In ppm 0.005	ME- MS61 K % 0.01	ME- MS61 La ppm 0.5	ME- MS61 Li ppm 0.2	ME- MS61 Mg % 0.01	ME- MS61 Mn ppm 5	ME- MS61 Mo ppm 0.05	ME- MS61 Na % 0.01	ME- MS61 Nb ppm 0.1	ME- MS61 Ni ppm 0.2
G285265		2.59	4.01	0.05	1.0	11.0	0.041	0.61	6.8	18.2	0.08	35	0.29	0.01	2.5	10.2
G285266		3.55	9.65	0.29	1.8	61.6	0.075	1.02	12.0	24.8	0.23	324	0.41	0.01	4.4	5.3
G285267		0.78	24.5	0.14	3.8	16.2	0.045	4.06	60.0	16.0	0.40	33	0.37	0.07	15.5	4.3
G285268		1.00	26.0	0.16	3.8	28.3	0.047	4.07	62.0	17.7	0.43	30	0.49	0.06	16.2	4.5

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

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10128347

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
G285265		50	4.5	26.8	<0.002	2.70	46.7	2.7	2	0.6	17.9	0.17	<0.05	1.9	0.195	28.5
G285266		720	18.2	45.6	0.007	0.44	584	4.9	3	1.6	356	0.31	0.32	5.0	0.179	79.0
G285267		200	20.9	191.0	0.002	0.61	131.0	10.6	2	2.7	68.8	1.04	0.13	15.3	0.439	7.71
G285268		220	23.3	193.0	0.003	0.30	193.5	11.4	2	2.9	79.7	1.09	0.18	16.8	0.467	8.71

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10128347

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
G285265		0.5	52	4.6	5.5	16	33.1	3.46
G285266		5.9	44	3.1	7.8	36	50.0	5.64
G285267		3.4	103	7.3	17.0	4	126.0	1.575
G285268		3.4	115	8.3	20.4	4	129.5	1.130

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

ALS Canada Ltd.
2103 Dollarton Hwy
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10128347

Method	CERTIFICATE COMMENTS
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

ALS Canada Ltd.

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 27- SEP- 2010
Account: RCM

CERTIFICATE VA10130414

Project: RAU (OSIRIS)

P.O. No.: BATCH 6

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 13- SEP- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 27- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10130414

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J998482		10.34	<0.01	0.01	0.50	97	60	0.30	0.02	19.65	0.13	8.19	1.9	4	0.66	5.1
J998483		9.46	<0.01	0.01	0.75	110	60	0.40	0.04	19.00	0.08	9.25	1.8	3	1.32	4.4
J998484		9.98	0.03	0.02	0.94	153	90	0.50	0.03	19.35	0.09	14.60	2.0	5	2.21	4.9
J998485		9.58	<0.01	0.01	1.01	157	130	0.45	0.04	19.25	0.08	15.30	1.8	6	2.63	7.8
J998486		10.18	0.03	0.02	0.86	250	90	0.32	0.03	18.45	0.11	13.40	1.5	8	2.09	4.1
J998487		0.28	1.55	1.86	0.10	>10000	20	<0.05	330	11.60	0.86	57.3	1.6	8	0.58	14.7
J998488		4.70	0.07	0.07	1.12	319	90	0.34	0.35	16.25	0.14	15.05	1.7	10	2.14	3.1
J998489		5.28	0.10	0.14	1.29	475	130	0.37	0.14	19.20	0.13	15.55	2.1	11	2.72	4.6
J998490		5.10	0.05	0.19	0.94	427	220	0.29	0.05	18.30	0.41	13.75	1.7	10	2.16	4.2
J998491		5.52	0.01	0.16	1.72	113	130	0.77	0.06	16.55	0.07	19.55	3.3	16	4.36	11.9
J998492		4.76	0.07	0.40	2.12	150	180	0.43	0.07	16.50	0.07	23.2	3.8	21	2.90	13.2
J998493		2.62	0.06	3.93	5.20	412	430	1.27	0.18	12.65	0.24	59.9	11.0	65	11.35	42.8
J998494		8.26	<0.01	0.02	0.10	<5	20	0.08	0.03	20.7	0.06	3.19	1.4	3	0.27	1.7
J998495		4.62	0.03	0.15	1.34	289	140	0.39	0.03	14.30	0.05	17.20	2.2	16	2.66	4.6
J998496		6.50	0.01	0.09	0.92	224	60	0.29	0.06	17.55	0.06	12.65	1.6	12	2.22	4.2
J998497		6.22	0.03	0.37	1.50	318	90	0.46	0.05	16.25	0.07	16.80	3.0	17	4.09	8.1
J998498		7.04	0.01	0.11	0.74	123	50	0.28	0.02	19.75	0.03	9.55	1.7	7	2.01	4.2
J998499		3.06	0.02	0.11	0.73	119	40	0.28	0.02	20.1	0.03	9.74	1.7	6	1.96	4.0
J998500		7.24	0.03	0.13	0.91	157	60	0.36	0.03	19.55	0.03	10.90	2.3	10	2.46	6.2
J998501		6.70	0.05	0.12	0.92	398	90	0.34	0.03	19.60	0.88	12.05	2.2	10	1.84	6.4
J998502		6.56	0.01	0.09	0.55	27	90	0.22	0.02	20.3	0.18	7.75	1.9	7	1.08	4.7
J998503		5.92	0.01	0.09	0.46	31	70	0.19	0.01	21.2	0.06	6.90	1.8	6	0.93	3.2
J998504		4.62	0.01	0.06	0.57	30	50	0.26	0.02	20.3	0.03	6.54	1.8	7	1.10	3.7
J998505		0.12	14.90	10.85	3.73	496	790	0.88	0.05	0.23	0.10	16.55	8.0	35	5.26	44.1
J998506		4.20	0.01	0.07	0.54	45	70	0.21	0.02	20.3	0.09	8.00	1.7	8	1.10	4.2
J998507		2.66	0.01	0.11	0.48	63	80	0.26	0.02	20.1	0.10	9.00	1.8	7	1.09	3.7
J998508		3.66	0.01	0.10	0.51	285	70	0.26	0.02	19.90	0.09	8.15	1.8	8	1.14	3.5
J998509		2.86	0.01	0.11	0.53	954	60	0.26	0.02	19.75	0.04	7.61	1.8	7	1.17	3.4
J998510		3.18	0.02	0.09	0.51	177	70	0.20	0.02	19.45	0.02	8.08	2.0	6	1.01	3.4
J998511		3.10	0.33	0.28	1.69	5220	180	0.56	0.05	16.05	0.05	20.9	3.1	15	3.52	11.3
J998512		8.28	<0.01	0.01	0.06	13	20	0.08	0.11	20.4	0.06	1.29	1.4	3	0.14	5.7
J998513		3.18	0.09	0.33	2.89	2340	160	0.79	0.07	12.05	0.06	31.6	5.1	28	6.22	25.7
J998514		4.84	0.05	0.52	1.65	417	140	0.54	0.04	16.10	0.15	21.6	3.5	18	3.92	15.7
J998515		5.62	0.02	0.23	0.87	65	60	0.40	0.02	17.70	0.08	12.70	2.1	11	1.77	6.8
J998516		4.18	0.02	0.20	0.56	56	50	0.25	0.02	20.1	0.11	9.26	2.0	10	1.18	5.8
J998517		9.96	0.06	0.29	0.93	1080	60	0.48	0.04	18.75	0.35	7.66	2.6	12	2.52	9.3

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 27- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10130414

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J998482		0.72	1.41	0.15	0.4	0.62	0.006	0.23	4.0	4.0	10.40	731	0.15	<0.01	0.9	1.3
J998483		0.62	2.10	0.20	0.6	0.20	0.006	0.36	5.0	5.6	10.25	530	0.20	<0.01	1.3	2.0
J998484		0.69	2.58	0.22	0.8	0.41	0.007	0.44	7.5	6.5	10.75	516	0.26	<0.01	1.6	3.1
J998485		0.61	2.80	0.25	0.8	0.52	0.007	0.48	8.3	6.4	11.05	408	0.36	<0.01	1.7	10.2
J998486		0.52	2.58	0.17	1.0	0.36	0.008	0.42	6.9	5.2	9.60	374	0.23	0.01	1.5	0.9
J998487		15.75	1.08	0.33	0.1	1.4	0.087	0.06	30.3	1.7	6.55	2050	5.19	0.01	0.6	4.9
J998488		0.89	3.30	0.10	1.2	0.61	0.009	0.55	7.6	6.4	8.64	494	0.23	0.01	1.8	0.8
J998489		0.74	4.00	0.14	0.9	0.88	0.010	0.64	8.6	6.8	10.40	485	0.21	0.01	1.9	1.4
J998490		0.40	2.80	0.23	0.7	1.4	0.009	0.45	7.0	5.0	9.61	468	0.68	0.01	1.5	0.8
J998491		0.79	4.31	0.15	1.4	0.94	0.010	0.85	10.0	13.8	8.67	301	2.23	0.02	3.0	7.4
J998492		0.93	5.74	0.12	1.2	1.11	0.015	0.82	11.7	8.3	8.74	604	2.04	0.18	2.9	6.1
J998493		1.22	15.35	0.17	2.7	3.97	0.030	2.61	26.7	19.5	7.51	310	9.28	0.02	7.7	27.3
J998494		0.42	0.57	0.40	<0.1	0.02	0.005	0.05	1.5	1.5	12.50	194	0.18	0.01	0.4	0.4
J998495		0.85	3.58	0.17	1.8	0.77	0.011	0.65	8.3	7.3	7.93	341	0.87	0.01	2.1	3.8
J998496		0.50	2.67	0.18	1.0	0.46	0.006	0.44	6.3	5.4	9.71	302	0.31	0.01	1.5	1.8
J998497		0.55	4.34	0.21	1.3	1.09	0.011	0.74	8.3	8.6	8.58	349	1.00	0.01	2.4	4.8
J998498		0.32	2.26	0.35	0.6	0.46	0.006	0.35	5.2	4.9	10.50	207	0.43	0.01	1.2	0.6
J998499		0.30	2.23	0.36	0.5	0.41	0.007	0.35	5.3	5.1	10.60	206	0.37	0.01	1.2	0.3
J998500		0.46	2.70	0.27	0.6	0.95	0.007	0.44	5.9	6.5	10.70	395	0.68	0.01	1.4	2.6
J998501		0.43	2.70	0.26	0.6	2.61	0.011	0.43	6.2	6.1	10.50	500	0.52	0.01	1.4	2.7
J998502		0.30	1.63	0.36	0.3	2.69	<0.005	0.23	4.4	3.8	11.60	283	0.43	0.01	0.9	1.6
J998503		0.25	1.51	0.52	0.3	0.95	<0.005	0.21	3.9	3.5	11.70	337	0.38	0.01	0.8	1.0
J998504		0.28	1.81	0.46	0.3	0.96	<0.005	0.26	3.5	3.8	11.70	296	0.34	0.01	0.9	1.0
J998505		3.29	8.17	0.20	1.7	0.39	0.029	3.13	7.6	51.3	0.20	150	5.65	0.08	6.2	16.0
J998506		0.27	1.63	0.32	0.3	2.25	<0.005	0.26	4.5	3.6	11.25	351	0.36	0.01	0.9	1.3
J998507		0.30	1.61	0.47	0.2	1.66	<0.005	0.22	5.0	3.5	11.70	412	0.63	0.01	0.8	1.6
J998508		0.26	1.65	0.46	0.2	1.24	0.005	0.24	4.6	3.6	11.65	319	0.54	0.01	0.9	1.3
J998509		0.30	1.72	0.43	0.3	1.07	<0.005	0.25	4.3	4.1	11.05	308	0.43	0.01	0.9	1.1
J998510		0.29	1.61	0.45	0.3	1.19	<0.005	0.23	4.7	3.9	11.45	286	0.53	0.01	0.9	1.4
J998511		0.72	4.59	0.20	1.3	4.42	0.012	0.81	10.8	11.2	9.15	2050	1.63	0.01	2.8	4.4
J998512		0.38	0.53	0.55	<0.1	<0.01	<0.005	0.03	0.6	1.2	12.30	186	0.12	<0.01	0.3	0.8
J998513		1.23	7.78	0.18	1.9	4.54	0.023	1.42	15.6	17.8	7.40	345	2.42	0.02	4.7	12.7
J998514		0.93	4.32	0.18	1.0	3.34	0.012	0.80	11.0	10.3	9.15	478	1.72	0.02	2.8	8.0
J998515		0.42	2.44	0.27	0.6	1.97	0.008	0.42	6.6	6.9	10.20	369	1.53	0.01	1.5	3.2
J998516		0.45	1.57	0.35	0.3	1.45	0.006	0.26	5.2	3.8	11.85	433	0.94	0.01	0.9	2.7
J998517		0.55	2.58	0.27	0.5	2.86	0.009	0.45	4.1	7.8	11.10	363	1.76	0.02	1.6	4.7

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 27- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10130414

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J998482		580	2.7	8.2	<0.002	0.11	0.25	0.9	2	0.2	118.0	0.05	<0.05	0.9	0.023	0.30
J998483		410	3.5	12.7	<0.002	0.16	0.31	1.3	2	0.3	109.0	0.09	<0.05	1.5	0.035	0.40
J998484		430	4.3	16.1	<0.002	0.21	0.70	1.8	2	0.4	137.0	0.12	<0.05	1.9	0.044	0.78
J998485		620	3.9	17.2	<0.002	0.20	0.54	1.8	2	0.4	137.5	0.11	<0.05	2.0	0.046	0.60
J998486		590	2.9	13.6	<0.002	0.08	0.67	1.5	2	0.3	131.5	0.11	<0.05	1.9	0.042	0.61
J998487		110	12.6	6.4	0.005	>10.0	20.6	0.5	5	1.2	82.4	<0.05	0.84	0.3	0.007	0.10
J998488		440	7.6	17.4	<0.002	0.16	0.81	1.7	2	0.4	130.0	0.14	<0.05	2.5	0.052	0.82
J998489		430	6.8	20.7	<0.002	0.38	1.20	2.2	2	0.5	168.5	0.14	<0.05	2.5	0.056	1.37
J998490		760	5.1	14.5	0.002	0.13	0.91	1.7	3	0.4	149.5	0.11	<0.05	2.0	0.042	1.27
J998491		630	7.0	27.3	0.003	0.31	1.26	3.2	3	0.5	203	0.23	<0.05	3.9	0.082	1.75
J998492		800	7.3	25.9	0.004	0.39	1.60	4.0	3	0.6	177.5	0.24	<0.05	3.6	0.092	1.95
J998493		1130	27.0	94.6	0.027	1.14	6.69	8.6	8	1.7	162.0	0.64	<0.05	11.2	0.240	7.46
J998494		310	1.7	2.0	<0.002	0.01	0.05	0.3	2	<0.2	44.4	<0.05	<0.05	<0.2	0.005	0.03
J998495		640	7.0	20.2	0.002	0.30	1.11	2.1	3	0.4	135.5	0.16	<0.05	2.8	0.060	1.41
J998496		480	4.9	14.1	<0.002	0.19	1.14	1.6	3	0.3	118.5	0.12	<0.05	1.9	0.043	0.99
J998497		440	7.4	24.5	0.006	0.27	2.50	2.5	3	0.5	127.0	0.19	<0.05	3.1	0.069	2.05
J998498		120	3.7	11.4	0.003	0.18	1.05	1.4	2	0.3	116.0	0.09	<0.05	1.4	0.033	0.80
J998499		130	3.6	11.1	0.003	0.16	0.98	1.4	2	0.3	118.5	0.08	<0.05	1.4	0.032	0.76
J998500		200	6.7	14.3	0.002	0.37	1.29	1.7	2	0.3	117.5	0.11	<0.05	1.8	0.041	1.55
J998501		180	6.1	13.3	<0.002	0.32	2.40	1.8	2	0.3	142.5	0.11	<0.05	1.8	0.040	2.08
J998502		140	5.9	7.4	<0.002	0.23	0.85	1.0	2	0.2	130.0	0.06	<0.05	0.9	0.023	1.74
J998503		100	4.8	6.5	<0.002	0.19	0.88	1.0	2	0.2	114.0	0.05	<0.05	0.7	0.019	1.09
J998504		110	4.5	8.1	<0.002	0.17	0.76	1.1	2	0.2	104.0	0.06	<0.05	1.0	0.025	1.03
J998505		540	5.3	121.5	0.002	2.23	44.6	7.4	17	2.5	74.9	0.40	0.14	1.3	0.301	4.34
J998506		190	4.6	7.8	0.002	0.17	0.86	1.1	2	0.2	117.5	0.06	<0.05	0.9	0.023	1.77
J998507		190	5.7	7.0	0.002	0.20	0.85	1.1	2	0.2	123.0	0.05	<0.05	0.9	0.021	1.35
J998508		190	5.0	7.4	<0.002	0.21	1.69	1.0	2	0.2	113.0	0.06	<0.05	0.9	0.022	1.87
J998509		170	5.7	7.9	<0.002	0.25	3.17	1.2	2	0.2	98.0	0.07	<0.05	1.0	0.024	1.41
J998510		150	5.5	7.2	<0.002	0.23	3.44	1.1	2	0.2	108.0	0.06	<0.05	1.0	0.024	1.53
J998511		370	8.7	25.9	0.002	0.82	12.00	3.3	3	0.5	159.5	0.21	<0.05	3.6	0.077	7.14
J998512		240	1.3	1.1	<0.002	0.01	0.10	0.3	2	<0.2	42.0	<0.05	<0.05	<0.2	<0.005	0.02
J998513		930	12.6	45.3	0.003	1.07	4.95	5.1	3	0.9	112.0	0.38	<0.05	6.5	0.135	4.59
J998514		720	10.6	24.6	0.002	0.73	4.34	3.1	3	0.6	136.5	0.21	<0.05	3.8	0.077	3.93
J998515		560	5.7	13.3	0.003	0.33	1.94	1.7	3	0.3	107.5	0.11	<0.05	1.8	0.040	1.70
J998516		180	5.9	8.1	0.002	0.40	2.22	1.3	2	0.2	109.5	0.07	<0.05	1.0	0.024	1.47
J998517		290	10.5	14.7	0.003	0.54	2.46	1.7	3	0.4	100.0	0.11	<0.05	1.7	0.042	2.38

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Finalized Date: 27- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10130414

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
J998482		3.1	9	0.4	4.2	10	13.6	
J998483		4.4	11	0.6	4.4	9	21.8	
J998484		7.1	17	0.8	6.3	12	27.2	
J998485		6.7	18	0.8	7.2	18	27.7	
J998486		5.1	12	0.6	6.7	14	33.5	
J998487		0.6	5	210	6.2	127	2.6	2.73
J998488		3.0	12	1.0	6.5	15	39.7	
J998489		4.1	22	1.0	6.3	22	27.9	
J998490		7.7	25	0.8	6.9	34	23.3	
J998491		10.1	27	1.5	8.2	19	46.7	
J998492		9.6	54	1.4	9.4	12	39.9	
J998493		36.5	352	5.5	12.7	28	98.6	
J998494		0.7	3	0.1	1.0	14	0.6	
J998495		6.9	21	1.2	7.8	7	62.4	
J998496		5.6	17	0.8	5.3	9	34.9	
J998497		10.2	89	1.2	6.3	11	43.2	
J998498		10.2	18	0.6	3.3	3	18.2	
J998499		10.0	17	0.6	3.4	3	17.9	
J998500		12.2	14	0.9	4.0	4	21.0	
J998501		14.2	12	0.9	4.3	365	20.4	
J998502		10.6	12	0.7	2.6	60	8.3	
J998503		11.1	11	0.6	2.3	7	8.2	
J998504		9.8	10	0.6	2.2	4	10.1	
J998505		0.7	58	10.2	9.9	48	67.6	
J998506		9.2	11	0.6	2.7	19	8.3	
J998507		15.2	14	0.7	2.8	28	7.4	
J998508		12.7	12	0.7	2.5	20	8.0	
J998509		15.6	12	0.7	2.4	5	9.0	
J998510		13.9	11	0.7	2.5	2	10.6	
J998511		20.4	31	2.0	5.9	7	42.3	
J998512		0.6	2	0.1	0.8	14	<0.5	
J998513		14.1	48	2.4	11.6	13	67.1	
J998514		14.9	47	1.4	6.9	20	34.6	
J998515		13.0	27	0.9	4.5	10	20.3	
J998516		15.8	19	0.8	3.0	14	8.4	
J998517		21.1	30	1.1	3.0	52	15.6	

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Finalized Date: 27- SEP- 2010
Account: RCM

Project: RAU (OSIRIS)

CERTIFICATE OF ANALYSIS VA10130414

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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Finalized Date: 14- OCT- 2010
Account: RCM

CERTIFICATE VA10139805

Project: OSIRIS

P.O. No.: BATCH 9

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 30- SEP- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10139805

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J998590		5.54	0.01	0.02	1.42	52	390	0.42	0.08	27.4	0.14	16.45	3.7	14	2.47	9.2
J998591		7.16	<0.01	0.06	2.21	40	790	0.68	0.06	23.5	0.21	24.1	5.3	22	5.40	13.1
J998592		6.98	<0.01	0.03	4.10	37	220	1.18	0.09	14.90	0.10	41.9	8.1	41	13.10	23.0
J998593		2.84	0.01	0.04	4.03	38	240	1.19	0.10	13.10	0.10	41.4	8.5	41	13.15	24.1
J998594		7.72	0.01	0.05	3.53	25	2360	0.99	0.07	18.20	0.07	34.7	7.0	36	9.95	18.5
J998595		7.74	0.01	0.04	2.24	46	1490	0.69	0.07	24.3	0.11	25.1	5.1	22	5.81	17.1
J998596		7.46	0.01	0.02	3.75	44	230	1.04	0.09	18.90	0.11	36.4	7.6	37	10.25	14.4
J998597		7.30	0.01	0.03	3.51	31	170	1.03	0.08	16.80	0.11	35.7	7.4	36	9.57	19.2
J998598		7.82	<0.01	0.03	3.82	17	220	1.02	0.10	14.75	0.10	39.4	7.5	35	10.05	23.2
J998599		7.40	<0.01	0.02	4.12	26	210	1.19	0.10	15.50	0.10	41.2	8.3	38	11.20	21.0
J998600		7.30	0.01	0.05	4.58	23	270	1.30	0.12	12.00	0.11	45.6	8.5	45	11.65	24.9
J998601		7.36	<0.01	0.05	4.31	41	430	1.26	0.10	11.40	0.11	45.0	8.7	42	10.90	22.5
J998602		7.26	0.01	0.01	0.08	<5	20	0.10	0.02	20.8	0.08	1.45	2.1	1	0.16	1.8
J998603		7.42	<0.01	0.04	4.34	15	250	1.43	0.10	11.55	0.08	47.0	8.2	44	10.15	24.0
J998604		7.76	0.01	0.02	4.50	20	260	1.33	0.13	12.45	0.08	46.8	8.8	44	10.90	28.8
J998605		7.48	<0.01	0.03	2.47	17	160	0.77	0.06	24.1	0.09	25.6	5.3	23	4.60	15.5
J998606		0.12	16.35	7.12	3.83	482	660	0.72	0.04	0.20	0.11	18.00	8.8	35	6.27	45.6
J998607		6.46	0.01	0.05	3.40	32	230	0.93	0.11	20.6	0.14	32.5	7.4	36	6.83	21.6
J998608		6.98	<0.01	0.07	2.77	24	220	0.72	0.06	22.5	0.31	28.1	4.7	26	4.62	18.6
J998609		7.44	0.01	0.10	4.13	23	190	1.34	0.12	15.90	0.12	43.9	8.2	37	8.09	22.3
J998610		7.34	<0.01	0.06	3.58	22	140	1.20	0.09	17.70	0.10	37.5	6.3	30	6.24	17.8
J998611		7.12	<0.01	0.06	3.67	20	200	1.35	0.10	14.95	0.15	42.5	6.9	34	6.80	20.8
J998612		5.98	<0.01	0.06	2.03	13	100	0.68	0.05	26.3	0.38	23.6	4.2	19	3.14	9.8
J998613		7.20	<0.01	0.04	3.50	12	200	1.27	0.11	17.45	0.12	40.0	7.0	30	7.32	19.9
J998614		7.72	<0.01	0.05	3.23	51	110	1.04	0.49	21.1	0.13	34.1	6.3	26	6.37	22.0
J998615		6.94	<0.01	0.04	2.58	26	180	0.92	0.08	23.8	0.21	26.0	4.9	22	4.09	15.2
J998616		0.28	1.59	1.81	0.11	>10000	20	0.06	338	12.05	0.90	54.9	1.8	5	0.68	14.2
J998617		6.08	<0.01	0.07	1.97	23	60	0.71	0.06	24.8	0.45	24.5	5.1	17	2.64	11.8
J998618		6.66	0.01	0.13	4.50	37	170	1.59	0.13	13.05	0.21	49.2	10.6	40	5.96	25.6
J998619		5.36	<0.01	0.08	4.35	16	140	1.55	0.11	12.40	0.27	45.3	9.5	38	5.89	59.8
J998620		5.96	0.01	0.16	4.42	27	160	1.57	0.14	11.55	0.20	48.7	15.8	37	5.66	41.7
J998621		7.46	<0.01	0.01	0.10	<5	20	0.07	0.02	20.5	0.07	1.56	1.2	<1	0.20	3.3
J998622		7.78	<0.01	0.07	6.52	5.9	200	1.99	0.29	4.23	0.22	59.4	12.7	49	10.20	141.0
J998623		9.78	<0.01	0.09	7.09	8.1	220	2.07	0.21	3.65	0.30	65.5	12.3	61	12.05	34.0
J998624		4.56	<0.01	0.09	2.88	10	2720	0.95	0.12	12.35	2.09	33.2	6.6	16	4.38	141.0
J998625		1.98	<0.01	0.08	2.47	10	1100	0.72	0.07	13.10	2.16	29.0	6.2	13	2.23	96.1

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

ALS Canada Ltd.
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 14- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10139805

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J998590		0.72	3.59	0.12	0.7	0.06	0.010	0.44	9.7	39.7	1.75	153	0.63	0.02	2.4	6.0
J998591		1.00	5.62	0.10	1.2	0.08	0.015	0.81	13.4	43.7	2.88	178	0.75	0.09	3.6	4.1
J998592		1.68	10.05	0.12	2.2	0.05	0.030	1.65	23.4	55.9	3.66	196	0.41	0.14	6.5	13.4
J998593		1.63	10.05	0.12	2.2	0.06	0.030	1.63	23.2	51.7	3.63	192	0.38	0.14	6.5	13.1
J998594		1.40	8.60	0.11	2.0	0.05	0.024	1.42	19.7	51.2	2.93	196	0.60	0.21	5.7	10.3
J998595		0.97	5.61	0.11	1.2	0.04	0.016	0.89	14.5	31.8	2.49	198	0.55	0.17	3.8	3.9
J998596		1.63	9.49	0.11	1.9	0.04	0.026	1.48	21.0	42.3	3.02	217	0.26	0.19	6.1	11.9
J998597		1.53	8.90	0.11	2.0	0.03	0.029	1.38	20.5	43.3	4.20	243	0.52	0.26	5.8	11.5
J998598		1.56	9.45	0.14	2.4	0.02	0.026	1.64	22.2	41.8	4.89	263	0.41	0.24	6.1	12.7
J998599		1.73	10.20	0.13	2.2	0.03	0.033	1.75	23.6	48.5	3.66	240	0.23	0.18	6.6	14.1
J998600		1.98	11.20	0.14	2.5	0.03	0.033	1.96	25.6	51.8	3.96	253	0.42	0.20	7.4	16.7
J998601		1.88	10.95	0.14	2.5	0.04	0.035	1.87	25.2	56.0	4.24	263	0.53	0.19	7.1	16.6
J998602		0.41	0.62	0.08	<0.1	<0.01	<0.005	0.03	0.7	1.8	12.30	188	0.13	0.01	0.4	3.0
J998603		1.92	10.60	0.14	2.4	0.04	0.031	1.78	26.2	69.8	5.32	286	0.57	0.19	7.0	15.9
J998604		1.92	11.35	0.14	2.3	0.05	0.034	1.93	26.4	66.8	4.20	280	0.33	0.23	7.3	16.8
J998605		1.02	5.94	0.10	1.2	0.03	0.017	0.90	14.5	32.2	2.38	278	0.37	0.24	4.0	5.1
J998606		3.20	7.62	0.16	2.1	0.42	0.035	3.16	9.0	46.3	0.17	145	5.54	0.09	6.5	15.9
J998607		1.33	8.31	0.11	1.7	0.05	0.026	1.32	18.6	43.7	2.87	288	0.52	0.22	5.6	11.2
J998608		1.16	6.55	0.06	1.2	0.04	0.019	0.97	15.5	41.1	2.24	302	0.56	0.23	4.4	12.6
J998609		1.78	11.10	0.11	1.8	0.07	0.031	1.53	22.6	98.5	3.03	343	0.46	0.32	6.7	18.4
J998610		1.52	9.51	0.09	1.7	0.04	0.027	1.35	19.5	75.1	3.22	396	0.44	0.28	5.9	15.0
J998611		1.58	10.05	0.10	2.1	0.05	0.029	1.42	21.9	70.2	3.53	490	0.43	0.23	6.4	16.5
J998612		0.90	5.41	0.07	1.0	0.05	0.016	0.61	12.7	32.4	1.41	670	0.59	0.24	3.6	7.1
J998613		1.50	9.47	0.10	1.8	0.05	0.027	1.25	20.5	57.5	3.53	679	0.44	0.18	5.9	15.5
J998614		1.43	8.49	0.08	1.4	0.04	0.023	1.03	18.1	54.8	2.56	896	0.35	0.24	5.3	13.9
J998615		1.15	6.91	0.07	1.1	0.03	0.019	0.81	14.3	67.9	2.32	1290	0.36	0.18	4.2	10.1
J998616		16.30	1.01	0.33	0.1	0.01	0.128	0.06	37.1	1.8	6.89	2230	6.08	0.01	0.7	4.5
J998617		0.92	5.63	0.08	0.9	0.04	0.015	0.55	13.2	25.2	1.89	1940	0.51	0.37	3.4	8.8
J998618		1.71	12.25	0.10	2.3	0.03	0.035	1.49	25.4	46.5	2.99	2210	0.74	0.40	7.3	20.7
J998619		1.61	12.45	0.10	2.2	0.02	0.034	1.59	23.5	37.4	3.56	2300	0.30	0.31	7.5	19.8
J998620		2.13	12.80	0.09	2.1	0.02	0.035	1.51	24.6	42.1	4.00	2730	0.57	0.32	7.3	22.9
J998621		0.41	0.36	0.06	<0.1	<0.01	<0.005	0.04	0.8	1.6	12.15	200	0.10	0.01	0.4	0.6
J998622		3.04	20.5	0.14	2.6	<0.01	0.049	2.59	28.2	61.5	3.12	1640	0.17	0.07	11.9	47.2
J998623		3.27	22.8	0.12	2.8	<0.01	0.056	3.05	32.0	66.5	2.95	1020	0.09	0.06	13.0	47.4
J998624		1.83	7.91	0.10	1.0	0.01	0.019	1.04	18.0	41.0	7.51	3790	0.22	0.06	4.4	16.7
J998625		1.82	6.63	0.08	0.8	0.01	0.016	0.85	15.6	40.0	8.09	4120	0.51	0.03	3.7	14.4

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Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J998590		200	5.3	24.3	<0.002	0.23	0.17	2.6	2	0.5	1145	0.17	<0.05	2.8	0.060	0.17
J998591		260	8.2	43.9	0.002	0.27	0.25	3.8	3	0.7	1075	0.27	<0.05	4.7	0.094	0.18
J998592		480	9.9	75.0	<0.002	0.11	0.28	6.9	2	1.3	576	0.50	<0.05	9.1	0.182	0.31
J998593		470	10.6	74.9	<0.002	0.10	0.29	6.7	2	1.3	555	0.49	<0.05	9.1	0.181	0.30
J998594		430	9.2	62.2	<0.002	0.20	0.32	5.8	2	1.1	979	0.43	<0.05	7.5	0.157	0.29
J998595		270	6.7	47.3	0.002	0.12	0.20	3.9	2	0.8	837	0.26	<0.05	4.6	0.098	0.17
J998596		430	8.3	67.2	<0.002	0.04	0.17	6.3	2	1.2	567	0.45	<0.05	7.6	0.163	0.27
J998597		380	8.7	62.9	<0.002	0.05	0.28	6.0	2	1.2	423	0.44	<0.05	7.4	0.158	0.26
J998598		410	9.4	71.9	<0.002	0.05	0.25	6.2	2	1.2	366	0.48	<0.05	8.4	0.170	0.28
J998599		440	8.4	79.9	<0.002	0.04	0.23	6.8	2	1.4	440	0.52	<0.05	8.9	0.180	0.31
J998600		480	9.9	87.6	<0.002	0.06	0.32	7.4	2	1.5	358	0.55	<0.05	9.7	0.206	0.36
J998601		490	9.9	84.1	<0.002	0.09	0.32	7.2	3	1.4	351	0.55	<0.05	9.3	0.194	0.36
J998602		280	1.4	1.5	<0.002	0.01	<0.05	0.4	1	<0.2	49.5	<0.05	<0.05	<0.2	<0.005	<0.02
J998603		460	9.9	80.9	<0.002	0.07	0.36	7.1	3	1.4	320	0.56	<0.05	9.7	0.193	0.32
J998604		520	10.9	87.6	<0.002	0.08	0.30	7.6	3	1.5	388	0.56	<0.05	10.2	0.205	0.37
J998605		240	6.9	49.8	<0.002	0.08	0.18	4.2	3	0.8	664	0.29	<0.05	5.0	0.106	0.18
J998606		520	5.4	110.0	<0.002	2.21	44.8	7.4	15	2.5	72.1	0.42	0.17	1.6	0.312	4.22
J998607		440	10.4	74.4	<0.002	0.12	0.31	5.6	2	1.1	579	0.41	<0.05	7.2	0.149	0.26
J998608		320	9.7	42.2	<0.002	0.12	0.22	4.5	2	0.9	721	0.34	<0.05	5.8	0.120	0.19
J998609		520	9.3	70.1	<0.002	0.16	0.29	7.0	3	1.4	442	0.46	<0.05	8.0	0.184	0.29
J998610		420	7.8	59.6	<0.002	0.14	0.24	6.0	3	1.2	538	0.41	<0.05	7.2	0.163	0.25
J998611		510	9.6	64.5	<0.002	0.11	0.25	6.3	3	1.2	416	0.46	<0.05	7.9	0.171	0.26
J998612		260	7.2	30.4	<0.002	0.16	0.23	3.4	2	0.7	985	0.24	<0.05	4.2	0.093	0.12
J998613		390	8.6	57.9	<0.002	0.09	0.25	6.0	3	1.2	479	0.41	<0.05	7.4	0.156	0.22
J998614		330	6.7	52.1	<0.002	0.12	0.24	5.3	3	1.1	531	0.36	<0.05	6.2	0.139	0.20
J998615		260	7.6	36.9	<0.002	0.10	0.17	4.3	3	0.9	646	0.28	<0.05	4.9	0.116	0.15
J998616		110	14.0	7.4	0.005	>10.0	21.4	0.5	4	1.2	87.5	<0.05	0.97	0.5	0.008	0.10
J998617		230	9.9	26.8	<0.002	0.13	0.19	3.5	3	0.7	720	0.24	<0.05	4.3	0.088	0.12
J998618		510	12.3	63.4	0.002	0.08	0.30	7.5	3	1.5	332	0.53	<0.05	9.2	0.202	0.30
J998619		420	20.8	68.3	<0.002	0.04	0.26	7.5	3	1.6	297	0.53	<0.05	8.8	0.200	0.31
J998620		500	37.2	64.6	0.002	0.04	0.23	7.8	3	1.5	315	0.52	<0.05	8.8	0.195	0.29
J998621		250	1.3	1.9	<0.002	0.01	<0.05	0.4	2	<0.2	52.9	<0.05	<0.05	<0.2	<0.005	<0.02
J998622		440	3.9	88.9	<0.002	0.02	0.22	11.8	1	2.2	134.5	0.87	<0.05	10.9	0.296	0.49
J998623		500	3.6	97.7	<0.002	0.01	0.24	12.5	2	2.3	170.0	0.93	<0.05	10.9	0.320	0.67
J998624		370	33.1	47.2	0.002	0.10	0.20	5.1	2	0.8	331	0.32	<0.05	5.6	0.110	0.31
J998625		310	68.9	35.7	<0.002	0.09	0.32	4.2	2	0.7	264	0.25	<0.05	4.6	0.094	0.61

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Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
J998590		13.2	23	0.4	6.1	27	23.0	
J998591		12.5	33	0.5	8.0	42	37.4	
J998592		6.6	58	0.7	13.8	61	69.0	
J998593		6.5	58	0.7	13.8	55	71.3	
J998594		8.7	53	0.6	12.3	47	62.5	
J998595		10.0	32	0.5	8.5	38	36.7	
J998596		4.6	53	0.7	12.3	49	57.7	
J998597		7.7	53	0.7	12.5	53	63.9	
J998598		6.9	51	0.7	13.5	57	73.0	
J998599		5.6	53	0.8	13.8	60	65.6	
J998600		4.3	64	0.9	15.2	67	75.3	
J998601		5.5	61	0.8	15.3	63	74.0	
J998602		0.6	3	0.1	1.0	13	0.7	
J998603		5.3	61	0.8	14.6	66	72.8	
J998604		6.2	60	0.8	15.2	65	72.4	
J998605		9.4	32	0.5	8.2	37	38.6	
J998606		0.7	57	9.5	10.7	46	73.0	
J998607		10.8	46	0.6	11.1	47	54.8	
J998608		12.2	40	0.6	8.9	40	41.1	
J998609		7.4	54	0.7	14.3	58	65.0	
J998610		7.8	48	0.6	12.3	51	63.1	
J998611		6.6	49	0.7	14.0	56	74.2	
J998612		12.8	28	0.4	7.8	34	36.2	
J998613		7.8	46	0.7	13.0	59	62.8	
J998614		8.8	41	1.0	11.2	50	48.7	
J998615		10.4	35	0.5	8.8	42	39.9	
J998616		0.7	6	207	6.9	131	3.0	2.64
J998617		12.1	28	0.4	7.9	46	32.6	
J998618		6.1	61	0.8	15.2	66	72.4	
J998619		4.0	59	0.9	15.6	76	79.2	
J998620		8.7	59	0.8	16.3	77	72.2	
J998621		0.5	2	0.1	1.0	13	0.8	
J998622		1.4	52	1.1	16.5	93	90.5	
J998623		1.6	48	1.3	16.9	89	92.4	
J998624		1.8	34	0.4	13.5	70	35.9	
J998625		1.4	36	0.4	11.8	65	30.7	

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 14- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10139805

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.

ALS Canada Ltd.

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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- OCT- 2010
This copy reported on 5- NOV- 2010
Account: RCM

CERTIFICATE VA10139806

Project: OSIRIS

P.O. No.: BATCH 7

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 30- SEP- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10139806

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J998518		4.78	0.01	0.15	0.91	190	50	0.38	0.04	18.25	0.14	7.34	2.6	7	2.51	5.6
J998519		6.28	<0.01	0.17	0.47	43	30	0.23	0.02	19.70	0.15	6.64	1.6	3	1.08	5.6
J998520		3.78	<0.01	0.45	0.60	112	40	0.31	0.03	20.2	0.49	7.70	2.5	7	1.61	5.2
J998521		6.34	0.79	0.16	1.39	284	70	0.46	0.05	28.0	0.18	17.55	3.2	12	3.24	8.2
J998522		4.74	8.43	0.91	1.29	>10000	120	0.24	0.07	4.24	5.16	8.89	3.0	16	3.25	16.7
J998523		6.70	0.24	0.12	0.44	588	70	0.17	0.02	34.1	0.15	6.88	1.4	3	0.96	3.5
J998524		4.52	5.59	0.57	1.03	>10000	120	0.22	0.03	19.25	3.38	15.35	2.2	11	1.88	14.5
J998525		4.50	4.80	0.41	1.61	>10000	140	0.34	0.05	19.10	0.56	26.2	3.3	13	3.26	12.5
J998526		3.56	10.90	0.85	0.77	>10000	90	0.15	0.02	13.75	2.08	14.90	2.0	8	1.30	12.0
J998527		1.68	3.03	1.19	1.03	>10000	60	0.24	0.06	1.90	3.30	19.10	2.6	17	2.04	15.3
J998528		0.12	15.55	9.31	3.63	1010	590	0.83	0.05	0.18	0.11	18.50	9.0	32	5.93	41.5
J998529		4.78	0.61	1.41	0.40	5900	40	0.12	0.01	18.85	0.10	8.32	1.5	2	0.61	3.8
J998530		3.42	2.33	0.17	1.23	696	70	0.24	0.03	17.20	0.85	15.40	2.4	9	2.69	6.0
J998531		5.68	0.22	0.09	1.33	621	80	0.43	0.04	18.65	0.06	16.00	2.8	10	3.17	7.0
J998532		5.10	0.06	0.12	0.87	149	60	0.36	0.03	30.6	0.12	11.85	2.3	7	2.64	4.9
J998533		7.18	0.01	<0.01	0.08	<5	20	0.08	0.02	20.0	0.08	1.54	1.2	<1	0.20	1.7
J998534		2.24	0.32	0.09	0.59	183	80	0.25	0.02	32.1	0.17	9.87	1.9	2	2.81	3.9
J998535		9.36	0.60	0.11	3.06	429	210	0.93	0.08	15.20	0.14	40.5	5.4	24	9.82	13.9
J998536		7.72	0.76	0.08	2.05	746	120	0.60	0.06	23.1	0.20	29.9	4.1	17	6.54	10.5
J998537		2.02	1.39	0.07	1.36	>10000	90	0.37	0.04	27.3	0.26	18.15	2.2	10	6.25	9.7
J998538		6.64	0.14	0.02	1.77	285	130	0.55	0.04	26.0	0.13	25.0	3.5	16	6.69	10.2
J998539		4.82	0.02	0.07	4.06	111.0	210	1.17	0.10	9.68	0.11	55.4	7.1	39	15.80	25.3
J998540		3.98	<0.01	0.05	4.04	57	210	0.90	0.09	10.40	0.09	40.4	8.3	36	12.00	17.5
J998541		2.70	0.01	0.07	3.86	293	170	1.13	0.09	17.50	0.06	46.9	6.5	31	19.20	28.2
J998542		3.32	0.07	0.07	4.09	159	140	1.19	0.09	20.7	0.04	46.7	9.0	29	20.7	19.3
J998543		5.06	<0.01	0.06	3.45	70	130	1.12	0.08	21.2	0.05	42.2	6.2	27	17.10	15.3
J998544		3.26	<0.01	0.05	5.34	134	270	2.09	0.12	11.85	0.06	53.6	9.2	42	23.1	27.3
J998545		8.38	0.02	0.14	0.82	258	200	0.32	0.03	34.0	0.27	12.75	1.8	7	2.24	5.4
J998546		4.96	0.16	0.35	0.88	466	80	0.27	0.03	32.7	0.99	14.25	1.8	8	2.83	6.9
J998547		1.90	0.16	0.25	1.22	383	170	0.33	0.03	30.9	0.20	15.10	1.6	7	2.32	5.1
J998548		4.86	0.34	0.10	1.45	444	320	0.49	0.04	31.1	0.14	20.7	2.8	12	4.31	7.8
J998549		3.86	1.01	0.15	3.75	2650	1760	0.82	0.07	23.8	0.21	33.6	6.4	28	11.85	15.8
J998550		7.40	<0.01	<0.01	0.07	16	20	0.07	0.01	20.1	0.08	1.48	1.1	<1	0.19	1.1
J998551		3.20	0.33	0.05	1.99	374	4440	0.24	0.02	24.2	0.20	12.70	4.0	14	0.65	6.2
J998552		2.38	0.33	0.03	0.34	499	4950	0.16	0.01	32.9	0.37	7.51	0.9	7	0.79	1.4
J998553		0.12	14.60	10.75	3.83	488	800	0.84	0.05	0.21	0.10	20.4	8.9	33	6.21	51.0

Comments: **CORRECTED COPY FOR Au- AA26 ON SAMPLES J998518 TO J998553**

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10139806

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J998518		0.36	2.32	0.12	0.5	2.31	0.006	0.41	4.3	7.2	10.70	237	0.82	0.02	1.7	0.8
J998519		0.32	1.39	0.06	0.2	4.17	<0.005	0.22	4.0	4.1	11.60	259	0.59	0.01	0.8	1.8
J998520		0.44	1.70	0.15	0.3	3.82	0.006	0.27	4.9	3.5	11.45	269	0.75	0.02	1.1	0.2
J998521		0.57	3.78	0.12	0.9	3.37	0.010	0.67	10.2	8.9	2.51	754	0.82	0.01	2.4	0.5
J998522		0.95	4.80	0.48	0.6	28.9	0.294	0.57	6.3	22.5	0.37	762	1.63	0.01	2.0	6.7
J998523		0.20	1.20	0.11	0.2	3.67	0.006	0.19	4.9	1.8	0.31	866	0.47	0.01	0.8	<0.2
J998524		0.56	4.19	0.51	0.7	27.9	0.180	0.42	9.6	9.6	0.69	5250	0.47	0.01	1.8	0.6
J998525		0.77	4.79	0.09	1.2	16.5	0.097	0.75	15.3	11.0	0.83	5970	0.75	0.01	3.0	2.8
J998526		0.73	2.98	0.29	0.7	21.7	0.192	0.33	9.1	9.2	0.88	6140	0.73	0.01	1.4	1.4
J998527		0.65	3.95	0.53	0.6	98.9	0.293	0.43	12.6	11.7	0.10	493	0.73	0.01	2.0	5.7
J998528		3.14	7.95	0.18	1.8	0.48	0.033	3.02	9.4	50.7	0.17	146	5.89	0.08	6.7	14.9
J998529		0.52	1.16	0.09	0.3	1.62	0.015	0.16	5.1	2.3	10.65	891	0.38	0.04	0.7	<0.2
J998530		0.61	3.14	0.10	0.8	3.29	0.008	0.51	9.5	6.1	9.15	1220	0.36	0.01	1.9	0.7
J998531		0.63	3.51	0.12	0.7	1.43	0.011	0.57	9.8	6.9	9.47	493	0.35	0.04	2.1	1.3
J998532		0.28	2.34	0.09	0.4	1.19	0.007	0.40	7.5	4.4	1.16	761	0.76	0.01	1.5	<0.2
J998533		0.39	0.37	0.10	<0.1	0.01	<0.005	0.04	0.7	1.7	11.80	179	0.16	0.01	0.4	0.5
J998534		0.23	1.71	0.09	0.3	2.32	0.007	0.24	6.4	3.1	0.48	3780	0.27	0.01	1.1	<0.2
J998535		1.11	8.37	0.12	2.6	4.51	0.025	1.46	21.9	18.3	2.78	4730	0.62	0.02	5.8	8.3
J998536		0.93	5.67	0.11	1.6	5.5	0.019	1.05	15.2	10.9	3.01	2430	0.53	<0.01	3.5	8.6
J998537		0.45	3.84	0.12	0.9	6.2	0.030	0.67	9.8	6.4	0.88	3560	0.26	<0.01	2.2	4.4
J998538		0.75	4.66	0.11	1.2	1.5	0.013	0.94	13.1	8.8	1.91	799	0.34	<0.01	3.0	7.2
J998539		1.43	10.80	0.16	3.4	0.6	0.031	2.05	27.3	24.1	4.76	372	0.67	0.01	7.3	16.5
J998540		1.85	9.87	0.12	2.4	0.3	0.030	1.71	19.7	19.9	5.34	450	0.65	0.36	5.0	19.5
J998541		1.35	10.05	0.12	1.7	1.3	0.025	2.04	23.6	23.1	3.16	288	0.66	<0.01	5.1	16.7
J998542		1.41	9.99	0.11	1.4	0.5	0.026	2.03	24.0	23.3	1.76	251	0.59	<0.01	5.2	18.8
J998543		1.32	8.66	0.11	1.4	0.3	0.019	1.77	22.0	20.5	1.99	216	0.52	<0.01	4.6	15.6
J998544		1.87	13.30	0.15	2.9	0.4	0.034	3.02	26.2	36.2	3.59	314	0.91	0.02	8.2	22.2
J998545		0.44	1.96	0.12	0.4	1.8	0.006	0.41	7.7	3.4	0.68	250	0.69	<0.01	1.5	3.3
J998546		0.58	2.22	0.11	0.4	4.1	0.011	0.43	8.0	4.1	1.22	388	0.67	<0.01	1.4	3.1
J998547		0.56	2.90	0.12	0.5	4.1	0.009	0.51	8.9	3.8	0.82	336	0.53	0.24	1.5	2.7
J998548		0.62	3.62	0.14	0.5	5.0	0.012	0.70	10.8	7.1	0.85	421	0.51	<0.01	2.1	5.1
J998549		1.09	9.13	0.13	1.1	8.1	0.023	1.78	18.2	18.2	1.25	489	0.97	0.03	4.7	14.2
J998550		0.39	0.34	0.44	<0.1	0.1	<0.005	0.04	0.7	1.3	12.65	182	0.27	<0.01	0.3	1.6
J998551		1.28	4.20	0.12	0.5	4.2	0.019	0.30	6.2	4.6	1.27	586	0.84	0.60	1.9	6.2
J998552		0.35	0.79	0.11	0.2	4.0	0.006	0.13	4.2	2.1	0.70	457	1.13	0.05	0.6	<0.2
J998553		3.20	8.11	0.22	2.2	1.6	0.031	3.23	9.7	57.6	0.17	147	6.09	0.07	7.1	16.8

Comments: **CORRECTED COPY FOR Au- AA26 ON SAMPLES J998518 TO J998553**

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

ALS Canada Ltd.
2103 Dollarton Hwy
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10139806

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J998518		160	8.2	16.0	<0.002	0.35	3.03	1.6	2	0.4	97.6	0.11	<0.05	1.9	0.042	1.76
J998519		140	6.3	7.6	<0.002	0.27	1.65	0.9	2	0.2	104.0	0.05	<0.05	0.8	0.019	2.03
J998520		270	9.4	10.1	0.002	0.39	2.83	1.1	2	0.3	123.5	0.08	<0.05	1.2	0.025	2.33
J998521		250	8.5	26.7	0.002	0.48	6.13	2.6	2	0.5	691	0.16	<0.05	3.1	0.060	7.19
J998522		300	10.2	27.4	0.003	7.71	202	1.8	4	0.9	101.0	0.16	<0.05	2.4	0.056	29.4
J998523		140	3.6	7.7	<0.002	0.22	5.19	1.0	2	0.2	760	<0.05	<0.05	0.9	0.018	9.57
J998524		370	8.1	18.5	0.005	5.96	152.5	2.3	3	0.7	295	0.11	<0.05	2.4	0.047	23.2
J998525		420	7.8	32.6	<0.002	2.73	72.8	2.1	2	0.6	231	0.21	<0.05	3.8	0.075	42.6
J998526		320	5.1	15.8	0.003	6.03	151.5	1.7	3	0.5	101.5	0.09	<0.05	1.8	0.034	32.0
J998527		270	6.6	22.8	<0.002	>10.0	444	1.1	6	0.8	62.7	0.13	<0.05	2.4	0.051	43.5
J998528		510	4.9	111.0	0.002	2.19	45.5	7.7	16	2.6	76.6	0.41	0.20	1.5	0.292	4.60
J998529		190	2.1	6.4	<0.002	0.47	7.79	1.1	2	0.2	105.0	0.05	<0.05	0.8	0.020	3.92
J998530		260	2.9	20.2	<0.002	0.43	4.52	2.3	2	0.4	105.5	0.13	<0.05	2.4	0.050	7.85
J998531		230	3.5	22.9	0.002	0.26	2.00	2.5	2	0.4	142.0	0.14	<0.05	2.7	0.059	3.80
J998532		140	4.7	16.5	0.003	0.18	1.46	1.7	2	0.3	604	0.10	<0.05	1.9	0.038	3.12
J998533		320	1.2	1.6	<0.002	0.02	0.07	0.4	2	<0.2	52.8	<0.05	<0.05	<0.2	<0.005	0.02
J998534		200	5.8	10.4	0.002	0.16	4.85	1.1	2	0.3	1095	0.07	<0.05	1.2	0.027	7.83
J998535		510	6.1	62.7	0.002	0.41	9.23	5.5	1	1.0	264	0.38	<0.05	7.2	0.144	16.95
J998536		330	5.9	39.1	<0.002	0.31	15.85	3.5	2	0.8	372	0.25	<0.05	5.0	0.096	27.1
J998537		330	5.1	26.6	<0.002	1.94	89.0	1.9	3	0.6	325	0.16	<0.05	3.2	0.060	31.8
J998538		280	6.4	35.0	<0.002	0.21	1.89	2.7	2	0.7	360	0.22	<0.05	4.1	0.080	5.19
J998539		660	11.2	80.1	0.002	0.17	0.73	6.1	2	1.5	196.0	0.54	<0.05	10.4	0.206	1.31
J998540		500	8.1	60.3	<0.002	0.19	0.52	7.0	2	1.0	212	0.36	<0.05	6.4	0.195	0.66
J998541		460	7.4	74.6	0.002	0.25	0.83	5.5	2	1.1	485	0.38	<0.05	7.2	0.145	1.13
J998542		410	5.6	80.7	<0.002	0.37	1.08	5.7	1	1.1	552	0.38	<0.05	7.4	0.146	2.26
J998543		410	5.6	68.3	<0.002	0.27	0.31	4.8	2	1.0	581	0.35	<0.05	6.5	0.130	0.66
J998544		800	9.0	115.0	<0.002	0.42	0.54	8.8	2	1.3	388	0.58	<0.05	10.7	0.210	1.68
J998545		170	6.0	16.0	<0.002	0.22	2.10	1.4	2	0.3	902	0.09	<0.05	1.6	0.033	7.28
J998546		170	7.0	16.6	<0.002	0.31	6.26	1.3	2	0.3	1330	0.09	<0.05	1.8	0.035	16.95
J998547		150	5.9	16.3	<0.002	0.23	5.82	1.4	2	0.4	1290	0.10	<0.05	1.7	0.035	15.80
J998548		280	7.3	27.8	<0.002	0.34	9.52	2.2	2	0.5	1470	0.15	<0.05	2.9	0.056	19.75
J998549		440	10.5	69.9	<0.002	0.70	20.6	5.4	2	0.9	1320	0.35	<0.05	6.3	0.134	31.8
J998550		310	1.3	1.5	<0.002	0.01	0.10	0.2	1	<0.2	51.7	<0.05	<0.05	<0.2	<0.005	0.07
J998551		290	3.3	9.2	<0.002	0.39	7.55	4.7	1	0.3	961	0.12	<0.05	1.0	0.119	14.85
J998552		130	2.7	5.1	<0.002	0.39	7.42	0.6	2	0.2	1450	<0.05	<0.05	0.6	0.013	15.55
J998553		540	5.2	123.0	<0.002	2.32	48.2	7.5	18	2.7	75.7	0.46	0.17	1.7	0.316	4.51

Comments: **CORRECTED COPY FOR Au- AA26 ON SAMPLES J998518 TO J998553**

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10139806

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
J998518		20.5	17	0.9	2.5	13	16.1	
J998519		11.6	10	0.5	2.6	11	6.8	
J998520		14.2	21	0.6	2.9	34	10.6	
J998521		30.0	22	1.4	7.5	26	33.9	
J998522		24.5	37	2.1	2.9	455	20.2	15.00
J998523		24.7	13	0.6	3.9	15	10.9	
J998524		16.2	21	1.6	5.8	300	24.6	11.65
J998525		19.0	28	2.0	8.0	54	45.1	4.22
J998526		15.0	21	1.3	4.8	179	26.1	11.80
J998527		14.3	49	2.1	2.1	295	20.5	27.3
J998528		0.7	55	10.1	10.9	41	74.9	
J998529		7.1	12	5.2	3.8	4	11.3	
J998530		12.0	23	0.9	4.9	204	26.4	
J998531		10.1	26	1.0	5.4	7	26.8	
J998532		19.7	18	0.8	4.9	24	18.4	
J998533		0.7	2	0.1	1.0	12	<0.5	
J998534		13.6	18	0.9	3.5	16	13.4	
J998535		7.7	47	2.5	13.4	25	96.8	
J998536		8.7	36	1.5	9.8	39	58.0	
J998537		12.2	20	1.1	6.6	28	33.8	3.23
J998538		12.1	28	1.1	7.9	31	46.0	
J998539		7.0	59	1.6	15.5	37	121.5	
J998540		5.5	59	1.5	13.0	30	83.6	
J998541		12.7	58	2.1	11.3	25	63.7	
J998542		10.0	54	1.2	11.3	24	53.0	
J998543		11.8	47	1.1	10.0	20	49.7	
J998544		9.3	74	2.8	16.5	28	104.5	
J998545		14.8	25	0.6	4.5	54	14.2	
J998546		16.4	21	0.8	4.1	57	14.1	
J998547		14.6	18	0.6	4.5	32	18.1	
J998548		16.3	28	0.9	5.6	26	18.8	
J998549		15.8	62	1.9	8.6	37	40.3	
J998550		0.5	2	0.1	1.0	15	<0.5	
J998551		5.1	34	0.3	7.8	28	18.5	
J998552		8.4	6	0.4	3.4	45	12.3	
J998553		0.8	56	9.8	12.0	47	83.8	

Comments: **CORRECTED COPY FOR Au- AA26 ON SAMPLES J998518 TO J998553**

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10139806

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- OCT- 2010
Account: RCM

CERTIFICATE VA10143562

Project: OSIRIS

P.O. No.: BATCH 10

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 5- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
SPL- 21	Split sample - riffle splitter
PUL- QC	Pulverizing QC Test
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10143562

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J998626		9.86	<0.01	0.05	7.63	75.4	400	2.70	0.41	0.80	0.05	84.6	13.7	60	15.60	30.1
J998627		5.18	0.36	0.09	0.59	1200	60	0.24	0.15	21.6	0.52	8.65	1.7	5	0.80	5.0
J998628		2.82	1.10	0.91	1.62	3220	360	0.43	0.11	21.3	0.28	21.0	4.9	19	3.32	19.1
J998629		2.38	1.80	0.37	2.47	1740	450	0.78	0.17	11.05	0.17	27.1	3.6	23	6.50	14.2
J998630		2.96	0.45	0.31	1.83	238	160	0.63	0.08	14.85	0.08	22.7	3.1	18	5.29	10.2
J998631		2.96	0.35	0.05	0.70	568	50	0.22	0.07	17.90	0.10	11.55	1.7	5	1.50	3.6
J998632		3.52	0.24	0.06	0.84	547	50	0.32	0.06	19.25	0.12	11.10	1.5	6	2.04	3.8
J998633		3.78	0.05	0.03	0.19	540	20	0.10	0.09	19.75	0.05	7.13	1.3	10	0.23	5.1
J998634		6.98	0.01	0.01	0.06	9	20	0.06	0.16	19.50	0.06	1.47	1.4	6	0.13	3.5
J998635		1.86	10.75	1.02	2.28	>10000	260	0.60	0.19	8.83	3.30	45.8	6.8	34	5.02	19.0
J998636		1.70	13.45	1.38	3.50	7140	290	0.85	0.21	0.74	5.01	71.1	4.2	47	5.77	14.7
J998637		6.24	2.41	0.27	0.76	1960	90	0.28	0.10	16.35	0.66	15.05	2.6	10	1.08	5.9
J998638		7.28	0.17	0.09	0.41	793	90	0.15	0.06	20.0	0.12	8.68	1.4	7	0.66	3.1
J998639		4.74	0.03	0.16	1.21	114	80	0.54	0.07	20.7	0.05	16.85	4.0	16	2.64	8.1
J998640		7.60	0.03	0.04	0.29	241	20	0.17	0.04	20.0	0.02	7.91	1.5	4	0.43	2.4
J998641		0.12	15.30	8.22	3.65	461	370	0.83	0.07	0.20	0.08	18.60	8.4	38	5.21	46.0
J998642		4.76	0.19	0.12	0.80	792	50	0.32	0.05	22.3	0.07	13.50	1.6	16	1.60	7.6
J998643		3.68	0.08	0.23	1.60	922	80	0.49	0.08	17.90	0.06	22.0	1.9	30	4.09	14.5
J998644		1.64	0.07	0.15	1.07	796	60	0.37	0.08	18.95	0.04	18.20	1.7	18	2.52	10.9
J998645		4.44	0.06	0.19	1.32	843	70	0.37	0.11	15.85	0.03	19.70	1.7	15	3.81	10.7
J998646		5.96	0.04	0.95	2.91	997	160	0.86	0.15	12.70	0.05	36.7	4.5	32	10.05	21.8
J998647		5.68	0.02	0.62	2.14	561	110	0.87	0.10	14.75	0.04	28.1	4.1	25	7.72	18.5
J998648		6.64	0.02	0.22	2.59	831	160	0.92	0.12	12.90	0.05	34.8	4.9	28	9.21	13.0
J998649		8.32	0.02	0.28	2.53	995	120	0.82	0.09	12.10	0.07	29.1	3.7	24	8.89	10.2
J998650		9.12	0.01	0.21	2.22	328	110	0.73	0.08	13.30	0.04	26.5	3.8	25	8.44	8.7
J998651		8.46	0.01	0.25	2.15	501	110	0.74	0.10	12.50	0.04	26.8	3.4	22	8.63	8.8
J998652		5.26	0.01	0.28	2.36	400	140	0.90	0.14	13.60	0.05	26.4	4.2	28	8.31	9.0
J998653		2.94	0.25	0.21	1.94	1250	100	0.72	0.10	14.50	0.13	28.2	2.4	22	5.32	7.3
J998654		6.40	<0.01	0.01	0.07	14	20	0.08	0.08	21.2	0.05	1.55	1.3	5	0.18	1.8
J998655		5.12	0.05	0.14	1.52	1010	110	0.63	0.17	12.45	0.06	24.7	2.4	18	4.19	5.5
J998656		4.16	0.02	0.17	1.99	565	90	0.71	0.21	13.20	0.04	25.4	3.2	19	5.94	7.5
J998657		7.42	0.09	0.19	2.02	1270	100	0.63	0.09	10.75	0.05	25.7	2.1	25	4.93	8.6
J998658		0.28	1.70	1.64	0.10	>10000	20	0.06	323	11.80	0.72	52.2	1.9	9	0.59	16.5
J998659		5.96	0.03	0.18	1.89	696	90	0.62	0.96	10.45	0.05	23.6	2.5	22	4.55	8.0
J998660		2.62	0.02	0.12	1.66	547	80	0.58	0.19	14.15	0.04	21.6	2.5	17	3.99	7.0
J998661		5.46	0.02	0.12	1.71	362	70	0.48	0.15	14.50	0.04	21.9	2.6	18	3.86	7.1

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

ALS Canada Ltd.
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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10143562

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J998626		4.31	23.5	0.20	3.4	0.02	0.073	3.31	46.4	66.7	1.54	408	0.72	0.07	12.3	39.5
J998627		0.56	1.69	0.08	0.4	4.91	0.006	0.28	5.6	2.7	8.29	1180	0.29	0.01	1.1	1.6
J998628		0.76	4.66	0.12	0.9	11.6	0.015	0.72	13.4	12.9	1.40	535	2.76	0.02	2.9	11.3
J998629		0.90	6.34	0.11	1.9	12.0	0.016	1.10	15.7	19.5	2.56	499	1.77	0.02	4.1	9.2
J998630		0.60	5.32	0.15	1.4	2.77	0.012	0.90	12.9	11.9	9.00	689	0.77	0.02	3.4	5.7
J998631		0.40	1.97	0.15	0.7	2.07	0.007	0.33	6.6	5.2	10.30	295	0.23	0.01	1.3	1.0
J998632		0.39	2.58	0.15	0.6	0.69	0.006	0.41	6.4	5.8	10.55	412	0.18	0.02	1.6	1.2
J998633		0.46	0.64	0.22	0.2	1.06	0.005	0.07	4.2	1.5	10.70	340	0.12	0.01	0.4	7.7
J998634		0.38	0.39	0.46	<0.1	0.01	<0.005	0.02	0.7	1.1	11.70	171	0.16	0.01	0.4	5.1
J998635		2.12	6.92	0.11	1.5	50.2	0.037	1.05	26.0	20.6	3.90	790	1.35	0.02	3.9	15.0
J998636		2.24	10.10	0.14	3.5	72.4	0.036	1.63	39.0	29.4	0.50	83	1.75	0.02	6.3	11.4
J998637		0.82	2.28	0.09	1.3	8.18	0.010	0.35	7.7	5.4	8.76	1760	0.39	0.02	1.6	6.8
J998638		0.43	1.19	0.23	0.5	1.61	<0.005	0.17	4.6	2.4	9.88	709	0.15	0.01	0.9	5.1
J998639		0.46	3.56	0.20	1.0	1.51	0.007	0.59	8.9	7.5	9.51	1270	0.72	0.02	2.5	9.6
J998640		0.28	1.02	0.44	0.3	0.61	0.005	0.13	4.3	2.2	10.15	611	0.27	0.01	0.7	3.5
J998641		3.18	7.45	0.09	1.6	0.40	0.028	3.13	9.0	50.6	0.18	143	5.73	0.08	6.6	16.1
J998642		0.52	2.18	0.07	0.6	0.82	0.007	0.37	7.0	4.1	8.41	527	0.20	0.01	1.6	7.1
J998643		0.57	4.25	0.11	1.2	0.38	0.007	0.77	11.6	7.8	7.36	284	0.23	0.02	3.5	11.1
J998644		0.47	2.80	0.13	0.8	0.37	0.006	0.51	9.5	5.4	8.02	279	0.16	0.02	2.2	7.3
J998645		0.61	3.33	0.13	0.9	1.03	0.009	0.63	10.1	8.2	7.63	264	0.19	0.02	2.6	4.6
J998646		1.10	7.77	0.11	2.1	0.63	0.021	1.37	18.3	17.6	6.63	381	1.39	0.02	5.5	10.6
J998647		1.05	5.98	0.11	1.4	0.37	0.017	1.02	14.3	12.8	7.35	318	1.27	0.02	4.0	12.2
J998648		1.09	7.15	0.12	3.0	0.35	0.020	1.25	17.4	16.6	7.30	248	1.53	0.03	5.0	10.5
J998649		0.85	6.61	0.11	3.0	0.33	0.017	1.21	15.0	14.7	6.80	212	1.07	0.03	4.6	8.4
J998650		0.83	5.84	0.11	2.6	0.28	0.017	1.09	13.8	12.9	7.33	215	1.52	0.02	4.1	8.9
J998651		0.87	5.58	0.11	2.8	0.30	0.016	1.07	13.6	12.6	7.15	241	1.22	0.02	4.1	7.6
J998652		0.98	5.93	0.10	2.9	0.32	0.016	1.18	13.6	13.4	7.61	370	1.28	0.02	4.6	9.7
J998653		0.91	5.08	0.09	2.8	0.25	0.016	0.93	14.4	12.8	4.37	304	0.41	0.02	4.3	7.0
J998654		0.40	0.39	0.37	<0.1	<0.01	<0.005	0.03	0.7	1.2	12.90	181	0.05	0.01	0.4	4.0
J998655		0.84	3.72	0.12	2.7	0.20	0.012	0.73	12.5	11.7	5.68	246	0.39	0.02	3.5	5.7
J998656		0.86	5.32	0.13	2.9	0.37	0.017	0.97	13.1	12.2	7.66	263	0.84	0.02	4.2	6.6
J998657		0.88	5.02	0.10	2.9	0.40	0.013	0.99	13.0	12.6	5.43	251	0.35	0.02	4.1	6.9
J998658		15.85	1.01	0.28	0.1	0.02	0.088	0.06	34.5	1.9	6.61	2070	5.87	0.01	0.8	8.1
J998659		0.82	4.72	0.07	2.8	0.38	0.015	0.92	12.0	11.0	5.87	285	0.67	0.02	3.9	6.6
J998660		0.90	4.09	0.07	2.2	0.32	0.012	0.83	11.2	9.2	7.44	305	0.61	0.02	3.0	5.8
J998661		0.80	3.92	0.11	2.3	0.48	0.013	0.85	10.8	9.1	6.69	421	0.50	0.02	3.2	5.6

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10143562

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J998626		420	15.6	166.5	<0.002	0.01	0.65	16.0	1	2.7	121.0	0.93	0.07	14.4	0.405	0.82
J998627		440	4.1	10.5	<0.002	0.02	5.84	1.4	1	0.2	132.5	0.07	<0.05	1.3	0.027	13.05
J998628		1070	17.0	32.7	0.003	0.04	21.9	2.4	2	0.6	731	0.19	<0.05	3.9	0.073	27.4
J998629		930	13.7	48.2	0.002	0.03	19.20	3.6	1	0.8	498	0.30	<0.05	5.4	0.108	53.3
J998630		490	6.7	40.3	<0.002	0.02	6.42	3.6	2	0.6	160.0	0.24	<0.05	4.4	0.087	13.60
J998631		460	4.2	12.9	<0.002	0.02	3.41	1.4	2	0.2	83.2	0.09	<0.05	1.5	0.033	3.69
J998632		210	4.4	16.9	<0.002	<0.01	4.45	1.9	1	0.3	81.5	0.11	<0.05	1.6	0.038	6.02
J998633		150	4.6	2.7	<0.002	0.01	2.47	0.5	2	<0.2	71.2	<0.05	<0.05	0.5	0.008	3.52
J998634		230	1.7	1.2	<0.002	0.01	0.05	0.3	1	<0.2	45.7	<0.05	<0.05	<0.2	<0.005	0.04
J998635		1010	28.6	38.8	0.004	0.03	140.0	2.6	2	0.9	425	0.28	0.06	5.9	0.096	228
J998636		1100	40.6	58.4	0.006	0.04	104.0	2.0	3	1.5	370	0.48	0.12	9.1	0.167	157.5
J998637		260	11.8	12.5	<0.002	0.02	14.30	2.5	2	0.3	167.5	0.11	<0.05	2.1	0.037	16.50
J998638		260	4.9	6.1	<0.002	0.01	2.39	1.0	1	0.2	196.0	0.05	<0.05	1.2	0.018	5.89
J998639		290	10.3	20.6	0.002	0.06	0.83	2.3	2	0.4	160.5	0.17	<0.05	3.3	0.056	2.64
J998640		110	5.0	4.4	<0.002	0.02	1.00	0.6	1	<0.2	99.4	<0.05	<0.05	0.8	0.013	1.14
J998641		510	5.0	106.0	<0.002	2.15	38.8	7.0	15	2.3	71.3	0.42	0.15	1.4	0.294	4.15
J998642		360	8.7	11.6	<0.002	0.02	5.40	1.7	1	0.3	118.5	0.11	<0.05	2.1	0.038	7.18
J998643		1000	11.8	25.0	<0.002	0.01	4.00	2.8	2	0.5	110.5	0.24	<0.05	4.4	0.085	4.38
J998644		890	8.7	16.0	<0.002	0.01	3.06	2.0	2	0.4	107.0	0.15	<0.05	2.9	0.051	4.27
J998645		840	8.2	19.7	<0.002	0.02	2.30	2.2	2	0.4	137.0	0.18	<0.05	3.4	0.061	2.25
J998646		1160	13.6	45.3	0.004	0.02	3.87	5.0	2	0.9	302	0.40	<0.05	7.6	0.137	2.77
J998647		710	9.5	35.1	0.002	0.03	2.66	3.7	2	0.7	668	0.28	<0.05	5.2	0.095	1.30
J998648		660	12.7	42.4	<0.002	0.11	4.37	4.7	2	0.8	201	0.36	<0.05	6.8	0.123	1.46
J998649		360	11.6	39.4	0.002	0.06	4.79	4.1	2	0.7	170.0	0.35	<0.05	6.2	0.120	1.38
J998650		340	10.1	36.4	<0.002	0.10	1.47	3.7	2	0.6	168.5	0.30	<0.05	5.4	0.103	1.17
J998651		340	11.1	35.5	0.002	0.07	2.34	3.6	2	0.7	158.0	0.30	<0.05	5.6	0.102	1.20
J998652		330	13.0	37.7	0.002	0.07	2.43	3.9	2	0.7	171.5	0.33	<0.05	6.2	0.118	1.33
J998653		560	11.1	30.4	<0.002	0.02	7.73	3.1	2	0.6	111.0	0.28	<0.05	5.5	0.099	2.44
J998654		280	1.4	1.2	<0.002	0.01	0.06	0.3	1	<0.2	47.4	<0.05	<0.05	<0.2	<0.005	0.02
J998655		380	9.1	23.2	<0.002	0.02	4.22	2.3	2	0.5	139.0	0.24	<0.05	4.3	0.080	1.45
J998656		260	9.7	32.1	<0.002	0.05	2.97	3.4	2	0.6	193.5	0.31	<0.05	5.4	0.096	0.99
J998657		600	10.2	30.9	<0.002	0.03	6.06	3.2	2	0.6	143.5	0.30	<0.05	5.4	0.101	1.90
J998658		100	15.2	7.4	0.005	>10.0	18.50	0.5	5	1.0	87.0	<0.05	0.70	0.5	0.008	0.10
J998659		510	10.2	29.4	<0.002	0.05	4.38	3.1	2	0.6	135.5	0.28	<0.05	5.3	0.094	1.21
J998660		390	11.1	24.6	<0.002	0.06	4.31	2.7	2	0.5	193.5	0.21	<0.05	4.1	0.076	1.04
J998661		400	11.9	24.5	<0.002	0.03	3.49	3.0	2	0.5	207	0.22	<0.05	4.3	0.083	0.96

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

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10143562

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
J998626		2.5	92	1.9	20.3	103	108.0	
J998627		9.6	17	1.0	5.7	87	14.8	
J998628		17.1	56	2.6	9.0	46	30.2	
J998629		13.3	41	3.0	10.0	24	63.4	
J998630		6.1	50	2.5	7.6	11	45.6	
J998631		4.6	23	0.8	4.7	13	21.5	
J998632		4.7	18	1.0	4.2	35	19.2	
J998633		3.0	6	0.3	3.1	26	6.6	
J998634		0.6	2	0.1	0.9	14	0.5	
J998635		25.0	51	3.6	5.9	480	47.6	0.982
J998636		29.9	64	5.0	8.3	649	109.0	
J998637		9.1	15	1.5	6.1	294	51.1	
J998638		7.3	7	0.6	3.6	99	18.5	
J998639		12.2	18	1.3	5.7	13	35.3	
J998640		7.7	5	0.4	3.0	7	11.8	
J998641		0.7	54	9.7	9.5	44	65.1	
J998642		17.0	16	1.1	5.7	62	25.3	
J998643		11.2	32	1.3	7.7	37	45.8	
J998644		8.6	21	0.9	6.5	29	30.6	
J998645		6.9	23	0.7	6.5	14	34.2	
J998646		8.2	79	1.6	10.4	14	72.6	
J998647		6.1	54	1.0	7.7	18	49.7	
J998648		6.1	45	1.3	11.9	13	107.0	
J998649		5.8	41	1.2	9.9	14	104.5	
J998650		5.6	36	0.9	9.2	9	94.2	
J998651		5.8	38	1.0	9.1	9	97.9	
J998652		7.3	41	1.3	9.9	10	105.5	
J998653		8.0	30	1.4	9.3	42	101.0	
J998654		1.0	2	0.1	1.0	14	0.9	
J998655		6.2	23	1.1	8.1	21	91.9	
J998656		6.7	32	1.2	9.0	6	100.5	
J998657		5.8	32	1.7	9.1	23	101.0	
J998658		0.7	5	200	7.0	122	3.2	2.57
J998659		5.0	29	1.8	8.8	19	101.0	
J998660		5.4	23	1.0	8.0	16	79.8	
J998661		6.8	25	1.2	8.7	9	86.2	

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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10143562

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

ALS Canada Ltd.

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- OCT- 2010
Account: RCM

CERTIFICATE VA10143563

Project: OSIRIS

P.O. No.: BATCH 11

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 5- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
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Finalized Date: 17- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10143563

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J998662		5.20	0.03	0.20	2.56	221	130	0.53	0.07	12.85	0.05	27.5	3.5	27	5.85	9.6
J998663		5.52	<0.01	0.11	0.35	55	20	0.17	0.02	19.75	0.02	9.25	1.4	6	0.80	3.0
J998664		4.42	<0.01	0.12	1.05	89	40	0.31	0.04	19.05	0.03	17.20	1.8	9	3.21	5.8
J998665		3.52	0.01	0.12	0.72	126	40	0.23	0.03	19.35	0.03	14.70	1.8	6	1.73	4.9
J998666		6.36	0.02	0.05	1.05	106	80	0.29	0.03	18.15	0.33	19.75	2.2	11	3.52	6.5
J998667		7.08	<0.01	0.06	2.75	100	140	0.88	0.07	14.45	0.05	34.5	3.1	26	11.15	7.2
J998668		6.46	0.01	0.06	2.13	52	110	0.68	0.06	15.05	0.03	26.3	3.0	18	8.52	6.2
J998669		2.76	0.01	0.08	2.79	112	140	0.78	0.06	13.40	0.02	28.9	3.5	26	11.20	8.1
J998670		6.78	0.01	0.03	0.59	19	30	0.26	0.03	19.75	0.03	11.50	1.3	9	1.93	2.9
J998671		8.64	<0.01	0.04	0.82	30	40	0.36	0.04	19.45	0.02	13.20	1.7	8	2.80	5.6
J998672		4.98	<0.01	0.03	0.62	20	40	0.24	0.03	20.6	0.39	14.70	1.7	5	1.96	23.0
J998673		8.82	<0.01	0.06	1.37	17	90	0.47	0.04	23.6	0.41	19.85	1.9	12	5.33	3.9
J998674		4.46	0.02	0.05	2.53	69	140	0.68	0.06	13.20	0.06	38.4	3.6	22	7.59	10.9
J998675		2.42	<0.01	0.11	3.38	54.8	150	0.99	0.08	9.93	0.05	43.0	5.4	30	12.30	13.4
J998676		6.50	0.01	0.08	3.32	50	160	1.00	0.08	10.30	0.05	43.6	3.9	31	12.15	12.4
J998677		7.20	<0.01	0.01	0.08	<5	20	0.07	0.03	19.90	0.05	1.61	1.1	<1	0.19	1.4
J998678		7.40	<0.01	0.11	3.10	58	160	0.92	0.07	12.80	0.06	42.3	4.1	28	11.85	15.4
J998679		3.56	<0.01	0.05	1.87	109	70	0.60	0.05	17.15	0.03	24.1	2.3	14	6.85	6.5
J998680		3.94	0.01	0.04	0.58	51	30	0.27	0.03	18.75	0.02	12.30	1.3	7	2.03	3.5
J998681		0.12	15.40	8.93	3.74	479	540	0.76	0.05	0.22	0.10	19.15	8.1	31	5.81	47.0
J998682		4.30	0.01	0.06	2.08	132	90	0.63	0.05	16.45	0.04	27.1	3.4	17	7.22	9.2
J998683		3.84	0.01	0.04	1.12	54	40	0.42	0.04	18.10	0.03	18.05	2.2	8	3.11	6.6
J998684		4.66	0.01	0.05	1.24	28	50	0.39	0.04	18.70	0.03	18.00	2.0	11	3.44	4.1
J998685		7.30	0.01	0.07	1.26	39	50	0.41	0.04	18.60	0.05	17.40	2.3	10	3.93	5.0
J998686		0.12	15.15	7.34	3.92	509	430	0.82	0.06	0.22	0.08	20.3	8.2	31	6.30	46.3
J998687		10.50	0.01	0.14	3.34	51	190	1.00	0.08	15.10	0.06	42.4	5.1	31	13.00	16.2
J998688		3.54	0.01	0.10	3.23	28	260	0.94	0.08	10.60	0.05	45.8	5.2	30	11.35	22.7
J998689		9.20	0.01	0.09	3.42	50	230	0.90	0.08	16.15	0.08	43.6	6.1	26	13.20	12.9
J998690		5.08	0.01	0.08	3.14	53	160	0.77	0.08	22.5	0.03	39.0	5.3	23	13.50	11.3
J998691		3.88	0.01	0.12	3.93	181	160	1.01	0.08	19.65	0.04	43.5	7.1	28	17.30	14.6
J998692		7.66	<0.01	0.06	1.25	56	150	0.40	0.04	30.8	0.21	17.15	2.2	11	4.29	5.1
J998693		10.02	0.01	0.08	2.01	134	220	0.57	0.06	27.5	0.11	25.6	3.0	17	6.73	10.8
J998694		6.84	<0.01	0.01	0.09	<5	20	0.07	0.04	20.2	0.06	1.83	1.1	<1	0.28	1.2
J998695		8.92	<0.01	0.07	1.23	244	180	0.53	0.11	31.7	0.13	18.55	3.9	16	3.65	22.0
J998696		8.92	0.01	0.02	0.66	82	140	0.29	0.03	33.3	0.05	11.25	1.9	8	1.69	8.9
J998697		6.26	0.01	0.04	1.41	71	110	0.50	0.04	28.5	0.05	22.2	3.3	16	3.85	13.0

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10143563

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J998662		0.98	5.68	0.10	3.2	0.64	0.018	1.27	14.2	11.4	7.01	414	1.95	0.02	4.6	7.6
J998663		0.41	0.89	0.20	0.3	0.21	0.005	0.16	5.1	2.6	11.60	260	0.76	0.01	0.7	3.9
J998664		0.45	2.56	0.15	0.7	0.22	0.010	0.49	9.4	5.2	10.90	272	0.74	0.02	1.8	4.9
J998665		0.48	1.53	0.16	0.5	0.33	0.006	0.31	7.9	3.8	10.50	309	0.79	0.02	1.3	3.1
J998666		0.59	2.60	0.13	0.8	0.41	0.011	0.51	10.3	6.0	10.05	408	0.31	0.02	1.9	4.5
J998667		0.93	6.86	0.12	2.5	0.23	0.024	1.45	18.5	14.9	7.49	292	0.91	0.02	5.0	5.3
J998668		0.69	5.27	0.14	1.8	0.22	0.015	1.10	14.3	11.8	8.94	307	0.57	0.04	3.7	4.9
J998669		0.72	6.73	0.12	2.2	0.26	0.020	1.45	16.0	14.3	7.73	284	0.58	0.02	4.7	6.6
J998670		0.31	1.52	0.22	0.3	0.16	0.006	0.30	7.7	3.8	11.95	370	0.21	0.01	1.1	2.7
J998671		0.37	2.02	0.20	0.5	0.22	0.008	0.42	8.0	5.2	10.70	236	0.30	0.01	1.5	2.3
J998672		0.66	1.63	0.14	0.3	0.35	0.012	0.31	7.3	3.8	10.05	306	0.48	0.01	1.0	2.6
J998673		0.53	3.18	0.13	0.8	0.14	0.012	0.72	11.1	7.1	4.82	260	0.49	0.02	2.4	2.8
J998674		1.28	5.64	0.13	3.0	0.38	0.020	1.39	19.5	14.3	5.69	382	0.54	0.02	4.4	6.6
J998675		1.45	8.21	0.11	3.1	0.49	0.023	1.79	22.2	21.0	5.08	319	0.86	0.03	5.8	11.2
J998676		1.34	7.98	0.12	3.2	0.42	0.022	1.81	22.4	20.2	5.31	334	0.63	0.03	5.8	8.7
J998677		0.41	0.30	0.24	<0.1	<0.01	0.006	0.04	0.8	1.4	12.55	181	0.06	0.01	0.3	2.1
J998678		1.01	7.66	0.14	2.4	0.37	0.024	1.65	22.3	19.4	6.15	239	0.67	0.02	5.5	8.7
J998679		0.61	4.22	0.13	1.2	0.42	0.012	0.93	13.6	10.0	9.66	289	0.51	0.02	3.1	3.6
J998680		0.30	1.49	0.21	0.4	0.29	0.006	0.29	8.0	4.0	11.70	254	0.13	0.01	1.1	2.1
J998681		3.19	7.77	0.19	1.8	0.52	0.032	3.14	9.2	51.9	0.19	141	6.18	0.09	7.0	16.1
J998682		0.63	4.84	0.14	1.4	0.38	0.013	1.03	15.0	12.1	8.92	265	0.30	0.02	3.7	4.4
J998683		0.53	2.68	0.16	1.0	0.24	0.010	0.56	10.3	6.8	9.92	204	0.33	0.01	2.2	3.1
J998684		0.46	2.87	0.14	0.7	0.22	0.009	0.61	10.9	7.0	10.80	223	0.23	0.01	2.1	3.0
J998685		0.57	2.97	0.15	0.8	0.22	0.009	0.64	9.8	7.1	10.45	225	0.53	0.02	2.2	4.2
J998686		3.34	7.63	0.17	1.9	0.50	0.034	3.27	9.9	55.5	0.20	147	6.31	0.09	7.1	16.3
J998687		1.15	7.85	0.10	2.3	0.24	0.023	1.73	22.8	18.2	5.90	248	0.80	0.02	5.8	11.0
J998688		1.54	7.80	0.12	3.4	0.18	0.025	1.72	23.3	20.6	5.50	310	0.79	0.03	6.0	11.0
J998689		1.50	7.85	0.12	2.1	0.21	0.023	1.78	22.7	20.8	3.14	246	0.68	0.02	5.2	14.7
J998690		1.21	6.86	0.11	1.3	0.14	0.023	1.64	20.8	17.6	1.70	190	0.65	0.02	4.5	12.8
J998691		1.14	8.62	0.13	1.3	0.18	0.025	2.00	23.9	20.7	1.64	198	1.15	0.02	5.3	15.9
J998692		0.42	2.70	0.13	0.8	0.05	0.008	0.66	9.7	6.3	1.07	147	0.39	0.02	2.0	4.3
J998693		0.66	4.54	0.12	1.2	0.06	0.016	1.07	14.6	10.9	2.06	125	0.52	0.02	3.6	7.0
J998694		0.39	0.33	0.26	<0.1	<0.01	0.005	0.04	0.9	1.6	12.60	176	0.41	0.01	0.4	2.6
J998695		0.44	3.36	0.07	0.7	0.06	0.013	0.60	11.4	7.0	0.89	106	0.62	0.01	2.3	14.4
J998696		0.25	1.88	0.09	0.3	0.02	0.006	0.33	7.6	3.2	0.53	96	0.45	0.01	1.3	3.0
J998697		0.56	4.03	0.08	0.9	0.06	0.012	0.72	13.0	7.6	1.62	120	0.64	0.01	2.8	7.9

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

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10143563

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J998662		540	11.5	39.8	<0.002	0.05	3.22	3.9	2	0.8	189.5	0.38	<0.05	6.6	0.125	1.54
J998663		170	5.1	5.2	<0.002	0.05	0.59	0.7	2	0.2	107.5	<0.05	<0.05	0.8	0.016	0.45
J998664		240	6.3	16.6	<0.002	0.06	0.90	1.7	2	0.4	145.5	0.13	<0.05	2.3	0.045	0.73
J998665		230	8.5	10.1	<0.002	0.04	1.60	1.1	2	0.3	169.0	0.09	<0.05	1.7	0.032	0.56
J998666		210	4.6	17.5	<0.002	0.06	1.29	1.8	2	0.4	152.0	0.14	<0.05	2.2	0.046	0.63
J998667		380	6.4	51.2	0.002	0.10	0.77	4.4	3	0.9	178.5	0.38	<0.05	6.7	0.130	0.81
J998668		300	6.5	38.6	0.002	0.11	0.64	3.4	3	0.8	150.0	0.28	<0.05	4.9	0.097	0.85
J998669		380	7.7	49.7	0.002	0.11	0.85	4.2	2	1.0	161.5	0.36	<0.05	6.4	0.125	1.14
J998670		120	3.9	10.2	<0.002	0.07	0.45	1.1	2	0.3	174.5	0.08	<0.05	1.2	0.026	0.48
J998671		150	5.0	14.3	0.002	0.07	0.58	1.3	2	0.3	154.0	0.10	<0.05	1.9	0.036	0.58
J998672		110	4.7	10.6	<0.002	0.13	0.38	1.1	4	0.3	214	0.07	<0.05	1.3	0.025	0.40
J998673		210	7.4	25.3	<0.002	0.11	0.48	2.1	3	0.5	400	0.17	<0.05	3.1	0.059	0.49
J998674		420	6.3	47.7	0.002	0.19	0.76	3.8	3	0.8	265	0.35	<0.05	6.3	0.116	0.72
J998675		550	9.1	64.0	0.002	0.36	0.67	5.0	3	1.1	251	0.45	<0.05	7.9	0.153	0.88
J998676		520	7.8	65.0	0.002	0.20	0.65	5.0	3	1.1	181.0	0.45	<0.05	8.1	0.154	0.81
J998677		230	1.2	1.4	<0.002	0.02	0.06	0.3	2	<0.2	46.8	<0.05	<0.05	<0.2	<0.005	<0.02
J998678		510	10.0	59.7	0.002	0.34	0.92	5.0	3	1.2	212	0.42	<0.05	7.3	0.142	0.74
J998679		250	7.5	31.4	<0.002	0.12	1.22	2.8	2	0.6	203	0.24	<0.05	4.1	0.081	0.85
J998680		130	4.2	10.3	0.002	0.07	0.61	1.0	2	0.2	145.0	0.08	<0.05	1.3	0.026	0.30
J998681		530	5.2	111.5	0.003	2.19	46.5	7.1	17	2.7	70.2	0.46	0.16	1.6	0.307	4.09
J998682		390	7.5	36.6	0.003	0.14	1.55	3.2	3	0.7	198.5	0.28	<0.05	5.0	0.092	0.76
J998683		180	4.8	19.7	<0.002	0.20	0.43	1.8	3	0.4	160.0	0.16	<0.05	2.8	0.053	0.44
J998684		150	4.6	20.7	0.002	0.15	0.23	1.9	3	0.4	185.5	0.15	<0.05	2.5	0.053	0.68
J998685		170	5.0	21.7	0.002	0.16	0.32	2.0	3	0.5	173.5	0.16	<0.05	2.8	0.057	0.65
J998686		560	5.4	115.0	0.002	2.31	48.2	7.2	17	2.8	73.4	0.47	0.14	1.6	0.321	4.31
J998687		550	7.5	62.8	0.002	0.34	0.44	5.0	2	1.2	254	0.45	<0.05	7.8	0.151	0.83
J998688		530	8.4	64.0	0.002	0.40	0.42	5.0	3	1.1	187.0	0.46	<0.05	8.3	0.153	0.59
J998689		400	7.5	65.5	<0.002	0.47	0.28	5.0	2	1.0	428	0.40	<0.05	7.2	0.135	0.67
J998690		340	8.2	61.5	<0.002	0.24	0.34	4.5	2	0.9	827	0.33	<0.05	6.3	0.115	0.51
J998691		400	8.5	72.3	0.002	0.26	0.24	5.5	2	1.1	586	0.41	<0.05	7.3	0.139	0.56
J998692		380	3.9	23.1	<0.002	0.08	0.12	1.8	2	0.4	1350	0.15	<0.05	2.7	0.052	0.18
J998693		260	5.9	39.4	0.002	0.11	0.22	3.0	2	0.8	794	0.26	<0.05	4.5	0.088	0.27
J998694		240	1.5	1.9	<0.002	0.01	0.08	0.3	2	<0.2	53.6	<0.05	<0.05	<0.2	<0.005	<0.02
J998695		190	14.0	31.2	0.002	0.15	0.49	2.4	2	0.4	798	0.17	<0.05	2.9	0.055	0.30
J998696		100	3.8	16.2	<0.002	0.08	0.12	1.3	1	0.2	824	0.08	<0.05	1.4	0.028	0.14
J998697		220	6.4	36.9	<0.002	0.17	0.14	2.7	2	0.5	764	0.19	<0.05	3.5	0.064	0.18

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Finalized Date: 17- OCT- 2010
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Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10143563

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5
J998662		8.7	39	2.7	10.5	10	104.0
J998663		4.8	8	0.6	3.3	2	9.1
J998664		6.2	18	1.1	5.6	3	23.0
J998665		6.5	15	0.9	4.8	5	17.5
J998666		4.8	19	1.1	6.4	24	26.8
J998667		7.3	43	1.3	11.2	9	87.3
J998668		7.3	30	1.4	8.6	6	61.2
J998669		8.2	39	1.7	9.4	8	74.2
J998670		5.8	14	0.5	3.6	5	10.8
J998671		7.5	19	0.5	4.1	4	16.5
J998672		6.9	9	0.4	4.4	122	12.0
J998673		8.8	21	0.7	6.3	49	30.7
J998674		5.3	38	1.0	13.3	12	109.5
J998675		5.7	54	1.1	13.6	13	111.5
J998676		5.1	49	1.0	13.2	12	108.5
J998677		0.6	1	0.1	1.0	13	0.7
J998678		7.9	44	1.1	12.6	15	83.2
J998679		9.0	26	1.3	7.2	8	40.3
J998680		4.8	16	0.5	4.0	5	12.1
J998681		0.7	54	10.3	10.6	45	73.6
J998682		11.1	26	1.1	8.1	11	45.3
J998683		8.2	15	0.7	5.6	10	32.7
J998684		7.4	20	0.8	5.1	9	21.8
J998685		8.0	18	0.6	5.5	19	28.4
J998686		0.8	57	10.9	10.6	48	72.4
J998687		8.3	49	0.9	12.9	29	82.0
J998688		4.9	48	0.7	14.0	11	117.0
J998689		7.6	42	0.7	11.6	44	77.2
J998690		9.7	39	0.6	9.3	15	49.0
J998691		12.7	55	0.7	9.5	25	50.7
J998692		9.2	20	0.3	5.7	9	29.1
J998693		13.0	31	0.5	7.8	18	44.5
J998694		0.7	1	0.3	1.1	15	0.8
J998695		15.4	20	0.4	5.2	28	29.5
J998696		12.8	13	0.2	3.4	7	13.3
J998697		13.2	22	0.3	6.4	7	34.5

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CERTIFICATE OF ANALYSIS VA10143563

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.

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Finalized Date: 18- OCT- 2010
Account: RCM

CERTIFICATE VA10144192

Project: OSIRIS

P.O. No.: BATCH 8

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 6- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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CERTIFICATE OF ANALYSIS VA10144192

Sample Description	Method	WEI- 21	Au- AA26	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.01	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
J998554		7.82	0.09	0.03	0.64	93	240	0.31	0.04	34.7	0.33	10.90	1.4	6	1.77	3.1
J998555		4.54	0.01	0.06	1.82	52	110	0.59	0.05	27.5	0.09	22.9	3.1	14	5.68	8.0
J998556		2.96	0.01	0.10	4.38	131.5	240	1.40	0.10	8.06	0.05	53.6	6.3	42	15.20	18.4
J998557		2.86	0.01	0.08	3.02	48	250	0.94	0.07	19.35	0.08	35.7	5.0	25	11.15	13.5
J998558		3.24	0.01	0.03	1.34	19	290	0.57	0.04	29.7	0.14	15.45	2.6	12	3.99	6.2
J998559		5.02	<0.01	0.06	0.86	27	140	0.37	0.04	33.7	0.30	14.15	2.1	7	2.86	4.3
J998560		5.06	0.01	0.05	1.14	48	1590	0.43	0.16	30.8	0.18	16.00	2.5	10	3.72	6.3
J998561		4.16	0.01	0.04	2.29	52	440	0.87	0.19	25.6	0.07	29.2	4.5	18	7.98	16.4
J998562		6.86	0.01	0.05	2.49	30	160	0.95	0.09	26.0	0.06	34.3	4.8	20	8.89	17.6
J998563		3.70	0.01	0.13	4.20	71	160	1.45	0.11	15.65	0.08	49.9	8.3	38	14.45	21.3
J998564		3.78	0.01	0.10	3.37	59	360	1.07	0.11	11.00	0.08	45.0	5.5	28	10.50	12.8
J998565		3.28	0.01	0.08	2.79	144	110	0.94	0.08	20.3	0.06	37.8	5.8	24	7.40	13.0
J998566		6.86	0.01	0.01	0.09	<5	20	0.07	0.03	21.2	0.06	2.02	1.1	<1	0.26	1.5
J998567		3.34	0.16	0.10	2.43	306	110	0.85	0.07	21.8	0.07	33.9	4.7	19	5.70	11.6
J998568		2.96	0.41	0.09	2.00	528	1610	0.70	0.07	28.0	0.07	25.5	3.7	18	5.61	13.0
J998569		7.02	0.03	0.05	2.45	103	160	0.94	0.08	25.4	0.06	31.6	4.9	21	6.06	13.6
J998570		9.62	0.01	0.03	1.50	38	180	0.59	0.08	29.1	0.08	20.7	2.9	12	3.83	8.2
J998571		0.28	2.25	1.81	4.33	167.0	980	1.39	0.15	0.48	0.24	56.7	3.8	49	8.41	35.1
J998572		2.92	0.01	0.07	3.93	72	210	1.34	0.09	20.7	0.12	48.0	7.4	33	12.00	23.1
J998573		2.34	0.01	0.08	4.53	74	190	1.57	0.10	17.05	0.11	49.3	8.5	38	14.15	23.0
J998574		6.74	0.02	0.05	2.24	78	350	0.75	0.06	24.9	0.04	30.3	4.2	19	4.80	10.0
J998575		4.86	0.01	0.07	2.68	39	150	1.02	0.06	22.4	0.05	35.9	4.9	25	8.25	12.5
J998576		9.38	0.01	0.06	2.44	41	190	0.98	0.06	22.8	0.13	31.5	4.6	21	7.98	10.5
J998577		8.96	0.01	0.07	1.78	50	440	0.69	0.05	24.6	0.17	27.9	3.2	17	4.25	9.2
J998578		8.42	<0.01	0.14	3.49	96	190	1.24	0.08	13.85	0.18	47.2	5.9	33	8.75	20.5
J998579		5.80	0.01	0.08	1.26	52	90	0.48	0.04	31.7	0.22	23.6	2.4	13	2.67	7.7
J998580		5.90	0.01	0.06	1.31	38	740	0.48	0.05	26.5	0.82	20.0	2.3	12	3.23	6.1
J998581		7.26	<0.01	0.01	0.10	<5	30	0.08	0.03	21.0	0.05	1.98	1.1	<1	0.21	2.2
J998582		3.20	0.01	0.04	1.37	17	90	0.51	0.03	25.9	0.18	20.2	2.3	12	3.37	5.4
J998583		5.34	0.01	0.05	1.82	38	80	0.76	0.05	26.5	0.34	24.3	3.4	17	4.76	9.2
J998584		3.98	0.01	0.03	0.57	10	560	0.32	0.02	33.1	0.60	8.84	1.4	6	1.04	3.0
J998585		3.10	<0.01	0.02	0.54	40	210	0.28	0.04	31.7	0.46	8.97	1.8	8	0.95	4.8
J998586		2.54	0.01	0.08	2.98	48	120	1.06	0.08	15.30	0.07	36.1	5.8	33	7.88	16.3
J998587		0.28	2.45	1.56	3.81	165.0	600	1.27	0.16	0.39	0.23	53.3	3.6	49	7.15	33.6
J998589		4.20	0.01	0.08	3.71	77	200	1.18	0.09	10.55	0.07	46.1	7.4	41	10.10	20.4
J998588		4.08	0.01	0.06	3.90	46.0	200	1.29	0.10	9.43	0.08	47.8	6.9	43	10.45	22.9

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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 18- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10144192

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J998554		0.32	1.52	0.08	0.4	1.26	0.006	0.31	6.1	3.2	0.76	190	1.18	<0.01	1.1	<0.2
J998555		0.68	4.26	0.09	1.1	0.20	0.014	1.01	12.4	9.8	1.10	130	0.59	0.01	2.9	4.2
J998556		2.21	10.90	0.13	3.3	0.35	0.030	2.61	26.6	27.9	3.66	244	1.18	0.03	7.4	15.1
J998557		1.23	7.31	0.11	1.9	0.21	0.024	1.69	18.9	22.2	2.48	166	0.52	0.02	4.9	9.0
J998558		0.60	3.45	0.05	0.7	0.11	0.011	0.74	8.7	10.5	1.51	118	0.51	0.01	2.3	3.7
J998559		0.43	2.37	0.07	0.2	0.07	0.007	0.45	8.3	7.2	0.98	102	0.41	<0.01	1.6	2.8
J998560		0.75	3.17	0.07	0.5	0.10	0.009	0.60	9.1	10.7	1.95	131	0.99	0.02	2.1	3.5
J998561		1.03	6.30	0.10	1.0	0.07	0.018	1.22	16.0	22.4	1.93	138	0.20	0.01	4.0	9.3
J998562		1.11	7.02	0.09	1.1	0.11	0.021	1.27	18.5	34.8	1.87	149	0.45	0.01	4.5	9.9
J998563		1.70	11.75	0.10	2.0	0.45	0.037	2.13	26.1	55.5	3.12	179	0.91	0.02	7.4	17.9
J998564		1.64	9.24	0.11	2.8	0.30	0.027	1.79	22.1	66.3	6.17	263	0.90	0.03	6.1	12.6
J998565		1.35	7.68	0.10	1.7	0.84	0.024	1.38	20.0	36.0	3.67	289	1.11	0.01	5.0	11.8
J998566		0.40	0.35	0.10	<0.1	<0.01	<0.005	0.04	0.9	1.6	13.25	179	0.09	<0.01	0.4	1.0
J998567		1.15	6.73	0.10	1.5	2.21	0.018	1.19	17.1	23.1	2.43	402	0.82	0.01	4.6	9.7
J998568		0.87	5.35	0.09	1.0	2.84	0.019	0.96	13.6	14.9	1.56	575	0.32	0.02	3.7	7.7
J998569		1.06	6.58	0.09	1.0	0.66	0.019	1.19	16.9	21.2	1.92	204	0.46	0.01	4.1	11.1
J998570		0.66	3.97	0.08	0.8	0.30	0.011	0.74	11.2	14.5	1.51	142	0.39	0.01	2.6	5.0
J998571		1.14	11.90	0.12	2.7	1.84	0.046	1.42	28.2	36.5	0.23	26	29.7	0.06	8.0	23.2
J998572		1.65	10.35	0.11	1.6	0.51	0.032	1.92	25.2	39.6	2.43	194	0.73	0.02	6.3	17.0
J998573		1.83	12.30	0.11	1.8	0.57	0.031	2.24	26.9	43.2	2.65	188	0.79	0.02	7.1	20.1
J998574		1.01	5.88	0.09	1.1	0.28	0.018	1.13	15.9	15.4	2.34	197	0.51	0.01	3.8	7.9
J998575		1.18	7.16	0.08	1.3	0.39	0.022	1.33	18.6	30.6	2.18	153	0.87	0.01	4.6	10.3
J998576		1.09	6.60	0.07	1.3	0.40	0.017	1.25	16.0	30.7	2.56	144	0.71	0.01	4.4	8.9
J998577		0.80	4.77	0.08	1.1	0.39	0.015	0.90	14.5	20.2	2.38	147	1.01	0.01	3.5	6.3
J998578		1.53	9.27	0.11	2.4	0.59	0.027	1.79	24.2	51.4	4.30	186	0.98	0.02	6.6	13.7
J998579		0.57	3.20	0.07	0.7	0.26	0.010	0.61	13.5	12.0	1.18	144	0.89	<0.01	2.6	4.7
J998580		0.57	3.24	0.08	0.9	0.25	0.010	0.69	10.5	14.7	1.97	130	0.90	0.01	2.6	3.4
J998581		0.41	0.36	0.12	<0.1	<0.01	<0.005	0.04	0.9	1.5	13.00	183	0.31	<0.01	0.4	0.8
J998582		0.52	3.34	0.09	0.8	0.13	0.010	0.68	10.8	18.4	1.90	109	0.57	0.01	2.7	3.6
J998583		0.75	4.80	0.10	1.0	0.15	0.016	0.88	12.8	20.7	2.39	125	0.69	0.01	3.5	6.1
J998584		0.28	1.47	0.06	0.2	0.05	<0.005	0.24	5.2	4.9	0.90	115	0.45	0.01	1.1	1.1
J998585		0.27	1.54	<0.05	0.3	0.04	0.006	0.22	5.7	12.3	0.80	105	0.47	0.01	0.9	0.6
J998586		1.41	8.20	<0.05	1.8	0.10	0.020	1.26	19.6	127.5	5.12	184	1.24	0.04	4.8	12.3
J998587		1.01	10.95	0.08	2.7	1.85	0.037	1.27	28.7	33.2	0.21	23	24.8	0.06	6.5	21.8
J998589		1.62	10.35	<0.05	2.3	0.08	0.029	1.59	24.1	111.5	5.47	182	0.81	0.04	6.1	16.2
J998588		1.72	11.20	<0.05	2.7	0.08	0.029	1.66	25.2	126.5	5.76	196	0.86	0.05	6.6	16.1

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 18- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10144192

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J998554		220	3.5	13.2	<0.002	0.13	2.31	1.0	1	0.3	1585	0.07	<0.05	1.4	0.027	4.17
J998555		220	6.3	42.2	0.002	0.24	0.45	2.7	2	0.7	855	0.22	<0.05	3.8	0.082	0.65
J998556		510	9.6	101.0	<0.002	0.57	0.70	6.5	2	1.7	546	0.57	<0.05	9.7	0.212	1.16
J998557		370	7.7	67.7	<0.002	0.34	0.34	4.4	2	1.1	1090	0.38	<0.05	6.3	0.136	0.65
J998558		150	6.0	31.6	<0.002	0.17	0.21	2.3	2	0.5	1440	0.17	<0.05	2.6	0.057	0.30
J998559		120	5.7	21.4	<0.002	0.14	0.20	1.5	1	0.4	1595	0.11	<0.05	1.7	0.036	0.23
J998560		140	6.7	27.9	<0.002	0.26	0.35	2.0	2	0.5	1575	0.15	<0.05	2.5	0.051	0.38
J998561		280	6.0	58.7	<0.002	0.14	0.25	3.9	2	0.9	1110	0.30	<0.05	4.8	0.098	0.30
J998562		360	6.9	66.5	0.002	0.16	0.27	4.2	1	1.0	1040	0.34	<0.05	5.4	0.107	0.40
J998563		520	10.4	99.3	0.002	0.46	0.43	6.7	2	1.5	1265	0.57	<0.05	8.6	0.185	0.70
J998564		380	9.6	84.7	<0.002	0.90	0.33	5.3	2	1.2	858	0.47	<0.05	7.8	0.156	0.98
J998565		340	9.1	65.7	0.002	0.65	1.11	4.4	2	1.0	1010	0.37	<0.05	5.9	0.122	1.76
J998566		260	1.4	1.9	<0.002	0.01	0.13	0.3	1	<0.2	53.7	<0.05	<0.05	<0.2	0.005	<0.02
J998567		360	8.1	58.1	<0.002	0.42	3.27	4.1	2	0.9	1195	0.34	<0.05	5.5	0.109	7.20
J998568		490	6.6	45.8	<0.002	0.39	4.60	3.3	2	0.7	1435	0.27	<0.05	4.5	0.088	11.35
J998569		290	6.7	56.5	<0.002	0.25	0.80	4.0	2	0.8	1355	0.31	<0.05	4.9	0.099	1.17
J998570		190	5.7	35.4	<0.002	0.18	0.25	2.4	1	0.5	1490	0.18	<0.05	3.1	0.061	0.38
J998571		500	28.7	64.0	0.002	0.78	176.0	8.8	2	1.7	170.5	0.57	0.31	7.8	0.209	14.40
J998572		630	9.9	90.4	<0.002	0.53	0.53	6.1	2	1.3	1840	0.48	<0.05	7.6	0.158	0.76
J998573		730	9.9	101.0	<0.002	0.57	0.45	7.2	2	1.5	1885	0.55	<0.05	8.8	0.183	0.81
J998574		290	5.5	51.8	<0.002	0.40	0.52	3.5	2	0.8	1545	0.27	<0.05	4.8	0.095	0.74
J998575		340	6.8	62.9	<0.002	0.38	0.31	4.3	2	0.9	1455	0.35	<0.05	5.6	0.120	0.60
J998576		290	8.3	60.4	<0.002	0.44	0.33	4.0	2	0.9	1725	0.33	<0.05	5.4	0.109	0.77
J998577		280	7.0	41.8	<0.002	0.31	0.32	2.9	2	0.7	1510	0.25	<0.05	4.1	0.083	0.69
J998578		670	11.6	80.3	<0.002	0.52	0.56	5.6	4	1.2	1175	0.52	<0.05	8.2	0.165	0.94
J998579		230	7.2	26.7	0.002	0.24	0.34	2.1	2	0.5	1460	0.18	<0.05	3.0	0.059	0.55
J998580		230	8.9	30.4	<0.002	0.27	0.36	2.0	2	0.5	1835	0.18	<0.05	3.1	0.061	0.57
J998581		250	1.4	1.8	<0.002	0.01	0.11	0.3	1	<0.2	54.2	<0.05	<0.05	0.3	0.005	<0.02
J998582		220	7.8	30.1	<0.002	0.17	0.24	2.2	2	0.5	1780	0.19	<0.05	3.1	0.064	0.32
J998583		300	9.0	42.1	<0.002	0.28	0.33	3.0	3	0.7	2090	0.26	<0.05	4.3	0.084	0.39
J998584		250	3.1	10.5	<0.002	0.16	0.13	1.0	1	0.2	1370	0.07	<0.05	1.2	0.026	0.12
J998585		220	3.9	9.4	<0.002	0.13	0.16	1.1	2	0.3	1490	0.07	<0.05	1.1	0.025	0.15
J998586		360	7.6	56.7	<0.002	0.35	0.32	4.7	3	1.2	679	0.36	<0.05	6.4	0.136	0.37
J998587		460	25.0	55.6	0.002	0.69	156.0	7.9	3	1.5	151.5	0.47	0.32	7.2	0.185	12.15
J998589		480	8.5	77.5	<0.002	0.21	0.55	5.9	3	1.5	503	0.50	<0.05	8.1	0.171	0.39
J998588		470	8.5	82.1	<0.002	0.20	0.35	6.3	3	1.5	625	0.52	<0.05	8.7	0.182	0.39

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Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5
J998554		7.9	12	0.4	3.3	14	11.8
J998555		12.0	27	0.6	6.3	17	30.7
J998556		4.5	63	1.1	15.0	33	100.0
J998557		9.0	43	0.7	9.7	24	54.5
J998558		15.4	19	0.3	5.2	26	26.8
J998559		18.7	15	0.2	4.2	37	13.8
J998560		18.3	19	0.3	4.8	22	20.9
J998561		13.4	32	0.5	8.7	23	37.2
J998562		12.5	38	0.5	10.0	29	40.5
J998563		12.9	73	1.1	12.8	45	69.9
J998564		5.5	48	1.1	12.9	38	93.1
J998565		15.7	43	1.1	11.7	41	59.1
J998566		0.6	2	0.1	1.0	12	0.6
J998567		16.0	34	1.1	12.5	39	55.2
J998568		17.0	33	0.9	14.3	21	40.3
J998569		13.9	33	0.8	9.1	30	40.2
J998570		13.9	23	0.4	6.0	19	30.1
J998571		5.9	177	26.0	14.8	62	88.6
J998572		14.0	57	0.9	12.7	53	57.0
J998573		13.5	67	0.9	12.7	50	63.4
J998574		11.1	36	0.8	8.7	21	41.3
J998575		12.2	43	0.6	9.6	28	46.8
J998576		12.8	35	0.6	8.7	29	46.5
J998577		11.2	28	0.5	7.8	28	40.4
J998578		8.6	50	1.1	14.5	49	79.9
J998579		14.4	23	0.5	6.3	26	26.7
J998580		14.0	19	0.4	6.1	43	35.2
J998581		3.4	3	0.1	1.1	12	0.7
J998582		12.8	20	0.4	6.1	21	31.8
J998583		14.7	30	0.5	7.2	38	35.9
J998584		5.6	9	0.2	3.6	25	11.8
J998585		6.4	10	0.2	3.2	19	10.1
J998586		9.5	46	0.6	10.1	32	56.4
J998587		5.4	161	22.6	12.8	58	80.2
J998589		5.6	55	0.7	12.7	48	67.9
J998588		4.1	60	0.7	13.4	48	80.3

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 18- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10144192

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.

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VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

CERTIFICATE VA10146827

Project: OSIRIS

P.O. No.: BATCH 12

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146827

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J998698		11.92	<0.01	0.07	1.44	86	260	0.42	0.19	28.9	0.05	18.70	3.0	16	4.80	11.9
J998699		10.18	<0.01	0.07	1.11	96	180	0.32	0.05	29.7	0.04	16.75	2.4	12	3.67	6.9
J998700		7.38	<0.01	0.09	2.12	86	140	0.68	0.07	25.6	0.11	26.0	3.4	21	7.66	10.3
J998701		7.58	<0.01	0.04	1.08	162	30	0.32	0.04	18.75	0.10	17.60	2.9	10	3.05	7.9
J998702		6.34	<0.01	0.12	3.35	503	140	0.91	0.09	14.10	0.06	36.4	5.4	33	11.75	15.5
J998703		3.84	<0.01	0.07	2.79	108	1410	0.83	0.07	19.35	0.14	33.9	5.7	28	9.68	14.7
J998704		9.80	0.01	0.05	3.94	272	180	1.16	0.10	14.90	0.12	47.3	5.8	37	12.90	23.7
J998705		9.38	0.01	0.06	4.12	246	200	1.14	0.09	13.35	0.12	49.2	6.3	38	13.35	26.9
J998706		4.44	<0.01	0.03	2.44	114	320	0.71	0.08	23.7	0.09	31.3	4.8	23	8.48	16.0
J998707		6.98	<0.01	0.03	0.53	22	220	0.15	0.02	32.3	0.34	10.10	1.9	8	0.81	3.9
J998708		6.96	<0.01	0.02	0.74	15	290	0.37	0.03	31.3	0.35	12.00	2.0	10	1.40	4.2
J998709		0.28	1.55	1.73	0.11	>10000	30	<0.05	329	12.15	0.84	56.8	1.7	7	0.71	15.7
J998710		9.56	<0.01	0.06	3.06	62	150	0.89	0.77	20.8	0.08	36.0	5.2	30	6.41	16.5
J998711		9.68	<0.01	0.06	3.68	42	230	1.16	0.16	15.10	0.15	44.0	6.9	36	8.97	19.7
J998712		9.72	0.03	0.05	3.77	52	250	1.15	0.13	17.15	0.17	44.1	7.2	38	9.07	24.3
J998713		8.22	0.01	0.05	2.39	32	280	0.76	0.11	24.7	0.37	28.3	5.2	23	5.64	16.1
J998714		7.20	<0.01	<0.01	0.08	<5	20	0.06	0.06	20.1	0.06	1.66	1.1	2	0.16	3.6
J998715		7.90	0.01	0.08	4.04	116	360	1.27	0.13	13.40	0.09	45.5	8.2	35	8.24	28.9
J998716		6.02	0.53	0.22	3.65	806	280	1.00	0.12	18.25	0.11	40.9	7.4	33	6.98	29.0
J998717		2.50	32.8	17.50	4.53	>10000	280	0.90	0.16	3.88	1.07	80.0	9.1	50	8.27	31.0
J998718		0.12	14.50	8.22	3.91	562	630	0.80	0.05	0.19	0.10	20.1	9.3	33	6.13	49.6
J998719		4.80	3.68	2.05	3.09	6520	670	0.66	0.10	19.45	0.23	36.1	5.7	29	4.66	23.7
J998720		4.62	12.60	6.13	4.44	>10000	330	0.80	0.18	7.00	0.59	51.5	10.0	46	6.42	41.8
J998721		4.06	3.08	0.89	3.11	2620	330	0.68	0.25	17.65	0.35	37.8	16.2	29	3.80	51.3
J998722		2.34	3.56	0.82	2.77	1760	210	0.58	0.46	17.30	0.40	33.0	13.6	25	3.32	36.1
J998723		3.86	0.06	0.25	6.94	800	290	1.84	0.29	5.61	0.19	84.9	18.0	47	15.00	229
J998724		9.72	<0.01	0.02	7.91	172.5	370	2.01	0.29	3.40	0.11	85.3	15.5	66	20.6	51.6
J998725		9.24	0.01	0.04	7.49	32.4	510	2.33	0.30	3.51	0.29	85.3	16.7	68	21.4	54.3
J998726		10.06	<0.01	0.02	8.56	17.2	400	2.53	0.38	0.37	<0.02	97.0	17.9	67	30.1	23.1
J998727		4.44	<0.01	0.01	8.56	17.5	370	2.70	0.34	0.32	<0.02	90.8	18.7	65	27.3	24.4
J998728		5.42	0.01	0.05	6.93	23	280	1.74	0.28	10.60	0.03	77.1	15.3	45	21.0	29.9
J998729		5.12	<0.01	0.06	8.58	20.4	290	2.44	0.39	2.15	0.04	76.3	19.3	71	29.1	40.8
J998730		4.44	0.01	0.07	3.09	105	350	0.98	0.12	18.65	0.11	40.0	7.5	28	8.57	19.7
J998731		7.76	<0.01	0.01	0.07	5	10	0.05	0.04	19.25	0.06	1.42	1.1	1	0.17	1.8
J998732		6.00	0.01	0.13	2.42	61	340	0.70	0.08	22.0	0.09	30.3	5.1	23	6.13	14.7
J998733		7.84	0.01	0.48	2.00	108	160	0.64	0.07	13.55	0.25	27.4	3.9	18	6.15	9.9

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

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146827

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J998698		0.48	3.59	<0.05	0.7	0.07	0.017	0.72	10.9	8.7	1.02	108	0.52	0.01	2.1	13.5
J998699		0.42	2.58	<0.05	0.7	0.08	0.010	0.57	9.8	6.5	0.75	106	0.32	0.01	1.7	10.1
J998700		0.66	4.74	<0.05	1.2	0.11	0.016	1.08	14.9	13.4	1.56	137	0.65	0.02	3.1	12.1
J998701		1.06	2.57	<0.05	0.5	0.16	0.013	0.53	10.0	6.3	9.92	527	0.39	0.01	1.5	8.9
J998702		1.19	8.26	0.07	1.7	0.19	0.022	1.69	20.7	24.5	6.10	341	0.72	0.02	4.8	13.4
J998703		1.16	6.79	0.05	1.7	0.11	0.023	1.43	18.3	20.1	3.34	206	0.75	0.03	4.2	16.8
J998704		1.55	9.75	0.07	2.0	0.05	0.036	1.98	26.2	24.6	3.09	235	0.40	0.03	6.0	19.1
J998705		1.59	9.85	0.07	2.1	0.05	0.035	1.98	26.9	25.3	3.18	239	0.49	0.03	6.0	19.6
J998706		1.01	5.81	0.06	1.1	0.05	0.019	1.13	18.1	25.6	1.53	226	0.26	0.06	3.9	16.0
J998707		0.28	1.28	<0.05	0.3	0.03	<0.005	0.18	6.1	6.5	0.77	356	0.30	0.01	0.8	10.2
J998708		0.35	1.82	<0.05	0.4	0.02	0.006	0.29	7.0	21.5	0.94	392	0.27	0.01	1.2	11.3
J998709		16.30	0.84	0.23	0.1	0.01	0.118	0.07	38.3	2.2	6.72	2240	5.08	0.01	0.5	8.9
J998710		1.25	7.09	0.06	1.5	0.05	0.024	1.18	19.8	75.6	2.53	416	0.33	0.03	4.6	16.7
J998711		1.60	9.11	0.09	1.9	0.08	0.028	1.59	23.7	76.5	3.74	440	0.44	0.03	5.7	18.9
J998712		1.61	9.22	0.07	1.8	0.18	0.033	1.59	24.0	68.1	2.80	562	0.41	0.03	5.8	20.7
J998713		1.04	5.78	0.05	1.2	0.07	0.020	1.04	15.5	25.8	2.00	672	0.53	0.02	3.6	17.9
J998714		0.40	0.24	<0.05	<0.1	<0.01	<0.005	0.03	0.8	1.3	12.15	193	0.06	0.01	0.2	7.4
J998715		1.86	9.61	0.06	1.9	0.30	0.032	1.79	24.8	31.2	4.23	808	0.55	0.03	6.1	21.7
J998716		1.63	9.07	0.07	1.4	1.18	0.028	1.62	22.7	11.4	2.73	1060	0.38	0.03	5.4	22.4
J998717		2.61	11.95	0.14	1.7	19.4	0.122	1.89	39.1	20.8	1.65	809	0.81	0.02	6.7	22.8
J998718		3.25	7.83	0.12	1.9	0.46	0.040	3.25	10.3	55.9	0.18	150	5.32	0.09	6.5	15.4
J998719		1.32	7.47	0.06	1.3	4.15	0.031	1.34	20.3	7.4	2.51	1520	0.24	0.03	4.7	19.2
J998720		1.88	12.10	0.09	1.9	16.1	0.102	1.87	28.9	19.5	1.95	1140	0.62	0.03	7.0	24.0
J998721		1.52	7.65	0.07	1.3	2.89	0.037	1.25	20.7	8.0	3.65	2940	1.84	0.03	4.8	23.7
J998722		1.45	6.75	0.06	1.1	2.51	0.035	1.14	18.0	6.4	3.84	2950	1.62	0.04	4.0	21.3
J998723		2.80	18.60	0.13	2.8	0.91	0.060	3.04	48.0	24.9	3.03	1540	0.32	0.05	12.2	51.4
J998724		3.81	20.1	0.15	2.7	0.76	0.061	3.55	46.8	23.6	2.06	977	0.15	0.05	12.6	52.9
J998725		3.44	19.20	0.13	2.9	0.15	0.068	3.24	46.6	79.9	2.79	2080	0.28	0.05	11.1	39.8
J998726		4.99	23.0	0.18	3.5	0.02	0.086	3.92	50.2	94.3	1.31	245	0.24	0.06	12.8	33.7
J998727		4.50	23.7	0.17	3.6	0.01	0.082	3.95	46.8	80.8	1.27	218	0.22	0.06	12.9	35.4
J998728		3.89	16.90	0.13	2.5	0.05	0.058	2.85	42.2	75.1	1.01	527	0.32	0.05	8.7	28.8
J998729		4.65	23.2	0.16	3.1	0.05	0.076	3.80	37.9	96.9	1.03	344	0.32	0.07	11.8	40.8
J998730		1.81	7.34	0.06	1.4	0.15	0.027	1.27	22.1	21.3	2.79	997	0.61	0.03	4.7	20.9
J998731		0.37	0.20	<0.05	<0.1	0.01	<0.005	0.03	0.7	1.1	11.70	186	<0.05	<0.01	0.2	7.8
J998732		1.11	5.66	0.05	1.1	0.37	0.018	1.06	17.0	7.9	2.01	387	0.71	0.02	3.5	17.8
J998733		0.91	4.64	0.05	2.0	0.54	0.026	0.85	14.1	10.1	7.05	264	1.64	0.02	3.2	12.7

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Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146827

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J998698		240	7.5	27.0	<0.002	0.18	0.19	2.2	5	0.5	826	0.16	0.41	3.0	0.064	0.29
J998699		200	7.1	19.8	<0.002	0.16	0.17	1.6	4	0.4	1180	0.13	0.22	2.3	0.051	0.23
J998700		310	15.9	38.6	<0.002	0.23	0.22	2.9	4	0.7	897	0.23	0.17	4.2	0.096	0.44
J998701		130	4.9	18.4	<0.002	0.19	0.60	1.6	2	0.4	193.5	0.12	0.05	2.0	0.047	0.31
J998702		410	7.5	62.5	<0.002	0.17	1.42	4.8	3	1.1	305	0.37	0.15	6.4	0.147	0.92
J998703		400	8.3	57.5	<0.002	0.49	0.32	4.1	4	0.9	555	0.33	0.21	6.0	0.127	0.40
J998704		450	9.0	83.4	<0.002	0.03	0.26	6.0	4	1.4	355	0.46	0.27	8.0	0.179	0.45
J998705		460	8.3	85.7	0.002	0.03	0.30	6.0	4	1.4	375	0.48	0.19	8.1	0.185	0.44
J998706		280	5.8	60.7	<0.002	0.06	0.28	3.7	3	0.8	617	0.29	0.19	4.9	0.112	0.57
J998707		210	4.0	9.4	<0.002	0.08	0.11	0.8	4	0.2	1230	0.06	0.20	1.1	0.024	0.13
J998708		230	4.6	16.2	<0.002	0.08	0.11	1.2	3	0.3	1175	0.09	0.21	1.5	0.034	0.13
J998709		120	16.1	7.3	0.006	>10.0	22.6	0.4	5	1.2	86.4	<0.05	1.05	0.5	0.009	0.11
J998710		370	8.8	69.0	<0.002	0.13	0.29	4.4	4	1.1	636	0.37	0.14	6.2	0.138	0.53
J998711		400	10.0	99.7	<0.002	0.28	0.32	5.5	3	1.3	384	0.44	0.05	8.0	0.169	0.86
J998712		440	10.2	98.9	<0.002	0.37	0.33	5.7	4	1.4	422	0.45	0.20	7.6	0.170	1.18
J998713		320	10.5	61.9	0.002	0.22	0.23	3.5	3	0.9	709	0.28	0.12	4.8	0.106	0.59
J998714		230	1.3	1.5	<0.002	0.01	<0.05	0.3	3	<0.2	51.1	<0.05	0.12	<0.2	<0.005	<0.02
J998715		390	10.4	95.5	0.002	0.65	0.52	5.8	3	1.4	287	0.47	0.07	8.0	0.182	1.16
J998716		300	7.6	95.7	<0.002	0.57	1.98	5.7	4	1.3	437	0.40	0.13	6.5	0.158	4.19
J998717		500	15.2	95.0	<0.002	5.66	102.5	5.3	3	1.7	226	0.50	0.11	8.9	0.192	88.1
J998718		520	5.3	105.0	0.002	2.32	46.7	7.2	16	2.5	78.3	0.42	0.20	1.5	0.308	4.73
J998719		270	8.8	73.9	<0.002	0.96	15.00	4.6	5	1.0	375	0.37	0.18	6.2	0.138	19.90
J998720		490	22.2	102.0	0.002	3.34	72.3	5.3	3	1.6	153.5	0.54	0.12	8.8	0.197	42.5
J998721		290	64.0	62.2	<0.002	0.69	16.55	4.8	4	1.3	373	0.36	0.27	6.2	0.140	9.61
J998722		270	81.8	57.1	<0.002	0.65	20.5	4.3	4	1.1	374	0.31	0.19	5.3	0.116	10.65
J998723		560	12.2	137.5	<0.002	2.01	5.82	11.8	3	2.6	177.0	0.89	0.14	14.2	0.307	3.15
J998724		460	14.3	162.0	<0.002	2.90	1.31	12.2	2	2.5	191.5	0.94	<0.05	14.3	0.330	3.39
J998725		400	16.1	154.5	<0.002	0.28	0.44	13.2	3	2.3	166.5	0.83	0.13	13.7	0.338	1.55
J998726		460	18.3	204	<0.002	0.01	0.60	16.6	2	2.8	141.5	0.94	0.10	14.8	0.428	1.31
J998727		470	19.8	201	<0.002	0.01	0.63	17.1	2	2.8	141.0	0.95	0.15	14.5	0.436	1.29
J998728		450	17.7	125.5	<0.002	0.07	0.44	11.6	3	1.8	318	0.64	0.24	11.8	0.313	0.87
J998729		580	20.4	121.0	<0.002	0.18	0.43	14.3	3	2.6	134.5	0.88	0.15	11.3	0.395	1.14
J998730		330	13.0	59.4	<0.002	0.09	0.35	4.5	4	1.1	429	0.34	0.17	5.9	0.136	0.60
J998731		290	1.3	1.3	<0.002	<0.01	<0.05	0.3	2	<0.2	56.3	<0.05	0.12	<0.2	<0.005	<0.02
J998732		370	8.3	44.3	<0.002	0.11	0.43	3.5	4	0.8	551	0.26	0.17	4.9	0.102	0.78
J998733		570	14.3	34.8	0.002	0.21	0.86	2.9	4	0.7	160.0	0.23	0.05	4.3	0.090	1.33

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146827

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
J998698		13.5	23	0.3	5.4	18	24.1	
J998699		11.8	18	0.2	4.9	16	21.9	
J998700		13.5	34	0.4	7.1	59	38.1	
J998701		4.3	17	0.4	5.1	22	14.2	
J998702		8.8	53	2.4	9.3	26	53.8	
J998703		7.1	41	0.5	10.3	31	53.5	
J998704		6.3	59	0.7	14.3	56	65.8	
J998705		6.2	62	0.7	14.7	49	68.7	
J998706		11.0	34	0.5	9.2	31	34.7	
J998707		7.5	9	0.1	4.0	13	11.4	
J998708		7.3	11	0.2	4.3	19	13.9	
J998709		0.7	5	191.5	7.1	124	2.9	2.67
J998710		9.0	40	0.9	10.1	44	45.6	
J998711		8.1	47	0.7	13.2	56	63.6	
J998712		8.5	50	0.8	13.0	57	57.4	
J998713		9.1	33	0.5	8.8	44	36.3	
J998714		0.6	2	0.1	1.0	14	0.5	
J998715		6.1	55	1.2	13.9	63	62.7	
J998716		7.1	44	2.2	13.1	58	45.5	
J998717		12.3	69	5.3	8.7	111	53.9	7.03
J998718		0.8	58	9.1	11.5	47	71.1	
J998719		11.1	40	2.5	13.3	55	43.7	
J998720		13.0	59	4.2	12.7	82	62.2	5.18
J998721		13.9	42	3.0	12.2	66	40.0	
J998722		13.7	37	2.7	11.2	70	33.8	
J998723		4.8	68	4.3	22.9	106	94.4	
J998724		2.6	60	3.7	20.5	105	90.8	
J998725		3.6	74	1.5	21.2	103	96.4	
J998726		2.3	96	1.7	24.5	98	112.0	
J998727		3.5	127	1.7	25.0	98	117.0	
J998728		2.7	66	1.2	19.0	68	84.3	
J998729		2.7	89	1.6	19.3	85	99.7	
J998730		4.5	37	1.3	11.9	44	48.5	
J998731		0.7	1	0.1	1.0	13	<0.5	
J998732		8.2	38	0.8	9.9	25	40.9	
J998733		8.0	56	1.2	9.2	37	65.8	

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146827

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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Finalized Date: 25- OCT- 2010
Account: RCM

CERTIFICATE VA10146828

Project: OSIRIS

P.O. No.: BATCH 13

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146828

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
J998780		7.32	0.02	0.16	1.57	356	90	0.58	0.07	19.30	0.20	18.20	2.5	16	3.39	7.8
J998781		7.76	0.01	0.04	0.25	262	20	0.18	0.02	20.6	0.21	6.25	1.1	4	0.41	2.7
J998782		4.94	0.01	0.04	0.23	198	20	0.12	0.02	20.5	0.32	6.58	0.8	4	0.35	2.4
J998783		3.80	0.01	0.06	0.23	616	30	0.14	0.02	20.6	0.23	7.56	0.8	4	0.41	3.1
J998784		7.16	<0.01	0.01	0.07	8	20	0.07	0.03	21.8	0.06	1.50	0.9	2	0.16	6.0
J998785		7.84	0.02	0.26	3.27	960	130	0.94	0.09	11.15	0.16	36.5	3.9	32	9.35	12.0
J998786		6.24	0.03	0.08	1.45	243	60	0.39	0.10	12.35	0.05	21.4	1.9	13	3.16	5.0
J998787		6.30	0.09	0.20	1.15	276	70	0.32	0.05	17.80	0.11	16.95	2.8	13	2.39	6.6
J998788		9.30	0.01	0.10	2.87	113	120	1.02	0.08	15.15	0.06	32.6	4.2	27	11.65	10.3
E146303		6.76	0.01	0.03	3.39	457	230	1.07	0.08	15.95	0.09	41.0	4.0	33	13.00	14.2
E146304		8.52	<0.01	0.01	0.59	55	120	0.26	0.03	33.9	0.09	13.80	1.1	7	2.24	2.7
E146305		10.40	0.02	0.03	5.13	129	260	1.81	0.11	12.00	0.09	47.3	5.9	50	25.8	6.3
E146306		7.68	0.02	0.11	3.96	666	170	1.32	0.10	12.60	0.07	44.5	7.3	36	14.40	17.0
E146307		7.04	0.01	0.09	3.83	101	220	1.23	0.09	11.95	0.06	41.5	5.3	36	11.65	9.2
E146308		7.60	0.54	0.07	1.82	621	100	0.50	0.04	17.95	0.07	20.0	2.9	17	4.12	4.8
E146309		6.26	0.50	0.09	0.59	432	30	0.24	0.02	21.4	0.09	10.60	1.3	7	1.36	5.6
E146310		6.32	0.01	0.06	3.28	338	270	1.07	0.07	20.3	0.24	34.4	5.3	29	11.60	12.8
E146311		6.72	<0.01	0.02	0.10	8	20	0.10	0.03	21.5	0.07	1.70	1.1	2	0.24	4.1
E146320		10.50	<0.01	0.08	4.40	530	180	1.33	0.10	10.20	0.07	47.9	6.8	41	13.85	18.8
E146321		6.26	0.08	0.04	2.49	>10000	90	0.63	0.07	20.5	0.07	25.4	4.6	26	6.24	13.3
E146322		0.12	15.20	7.01	3.90	514	710	0.73	0.06	0.19	0.09	18.15	7.7	35	5.76	42.5
E146323		7.76	0.01	0.07	2.93	1680	140	0.81	0.07	24.3	0.05	30.9	5.6	27	6.71	13.5
E146324		3.72	<0.01	0.07	2.99	1560	90	0.89	0.07	24.3	0.06	32.1	5.7	27	6.87	14.1
E146325		6.62	<0.01	0.06	2.32	472	160	0.72	0.06	26.4	0.08	24.9	5.5	21	6.12	13.9
E146326		4.86	<0.01	0.03	1.40	332	100	0.47	0.04	30.6	0.05	16.70	2.6	14	3.42	7.7
E146327		8.26	0.01	0.04	1.90	375	180	0.58	0.05	28.1	0.06	21.2	3.8	17	5.31	10.0
E146328		9.00	<0.01	0.04	2.25	192	140	0.67	0.06	26.4	0.06	25.8	4.0	19	8.32	11.4
E146329		9.46	0.01	0.04	2.33	65	290	0.70	0.06	27.1	0.08	27.9	4.3	23	9.63	14.5
E146330		9.74	<0.01	0.03	0.86	28	620	0.24	0.03	31.1	0.14	11.05	1.9	9	2.83	5.1
E146331		9.80	<0.01	0.06	1.51	156	860	0.44	0.04	28.9	0.11	15.35	2.6	14	4.51	7.7
E146332		7.12	<0.01	0.04	1.32	235	90	0.37	0.04	29.9	0.05	15.85	2.6	13	2.85	6.4
E146333		0.28	16.65	1.09	2.17	1350	120	0.37	0.55	14.25	0.64	32.3	3.8	39	2.63	64.8
E146334		6.86	0.01	0.05	1.80	63	710	0.48	0.05	29.2	0.05	19.10	3.2	17	4.33	9.2
E146335		5.16	<0.01	0.05	1.81	8520	470	0.49	0.04	30.5	0.04	20.1	3.1	19	7.13	9.1
E146336		9.26	<0.01	0.05	2.35	98	560	0.69	0.06	28.1	0.06	23.5	4.1	22	6.80	11.4
E146337		9.54	<0.01	0.03	1.61	696	640	0.41	0.04	30.3	0.05	20.2	3.1	17	6.11	7.6

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

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VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146828

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J998780		0.48	4.09	0.08	1.1	0.75	0.010	0.74	9.9	7.3	10.60	249	0.60	0.01	2.7	6.9
J998781		0.31	0.72	0.06	0.2	0.30	<0.005	0.11	3.6	1.7	11.75	271	0.24	<0.01	0.5	1.5
J998782		0.33	0.63	0.06	0.2	0.49	<0.005	0.10	3.6	1.5	11.80	293	0.21	<0.01	0.4	1.0
J998783		0.37	0.63	0.07	0.2	0.50	0.005	0.10	3.9	1.6	12.05	346	0.15	<0.01	0.4	1.7
J998784		0.41	0.25	0.05	<0.1	<0.01	<0.005	0.03	0.7	1.0	12.85	199	0.13	<0.01	0.3	1.7
J998785		1.09	8.23	0.10	3.8	0.79	0.021	1.55	18.7	16.2	6.27	326	1.39	0.01	5.9	8.4
J998786		0.83	3.30	0.08	3.0	0.51	0.013	0.70	11.1	9.1	7.11	385	0.75	<0.01	2.4	4.1
J998787		0.78	2.62	0.08	1.3	0.88	0.011	0.49	8.6	6.7	9.63	538	1.00	<0.01	1.9	6.5
J998788		1.06	7.19	0.09	2.2	0.41	0.019	1.42	17.8	16.5	7.99	284	1.35	0.01	4.7	9.6
E146303		1.26	8.32	0.10	2.6	0.13	0.022	1.74	22.5	18.2	5.01	268	0.56	0.02	5.5	10.0
E146304		0.27	1.47	0.06	0.3	0.06	0.005	0.30	8.4	3.6	0.63	167	0.12	<0.01	0.9	2.5
E146305		1.76	13.35	0.14	3.1	0.44	0.034	2.78	25.2	39.4	3.11	185	0.42	0.02	8.1	18.1
E146306		1.40	10.05	0.12	2.7	0.80	0.026	2.02	23.7	19.5	6.50	309	1.02	0.02	6.3	14.6
E146307		1.17	9.36	0.11	3.0	0.55	0.023	1.94	21.8	16.2	6.68	305	0.77	0.02	6.1	10.4
E146308		0.90	4.61	0.08	1.4	3.21	0.012	0.91	11.0	7.3	9.28	585	0.44	<0.01	2.7	6.6
E146309		0.69	1.49	0.06	0.4	1.70	0.006	0.28	5.6	2.8	10.05	818	0.20	<0.01	0.9	4.1
E146310		1.10	8.24	0.11	1.8	0.52	0.021	1.70	18.2	17.5	2.58	212	0.49	0.01	4.9	13.3
E146311		0.49	0.33	0.05	<0.1	<0.01	<0.005	0.05	0.8	1.2	12.80	198	0.09	<0.01	0.4	2.5
E146320		1.50	11.20	0.13	2.8	0.97	0.030	2.41	25.4	23.3	6.19	277	0.86	0.02	7.3	16.5
E146321		1.28	5.98	0.10	1.3	2.43	0.036	1.29	13.7	10.2	3.20	334	0.52	0.01	3.5	12.7
E146322		3.20	7.26	0.17	1.8	0.51	0.030	3.16	8.7	44.3	0.17	146	5.27	0.08	6.1	15.6
E146323		1.25	7.12	0.10	1.5	0.73	0.023	1.49	17.3	15.3	2.09	197	0.63	0.01	4.5	15.2
E146324		1.28	7.33	0.11	1.6	0.69	0.021	1.52	17.8	15.4	2.13	192	0.49	0.01	4.6	15.3
E146325		0.93	5.69	0.09	1.1	0.48	0.015	1.20	14.2	13.1	1.46	148	0.18	<0.01	3.6	17.0
E146326		0.62	3.37	0.08	0.6	0.14	0.008	0.73	9.8	8.2	1.23	130	0.16	<0.01	2.0	7.3
E146327		0.82	4.63	0.08	0.8	0.11	0.012	1.02	12.2	12.8	1.41	132	0.35	0.01	2.7	9.8
E146328		0.83	5.43	0.09	1.0	0.06	0.015	1.12	14.4	20.9	1.42	133	0.48	0.01	3.2	11.1
E146329		0.81	5.66	0.09	1.1	0.05	0.015	1.15	16.2	19.1	1.26	139	0.33	0.04	3.5	12.0
E146330		0.38	2.08	0.06	0.4	0.04	0.007	0.40	6.7	8.2	0.70	98	0.43	0.06	1.3	5.7
E146331		0.51	3.49	0.08	0.8	0.06	0.010	0.72	8.6	12.1	1.23	119	0.44	0.07	2.1	7.4
E146332		0.60	3.06	0.07	0.6	0.07	0.009	0.51	8.9	8.0	1.07	123	0.35	0.01	1.8	7.2
E146333		3.74	3.97	0.12	0.9	6.18	0.055	0.43	19.1	34.4	0.73	487	12.85	<0.01	3.6	23.5
E146334		0.68	4.21	0.08	0.8	0.07	0.011	0.70	10.7	10.2	1.18	141	0.71	0.08	2.5	9.9
E146335		0.86	4.25	0.07	0.8	0.07	0.022	0.70	11.5	10.0	1.05	166	0.75	0.01	2.5	9.7
E146336		0.80	5.58	0.08	1.1	0.08	0.014	1.03	13.2	16.4	1.45	158	0.83	0.11	3.3	12.0
E146337		0.78	3.63	0.07	0.7	0.08	0.011	0.62	10.8	11.4	1.04	143	0.42	0.08	2.3	9.0

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146828

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J998780		360	11.1	32.5	<0.002	0.02	1.62	2.6	2	0.5	187.5	0.18	<0.05	3.1	0.071	0.81
J998781		170	3.9	5.0	<0.002	0.04	0.48	0.7	2	<0.2	119.5	<0.05	<0.05	1.1	0.011	0.34
J998782		170	4.2	4.0	<0.002	0.05	0.61	0.6	2	<0.2	105.5	<0.05	<0.05	1.1	0.010	0.24
J998783		170	4.3	4.0	<0.002	0.03	0.71	0.5	2	0.2	91.9	<0.05	<0.05	0.6	0.010	0.40
J998784		240	1.4	1.4	<0.002	<0.01	0.17	0.4	2	<0.2	52.8	<0.05	<0.05	0.7	<0.005	<0.02
J998785		610	14.1	65.0	<0.002	0.05	1.27	5.1	2	1.0	146.5	0.43	<0.05	7.5	0.159	1.89
J998786		470	8.9	27.7	<0.002	0.05	0.63	2.2	2	0.4	151.0	0.19	<0.05	2.9	0.072	0.88
J998787		330	10.0	19.3	<0.002	0.08	1.14	1.8	3	0.4	190.5	0.14	<0.05	2.9	0.054	1.23
J998788		360	7.9	61.9	<0.002	0.20	0.77	4.6	2	0.9	171.0	0.33	<0.05	7.0	0.130	1.29
E146303		440	5.7	75.2	<0.002	0.18	1.87	5.2	2	1.0	284	0.40	<0.05	8.3	0.154	1.30
E146304		140	2.4	13.6	<0.002	0.10	0.28	0.9	2	0.2	884	0.06	<0.05	0.7	0.024	0.17
E146305		560	8.7	106.5	<0.002	1.02	1.37	8.3	2	1.5	297	0.58	<0.05	12.0	0.223	1.23
E146306		440	9.4	89.4	0.003	0.52	1.46	6.4	3	1.2	205	0.46	<0.05	8.9	0.178	1.47
E146307		470	7.5	65.5	0.002	0.30	0.70	5.9	3	1.1	203	0.45	<0.05	9.1	0.176	1.34
E146308		340	4.9	37.7	<0.002	0.30	6.32	2.7	3	0.5	228	0.19	<0.05	3.5	0.077	12.70
E146309		230	3.0	11.2	<0.002	0.04	3.35	1.0	2	0.2	159.0	0.06	<0.05	1.1	0.024	1.56
E146310		580	7.3	75.3	0.002	0.56	1.64	5.1	2	0.9	634	0.34	<0.05	7.1	0.130	1.94
E146311		350	1.5	2.2	<0.002	0.07	0.15	0.5	2	<0.2	54.8	<0.05	<0.05	0.6	<0.005	0.02
E146320		440	8.2	89.4	0.002	0.26	1.46	7.1	3	1.3	262	0.51	<0.05	11.1	0.197	2.10
E146321		320	6.2	55.1	0.002	1.44	7.17	3.5	4	0.8	603	0.25	<0.05	4.2	0.104	4.87
E146322		550	4.9	106.0	0.002	2.32	40.4	6.8	15	2.3	73.7	0.39	0.14	3.3	0.302	4.24
E146323		310	5.9	69.9	0.002	0.30	2.35	4.5	3	0.9	759	0.31	<0.05	5.4	0.121	1.84
E146324		310	6.2	72.0	0.002	0.28	2.21	4.6	4	0.9	759	0.32	<0.05	5.8	0.124	1.79
E146325		280	5.4	57.7	<0.002	0.27	1.21	3.5	3	0.7	727	0.25	<0.05	4.2	0.096	0.83
E146326		150	5.0	34.9	0.002	0.08	0.44	2.1	3	0.4	1010	0.14	<0.05	2.4	0.054	0.31
E146327		190	5.6	52.6	0.002	0.18	0.57	2.8	3	0.5	934	0.19	<0.05	3.6	0.073	0.37
E146328		260	6.6	60.1	0.002	0.25	0.85	3.3	3	0.7	864	0.23	<0.05	4.4	0.089	0.40
E146329		420	6.9	62.1	<0.002	0.20	0.46	3.6	3	0.7	745	0.25	<0.05	4.7	0.095	0.29
E146330		130	4.9	20.4	0.002	0.15	0.20	1.3	2	0.3	1405	0.09	<0.05	1.7	0.033	0.14
E146331		180	5.8	35.8	<0.002	0.23	0.45	2.2	2	0.4	1490	0.15	<0.05	2.7	0.059	0.16
E146332		160	4.9	25.1	<0.002	0.27	0.19	1.9	2	0.4	1480	0.13	<0.05	2.6	0.050	0.16
E146333		740	22.1	30.6	0.007	2.22	163.5	4.0	3	1.9	49.7	0.25	0.42	5.6	0.117	3.73
E146334		220	5.7	36.0	<0.002	0.20	0.55	2.6	2	0.5	1275	0.18	<0.05	3.2	0.070	0.22
E146335		210	5.9	35.0	<0.002	1.33	0.75	2.6	3	0.5	1435	0.17	<0.05	3.5	0.069	0.25
E146336		300	7.0	52.7	<0.002	0.31	0.20	3.4	3	0.7	1045	0.23	<0.05	4.5	0.093	0.26
E146337		240	5.6	31.2	<0.002	0.44	0.55	2.2	3	0.4	1210	0.15	<0.05	3.1	0.064	0.18

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146828

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
J998780		10.4	29	1.3	5.6	92	35.1	
J998781		4.1	8	0.2	2.5	83	8.4	
J998782		3.7	8	0.4	2.5	136	6.8	
J998783		3.9	8	0.3	2.9	61	6.3	
J998784		0.6	4	0.1	1.0	16	0.9	
J998785		6.9	55	1.6	11.9	68	131.0	
J998786		4.8	21	0.9	8.6	14	94.9	
J998787		6.5	22	1.1	6.0	25	47.8	
J998788		8.8	50	1.2	10.1	16	81.5	
E146303		8.0	58	0.9	13.0	20	89.2	
E146304		7.8	15	0.2	4.5	5	10.7	
E146305		4.7	73	1.4	14.6	29	105.5	
E146306		12.3	67	1.6	13.4	14	100.0	
E146307		10.6	63	1.9	13.6	12	105.5	
E146308		5.6	27	1.4	7.0	11	48.3	
E146309		4.9	13	0.5	4.2	20	13.9	
E146310		7.1	48	0.8	10.2	89	65.1	
E146311		0.6	5	0.1	1.1	16	1.9	
E146320		5.0	67	2.0	13.8	34	98.9	
E146321		18.5	40	1.3	8.3	55	44.3	1.615
E146322		0.7	56	9.1	10.1	47	71.9	
E146323		12.4	40	1.3	9.8	21	53.0	
E146324		12.5	41	1.3	10.1	22	54.8	
E146325		11.3	34	0.8	7.5	18	39.6	
E146326		13.7	25	0.3	5.2	22	22.6	
E146327		13.8	29	0.4	6.2	34	29.1	
E146328		16.0	32	0.5	7.5	38	36.3	
E146329		12.4	36	0.4	8.8	33	36.7	
E146330		14.5	18	0.1	3.7	28	13.6	
E146331		15.5	26	0.3	4.8	30	29.4	
E146332		18.8	22	0.2	4.6	22	22.0	
E146333		3.6	115	223	16.1	84	34.4	
E146334		15.6	30	1.3	5.6	29	26.1	
E146335		24.8	31	0.6	5.8	20	32.3	
E146336		20.5	39	0.5	6.9	33	37.3	
E146337		17.3	26	0.4	5.6	24	22.7	

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146828

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.

ALS Canada Ltd.

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

CERTIFICATE VA10146829

Project: OSIRIS

P.O. No.: BATCH 14

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146829

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
E146338		10.04	<0.01	0.06	3.93	45	300	1.16	0.80	21.2	0.12	44.2	9.8	33	18.00	26.5
E146339		6.36	0.01	0.07	3.51	42	730	0.97	0.95	22.5	0.15	43.3	8.9	33	14.45	32.7
E146340		6.68	<0.01	0.04	1.68	22	650	0.54	2.12	30.1	0.07	22.0	4.0	15	5.98	12.4
E146341		9.00	<0.01	0.07	3.83	28	440	1.19	0.66	17.90	0.08	46.1	9.9	35	16.95	21.2
E146342		7.16	<0.01	0.05	1.94	39	670	0.57	0.41	27.9	0.09	28.3	4.5	16	7.47	13.2
E146343		8.26	<0.01	0.05	2.35	50	310	0.70	0.42	26.5	0.09	29.4	5.7	21	10.30	13.8
E146344		9.92	<0.01	0.12	4.99	41	260	1.47	0.40	10.15	0.09	56.1	11.6	44	27.7	27.9
E146345		5.76	<0.01	0.07	2.52	43	360	0.83	0.12	23.8	0.06	32.3	6.2	20	13.70	15.7
E146346		6.74	<0.01	0.05	1.39	141	300	0.45	0.10	28.7	0.17	18.70	3.7	12	4.01	11.1
E146347		9.06	<0.01	0.04	1.90	425	170	0.78	0.13	27.7	0.10	25.5	3.5	17	8.34	10.4
E146348		5.48	0.03	0.07	3.96	531	260	1.26	0.18	9.64	0.09	51.0	7.6	34	16.75	23.0
E146349		3.44	0.06	0.13	4.27	520	240	1.27	0.20	9.63	0.08	52.5	6.8	40	17.80	22.2
E146350		8.64	0.16	0.06	4.47	1145	260	1.61	0.17	9.86	0.07	50.5	8.3	38	22.6	21.0
E146351		0.28	2.41	1.55	4.24	175.5	320	1.22	0.16	0.42	0.24	50.5	4.5	47	7.24	40.2
E146352		10.04	<0.01	0.05	3.53	347	270	1.07	0.11	21.6	0.04	41.8	7.3	24	24.2	16.1
E146353		10.00	<0.01	0.06	4.08	441	270	1.06	0.11	19.40	0.05	47.6	9.5	29	26.2	20.3
E146354		9.08	0.01	0.19	1.15	649	240	0.35	0.07	31.1	0.17	15.55	3.0	11	5.10	9.1
E146355		6.60	0.01	0.09	1.82	525	120	0.62	0.07	29.7	0.08	21.1	4.3	13	7.60	9.5
E146356		4.50	<0.01	0.09	0.90	529	90	0.30	0.04	32.9	0.08	14.75	2.3	8	2.71	6.5
E146357		4.98	0.01	0.34	3.38	5610	180	0.96	0.12	24.5	0.17	37.3	6.7	27	15.40	18.0
E146358		6.50	<0.01	0.01	0.09	7	20	0.06	0.09	21.9	<0.02	1.39	1.2	<1	0.23	3.3
E146359		4.24	0.01	0.91	3.28	6790	150	0.96	0.15	23.6	0.05	33.5	5.9	33	13.00	15.9
E146360		2.18	0.02	11.05	4.02	8740	220	1.24	0.13	19.65	0.07	37.6	6.7	45	16.90	29.4
E146361		3.48	0.03	0.06	2.16	2430	100	0.69	0.07	25.6	0.21	22.4	6.1	18	6.58	11.8
E146362		7.32	0.01	0.03	1.94	734	120	0.68	0.08	28.6	0.09	24.4	4.6	17	6.30	14.8
E146363		5.34	<0.01	0.07	3.65	598	220	1.20	0.10	20.2	0.11	39.7	7.5	34	11.15	27.8
E146364		9.32	<0.01	0.09	2.53	427	260	0.87	0.06	23.0	0.12	30.6	5.7	23	8.68	15.2
E146365		9.72	0.10	0.08	4.33	636	360	1.40	0.11	10.05	0.07	49.6	8.4	40	16.35	24.6
E146366		4.56	0.01	0.07	4.13	485	470	1.41	0.11	9.88	0.07	46.9	8.1	34	18.25	19.4
E146367		0.28	16.05	1.06	2.09	1280	190	0.40	0.52	15.00	0.67	32.9	4.6	36	2.51	69.4
E146368		10.38	0.01	0.06	2.49	381	290	0.88	0.07	22.8	0.06	30.2	5.7	20	11.70	16.0
E146369		9.86	<0.01	0.07	2.77	302	290	0.92	0.07	17.90	0.11	37.9	5.6	25	7.48	16.3
E146370		10.88	0.01	0.10	3.32	187	460	0.93	0.09	11.40	0.13	44.0	6.3	31	8.38	21.0
E146371		6.62	0.01	0.10	1.91	323	630	0.64	0.06	22.9	0.29	27.6	3.8	21	6.09	16.1
E146372		7.06	<0.01	0.08	1.57	772	240	0.52	0.05	24.4	0.32	24.6	2.9	13	3.59	9.2
E146373		6.56	<0.01	0.01	0.11	<5	40	0.08	0.03	20.6	0.08	1.63	1.8	<1	0.23	5.4

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

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Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146829

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
E146338		1.66	10.55	0.08	1.6	0.14	0.026	1.84	24.1	67.5	1.91	187	0.84	0.18	5.6	23.5
E146339		1.34	9.56	0.09	1.4	0.13	0.023	1.63	24.5	54.4	1.40	156	0.43	0.15	5.4	22.1
E146340		0.73	4.58	0.07	0.7	0.05	0.012	0.73	12.9	31.1	1.07	136	0.48	0.09	2.9	9.4
E146341		1.59	10.40	0.09	2.1	0.13	0.027	1.90	24.3	67.4	3.65	191	0.79	0.13	6.0	23.2
E146342		0.79	5.24	0.08	0.9	0.07	0.014	0.89	15.5	50.0	1.25	137	0.51	0.10	3.3	10.6
E146343		0.97	6.26	0.09	1.0	0.10	0.016	1.12	16.3	62.7	1.66	139	0.60	0.12	3.7	13.0
E146344		2.22	13.75	0.12	2.5	0.20	0.035	2.55	28.6	148.5	3.67	202	1.40	0.22	7.6	25.3
E146345		1.11	6.69	0.08	1.1	0.10	0.016	1.24	17.1	91.2	2.03	149	0.69	0.05	3.9	14.2
E146346		0.70	3.78	0.09	0.7	0.09	0.009	0.65	10.8	26.9	2.07	133	0.88	0.01	2.4	8.3
E146347		0.63	4.54	0.08	1.2	0.26	0.013	1.04	14.1	9.6	1.45	160	0.40	<0.01	3.2	6.4
E146348		1.67	10.50	0.11	3.4	7.05	0.028	2.10	26.0	25.2	4.93	440	0.62	0.02	6.6	17.0
E146349		1.42	11.25	0.10	4.0	4.35	0.028	2.25	26.6	25.2	5.21	459	1.04	0.02	7.2	17.2
E146350		1.67	12.15	0.11	2.8	2.95	0.029	2.45	26.0	29.9	5.75	563	0.68	0.02	6.3	20.8
E146351		1.06	11.55	0.16	2.5	1.89	0.036	1.34	25.5	33.5	0.22	27	24.8	0.04	6.7	26.9
E146352		1.29	9.20	0.09	1.3	0.87	0.019	1.88	22.2	24.8	1.59	250	0.55	0.01	4.7	18.5
E146353		1.60	10.35	0.10	1.9	0.24	0.021	2.21	24.6	27.7	2.13	287	0.53	0.02	5.5	21.4
E146354		0.52	3.10	0.10	0.5	0.16	0.008	0.61	9.5	6.4	0.87	185	0.64	<0.01	2.1	7.7
E146355		0.63	4.65	0.09	0.6	0.19	0.011	0.97	12.0	11.7	0.88	206	0.41	<0.01	2.6	9.7
E146356		0.37	2.49	0.13	0.4	0.14	0.006	0.47	8.6	4.5	0.62	188	0.23	<0.01	1.6	5.0
E146357		1.04	8.02	0.14	1.0	0.30	0.024	1.79	20.2	16.9	0.94	247	1.23	0.01	4.3	14.7
E146358		0.43	0.30	0.06	<0.1	<0.01	<0.005	0.04	0.7	1.2	13.00	195	0.10	<0.01	0.4	3.7
E146359		1.12	7.90	0.13	1.7	0.45	0.023	1.70	17.9	17.1	1.78	408	2.08	0.01	4.9	13.6
E146360		1.28	10.00	0.14	2.1	0.57	0.028	2.14	20.3	23.4	1.94	389	21.6	0.01	6.0	16.3
E146361		1.05	5.72	0.10	1.1	2.28	0.020	1.13	12.4	10.8	2.25	489	0.52	<0.01	3.6	12.2
E146362		0.82	5.12	0.09	0.8	0.17	0.016	1.07	14.0	10.6	1.46	231	0.18	<0.01	3.3	10.1
E146363		1.46	9.10	0.12	1.7	0.33	0.022	2.00	21.1	22.7	2.41	229	0.50	0.01	5.7	18.6
E146364		1.18	6.33	0.10	1.1	0.23	0.017	1.39	16.3	16.8	1.92	198	0.80	0.01	3.9	13.6
E146365		1.93	10.95	0.11	2.5	0.42	0.029	2.39	25.6	28.9	4.48	573	0.61	0.02	6.8	20.0
E146366		1.62	10.40	0.10	2.7	0.27	0.026	2.36	24.0	31.0	5.64	303	0.89	0.03	6.6	18.9
E146367		3.55	4.26	0.10	0.9	6.27	0.053	0.42	19.0	42.6	0.70	466	12.55	<0.01	3.6	24.8
E146368		1.10	6.42	0.09	1.2	0.12	0.016	1.39	16.5	20.3	2.12	164	0.48	0.01	4.2	13.4
E146369		1.13	6.91	0.09	1.7	0.14	0.027	1.42	20.1	61.3	3.52	174	0.85	0.03	5.1	13.3
E146370		1.46	8.21	0.10	2.5	0.17	0.029	1.67	22.6	104.5	4.00	178	0.79	0.05	5.8	15.1
E146371		0.75	4.74	0.09	1.3	0.19	0.014	0.97	15.4	39.5	1.84	152	1.58	0.02	3.6	9.9
E146372		0.69	3.92	0.11	1.2	0.14	0.011	0.73	13.2	27.8	2.48	181	0.96	0.02	3.1	6.4
E146373		0.42	0.45	0.34	<0.1	<0.01	0.005	0.05	0.8	1.7	12.15	202	<0.05	<0.01	0.6	4.0

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146829

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
E146338		570	10.5	84.7	<0.002	0.31	0.40	7.7	3	1.2	1150	0.40	<0.05	7.0	0.151	0.49
E146339		760	8.1	76.0	<0.002	0.28	0.32	7.2	2	1.1	928	0.38	<0.05	6.5	0.140	0.45
E146340		250	4.3	34.9	<0.002	0.16	0.18	3.8	2	0.6	1080	0.19	<0.05	3.0	0.068	0.22
E146341		480	9.9	95.7	<0.002	0.35	0.36	7.7	3	1.2	832	0.43	<0.05	7.6	0.158	0.48
E146342		300	4.9	42.6	<0.002	0.19	0.29	4.1	2	0.7	1230	0.22	<0.05	3.8	0.082	0.24
E146343		300	5.7	53.8	<0.002	0.22	0.29	4.7	2	0.8	1110	0.26	<0.05	4.2	0.098	0.29
E146344		590	11.2	124.0	<0.002	0.47	0.43	9.3	3	1.6	467	0.58	<0.05	9.7	0.222	0.73
E146345		280	6.2	59.9	<0.002	0.28	0.24	5.0	2	0.8	1090	0.27	<0.05	4.4	0.104	0.38
E146346		180	5.6	30.3	<0.002	0.20	0.20	2.9	2	0.5	1200	0.15	<0.05	2.7	0.059	0.27
E146347		300	5.5	35.3	<0.002	0.17	2.70	3.6	3	0.7	553	0.22	<0.05	3.5	0.082	1.23
E146348		620	8.3	76.6	<0.002	0.13	5.25	7.4	2	1.3	206	0.52	<0.05	9.1	0.187	4.08
E146349		670	9.7	81.7	0.002	0.12	3.43	7.7	3	1.3	186.0	0.55	<0.05	9.9	0.202	4.76
E146350		610	7.4	86.4	<0.002	0.10	8.41	7.9	2	1.2	194.0	0.47	<0.05	8.2	0.183	5.64
E146351		490	26.8	56.4	0.002	0.75	163.0	9.3	3	1.4	165.0	0.49	0.29	7.8	0.198	13.45
E146352		380	4.8	71.1	<0.002	0.14	4.69	6.7	2	0.9	572	0.33	<0.05	5.6	0.127	0.89
E146353		500	6.0	82.1	<0.002	0.15	2.10	7.6	2	1.0	538	0.38	<0.05	6.9	0.152	0.63
E146354		230	5.8	21.4	<0.002	0.06	1.77	2.5	2	0.4	1090	0.13	<0.05	2.0	0.047	0.81
E146355		260	7.8	33.6	<0.002	0.06	2.30	3.8	2	0.5	1570	0.17	<0.05	3.0	0.065	0.65
E146356		180	4.9	15.9	<0.002	0.05	1.17	2.0	2	0.3	1700	0.09	<0.05	1.6	0.034	0.34
E146357		370	8.8	61.9	0.003	0.03	12.40	5.0	2	0.8	1040	0.31	<0.05	5.7	0.118	5.40
E146358		240	1.1	1.9	<0.002	0.01	0.06	0.3	1	<0.2	47.4	<0.05	<0.05	<0.2	<0.005	0.02
E146359		570	9.0	60.7	0.002	0.03	19.85	5.2	2	0.9	669	0.35	<0.05	6.2	0.133	8.52
E146360		640	10.7	76.5	0.002	0.04	24.5	6.2	2	1.2	517	0.43	<0.05	7.7	0.166	10.95
E146361		400	6.6	42.4	<0.002	0.05	12.70	4.5	5	0.8	389	0.24	<0.05	4.0	0.089	5.24
E146362		270	4.4	39.9	<0.002	0.05	3.26	4.0	2	0.7	661	0.21	<0.05	3.3	0.080	1.46
E146363		560	8.2	75.7	0.002	0.18	2.56	6.6	3	1.1	583	0.41	<0.05	6.8	0.156	0.82
E146364		350	5.9	52.8	<0.002	0.20	1.11	4.7	2	0.8	714	0.27	<0.05	4.5	0.105	0.50
E146365		510	9.1	95.0	0.002	0.33	1.85	7.6	2	1.3	376	0.51	<0.05	8.8	0.190	1.40
E146366		420	8.4	91.7	<0.002	0.29	1.22	7.2	3	1.2	325	0.48	<0.05	8.4	0.181	1.10
E146367		680	20.3	24.7	0.006	2.10	161.5	4.5	3	2.0	48.6	0.24	0.39	3.4	0.112	3.59
E146368		300	6.3	57.5	<0.002	0.12	1.58	4.9	2	0.8	723	0.29	<0.05	4.7	0.105	0.43
E146369		390	8.3	60.8	<0.002	0.27	0.67	5.0	3	1.0	1030	0.35	<0.05	5.8	0.128	0.41
E146370		660	9.9	71.3	<0.002	0.35	0.51	5.8	4	1.1	744	0.42	<0.05	7.5	0.153	0.44
E146371		580	7.6	38.6	<0.002	0.29	0.66	3.6	3	0.7	1060	0.24	<0.05	4.0	0.086	0.32
E146372		260	7.5	29.5	<0.002	0.20	0.94	3.0	4	0.5	1450	0.20	<0.05	3.3	0.073	0.33
E146373		220	1.3	1.8	<0.002	0.01	<0.05	0.5	1	<0.2	56.3	<0.05	<0.05	<0.2	<0.005	<0.02

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

ALS Canada Ltd.
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146829

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5
E146338		13.3	58	0.6	12.2	55	57.6
E146339		12.4	51	0.6	13.8	53	54.1
E146340		14.1	30	0.3	6.8	22	27.4
E146341		10.9	56	0.6	14.2	46	78.8
E146342		12.6	33	0.4	8.6	31	37.6
E146343		12.5	39	0.4	8.9	38	37.9
E146344		7.6	79	0.9	17.1	57	93.5
E146345		11.3	39	0.4	9.2	34	41.4
E146346		15.1	26	0.3	6.2	35	27.4
E146347		8.8	30	0.5	8.4	18	46.9
E146348		5.0	59	1.7	17.2	23	125.5
E146349		6.0	69	2.1	17.7	24	149.5
E146350		4.9	63	1.6	15.2	22	106.0
E146351		5.8	174	22.7	14.7	64	88.3
E146352		9.4	49	0.7	11.2	19	53.0
E146353		8.2	55	0.7	13.1	17	71.1
E146354		12.0	37	0.3	4.9	35	19.7
E146355		12.2	35	0.4	6.0	26	23.3
E146356		10.4	21	0.3	4.9	20	14.7
E146357		11.7	52	1.5	8.5	26	31.4
E146358		0.7	<1	0.1	0.8	14	1.1
E146359		37.7	51	3.1	11.1	45	57.1
E146360		36.7	63	35.8	11.6	57	67.0
E146361		43.3	35	1.6	9.5	27	52.1
E146362		8.8	30	0.6	8.3	20	31.2
E146363		9.2	51	1.0	12.7	48	63.4
E146364		8.8	41	0.5	10.0	44	43.9
E146365		5.3	73	1.8	15.8	48	91.7
E146366		5.2	61	0.9	14.3	42	98.5
E146367		3.2	114	213	17.6	79	34.1
E146368		10.4	38	0.6	10.0	36	47.4
E146369		7.6	42	0.5	11.2	39	65.1
E146370		6.0	44	1.0	15.0	50	92.0
E146371		10.2	33	0.4	10.5	45	50.5
E146372		11.3	28	0.6	8.3	33	45.9
E146373		0.6	4	0.1	1.1	16	0.7

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

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10146829

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.

ALS Canada Ltd.

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 23- OCT- 2010
Account: RCM

CERTIFICATE VA10147120

Project: OSIRIS

P.O. No.: BATCH 15

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 23- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147120

Sample Description	Method	WEI- 21	Au- AA26	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.01	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
E146374		8.50	<0.01	0.06	1.52	382	120	0.52	0.08	26.7	0.32	18.90	3.1	16	3.24	10.0
E146375		8.90	<0.01	0.04	1.40	199	110	0.52	0.04	24.9	0.19	16.45	2.7	15	2.56	7.5
E146376		7.96	0.01	0.04	1.16	162	330	0.36	0.03	27.5	0.26	16.20	2.4	14	2.40	6.4
E146377		7.00	<0.01	0.05	1.67	95	100	0.58	0.04	22.2	0.32	22.0	3.1	18	3.81	8.5
E146378		4.00	<0.01	0.06	1.88	79	290	0.67	0.04	24.8	0.42	25.0	3.7	22	4.82	9.7
E146379		8.36	<0.01	0.08	3.92	34	240	1.40	0.08	10.50	0.13	46.2	7.7	42	12.35	24.2
E146380		8.98	<0.01	0.09	4.00	34.8	200	1.35	0.08	9.72	0.07	45.8	8.7	44	11.30	22.6
E146381		0.12	14.80	8.57	3.66	467	550	0.85	0.06	0.21	0.10	19.50	8.4	30	5.51	48.2
E146382		5.82	0.01	0.08	4.20	53	280	1.37	0.10	10.20	0.07	43.7	8.3	44	10.80	25.3
E146383		6.70	<0.01	0.04	3.17	577	410	1.09	0.07	19.05	0.10	35.9	4.9	34	7.85	24.9
E146384		5.12	<0.01	0.03	1.64	32	100	0.58	0.04	28.4	0.13	23.3	3.2	16	3.21	21.1
E146385		9.02	0.01	0.04	1.45	32	240	0.52	0.05	29.0	0.14	18.00	3.8	14	2.65	7.6
E146386		9.56	<0.01	0.03	2.08	70	250	0.62	0.06	26.5	0.19	20.7	3.5	20	4.06	12.8
E146387		6.78	0.01	0.05	1.26	86	180	0.45	0.04	29.5	0.27	17.25	3.1	14	2.53	8.3
E146388		5.84	0.01	0.07	1.56	847	360	0.64	0.04	27.0	0.20	19.00	3.7	18	3.80	10.0
E146389		6.14	<0.01	<0.01	0.07	8	20	0.05	0.02	20.3	0.07	1.26	1.5	1	0.15	1.3
E146390		3.58	<0.01	0.06	1.64	392	150	0.67	0.05	25.0	0.18	22.7	3.9	17	3.90	11.2
E146391		2.16	<0.01	0.05	1.63	546	140	0.63	0.04	25.2	0.19	21.7	3.8	17	3.61	11.0
E146392		3.26	0.01	0.08	2.89	1540	210	0.99	0.07	18.20	0.18	34.5	5.7	30	6.51	19.6
E146393		9.68	0.01	0.13	3.71	131	180	1.43	0.09	16.15	0.15	44.7	6.9	38	8.39	22.4
E146394		7.88	<0.01	0.08	3.64	126	120	1.22	0.08	16.70	0.12	39.1	6.7	37	7.54	20.5
E146395		5.38	<0.01	0.08	3.12	231	180	1.04	0.07	18.25	0.18	36.3	6.2	31	6.07	19.4
E146396		6.68	0.01	0.10	4.08	544	170	1.23	0.10	18.00	0.15	44.3	8.0	41	7.61	30.1
E146397		5.10	<0.01	0.08	5.14	2080	250	1.65	0.12	10.40	0.09	56.9	8.6	50	15.40	47.9
E146398		7.14	<0.01	<0.01	0.09	20	20	0.09	0.02	20.3	0.08	1.60	1.7	2	0.19	3.6
E146399		8.24	<0.01	0.03	1.48	846	110	0.60	0.04	27.4	0.13	21.1	3.3	16	4.15	7.6
E146400		8.80	<0.01	0.03	1.44	1320	90	0.52	0.05	26.7	0.09	18.95	2.8	16	3.81	14.2
E146401		8.60	<0.01	0.07	1.66	604	190	0.64	0.06	25.9	0.08	21.2	3.2	17	4.83	13.4
E146402		8.16	<0.01	0.06	2.03	262	300	0.78	0.06	24.1	0.11	25.9	4.3	20	4.11	12.1
E146403		8.36	<0.01	0.07	2.64	141	200	0.96	0.08	22.0	0.09	29.1	5.4	25	4.80	18.6
E146404		4.66	<0.01	0.04	1.77	570	190	0.60	0.06	26.4	0.10	20.3	3.5	17	2.85	15.1
E146405		9.16	<0.01	0.02	1.31	91	1080	0.50	0.04	27.7	0.14	19.05	2.7	13	2.22	7.0
E146406		4.08	3.33	0.22	3.68	4610	170	0.92	0.08	11.15	0.23	47.6	4.8	36	9.74	20.2
E146407		0.28	2.09	1.69	3.91	180.5	420	1.33	0.15	0.42	0.22	57.8	3.4	50	7.52	35.3
E146408		8.00	0.78	0.07	4.10	848	230	1.16	0.10	11.10	0.13	53.3	5.9	42	13.10	17.0
E146409		8.86	0.02	0.13	1.76	510	100	0.59	0.05	21.9	0.09	25.0	4.3	18	5.04	8.2

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 23- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147120

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
E146374		0.64	3.79	0.06	0.9	0.18	0.012	0.72	10.3	24.2	2.04	119	0.74	0.08	2.7	5.2
E146375		0.59	3.39	0.09	0.9	0.18	0.009	0.66	8.9	21.2	2.24	119	0.59	0.02	2.5	4.3
E146376		0.51	2.94	0.08	0.8	0.10	0.008	0.53	8.9	29.5	1.92	124	0.61	0.05	2.2	3.5
E146377		0.72	4.25	0.09	1.3	0.12	0.011	0.70	11.5	54.7	2.87	148	0.79	0.20	3.1	5.6
E146378		0.82	4.67	0.08	1.1	0.14	0.012	0.76	13.4	53.5	2.52	150	0.89	0.20	3.2	7.2
E146379		1.78	10.75	0.10	2.5	0.12	0.029	1.63	23.6	120.0	5.98	198	0.89	0.19	6.7	18.4
E146380		1.88	10.45	0.09	2.3	0.16	0.028	1.72	23.0	111.0	5.90	195	1.31	0.17	6.5	20.4
E146381		3.15	7.91	0.15	2.0	0.41	0.032	3.01	9.5	46.3	0.18	139	5.85	0.08	6.6	16.3
E146382		1.83	10.85	0.08	2.1	0.12	0.028	1.85	22.5	106.0	5.82	197	0.93	0.06	6.7	20.1
E146383		1.41	8.07	0.08	1.5	0.05	0.021	1.35	18.9	107.5	3.76	187	0.33	0.04	5.0	12.1
E146384		0.61	4.23	0.07	0.7	0.04	0.012	0.53	12.9	26.9	0.83	144	0.15	0.11	2.6	6.6
E146385		0.51	3.93	0.07	0.6	0.05	0.010	0.47	10.4	19.3	0.71	132	0.31	0.14	2.5	6.6
E146386		0.76	5.14	0.08	0.9	0.03	0.013	0.75	11.8	35.9	1.54	154	0.17	0.18	3.3	6.8
E146387		0.65	3.31	0.08	0.5	0.05	0.009	0.48	9.9	54.5	1.57	142	0.88	0.04	2.3	5.5
E146388		0.82	4.08	0.08	0.7	0.05	0.011	0.64	10.6	50.3	1.91	166	0.75	0.02	2.5	8.0
E146389		0.39	0.40	0.30	<0.1	<0.01	<0.005	0.03	0.6	1.2	12.80	182	0.22	0.01	0.3	1.5
E146390		0.88	4.53	0.11	0.7	0.07	0.014	0.68	12.4	82.6	2.19	166	0.58	0.02	2.7	8.8
E146391		0.90	4.37	0.10	0.7	0.06	0.012	0.68	11.9	77.7	2.17	168	0.55	0.03	2.7	8.1
E146392		1.61	7.70	0.11	1.4	0.08	0.022	1.16	17.8	82.6	3.65	202	0.69	0.03	4.7	14.5
E146393		1.42	10.00	0.09	1.8	0.19	0.025	1.56	22.9	50.9	3.77	222	0.63	0.04	5.9	15.8
E146394		1.64	9.31	0.09	1.8	0.07	0.027	1.54	20.5	80.1	4.15	204	0.71	0.03	5.6	15.2
E146395		1.27	8.51	0.08	1.6	0.08	0.022	1.21	19.2	50.8	3.36	200	0.75	0.03	5.1	14.3
E146396		1.24	10.65	0.10	2.1	0.07	0.028	1.43	23.9	28.9	2.51	236	0.73	0.04	6.7	20.1
E146397		1.57	14.20	0.12	2.8	0.06	0.036	1.97	30.0	35.8	2.65	202	0.52	0.04	8.3	25.3
E146398		0.41	0.44	0.25	<0.1	<0.01	<0.005	0.05	0.8	1.2	12.75	188	0.43	0.01	0.4	2.0
E146399		0.73	3.81	0.08	0.7	0.04	0.010	0.44	11.9	12.2	1.98	214	0.22	0.02	2.4	6.3
E146400		0.60	4.05	0.09	0.7	0.03	0.012	0.43	11.1	9.3	1.72	199	0.26	0.02	2.5	5.7
E146401		0.65	4.42	0.10	0.8	0.03	0.012	0.53	12.4	9.8	2.04	212	0.51	0.02	2.8	6.4
E146402		0.99	5.41	0.09	1.0	0.06	0.014	0.69	14.4	32.6	2.78	221	0.96	0.02	3.3	8.7
E146403		1.16	7.30	0.09	1.2	0.05	0.019	0.92	16.1	48.2	2.68	213	0.90	0.03	4.4	11.6
E146404		0.87	5.07	0.09	0.8	0.04	0.013	0.52	11.7	28.8	1.76	205	0.98	0.02	3.1	7.1
E146405		0.50	3.57	0.10	0.7	0.04	0.008	0.36	10.6	11.6	1.10	186	0.58	0.16	2.3	4.5
E146406		1.25	9.55	0.11	2.5	14.8	0.021	1.77	25.5	17.6	4.10	1540	0.53	0.02	5.7	11.7
E146407		1.03	10.75	0.14	2.5	1.78	0.037	1.29	29.2	27.8	0.21	25	24.5	0.06	6.4	22.4
E146408		1.49	11.15	0.12	3.4	10.15	0.027	2.06	27.6	20.8	4.22	438	0.58	0.03	7.2	15.5
E146409		1.14	4.82	0.10	1.2	1.36	0.012	0.91	13.8	7.7	4.33	252	1.26	0.02	2.9	8.6

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

ALS Canada Ltd.
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 23- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147120

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
E146374		260	9.0	36.1	<0.002	0.21	0.41	2.5	3	0.5	2470	0.17	<0.05	3.8	0.074	0.28
E146375		240	7.2	32.4	<0.002	0.21	0.34	2.2	3	0.4	1965	0.17	<0.05	3.4	0.067	0.25
E146376		200	6.8	27.9	<0.002	0.17	0.31	1.9	3	0.4	2240	0.14	<0.05	2.8	0.054	0.22
E146377		280	8.3	39.2	<0.002	0.19	0.34	2.7	4	0.5	1535	0.22	<0.05	4.1	0.082	0.23
E146378		300	8.6	40.1	<0.002	0.23	0.34	2.9	3	0.5	1275	0.22	<0.05	4.6	0.091	0.26
E146379		490	9.8	89.4	<0.002	0.28	0.39	6.3	4	1.3	488	0.49	<0.05	9.6	0.183	0.46
E146380		490	9.5	86.9	<0.002	0.37	0.36	6.3	4	1.2	392	0.47	<0.05	9.5	0.189	0.46
E146381		520	5.1	121.0	0.002	2.15	41.8	7.1	17	2.4	76.3	0.44	0.14	1.6	0.299	4.57
E146382		510	8.6	92.1	<0.002	0.36	0.40	6.5	4	1.3	344	0.49	<0.05	9.9	0.196	0.54
E146383		410	6.9	66.0	<0.002	0.23	0.67	5.0	3	1.0	745	0.34	<0.05	6.7	0.142	0.48
E146384		230	5.9	29.7	<0.002	0.11	0.15	2.7	2	0.5	942	0.18	<0.05	3.5	0.072	0.15
E146385		200	5.5	26.7	<0.002	0.16	0.16	2.5	2	0.5	1025	0.16	<0.05	3.2	0.062	0.12
E146386		250	5.8	40.2	<0.002	0.10	0.22	3.2	2	0.6	800	0.23	<0.05	4.4	0.093	0.17
E146387		180	5.5	26.0	0.002	0.25	0.43	2.1	3	0.4	1095	0.14	<0.05	2.8	0.056	0.15
E146388		200	5.5	32.6	0.002	0.23	1.23	2.6	5	0.5	975	0.17	<0.05	3.3	0.068	0.23
E146389		250	1.4	1.5	<0.002	0.01	0.12	0.3	1	<0.2	46.2	<0.05	<0.05	<0.2	<0.005	<0.02
E146390		210	5.7	35.1	<0.002	0.25	0.78	2.8	5	0.5	955	0.20	<0.05	4.0	0.073	0.22
E146391		210	5.3	34.6	<0.002	0.24	0.87	2.8	6	0.6	951	0.19	<0.05	3.7	0.074	0.22
E146392		360	7.4	63.8	0.002	0.49	2.32	4.6	7	1.0	662	0.36	<0.05	7.0	0.131	0.74
E146393		420	9.2	78.3	0.002	0.24	0.72	5.9	4	1.2	558	0.46	<0.05	9.0	0.167	0.55
E146394		420	8.7	70.7	0.002	0.26	0.68	5.5	4	1.1	664	0.43	<0.05	7.9	0.165	0.34
E146395		360	8.9	58.9	<0.002	0.38	1.30	5.0	4	1.0	666	0.37	<0.05	7.1	0.140	0.30
E146396		510	8.9	69.0	<0.002	0.31	0.62	6.3	2	1.3	575	0.48	<0.05	9.1	0.188	0.36
E146397		560	11.7	97.9	<0.002	0.74	0.91	8.1	3	1.6	379	0.63	<0.05	12.0	0.237	0.45
E146398		260	1.4	1.8	<0.002	0.02	0.06	0.4	1	<0.2	52.1	<0.05	<0.05	<0.2	0.005	<0.02
E146399		200	3.8	23.2	<0.002	0.39	0.33	2.4	2	0.5	806	0.16	<0.05	3.1	0.066	0.11
E146400		170	4.2	24.3	<0.002	0.34	0.22	2.3	2	0.5	813	0.17	<0.05	3.2	0.065	0.11
E146401		190	6.4	29.5	<0.002	0.34	0.23	2.7	3	0.5	810	0.18	<0.05	3.7	0.074	0.13
E146402		260	8.0	37.1	<0.002	0.32	0.36	3.2	3	0.6	844	0.23	<0.05	4.5	0.091	0.21
E146403		330	8.1	50.9	<0.002	0.17	0.45	4.2	3	0.9	1060	0.31	<0.05	6.0	0.121	0.25
E146404		210	6.1	31.5	<0.002	0.19	0.26	3.0	2	0.6	1065	0.22	<0.05	4.0	0.082	0.22
E146405		180	5.6	21.1	<0.002	0.14	0.15	2.2	2	0.4	990	0.15	<0.05	3.0	0.060	0.12
E146406		590	7.7	65.8	0.002	0.27	44.0	5.7	3	1.0	141.0	0.43	<0.05	7.9	0.168	48.4
E146407		460	26.2	57.9	0.002	0.70	150.0	7.7	3	1.3	156.5	0.46	0.32	8.0	0.191	12.60
E146408		590	7.8	81.4	0.002	0.31	20.9	6.2	3	1.2	185.5	0.52	<0.05	10.1	0.198	32.9
E146409		270	6.7	37.6	0.002	0.26	4.41	2.9	4	0.5	380	0.21	<0.05	4.2	0.082	6.43

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

ALS Canada Ltd.
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 23- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147120

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5
E146374		13.1	23	3.4	6.4	44	32.5
E146375		11.4	21	0.3	5.8	28	32.0
E146376		12.0	17	0.3	5.4	27	27.0
E146377		9.9	23	0.3	7.5	32	45.2
E146378		11.5	27	0.3	7.5	52	38.4
E146379		5.8	60	0.7	15.3	63	83.7
E146380		5.7	59	0.7	14.5	47	80.0
E146381		0.8	54	20.1	11.5	44	74.6
E146382		5.7	58	0.7	14.2	45	76.0
E146383		9.2	44	0.5	11.7	39	52.6
E146384		14.1	24	0.3	7.1	46	24.3
E146385		17.1	20	0.3	5.7	26	20.4
E146386		12.5	33	0.4	6.7	35	28.6
E146387		16.1	20	0.3	5.7	34	20.5
E146388		14.4	24	0.4	6.4	31	23.8
E146389		0.7	1	0.1	0.8	12	<0.5
E146390		12.8	26	0.4	6.9	33	25.7
E146391		12.5	25	0.4	7.0	37	24.6
E146392		12.4	41	0.6	10.9	55	49.5
E146393		10.2	51	1.0	13.5	56	61.5
E146394		8.2	52	0.7	11.7	48	58.0
E146395		9.4	43	0.7	11.5	46	54.0
E146396		14.6	56	0.8	15.2	61	73.8
E146397		9.4	68	1.1	17.1	71	95.3
E146398		0.6	2	0.1	1.0	13	0.7
E146399		11.8	24	0.3	7.5	31	23.9
E146400		14.8	25	0.3	6.4	27	25.4
E146401		17.7	26	0.3	6.7	25	30.9
E146402		12.0	29	0.4	7.9	37	33.8
E146403		9.9	34	0.5	9.1	35	41.7
E146404		12.3	22	0.4	7.1	29	29.7
E146405		12.9	16	0.3	6.1	28	22.3
E146406		10.0	55	3.3	11.1	97	83.7
E146407		5.5	165	21.8	13.9	60	82.3
E146408		6.0	62	2.6	15.9	27	114.0
E146409		14.0	36	0.9	8.7	25	44.0

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

ALS Canada Ltd.
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 23- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147120

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

ALS Canada Ltd.
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

CERTIFICATE VA10147121

Project: OSIRIS

P.O. No.: BATCH 16

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147121

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
E146318		3.94	0.01	0.15	5.45	295	310	1.48	0.11	10.15	0.05	57.0	7.6	54	24.1	35.0
E146319		6.10	0.02	0.16	4.45	896	280	1.01	0.09	11.75	0.06	46.6	7.9	43	16.95	19.9
E146320		8.58	0.14	0.06	3.03	545	160	0.75	0.07	18.10	0.08	33.4	4.6	24	10.45	10.4
E146411		6.16	0.01	0.01	1.40	105	120	0.36	0.03	29.5	0.07	17.10	2.3	11	5.21	7.8
E146412		9.00	0.01	0.04	1.11	186	500	0.47	0.03	31.0	0.12	15.30	2.0	11	4.25	7.2
E146413		9.34	<0.01	0.05	1.26	113	110	0.45	0.03	28.5	0.06	15.95	2.7	11	3.95	6.6
J998734		8.30	0.03	0.08	0.17	422	40	0.11	0.02	18.60	0.18	6.11	1.5	2	0.28	1.4
J998735		8.38	0.01	0.03	0.16	243	40	0.10	0.01	17.35	0.09	6.04	1.2	2	0.27	2.2
J998736		4.82	0.10	0.04	0.29	1860	60	0.12	0.06	18.90	0.17	7.95	1.4	1	0.42	2.4
J998737		7.14	0.04	0.12	3.84	438	200	0.96	0.15	10.95	0.10	42.3	4.6	25	7.56	11.3
J998738		5.86	0.12	0.05	0.57	454	60	0.20	0.02	19.05	0.04	10.30	1.9	3	0.84	2.6
J998739		7.02	<0.01	0.01	0.08	15	40	0.06	0.02	20.7	0.07	1.62	1.3	<1	0.18	1.6
J998740		6.42	0.06	0.06	0.62	166	70	0.21	0.02	18.80	0.42	9.57	1.9	4	0.94	2.4
J998741		5.24	0.02	0.04	0.63	331	70	0.21	0.02	19.20	0.08	9.64	2.4	4	1.24	2.5
J998742		5.88	<0.01	0.02	0.43	90	60	0.15	0.02	19.85	0.05	8.30	1.7	4	1.00	2.0
J998743		7.12	0.12	0.04	0.49	172	80	0.18	0.03	19.05	0.07	7.44	2.3	3	0.93	2.4
J998744		7.16	0.06	0.03	0.51	372	60	0.18	0.02	19.05	0.09	9.63	2.3	4	1.04	1.9
J998745		4.18	0.36	0.14	0.40	1550	100	0.18	0.04	18.70	0.94	9.03	3.2	3	0.83	2.8
J998746		0.28	1.57	1.62	0.11	>10000	40	0.05	347	11.55	0.74	57.9	1.9	6	0.70	17.6
J998747		3.12	1.41	0.59	0.20	985	90	0.14	1.34	11.50	2.57	6.67	10.7	1	0.64	12.1
J998748		4.30	1.22	0.53	0.38	909	90	0.17	0.32	11.75	1.15	8.51	5.4	4	1.19	13.6
J998749		2.84	1.16	0.54	0.30	1080	80	0.15	0.06	10.65	1.08	7.65	5.8	3	0.99	13.7
J998750		4.34	0.76	0.41	0.18	233	70	0.12	0.06	13.20	0.67	5.65	6.2	2	0.57	11.5
J998751		3.54	1.58	0.79	0.09	942	60	0.07	0.10	7.36	5.54	2.75	8.1	1	1.01	21.5
J998752		4.66	0.04	0.02	0.03	414	30	0.14	0.03	20.2	0.06	1.33	0.9	<1	0.07	0.6
J998753		3.94	1.21	0.44	0.04	329	40	0.15	0.01	16.55	3.69	3.67	2.2	<1	0.11	11.9
J998754		4.24	0.91	0.23	0.03	>10000	30	0.11	0.01	17.85	0.89	1.96	2.1	<1	0.53	2.5
J998755		5.52	0.07	0.02	0.03	1470	40	0.08	0.01	19.50	0.04	1.79	1.0	<1	0.08	0.7
J998756		4.88	1.00	0.22	0.04	>10000	20	0.05	0.01	18.05	0.50	4.16	1.3	1	0.50	10.0
J998757		0.12	15.85	8.95	3.92	523	470	0.81	0.05	0.18	0.09	19.30	8.9	33	5.92	47.3
J998758		4.76	1.77	0.55	0.08	>10000	20	0.07	0.03	18.45	0.23	6.66	1.9	2	0.46	21.3
J998759		7.46	0.07	0.03	0.28	4180	40	0.15	0.01	20.4	0.02	5.81	1.3	3	0.57	1.7
J998760		7.86	0.05	0.24	0.10	615	20	0.09	0.02	20.8	0.02	3.74	1.5	2	0.22	15.0
J998761		7.16	0.02	0.15	0.08	51	20	0.09	0.03	21.1	0.07	2.23	1.8	2	0.17	11.2
J998762		8.52	0.02	0.02	0.08	852	30	0.08	<0.01	20.3	0.02	2.60	1.6	2	0.19	1.4
J998763		2.84	0.03	0.24	0.08	600	100	0.07	0.03	20.1	<0.02	3.93	1.7	3	0.30	16.3

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

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VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147121

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
E146318		1.90	13.50	0.12	2.6	0.21	0.037	3.10	29.8	34.2	3.55	214	1.16	0.04	7.9	24.1
E146319		1.88	10.25	0.12	2.4	0.52	0.036	2.48	23.9	19.8	4.07	233	1.21	0.03	6.6	17.1
E146320		1.19	7.23	0.09	2.5	1.37	0.020	1.57	17.6	13.1	4.02	244	0.63	0.02	4.8	9.7
E146411		0.41	3.47	0.09	0.9	0.21	0.010	0.73	9.7	5.3	0.99	124	0.14	0.01	2.3	3.4
E146412		0.41	2.83	0.08	0.7	0.22	0.008	0.59	9.7	6.0	1.12	133	0.27	0.01	2.0	6.0
E146413		0.49	3.14	0.10	0.8	0.09	0.008	0.67	9.6	6.1	1.95	139	0.55	<0.01	2.2	6.9
J998734		0.55	0.57	0.13	0.1	1.18	<0.005	0.07	3.9	1.7	10.80	698	0.41	<0.01	0.5	2.6
J998735		0.48	0.53	0.14	0.1	0.33	<0.005	0.06	3.8	1.6	10.05	586	0.38	<0.01	0.5	3.8
J998736		0.74	0.75	0.09	0.2	2.18	<0.005	0.11	4.6	1.8	11.00	766	0.26	<0.01	0.6	2.2
J998737		2.18	8.77	0.08	2.0	2.32	0.026	1.74	24.2	13.2	7.26	412	1.50	0.01	5.2	11.8
J998738		0.87	1.28	0.07	0.3	1.24	0.006	0.25	5.6	2.5	11.25	786	0.77	<0.01	1.0	3.4
J998739		0.40	0.36	0.25	<0.1	0.02	<0.005	0.04	0.8	1.4	12.35	190	0.08	<0.01	0.4	3.4
J998740		0.54	1.45	0.11	0.4	1.01	0.006	0.28	5.7	2.8	11.20	552	0.50	<0.01	1.1	3.6
J998741		0.78	1.43	0.07	0.4	1.15	<0.005	0.28	5.7	2.9	11.40	521	0.63	<0.01	1.1	4.3
J998742		0.55	1.03	0.12	0.2	0.58	<0.005	0.19	5.3	2.0	11.80	432	0.42	<0.01	0.8	3.4
J998743		0.50	1.17	0.12	0.3	1.10	0.006	0.21	4.5	2.3	11.30	473	0.46	<0.01	0.9	3.8
J998744		0.58	1.31	0.11	0.3	0.62	<0.005	0.23	6.0	2.8	11.35	479	0.50	<0.01	1.0	3.1
J998745		1.63	1.08	<0.05	0.2	4.29	0.006	0.17	5.8	2.5	11.10	874	2.16	<0.01	0.8	3.4
J998746		15.70	1.05	0.32	0.1	0.03	0.085	0.06	39.9	2.0	6.66	2110	5.52	<0.01	0.8	8.3
J998747		17.70	0.83	0.26	0.1	19.9	0.006	0.07	4.8	1.3	7.17	723	52.0	<0.01	0.6	9.7
J998748		17.60	1.35	0.30	0.2	15.9	0.008	0.16	6.0	2.4	7.07	758	54.4	<0.01	0.9	5.1
J998749		17.50	1.16	0.32	0.2	15.1	0.007	0.12	5.4	2.2	6.57	696	55.7	<0.01	0.9	5.3
J998750		14.35	0.73	0.23	0.1	10.55	<0.005	0.07	3.9	1.4	8.33	753	46.8	<0.01	0.6	5.6
J998751		26.5	0.69	0.52	<0.1	38.9	0.016	0.03	1.8	1.1	4.29	528	77.3	<0.01	0.7	8.8
J998752		0.69	0.22	0.08	<0.1	0.56	<0.005	0.01	1.0	1.4	12.00	925	1.27	<0.01	0.2	1.7
J998753		9.38	0.63	0.14	<0.1	23.2	0.009	0.01	2.7	0.7	9.80	947	9.67	<0.01	0.3	2.4
J998754		5.08	0.32	0.06	<0.1	17.8	0.012	<0.01	1.4	0.9	10.50	824	3.84	<0.01	0.3	1.7
J998755		0.55	0.22	0.19	<0.1	0.74	<0.005	0.01	1.0	0.7	12.20	724	0.62	<0.01	0.2	4.0
J998756		4.23	0.45	0.07	<0.1	9.74	0.020	0.01	2.5	0.8	11.15	957	6.52	0.01	0.3	1.5
J998757		3.38	7.91	0.08	2.0	0.41	0.034	3.34	9.9	51.7	0.18	150	5.45	0.09	6.7	16.5
J998758		4.23	0.71	0.07	0.1	11.45	0.028	0.02	3.8	1.1	11.40	1140	6.03	0.01	0.5	3.9
J998759		0.56	0.99	0.06	0.2	0.89	0.008	0.13	3.9	1.8	12.90	680	0.37	0.01	0.6	<0.2
J998760		0.35	0.73	0.11	0.1	0.61	0.013	0.04	2.0	1.1	13.00	570	1.56	0.01	0.5	3.2
J998761		0.42	0.60	0.13	<0.1	1.02	0.010	0.03	1.0	1.4	13.15	200	0.85	0.01	0.6	4.4
J998762		0.45	0.41	0.16	0.1	0.29	<0.005	0.03	1.5	1.0	12.75	728	0.55	0.01	0.3	2.3
J998763		0.43	0.76	0.13	0.1	0.28	0.015	0.03	2.0	1.1	12.55	576	1.81	0.01	0.5	3.8

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Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
E146318		760	10.3	111.0	0.002	0.35	1.32	7.8	2	1.5	249	0.60	<0.05	11.0	0.240	0.97
E146319		590	9.5	84.4	0.003	0.27	2.18	5.8	3	1.2	295	0.50	<0.05	9.3	0.205	1.72
E146320		400	6.8	50.4	0.002	0.19	5.20	4.0	3	0.9	281	0.37	<0.05	6.7	0.142	5.71
E146411		180	3.6	28.0	<0.002	0.08	1.30	2.0	2	0.4	576	0.16	<0.05	2.8	0.062	1.07
E146412		240	4.5	20.5	<0.002	0.10	1.69	2.1	2	0.4	752	0.13	<0.05	2.1	0.049	1.51
E146413		170	4.6	21.5	<0.002	0.10	1.18	2.2	2	0.4	662	0.15	<0.05	2.2	0.054	0.69
J998734		820	4.2	2.3	<0.002	0.02	0.32	0.6	1	<0.2	92.4	<0.05	<0.05	0.4	0.011	1.78
J998735		790	7.7	2.5	<0.002	0.04	0.23	0.5	1	<0.2	85.6	<0.05	<0.05	0.4	0.010	0.91
J998736		510	33.1	3.8	<0.002	0.08	0.60	0.7	1	0.2	110.5	<0.05	<0.05	0.6	0.014	5.45
J998737		410	47.5	64.2	<0.002	1.99	0.74	5.5	1	1.0	87.1	0.42	<0.05	6.9	0.164	5.77
J998738		240	18.6	9.3	<0.002	0.71	0.39	1.2	1	0.2	101.0	0.07	<0.05	1.0	0.026	3.63
J998739		250	1.6	1.4	<0.002	0.01	<0.05	0.3	1	<0.2	52.6	<0.05	<0.05	<0.2	<0.005	0.07
J998740		360	17.5	9.7	<0.002	0.39	0.37	1.2	1	0.2	101.0	0.07	<0.05	1.2	0.028	2.24
J998741		550	28.9	9.7	<0.002	0.74	0.47	1.1	1	0.2	96.0	0.08	<0.05	1.1	0.030	3.73
J998742		470	15.7	6.5	<0.002	0.40	0.20	0.9	1	0.2	89.5	0.06	<0.05	0.8	0.021	0.93
J998743		330	23.4	7.2	<0.002	0.07	0.35	0.9	1	0.2	109.0	0.06	<0.05	0.9	0.024	1.39
J998744		470	8.6	8.0	<0.002	0.07	0.20	1.0	1	0.2	93.9	0.07	<0.05	1.0	0.026	3.17
J998745		420	106.5	5.9	<0.002	0.23	1.47	0.8	1	0.2	112.0	0.05	<0.05	0.8	0.020	9.32
J998746		120	14.8	6.9	0.004	>10.0	19.00	0.6	4	1.0	85.2	<0.05	0.70	0.4	0.008	0.11
J998747		300	238	2.5	0.002	>10.0	5.22	0.4	1	0.3	101.5	<0.05	<0.05	0.3	0.008	71.4
J998748		330	69.5	5.7	0.003	>10.0	2.14	0.8	1	0.4	100.5	<0.05	<0.05	0.7	0.017	71.7
J998749		320	69.5	4.7	0.002	>10.0	2.35	0.6	1	0.4	94.9	<0.05	<0.05	0.6	0.014	74.8
J998750		320	55.3	2.8	0.002	>10.0	2.14	0.5	1	0.3	89.0	<0.05	<0.05	0.4	0.008	46.7
J998751		240	136.5	1.5	0.006	>10.0	5.89	0.3	1	0.4	58.3	<0.05	<0.05	<0.2	<0.005	94.9
J998752		200	3.1	0.3	<0.002	0.42	0.41	0.3	1	<0.2	65.2	<0.05	<0.05	<0.2	<0.005	3.21
J998753		240	160.5	0.3	0.002	>10.0	4.63	0.3	1	0.3	85.7	<0.05	<0.05	<0.2	<0.005	48.0
J998754		210	42.6	0.2	<0.002	6.72	2.29	0.3	1	0.2	59.2	<0.05	<0.05	<0.2	<0.005	24.5
J998755		190	3.8	0.3	<0.002	0.27	0.18	0.2	2	<0.2	63.6	<0.05	<0.05	<0.2	<0.005	1.44
J998756		220	111.0	1.1	0.002	5.83	2.97	0.2	1	0.2	59.6	<0.05	<0.05	<0.2	<0.005	20.2
J998757		540	5.4	114.0	0.002	2.31	41.1	6.7	16	2.3	72.6	0.43	0.18	1.6	0.321	4.61
J998758		330	35.8	3.0	0.003	5.54	1.54	0.3	1	0.2	68.8	<0.05	<0.05	0.3	<0.005	28.5
J998759		400	18.1	4.2	<0.002	0.68	0.59	0.7	1	<0.2	69.1	<0.05	<0.05	0.6	0.015	2.09
J998760		380	6.0	3.3	0.003	0.25	0.16	0.4	2	<0.2	66.7	<0.05	<0.05	0.4	<0.005	1.50
J998761		340	2.9	2.9	<0.002	0.03	0.12	0.4	1	<0.2	52.2	<0.05	<0.05	0.2	<0.005	0.27
J998762		300	3.3	1.2	<0.002	0.34	0.09	0.3	1	<0.2	80.5	<0.05	<0.05	<0.2	<0.005	0.52
J998763		500	7.6	3.1	0.002	0.37	0.13	0.5	2	<0.2	79.1	<0.05	<0.05	0.4	<0.005	0.71

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147121

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
E146318		7.0	84	1.1	14.5	47	84.2	
E146319		7.7	84	1.2	13.1	51	77.3	
E146320		6.4	43	1.4	10.3	17	78.9	
E146411		8.1	16	0.5	5.3	9	31.2	
E146412		9.1	24	0.5	5.3	13	26.3	
E146413		10.5	23	0.3	5.2	9	30.9	
J998734		1.1	5	0.8	3.2	29	5.2	
J998735		1.0	4	0.3	3.2	15	5.1	
J998736		1.1	6	0.7	3.4	34	6.8	
J998737		2.5	43	3.0	11.0	22	68.2	
J998738		0.8	9	0.8	3.6	6	12.0	
J998739		0.4	4	0.1	1.0	15	0.5	
J998740		0.9	8	0.7	3.4	71	12.7	
J998741		1.1	8	0.7	3.8	15	13.2	
J998742		1.0	7	0.5	3.3	7	9.2	
J998743		1.1	7	0.6	2.8	15	10.5	
J998744		0.9	7	0.6	3.4	15	11.4	
J998745		1.0	6	0.7	3.2	255	9.0	
J998746		0.8	6	187.5	7.1	133	2.8	2.63
J998747		1.1	4	1.8	2.4	795	3.3	
J998748		1.2	5	1.3	3.1	220	7.2	
J998749		1.1	4	1.2	2.8	204	6.3	
J998750		1.2	5	1.1	2.5	118	4.4	
J998751		0.9	4	2.5	1.8	1070	1.3	
J998752		0.9	3	0.2	1.3	10	0.9	
J998753		1.4	3	0.9	1.7	866	1.0	
J998754		1.3	2	0.4	1.4	275	0.8	1.000
J998755		1.0	<1	0.3	1.1	3	0.7	
J998756		0.8	<1	0.5	1.9	98	1.9	1.275
J998757		0.8	59	10.9	10.9	47	69.9	
J998758		1.1	<1	0.7	2.8	39	3.8	0.954
J998759		1.2	2	0.5	2.5	4	5.1	
J998760		1.1	<1	0.2	1.8	3	3.8	
J998761		0.6	1	0.1	1.1	16	1.6	
J998762		0.9	<1	0.2	1.5	7	2.0	
J998763		0.9	<1	0.2	2.0	4	3.7	

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 25- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147121

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

ALS Canada Ltd.

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

CERTIFICATE VA10147122

Project: OSIRIS

P.O. No.: BACTH 17

This report is for 23 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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Finalized Date: 26- OCT- 2010
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Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147122

Sample Description	Method	WEI- 21	Au- AA26	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.01	0.01	0.01	5	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
J998764		5.04	0.09	0.03	0.08	2500	10	0.07	0.02	19.95	0.21	2.30	1.3	<1	0.19	3.4
J998765		3.10	0.21	0.08	0.09	5320	10	0.15	0.01	19.85	0.03	2.86	1.6	1	0.31	3.4
J998766		6.20	0.02	0.01	0.07	1300	140	0.09	0.01	20.5	<0.02	1.55	1.1	<1	0.13	1.3
J998767		9.22	0.01	<0.01	0.09	1920	10	0.08	0.01	21.2	<0.02	2.13	1.2	1	0.17	1.1
J998768		9.58	0.03	0.01	0.12	3580	10	0.11	0.01	20.1	0.06	2.49	1.3	1	0.25	1.6
J998769		5.02	0.07	0.02	0.12	964	20	0.06	0.01	20.3	0.55	3.11	1.2	1	0.27	1.1
E146464		4.58	0.58	0.07	0.09	1610	20	0.09	0.01	20.0	0.93	2.87	1.2	1	0.16	1.6
E146465		4.38	0.04	0.02	0.08	1870	30	0.11	0.01	20.3	0.24	1.93	1.1	<1	0.14	1.1
E146466		9.14	0.03	0.01	0.07	1080	10	0.11	<0.01	20.8	0.02	2.32	1.1	1	0.13	1.0
E146467		3.80	0.71	0.13	0.11	1600	50	0.11	0.01	20.1	0.80	4.10	1.2	3	0.22	2.2
E146468		0.28	15.70	1.05	2.09	1300	630	0.42	0.52	15.20	0.74	32.3	4.2	34	2.47	67.1
E146469		4.86	2.28	0.55	0.07	>10000	30	0.14	0.02	17.55	3.66	6.04	1.4	1	0.34	5.0
E146470		8.70	0.13	0.03	0.07	627	10	0.15	0.01	20.9	0.34	2.57	1.0	1	0.10	1.2
E146471		6.82	0.10	0.04	0.07	1020	20	0.10	0.01	20.8	0.14	1.57	1.1	<1	0.16	1.1
E146472		6.22	0.21	0.10	0.11	>10000	20	0.11	0.01	18.55	0.14	2.90	1.1	2	0.42	1.4
E146473		2.92	0.23	0.06	0.12	>10000	20	0.13	0.01	19.05	0.17	3.10	1.1	1	0.50	1.4
E146649		7.30	0.01	0.01	0.07	39	20	0.09	0.03	22.1	0.06	1.23	1.5	<1	0.13	2.0
J998774		7.78	0.02	0.21	2.66	390	120	0.78	0.07	13.65	0.09	30.7	4.0	21	6.36	12.0
J998775		5.14	0.03	0.10	0.33	439	20	0.19	0.01	19.70	0.07	5.20	1.5	4	0.41	2.3
J998776		6.46	<0.01	<0.01	0.09	<5	20	0.10	0.02	21.7	0.06	1.45	1.5	1	0.16	2.2
J998777		8.26	0.01	0.05	0.37	271	30	0.25	0.01	21.0	0.06	5.51	1.6	5	0.44	2.1
J998778		8.74	0.01	0.04	0.40	195	20	0.25	0.01	21.0	0.05	6.05	1.7	3	0.61	2.3
J998779		8.36	0.01	0.05	0.54	143	30	0.32	0.02	21.6	0.11	7.57	1.9	5	0.88	3.1

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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147122

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
J998764		0.51	0.30	0.08	0.1	2.02	0.007	0.02	1.5	1.0	12.25	595	0.49	<0.01	0.3	2.8
J998765		2.27	0.31	<0.05	0.1	2.26	0.006	0.03	2.1	1.0	12.10	1020	1.61	<0.01	0.3	3.0
J998766		0.29	0.35	0.14	0.1	0.16	<0.005	0.02	1.1	1.0	12.90	659	0.35	<0.01	0.2	2.5
J998767		0.22	0.45	0.22	0.1	0.13	<0.005	0.03	1.4	1.3	13.05	500	0.25	<0.01	0.3	2.9
J998768		0.29	0.60	0.25	0.1	0.37	0.005	0.04	1.7	1.1	12.30	415	0.25	<0.01	0.3	3.4
J998769		0.52	0.55	0.20	0.1	1.04	0.006	0.04	2.0	1.1	12.40	611	0.27	<0.01	0.4	3.2
E146464		0.91	0.42	0.11	0.1	6.92	0.006	0.02	2.0	0.8	12.35	657	0.22	<0.01	0.3	3.1
E146465		0.36	0.48	0.23	0.1	2.08	<0.005	0.02	1.2	0.9	12.50	623	0.21	<0.01	0.3	3.0
E146466		0.42	0.51	0.23	<0.1	0.49	<0.005	0.02	1.6	0.9	12.70	788	0.42	<0.01	0.3	3.3
E146467		2.46	0.43	<0.05	0.1	11.9	0.011	0.03	2.6	0.9	12.30	630	0.77	<0.01	0.3	2.4
E146468		3.68	4.09	0.10	1.0	6.80	0.066	0.41	21.4	42.3	0.75	477	12.50	<0.01	3.7	24.3
E146469		6.56	0.46	0.08	<0.1	40.1	0.025	0.01	4.2	1.3	10.90	1160	1.18	<0.01	0.3	2.9
E146470		0.93	0.27	<0.05	0.1	1.95	<0.005	0.02	2.1	0.6	12.90	905	0.17	<0.01	0.2	2.0
E146471		0.38	0.30	0.14	<0.1	2.03	<0.005	0.02	1.0	0.9	12.90	451	0.25	<0.01	0.2	2.6
E146472		0.64	0.38	0.10	0.1	2.28	0.010	0.03	1.8	1.7	11.35	489	0.43	<0.01	0.3	2.7
E146473		0.64	0.42	0.11	0.1	2.69	0.015	0.03	1.9	1.9	11.90	496	0.46	<0.01	0.3	2.8
E146649		0.45	0.37	0.19	<0.1	0.01	<0.005	0.02	0.7	1.0	13.65	214	0.09	<0.01	0.3	4.7
J998774		0.91	5.91	0.13	3.3	0.45	0.021	1.18	17.9	11.0	7.86	217	1.78	<0.01	4.2	9.5
J998775		0.36	0.83	0.16	0.3	0.18	0.005	0.13	3.4	1.9	11.75	271	0.23	<0.01	0.6	3.6
J998776		0.43	0.43	0.21	<0.1	<0.01	0.006	0.04	0.8	1.1	13.40	197	0.08	<0.01	0.4	4.3
J998777		0.29	1.04	0.24	0.3	0.17	<0.005	0.16	3.6	1.7	12.55	241	0.27	<0.01	0.7	4.8
J998778		0.24	1.13	0.25	0.3	0.16	0.005	0.17	3.9	1.9	12.65	179	0.28	<0.01	0.7	4.6
J998779		0.26	1.50	0.29	0.4	0.39	0.006	0.23	4.8	2.3	12.60	197	0.31	<0.01	0.9	5.3

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

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147122

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
J998764		230	19.1	1.0	0.002	0.53	0.67	0.5	2	0.2	64.0	<0.05	<0.05	0.2	<0.005	1.64
J998765		460	15.6	1.1	0.003	2.73	0.53	0.4	1	<0.2	68.4	<0.05	<0.05	0.2	<0.005	10.45
J998766		360	2.0	1.1	0.002	0.20	0.12	0.3	1	<0.2	71.3	<0.05	<0.05	<0.2	<0.005	0.32
J998767		580	1.4	1.3	0.002	0.24	0.13	0.4	1	<0.2	64.9	<0.05	<0.05	0.2	<0.005	0.21
J998768		650	2.8	1.6	0.002	0.39	0.32	0.4	1	<0.2	62.1	<0.05	<0.05	0.2	0.005	0.47
J998769		590	3.0	1.5	0.002	0.36	0.17	0.4	1	<0.2	59.8	<0.05	<0.05	0.3	0.007	0.91
E146464		270	27.0	1.0	0.002	0.93	0.90	0.3	1	0.2	70.5	<0.05	<0.05	0.2	<0.005	8.48
E146465		550	8.4	0.9	0.002	0.28	0.37	0.3	1	<0.2	64.1	<0.05	<0.05	<0.2	<0.005	1.10
E146466		380	3.2	0.9	0.003	0.29	0.13	0.3	1	<0.2	72.3	<0.05	<0.05	<0.2	<0.005	1.01
E146467		630	67.4	1.3	0.003	3.07	1.52	0.4	1	0.2	134.0	<0.05	<0.05	0.2	0.005	14.95
E146468		670	23.0	31.0	0.009	2.10	165.0	4.1	3	2.3	49.8	0.26	0.44	3.9	0.112	3.69
E146469		300	305	0.6	0.003	8.89	9.06	0.3	1	0.5	82.1	<0.05	0.05	<0.2	<0.005	55.1
E146470		420	20.8	0.8	0.002	0.84	0.60	0.3	1	<0.2	59.5	<0.05	<0.05	<0.2	<0.005	2.92
E146471		360	9.7	0.8	0.002	0.36	0.31	0.3	1	<0.2	63.2	<0.05	<0.05	<0.2	<0.005	1.95
E146472		680	46.8	1.2	0.002	1.50	1.99	0.3	1	<0.2	63.7	<0.05	<0.05	0.2	<0.005	3.36
E146473		760	22.2	1.3	0.002	1.76	1.37	0.4	1	0.2	67.3	<0.05	<0.05	0.2	0.005	3.67
E146649		270	1.3	1.2	0.003	0.02	<0.05	0.3	1	0.2	46.2	<0.05	<0.05	<0.2	<0.005	0.02
J998774		620	13.0	47.2	0.003	0.06	1.06	4.0	2	0.9	137.5	0.36	<0.05	6.8	0.124	1.15
J998775		190	3.9	5.2	0.002	0.02	0.41	0.7	1	0.2	126.5	<0.05	<0.05	0.8	0.014	0.51
J998776		300	1.4	1.7	0.002	0.01	<0.05	0.4	1	<0.2	48.9	<0.05	<0.05	0.2	<0.005	0.02
J998777		200	3.9	6.0	0.002	0.03	0.61	0.7	2	0.2	139.5	0.05	<0.05	0.8	0.015	0.37
J998778		210	4.4	6.5	0.003	0.02	0.42	0.7	1	0.2	130.5	0.05	<0.05	0.9	0.018	0.30
J998779		150	7.1	8.6	0.002	0.02	0.79	0.9	2	0.3	177.5	0.07	<0.05	1.2	0.023	0.46

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Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147122

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
J998764		0.7	2	0.3	1.6	53	2.5	
J998765		1.1	2	0.3	1.9	8	2.2	
J998766		0.8	2	0.1	1.3	2	2.1	
J998767		1.1	2	0.1	1.7	2	2.1	
J998768		1.2	2	0.2	2.0	13	3.3	
J998769		1.1	2	0.3	2.2	140	3.8	
E146464		0.8	1	0.4	1.6	211	2.4	
E146465		1.4	2	0.2	1.9	52	2.1	
E146466		1.1	2	0.2	1.7	6	1.9	
E146467		1.5	2	0.9	2.7	238	3.3	
E146468		3.6	112	224	19.0	80	37.3	
E146469		1.5	3	1.6	2.5	763	2.1	1.035
E146470		1.3	1	0.2	1.7	100	2.3	
E146471		1.2	2	0.3	1.4	30	1.8	
E146472		1.6	2	0.7	2.6	32	2.7	1.245
E146473		1.8	2	0.7	2.9	34	3.1	1.600
E146649		0.6	3	0.1	1.0	15	<0.5	
J998774		7.5	42	1.3	11.2	31	111.0	
J998775		4.6	9	0.3	2.6	28	11.5	
J998776		1.1	3	0.2	1.1	15	0.6	
J998777		4.9	10	0.3	2.6	16	10.7	
J998778		5.3	9	0.4	2.6	19	11.3	
J998779		6.8	10	0.6	3.0	45	14.0	

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147122

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- OCT- 2010
Account: RCM

CERTIFICATE VA10147123

Project: OSIRIS

P.O. No.: BATCH 18

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147123

Sample Description	Method	WEI- 21	Au- AA26	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.01	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
E146474		6.68	0.03	0.02	0.05	572	10	<0.05	0.34	20.1	<0.02	1.32	2.3	1	0.08	58.4
E146475		8.16	0.02	0.02	0.06	1930	20	0.05	0.18	20.1	0.14	1.96	1.7	3	0.09	62.9
E146476		6.42	0.14	0.08	0.04	1600	10	0.05	0.08	19.50	4.80	2.19	1.4	1	0.08	12.9
E146477		3.14	0.06	0.03	0.05	9140	1560	0.06	0.03	19.50	0.02	1.85	1.3	1	0.38	7.7
E146478		8.06	0.01	0.01	0.04	532	180	0.05	0.03	20.2	0.06	1.26	1.4	1	0.08	5.7
E146479		8.52	0.02	<0.01	0.05	1220	10	0.10	0.01	20.5	0.02	1.58	1.2	1	0.06	2.4
E146480		9.34	0.05	0.01	0.09	1700	20	0.12	0.02	19.50	0.22	2.69	1.2	2	0.11	3.5
E146481		9.10	0.07	0.05	0.12	1000	20	0.09	0.01	19.80	0.67	3.51	1.4	2	0.14	2.4
E146482		6.56	0.04	0.03	0.11	194	20	0.10	0.02	19.05	0.94	3.37	1.4	2	0.15	3.4
E146483		9.88	0.12	0.03	0.50	8120	80	0.20	0.02	15.45	0.37	8.52	1.5	4	0.71	3.3
E146484		8.90	0.15	0.01	0.27	517	40	0.13	0.02	16.30	0.46	6.50	1.2	3	0.27	3.0
E146485		0.28	2.34	1.67	4.01	165.5	340	1.27	0.16	0.40	0.21	55.5	3.3	46	7.54	34.6
E146486		9.20	0.14	0.03	0.60	686	80	0.18	0.05	17.05	0.81	14.05	1.9	6	0.74	5.8
E146487		6.74	0.03	0.02	0.35	825	70	0.10	0.02	12.55	0.78	7.00	0.9	3	0.37	3.3
E146488		2.78	0.06	0.03	0.40	860	90	0.10	0.02	13.95	1.22	8.50	1.1	5	0.46	2.6
E146489		5.78	0.09	0.16	0.27	5650	40	0.09	0.02	17.00	11.80	8.15	1.2	5	0.36	3.2
E146490		6.28	0.10	0.03	0.76	2070	130	0.24	0.03	15.80	0.26	15.40	1.8	4	1.03	4.1
E146491		6.54	<0.01	<0.01	0.06	12	10	0.07	0.03	20.4	0.07	1.64	1.9	1	0.14	2.6
E146492		4.64	0.10	0.06	0.55	>10000	60	0.19	0.02	14.30	0.37	9.70	1.5	5	0.81	2.7
E146493		4.30	0.50	0.14	0.71	>10000	140	0.20	0.04	10.65	1.67	12.00	1.3	8	1.14	3.9
E146494		0.28	15.35	1.26	2.10	1340	250	0.38	0.54	14.95	0.66	34.4	3.8	38	2.39	64.6
E146495		3.46	0.14	0.02	0.20	1800	30	0.11	0.01	18.65	<0.02	6.03	1.4	3	0.21	2.3
E146496		6.60	0.07	0.02	0.26	2960	50	0.11	0.06	19.35	0.14	5.71	1.5	2	0.29	2.0
E146497		9.06	0.19	0.03	0.39	1020	60	0.13	0.02	19.00	0.02	7.45	1.9	3	0.39	3.1
E146498		5.30	0.79	0.06	0.25	643	30	0.11	0.01	19.25	0.16	5.50	1.5	2	0.20	3.1
E146499		5.66	0.07	0.03	0.36	99	40	0.19	0.02	18.35	0.02	7.64	1.7	3	0.46	3.7
E146500		7.38	0.18	0.04	0.29	101	30	0.18	0.01	18.95	1.04	6.64	1.8	2	0.32	3.5
E146501		8.32	0.03	0.01	0.21	602	20	0.14	0.01	19.15	0.62	5.92	1.6	1	0.27	2.2
E146502		10.34	0.24	0.06	0.88	1120	70	0.25	0.04	15.20	0.16	17.00	2.5	6	1.32	5.3
E146503		5.38	0.07	0.02	0.45	1120	40	0.12	0.02	12.70	0.12	10.00	1.1	3	0.43	2.8
E146504		9.24	0.02	0.01	0.25	368	20	0.06	0.01	12.60	0.06	5.90	0.9	3	0.24	2.1
E146505		10.04	0.02	0.02	0.38	175	20	0.14	0.02	14.80	0.12	7.63	1.6	4	0.48	2.7
E146506		6.92	<0.01	0.01	0.07	<5	20	0.06	0.02	20.0	0.05	1.43	1.7	1	0.18	1.8
E146507		9.86	0.17	0.04	0.66	519	50	0.16	0.03	17.15	0.33	12.65	2.5	4	0.91	4.3
E146508		10.02	0.04	0.02	0.52	917	30	0.17	0.03	18.70	0.43	9.97	2.2	4	0.99	3.6
E146509		10.88	0.06	0.02	0.15	1960	20	0.06	0.01	18.30	0.27	4.21	1.2	2	0.20	1.9

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

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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147123

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
E146474		0.28	0.31	0.20	<0.1	0.13	<0.005	0.01	0.7	0.7	12.65	389	0.11	0.01	0.2	1.8
E146475		0.31	0.38	0.22	<0.1	0.61	<0.005	0.02	1.0	0.9	12.60	490	0.17	0.01	0.3	2.3
E146476		0.74	0.50	0.15	<0.1	6.44	<0.005	0.02	1.1	0.7	12.20	667	0.22	0.01	0.2	1.1
E146477		0.44	0.31	0.17	<0.1	0.69	0.007	0.01	0.9	1.1	12.20	572	0.22	0.02	0.2	1.2
E146478		0.28	0.35	0.24	<0.1	0.27	<0.005	0.01	0.6	0.7	12.70	591	0.25	0.01	0.2	1.6
E146479		0.27	0.39	0.26	<0.1	0.13	<0.005	0.01	0.9	0.8	12.80	676	0.16	0.01	0.2	1.3
E146480		0.58	0.43	0.14	0.1	0.63	<0.005	0.03	1.4	1.2	12.10	774	0.21	0.01	0.3	1.1
E146481		0.41	0.55	0.20	0.1	1.02	<0.005	0.05	2.1	1.1	12.30	631	0.19	0.01	0.3	1.6
E146482		0.50	0.56	0.18	0.1	1.55	<0.005	0.04	1.8	1.5	11.75	731	0.27	0.01	0.3	1.3
E146483		0.62	1.51	0.09	0.3	1.94	0.009	0.19	5.1	3.7	9.53	552	0.27	0.01	0.9	1.7
E146484		0.53	0.73	0.08	0.2	2.69	<0.005	0.10	3.8	1.7	10.05	551	0.14	0.01	0.5	1.2
E146485		1.05	10.20	0.11	2.4	1.94	0.036	1.32	26.8	32.5	0.22	25	25.2	0.06	6.4	22.1
E146486		0.60	1.57	0.08	0.4	3.64	0.007	0.23	9.0	2.4	10.70	569	0.56	0.02	1.1	2.4
E146487		0.65	0.86	0.08	0.2	3.67	0.005	0.14	4.2	1.3	8.65	433	0.19	0.01	0.6	<0.2
E146488		0.94	1.09	0.08	0.3	5.77	0.007	0.16	5.1	1.6	8.75	488	0.20	0.01	0.7	0.4
E146489		1.15	1.65	0.12	0.2	30.3	0.035	0.11	5.0	1.5	10.65	512	0.16	0.02	0.5	<0.2
E146490		0.74	2.08	0.09	0.4	1.68	0.010	0.32	9.9	2.5	9.93	605	0.52	0.02	1.3	1.1
E146491		0.41	0.36	0.16	<0.1	0.02	0.005	0.03	0.8	1.0	12.90	193	0.05	0.01	0.3	1.0
E146492		0.58	1.52	0.10	0.3	5.22	0.025	0.22	6.3	3.5	8.99	568	0.31	0.01	0.9	0.7
E146493		0.77	2.05	0.10	0.5	28.9	0.067	0.24	7.1	4.5	7.12	686	0.44	0.01	1.1	0.8
E146494		3.62	4.10	0.11	0.9	5.89	0.063	0.41	19.5	35.6	0.76	465	11.90	0.02	3.3	21.5
E146495		0.25	0.71	0.18	0.1	0.95	0.007	0.07	2.9	1.0	11.85	501	0.15	0.02	0.4	3.7
E146496		0.28	0.79	0.20	0.2	1.10	0.007	0.09	2.9	1.5	12.00	504	0.45	0.02	0.5	<0.2
E146497		0.42	1.04	0.14	0.2	2.59	<0.005	0.11	4.2	2.2	11.95	793	0.64	0.02	0.7	0.8
E146498		1.55	0.68	0.12	0.1	9.57	0.006	0.06	3.2	1.5	12.10	786	2.11	0.02	0.5	<0.2
E146499		3.14	0.94	0.11	0.2	2.10	<0.005	0.12	4.7	1.8	11.50	807	14.25	0.02	0.7	0.4
E146500		1.66	0.94	0.12	0.2	2.78	0.005	0.11	4.2	1.4	11.95	973	3.28	0.02	0.6	0.8
E146501		0.71	0.72	0.12	0.1	1.95	0.005	0.08	3.9	1.3	12.10	712	0.15	0.02	0.4	<0.2
E146502		1.99	2.38	0.10	0.5	3.69	0.008	0.37	10.7	4.2	9.48	836	0.47	0.02	1.6	2.5
E146503		1.82	1.13	0.08	0.3	2.21	0.006	0.18	6.0	1.8	8.65	621	0.25	0.02	0.8	0.3
E146504		0.62	0.67	0.07	0.2	0.87	<0.005	0.10	3.5	1.3	8.62	438	0.18	0.02	0.5	0.2
E146505		0.69	1.08	0.10	0.3	0.94	0.005	0.15	4.6	1.9	9.38	444	0.37	0.02	0.7	2.2
E146506		0.40	0.41	0.18	<0.1	0.01	<0.005	0.03	0.7	1.2	12.80	195	0.06	0.01	0.4	1.9
E146507		1.53	1.72	0.10	0.4	3.14	0.007	0.25	8.5	3.1	10.80	575	0.47	0.02	1.1	2.9
E146508		0.58	1.54	0.13	0.3	1.14	0.006	0.23	6.6	2.5	11.85	588	0.26	0.02	0.9	2.2
E146509		1.53	0.53	0.08	0.1	1.59	0.006	0.06	2.3	0.9	11.50	870	0.45	0.02	0.3	0.5

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VANCOUVER BC V6B 1L8

Finalized Date: 24- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147123

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
E146474		220	1.5	0.6	<0.002	0.16	0.07	0.2	1	<0.2	48.6	<0.05	<0.05	<0.2	<0.005	0.21
E146475		290	3.5	0.8	<0.002	0.30	0.24	0.2	2	<0.2	55.9	<0.05	<0.05	<0.2	<0.005	0.46
E146476		130	10.2	0.4	<0.002	0.88	0.31	0.2	1	<0.2	57.7	<0.05	<0.05	<0.2	<0.005	2.05
E146477		170	4.6	0.6	<0.002	0.95	0.62	0.2	1	<0.2	50.0	<0.05	<0.05	<0.2	<0.005	0.95
E146478		180	1.5	0.5	<0.002	0.14	0.05	0.2	1	<0.2	60.3	<0.05	<0.05	<0.2	<0.005	0.18
E146479		290	2.0	0.6	<0.002	0.19	0.11	0.2	2	<0.2	59.9	<0.05	<0.05	<0.2	<0.005	0.19
E146480		240	4.6	1.4	<0.002	0.49	0.19	0.2	2	<0.2	74.5	<0.05	<0.05	<0.2	<0.005	0.75
E146481		620	194.5	2.0	<0.002	0.32	2.96	0.4	1	<0.2	78.6	<0.05	<0.05	0.2	0.006	2.94
E146482		370	80.9	2.0	<0.002	0.26	2.01	0.3	1	<0.2	87.0	<0.05	<0.05	0.2	<0.005	1.56
E146483		300	18.6	8.8	<0.002	1.08	0.85	0.9	2	0.2	107.5	0.06	<0.05	0.9	0.022	3.53
E146484		370	5.9	3.9	<0.002	0.37	0.19	0.5	2	<0.2	78.8	<0.05	<0.05	0.5	0.014	2.02
E146485		470	26.3	59.9	0.002	0.70	157.5	8.5	3	1.3	157.5	0.47	0.28	7.3	0.188	11.10
E146486		790	9.6	7.9	<0.002	0.54	0.25	1.1	2	0.2	126.5	0.09	<0.05	1.3	0.031	2.28
E146487		230	8.6	4.3	<0.002	0.61	0.19	0.5	2	<0.2	60.3	<0.05	<0.05	0.6	0.016	1.39
E146488		240	13.1	5.4	<0.002	1.00	0.28	0.6	1	0.2	77.5	0.05	<0.05	0.7	0.018	2.58
E146489		910	62.7	3.5	<0.002	1.79	1.73	0.6	1	0.3	80.8	<0.05	<0.05	0.5	0.012	10.50
E146490		570	22.1	10.6	<0.002	0.76	0.38	1.2	2	0.3	170.0	0.10	<0.05	1.4	0.033	1.84
E146491		240	1.4	1.1	<0.002	0.02	0.06	0.4	1	<0.2	47.6	<0.05	<0.05	<0.2	<0.005	0.03
E146492		230	19.7	7.3	<0.002	1.37	1.05	0.9	1	0.2	125.5	0.07	<0.05	1.0	0.022	3.43
E146493		330	76.3	9.3	<0.002	2.67	3.42	1.0	1	0.4	215	0.08	<0.05	1.3	0.028	26.8
E146494		680	21.1	24.5	0.009	2.05	157.0	3.5	3	2.0	47.8	0.24	0.42	3.5	0.113	3.64
E146495		240	53.9	2.4	<0.002	0.24	0.57	0.5	1	<0.2	94.4	<0.05	<0.05	0.4	0.010	1.88
E146496		340	60.6	3.0	<0.002	0.35	0.78	0.6	1	0.2	103.5	<0.05	<0.05	0.4	0.012	1.96
E146497		320	15.6	3.9	<0.002	0.40	0.31	0.9	1	0.2	140.5	0.05	<0.05	0.6	0.018	4.73
E146498		180	14.3	2.3	<0.002	1.86	0.72	0.6	1	<0.2	116.5	<0.05	<0.05	0.4	0.015	21.2
E146499		240	14.1	4.1	<0.002	3.87	0.16	0.8	1	0.2	120.0	<0.05	<0.05	0.7	0.018	12.25
E146500		210	23.8	3.6	<0.002	1.88	0.32	0.8	1	0.2	104.5	<0.05	<0.05	0.6	0.014	7.00
E146501		340	14.6	2.8	<0.002	0.60	0.29	0.6	1	<0.2	73.8	<0.05	<0.05	0.3	0.010	3.91
E146502		400	52.5	12.8	<0.002	2.07	0.45	1.5	1	0.3	109.5	0.11	<0.05	1.8	0.041	6.89
E146503		380	104.5	5.6	<0.002	2.08	0.47	0.7	1	0.2	74.4	0.06	<0.05	1.0	0.022	3.60
E146504		220	10.1	3.2	<0.002	0.59	0.14	0.4	1	<0.2	54.6	<0.05	<0.05	0.5	0.013	1.41
E146505		310	13.2	5.2	<0.002	0.64	0.19	0.7	1	0.2	62.3	0.05	<0.05	0.8	0.017	1.57
E146506		240	1.4	1.3	<0.002	0.01	0.09	0.4	1	<0.2	44.9	<0.05	<0.05	<0.2	<0.005	0.03
E146507		490	37.6	8.7	<0.002	1.75	0.43	1.3	1	0.3	110.0	0.08	<0.05	1.3	0.029	7.26
E146508		510	18.7	8.0	<0.002	0.52	0.29	1.1	1	0.2	89.4	0.06	<0.05	1.0	0.024	2.73
E146509		410	34.2	1.9	<0.002	1.73	0.44	0.5	1	<0.2	78.7	<0.05	<0.05	0.3	0.006	6.26

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147123

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
E146474		0.8	<1	0.1	1.1	2	0.9	
E146475		0.9	<1	0.1	1.3	27	1.5	
E146476		0.7	<1	0.2	1.2	1440	0.8	
E146477		0.9	<1	0.2	1.2	6	1.0	
E146478		0.7	<1	0.1	0.9	12	1.7	
E146479		0.9	<1	0.1	1.2	6	1.1	
E146480		1.0	<1	0.1	1.7	44	2.1	
E146481		1.3	<1	0.2	2.1	91	2.4	
E146482		1.2	<1	0.2	1.8	179	2.6	
E146483		1.7	2	0.8	2.8	74	9.7	
E146484		1.4	<1	0.5	2.5	155	5.3	
E146485		5.5	163	22.2	13.5	63	71.3	
E146486		3.7	5	1.0	5.1	245	15.6	
E146487		1.8	3	0.5	2.3	250	8.0	
E146488		2.1	3	0.6	2.7	373	9.4	
E146489		2.1	2	0.5	4.0	3800	5.8	
E146490		3.8	6	1.1	4.6	108	14.9	
E146491		0.7	2	0.1	0.8	17	<0.5	
E146492		3.0	4	1.2	3.4	111	10.6	1.255
E146493		3.8	5	2.2	3.8	384	16.6	2.98
E146494		3.7	112	216	16.4	82	30.5	
E146495		1.7	2	0.6	2.2	4	5.7	
E146496		1.9	3	1.3	2.4	25	5.6	
E146497		2.1	4	0.7	2.6	7	7.9	
E146498		1.7	3	0.6	1.8	77	5.3	
E146499		1.8	4	0.6	2.6	11	7.3	
E146500		1.7	3	0.5	2.5	278	7.0	
E146501		1.3	3	0.3	2.6	143	4.5	
E146502		2.9	8	1.4	5.2	43	18.7	
E146503		1.9	4	0.9	3.1	47	9.7	
E146504		1.5	2	0.5	1.9	21	6.4	
E146505		2.1	3	0.5	2.6	53	8.8	
E146506		0.7	2	0.1	0.9	13	<0.5	
E146507		2.8	5	0.8	4.0	148	11.3	
E146508		2.3	5	0.6	3.8	83	9.8	
E146509		1.7	2	0.2	2.5	68	3.1	

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147123

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

ALS Canada Ltd.

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

CERTIFICATE VA10147124

Project: OSIRIS

P.O. No.: BATCH 19

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147124

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
E146510		6.70	0.15	0.05	0.14	1630	20	0.06	0.01	16.45	6.92	7.00	1.3	1	0.17	2.9
E146511		4.24	0.18	0.13	1.98	1310	150	0.37	0.01	11.70	2.00	39.7	12.0	19	2.35	12.9
E146512		7.36	<0.01	<0.01	0.10	7	20	0.08	0.01	19.50	0.05	1.57	1.7	1	0.17	2.0
E146513		8.42	0.04	0.03	0.58	5990	50	0.11	0.02	12.70	0.11	9.44	1.2	3	0.72	2.4
E146514		9.48	0.08	0.03	0.26	2360	20	0.08	0.01	13.70	0.06	5.57	1.1	2	0.28	1.9
E146515		9.20	0.02	0.08	0.70	264	70	0.19	0.03	16.00	0.46	13.00	2.7	6	1.09	4.3
E146516		3.40	0.08	0.02	0.26	9200	50	0.10	0.01	17.40	1.00	4.03	1.5	2	0.29	1.8
E146517		8.54	0.01	0.01	0.08	6620	10	0.09	0.01	17.75	0.03	2.81	1.2	3	0.14	1.2
E146518		8.54	0.01	0.01	0.11	862	10	0.09	0.01	17.10	0.03	3.62	1.2	1	0.12	1.3
E146519		8.70	0.02	0.01	0.16	629	20	0.12	0.01	17.20	0.39	4.90	1.3	1	0.17	1.6
E146520		6.04	0.02	0.01	0.19	312	20	0.11	0.02	17.25	<0.02	4.66	1.4	1	0.16	1.6
E146521		0.28	2.36	1.67	3.97	166.0	460	1.31	0.16	0.40	0.20	60.1	3.5	46	8.03	36.5
E146522		6.04	<0.01	0.01	0.21	32	20	0.08	0.02	18.00	0.05	4.24	1.1	3	0.30	1.8
E146523		6.68	0.03	0.03	0.59	1740	50	0.20	0.03	19.10	0.12	10.85	2.0	4	0.79	4.6
E146524		8.14	0.13	0.04	0.35	480	30	0.15	0.03	17.10	2.20	7.05	1.7	8	0.36	4.4
E146525		3.82	0.10	0.05	0.32	827	30	0.12	0.01	16.55	3.90	6.62	1.4	2	0.32	3.9
E146526		5.82	0.14	0.08	0.46	949	60	0.18	0.02	15.75	8.91	8.63	1.8	3	0.60	7.0
E146527		5.76	0.09	0.10	0.47	163	40	0.18	0.02	18.25	5.69	9.14	1.8	3	0.66	5.4
E146528		6.68	0.03	0.06	0.32	134	30	0.14	0.02	17.35	10.70	6.56	1.4	2	0.37	3.8
E146529		3.14	0.40	0.11	0.17	4310	30	0.12	0.02	15.30	19.15	4.30	1.0	1	0.37	3.0
E146530		3.82	0.18	0.11	0.21	2200	20	0.11	0.01	13.80	24.4	4.65	1.0	1	0.30	3.7
E146531		7.18	<0.01	<0.01	0.07	16	20	0.06	0.02	21.0	0.12	1.10	1.1	<1	0.15	1.4
E146532		4.96	0.17	0.05	1.02	744	50	0.29	0.03	18.00	0.12	10.35	2.5	8	1.67	5.7
E146533		8.70	0.12	0.03	0.38	398	40	0.20	0.02	19.20	1.02	8.17	1.4	3	0.39	3.1
E146534		8.60	0.10	0.02	0.31	1460	60	0.20	0.02	18.75	0.12	8.37	1.4	4	0.32	2.9
E146535		8.48	0.09	0.03	0.40	735	70	0.22	0.02	19.15	0.18	8.69	1.7	4	0.47	3.8
E146536		7.86	0.14	0.02	0.16	2370	40	0.11	0.01	20.0	0.07	5.64	1.0	2	0.15	2.0
E146537		5.16	0.03	0.02	0.15	1060	30	0.12	0.01	18.90	0.13	5.60	1.1	3	0.14	2.0
E146538		2.74	0.17	0.09	0.31	>10000	100	0.11	0.02	18.85	0.95	8.84	1.5	5	0.60	4.1
E146648		1.98	0.01	0.01	0.20	>10000	30	0.05	0.01	16.65	0.05	3.44	0.8	4	0.23	1.3
E146539		6.34	0.04	0.02	0.26	3700	50	0.10	0.02	19.35	0.09	6.78	1.3	4	0.37	2.4
E146540		0.28	2.30	1.94	3.95	184.0	560	1.32	0.14	0.43	0.26	61.1	3.6	52	7.80	35.9
E146541		3.24	0.07	0.03	0.26	>10000	50	0.10	0.01	19.10	0.21	5.82	1.0	3	0.35	1.9
E146542		8.78	0.07	0.02	0.33	2520	40	0.13	0.01	20.0	0.05	6.31	1.2	5	0.39	2.0
E146543		5.10	0.01	0.01	0.15	2320	10	0.08	0.01	21.0	0.04	3.34	1.1	3	0.18	1.2
E146544		8.80	0.01	0.01	0.10	3080	10	0.06	0.01	21.1	0.04	2.75	1.3	2	0.18	1.2

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

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147124

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
E146510		3.94	0.99	0.10	0.1	7.81	0.019	0.04	3.6	1.0	10.25	1340	0.31	0.02	0.3	1.4
E146511		9.80	2.79	0.25	1.4	16.8	0.017	0.82	21.4	2.7	7.95	603	1.53	0.02	13.4	32.7
E146512		0.42	0.37	0.12	<0.1	0.01	0.005	0.03	0.8	1.1	12.40	190	1.30	0.02	0.3	1.5
E146513		1.25	1.21	0.08	0.3	1.71	0.015	0.23	5.8	2.4	8.75	575	0.26	0.02	0.9	0.7
E146514		0.82	0.69	0.07	0.2	2.24	0.006	0.10	3.4	1.4	9.43	478	0.18	0.02	0.5	0.3
E146515		0.72	1.92	0.12	0.4	1.13	0.006	0.29	8.2	3.1	10.10	465	0.45	0.02	1.3	3.4
E146516		0.44	0.92	0.15	0.1	7.08	0.020	0.08	2.7	1.5	11.00	613	0.19	0.02	0.4	0.9
E146517		0.22	0.48	0.22	<0.1	0.25	0.013	0.02	1.7	0.9	11.10	546	0.13	0.02	0.2	0.7
E146518		0.38	0.48	0.18	0.1	0.37	<0.005	0.04	2.1	0.9	10.65	555	0.15	0.02	0.3	<0.2
E146519		0.56	0.62	0.14	0.1	1.80	<0.005	0.06	2.9	1.0	10.70	534	0.25	0.02	0.5	0.8
E146520		0.39	0.63	0.14	0.1	0.47	<0.005	0.06	2.7	1.0	10.85	528	0.21	0.04	0.4	0.5
E146521		1.04	11.00	0.15	2.6	1.92	0.045	1.31	30.0	31.6	0.22	24	27.0	0.05	7.0	23.8
E146522		0.37	0.49	0.15	0.1	0.30	<0.005	0.08	2.4	1.1	10.50	412	0.30	<0.01	0.4	<0.2
E146523		0.95	1.37	0.06	0.3	1.80	0.007	0.23	6.6	2.6	11.00	716	1.35	<0.01	0.9	<0.2
E146524		5.78	0.87	0.11	0.2	3.90	<0.005	0.13	4.3	1.3	9.82	994	0.49	<0.01	0.7	<0.2
E146525		7.62	0.88	0.14	0.2	4.13	0.006	0.11	3.9	1.2	9.48	947	0.50	<0.01	0.7	<0.2
E146526		7.00	1.59	0.14	0.2	8.18	0.009	0.16	5.0	2.0	9.03	1180	0.83	<0.01	0.9	<0.2
E146527		4.41	1.54	0.07	0.2	6.33	0.005	0.20	5.8	1.8	10.35	1260	1.92	<0.01	0.9	<0.2
E146528		5.57	1.43	0.10	0.1	6.05	0.007	0.12	4.1	1.2	9.85	1280	0.86	<0.01	0.6	<0.2
E146529		10.60	1.79	0.22	0.1	28.7	0.022	0.06	2.8	0.5	8.84	1240	0.53	<0.01	0.5	<0.2
E146530		11.65	2.40	0.26	0.1	24.4	0.018	0.09	2.8	0.8	8.54	1300	0.80	<0.01	0.6	<0.2
E146531		0.44	0.23	0.19	<0.1	0.08	<0.005	0.03	0.5	1.1	12.30	192	0.13	<0.01	0.3	<0.2
E146532		0.72	2.36	<0.05	0.5	3.30	0.007	0.44	5.6	4.7	10.35	1540	1.74	<0.01	1.6	<0.2
E146533		0.73	0.94	0.05	0.2	2.45	0.005	0.14	4.9	1.9	11.05	1700	1.17	<0.01	0.7	<0.2
E146534		0.49	0.79	0.10	0.2	1.86	<0.005	0.11	5.1	1.7	10.80	1540	0.15	<0.01	0.6	<0.2
E146535		0.55	1.03	0.11	0.2	2.09	<0.005	0.15	5.6	2.1	11.10	1240	0.34	<0.01	0.8	<0.2
E146536		0.55	0.49	0.17	0.1	2.70	<0.005	0.05	3.4	1.4	11.45	1270	0.15	<0.01	0.4	<0.2
E146537		0.52	0.46	0.17	0.1	1.14	<0.005	0.05	3.5	1.2	10.90	1240	0.15	<0.01	0.3	<0.2
E146538		0.54	1.11	0.11	0.2	6.84	0.042	0.12	5.8	1.6	10.75	1580	0.24	<0.01	0.6	<0.2
E146648		0.24	0.68	0.24	0.1	0.95	0.018	0.07	2.2	1.3	9.63	548	0.13	<0.01	0.3	<0.2
E146539		0.39	0.70	0.19	0.1	1.31	0.006	0.09	4.1	1.7	11.15	862	0.27	<0.01	0.5	<0.2
E146540		1.04	10.65	0.12	2.5	1.81	0.037	1.24	29.1	39.1	0.23	25	23.6	0.03	6.5	21.4
E146541		0.56	0.53	0.12	0.1	2.47	0.028	0.09	3.7	1.8	11.00	1320	0.20	<0.01	0.4	<0.2
E146542		0.45	0.81	0.16	0.2	2.08	0.006	0.12	3.8	2.3	11.55	1120	0.30	<0.01	0.6	<0.2
E146543		0.35	0.54	0.30	0.1	0.67	<0.005	0.06	2.1	1.5	12.20	976	0.24	<0.01	0.4	<0.2
E146544		0.42	0.40	0.23	<0.1	0.40	0.005	0.04	1.7	1.5	12.30	884	0.52	<0.01	0.3	<0.2

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

ALS Canada Ltd.
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147124

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
E146510		360	76.5	1.6	<0.002	4.71	0.93	0.6	1	<0.2	74.7	<0.05	<0.05	0.2	0.007	18.75
E146511		1120	215	21.1	<0.002	>10.0	1.70	4.3	1	0.5	167.0	0.84	<0.05	1.5	0.406	26.3
E146512		220	1.6	1.3	<0.002	0.03	0.06	0.5	1	<0.2	50.0	<0.05	<0.05	<0.2	0.005	0.07
E146513		370	24.8	7.3	<0.002	1.74	0.48	0.9	1	0.2	85.6	0.06	<0.05	1.0	0.023	5.52
E146514		320	14.1	3.4	<0.002	0.94	0.48	0.5	1	<0.2	64.6	<0.05	<0.05	0.5	0.011	3.54
E146515		500	18.0	10.1	<0.002	0.70	0.22	1.3	2	0.2	110.0	0.09	<0.05	1.5	0.031	2.55
E146516		370	9.9	3.1	<0.002	0.98	0.70	0.7	1	<0.2	133.0	<0.05	<0.05	0.3	0.009	3.36
E146517		380	1.8	0.8	<0.002	0.52	0.42	0.4	1	<0.2	66.2	<0.05	<0.05	<0.2	<0.005	0.46
E146518		440	4.2	1.3	<0.002	0.18	0.11	0.3	1	<0.2	50.9	<0.05	<0.05	0.2	0.006	0.93
E146519		680	8.0	2.1	<0.002	0.46	0.13	0.4	1	<0.2	64.7	<0.05	<0.05	0.3	0.011	1.30
E146520		470	3.1	1.8	<0.002	0.15	0.13	0.6	1	<0.2	53.8	<0.05	<0.05	0.3	0.014	0.88
E146521		480	27.8	58.6	0.002	0.71	157.0	8.2	3	1.4	161.5	0.48	0.32	7.7	0.190	13.20
E146522		300	7.1	3.0	<0.002	0.14	0.07	0.5	1	<0.2	56.2	<0.05	<0.05	0.5	0.010	0.62
E146523		520	13.5	8.6	<0.002	1.10	0.16	1.2	1	0.2	112.5	0.07	<0.05	1.3	0.024	4.25
E146524		280	87.1	4.4	<0.002	7.08	0.17	0.8	1	<0.2	96.4	<0.05	<0.05	0.9	0.015	7.27
E146525		230	124.0	4.0	<0.002	9.44	0.23	0.7	1	0.2	86.5	<0.05	<0.05	0.7	0.013	8.46
E146526		280	181.0	6.2	<0.002	8.73	0.40	1.1	1	0.2	102.5	0.05	<0.05	1.1	0.017	13.10
E146527		440	252	7.5	<0.002	4.93	0.30	1.1	1	0.2	102.0	0.06	<0.05	1.1	0.018	12.35
E146528		350	156.0	4.3	<0.002	6.61	0.14	0.8	1	0.2	91.3	<0.05	<0.05	0.7	0.011	10.10
E146529		270	204	2.3	<0.002	>10.0	1.36	0.5	1	0.2	82.4	<0.05	<0.05	0.3	0.006	39.1
E146530		240	240	3.3	<0.002	>10.0	1.19	0.6	1	0.2	65.3	<0.05	<0.05	0.5	0.008	34.3
E146531		220	1.8	1.4	<0.002	0.06	<0.05	0.4	1	<0.2	41.5	<0.05	<0.05	<0.2	<0.005	0.16
E146532		520	25.0	17.0	<0.002	0.73	0.27	1.8	1	0.3	108.5	0.12	<0.05	2.4	0.044	5.90
E146533		410	13.1	5.3	<0.002	0.63	0.14	0.8	1	<0.2	90.7	<0.05	<0.05	0.8	0.015	3.40
E146534		450	12.5	4.3	<0.002	0.42	0.28	0.7	1	<0.2	114.0	<0.05	<0.05	0.7	0.013	4.34
E146535		510	16.1	5.7	<0.002	0.47	0.22	0.9	1	<0.2	134.5	0.05	<0.05	1.0	0.017	4.70
E146536		370	8.0	1.7	<0.002	0.53	0.27	0.5	1	<0.2	88.3	<0.05	<0.05	0.4	0.006	4.90
E146537		360	6.5	1.9	<0.002	0.45	0.12	0.5	1	<0.2	76.7	<0.05	<0.05	0.4	0.006	1.63
E146538		810	15.4	5.4	<0.002	3.44	0.65	0.9	1	0.2	190.5	0.05	<0.05	0.9	0.015	6.65
E146648		310	4.9	2.3	<0.002	1.22	0.20	0.4	1	<0.2	76.9	<0.05	<0.05	0.3	0.005	4.54
E146539		500	11.6	3.9	<0.002	0.60	0.27	0.7	1	<0.2	106.5	<0.05	<0.05	0.6	0.010	2.70
E146540		450	28.3	59.5	0.002	0.70	155.5	8.8	2	1.4	162.0	0.47	0.32	8.5	0.185	12.65
E146541		380	15.6	3.1	<0.002	2.01	2.07	0.6	1	<0.2	94.2	<0.05	<0.05	0.4	0.008	9.41
E146542		380	13.7	4.8	<0.002	0.52	0.35	0.7	1	<0.2	106.0	<0.05	<0.05	0.8	0.013	4.09
E146543		350	5.4	2.3	<0.002	0.40	0.27	0.4	1	<0.2	68.0	<0.05	<0.05	0.4	0.007	1.34
E146544		280	4.2	1.4	<0.002	0.62	0.32	0.3	1	<0.2	63.3	<0.05	<0.05	0.2	<0.005	0.88

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147124

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
E146510		1.5	3	0.3	3.5	2110	2.7	
E146511		7.1	50	10.2	8.2	646	49.9	
E146512		0.7	3	0.1	0.9	16	0.5	
E146513		1.8	5	0.7	3.1	35	9.3	
E146514		2.0	2	0.4	2.3	30	7.2	
E146515		4.0	6	0.7	4.4	132	13.9	
E146516		2.0	3	0.4	2.4	407	3.8	
E146517		1.7	1	0.2	1.9	8	1.5	
E146518		1.6	1	0.2	1.9	13	2.5	
E146519		2.1	1	0.3	2.5	175	3.7	
E146520		1.9	3	0.2	2.5	6	3.9	
E146521		6.3	170	24.8	14.8	62	87.5	
E146522		1.7	2	0.2	2.2	2	4.1	
E146523		4.3	5	0.5	5.6	66	9.8	
E146524		2.6	3	0.4	3.1	591	6.3	
E146525		2.3	3	0.4	2.9	1040	5.7	
E146526		2.7	6	0.5	3.6	2350	7.3	
E146527		2.8	4	0.6	4.6	1800	8.3	
E146528		2.3	3	0.3	3.5	3560	4.7	
E146529		1.6	3	0.6	2.7	5270	2.5	
E146530		1.6	3	0.4	2.7	6840	3.0	
E146531		0.5	2	0.1	0.8	38	<0.5	
E146532		4.2	7	1.0	5.6	42	15.1	
E146533		2.4	3	0.4	4.2	484	5.9	
E146534		2.6	3	0.5	3.9	32	6.4	
E146535		3.1	3	0.5	4.3	67	6.4	
E146536		2.8	2	0.3	2.8	10	2.7	
E146537		2.6	1	0.2	3.3	24	2.6	
E146538		5.2	3	0.8	6.8	416	5.8	4.13
E146648		2.0	1	0.2	2.2	4	2.7	1.615
E146539		3.3	2	0.3	3.8	9	4.3	
E146540		5.8	167	22.2	13.4	59	81.5	
E146541		2.2	3	0.3	3.0	46	3.2	2.77
E146542		2.5	4	0.5	2.9	<2	6.8	
E146543		2.2	2	0.2	2.0	<2	4.5	
E146544		1.8	2	0.1	1.8	<2	1.7	

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

ALS Canada Ltd.
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147124

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

ALS Canada Ltd.

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North Vancouver BC V7H 0A7
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 28- OCT- 2010
This copy reported on 17- NOV- 2010
Account: RCM

CERTIFICATE VA10147125

Project: OSIRIS

P.O. No.: BATCH 20

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 28- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147125

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
E146545		6.50	0.02	0.02	0.13	3340	20	0.09	0.07	21.1	0.22	3.82	1.2	2	0.27	1.2
E146546		6.24	0.12	0.05	0.65	1680	70	0.20	0.11	20.7	0.29	13.30	2.1	7	0.85	4.9
E146547		10.08	0.16	0.03	0.41	1800	50	0.21	0.06	20.7	0.08	11.10	1.6	4	0.49	3.3
E146548		9.94	0.21	0.05	0.43	5950	70	0.20	0.06	19.70	0.06	13.60	1.6	4	0.51	4.0
E146549		9.90	0.43	0.04	0.44	2820	40	0.18	0.04	19.15	0.19	12.55	1.5	4	0.64	3.6
E146550		9.52	0.48	0.05	0.39	5190	50	0.20	0.05	19.90	0.34	11.95	1.4	3	0.46	3.5
E146551		9.82	0.25	0.04	0.46	5180	40	0.22	0.05	19.70	0.49	12.55	1.4	4	0.77	4.5
E146552		6.84	0.31	0.04	0.40	5960	50	0.24	0.05	19.35	0.35	11.05	1.2	4	0.68	4.4
E146553		6.72	0.25	0.03	0.15	4070	30	0.14	0.02	20.4	0.10	5.47	0.9	2	0.13	1.9
E146554		6.74	0.64	0.04	0.17	>10000	40	0.13	0.03	19.65	2.21	6.79	1.1	2	0.15	2.6
E146555		8.10	0.49	0.04	0.22	1480	80	0.21	0.03	21.1	6.07	8.57	1.2	3	0.22	3.3
E146414		6.92	<0.01	0.05	7.32	108.5	280	1.68	0.26	6.02	0.23	67.6	22.3	71	29.0	87.9
E146415		6.92	<0.01	0.19	7.67	83.2	360	1.60	0.54	3.48	0.38	63.4	34.6	79	30.0	153.0
E146416		7.36	<0.01	0.17	8.13	42.3	280	1.72	0.31	3.16	0.40	66.8	37.2	84	48.8	173.5
E146417		0.28	2.32	1.64	4.12	182.5	1290	1.59	0.19	0.47	0.23	60.2	4.3	50	8.57	36.1
E146418		5.64	<0.01	0.18	6.24	40.5	290	1.54	0.24	6.26	0.33	58.0	23.5	55	36.3	108.5
E146419		4.26	<0.01	0.15	6.04	38.6	370	1.36	0.27	7.24	0.30	66.3	18.4	51	27.2	81.2
E146420		5.70	<0.01	0.20	8.06	70.6	360	2.41	0.37	1.07	0.29	85.2	46.7	77	35.8	138.5
E146421		3.40	<0.01	0.21	8.06	71.6	350	2.58	0.41	0.95	0.28	88.5	46.9	82	37.4	141.0
E146422		1.44	0.49	0.58	6.74	430	240	2.42	0.33	4.50	0.16	74.2	29.4	59	25.8	103.5
E146423		6.36	0.08	0.22	6.37	412	150	1.55	0.26	5.91	0.33	61.5	20.7	55	25.8	92.4
E146424		8.08	0.30	0.12	5.20	4480	150	1.11	0.24	12.80	0.09	54.9	9.2	42	22.4	20.0
E146425		4.10	<0.01	0.12	6.79	642	230	1.59	0.33	0.22	0.03	74.9	4.7	56	31.9	16.6
E146426		4.38	0.06	0.14	9.29	991	320	2.80	0.34	0.17	0.02	80.1	6.6	70	43.5	31.2
E146427		0.28	16.00	1.01	2.04	1150	390	0.40	0.53	14.20	0.62	32.7	4.1	35	2.38	65.2
E146428		4.30	7.58	0.20	8.42	6000	260	1.68	0.36	0.09	0.08	86.5	6.2	74	21.5	206
E146429		5.08	1.31	0.13	9.35	1475	250	2.65	0.36	0.05	0.12	76.6	14.4	70	32.6	108.5
E146430		2.98	21.1	0.10	8.14	>10000	370	1.12	0.50	0.06	0.10	93.0	2.5	63	14.10	71.2
E146431		6.72	0.01	0.01	0.14	12	20	0.08	0.05	21.2	0.07	2.37	1.3	<1	0.41	3.6
E146432		2.32	4.36	0.09	8.94	>10000	410	1.22	0.43	0.06	0.06	84.0	1.1	63	14.45	41.9
E146433		5.12	17.20	0.09	7.72	>10000	350	1.01	0.41	0.08	0.05	94.1	0.8	62	10.45	29.4
E146434		2.08	42.1	0.13	2.35	>10000	200	0.19	0.15	0.06	0.14	52.5	0.3	17	2.50	89.1
E146435		6.72	0.03	0.01	0.13	161	20	0.07	0.04	20.7	0.06	2.22	1.2	<1	0.29	2.2
E146436		5.28	23.2	0.32	6.82	>10000	260	1.27	0.04	2.95	0.37	97.8	14.4	7	28.6	14.4
E146437		3.96	4.16	0.30	7.22	>10000	260	1.63	0.09	2.78	0.42	104.5	24.8	29	33.1	41.3
E146438		4.26	1.00	0.14	7.53	1945	250	1.22	0.33	0.03	<0.02	87.3	2.1	74	20.3	6.0

Comments: **CORRECTED COPY FOR Au- AA26 ON SAMPLES E146545 TO E146438**

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 28- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147125

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
E146545		0.38	0.53	0.28	0.1	1.54	0.005	0.05	2.4	1.2	12.20	790	0.27	<0.01	0.3	<0.2
E146546		0.58	1.51	0.13	0.3	3.20	0.007	0.25	8.9	2.6	11.95	1360	0.57	<0.01	1.2	<0.2
E146547		0.57	0.96	0.11	0.2	3.06	0.005	0.15	7.4	1.7	11.90	1820	0.26	<0.01	0.8	<0.2
E146548		0.97	1.07	0.09	0.2	3.99	0.011	0.16	8.9	2.1	11.25	2180	0.32	<0.01	0.9	<0.2
E146549		2.11	1.08	0.06	0.2	4.60	0.007	0.18	8.5	2.1	11.00	2130	0.48	<0.01	1.0	<0.2
E146550		2.42	0.97	0.06	0.2	4.26	0.010	0.15	8.3	1.6	11.35	2080	0.26	<0.01	0.9	<0.2
E146551		2.58	1.11	0.05	0.3	3.76	0.010	0.20	9.6	1.7	11.15	2120	0.41	<0.01	1.2	1.9
E146552		3.35	0.97	0.06	0.2	5.14	0.011	0.17	8.9	1.3	10.90	1810	0.79	<0.01	0.9	1.7
E146553		2.10	0.42	<0.05	0.1	2.57	0.008	0.06	3.8	0.8	11.55	1480	0.25	<0.01	0.3	<0.2
E146554		2.15	0.53	<0.05	0.1	10.5	0.027	0.06	4.8	0.9	11.20	1620	0.20	<0.01	0.4	<0.2
E146555		1.53	0.76	<0.05	0.1	20.2	0.014	0.08	6.2	1.0	12.00	1500	0.28	<0.01	0.5	<0.2
E146414		5.85	18.70	0.19	2.8	0.60	0.073	2.81	32.4	101.5	1.44	1300	1.46	0.01	10.1	36.7
E146415		7.70	19.95	0.20	4.3	1.05	0.113	2.50	31.5	130.0	1.40	893	4.48	0.03	14.2	61.2
E146416		8.56	22.2	0.25	4.8	0.12	0.126	2.50	32.6	174.5	1.38	1040	0.49	0.18	18.0	64.8
E146417		1.11	11.15	0.14	2.9	2.01	0.043	1.34	32.4	38.0	0.25	33	24.8	0.07	6.7	28.7
E146418		6.51	16.20	0.20	3.7	0.12	0.087	2.35	28.2	127.5	2.79	1210	0.88	0.06	12.3	43.1
E146419		5.04	15.55	0.18	3.4	0.19	0.079	2.72	32.8	27.0	2.86	1400	2.11	0.04	10.3	35.9
E146420		5.81	21.8	0.25	4.2	1.13	0.094	3.98	42.8	21.4	0.68	2200	4.35	0.05	11.1	70.3
E146421		5.83	22.0	0.26	4.3	0.98	0.096	4.02	44.6	22.0	0.66	2070	4.57	0.05	11.5	72.2
E146422		4.87	19.75	0.18	2.9	5.10	0.072	2.78	39.3	35.2	1.62	2490	1.81	0.04	10.9	47.3
E146423		6.35	18.40	0.16	2.9	3.20	0.072	2.68	31.0	33.8	0.79	1030	1.94	0.03	11.7	30.9
E146424		2.77	14.65	0.07	1.9	2.62	0.038	2.36	30.5	13.1	1.96	829	1.08	0.03	7.3	14.5
E146425		2.46	18.50	0.15	2.3	1.19	0.045	3.00	42.0	31.0	0.37	97	0.51	0.05	9.0	8.8
E146426		2.49	26.7	0.14	2.7	1.51	0.061	4.29	41.7	24.3	0.51	188	0.48	0.07	12.7	13.1
E146427		3.59	4.34	0.07	0.8	6.45	0.049	0.41	19.9	38.5	0.70	466	11.85	0.02	3.6	20.8
E146428		2.68	27.6	0.15	3.2	20.5	0.074	3.97	42.5	14.5	0.48	65	4.17	0.05	13.6	12.7
E146429		4.43	29.5	0.16	3.0	6.34	0.064	4.43	35.9	12.0	0.57	287	1.32	0.05	13.8	32.0
E146430		2.29	23.8	0.11	2.7	32.8	0.097	3.75	55.5	15.6	0.38	33	0.64	0.06	12.5	6.9
E146431		0.42	0.45	0.19	<0.1	0.06	0.005	0.06	1.2	1.4	12.55	189	0.15	0.01	0.5	2.4
E146432		3.21	27.0	0.13	2.8	11.5	0.091	4.16	46.1	13.6	0.39	23	0.63	0.07	13.5	4.9
E146433		1.35	24.4	0.12	2.9	24.8	0.073	3.52	53.9	15.1	0.35	25	0.43	0.06	13.7	3.7
E146434		8.71	9.92	0.19	1.3	42.2	0.256	0.96	29.0	11.6	0.07	17	1.23	0.01	20.7	0.5
E146435		0.41	0.45	0.16	<0.1	0.20	0.005	0.06	1.1	1.1	12.30	185	0.33	0.01	0.4	3.1
E146436		5.43	19.95	0.17	2.1	41.3	0.068	2.91	48.3	25.3	0.27	526	1.95	0.02	65.1	11.1
E146437		6.31	22.4	0.21	2.3	11.0	0.086	3.05	51.3	21.5	0.39	753	1.56	0.03	48.3	21.0
E146438		1.52	22.1	0.12	3.0	6.69	0.031	3.43	44.3	28.4	0.39	21	1.26	0.04	15.3	6.7

Comments: **CORRECTED COPY FOR Au- AA26 ON SAMPLES E146545 TO E146438**

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 28- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147125

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
E146545		290	13.3	2.1	<0.002	0.59	0.39	0.5	1	<0.2	80.9	<0.05	<0.05	0.3	0.005	2.74
E146546		660	20.7	9.6	<0.002	0.73	0.35	1.3	1	0.2	148.5	0.09	<0.05	1.7	0.028	5.08
E146547		570	10.5	5.3	<0.002	0.58	0.29	0.9	1	<0.2	120.5	0.05	<0.05	1.1	0.017	5.28
E146548		690	17.7	5.9	<0.002	1.29	0.64	0.9	1	0.2	136.5	0.06	<0.05	1.1	0.018	8.29
E146549		490	62.2	6.7	<0.002	2.22	0.68	1.0	1	0.2	90.6	0.06	<0.05	1.2	0.018	14.40
E146550		480	40.9	5.7	<0.002	2.79	0.60	0.9	1	0.2	99.9	0.06	<0.05	0.9	0.015	9.85
E146551		730	91.6	8.4	<0.002	3.00	0.69	0.8	1	0.3	105.0	0.08	<0.05	1.1	0.021	9.87
E146552		600	137.5	7.5	<0.002	4.00	1.22	0.7	1	0.3	120.0	0.06	<0.05	1.0	0.017	14.10
E146553		420	81.4	2.5	<0.002	2.52	0.52	0.5	1	<0.2	137.0	<0.05	<0.05	0.3	0.005	5.34
E146554		350	73.2	2.6	<0.002	3.10	0.66	0.6	1	0.2	106.5	<0.05	<0.05	0.4	0.006	7.35
E146555		470	64.6	2.9	<0.002	1.69	0.27	0.7	2	0.2	146.0	<0.05	<0.05	0.6	0.009	10.20
E146414		630	14.6	129.0	0.002	0.12	0.67	20.6	2	2.0	138.0	0.80	0.12	10.7	0.483	2.54
E146415		660	15.5	148.5	0.007	0.13	1.25	27.5	3	2.4	169.5	1.00	0.24	8.1	0.695	4.50
E146416		810	12.9	175.0	0.003	0.08	0.42	31.2	3	2.6	110.5	1.23	0.31	7.9	0.803	0.97
E146417		490	27.7	58.4	0.002	0.78	166.5	9.6	3	1.5	162.5	0.54	0.34	8.1	0.199	13.30
E146418		560	12.4	158.5	0.003	0.12	0.55	20.5	2	2.0	146.0	0.85	0.17	6.9	0.548	0.96
E146419		590	14.6	159.0	0.005	0.12	0.90	16.9	2	2.2	210	0.75	0.12	8.2	0.419	2.64
E146420		480	26.0	236	0.011	0.10	2.00	22.3	3	2.8	96.6	0.80	0.16	11.8	0.420	8.21
E146421		480	27.4	239	0.010	0.11	2.13	23.0	3	2.9	94.7	0.83	0.17	12.4	0.426	8.80
E146422		500	20.1	142.0	0.005	0.09	2.95	19.2	2	1.9	131.5	0.70	0.15	9.7	0.390	7.90
E146423		680	15.4	144.5	0.004	0.21	1.51	19.6	3	1.7	130.5	0.74	0.13	7.3	0.496	4.86
E146424		700	20.2	114.5	0.002	0.09	7.72	9.6	2	1.3	442	0.51	<0.05	8.7	0.240	5.25
E146425		1540	15.1	139.0	<0.002	0.13	1.20	12.5	2	1.7	124.0	0.64	<0.05	11.9	0.317	5.13
E146426		2140	17.1	198.0	0.002	0.17	2.86	16.9	2	2.4	96.8	0.93	0.05	12.8	0.408	6.72
E146427		680	21.8	24.9	0.007	2.08	149.5	4.0	3	1.7	49.8	0.23	0.36	3.6	0.111	3.60
E146428		610	29.6	164.5	0.012	0.99	68.4	19.5	3	2.8	89.3	0.96	0.09	17.3	0.442	38.7
E146429		760	16.3	166.5	0.006	2.20	15.20	17.6	2	2.6	93.9	0.99	<0.05	14.3	0.399	20.5
E146430		250	22.6	169.5	0.003	1.93	280	14.3	4	2.3	86.8	0.87	0.42	15.3	0.393	31.4
E146431		440	1.5	2.8	<0.002	0.02	0.21	0.4	2	<0.2	53.9	<0.05	<0.05	0.2	0.006	0.07
E146432		200	31.7	176.0	<0.002	0.75	104.5	11.0	2	2.4	72.2	0.95	0.15	14.0	0.403	23.7
E146433		200	27.4	156.5	<0.002	0.93	157.0	9.8	3	2.4	74.7	0.98	0.14	13.6	0.433	16.10
E146434		300	25.3	46.2	0.002	3.55	597	7.5	5	1.1	58.0	0.23	0.30	4.6	0.530	83.9
E146435		230	1.5	2.7	<0.002	0.01	0.94	0.4	2	<0.2	52.1	<0.05	<0.05	0.2	0.006	0.07
E146436		5480	3.8	145.0	0.004	5.34	107.5	10.9	3	1.3	172.5	3.51	0.13	4.8	1.575	182.5
E146437		4960	5.4	146.5	0.002	6.63	19.40	19.8	3	1.3	159.0	2.65	0.07	6.8	1.275	113.0
E146438		380	13.5	170.5	0.002	0.49	17.35	13.1	2	2.4	99.8	1.03	0.09	11.7	0.634	29.9

Comments: **CORRECTED COPY FOR Au- AA26 ON SAMPLES E146545 TO E146438**

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

ALS Canada Ltd.
2103 Dollarton Hwy
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 28- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147125

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	As- OG62
	Analyte	U	V	W	Y	Zn	Zr	As
	Units	ppm	ppm	ppm	ppm	ppm	ppm	%
	LOR	0.1	1	0.1	0.1	2	0.5	0.001
E146545		2.2	3	0.3	2.3	44	3.1	
E146546		3.7	6	1.1	5.3	71	9.7	
E146547		3.4	4	0.6	4.7	10	6.0	
E146548		3.5	4	0.6	6.0	9	6.5	
E146549		3.7	4	0.6	5.6	85	6.6	
E146550		3.4	4	0.5	5.3	274	5.7	
E146551		4.1	4	0.8	7.6	326	8.5	
E146552		3.1	4	0.7	6.5	218	6.5	
E146553		2.2	3	0.3	3.3	34	2.2	
E146554		2.3	2	0.3	3.3	2050	2.5	1.670
E146555		3.1	2	0.4	3.9	6610	3.5	
E146414		2.3	152	1.9	20.2	120	87.1	
E146415		2.7	231	1.5	28.0	139	142.5	
E146416		2.8	248	1.2	33.6	110	171.5	
E146417		6.6	174	26.6	15.1	87	83.9	
E146418		2.2	165	1.3	27.6	93	125.0	
E146419		2.6	130	1.3	26.5	74	115.0	
E146420		3.8	172	1.7	27.2	117	141.5	
E146421		4.0	175	1.8	28.2	117	145.5	
E146422		2.8	121	5.6	24.5	97	109.5	
E146423		2.2	147	2.9	23.6	218	111.0	
E146424		3.3	75	2.1	14.3	60	68.3	
E146425		2.5	68	1.4	14.2	23	81.5	
E146426		2.7	89	3.4	16.8	35	93.3	
E146427		3.4	112	210	16.4	78	31.1	
E146428		4.5	163	8.3	15.8	26	115.5	
E146429		3.6	128	6.3	17.8	55	105.0	
E146430		3.6	97	6.3	15.8	16	98.8	4.34
E146431		0.6	4	0.1	1.4	15	1.0	
E146432		3.0	104	6.7	13.4	14	100.0	3.24
E146433		3.3	99	7.1	16.4	10	106.0	2.93
E146434		1.3	86	24.9	7.4	10	58.9	18.20
E146435		0.7	3	0.1	1.2	14	1.0	
E146436		1.2	201	28.1	20.0	129	99.9	1.965
E146437		1.6	205	20.4	26.1	113	100.5	0.835
E146438		2.2	144	7.9	18.7	6	109.0	

Comments: **CORRECTED COPY FOR Au- AA26 ON SAMPLES E146545 TO E146438**

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 28- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147125

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

ALS Canada Ltd.

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VANCOUVER BC V6B 1L8

Finalized Date: 27- OCT- 2010
Account: RCM

CERTIFICATE VA10147126

Project: OSIRIS

P.O. No.: BATCH 21

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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

To: **ATAC RESOURCES LTD.**
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VANCOUVER BC V6B 1L8

Finalized Date: 27- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147126

Sample Description	Method	WEI- 21	Au- AA26	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.01	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
E146439		5.88	0.05	0.12	7.96	725	200	4.09	0.22	1.12	0.53	83.7	28.5	94	47.6	152.5
E146440		6.12	0.81	0.12	6.96	1165	250	1.54	0.22	0.07	<0.02	69.1	4.7	73	31.4	17.7
E146441		4.74	0.72	0.09	6.28	3930	350	2.59	0.19	1.41	0.11	61.4	23.5	65	53.3	50.0
E146442		5.08	1.51	0.14	5.34	1225	200	1.54	0.20	2.67	0.12	59.3	18.0	51	25.8	43.0
E146443		3.02	0.11	0.29	5.05	294	150	1.38	0.19	3.15	0.08	54.4	16.6	47	22.7	38.0
E146444		3.86	0.03	0.18	7.62	645	280	2.65	0.22	1.97	0.12	73.2	25.3	80	51.2	57.1
E146445		1.80	0.02	0.14	6.87	656	540	2.32	0.22	2.50	0.08	68.2	23.4	68	48.4	50.5
E146446		4.40	0.01	0.12	6.98	97.3	440	1.63	0.25	2.14	0.08	68.3	23.3	72	44.6	54.0
E146447		6.92	0.01	0.11	7.44	74.2	300	1.81	0.25	1.50	0.05	72.5	27.4	79	44.9	58.1
E146448		6.78	<0.01	0.12	8.39	58.8	460	2.06	0.28	0.33	0.05	80.7	37.5	96	55.0	68.2
E146449		7.14	0.01	0.13	6.11	41.8	370	1.47	0.22	1.43	0.12	61.3	28.7	68	32.4	51.4
E146450		5.72	<0.01	0.16	7.08	21.7	420	1.75	0.27	1.76	0.19	71.5	25.2	76	36.1	59.3
E146451		3.86	<0.01	0.33	7.14	44.2	380	1.71	0.26	1.72	0.20	70.4	25.3	71	28.5	59.8
E146452		0.28	2.29	1.60	4.02	157.0	1060	1.19	0.15	0.38	0.22	52.8	3.4	48	7.73	35.4
E146453		6.46	<0.01	1.28	5.84	70.9	360	1.25	0.22	3.24	0.14	56.5	22.8	56	21.9	56.8
E146454		3.50	0.01	3.56	4.21	101.0	460	0.79	0.14	4.24	0.05	41.9	13.4	44	14.30	39.1
E146455		8.02	0.01	2.16	4.93	250	380	0.96	0.17	2.36	0.03	52.6	16.8	57	15.15	46.2
E146456		9.78	0.03	0.38	7.20	721	410	1.57	0.27	2.43	0.11	71.4	19.5	71	30.4	64.2
E146457		6.26	0.01	0.01	0.11	<5	20	<0.05	0.01	21.5	0.07	1.80	1.2	<1	0.33	2.0
E146458		8.42	0.01	0.09	7.02	287	400	1.68	0.26	2.67	0.06	68.3	18.3	65	21.7	62.0
E146459		8.04	<0.01	0.06	7.48	63.1	320	1.86	0.28	2.32	0.08	73.3	19.5	68	27.3	65.2
E146460		4.64	<0.01	0.07	5.94	132.0	360	1.30	0.21	2.34	0.11	60.2	15.7	60	21.0	50.4
E146461		8.20	<0.01	0.08	5.92	69.1	330	1.45	0.23	2.07	0.13	64.3	16.6	59	26.3	43.2
E146462		7.00	<0.01	0.17	5.46	42.7	230	1.31	0.19	3.26	0.06	56.1	13.9	56	20.2	41.5
E146463		5.00	<0.01	0.07	5.70	48.6	460	1.43	0.20	2.87	0.04	60.9	16.1	60	19.60	45.3
E146556		7.74	0.02	0.07	9.21	55.8	510	3.29	0.30	0.61	0.27	98.5	19.7	80	26.2	43.5
E146557		6.10	<0.01	0.08	9.35	141.0	640	3.07	0.31	0.67	0.21	100.5	17.8	79	37.5	41.3
E146558		7.82	<0.01	0.08	8.16	47.9	380	2.97	0.22	2.29	0.28	90.7	15.4	63	35.0	37.3
E146559		4.96	<0.01	0.20	8.53	49.5	470	3.19	0.25	2.34	0.12	95.0	15.1	62	29.7	47.8
E146560		8.36	0.02	0.07	8.16	209	380	3.23	0.24	2.00	0.10	99.5	16.6	59	29.9	49.8
E146561		0.12	13.95	7.00	3.82	438	740	0.76	0.04	0.19	0.10	19.15	7.8	31	5.98	46.6
E146562		8.04	0.01	0.30	8.47	103.0	370	3.65	0.29	1.44	0.04	114.5	21.3	69	28.8	61.5
E146563		5.20	<0.01	0.02	8.08	422	360	2.59	0.34	2.22	0.11	89.1	21.3	61	21.4	52.9
E146564		2.86	0.04	0.02	7.71	805	440	1.88	0.34	3.40	0.14	84.8	19.1	54	19.05	53.1
E146565		9.14	0.03	0.13	7.19	644	340	1.68	0.36	2.66	0.48	69.6	17.6	78	19.15	64.7
E146566		7.38	<0.01	<0.01	0.08	<5	20	<0.05	0.04	22.1	0.06	1.46	1.3	<1	0.21	1.7

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 27- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147126

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
E146439		6.17	22.9	0.21	2.3	4.57	0.119	3.35	41.4	48.8	0.76	390	0.39	0.04	13.5	60.4
E146440		2.19	20.9	0.12	2.5	7.64	0.050	3.14	36.0	29.5	0.39	40	0.50	0.03	12.8	10.6
E146441		4.96	18.65	0.18	2.3	7.64	0.064	2.43	32.0	47.8	0.92	712	0.35	0.03	8.7	37.8
E146442		4.76	14.80	0.15	2.3	5.97	0.048	2.31	30.8	17.2	1.41	918	0.42	0.03	8.8	31.6
E146443		5.11	14.00	0.12	2.1	2.20	0.048	2.21	28.2	18.7	1.51	864	0.31	0.03	8.1	26.4
E146444		5.85	21.8	0.17	2.5	4.20	0.073	3.20	38.0	28.1	1.21	758	0.57	0.03	10.2	36.9
E146445		5.58	19.40	0.15	2.3	3.87	0.067	2.83	35.7	29.3	1.39	992	0.47	0.04	9.2	33.8
E146446		5.76	19.10	0.19	3.0	1.58	0.073	2.78	35.3	58.4	1.27	729	0.66	0.03	9.4	35.7
E146447		6.30	20.2	0.19	3.2	0.90	0.077	3.19	37.4	41.1	1.03	661	0.33	0.03	9.8	37.8
E146448		7.55	22.7	0.23	3.2	0.45	0.090	3.61	41.5	50.3	0.92	1000	0.41	0.03	10.7	48.6
E146449		6.04	15.65	0.20	3.0	0.20	0.067	2.44	31.3	81.5	1.50	995	0.41	0.03	9.0	39.4
E146450		5.89	18.65	0.22	3.6	0.14	0.080	3.04	36.5	84.2	1.91	715	0.60	0.04	11.3	44.5
E146451		6.08	18.95	0.22	3.3	0.48	0.077	3.12	35.5	36.6	1.69	639	0.80	0.02	12.0	46.3
E146452		1.04	9.82	0.14	2.2	2.03	0.040	1.28	28.3	33.0	0.20	25	24.7	0.05	6.8	21.9
E146453		5.88	15.35	0.23	2.7	1.42	0.064	2.54	28.2	24.4	1.80	576	0.59	0.02	9.7	45.3
E146454		3.71	10.50	0.16	2.1	0.97	0.043	1.65	21.5	30.5	1.91	745	0.38	0.01	6.9	26.1
E146455		4.89	13.25	0.19	2.5	1.09	0.053	2.06	25.7	22.5	1.26	666	0.39	0.01	8.6	33.4
E146456		5.57	19.45	0.23	3.4	3.15	0.076	3.18	35.3	19.2	1.49	575	0.40	0.02	12.8	41.4
E146457		0.41	0.41	0.17	<0.1	0.01	<0.005	0.06	0.9	1.6	12.65	192	0.06	<0.01	0.5	3.1
E146458		5.05	18.85	0.23	3.4	1.29	0.078	3.16	34.2	25.9	1.58	631	0.34	0.02	12.5	37.6
E146459		5.20	20.3	0.22	3.7	0.72	0.082	3.31	36.7	51.4	1.54	534	0.36	0.02	13.4	38.8
E146460		4.68	15.65	0.20	2.8	0.30	0.063	2.60	30.0	61.1	1.77	465	0.34	0.01	10.2	31.1
E146461		4.38	15.30	0.21	2.9	0.50	0.063	2.62	31.8	59.0	1.53	455	1.53	0.01	10.2	32.6
E146462		4.26	14.25	0.20	2.7	0.33	0.059	2.33	27.9	75.4	2.01	687	0.41	0.01	9.5	27.6
E146463		4.31	15.15	0.21	3.0	0.16	0.060	2.45	30.2	75.7	1.90	567	0.45	0.02	10.3	30.3
E146556		4.79	26.9	0.25	3.1	0.35	0.087	4.32	47.5	27.0	0.77	594	3.54	0.04	13.6	46.7
E146557		4.97	26.9	0.26	3.3	0.50	0.082	4.31	50.4	31.2	0.97	634	3.97	0.04	13.4	41.3
E146558		4.07	24.8	0.24	3.2	0.47	0.071	4.03	44.0	24.6	1.56	485	3.77	0.03	12.6	35.3
E146559		4.05	25.1	0.25	3.2	0.41	0.074	4.07	47.8	22.1	1.41	639	0.67	0.03	12.5	33.5
E146560		3.72	24.8	0.24	3.2	0.78	0.075	4.05	49.3	17.1	1.36	621	0.93	0.03	12.5	35.4
E146561		3.30	7.79	0.22	1.9	0.50	0.033	3.16	10.3	49.1	0.18	151	5.60	0.08	6.8	15.6
E146562		3.72	26.9	0.26	3.4	0.76	0.077	4.37	58.5	14.8	1.21	526	1.47	0.03	13.5	42.5
E146563		4.08	24.4	0.24	2.9	0.53	0.078	4.06	44.1	10.0	1.38	1140	1.19	0.03	12.2	46.2
E146564		3.93	23.1	0.25	2.9	1.23	0.071	3.95	44.2	8.8	1.96	1280	3.23	0.04	12.4	40.6
E146565		5.15	19.70	0.24	3.4	4.76	0.082	3.29	35.6	18.4	1.63	479	4.83	0.01	11.6	47.9
E146566		0.44	0.37	0.20	<0.1	0.01	<0.005	0.04	0.7	1.5	12.95	200	0.12	<0.01	0.4	3.2

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

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 27- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147126

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
E146439		860	18.2	170.5	0.002	6.22	2.46	22.2	2	1.9	95.4	0.84	<0.05	10.1	0.530	16.85
E146440		300	15.2	157.5	0.002	0.90	14.90	19.4	2	1.9	74.5	0.82	<0.05	9.7	0.507	26.5
E146441		340	14.8	137.5	0.002	4.75	12.90	18.6	2	1.7	112.5	0.61	<0.05	9.1	0.398	21.6
E146442		400	13.9	122.0	<0.002	4.12	10.25	14.6	2	1.4	96.6	0.60	<0.05	8.7	0.390	16.80
E146443		360	11.9	113.5	<0.002	4.48	2.14	13.7	2	1.4	88.7	0.53	<0.05	8.1	0.353	6.81
E146444		290	16.0	165.0	0.003	5.31	2.43	21.6	2	1.9	111.5	0.68	<0.05	10.4	0.451	9.69
E146445		350	14.8	147.0	0.003	4.72	2.12	20.1	2	1.8	132.0	0.63	<0.05	9.5	0.400	8.85
E146446		270	14.4	157.0	0.002	4.78	0.55	19.9	2	2.2	169.5	0.71	<0.05	10.3	0.425	6.96
E146447		220	14.7	178.0	0.003	5.05	0.40	21.5	1	2.3	109.5	0.75	<0.05	10.9	0.438	5.63
E146448		220	18.6	205	0.003	3.17	0.47	24.4	2	2.6	85.9	0.82	0.12	12.0	0.490	3.48
E146449		350	13.4	143.0	0.002	1.15	0.41	17.4	2	2.0	106.5	0.69	0.05	9.5	0.448	1.57
E146450		580	17.4	182.5	0.002	1.18	0.57	19.7	2	2.4	101.0	0.85	0.06	11.2	0.522	1.38
E146451		590	24.9	165.0	0.002	2.86	0.74	18.8	2	2.5	120.5	0.80	0.06	11.4	0.525	2.33
E146452		460	26.1	48.0	0.002	0.74	157.5	7.7	2	1.6	158.0	0.43	0.32	7.4	0.194	11.50
E146453		480	29.2	124.5	0.002	5.28	0.94	15.6	2	2.2	269	0.65	0.05	9.0	0.438	4.30
E146454		460	9.4	78.4	<0.002	2.46	0.51	11.7	1	1.6	414	0.44	<0.05	6.5	0.346	2.98
E146455		510	14.4	102.0	<0.002	4.45	1.03	13.8	2	1.9	301	0.58	<0.05	8.0	0.427	3.35
E146456		610	15.0	158.5	<0.002	5.43	2.20	18.4	2	2.6	262	0.83	0.07	11.4	0.571	7.49
E146457		320	1.2	2.2	<0.002	0.02	<0.05	0.2	1	0.3	49.3	<0.05	<0.05	<0.2	0.006	0.03
E146458		570	16.3	157.5	<0.002	4.84	0.72	19.0	2	2.5	125.5	0.84	0.07	10.9	0.560	3.01
E146459		630	16.7	154.5	<0.002	4.11	0.45	20.1	2	2.6	166.5	0.91	0.07	11.5	0.581	3.96
E146460		530	14.9	125.5	<0.002	2.06	0.44	14.6	1	2.1	198.0	0.68	0.05	9.1	0.462	1.37
E146461		510	21.4	131.0	0.002	1.98	0.55	14.1	2	2.2	125.5	0.67	<0.05	10.0	0.429	1.59
E146462		500	11.5	111.5	<0.002	1.04	0.35	13.0	1	2.0	137.0	0.62	<0.05	8.8	0.414	1.23
E146463		460	13.8	115.5	<0.002	1.00	0.44	14.4	1	2.1	140.0	0.71	<0.05	9.4	0.437	0.77
E146556		1110	19.6	177.0	0.013	0.16	1.03	17.1	2	3.8	114.0	0.99	0.05	16.6	0.396	1.96
E146557		730	20.3	176.5	0.018	0.83	0.90	16.2	2	3.7	109.5	1.00	0.05	17.7	0.389	2.89
E146558		480	19.9	129.0	0.008	2.91	0.70	13.9	2	3.0	177.0	0.93	<0.05	15.7	0.340	2.31
E146559		440	12.4	133.0	0.005	3.50	0.63	14.7	2	2.9	199.0	0.90	<0.05	16.7	0.355	2.02
E146560		470	14.3	137.0	0.006	3.38	0.97	14.5	2	2.9	159.0	0.90	<0.05	16.4	0.356	2.14
E146561		540	5.1	106.5	<0.002	2.26	43.9	6.9	16	2.7	74.8	0.39	0.16	1.6	0.305	4.03
E146562		480	17.5	163.0	0.013	3.51	0.95	15.3	3	3.0	131.5	0.99	<0.05	19.2	0.378	1.97
E146563		470	20.3	117.0	<0.002	3.81	1.85	14.6	1	3.0	124.5	0.87	0.05	15.0	0.355	1.60
E146564		420	16.6	107.5	0.002	3.37	2.54	13.7	1	2.6	158.5	0.89	0.05	13.8	0.344	2.85
E146565		460	26.7	139.0	0.010	4.62	7.36	18.9	3	2.5	130.0	0.79	0.09	11.7	0.530	7.56
E146566		260	1.6	1.6	<0.002	0.02	0.26	0.3	1	0.3	46.9	<0.05	<0.05	<0.2	<0.005	0.02

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Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5
E146439		2.7	166	3.6	24.9	100	84.5
E146440		1.9	147	5.5	14.7	12	90.5
E146441		1.7	132	4.0	19.2	78	82.1
E146442		1.9	106	3.8	18.0	71	86.2
E146443		1.7	97	3.7	17.7	70	76.8
E146444		2.2	154	5.8	22.5	127	92.1
E146445		2.1	136	5.0	21.8	93	84.0
E146446		2.4	143	1.7	24.2	100	102.0
E146447		2.2	151	1.4	26.2	90	106.0
E146448		2.6	175	1.4	27.9	111	106.0
E146449		2.2	129	1.4	24.9	102	99.5
E146450		2.6	142	1.5	26.6	119	119.0
E146451		2.2	139	2.9	22.6	112	112.5
E146452		5.1	166	21.3	13.6	62	77.1
E146453		1.8	122	10.1	19.3	85	91.3
E146454		1.3	97	14.4	15.6	56	68.0
E146455		1.6	119	13.6	18.5	60	85.4
E146456		2.2	147	8.3	25.1	88	118.0
E146457		0.5	4	0.1	1.1	15	0.9
E146458		2.1	143	3.3	24.4	94	116.5
E146459		2.3	148	1.6	25.0	104	123.0
E146460		1.8	119	1.2	20.3	86	94.6
E146461		2.0	111	1.1	20.5	88	95.6
E146462		1.7	105	1.6	19.6	62	90.7
E146463		1.8	111	1.1	19.4	60	96.5
E146556		3.9	165	2.2	30.0	111	105.0
E146557		4.1	179	2.0	23.9	103	108.0
E146558		3.4	161	1.6	22.3	120	104.5
E146559		3.5	144	2.9	22.9	73	104.5
E146560		3.4	133	3.9	21.9	74	102.5
E146561		0.7	57	8.7	11.4	46	74.1
E146562		4.7	176	4.0	23.7	58	107.0
E146563		2.0	88	7.9	21.1	56	96.3
E146564		2.4	87	7.3	19.7	52	97.2
E146565		3.3	164	11.0	22.6	124	114.0
E146566		0.6	4	0.1	1.0	15	0.5

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 27- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147126

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.

ALS Canada Ltd.

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To: **ATAC RESOURCES LTD.**
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Finalized Date: 26- OCT- 2010
Account: RCM

CERTIFICATE VA10147127

Project: OSIRIS

P.O. No.: BATCH 22

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147127

Sample Description	Method	WEI- 21	Au- AA26	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.01	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
E146567		2.92	0.06	0.14	6.08	499	310	1.56	0.30	2.61	0.35	64.5	13.7	61	18.70	40.8
E146568		3.48	0.30	0.09	1.48	1720	180	0.30	0.07	11.45	0.94	15.95	4.9	16	2.99	21.2
E146569		6.92	0.04	0.13	5.93	1075	320	1.33	0.23	2.39	0.37	57.2	18.1	75	19.35	57.0
E146570		10.48	<0.01	0.08	6.64	73.9	230	1.73	0.26	2.30	0.15	61.6	18.7	70	22.7	62.8
E146571		6.20	0.01	0.06	6.38	92.6	230	1.50	0.25	2.60	0.17	63.1	17.3	72	27.2	60.2
E146572		4.34	<0.01	0.11	6.87	67.9	260	1.64	0.28	2.53	0.17	68.6	19.1	76	26.8	62.8
E146573		8.36	<0.01	0.07	6.21	36.8	230	1.60	0.30	2.71	0.17	61.6	16.9	71	23.6	59.2
E146574		5.80	0.05	0.10	5.20	94.7	240	1.19	0.26	2.72	0.11	51.0	18.3	67	18.75	50.5
E146575		7.24	0.01	0.06	2.71	50.9	180	0.39	0.12	2.32	0.07	26.3	7.4	37	12.00	25.8
E146576		5.32	<0.01	0.08	7.32	134.0	260	2.07	0.30	1.99	0.15	74.3	19.0	81	27.3	67.7
E146577		0.28	2.34	1.59	3.91	156.0	1150	1.21	0.15	0.38	0.23	54.3	3.3	48	7.90	35.2
E146578		6.28	0.02	0.05	4.74	102.5	160	1.15	0.16	2.69	0.13	46.9	16.0	65	19.60	45.3
E146579		3.04	1.06	0.02	3.56	2730	140	0.83	0.12	2.84	0.17	38.7	14.1	57	13.15	38.2
E146580		9.90	0.05	0.03	4.49	580	150	1.19	0.93	1.98	0.23	47.5	15.8	58	17.45	38.9
E146581		6.68	0.01	0.01	0.09	5	20	0.05	0.03	20.5	0.09	1.50	1.4	<1	0.22	1.7
E146582		4.74	0.14	0.01	6.47	4320	190	1.65	0.25	2.06	0.18	64.0	19.3	70	22.4	59.3
E146583		4.24	0.23	0.02	5.24	4200	260	1.14	0.19	3.23	0.16	57.1	16.5	61	13.85	48.1
E146584		7.10	0.04	0.01	2.82	331	100	0.56	0.09	2.73	0.12	33.1	11.4	52	8.46	30.3
E146585		3.68	0.03	0.14	7.23	208	290	2.11	0.29	1.78	0.26	83.1	27.7	88	25.1	67.4
E146586		5.02	<0.01	0.06	6.84	140.5	190	2.11	0.29	2.28	0.36	76.5	20.9	68	26.0	60.0
E146587		8.60	<0.01	0.03	6.52	127.0	160	1.66	0.25	1.97	0.07	69.7	20.9	78	27.5	62.2
E146588		4.78	<0.01	0.11	6.10	116.5	170	1.81	0.22	1.98	0.23	56.3	23.7	77	26.0	62.0
E146589		2.20	<0.01	0.02	5.86	98.0	140	1.46	0.21	1.91	0.19	59.5	18.2	75	25.7	57.3
E146590		5.62	<0.01	0.04	6.16	110.5	200	1.69	0.24	2.81	0.10	62.2	17.9	69	25.0	56.5
E146591		9.10	0.02	0.04	5.94	95.4	180	1.81	0.25	1.73	0.06	59.3	17.1	73	28.5	51.7
E146592		8.98	0.03	0.06	5.70	165.5	170	1.63	0.20	2.44	0.06	61.1	15.9	60	28.1	51.5
E146593		5.00	0.21	0.08	5.87	496	330	1.66	0.25	2.61	0.07	64.1	17.2	61	21.1	54.9
E146594		8.74	0.50	0.07	5.39	1185	280	1.26	0.19	3.17	0.09	53.6	14.7	56	16.75	42.9
E146595		6.52	0.02	0.04	6.04	304	170	1.87	0.24	2.29	0.05	66.2	16.4	65	30.5	51.2
E146596		6.76	<0.01	<0.01	0.09	6	20	0.06	0.02	21.0	0.10	1.58	1.3	<1	0.28	1.9
E146597		4.70	<0.01	0.04	5.32	114.0	190	1.26	0.19	1.88	0.05	57.5	16.7	63	42.1	49.6
E146598		5.42	<0.01	0.04	5.39	93.0	190	1.44	0.19	1.78	0.07	61.2	16.9	66	41.3	51.3
E146599		0.28	2.19	1.75	3.92	167.0	640	1.29	0.13	0.38	0.19	57.3	3.6	50	8.11	37.6
E146600		8.90	0.01	0.04	6.09	76.2	390	1.46	0.20	2.35	0.23	65.6	18.7	74	45.2	59.0
E146601		8.84	0.01	0.05	6.16	175.5	170	1.73	0.21	2.45	0.20	65.7	20.0	71	32.9	58.0
E146602		6.50	0.36	0.03	6.94	390	170	2.30	0.29	2.31	0.09	82.4	22.6	73	28.2	67.1

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

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147127

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
E146567		4.56	16.15	0.22	3.3	2.97	0.066	2.77	33.0	16.8	1.52	556	2.02	0.01	10.5	33.5
E146568		2.66	3.76	0.13	0.8	4.78	0.025	0.64	8.5	13.7	5.85	1920	0.34	<0.01	2.4	9.3
E146569		5.22	16.05	0.21	3.2	3.68	0.069	2.67	29.4	36.2	1.29	413	1.49	0.01	10.0	43.6
E146570		4.93	18.90	0.22	3.0	0.44	0.077	3.15	30.7	61.9	2.03	547	0.43	0.02	12.1	35.1
E146571		5.47	17.45	0.23	2.8	0.44	0.070	2.84	31.3	125.5	2.25	652	0.43	0.02	11.5	34.6
E146572		5.35	19.20	0.26	3.1	0.44	0.077	3.19	34.3	76.8	2.25	600	0.44	0.02	12.3	36.9
E146573		5.19	16.80	0.24	2.8	0.32	0.075	2.85	30.5	65.1	2.14	635	0.40	0.01	10.9	34.1
E146574		4.54	14.10	0.21	2.8	0.41	0.054	2.26	25.4	68.4	1.66	554	0.35	0.04	9.0	35.1
E146575		2.91	6.56	0.17	1.5	0.09	0.026	1.17	14.8	95.7	1.15	539	0.29	0.10	4.1	15.8
E146576		5.51	21.0	0.25	3.3	0.24	0.084	3.51	36.8	34.8	2.18	570	0.47	0.02	13.5	38.2
E146577		1.04	10.15	0.17	2.4	1.90	0.037	1.27	28.8	29.9	0.20	24	25.0	0.05	6.8	21.9
E146578		4.53	12.75	0.22	2.5	0.52	0.053	1.95	22.8	51.5	1.65	657	0.39	0.01	8.1	32.4
E146579		4.23	9.63	0.08	2.0	3.52	0.037	1.50	18.1	18.9	1.34	998	0.38	<0.01	5.9	27.1
E146580		4.20	11.15	0.10	2.3	1.37	0.043	1.89	21.7	57.7	1.01	443	0.63	<0.01	7.0	29.4
E146581		0.42	0.27	0.21	<0.1	<0.01	<0.005	0.04	0.7	1.4	12.00	186	0.05	<0.01	0.3	<0.2
E146582		5.14	17.00	0.16	3.2	6.67	0.069	2.93	31.8	25.7	1.25	590	0.54	<0.01	10.6	38.4
E146583		4.40	13.35	0.12	2.5	2.65	0.055	2.28	25.7	19.8	1.56	854	0.42	<0.01	8.4	30.6
E146584		3.42	7.51	0.07	1.7	0.94	0.024	1.19	15.1	16.3	1.09	696	0.26	<0.01	4.7	21.6
E146585		5.03	19.10	0.17	3.6	1.29	0.082	3.39	40.3	23.9	1.12	416	0.70	<0.01	11.8	49.8
E146586		5.24	18.10	0.19	3.1	0.74	0.072	3.18	37.1	27.7	1.54	515	0.86	<0.01	11.1	42.2
E146587		5.40	16.65	0.18	2.7	0.12	0.064	2.94	34.0	36.2	2.07	582	0.35	<0.01	10.2	40.7
E146588		5.48	14.45	0.22	2.2	0.13	0.058	2.73	28.8	38.2	2.04	629	0.47	<0.01	9.5	42.2
E146589		5.08	15.15	0.17	2.5	0.08	0.063	2.63	29.0	43.0	1.98	602	0.39	<0.01	9.5	36.2
E146590		5.20	15.05	0.18	2.4	0.07	0.066	2.81	30.8	26.0	2.25	922	0.34	<0.01	10.2	36.1
E146591		4.68	14.50	0.17	2.7	0.16	0.053	2.75	29.2	27.2	1.85	467	0.22	<0.01	9.0	32.0
E146592		4.73	14.15	0.19	2.6	0.66	0.058	2.60	30.2	20.8	1.36	562	0.22	<0.01	9.2	32.2
E146593		4.78	15.80	0.17	2.8	1.91	0.058	2.66	31.5	12.5	1.48	1020	0.23	0.01	9.9	34.7
E146594		4.46	12.90	0.14	2.4	3.13	0.050	2.38	26.6	10.6	1.65	1330	0.23	<0.01	8.1	29.3
E146595		4.80	15.05	0.18	2.8	1.17	0.060	2.83	33.0	17.8	1.32	529	0.23	<0.01	9.3	32.8
E146596		0.41	0.30	0.25	<0.1	<0.01	<0.005	0.04	0.7	1.2	12.15	183	0.06	<0.01	0.3	<0.2
E146597		4.70	14.15	0.17	2.4	0.09	0.051	2.22	26.9	72.5	1.92	507	0.20	0.08	8.5	33.3
E146598		4.75	14.10	0.16	2.4	0.07	0.057	2.41	30.1	71.6	1.92	540	0.24	0.05	8.7	34.3
E146599		1.06	10.00	0.12	2.1	1.96	0.039	1.23	30.0	34.2	0.20	24	26.1	0.03	6.7	23.7
E146600		5.40	14.75	0.18	2.7	0.09	0.062	2.72	30.3	84.5	2.33	761	0.35	0.01	9.6	36.9
E146601		5.28	14.90	0.19	2.6	0.31	0.061	2.84	30.0	35.3	1.80	728	0.34	<0.01	9.7	38.4
E146602		5.50	19.30	0.25	3.5	1.27	0.071	3.15	40.6	16.8	1.33	974	0.31	0.01	12.2	43.1

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Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147127

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
E146567		280	24.7	116.0	0.005	4.17	4.32	15.4	2	2.3	131.5	0.71	0.08	10.7	0.424	5.72
E146568		190	6.9	27.2	<0.002	1.19	5.62	11.9	2	0.8	373	0.15	<0.05	2.2	0.100	6.39
E146569		380	28.2	116.5	0.004	4.64	3.31	17.2	2	2.0	247	0.67	0.05	9.6	0.515	5.51
E146570		530	16.8	131.5	<0.002	1.20	0.45	18.3	2	2.3	168.5	0.81	0.06	10.0	0.551	1.60
E146571		500	21.3	136.0	<0.002	0.60	0.44	17.5	2	2.2	152.5	0.77	0.06	10.0	0.542	0.92
E146572		560	24.2	147.0	<0.002	0.91	0.50	18.4	2	2.4	161.0	0.84	0.07	10.4	0.582	1.34
E146573		490	20.3	135.0	<0.002	0.90	0.45	17.4	2	2.1	176.5	0.73	0.06	9.5	0.536	1.02
E146574		370	16.9	98.9	<0.002	1.61	0.50	14.8	1	1.8	160.0	0.62	0.05	8.0	0.508	1.33
E146575		230	7.3	50.4	<0.002	0.30	0.26	5.7	1	1.0	113.5	0.28	<0.05	5.0	0.301	0.54
E146576		730	14.3	167.5	<0.002	1.00	0.55	20.4	2	2.6	134.5	0.88	0.07	11.5	0.609	1.07
E146577		470	26.7	49.5	0.002	0.72	154.5	7.6	2	1.5	155.5	0.47	0.33	7.9	0.192	11.70
E146578		390	10.0	93.2	<0.002	1.71	0.76	14.2	2	1.6	137.5	0.55	<0.05	7.0	0.475	1.83
E146579		310	7.8	84.6	<0.002	3.52	7.99	13.1	1	1.1	116.5	0.48	<0.05	5.8	0.414	12.95
E146580		340	16.6	103.5	<0.002	3.58	1.57	14.2	1	1.4	101.0	0.53	<0.05	7.2	0.422	4.30
E146581		230	1.8	2.0	<0.002	0.02	0.19	0.4	1	<0.2	48.2	<0.05	<0.05	0.2	0.005	0.02
E146582		450	8.9	145.5	<0.002	5.05	13.35	21.5	2	2.0	90.0	0.84	<0.05	11.1	0.541	11.05
E146583		500	10.3	118.5	<0.002	3.30	6.82	18.6	2	1.6	185.0	0.63	<0.05	8.1	0.475	6.93
E146584		250	6.4	64.9	<0.002	2.30	1.72	10.3	1	0.9	111.5	0.37	<0.05	5.0	0.356	3.44
E146585		490	42.7	171.0	0.002	4.67	1.67	23.2	2	2.3	100.5	0.91	0.06	13.3	0.619	4.20
E146586		550	32.6	170.5	<0.002	3.65	1.00	21.0	2	2.2	116.5	0.85	0.06	12.5	0.523	2.98
E146587		530	12.0	161.5	<0.002	0.44	0.46	20.4	2	1.9	94.7	0.79	0.05	11.1	0.554	1.10
E146588		490	27.2	143.5	<0.002	0.49	0.56	20.0	2	1.7	112.0	0.66	<0.05	10.0	0.532	1.03
E146589		490	17.0	142.0	<0.002	0.18	0.30	19.3	2	1.8	107.5	0.70	0.05	9.7	0.529	0.93
E146590		470	11.4	150.5	<0.002	0.28	0.40	18.4	2	1.9	119.0	0.75	0.05	9.9	0.505	1.05
E146591		460	14.6	150.5	<0.002	0.37	0.43	17.8	2	1.7	79.0	0.68	<0.05	10.9	0.497	1.27
E146592		490	16.0	145.0	<0.002	4.08	0.59	17.3	2	1.7	102.0	0.70	<0.05	10.5	0.477	3.62
E146593		490	18.1	155.5	<0.002	4.26	5.38	18.9	2	1.9	113.0	0.74	0.05	11.2	0.482	9.65
E146594		420	13.8	128.5	<0.002	3.77	7.24	17.8	1	1.5	129.0	0.64	<0.05	8.8	0.450	8.48
E146595		490	14.7	169.5	<0.002	4.05	0.96	18.8	2	1.8	137.5	0.71	0.05	10.9	0.489	5.18
E146596		280	1.2	1.9	<0.002	0.03	<0.05	0.4	1	<0.2	48.0	<0.05	<0.05	<0.2	0.005	0.02
E146597		410	15.5	154.5	<0.002	0.20	0.39	16.7	2	1.6	142.0	0.63	<0.05	9.0	0.456	0.83
E146598		440	16.2	161.5	<0.002	0.17	0.43	17.1	2	1.6	125.0	0.65	<0.05	9.5	0.471	0.92
E146599		470	25.9	62.0	0.002	0.69	154.0	9.3	2	1.3	164.5	0.46	0.28	7.9	0.186	12.30
E146600		460	15.8	170.0	<0.002	0.12	0.43	19.4	2	1.7	119.0	0.72	<0.05	10.2	0.554	1.09
E146601		500	17.0	162.5	<0.002	2.77	0.65	19.9	2	1.8	152.5	0.74	0.05	10.2	0.559	2.27
E146602		590	18.8	195.5	<0.002	5.13	2.95	25.4	2	2.2	133.5	0.92	0.08	13.6	0.568	5.75

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147127

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5
E146567		2.5	113	8.7	19.2	116	111.0
E146568		0.7	34	3.4	8.4	329	28.5
E146569		2.4	149	8.8	19.7	175	106.5
E146570		1.9	142	2.9	20.8	97	101.5
E146571		1.9	142	1.7	21.5	97	92.2
E146572		1.9	152	3.6	21.6	106	102.5
E146573		1.8	139	3.5	20.6	104	91.7
E146574		1.5	138	2.4	17.6	76	93.1
E146575		1.0	81	0.7	8.8	42	48.2
E146576		2.2	158	1.4	25.1	126	115.0
E146577		5.3	166	22.1	13.8	62	77.3
E146578		1.4	131	2.1	17.2	93	84.9
E146579		1.1	118	6.8	13.5	64	67.7
E146580		1.4	119	2.1	15.7	111	83.8
E146581		1.1	2	0.1	0.9	13	0.5
E146582		2.1	145	7.1	22.8	94	109.0
E146583		1.5	130	8.9	19.3	75	95.7
E146584		0.9	102	3.6	10.3	46	58.4
E146585		2.5	179	4.5	23.6	113	130.5
E146586		2.4	144	1.9	23.6	198	114.0
E146587		2.1	152	1.7	21.6	60	101.0
E146588		1.8	149	1.2	19.7	119	87.5
E146589		1.8	147	1.3	20.5	101	89.6
E146590		1.8	135	1.5	20.5	70	85.6
E146591		2.1	134	1.1	19.4	64	96.3
E146592		2.0	126	2.1	20.2	65	90.4
E146593		2.1	129	11.3	21.3	60	98.2
E146594		1.6	121	9.5	17.4	52	80.4
E146595		2.1	136	6.8	22.7	56	98.4
E146596		0.4	3	0.1	0.9	13	0.7
E146597		1.7	123	1.0	18.8	56	93.3
E146598		1.8	130	0.9	18.7	61	92.0
E146599		5.3	166	19.7	14.4	59	87.3
E146600		2.0	154	1.2	23.4	110	103.5
E146601		1.9	153	1.6	20.1	95	96.8
E146602		2.5	152	8.8	27.0	77	126.0

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147127

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.

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CERTIFICATE VA10147128

Project: OSIRIS

P.O. No.: BATCH 23

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
As- OG62	Ore Grade As - Four Acid	VARIABLE
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147128

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
E146603		6.22	0.74	0.25	6.94	2210	200	1.66	0.26	1.84	0.12	66.7	22.6	68	19.80	57.1
E146604		3.92	0.08	0.07	5.54	428	150	1.61	0.20	2.64	0.07	52.3	20.4	62	18.90	56.1
E146605		4.84	0.09	0.05	6.57	353	170	1.60	0.20	2.06	0.05	62.3	21.5	72	22.6	58.6
E146606		7.64	0.90	0.08	6.15	541	150	1.55	0.21	2.33	0.20	63.0	19.4	70	20.4	53.5
E146607		0.12	14.60	7.64	3.71	464	740	0.81	0.03	0.17	0.08	18.65	9.1	32	6.15	49.5
E146608		2.94	0.26	0.12	6.45	342	160	1.86	0.23	2.21	0.19	66.4	20.9	74	21.0	54.8
E146609		2.96	0.79	0.12	5.23	709	150	1.21	0.17	3.68	0.18	52.0	16.2	59	14.85	47.5
E146610		7.74	0.05	0.05	4.33	234	180	0.89	0.12	3.91	0.11	40.5	15.7	56	13.75	41.9
E146611		7.44	2.75	0.10	5.91	5300	160	1.07	0.19	0.94	0.24	56.6	20.5	82	16.15	59.1
E146612		5.38	2.08	0.05	5.33	6750	140	1.06	0.17	0.13	0.23	52.6	19.8	82	16.00	56.5
E146613		2.50	2.14	0.07	6.11	5490	160	1.36	0.18	0.14	0.18	58.7	23.7	87	18.30	60.1
E146614		6.82	6.98	0.17	3.77	>10000	100	0.71	0.12	0.12	0.33	40.5	16.2	64	10.15	45.1
E146615		7.54	1.53	0.08	5.20	3020	150	0.93	0.16	0.51	0.46	48.9	19.8	70	13.85	48.8
E146616		7.10	<0.01	<0.01	0.09	38	20	0.06	0.01	19.55	0.06	1.46	1.2	1	0.25	2.1
E146617		6.20	0.53	0.08	7.32	2780	180	1.55	0.26	0.61	0.45	72.3	21.5	80	22.7	66.5
E146618		6.64	0.35	0.06	7.02	538	160	1.79	0.25	0.66	0.31	71.0	25.4	78	22.1	65.4
E146619		7.22	0.35	0.07	6.49	873	160	1.52	0.22	1.14	0.05	62.8	20.6	67	18.25	58.4
E146620		5.88	1.22	0.06	5.92	8600	160	1.39	0.22	0.22	0.06	61.0	21.0	71	16.15	55.3
E146621		0.28	15.35	1.03	2.00	1180	160	0.36	0.48	13.95	0.63	30.5	4.3	35	2.53	63.1
E146622		4.58	2.03	0.05	5.96	872	150	1.38	0.19	2.03	0.06	60.6	18.8	62	21.1	56.0
E146623		5.76	1.96	0.05	6.52	966	160	1.45	0.21	1.06	0.05	61.5	22.5	70	20.6	53.5
E146624		5.54	1.14	0.07	5.98	3330	150	1.30	0.21	0.16	0.05	61.3	19.6	70	17.05	54.3
E146625		6.46	1.14	0.07	5.12	1670	150	1.12	0.17	2.30	0.08	50.2	14.6	55	16.55	39.9
E146626		5.36	2.15	0.07	5.70	>10000	130	1.32	0.20	0.31	0.10	61.8	21.0	72	24.8	51.2
E146627		7.68	0.78	0.04	5.48	8430	190	1.20	0.19	0.21	0.09	53.1	17.2	69	14.45	42.0
E146628		7.60	1.71	0.04	5.76	8820	200	1.32	0.18	0.22	0.12	56.2	17.9	71	15.55	45.0
E146629		8.78	1.19	0.06	4.69	>10000	170	1.01	0.15	3.09	0.26	46.1	14.6	51	11.70	37.2
E146630		4.20	0.19	0.43	5.53	365	170	1.55	0.22	0.80	0.18	56.4	20.7	61	19.65	58.3
E146631		6.68	<0.01	0.02	0.07	17	10	0.06	0.02	18.95	0.05	1.33	1.1	2	0.19	2.8
E146632		6.74	0.22	0.06	5.92	461	150	1.50	0.21	1.46	0.06	59.0	18.1	62	18.35	47.9
E146633		6.04	0.01	0.06	5.81	149.0	160	1.45	0.18	2.02	0.04	56.9	16.0	62	25.3	49.9
E146634		7.64	0.02	0.05	5.05	87.2	160	1.20	0.15	1.34	0.04	48.3	16.2	60	23.9	44.0
E146635		6.48	<0.01	0.07	5.08	106.5	200	1.16	0.15	1.62	0.03	47.9	18.1	62	27.0	44.8
E146636		9.64	0.01	0.08	5.46	116.0	160	1.37	0.16	1.38	0.04	50.0	17.8	67	28.0	47.5
E146637		6.38	0.10	0.04	3.58	68.2	200	0.75	0.12	2.45	0.04	36.9	11.3	43	15.30	32.1
E146638		10.38	0.02	0.08	5.59	54.8	250	1.43	0.18	1.74	0.06	53.6	20.3	64	24.6	49.2

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

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147128

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
E146603		5.10	18.75	0.14	3.7	4.24	0.073	3.16	35.4	13.7	1.19	774	0.37	0.03	12.2	39.0
E146604		5.09	14.70	0.19	3.2	1.06	0.060	2.45	26.9	18.8	1.41	786	0.34	0.02	9.5	37.0
E146605		5.04	18.80	0.13	3.2	1.34	0.059	2.98	30.9	16.5	1.23	629	0.34	0.03	11.0	37.0
E146606		4.57	18.90	0.14	3.0	4.65	0.061	2.81	31.0	14.6	1.25	678	0.73	0.02	10.1	34.8
E146607		3.10	8.40	0.12	1.9	0.42	0.019	3.06	9.1	50.3	0.16	143	5.54	0.08	6.5	15.3
E146608		4.90	19.20	0.17	3.3	4.98	0.061	2.94	32.6	15.5	1.25	794	0.69	0.03	10.5	37.4
E146609		4.78	15.10	0.14	2.6	5.71	0.043	2.29	25.2	16.7	1.66	1200	0.62	0.02	8.6	30.6
E146610		3.94	12.40	0.11	2.2	2.07	0.036	1.87	20.1	20.2	1.61	963	0.31	0.02	6.9	27.5
E146611		5.09	17.45	0.14	3.0	17.0	0.050	2.64	27.7	17.2	0.63	359	0.47	0.02	9.5	37.2
E146612		4.34	17.00	0.14	2.6	12.2	0.051	2.44	26.1	18.5	0.30	28	0.49	0.02	9.1	36.1
E146613		4.50	19.45	0.15	2.9	13.1	0.049	2.79	29.1	19.3	0.35	25	0.50	0.02	10.1	40.8
E146614		3.46	11.60	0.13	2.1	35	0.048	1.58	20.0	19.7	0.22	69	0.42	0.01	6.9	26.8
E146615		4.39	15.45	0.13	2.8	10.7	0.038	2.09	24.7	22.7	0.40	205	0.57	0.02	8.7	33.3
E146616		0.40	0.26	<0.05	<0.1	0.04	<0.005	0.04	0.7	1.7	11.95	188	0.08	0.01	0.2	8.2
E146617		5.53	21.9	0.19	3.3	13.8	0.076	3.37	35.1	15.0	0.51	121	0.88	0.03	12.7	37.9
E146618		5.06	22.7	0.17	3.4	25.9	0.067	3.25	34.9	16.0	0.60	281	0.77	0.02	12.1	42.2
E146619		5.22	18.95	0.16	3.2	16.3	0.055	2.96	31.3	13.6	0.71	379	0.28	0.02	10.5	34.6
E146620		4.68	19.00	0.17	2.9	12.4	0.060	2.75	30.3	13.4	0.36	54	0.29	0.02	10.4	35.5
E146621		3.40	4.24	0.10	0.8	5.93	0.051	0.39	17.7	41.5	0.66	450	12.45	0.01	3.4	24.9
E146622		4.70	18.25	0.15	3.1	14.2	0.052	2.73	30.0	14.1	1.09	697	0.28	0.02	10.0	32.6
E146623		4.93	18.65	0.16	3.0	12.7	0.049	2.98	30.7	13.0	0.73	326	0.35	0.02	10.3	34.8
E146624		4.80	18.40	0.16	2.8	12.2	0.043	2.76	30.4	13.4	0.37	31	0.26	0.02	10.1	33.3
E146625		4.42	14.40	0.14	2.6	12.6	0.036	2.24	25.7	12.9	0.75	683	0.42	0.02	8.2	25.5
E146626		4.88	18.45	0.17	2.7	18.5	0.062	2.49	30.6	17.4	0.37	98	0.29	0.02	9.0	34.4
E146627		4.07	16.15	0.13	2.5	12.1	0.065	2.58	27.0	11.2	0.38	73	0.26	0.02	8.7	29.2
E146628		4.27	17.65	0.13	2.6	10.5	0.049	2.70	28.7	11.7	0.40	77	0.27	0.02	9.0	30.5
E146629		3.64	13.25	0.11	2.0	9.90	0.052	2.09	23.8	11.3	0.41	733	0.35	0.02	6.2	24.6
E146630		4.20	16.00	0.15	2.2	4.96	0.047	2.53	29.6	13.7	0.61	317	1.12	0.02	6.9	38.9
E146631		0.38	0.20	<0.05	<0.1	0.01	<0.005	0.02	0.7	1.3	11.50	184	0.05	<0.01	0.2	8.6
E146632		4.44	16.95	0.12	2.8	3.62	0.053	2.71	29.5	11.8	0.93	415	0.47	0.02	8.9	30.7
E146633		4.27	16.65	0.11	2.8	0.53	0.055	2.64	28.3	42.6	1.45	477	0.29	0.03	8.8	27.7
E146634		3.99	14.95	0.13	2.4	0.36	0.041	2.22	24.3	80.8	1.38	378	0.25	0.03	7.8	28.5
E146635		4.06	14.75	0.12	2.5	0.26	0.042	2.19	24.2	88.5	1.46	450	0.28	0.03	7.8	30.1
E146636		4.16	15.70	0.14	2.8	0.23	0.049	2.39	25.3	95.6	1.47	377	0.39	0.03	8.3	31.0
E146637		3.38	10.15	0.11	1.9	0.07	0.030	1.35	18.5	137.5	1.37	911	0.23	0.04	5.6	20.4
E146638		4.28	16.80	0.15	2.8	0.31	0.051	2.46	26.7	80.8	1.64	425	0.36	0.03	9.0	34.7

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147128

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
E146603		530	18.3	165.0	<0.002	4.86	10.45	20.2	1	2.1	97.8	0.95	0.05	11.9	0.561	8.68
E146604		510	15.4	130.0	<0.002	4.83	2.16	18.6	1	1.6	110.5	0.72	0.07	9.1	0.497	3.83
E146605		510	15.4	145.5	<0.002	5.07	2.34	19.4	1	2.1	87.1	0.76	<0.05	9.7	0.560	4.27
E146606		490	16.1	127.5	0.002	4.19	7.74	18.2	1	1.9	141.5	0.70	<0.05	9.4	0.476	13.30
E146607		500	5.0	102.5	<0.002	2.22	41.9	7.6	14	2.5	70.3	0.41	0.11	1.5	0.298	4.41
E146608		470	20.5	135.5	0.003	4.64	6.10	19.4	2	2.0	136.0	0.74	<0.05	9.7	0.508	12.50
E146609		390	20.0	99.9	<0.002	3.94	9.11	15.5	1	1.6	157.5	0.60	<0.05	7.9	0.426	14.30
E146610		520	5.7	98.0	<0.002	2.65	1.37	13.6	1	1.3	119.5	0.50	0.07	6.0	0.406	3.76
E146611		600	11.4	114.0	<0.002	5.42	20.8	15.3	1	1.7	66.5	0.70	<0.05	8.5	0.546	47.1
E146612		470	10.8	114.5	<0.002	4.85	16.00	11.4	1	1.6	41.8	0.65	<0.05	7.7	0.498	37.0
E146613		540	11.7	128.0	<0.002	4.95	15.15	13.3	1	1.8	45.0	0.73	<0.05	8.6	0.544	36.9
E146614		310	10.4	84.2	<0.002	4.23	60.3	8.5	2	1.2	30.6	0.49	0.07	6.1	0.400	48.5
E146615		400	15.0	94.5	<0.002	4.63	11.60	13.2	1	1.5	50.2	0.60	<0.05	8.0	0.482	25.6
E146616		190	1.2	1.9	<0.002	0.04	0.15	0.3	2	<0.2	42.9	<0.05	0.05	<0.2	0.005	0.13
E146617		600	18.7	158.5	<0.002	6.04	5.56	21.4	<1	2.5	53.9	0.89	<0.05	11.2	0.602	18.65
E146618		500	18.7	154.0	<0.002	5.45	3.77	20.6	1	2.3	49.1	0.88	<0.05	10.8	0.577	15.75
E146619		500	17.0	135.0	<0.002	5.53	2.71	18.2	1	2.1	54.0	0.77	0.07	10.2	0.510	23.9
E146620		430	15.7	126.5	<0.002	5.26	5.83	14.0	<1	2.0	45.7	0.75	0.05	9.7	0.491	27.4
E146621		620	22.2	26.3	0.008	2.02	146.0	3.8	3	2.0	44.2	0.23	0.38	3.7	0.108	3.71
E146622		460	11.3	126.0	<0.002	4.70	4.73	17.8	2	2.1	82.2	0.72	0.11	9.4	0.477	25.1
E146623		490	15.9	135.0	<0.002	5.11	4.95	14.6	1	2.0	51.8	0.76	<0.05	9.5	0.518	24.1
E146624		490	14.7	128.0	<0.002	5.22	4.79	12.4	1	2.0	38.7	0.69	<0.05	9.6	0.486	26.6
E146625		750	12.2	103.5	<0.002	4.36	4.81	11.6	1	1.6	74.5	0.59	<0.05	8.1	0.392	25.0
E146626		320	15.4	120.0	<0.002	5.52	15.40	13.0	1	1.8	48.5	0.64	<0.05	8.8	0.431	36.3
E146627		340	13.2	105.5	<0.002	4.53	14.00	10.4	1	1.7	36.6	0.62	<0.05	8.2	0.433	25.2
E146628		370	14.0	111.0	<0.002	4.75	14.95	11.0	1	1.8	38.1	0.66	<0.05	8.8	0.455	27.4
E146629		180	18.9	97.9	<0.002	4.17	14.95	12.1	1	1.3	49.9	0.47	<0.05	7.0	0.293	19.60
E146630		150	41.9	114.0	<0.002	4.15	1.90	14.9	2	1.6	58.9	0.53	<0.05	9.0	0.281	9.01
E146631		210	1.3	1.5	<0.002	0.02	<0.05	0.3	2	<0.2	39.9	<0.05	<0.05	<0.2	<0.005	0.05
E146632		360	16.9	125.0	<0.002	4.45	1.25	16.3	1	1.8	62.9	0.66	0.06	9.2	0.426	8.03
E146633		400	12.4	119.5	<0.002	2.24	0.36	15.9	1	1.8	77.6	0.67	<0.05	8.7	0.435	2.29
E146634		320	13.2	116.5	<0.002	0.50	0.34	14.2	1	1.5	88.1	0.56	<0.05	7.4	0.404	1.24
E146635		310	15.3	117.0	<0.002	0.41	0.46	14.8	2	1.5	88.4	0.57	0.06	7.2	0.406	0.93
E146636		340	14.7	111.0	<0.002	0.41	0.39	15.0	1	1.7	79.7	0.65	<0.05	7.9	0.431	0.93
E146637		250	7.7	77.2	<0.002	0.06	0.17	9.5	1	1.1	94.8	0.42	<0.05	5.8	0.288	0.50
E146638		370	15.7	115.5	<0.002	0.53	0.44	16.2	1	1.8	118.0	0.68	0.05	8.2	0.438	1.09

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To: **ATAC RESOURCES LTD.**
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147128

Sample Description	Method Analyte Units LOR	ME- MS61 U ppm 0.1	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	As- OG62 As % 0.001
E146603		2.6	149	10.3	24.7	71	119.5	
E146604		2.0	136	6.4	21.4	70	102.0	
E146605		2.0	148	7.4	23.2	73	108.5	
E146606		2.0	133	9.2	21.3	83	100.5	
E146607		0.7	54	15.6	11.1	43	72.0	
E146608		2.1	147	9.5	21.6	86	106.0	
E146609		1.7	122	8.3	17.7	73	84.7	
E146610		1.2	115	4.8	15.9	69	68.7	
E146611		1.8	159	9.5	21.4	91	96.7	
E146612		1.6	143	10.6	21.4	94	83.3	
E146613		1.7	159	11.3	24.0	79	91.5	
E146614		1.3	109	8.9	17.6	89	67.0	1.815
E146615		1.6	131	10.0	19.1	209	92.2	
E146616		0.5	2	0.1	0.9	13	0.8	
E146617		2.2	161	13.8	27.0	321	108.0	
E146618		2.1	153	13.5	24.0	156	105.5	
E146619		2.1	136	13.0	22.4	61	102.5	
E146620		2.0	129	12.8	23.7	57	94.1	
E146621		3.4	106	215	16.3	70	28.5	
E146622		1.9	128	10.5	21.6	63	97.8	
E146623		1.9	141	11.3	21.2	58	93.6	
E146624		1.9	132	12.0	22.4	52	91.4	
E146625		1.8	107	10.9	21.8	64	83.1	
E146626		1.9	127	12.4	26.4	53	84.3	1.450
E146627		1.7	121	12.3	19.9	55	77.8	
E146628		1.9	125	13.3	20.4	60	80.7	
E146629		1.4	80	8.7	14.3	75	62.2	1.145
E146630		1.8	84	6.6	14.0	77	69.7	
E146631		0.4	1	0.1	0.8	13	0.8	
E146632		1.9	117	8.7	19.4	65	88.3	
E146633		1.8	116	1.1	19.7	56	87.8	
E146634		1.5	108	1.1	17.0	52	79.8	
E146635		1.5	115	1.3	16.3	48	78.7	
E146636		1.6	117	1.1	17.7	68	84.7	
E146637		1.2	75	0.8	14.1	44	58.9	
E146638		1.7	120	1.1	18.9	65	88.6	

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

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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147128

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.
Hg- CV41	Detection limits on samples requiring dilutions due to interferences or high concentration levels have been increased according to the dilution factor.

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Finalized Date: 26- OCT- 2010
Account: RCM

CERTIFICATE VA10147129

Project: OSIRIS

P.O. No.: BATCH 24

This report is for 9 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 12- OCT- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
LOG- 23	Pulp Login - Rcvd with Barcode
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Hg- CV41	Trace Hg - cold vapor/AAS	FIMS
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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Finalized Date: 26- OCT- 2010
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Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147129

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA26 Au ppm 0.01	ME- MS61 Ag ppm 0.01	ME- MS61 Al % 0.01	ME- MS61 As ppm 0.2	ME- MS61 Ba ppm 10	ME- MS61 Be ppm 0.05	ME- MS61 Bi ppm 0.01	ME- MS61 Ca % 0.01	ME- MS61 Cd ppm 0.02	ME- MS61 Ce ppm 0.01	ME- MS61 Co ppm 0.1	ME- MS61 Cr ppm 1	ME- MS61 Cs ppm 0.05	ME- MS61 Cu ppm 0.2
E146639		6.34	<0.01	0.04	6.94	113.5	390	1.97	0.30	2.05	0.06	79.4	21.0	73	39.3	60.5
E146640		9.66	0.03	0.07	5.85	193.5	280	1.51	0.23	3.22	0.24	67.2	18.3	63	26.8	49.7
E146641		9.76	<0.01	0.06	6.36	97.6	310	1.58	0.24	3.32	0.05	67.4	19.6	71	31.6	55.9
E146642		4.84	<0.01	0.09	6.13	98.4	310	1.58	0.23	3.21	0.05	70.5	19.3	68	32.2	54.9
E146643		9.06	<0.01	0.05	6.01	83.0	200	1.57	0.22	3.10	0.05	64.6	17.9	69	27.8	52.9
E146644		9.06	0.33	0.10	6.25	3880	190	1.39	0.23	3.68	0.09	68.2	18.3	65	18.90	50.8
E146645		6.66	<0.01	<0.01	0.08	12	20	<0.05	0.03	20.4	0.09	1.41	1.4	<1	0.21	1.2
E146646		4.16	0.03	0.19	5.85	1555	210	1.40	0.22	2.87	0.15	62.3	15.9	63	20.9	53.7
E146647		0.28	2.28	1.67	3.93	170.5	600	1.26	0.15	0.39	0.21	53.2	3.5	51	7.92	36.3

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CERTIFICATE OF ANALYSIS VA10147129

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	Hg- CV41	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.01	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2
E146639		5.60	18.20	0.25	3.1	0.30	0.072	3.09	39.0	83.0	1.75	531	0.46	0.01	11.2	39.6
E146640		4.72	14.65	0.18	2.4	0.29	0.054	2.65	33.7	41.4	1.79	719	1.06	<0.01	9.1	33.7
E146641		5.03	16.05	0.22	2.5	0.17	0.069	2.89	33.2	47.0	2.22	805	0.32	0.01	10.6	36.9
E146642		4.95	15.80	0.25	2.6	0.16	0.066	2.78	35.0	44.6	2.13	781	0.27	0.01	10.7	36.4
E146643		4.73	14.55	0.19	2.6	0.38	0.056	2.75	29.9	36.7	1.83	664	0.30	0.01	9.6	34.7
E146644		4.58	15.40	0.18	2.6	2.14	0.061	2.86	32.1	11.3	1.77	1040	0.25	<0.01	10.4	36.0
E146645		0.42	0.24	0.19	<0.1	<0.01	<0.005	0.03	0.7	1.1	11.90	188	0.15	<0.01	0.3	<0.2
E146646		4.48	15.10	0.17	2.5	1.36	0.064	2.53	31.0	19.3	1.46	624	0.57	<0.01	9.6	32.7
E146647		1.06	9.89	0.10	2.2	1.83	0.037	1.23	27.6	32.5	0.21	24	24.7	0.03	6.4	23.9

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Finalized Date: 26- OCT- 2010
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Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147129

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02
E146639		500	17.6	166.5	<0.002	2.52	1.13	21.9	2	2.2	195.0	0.84	0.05	12.7	0.531	2.62
E146640		480	16.4	141.5	<0.002	2.06	1.22	17.5	2	1.7	129.0	0.69	0.05	11.0	0.456	1.89
E146641		530	15.0	154.5	<0.002	0.51	0.39	18.8	2	2.0	133.5	0.75	0.05	11.2	0.512	1.06
E146642		480	14.2	156.5	<0.002	0.49	0.38	19.3	2	2.0	133.0	0.78	<0.05	10.9	0.495	1.02
E146643		490	14.3	135.0	<0.002	2.06	0.41	18.3	2	1.7	107.5	0.72	<0.05	10.3	0.508	1.75
E146644		510	14.3	141.5	<0.002	3.30	11.55	19.5	2	1.8	125.0	0.78	0.05	11.0	0.519	5.39
E146645		210	1.3	1.6	<0.002	0.02	<0.05	0.4	1	<0.2	47.3	<0.05	<0.05	<0.2	<0.005	0.02
E146646		400	18.9	128.0	0.002	3.65	7.19	18.3	2	1.8	127.0	0.71	0.05	10.7	0.448	4.04
E146647		460	26.9	55.0	0.002	0.70	147.0	9.4	2	1.3	159.0	0.47	0.26	8.1	0.186	12.90

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

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147129

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	U	V	W	Y	Zn	Zr
	Units	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.1	1	0.1	0.1	2	0.5
E146639		2.4	145	2.8	22.2	70	112.5
E146640		2.0	121	2.2	19.1	85	91.5
E146641		2.0	134	1.2	20.5	65	101.5
E146642		1.9	129	1.2	20.6	59	102.0
E146643		1.8	133	1.1	18.7	67	93.6
E146644		2.0	135	13.3	20.3	62	98.6
E146645		0.8	2	0.1	0.8	11	0.6
E146646		1.9	120	9.6	19.8	70	88.7
E146647		5.5	165	20.8	13.7	58	76.2

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

ALS Canada Ltd.
2103 Dollarton Hwy
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 26- OCT- 2010
Account: RCM

Project: OSIRIS

CERTIFICATE OF ANALYSIS VA10147129

Method	CERTIFICATE COMMENTS
ME- MS61	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS61	REE's may not be totally soluble in this method.

ALS Canada Ltd.

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 4- NOV- 2010
This copy reported on 5- NOV- 2010
Account: RCM

CERTIFICATE VA10161151

Project: VA10147121

P.O. No.:

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 1- NOV- 2010.

The following have access to data associated with this certificate:

JOAN MARIACHER	BILL WENGZYNOWSKI	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND- 02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 4- NOV- 2010
Account: RCM

Project: VA10147121

CERTIFICATE OF ANALYSIS VA10161151

Sample Description	Method Analyte Units LOR	Au- AA26 Au ppm 0.01
E146318		0.01
E146319		0.02
E146320		0.15
E146411		0.02
E146412		<0.01
E146413		0.01
J998734		0.04
J998735		0.01
J998736		0.11
J998737		0.06
J998738		0.13
J998739		0.01
J998740		0.07
J998741		0.02
J998742		0.01
J998743		0.12
J998744		0.07
J998745		0.36
J998746		1.49
J998747		1.41
J998748		1.20
J998749		1.28
J998750		0.76
J998751		1.53
J998752		0.05
J998753		1.18
J998754		0.89
J998755		0.07
J998756		0.93
J998757		NSS
J998758		1.87
J998759		0.08
J998760		0.04
J998761		<0.01
J998762		0.01
J998763		0.02

Comments: **RE- ANALYSIS DATA FOR SAMPLES ORIGINALLY REPORTED ON CERTIFICATE VA10147121**

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

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
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To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
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VANCOUVER BC V6B 1L8

Finalized Date: 4- NOV- 2010
Account: RCM

Project: VA10147121

CERTIFICATE OF ANALYSIS VA10161151

Method	CERTIFICATE COMMENTS
ALL METHODS	NSS is non- sufficient sample.

ALS Canada Ltd.

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
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Finalized Date: 10- NOV- 2010
This copy reported on 16- NOV- 2010
Account: RCM

CERTIFICATE VA10164248

Project: VA10139805

P.O. No.:

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 5- NOV- 2010.

The following have access to data associated with this certificate:

JOAN MARIACHER	BILL WENGZYNOWSKI	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND- 02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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

To: **ATAC RESOURCES LTD.**
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Finalized Date: 10- NOV- 2010
Account: RCM

Project: VA10139805

CERTIFICATE OF ANALYSIS VA10164248

Sample Description	Method Analyte Units LOR	Au- AA26 Au ppm 0.01
J998590		<0.01
J998591		<0.01
J998592		0.01
J998593		0.01
J998594		0.03
J998595		<0.01
J998596		0.06
J998597		0.01
J998598		<0.01
J998599		0.01
J998600		0.01
J998601		0.01
J998602		<0.01
J998603		0.01
J998604		0.01
J998605		0.02
J998606		14.95
J998607		0.01
J998608		<0.01
J998609		0.01
J998610		<0.01
J998611		0.01
J998612		0.01
J998613		0.01
J998614		0.01
J998615		0.01
J998616		1.56
J998617		0.01
J998618		0.01
J998619		0.01
J998620		0.01
J998621		<0.01
J998622		<0.01
J998623		<0.01
J998624		<0.01
J998625		0.01

Comments: **RE- ANALYSIS DATA FOR SAMPLES ORIGINALLY REPORTED ON CERTIFICATE VA10139805**

ALS Canada Ltd.

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- NOV- 2010
This copy reported on 17- NOV- 2010
Account: RCM

CERTIFICATE VA10165544

Project: VA10147121

P.O. No.:

This report is for 36 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 9- NOV- 2010.

The following have access to data associated with this certificate:

MATT DUMALA	JOAN MARIACHER	BILL WENGZYNOWSKI

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND- 02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

To: **ATAC RESOURCES LTD.**
ATTN: JOAN MARIACHER
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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

To: **ATAC RESOURCES LTD.**
C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- NOV- 2010
Account: RCM

Project: VA10147121

CERTIFICATE OF ANALYSIS VA10165544

Sample Description	Method Analyte Units LOR	Au- AA26 Au ppm 0.01
E146318		0.02
E146319		0.01
E146320		0.15
E146411		0.02
E146412		<0.01
E146413		0.02
J998734		0.03
J998735		0.03
J998736		0.11
J998737		0.05
J998738		0.13
J998739		<0.01
J998740		0.06
J998741		0.02
J998742		0.01
J998743		0.13
J998744		0.07
J998745		0.37
J998746		2.38
J998747		1.39
J998748		1.17
J998749		1.24
J998750		0.69
J998751		1.64
J998752		0.04
J998753		1.20
J998754		0.90
J998755		0.10
J998756		0.92
J998757		16.00
J998758		1.78
J998759		0.08
J998760		0.04
J998761		0.01
J998762		0.02
J998763		0.02

Comments: **RE- ANALYSIS DATA FOR SAMPLES ORIGINALLY REPORTED ON CERTIFICATE VA10147121**

APPENDIX V

QA/QC RESULTS

Rau

SMEE & ASSOCIATES CONSULTING LTD.
CONSULTING GEOCHEMISTRY / GEOLOGY

Certificate of Analysis

Rau Standard 2

Element	Certified Mean	Two Standard Deviations (between lab)
FA Au	1.527 g/t	0.134 g/t

Means and standard deviations were calculated from data supplied by six laboratories using a fire assay, ICP-ES or gravimetric finish.

The participating laboratories were:

ALS Chemex, Vancouver
Acme, Vancouver
Actlabs, Ancaster
IPL, Vancouver
TSL, Saskatoon
Ecotech, Kamloops

The final limits were calculated after first determining if all data was compatible within a spread normally expected for similar analytical methods done by reputable laboratories. This was done by using a Student's t test of means where a laboratory was removed from the data base if failing the t test. The means and standard deviations from the remaining data were calculated. Any analysis that fell outside of the mean ± 2SD was removed from the ensuing data base. The mean and standard deviations were again calculated using the remaining data (shown as the 1st Iteration in the attached Excel spreadsheets). The final standard deviation is known as the "Between Lab" deviation, and can be used to monitor accuracy of a single analysis.

Elements are certified if the Relative Standard Deviation (RSD) is near 5 % or less. Elements that have a RSD of between 5 % and 15 % are given a Provisional mean and elements that have a RSD of more than 15 %, or have insufficient data are not certified but given an Indicated Mean.

Smee and Associates Consulting Ltd.
4658 Capilano Rd. North Vancouver, B.C., Canada, V7R 4K3
Tel: 604-929-0667; Fax: 604-929-0662
e-mail: bwsmee@geochemist.com
web site: www.geochemist.com

The bulk standards were prepared and packaged by CDN Labs of Langley B.C. Each bulk sample was pulverized in a large rod mill, screened through 270 mesh using an electric sieve, and homogenized in a large rotating mixer.

Certified by:

Barry W. Smee, Ph.D., P.Geo.

Smee and Associates Consulting Ltd.
4658 Capilano Rd. North Vancouver, B.C., Canada, V7R 4K3
Tel: 604-929-0667; Fax: 604-929-0662
e-mail: bwsmee@geochemist.com
web site: www.geochemist.com

CDN Resource Laboratories Ltd.

10945-B River Road, Delta, B.C., Canada, V4C 2R8, 604-540-2233, Fax: 604-540-2237 (www.cdnlabs.com)

GOLD ORE REFERENCE STANDARD: CDN-GS-15A

Recommended value and the "Between Laboratory" two standard deviations

Gold concentration: 14.83 ± 0.61 g/t

PREPARED BY: CDN Resource Laboratories Ltd.
CERTIFIED BY: Duncan Sanderson, B.Sc., Licensed Assayer of British Columbia
INDEPENDENT GEOCHEMIST: Dr. Barry Smee., Ph.D., P. Geo.
DATE OF CERTIFICATION: August 4, 2006

ORIGIN OF REFERENCE MATERIAL:

Standard CDN-GS-15A was prepared using reject ore material supplied by the Hunter Dickinson Group from the Specogna deposit. The Specogna deposit is a low sulphidation epithermal gold deposit of Miocene age and is localized along the Sandspit fault. Gold bearing breccia, vein and stockwork development occurs along the fault and subsidiary dilational structures extending upward into a thick hanging wall sequence of clastic sediments. Mineralization at Specogna is dominated by pyrite and marcasite which typically comprise 1 to 4% of the host rocks. Gold and silver occur as electrum.

METHOD OF PREPARATION:

Reject ore material was dried, crushed, pulverized and then passed through a 200 mesh screen. The +200 material was discarded. The -200 material was mixed for 6 days in a double-cone blender. Splits were taken and sent to 12 commercial laboratories for round robin assaying. Round robin results are displayed below:

	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8	Lab 9	Lab 10	Lab 11	Lab 12
	Au gpt	Au gpt	Au gpt	Au gpt	Au gpt	Au gpt	Au gpt	Au gpt	Au gpt	Au gpt	Au gpt	Au gpt
GS15A-1	15.30	15.0	14.68	14.35	14.94	15.3	14.23	14.4	14.7	14.63	14.92	14.3
GS15A-2	14.80	14.9	15.30	15.00	15.58	14.9	14.37	15.2	15.2	14.24	14.47	15.4
GS15A-3	14.97	14.9	13.51	14.80	14.93	15.4	14.53	14.8	15.1	15.38	13.98	14.9
GS15A-4	14.63	15.2	14.75	14.80	14.72	14.7	14.47	14.3	15.0	14.67	14.58	14.9
GS15A-5	14.83	15.1	14.61	14.35	14.65	14.5	14.63	14.5	14.9	14.93	14.77	15.0
GS15A-6	14.88	14.7	15.02	14.85	15.50	14.3	14.70	14.6	15.3	15.24	15.25	14.5
GS15A-7	14.66	15.0	14.85	14.75	14.96	15.1	14.90	15.2	14.9	14.18	15.67	14.8
GS15A-8	14.50	14.8	15.30	14.90	15.73	14.8	15.00	14.5	14.8	14.97	15.09	13.9
GS15A-9	15.05	15.1	14.61	14.80	14.91	14.5	14.80	14.2	15.1	14.50	14.71	14.4
GS15A-10	15.20	14.9	15.30	15.45	15.22	14.5	14.70	15.2	15.6	14.79	14.71	14.4
Mean	14.88	14.96	14.79	14.81	15.11	14.80	14.63	14.67	15.06	14.75	14.82	14.65
Std. Dev.	0.254	0.151	0.533	0.313	0.373	0.371	0.238	0.382	0.263	0.393	0.460	0.430
%RSD	1.71	1.01	3.60	2.11	2.47	2.51	1.63	2.61	1.75	2.66	3.10	2.94

Assay Procedure: all assays were fire assay, gravimetric finish on 30g samples

APPROXIMATE CHEMICAL COMPOSITION:

	Percent			Percent
SiO2	60.2		Na2O	3.3
Al2O3	15.1		MgO	2.5
Fe2O3	8.0		K2O	1.5
CaO	5.5		TiO2	0.6
MnO	0.1		LOI	0.9

GOLD ORE REFERENCE STANDARD: CDN-GS-15A

Statistical Procedures:

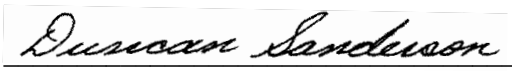
The mean and standard deviation for all data was calculated. Outliers were defined as samples beyond the mean ± 2 Standard Deviations from all data. These outliers were removed from the data and a new mean and standard deviation was determined. This method is different from that used by Government agencies in that the actual "between-laboratory" standard deviation is used in the calculations. This produces upper and lower limits that reflect actual individual analyses rather than a grouped set of analyses. The limits can therefore be used to monitor accuracy from individual analyses, unlike the Certified Limits published on other standards.

Participating Laboratories:
(not in same order as table of assays)

Acme Analytical Laboratories Ltd., Vancouver, Canada
Activation Laboratories, Ontario, Canada
Actlabs, Coquimbo, Chile
ALS Chemex, North Vancouver, Canada
Assayers Canada Ltd., Vancouver, Canada
Alex Stewart (Assayers) Argentina) Ltd.
Ecotech Laboratory, Kamloops, Canada
Genalysis Lab.Services, Australia
Omac Laboratory, Ireland
SGS-XRAL, Ontario, Canada
Teck Cominco, Global Discovery Laboratory, Vancouver, Canada
TSL Laboratories Ltd., Saskatoon, Canada

Legal Notice:

This certificate and the reference material described in it have been prepared with due care and attention. However CDN Resource Laboratories Ltd. nor Barry Smee accept any liability for any decisions or actions taken following the use of the reference material. Our liability is limited solely to the cost of the reference material.

Certified by 

Duncan Sanderson, Certified Assayer of B.C.

Geochemist

Dr. Barry Smee, Ph.D., P. Geo.

CDN Resource Laboratories Ltd.

#2, 20148 – 102nd Avenue, Langley, B.C., Canada, V1M 4B4, 604-882-8422, Fax: 604-882-8466 (www.cdnlabs.com)

REFERENCE MATERIAL: CDN-GS-15B

Recommended value and the "Between Laboratory" two standard deviations

Gold concentration: 15.98 ± 0.71 g/t (30g Fire Assay / Gravimetric finish)

PREPARED BY: CDN Resource Laboratories Ltd.
CERTIFIED BY: Duncan Sanderson, B.Sc., Licensed Assayer of British Columbia
INDEPENDENT GEOCHEMIST: Dr. Barry Smee., Ph.D., P. Geo.
DATE OF CERTIFICATION: May 1, 2010

ORIGIN OF REFERENCE MATERIAL:

Standard CDN-GS-15B was prepared using ore supplied by Barrick Gold Inc. from their Goldstrike Mine in Nevada, USA. It is Carlin Style Mineralization in the prolific Northern Carlin Trend in Northern Nevada, USA. The source material is from Devonian carbonates of the Popovich Formation. Gold is strongly associated with pyrite and other sulfides including the arsenic minerals orpiment and realgar. 800kg of the -270 Barrick ore was blended with 46 kg of a high grade gold ore (also screened to -270).

METHOD OF PREPARATION:

Reject ore material was dried, crushed, pulverized and then passed through a 270 mesh screen. The +270 material was discarded. The -270 material was mixed for 5 days in a double-cone blender. Splits were taken and sent to 15 commercial laboratories for round robin assaying. Round robin results are displayed below:

	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8	Lab 9	Lab 10	Lab 11	Lab 12	Lab 13	Lab 14	Lab 15
SAMPLE	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t
GS-15B-1	16.17	15.95	16.60	16.4	15.95	15.7	15.5	15.6	15.77	16.3	16.07	16.4	15.49	16.09	16.29
GS-15B-2	16.40	16.25	15.90	15.7	16.18	15.5	15.5	15.6	16.10	16.2	15.70	15.8	15.55	15.63	16.59
GS-15B-3	16.46	15.70	16.30	16.5	16.11	15.6	15.6	16.0	16.12	15.9	15.67	16.4	15.11	16.10	16.79
GS-15B-4	16.49	16.00	16.30	15.8	15.75	15.4	15.9	15.8	15.35	16.0	15.67	16.5	14.96	16.23	15.12
GS-15B-5	16.61	16.25	15.83	16.4	16.03	15.3	16.0	15.0	15.64	16.1	15.70	16.1	14.93	16.00	15.79
GS-15B-6	16.62	15.90	16.20	16.6	15.89	15.6	16.0	14.7	15.35	16.3	16.13	16.4	15.83	16.13	15.80
GS-15B-7	16.38	15.85	15.77	16.4	16.25	15.9	16.0	15.2	15.98	15.9	15.93	16.3	15.43	15.93	16.09
GS-15B-8	16.41	16.00	16.23	16.6	16.01	15.5	16.1		15.36	16.5	16.03	16.2	15.23	16.40	15.79
GS-15B-9	16.24	15.80	15.80	16.6	16.04	15.4	15.9	15.4	16.13	16.6	16.03	16.4	15.57	16.19	15.63
GS-15B-10	16.47	15.90	16.47	15.9	16.23	15.7	15.7	15.4	15.43	16.3	15.70	16.3	15.97	15.52	16.49
Mean	16.43	15.96	16.14	16.29	16.04	15.56	15.82	15.41	15.72	16.21	15.86	16.28	15.41	16.02	16.04
Std. Dev'n	0.1421	0.1776	0.2962	0.3510	0.1566	0.1776	0.2251	0.4014	0.3393	0.2151	0.1911	0.2044	0.3492	0.2690	0.5083
%RSD	0.87	1.11	1.84	2.15	0.98	1.14	1.42	2.60	2.16	1.33	1.20	1.26	2.27	1.68	3.17

APPROXIMATE CHEMICAL COMPOSITION:

	Percent			Percent			ppm
SiO2	50.0		Na2O	0.1		As	1300
Al2O3	3.5		MgO	1.3		Sb	110
Fe2O3	5.0		K2O	0.5			
CaO	20.0		TiO2	0.2			
MnO	0.1		LOI	17.4			
Total S	2.0		Total C	5.3			
Sulphide S	1.4		Inorganic C	4.7			

REFERENCE MATERIAL: CDN-GS-15B

Statistical Procedures:

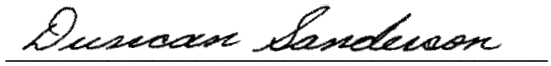
The final limits were calculated after first determining if all data was compatible within a spread normally expected for similar analytical methods done by reputable laboratories. Data from any one laboratory was removed from further calculations when the mean of all analyses from that laboratory failed a t test of the global means of the other laboratories. The mean and standard deviation were calculated using all remaining data. Any analysis that fell outside of the mean ±2 standard deviations was removed from the ensuing data base. The mean and standard deviations were again calculated using the remaining data. This method is different from that used by Government agencies in that the actual "between-laboratory" standard deviation is used in the calculations. This produces upper and lower limits that reflect actual individual analyses rather than a grouped set of analyses. The limits can therefore be used to monitor accuracy from individual analyses, unlike the Confidence Limits published on other standards.

Participating Laboratories: (not in same order as table of assays)

Acme Analytical Laboratories Ltd., Vancouver, B.C., Canada
Activation Laboratories, Ancaster, Ontario, Canada
Activation Laboratories, Thunder Bay, Ontario, Canada
Alaska Assay Lab, Anchorage, Alaska, USA
AGAT Laboratories, Mississauga, Ontario, Canada
ALS Chemex, North Vancouver, B.C., Canada
American Assay Laboratory, Nevada, USA
Assayers Canada Ltd., Vancouver, B.C., Canada
Eco Tech Laboratory Ltd., Kamloops, B.C., Canada
International Plasma Laboratories, Richmond, B.C., Canada
Labtium Inc., Finland
SGS, Toronto, Canada
SGS, Lima, Peru
Skyline Assayers & Laboratories, Arizona, USA
TSL Laboratories Ltd., Saskatoon, SK, Canada

Legal Notice:

This certificate and the reference material described in it have been prepared with due care and attention. However CDN Resource Laboratories Ltd. nor Barry Smee accept any liability for any decisions or actions taken following the use of the reference material. Our liability is limited solely to the cost of the reference material.

Certified by 

Duncan Sanderson, Certified Assayer of B.C.

Geochemist

Dr. Barry Smee, Ph.D., P. Geo.

CDN Resource Laboratories Ltd.

10945-B River Road, Delta, B.C., V4C 2R8, Ph: 604 596-2245, Fax: 604 588-3960

GOLD ORE REFERENCE STANDARD: CDN-GS-2A

Recommended value and the "Between Lab" Two Standard Deviations
Gold concentration: 2.04 ± 0.19 g/t

PREPARED BY: CDN Resource Laboratories Ltd.
CERTIFIED BY: Duncan Sanderson, B.Sc., Licensed Assayer of British Columbia
INDEPENDENT GEOCHEMIST: Dr. Barry Smee., Ph. D., P. Geo.

ORIGIN OF REFERENCE MATERIAL:

Standard CDN-GS-2A was prepared using reject ore material supplied by the Hunter Dickinson Group from the Specogna deposit. The Specogna deposit is a low sulphidation epithermal gold deposit of Miocene age and is localized along the Sandspit fault. Gold bearing breccia, vein and stockwork development occurs along the fault and subsidiary dilational structures extending upward into a thick hanging wall sequence of clastic sediments. Mineralization at Specogna is dominated by pyrite and marcasite which typically comprise 1 to 4% of the host rocks. Gold and silver occur as electrum

METHOD OF PREPARATION:

Reject ore material was dried, crushed, pulverized and then passed through a 200 mesh screen. The +200 material was discarded. The -200 material was mixed for 5 days in a rotary mixer. Splits were taken and sent to 12 commercial laboratories for round robin assaying. Round robin results are displayed below:

	Lab. 1	Lab. 2	Lab. 3	Lab. 4	Lab. 5	Lab. 6	Lab. 7	Lab. 8	Lab. 9	Lab. 10	Lab. 11	Lab. 12
	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t
	2.04	2.05	2.08	2.15	1.99	2.09	1.92	2.07	2.24	1.90	2.06	2.14
	2.11	1.90	1.99	2.06	2.06	2.11	1.94	2.04	2.10	1.81	2.02	2.10
	2.09	2.01	2.14	2.11	2.13	2.21	1.86	2.06	2.20	1.85	2.04	2.11
	2.13	1.88	2.04	2.01	2.05	2.00	1.86	2.01	2.20	1.85	2.00	2.05
	2.10	1.97	2.05	2.06	2.06	2.06	1.90	1.97	2.28	1.84	2.01	2.09
	1.98	2.05	2.12	2.11	2.09	2.10	1.80	2.09	2.15	1.86	1.98	2.07
	2.06	1.88	2.08	2.13	2.02	2.07	1.85	1.97	1.94	1.86	2.03	2.05
	2.11	1.90	2.05	2.06	2.06	2.11	1.92	1.97	2.09	1.85	2.02	2.17
	2.14	1.95	2.16	2.10	2.00	2.13	1.81	2.07	2.18	1.81	2.04	2.15
	2.08	2.05	2.07	2.08	2.09	2.13	1.84	2.08	2.17	1.87	1.99	2.06
Mean	2.08	1.96	2.08	2.09	2.05	2.10	1.87	2.03	2.16	1.85	2.02	2.10
Std. Dev'n.	0.0474	0.0721	0.0517	0.0411	0.0429	0.0544	0.0481	0.0488	0.0950	0.0270	0.0247	0.0431
% RSD	2.28	3.67	2.49	1.97	2.09	2.59	2.57	2.40	4.41	1.46	1.22	2.05

Assay Procedure: assays were fire assay, AA or ICP finish on 30g samples.

GOLD ORE REFERENCE STANDARD: CDN-GS-2A

APPROXIMATE CHEMICAL COMPOSITION:

	Percent			Percent
SiO2	79.1		Na2O	0.1
Al2O3	6.2		MgO	0.3
Fe2O3	5.6		K2O	3.7
CaO	0.2		TiO2	0.5
MnO	0.1		LOI	3.3

Statistical Procedures:

The mean and standard deviation for all data was calculated. Outliers were defined as samples beyond the mean ± 2 Standard Deviations from all data. These outliers were removed from the data and a new mean and standard deviation was determined. This method is different from that used by Government agencies in that the actual "between-laboratory" standard deviation is used in the calculations. This produces upper and lower limits that reflect actual individual analyses rather than a grouped set of analyses. The limits can therefore be used to monitor accuracy from individual analyses, unlike the Certified Limits published on other standards.

Participating Laboratories: (not in same order as table of assays)

Acme Analytical Laboratories Ltd.
Assayers Canada Ltd., Vancouver
ALS Chemex Laboratories, North Vancouver
EcoTech Laboratories Ltd., Kamloops
Genalysis Laboratory Services Pty. Ltd., Australia
GTK Laboratory, (Geological Survey of Finland)
International Plasma Laboratories Ltd., Vancouver
Loring Laboratories Ltd., Calgary
OMAC Laboratories Ltd., Ireland
SGS-XRAL, Toronto
SGS-Perth, Australia
TSL Laboratories, Saskatoon

Legal Notice:

This certificate and the reference material described in it have been prepared with due care and attention. However CDN Resource Laboratories Ltd. nor Barry Smee accept any liability for any decisions or actions taken following the use of the reference material. Our liability is limited solely to the cost of the reference material.

Certified by Duncan Sanderson

Duncan Sanderson, Certified Assayer of B.C.

Geochemist B W Smee

Dr. Barry Smee, Ph.D., P. Geo.

During the field season, core samples were divided into batches, each containing 31 core samples, 2 blanks, 2 standards and 1 duplicate. A total of 47 blanks, 46 standards and 24 duplicates were inserted into the sample sequences. Blank samples each comprise 7 kg of landscaping marble obtained from a garden centre in Whitehorse. Samples of this material were randomly selected and analyzed prior to the field season in order to use as a "blank". QA/QC Results are summarized in Appendix V.

Four standards were chosen from CDN Resource Laboratories Ltd. prepared from matrix compatible material. Certificates for each of the standard samples occur below, while Table VI summarizes the consensus and two standard deviation values for each of the standard samples used during the program.

Table VI: Standard Sample Consensus Values

Sample	Consensus Value	2δ
OS-1	1.527 g/t Au	0.134
OS-2	14.83 g/t Au	0.61
OS-3	2.26 g/t Au	0.19
OS-4	15.98 g/t Au	0.71

Gold values from all but two of the blank samples were within acceptable range (≤0.05 g/t). The failed samples were from batches 1 (0.07 g/t) and 20 (0.12 g/t). All samples from batches 1 and 20 were reanalyzed by the laboratory to ensure the results were accurate.

All but three of the standard sample values are within acceptable range. Gold values from three of the sample batches (7, 9 and 16) that included failed standards were reanalyzed by the laboratory to ensure results were accurate. Results from the reanalysis were typically consistent with the original values. The most notable variations came from a series of 11 samples in Batch 1 in which the average variation between the original and re-run sample was 10%. The gold grade of these 11 samples was between 14.10 g/t and 46.40 g/t suggesting the variation in the samples could be due to inhomogeneity of mineralization within the samples.

A total of 24 duplicate samples, prepared from quarter core, were collected and analyzed throughout the program. In general there was a small increase in gold values but otherwise little variation between the initial and duplicate samples occurred. The most noticeable difference was from hole OS-10-01 where the initial sample yielded 14.65 g/t Au and the duplicate sample returned 14.10 g/t gold. This variation of 0.55 g/t gold could is still very small considering the grade of the sample.

BLANK SAMPLES

Hole ID	Type	Batch	Sample	Au - Original	Au - Rerun
OS-10-01	BLANK	1	J998341	0.02	0.02
OS-10-01	BLANK	1	J998357	0.04	0.07
OS-10-01	BLANK	2	J998306	0.01	
OS-10-01	BLANK	2	J998327	<0.01	
OS-10-01	BLANK	3	J998384	<0.01	
OS-10-01	BLANK	3	J998404	<0.01	
OS-10-02	BLANK	4	J998424	<0.01	
OS-10-02	BLANK	4	J998442	0.03	
OS-10-02	BLANK	5	J998450	0.01	
OS-10-02	BLANK	5	J998474	<0.01	
OS-10-03	BLANK	6	J998494	<0.01	
OS-10-03	BLANK	6	J998512	<0.01	
OS-10-03	BLANK	7	J998533	<0.01	0.01
OS-10-03	BLANK	7	J998550	<0.01	<0.01
OS-10-03	BLANK	8	J998566	0.01	
OS-10-03	BLANK	8	J998581	<0.01	
OS-10-03	BLANK	9	J998602	0.01	<0.01
OS-10-03	BLANK	9	J998621	<0.01	<0.01
OS-10-04	BLANK	10	J998634	0.01	
OS-10-04	BLANK	10	J998654	<0.01	
OS-10-04	BLANK	11	J998677	<0.01	
OS-10-04	BLANK	11	J998694	<0.01	
OS-10-04	BLANK	12	J998714	<0.01	
OS-10-05	BLANK	12	J998731	<0.01	
OS-10-05	BLANK	13	E146311	<0.01	
OS-10-05	BLANK	13	J998784	<0.01	
OS-10-06	BLANK	14	E146358	<0.01	
OS-10-06	BLANK	14	E146373	<0.01	
OS-10-06	BLANK	15	E146389	<0.01	
OS-10-06	BLANK	15	E146398	<0.01	
OS-10-07	BLANK	16	J998739	<0.01	<0.01
OS-10-07	BLANK	16	J998761	0.02	0.01

Hole ID	Type	Batch	Sample	Au - Original	Au - Rerun
OS-10-05	BLANK	17	J998776	<0.01	
OS-10-07	BLANK	17	E146649	0.01	
OS-10-07	BLANK	18	E146491	<0.01	
OS-10-07	BLANK	18	E146506	<0.01	
OS-10-07	BLANK	19	E146512	<0.01	
OS-10-07	BLANK	19	E146531	<0.01	
OS-10-08	BLANK	20	E146431	0.01	0.01
OS-10-08	BLANK	20	E146435	0.12	0.03
OS-10-08	BLANK	21	E146457	0.01	
OS-10-09	BLANK	21	E146566	<0.01	
OS-10-09	BLANK	22	E146581	0.01	
OS-10-09	BLANK	22	E146596	<0.01	
OS-10-09	BLANK	23	E146616	<0.01	
OS-10-09	BLANK	23	E146631	<0.01	
OS-10-09	BLANK	24	E146645	<0.01	

STANDARD SAMPLES

Hole ID	Type	Batch	Sample	Au - Original	Au - Rerun
OS-10-01	**STD-1**	1	J998364	1.52	2.39
OS-10-01	**STD-1**	2	J998311	1.63	
OS-10-01	**STD-1**	3	J998379	1.55	
OS-10-02	**STD-1**	4	J998417	1.67	
OS-10-02	**STD-1**	5	J998456	1.48	
OS-10-03	**STD-1**	6	J998487	1.55	
OS-10-03	**STD-1**	9	J998616	1.59	1.56
OS-10-04	**STD-1**	10	J998658	1.70	
OS-10-04	**STD-1**	12	J998709	1.55	
OS-10-07	**STD-1**	16	J998746	1.57	*2.38

*Not enough material, Rerun with STD-3

Hole ID	Type	Batch	Sample	Au - Original	Au - Rerun
OS-10-03	**STD-3**	8	J998571	2.25	
OS-10-03	**STD-3**	8	J998587	2.45	
OS-10-06	**STD-3**	14	E146351	2.41	
OS-10-06	**STD-3**	15	E146407	2.09	
OS-10-07	**STD-3**	18	E146485	2.34	
OS-10-07	**STD-3**	19	E146540	2.30	
OS-10-07	**STD-3**	19	E146521	2.36	
OS-10-08	**STD-3**	20	E146417	2.26	2.32
OS-10-08	**STD-3**	21	E146452	2.29	
OS-10-09	**STD-3**	22	E146599	2.19	
OS-10-09	**STD-3**	22	E146577	2.34	
OS-10-09	**STD-3**	24	E146647	2.28	

Hole ID	Type	Batch	Sample	Au - Original	Au - Rerun
OS-10-01	**STD-2**	1	J998348	NSS	16.25
OS-10-01	**STD-2**	2	J998331	14.60	
OS-10-01	**STD-2**	3	J998399	14.65	
OS-10-02	**STD-2**	4	J998434	14.15	
OS-10-02	**STD-2**	5	J998467	13.95	
OS-10-03	**STD-2**	6	J998505	14.90	
OS-10-03	**STD-2**	7	J998528	14.90	15.55
OS-10-03	**STD-2**	7	J998553	16.20	14.60
OS-10-03	**STD-2**	9	J998606	14.95	
OS-10-04	**STD-2**	10	J998641	15.30	
OS-10-04	**STD-2**	11	J998681	15.40	
OS-10-04	**STD-2**	11	J998686	15.15	
OS-10-04	**STD-2**	12	J998718	14.50	
OS-10-05	**STD-2**	13	E146322	15.20	
OS-10-06	**STD-2**	15	E146381	14.80	
OS-10-07	**STD-2**	16	J998757	15.85	*16.00
OS-10-09	**STD-2**	21	E146561	13.95	
OS-10-09	**STD-2**	23	E146607	14.60	

*Rerun with STD-4

Hole ID	Type	Batch	Sample	Au - Original	Au - Rerun
OS-10-05	**STD-4**	13	E146333	16.65	
OS-10-06	**STD-4**	14	E146367	16.05	
OS-10-07	**STD-4**	17	E146468	15.70	
OS-10-07	**STD-4**	18	E146494	15.35	
OS-10-08	**STD-4**	20	E146427	15.50	16.00
OS-10-09	**STD-4**	23	E146621	15.35	

RE-RUNS

BATCH 1			BATCH 7			BATCH 9			BATCH 16			BATCH 20		
SAMPLE	Au (1)	Au (2)	SAMPLE	Au (1)	Au (2)	SAMPLE	Au (1)	Au (2)	SAMPLE	Au (1)	Au (2)	SAMPLE	Au (1)	Au (2)
J998300	0.02	0.02	J998518	0.01	0.01	J998590	0.01	<0.01	E146318	0.01	0.02	E146414	0.01	<0.01
J998301	0.04	0.04	J998519	0.01	<0.01	J998591	<0.01	<0.01	E146319	0.02	0.01	E146415	0.01	<0.01
J998339	16.55	13.30	J998520	0.02	<0.01	J998592	<0.01	0.01	E146410	0.14	0.15	E146416	0.01	<0.01
J998340	10.95	12.25	J998521	0.77	0.79	J998593	0.01	0.01	E146411	0.01	0.02	E146417	2.26	2.32
J998341	0.02	0.02	J998522	8.79	8.43	J998594	0.01	0.03	E146412	0.01	<0.01	E146418	0.01	<0.01
J998342	15.70	15.60	J998523	0.25	0.24	J998595	0.01	<0.01	E146413	<0.01	0.02	E146419	<0.01	<0.01
J998343	14.10	14.70	J998524	5.56	5.59	J998596	0.01	0.06	J998734	0.03	0.03	E146420	<0.01	<0.01
J998344	14.50	14.30	J998525	5.71	4.80	J998597	0.01	0.01	J998735	0.01	0.03	E146421	<0.01	<0.01
J998345	19.05	18.40	J998526	11.15	10.90	J998598	<0.01	<0.01	J998736	0.10	0.11	E146422	0.36	0.49
J998346	29.50	34.60	J998527	3.98	3.03	J998599	<0.01	0.01	J998737	0.04	0.05	E146423	0.03	0.08
J998347	39.80	45.90	J998528	14.90	15.55	J998600	0.01	0.01	J998738	0.12	0.13	E146424	0.25	0.30
J998348	NSS	16.25	J998529	0.61	0.61	J998601	<0.01	0.01	J998739	<0.01	<0.01	E146425	<0.01	<0.01
J998349	28.40	35.90	J998530	2.24	2.33	J998602	0.01	<0.01	J998740	0.06	0.06	E146426	0.05	0.06
J998350	39.00	46.40	J998531	0.20	0.22	J998603	<0.01	0.01	J998741	0.02	0.02	E146427	15.50	16.00
J998351	16.85	17.85	J998532	0.06	0.06	J998604	0.01	0.01	J998742	<0.01	0.01	E146428	7.64	7.58
J998352	16.05	18.20	J998533	<0.01	0.01	J998605	<0.01	0.02	J998743	0.12	0.13	E146429	1.62	1.31
J998353	13.70	14.65	J998534	0.32	0.32	J998606	16.35	14.95	J998744	0.06	0.07	E146430	22.20	21.10
J998354	13.40	14.10	J998535	0.66	0.60	J998607	0.01	0.01	J998745	0.36	0.37	E146431	0.01	0.01
J998355	15.10	14.95	J998536	0.77	0.76	J998608	<0.01	<0.01	J998746	1.57	2.38	E146432	4.24	4.36
J998356	13.65	14.30	J998537	1.44	1.39	J998609	0.01	0.01	J998747	1.41	1.39	E146433	16.60	17.20
J998357	0.04	0.07	J998538	0.14	0.14	J998610	<0.01	<0.01	J998748	1.22	1.17	E146434	42.20	42.10
J998358	1.80	1.61	J998539	0.03	0.02	J998611	<0.01	0.01	J998749	1.16	1.24	E146435	0.12	0.03
J998359	0.56	0.57	J998540	0.01	<0.01	J998612	<0.01	0.01	J998750	0.76	0.69	E146436	22.10	23.20
J998360	0.41	0.41	J998541	0.02	0.01	J998613	<0.01	0.01	J998751	1.58	1.64	E146437	4.31	4.16
J998361	5.02	5.42	J998542	0.08	0.07	J998614	<0.01	0.01	J998752	0.04	0.04	E146438	0.86	1.00
J998362	3.60	3.67	J998543	0.01	<0.01	J998615	<0.01	0.01	J998753	1.21	1.20	E146545	0.02	0.02
J998363	4.37	4.62	J998544	0.01	<0.01	J998616	1.59	1.56	J998754	0.91	0.90	E146546	0.11	0.12
J998364	1.52	2.39	J998545	0.03	0.02	J998617	<0.01	0.01	J998755	0.07	0.10	E146547	0.16	0.16
J998365	0.17	0.18	J998546	0.19	0.16	J998618	0.01	0.01	J998756	1.00	0.92	E146548	0.22	0.21
J998366	0.33	0.32	J998547	0.18	0.16	J998619	<0.01	0.01	J998757	15.85	16.00	E146549	0.35	0.43
J998367	0.36	0.39	J998548	0.35	0.34	J998620	0.01	0.01	J998758	1.77	1.78	E146550	0.34	0.48
J998368	0.21	0.23	J998549	1.03	1.01	J998621	<0.01	<0.01	J998759	0.07	0.08	E146551	0.23	0.25
J998369	0.18	0.20	J998550	<0.01	<0.01	J998622	<0.01	<0.01	J998760	0.05	0.04	E146552	0.33	0.31
J998370	0.28	0.29	J998551	0.35	0.33	J998623	<0.01	<0.01	J998761	0.02	0.01	E146553	0.23	0.25
J998371	0.29	0.31	J998552	0.36	0.33	J998624	<0.01	<0.01	J998762	0.02	0.02	E146554	0.63	0.64
J998372	0.36	0.36	J998553	16.20	14.60	J998625	<0.01	0.01	J998763	0.03	0.02	E146555	0.53	0.49

DUPLICATE SAMPLES

Hole ID	From	To	Interval	Batch	Sample	Au (original)	Au (duplicate)	Difference
OS-10-01	45.72	48.76	3.04	2	J998320	0.04	0.03	0.01
OS-10-01	84.60	85.10	0.50	1	J998354	14.65	14.10	0.55
OS-10-01	172.45	175.45	3.00	3	J998396	<0.01	<0.01	
OS-10-02	25.73	27.73	2.00	4	J998429	0.45	0.38	0.07
OS-10-02	122.00	125.00	3.00	5	J998463	0.03	0.04	0.01
OS-10-03	169.20	170.22	1.02	8	J998573	0.01	0.01	0.00
OS-10-03	198.60	200.60	2.00	9	J998593	0.01	0.01	0.00
OS-10-03	73.90	75.90	2.00	6	J998499	0.01	0.02	0.01
OS-10-03	138.68	140.20	1.52	7	J998547	0.16	0.16	0.00
OS-10-04	27.49	28.79	1.30	10	J998644	0.08	0.07	0.01
OS-10-04	73.15	75.38	2.23	11	J998669	0.01	0.01	0.00
OS-10-04	234.93	236.22	1.29	12	J998722	3.08	3.56	0.48
OS-10-05	126.42	129.00	2.58	13	E146324	0.01	<0.01	
OS-10-06	47.24	50.29	3.05	14	E146360	0.01	0.02	0.01
OS-10-06	146.30	147.83	1.53	15	E146391	<0.01	<0.01	
OS-10-07	33.53	35.05	1.52	16	J998749	1.17	1.24	0.07
OS-10-07	86.29	88.49	2.20	17	E146473	0.21	0.23	0.02
OS-10-07	122.00	124	2.00	18	E146488	0.03	0.06	0.03
OS-10-07	193.55	196.00	2.45	19	E146525	0.13	0.10	0.03
OS-10-08	27.51	30.48	2.97	20	E146421	<0.01	<0.01	
OS-10-08	64.01	65.53	1.52	21	E146445	0.03	0.02	0.01
OS-10-09	70.10	71.63	1.53	22	E146589	<0.01	<0.01	
OS-10-09	110.85	112.78	1.93	23	E146613	2.08	2.14	0.06
OS-10-09	166.12	169.16	3.04	24	E146642	<0.01	<0.01	

APPENDIX VI

GEOLOGICAL AND GEOLOGICAL LOGS

NADALEEN TREND PROJECT

Grid East	Grid North	Easting	Northing	Elev. (m)	Depth (m)
		629368	7112057	1789	219.45

ZONE: Osiris

SECTION:

HOLE: **OS-10-01**

CLAIM: STEN29

Contractor: Beaudoin Drilling

Drill: 5

Core size: NTW & BTW

Casing depth: 1.52 out

Drilling dates: Aug. 5, 2010 to Aug. 10, 2010

TARGET: Osiris Horizon

Geology logged by: O. Fu, K. Unger

SURVEY

Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	270	-50	compass				
137.16	-	-50.5	acid				

SUMMARY

From (m)	To (m)	Interval	Unit	Comments
0.00	1.52	1.52	OVB	Overburden no recovery.
1.52	4.45	2.93	LST	DCA with CLY, LIM and ASO alteration.
4.45	18.43	13.98	MST	With interbedded LST and some MX zones.
10.60	14.14	3.54	MST	Mineralized interval.
18.43	53.05	34.62	LST	Moderrate ASO alteration
53.05	164.59	111.54	LST	Variably DCA and mineralized with Rg, Om.
164.59	196.59	32.00	LST	Intebeds of mud and debris flow packages
196.59	219.45	22.86	LST	Thinnly interbedded.
219.45	EOH			

SAMPLES

Numbers: J998300-J998413

Total: 114

Batch: 1, 2, 3, 4

Date Sent: August 9, 14, 22, 2010

Certificate: VA10111435, VA10113813, VA10120433, VA10120381

COMMENTS

219.45 m: E.O.H - The hole was ended because it was past the targeted mineralization and was having some difficulty drilling. The core diametre was reduced from NTW to BTW at 131.06 m. Hole producing water at 219.45 m, 182.88 m, and at 152.40 m. An acid test could not be taken at the bottom of the hole so it was taken at 137.16 m. Rim on test tube was very difficult to see. The hole was relogged by K. Unger after core had been split for samping.

GEOLOGY LOG

HOLE: OS-10-01

INTERVAL			SUB-INTERVAL			LITHOLOGY				STRUCTURE				ALTERATION														
																		Other							Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture	DETAILED DESCRIPTION	Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	Photo
0.00	1.52	1.52				OVB			Overburden - no recovery																		
1.52	4.45	2.93				LST	DCA		Grey to buff, FG, DCA, rubbly limestone (LST) with a limonitic coating. Locally clay altered in narrow 4 cm zones.						m			CLY	m								
																	w										
			3.05	4.45	1.40	LST	DCA		Grey to buff, FG, highly fractured, DCA altered limestone with carbonate veins and minor sooty black stringers (black sulphide ?). Carbonate veins are between 1-3 mm thick and cross-cut the unit. Irregular black stringers up to 1 mm wide are scattered throughout. Light brownish to buff-yellow (ASO?) alteration is patchy, and gradually increases intensity with depth. Unit does not effervesce (except on carbonate veins).	FR					i			ASO	m								
4.45	18.43	13.98				MST	LST	BD	Black to dark grey/maroon, evenly interbedded MST and LST with few rusty coated surfaces. MST and LST laminations are between 1-3 mm, and are oriented sub-parallel TCA. LST layers are lighter in colour and gritty when scratched. The unit does not effervesce (unless on a carbonate vein). There are few surfaces which contain rusty grains with a limonitic(?) halo around them. Diffuse lower contact.	BD	10				s												X
			5.10	5.20	0.10		CLY		Clay altered, gouge. Zone is 'mushy' with sharp upper and lower contacts between competent units.									CLY	s								
			6.45	6.80	0.35		BLE		Bleached and altered zone. Abundant fracturing. Carbonate veins are up to 1 cm wide and cross-cut the unit.	FR								BLE	ms								
			7.10	8.47	1.37			BD	Prominent bedding planes occur between 10 to 25 degrees TCA in this narrow zone of the interval.	BD	10																
			1.52	12.20	10.68			BD	Bedding is measured 0-30 degrees TCA, obscured by sampling, and at times exhibits soft sediment deformation textures.	BD	15																X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY				STRUCTURE				ALTERATION														
																		Other						Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture	DETAILED DESCRIPTION	Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	Photo
			10.60	14.14	3.54	MST	MX	BD	Bright reddish-orange realgar and yellow orpiment mineralization occur within laminations sub-parallel to bedding in MST. Realgar is disseminated to blebby, while the orpiment occurs on fractured surfaces. There are a few locations where realgar and orpiment occur adjacent to each other in veins or within bedding. Apple green to buff ASO alteration occurs throughout the interval and increases in concentration with zones of higher mineralization.	BD	10							ASO	m	w	m						X
			11.70	11.75	0.05	MST	MX		Crystalline realgar along fractured surfaces. Mineralization is sub-parallel to bedding in a muddy unit. Individual crystals are between 1-2 mm. The unit also contains few dark rusty patches with buff ASO alteration.									CLY	w		s						X
																		ASO	m								
			13.68	13.81	0.13	MST	MX		Crystalline 1-2 mm realgar along fractured surfaces.									ASO	m		s						X
18.43	53.05	34.62				LST	ASO		Grey to light buff, FG, compact limestone with numerous carbonate veinlets between 1-15 mm that show no preferential orientation. The unit fizzes moderately to strongly. Numerous areas show ASO alteration to a buff to dark green/yellow colour.									ASO	m								
			22.86	24.15	1.29	LST		FR	Moderately fractured interval	FR																	
			28.10	28.40	0.30		CLY	FR	Clay altered and fractured zone with numerous carbonate veins. Carbonate veins are range in size between 1-10 mm.	FR								CLY	s								
			28.95	29.15	0.20				Cave in of material from above																		
			29.15	37.50	8.35	LST	MST	BD	MST interbeds within LST unit. Few carbonate veins are between 0.5-2 cm. Bedding is sub-paralle TCA. Weak light buff ASO alteration occurs throughout the interval.	BD	10							ASO	w								
			37.50	41.22	3.72	LST		DF	Debris flow (?) with subangular to rounded and lathe shaped clasts between 0.5-2 cm wide.																		
			38.47	38.49	0.02			MX	Reddish-orange realgar mineralization within a 3 mm wide carbonate vein.	VN											t						
			41.22	44.00	2.78	LST			There is a black wavy 's' (stylolitic-like) lens, between 2-5 mm wide. The lens appears interesting since we are drilling sub-parallel to bedding, giving the lens a unique appearance in the core.																		
			41.22	53.05	11.83	LST	LIM	FR	Trace to weak rusty patches on fractured surfaces.								w										

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION															Photo
																		Other						Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			47.65	47.87	0.22	LST	LIM		The interval is moderately "oxidized" resulting in a rusty orange colour. The elevated intensity of weathering is local.								m										
			47.65	53.05	5.40	LST	MST	BD	The lower parts of the unit begin to show a gradational change to a laminated MST. This change becomes more prevalent with depth.																		
			50.29	50.34	0.05			MX	Trace Rg in the center of a carbonate vein	VN										t						
			51.50	52.00	0.50		ASO	BD	Strong buff-green to light brown ASO alteration with weak clay alteration in a slightly bedded LST/MST layer. Prominent features of the rock have been altered and overprinted by abundant fracturing and crackling.									ASO	s								
																		CLY	w								
53.05	72.20	19.15				LST	MX	BD	Medium to dark grey, laminated LST with weak disseminated realgar hosted within carbonate veins that are 2-8 mm wide with no preferred orientation. Darker LST/MST laminations are <1-5 mm thick and oriented at 0-5 deg TCA. A few areas show weak clay alteration.	BD	5							CLY	w		w						X
			60.13	60.88	0.75	LST	MX	BD	Reddish-orange, MG, crystalline realgar and patchy bright yellow orpiment mineralization. Realgar mineralization occurs within carbonate veins and as disseminations in bedding laminations. Orpiment mainly occurs as powdery patches on fractured surfaces or along seams between healed fractures. Bedding is shallow, oriented 10-15 degrees TCA.	BD	10							CLY	t	s	s						
			61.25	61.65	0.40	LST	MX		Light grey, bleached, moderately fractured zone with weakly disseminated realgar and patchy orpiment. Orpiment occurs as powdery aggregates on fractures. Realgar is weakly disseminated throughout.	FR								BLE	m	w	w						X
			64.90	68.50	3.60	MST	LST	BD	MST beds are gradually increasing in thickness, interbeds within the LST unit are oriented at 10 deg TCA. By 65.70 m, the unit is completely MST. Numerous carbonate veinlets 0.8-1.2 oriented at 25 deg TCA Yellowish-buff ASO alteration occurs along all fractures (although the fracture density is generally low to moderate).	BD	10							ASO	w								
			68.50	72.20	3.70	LST		DF	Gradational change back into debris flow LST. The lower contact of this interval occurs at 10 deg TCA. This interval contains abundant white carbonate veins most commonly at 80 deg, but also at 50 deg TCA. These carbonate veins range in size between 0.2-1.5 cm.	CN	10															

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION															Photo
																		Other							Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity		
									White, CG calcareous veinlets 1-10 mm wide most commonly occur at 80 degrees TCA and ~280 degrees to BD.	VN	80	280																
			71.50	71.51	0.01	LST			Trace amounts of yellow orpiment on a fractured surface adjacent to a crystalline calcite vein.											t								
72.20	89.20	17.00				LST	DCA	MX	Medium to dark grey, DCA altered, bedded silty LST with disseminated and interstitial realgar and orpiment. Weak clay alteration occurs mainly along fractures. Carbonate veinlets between 2-10 mm are scattered throughout at between 75-85 deg TCA. These veinlets become less abundant with depth.	BD	25				i			CLY	w	w	w							
			75.65	75.75	0.10	LST	DCA	BD	LST and MST interbeds occur at 20 deg TCA	BD	20																	
			78.60	89.20	10.60	LST	DCA	MX	Dark grey to black, FG, porous and clastic, intensely DCA LST with strong realgar and orpiment mineralization. Reddish-orange realgar occurs within fractures as disseminations and as crystalline masses on fractured surfaces. Bright yellow orpiment occurs as patches and powdery coatings along fractures that are commonly adjacent to realgar. Purple fluorite crystals are scattered through the interval, weak overall. The entire interval is moderately hard and does not effervesce with acid. Bedding is variable but commonly occurs at 35-40 deg TCA. The mineralized unit has a sharp lower contact. The lower contact is sharp ay 10 deg TCA.	BD	35			m	i			CLY	m	s	s		Fl	w			X
										ICN	10																	
89.20	103.33	14.13				LST	MX	BD	Interbedded gritty siltstone with moderately mineralized dark grey-black LST. Weak realgar and orpiment mineralization mainly occurs as disseminations along fractures. Carbonate veinlets between 0.2-1.0 cm occur throughout at orientations between 15-85 deg TCA, with 85 deg most common. Trace vugs occur in the unit and are filled with crystalline calcite.	CN										w	w							
			90.80	91.00	0.20	LST	MX		Dark grey to black LST with weak orpiment and moderate realgar as disseminations along fractures. This mineralized interval has a sharp upper and lower contacts.									CLY	m	w	m							
			91.54	91.69	0.15	LST	MX		Dark grey to black LST with weak orpiment and weak realgar as disseminations along fractures. This mineralized interval has a sharp upper and lower contacts.											w	w							X
			93.20	94.00	0.80	LST	DCA	BD	Obviously bedded LST at 30 deg TCA	BD	30																	

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION															Photo
																		Other							Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			97.00	97.37	0.37	LST	MX	BD	Black laminations in the LST are oriented at 10 deg TCA and contain weak disseminated realgar.	BD	10										w						
			97.20	103.33	6.13	LST	DCA	MX	Medium to dark grey, FG, LST with reddish-orange crystalline realgar and powdery bright yellow patches of orpiment on fractures. Mineralization is variable from moderate to strong for both orpiment and realgar. In a few zones the realgar has become oxidized to a bright orange to rusty colour. The majority of the unit effervesces moderately, although few narrow zones have undergone moderate decalcification. A few stylolitic veinlets occur within the interval and are typically less than 1 mm thick.						m					ms	ms						
			99.66	103.33	3.67	LST	CLY	MX	Moderately fractured mineralized LST with black to dark grey clay altered zones. Reddish-orange realgar is disseminated, interstitial, and crystalline. Orpiment is mainly disseminated adjacent to realgar mineralization.	FR								CLY	w	s	s						
103.33	116.50	13.17				LST	DCA	MX	Medium to dark grey limestone with moderate realgar and orpiment mineralization. Reddish-orange realgar occurs along fractures and healed seams as crystalline masses. Patchy bright yellow orpiment mainly occurs on fractures and adjacent to realgar. The unit is moderately silicified, strongly DCA and shows a weak overprinting crackle texture. Soft sediment deformation textures occur surrounding 2-4 cm fragments of brittle deformed LST beds.						m	s				m	m						X
			105.60					BD	At 105.60 m bedding occurs at 50 degrees TCA.	BD	50																
			106.73	107.40	0.67	Ca		VT	Irregular calcite veinlets have a preferred orientation at 50 deg TCA.	VT	50																
			111.70	112.47	0.77	LST	MST	BD	Interbedded black mudstone and medium to dark grey limestone layers are oriented at 55 deg TCA. The black MST layers are between 1-3 mm thick, while the medium to dark grey limestone bands are between 1-3 cm.	BD	55																	

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY				STRUCTURE				ALTERATION													
																		Other						Other		Other	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture	DETAILED DESCRIPTION	Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	Photo
116.50	120.39	3.89				LST	MX	BD	Dark and light grey interbedded LST with fair realgar and orpiment mineralization. The interbedded layers are between 2-10 mm wide. The light grey layers effervesce while dark grey layers do not. The bedding is very prominent at 40 deg TCA. Reddish-orange crystalline realgar and powdery bright yellow orpiment mainly occur as disseminations to patches as well as along fractures. The realgar is weakly oxidized.	BD	43							ASO	w	f	f						X
120.39	139.35	18.96				LST	DCA		Medium to light grey, FG, strongly DCA and moderate strongly silicified LST with a zone of realgar and orpiment mineralization. Black 1-3 mm stylolites are abundant and occur between 40-50 deg TCA. A weak concentration of carbonate veins ranging from 2-7 mm. In a few locations the veins show a sparry dog-tooth texture. The sparry texture becomes more prominent with depth. Unit does not effervesce.	ST	40			ms	s												
			122.00	124.75	2.75	LST	MX		Realgar and orpiment are disseminated, and occur along fractures as 1 mm wide crystalline masses.											w	m						
			125.52	125.58	0.06	LST			Local high density zone of randomly orientec stylolites.	ST																	
			134.20					BD	Undulose bedding at 134.20 m is oriented 45 degrees TCA.	BD	45																
			137.90					CR	Black, narrow crackling at 137.90 m, oriented 30 degrees TCA.	CR	30																
			137.90					CR	A secondary orientation to black crackling at 137.90 m, oriented 50-30 degrees TCA and 210 degrees to the primary crackling orientation.	CR	40																
139.35	142.70	3.35				LST	MX	BD	Light grey and black, interbedded FG mud and LST layers. Weakly mineralized reddish-orange realgar and yellow orpiment occur throughout mainly along fractures.	BD	55									w	w					
			139.75	139.80	0.05	MX			Black sooty (Py?) zone with reddish-pink crystalline realgar. Realgar occurs within a few 1 cm vugs.												m						

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION														Photo
																		Other						Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
142.70	164.59	21.89				LST	DCA		Light grey to cloudy white, FG, DCA, crackled LST with mineralization throughout. Reddish-orange realgar and patchy bright yellow orpiment occur throughout along with trace fine grained pyrite. Realgar and orpiment mineralization can only be seen on the fractured surfaces, while trace fine grained euhedral pyrite mainly occurs in the dark grey sooty areas. The unit has a weakly to moderately crackled texture that appears to be infilled with dark grey to black material black material. Unit has been moderately DCA effervescing only when scratched. Trace clay alteration occurs only along fractures.						m			CLY	t	w	t	t					X
			142.70	146.00	3.30	LST		DF	Cryptic LST debris flow texture with light grey, subrounded clasts that range in size between 0.4-2 cm, and show no preferred orientation.																		
			162.90	164.59	1.69	LST	MX	CR	Gradational increase in the intensity of the crackle texture while approaching the lower contact. Weak blebs and disseminations of pyrite occur on fractured surfaces. Weak realgar and trace orpiment occur as disseminations. Sharp lower contact.												w	t	w					
164.59	174.44	9.85				MST	MX	DF	Dark green mudstone with orpiment mineralization along fractured surfaces and fair clay alteration throughout with narrow zones locally showing strong CLY alt. Intervals of dark grey matrix supported debris flow occur within.										CLY	f	w							X
			164.59	166.22	1.63	MST	MX	FR	Bright yellow orpiment is patchy and occurs as thin powdery films on fractured surfaces.											w							
			166.22	166.70	0.48		CLY		Clay altered zone with dark grey to black clay-rich zones. Altered interval is mainly granular and mushy.									CLY	m								
			168.22	168.25	0.03				Black, vFG, sooty zone.																		
			169.45	171.55	2.10	LST		DF	Dark grey, matrix supported, calcareous debris flow. Clasts are between 0.3-4 cm and show no preferred orientation.																		
			169.40					CR	Black "crackling" at 169.40 m, primarily oriented 50 degrees TCA, orientation TFA is unavailable.	CR	50	n/a															
								CR	A second orientation to black crackling at 169.40 m, oriented 40 degrees TCA, and ~180-230 degrees to primary crackling orientation.	CR	40	n/a															
			171.55	171.75	0.20	LST			Medium to dark grey, "calcite-flooded" LST with few 1 mm calcite disseminations.																		

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION														Photo
																		Other						Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			171.75	172.67	0.92	LST		DF	Dark grey, matrix supported, calcareous debris flow. Clasts are between 0.3-4 cm and show no preferred orientation.																		
			172.67	173.30	0.63	LST			Medium to dark grey, "calcite-flooded" LST with few 1 mm calcite disseminations.																		
			173.30	174.44	1.14	LST		DF	Dark grey, matrix supported, calcareous debris flow. Clasts are between 0.3-4 cm and show no preferred orientation.																		X
174.44	196.59	22.15				LST	MST	BD	Dark grey-black to light grey-white, interbedded limestone and mudstone. Limestone layers are light grey and effervesce. Dark grey-black mudstone layers do not effervesce. LST/MST bedding planes occur at 55 deg TCA. Orientations increase to 60 deg TCA towards the end of the unit. Trace slickensides are observed on some fractured surfaces. Intervals of debris flow occur within (50% overall) increasing in thickness down hole.	BD	55																X
			175.52	175.95	0.43	LST		DF	Light grey, clast supported, debris flow limestone. Clasts are mainly lathe shaped and between 0.5-3 cm in size. Clasts also show a preferred orientation at 55 deg. TCA. Minor crackled overprint. Unit strongly effervesces.	BD	55																
			179.50					BD	Measured from interbedded muds and LST at 179.50 m, bedding is oriented 70 degrees TCA.	BD	70																
			183.24	184.17	0.93	LST		DF	Light grey, clast supported, debris flow limestone. Clasts are mainly lathe shaped and between 0.5-3 cm in size. Sharp lower contact at 45 deg TCA.	ICN	45																X
			184.17	186.23	2.06	LST		CR	Light grey, compact limestone with a weak crackle texture and black (1-2 mm) sooty veins generally at 55 deg TCA but also occur between 60-70 deg. TCA.	VN	55																X
			186.23	194.15	7.92	LST		DF	Grey, FG, matrix supported, debris flow LST with numerous white clasts and a dark grey matrix. White clasts are subrounded to angular and range in size between 0.3-6 cm. Majority of clasts are not oriented, while few local zones show a preferred orientation to 50 deg TCA. Trace 3-5 cm white calcite veins cut the unit. The entire interval effervesces strongly.	BD	50																X
			194.15	196.59	2.44	LST		DF	Black, matrix supported, debris flow LST. Clasts are dark to medium grey, subangular and between 0.5-3 cm in diameter. Clasts effervesce while fine grained matrix does not.																		

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION														Photo
																		Other						Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
196.59	219.45	22.86				LST	MST	BD	Dark and light grey FG, interbedded limestone and mudstone. The light grey limestone layers effervesce while the dark grey mudstone layers do not. A few clay altered zones have a black coatings on fractures coating. Bedding is oriented 55-65 degrees TCA and is uniform throughout. Qz-Ca veins/veinlets with irregular orientations occur throughout.	BD	60							CLY	w			t						
						Qz	Ca		Qz-Ca veins/veinlets with irregular orientations	VT	n/a	n/a																
									219.45 m - EOH, drill encountered water problems at depth, hole was terminated.																			

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

SAMPLE LOG

HOLE: OS-10-01

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
1.52	4.57	3.05	LST	DCA	0.85	28	J998300	1	0.02	940	1.00	2.87	2.11	
4.57	7.62	3.05	MST	LST	3.00	98	J998301	1	0.04	1455	1.00	5.06	5.55	
7.62	10.60	2.98	MST	LST	2.81	94	J998302	-	0.21	1180	2.31	4.03	9.45	
10.60	12.33	1.73	MST	LST	1.70	98	J998303	-	2.91	13550	14.40	56.10	55.80	
78.60	79.10	0.50	LST	DCA	0.50	100	J998339	1	13.30	22600	69.00	154.50	243.00	
79.10	79.60	0.50	LST	DCA	0.50	100	J998340	1	12.25	44500	59.00	152.00	207.00	
79.60	80.10	0.50	LST	DCA	0.50	100	J998342	1	15.60	27900	71.00	165.50	254.00	
80.10	80.60	0.50	LST	DCA	0.50	100	J998343	1	14.70	36500	68.00	175.00	253.00	
80.60	81.10	0.50	LST	DCA	0.50	100	J998344	1	14.30	19700	63.00	159.50	235.00	
81.10	81.60	0.50	LST	DCA	0.30	60	J998345	1	18.40	23600	82.00	210.00	316.00	
81.60	82.10	0.50	LST	DCA	0.50	100	J998346	1	34.60	43400	166.50	396.00	590.00	
82.10	82.60	0.50	LST	DCA	0.50	100	J998347	1	45.90	27700	235.00	417.00	690.00	
82.60	83.10	0.50	LST	DCA	0.50	100	J998349	1	35.90	11900	165.00	302.00	500.00	
83.10	83.60	0.50	LST	DCA	0.50	100	J998350	1	46.40	13250	201.00	412.00	670.00	
83.60	84.10	0.50	LST	DCA	0.50	100	J998351	1	17.85	11250	77.00	159.00	235.00	
84.10	84.60	0.50	LST	DCA	0.50	100	J998352	1	18.20	44800	80.00	192.50	245.00	
84.60	85.10	0.50	LST	DCA	0.50	100	J998353	1	14.65	55400	58.00	176.50	167.00	
85.10	87.10	2.00	LST	DCA	2.00	100	J998355	1	14.95	11250	59.00	252.00	179.50	
87.10	89.15	2.05	LST	DCA	2.05	100	J998356	1	14.30	16350	81.00	161.50	253.00	
89.15	92.15	3.00	LST	MX	3.00	100	J998358	1	1.61	1260	19.00	29.50	60.80	
92.15	95.15	3.00	LST	MX	3.00	100	J998359	1	0.57	365	7.00	11.85	23.10	
95.15	97.20	2.05	LST	MX	2.05	100	J998360	1	0.41	237	4.00	6.00	11.05	
97.20	99.70	2.50	LST	DCA	2.45	98	J998361	1	5.42	17350	11.00	45.90	32.00	
99.70	102.00	2.30	LST	DCA	2.25	98	J998362	1	3.67	34400	7.00	59.50	19.75	
102.00	103.33	1.33	LST	DCA	1.30	98	J998363	1	4.62	49800	6.00	87.50	16.75	
103.33	106.33	3.00	LST	DCA	3.00	100	J998365	1	0.18	2940	3.00	51.10	20.80	
106.33	109.33	3.00	LST	DCA	3.00	100	J998366	1	0.32	2510	1.00	15.45	4.85	
109.33	112.33	3.00	LST	DCA	3.00	100	J998367	1	0.39	1360	1.00	8.41	2.59	
112.33	113.53	1.20	LST	DCA	1.20	100	J998368	1	0.23	465	1.00	3.23	1.76	
113.53	114.73	1.20	LST	DCA	1.20	100	J998369	1	0.20	2080	1.00	5.26	2.80	
114.73	115.93	1.20	LST	DCA	1.20	100	J998370	1	0.29	27200	3.00	22.20	4.24	
115.93	117.68	1.75	LST	MX	1.70	97	J998371	1	0.31	852	3.00	5.74	4.47	
117.68	119.53	1.85	LST	MX	1.75	95	J998372	1	0.36	4710	5.00	9.37	6.83	
12.33	13.33	1.00	MST	LST	1.00	100	J998304	2	3.04	3670	13.00	18.55	38.40	
13.33	14.33	1.00	MST	LST	1.00	100	J998305	2	6.28	12800	22.50	84.20	96.60	
14.33	16.38	2.05	MST	LST	2.05	100	J998307	2	0.44	633	5.92	10.20	14.00	
16.38	18.43	2.05	MST	LST	2.05	100	J998308	2	0.07	428	2.93	4.13	13.90	
18.43	21.33	2.90	LST	ASO	2.90	100	J998309	2	0.03	133	1.18	1.74	3.69	
21.33	24.38	3.05	LST	ASO	2.95	97	J998310	2	0.01	99	1.04	2.65	2.34	
24.38	27.43	3.05	LST	ASO	3.00	98	J998312	2	0.01	43	0.39	1.37	1.30	
27.43	30.48	3.05	LST	MST	3.05	100	J998313	2	<0.01	52	0.23	2.44	0.77	
30.48	33.52	3.04	LST	MST	3.04	100	J998314	2	0.01	62	0.20	3.18	0.74	
33.52	36.57	3.05	LST	MST	3.05	100	J998315	2	<0.01	59	0.15	2.38	1.02	
36.57	39.62	3.05	LST	ASO	2.95	97	J998316	2	0.03	71	0.25	0.94	0.86	
39.62	42.67	3.05	LST	LIM	2.95	97	J998317	2	0.01	81	0.13	1.14	0.60	
42.67	45.72	3.05	LST	LIM	3.05	100	J998318	2	0.01	60	0.13	0.55	0.33	
45.72	48.76	3.04	LST	MST	3.04	100	J998319	2	0.04	214	0.40	1.14	1.20	
48.76	51.41	2.65	LST	MST	2.65	100	J998321	2	0.19	308	1.65	1.83	5.10	
51.41	53.05	1.64	LST	MST	1.60	98	J998322	2	0.07	773	2.99	3.82	5.89	
53.05	56.08	3.03	LST	MX	3.03	100	J998323	2	0.09	181	1.28	1.76	3.24	
56.08	58.13	2.05	LST	MX	2.05	100	J998324	2	0.97	868	5.28	9.18	21.30	
58.13	60.13	2.00	LST	MX	2.00	100	J998325	2	1.71	1560	10.40	21.70	43.80	
60.13	60.88	0.75	LST	MX	0.75	100	J998326	2	2.07	27200	11.60	69.00	54.30	
60.88	61.88	1.00	LST	MX	1.00	100	J998328	2	0.48	1820	6.62	17.80	29.20	
61.88	63.88	2.00	LST	MX	2.00	100	J998329	2	0.02	107	1.45	1.36	2.55	
63.88	66.93	3.05	MST	LST	3.05	100	J998330	2	0.14	348	2.07	6.18	8.68	
66.93	69.93	3.00	MST	LST	3.00	100	J998332	2	0.45	365	4.52	6.47	12.75	
69.93	72.20	2.27	LST	MX	2.25	99	J998333	2	0.28	178	3.84	3.32	10.80	
72.20	73.70	1.50	LST	DCA	1.50	100	J998334	2	0.67	732	18.60	9.59	35.50	
73.70	75.20	1.50	LST	DCA	1.43	95	J998335	2	4.36	2600	31.00	41.90	102.00	
75.20	76.60	1.40	LST	DCA	1.40	100	J998336	2	8.45	2260	44.60	74.50	174.00	
76.60	77.60	1.00	LST	DCA	1.00	100	J998337	2	12.35	4220	77.60	136.00	308.00	
77.60	78.60	1.00	LST	DCA	1.00	100	J998338	2	10.90	5130	51.20	91.70	190.50	
119.53	121.28	1.75	LST	MX	1.68	96	J998373	2	0.25	128	2.30	3.00	4.32	

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
121.28	123.03	1.75	LST	DCA	1.60	91	J998374	3	0.06	1860	1.16	3.36	1.88	
123.03	124.75	1.72	LST	DCA	1.70	99	J998375	3	0.04	3920	1.20	4.53	1.22	
124.75	127.75	3.00	LST	DCA	2.95	98	J998376	3	0.02	100	0.81	1.15	0.93	
127.75	130.75	3.00	LST	DCA	2.95	98	J998377	3	0.02	132	1.91	1.02	1.72	
130.75	133.75	3.00	LST	DCA	1.50	50	J998378	3	0.03	60	1.97	1.60	1.73	
133.75	136.75	3.00	LST	DCA	2.30	77	J998380	3	0.07	80	1.41	0.97	1.67	
136.75	139.39	2.64	LST	DCA	2.45	93	J998381	3	0.08	62	1.67	1.14	3.12	
139.39	142.40	3.01	LST	MX	2.87	95	J998382	3	0.44	860	7.76	7.43	18.65	
142.40	145.40	3.00	LST	DCA	2.95	98	J998383	3	0.05	608	3.32	1.78	2.72	
145.40	148.40	3.00	LST	DCA	3.00	100	J998385	3	0.01	110	1.74	0.74	1.13	
148.40	151.40	3.00	LST	DCA	3.00	100	J998386	3	<0.01	36	0.51	0.54	0.50	
151.40	154.40	3.00	LST	DCA	3.00	100	J998387	3	<0.01	33	0.55	0.48	0.75	
154.40	157.40	3.00	LST	DCA	3.00	100	J998388	3	<0.01	39	0.33	0.32	0.54	
157.40	160.40	3.00	LST	DCA	3.00	100	J998389	3	<0.01	25	0.43	0.30	0.35	
160.40	162.59	2.19	LST	DCA	2.15	98	J998390	3	<0.01	20	0.14	0.27	0.26	
162.59	164.59	2.00	LST	MX	1.97	99	J998391	3	<0.01	68	0.49	0.71	0.83	
164.59	167.02	2.43	MST	MX	2.40	99	J998392	3	0.02	248	1.50	1.80	5.73	
167.02	169.45	2.43	MST	MX	2.43	100	J998393	3	<0.01	96.4	1.00	0.62	3.14	
169.45	172.45	3.00	LST	DF	3.00	100	J998394	3	<0.01	19	0.44	0.24	1.43	
172.45	175.45	3.00	LST	DF	3.00	100	J998395	3	<0.01	15	0.11	0.19	0.80	
175.45	178.45	3.00	LST	MST	3.00	100	J998397	3	<0.01	20	0.19	0.36	1.51	
178.45	181.45	3.00	LST	MST	3.00	100	J998398	3	<0.01	31	0.15	0.34	1.54	
181.45	184.45	3.00	LST	MST	2.91	97	J998400	3	0.01	30	0.15	0.49	1.76	
184.45	187.45	3.00	LST	DF	3.00	100	J998401	3	<0.01	30	0.08	0.31	0.65	
187.45	190.45	3.00	LST	DF	3.00	100	J998402	3	0.01	50	0.09	0.38	0.90	
190.45	193.45	3.00	LST	DF	3.00	100	J998403	3	0.01	59	0.33	0.37	0.86	
193.45	196.45	3.00	LST	DF	2.95	98	J998405	3	0.21	2590	6.70	9.41	28.10	
196.45	199.45	3.00	LST	MST	2.70	90	J998406	3	0.02	527	1.93	1.88	6.46	
199.45	202.45	3.00	LST	MST	2.65	88	J998407	3	0.01	113	0.82	0.73	2.83	
202.45	205.45	3.00	LST	MST	2.80	93	J998408	3	<0.01	28	0.16	0.34	1.03	
205.45	208.45	3.00	LST	MST	2.60	87	J998409	3	<0.01	30	0.16	0.40	0.99	
208.45	211.45	3.00	LST	MST	2.92	97	J998410	4	<0.01	51.8	0.42	0.51	1.66	
211.45	214.45	3.00	LST	MST	2.78	93	J998411	4	<0.01	824	2.47	1.71	6.12	
214.45	217.45	3.00	LST	MST	2.82	94	J998412	4	0.01	119.5	0.90	0.54	1.86	
217.45	219.45	2.00	LST	MST	1.90	95	J998413	4	0.01	39.9	0.79	0.63	1.72	
-	-	-	-	-	-	-	J998341	1	0.02	1050	1.00	0.43	0.57	**Blank**
-	-	-	-	-	-	-	J998348	1	16.25	1160	9.00	158.00	4.22	**Standard OS-2**
84.60	85.10	0.50	LST	DCA	0.50	100	J998354	1	14.10	68700	58.00	183.00	166.50	**Duplicate of J998353**
-	-	-	-	-	-	-	J998357	1	0.07	152	2.00	1.08	1.63	**Blank**
-	-	-	-	-	-	-	J998364	1	2.39	272	1.00	171.50	12.45	**Standard OS-1**
-	-	-	-	-	-	-	J998306	2	0.01	63	0.03	0.15	0.15	**Blank**
-	-	-	-	-	-	-	J998311	2	1.63	26000	0.02	22.20	0.09	**Standard OS-1**
45.72	48.76	3.04	LST	MST	3.04	100	J998320	2	0.03	149	0.34	0.98	0.94	**Duplicate of J998319**
-	-	-	-	-	-	-	J998327	2	<0.01	17	0.03	0.05	0.04	**Blank**
-	-	-	-	-	-	-	J998331	2	14.60	485	0.41	45.60	4.54	**Standard OS-2**
-	-	-	-	-	-	-	J998379	3	1.55	26300	0.08	22.90	0.10	**Standard OS-1**
-	-	-	-	-	-	-	J998384	3	<0.01	7	0.02	0.05	0.04	**Blank**
172.45	175.45	3.00	LST	DF	3.00	100	J998396	3	<0.01	20	0.20	0.37	1.47	**Duplicate of J998395**
-	-	-	-	-	-	-	J998399	3	14.65	500	0.41	46.60	5.02	**Standard OS-2**
-	-	-	-	-	-	-	J998404	3	<0.01	<5	<0.01	<0.05	<0.02	**Blank**

GEOTECHNICAL LOG

HOLE: OS-10-01

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
0.00	1.52	1.52	0.00	0	0	0	-	-	Overburden.
1.52	3.05	1.53	0.65	42	0.00	0	S	HW	Highly fractured
3.05	4.57	1.52	1.20	79	0.00	0	MH	MW	Highly fractured
4.57	6.09	1.52	1.52	100	0.86	57	MS	SW	
6.09	7.62	1.53	1.52	99	0.86	56	MS	MW	
7.62	9.14	1.52	1.42	93	0.96	63	MH	SW	
9.14	10.66	1.52	1.45	95	1.28	84	MH	SW	
10.66	12.19	1.53	1.50	98	1.46	95	MH	SW	
12.19	13.71	1.52	1.50	99	1.42	93	MH	MW	Mineralized
13.71	15.24	1.53	1.53	100	1.37	90	MH	MW	Mineralized
15.24	16.76	1.52	1.52	100	1.41	93	H	FR	
16.76	18.29	1.53	1.50	98	1.48	97	MH	FR	
18.29	19.81	1.52	1.50	99	1.42	93	MH	FR	
19.81	21.33	1.52	1.52	100	1.38	91	MH	FR	
21.33	22.86	1.53	1.53	100	1.20	78	MH	FR	
22.86	24.38	1.52	1.52	100	0.50	33	MH	MW	
24.38	25.90	1.52	1.52	100	1.52	100	H	FR	
25.90	27.43	1.53	1.47	96	1.28	84	H	FR	
27.43	28.95	1.52	1.52	100	1.32	87	H	SW	
28.95	30.48	1.53	1.44	94	1.18	77	H	SW	Cave from 28.95 to 29.1 m
30.48	32.00	1.52	1.52	100	1.33	88	H	SW	
32.00	33.52	1.52	1.52	100	1.45	95	H	SW	
33.52	35.05	1.53	1.51	99	1.50	98	H	SW	
35.05	36.57	1.52	1.52	100	1.52	100	H	SW	
36.57	38.10	1.53	1.53	100	1.53	100	H	SW	
38.10	39.62	1.52	1.27	84	0.55	36	H	SW	Highly fractured
39.62	41.14	1.52	1.38	91	0.60	39	H	SW	Moderately fractured
41.14	42.67	1.53	1.53	100	1.00	65	H	FR	
42.67	44.19	1.52	1.52	100	1.52	100	H	FR	
44.19	45.72	1.53	1.53	100	1.53	100	H	FR	
45.72	47.24	1.52	1.52	100	1.52	100	H	FR	
47.24	48.76	1.52	1.48	97	1.25	82	MH	MW	
48.76	50.29	1.53	1.53	100	1.48	97	H	SW	
50.29	51.81	1.52	1.52	100	1.15	76	H	MW	
51.81	53.34	1.53	1.53	100	1.40	92	H	SW	
53.34	54.86	1.52	1.52	100	1.48	97	H	FR	
54.86	56.38	1.52	1.52	100	1.52	100	H	FR	
56.38	57.91	1.53	1.53	100	1.53	100	MH	FR	
57.91	59.43	1.52	1.52	100	1.45	95	MH	FR	
59.43	60.96	1.53	1.53	100	1.47	96	MS	SW	
60.96	62.48	1.52	1.52	100	1.38	91	MS	SW	
62.48	64.00	1.52	1.52	100	1.49	98	H	FR	
64.00	65.53	1.53	1.53	100	1.44	94	H	FR	
65.53	67.05	1.52	1.52	100	0.75	49	H	FR	
67.05	68.58	1.53	1.53	100	1.10	72	H	FR	
68.58	70.10	1.52	1.52	100	1.52	100	H	FR	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
70.10	71.62	1.52	1.52	100	1.48	97	H	FR	
71.62	73.15	1.53	1.53	100	1.50	98	H	FR	
73.15	74.67	1.52	1.52	100	1.42	93	MH	FR	
74.67	76.20	1.53	1.53	100	1.33	87	MH	FR	
76.20	77.72	1.52	1.52	100	1.42	93	MH	FR	
77.72	79.24	1.52	1.48	97	1.10	72	MH	FR	Mineralized
79.24	80.77	1.53	1.50	98	1.25	82	MH	FR	Mineralized
80.77	82.29	1.52	1.52	100	1.25	82	MH	FR	Mineralized
82.29	83.82	1.53	1.53	100	1.53	100	H	FR	Mineralized
83.82	85.34	1.52	1.52	100	1.52	100	H	FR	Mineralized
85.34	86.86	1.52	1.52	100	1.52	100	H	FR	Mineralized
86.86	88.39	1.53	1.53	100	1.53	100	H	FR	Mineralized
88.39	89.91	1.52	1.52	100	1.52	100	H	FR	Mineralized
89.91	91.44	1.53	1.53	100	1.48	97	H	FR	
91.44	92.96	1.52	1.52	100	1.42	93	H	FR	
92.96	94.48	1.52	1.52	100	0.90	59	H	FR	
94.48	96.01	1.53	1.53	100	1.33	87	MH	FR	
96.01	97.53	1.52	1.43	94	1.10	72	MH	SW	
97.53	99.06	1.53	1.53	100	1.53	100	MH	SW	
99.06	100.58	1.52	1.52	100	1.42	93	MH	MW	Moderately oxidized.
100.58	102.10	1.52	1.45	95	1.00	66	MH	SW	Trace oxidation
102.10	103.63	1.53	1.52	99	1.35	88	MH	MW	Trace oxidation
103.63	105.15	1.52	1.52	100	1.50	99	MS	SW	Trace oxidation
105.15	106.68	1.53	1.50	98	1.34	88	MH	SW	
106.68	108.20	1.52	1.52	100	1.49	98	MH	SW	Trace oxidation
108.20	109.72	1.52	1.52	100	1.52	100	MH	FR	
109.72	111.25	1.53	1.53	100	1.53	100	MH	FR	
111.25	112.77	1.52	1.52	100	1.52	100	MH	FR	
112.77	114.30	1.53	1.53	100	1.53	100	MH	FR	
114.30	115.82	1.52	1.52	100	1.52	100	MH	MW	
115.82	117.34	1.52	1.48	97	1.20	79	MH	FR	
117.34	118.87	1.53	1.53	100	1.40	92	MH	SW	
118.87	120.39	1.52	1.52	100	1.48	97	MH	SW	
120.39	121.92	1.53	1.46	95	1.39	91	MS	FR	Cave after meter block.
121.92	123.44	1.52	1.28	84	1.06	70	MS	FR	
123.44	124.96	1.52	1.45	95	1.35	89	MS	FR	
124.96	126.49	1.53	1.50	98	1.50	98	MS	FR	
126.49	128.01	1.52	1.32	87	1.25	82	MS	FR	
128.01	129.54	1.53	1.40	92	1.35	88	MS	FR	
129.54	131.06	1.52	1.42	93	1.30	86	MS	FR	
131.06	134.11	3.05	1.80	59	0.45	15	MS	FR	
134.11	137.16	3.05	2.60	85	1.10	36	MS	FR	
137.16	140.20	3.04	2.84	93	1.75	58	S	FR	
140.20	143.25	3.05	2.95	97	2.80	92	MS	FR	
143.25	146.30	3.05	2.95	97	2.80	92	MS	FR	
146.30	149.35	3.05	3.05	100	2.13	70	MS	FR	
149.35	152.40	3.05	3.05	100	2.25	74	MS	FR	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
152.40	153.92	1.52	1.52	100	0.98	64	MS	FR	
153.92	155.44	1.52	1.52	100	1.35	89	MS	FR	
155.44	158.49	3.05	3.05	100	2.85	93	S	FR	
158.49	161.54	3.05	3.05	100	2.88	94	MS	SW	
161.54	164.59	3.05	3.00	98	2.41	79	MS	FR	
164.59	167.64	3.05	3.00	98	2.01	66	MS	SW	
167.64	170.68	3.04	3.04	100	2.79	92	MS	SW	
170.68	173.73	3.05	3.05	100	2.57	84	MS	FR	
173.73	176.78	3.05	3.05	100	2.84	93	S	FR	
176.78	179.83	3.05	3.05	100	3.05	100	MS	FR	
179.83	182.88	3.05	3.05	100	2.83	93	MS	FR	
182.88	184.40	1.52	1.38	91	1.34	88	MS	FR	
184.40	184.70	0.30	0.30	100	0.22	73	S	FR	
184.70	187.75	3.05	3.05	100	2.95	97	MS	FR	
187.75	190.50	2.75	2.75	100	2.70	98	MS	FR	
190.50	192.02	1.52	1.52	100	1.48	97	S	FR	
192.02	194.15	2.13	2.13	100	2.08	98	MS	FR	
194.15	195.07	0.92	0.92	100	0.70	76	MS	FR	weakly fractured
195.07	196.59	1.52	1.46	96	1.05	69	MS	SW	few clay altered zones
196.59	198.12	1.53	1.53	100	1.30	85	W	SW	moderately fractured
198.12	201.16	3.04	2.13	70	0.80	26	W	SW	highly fractured with few rubbly zones
201.16	204.21	3.05	3.00	98	1.00	33	MS	SW	moderately fractured
204.21	207.26	3.05	2.37	78	1.90	62	MS	SW	moderately fractured
207.26	210.31	3.05	3.00	98	2.90	95	MS	SW	moderately fractured
210.31	211.83	1.52	1.40	92	1.28	84	MS	SW	moderately fractured
211.83	213.96	2.13	2.00	94	1.67	78	MS	SW	
213.96	215.79	1.83	1.60	87	1.30	71	MS	SW	
215.79	217.93	2.14	2.12	99	1.97	92	MS	SW	
217.93	219.45	1.52	1.42	93	1.33	88	MS	SW	
219.45	EOH								

MAGNETIC SUSCEPTIBILITY LOG

HOLE: OS-10-01

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
1.00			N/A	
2.00	LST	DCA	0	
3.00	LST	DCA	0	
4.00	LST	DCA	0	
5.00	MST	LST	0	
6.00	MST	LST	0	
7.00	MST	LST	0	
8.00	MST	LST	0	
9.00	MST	LST	0	
10.00	MST	LST	0	
11.00	MST	LST	0	
12.00	MST	LST	0	
13.00	MST	LST	0	
14.00	MST	LST	0	
15.00	MST	LST	0	
16.00	MST	LST	0	
17.00	MST	LST	0	
18.00	MST	LST	0	
19.00	LST	ASO	0	
20.00	LST	ASO	0	
21.00	LST	ASO	0	
22.00	LST	ASO	0	
23.00	LST	ASO	0	
24.00	LST	ASO	0	
25.00	LST	ASO	0	
26.00	LST	ASO	0	
27.00	LST	ASO	0	
28.00	LST	ASO	0	
29.00	LST	ASO	0	
30.00	LST	ASO	0	
31.00	LST	ASO	0	
32.00	LST	ASO	0	
33.00	LST	ASO	0	
34.00	LST	ASO	0	
35.00	LST	ASO	0	
36.00	LST	ASO	0	
37.00	LST	ASO	0	
38.00	LST	ASO	0	
39.00	LST	ASO	0	
40.00	LST	ASO	0	
41.00	LST	ASO	0	
42.00	LST	ASO	0	
43.00	LST	ASO	0	
44.00	LST	ASO	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
45.00	LST	ASO	0	
46.00	LST	ASO	0	
47.00	LST	ASO	0	
48.00	LST	ASO	0	
49.00	LST	ASO	0	
50.00	LST	ASO	0	
51.00	LST	ASO	0	
52.00	LST	ASO	0	
53.00	LST	ASO	0	
54.00	LST	MST	0	
55.00	LST	MST	0	
56.00	LST	MST	0	
57.00	LST	MST	0	
58.00	LST	MST	0	
59.00	LST	MST	0	
60.00	LST	MST	0	
61.00	LST	MST	0	
62.00	LST	MST	0	
63.00	LST	MST	0	
64.00	LST	MST	0	
65.00	LST	MST	0	
66.00	LST	MST	0	
67.00	LST	MST	0	
68.00	LST	MST	0	
69.00	LST	MST	0	
70.00	LST	MST	0	
71.00	LST	MST	0	
72.00	LST	MST	0	
73.00	LST	DCA	0	
74.00	LST	DCA	0	
75.00	LST	DCA	0	
76.00	LST	DCA	0	
77.00	LST	DCA	0	
78.00	LST	DCA	0	
79.00	LST	DCA	0	
80.00	LST	DCA	0	
81.00	LST	DCA	0	
82.00	LST	DCA	0	
83.00	LST	DCA	0	
84.00	LST	DCA	0	
85.00	LST	DCA	0	
86.00	LST	DCA	0	
87.00	LST	DCA	0	
88.00	LST	DCA	0	
89.00	LST	DCA	0	
90.00	LST		0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
91.00	LST		0	
92.00	LST		0	
93.00	LST		0	
94.00	LST		0	
95.00	LST		0	
96.00	LST		0	
97.00	LST	DCA	0	
98.00	LST	DCA	0	
99.00	LST	DCA	0	
100.00	LST	DCA	0	
101.00	LST	DCA	0	
102.00	LST	DCA	0	
103.00	LST	DCA	0	
104.00	LST	DCA	0	
105.00	LST	DCA	0	
106.00	LST	DCA	0	
107.00	LST	DCA	0	
108.00	LST	DCA	0	
109.00	LST	DCA	0	
110.00	LST	DCA	0	
111.00	LST	DCA	0	
112.00	LST	DCA	0	
113.00	LST	DCA	0	
114.00	LST	DCA	0	
115.00	LST	DCA	0	
116.00	LST	DCA	0	
117.00	LST	SIL	0	
118.00	LST	SIL	0	
119.00	LST	SIL	0	
120.00	LST	SIL	0	
121.00	LST	DCA	0	
122.00	LST	DCA	0	
123.00	LST	DCA	0	
124.00	LST	DCA	0	
125.00	LST	DCA	0	
126.00	LST	DCA	0	
127.00	LST	DCA	0	
128.00	LST	DCA	0	
129.00	LST	DCA	0	
130.00	LST	DCA	0	
131.00	LST	DCA	0	
132.00	LST	DCA	0	
133.00	LST	DCA	0	
134.00	LST	DCA	0	
135.00	LST	DCA	0	
136.00	LST	DCA	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
137.00	LST	DCA	0	
138.00	LST	DCA	0	
139.00	LST	DCA	0	
140.00	LST	MX	0	
141.00	LST	MX	0	
142.00	LST	MX	0	
143.00	LST	DCA	0	
144.00	LST	DCA	0	
145.00	LST	DCA	0	
146.00	LST	DCA	0	
147.00	LST	DCA	0	
148.00	LST	DCA	0	
149.00	LST	DCA	0	
150.00	LST	DCA	0	
151.00	LST	DCA	0	
152.00	LST	DCA	0	
153.00	LST	DCA	0	
154.00	LST	DCA	0	
155.00	LST	DCA	0	
156.00	LST	DCA	0	
157.00	LST	DCA	0	
158.00	LST	DCA	0	
159.00	LST	DCA	0	
160.00	LST	DCA	0	
161.00	LST	DCA	0	
162.00	LST	DCA	0	
163.00	LST	DCA	0	
164.00	LST	DCA	0	
165.00	MST	MX	0	
166.00	MST	MX	0	
167.00	MST	MX	0	
168.00	MST	MX	0	
169.00	MST	MX	0	
170.00	MST	MX	0	
171.00	MST	MX	0	
172.00	MST	MX	0	
173.00	MST	MX	0	
174.00	MST	MX	0	
175.00	LST	MST	0	
176.00	LST	MST	0	
177.00	LST	MST	0	
178.00	LST	MST	0	
179.00	LST	MST	0	
180.00	LST	MST	0	
181.00	LST	MST	0	
182.00	LST	MST	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
183.00	LST	MST	10	
184.00	LST	MST	0	
185.00	LST	MST	0	
186.00	LST	MST	0	
187.00	LST	MST	0	
188.00	LST	MST	0	
189.00	LST	MST	0	
190.00	LST	MST	0	
191.00	LST	MST	0	
192.00	LST	MST	0	
193.00	LST	MST	0	
194.00	LST	MST	0	
195.00	LST	MST	0	
196.00	LST	MST	0	
197.00	LST	MST	0	
198.00	LST	MST	0	
199.00	LST	MST	0	
200.00	LST	MST	0	
201.00	LST	MST	0	
202.00	LST	MST	0	
203.00	LST	MST	0	
204.00	LST	MST	0	
205.00	LST	MST	10	
206.00	LST	MST	0	
207.00	LST	MST	0	
208.00	LST	MST	0	
209.00	LST	MST	9	
210.00	LST	MST	10	
211.00	LST	MST	0	
212.00	LST	MST	0	
213.00	LST	MST	0	
214.00	LST	MST	0	
215.00	LST	MST	0	
216.00	LST	MST	0	
217.00	LST	MST	0	
218.00	LST	MST	0	
219.00	LST	MST	0	EOH

BOX LOG

HOLE: OS-10-01

BOX	FROM (m)	TO (m)
1	1.52	6.00
2	6.00	10.20
3	10.20	14.45
4	14.45	18.43
5	18.43	22.70
6	22.70	26.45
7	26.45	30.04
8	30.04	33.79
9	33.79	37.75
10	37.75	41.22
11	41.22	45.08
12	45.08	49.02
13	49.02	53.16
14	53.16	57.32
15	57.32	61.55
16	61.55	65.70
17	65.70	69.95
18	69.95	79.95
19	79.95	77.76
20	77.76	81.29
21	81.29	85.15
22	85.15	89.33
23	89.33	92.96
24	92.96	96.66
25	96.66	100.48
26	100.48	104.12
27	104.12	108.20
28	108.20	112.47
29	112.47	116.55
30	116.55	120.39
31	120.39	123.44
32	123.44	127.45
33	127.45	131.06
34	131.06	136.30
35	136.30	141.35

BOX	FROM (m)	TO (m)
36	141.35	146.45
37	146.45	150.85
38	150.85	155.64
39	155.64	161.25
40	161.25	166.45
41	166.45	171.85
42	171.85	177.68
43	177.68	183.20
44	183.20	188.70
45	188.70	194.15
46	194.15	200.22
47	200.22	206.44
48	206.44	211.83
49	211.83	216.82
50	216.82	219.45
219.45 m - E.O.H.		

NADALEEN TREND PROJECT

Grid East	Grid North	Easting	Northing	Elev. (m)	Depth (m)
		629473	7112042	1797	143.25

ZONE: Osiris

SECTION:

HOLE: OS-10-02

CLAIM: STEN29

Contractor: Beaudoin Drilling

Drill: 5

Core size: NTW & BTW

Casing depth: 2.13 m out

Drilling dates: Aug. 11, 2010 to Aug. 15, 2010

Geology logged by: Oliver Fu, K. Unger

SURVEY

Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	270	-50	compass				
143.25	-	-50	acid				

TARGET: Osiris Horizon

SUMMARY

From (m)	To (m)	Interval	Unit	Comments
0.00	2.13	2.13	OVB	Overburden, no recovery.
2.13	49.15	47.02	LST	DCA and ASO alteration with debris flow intervals.
49.15	70.55	21.40	LST	Weak ASO alteration.
70.55	134.50	63.95	LST	Weak ASO alteration and MST beds.
134.50	143.25	8.75	LST	DCA with mineralization from 140.70 m onwards.
143.25	EOH			

SAMPLES

Numbers: J998414 to J998475

Total: 62

Batch: 4, 5

Date Sent: August 22 and September 5, 2010

Certificate: VA10120381, VA10127791

COMMENTS

The core diametre was reduced from NTW to BTW at 130.76 m and terminated shortly after that. A relog of the core was completed in the field by K. Unger in October 2010.

GEOLOGY LOG

HOLE: OS-10-02

INTERVAL			SUB-INTERVAL			LITHOLOGY				STRUCTURE				ALTERATION						MINERALS								
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture	DETAILED DESCRIPTION	Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	Photo
0.00	2.13	2.13				OVB			Overburden - no recovery																		
2.13	49.15	47.02				LST	DCA	CR	Rusty-yellow to green-grey, weak to moderately crackled, variably interbedded, strongly DCA altered LST with pervasive, grungy ASO alteration. Black crackling is seen variably throughout and the interva shows varying degrees of fracturing generally breaking into blocks 1-3 cm in size. Structural measurements are obscured by the fractured nature of the core. Occasional sooty sulphide MX is seen where core is more rubbly. Trace Om and Rg are present with depth.						s			ASO	s	t	t	t					X
			2.13	4.15	2.02	LST	DCA		Highly fractured and slightly gougy section with a few 10 cm long, gougy, granular mushy zones. Rock fragments are angular to subangular and 1-7 cm in size.	FR																	
			4.15	4.57	0.42	LST	DCA	DF	Intensely altered debris flow texture where clasts and matrix have been altered and are difficult to distinguish. Few white patches fizz weakly.						s												
			5.60	6.90	1.30	LST		BD	Black, 1 mm wide laminations and interbeds with pale orange and white bands oriented 45 degrees TCA.	BD	45															
			9.75	10.66	0.91	LST	DCA	DF	Clast supported debris flow, clasts are between 0.2 and 1.0 cm in size and are sub-rounded to lathe-shaped. Clasts are preferentially oriented 15 degree TCA. Subinterval exhibits weak reaction with HCl.						s													
			14.05	14.21	0.16	LST	ASO		Pale brown to rusty, intensely altered LST. Rock is highly porous, granular and 'mushy'. Rusty limonite (?) alteration occurs on many fractured surfaces.								m	ASO	i								
			14.50	14.75	0.25	LST	ASO		Intense zone of ASO alteration									ASO	i								
			16.90						CG, white, moderately DCA vein with black cinters in the center. Fizzes weakly to moderately.	VN	35	180														
			17.40	17.55	0.15	LST	ASO		Strong zone of ASO alteration									ASO	s								X
			17.25			LST		BD	Bedding in the LST is well defined by muddy interbeds at 17.25 m, oriented 30 degrees TCA.	BD	30															
			20.39						CG, white, moderately DCA vein with black cinters in the center. Fizzes weakly to moderately.	VN	35	90														
			20.50	25.90	5.40	LST	DCA		A few, white, CG, DCA altered calcite veinlets with black, sooty centers are between 0.5 and 1.5 cm wide.	VN																X

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			22.40	25.55	3.15	LST	LIM	FR	Highly fractured zone. Rock fragments are angular and between 0.5 and 5.0 cm in size and have a pale orange/rusty colour (LIM?). A few black coated fractures are found in the rusty altered section.	FR							f										
			26.23						Irregular, white vein with black cintery center	VN	35	n/a														X
			32.30	33.30	1.00	LST	ASO	FR	Highly fractured and slightly rubbly section, consisting of angular, broken LST with strong ASO alteration.	FR					.			ASO	s							
			33.40	44.50	11.10	LST	ASO	CR	Intensely ASO altered LST with a strong crackled overprint and contains a few areas with debris flow textures. Numerous patches of CG, DCA altered Ca Veinlets with a black, sooty center occur. Dark brown to black fracture surfaces appear "burnt". Black infilling also occurs along seams of fractures. Realgar and orpiment occurs in localized zones within.	FR					ms			ASO	i			t					X
			42.25	45.60	3.35	LST	MX	BX	Bright yellow Om and bright orange-red Rg in a light grey, cBX LST with moderate ASO alteration. Black sooty sulphide MX is abundant, typically occurring on fractures associated with Rg.									ASO	m	s	s	f					X
			43.65	44.50	0.85	LST	ASO		Zone of ASO altered LST containing pinkish-red disseminated Rg. This mineralization occurs in a localized zone.												w					
			44.50	45.25	0.75	LST	DCA	MX	Medium to light grey, CG to granular LST with intense Rg and Om mineralization. Bright yellow Om and bright orange-red moderately oxidized Rg are disseminated within. A few areas within this subinterval have been moderately clay altered. Rg MX is semi-crystalline on fracture faces. Om mainly occurs on fractures although it is at times seen in yellow, semi-crystalline patches. Unit moderately to strongly fizzes. Also this interval shows faint signs of debris flow textures.						w			CLY	m	i	i						X
			45.25	49.15	3.90	LST	ASO	CR	Intensely ASO altered LST with a strong crackled overprint.									ASO	i							
			45.60	46.30	0.70	LST	MST	BD	Black, 0.3 to 2.5 cm wide MST beds cross-cut the unit 30 degrees TCA. (They do not appear to be "in place")	BD	30																
			47.75	50.37	2.62	LST	ASO	FR	Weak to moderate bright yellow ASO alteration on fracture faces exhibiting a patchy, earthy appearance.											w							X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
49.15	70.55	21.40				LST	ASO	BD	Grey to dark grey, FG LST with weak to moderate ASO alteration. A few crosscutting carbonate veinlets 1-2 mm wide and a few crosscutting crystalline Ca veins 0.5-2.8 cm wide also occur. Dark grey, fissile, muddy laminations cross through the LST subparallel bedding. Greenish-yellow ASO alteration occurs throughout and on fracture surfaces, decreasing in intensity with depth. The entire unit shows strong to moderate fizzing with HCl. lCN is gradational as thickness and frequency of MST interbeds increases with depth. Bedding is shallow throughout generally between 0-10 deg TCA.	BD	5				f			ASO	w								X
			50.00						Black laminations define bedding	BD	5															
			56.92						White vein.	VN	20	n/a														
			63.70						Defined by black laminations	BD	10															
70.55	134.50	63.95				LST	MST	BD	Light grey to green, FG, interbedded/laminated LST and MST. Trace grungy green ASO alteration is present on some fracture faces and along bedding planes. Some "tension gash"-like fractures are seen in lighter grey, non calcareous beds. Laminations are seen throughout, 1-4 mm thick. Lighter grey LST is slightly coarser grained. Trace Rg is seen with depth. Bedding is shallow, 10-15 degrees TCA, at times as shallow as 0 degrees.	BD	10							ASO	w		t						
									Fractures are seen throughout, generally alonç bedding planes oriented 10 degrees TCA and 0 degrees to BD.	FR	10	0														
									A secondary fracturing is noted, oriented at 35-45 degrees TCA and 180 degrees to BD.	FR	40	180														
									Narrow, <1 mm to 1 mm wide, white fracture filling veinlets, at times altered to a rusty orange, oriented ~35 degrees TCA and 270 degrees to BD.	VT	35	270														
			70.55	72.30	1.75	LST	MST	BD	Medium to dark grey, interbedded FG LST and MST layers. The 5-25 mm thick LST layers are calcareous, while the darker 1-10 mm muddy layers do not. Bedding is oriented 10 degrees TCA.	BD	10															
			71.00						Defined by black laminations	BD	14															
			72.74							VN	10	200														
			110.62						White crystalline marble layer, 2 cm wide.	VN	50	40														
			111.35						White crystalline marble layer, 4.5 cm wide.	VN	38	90														
			112.72	114.60	1.88	LST	ASO		Moderate ASO alteration is present									ASO	m								
			115.21	117.00	1.79	LST	MX		Trace Rg.												t						

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY				STRUCTURE				ALTERATION						MINERALS								
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture	DETAILED DESCRIPTION	Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	Photo
			119.93			Ca			White 1mm Ca veinlet.	VT	3	130															
			130.76						Reduced to BTW																		
134.50	143.25	8.75				LST	DCA	DF	Light to medium grey, FG, clast supported, moderately DCA altered DF LST. Crystalline Ca is present on fracture faces. Clasts are 0.5-4.5 cm in size, rounded to lathe-shaped generally oriented parallel TCA and exhibit strong alteration. Weak ASO alteration is identified by grungy green alteration on fracture faces. DCA alteration is present with depth.						m			ASO	w									
			140.70	143.25	2.55	LST	MX	DF	Medium to dark grey variably DCA BX and DF textured porous LST with brilliant red and orange Rg and Om MX. White, calcareous veining occurs variably throughout. An orientation of brecciation is absent, and may be overprinting a relict DF texture. Breccia matrix minerals are variably dark grey to white, and variably calcareous. Rg and Om MX is present as replacements in BX/DF clasts and matrix as coarse crystals with calcite veining. Irregular nature of calcic structures makes taking a structural measurement unavailable.	BX					s					f	ms						X
									143.25 m: - E.O.H. The hole was ended after having reduced to BTW.																		

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

SAMPLE LOG

HOLE: OS-10-02

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
2.13	3.90	1.77	LST	DCA	0.90	51	J998414	4	0.22	884	3.29	4.30	7.25	
3.90	6.90	3.00	LST	DCA	3.00	100	J998415	4	0.23	1200	2.74	3.13	5.43	
6.90	9.90	3.00	LST	DCA	2.70	90	J998416	4	0.09	980	1.77	3.21	4.94	
9.90	12.90	3.00	LST	DCA	2.60	87	J998418	4	0.11	1100	1.37	2.18	5.95	
12.90	14.07	1.17	LST	DCA	1.17	100	J998419	4	0.14	787	2.10	2.25	4.71	
14.07	14.80	0.73	LST	DCA	0.68	93	J998420	4	3.97	3260	18.00	13.15	14.15	
14.80	15.90	1.10	LST	DCA	0.80	73	J998421	4	1.39	1440	4.98	6.33	8.83	
15.90	17.00	1.10	LST	DCA	1.10	100	J998422	4	1.14	1170	5.69	4.59	5.12	
17.00	17.73	0.73	LST	DCA	0.69	95	J998423	4	0.35	1680	3.74	9.24	15.55	
17.73	19.73	2.00	LST	DCA	2.00	100	J998425	4	0.09	628	1.57	2.24	2.36	
19.73	22.73	3.00	LST	DCA	3.00	100	J998426	4	0.11	337	1.04	1.92	2.60	
22.73	25.73	3.00	LST	LIM	3.00	100	J998427	4	0.40	743	3.77	3.97	6.18	
25.73	27.73	2.00	LST	DCA	1.60	80	J998428	4	0.45	840	3.96	3.08	3.56	
27.73	29.73	2.00	LST	DCA	1.55	78	J998430	4	0.76	1400	3.90	5.45	6.11	
29.73	31.73	2.00	LST	ASO	0.82	41	J998431	4	0.67	1160	5.11	3.92	4.10	
31.73	33.07	1.34	LST	ASO	1.30	97	J998432	4	0.26	765	5.19	3.87	2.64	
33.07	34.18	1.11	LST	ASO	1.00	90	J998433	4	4.90	3550	17.30	11.80	15.20	
34.18	35.18	1.00	LST	ASO	0.82	82	J998435	4	1.11	1260	6.62	3.58	7.35	
35.18	36.03	0.85	LST	ASO	0.79	93	J998436	4	0.94	1440	4.46	4.53	8.31	
36.17	37.17	1.00	LST	ASO	1.00	100	J998437	4	1.14	2820	4.72	7.38	14.35	
37.17	38.17	1.00	LST	ASO	0.90	90	J998438	4	3.45	4360	11.10	11.90	24.40	
38.17	39.17	1.00	LST	ASO	0.80	80	J998439	4	5.31	4000	16.10	12.00	40.40	
39.17	39.67	0.50	LST	ASO	0.50	100	J998440	4	6.26	6310	40.10	115.00	188.00	
39.67	40.17	0.50	LST	ASO	0.50	100	J998441	4	7.86	8700	38.00	38.70	126.00	
40.17	40.67	0.50	LST	ASO	0.41	82	J998443	4	3.58	6400	28.40	33.20	126.50	
40.67	41.14	0.47	LST	ASO	0.45	96	J998444	4	5.33	6340	40.20	54.50	249.00	
41.14	42.14	1.00	LST	ASO	0.84	84	J998445	4	0.56	1370	4.29	6.95	21.80	
42.14	43.14	1.00	LST	MX	1.00	100	J998446	5	1.69	1540	5.05	6.76	31.30	
43.14	44.49	1.35	LST	MX	1.32	98	J998447	5	19.10	41100	20.00	573.00	206.00	
44.49	44.99	0.50	LST	MX	0.43	86	J998448	5	12.50	56500	22.20	398.00	127.00	
44.99	45.57	0.58	LST	MX	0.55	95	J998449	5	5.33	3760	9.75	29.80	33.90	
45.57	46.57	1.00	LST	ASO	0.95	95	J998451	5	0.99	2110	3.96	26.80	13.60	
46.57	47.87	1.30	LST	ASO	1.30	100	J998452	5	0.38	845	5.37	8.74	12.60	

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
47.87	49.15	1.28	LST	ASO	1.00	78	J998453	5	1.40	6270	58.80	33.40	50.50	
49.15	51.15	2.00	LST	ASO	2.00	100	J998454	5	0.02	214	2.27	4.26	3.59	
51.15	54.15	3.00	LST	ASO	2.95	98	J998455	5	0.01	519	0.20	3.05	1.26	
54.15	57.15	3.00	LST	ASO	3.00	100	J998457	5	0.03	830	0.21	5.64	2.25	
57.15	60.15	3.00	LST	ASO	3.00	100	J998458	5	<0.01	509	0.09	4.14	0.65	
60.15	63.15	3.00	LST	ASO	3.00	100	J998459	5	0.02	567	0.13	4.30	1.20	
116.00	119.00	3.00	LST	MX	2.90	97	J998460	5	0.01	532	0.63	2.96	2.51	
119.00	122.00	3.00	LST	DCA	3.00	100	J998461	5	0.01	162	0.40	0.85	1.61	
122.00	125.00	3.00	LST	DCA	3.00	100	J998462	5	0.03	105	0.35	0.52	1.58	
125.00	128.00	3.00	LST	DCA	3.00	100	J998464	5	<0.01	102	0.44	0.42	1.69	
128.00	131.00	3.00	LST	DCA	3.00	100	J998465	5	0.01	286	0.68	1.23	1.56	
131.00	133.25	2.25	LST	DCA	2.25	100	J998466	5	0.01	587	2.10	2.82	5.91	
133.25	134.50	1.25	LST	DCA	1.20	96	J998468	5	0.07	355	1.44	1.59	4.95	
134.50	136.55	2.05	LST	DCA	2.05	100	J998469	5	0.01	105	0.30	0.62	0.67	
136.55	138.60	2.05	LST	DCA	2.04	100	J998470	5	0.01	60	0.42	0.39	0.77	
138.60	140.65	2.05	LST	DCA	1.93	94	J998471	5	2.20	958	13.60	11.65	43.10	
140.65	141.50	0.85	LST	MX	0.85	100	J998472	5	5.32	165500	26.90	157.50	70.00	
141.50	142.35	0.85	LST	MX	0.77	91	J998473	5	2.36	261000	15.50	233.00	47.30	
142.35	143.25	0.90	LST	MX	0.64	71	J998475	5	0.54	110500	3.72	101.00	14.25	
-	-	-	-	-	-	-	J998417	4	1.67	24500	0.04	18.95	0.10	**Standard OS-1**
-	-	-	-	-	-	-	J998424	4	<0.01	8	0.03	0.06	0.05	**Blank**
25.73	27.73	2.00	LST	DCA	1.80	90	J998429	4	0.38	749	3.75	2.54	3.73	**Duplicate of J998328**
-	-	-	-	-	-	-	J998434	4	14.15	490	0.48	41.70	4.54	**Standard OS-2**
-	-	-	-	-	-	-	J998442	4	0.03	27	0.05	0.22	0.47	**Blank**
-	-	-	-	-	-	-	J998450	5	0.01	23	0.02	0.14	0.06	**Blank**
-	-	-	-	-	-	-	J998456	5	1.48	26100	0.02	22.60	0.16	**Standard OS-1**
122.00	125.00	3.00	LST	DCA	3.00	100	J998463	5	0.04	123	0.37	0.54	1.49	**Duplicate of J998462**
-	-	-	-	-	-	-	J998467	5	13.95	467	0.42	40.40	4.42	**Standard OS-2**
-	-	-	-	-	-	-	J998474	5	<0.01	57	0.01	0.14	0.03	**Blank**

GEOTECHNICAL LOG

HOLE: OS-10-02

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
2.13	3.04	0.91	0.28	31	0	0	S	HW	
3.04	4.57	1.53	1.10	72	0.35	23	W	HW	
4.57	5.18	0.61	0.22	36	0.12	20	MS	MW	
5.18	6.09	0.91	0.89	98	0.45	49	MS	HW	
6.09	6.70	0.61	0.41	67	0.31	51	MS	HW	
6.70	7.62	0.92	0.85	92	0.67	73	S	SW	
7.62	9.14	1.52	1.48	97	1.14	75	MS	SW	
9.14	10.66	1.52	1.49	98	1.44	95	MS	SW	
10.66	12.19	1.53	1.39	91	1.22	80	MS	MW	
12.19	13.71	1.52	1.18	78	1.02	67	MS	MW	
13.71	15.24	1.53	1.30	85	1.07	70	W	HW	
15.24	16.76	1.52	1.25	82	1.10	72	MS	MW	
16.76	18.28	1.52	1.35	89	1.00	66	VW	HW	
18.28	19.81	1.53	1.48	97	1.47	96	MS	SW	
19.81	21.33	1.52	1.52	100	1.52	100	MS	FR	
21.33	22.86	1.53	1.42	93	1.03	67	MS	SW	
22.86	24.38	1.52	1.27	84	0.11	7	VW	EW	
24.38	25.90	1.52	1.16	76	0.30	20	W	HW	
25.90	27.43	1.53	1.43	93	1.00	65	W	HW	
27.43	28.95	1.52	1.36	89	0.52	34	VW	HW	
28.95	30.48	1.53	1.35	88	0.55	36	VW	HW	
30.48	32.00	1.52	1.42	93	1.05	69	W	HW	
32.00	33.52	1.52	1.46	96	0.25	16	EW	EW	
33.52	35.05	1.53	1.33	87	0.87	57	VW	HW	
35.05	36.57	1.52	1.35	89	0.00	0	VW	EW	
36.57	38.10	1.53	1.23	80	0.20	13	VW	EW	
38.10	39.62	1.52	1.38	91	0.53	35	VW	EW	
39.62	41.14	1.52	1.52	100	1.10	72	EW	EW	
41.14	42.67	1.53	1.31	86	0.78	51	MS	HW	
42.67	44.19	1.52	1.48	97	0.96	63	W	HW	
44.19	45.72	1.53	1.41	92	1.24	81	W	MW	
45.72	47.24	1.52	1.30	86	0.40	26	W	SW	
47.24	48.76	1.52	1.43	94	0.77	51	VW	HW	
48.76	50.29	1.53	1.48	97	1.07	70	MS	SW	
50.29	51.81	1.52	1.55	102	1.41	93	MS	SW	
51.81	53.34	1.53	1.38	90	1.23	80	MS	FR	
53.34	54.86	1.52	1.44	95	0.80	53	VW	HW	
54.86	56.38	1.52	1.50	99	0.74	49	W	MW	
56.38	57.91	1.53	1.49	97	1.31	86	MS	SW	
57.91	59.43	1.52	1.32	87	1.12	74	MS	MW	
59.43	60.96	1.53	1.45	95	0.69	45	MS	MW	
60.96	62.48	1.52	1.45	95	0.53	35	MS	SW	
62.48	64.00	1.52	1.30	86	0.65	43	MS	SW	
64.00	65.53	1.53	1.52	99	1.45	95	S	FR	
65.53	67.05	1.52	1.42	93	1.40	92	MS	FR	
67.05	68.58	1.53	1.52	99	1.49	97	MS	FR	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
68.58	70.10	1.52	1.34	88	1.15	76	S	FR	
70.10	71.62	1.52	1.41	93	1.14	75	MS	SW	
71.62	73.15	1.53	1.46	95	1.46	95	MS	SW	
73.15	74.67	1.52	1.45	95	1.45	95	MS	FR	
74.67	76.20	1.53	1.31	86	0.39	25	MS	SW	
76.20	77.72	1.52	1.35	89	1.14	75	MS	SW	
77.72	79.24	1.52	1.45	95	0.93	61	MS	FR	
79.24	80.77	1.53	1.53	100	1.53	100	MS	FR	
80.77	82.29	1.52	1.52	100	1.52	100	MS	FR	
82.29	83.82	1.53	1.45	95	1.38	90	MS	SW	
83.82	85.34	1.52	1.43	94	0.93	61	MS	FR	
85.34	86.86	1.52	1.50	99	1.44	95	MS	FR	
86.86	88.39	1.53	1.52	99	1.50	98	MS	FR	
88.39	89.91	1.52	1.48	97	1.48	97	MS	FR	
89.91	91.44	1.53	1.53	100	1.50	98	MS	FR	
91.44	92.96	1.52	1.49	98	1.28	84	MS	SW	
92.96	94.48	1.52	1.38	91	1.33	87	MS	SW	
94.48	96.01	1.53	1.46	95	0.55	36	MS	SW	
96.01	97.53	1.52	1.46	96	1.43	94	MS	SW	
97.53	99.06	1.53	1.46	95	1.46	95	MS	FR	
99.06	100.58	1.52	1.44	95	1.44	95	MS	SW	
100.58	102.10	1.52	1.45	95	1.08	71	MS	SW	
102.10	103.63	1.53	1.35	88	1.26	82	MS	SW	
103.63	105.15	1.52	1.46	96	1.46	96	MS	SW	
105.15	106.68	1.53	1.38	90	1.33	87	MS	SW	
106.68	108.20	1.52	1.41	93	1.41	93	MS	SW	
108.20	109.72	1.52	1.31	86	0.61	40	MS	MW	
109.72	111.25	1.53	1.42	93	1.42	93	MS	SW	
111.25	112.77	1.52	1.42	93	1.42	93	MS	SW	
112.77	114.30	1.53	1.14	75	1.29	84	MS	MW	
114.30	115.82	1.52	1.49	98	1.41	93	MS	FR	
115.82	117.34	1.52	1.40	92	1.35	89	MS	SW	
117.34	118.87	1.53	1.42	93	1.42	93	MS	SW	
118.87	120.39	1.52	1.46	96	1.43	94	MS	FR	
120.39	121.92	1.53	1.49	97	1.49	97	MS	FR	
121.92	123.44	1.52	1.49	98	1.49	98	MS	FR	
123.44	124.96	1.52	1.34	88	0.77	51	MS	FR	
124.96	126.49	1.53	1.42	93	1.40	92	MS	FR	
126.49	128.01	1.52	1.40	92	1.18	78	MS	SW	
128.01	129.54	1.53	1.52	99	1.47	96	MS	FR	
129.54	130.75	1.21	1.19	98	0.94	78	MS	SW	
130.75	133.19	2.44	0.70	29	0.13	5	MS	SW	
133.19	134.11	0.92	0.84	91	0.22	24	MS	FR	
134.11	137.16	3.05	3.05	100	3.05	100	S	SW	
137.16	140.20	3.04	2.95	97	2.95	97	MS	FR	
140.20	143.25	3.05	3.04	100	2.04	67	MS	MW	
143.25	EOH								

MAGNETIC SUSCEPTIBILITY LOG

HOLE:

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
1.00			N/A	
2.00			N/A	
3.00	LST	DCA	0	
4.00	LST	DCA	0	
5.00	LST	DCA	0	
6.00	LST		0	
7.00	LST	DCA	0	
8.00	LST	DCA	0	
9.00	LST	DCA	0	
10.00	LST	DCA	0	
11.00	LST	DCA	0	
12.00	LST	DCA	0	
13.00	LST	DCA	0	
14.00	LST	ASO	0	
15.00	LST	DCA	0	
16.00	LST	DCA	0	
17.00	LST	ASO	0	
18.00	LST	DCA	0	
19.00	LST	DCA	0	
20.00	LST	DCA	0	
21.00	LST	DCA	0	
22.00	LST	DCA	0	
23.00	LST	LIM	0	
24.00	LST	LIM	0	
25.00	LST	LIM	0	
26.00	LST	DCA	0	
27.00	LST	DCA	0	
28.00	LST	DCA	0	
29.00	LST	DCA	0	
30.00	LST	DCA	0	
31.00	LST	DCA	0	
32.00	LST	DCA	0	
33.00	LST	DCA	0	
34.00	LST	ASO	0	
35.00	LST	ASO	0	
36.00	LST	ASO	0	
37.00	LST	ASO	0	
38.00	LST	ASO	0	
39.00	LST	ASO	0	
40.00	LST	ASO	0	
41.00	LST	ASO	0	
42.00	LST	MX	0	
43.00	LST	MX	0	
44.00	LST	MX	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
45.00	LST	MX	0	
46.00	LST	DCA	0	
47.00	LST	DCA	0	
48.00	LST	DCA	0	
49.00	LST	DCA	0	
50.00	LST	ASO	0	
51.00	LST	ASO	0	
52.00	LST	ASO	0	
53.00	LST	ASO	0	
54.00	LST	ASO	0	
55.00	LST	ASO	0	
56.00	LST	ASO	0	
57.00	LST	ASO	0	
58.00	LST	ASO	0	
59.00	LST	ASO	0	
60.00	LST	ASO	0	
61.00	LST	ASO	0	
62.00	LST	ASO	0	
63.00	LST	ASO	0	
64.00	LST	ASO	0	
65.00	LST	ASO	0	
66.00	LST	ASO	0	
67.00	LST	ASO	0	
68.00	LST	ASO	0	
69.00	LST	ASO	0	
70.00	LST	ASO	0	
71.00	LST	MST	0	
72.00	LST	MST	0	
73.00	LST	MST	0	
74.00	LST	MST	0	
75.00	LST	MST	0	
76.00	LST	MST	0	
77.00	LST	MST	0	
78.00	LST	MST	0	
79.00	LST	MST	0	
80.00	LST	MST	0	
81.00	LST	MST	0	
82.00	LST	MST	0	
83.00	LST	MST	0	
84.00	LST	MST	0	
85.00	LST	MST	0	
86.00	LST	MST	0	
87.00	LST	MST	0	
88.00	LST	MST	0	
89.00	LST	MST	0	
90.00	LST	MST	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
91.00	LST	MST	0	
92.00	LST	MST	0	
93.00	LST	MST	0	
94.00	LST	MST	0	
95.00	LST	MST	0	
96.00	LST	MST	0	
97.00	LST	MST	0	
98.00	LST	MST	0	
99.00	LST	MST	0	
100.00	LST	MST	0	
101.00	LST	MST	0	
102.00	LST	MST	0	
103.00	LST	MST	0	
104.00	LST	MST	0	
105.00	LST	MST	0	
106.00	LST	MST	0	
107.00	LST	MST	0	
108.00	LST	MST	0	
109.00	LST	MST	0	
110.00	LST	MST	0	
111.00	LST	MST	0	
112.00	LST	MST	0	
113.00	LST	ASO	0	
114.00	LST	ASO	0	
115.00	LST	MST	0	
116.00	LST	MX	0	
117.00	LST	MX	0	
118.00	LST	MST	0	
119.00	LST	MST	0	
120.00	LST	MST	0	
121.00	LST	MST	0	
122.00	LST	MST	0	
123.00	LST	MST	0	
124.00	LST	MST	0	
125.00	LST	MST	0	
126.00	LST	MST	0	
127.00	LST	MST	0	
128.00	LST	MST	0	
129.00	LST	MST	0	
130.00	LST	MST	0	
131.00	LST	MST	0	
132.00	LST	MST	0	
133.00	LST	MST	0	
134.00	LST	MST	0	
135.00	LST	DCA	0	
136.00	LST	DCA	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
137.00	LST	DCA	0	
138.00	LST	DCA	0	
139.00	LST	DCA	0	
140.00	LST	DCA	0	
141.00	LST	MX	0	
142.00	LST	MX	0	
143.00	LST	MX	0	EOH

BOX LOG

HOLE: OS-10-02

BOX	FROM (m)	TO (m)
1	2.13	6.16
2	6.16	9.81
3	9.81	14.11
4	14.11	18.40
5	18.40	22.51
6	22.51	26.13
7	26.13	29.98
8	29.98	33.58
9	33.58	37.06
10	37.06	40.86
11	40.86	44.55
12	44.55	48.45
13	48.45	52.58
14	52.58	56.48
15	56.48	60.49
16	60.49	64.25
17	64.25	68.38
18	68.38	72.51
19	72.51	76.90
20	76.90	80.78
21	80.78	84.65
22	84.65	88.39
23	88.39	92.41
24	92.41	96.01
25	96.01	100.22
26	100.22	104.18
27	104.18	108.30
28	108.30	112.16
29	112.16	115.99
30	115.99	120.39
31	120.39	124.25
32	124.25	128.01
33	128.01	133.19
34	133.19	138.19
35	138.19	143.25
143.25 m - E.O.H.		

NADALEEN TREND PROJECT

Grid East	Grid North	Easting	Northing	Elev.	Depth (m)
		629239	7112082	1767	256.03

ZONE: Osiris

SECTION:

HOLE: OS-10-03

CLAIM: STEN29

Contractor: Beaudoin

Drill: 5

Core size: NTW

Casing depth: 7.62 m out

Drilling dates: August 13-22, 2010

Geology logged by: O. Fu, K. Unger

TARGET: Osiris Horizon

SURVEY

Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	90	-50	compass				
256.03	-	-50	acid				

SUMMARY

From (m)	To (m)	Interval	Unit	Comments
0.00	1.42	1.42	OVB	No recovery.
1.42	3.05	1.63	MST	Moderately CLY altered.
3.05	44.14	41.09	LST	Moderately DCA with DF and muddy interbeds.
44.14	106.74	62.60	LST	Intensely DCA with variable DF and BX textures.
106.74	114.30	7.56	LST	Moderate SIL with Rg/Om MX.
114.30	129.22	14.92	LST	Moderate DCA with BD and DF and Rg/Om MX.
129.22	134.16	4.94	MST	Variably calcareous, soft.
134.16	247.18	113.02	LST	Variably DCA and SIL altered.
247.18	256.03	8.85	MST	Maroon/green MST with a cBX interval within
256.03	EOH			

SAMPLES

Numbers: J998476 to J998626

Total: 151

Batch: 5, 6, 7, 8, 9, 10

Date Sent:

Certificate: VA10127791, VA10130414, VA10139806, VA10144192, VA10139805, VA10143562

COMMENTS

256.03 m E.O.H. - The hole was ended because it was past the favourable mineralized carbonate horizon and into the maroon and green mudstone. Logged by O. Fu to 88.39 m, logged below that by K. Unger. Relog of upper 114.30 m completed in October after core had been split for sampling.

GEOLOGY LOG

HOLE: **OS-10-03**

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
0.00	1.42	1.42				OVB			Overburden, no recovery																		
1.42	3.05	1.63				MST	CLY	BD	Brown to green, laminated and weathered MST with rusty coatings and moderate CLY alteration. CLY alteration increases with depth, core appears rubbly where CLY ALT is present.							m		CLY	m								
									Bedding is defined by laminated bedding oriented at 40-50 degrees TCA.	BD	45																
3.05	44.14	41.09				LST	DCA	DF	Grey to grey-green to grey-orange, matrix supported variably DCA altered, debris flow LST with muddy interbeds. Debris flow clasts are rounded to subangular. The matrix is weakly to moderately DCA altered, fizzing readily to slowly with HCL. Anomalous green and orange alteration of clasts and matrix is seen variably throughout (ASO? Fe-Oxide?). The DF becomes clast supported with depth above the lCN.						m			ASO	f			t						
									Bedding is defined by laminated textures present oriented 45 degrees TCA.	BD	45																
			39.10	39.62	0.52	LST	MST	BD	Black, FG, calcareous, weakly weathered LST. There is slight limonitic staining. Subinterval moderately to strongly fizzes. Bedding is measured at 45 degrees TCA.	BD	45						t										
									1.1-0.2 cm wide Py veinlet that has been moderately altered resulting in a dark 'tinge' at it's top.	VN	45	0														
			39.62	44.14	4.52	LST	DCA	DF	Medium to dark grey, clast supported debris flow LST. Clasts are rounded to subrounded and range in size from 0.7 to 6.0 cm. A few crosscutting Ca veinlets occur intermittently throughout. Euhedral to subhedral, 0.3-1.0 cm Py crystals are intermittently disseminated throughout. This interval reacts moderately to strongly throughout with HCL therefore is weakly DCA altered. Fracture faces exhibit weathering staining (ASO?). A weak crackling overprint is seen.	CR					w							t						
44.14	106.74	62.60				LST	DCA	BD	Medium to dark grey, FG to CG, intensely DCA altered, variably DF, BX and interbedded LST. Green to black muddy interbeds intermittently occur throughout. Trace Rg MX is associated with calcareous veinlets and muddy interbeds. Grungy green ASO occurs sporadically on fracture faces.						i			ASO	w		t						X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			44.14	68.70	24.56	LST	DCA	BD	Grey to green, FG to MG, interbedded, intensely DCA altered LST with trace Rg and weak black "crackling". Green MST interbeds and laminations with LST host trace Rg MX on fractures and bedding planes from 44.14 to 44.82 m. Core becomes grey, massive, FG-MG LST below, lacking fizz with HCl. Weak yellow-brown weathering alteration occurs on some fracture faces. Narrow black veinlets/crackling are seen variably throughout and exhibit a preferential orientation. Rg is also associated with calcareous veinlets/fractures which crosscut the dark, FG veinlets. Py is present as elongate, blebby disseminations oriented parallel to bedding.	CR					i						t	f					X
									BD occurs at 40-45 degrees TCA. It is largely absent below 44.30 m.	BD	40															
									Narrow, <1 mm wide, black veinlets/crackling seen variably throughout. Orientations are variable, but a major orientation is seen at 45 degrees TCA and 180 degrees to BD.	VT	45	180														
			58.90			Ca	Rg	VN	Brilliant red Rg and translucent Ca veinlet, crosscutting narrow, black crackling texture at 58.90 m is oriented 40 degrees TCA, 320 degrees to black crackle VTs, and therefore 140 degrees to BD (?). Veinlet fizzes weakly with HCl.	VT	40	140									f						X
			68.70	88.39	19.69	LST	DCA	BD	Medium grey intensely DCA altered LST with narrow, dark grey interbeds throughout. Weak ASO alteration is present as grungy green alteration coating on fracture faces, decreasing in intensity with depth. Calcareous veinlets are present intermittently throughout, at times exhibiting "dilatory" veining along bedding planes that at times deforms dark muddy and grey LST interbeds. Dark, MG flecks are at times seen within calcareous veins. Trace Rg and Om MX are present on fracture faces and bedding planes at 77.75 and 78.70 m. Rg content generally increases with depth, and is present as semi-crystalline, 1-2 mm crystals to powdery dustings on fracture faces.						i			ASO	w	t	t					X
			78.90					BD	BD occurs at 30 degrees TCA. Core preferentially fractures along bedding planes.	BD	30															
			84.30					BD	BD occurs at 35 deg to CA. Core preferentially fractures along bedding planes.	BD	35															

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									White, sparry, non-calcareous veinlets oriented 25 35 degrees TCA and 0 degrees to BD at times exhibit dilatory textures, deforming and dividing strata along bedding planes.	VT	30	0														
			88.39	93.86	5.47	LST	DCA	BD	Dark to medium grey, FG to MG, variably BX, intensely DCA altered, interbedded LST. Beds are 1 9 mm thick and are usually planar though undulose soft sediment deformation textures are occasionally occur. The core is moderately SIL as it exhibits a hardness greater than that of typical LST. Approaching the lCN the rock becomes darker and more uniform in grain size, where narrow, angular white crackling textures become evident. Core often fractures preferentially along bedding planes revealing Om and Rg MX, and slickensides at 91.05 m. Om is present as yellow, FG, powdery coatings and Rg is seen as brilliant red, glassy flakes. Om and Rg are also seen on the core surface within narrow, white veinlets/fracture fillings. lCN is noted where a sharp change into "sBX-like" textures are seen.	CN				m	i					t	t	t					X
									Bedding is defined by mud and LST interbeds, oriented 40 degrees TCA.	BD	40															
									Slickenside structures are best exhibited by metallic yellow Py on a fracture oriented 30 degrees TCA. On that fracture, SS liniments are oriented 70 degrees to top of fracture surface and 270 degrees to BD.	SS	30	270														
									White, MG-CG, 1-2 mm wide, cBX-like veinlets oriented 40 degrees TCA and 270 degrees to FO. Orientations of veinlets become more irregular and cBX in texture below 93.00 m.	CR	40	270														
			93.86	97.73	3.87	LST	DCA	BX	Medium grey to white, FG to CG, variably BX, intensely DCA altered LST with moderate SIL alteration. Core is harder than typical, especially the grey angular LST breccia clasts. Clasts are uniform in grain size and colour throughout to 95.95 m, where clasts exhibit DF textures and core becomes more cBX in texture. DCA alteration is intense, core fizzing only weakly when scratched. Trace brilliant yellow subhedral Om crystals are present with coarse, white, sparry breccia matrix mineralization. Faint, dark narrow bands to irregular dissolution-like textures are seen with white, sparry textures. Other dark FG minerals at times rim grey LST breccia clasts.					m	i					t					

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									Measured where core exhibits cBX textures, BD is oriented 40 degrees TCA.	BD	40																
									Dark grey, FG, <1 mm wide, irregular fracturing/crackling. At times fractures are weakly calcareous and exhibit a "stock-work"-like texture. A lack of common orientation precludes structural measurements. Orientations range from 30-60 degrees TCA and 0 to 180 degrees to BD.	CR	n/a	n/a														
			97.73	98.80	1.07	LST	DCA	BX	Medium grey, FG, massive, crackled, intensely DCA altered LST with trace As-sulphide MX. Bladed DF beds <2.7 cm wide, are interbedded with MST and LST and make up 3-5% of the subinterval. Rg and Om are present along narrow, <1 mm wide fracture filling structures and commonly associated with <1 mm wide crackling. Rg coated fractures exhibit 2 preferential orientations, fractures with Om are more irregular in orientation. Trace greyish-yellow ASO alteration is seen on fracture faces with patchy Om and Rg. Weak amounts of dark grey, FG, gritty, non-graphitic coatings also occur on fractures throughout.						i			ASO	t	t	t					
									BD is defined by cryptic bedding noted by subtle colour changes, oriented 30 degrees TCA.	BD	30															
									White, narrow crackling, variably oriented, though exhibits a major orientation 10 degrees TCA and 140 degrees to BD.	CR	10	140														
									A second less common orientation to narrow white crackling, 30 degrees TCA and 0 degrees to BD.	CR	30	0														
						Qz	Rg		Red to translucent, <1 mm wide, Rg-Qz fracture filling/VT's, oriented 40-50 degrees TCA, 140 degrees to BD. 15-20 % of fracture filling material is realgar.	VT	45	140	4													
						Rg			Red, <1 mm wide, irregular VT's, oriented parallel to bedding down hole, though variations in orientation are seen above.	VT	40	0	3													
									Undulose, dark, <1 mm wide, soft, gritty veinlets oriented 30 degrees TCA and 0 degrees to FO, along muddy bedding margins.	VT	30	0	1													
						Rg			Dark, FG, irregular fractures/crackling, variably oriented 0-70 degrees TCA, exhibiting stockwork-like textures and are at times associated with Rg MX.	CR	n/a	n/a														
						Om			Yellow, <1 mm wide, irregular, Om filled fracture, oriented 80 degrees TCA and 180 degrees to FO at 97.89 m.	FR	80	180														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			98.80	101.98	3.18	LST	DCA		Medium to dark grey, FG to MG, deformed, strongly SIL and intensely DCA altered LST. MG matrix supports bladed, soft sediment deformation clasts occur with a weak association to white, sparry nodules. Small intervals up to 38 cm wide exhibit undeformed, interbedded LST textures. These interbedded areas show <<1 mm white beds, 2 mm thick dark grey beds and 20 mm wide medium grey beds. Trace Om is present as fracture filling veinlets and as patchy mineralization on fracture faces. Trace Py occurs as bright yellow, slightly fractured cubes. These fractures are filled with a dark, FG mineral. Dark grey, dull rims of secondary sulphides exhibiting weakly euhedral crystal growth are seen on a Py crystal 5 mm wide at 101.96 m. The lCN is defined by a sharp contact between interbedded LST and laminated muds and silts at.	CN				s	i						t		t					X
									Bedding is defined by laminated bedding and clast orientations, 40-50 degrees TCA.	BD	45															
						Ca			White, MG, calcareous VT at 99.30 m oriented 15 degrees TCA and 10 degrees to bedding and is 1.5 mm wide.	VT	15	10														
									White, <1 mm wide, fracture filled VT's, oriented 50-70 degrees TCA and 160-180 degrees to bedding. Frequency of fractures is upwards of 20-30 per meter.	VT	60	170	20													
									A secondary orientation to white, FG, <1 mm wide, fracture filled VTs, oriented 40 degrees TCA and 10-0 degrees to FO.	VT	40	10														
									White, CG, non-calcareous veining, weakly BX to sparry in texture and locally hosts grey, angular clasts between parallel veinlets oriented 30 degrees TCA and 320 degrees to BD. Dark, FG <1 mm fractures are seen perpendicular to veinlet margins throughout. Late Om is seen overprinting one of these margins at 101.51 m.	VT	30	320												t					
									Black to dark grey, FG, fracture filling <1 mm wide veinlets oriented 75 degrees TCA and 50 degrees to FO crosscutting soft sediment deformation clasts, and are visible only with a hand lens, mostly below uCN.	FR	75	50														
									Dark, <1 mm wide, irregular fractures which truncate above fractures, oriented 15 degrees TCA and near 0 degrees to FO. These fractures are less common than those described above.	FR	15	0														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			101.98	104.79	2.81	LST	DCA	BX	Medium grey to white, FG to CG, variably brecciated, strongly SIL altered, intensely DCA altered LST. Competent core becomes rubbly with depth. Coarse, white, sparry veining/brecciation with angular, grey LST clasts is seen intermittently throughout. BX textures are strongest below uCN and directly above lCN. Where lacking BX textures, faint bedding textures are exhibited by subtle grain size and colour differences in beds <1 mm to 2 cm thick. Where BX and rubbly core overlap, fine, dark stockwork textures are pervasive. Both dark grey and white crackling are seen throughout the subinterval. Trace Py is present as small clouds of disseminated euhedral to irregular, <1 mm yellow-white crystals proximal to CG BX veining. lCN is defined by a sharp change from DCA altered to calcareous core.					s	i						t					X
									Where not brecciated, bedding textures are oriented 40 degrees TCA.	BD	40																
			102.05			Qz	DCA	VN	White, CG, SIL and DCA altered, sparry calcite (?) and Qz "BX" vein, fragmenting LST into angular clasts with pervasive narrow dark crackling throughout. BX veining is oriented 30 degrees TCA and 0 degrees to BD at 102.05 m, steepening to 60 degrees TCA below that. Trace black, FG, soft minerals rim occasional LST clasts, generally those most irregular in shape.	VN	30	0															X
									Black, fine crackling, <1 mm wide, crackling both the breccia matrix and clasts and most commonly oriented 50-60 degrees TCA and 180 degrees to BD. Crackling density is highest in white BX matrix, up to 5 per m, but much less so outside of veining.	CR	55	180															
									A secondary orientation to black crackling described above, 35-40 degrees TCA and 0 degrees to BD.	CR	35	0															
						Qz	Om		White, FG, narrow, <1 mm wide, non-calcareous, Qz and Om bearing fracturing with a cryptic relationship with BX (crosscutting? same event?) with some small ~1 mm offset of bedding planes. Fracturing is oriented 60 degrees TCA and 180 degrees to BD.	FR	60	180							t							

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			104.79	106.74	1.95	LST	SIL	BD	Medium to dark grey, FG to MG, interbedded, strongly SIL altered LST. Medium grey beds 1 mm to 5.5 cm thick are interbedded with black, moderately soft, <1-3 mm thick beds. Subinterval is calcareous throughout, and generally fractures parallel to bedding. Fractures at times exhibit irregular, undulose surfaces. Trace black, irregularly oriented crackling is faint and decreases with depth. Strong SIL alteration decreases with depth. Where SIL, core is hard and slick. Trace yellow Om is present on some fracture faces.					s						t							
									Bedding is measured at 30-35 degrees TCA	BD	35															
									Black, FG, <1 mm wide stockwork-like crackling is best seen at 105.30 m. Primary orientation of crackling is at 50 degrees TCA and 180 degrees to BD. Where strongest, a spacing of 1-6 mm between crackling is seen. A primary orientation at 50 degrees TCA and 180 degrees to BD is measured.	CR	50	180														
									Secondary orientation to black crackling, 30-35 degrees TCA and 0 degrees to bedding with spacing of 2-4 mm and appears more faint than primary oriented crackling.	CR	35	0														
									White, FG, <1 mm wide, infrequent veinlets with light grey selvages oriented 45 degrees TCA and 90 degrees to BD.	VT	45	90														
106.74	114.30	7.56				LST	SIL	MX	Medium to dark grey, calcareous, FG to CG, variably SIL altered, muddy LST with semi-massive, brilliant yellow and red Om and Rg MX. Core exhibits clastic to brecciated textures, at times appearing shattered with faint black crackling variably throughout. CG calcareous veining is present, at times appearing to locally brecciate where veining is strongest.					m						i	m						

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			106.74	108.08	1.34	LST	MX	BD	Dull, medium grey to bright orange, FG to CG, calcareous, competent to gritty, highly altered LST with semi-massive, brilliant red to yellow Rg and Om MX. Rg is present as coarse, euhedral crystals to platy crystals on fracture faces with Om. Rg crystals up to 8 mm are seen. Core is friable and can easily be broken. Relict muddy interbeds are present, exhibiting undulose to convolute deformation. White and dark grey soft fracture fillings are seen intermittent throughout. uCN and lCN are sharp, defined by contact with bedded LST above and with shattered and pitted LST below; both are oriented 30 degrees TCA.	CN											s	20						
									A lack of common orientation or fabric precludes an FO measurement. Structural measurements below are taken to the orientation of the subunits lCN, oriented at 30 degrees TCA.	CN	30																
									Black, soft, fracture filling veinlets are generally oriented 50 degrees TCA and 90 degrees to lCN, and are seen preferential to rubbly/broken core. Veinlets are <1 mm wide, commonly undulose and are up to 13 per 10 cm where vein density is highest.	FR	50	90	75														
						Rg			Red to yellow, <1 mm wide, variably oriented, weakly stockwork-like fracture fills with Rg and Om. Orientation of fractures is variable, a weakly common orientation of 60-80 degrees TCA is seen, with short, 5 mm to 1.3 cm long crackling of core oriented 270 degrees to lCN.	VT	70	270							f	f						
			108.08	110.00	1.92	LST	SIL	BD	Medium to light grey, FG to MG, variably shattered, strongly SIL altered, calcareous LST with white and dark crackling throughout. Bedding is cryptic. Narrow, dark muddy interbeds exhibit an undulose but parallel orientation. Where shattered, core exhibits vuggy textures with <1 mm, euhedral, brilliant red orpiment and white, soft clay minerals (kaolinite?). Yellow orpiment is present on some fracture faces.					s						t	t						
									Defined by deformed, narrow, muddy interbeds, 25 35 degrees TCA.	BD	30																
									Black, <mm wide crackling seen intermittently throughout, oriented 15 degrees TCA and 0 degrees to BD and is crosscut by narrow white crackling.	CR	15	0															

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									Secondary black crackling orientation, 50 degrees TCA, and 90 degrees to BD.	CR	50	90															
									White, <1 mm wide, fracture filling, oriented 25 degrees TCA and 90 degrees to BD and crosscuts black crackling which at times exhibits ~1 mm offset.	FR	25	90															
						Ca	Qz	Rg	White, CG, Ca-Qz veinlets up to 9 mm wide, ~1-2 per meter become more common with depth, host trace Rg as 2 mm subhedral crystals oriented 50 degrees TCA and 270 degrees to BD. These veinlets crosscut and offset white fracture filling veinlets up to 8 mm.	VT	50	270	1.5							t							
			110.00	114.30	4.30	LST	MX	BX	Grey to brilliant red to white, FG to CG, interbedded LST hosting extensive Ca-Rg-Om veining MX. Veining locally deforms bedding fabrics and exhibits breccia textures with grey, angular clasts supported by VN minerals. Within dark LST beds, trace dull Py blebs up to 3 mm in size are seen. Rg and Om are strongly associated with calcareous veining; vein selvages are defined by irregular, soft, dull grey, friable, calcareous material and is foliated parallel to vein margins. As-sulphide MX is present as semi-massive aggregates of coarse Rg and fine grained Om to FG-MG, fracture filling/crackling. Brilliant red, CG, euhedral realgar is best exhibited on uneven fracture faces of core. Parasitic Ca veinlets occur tangentially from main Ca-Rg-Om veins. lCN is sharp, and is defined by break in massive As-sulphide MX and shattered LST, oriented 30 degrees TCA at 114.30 at the end of a drill run.	CN										ms	i	t					
									Defined by most common bedding where still planar, BD is measured at 20 degrees TCA, though orientations from 0 to 30 degrees TCA are present.	BD	20																
						Ca	MX		Coarse, Ca-As sulphide veining that brecciates LST is variably oriented 0-80 degrees TCA and 0 to 180 degrees to BD. As-sulphides make up as much as 50% of vein minerals.	VN	n/a									ms	ms					
						Ca	Rg		Parasitic MG Ca veinlets propagating from main veining are 2-6 mm wide and oriented 50 degrees TCA and 180 degrees to BD. Veinlets are at times vuggy with euhedral, CG Rg and sparry, grey, toothy calcite partially filling cavities.	VT	50	180	2.5							w							

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
114.30	129.22	14.92				LST	DCA	MX	Medium to dark grey, variably interbedded and DF textured, blocky to rubbly, moderate-strongly DCA altered LST with weak Om and Rg MX and weak CLY alteration. DCA alteration decreases with depth. Black and white crackling are seen variably throughout. Calcareous fizzing is noted where core is most broken and rubbly, overlapping with CLY alteration. As-sulphide MX is present as fracture filling narrow veinlets and with grey clay-gritty partings. White, calcareous fractures and veining are seen throughout.						ms			CLY	w	w	w							
			114.30	118.72	4.42	LST	DCA	DF	Grey, FG to clastic, blocky to rubbly, strongly DCA altered DF textured LST hosting white and black crackling throughout. DCA alteration decreases with depth, becoming weak/absent at the lCN. Where blocky, core exhibits bladed debris flow textures up hole, becoming interbedded with depth. Interbedded LST lacks the black crackling textures below 118.26 m. Where most rubbly, grey clay grit is present and fizzes readily with HCl. Weak Rg is present filling fractures up hole. Trace Om is more common with depth. The lCN is defined by a shift from DCA alteration to calcareous LST.	DF					ms			CLY	w	t	w						
			118.05						Bedding is generally absent, but where exhibited, is oriented 40 degrees TCA.	BD	40																
									A weakly preferential fracturing is seen where core is blocky, oriented 50-60 degrees TCA.	FR	55																
									White, narrow crackling seen in blocky core, giving it a shattered appearance where strongest. Primary orientation is at 50 degrees TCA, parallel to the common fracture orientation.	CR	50	0															
									Secondary white crackling orientation, ~20 degrees TCA and ~270 degrees to preferential fracturing orientation.	CR	20	270															
									Black, narrow, <1 mm wide crackling, exhibiting Qz grains where crackling is up to 1 mm wide, oriented 50 degrees TCA and 180 degrees to preferential fracturing. Where crackling is strongest, core exhibits a shattered appearance. Spacing between crackling is 3 mm to 1.1 cm.	CR	50	180															
									Secondary orientation to black crackling, 40 degrees TCA and 0 degrees to preferential fracturing FA.	CR	40	0															

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			118.26			Ca			White, MG to CG, calcareous VT's, 8 mm wide, oriented 55 degrees TCA and 180 degrees to fracture orientation at 118.26 m. Veinlet fizzes readily with HCl.	VT	55	180															
			118.72	129.22	10.50	LST		BD	Medium to dark grey, FG to MG, interbedded, weakly CLY altered LST with narrow intervals of debris flow textures. Fair black crackling is exhibited with DF textures and is absent where interbedded textures are seen. A 57 cm wide DF bed at 120.72 m hosts black crackling. Muddy-silty interbeds are <1 mm to 1.5 cm thick, non-calcic and make up ~20% of the subinterval. White calcic fracturing and veining is seen throughout, generally oriented parallel with bedding. FG to MG, wispy to powdery bands of Om and brilliant red, crystalline Rg are present with a calcareous, clay altered, 7 cm wide grey band at 126.76 m. lCN is sharp, defined by a change to grey, DCA altered, interbedded MST-LST at 129.22 m.	CN								CLY	w	w	w					
									Defined by a strong bedding fabric, BD is measured at 60 degrees TCA.	BD	60																
						Ca			White, calcareous, MG to CG veinlets/fracturing, generally oriented 60 degrees TCA and 0 degrees to BD and are 1 to 8 mm in width. Veinlet orientations are variable, and are seen as shallow as 0 degrees TCA.	VT	60	0															
			120.70	121.27	0.57	LST		DF	Debris flow textured LST with overprinting black crackling.	DF																
129.22	134.16	4.94				MST		BD	Green to grey, laminated to interbedded, variably calcareous, soft MST. Core is blocky to rubbly, preferentially fracturing along bedding planes. Core is generally laminated but can exhibit tight folding and shattered appearances. Fracturing is moderate throughout. Weak DCA alteration of LST laminations decreases with depth. LST interbeds increase in both width and frequency with increasing depth.						w												X
									Bedding is measured at 40 degrees TCA where interbedded textures are not deformed. Bedding shallows to 0 degrees TCA on "upper" limb of fold when BD is pointing up hole in the core box.	BD	40															

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
						Ca			White, <1 mm wide calcareous fractures are present throughout, primarily oriented 45 degrees TCA and 180 degrees to BD. Orientation and frequency is variable throughout, both are highest where bedding is deformed.	FR	45	180														
						Ca			A secondary orientation to white calcareous fractures, 15-20 degrees TCA and 0 degrees to BD.	FR	15	0														
134.16	247.18	113.02				LST	SIL	BD	Medium to dark grey, FG to CG, variably DF to interbedded, variably SIL and DCA altered LST. Weak white and black crackling textures are present variably throughout. Trace Rg MX is present with depth. Calcareous and Ca-Qz veining are seen intermittently. Soft sediment and other deformation textures are present variably throughout.	BD				f	f						t						
			134.16	142.64	8.48	LST	SIL	BD	Dark to medium grey, FG to CG, interbedded to massive, moderately SIL altered LST. MST interbeds are present up hole, becoming darker and decreasing in frequency and width with depth. Calcareous fracturing/veining is variable throughout, and is preferential to LST beds with various widths and orientations. Trace Rg is present within calcareous veinlets. Some white fracturing/veining exhibits narrow black selvages. SIL alteration is preferential to LST beds hosting white fracturing. Trace stylolitic bands are noted where SIL alteration is strongest. Core is blocky to rubbly, exhibiting grey, calcareous alteration where core is most broken. lCN is sharp, defined by laminated LST and muds above debris flow textures and is oriented 50 degrees TCA. Trace black crackle textures are noted at 140.45 m.	CN				m				CLY	w		t						X
									Bedding and preferential fracturing are parallel oriented 50 degrees TCA.	BD	50															
						Ca			White, MG, sugary calcareous veins up to 1.0 cm wide, but generally 2-3 mm wide, are oriented parallel to subparallel to bedding, 40-50 degrees TCA and 0 degrees to BD. Veinlets sometimes propagate along bedding planes between MST-LST strata.	VT	50	0	6													

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
						Ca	Qz		White to dark grey, Ca-Qz veinlets 2-6 mm wide, oriented 10-20 degrees TCA and 300 degrees to FO. The veinlets consist of MG-CG Ca and grey Qz crystals with black, narrow crackling throughout. VT margins are jagged and irregular with black, moderate hard, 1 mm wide selvages. Black crackling at times appears between VN crystal faces.	VT	15	300															X
						Ca			White, narrow, calcareous fracture filling/crackling, variably oriented with a weakly consistent orientation of 40 degrees TCA and 90 degrees to BD.	FR	40	90															
			142.64	146.33	3.69	LST		DF	Light to medium grey, clastic debris flow LST with calcareous fracturing and veining. DF clasts increase in size with depth, becoming bladed and preferentially oriented. DF clasts are <1 cm in size up hole, are bladed to subrounded and increase to 2.9 cm in length below 144.40 m. uCN and lCN are sharp, defined by mud beds oriented 50 degrees TCA. Grey DF clasts are rimmed by FG, soft, calcareous material which also fills interstitial voids. Narrow, white VT's exhibit dark selvages. Wider calcareous veining fractures and encloses host rock clasts and contains trace Rg MX. Trace black crackling textures referentially occur light grey, LST DF clasts. Core is blocky, often with black, FG, gritty coatings on fracture faces with trace Om. Trace Py is present as metallic, "platy" smears with striations on a fracture surface at 143.80 m.	CN									t	t	t					X
									Defined by debris flow clast orientation, BD is oriented at 50 degrees TCA.	BD	50																
						Ca			White to medium grey, FG-MG, calcareous veinlets most commonly oriented parallel to BD with dark, cloudy VT selvages up to 1.5 mm wide. VT's become more common with depth.	VT	50	0														
						Ca			White, MG-CG, sugary Ca veins/veinlets, 1.1 cm to 6 mm wide with a primary orientation 40 degrees TCA and 0 degrees to FO.	VT	40	0														
						Ca			A secondary orientation to white, sugary veinlets, 60 degrees TCA and 180 degrees to BD, crosscutting narrow, white veinlets with black selvages.	VT	60	180														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									Slickenslides (?) exhibited by Py crystals on a fracture surface 5-10 degrees TCA and 180 degrees to BD. On the fracture surface. Metallic Py with gritty, FG, black and white calcareous minerals are present on the fracture face. SS are oriented 80 degrees to top of bedding. Direction of movement is uncertain.	SS	5	80														
									Parallel, linear, slickenslides (?) on a fracture surface oriented 30 degrees TCA and 0 degrees to bedding are oriented 80-85 degrees to BD when BD is pointing up hole.	SS	30	80														
			146.33	151.87	5.54	LST	SIL		Medium grey, FG to MG, variably DCA and SIL altered LST with intermittent muddy interbeds. MST interbeds are FG, soft, non-calcareous, 1 mm to 4.3 cm thick and dark to medium grey in colour. Intense SIL alteration intermittently occurs throughout. Where SIL alteration is strongest, moderate DCA alteration overlaps, core fizzes only weakly when scratched, and hosts black, wispy bands and white, soft, DCA altered calcareous fractures. Trace <1 mm Rg crystals is present on some fracture faces where SIL and DCA alteration overlap. Trace Py is seen as blebby aggregates of metallic yellow, FG crystals near deformed, narrow, MST interbeds at 147.95 m. White crackling is seen variably throughout, with trace black crackling seen where DCA-SIL alteration overlap. Narrow clastic, DF beds are seen intermittently throughout. Alteration and crackling generally increase with depth.					ms	m					t	t					
									Bedding is defined by interbeds and preferentia fracturing, BD is oriented 50 degrees TCA.	BD	50															
									Narrow, <1 mm wide white to medium grey FG to MG crackling preferentially hosted in LST are primarily oriented 45-60 degrees TCA and 0 degrees to BD.	CR	60	180														
									Secondary orientation to white crackling, 50 degrees TCA and 0 degrees to BD.	CR	50	0														
									Black crackling, variably oriented but exhibits a common orientation at 149.52 m at 50 degrees TCA and 0 degrees to BD.	CR	50	0														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			151.87	157.40	5.53	LST	SIL		Medium to dark grey, FG to MG, fractured to moderately deformed, strongly SIL altered interbedded LST. Shallow fractures are seen throughout with dark grey, clay-like, platy MX on fracture faces. SIL alteration is pervasive, making core slick and hard throughout. The LST also fizzes readily with HCL. Narrow, white fractures occur throughout with offsets up to 6 mm along some fractures. Core is blocky to rubbly, generally fracturing preferential to bedding planes, with irregular fracturing also noted. Where SIL is strongest, white crackling is present. Interbeds are 1 mm to 5.0 cm thick.					s														
									Bedding is oriented 40 degrees TCA, but shallows to 25 degrees where core is deformed by shallow fracturing.	BD	40															
							CLY	FR	Fractures with medium to dark grey, clay-like, soft MX on fracture faces are oriented 15-20 degrees TCA and 270-315 to BD. LST beds are deformed and offset by these fractures. Sense of movement is obscured by blocky nature of core where fractured.	FR	15	300														
									White, FG to MG, <1 mm to 3 mm wide fracture fillings, preferentially hosted in lighter grey LST and with strongly SIL altered patches, oriented 40 degrees TCA and 90 degrees to BD.	CR	40	90		s												
									Secondary orientation to white fracture filled "crackles", 45 degrees TCA and 0 degrees to BD.	CR	45	0														
									A 3rd orientation to white crackling, 40-45 degrees TCA and 180 degrees to BD.	CR	45	180														
									Faint, <1 mm wide, trace black crackling, generally oriented 45 degrees TCA and 0 degrees to BD, though irregular orientations TCA are not uncommon.	CR	45	0														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			161.07	163.99	2.92	LST	SIL	BD	Dark to medium grey, interbedded/laminated to DF textured, blocky, FG to CG, variably SIL altered LST with CG yellow Ca veining. Core becomes darker in colour with depth with narrow, DF/soft sediment textures over 8 cm at 163.80 m. Below this the core becomes gritty-rubbly. Other thin gritty-rubbly layers up to 7 cm thick occur. Where rubbly, core is calcareous and hosts trace, FG Rg crystals. Dark grey CLY alteration coats fractures where core is rubbly. SIL is variable throughout, locally strong in bands from 8-10 cm wide. Yellow calcareous veining is vCG with toothy crystals up to 2.4 cm in size with irregular orientations.					m				CLY	w		t						
									BD is oriented 40 degrees TCA where undeformed, but can appear undulose and shallow, 20-25 degrees TCA where core is fractured.	BD	40															
						Ca			Yellow, vCG calcite veins, up to 2.4 cm crystals with dark, FG, dissolution lines along cleavage planes. Veins are variably oriented 40-60 degrees TCA and generally 0 degrees to BD. Trace <1 mm, brilliant red Rg crystals are associated and included within wide Ca veining. Selvages are dark, gritty, soft and up to 1.6 cm wide.	VN	60	0														
						Ca	Qz		White to pink, FG to MG, SIL altered Ca veinlet at 162.45 m, oriented 30 degrees TCA and 90 degrees to FO and is 5 mm wide.	VT	30	90														
			169.20	170.22	1.02	LST	DCA	BD	Dark to medium grey, laminated, FG to MG LST exhibiting variable DCA alteration. Beds are <1 mm to 3 mm thick with very narrow, light grey, <<1 mm wide beds intermittently throughout. Narrow, <1 mm wide white fractures at times exhibit offsets of 2-3 mm. Intermittent patches of medium and dark grey muds don't react to HCl.						m												
									Defined by a laminated fabric oriented 50 degrees TCA.	BD	50															
									White, FG, non calcareous, <1 mm wide fracture filling veinlets, oriented 40-50 degrees TCA and 180 degrees to BD.	VT	45	180														
									Secondary orientation of white, narrow fracture filling veinlets, 50 degrees TCA and 90 degrees to FO with 1-2 mm offset along fractures.	VT	50	90														
									A third orientation to white fractures filling veinlets, 50 degrees TCA and 0 degrees to BD, <1 mm wide, less frequent and is crosscut by the primary orientation.	FR	50	0														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			173.81	174.58	0.77	LST	DCA	BD	Dark to medium grey, FG to MG, variably laminated, variably DCA altered LST. DCA alteration is preferential to darker beds (MST?) but is also seen in lighter grey, MG beds. Trace white fracture filling is present.						ms												
									BD is oriented 45 degrees TCA	BD	45																
									White, <1 mm wide fracture filling veinlets, oriented 50 degrees TCA and 180 degrees to BD.	VT	50	180														
			182.45	186.01	3.56	LST	SIL		Medium to dark grey, MG to FG, strongly SIL altered LST with white and black crackling variably throughout. SIL alteration is strong to moderately strong throughout; white cracking is seen preferential to zones where SIL alteration is strongest. Core is slick and much harder than typical LST. Narrow black interbeds occur intermittently throughout, <1 mm to 5 mm wide. SIL alteration is preferential to lighter, MG LST. White veinlets at times exhibit offsets up to 2 mm along fractures. Dark narrow mud beds are undulose, becoming more irregular with depth.					s												
									Bedding is oriented 40 degrees TCA	BD	40																
									White, <1 mm wide fracture filling veinlets, primary orientation at 50-70 degrees TCA and 150-180 degrees to BD. White crackling is seen preferential to grey LST.	VT	50	180														
									Secondary orientation to white fracture filling veinlets, 30 degrees TCA and 90 degrees to FO.	VT	30	90														
						Ca	Qz		White, MG, Ca-Qz veinlets, 1-4 mm wide, irregular, "tension-gash" like fractures, almost appearing to shatter/brecciate core where SIL alteration is strongest, oriented 40 degrees TCA and 90 degrees to BD.	VT	40	90														
						Ca	Qz		Second orientation to white, Ca-Qz veinlets, 50 degrees TCA and 0 degrees to FO.	FR	50	0														
									Black, <1 mm wide crackling at 183.90 m, most common orientation is at 50-60 degrees TCA and 0 degrees to BD, though orientations are variable. Black crackling is seen in grey LST where SIL alteration is strongest.	CR	50	0														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			188.23	191.54	3.31	LST	SIL		Light to medium grey, bladed DF, mod-strongly SIL altered LST with narrow, white, calcareous veinlets intermittently throughout. Core is slick and moderately harder than typical LST. Bladed clasts are ~1 mm to 4.7 cm long, light to dark grey in colour, with FG to MG, grey to translucent Qz and Ca grains making up the DF matrix. Trace Py is present as FG to vFG disseminations in both clasts, but more commonly within the Qz-Ca matrix as yellow, metallic, subhedral grains. Trace vFG, silvery, subhedral-near cubic disseminations within the DF matrix.					ms								t						
									Defined by clast orientations, BD is 40 degrees TCA.	BD	40																	
						Ca	Qz		White, MG, Ca-Qz VT, 1-2 mm wide, oriented 40-60 degrees TCA and 180 degrees to FO. Trace <<1 mm, bight, silvery metallic grains are within the veinlets.	VT	50	180	2															
			191.39			Ca	Qz		White, MG, Qz-Ca fracturing at 191.39 m, variably oriented and is <1 mm to 4 mm in width, exhibiting a brittle, angular texture. Orientations are variable TCA and lack a major orientation, but are generally 270-290 degrees to FO.	CR	n/a	280															
			191.54	194.98	3.44	LST	DCA	BD	Medium to light grey, FG to MG, laminated, strongly DCA altered LST with trace Rg. LST beds are <1 mm to 4 mm thick, planar to undulose, at times appearing lenticular to wispy. Core fizzes weakly to 192.18 m with reaction to HCL absent below that. Trace red-orange, platy to acicular Rg needles are present on some fracture faces. Trace greenish-red Rg+ASO alteration is present on a fracture face at 194.07 m. lCN is sharp, but is obscured by rubble which lacks DCA alteration.	CN					s			ASO	t		t						X
									Bedding is defined by a laminated fabric oriented 40 degrees TCA.	BD	40															
									White, variably oriented, angular, <1-3 mm wide fracture filling veinlets, primarily oriented 40 degrees TCA and 90 degrees to BD above the lCN.	VT	40	90														
			194.98	196.53	1.55	LST	SIL	BD	Medium to dark grey, MG to FG, interbedded, mod strongly SIL altered LST with fair DCA alteration. White crackling occurs variably throughout, with black crackling less common. Core is blocky to competent with a few <1 cm wide, grit-clay rich structures. SIL and DCA alteration decrease with depth.					ms	f											

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									BD is oriented 40 degrees TCA	BD	40																
									White, FG, 1-2 mm wide non-calcareous sinuous veinlets, oriented 50 degrees TCA and 90 degrees to BD.	VT	50	90															
						Ca			White, MG, 1-3 mm wide, calcareous veinlets, primarily oriented at 55 degrees TCA and 330 to FO. These veinlets become more common with depth.	VT	55	330															
						Ca			A second orientation to white, MG calcareous veinlets is measured at 70 degrees TCA and 30 degrees to FO.	VT	70	30															
			196.53	203.00	6.47	LST	DCA	BD	Dark to light grey, FG to MG, variably DCA, laminated-interbedded LST with weak Rg and trace Py. Variably undulose to deformed beds are <1 mm to 2.5 cm thick. Small offsets are sometimes seen along narrow, white, fractures up to 1.1 cm. Trace disseminated Rg is visible on core surface, but is most readily seen on fracture faces. Py is present as FG disseminations to patches in <1 cm wide, light grey LST bed at 201.02 m and as vFG disseminations with Rg on some fracture faces. Py(arsenopyrite?) is also present as silvery, FG, subhedral crystals with a white-pink Ca VT at 201.16 m.						m												X
									Bedding is oriented 40 degrees TCA	BD	40																
						Ca	Qz		White, 1-5 mm wide, FG to MG, Ca-Qz veinlets are seen intermittently throughout, oriented 45-50 degrees TCA and 160 degrees to BD.	VT	50	160	2														
			203.00	220.78	17.78	LST	DCA	BD	Medium to dark grey, FG to MG, weakly DCA altered, interbedded-laminated LST. Medium and dark grey beds are <1 mm to 3.8 cm thick, alternating between light and dark dominated beds alternating every ~1.5 m. Bedding is planar, though exhibits weak deformation between 213.50 and 215.00 m. Trace Py and Rg are present with narrow, clastic beds at 214.54 m as FG disseminations to small aggregates. Trace black crackling is intermittent throughout, preferentially hosted in light grey LST.						c					t	t					X
									Bedding is oriented 45-50 degrees throughout	BD	50																
						Ca			Pink to grey, MG to CG, calcite vein with trace, euhedral to irregular <1 mm Py crystals. Moderately soft, creamy alteration of some crystals gives VN a pitted appearance. VN is 1.4 cm wide and is oriented 20 degrees TCA and 90 degrees to BD at 203.30 m.	VN	20	90														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									White veinlets, <1 mm to 1.5 mm wide, commonly oriented and preferential to lighter LST beds oriente 40-50 degrees TCA and 90 degrees to BD. Veinlets densities are variable, but highest from 204.00-206.00 m and 219.40-220.60 m.	VT	45	90															
			204.50	206.09	1.59			VT	Narrow, <1 mm wide black veinlets, 15 degrees TCA and 270 degrees to FO, and are preferentially hosted in lighter LST beds. Black cracks appear wispy to angular in appearance, are up to 3 cm long.	VT	15	270															
			219.40	220.60	1.20	Ca		VT	White, FG to MG, calcareous veinlets, 40-50 degrees TCA and 180 degrees to BD. Veinlets are 1-2 mm wide.	VT	45	180															
			220.78	244.28	23.50	LST		BD	Medium to dark grey, MG to FG, interbedded LST with angular, calcic white crackling variably throughout. SIL alteration is present where white crackling is strongest. DCA alteration is intermittent throughout and is independent of SIL alteration, tough overlap is seen. Where core is DCA altered, core fizzes slowly and less so than non-altered LST. Weak <1 mm black crackling are associated with white crackling. Where crackled, bedding is often deformed, fractured to folded weakly; offsets up to 5 cm, of bedding planes are common along white filled fractures. Trace yellow, metallic Py occurs with dark, FG, weakly calcareous beds as small patches of FG crystals. Trace FG Rg is present on fracture faces. lCN is gradational, DCA increases with depth to 244.28 m, where meeting convolute DF textures.	CN				m	f						t	t					X
									BD is oriented at 45 degrees TCA	BD	45																
									White, FG to MG, Ca-Qz crackling, <1 mm to 1.0 cm wide, generally 2-4 mm, exhibit angular to irregular fracturing/crackling throughout, at times deforming and offsetting bedding. Primary orientation to crackling is 50 degrees TCU and 0 degrees to BD, though orientations are highly variable where crackling is strongest.	CR	50	0														X
									A second orientation to white crackling, 50 degrees TCA and 90 degrees to BD.	CR	50	90															
						Ca	Qz		Black, FG, <1 mm wide crackling, Qz-like under hand lens, and seen intermittently throughout. Black crackling orientations are variable, though a major orientation is parallel with bedding, 45 degrees TCA.	CR	45	0															

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									A second black crackle orientation, 45 degrees TCA 180 degrees to BD.	CR	45	180															
			244.28	247.18	2.90	LST	DCA	DF	Grey to light green, bedded to DF textured, strongly SIL and DCA altered LST. Dark grey SIL altered LST clasts occur within the DF zones. Where bedded, textures are folded and deformed and mixe with debris flow textures. DF clasts are tabular to rounded, 2 mm to greater than core width, are variably calcareous and SIL altered with very hard, non calcareous clasts. White crackling is intermittent throughout. lCN is abrupt, changing to green mudstone at 247.18 m.					s	s													
									Where undeformed, bedding is oriented 30-40 degrees TCA.	BD	35																
									White fracturing, 1-3 mm wide, oriented 50-55 degrees TCA and 90 degrees to BD.	FR	50	90															
247.18	256.03	8.85				MST	BLE	BD	Maroon to turquoise, FG, laminated MST. Core appears bleached up hole below uCN, and exhibits fresh colours below 253.95 m. Maroon muds host <1mm to 21 cm thick turquoise interbeds, becoming thicker and less frequent with increasing depth. Narrow, yellow-green sericite alteration wisps to beds <3 mm thick are seen in the turquoise MST. Dark, CHL alteration is seen on margins of strongly to intensely crackled DCA/DOL altered, pinkish-grey, interbeds of LST up hole.									BLE	ms									
																		SER	w								
																		CHL	w								
									BD is defined by orientation of turquoise beds(?) and laminations in maroon muds, 40-50 degrees TCA.	BD	45																
									Creamy white to grey, <1 mm to 3 mm wide, dolomite veinlets, fizzing weakly when scratched (DCA alteration?), oriented 60-80 degrees TCA and 0 degrees to BD.	VT	70	0	2														

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			251.51	253.01	1.50	LST			Light pink-grey to intensely crackled, mod-strongly SIL altered, DCA, black crackled MST. Core is harder than typical and fizzes only weakly after being scratched. Faint colour changes in core may be relict maroon-turquoise beds. Black crackling gives core an intact shattered appearance where most intense with sooty, black, gritty fracture filling veinlets. Crackling has a Qz like appearance under hand lens with rare, silvery and yellow <<1 mm, metallic flecks (Py? arsenopyrite? stibnite?). Where less intensely crackled, black fracturing has 2 dominant orientations orthogonal to bedding. Crackling is strong up hole, becoming intense to diminishing as depth increases.	CR				ms	m						t					X
									Upper contact is abrupt, noted by changes from MST to crackled unit and occurs at 20 degrees TCA.	uCN	20															
									Lower contact is sharp at 50 deg TCA.	lCN	50															
									BD is oriented 25 degrees TCA up hole but steepens to 50 degrees TCA below intensely crackled core, and is defined by relict shale beds and faint colour changes.	BD	40															
									Black, narrow crackling, <1 mm to 1.5 mm wide with rare, metallic, bright flecks in crackled veinlets. Primary orientation is 40 degrees TCA, 90 degrees to BD.	CR	40	90														
									A secondary orientation to black crackling, 20 degrees TCA and 270 degrees to BD. This orientation is less common than that above.	CR	20	270														
									White, MG, DCA Ca-Qz VTs, oriented 40 degrees TCA and 270 degrees to FO, 3-4 mm wide and crosscut black crackling at 251.89 m.	VT	40	270														
			253.01	256.03	3.02	MST	CHL	BD	Maroon to turquoise, laminated, FG MST with strong CHL alteration below uCN. Core is green to 253.94 m. Laminations <1 mm to 3 mm thick are seen throughout, CHL alteration is absent with depth.									CHL	s									X
									BD is defined by laminated fabric, 40 degrees TCA.	BD	40															
									256.03 m: EOH - The hole was ended because it was into the lower maroon mudstone unit and past the targeted mineralized carbonate package.																	

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

SAMPLE LOG

HOLE: OS-10-03

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
30.62	33.62	3.00	LST	DCA	2.96	99	J998476	5	<0.01	138	0.26	0.46	1.12	
33.62	36.62	3.00	LST	DCA	2.96	99	J998477	5	<0.01	163	0.29	0.46	1.01	
36.62	39.62	3.00	LST	DCA	2.91	97	J998478	5	<0.01	107	0.44	0.64	1.85	
39.62	41.14	1.52	LST	DCA	1.52	100	J998479	5	0.05	197	0.61	1.36	2.75	
41.14	44.14	3.00	LST	DCA	2.93	98	J998480	5	<0.01	146	0.38	0.25	0.34	
44.14	45.14	1.00	LST	DCA	0.98	98	J998481	5	0.01	209	0.94	1.08	3.53	
45.14	48.14	3.00	LST	DCA	1.98	66	J998482	6	<0.01	97	0.62	0.25	0.30	
48.14	51.14	3.00	LST	DCA	2.90	97	J998483	6	<0.01	110	0.20	0.31	0.40	
51.14	54.14	3.00	LST	DCA	2.94	98	J998484	6	0.03	153	0.41	0.70	0.78	
54.14	57.14	3.00	LST	DCA	2.95	98	J998485	6	<0.01	157	0.52	0.54	0.60	
57.14	60.14	3.00	LST	DCA	2.97	99	J998486	6	0.03	250	0.36	0.67	0.61	
60.14	61.70	1.56	LST	DCA	1.45	93	J998488	6	0.07	319	0.61	0.81	0.82	
61.70	63.20	1.50	LST	DCA	1.48	99	J998489	6	0.10	475	0.88	1.20	1.37	
63.20	64.70	1.50	LST	DCA	1.48	99	J998490	6	0.05	427	1.40	0.91	1.27	
64.70	66.20	1.50	LST	DCA	1.50	100	J998491	6	0.01	113	0.94	1.26	1.75	
66.20	67.80	1.60	LST	DCA	1.49	93	J998492	6	0.07	150	1.11	1.60	1.95	
67.80	68.38	0.58	LST	DCA	0.58	100	J998493	6	0.06	412	3.97	6.69	7.46	
68.38	69.90	1.52	LST	DCA	1.40	92	J998495	6	0.03	289	0.77	1.11	1.41	
69.90	71.90	2.00	LST	DCA	1.65	83	J998496	6	0.01	224	0.46	1.14	0.99	
71.90	73.90	2.00	LST	DCA	1.83	92	J998497	6	0.03	318	1.09	2.50	2.05	
73.90	75.90	2.00	LST	DCA	1.98	99	J998498	6	0.01	123	0.46	1.05	0.80	
75.90	77.90	2.00	LST	DCA	1.94	97	J998500	6	0.03	157	0.95	1.29	1.55	
77.90	79.95	2.05	LST	DCA	1.92	94	J998501	6	0.05	398	2.61	2.40	2.08	
79.95	81.95	2.00	LST	DCA	1.80	90	J998502	6	0.01	27	2.69	0.85	1.74	
81.95	83.95	2.00	LST	DCA	1.70	85	J998503	6	0.01	31	0.95	0.88	1.09	
83.95	85.45	1.50	LST	DCA	1.20	80	J998504	6	0.01	30	0.96	0.76	1.03	
85.45	86.95	1.50	LST	DCA	1.23	82	J998506	6	0.01	45	2.25	0.86	1.77	
86.95	87.95	1.00	LST	DCA	0.83	83	J998507	6	0.01	63	1.66	0.85	1.35	
87.95	88.95	1.00	LST	DCA	0.74	74	J998508	6	0.01	285	1.24	1.69	1.87	
88.95	89.95	1.00	LST	DCA	0.86	86	J998509	6	0.01	954	1.07	3.17	1.41	
89.95	90.95	1.00	LST	DCA	0.82	82	J998510	6	0.02	177	1.19	3.44	1.53	
90.95	91.95	1.00	LST	DCA	0.92	92	J998511	6	0.33	5220	4.42	12.00	7.14	
91.95	92.95	1.00	LST	DCA	0.87	87	J998513	6	0.09	2340	4.54	4.95	4.59	

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
92.95	94.48	1.53	LST	DCA	1.34	88	J998514	6	0.05	417	3.34	4.34	3.93	
94.48	96.01	1.53	LST	DCA	1.40	92	J998515	6	0.02	65	1.97	1.94	1.70	
96.01	97.53	1.52	LST	DCA	1.42	93	J998516	6	0.02	56	1.45	2.22	1.47	
97.53	100.58	3.05	LST	DCA	3.00	98	J998517	6	0.06	1080	2.86	2.46	2.38	
100.58	101.98	1.40	LST	DCA	1.26	90	J998518	7	0.01	190	2.31	3.03	1.76	
101.98	103.63	1.65	LST	DCA	1.65	100	J998519	7	<0.01	43	4.17	1.65	2.03	
103.63	104.79	1.16	LST	DCA	0.80	69	J998520	7	<0.01	112	3.82	2.83	2.33	
104.79	106.74	1.95	LST	SIL	1.69	87	J998521	7	0.79	284	3.37	6.13	7.19	
106.74	108.08	1.34	LST	MX	1.27	95	J998522	7	8.43	150000	28.90	202.00	29.40	
108.08	110.00	1.92	LST	SIL	1.73	90	J998523	7	0.24	588	3.67	5.19	9.57	
110.00	111.25	1.25	LST	MX	1.12	90	J998524	7	5.59	116500	27.90	152.50	23.20	
111.25	112.77	1.52	LST	MX	1.43	94	J998525	7	4.80	42200	16.50	72.80	42.60	
112.77	113.80	1.03	LST	MX	1.03	100	J998526	7	10.90	118000	21.70	151.50	32.00	
113.80	114.30	0.50	LST	MX	0.45	90	J998527	7	3.03	273000	98.90	444.00	43.50	
114.30	115.82	1.52	LST	DCA	1.14	75	J998529	7	0.61	5900	1.62	7.79	3.92	
115.82	117.00	1.18	LST	DCA	0.95	81	J998530	7	2.33	696	3.29	4.52	7.85	
117.00	118.72	1.72	LST	DCA	1.32	77	J998531	7	0.22	621	1.43	2.00	3.80	
118.72	120.43	1.71	LST		1.46	85	J998532	7	0.06	149	1.19	1.46	3.12	
120.43	121.04	0.61	LST		0.61	100	J998534	7	0.32	183	2.32	4.85	7.83	
121.04	124.04	3.00	LST		2.89	96	J998535	7	0.60	429	4.51	9.23	16.95	
124.04	126.49	2.45	LST		2.25	92	J998536	7	0.76	746	5.50	15.85	27.10	
126.49	127.09	0.60	LST		0.56	93	J998537	7	1.39	32300	6.20	89.00	31.80	
127.09	129.22	2.13	LST		1.89	89	J998538	7	0.14	285	1.50	1.89	5.19	
129.22	130.91	1.69	MST		1.36	80	J998539	7	0.02	111	0.60	0.73	1.31	
130.91	132.17	1.26	MST		0.77	61	J998540	7	<0.01	57	0.30	0.52	0.66	
132.17	133.00	0.83	MST		0.70	84	J998541	7	0.01	293	1.30	0.83	1.13	
133.00	134.16	1.16	MST		0.97	84	J998542	7	0.07	159	0.50	1.08	2.26	
134.16	135.63	1.47	LST	SIL	1.39	95	J998543	7	<0.01	70	0.30	0.31	0.66	
135.63	136.78	1.15	LST	SIL	0.88	77	J998544	7	<0.01	134	0.40	0.54	1.68	
136.78	138.68	1.90	LST	SIL	1.87	98	J998545	7	0.02	258	1.80	2.10	7.28	
138.68	140.20	1.52	LST	SIL	1.23	81	J998546	7	0.16	466	4.10	6.26	16.95	
140.20	141.56	1.36	LST	SIL	1.13	83	J998548	7	0.34	444	5.00	9.52	19.75	
141.56	142.64	1.08	LST	SIL	1.08	100	J998549	7	1.01	2650	8.10	20.60	31.80	
142.64	143.38	0.74	LST		0.74	100	J998551	7	0.33	374	4.20	7.55	14.85	
143.38	144.07	0.69	LST		0.63	91	J998552	7	0.33	499	4.00	7.42	15.55	

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
144.07	146.30	2.23	LST		2.23	100	J998554	8	0.09	93	1.26	2.31	4.17	
146.30	147.82	1.52	LST	SIL	1.44	95	J998555	8	0.01	52	0.20	0.45	0.65	
147.82	148.82	1.00	LST	SIL	0.92	92	J998556	8	0.01	131.5	0.35	0.70	1.16	
148.82	149.82	1.00	LST	SIL	0.86	86	J998557	8	0.01	48	0.21	0.34	0.65	
149.82	150.87	1.05	LST	SIL	0.97	92	J998558	8	0.01	19	0.11	0.21	0.30	
150.87	152.26	1.39	LST	SIL	1.29	93	J998559	8	<0.01	27	0.07	0.20	0.23	
152.26	153.92	1.66	LST	SIL	1.54	93	J998560	8	0.01	48	0.10	0.35	0.38	
153.92	155.40	1.48	LST	SIL	1.37	93	J998561	8	0.01	52	0.07	0.25	0.30	
155.40	157.40	2.00	LST	SIL	1.83	92	J998562	8	0.01	30	0.11	0.27	0.40	
157.40	158.72	1.32	LST	SIL	1.14	86	J998563	8	0.01	71	0.45	0.43	0.70	
158.72	160.02	1.30	LST	SIL	1.10	85	J998564	8	0.01	59	0.30	0.33	0.98	
160.02	161.07	1.05	LST	SIL	0.97	92	J998565	8	0.01	144	0.84	1.11	1.76	
161.07	162.72	1.65	LST	SIL	1.10	67	J998567	8	0.16	306	2.21	3.27	7.20	
162.72	163.99	1.27	LST	SIL	0.89	70	J998568	8	0.41	528	2.84	4.60	11.35	
163.99	166.15	2.16	LST	SIL	2.14	99	J998569	8	0.03	103	0.66	0.80	1.17	
166.15	169.20	3.05	LST	SIL	2.90	95	J998570	8	0.01	38	0.30	0.25	0.38	
169.20	170.22	1.02	LST	SIL	1.02	100	J998572	8	0.01	72	0.51	0.53	0.76	
170.22	172.21	1.99	LST	SIL	1.83	92	J998574	8	0.02	78	0.28	0.52	0.74	
172.21	173.81	1.60	LST	SIL	1.32	83	J998575	8	0.01	39	0.39	0.31	0.60	
173.81	176.78	2.97	LST	SIL	2.47	83	J998576	8	0.01	41	0.40	0.33	0.77	
176.78	179.83	3.05	LST	SIL	2.65	87	J998577	8	0.01	50	0.39	0.32	0.69	
179.83	182.45	2.62	LST	SIL	2.40	92	J998578	8	<0.01	96	0.59	0.56	0.94	
182.45	184.40	1.95	LST	SIL	1.81	93	J998579	8	0.01	52	0.26	0.34	0.55	
184.40	186.37	1.97	LST	SIL	1.97	100	J998580	8	0.01	38	0.25	0.36	0.57	
186.37	187.45	1.08	LST	SIL	0.87	81	J998582	8	0.01	17	0.13	0.24	0.32	
187.45	189.23	1.78	LST	SIL	1.56	88	J998583	8	0.01	38	0.15	0.33	0.39	
189.23	190.50	1.27	LST	SIL	1.25	98	J998584	8	0.01	10	0.05	0.13	0.12	
190.50	191.54	1.04	LST	SIL	1.00	96	J998585	8	<0.01	40	0.04	0.16	0.15	
191.54	192.18	0.64	LST	DCA	0.63	98	J998586	8	0.01	48	0.10	0.32	0.37	
192.18	193.54	1.36	LST	DCA	1.29	95	J998588	8	0.01	46	0.08	0.35	0.39	
193.54	194.98	1.44	LST	DCA	1.15	80	J998589	8	0.01	77	0.08	0.55	0.39	
194.98	196.59	1.61	LST	SIL	1.03	64	J998590	9	<0.01	52	0.06	0.17	0.17	
196.59	198.60	2.01	LST	DCA	1.94	97	J998591	9	<0.01	40	0.08	0.25	0.18	
198.60	200.60	2.00	LST	DCA	1.85	93	J998592	9	0.01	37	0.05	0.28	0.31	
200.60	202.60	2.00	LST	DCA	2.00	100	J998594	9	0.03	25	0.05	0.32	0.29	

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
202.60	204.60	2.00	LST	DCA	1.84	92	J998595	9	<0.01	46	0.04	0.20	0.17	
204.60	206.60	2.00	LST	DCA	1.94	97	J998596	9	0.06	44	0.04	0.17	0.27	
206.60	208.60	2.00	LST	DCA	1.89	95	J998597	9	0.01	31	0.03	0.28	0.26	
208.60	210.60	2.00	LST	DCA	1.97	99	J998598	9	<0.01	17	0.02	0.25	0.28	
210.60	212.60	2.00	LST	DCA	1.91	96	J998599	9	0.01	26	0.03	0.23	0.31	
212.60	214.63	2.03	LST	DCA	2.00	99	J998600	9	0.01	23	0.03	0.32	0.36	
214.63	216.60	1.97	LST	DCA	1.92	97	J998601	9	0.01	41	0.04	0.32	0.36	
216.60	218.60	2.00	LST	DCA	1.99	100	J998603	9	0.01	15	0.04	0.36	0.32	
218.60	220.78	2.18	LST	DCA	2.08	95	J998604	9	0.01	20	0.05	0.30	0.37	
220.78	222.78	2.00	LST		1.86	93	J998605	9	0.02	17	0.03	0.18	0.18	
222.78	224.78	2.00	LST		1.91	96	J998607	9	0.01	32	0.05	0.31	0.26	
224.78	226.78	2.00	LST		1.95	98	J998608	9	<0.01	24	0.04	0.22	0.19	
226.78	228.78	2.00	LST		1.76	88	J998609	9	0.01	23	0.07	0.29	0.29	
228.78	230.78	2.00	LST		1.91	96	J998610	9	<0.01	22	0.04	0.24	0.25	
230.78	232.78	2.00	LST		1.96	98	J998611	9	0.01	20	0.05	0.25	0.26	
232.78	234.78	2.00	LST		2.00	100	J998612	9	0.01	13	0.05	0.23	0.12	
234.78	236.78	2.00	LST		2.00	100	J998613	9	0.01	12	0.05	0.25	0.22	
236.78	238.78	2.00	LST		1.96	98	J998614	9	0.01	51	0.04	0.24	0.20	
238.78	240.79	2.01	LST		1.95	97	J998615	9	0.01	26	0.03	0.17	0.15	
240.79	242.31	1.52	LST		1.39	91	J998617	9	0.01	23	0.04	0.19	0.12	
242.31	244.28	1.97	LST		1.98	101	J998618	9	0.01	37	0.03	0.30	0.30	
244.78	245.52	0.74	LST	DCA	1.23	166	J998619	9	0.01	16	0.02	0.26	0.31	
245.52	247.18	1.66	LST	DCA	1.55	93	J998620	9	0.01	27	0.02	0.23	0.29	
247.18	249.18	2.00	MST		2.00	100	J998622	9	<0.01	5.9	<0.01	0.22	0.49	
249.18	251.51	2.33	MST		2.24	96	J998623	9	<0.01	8.1	<0.01	0.24	0.67	
251.51	252.44	0.93	LST		0.93	100	J998624	9	<0.01	10	0.01	0.20	0.31	
252.44	253.01	0.57	LST		0.51	89	J998625	9	0.01	10	0.01	0.32	0.61	
253.01	256.03	3.02	MST		2.98	99	J998626	10	<0.01	75.4	0.02	0.65	0.82	
-	-	-	-	-	-	-	J998487	6	1.55	27300	1.40	20.60	0.10	**Standard OS-1**
-	-	-	-	-	-	-	J998494	6	<0.01	<5	0.02	0.05	0.03	**Blank**
73.90	75.90	2.00	LST	DCA	1.98	99	J998499	6	0.02	119	0.41	0.98	0.76	**Duplicate of J998498**
-	-	-	-	-	-	-	J998505	6	14.90	496	0.39	44.60	4.34	**Standard OS-2**
-	-	-	-	-	-	-	J998512	6	<0.01	13	<0.01	0.10	0.02	**Blank**
-	-	-	-	-	-	-	J998528	7	15.55	1010	0.48	45.50	4.60	**Standard OS-2**

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
-	-	-	-	-	-	-	J998533	7	0.01	<5	0.01	0.07	0.02	**Blank**
138.68	140.20	1.52	LST	SIL	1.23	81	J998547	7	0.16	383	4.10	5.82	15.80	**Duplicate of J998547**
-	-	-	-	-	-	-	J998550	7	<0.01	16	0.10	0.10	0.07	**Blank**
-	-	-	-	-	-	-	J998553	7	14.60	488	1.60	48.20	4.51	**Standard OS-2**
-	-	-	-	-	-	-	J998566	8	0.01	<5	<0.01	0.13	<0.02	**Blank**
-	-	-	-	-	-	-	J998571	8	2.25	167	1.84	176.00	14.40	**Standard OS-1**
169.20	170.22	1.02	LST	SIL	1.02	100	J998573	8	0.01	74	0.57	0.45	0.81	**Duplicate**
-	-	-	-	-	-	-	J998581	8	<0.01	<5	<0.01	0.11	<0.02	**Blank**
-	-	-	-	-	-	-	J998587	8	2.45	165	1.85	156.00	12.15	**Standard OS-1**
198.60	200.60	2.00	LST	DCA	1.85	93	J998593	9	0.01	38	0.06	0.29	0.30	**Duplicate**
-	-	-	-	-	-	-	J998602	9	<0.01	<5	<0.01	<0.05	<0.02	**Blank**
-	-	-	-	-	-	-	J998606	9	14.95	482	0.42	44.80	4.22	**Standard OS-2**
-	-	-	-	-	-	-	J998616	9	1.56	26400	0.01	21.40	0.10	**Standard OS-1**
-	-	-	-	-	-	-	J998621	9	<0.01	<5	<0.01	<0.05	<0.02	**Blank**

GEOTECHNICAL LOG

HOLE: **OS-10-03**

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
1.52	3.04	1.52	1.38	91	0.79	52	EW	EW	
3.04	4.57	1.53	1.50	98	0.83	54	W	HW	
4.57	6.09	1.52	1.44	95	1.26	83	MS	MW	
6.09	7.62	1.53	1.36	89	1.35	88	MS	MW	
7.62	9.14	1.52	1.43	94	1.00	66	MS	SW	
9.14	10.66	1.52	1.43	94	1.09	72	MS	SW	
10.66	12.19	1.53	1.53	100	1.49	97	MS	SW	
12.19	13.71	1.52	1.40	92	1.40	92	MS	SW	
13.71	15.24	1.53	1.42	93	1.37	90	MS	SW	
15.24	16.76	1.52	1.39	91	1.22	80	MS	FR	
16.76	18.28	1.52	1.51	99	1.21	80	MS	SW	
18.28	19.81	1.53	1.47	96	1.47	96	MS	FR	
19.81	21.33	1.52	1.51	99	1.51	99	MS	SW	
21.33	22.86	1.53	1.42	93	1.42	93	MS	SW	
22.86	24.38	1.52	1.52	100	1.48	97	S	FR	
24.38	25.90	1.52	1.49	98	1.17	77	MS	FR	
25.90	27.43	1.53	1.48	97	1.48	97	MS	FR	
27.43	28.95	1.52	1.49	98	1.49	98	MS	SW	
28.95	30.48	1.53	1.48	97	1.48	97	MS	FR	
30.48	32.00	1.52	1.52	100	1.52	100	MS	SW	
32.00	33.52	1.52	1.36	89	1.36	89	S	FR	
33.52	35.05	1.53	1.49	97	1.49	97	MS	FR	
35.05	36.57	1.52	1.48	97	1.48	97	MS	SW	
36.57	38.10	1.53	1.47	96	1.38	90	W	MW	
38.10	39.62	1.52	1.44	95	1.44	95	MS	SW	
39.62	41.14	1.52	1.52	100	1.48	97	MS	SW	
41.14	42.67	1.53	1.45	95	1.45	95	S	FR	
42.67	44.19	1.52	1.50	99	1.48	97	MS	SW	
44.19	45.72	1.53	1.43	93	1.39	91	MS	FR	
45.72	47.24	1.52	1.46	96	1.29	85	MS	SW	
47.24	48.76	1.52	1.49	98	1.49	98	MS	SW	
48.76	50.29	1.53	1.50	98	1.50	98	MS	FR	
50.29	51.81	1.52	1.48	97	1.48	97	MS	SW	
51.81	53.34	1.53	1.48	97	1.48	97	MS	FR	
53.34	54.86	1.52	1.43	94	1.40	92	MS	SW	
54.86	56.38	1.52	1.47	97	1.25	82	MS	SW	
56.38	57.91	1.53	1.44	94	1.39	91	MS	FR	
57.91	59.43	1.52	1.45	95	1.42	93	MS	SW	
59.43	60.96	1.53	1.49	97	1.44	94	MS	FR	
60.96	62.48	1.52	1.46	96	1.04	68	MS	MW	
62.48	64.00	1.52	1.52	100	1.40	92	S	SW	
64.00	65.53	1.53	1.53	100	1.53	100	MS	FR	
65.53	67.05	1.52	1.50	99	1.50	99	MS	FR	
67.05	68.58	1.53	1.43	93	1.36	89	W	SW	
68.58	70.10	1.52	1.36	89	1.28	84	MS	SW	
70.10	71.62	1.52	1.41	93	1.01	66	MS	FR	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
71.62	73.15	1.53	1.45	95	1.18	77	MS	SW	
73.15	74.67	1.52	1.41	93	1.41	93	MS	SW	
74.67	76.20	1.53	1.48	97	1.48	97	MS	SW	
76.20	77.72	1.52	1.38	91	1.15	76	MS	SW	
77.72	79.24	1.52	1.43	94	1.41	93	MS	SW	
79.24	80.77	1.53	1.41	92	0.71	46	W	MW	
80.77	82.29	1.52	1.41	93	1.23	81	MS	SW	
82.29	83.82	1.53	1.43	93	1.22	80	MS	SW	
83.82	85.34	1.52	1.38	91	1.05	69	MS	MW	
85.34	86.86	1.52	1.39	91	0.84	55	MS	MW	
86.86	88.39	1.53	1.53	100	0.98	64	VW	HW	
88.39	89.91	1.52	1.47	97	1.05	69	W	SW	
89.91	91.44	1.53	1.39	91	1.24	81	W	MW	
91.44	92.96	1.52	1.44	95	1.34	88	MS	SW	
92.96	94.48	1.52	1.45	95	1.34	88	MS	SW	
94.48	96.01	1.53	1.41	92	1.36	89	MS	FR	
96.01	97.53	1.52	1.52	100	0.71	47	S	SW	
97.53	99.06	1.53	1.47	96	1.45	95	MS	FR	
99.06	100.58	1.52	1.52	100	1.35	89	MS	FR	
100.58	102.10	1.52	1.52	100	1.11	73	MS	SW	
102.10	103.63	1.53	1.52	99	1.34	88	MS	FR	
103.63	105.15	1.52	1.39	91	0.26	17	MS	MW	
105.15	106.68	1.53	1.38	90	0.64	42	MS	SW	
106.68	108.20	1.52	1.49	98	1.47	97	W	MW	
108.20	109.72	1.52	1.52	100	1.33	88	MS	SW	
109.72	111.25	1.53	1.47	96	1.44	94	MS	MW	
111.25	112.77	1.52	1.50	99	1.49	98	MS	MW	
112.77	114.30	1.53	1.53	100	0.11	7	MS	MW	
114.30	115.82	1.52	1.51	99	0.94	62	W	MW	
115.82	117.34	1.52	1.46	96	0.49	32	W	MW	
117.34	118.87	1.53	1.48	97	1.24	81	W	MW	
118.87	120.39	1.52	1.52	100	1.45	95	MS	FR	
120.39	121.92	1.53	1.49	97	1.49	97	MS	FR	
121.92	123.44	1.52	1.51	99	1.51	99	MS	SW	
123.44	124.96	1.52	1.42	93	1.42	93	MS	FR	
124.96	126.49	1.53	1.53	100	1.53	100	MS	FR	
126.49	128.01	1.52	1.52	100	1.09	72	MS	SW	
128.01	129.54	1.53	1.50	98	1.43	93	MS	SW	
129.54	131.06	1.52	1.51	99	1.06	70	W	MW	
131.06	132.58	1.52	1.47	97	1.34	88	VW	HW	
132.58	134.11	1.53	1.38	90	1.16	76	W	MW	
134.11	135.63	1.52	1.46	96	1.46	96	MS	FR	
135.63	137.16	1.53	1.51	99	1.51	99	MS	FR	
137.16	138.68	1.52	1.52	100	1.41	93	S	FR	
138.68	140.20	1.52	1.46	96	0.89	59	MS	SW	
140.20	141.73	1.53	1.52	99	1.52	99	MS	FR	
141.73	143.25	1.52	1.52	100	1.30	86	MS	FR	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
143.25	144.78	1.53	1.53	100	1.33	87	MS	SW	
144.78	146.30	1.52	1.51	99	1.51	99	MS	FR	
146.30	147.82	1.52	1.40	92	1.40	92	MS	FR	
147.82	149.35	1.53	1.52	99	1.49	97	MS	FR	
149.35	150.87	1.52	1.38	91	1.36	89	MS	FR	
150.87	152.40	1.53	1.49	97	1.32	86	MS	FR	
152.40	153.92	1.52	1.52	100	1.49	98	MS	SW	
153.92	155.44	1.52	1.51	99	0.88	58	MS	SW	
155.44	156.97	1.53	1.51	99	1.25	82	MS	FR	
156.97	158.49	1.52	1.43	94	1.11	73	MS	FR	
158.49	160.02	1.53	1.52	99	1.35	88	W	SW	
160.02	161.52	1.50	1.36	91	1.00	67	S	FR	
161.52	163.06	1.54	1.42	92	0.59	38	W	MW	
163.06	164.59	1.53	1.42	93	1.00	65	MS	MW	
164.59	166.11	1.52	1.48	97	1.48	97	MS	FR	
166.11	167.64	1.53	1.51	99	1.51	99	MS	FR	
167.64	169.16	1.52	1.43	94	1.43	94	MS	FR	
169.16	170.68	1.52	1.51	99	1.51	99	MS	FR	
170.68	172.21	1.53	1.48	97	1.48	97	MS	FR	
172.21	173.73	1.52	1.40	92	1.23	81	MS	SW	
173.73	175.26	1.53	1.48	97	1.48	97	S	FR	
175.26	176.78	1.52	1.48	97	1.48	97	S	FR	
176.78	178.30	1.52	1.42	93	1.42	93	MS	FR	
178.30	179.83	1.53	1.43	93	1.43	93	MS	SW	
179.83	181.35	1.52	1.35	89	1.35	89	MS	FR	
181.35	182.88	1.53	1.43	93	1.43	93	MS	FR	
182.88	184.40	1.52	1.49	98	1.44	95	S	FR	
184.40	185.92	1.52	1.46	96	1.46	96	MS	FR	
185.92	187.45	1.53	1.48	97	1.48	97	MS	FR	
187.45	188.97	1.52	1.44	95	1.44	95	S	FR	
188.97	190.50	1.53	1.53	100	1.40	92	MS	FR	
190.50	192.02	1.52	1.52	100	1.52	100	MS	FR	
192.02	193.54	1.52	1.49	98	1.49	98	MS	FR	
193.54	195.07	1.53	1.39	91	1.08	71	MS	FR	
195.07	196.59	1.52	1.41	93	1.30	86	S	SW	
196.59	198.12	1.53	1.50	98	1.50	98	S	FR	
198.12	199.64	1.52	1.38	91	1.38	91	S	FR	
199.64	201.16	1.52	1.48	97	1.48	97	MS	FR	
201.16	202.69	1.53	1.53	100	1.53	100	MS	FR	
202.69	204.21	1.52	1.52	100	1.48	97	MS	FR	
204.21	205.74	1.53	1.52	99	1.52	99	MS	FR	
205.74	207.26	1.52	1.42	93	1.42	93	MS	FR	
207.26	208.78	1.52	1.49	98	1.49	98	MS	FR	
208.78	210.31	1.53	1.50	98	1.50	98	MS	FR	
210.31	211.83	1.52	1.45	95	1.45	95	MS	FR	
211.83	213.36	1.53	1.48	97	1.48	97	MS	FR	
213.36	214.88	1.52	1.50	99	1.50	99	S	FR	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
214.88	216.40	1.52	1.48	97	1.48	97	MS	FR	
216.40	217.93	1.53	1.53	100	1.53	100	MS	FR	
217.93	219.45	1.52	1.48	97	1.48	97	MS	FR	
219.45	220.98	1.53	1.53	100	1.48	97	S	FR	
220.98	222.50	1.52	1.47	97	1.47	97	MS	FR	
222.50	224.02	1.52	1.52	100	1.52	100	MS	FR	
224.02	225.55	1.53	1.53	100	1.53	100	MS	FR	
225.55	227.07	1.52	1.47	97	1.47	97	MS	FR	
227.07	228.60	1.53	1.51	99	1.51	99	MS	FR	
228.60	230.12	1.52	1.49	98	1.49	98	MS	FR	
230.12	231.64	1.52	1.50	99	1.50	99	MS	FR	
231.64	233.17	1.53	1.52	99	1.52	99	S	FR	
233.17	234.69	1.52	1.50	99	1.50	99	S	FR	
234.69	236.22	1.53	1.53	100	1.53	100	MS	FR	
236.22	237.74	1.52	1.50	99	1.50	99	MS	FR	
237.74	239.26	1.52	1.49	98	1.49	98	MS	FR	
239.26	240.79	1.53	1.51	99	1.51	99	S	FR	
240.79	242.31	1.52	1.50	99	1.50	99	VS	FR	
242.31	243.84	1.53	1.50	98	1.50	98	MS	FR	
243.84	245.36	1.52	1.52	100	1.52	100	MS	FR	
245.36	246.88	1.52	1.52	100	1.52	100	S	FR	
246.88	248.41	1.53	1.53	100	1.53	100	MS	FR	
248.41	249.93	1.52	1.52	100	1.52	100	S	FR	
249.93	251.46	1.53	1.53	100	1.53	100	MS	FR	
251.46	252.98	1.52	1.46	96	1.46	96	MS	SW	
252.98	254.50	1.52	1.49	98	1.49	98	MS	SW	
254.50	256.03	1.53	1.52	99	1.52	99	MS	FR	
256.03	EOH								

MAGNETIC SUSCEPTIBILITY LOG

HOLE: OS-10-03

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
1.00	OVB		N/A	
2.00	MST	CLY	0	
3.00	MST	CLY	0	
4.00	LST	DCA	0	
5.00	LST	DCA	0	
6.00	LST	DCA	0	
7.00	LST	DCA	0	
8.00	LST	DCA	0	
9.00	LST	DCA	0	
10.00	LST	DCA	0	
11.00	LST	DCA	0	
12.00	LST	DCA	0	
13.00	LST	DCA	0	
14.00	LST	DCA	0	
15.00	LST	DCA	0	
16.00	LST	DCA	0	
17.00	LST	DCA	0	
18.00	LST	DCA	0	
19.00	LST	DCA	0	
20.00	LST	DCA	0	
21.00	LST	DCA	0	
22.00	LST	DCA	0	
23.00	LST	DCA	0	
24.00	LST	DCA	0	
25.00	LST	DCA	0	
26.00	LST	DCA	0	
27.00	LST	DCA	0	
28.00	LST	DCA	0	
29.00	LST	DCA	0	
30.00	LST	DCA	0	
31.00	LST	DCA	0	
32.00	LST	DCA	0	
33.00	LST	DCA	0	
34.00	LST	DCA	0	
35.00	LST	DCA	0	
36.00	LST	DCA	0	
37.00	LST	DCA	0	
38.00	LST	DCA	0	
39.00	LST	DCA	0	
40.00	LST	DCA	0	
41.00	LST	DCA	0	
42.00	LST	DCA	0	
43.00	LST	DCA	0	
44.00	LST	DCA	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
45.00	LST	DCA	0	
46.00	LST	DCA	0	
47.00	LST	DCA	0	
48.00	LST	DCA	0	
49.00	LST	DCA	0	
50.00	LST	DCA	0	
51.00	LST	DCA	0	
52.00	LST	DCA	0	
53.00	LST	DCA	0	
54.00	LST	DCA	0	
55.00	LST	DCA	0	
56.00	LST	DCA	0	
57.00	LST	DCA	0	
58.00	LST	DCA	0	
59.00	LST	DCA	0	
60.00	LST	DCA	0	
61.00	LST	DCA	0	
62.00	LST	DCA	0	
63.00	LST	DCA	0	
64.00	LST	DCA	0	
65.00	LST	DCA	0	
66.00	LST	DCA	0	
67.00	LST	DCA	0	
68.00	LST	DCA	0	
69.00	LST	DCA	0	
70.00	LST	DCA	0	
71.00	LST	DCA	0	
72.00	LST	DCA	0	
73.00	LST	DCA	0	
74.00	LST	DCA	0	
75.00	LST	DCA	0	
76.00	LST	DCA	0	
77.00	LST	DCA	0	
78.00	LST	DCA	0	
79.00	LST	DCA	0	
80.00	LST	DCA	0	
81.00	LST	DCA	0	
82.00	LST	DCA	0	
83.00	LST	DCA	0	
84.00	LST	DCA	0	
85.00	LST	DCA	0	
86.00	LST	DCA	0	
87.00	LST	DCA	0	
88.00	LST	DCA	0	
89.00	LST	DCA	0	
90.00	LST	DCA	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
91.00	LST	DCA	0	
92.00	LST	DCA	0	
93.00	LST	DCA	0	
94.00	LST	DCA	0	
95.00	LST	DCA	0	
96.00	LST	DCA	0	
97.00	LST	DCA	0	
98.00	LST	BX	0	
99.00	LST	DCA	0	
100.00	LST	DCA	0	
101.00	LST	DCA	0	
102.00	LST	DCA	0	
103.00	LST	DCA	0	
104.00	LST	DCA	0	
105.00	LST	SIL	0	
106.00	LST	SIL	0	
107.00	LST	MX	0	
108.00	LST	MX	0	
109.00	LST	SIL	0	
110.00	LST	SIL	0	
111.00	LST	MX	0	
112.00	LST	MX	0	
113.00	LST	MX	0	
114.00	LST	MX	0	
115.00	LST	DCA	0	
116.00	LST	DCA	0	
117.00	LST	DCA	0	
118.00	LST		0	
119.00	LST		0	
120.00	LST		0	
121.00	LST		0	
122.00	LST		0	
123.00	LST		0	
124.00	LST		0	
125.00	LST		0	
126.00	LST		0	
127.00	LST		0	
128.00	LST		0	
129.00	LST		0	
130.00	MST	LST	0	
131.00	MST	LST	0	
132.00	MST	LST	0	
133.00	MST	LST	0	
134.00	MST	LST	0	
135.00	LST	SIL	0	
136.00	LST	SIL	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
137.00	LST	SIL	0	
138.00	LST	SIL	0	
139.00	LST	SIL	0	
140.00	LST	SIL	0	
141.00	LST	SIL	0	
142.00	LST	SIL	0	
143.00	LST		0	
144.00	LST		0	
145.00	LST		0	
146.00	LST	SIL	0	
147.00	LST	SIL	0	
148.00	LST	SIL	0	
149.00	LST	SIL	0	
150.00	LST	SIL	0	
151.00	LST	SIL	0	
152.00	LST	SIL	0	
153.00	LST	SIL	0	
154.00	LST	SIL	0	
155.00	LST	SIL	0	
156.00	LST	SIL	0	
157.00	LST	SIL	0	
158.00	LST		0	
159.00	LST		0	
160.00	LST		0	
161.00	LST		0	
162.00	LST	SIL	0	
163.00	LST	SIL	0	
164.00	LST		0	
165.00	LST		0	
166.00	LST		0	
167.00	LST		0	
168.00	LST		0	
169.00	LST		0	
170.00	LST	DCA	0	
171.00	LST		0	
172.00	LST		0	
173.00	LST		0	
174.00	LST	DCA	0	
175.00	LST		0	
176.00	LST		0	
177.00	LST		0	
178.00	LST		0	
179.00	LST		0	
180.00	LST		0	
181.00	LST		0	
182.00	LST		0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
183.00	LST	SIL	0	
184.00	LST	SIL	0	
185.00	LST	SIL	0	
186.00	LST	SIL	0	
187.00	LST		0	
188.00	LST	SIL	0	
189.00	LST	SIL	0	
190.00	LST	SIL	0	
191.00	LST	DCA	7	
192.00	LST	DCA	0	
193.00	LST	DCA	0	
194.00	LST	SIL	0	
195.00	LST	SIL	0	
196.00	LST	SIL	7	
197.00	LST		0	
198.00	LST		0	
199.00	LST		0	
200.00	LST		0	
201.00	LST		0	
202.00	LST		0	
203.00	LST	DCA	0	
204.00	LST	DCA	0	
205.00	LST	DCA	0	
206.00	LST	DCA	0	
207.00	LST	DCA	0	
208.00	LST	DCA	0	
209.00	LST	DCA	0	
210.00	LST	DCA	0	
211.00	LST	DCA	0	
212.00	LST	DCA	0	
213.00	LST	DCA	0	
214.00	LST	DCA	0	
215.00	LST	DCA	0	
216.00	LST	DCA	0	
217.00	LST	DCA	0	
218.00	LST	DCA	0	
219.00	LST	DCA	0	
220.00	LST	DCA	0	
221.00	LST		0	
222.00	LST		0	
223.00	LST		0	
224.00	LST		0	
225.00	LST		0	
226.00	LST		0	
227.00	LST		0	
228.00	LST		0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
229.00	LST		0	
230.00	LST		0	
231.00	LST		0	
232.00	LST		3	
233.00	LST		4	
234.00	LST		0	
235.00	LST		0	
236.00	LST		0	
237.00	LST		0	
238.00	LST		0	
239.00	LST		0	
240.00	LST		0	
241.00	LST		0	
242.00	LST		0	
243.00	LST		0	
244.00	LST	DCA	0	
245.00	LST	DCA	0	
246.00	LST	DCA	0	
247.00	LST	DCA	0	
248.00	MST	BLE	0	
249.00	MST	BLE	0	
250.00	MST	BLE	0	
251.00	MST	BLE	0	
252.00	MST	BLE	0	
253.00	MST	CHL	0	
254.00	MST		0	
255.00	MST		9	
256.00	MST		15	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments

BOX LOG

HOLE: OS-10-03

BOX	FROM (m)	TO (m)
1	1.42	4.79
2	4.79	8.83
3	8.83	12.54
4	12.54	16.54
5	16.54	20.16
6	20.16	24.29
7	24.29	28.19
8	28.19	32.17
9	32.17	36.25
10	36.25	40.00
11	40.00	43.98
12	43.98	47.93
13	47.93	51.81
14	51.81	55.75
15	55.75	59.55
16	59.55	63.24
17	63.24	67.04
18	67.05	70.91
19	70.91	74.80
20	74.80	78.65
21	78.65	82.45
22	82.45	86.24
23	86.24	89.91
24	89.91	93.71
25	93.71	97.53
26	97.53	101.21
27	101.21	105.30
28	105.30	108.83
29	108.83	112.77
30	112.77	116.46
31	116.46	120.23
32	120.23	124.14
33	124.14	128.01
34	128.01	131.60
35	131.60	135.63

BOX	FROM (m)	TO (m)
36	135.63	139.45
37	139.45	143.25
38	143.25	147.02
39	147.02	151.06
40	151.06	154.93
41	154.93	158.72
42	158.72	162.34
43	162.34	166.61
44	166.61	170.68
45	170.68	174.58
46	174.58	178.47
47	178.47	182.73
48	182.73	186.47
49	186.47	190.50
50	190.50	194.26
51	194.26	198.31
52	198.31	202.29
53	202.29	206.09
54	206.09	210.31
55	210.31	214.34
56	214.34	218.36
57	218.36	222.50
58	222.50	226.33
59	226.33	230.30
60	230.30	234.24
61	234.24	238.14
62	238.14	242.31
63	242.31	246.00
64	246.00	249.93
65	249.93	253.94
66	253.94	256.03
256.03 m - E.O.H.		

NADALEEN TREND PROJECT

Grid East	Grid North	Easting	Northing	Elev.	Depth (m)
		629470	7112034	1795	248.41

ZONE: Osiris

SECTION:

HOLE: **OS-10-04**

CLAIM: STEN29

Contractor: Beaudoin

Drill: 5

Core size: NTW

Casing depth: 1.52 m out

Drilling dates: Aug. 23, 2010 to Aug. 27, 2010

Geology logged by: K. Unger

TARGET: Osiris Horizon

SURVEY

Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	90	-50.0	compass				
243.84	-	-50.0	acid				

SUMMARY

From (m)	To (m)	Interval	Unit	Comments
0.00	1.49	1.49	OVB	
1.49	56.05	54.56	LST,DCB	
56.05	61.55	5.50	LST, FLT	
61.55	102.95	41.40	LST, DCB	
102.95	145.97	43.02	LST, MST	Interbedded LST
145.97	150.00	4.03	MST	
150.00	155.54	5.54	FLT	
155.54	176.95	21.41	LST, MST	Interbedded LST
176.95	210.43	33.48	MST, SLT	Grey to brown interbedded muds and silts
210.43	234.93	24.50	LST, MST	Interbedded LST
234.93	248.41	13.48	MST, SHL	Maroon mudstone/shale (Narchilla?)
248.41	EOH			

SAMPLES

Numbers: J998627 to J998727

Total: 101

Batch: 10, 11, 12

Date Sent:

Certificate: VA10143562, VA10143563, VA10146827

COMMENTS

Hole reached maroon mudstone, out of targeted favorable MX host.

NADALEEN TREND PROJECT

Grid East	Grid North	Easting	Northing	Elev.	Depth (m)
		629565	7112036	1798	243.54

ZONE: Osiris

SECTION:

HOLE: **OS-10-05**

CLAIM: STEN29

Contractor: Beaudoin

Drill: 5

Core size: NTW

Casing depth: 3.66 m out

Drilling dates: Aug. 29, 2010 to Sept. 2, 2010

Geology logged by: J. Lane

TARGET: Osiris Horizon

SURVEY

Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	270	-50.0	compass				
243.54	-	-48.0	acid				

SUMMARY

From (m)	To (m)	Interval	Unit	Comments
0.00	3.87	3.87	OVB	
3.87	88.80	84.93	MST	Bedded
88.80	91.44	2.64	CGL	Flat pebble conglomerate and LST
91.44	99.05	7.61	LST	Bedding
99.05	107.83	8.78	CGL	Flat pebble conglomerate and LST
107.83	153.92	46.09	LST	Variable decalcified with mineralized zones.
153.92	213.75	59.83	LST	With arsenic oxide alteration
213.75	230.40	16.65	CGL	Flat pebble conglomerate
230.40	243.54	13.14	LST	Decalcified
243.54	EOH			

SAMPLES

Numbers: J998728-J998733; J998773-J998788
E146303-E146311; E146318-E146346

Total: 60

Batch: 13, 14, 15, 17

Date Sent:

Certificate: VA10146828, VA10146829, VA10147120, VA10147122

COMMENTS

The hole was ended because it was past the targeted mineralized horizon.

GEOLOGY LOG

HOLE: OS-10-05

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
0.00	3.87	3.87				OVB			Overburden - no recovery																		
3.87	88.80	84.93				MST			Medium grey to greyish taupe-brown, fine grained MST that is variably calcareous and is fractured and crosscut by white Ca and minor Qz veinlets. Black thin wispy crack infills occur throughout in varying densities.																	
			3.87	4.25	0.38	MST	RBL	BD	Medium to dark grey and dark greyish-brown moderately calcareous MST with moderately defined bedding at 30 deg TCA. The bedding is defined by changes in colouration of the MST beds. The interval is overprinted by irregular 1-4 mm wide Ca veinlets/stringers at 15 deg TCA. The core is moderately fractured up and the top 50 cm is strongly rubbly with core fragments ground into 0.5-3 cm subrounded pieces.	BD	30																
										VT	15	n/a															
			4.00	4.03	0.03	CLY			3 cm of greyish-taupe strongly calcareous clay occurs at 4 m (could be related to drilling).																		
			4.25	7.35	3.10	MST		BD	Dark grey and dark taupe-brown, non-calcareous MST with moderately defined bedding at 40 deg TCA . The unit is quite soft, scratching easily. Both the upper and lower contacts are gradational over 1(cm.	BD	40																
									<1 mm bright orange-brown wispy stringers occur both parallel to FO and overprinting it at 20 deg to CA.	VT	20	350															
			7.35	10.88	3.53	LST		BD	Medium to dark grey and light to medium greyish taupe-brown strongly calcareous LST with moderate to strong Ca infilling hairline fractures and very thin black hairline cracks. The interval is moderately hard with the taupe bands harder than the grey-black bands. Bedding is quite disrupted (soft sediment deformation?) but occurs at 30-50 deg to CA. Within the last metre, the bedding is strongly to intensely deformed.	BD	40																

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			10.88	21.34	10.46	MST	ASO	BD	Medium grey to slightly taupe-brownish grey, very fine grained, non-calcareous moderately hard mudstone with weak to fair non-calcareous white stringer veinlets and fracture infill as well as a moderate concentration of very thin <1 mm black irregular crackle texture. Bedding is weak to non-existent and occurs at 30 deg TCA where present. Trace quartz also occurs in thin 1-2 mm veinlets that overprint both black fracture fill and white veinlets. Some fractured surfaces have a weak creamy-orangish-brown (ASO?) alteration coating.	BD	30							ASO	w							
									The black crackle texture both overprints and is overprinted by the white veinlets. The most common orientation of this crackle texture is at 45-55 deg TCA.	CR	50															
			21.34	28.83	7.49	MST	RBL	BD	Decrease in the intensity of black crackle infill and increase in the intensity of creamy white Ca +/- Qz veinlets. Bedding is more well defined at 35 deg to CA with Ca veinlets cutting erratically. The unit becomes increasingly rubbly and moderately clay altered commonly along bedding that overprint all veining textures.	BD	35							CLY	m							
			28.83	32.00	3.17	MST		cBX	Fine grained greyish tan-taupe, weakly calcareous MST (fizzing when scratched) with moderate to intense crackle fracturing infilled by dark grey to black material. The crackle texture becomes so intense it starts to become a breccia with 2-8 mm clasts that are clast to matrix supported in a dark grey-black matrix. The main orientation of the crackle texture occurs at 5-20 deg TCA. Where the crackle texture is in contact with the surrounding fairly crackled MST the clasts are smaller and more ground up.	CR	15					ms										X
			32.00	34.75	2.75	LST	SIL	DF	Cream and light greyish-brown-taupe subrounded, FG elongate strongly decalcified LST clasts in a flat pebble conglomerate debris flow. The debris flow is clast supported with no obvious matrix. Thin <1-3 mm light and dark grey smoky quartz stringers cut the unit at a fairly consistent orientation of 40 deg TCA. In a few areas a weakly consistent clast orientation occurs at 10 deg TCA. The unit is moderately silicified as it is quite hard. Upper and lower contacts are gradational over 10-15 cm and are defined by textural changes.	BD	10			m	s									X
						Qz			Smoky Qz stringers	VT	40															

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			34.75	47.24	12.49	MST	DCA	cBX	Medium grey to taupe-grey-brown FG weakly to non-calcareous MST that is moderately to strongly broken up, fractured and rubbly. Intermittent zones that are strongly cBX with a black FG matrix grade into moderately to weakly cracked bedded MST. Approximately 80% of the interval is cBX, 20% is bedded. Bedding, where it occurs, is at 5-10 deg TCA. The lower contact is extremely rubbly and soft and has a with a creamy-yellow alteration powder coating the fractures.	BD	5				ms												
			36.60	39.40	2.80	MST	RBL		Strongly broken up interval with grey-taupe clay-like rock powder and black coatings on fractures. Some fractures also show a weak yellowish-orange-brown (ASO) alteration coating. Hairline, creamy-white calcareous Ca veinlets cut the unit erratically.									ASO	w							
			47.20	54.70	7.50	MST		cBX	Medium grey and taupe-grey-brown, weakly to non calcareous MST that is distinctly banded in zones and moderately overprinted by a thin black crackle texture. Zones with most intense crackling are also the most broken up and fractured with creamy-yellow coatings on the fractures. Bedding is variable as noted below.						f											
			47.20	48.50	1.30			BD		BD	5															
			48.50	50.30	1.80			BD		BD	35															
			50.30	54.70	4.40			BD		BD	45															
						Ca			A common Ca veinlet orientation occurs throughout the interval.	VT	60	255															
			52.83	53.42	0.59	MST	CLY		This interval contains moderate alteration to clay. The clay is moderately calcareous and appears to b caused by a high density of Ca veinlets that are <1mm in width. The veinlets commonly occur at 50 deg TCA but are highly irregular.	VT	50							CLY	m							
			54.70	60.96	6.26	MST		BD	Thinly banded (mm-scale) taupe-greyish-brown very weakly calcareous MST with thin bands of LST. Bedding in general is quite uniform in texture, but varies slightly in orientation and show minor pinch swell textures. The beds vary in hardness with the taupe and darker grey beds being moderately soft and the medium grey beds being moderately hard. Calcite filled tension cracks and veinlets occur throughout the interval in varying intensities.	BD	30				ms												X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			60.96	65.10	4.14	MST		CR	Increase in density of Ca veinlets that are very irregularly oriented. The core in this interval is also moderately fractured up with 10 cm crumbly zones with minor grey clay coatings.									CLY	w									
			65.10	74.10	9.00	MST		BD	Back into thinly bedded light to creamy-taupe and medium to dark grey weakly calcareous MST with prominent bedding at 20 deg TCA. Minor undulations occur in the bedding but the most striking characteristic is how sharply colour banded they are.	BD	20																
									Hairline black cracks occur weakly throughout. These cracks are irregular, but the most common orientations occur at 65 deg TCA.	CR	65	n/a														
			70.00					BD	Slight steepening in the bedding orientation	BD	25																
			74.10	74.97	0.87	MST			The MST has become less banded and more strongly overprinted by black hairline fractures. The hairline crackle texture is irregular but most commonly is oriented at 50 deg TCA. The core is moderately broken up with creamy-grey clast coatings on fractures.	CR	50																
			74.97	88.80	13.83	MST		BD	Fine grained, thinly interbedded, yellow-creamy taupe and medium to dark grey non-calcareous LST and MST interbeds. Thicker beds (up to 1 cm) of light grey slightly gritty looking calcareous LST occasionally occur within. The concentration of these gritty LST beds increases down the interval so that by 83 m they represent approximately half of the beds. Bedding is sharp but individually they are swaley. Only trace to weak black crackle fractures occur.	BD	10															X
						Ca			Irregular, 1 mm calcite veinlets overprint the bedding. Some of the veinlets have a rim of peachy orange colouration. A common veinlet orientation occurs at 65 deg TCA.	VT	65	270	15													
88.80	91.44	2.64				LST		DF	Sharp contact into strongly calcareous, partially massive, medium grey LST and light to medium grey debris flow. The debris flow has irregular subrounded to subangular clasts that are various shades of grey and 0.2-3 cm in diameter (less than 1 cm is most common). The debris flow is clast supported and the matrix is medium to dark grey and also calcareous. Very thin calcite veinlets overprint the unit at 60 deg TCA. Half of the interval is massive medium grey LST with overprinting 1 mm a veinlets.	VT	60		20													X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									The upper contact is sharp but undulating at 75 deg TCA. This contact is also marked by yellowish-brown staining of the above unit.	uCN	75															
91.44	99.05	7.61				LST		BD	Light to dark grey strongly banded LST with a fair concentration of vFG pyrite disseminated throughout, particularly concentrated in the darker grey limestone beds. The pyrite is most likely digenetic(?) (don't know for sure). Bedding is very shallow between 0 and 10 deg TCA.	BD	5											f				
						Ca			Very thin <1 mm Ca veinlets occur throughout at a fairly consistent orientation. Some of these thin veinlets have faint 3-5 mm yellowy orange alteration halos around them.	VT	60	290	15													
			94.49	99.05	4.56	LST	DCA	BD	The limestone has become decalcified. The transition was gradual over approximately 50 cm. Bedding is still sharply defined as dark and medium grained beds 1 mm - 1 cm thick with trace very fine grained disseminated Py throughout. The lighter to medium grey beds often contain a weak concentration of dark grey to black subrounded specks/fragments scattered throughout. With the largest Ca vein in the interval at 96.75 m. An overprinting wispy patch of brassy pyrite occurs. Fractures in the interval are also often coated in a yellowish-brown (ASO?) alteration coating. This alteration is weak to fair at best.	BD	5				ms			ASO	w			t					X
									Calcareous white and yellowish cream (altered?) calcite veinlets cut the interval most commonly at 35 deg (thin 1 mm veinlets) and 50 deg (thicker up to 5 mm veinlets). The thin 1 mm veinlets occasionally have a yellowish cream alteration tint and 3-4 mm halo around them.	VT	35	280	5													
										VT	50	130	2														
									The lower contact is gradational over 30 cm and is defined by an increase in Ca veinlet intensity.	ICN																
99.05	107.83	8.78				LST	DCA	DF	Medium grey variably decalcified clast supported pebble conglomerate with zones of strongly rubbly material that are coated in yellow-cream clay/powder coatings. The interval is also variably crackle veined by calcite veinlets overprinting faint black crackle texture.						f												

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS								Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			99.06	101.23	2.17	LST	DCA	CR	Medium grey decalcified, intensely Ca-crackle veined LST with a 19 cm zone of fragile/crumbly non-calcareous black sooty material. This black material has a 1.5 cm calcite vein running through it with a moderately bright yellowish green alteration coating (ASO). The upper contact of the black is rubbly while the lower contact is quite sharp at 70 deg. The remainder of the unit is moderately to strongly crackle fractured and veined by white and slightly creamy white calcite veinlets that are <1 mm in diameter.						f			ASO	w									
			99.82	100.01	0.19				A black sooty band runs through the unit.																		
			101.23	103.50	2.27	LST	RBL	DF	Medium grey, fine grained, moderately to strongly rubbly and fractured strongly decalcified LST with zones of intense pebble conglomerate. The conglomerate clasts are multiple shades of grey from almost white to medium to dark grey. They are subrounded to subangular, 0.2-2 cm in diameter and clast supported. The clasts are overprinted by the Ca crackle texture. This interval is also moderately to strongly rubbly with yellow-cream to yellow-brown alteration powder and coating on rubbly fragments.									ASO	w									X
			103.50	107.83	4.33	LST	CGL		The debris flow pebble conglomerate has become more consistent in texture. The clasts are mainly 1-3 cm wide but 2-10 cm wide zones occur where all clasts are <1 cm in diameter, down to 1 mm. The clasts are subangular to subrounded and generally quite irregular. The larger clasts tend to be oriented to define bedding at 45 deg to CA. The smaller clasts appear more matrix supported than the larger conglomerate texture. The entire unit fizzes weakly to moderately with HCL.	BD	45															X
									<1 - 3 mm calcite veinlets cut the conglomerate at 40 deg TCA.	VT	40																
107.83	153.92	46.09				LST	MX	BD	Medium to dark grey, calcareous LST with 3-8 mm bands in varying colours of grey that define bedding 1-3 mm calcite veinlets commonly cut the unit. A zone of Om and Rg mineralization occur within.	BD	20									w	w					
										VT	35	295	7														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			112.00	115.00	3.00	LST		BD	Interval of intense calcite veinletting and quite bright orange-brown alteration commonly on fractures, but also in zones up to 15 cm thick. The Ca veining causes weak to moderate bleaching of the LST. The interval is fairly fractured up. Ca veins occur in two main orientations, at 30 and at 50 deg TCA.	BD	30					m											
						Ca				VT	30	0															
						Ca				VT	50	100															
			118.10	124.49	6.39	LST	DCA	BD	Interval with a fair concentration of <1 mm - 2 mm Ca veinlets with an orangish brown alteration tint to the veins and alteration halo surrounding them.	BD	25				s						t					X
			121.40			Ca			A 3 mm wide Ca vein with patches of MG pink Rg. This vein is not thoroughgoing as it is truncated by bedding on both sides.	VT	45	10									w						
			124.49	126.42	1.93	LST	ASO	MX	This interval contains a fair concentration of Om in <1 mm cracks both parallel to and more prominently oblique to bedding. Weak orangish-reddish-pink Rg is fine grained and spotted along the same cracks filled by the greenish yellow Om. Dustings of ASO are noted along fractured surfaces. Rg also occurs at 1-2 mm crystals overprinting Ca veins. Where Rg and Om occur together it appears that the Rg is overprinting the Om. Generally the Om +/- Rg filled cracks are not through going, so orientations can no be obtained relative to bedding.	BD	30							ASO	f	f	w					X
								CN	Both upper and lower contacts are gradational, defined by a presence/absence of mineralization and the gradational increase in calcite content.	CR	75	n/a	30													
			126.42	141.20	14.78	LST	DCA	BD	Medium to dark grey, weakly silicified, weakly decalcified LST with bands of creamy greenish-yellow ASO alteration both parallel to bedding and infilling cracks oblique to it. Bedding is variable from 5-20 deg TCA. Fractured faces are often coated in creamy grey-orangish-brown and yellowish-green (ASO) alteration. The unit is only weakly decalcified at best with darker grey bands less reactive to HCL than the medium grey bands. Calcite filled tension cracks <1 mm in diameter occur in dark grey layers but not in the adjacent medium grey layers. These cracks run consistently perpendicular to bedding. The best example occurs at 140.85 m.	BD	10			w	w			ASO	w							X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
						Ca			Thin 1-2 mm calcite veinlets cut the unit at 40 deg TCA. Some are tinted a light orangish-brown colour.	VT	40	110	15															
			141.20	144.70	3.50	LST	DCA	BD	The intensity and size of the cross cutting Ca veinlets has increased. They now range between 1-3 mm. Up to 1 cm thick Qz-Ca veins cross cut the thin Ca veinlets and occur at 35 deg to CA. Some of these veins contain creamy yellow-orange powde - trace at most. The quantity of dark grey LST beds is decreasing, also the thickness of individual beds is increasing.	VN	35				w											X
										BD	20																
			144.78	152.15	7.37	LST	ASO	BD	Begin to get fine grained flaky crystals of brownish pinkish-red Rg and yellowish-green ASO alteration coating fracture faces. The concentration of both of these is weak at best.									ASO	w		w						X
			152.15	153.92	1.77	LST	CLY		Light to medium grey, moderately clay altered, strongly calcareous LST with fair creamy to lemon yellow ASO alteration of rubbly faces. Bedding and other structural information have been obliterated by the clay alteration. Both upper and lower contacts are gradational over 10 cm where alteration becomes less intense.									CLY	m								X
																				ASO	f							
153.92	213.75	59.83				LST	ASO	BD	Medium grey calcareous limestone with ~10% dark grey to black only weakly to trace calcareous LST bands that have very fine grained disseminated pyrite throughout. Trace to weak bright yellow greer ASO alteration occurs on fractures throughout. Some of these fractures are bedding parallel while others are oblique to it (probably along Ca veinlets). <1 -3 mm Ca veinlets cut the bedding throughout. Similarly to units above, thin Ca veinlets are variably truncated by dark grey-black bands in the LST. These dark grey bands are not significantly harder o softer than the surrounding medium grey LST. In locations bedding becomes swaley (soft sediment deformation).	BD	20				s			ASO	w			t					X
						Ca			<1 -3 mm Ca veinlets.	VT	40	260															
						Ca			<1 -3 mm Ca veinlets.	VT	55	90															
			159.10	159.12	0.02	Qz			A series of 4 highly spaced, very light pink Qz-Ca veinlets cut the LST.	VT	85	220															

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			167.22	172.10	4.88	LST		BD	The individual LST beds are thicker in this interval with beds averaging 3-5 cm wide. Bedding is quite consistent at 20 deg TCA, but slightly swaley in areas. Very fine grained pyrite occurs disseminated throughout. A concentration is difficult to determine as it is so fine grained it is difficult to distinguish the individual crystals. The beds are glittery in the sun which helps to identify the pyrite.	BD	20											t					
						Ca			This interval also has a noticeable increase in the concentration of Ca veinlets.	VT	45	70	10														
			172.10	204.22	32.12	LST	SIL	BD	This interval gradually becomes fairly silicified and has become a slightly darker medium to dark grey colour with weak to fair <1 mm irregular Ca veinlets. Some of the beds are also a slightly brownish grey colour and only weakly calcareous. These may be a weak mudstone component. Very trace ASO alteration occurs along Ca veinlets. This alteration is very restricted and is insignificant overall. A 5 cm band of black irregular stringers occur at 20 deg TCA. The broken surface has a black sooty appearance??? - sooty pyrite? Silicification gradually increases in intensity becoming moderate by 197.00 m. Also there is a slight increase in the concentration of slightly brownish-grey beds to 10%. The lighter grey layers in this unit appear slightly more clastic under hand lens.	BD	25			f				ASO	t			t					
						Ca			<1 mm irregular Ca veinlets.	VT	60	135	10														
			204.22	213.17	8.95	LST	SIL	BD	Medium and dark grey moderately silicified LST with distinct bedding that is more swaley and irregular. The cross cutting Ca veins are up to 2 cm thick and are a later stage cutting thinner <1-1 mm veinlets.	BD	15																X
						Ca			The thicker veins occur at 25-30 deg TCA and are medium grained.	VN	30	20	2														
						Ca			The thin < 1 - 2 mm Ca veinlets occur at 45 deg TCA.	VN	45	260	15														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
213.75	230.40	16.65				LST	SIL	DF	Limestone gravel and pebble conglomerate debris flow with clasts that range in colour from light to dark grey. The clasts are subrounded to subangular and reveal a weak bedding orientation due to slight alignment of the clasts. The debris flow is clast supported with no obvious sign of a matrix; rather the finer clasts fill in and pack the area between the larger ones. Clast sizes range from 2 mm - 2 cm with no preference of size to colour.	BD	30																X
						Ca			Coarse grained calcite veins overprint the unit at 40 deg TCA.	VN	40	110	2															
						Ca			Thinner Ca veinlets 1-3 mm wide cut the unit more irregularly at 75 deg TCA.	VN	75	n/a																
			217.82	220.35	2.53	LST	SIL	BD	A medium and dark grey interval of bedded LST that is moderately to strongly silicified. Bedding in the unit is swaley and slightly irregular at 0-10 deg TCA. Thin < 1 mm Ca veinlets cut the unit at 50-70 deg TCA, but many of them are discontinuous.	BD	5			ms													
			227.52	227.82	0.30	Ca	VN		A very coarse grained calcite vein cleanly cuts the DF at 40 deg TCA. The calcite crystals within the vein are up to 2 cm in diameter.	VN	40	n/a															
									The upper contact is very sharp	uCN	10															
									The lower contact is very sharp	lCN	10															
230.40	243.54	13.14				LST	DCA	BD	Medium to dark grey moderately to strongly decalcified LST that is also weakly silicified. Bedding is very shallow at 0-5 deg TCA.	BD	5			w	ms											
						Ca			1-3 mm white calcite veinlets cut the unit at 60 deg TCA.	VT	60	300															
									243.54 m: E.O.H. - The hole was ended because it was past the targeted mineralized zone of the carbonate unit. The bedding angles were too low to warrant continuing.																	

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

SAMPLE LOG

HOLE: OS-10-05

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
3.87	5.48	1.61	MST		1.61	100	J998728	12	0.01	23	0.05	0.44	0.87	
5.48	7.35	1.87	MST	DCA	1.70	91	J998729	12	<0.01	20.4	0.05	0.43	1.14	
7.35	9.00	1.65	LST		1.36	82	J998730	12	0.01	105	0.15	0.35	0.60	
9.00	10.88	1.88	LST		1.77	94	J998732	12	0.01	61	0.37	0.43	0.78	
10.88	13.81	2.93	MST	ASO	2.65	90	J998733	12	0.01	108	0.54	0.86	1.33	
24.38	27.00	2.62	MST	RBL	2.05	78	J998774	17	0.02	390	0.45	1.06	1.15	
27.00	28.83	1.83	MST	RBL	1.24	68	J998775	17	0.03	439	0.18	0.41	0.51	
28.83	31.83	3.00	MST		2.39	80	J998777	17	0.01	271	0.17	0.61	0.37	
31.83	34.75	2.92	LST	SIL	2.63	90	J998778	17	0.01	195	0.16	0.42	0.30	
34.75	37.75	3.00	MST	DCA	2.38	79	J998779	17	0.01	143	0.39	0.79	0.46	
37.75	40.75	3.00	MST	DCA	2.39	80	J998780	13	0.02	356	0.75	1.62	0.81	
40.75	43.80	3.05	MST	DCA	2.85	93	J998781	13	0.01	262	0.30	0.48	0.34	
43.80	45.72	1.92	MST	DCA	1.70	89	J998782	13	0.01	198	0.49	0.61	0.24	
45.72	47.24	1.52	MST	DCA	1.32	87	J998783	13	0.01	616	0.50	0.71	0.40	
47.24	50.29	3.05	LST	DCA	2.65	87	J998785	13	0.02	960	0.79	1.27	1.89	
50.29	52.54	2.25	LST	DCA	2.09	93	J998786	13	0.03	243	0.51	0.63	0.88	
52.54	54.70	2.16	MST	CLY	1.75	81	J998787	13	0.09	276	0.88	1.14	1.23	
54.70	57.75	3.05	MST		2.89	95	J998788	13	0.01	113	0.41	0.77	1.29	
86.67	88.91	2.24	MST		1.94	87	E146303	13	0.01	457	0.13	1.87	1.30	
88.81	91.44	2.63	LST	DF	2.53	96	E146304	13	<0.01	55	0.06	0.28	0.17	
91.44	94.49	3.05	LST		3.04	100	E146305	13	0.02	129	0.44	1.37	1.23	
94.49	97.00	2.51	LST	DCA	2.27	90	E146306	13	0.02	666	0.80	1.46	1.47	
97.00	99.06	2.06	LST	DCA	1.97	96	E146307	13	0.01	101	0.55	0.70	1.34	
99.06	101.23	2.17	LST	DCA	2.11	97	E146308	13	0.54	621	3.21	6.32	12.70	
101.23	103.50	2.27	LST	DCA	1.97	87	E146309	13	0.50	432	1.70	3.35	1.56	
103.50	106.00	2.50	LST	DCA	2.01	80	E146310	13	0.01	338	0.52	1.64	1.94	
118.10	119.34	1.24	LST	DCA	1.24	100	E146318	16	0.02	295	0.21	1.32	0.97	
119.34	121.50	2.16	LST	DCA	1.70	79	E146319	16	0.01	896	0.52	2.18	1.72	
121.50	124.49	2.99	LST	DCA	2.79	93	E146320	13	<0.01	530	0.97	1.46	2.10	
124.49	126.42	1.93	LST	ASO	1.83	95	E146321	13	0.08	16150	2.43	7.17	4.87	
126.42	129.00	2.58	LST	DCA	2.41	93	E146323	13	0.01	1680	0.73	2.35	1.84	
129.00	131.06	2.06	LST	DCA	1.90	92	E146325	13	<0.01	472	0.48	1.21	0.83	

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
131.06	132.59	1.53	LST	DCA	1.46	95	E146326	13	<0.01	332	0.14	0.44	0.31	
132.59	135.64	3.05	LST	DCA	2.57	84	E146327	13	0.01	375	0.11	0.57	0.37	
135.64	138.68	3.04	LST	DCA	2.61	86	E146328	13	<0.01	192	0.06	0.85	0.40	
138.68	141.73	3.05	LST	DCA	2.96	97	E146329	13	0.01	65	0.05	0.46	0.29	
141.73	144.78	3.05	LST	DCA	2.90	95	E146330	13	<0.01	28	0.04	0.20	0.14	
144.78	147.83	3.05	LST	ASO	2.86	94	E146331	13	<0.01	156	0.06	0.45	0.16	
147.83	150.00	2.17	LST	ASO	2.17	100	E146332	13	<0.01	235	0.07	0.19	0.16	
150.00	152.15	2.15	LST	ASO	2.00	93	E146334	13	0.01	63	0.07	0.55	0.22	
152.15	153.92	1.77	LST	CLY	1.61	91	E146335	13	<0.01	8520	0.07	0.75	0.25	
153.92	156.97	3.05	LST	ASO	3.05	100	E146336	13	<0.01	98	0.08	0.20	0.26	
156.97	160.02	3.05	LST	ASO	2.87	94	E146337	13	<0.01	696	0.08	0.55	0.18	
160.02	163.07	3.05	LST		3.05	100	E146338	14	<0.01	45	0.14	0.40	0.49	
163.07	165.00	1.93	LST		1.90	98	E146339	14	0.01	42	0.13	0.32	0.45	
165.00	167.22	2.22	LST		2.14	96	E146340	14	<0.01	22	0.05	0.18	0.22	
167.22	170.00	2.78	LST		2.72	98	E146341	14	<0.01	28	0.13	0.36	0.48	
170.00	172.10	2.10	LST		2.07	99	E146342	14	<0.01	39	0.07	0.29	0.24	
172.10	174.59	2.49	LST	SIL	2.49	100	E146343	14	<0.01	50	0.10	0.29	0.29	
174.59	177.50	2.91	LST	SIL	2.87	99	E146344	14	<0.01	41	0.20	0.43	0.73	
177.50	179.44	1.94	LST	SIL	1.69	87	E146345	14	<0.01	43	0.10	0.24	0.38	
179.44	181.26	1.82	LST	SIL	1.82	100	E146346	14	<0.01	141	0.09	0.20	0.27	
-	-	-	-	-	-	-	J998731	12	<0.01	5	0.01	<0.05	<0.02	**Blank**
-	-	-	-	-	-	-	J998776	17	<0.01	<5	<0.01	<0.05	0.02	**Blank**
-	-	-	-	-	-	-	J998784	13	<0.01	8	<0.01	0.17	<0.02	**Blank**
-	-	-	-	-	-	-	E146311	13	<0.01	8	<0.01	0.15	0.02	**Blank**
-	-	-	-	-	-	-	E146322	13	15.20	514	0.51	40.40	4.24	**Standard OS-2**
126.42	129.00	2.58	LST	DCA	2.41	93	E146324	13	<0.01	1560		0.69	2.21	**Duplicate**
-	-	-	-	-	-	-	E146333	13	16.65	1350	6.18	163.50	3.73	**Standard OS-4**

Grey samples were marked but not sampled in 2010

13.81	16.76	2.95	MST	ASO	2.47	84	J998770							
16.76	19.29	2.53	MST	ASO	2.46	97	J998771							

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
19.29	21.34	2.05	MST	ASO	1.52	74	J998772							
21.34	24.38	3.04	MST	RBL	2.54	84	J998773							
57.75	60.80	3.05	MST		2.95		J998790							
60.80	63.85	3.05	MST		2.63		J998791							
63.85	66.90	3.05	MST		2.75		J998792							
66.90	69.95	3.05	MST		2.80		J998793							
69.95	72.87	2.92	MST		2.64		J998794							
72.87	75.70	2.83	MST		2.51		J998796							
75.70	78.75	3.05	MST		2.98		J998797							
78.75	81.82	3.07	MST		3.03		J998798							
81.82	84.80	2.98	MST		2.90		E146301							
84.80	86.87	2.07	MST		1.92		E146302							
106.00	107.83	1.83	LST	DCA	1.83		E146312							
107.83	110.34	2.51	LST		2.40		E146313							
110.34	112.00	1.66	LST		1.26		E146314							
112.00	115.00	3.00	LST		0.74		E146315							
115.00	118.10	3.10	LST		2.65		E146316							
54.70	57.75	3.05	LST		2.89		J998789							**Duplicate**
-	-	-	-	-	-	-	J998795							**Standard OS-4**
-	-	-	-	-	-	-	J998799							**Blank (HQ)**
-	-	-	-	-	-	-	E146317							**Standard OS-2**

GEOTECHNICAL LOG

HOLE: OS-10-05

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
3.87	4.57	0.70	0.50	71	0.11	16	MS	MW	
4.57	6.10	1.53	1.48	97	0.95	62	MS	MW	
6.10	7.62	1.52	1.20	79	0.21	14	MS	MW	
7.62	9.14	1.52	1.40	92	0.39	26	MS	MW	
9.14	10.67	1.53	1.25	82	0.75	49	MS	MW	
10.67	12.19	1.52	1.31	86	0.82	54	MS	MW	
12.19	13.72	1.53	1.10	72	0.18	12	MS	MW	
13.72	15.24	1.52	1.27	84	0.76	50	MS	MW	
15.24	16.76	1.52	1.19	78	0.72	47	MS	MW	
16.76	18.29	1.53	1.49	97	1.01	66	MS	MW	
18.29	19.81	1.52	1.21	80	0.47	31	MS	MW	
19.81	21.34	1.53	0.77	50	0.24	16	MS	MW	
21.34	22.86	1.52	0.87	57	0.52	34	MS	MW	
22.86	24.38	1.52	1.02	67	0.34	22	MS	MW	
24.38	25.91	1.53	1.10	72	0.47	31	MS	MW	
25.91	27.43	1.52	1.04	68	0.31	20	MS	MW	
27.43	28.96	1.53	1.53	100	0.21	14	MS	MW	
28.96	30.48	1.52	1.14	75	0.80	53	MS	MW	
30.48	32.00	1.52	0.94	62	0.32	21	MS	MW	
32.00	33.53	1.53	0.93	61	0.10	7	MS	MW	
33.53	35.05	1.52	1.35	89	0.96	63	MS	MW	
35.05	36.58	1.53	0.88	58	0.39	25	MS	MW	
36.58	38.10	1.52	0.92	61	0.20	13	MS	MW	
38.10	39.62	1.52	1.10	72	0.11	7	MS	MW	
39.62	41.15	1.53	1.08	71	0.51	33	MS	MW	
41.15	42.67	1.52	1.15	76	0.29	19	MS	MW	
42.67	44.20	1.53	1.12	73	0.86	56	MS	MW	
44.20	45.72	1.52	1.03	68	0.27	18	MS	MW	
45.72	47.24	1.52	1.00	66	0.24	16	MS	MW	
47.24	48.77	1.53	1.16	76	0.35	23	MS	MW	
48.77	50.29	1.52	1.14	75	0.54	36	MS	MW	
50.29	51.82	1.53	0.81	53	0.30	20	MS	MW	
51.82	53.34	1.52	1.29	85	0.76	50	W	MW	
53.34	54.86	1.52	1.32	87	0.65	43	MS	MW	
54.86	56.39	1.53	1.40	92	1.35	88	MS	MW	
56.39	57.91	1.52	1.44	95	1.08	71	MS	MW	
57.91	59.44	1.53	1.41	92	0.67	44	MS	MW	
59.44	60.96	1.52	1.40	92	1.09	72	MS	MW	
60.96	62.48	1.52	1.10	72	0.59	39	MS	MW	
62.48	64.00	1.52	1.20	79	0.65	43	MS	MW	
64.00	65.53	1.53	1.39	91	1.07	70	MS	MW	
65.53	67.06	1.53	1.40	92	1.03	67	MS	MW	
67.06	68.58	1.52	1.25	82	0.79	52	MS	MW	
68.58	70.10	1.52	1.35	89	1.10	72	MS	MW	
70.10	71.63	1.53	1.31	86	0.83	54	MS	MW	
71.63	73.16	1.53	1.30	85	0.55	36	MS	MW	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
73.16	74.68	1.52	1.22	80	0.96	63	MS	MW	
74.68	76.20	1.52	1.40	92	0.78	51	MS	MW	
76.20	77.72	1.52	1.50	99	0.52	34	MS	MW	
77.72	79.25	1.53	1.40	92	0.83	54	MS	MW	
79.25	80.77	1.52	1.49	98	0.88	58	MS	MW	
80.77	82.30	1.53	1.38	90	0.64	42	MS	MW	
82.30	83.82	1.52	1.37	90	1.15	76	MS	MW	
83.82	85.34	1.52	1.40	92	0.69	45	MS	MW	
85.34	86.87	1.53	1.37	90	0.80	52	MS	MW	
86.87	88.39	1.52	1.30	86	0.72	47	MS	MW	
88.39	89.92	1.53	1.36	89	0.87	57	MS	MW	
89.92	91.44	1.52	1.42	93	0.77	51	MS	MW	
91.44	92.96	1.52	1.46	96	0.27	18	MS	MW	
92.96	94.49	1.53	1.43	93	0.98	64	MS	MW	
94.49	96.01	1.52	1.34	88	0.60	39	MS	MW	
96.01	97.54	1.53	1.32	86	0.29	19	MS	MW	
97.54	99.06	1.52	1.29	85	0.76	50	MS	MW	
99.06	100.58	1.52	1.32	87	0.68	45	MS	MW	soft 99.87-100.00 m
100.58	102.12	1.54	1.24	81	0.57	37	MS	MW	
102.12	103.63	1.51	1.18	78	0.24	16	MS	MW	
103.63	105.16	1.53	1.10	72	0.77	50	MS	MW	
105.16	106.68	1.52	1.08	71	0.80	53	MS	MW	
106.68	108.20	1.52	1.32	87	0.68	45	MS	MW	
108.20	109.73	1.53	1.21	79	0.37	24	MS	MW	
109.73	111.25	1.52	1.12	74	0.36	24	MS	MW	
111.25	112.78	1.53	0.98	64	0.50	33	MS	MW	
112.78	114.30	1.52	0.96	63	0.52	34	MS	MW	
114.30	115.82	1.52	1.23	81	0.97	64	MS	MW	
115.82	117.35	1.53	1.28	84	0.60	39	MS	MW	
117.35	118.87	1.52	1.48	97	1.10	72	MS	MW	
118.87	120.40	1.53	1.22	80	0.69	45	MS	MW	
120.40	121.92	1.52	1.24	82	0.60	39	MS	MW	
121.92	123.44	1.52	1.21	80	0.20	13	MS	MW	
123.44	124.97	1.53	1.46	95	1.03	67	MS	MW	
124.97	126.49	1.52	1.47	97	0.72	47	MS	MW	
126.49	128.02	1.53	1.29	84	0.18	12	MS	MW	
128.02	129.54	1.52	1.22	80	0.51	34	MS	MW	
129.54	131.06	1.52	1.40	92	0.62	41	MS	MW	
131.06	132.59	1.53	1.21	79	0.81	53	MS	MW	
132.59	134.11	1.52	0.93	61	0.33	22	MS	MW	
134.11	135.64	1.53	0.91	59	0.26	17	MS	MW	
135.64	137.16	1.52	1.21	80	0.53	35	MS	MW	
137.16	138.68	1.52	1.00	66	0.10	7	MS	MW	
138.68	140.21	1.53	1.20	78	0.52	34	MS	MW	
140.21	141.73	1.52	1.43	94	0.97	64	MS	MW	
141.73	143.26	1.53	1.36	89	0.32	21	MS	MW	
143.26	144.78	1.52	1.20	79	0.46	30	MS	MW	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
144.78	146.30	1.52	1.12	74	0.69	45	MS	MW	
146.30	147.83	1.53	1.02	67	0.33	22	MS	MW	
147.83	149.35	1.52	1.26	83	0.70	46	MS	MW	
149.35	150.88	1.53	1.21	79	0.66	43	MS	MW	
150.88	152.40	1.52	1.36	89	0.91	60	MS	MW	
152.40	153.92	1.52	1.05	69	0.38	25	MS	MW	
153.92	155.45	1.53	1.26	82	0.57	37	MS	MW	
155.45	156.97	1.52	1.30	86	0.97	64	MS	MW	
156.97	158.50	1.53	1.27	83	0.20	13	MS	MW	
158.50	160.02	1.52	1.40	92	1.04	68	MS	MW	
160.02	161.54	1.52	1.51	99	1.32	87	MS	MW	
161.54	163.07	1.53	1.49	97	1.31	86	MS	MW	
163.07	164.59	1.52	1.48	97	1.18	78	MS	MW	
164.59	166.12	1.53	1.34	88	1.11	73	MS	MW	
166.12	167.64	1.52	1.51	99	1.15	76	MS	MW	
167.64	169.16	1.52	1.46	96	1.03	68	MS	MW	
169.16	170.69	1.53	1.38	90	1.20	78	MS	MW	
170.69	172.21	1.52	1.21	80	0.80	53	MS	MW	
172.21	173.74	1.53	1.42	93	1.01	66	MS	MW	
173.74	175.26	1.52	1.32	87	0.91	60	MS	MW	
175.26	176.78	1.52	1.30	86	1.03	68	MS	MW	
176.78	178.31	1.53	1.46	95	0.95	62	MS	MW	
178.31	179.83	1.52	1.17	77	0.87	57	MS	MW	
179.83	181.36	1.53	1.08	71	0.42	27	MS	MW	
181.36	182.88	1.52	1.10	72	0.10	7	MS	MW	
182.88	184.40	1.52	1.44	95	0.20	13	MS	MW	
184.40	185.93	1.53	1.31	86	0.87	57	MS	MW	
185.93	187.45	1.52	1.40	92	0.55	36	MS	MW	
187.45	188.98	1.53	1.41	92	0.80	52	MS	MW	
188.98	190.50	1.52	1.40	92	1.13	74	MS	MW	
190.50	192.02	1.52	1.33	87	0.94	62	MS	MW	
192.02	193.55	1.53	1.44	94	1.21	79	MS	MW	
193.55	195.07	1.52	1.43	94	1.23	81	MS	MW	
195.07	196.60	1.53	1.49	97	1.25	82	MS	MW	
196.60	198.12	1.52	1.34	88	1.23	81	MS	MW	
198.12	199.64	1.52	1.42	93	1.07	70	MS	MW	
199.64	201.17	1.53	1.36	89	1.06	69	MS	MW	
201.17	202.69	1.52	1.18	78	0.57	37	MS	MW	
202.69	204.22	1.53	1.33	87	1.06	69	MS	MW	
204.22	205.74	1.52	1.25	82	0.80	53	MS	MW	
205.74	207.26	1.52	1.48	97	0.71	47	MS	MW	
207.26	208.79	1.53	1.44	94	0.91	59	MS	MW	
208.79	210.31	1.52	1.38	91	1.16	76	MS	MW	
210.31	211.84	1.53	1.48	97	1.36	89	MS	MW	
211.84	213.36	1.52	1.52	100	1.13	74	MS	MW	
213.36	214.88	1.52	1.37	90	0.41	27	MS	MW	
214.88	216.41	1.53	1.49	97	0.74	48	MS	MW	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
216.41	217.93	1.52	1.48	97	0.54	36	MS	MW	
217.93	219.46	1.53	1.48	97	1.09	71	MS	MW	
219.46	220.98	1.52	1.45	95	0.83	55	MS	MW	
220.98	222.50	1.52	1.44	95	0.99	65	MS	MW	
222.50	224.03	1.53	1.41	92	0.93	61	MS	MW	
224.03	225.55	1.52	1.47	97	1.15	76	MS	MW	
225.55	227.08	1.53	1.38	90	1.02	67	MS	MW	
227.08	228.60	1.52	1.33	88	0.98	64	MS	MW	
228.60	230.12	1.52	1.44	95	0.90	59	MS	MW	
230.12	231.65	1.53	1.08	71	0.24	16	MS	MW	
231.65	233.17	1.52	1.44	95	1.39	91	MS	MW	
233.17	234.70	1.53	1.50	98	1.18	77	MS	MW	
234.70	236.22	1.52	1.33	87	1.12	74	MS	MW	
236.22	237.74	1.52	1.44	95	1.42	93	MS	MW	Py at 237.30 m.
237.74	239.27	1.53	1.46	95	1.33	87	MS	MW	
239.27	240.79	1.52	1.42	93	1.12	74	MS	MW	
240.79	242.31	1.52	1.29	85	0.64	42	MS	MW	
242.31	243.54	1.23	0.83	67	0.51	41	MS	FR	Py at 242.61 m.
243.54	EOH								

MAGNETIC SUSCEPTIBILITY LOG

HOLE: OS-10-05

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
1.00	OVB		N/A	
2.00	OVB		N/A	
3.00	OVB		N/A	
4.00	MST		0	
5.00	MST		0	
6.00	MST		0	
7.00	MST		0	
8.00	MST		0	
9.00	MST		0	
10.00	MST		0	
11.00	MST		0	
12.00	MST		0	
13.00	MST		0	
14.00	MST		0	
15.00	MST		0	
16.00	MST		0	
17.00	MST		0	
18.00	MST		0	
19.00	MST		0	
20.00	MST		0	
21.00	MST		0	
22.00	MST		0	
23.00	MST		0	
24.00	MST		0	
25.00	MST		0	
26.00	MST		0	
27.00	MST		0	
28.00	MST		0	
29.00	MST		0	
30.00	MST		0	
31.00	MST		0	
32.00	MST		0	
33.00	MST		0	
34.00	MST		0	
35.00	MST		0	
36.00	MST		0	
37.00	MST	RBL	0	
38.00	MST	RBL	0	
39.00	MST	RBL	0	
40.00	MST		0	
41.00	MST		0	
42.00	MST		0	
43.00	MST		0	
44.00	MST		0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
45.00	MST		0	
46.00	MST		0	
47.00	MST		0	
48.00	MST		0	
49.00	MST		0	
50.00	MST		0	
51.00	MST		0	
52.00	MST		0	
53.00	MST	CLY	0	
54.00	MST		0	
55.00	MST		0	
56.00	MST		0	
57.00	MST		0	
58.00	MST		0	
59.00	MST		0	
60.00	MST		0	
61.00	MST		0	
62.00	MST		0	
63.00	MST		0	
64.00	MST		0	
65.00	MST		0	
66.00	MST		0	
67.00	MST		0	
68.00	MST		0	
69.00	MST		0	
70.00	MST		0	
71.00	MST		0	
72.00	MST		0	
73.00	MST		0	
74.00	MST		0	
75.00	MST		0	
76.00	MST		0	
77.00	MST		0	
78.00	MST		0	
79.00	MST		0	
80.00	MST		0	
81.00	MST		0	
82.00	MST		0	
83.00	MST		0	
84.00	MST		0	
85.00	MST		0	
86.00	MST		0	
87.00	MST		0	
88.00	MST		0	
89.00	LST	CGL	0	
90.00	LST	CGL	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
91.00	LST	CGL	0	
92.00	LST		0	
93.00	LST		0	
94.00	LST		0	
95.00	LST		0	
96.00	LST	DCA	0	
97.00	LST	DCA	0	
98.00	LST	DCA	0	
99.00	LST	DCA	0	
100.00	LST	DCA	0	
101.00	LST	DCA	0	
102.00	LST	CGL	0	
103.00	LST	CGL	0	
104.00	LST	CGL	0	
105.00	LST	CGL	0	
106.00	LST	CGL	0	
107.00	LST	CGL	0	
108.00	LST		0	
109.00	LST		0	
110.00	LST		0	
111.00	LST		0	
112.00	LST		0	
113.00	LST		0	
114.00	LST		0	
115.00	LST		0	
116.00	LST		0	
117.00	LST		0	
118.00	LST		0	
119.00	LST	DCA	0	
120.00	LST	DCA	0	
121.00	LST	DCA	0	
122.00	LST	DCA	0	
123.00	LST	DCA	0	
124.00	LST	DCA	0	
125.00	LST		0	
126.00	LST		0	
127.00	LST		0	
128.00	LST		0	
129.00	LST		0	
130.00	LST		0	
131.00	LST		0	
132.00	LST		0	
133.00	LST		0	
134.00	LST		0	
135.00	LST		0	
136.00	LST		0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
137.00	LST		0	
138.00	LST		0	
139.00	LST		0	
140.00	LST		0	
141.00	LST		0	
142.00	LST	DCA	0	
143.00	LST	DCA	0	
144.00	LST	DCA	0	
145.00	LST	ASO	0	
146.00	LST	ASO	0	
147.00	LST	ASO	0	
148.00	LST	ASO	0	
149.00	LST	ASO	0	
150.00	LST	ASO	0	
151.00	LST	ASO	0	
152.00	LST	ASO	0	
153.00	LST	CLY	0	
154.00	LST	ASO	0	
155.00	LST	ASO	0	
156.00	LST	ASO	0	
157.00	LST	ASO	0	
158.00	LST	ASO	0	
159.00	LST	ASO	0	
160.00	LST	ASO	0	
161.00	LST	ASO	0	
162.00	LST	ASO	0	
163.00	LST	ASO	0	
164.00	LST	ASO	0	
165.00	LST	ASO	0	
166.00	LST	ASO	0	
167.00	LST	ASO	0	
168.00	LST		0	
169.00	LST		0	
170.00	LST		0	
171.00	LST		0	
172.00	LST		0	
173.00	LST	ASO	0	
174.00	LST	ASO	0	
175.00	LST	ASO	0	
176.00	LST	ASO	0	
177.00	LST	ASO	0	
178.00	LST	ASO	0	
179.00	LST	ASO	0	
180.00	LST	ASO	0	
181.00	LST	ASO	0	
182.00	LST	ASO	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
183.00	LST	ASO	0	
184.00	LST	ASO	0	
185.00	LST	ASO	0	
186.00	LST	ASO	0	
187.00	LST	ASO	0	
188.00	LST	ASO	0	
189.00	LST	ASO	0	
190.00	LST	ASO	0	
191.00	LST	ASO	0	
192.00	LST	ASO	0	
193.00	LST	ASO	0	
194.00	LST	ASO	0	
195.00	LST	ASO	0	
196.00	LST	ASO	0	
197.00	LST	ASO	0	
198.00	LST	ASO	0	
199.00	LST	ASO	0	
200.00	LST	ASO	0	
201.00	LST	ASO	0	
202.00	LST	ASO	0	
203.00	LST	ASO	0	
204.00	LST	ASO	0	
205.00	LST	SIL	0	
206.00	LST	SIL	0	
207.00	LST	SIL	0	
208.00	LST	SIL	0	
209.00	LST	SIL	0	
210.00	LST	SIL	0	
211.00	LST	SIL	0	
212.00	LST	SIL	0	
213.00	LST	SIL	0	
214.00	CGL	SIL	0	
215.00	CGL	SIL	0	
216.00	CGL	SIL	0	
217.00	CGL	SIL	0	
218.00	LST	SIL	0	
219.00	LST	SIL	0	
220.00	LST	SIL	0	
221.00	CGL	SIL	0	
222.00	CGL	SIL	0	
223.00	CGL	SIL	0	
224.00	CGL	SIL	0	
225.00	CGL	SIL	0	
226.00	CGL	SIL	0	
227.00	CGL	SIL	0	
228.00	CGL	SIL	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
229.00	CGL	SIL	0	
230.00	CGL	SIL	0	
231.00	LST	DCA	0	
232.00	LST	DCA	0	
233.00	LST	DCA	0	
234.00	LST	DCA	0	
235.00	LST	DCA	0	
236.00	LST	DCA	0	
237.00	LST	DCA	0	
238.00	LST	DCA	0	
239.00	LST	DCA	0	
240.00	LST	DCA	0	
241.00	LST	DCA	0	
242.00	LST	DCA	0	
243.00	LST	DCA	0	EOH

BOX LOG

HOLE: OS-10-05

BOX	FROM (m)	TO (m)
1	3.87	7.20
2	7.20	11.05
3	11.05	14.63
4	14.63	18.31
5	18.31	22.18
6	22.18	25.91
7	25.91	28.96
8	28.96	32.78
9	32.78	36.50
10	36.50	40.03
11	40.03	43.80
12	43.80	47.54
13	47.54	51.00
14	51.00	55.14
15	55.14	59.20
16	59.20	62.98
17	62.98	67.26
18	67.26	71.10
19	71.10	74.97
20	74.97	78.75
21	78.75	82.74
22	82.74	86.87
23	86.87	90.95
24	90.95	94.89
25	94.89	99.06
26	99.06	102.93
27	102.93	106.68
28	106.68	110.34
29	110.34	114.30
30	114.30	118.10
31	118.10	121.92
32	121.92	126.02
33	126.02	129.54
34	129.54	133.68
35	133.68	137.16
36	137.16	141.05
37	141.05	144.91
38	144.91	149.15
39	149.15	152.64
40	152.64	156.60
41	156.60	160.02
42	160.02	164.07
43	164.07	167.94
44	167.94	172.10
45	172.10	175.92
46	175.92	179.83
47	179.83	183.70
48	183.70	187.80
49	187.80	191.90
50	191.90	196.10
51	196.10	199.89
52	199.89	204.22
53	204.22	208.27
54	208.27	212.36
55	212.36	216.27
56	216.27	220.46
57	220.46	224.61
58	224.61	228.60
59	228.60	232.72
60	232.72	236.75
61	236.75	241.03
62	241.03	243.54
243.54 m - E.O.H.		

NADALEEN TREND PROJECT

Grid East	Grid North	Easting	Northing	Elev.	Depth (m)
		629372	7112056	1789	240.79

ZONE: Osiris

SECTION:

HOLE: **OS-10-06**

CLAIM: STEN 29

Contractor: Superior

Drill: 5

Core size: NTW

Casing depth: 4.27 m out

Drilling dates: Sept. 4, 2010 to Sept. 9, 2010

Geology logged by: J. Lane

SURVEY

Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	90	-50.0	compass				
242.32	-	-48.0	acid				

TARGET: Osiris Horizon

SUMMARY

From (m)	To (m)	Interval	Unit	Comments
0.00	4.20	4.20	OVB	Overburden - no recovery.
4.20	15.10	10.90	MST	Bedded with weak ASO alteration.
15.10	25.75	10.65	LST	Bedded with variable DCA and ASO alteration.
44.20	51.82	7.62	LST	Fairly ASO and CLY altered.
51.82	124.25	72.43	LST	With interlayers of CGL
124.25	135.64	11.39	LST	Moderately DCA and SIL altered.
134.64	190.19	55.55	LST	Fair to strong ASO alteration and weak local Rg.
190.19	216.97	26.78	LST	Bedded with CGL intervals.
216.97	221.50	4.53	CGL	Flat pebble CGL with sutured clasts.
221.50	240.79	19.29	LST	Strongly bedded with small CGL interval.
240.79	EOH			

SAMPLES

Numbers: E146347-E146413

Total: 67

Batch: 15, 16, 17

Date Sent:

Certificate: VA10147120, VA10147121, VA10147122

COMMENTS

The hole was ended because it was past the alteration halo and was nearing the max depth of drilling capability.

GEOLOGY LOG

HOLE: OS-10-06

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other			
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidized	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
0.00	4.20	4.20				OVB			Overburden - no recovery.																		
4.20	15.10	10.90				MST	ASO	BD	Medium taupe-grey and medium grey, very fine grained bedded MST and LST with zones that are weakly to fairly decalcified and zones that are fairly silicified. Bedding is more uniform and more well pronounced in the taupe coloured mudstone beds that are also weakly to non-calcareous. Thin <1-3 mm highly irregular calcite veinlets cut the unit. Bedding is slightly variable from 20-40 deg TCA with 35 deg most common. The interval is fairly fractured with moderate yellowish-brown alteration coating. The lower contact is defined by an increase in Ca content (a more LST rich unit) and an increase in irregular Ca veinlets. This contact is gradational over 10-15 cm.	BD	35			w	w			ASO	f							X
						Ca			Crosscutting Ca veinlets are less common and very irregular with the more common orientation at 50 deg TCA, 120 deg to bedding.	VT	50	120	7														
15.10	44.20	29.10				LST	ASO	BD	Medium grey fine grained (slightly clastic under hand lens) calcareous LST with <1 mm - 1 cm thick Ca veinlets cutting the unit. Fractures have a slight creamy-green ASO alteration colouration on them. In general bedding is much less well defined, making the interval more massive in appearance. Two zones of strong irregular Ca veinletting occur. These areas show no sign of common orientation of the veinlets.	BD	30							ASO	w							X
										VT	60																
			18.29	18.70	0.41				A zone of strong irregular Ca veinlets with no common orientation.																		
			24.16	24.64	0.48				A zone of strong irregular Ca veinlets with no common orientation.																		
			25.75	28.84	3.09	LST	DCA	BD	Medium grey non calcareous LST with slightly brownish-grey banded non-calcareous fine grained sandstone/siltstone beds which appear gritty under hand lens. 1 cm thick bands of bright orange brown oxidized Py (?) are associated with band like patches of dark grey material - trace overall. Bedding is well defined at 40 deg TCA. 1 mm Ca veinlets cut the unit irregularly.						m			ASO	w			w				X
			28.84	28.86	0.02	Rg			A 1 mm band containing Rg and a 1 mm greenish band occurs 1 cm below the red one.						t			ASO	t							X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidized	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			31.64	37.55	5.91	LST	ASO	BD	Very fine grained to fine grained, thinly bedded, calcareous, light to medium grey LST with layers that are medium brown-grey in colour. Fractured surfaces are coated in weak greenish yellow ASO alteration.	BD	40							ASO	w								
						Ca			Only trace to weak 1 mm Ca veinlets cut the unit.	VT	45	260	4													
			37.55	44.20	6.65	LST	ASO	BD	Medium grey, weakly bedded LST with fair to moderate Ca veinlets cutting the unit. The LST looks like it has a weak clastic influence to it. Bedding where recognisable occurs at 40 deg TCA. Fractures have a yellowish-green ASO alteration tint to them.	BD	40							ASO	w								X
						Ca			Veinlets occur in many orientations but the three most common are noted.	VT	40	0														
						Ca				VT	35	260														
						Ca				VT	50	180														
44.20	51.82	7.62				LST	RBL		Strongly rubbly to completely clay altered medium grey LST with zones of greyish-green calcareous (ASO?) clay and clay coatings on fractures. Bedding and Ca veinlet angles are impossible to determine. The upper contact is gradational over 10 cm as the rock becomes more fractured and altered.									ASO	f								X
																		CLY	f							
51.82	124.25	72.43				LST	CGL	BD	Variably banded light to dark grey and taupe-grey-brown LST beds that are variably calcareous. Thin interlayers of pebble conglomerate debris flow occur within. The lighter grey beds tend to be more calcareous than the darker grey and brownish-grey beds. A weak to fair concentration of white calcite veinlets cut the unit quite consistently. Fractured surfaces are weakly stained a rusty brown or greyish green colour. Very trace realgar occurs as fine grained individual flaky crystals on fractures; very rare overall.	BD	40							ASO	w		t						X
						Ca			Veinlets range from 1 mm up to 5 mm and tend to be between 3-4 mm thick.	VT	45	270	5													
			53.94	54.11	0.17	LST	BLE	DF	Interval of bleached matrix supported LST flat pebble conglomerate debris flow. Clasts are up to 3 cm long, generally elongated with finer grained infilling in the matrix along with fine grained mud.									BLE	f								X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidized	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			58.62	64.06	5.44	LST	DCA	BD	The unit gradually becomes less calcareous (over 1(15 cm). This may be associated with a slightly higher concentrated of brownish taupe beds. There is a slight decrease in the density of Ca veinlets to only 2-3 per metre.	BD	40				f												X
										VT	45	270	2													
			60.80	60.91	0.11	LST		DF	A thin band of gravel to pebble conglomerate debris flow occurs here. It is matrix supported and contains variably coloured clasts. This thin interval is calcareous.																	
			64.06	68.06	4.00	LST		BD	Back into strongly calcareous obviously bandec LST. The concentration of brownish-taupe beds has decreased (although they still occur). Occasional, up to 3 cm, gritty bands also occur.	BD	35															X
									Calcite veinlets are rare occurring only once or twice every metre.	VT	45	250	2														
			68.06	69.00	0.94	LST		VN	A small interval of LST that is more strongly veined with Ca. Calcite veins up to 2 cm thick occur, but follow the same general orientation as the rest of the unit.	VT	45	270	15														
			85.34	86.80	1.46	LST	SIL		The LST gradually becomes moderately silicified with a strong concentration of irregular Ca veinlets. The interval is not uniformly silicified, but rather occurs in zones. These zones are not distinguishable from the less silicified material.					m													
			108.50	113.50	5.00	LST	ASO	BD	Medium to dark grey LST is now more highly fractured with bright yellow-green ASO alteration occurring on almost every fracture. The fracture density is 10-15 per metre. The LST bands are now just medium and dark grey in colour. The medium grey beds are thicker (up to 10 cm) while the darker grey beds are 1-5 mm thick. Bedding occurs at 25-35 deg TCA. Fractures occur along two main orientations; along bedding and parallel to the main orientation of Ca veinlets.	BD	30			f				ASO	s							
										VT	40	250														
			113.50	123.65	10.15	LST		BD	Within this interval bedding begins to show pinch swell textures - soft sediment deformation???																	X
			123.65	124.25	0.60	LST		DF	Two beds of subrounded gravel to pebble conglomerate debris flow occur that are clast supported. Clasts range up to 1 cm. The gravel sized fragments 1-3 mm, fill in the space between the larger clasts. A fine mud matrix then fills in the final space left. The contacts with the surrounding beds are extremely sharp.	CN															X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidized	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
124.25	135.64	11.39				LST	DCA	BD	Dark grey to black moderately DCA LST with thin 2-5 mm wide bedding defined by slight colour variation. This unit is quite a bit more competent, fracturing less commonly. Fractures that occur most commonly show fresh surfaces. Bedding in this unit is quite shallow (10-20 deg). Trace to no calcite veinlets cut the unit.	BD	15			w	m			ASO	w								X
			131.57	135.64	4.07	LST	ASO	BD	This interval becomes more highly fractured (generally along bedding) with moderate to strong yellowish-green (ASO alteration) and reddish purple alteration.					f				ASO	ms								
			133.50	135.64	2.14	LST	SIL	BD	The unit becomes fairly silicified towards the lower contact.					f													
135.64	190.19	54.55				LST	ASO	BD	Medium to dark grey moderately to strongly calcareous LST with a fairly bedded texture. The unit is moderately to strongly silicified at the top and only weakly below that. Variable ASO alteration also coats fractures in this unit.	BD	5			f	w			ASO	f								
									Weak to fair calcite veinletting.	VT	50	250															
									Overprinting the thin veinlet is a slightly pinkish Qz+/-Ca vein set that is up to 1 cm thick .	VN	25	270														
			141.73			LST	ASO	FR	Moderately fractured up rubbly in areas with moderate yellow-green ASO alteration coating.					s				ASO	m								
			144.00	149.35	5.35	LST	ASO	FR	The unit has become intensely fractured, primarily along bedding, into 1-5 cm irregular angular fragments. Many fractures are coated in weak to strong yellow to yellow-green ASO alteration.					ms				ASO	s								X
			147.83	148.20	0.37	LST	RBL	DF	The LST is now extremely fractured and rubbly and shows a matrix supported debris flow breccia with a matrix that is strongly ASO altered. The clasts are angular to subrounded and vary in size from 2 mm to 2 cm. There is a weak orientation of the breccia at 30 deg TCA. All clasts in the breccia are moderately silicified and appear to be similar in terms of lithology.	BD	30			m				ASO	s								
			149.35	150.90	1.55	LST	SIL	BD	The medium to dark grey LST is now more competent with only trace to weak ASO alteration on fractures. Bedding is weak at 10 deg TCA. Ca veining is trace to non-existent.	BD	10			m				ASO	w								
			150.90	152.55	1.65	LST	DCA	BD	The ASO alteration has increased to fair. The LST is now moderately de-calcified. Bedding is still at 10 deg TCA.	BD	10			m	m			ASO	f								

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidized	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			152.55	157.48	4.93	LST	ASO	BD	Medium to dark grey, moderately calcareous banded LST with moderate ASO alteration on fractures. Fractures occur in two main orientations, along bedding at 10 deg TCA and along a common fracture orientation at 60 deg TCA.	BD	10							ASO	m								
									Bedding parallel fractures	FR	10	0														
									Fractures that cut bedding.	FR	60	250														
			157.48	161.64	4.16	LST	CLY	MX	The medium grey calcareous LST is now becoming fairly clay altered in zones. Orange-pink realgar now coats fractures along with green-yellow ASO alteration. Fractures are irregular because the rock is quite weak but occur along two main orientations. The realgar ends as does the clay alteration at the end of the interval.	BD	10							ASO	f		w						
									Bedding parallel fractures	FR	10	0						CLY	f							
									Fractures that cut bedding.	FR	45	250														
			161.64	185.93	24.29	LST	ASO	BD	Medium grey, moderately silicified, calcareous bedded LST with weak yellow-green ASO alteration on fractures. The unit is moderately silicified.	BD	10			m				ASO	w								
									Bedding parallel fractures	FR	10	0														
									Fractures that cut bedding.	FR	55	250														
			177.30	178.00	0.70	LST	ASO	MX	A short interval with strong ASO alteration and weak realgar. Bedding within this interval is not strongly defined but occurs at 10 deg TCA.	BD	10							ASO	s		w						
			185.93	190.19	4.26	LST	DCA		Light to medium grey moderately bedded, moderately to strongly decalcified LST with fair rusty orange-brown and trace green ASO alteration on fractures. Fractures occur both parallel and oblique to bedding.	BD	40			m	ms			ASO	t								
									Bedding parallel fractures	FR	40	0														
									Fractures that cut bedding.	FR	40	200														
						Ca			A weak concentration of Ca veins 1 cm thick occur.	VN	35	200	3														
190.19	216.97	26.78				LST		BD	Light to medium grey, fine grained, calcareous LST with a strong bedded texture that at times is stylolitic and at times shows soft sediment deformation textures. Thin intervals of pebble conglomerate debris flow occur within. The unit is no longer silicified. Bedding occurs at 40 deg TCA. Fractures are either fresh or are coated in trace greyish-brown alteration coating. 1-2 cm fine to medium grained calcite veins cut the unit.	BD	40														X
										VN	45	200														
			206.00						Bedding gradually increases to 60 deg.	BD	60															

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidized	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			196.00	196.60	0.60	LST		DF	Light grey clast supported pebble conglomerate debris flow with sutured clasts (?) overprinted by Ca veinlets at 25 deg TCA.	VT	25		5														X
			211.90	213.26	1.36	LST		BD	3 mm calcite veinlets become very erratic and slightly increase in concentration to 10-15 per metre	VT	25		12														
			214.20			LST		BD	Bedding orientation changes dramatically at this point from 40 deg TCA to a knife edge swaley contact into a similar looking LST unit that dips at 5-15 deg TCA. The orientations of the two bedding angles appears to remain consistent.	BD	45															
										BD	10																
216.97	221.50	4.53				LST		DF	Light to medium grey and brownish-grey LST pebble conglomerate debris flow with subrounded clast that appear to be sutured together (are distinctly clast supported). A weak-fair orientation of the clasts occurs at 5 deg TCA.	BD	5											t				
						Ca			< 1-2 mm calcite veinlets cut the unit at 55 deg TCA and a later phase at 30 deg TCA.	VT	55															
									The lower contact is knife edge sharp at 45 deg TCA and had trace MG blebby pyrite at the contact.	ICN	45															
221.50	240.79	19.29				LST		BD	Light grey calcareous LST with 2-5 mm dark grey silty/muddy interbeds (weakly to non-calcareous). Fractures are mainly along bedding and show no alteration or mineralization. Bedding is swaley throughout and varies as follows:																	
			222.50					BD		BD	30																
			227.00					BD		BD	30																
			227.50					BD		BD	15																
			234.00					BD		BD	15																
			240.50					BD		BD	5																
			223.70	224.21	0.51	LST		DF	Light grey LST conglomerate debris flow with subrounded clasts that are 0.5-1 cm in diameter and appear to be sutured together. The upper contact is rubbly, the lower contact is at 60 deg TCA	ICN	60															
									240.79 m: E.O.H. - The hole was ended because it appeared to be past the alteration halo; as well it was getting a bit deep for the drill to continue drilling.																	

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

SAMPLE LOG

HOLE: OS-10-06

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
4.20	6.10	1.90	MST	ASO	1.50	79	E146406	16	3.33	4610	14.80	44.00	48.40	
6.10	9.14	3.04	MST	ASO	2.79	92	E146408	16	0.78	848	10.15	20.90	32.90	
9.14	12.19	3.05	MST	ASO	2.65	87	E146409	16	0.02	510	1.36	4.41	6.43	
12.19	15.10	2.91	MST	ASO	2.70	93	E146410	17	0.15	545	1.37	5.20	5.71	
15.10	17.00	1.90	LST	ASO	1.70	89	E146411	17	0.02	105	0.21	1.30	1.07	
17.00	19.81	2.81	LST	ASO	2.34	83	E146412	17	<0.01	186	0.22	1.69	1.51	
19.81	22.86	3.05	LST	ASO	2.74	90	E146413	17	0.02	113	0.09	1.18	0.69	
22.86	25.75	2.89	LST	ASO	2.45	85	E146347	15	<0.01	425	0.26	2.70	1.23	**Change In Sequence**
25.75	27.43	1.68	LST	DCA	1.56	93	E146348	15	0.03	531	7.05	5.25	4.08	
27.43	28.64	1.21	LST	DCA	0.89	74	E146349	15	0.06	520	4.35	3.43	4.76	
28.64	31.36	2.72	LST	ASO	2.61	96	E146350	15	0.16	1145	2.95	8.41	5.64	
31.36	34.47	3.11	LST	ASO	2.64	85	E146352	15	<0.01	347	0.87	4.69	0.89	
34.47	37.55	3.08	LST	ASO	3.04	99	E146353	15	<0.01	441	0.24	2.10	0.63	
37.55	40.43	2.88	LST	ASO	2.50	87	E146354	15	0.01	649	0.16	1.77	0.81	
40.43	42.47	2.04	LST	ASO	1.92	94	E146355	15	0.01	525	0.19	2.30	0.65	
42.67	44.20	1.53	LST	ASO	1.30	85	E146356	15	<0.01	529	0.14	1.17	0.34	
44.20	47.24	3.04	LST	RBL	1.37	45	E146357	15	0.01	5610	0.30	12.40	5.40	
47.24	50.29	3.05	LST	RBL	1.74	57	E146359	15	0.01	6790	0.45	19.85	8.52	
50.29	51.82	1.53	LST	RBL	1.23	80	E146361	15	0.03	2430	2.28	12.70	5.24	
51.82	54.48	2.66	LST	CGL	2.13	80	E146362	15	0.01	734	0.17	3.26	1.46	
54.48	56.39	1.91	LST	DCA	1.84	96	E146363	15	<0.01	598	0.33	2.56	0.82	
56.39	59.44	3.05	LST	DCA	2.69	88	E146364	15	<0.01	427	0.23	1.11	0.50	
59.44	62.48	3.04	LST	DCA	2.78	91	E146365	15	0.10	636	0.42	1.85	1.40	
62.48	64.06	1.58	LST	DCA	1.45	92	E146366	15	0.01	485	0.27	1.22	1.10	
64.06	67.06	3.00	LST		2.74	91	E146368	15	0.01	381	0.12	1.58	0.43	
100.58	103.63	3.05	LST		2.67	88	E146369	15	<0.01	302	0.14	0.67	0.41	
103.63	106.68	3.05	LST		2.89	95	E146370	15	0.01	187	0.17	0.51	0.44	
106.68	108.57	1.89	LST		1.89	100	E146371	15	0.01	323	0.19	0.66	0.32	
108.57	111.25	2.68	LST	ASO	2.09	78	E146372	15	<0.01	772	0.14	0.94	0.33	
111.25	114.30	3.05	LST	ASO	2.65	87	E146374	16	<0.01	382	0.18	0.41	0.28	
114.30	117.35	3.05	LST		2.83	93	E146375	16	<0.01	199	0.18	0.34	0.25	
117.35	120.40	3.05	LST		2.61	86	E146376	16	0.01	162	0.10	0.31	0.22	

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
120.40	123.00	2.60	LST		2.39	92	E146377	16	<0.01	95	0.12	0.34	0.23	
123.00	124.25	1.25	LST		1.25	100	E146378	16	<0.01	79	0.14	0.34	0.26	
124.25	127.18	2.93	LST	DCA	2.72	93	E146379	16	<0.01	34	0.12	0.39	0.46	
127.18	129.90	2.72	LST	DCA	1.55	57	E146380	16	<0.01	34.8	0.16	0.36	0.46	
129.90	131.57	1.67	LST	DCA	1.65	99	E146382	16	0.01	53	0.12	0.40	0.54	
131.57	133.95	2.38	LST	ASO	2.15	90	E146383	16	<0.01	577	0.05	0.67	0.48	
133.95	135.64	1.69	LST	ASO	1.64	97	E146384	16	<0.01	32	0.04	0.15	0.15	
135.64	138.68	3.04	LST	ASO	2.97	98	E146385	16	0.01	32	0.05	0.16	0.12	
138.68	141.73	3.05	LST	ASO	2.81	92	E146386	16	<0.01	70	0.03	0.22	0.17	
141.73	144.00	2.27	LST	ASO	2.27	100	E146387	16	0.01	86	0.05	0.43	0.15	
144.00	146.30	2.30	LST	ASO	1.86	81	E146388	16	0.01	847	0.05	1.23	0.23	
146.30	147.83	1.53	LST	ASO	1.30	85	E146390	16	<0.01	392	0.07	0.78	0.22	
147.83	149.35	1.52	LST	RBL	1.08	71	E146392	16	0.01	1540	0.08	2.32	0.74	
149.35	152.55	3.20	LST	SIL	3.11	97	E146393	16	0.01	131	0.19	0.72	0.55	
152.55	155.45	2.90	LST	ASO	2.50	86	E146394	16	<0.01	126	0.07	0.68	0.34	
155.45	157.48	2.03	LST	ASO	1.80	89	E146395	16	<0.01	231	0.08	1.30	0.30	
157.48	160.02	2.54	LST	CLY	2.39	94	E146396	16	0.01	544	0.07	0.62	0.36	
160.02	161.64	1.62	LST	CLY	1.60	99	E146397	16	<0.01	2080	0.06	0.91	0.45	
161.64	164.59	2.95	LST	ASO	2.95	100	E146399	16	<0.01	846	0.04	0.33	0.11	
164.59	167.64	3.05	LST	ASO	2.89	95	E146400	16	<0.01	1320	0.03	0.22	0.11	
167.64	170.69	3.05	LST	ASO	2.97	97	E146401	16	<0.01	604	0.03	0.23	0.13	
170.69	173.74	3.05	LST	ASO	2.98	98	E146402	16	<0.01	262	0.06	0.36	0.21	
173.74	176.78	3.04	LST	ASO	2.88	95	E146403	16	<0.01	141	0.05	0.45	0.25	
176.78	178.31	1.53	LST	ASO	1.50	98	E146404	16	<0.01	570	0.04	0.26	0.22	
178.31	181.38	3.07	LST	ASO	2.96	96	E146405	16	<0.01	91	0.04	0.15	0.12	
-	-	-	-	-	-	-	E146407	16	2.09	180.5	1.78	150.00	12.60	**Standard OS-3**
-	-	-	-	-	-	-	E146351	15	2.41	175.5	1.89	163.00	13.45	**Standard OS-3**
-	-	-	-	-	-	-	E146358	15	<0.01	7	<0.01	0.06	0.02	**Blank**
47.24	50.29	3.05	LST	ASO	1.74	57	E146360	15	0.02	8740	0.57	24.50	10.95	**Duplicate**
-	-	-	-	-	-	-	E146367	15	16.05	1280	6.27	161.50	3.59	**Standard (OS-4)**
-	-	-	-	-	-	-	E146373	15	<0.01	<5	<0.01	<0.05	<0.02	**Blank**
-	-	-	-	-	-	-	E146381	16	14.80	467	0.41	41.80	4.57	**Standard (OS-2)**

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
-	-	-	-	-	-	-	E146389	16	<0.01	8	<0.01	0.12	<0.02	**Blank**
146.30	147.83	1.53	LST	ASO	1.30	85	E146391	16	<0.01	546	0.06	0.87	0.22	**Duplicate**
-	-	-	-	-	-	-	E146398	16	<0.01	20	<0.01	0.06	<0.02	**Blank**

GEOTECHNICAL LOG

HOLE: OS-10-06

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
4.20	4.57	0.37	0.37	100	0.16	43	MS	W	
4.57	6.10	1.53	0.93	61	0.20	13	MS	W	
6.10	7.62	1.52	1.15	76	0.12	8	MS	W	
7.62	9.14	1.52	1.06	70	0.00	0	MS	MW	
9.14	10.67	1.53	1.19	78	0.22	14	MS	MW	
10.67	12.19	1.52	1.26	83	0.73	48	MS	MW	
12.19	13.72	1.53	1.40	92	0.43	28	MS	MW	
13.72	15.24	1.52	1.38	91	0.75	49	MS	MW	
15.24	16.76	1.52	1.51	99	0.56	37	MS	MW	
16.76	18.29	1.53	1.40	92	0.74	48	MS	MW	
18.29	19.81	1.52	1.19	78	0.51	34	MS	MW	
19.81	21.34	1.53	1.49	97	0.46	30	MS	SW	
21.34	22.86	1.52	1.31	86	0.82	54	MS	MW	
22.86	24.38	1.52	1.33	88	0.42	28	MS	MW	
24.38	25.91	1.53	1.19	78	0.32	21	MS	MW	
25.91	27.43	1.52	1.51	99	0.49	32	MS	MW	
27.43	28.96	1.53	1.50	98	0.74	48	MS	MW	
28.96	30.48	1.52	1.28	84	0.44	29	MS	MW	
30.48	32.00	1.52	1.33	88	0.27	18	MS	MW	
32.00	33.53	1.53	1.44	94	0.54	35	MS	MW	
33.53	35.05	1.52	1.48	97	0.53	35	MS	MW	
35.05	36.58	1.53	1.47	96	0.73	48	MS	MW	
36.58	38.10	1.52	1.42	93	0.50	33	MS	MW	
38.10	39.62	1.52	1.31	86	0.10	7	MS	MW	
39.62	41.15	1.53	1.27	83	0.51	33	MS	MW	
41.15	42.67	1.52	1.29	85	0.61	40	MS	MW	
42.67	44.20	1.53	1.36	89	0.30	20	MS	MW	
44.20	45.72	1.52	0.80	53	0.00	0	MS	HW	
45.72	47.24	1.52	0.34	22	0.00	0	S	HW	
47.24	48.16	0.92	0.50	54	0.00	0	VS	EW	
48.16	48.77	0.61	0.25	41	0.00	0	MS	HW	
48.77	50.29	1.52	0.67	44	0.00	0	VS	HW	
50.29	51.82	1.53	0.98	64	0.00	0	MS	W	
51.82	53.34	1.52	1.05	69	0.20	13	MS	MW	
53.34	54.86	1.52	1.34	88	0.21	14	MS	MW	
54.86	56.39	1.53	1.39	91	0.79	52	MS	MW	
56.39	57.91	1.52	1.17	77	0.13	9	MS	MW	
57.91	59.44	1.53	1.46	95	0.99	65	MS	MW	
59.44	60.96	1.52	1.38	91	0.65	43	MS	MW	
60.96	62.48	1.52	1.50	99	1.09	72	MS	MW	
62.48	64.00	1.52	1.24	82	0.42	28	MS	MW	
64.00	65.53	1.53	1.41	92	0.53	35	MS	MW	
65.53	67.06	1.53	1.43	93	0.67	44	MS	MW	
67.06	68.58	1.52	1.48	97	0.64	42	MS	MW	
68.58	70.10	1.52	1.47	97	0.48	32	MS	MW	
70.10	71.63	1.53	1.44	94	0.92	60	MS	MW	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
71.63	73.15	1.52	1.32	87	0.25	16	MS	MW	
73.15	74.68	1.53	1.37	90	0.51	33	MS	MW	
74.68	76.20	1.52	1.52	100	0.66	43	MS	MW	
76.20	77.72	1.52	1.42	93	0.77	51	MS	MW	
77.72	79.25	1.53	1.47	96	1.16	76	MS	MW	
79.25	80.77	1.52	1.44	95	0.35	23	MS	MW	
80.77	82.30	1.53	1.51	99	0.70	46	MS	MW	
82.30	83.82	1.52	1.46	96	0.73	48	MS	MW	
83.82	85.34	1.52	1.52	100	0.85	56	S	MW	
85.34	86.87	1.53	1.53	100	1.15	75	MS	MW	
86.87	88.39	1.52	1.40	92	1.20	79	MS	MW	
88.39	89.92	1.53	1.42	93	1.08	71	MS	MW	
89.92	91.44	1.52	1.43	94	1.23	81	MS	MW	
91.44	92.96	1.52	1.51	99	1.21	80	MS	MW	
92.96	94.49	1.53	1.52	99	1.08	71	MS	MW	
94.49	96.01	1.52	1.42	93	0.85	56	MS	MW	
96.01	97.54	1.53	1.44	94	0.87	57	MS	MW	
97.54	99.06	1.52	1.44	95	0.56	37	MS	MW	
99.06	100.58	1.52	1.36	89	0.72	47	MS	MW	
100.58	102.11	1.53	1.48	97	0.80	52	MS	MW	
102.11	103.63	1.52	1.24	82	0.56	37	MS	MW	
103.63	105.16	1.53	1.44	94	0.59	39	MS	MW	
105.16	106.68	1.52	1.52	100	0.92	61	MS	MW	
106.68	108.20	1.52	1.52	100	0.96	63	MS	MW	
108.20	109.73	1.53	1.22	80	0.15	10	MS	MW	
109.73	111.25	1.52	1.43	94	0.83	55	MS	MW	
111.25	112.78	1.53	1.46	95	1.14	75	MS	MW	
112.78	114.30	1.52	1.14	75	0.66	43	MS	MW	
114.30	115.82	1.52	1.42	93	0.76	50	MS	MW	
115.82	117.35	1.53	1.37	90	0.82	54	MS	MW	
117.35	118.87	1.52	1.18	78	0.51	34	MS	MW	
118.87	120.40	1.53	1.31	86	0.48	31	MS	MW	
120.40	121.92	1.52	1.19	78	0.79	52	MS	MW	
121.92	123.44	1.52	1.44	95	0.79	52	MS	MW	
123.44	124.97	1.53	1.28	84	0.44	29	MS	MW	
124.97	126.49	1.52	1.46	96	1.20	79	MS	MW	
126.49	128.02	1.53	1.50	98	1.29	84	MS	FR	
128.02	129.54	1.52	1.47	97	1.16	76	MS	FR	
129.54	131.06	1.52	1.43	94	0.89	59	MS	FR	
131.06	132.59	1.53	1.47	96	0.63	41	MS	FR	
132.59	134.11	1.52	1.42	93	0.68	45	MS	MW	
134.11	135.64	1.53	1.49	97	0.75	49	MS	MW	
135.64	137.16	1.52	1.46	96	0.61	40	MS	MW	
137.16	138.68	1.52	1.29	85	0.38	25	MS	MW	
138.68	140.21	1.53	1.33	87	0.64	42	MS	MW	
140.21	141.73	1.52	1.46	96	0.89	59	MS	MW	
141.73	143.26	1.53	1.44	94	0.69	45	MS	MW	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
143.26	144.78	1.52	1.23	81	0.66	43	MS	MW	
144.78	146.30	1.52	0.75	49	0.00	0	MS	SW	
146.30	147.83	1.53	0.75	49	0.00	0	MS	SW	
147.83	149.35	1.52	0.83	55	0.12	8	MS	SW	
149.35	150.88	1.53	1.15	75	0.35	23	MS	MW	
150.88	152.40	1.52	1.45	95	0.83	55	MS	MW	152.10 offsets
152.40	153.92	1.52	1.38	91	0.24	16	MS	MW	
153.92	155.45	1.53	1.34	88	0.26	17	MS	MW	
155.45	156.97	1.52	1.05	69	0.24	16	MS	MW	
156.97	158.50	1.53	1.53	100	0.94	61	MS	SW	158.25 offset
158.50	160.02	1.52	1.51	99	0.37	24	MS	SW	
160.02	161.54	1.52	1.45	95	0.69	45	W	SW	161.20 fine material
161.54	163.07	1.53	1.33	87	0.58	38	MS	SW	
163.07	164.59	1.52	1.40	92	0.71	47	MS	SW	163.75 Mg (?)
164.59	166.12	1.53	1.53	100	0.60	39	MS	SW	
166.12	167.64	1.52	1.42	93	0.51	34	MS	MW	
167.64	169.16	1.52	1.52	100	0.41	27	MS	MW	
169.16	170.69	1.53	1.48	97	0.30	20	MS	MW	
170.69	172.21	1.52	1.49	98	0.24	16	MS	MW	
172.21	173.74	1.53	1.49	97	0.15	10	MS	MW	
173.74	175.26	1.52	1.30	86	0.81	53	MS	MW	
175.26	176.78	1.52	1.25	82	0.22	14	MS	FR	
176.78	178.31	1.53	1.42	93	0.60	39	MS	MW	
178.31	179.83	1.52	1.52	100	1.03	68	MS	MW	
179.83	181.36	1.53	1.47	96	0.53	35	MS	MW	
181.36	182.88	1.52	1.39	91	0.44	29	MS	MW	
182.88	184.40	1.52	1.44	95	0.67	44	MS	MW	
184.40	185.93	1.53	1.42	93	0.94	61	MS	MW	
185.93	187.45	1.52	1.50	99	0.43	28	MS	MW	
187.45	188.98	1.53	1.48	97	1.12	73	MS	MW	
188.98	190.50	1.52	1.50	99	0.15	10	MS	MW	
190.50	192.02	1.52	1.42	93	0.42	28	MS	MW	
192.02	193.55	1.53	1.26	82	0.77	50	MS	MW	
193.55	195.07	1.52	1.51	99	0.69	45	MS	MW	
195.07	196.60	1.53	1.52	99	1.11	73	MS	MW	
196.60	198.12	1.52	1.39	91	0.21	14	MS	MW	
198.12	199.64	1.52	1.45	95	0.58	38	MS	MW	
199.64	201.17	1.53	1.33	87	0.52	34	MS	MW	
201.17	202.69	1.52	1.48	97	0.55	36	MS	MW	
202.69	204.22	1.53	1.53	100	0.61	40	MS	MW	
204.22	205.74	1.52	1.46	96	0.59	39	MS	MW	
205.74	207.26	1.52	1.41	93	0.38	25	MS	MW	
207.26	208.79	1.53	1.48	97	0.22	14	MS	MW	
208.79	210.31	1.52	1.37	90	0.31	20	MS	MW	
210.31	211.84	1.53	1.37	90	0.76	50	MS	MW	
211.84	213.36	1.52	1.50	99	0.30	20	MS	MW	
213.36	214.88	1.52	1.46	96	0.51	34	MS	MW	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
214.88	216.41	1.53	1.42	93	0.50	33	MS	MW	
216.41	217.93	1.52	1.40	92	0.44	29	MS	MW	
217.93	219.46	1.53	1.40	92	0.57	37	MS	MW	
219.46	220.98	1.52	1.42	93	0.52	34	MS	FR	
220.98	222.50	1.52	1.48	97	0.78	51	MS	MW	
222.50	224.03	1.53	1.51	99	0.22	14	MS	MW	
224.03	225.55	1.52	1.32	87	0.34	22	MS	MW	
225.55	227.08	1.53	1.27	83	0.00	0	MS	MW	
227.08	228.60	1.52	1.45	95	0.30	20	MS	MW	
228.60	230.12	1.52	1.24	82	0.32	21	MS	MW	
230.12	231.65	1.53	1.42	93	0.62	41	MS	MW	
231.65	233.17	1.52	1.52	100	0.48	32	MS	MW	
233.17	234.70	1.53	1.41	92	0.63	41	MS	MW	
234.70	236.22	1.52	1.11	73	0.00	0	MS	MW	
236.22	237.74	1.52	1.48	97	0.45	30	MS	MW	
237.74	239.27	1.53	1.49	97	0.60	39	MS	MW	
239.27	240.79	1.52	1.52	100	0.87	57	MS	MW	
240.79	EOH								

MAGNETIC SUSCEPTIBILITY LOG

HOLE:

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
1.00	OVB		N/A	
2.00	OVB		N/A	
3.00	OVB		N/A	
4.00	MST	ASO	0	
5.00	MST	ASO	0	
6.00	MST	ASO	0	
7.00	MST	ASO	0	
8.00	MST	ASO	0	
9.00	MST	ASO	0	
10.00	MST	ASO	0	
11.00	MST	ASO	0	
12.00	MST	ASO	0	
13.00	MST	ASO	0	
14.00	MST	ASO	0	
15.00	MST	ASO	0	
16.00	LST	ASO	0	
17.00	LST	ASO	0	
18.00	LST	ASO	0	
19.00	LST	ASO	0	
20.00	LST	ASO	0	
21.00	LST	ASO	0	
22.00	LST	ASO	0	
23.00	LST	ASO	0	
24.00	LST	ASO	0	
25.00	LST	ASO	0	
26.00	LST	DCA	0	
27.00	LST	DCA	0	
28.00	LST	DCA	0	
29.00	LST	ASO	0	
30.00	LST	ASO	0	
31.00	LST	ASO	0	
32.00	LST	ASO	0	
33.00	LST	ASO	0	
34.00	LST	ASO	0	
35.00	LST	ASO	0	
36.00	LST	ASO	0	
37.00	LST	ASO	0	
38.00	LST	ASO	0	
39.00	LST	ASO	0	
40.00	LST	ASO	0	
41.00	LST	ASO	0	
42.00	LST	ASO	0	
43.00	LST	ASO	0	
44.00	LST	ASO	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
45.00	LST	ASO	0	
46.00	LST	ASO	0	
47.00	LST	ASO	0	
48.00	LST	ASO	0	
49.00	LST	ASO	0	
50.00	LST	ASO	0	
51.00	LST	ASO	0	
52.00	LST	CGL	0	
53.00	LST	CGL	0	
54.00	LST	CGL	0	
55.00	LST	CGL	0	
56.00	LST	CGL	0	
57.00	LST	CGL	0	
58.00	LST	CGL	0	
59.00	LST	DCA	0	
60.00	LST	DCA	0	
61.00	LST	DCA	0	
62.00	LST	DCA	0	
63.00	LST	DCA	0	
64.00	LST	DCA	0	
65.00	LST	CGL	0	
66.00	LST	CGL	0	
67.00	LST	CGL	0	
68.00	LST	CGL	0	
69.00	LST	CGL	0	
70.00	LST	CGL	0	
71.00	LST	CGL	0	
72.00	LST	CGL	0	
73.00	LST	CGL	0	
74.00	LST	CGL	0	
75.00	LST	CGL	0	
76.00	LST	CGL	0	
77.00	LST	CGL	0	
78.00	LST	CGL	0	
79.00	LST	CGL	0	
80.00	LST	CGL	0	
81.00	LST	CGL	0	
82.00	LST	CGL	0	
83.00	LST	CGL	0	
84.00	LST	CGL	0	
85.00	LST	CGL	0	
86.00	LST	SIL	0	
87.00	LST	CGL	0	
88.00	LST	CGL	0	
89.00	LST	CGL	0	
90.00	LST	CGL	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
91.00	LST	CGL	0	
92.00	LST	CGL	0	
93.00	LST	CGL	0	
94.00	LST	CGL	0	
95.00	LST	CGL	0	
96.00	LST	CGL	0	
97.00	LST	CGL	0	
98.00	LST	CGL	0	
99.00	LST	CGL	0	
100.00	LST	CGL	0	
101.00	LST	CGL	0	
102.00	LST	CGL	0	
103.00	LST	CGL	0	
104.00	LST	CGL	0	
105.00	LST	CGL	0	
106.00	LST	CGL	0	
107.00	LST	CGL	0	
108.00	LST	CGL	0	
109.00	LST	ASO	0	
110.00	LST	ASO	0	
111.00	LST	ASO	0	
112.00	LST	ASO	0	
113.00	LST	ASO	0	
114.00	LST	CGL	0	
115.00	LST	CGL	0	
116.00	LST	CGL	0	
117.00	LST	CGL	0	
118.00	LST	CGL	0	
119.00	LST	CGL	0	
120.00	LST	CGL	0	
121.00	LST	CGL	0	
122.00	LST	CGL	0	
123.00	LST	CGL	0	
124.00	LST	CGL	0	
125.00	LST	DCA	0	
126.00	LST	DCA	0	
127.00	LST	DCA	0	
128.00	LST	DCA	0	
129.00	LST	DCA	0	
130.00	LST	DCA	0	
131.00	LST	DCA	0	
132.00	LST	DCA	0	
133.00	LST	DCA	0	
134.00	LST	DCA	0	
135.00	LST	DCA	0	
136.00	LST	ASO	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
137.00	LST	ASO	0	
138.00	LST	ASO	0	
139.00	LST	ASO	0	
140.00	LST	ASO	0	
141.00	LST	ASO	0	
142.00	LST	ASO	0	
143.00	LST	ASO	0	
144.00	LST	ASO	0	
145.00	LST	ASO	0	
146.00	LST	ASO	0	
147.00	LST	ASO	0	
148.00	LST		0	
149.00	LST	ASO	0	
150.00	LST	SIL	0	
151.00	LST	DCA	0	
152.00	LST	DCA	0	
153.00	LST	ASO	0	
154.00	LST	ASO	0	
155.00	LST	ASO	0	
156.00	LST	ASO	0	
157.00	LST	ASO	0	
158.00	LST	ASO	0	
159.00	LST	ASO	0	
160.00	LST	ASO	0	
161.00	LST	ASO	0	
162.00	LST	ASO	0	
163.00	LST	ASO	0	
164.00	LST	ASO	0	
165.00	LST	ASO	0	
166.00	LST	ASO	0	
167.00	LST	ASO	0	
168.00	LST	ASO	0	
169.00	LST	ASO	0	
170.00	LST	ASO	0	
171.00	LST	ASO	0	
172.00	LST	ASO	0	
173.00	LST	ASO	0	
174.00	LST	ASO	0	
175.00	LST	ASO	0	
176.00	LST	ASO	0	
177.00	LST	ASO	0	
178.00	LST	ASO	0	
179.00	LST	ASO	0	
180.00	LST	ASO	0	
181.00	LST	ASO	0	
182.00	LST	ASO	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
183.00	LST	ASO	0	
184.00	LST	ASO	0	
185.00	LST	ASO	0	
186.00	LST	DCA	0	
187.00	LST	DCA	0	
188.00	LST	DCA	0	
189.00	LST	DCA	0	
190.00	LST	DCA	0	
191.00	LST		0	
192.00	LST		0	
193.00	LST		0	
194.00	LST		0	
195.00	LST		0	
196.00	LST		0	
197.00	LST		0	
198.00	LST		0	
199.00	LST		0	
200.00	LST		0	
201.00	LST		0	
202.00	LST		0	
203.00	LST		0	
204.00	LST		0	
205.00	LST		0	
206.00	LST		0	
207.00	LST		0	
208.00	LST		0	
209.00	LST		0	
210.00	LST		0	
211.00	LST		0	
212.00	LST		0	
213.00	LST		0	
214.00	LST		0	
215.00	LST		0	
216.00	LST		0	
217.00	CGL		0	
218.00	CGL		0	
219.00	CGL		0	
220.00	CGL		0	
221.00	CGL		0	
222.00	LST		0	
223.00	LST		0	
224.00	LST		0	
225.00	LST		0	
226.00	LST		0	
227.00	LST		0	
228.00	LST		0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
229.00	LST		0	
230.00	LST		0	
231.00	LST		0	
232.00	LST		0	
233.00	LST		0	
234.00	LST		0	
235.00	LST		0	
236.00	LST		0	
237.00	LST		0	
238.00	LST		0	
239.00	LST		0	
240.00	LST		0	

BOX LOG

HOLE: OS-10-06

BOX	FROM (m)	TO (m)
1	4.20	7.90
2	7.90	11.80
3	11.80	15.54
4	15.54	19.45
5	19.45	23.31
6	23.31	27.58
7	27.58	31.64
8	31.64	35.50
9	35.50	39.46
10	39.46	43.20
11	43.20	48.01
12	48.01	51.97
13	51.97	55.70
14	55.70	59.65
15	59.65	63.32
16	63.32	67.24
17	67.24	71.40
18	71.40	75.21
19	75.21	79.25
20	79.25	82.88
21	82.88	86.87
22	86.87	91.04
23	91.04	94.84
24	94.84	99.06
25	99.06	102.68
26	102.68	106.68
27	106.68	110.26
28	110.26	114.24
29	114.24	118.20
30	118.20	121.72
31	121.72	125.93
32	125.93	129.90
33	129.90	133.95
34	133.95	137.95
35	137.95	141.86

BOX	FROM (m)	TO (m)
36	141.86	145.23
37	145.23	148.66
38	148.66	152.20
39	152.20	155.79
40	155.79	159.20
41	159.20	163.07
42	163.07	166.87
43	166.87	170.69
44	170.69	174.20
45	174.20	177.95
46	177.95	182.00
47	182.00	185.93
48	185.93	189.75
49	189.75	193.57
50	193.57	197.55
51	197.55	201.37
52	201.37	205.50
53	205.50	209.37
54	209.37	213.26
55	213.26	216.97
56	216.97	221.04
57	221.04	224.75
58	224.75	228.60
59	228.60	232.45
60	232.45	236.22
61	236.22	239.90
62	239.90	240.79
240.79 m - E.O.H.		

NADALEEN TREND PROJECT

Grid East	Grid North	Easting	Northing	Elev.	Depth (m)
		629372	7112293	1488	260.60

ZONE: Isis

SECTION:

HOLE: OS-10-07

CLAIM: Sten42

Contractor: Beaudoin

Drill: 5

Core size: NTW

Casing depth: 6.10 m out

Drilling dates: Sept. 10, 2010 to Sept. 15, 2010

Geology logged by: K. Unger

TARGET: Isis Zone

SURVEY

Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	085	-50.0	compass				
259.08	-	-49.0	acid				

SUMMARY

From (m)	To (m)	Interval	Unit	Comments
0.00	6.10	6.10	OVB	Overburden, no recovery.
6.10	29.89	23.79	LST	Orange-grey, DCB LST with debris flow textures.
29.89	37.31	7.42	FLT	rusty orange to grey rubbly, LIM altered fault gouge.
37.31	260.60	223.29	LST	DCA LST with Py, Rg, Om MX, variable DF and BX.
260.60	EOH			

SAMPLES

Numbers: J998734 to J998769, E146464 to E146555, E146648 to E146649

Total: 130

Batch: 16, 17, 18, 19

Date Sent:

Certificate:

COMMENTS

This hole was ended because the drillers were low on rods and hole was becoming problematic.

GEOLOGY LOG

HOLE: OS-10-07

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m	Silicification	Decalcificatio	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
0.00	6.10	6.10				OVB			Overburden - no recovery																		
6.10	29.89	23.79				LST	DCA	DF	Light grey-orange to dark grey, FG to MG, blocky to rubbly, variably clay altered and weathered, intensely DCA altered debris flow LST. Weak, grungy green ASO alteration is present on some fracture faces with depth. Core exhibits fault gouge textures variably throughout, appearing rubbly to gritty. CLY alteration is associated with gouge material. Purple manganese staining is exhibited on fracture faces at shallow depths.						i			CLY	m								X
																			ASO	w							
			6.10	11.85	5.75	LST	DCA	DF	Light to medium orange grey, FG to MG, debris flow LST with intense DCA and weak ASO alteration throughout. Core is blocky to rubbly. Fracture faces exhibit rusty yellow-orange to grungy orange-green weathering and ASO alteration. DCA alteration is strong to intense, core fizzes only very slowly with HCl. Alteration and fracturing obscure primary textures throughout. Trace brilliant yellow, FG, soft orpiment is present on a fracture face with a rare, red Rg crystal and fibrous, brilliant blue mineral (?) and a resinous, soft, yellow-orange, translucent euhedral mineral (Om+Rg?) that is softer than calcite. Narrow, weakly calcareous, orange-white veinlets are present throughout core. Core fractures are generally parallel with veinlet orientations. Core is harder than typical LST; FG to MG silicic grains are visible with a hand lens. Manganese staining is present above 8.10 m on fracture faces.					s	i		f	ASO	w	t						
									A lack of pervasive orientation or fabric precludes a FA measurement.	FA	n/a																
						Ca			Orange-white, vuggy, MG to FG calcareous veinlets 1-2 mm wide, exhibiting a primarily oriented 30-40 degrees TCA.	VT	35															
						Ca			A secondary orientation to above calcareous veinlets, oriented 70 degrees TCA, and 180 degrees to primary veinlet orientation.	VT	70															

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m	Silicification	Decalcificatio	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			11.85	14.02	2.17	LST	DCA	FT	Light to rusty grey, FG to CG, blocky to gritty, intensely DCA altered, fault gouge DF LST. Rusty yellow to brown-orange alteration is seen on fracture faces and rubble/grit surfaces. Grungy orange-green-grey clay alteration is intermittent throughout. ASO alteration is associated with CLY and rusty, dark red LIM(?) alteration, and with cBX textures where core is competent. Alteration obscures primary textures.						i		m	CLY	m									X
																		ASO	w								
									A lack of pervasive orientation or fabric precludes a FA measurement.	FA	n/a																
									Narrow, FG to MG, rusty orange vuggy veinlets exhibiting a weak cBX texture where core is not broken. Earthy, white coatings are present within the vugs and are visible with a hand lens. Veinlets are ~1 mm wide, and primarily oriented 35-50 degrees TCA.	VT	45																
									A secondary orientation to the veinlets describec above, 50 to 75 degrees TCA, and 180 degrees to primary veinlet orientation.	VT	60																
			14.02	16.20	2.18	ARG		FT	Dark to light grey, FG, very soft, clay rich argillite with convolute, deformed DCA altered LST bodies. Soft clay gouge is present at 15.75 m, appearing dark grey to brick brown with fine, dendritic veinlets intermittently throughout. Argillic rock is dark grey with light, MG, <1 cm long, <1 mm wide blebs throughout, exhibiting an undulose fabric/orientation Core fractures irregularly, revealing a porous and rough texture. The uCN sharp, oriented at 55 degrees TCA. The lCN is convolute, with light grey clasts in a very dark, pyritic matrix with fine, MG clouds of yellow metallic flecks. Alteration and the fractured nature of the rock obscures primary textures.	CN								CLY	s			t					X
									A lack of pervasive orientation or fabric precludes a FA measurement.	FA	n/a																

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m	Silicification	Decalcificatio	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			16.02	29.89	13.87	LST	DCA	DF	Light to dark grey, FG to CG, variably clay altered, intensely DCA altered debris flow LST. Core is very slow to fizz with HCl throughout. Sooty partings are seen intermittently, and are generally associated with soft, grey clay alteration. Some blocks of core are heavier than usual (barite?), generally with large creamy white clasts in debris flow textures. DF textures are overprinted by narrow intervals of clay altered BX, with tBX/fault textures seen over 1.5 m at 24.45 m. FG to MG, whispy, dark, sooty sulphide veinlets are seen intermittently throughout.					i		w	CLY	w			t			Ba	w	X
																		ASO	t								
									A lack of pervasive orientation or fabric precludes a FA measurement.	FA	n/a																	
									Dark grey-black, FG, narrow whispy, <1 mm wide veinlets, at times propagating along clast margins, are generally oriented 30 degrees TCA, though orientation is varied.	VT	30															
									White, MG, narrow ~1 mm wide fracturing/crackling, variably oriented, though a primary orientation of 45 degrees TCA is exhibited.	FR	45															
									Rusty orange, <1 mm wide fracturing/crackling, crosscutting white fractures below 26.80 m, oriented 70 degrees TCA and 180-190 degrees to crosscut fractures.	FR	70															
29.89	37.31	7.42				FLT		MX	Rusty orange grey to black, gritty to rubbly gouge, intensely DCA altered fault with intense FG to MG Py MX. Py is black, FG and sooty, to MG yellow, massive bands, and to amoeboid bodies within DCA altered LST. Core is extremely friable and soft, appearing like packed sand where Py MX is most intense. Strong orange LIM alteration is present above 32.00 m, core becomes grey and black in colour below that. Pale green-yellow clay alteration with orange-grey core above 32.00 m becomes dark grey to pale grey-green below. Contacts are defined by breaks in blocky core to rubbly, clay altered core.	CN				i		s	CLY	s	t		i					X
									A lack of pervasive orientation or fabric precludes a FA measurement.	FA	n/a															

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m	Silicification	Decalcificatio	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
37.31	260.60	223.29				LST	DCA	MX	Light to dark grey, FG to CG, variably BX to DF, intensely DCA altered LST with variable Py and As-sulphide MX. Core is competent to gritty rubble throughout. Sooty FG Py is seen variably throughout, Py MX becomes coarser and euhedral with depth. Om and Rg are present as fracture filling to BX matrix MX/replacements. Om is generally present up hole, Rg becomes more prominent with depth. Core is porous and rough to the touch, and fizzes only very slowly if at all with HCl. Primary textures are often obliterated/obscured by alteration and fractured and friable nature of the rock.						i			CLY	w	w	t	w					X
			37.31	49.00	11.69	LST	DCA	MX	Light to dark grey, FG to CG, blocky to coarse grit, intensely DCA altered LST with dark, FG sooty sulphide, Om and Rg MX. Core is porous, soaking up HCl or water and fizzes only very slightly and slowly with acid. Py MX is present as dark, sooty partings to FG and MG dark black grains to flecks of metallic yellow and irregularly shaped, sooty masses. Om is present as amoeboid blebs up to 1.2 cm in size, grains <1 mm in size with Py masses and as narrow fracture fillings. There is an Rg component to Om MX up hole, giving As-sulphide MX a brilliant orange colour. Cryptic DF textures are obscured by alteration and Py and As-sulphide MX.						i			CLY	m	w	t	m					X
									A lack of pervasive orientation or fabric precludes a FA measurement.	FA	n/a																
									Dark grey, FG, sooty fractures <1 mm wide, oriented 50 degrees TCA are present intermittently.	FR	50																
							MX		Yellow to orange, <1 mm to 2 mm wide, irregular Om and Rg veinlets that at times appear to crackle core where fractures/veinlets are most strongly concentrated, oriented 0 to 60 degrees TCA, and lack a uniform orientation.	CR	n/a																
			49.00	59.44	10.44	LST	DCA	BX	Light to dark grey, FG to CG, variably cBX, intensely DCA altered DF LST with trace yellow Om MX. Om is present as platy aggregates on fracture faces to cBX matrix minerals. Narrow, black, sooty cBX matrix MX is more pervasive than Om BX, and exhibits undulose to angular stockwork textures which give core a shattered appearance. Core is blocky to fine grit, and is weak, very friable and porous, and intensely DCA altered. Core does not and soaks up HCl when exposed to acid.						i					t		w					X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m	Silicification	Decalcificatio	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									A lack of pervasive orientation or fabric precludes a FA measurement.	FA	n/a																
									Black, FG, narrow crackling is variable throughout, often leaving sooty partings on fracture faces. Primary orientation is 60 degrees TCA, though shallower orientations as low as 0 degrees TCA are seen.	CR	60															
									A secondary black crackling orientation is seen 40 degrees TCA and 180 degrees to the primary, black crackling orientation.	CR	40															
							MX		Yellow, FG, narrow Om crackling/veinlets, <1 mm to 1 mm wide, oriented 50 degrees TCA, though orientations as low as 0 degrees TCA are seen whe Om structures exhibit cBX textures.	VT	50															
			59.44	78.90	19.46	LST	DCA	BX	Light grey, MG to FG, variably cBX, blocky to rubbly, intensely DCA altered DF LST. Trace sinuous, dark, FG to MG, sooty Py veinlets are scattered intermittently, at times associated with Om and trace Rg crackling/fracture filling. Relict DF textures are exhibited and can be obscured by DCA alteration and broken core. Core is porous, soaking up acid and water quickly. White crackling and variable black crackling are seen throughout. White, calcareous fractures are often associated with Om and Rg MX as As-sulphide grains are found within white veinlets.						i						t	t	t					X
									A lack of pervasive orientation or fabric precludes a FA measurement.	FA	n/a															
						Ca			White, narrow, MG to FG, calcareous veinlets, fizzing moderately to strongly, <1 mm to 6 mm wide, and at times host Om or Rg grains up to 2 mm in size. Veinlets are variably oriented, a primary orientation is seen 55-70 degrees TCA. Veinlets exhibit a weak crackling/cBX texture where white veining is strongest.	VT	55														
						Ca			A secondary orientation for the white veinlets/crackling is 40 degrees TCA, and 90 degrees to the primary white veinlet orientation.	VT	40															
									Narrow, black, <1 mm wide veinlets are crosscut by white, calcareous cracking described above, and are oriented 45 degrees TCA and 170-200 degrees to the primary white veinlet orientation.	VT	45															

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m	Silicification	Decalcificatio	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			78.90	99.06	20.16	LST	DCA	MX	Light to dark grey, blocky to gritty, variably cBX, intensely DCA altered DF LST with intervals of gritty, extremely friable, porous, rock with FG sooty sulphides and MG Om and Rg. Brilliant yellow and red Om and Rg MX intermittently exhibits crackling/fracture filling, appearing as cBX matrix minerals where crackling is most intense and is almost always associated with sooty, dark sulphide MX. Some sooty masses/veinlets are associated with grey clay alteration intermittently throughout. White and black crackling is variable throughout.						i			CLY	m	w	t	w					X
									A lack of pervasive orientation or fabric precludes a FA measurement.	FA	n/a																
									Narrow, white, FG crackling seen variably throughout. Where white crackling is most frequent, core exhibits weak cBX textures. A primary orientation is seen 50-70 degrees TCA.	CR	50															
									A second major orientation to white cracking, 30-35 degrees TCA and ~180 degrees to primary orientation,	CR	30															
									Black, narrow <1 mm wide fractures/crackling, oriented 45-70 degrees TCA, crosscutting narrow white crackling.	FR	50															
			99.06	138.68	39.62	LST	DCA	MX	Light to medium grey, FG to CG, variably BX, intensely DCA altered LST. Core exhibits cBX textures with fine, white crackling throughout with variable narrow black crackling. Core can exhibit mBX textures within narrow intervals where the breccia matrix is composed of Om and Rg. Om and Rg BX is most intense at 128.00 m over 60 cm above a gritty, dark, sooty band at 128.52 m. Sooty partings are intermittent throughout and are of variable widths. Weak, light grey to yellow clay alteration is associated with a few sooty fractures, and are generally local to where Om+Rg BX textures are present. Relict bedding textures appear with depth.						i			CLY	w	w	t	t					X
									Defined by bedding textures at the bottom of the interval, oriented 50-40 degrees TCA.	BD	50															
							MX		Brilliant yellow to orange, FG to CG, Om and Rg veinlets, appearing as cBX matrix where crackling is most intense. A major orientation is seen at 50 degrees TCA, though orientations are variable from 20-80 degrees below 131.00 m0 and are oriented ~180 degrees to BD.	CR	50	180														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m	Silicification	Decalcificatio	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									Narrow, white crackling, often cBX in texture, <1 mm wide, and is seen throughout. A primary orientation is seen 30-60 degrees TCA and 180 degrees to BD.	CR	60	180														
									A second major orientation to white crackling, 40-60 degrees TCA and 0 degrees to BD, <1 mm wide throughout.	CR	60	0														
									Black crackling/fracturing, often forming sooty partings when fractured, oriented 40-55 degrees TCA, 0 degrees to BD, though irregular orientations are seen intermittently throughout.	FR	50	0														
									Dark, FG to MG, sooty Py vein, 1.1 to 1.9 cm wide, oriented at 20 degrees TCA and exhibits an undulose propagation. Strong black crackling is loca to vein at 129.05 m. Measuring attitude to bedding is made difficult by broken core.	VN	20	n/a														
			138.68	142.16	3.48	LST	DCA	BX	Medium to light grey, MG to CG, variably BX, intensely DCA altered LST with coarse to FG Py. Trace Om is present on the surfaces of core fractures. Py MX is present as coarse, metallic yellow, sinuous bands up to 1.6 cm wide with what appears to be darker, fine grained rims to blebs within sparry breccia matrix MX. Trace, narrow black crackling is seen variably throughout. White crackling crosscuts BX, but not Py bands/veins. Brecciation is planar, propagating 50-55 degrees TCA, exhibiting a dilatory-like appearance, dividing rock along bedding planes. At times beds appear curvilinear.						i					t		w					X
									Defined by bedding fabric and BX orientation, 50-55 degrees TCA.	BD	50															
									Metallic yellow to dull black yellow, MG to CG Py veins to irregular blobs are preferentially hosted in BX matrix MX. Veins are up to 1.6 cm wide, generally oriented 45-55 degrees TCA, 0 degrees to BD with a frequency of roughly 1 per meter. At times FG, darker sulphide MX appears to be rimming coarser vein Py.	VN	50	0	1													
									White, narrow crackling, <1 mm wide, exhibiting a preferential orientation 30-55 degrees TCA and 225 degrees to BD, though orientations are variable throughout.	CR	40	225														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m	Silicification	Decalcificatio	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									Narrow black crackling/fracturing, preferential to white BX bands, generally oriented ~50 degrees TCA and 180 degrees to BD, perpendicular to FA, though variable orientations of black crackling are seen.	FR	50	180														
									A secondary orientation to black crackling/fracturing 50 degrees TCA, 0 degrees to BD, this orientation is less frequent then the one above. Some sooty partings along bedding planes could be these structures.	FR	50	0														
			142.16	191.05	48.89	LST	DCA	BD	Light to medium grey, MG, variably laminated to weakly brecciated, intensely DCA altered, variably SIL altered LST with variable black crackling, Om and Rg MX, and coarse Py veining. Trace CLY alteration is present but rare, and is associated with Om cBX textures and mineralization. Om MX is present as narrow intervals of cBX matrix mineralization, though Om and Rg MX is more commonly seen as narrow fracture filling veinlets sharing a common orientation. Py is present as coarse grained veins, which become more irregular with FG to MG sooty wisps and masses when seen with dark grey CLY alteration. Narrow intervals of coarse, crystalline, light to medium grey rock is seen intermittently, and is associated with SIL alteration. Narrow black crackling is seen variably throughout on rare instances exhibiting cBX textures over a few cm. Where bedding is exhibited, DCA alteration is evident, though crackling and other textures are less so. Trace stibnite is seen as a soft, grey-purple, metallic CG aggregates with Om, Rg and Py at 148.02 m.					m	i			CLY	t	t	t	t	St	t			X
									Where bedding is seen, BD is oriented 45-50 degrees TCA.	BD	50															
									Metallic yellow, CG, Py veins present uphole, oriented 25-40 degrees TCA and 270 degrees to BD, and are 1.1 to 1.3 cm wide, and are more regular and coarse in comparison to Py veins below 163.00 m.	VN	35	270	0.3													
									Metallic yellow to dark grey, FG to MG Py veins and veinlets with irregular to sinuous orientations, 50-80 degrees TCA, at times exhibiting darker, FG rims and margins. Py MX also appears as amoeboid masses up to 4.3 cm in size proximal to irregular Py veinlets.	VN	70		0.5													

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m	Silicification	Decalcificatio	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
							MX		Brilliant yellow to deep orange, Om and Rg veinlets/fracture filling crosscutting coarse, white DCA altered BX matrix and narrow grey, translucent Qz veinlets, are generally oriented 30-50 degrees TCA and 270 degrees to BD where bedding is present. Veinlets/fracture filling can exhibit cBX/stockwork textures where core exhibits clay alteration.	FR	40	270															
									Black to dark grey, narrow, <1 mm wide crackling, variable throughout, but preferential to altered LST lacking bedding textures. Crackling is variably oriented, precluding a uniform orientation measurement. Black crackling is crosscut by Om and Rg veinlets/fracturing.	CR	n/a															
			191.05	219.95	28.90	LST	DCA	BX	Light to dark grey, CG to FG, intensely DCA altered, BX LST. BX matrix is CG, light grey to white, soft to hard, and fizzes only weakly when scratched. BX fabric is generally commonly oriented with some curved, deformed, narrow bed fragments and large, bladed, FG to MG, dark breccia clasts. Relict LST clasts exhibit a pitted, DCA altered surface throughout. Py MX is present as coarse bands and rims around BX clasts to semi massive amoeboid masses with a second FG, darker Py which sometimes rims coarser Py masses and bands. Darker FG Py is also seen as dark grey-yellow, sooty partings associated with clay alteration. Minor intervals up to 10 cm in width exhibit soft, light to medium grey clay alteration along fractures with a duller, orangish Om and Rg MX. Brilliant Om and Rg MX is present as veinlets crosscutting Py (marcasite?) and BX textures. Breccia textures become more irregular with depth.					w	i			CLY	w	t	t	w					X
									Defined by BX fabric and bedding where brecciation is not pervasive, oriented 30-40 degrees TCA generally throughout, though BX fabric becomes more convolute with depth.	BD	35															
							MX		Brilliant yellow and orange MG to CG, Om and Rg veinlets at times exhibiting a cBX textures, but are generally oriented 35-45 degrees TCA and 180 degrees to bedding, and are 1-3 mm wide. Veinlet frequency increases with depth.	VT	40	180														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m	Silicification	Decalcificatio	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			219.95	220.96	1.01	LST	DCA	BX	Dark grey to yellow green, rebrecciated, strongly CLY altered, intensely DCA altered LST with intense Om MX. Om and trace Rg are present as FG to MG BX matrix mineralization which crosscuts an earlier, white (calcareous?) brecciation event. Om MX smears to a yellow-green colour coating (a mix of cuttings w/ sooty sulphides) on the core surface, which can be scratched off revealing grey BX core. Sooty, dark FG sulphide MX is present as BX matrix mineralization and is often associated with clay alteration and fibrous, MG Om which is exhibited best on earthy fracture faces where CLY alteration is strongest. uCN and lCN are fast and are defined by sooty margins on the edges of dark brecciated rocks (fault?). The uCN is oriented 50 degrees TCA and the lCN is oriented 40 degrees TCA.	CN					i			CLY	s	i	t	m					X
									A lack of pervasive orientation or fabric precludes a FA measurement.	FA	n/a																
							MX		Brilliant yellow to orange, MG to FG Om MX appearing as breccia matrix/veining and is variably oriented throughout. A weakly uniform orientation can be measured, 20-70 degrees TCA, and oriented 0 degrees to uCN and lCN, and 0 degrees to BD in the subinterval above.	CR	40															
			220.96	236.99	16.03	LST	DCA	DF	Light to medium grey, MG to FG, variably BX, intensely DCA altered debris flow LST. Medium to dark grey angular clasts are supported by a light grey matrix which is overprinted variably by white (calcareous?) cBX and mBX textures. Calcareous breccia textures are then overprinted by an intense DCA alteration and crosscut by Om-Rg-Ca fracture filling/crackling. Coarse Rg is present as euhedral crystals filling trace vugs present in wide calcareous structures. Sinuous, dark grey to metallic yellow MG Py stringers are intermittent throughout, crosscut by Om crackling. Sooty, FG, dark sulphides are present uphole and are associated with Om crackling and irregular, soft, gritty blobs at 224.47 m. Rg is present with Om as coarse, brilliant deep red coarse crystals with sooty sulphides at 224.47 m, and as dull, flat red fracture filling/crackling. A softer colour is exhibited by this Rg, and is more FG to MG, forming platy crystals.						i					t	t						X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m	Silicification	Decalcificatio	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									Bedding is consistent throughout, oriented 30-35 degrees TCA.	BD	30																
							MX		Brilliant yellow to orange, Om and Om-Rg crackling, crosscutting earlier white crackling and is variably oriented throughout, sharing a moderately common orientation 40-60 degrees TCA, and variably oriented at 0, 90 and 180 degrees to BD, and with rare instances of orientations 270 degrees to BD.	CR	50															
							MX		Dull, flat, Rg and Rg-Om MX is oriented at 40-55 degrees TCA, and 0 degrees to BD (2 Rg phases?)	FR	50	0														
									White, narrow, FG to MG crackling, <1 mm to 2 mm wide, with a major orientation at 20-40 degrees TCA and 0 degrees to BD.	CR	35	0														
									A second orientation to white crackling is seen at 20 30 degrees TCA and 180 degrees to BD, with crackling <1 mm to 1.5 mm wide.	CR	25	180														
									Narrow, black crackling at 227.19 m, oriented 60 degrees TCA, 270 degrees to FA and locally associated with red Rg MX.	CR	60	270														
			236.99	260.60	23.61	LST	DCA	BX	Light to dark grey, CG to FG, variably BX, intensely DCA altered LST with coarse, yellow metallic Py and orange Rg-Om crackling. Py is present as coarse, yellow, subhedral rims to masses around dark to medium grey BX clasts and to MG, irregular, whispy to blebby veinlets. Sooty FG, dark sulphide MX is also seen on partings and as irregular masses/veins where core is rubbly and broken. Rg and Om crackling is seen variably throughout, exhibiting a flat, less brilliant hue and a crystal habit that is FG to MG and platy. Euhedral Py MX crosscuts orange Rg-Om crackling.						i					t	t	w					
									Defined by BX fabric (parallel to bedding?), oriented 35-55 degrees TCA, though shallowing with depth to 25 degrees TCA at 260.00 m.	FA	45															
							MX		Narrow, orange Rg-Om crackling, exhibiting pale or pastel hues, oriented 30-50 degrees TCA and 0 degrees to FA, though irregular orientations are see intermittently throughout.	FR	45	0														
									Grey-yellow, MG to FG Py vein, oriented 40 degrees TCA, 270 degrees to FA, and is 0.5 to 1.8 cm wide. Vein has an undulose, blebby texture at 253.90 m.	VN	40	270														
									260.60 m: E.O.H. - The hole was ended because the drillers were running low on rods and drilling complications were beginning to occur with the depth of the hole.																		

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

SAMPLE LOG

HOLE: OS-10-07

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
6.10	9.14	3.04	LST	DCA	1.77	58	J998734	16	0.03	422	1.18	0.32	1.78	
9.14	12.19	3.05	LST	DCA	2.52	83	J998735	16	0.03	243	0.33	0.23	0.91	
12.19	14.02	1.83	LST	DCA	1.36	74	J998736	16	0.11	1860	2.18	0.60	5.45	
14.02	16.20	2.18	LST	DCA	2.08	95	J998737	16	0.05	438	2.32	0.74	5.77	
16.20	18.29	2.09	LST	DCA	1.77	85	J998738	16	0.13	454	1.24	0.39	3.63	
18.29	20.30	2.01	LST	DCA	1.86	93	J998740	16	0.06	166	1.01	0.37	2.24	
20.30	22.30	2.00	LST	DCA	1.98	99	J998741	16	0.02	331	1.15	0.47	3.73	
22.30	24.30	2.00	LST	DCA	1.87	94	J998742	16	0.01	90	0.58	0.20	0.93	
24.30	27.00	2.70	LST	DCA	2.59	96	J998743	16	0.13	172	1.10	0.35	1.39	
27.00	29.89	2.89	LST	DCA	2.36	82	J998744	16	0.07	372	0.62	0.20	3.17	
29.89	32.00	2.11	FLT		1.48	70	J998745	16	0.37	1550	4.29	1.47	9.32	
32.00	33.53	1.53	FLT		0.87	57	J998747	16	1.39	985	19.90	5.22	71.40	
33.53	35.05	1.52	FLT		0.72	47	J998748	16	1.17	909	15.90	2.14	71.70	
35.05	36.58	1.53	FLT		1.28	84	J998750	16	0.69	233	10.55	2.14	46.70	
36.58	37.71	1.13	FLT		0.94	83	J998751	16	1.64	942	38.90	5.89	94.90	
37.71	39.62	1.91	LST	DCA	1.46	76	J998752	16	0.04	414	0.56	0.41	3.21	
39.62	41.65	2.03	LST	DCA	1.29	64	J998753	16	1.20	329	23.20	4.63	48.00	
41.65	42.67	1.02	LST	DCA	1.02	100	J998754	16	0.90	10000	17.80	2.29	24.50	
42.67	45.00	2.33	LST	DCA	1.60	69	J998755	16	0.10	1470	0.74	0.18	1.44	
43.00	47.24	4.24	LST	DCA	1.51	36	J998756	16	0.92	12750	9.74	2.97	20.20	
47.24	49.00	1.76	LST	DCA	1.41	80	J998758	16	1.78	9540	11.45	1.54	28.50	
49.00	51.82	2.82	LST	DCA	2.43	86	J998759	16	0.08	4180	0.89	0.59	2.09	
51.82	54.86	3.04	LST	DCA	2.63	87	J998760	16	0.04	615	0.61	0.16	1.50	
54.86	57.91	3.05	LST	DCA	2.56	84	J998762	16	0.02	852	0.29	0.09	0.52	
57.91	59.44	1.53	LST	DCA	1.29	84	J998763	16	0.02	600	0.28	0.13	0.71	
59.44	61.00	1.56	LST	DCA	1.18	76	J998764	17	0.09	2500	2.02	0.67	1.64	
61.00	62.00	1.00	LST	DCA	0.75	75	J998765	17	0.21	5320	2.26	0.53	10.45	
62.00	64.01	2.01	LST	DCA	1.90	95	J998766	17	0.02	1300	0.16	0.12	0.32	
64.01	67.06	3.05	LST	DCA	2.56	84	J998767	17	0.01	1920	0.13	0.13	0.21	
67.06	70.10	3.04	LST	DCA	2.57	85	J998768	17	0.03	3580	0.37	0.32	0.47	
70.10	71.63	1.53	LST	DCA	1.09	71	J998769	17	0.07	964	1.04	0.17	0.91	
71.63	73.15	1.52	LST	DCA	1.41	93	E146464	17	0.58	1610	6.92	0.90	8.48	**Change in sequence**

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m	Recovery (%	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
73.15	74.68	1.53	LST	DCA	1.29	84	E146465	17	0.04	1870	2.08	0.37	1.10	
74.68	77.72	3.04	LST	DCA	2.53	83	E146466	17	0.03	1080	0.49	0.13	1.01	
77.72	79.25	1.53	LST	DCA	1.15	75	E146467	17	0.71	1600	11.90	1.52	14.95	
79.25	80.77	1.52	LST	DCA	1.29	85	E146469	17	2.28	10350	40.10	9.06	55.10	
80.77	83.32	2.55	LST	DCA	2.55	100	E146470	17	0.13	627	1.95	0.60	2.92	
83.82	86.29	2.47	LST	DCA	1.98	80	E146471	17	0.10	1020	2.03	0.31	1.95	
86.29	88.49	2.20	LST	DCA	1.91	87	E146472	17	0.21	12450	2.28	1.99	3.36	
88.49	91.44	2.95	LST	DCA	2.17	74	E146474	18	0.03	572	0.13	0.07	0.21	
91.44	94.49	3.05	LST	DCA	2.45	80	E146475	18	0.02	1930	0.61	0.24	0.46	
94.49	97.54	3.05	LST	DCA	2.02	66	E146476	18	0.14	1600	6.44	0.31	2.05	
97.54	99.06	1.52	LST	DCA	1.31	86	E146477	18	0.06	9140	0.69	0.62	0.95	
99.06	102.11	3.05	LST	DCA	2.76	90	E146478	18	0.01	532	0.27	0.05	0.18	
102.11	105.00	2.89	LST	DCA	2.57	89	E146479	18	0.02	1220	0.13	0.11	0.19	
105.00	108.00	3.00	LST	DCA	2.88	96	E146480	18	0.05	1700	0.63	0.19	0.75	
108.00	111.00	3.00	LST	DCA	2.85	95	E146481	18	0.07	1000	1.02	2.96	2.94	
111.00	113.00	2.00	LST	DCA	1.94	97	E146482	18	0.04	194	1.55	2.01	1.56	
113.00	116.00	3.00	LST	DCA	2.84	95	E146483	18	0.12	8120	1.94	0.85	3.53	
116.00	119.00	3.00	LST	DCA	2.73	91	E146484	18	0.15	517	2.69	0.19	2.02	
119.00	122.00	3.00	LST	DCA	2.86	95	E146486	18	0.14	686	3.64	0.25	2.28	
122.00	124.00	2.00	LST	DCA	1.94	97	E146487	18	0.03	825	3.67	0.19	1.39	
124.00	126.00	2.00	LST	DCA	1.76	88	E146489	18	0.09	5650	30.30	1.73	10.50	
126.00	128.02	2.02	LST	DCA	1.93	96	E146490	18	0.10	2070	1.68	0.38	1.84	
128.02	129.54	1.52	LST	DCA	1.34	88	E146492	18	0.10	12550	5.22	1.05	3.43	
129.54	130.88	1.34	LST	DCA	1.27	95	E146493	18	0.50	29800	28.90	3.42	26.80	
130.88	132.00	1.12	LST	DCA	1.00	89	E146495	18	0.14	1800	0.95	0.57	1.88	
132.00	134.11	2.11	LST	DCA	1.92	91	E146496	18	0.07	2960	1.10	0.78	1.96	
134.11	137.00	2.89	LST	DCA	2.55	88	E146497	18	0.19	1020	2.59	0.31	4.73	
137.00	138.58	1.58	LST	DCA	1.53	97	E146498	18	0.79	643	9.57	0.72	21.20	
138.59	140.21	1.62	LST	DCA	1.62	100	E146499	18	0.07	99	2.10	0.16	12.25	
140.21	142.16	1.95	LST	DCA	1.95	100	E146500	18	0.18	101	2.78	0.32	7.00	
142.16	144.78	2.62	LST	DCA	2.45	94	E146501	18	0.03	602	1.95	0.29	3.91	
144.78	147.83	3.05	LST	DCA	2.88	94	E146502	18	0.24	1120	3.69	0.45	6.89	
147.83	149.35	1.52	LST	DCA	1.44	95	E146503	18	0.07	1120	2.21	0.47	3.60	

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m	Recovery (%	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
149.35	152.40	3.05	LST	DCA	2.79	91	E146504	18	0.02	368	0.87	0.14	1.41	
152.40	155.45	3.05	LST	DCA	2.87	94	E146505	18	0.02	175	0.94	0.19	1.57	
155.45	158.50	3.05	LST	DCA	2.90	95	E146507	18	0.17	519	3.14	0.43	7.26	
158.50	161.54	3.04	LST	DCA	2.85	94	E146508	18	0.04	917	1.14	0.29	2.73	
161.54	164.49	2.95	LST	DCA	2.87	97	E146509	18	0.06	1960	1.59	0.44	6.26	
164.59	166.45	1.86	LST	DCA	1.77	95	E146510	19	0.15	1630	7.81	0.93	18.75	
166.45	167.86	1.41	LST	DCA	1.18	84	E146511	19	0.18	1310	16.80	1.70	26.30	
167.86	170.69	2.83	LST	DCA	2.60	92	E146513	19	0.04	5990	1.71	0.48	5.52	
170.69	173.44	2.75	LST	DCA	2.75	100	E146514	19	0.08	2360	2.24	0.48	3.54	
173.74	176.78	3.04	LST	DCA	2.90	95	E146515	19	0.02	264	1.13	0.22	2.55	
176.78	178.15	1.37	LST	DCA	1.22	89	E146516	19	0.08	9200	7.08	0.70	3.36	
178.15	181.00	2.85	LST	DCA	2.67	94	E146517	19	0.01	6620	0.25	0.42	0.46	
181.00	184.00	3.00	LST	DCA	3.00	100	E146518	19	0.01	862	0.37	0.11	0.93	
184.00	187.00	3.00	LST	DCA	2.81	94	E146519	19	0.02	629	1.80	0.13	1.30	
187.00	189.00	2.00	LST	DCA	1.95	98	E146520	19	0.02	312	0.47	0.13	0.88	
189.00	191.05	2.05	LST	DCA	2.05	100	E146522	19	<0.01	32	0.30	0.07	0.62	
191.05	193.55	2.50	LST	DCA	2.32	93	E146523	19	0.03	1740	1.80	0.16	4.25	
193.55	196.00	2.45	LST	DCA	2.45	100	E146524	19	0.13	480	3.90	0.17	7.27	
196.00	198.00	2.00	LST	DCA	1.80	90	E146526	19	0.14	949	8.18	0.40	13.10	
198.00	200.00	2.00	LST	DCA	1.84	92	E146527	19	0.09	163	6.33	0.30	12.35	
200.00	202.00	2.00	LST	DCA	2.00	100	E146528	19	0.03	134	6.05	0.14	10.10	
202.00	203.00	1.00	LST	DCA	0.87	87	E146529	19	0.40	4310	28.70	1.36	39.10	
203.00	204.00	1.00	LST	DCA	0.96	96	E146530	19	0.18	2200	24.40	1.19	34.30	
204.00	206.00	2.00	LST	DCA	1.99	100	E146532	19	0.17	744	3.30	0.27	5.90	
206.00	209.00	3.00	LST	DCA	2.87	96	E146533	19	0.12	398	2.45	0.14	3.40	
209.00	212.00	3.00	LST	DCA	2.93	98	E146534	19	0.10	1460	1.86	0.28	4.34	
212.00	215.00	3.00	LST	DCA	2.82	94	E146535	19	0.09	735	2.09	0.22	4.70	
215.00	218.00	3.00	LST	DCA	3.00	100	E146536	19	0.14	2370	2.70	0.27	4.90	
218.00	219.95	1.95	LST	DCA	1.75	90	E146537	19	0.03	1060	1.14	0.12	1.63	
219.95	220.96	1.01	LST	DCA	0.92	91	E146538	19	0.17	41300	6.84	0.65	6.65	
220.96	222.00	1.04	LST	DCA	0.99	95	E146648	19	0.01	16150	0.95	0.20	4.54	**Change in sequence**
222.00	224.00	2.00	LST	DCA	1.90	95	E146539	19	0.04	3700	1.31	0.27	2.70	**Change in sequence**
224.00	225.00	1.00	LST	DCA	1.00	100	E146541	19	0.07	27700	2.47	2.07	9.41	**Change in sequence**

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m	Recovery (%	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
225.00	228.00	3.00	LST	DCA	3.00	100	E146542	19	0.07	2520	2.08	0.35	4.09	
228.00	230.00	2.00	LST	DCA	1.71	86	E146543	19	0.01	2320	0.67	0.27	1.34	
230.00	233.00	3.00	LST	DCA	2.94	98	E146544	19	0.01	3080	0.40	0.32	0.88	
233.00	235.00	2.00	LST	DCA	1.83	92	E146545	20	0.02	3340	1.54	0.39	2.74	
235.00	239.99	4.99	LST	DCA	1.73	35	E146546	20	0.12	1680	3.20	0.35	5.08	
236.99	240.00	3.01	LST	DCA	3.01	100	E146547	20	0.16	1800	3.06	0.29	5.28	
240.00	243.00	3.00	LST	DCA	3.00	100	E146548	20	0.21	5950	3.99	0.64	8.29	
243.00	246.00	3.00	LST	DCA	2.89	96	E146549	20	0.43	2820	4.60	0.68	14.40	
246.00	249.00	3.00	LST	DCA	2.85	95	E146550	20	0.48	5190	4.26	0.60	9.85	
249.00	252.00	3.00	LST	DCA	2.93	98	E146551	20	0.25	5180	3.76	0.69	9.87	
252.00	254.00	2.00	LST	DCA	1.85	93	E146552	20	0.31	5960	5.14	1.22	14.10	
254.00	256.00	2.00	LST	DCA	1.96	98	E146553	20	0.25	4070	2.57	0.52	5.34	
256.00	258.00	2.00	LST	DCA	1.90	95	E146554	20	0.64	16700	10.50	0.66	7.35	
258.00	260.60	2.60	LST	DCA	2.35	90	E146555	20	0.49	1480	20.20	0.27	10.20	
-	-	-	-	-	-	-	J998739	16	<0.01	15	0.02	<0.05	0.07	**Blank**
-	-	-	-	-	-	-	J998746	16	2.38	26300	0.03	19.00	0.11	**Standard OS-1**
33.53	35.05	1.52	FLT		0.72	47	J998749	16	1.24	1080	15.10	2.35	74.80	**Duplicate of J998748**
-	-	-	-	-	-	-	J998757	16	16.00	523	0.41	41.10	4.61	**Standard OS-2**
-	-	-	-	-	-	-	J998761	16	0.01	51	1.02	0.12	0.27	**Blank**
-	-	-	-	-	-	-	E146468	17	15.70	1300	6.80	165.00	3.69	**Standard OS-4**
86.29	88.49	2.20	LST	DCA	1.91	87	E146473	17	0.23	16000	2.69	1.37	3.67	**Duplicate of E146472**
-	-	-	-	-	-	-	E146649	17	0.01	39	0.01	<0.05	0.02	**Blank**
-	-	-	-	-	-	-	E146485	18	2.34	165.5	1.94	157.50	11.10	**Standard OS-3**
122.00	124.00	2.00	LST	DCA	1.94	97	E146488	18	0.06	860	5.77	0.28	2.58	**Duplicate**
-	-	-	-	-	-	-	E146491	18	<0.01	12	0.02	0.06	0.03	**Blank**
-	-	-	-	-	-	-	E146494	18	15.35	1340	5.89	157.00	3.64	**Standard OS-4**
-	-	-	-	-	-	-	E146506	18	<0.01	<5	0.01	0.09	0.03	**Blank**
-	-	-	-	-	-	-	E146512	19	<0.01	7	0.01	0.06	0.07	**Blank**
-	-	-	-	-	-	-	E146521	19	2.36	166	1.92	157.00	13.20	**Standard OS-3**
-	-	-	-	-	-	-	E146525	19	0.10	827	4.13	0.23	8.46	**Duplicate**
-	-	-	-	-	-	-	E146531	19	<0.01	16	0.08	<0.05	0.16	**Blank**
-	-	-	-	-	-	-	E146540	19	2.30	184	1.81	155.50	12.65	**Standard OS-3**

GEOTECHNICAL LOG

HOLE: OS-10-07

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Colour	Comments
6.10	7.62	1.52	1.05	69	0.24	16	MS	MW		
7.62	9.14	1.52	1.10	72	0.32	21	MS	MW		
9.14	10.67	1.53	1.30	85	1.36	89	MS	MW		
10.67	12.19	1.52	1.32	87	0.21	14	MS	MW		
12.19	13.72	1.53	1.02	67	0.00	0	W	MW		
13.72	15.24	1.52	1.40	92	0.64	42	MS	MW		
15.24	16.76	1.52	1.29	85	0.40	26	W	MW		
16.76	18.29	1.53	1.52	99	0.60	39	MS	MW		
18.29	19.81	1.52	1.48	97	1.02	67	MS	MW		
19.81	21.34	1.53	1.46	95	0.52	34	MS	MW		
21.34	22.86	1.52	1.37	90	0.40	26	MS	MW		
22.86	24.38	1.52	1.33	88	0.49	32	MS	MW		
24.38	25.91	1.53	1.43	93	0.64	42	MS	MW		
25.91	27.43	1.52	1.45	95	0.39	26	MS	MW		
27.43	28.96	1.53	1.14	75	0.25	16	MS	MW		
28.96	30.48	1.52	1.31	86	0.20	13	MS	MW		
30.48	32.00	1.52	0.80	53	0.00	0	MS	MW		
32.00	33.53	1.53	0.95	62	0.00	0	W	EW		
33.53	35.05	1.52	0.97	64	0.00	0	W	EW		
35.05	36.58	1.53	1.30	85	0.32	21	S	MW		
36.58	38.10	1.52	1.17	77	0.00	0	W	EW		
38.10	39.62	1.52	1.36	89	0.45	30	S	MW		
39.62	41.15	1.53	0.95	62	0.24	16	W	EW		
41.15	42.67	1.52	1.30	86	0.42	28	W	EW		
42.67	44.20	1.53	0.94	61	0.00	0	W	EW		
44.20	45.72	1.52	1.35	89	0.25	16	W	EW		
45.72	47.24	1.52	0.72	47	0.00	0	W	EW		
47.24	48.77	1.53	1.24	81	0.35	23	W	EW		
48.77	50.29	1.52	1.30	86	0.47	31	W	EW		
50.29	51.82	1.53	1.36	89	0.60	39	MS	MW		
51.82	53.34	1.52	1.08	71	0.00	0	MS	MW		
53.34	54.86	1.52	1.41	93	0.75	49	MS	MW		
54.86	56.39	1.53	1.13	74	0.48	31	MS	MW		
56.39	57.91	1.52	1.28	84	0.29	19	MS	MW		
57.91	59.44	1.53	0.80	52	0.11	7	W	EW		
59.44	60.96	1.52	1.17	77	0.10	7	MS	MW		
60.96	62.48	1.52	1.27	84	0.32	21	MS	MW		
62.48	64.01	1.53	1.46	95	0.61	40	MS	MW		
64.01	65.53	1.52	1.30	86	0.32	21	MS	MW		
65.53	67.06	1.53	1.29	84	0.43	28	MS	MW		
67.06	68.58	1.52	1.26	83	0.14	9	MS	MW		
68.58	70.10	1.52	1.49	98	0.65	43	MS	MW		
70.10	71.63	1.53	1.27	83	0.39	25	MS	MW		70.10-70.25 m soft.
71.63	73.15	1.52	1.51	99	0.76	50	MS	FR		
73.15	74.68	1.53	1.45	95	0.47	31	MS	MW		
74.68	76.20	1.52	1.05	69	0.00	0	MS	MW		
76.20	77.72	1.52	1.18	78	0.00	0	MS	MW		
77.72	79.25	1.53	0.53	35	0.00	0	S	W		
79.25	80.77	1.52	1.05	69	0.34	22	MS	MW		
80.77	82.30	1.53	1.30	85	0.44	29	MS	MW		
82.30	83.82	1.52	1.21	80	0.11	7	MS	MW		

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Colour	Comments
83.82	85.34	1.52	1.34	88	0.21	14	MS	MW		
85.34	86.87	1.53	1.24	81	0.28	18	MS	MW		
86.87	88.39	1.52	1.35	89	0.65	43	MS	MW		
88.39	89.92	1.53	1.20	78	0.00	0	MS	W		
89.92	91.44	1.52	1.24	82	0.22	14	MS	W		
91.44	92.96	1.52	1.23	81	0.00	0	MS	MW		
92.96	94.49	1.53	1.34	88	0.42	27	MS	W		
94.49	96.01	1.52	1.10	72	0.10	7	MS	MW		
96.01	97.54	1.53	0.65	42	0.00	0	MS	W		
97.54	99.06	1.52	1.28	84	0.29	19	W	W		
99.06	100.58	1.52	1.30	86	0.25	16	S	W		98.70 m to 99.00 m EW
100.58	102.11	1.53	1.44	94	0.46	30	MS	MW		
102.11	103.63	1.52	1.38	91	0.49	32	MS	MW		
103.63	105.16	1.53	1.49	97	0.74	48	MS	MW		
105.16	106.68	1.52	1.50	99	1.02	67	MS	MW		
106.68	108.20	1.52	1.47	97	0.47	31	MS	MW		
108.20	109.73	1.53	1.39	91	0.41	27	MS	MW		
109.73	111.25	1.52	1.52	100	0.76	50	MS	MW		
111.25	112.78	1.53	1.53	100	0.49	32	MS	MW		
112.78	114.30	1.52	1.50	99	1.01	66	MS	MW		
114.30	115.82	1.52	1.50	99	0.60	39	MS	MW		
115.82	117.35	1.53	1.50	98	0.90	59	MS	MW		
117.35	118.87	1.52	1.40	92	0.36	24	MS	MW		
118.87	120.40	1.53	1.47	96	0.90	59	MS	MW		
120.40	121.92	1.52	1.48	97	0.69	45	MS	MW		
121.92	123.44	1.52	1.46	96	0.57	38	MS	MW		
123.44	124.97	1.53	1.43	93	0.74	48	MS	MW		
124.97	126.49	1.52	1.48	97	0.39	26	MS	MW		
126.49	128.02	1.53	1.41	92	0.72	47	MS	MW		
128.02	129.54	1.52	1.42	93	0.57	38	MS	MW		
129.54	131.06	1.52	1.48	97	0.94	62	MS	MW		
131.06	132.59	1.53	1.42	93	0.60	39	MS	MW		
132.59	134.11	1.52	1.37	90	0.86	57	MS	MW		
134.11	135.64	1.53	1.49	97	0.45	29	MS	MW		
135.64	137.16	1.52	1.30	86	1.06	70	MS	MW		
137.16	138.68	1.52	1.47	97	1.04	68	MS	MW		
138.68	140.21	1.53	1.46	95	1.11	73	MS	MW		139.20-139.85m Py
140.21	141.73	1.52	1.52	100	1.23	81	MS	MW		
141.73	143.27	1.54	1.50	97	0.80	52	MS	MW		
143.27	144.78	1.51	1.47	97	1.03	68	MS	MW		
144.78	146.30	1.52	1.50	99	0.64	42	MS	MW		
146.30	147.83	1.53	1.43	93	0.47	31	MS	MW		
147.83	149.35	1.52	1.37	90	0.90	59	MS	MW		
149.35	150.88	1.53	1.49	97	0.58	38	MS	MW		
150.88	152.40	1.52	1.45	95	0.75	49	MS	MW		
152.40	153.92	1.52	1.30	86	0.35	23	MS	MW		
153.92	155.45	1.53	1.48	97	0.61	40	MS	MW		
155.45	156.97	1.52	1.36	89	0.44	29	MS	MW		
156.97	158.50	1.53	1.31	86	0.40	26	MS	MW		
158.50	160.02	1.52	1.33	87	0.86	57	MS	MW		
160.02	161.54	1.52	1.37	90	0.51	34	MS	MW		
161.54	163.07	1.53	1.02	67	0.31	20	MS	MW		
163.07	164.59	1.52	1.29	85	0.63	41	MS	MW		

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Colour	Comments
164.59	166.12	1.53	1.39	91	0.66	43	MS	MW		
166.12	167.64	1.52	1.42	93	0.86	57	MS	MW		
167.64	169.16	1.52	1.47	97	1.22	80	MS	MW		
169.16	170.69	1.53	1.33	87	0.48	31	MS	MW		
170.69	172.21	1.52	1.49	98	0.79	52	MS	MW		
172.21	173.74	1.53	1.47	96	0.75	49	MS	MW		
173.74	175.26	1.52	1.48	97	0.68	45	MS	MW		
175.26	176.78	1.52	1.49	98	0.88	58	MS	MW		
176.78	178.31	1.53	1.46	95	0.40	26	MS	MW		
178.31	179.83	1.52	1.35	89	0.74	49	MS	MW		
179.83	181.36	1.53	1.49	97	0.76	50	MS	MW		
181.36	182.88	1.52	1.51	99	0.69	45	MS	MW		
182.88	184.40	1.52	1.44	95	0.70	46	MS	MW		
184.40	185.93	1.53	1.49	97	0.77	50	MS	MW		
185.93	187.45	1.52	1.47	97	0.54	36	MS	MW		
187.45	188.98	1.53	1.44	94	0.88	58	MS	MW		
188.98	190.50	1.52	1.51	99	0.87	57	MS	MW		
190.50	192.02	1.52	1.43	94	0.92	61	MS	MW		
192.02	193.55	1.53	1.37	90	0.54	35	MS	MW		
193.55	195.07	1.52	1.46	96	0.60	39	MS	MW		
195.07	196.60	1.53	1.44	94	0.69	45	MS	MW		
196.60	198.12	1.52	1.42	93	0.49	32	MS	MW		
198.12	199.64	1.52	1.23	81	0.80	53	MS	MW		
199.64	201.17	1.53	1.49	97	1.09	71	MS	MW		
201.17	202.69	1.52	1.40	92	0.70	46	MS	MW		
202.69	204.22	1.53	1.48	97	0.85	56	MS	MW		
204.22	205.74	1.52	1.49	98	1.08	71	MS	MW		
205.74	207.26	1.52	1.43	94	1.03	68	MS	MW		
207.26	208.79	1.53	1.51	99	1.09	71	MS	MW		
208.79	210.31	1.52	1.49	98	1.05	69	MS	MW		
210.31	211.84	1.53	1.42	93	0.81	53	MS	MW		
211.84	213.36	1.52	1.36	89	0.70	46	MS	MW		
213.36	214.88	1.52	1.46	96	1.28	84	MS	MW		
214.88	216.41	1.53	1.53	100	1.06	69	MS	MW		
216.41	217.93	1.52	1.52	100	1.08	71	MS	MW		
217.93	219.46	1.53	1.27	83	0.11	7	MS	MW		
219.46	220.98	1.52	1.41	93	0.80	53	MS	MW		
220.98	222.50	1.52	1.47	97	0.92	61	MS	MW		
222.50	224.03	1.53	1.42	93	0.62	41	MS	MW		
224.03	225.55	1.52	1.51	99	1.00	66	MS	MW		
225.55	227.08	1.53	1.47	96	0.60	39	MS	MW		
227.08	228.60	1.52	1.41	93	0.79	52	MS	MW		
228.60	230.12	1.52	1.49	98	0.95	62	MS	MW		
230.12	231.65	1.53	1.52	99	0.97	63	MS	MW		
231.65	233.17	1.52	1.52	100	0.90	59	MS	MW		
233.17	234.70	1.53	1.35	88	0.91	59	MS	MW		
234.70	236.22	1.52	1.51	99	0.97	64	MS	MW		
236.22	237.74	1.52	1.27	84	0.63	41	MS	MW		
237.74	239.27	1.53	1.53	100	0.82	54	MS	MW		
239.27	240.79	1.52	1.49	98	0.67	44	MS	MW		
240.79	242.32	1.53	1.52	99	0.59	39	MS	MW		
242.32	243.84	1.52	1.47	97	0.45	30	MS	MW		
243.84	245.36	1.52	1.51	99	0.74	49	MS	MW		

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Colour	Comments
245.36	246.89	1.53	1.44	94	0.86	56	MS	MW		
246.89	248.41	1.52	1.42	93	0.75	49	MS	MW		
248.41	249.94	1.53	1.47	96	0.97	63	MS	MW		
249.94	251.46	1.52	1.42	93	0.77	51	MS	MW		
251.46	252.98	1.52	1.46	96	0.65	43	MS	MW		
252.98	254.51	1.53	1.45	95	0.32	21	MS	MW		
254.51	256.03	1.52	1.38	91	0.30	20	MS	MW		
256.03	257.56	1.53	1.31	86	0.46	30	MS	MW		
257.56	259.08	1.52	1.29	85	0.10	7	MS	MW		
259.08	260.60	1.52	1.43	94	0.73	48	MS	MW		
260.60	EOH									

MAGNETIC SUSCEPTIBILITY LOG

HOLE:

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
1.00	OVB		N/A	
2.00	OVB		N/A	
3.00	OVB		N/A	
4.00	OVB		N/A	
5.00	OVB		N/A	
6.00	LST	DCA	0	
7.00	LST	DCA	0	
8.00	LST	DCA	0	
9.00	LST	DCA	0	
10.00	LST	DCA	0	
11.00	LST	DCA	0	
12.00	LST	DCA	0	
13.00	LST	DCA	0	
14.00	LST	DCA	0	
15.00	ARG		0	
16.00	ARG		0	
17.00	LST	DCA	0	
18.00	LST	DCA	0	
19.00	LST	DCA	0	
20.00	LST	DCA	0	
21.00	LST	DCA	0	
22.00	LST	DCA	0	
23.00	LST	DCA	0	
24.00	LST	DCA	0	
25.00	LST	DCA	0	
26.00	LST	DCA	0	
27.00	LST	DCA	0	
28.00	LST	DCA	0	
29.00	LST	DCA	0	
30.00	FLT		0	
31.00	FLT		0	
32.00	FLT		0	
33.00	FLT		0	
34.00	FLT		0	
35.00	FLT		0	
36.00	FLT		0	
37.00	FLT		0	
38.00	LST	DCA	0	
39.00	LST	DCA	0	
40.00	LST	DCA	0	
41.00	LST	DCA	0	
42.00	LST	DCA	0	
43.00	LST	DCA	0	
44.00	LST	DCA	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
45.00	LST	DCA	0	
46.00	LST	DCA	0	
47.00	LST	DCA	0	
48.00	LST	DCA	0	
49.00	LST	DCA	0	
50.00	LST	DCA	0	
51.00	LST	DCA	0	
52.00	LST	DCA	0	
53.00	LST	DCA	0	
54.00	LST	DCA	0	
55.00	LST	DCA	0	
56.00	LST	DCA	0	
57.00	LST	DCA	0	
58.00	LST	DCA	0	
59.00	LST	DCA	0	
60.00	LST	DCA	0	
61.00	LST	DCA	0	
62.00	LST	DCA	0	
63.00	LST	DCA	0	
64.00	LST	DCA	0	
65.00	LST	DCA	0	
66.00	LST	DCA	0	
67.00	LST	DCA	0	
68.00	LST	DCA	0	
69.00	LST	DCA	0	
70.00	LST	DCA	0	
71.00	LST	DCA	0	
72.00	LST	DCA	0	
73.00	LST	DCA	0	
74.00	LST	DCA	0	
75.00	LST	DCA	0	
76.00	LST	DCA	0	
77.00	LST	DCA	0	
78.00	LST	DCA	0	
79.00	LST	DCA	0	
80.00	LST	DCA	0	
81.00	LST	DCA	0	
82.00	LST	DCA	0	
83.00	LST	DCA	0	
84.00	LST	DCA	0	
85.00	LST	DCA	0	
86.00	LST	DCA	0	
87.00	LST	DCA	0	
88.00	LST	DCA	0	
89.00	LST	DCA	0	
90.00	LST	DCA	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
91.00	LST	DCA	0	
92.00	LST	DCA	0	
93.00	LST	DCA	0	
94.00	LST	DCA	0	
95.00	LST	DCA	0	
96.00	LST	DCA	0	
97.00	LST	DCA	0	
98.00	LST	DCA	0	
99.00	LST	DCA	0	
100.00	LST	DCA	0	
101.00	LST	DCA	0	
102.00	LST	DCA	0	
103.00	LST	DCA	0	
104.00	LST	DCA	0	
105.00	LST	DCA	0	
106.00	LST	DCA	0	
107.00	LST	DCA	0	
108.00	LST	DCA	0	
109.00	LST	DCA	0	
110.00	LST	DCA	0	
111.00	LST	DCA	0	
112.00	LST	DCA	0	
113.00	LST	DCA	0	
114.00	LST	DCA	0	
115.00	LST	DCA	0	
116.00	LST	DCA	0	
117.00	LST	DCA	0	
118.00	LST	DCA	0	
119.00	LST	DCA	0	
120.00	LST	DCA	0	
121.00	LST	DCA	0	
122.00	LST	DCA	0	
123.00	LST	DCA	0	
124.00	LST	DCA	0	
125.00	LST	DCA	0	
126.00	LST	DCA	0	
127.00	LST	DCA	0	
128.00	LST	DCA	0	
129.00	LST	DCA	0	
130.00	LST	DCA	0	
131.00	LST	DCA	0	
132.00	LST	DCA	0	
133.00	LST	DCA	0	
134.00	LST	DCA	0	
135.00	LST	DCA	0	
136.00	LST	DCA	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
137.00	LST	DCA	0	
138.00	LST	DCA	0	
139.00	LST	DCA	0	
140.00	LST	DCA	0	
141.00	LST	DCA	0	
142.00	LST	DCA	0	
143.00	LST	DCA	0	
144.00	LST	DCA	0	
145.00	LST	DCA	0	
146.00	LST	DCA	0	
147.00	LST	DCA	0	
148.00	LST	DCA	0	
149.00	LST	DCA	0	
150.00	LST	DCA	0	
151.00	LST	DCA	0	
152.00	LST	DCA	0	
153.00	LST	DCA	0	
154.00	LST	DCA	0	
155.00	LST	DCA	0	
156.00	LST	DCA	0	
157.00	LST	DCA	0	
158.00	LST	DCA	0	
159.00	LST	DCA	0	
160.00	LST	DCA	0	
161.00	LST	DCA	0	
162.00	LST	DCA	0	
163.00	LST	DCA	0	
164.00	LST	DCA	0	
165.00	LST	DCA	0	
166.00	LST	DCA	0	
167.00	LST	DCA	0	
168.00	LST	DCA	0	
169.00	LST	DCA	0	
170.00	LST	DCA	0	
171.00	LST	DCA	0	
172.00	LST	DCA	0	
173.00	LST	DCA	0	
174.00	LST	DCA	0	
175.00	LST	DCA	0	
176.00	LST	DCA	0	
177.00	LST	DCA	0	
178.00	LST	DCA	0	
179.00	LST	DCA	0	
180.00	LST	DCA	0	
181.00	LST	DCA	0	
182.00	LST	DCA	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
183.00	LST	DCA	0	
184.00	LST	DCA	0	
185.00	LST	DCA	0	
186.00	LST	DCA	0	
187.00	LST	DCA	0	
188.00	LST	DCA	0	
189.00	LST	DCA	0	
190.00	LST	DCA	0	
191.00	LST	DCA	0	
192.00	LST	DCA	0	
193.00	LST	DCA	0	
194.00	LST	DCA	0	
195.00	LST	DCA	0	
196.00	LST	DCA	0	
197.00	LST	DCA	0	
198.00	LST	DCA	0	
199.00	LST	DCA	0	
200.00	LST	DCA	0	
201.00	LST	DCA	0	
202.00	LST	DCA	0	
203.00	LST	DCA	0	
204.00	LST	DCA	0	
205.00	LST	DCA	0	
206.00	LST	DCA	0	
207.00	LST	DCA	0	
208.00	LST	DCA	0	
209.00	LST	DCA	0	
210.00	LST	DCA	0	
211.00	LST	DCA	0	
212.00	LST	DCA	0	
213.00	LST	DCA	0	
214.00	LST	DCA	0	
215.00	LST	DCA	0	
216.00	LST	DCA	0	
217.00	LST	DCA	0	
218.00	LST	DCA	0	
219.00	LST	DCA	0	
220.00	LST	DCA	0	
221.00	LST	DCA	0	
222.00	LST	DCA	0	
223.00	LST	DCA	0	
224.00	LST	DCA	0	
225.00	LST	DCA	0	
226.00	LST	DCA	0	
227.00	LST	DCA	0	
228.00	LST	DCA	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
229.00	LST	DCA	0	
230.00	LST	DCA	0	
231.00	LST	DCA	0	
232.00	LST	DCA	0	
233.00	LST	DCA	0	
234.00	LST	DCA	0	
235.00	LST	DCA	0	
236.00	LST	DCA	0	
237.00	LST	DCA	0	
238.00	LST	DCA	0	
239.00	LST	DCA	0	
240.00	LST	DCA	0	
241.00	LST	DCA	0	
242.00	LST	DCA	0	
243.00	LST	DCA	0	
244.00	LST	DCA	0	
245.00	LST	DCA	0	
246.00	LST	DCA	0	
247.00	LST	DCA	0	
248.00	LST	DCA	0	
249.00	LST	DCA	0	
250.00	LST	DCA	0	
251.00	LST	DCA	0	
252.00	LST	DCA	0	
253.00	LST	DCA	0	
254.00	LST	DCA	0	
255.00	LST	DCA	0	
256.00	LST	DCA	0	
257.00	LST	DCA	0	
258.00	LST	DCA	0	
259.00	LST	DCA	0	
260.00	LST	DCA	0	EOH

BOX LOG

HOLE: OS-10-07

BOX	FROM (m)	TO (m)
1	6.10	9.14
2	9.14	12.49
3	12.49	16.04
4	16.04	20.00
5	20.00	23.93
6	23.96	27.65
7	27.65	31.70
8	31.70	35.35
9	35.35	38.60
10	38.60	42.42
11	42.42	45.72
12	45.72	49.00
13	49.00	52.42
14	52.42	55.80
15	55.80	59.42
16	59.42	62.97
17	62.97	66.94
18	66.94	70.59
19	70.59	74.58
20	54.58	78.08
21	78.08	82.15
22	82.15	85.90
23	85.90	89.92
24	89.92	93.24
25	93.24	97.00
26	97.00	100.58
27	100.58	104.50
28	104.50	108.45
29	108.45	112.40
30	112.40	116.62
31	116.62	120.75
32	120.75	124.97
33	124.97	128.72
34	128.72	132.59
35	132.59	136.38

BOX	FROM (m)	TO (m)
36	136.38	140.21
37	140.21	144.37
38	144.37	148.48
39	148.48	152.40
40	152.40	156.55
41	156.55	160.40
42	160.40	164.37
43	164.37	168.27
44	168.27	172.61
45	142.61	176.78
46	176.78	180.87
47	180.87	185.07
48	185.07	189.17
49	189.17	193.30
50	193.30	197.41
51	197.41	201.17
52	201.17	205.11
53	205.11	109.20
54	209.20	213.36
55	213.36	217.46
56	217.46	221.38
57	221.38	225.55
58	225.55	229.81
59	229.81	233.95
60	233.95	238.24
61	238.24	242.32
62	242.32	246.43
63	246.43	250.44
64	250.44	254.53
65	254.53	258.75
66	258.75	260.60
260.60 m - E.O.H.		

NADALEEN TREND PROJECT

Grid East	Grid North	Easting	Northing	Elev.	Depth (m)
		630732	7112560	1499	109.73

ZONE: Conrad

SECTION:

HOLE: **OS-10-08**

CLAIM: STEN 24

Contractor: Beaudoin

Drill: 5

Core size: NTW

Casing depth: 16.46 m out

Drilling dates: September 16, 2010 - September 18, 2010

Geology logged by: K. Unger

TARGET:

SURVEY

Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	220	-45.0	compass				
106.68	-	-42.5	acid				

SUMMARY

From (m)	To (m)	Interval	Unit	Comments
0.00	14.19	14.19	OVB	
14.19	27.51	13.32	MST	CLY altered
27.51	31.85	4.34	SHL	Dark brown-black intensely CLY altered.
31.85	35.05	3.20	LST	Intensely CLY altered.
35.05	41.35	6.30	LST	Intensely CLY altered interbedded LST/MST.
41.35	45.05	3.70	SHL	Intensely CLY altered.
45.05	49.61	4.56	LST	Intensely CLY altered with fair Rg mineralization.
49.61	67.41	17.80	GRT	Strongly CLY and DCB altered grit.
67.41	105.16	37.75	LST	Moderately CLY altered interbedded LST and grit.
105.16	109.73	4.57	LST	Interbedded LST and grit.
109.73	EOH			

SAMPLES

Numbers: E146414 - E146463

Total: 50

Batch: 20, 21

Date Sent:

Certificate: VA10147125, VA10147126

COMMENTS

109.73 m: The hole was ended because it was past the targeted depth. Also the drillers were encountering problems with water return and sticking rods, so the hole was terminated.

GEOLOGY LOG

HOLE: OS-10-08

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
0.00	14.19	14.19				OVB			Overburden - no recovery																		
14.19	27.51	13.32				MST	CLY	BD	Brown to medium grey, FG to CG, strongly clay altered, interbedded LST with DCA altered LST interbeds. Core is blocky to rubbly, becoming gritty where CLY alteration is strongest. Where core is competent, relict bedding textures are exhibited and appear deformed and is generally undulose and irregular. Narrow, irregular, late calcite stringers are seen throughout and fizz with HCl. Other soft, white structures don't fizz. Brown altered rock surrounds cloud-shaped masses of grey, weakly altered LST with white fracture filling structures.						s			CLY	s									
			15.15	17.55	2.40	LST	CLY		Grey to tan-brown, intensely CLY altered LST. The clay alteration obliterates all textures. A few non-altered blocks of competent core that are less CLY altered host both calcareous and non-calcareous C veinlets which run parallel to subparallel with each other. Core is generally very soft and fissile along a common plane near perpendicular to core axis. On fracture faces, core exhibits an argillic(?) appearance, is FG, soft and has a rounded surface. Weak yellow-orange rusty alteration intermittently occurs throughout.						s			CLY	i									
									Defined by a preferential fracture orientation (clay mineral orientation?), 65-85 degrees TCA.	FO	75																
									Narrow calcareous veinlets, 1-2 mm wide, oriented 20 degrees TCA and 180 degrees to FO, hosted in grey, weakly altered LST.	VT	20	180															
									White, non-calcareous fracture fills, primarily oriented 15-30 degrees TCA and 0 degrees to FO.	FR	25	0			i												
									A secondary orientation to white, non-calcareous fractures fills is between 15-30 degrees TCA and 180 degrees to FO.	FR	25	180			i												

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
27.51	31.85	4.34				SHL	CLY		Dark brown to black, FG, very soft, intensely CLY altered shale. Intermittent brick red masses of HEM alteration (?) are scattered throughout. Orange to rusty yellow alteration (FEC?) is exhibited variably on fracture faces. The core is very soft, fissile and exhibits a preferential fracture plane near perpendicular to the core axis (clay mineral orientation?). Core is blocky to rubbly throughout, becoming more rubbly/gritty below 34.48 m. Relict textures are obscured or obliterated by CLY alteration.									CLY	i									
																		HEM	t								
																		FEC	w								
									Defined by preferential fracturing, FO is oriented at 80 degrees TCA (clay mineral orientation?).	FO	80																
31.85	35.05	3.20				LST	CLY	BX	Brown to grey, FG to CG, variably BX, intensely CLY altered DCA LST. Textures are only visible where brown to rusty-yellow clay alteration hasn't obliterated them. These textures include wispy, undulose fabrics. Grey clay intermittently occurs throughout where clay-rich core is fractured.						s			CLY	i									
									FO is defined by clay alteration fabric and preferential fracturing, oriented 70-80 degrees TCA.	FO	75																
35.05	41.35	6.30				LST	CLY	BD	Variably brecciated light and dark grey DCA and CLY altered LST with green-yellow to brown muddy interbeds. The muddy interbeds are sharply defined by colour variations in the unit. Undulose, rounded, narrow bands of pale green, black and yellow are seen throughout and exhibit a near mylonitic(?) texture and are hosted in dark clay bands. Trace Rg is present within the dark grey, fissile core.						s			CLY	i		t							X
									FO is defined by a preferential fracturing and wispy alteration orientation measured at 70-85 degrees TCA.	FO	75																

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
41.35	45.05	3.70				SHL	CLY	BD	Black to brown to pale green, FG to MG, intensely CLY altered black shale with trace Om and Rg. Intervals of brown, clay altered MST/SST also occur. Core is generally very soft and sectile parting along common planes with ease. Where core is harder and competent, dark black and pale green core with rusty orange partings exhibit less intense CLY alteration. Trace Rg is present as irregular blebs <1 cm in size below the uCN. Yellow Om is present on fracture faces of black shale variably exhibiting green ASO alteration. The brown SST/MST layers lack arsenic sulphide mineralization. Both the uCN and lCN are sharp, defined by an abrupt colour change, though they are texturally obscured by alteration and cannot be measured for attitude. Om bands are oriented parallel to the FO.	CN							CLY	i	t	t						X
																		ASO	w							
									The foliation is defined by a preferential fracturing orientation, banded textures in competent core and clay/shale orientation, 60-75 degrees TCA.	FO	70															
45.05	49.61	4.56				LST	CLY	MX	Light to medium grey, FG to CG, variably BX, intensely CLY and DCA altered LST with brilliant yellow and red Om and Rg mineralization. Om and Rg are present as FG to MG, flat aggregates on fracture faces, to blebby masses and fine, brittle fracture fills in BX clasts. Where textures aren't completely obliterated by CLY alteration, core exhibits a clastic, light to dark grey "debris flow" texture, intermittently rebrecciated by a pale blue, very soft, cBX to mBX breccia event. Pale blue mineralization is associated with dark, sooty, FG sulphides and coarse, brilliant red Rg.						i			CLY	i	t	f	w					X
									Bedding is defined by BX fabric and clast orientations in "debris" flow textures at 70-80 degrees TCA.	BD	75															
									Pale baby blue, soft BX matrix is present intermittently throughout as wispy, narrow cBX textures to coarser, strongly mBX textures. The primary BX orientation is 30-60 degrees TCA and 90 110 degrees to BD.	BX	35	100														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			48.40	48.80	0.40	LST	CLY	MX	Dark to light grey, clastic, matrix supported LST breccia/debris flow, strongly CLY altered, intensely DCA altered LST with silicic clasts and brilliant orange and red Rg MX. Clasts are <1 mm to greater than core width in size, but are generally <1 cm. Light grey, translucent, hard Qz clasts are seen throughout, and are subrounded to rounded and variably fractured with brilliant Rg MX filling cracks within the clasts. Rg and Om are also present as blebs within a dark grey FG-MG matrix. FG, disseminated sulphides are present in the breccia matrix. The breccia matrix is soft, FG to MG, dark grey to grey-blue and peels off in soft plates when scratched with a scribe.						i			CLY	s		w	t					X
									Defined by grain/clast orientation, bedding is oriented at 70 degrees TCA.	BD	70															
									Narrow, brilliant orange, MG Rg fracture filling veinlets primarily oriented 25 degrees TCA and 180 degrees to BD are hosted in silicic clasts.	VT	25	180														
									A secondary orientation to the RG fracture filling structures described above, 0-10 degrees TCA and 180 degrees to BD.	VT	5	180														
									Pale blue, vuggy, 1-2 mm wide VT, oriented 30 degrees TCA and 0 degrees to BD is found at 48.45 m.	VT	30	0														
			48.80	49.61	0.81	LST	CLY	MX	Pale blue to brilliant red and yellow, CG, DCA and CLY altered vein breccia with brilliant red Rg (which alters to yellow-orange on core surface). Pale blue minerals are CG, and subhedral, and appearing veir associated up hole, and cBX textured with depth. FG to MG sooty sulphide structures crosscut pale blue breccia minerals and is also associated with red, semi-massive Rg MX at 49.06 m, and as wispy bands to irregular masses variably throughout. Brilliant red to orange Rg is also present in grey, relict LST clasts either replacing LST or filling fractures.						i			CLY	s	t	ms	m					X
									A weak FO is defined by the orientation of brecciation, roughly 35 degrees TCA.	FO	35															
									Veinlet orientations are measured at 30-50 degrees TCA, generally at 35 degrees. Pale blue BX and veinlet attitudes are measured at 0 degrees to each other.	VT	35	0														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									Black, sooty, FG to MG gritty sulphide MX veinlets are oriented 50 to 70 degrees TCA and 0 degrees to BX orientation, crosscutting the pale blue breccia MX.	VT	60	0														
49.61	67.41	17.80				GRT	CLY	MA	Medium to dark grey, gritty to pebbly, matrix supported, strongly CLY altered, intensely DCA altered grit. Core does not react to acid is porous where not clay altered soaking up water readily. Irregular bands of FG, sooty sulphides variably occur throughout, sharing a common orientation. Narrow, dark, brassy brown undulose and irregular sulphide veinlets occur up hole. Clay alteration is variable throughout becoming more intense in narrow intervals. Trace Om is associated with CLY alteration, while trace Rg is present on fracture faces. Overall this interval is massive, lacking bedding or foliation textures.						i			CLY	s	t	t					
			49.61	53.54	3.93	GRT	DCA		Medium to light grey, gritty, DCA altered grit with variably CLY alteration and weak, yellow to brown (SID?) alteration and irregular Py stringers. Rusty brown alteration (siderite?) is generally confined to veinlet structures, but occasional blebby patches are also seen. Dark, brassy, FG to MG Py veinlets with variable orientations are seen throughout. Core becomes bleached in appearance and is weaker with depth. Trace brownish-yellow blebs of barite are noted by core possessing a greater heft where present and are seen with dull brown rims intermittently throughout.						i			CLY	m			t	Ba	t			X
																		SID	w								
																		BLE	w								
									A lack of pervasive fabric or orientation precludes an FO measurement.	FO	n/a																
									Dark brassy, FG Py veinlets <1 mm to 1.5 mm wide with a primary orientation of 50-65 degrees TCA.	VT	50	n/a														
									A secondary orientation to Py veinlets, 45-70 degrees TCA, 180 degrees to primary Py veinlet orientation and is less frequent and commonly narrower than the primary Py veinlet orientations.	VT	55	n/a														
									Brown vuggy veinlets (siderite?) 3-9 mm wide are, oriented 25-40 degrees TCA and 0 degrees to the primary Py veinlet orientation.	VT	30	n/a														

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			50.25						Black, narrow parallel veinlets at 50.25 m are sooty in appearance and oriented 40 degrees TCA.	VT	40	n/a															
			53.34	67.41	14.07	LST	GRT		Dark grey, FG to CG, variably clay altered, intensely DCA altered calcareous grit with trace Om, Rg and sooty/secondary sulphide MX. Om is present with dark CLY alteration and appears on broken clay surfaces and is at times associated with greenish ASO alteration. Rg is associated with bands of dark, sooty alteration bands. Dark, FG, secondary sulphide MX exhibits a preferential orientation in parallel to sub parallel bands <1 cm to over 70 cm in width. Rusty brown (SID?) alteration is seen with yellow to yellow-green Om/ASO mineralization and alteration where CLY alteration locally becomes intense.						i			CLY	s	t	t	w					X
																		ASO	t								
									Rock exhibits a massive, gritty texture lacking bedding or other fabrics, precluding a FO measurement.	FO	n/a																
									Dark grey to black, FG, soft, gritty sulphide bands to wispy stringers are seeing throughout generally oriented 40-60 degrees TCA, though shallower orientations are seen around large, dark grey, FG LST clasts (megaclast DF?).	VN	50																
67.41	93.55	26.14				LST	CLY	BD	Dark grey, FG to CG, variably CLY altered interbeds of grit and laminated DCA altered LST and muds with FG to MG disseminated sulphides throughout. Clay alteration is variable from weak to intense, obscuring to obliterating primary textures where alteration is strongest and is preferentially hosted in LST beds. Core is blocky to rubbly throughout, making structural non-measureable. Recovery is poor in clay rich zones, ranging from 55 to 80%. Trace ASO alteration is present on fractured and blocky surfaces at 68.25 m and 70.01 m. Creamy white, narrow fracture filling is intermittent throughout. Trace Py is present as FG to MG, silvery and brassy yellow disseminations. The Py is strongly associated with clay alteration occurring less commonly in the unaltered core.						s			CLY	ms			w	St	t	Ba	t	X
																		ASO	t								
			67.41	93.55	26.14				Where measurable, bedding is 30-45 degrees TCA, and is defined by laminated LST and MST beds.	BD	35																X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									White, FG, narrow veinlets/fracture fills are oriented 35 degrees TCA and ~170 degrees to BD (uncertain measurement, difficult given the broken nature and poor recovery of core). These veinlets are intermittent throughout, though largely absent in laminated, weakly altered LST-MST beds.	VT	35	170														
									Creamy white-orange, <1 mm to 2 mm wide veinlets oriented 40 degrees TCA and ~240 degrees to BD. These veinlets are rare throughout and are crosscut by the white fractures/veinlets described above.	VT	40	240														
						Ba	St		Pale yellow to light green-grey, CG veinlets oriented ~40 degrees TCA and 270 degrees to BD with trace, silver metallic crystals <1 mm in size (stibnite?). Green-grey minerals are ~6 in hardness (actinolite?) while the soft, dull mustard-yellow may be barite.	VT	40	270										St	t	Ba	t	
									Bands of clay alteration of variable widths are seer throughout preferentially hosted in LST beds, exhibiting a preferential orientation 30-50 degrees TCA and 0 degrees to BD. A sharp contact with bedding and alteration is seen at 93.20 m parallel to bedding.	VN	40	0														
93.55	105.16	11.61				LST	GRT	BD	Dark to medium grey, FG to CG, intensely DCA altered, interbedded LST/MST/calcareous grit. Clay alteration is weak to moderate, decreasing in strength and occurrence with depth. CLY alteration is seen following bedding planes in laminated LST-MST and as wispy structures crosscutting bedding which carry secondary FG Py/sulphides. Py is present as bright, diagenetic disseminations in LST-MST laminations and as FG, silvery disseminations in CLY alteration structures. Where gritty, FG, bright metallic disseminations of Py are seen in the gritty conglomerate matrix (diagenetic?). Bedding angles in laminated LST-MST are variable (soft sediment deformation? slump?), and a fold is seen at 98.05 m. Core becomes predominantly coarse grit with depth, MST interbeds/laminations decrease in width and frequency with depth.						i			CLY	f			t					X
			93.55	98.05	4.50				Bedding is defined by laminated LST-MST, 30 degrees TCA shallowing to 20 degrees TCA above a fold at 98.05 m.	BD	30															X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			98.05	105.16	7.11				Bedding is 70 degrees TCA directly below that fold, and changed again several times in a complex turned and folded sequence from 98.05 m to 98.90 m. In general, BD is 30 to 45 degrees TCA throughout subinterval.	BD	40																X
									Sinuous to irregular, clay altered veinlets to amoeboid masses, 1 mm to 1.9 cm wide, oriented parallel to bedding planes but at times crosscuts bedding. Primary orientation of these veinlets is 40 degrees TCA and 0 degrees to BD.	VT	40	0															
									A second orientation to CLY altered veinlets which are more variable in orientation and less common than those with primary orientations, are oriented at 10-25 degrees TCA and 170-180 degrees to BD.	VT	25	170															
									White to dark grey, MG, VN with narrow stringers that crosscut bedding and hosts FG to MG sulphides oriented at 25 degrees TCA and 0 degrees to BD. Py is present as FG disseminations of <1 mm silvery-yellow cubes and tabular crystals and as a dark yellow, 2.2 cm wide mass of FG-MG Py crystals at 98.75 m.	VN	25	0										f					
			97.80	98.05	0.25	Qz			White, MG to CG, 1 to 4 mm wide Qz veinlets oriented 50 degrees TCA and 90 degrees to BD above a fold at 98.05 m, and oriented 60 degrees TCA and 280 degrees to BD below that same fold.	VT	55	90															
			98.05	98.15	0.10	Qz			Orientation of the Qz veinlets described above tha are found below a fold at 98.05 m are at 60 degrees TCA and 280 degrees to BD, though sharing the same orientation.	VT	60	280															
						Ca	Qz		White, narrow, 2 to <1 mm wide Ca-Qz veinlets, at times exhibiting tension gash-like textures, have variable orientations. The most common orientation occurs at 50-60 degrees TCA and 270-260 degrees to BD.	VT	55	270															
						Ca	Qz		A secondary and less common orientation to Qz-Ca veinlets described above, 25 degrees TCA and 90 degrees to BD. These are crosscut and offset 1-2 mm by the primary orientations described above.	VT	25	90															

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
105.16	109.73	4.57				LST	GRT	BD	Dark to medium grey, FG to CG, variably BX, intensely DCA altered interbedded LST and coarse, silicic sandy grit. Bedding fabric is deformed throughout, generally undulose, but can appear broken and brecciated. The fine sandy, grit is composed of translucent Qz and black biotite (?) with vFG metallic sulphide minerals disseminated between grains. Core is very slow to fizz with HCl. Intervals of matrix supported debris flow breccia also occur. The breccia is composed of polymictic clasts with Qz and black cherty clasts supported by a FG, dark matrix. Qz clasts sometimes have a shattered texture with FG sulphides infilling these narrow cracks. Clasts are typically <1 cm in size, but are seen up to 1.9 cm in diameter. White Qz-Ca veining locally brecciates rock where veining is strongest. Angular, brittle, BX textures are present up hole with a softer, white BX matrix. The uCN is sharp, defined by a bedding contact oriented 50 degrees TCA.	uCN	50				i							t					X
									Bedding is generally at 25 degrees TCA, though measurements range from 10-40 degrees. Some contacts with FG, laminated beds and clastic flows exhibit undulose, wavy textures, which may be rip-up structures and indicate an up hole younging direction.	BD	25														
			108.80			Qz			Pink to white, CG, euhedral white Qz and pink (rhodochrosite?) mineral forms an irregular mass at 108.80 m and does not cut the core axis.	VN	n/a															
			105.80	106.00	0.20				White, narrow, DCA altered calcareous crackling, locally giving the core a cBX texture from 105.80 to 106.00 m and crosscuts narrow Qz veinlets. The most common orientation of this crackling occurs at 20 degrees TCA and 0 degrees to BD.	CR	20	0														
									A secondary orientation to white crackling is measured at 50 degrees TCA and 180 degrees to BD.	CR	50	180														
						Qz			White to creamy yellow (Qz-Ca? Qz-Ba?), MG, irregular veinlets with variable orientations, most commonly oriented 70 degrees TCA and 270 degrees to BD.	VT	70	270														
									109.73 m - E.O.H. The hole was ended because it was past the targeted Conrad zone. Drillers were encountering problems with water return and sticking rods so the hole was terminated.																	

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

SAMPLE LOG

HOLE: OS-10-08

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
14.19	16.76	2.57	MST	CLY	2.39	93	E146414	20	<0.01	108.5	0.60	0.67	2.54	
16.76	19.81	3.05	MST	CLY	2.35	77	E146415	20	<0.01	83.2	1.05	1.25	4.50	
19.81	22.86	3.05	MST	CLY	2.42	79	E146416	20	<0.01	42.3	0.12	0.42	0.97	
22.86	25.91	3.05	MST	CLY	2.14	70	E146418	20	<0.01	40.5	0.12	0.55	0.96	
25.91	27.51	1.60	MST	CLY	1.49	93	E146419	20	<0.01	38.6	0.19	0.90	2.64	
27.51	30.48	2.97	SHL	CLY	2.30	77	E146420	20	<0.01	70.6	1.13	2.00	8.21	
30.48	32.00	1.52	SHL	CLY	0.49	32	E146422	20	0.49	430	5.10	2.95	7.90	
32.00	35.05	3.05	LST	CLY	2.31	76	E146423	20	0.08	412	3.20	1.51	4.86	
35.05	38.10	3.05	LST	CLY	2.52	83	E146424	20	0.30	4480	2.62	7.72	5.25	
38.10	39.62	1.52	LST	CLY	1.23	81	E146425	20	<0.01	642	1.19	1.20	5.13	
39.62	41.35	1.73	LST	CLY	1.62	94	E146426	20	0.06	991	1.51	2.86	6.72	
41.35	43.15	1.80	SHL	CLY	1.61	89	E146428	20	7.58	6000	20.50	68.40	38.70	
43.15	45.05	1.90	SHL	CLY	1.67	88	E146429	20	1.31	1475	6.34	15.20	20.50	
45.05	46.00	0.95	LST	CLY	0.95	100	E146430	20	21.10	43400	32.80	280.00	31.40	
46.00	47.00	1.00	LST	CLY	0.93	93	E146432	20	4.36	32400	11.50	104.50	23.70	
47.00	48.80	1.80	LST	CLY	1.80	100	E146433	20	17.20	29300	24.80	157.00	16.10	
48.80	49.60	0.80	LST	CLY	0.77	96	E146434	20	42.10	182000	42.20	597.00	83.90	
49.60	51.82	2.22	GRT	DCA	1.71	77	E146436	20	23.20	19650	41.30	107.50	182.50	
51.82	53.34	1.52	GRT	DCA	1.15	76	E146437	20	4.16	8350	11.00	19.40	113.00	
53.34	54.86	1.52	LST	GRT	1.35	89	E146438	20	1.00	1945	6.69	17.35	29.90	
54.86	57.31	2.45	LST	GRT	2.01	82	E146439	21	0.05	725	4.57	2.46	16.85	
57.31	59.44	2.13	LST	GRT	1.70	80	E146440	21	0.81	1165	7.64	14.90	26.50	
59.44	60.96	1.52	LST	GRT	1.26	83	E146441	21	0.72	3930	7.64	12.90	21.60	
60.96	62.48	1.52	LST	GRT	1.48	86	E146442	21	1.51	1225	5.97	10.25	16.80	
62.48	64.01	1.53	LST	GRT	0.71	46	E146443	21	0.11	294	2.20	2.14	6.81	
64.01	65.53	1.52	LST	GRT	1.17	77	E146444	21	0.03	645	4.20	2.43	9.69	
65.53	67.06	1.53	LST	GRT	1.27	83	E146446	21	0.01	97.3	1.58	0.55	6.96	
67.06	70.10	3.04	LST	CLY	2.21	73	E146447	21	0.01	74.2	0.90	0.40	5.63	
70.10	73.15	3.05	LST	CLY	2.01	66	E146448	21	<0.01	58.8	0.45	0.47	3.48	
73.15	76.20	3.05	LST	CLY	2.17	71	E146449	21	0.01	41.8	0.20	0.41	1.57	
76.20	79.25	3.05	LST	CLY	1.61	53	E146450	21	<0.01	21.7	0.14	0.57	1.38	
79.25	82.30	3.05	LST	CLY	1.19	39	E146451	21	<0.01	44.2	0.48	0.74	2.33	

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
82.30	85.34	3.04	LST	CLY	1.77	58	E146453	21	<0.01	70.9	1.42	0.94	4.30	
85.34	88.39	3.05	LST	CLY	0.96	31	E146454	21	0.01	101	0.97	0.51	2.98	
88.39	91.44	3.05	LST	CLY	2.20	72	E146455	21	0.01	250	1.09	1.03	3.35	
91.44	94.49	3.05	LST	GRT	2.73	90	E146456	21	0.03	721	3.15	2.20	7.49	
94.49	97.54	3.05	LST	GRT	2.82	92	E146458	21	0.01	287	1.29	0.72	3.01	
97.54	100.58	3.04	LST	GRT	2.87	94	E146459	21	<0.01	63.1	0.72	0.45	3.96	
100.58	102.11	1.53	LST	GRT	1.39	91	E146460	21	<0.01	132	0.30	0.44	1.37	
102.11	105.16	3.05	LST	GRT	2.97	97	E146461	21	<0.01	69.1	0.50	0.55	1.59	
105.16	108.20	3.04	LST	GRT	2.71	89	E146462	21	<0.01	42.7	0.33	0.35	1.23	
108.20	109.73	1.53	LST	GRT	1.41	92	E146463	21	<0.01	48.6	0.16	0.44	0.77	
-	-	-	-	-	-	-	E146417	20	2.32	182.5	2.01	166.50	13.30	**Standard OS-3**
27.51	30.48	2.97	SHL	CLY	2.30	77	E146421	20	<0.01	71.6	0.98	2.13	8.80	**Duplicate**
-	-	-	-	-	-	-	E146427	20	16.00	1150	6.45	149.50	3.60	**Standard OS-4**
-	-	-	-	-	-	-	E146431	20	0.01	12	0.06	0.21	0.07	**Blank**
-	-	-	-	-	-	-	E146435	20	0.03	161	0.20	0.94	0.07	**Blank**
64.01	65.53	1.52	LST	GRT	1.17	77	E146445	21	0.02	656	3.87	2.12	8.85	**Duplicate**
-	-	-	-	-	-	-	E146452	21	2.29	157	2.03	157.50	11.50	**Standard OS-3**
-	-	-	-	-	-	-	E146457	21	0.01	<5	0.01	<0.05	0.03	**Blank**

GEOTECHNICAL LOG

HOLE: OS-10-08

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
14.19	15.24	1.05	1.05	100	0.52	50	MS	SW	
15.24	16.76	1.52	1.18	78	0.40	26	VW	SW	
16.76	18.29	1.53	1.35	88	0.00	0	MS	SW	
18.29	19.81	1.52	0.95	63	0.58	38	MS	SW	
19.81	21.34	1.53	1.12	73	0.25	16	MS	SW	
21.34	22.86	1.52	1.19	78	0.39	26	MS	SW	
22.86	24.38	1.52	0.84	55	0.10	7	MS	SW	
24.38	25.91	1.53	0.97	63	0.58	38	MS	MW	
25.91	27.43	1.52	1.21	80	0.00	0	W	SW	
27.43	28.96	1.53	0.99	65	0.10	7	VW	MW	
28.96	30.48	1.52	1.22	80	0.20	13	W	MW	
30.48	32.00	1.52	0.49	32	0.00	0	EW	SW	
32.00	33.53	1.53	1.17	76	0.10	7	EW	EW	
33.53	35.05	1.52	1.14	75	0.00	0	EW	EW	
35.05	36.58	1.53	1.19	78	0.25	16	W	EW	
36.58	38.10	1.52	1.32	87	0.42	28	W	MW	
38.10	39.62	1.52	1.23	81	0.25	16	W	SW	
39.62	41.15	1.53	1.25	82	0.22	14	W	SW	
41.15	42.67	1.52	1.28	84	0.00	0	VW	SW	
42.67	44.20	1.53	1.36	89	0.00	0	VW	MW	
44.20	45.72	1.52	1.38	91	0.00	0	EW	MW	
45.72	47.24	1.52	1.34	88	0.00	0	EW	MW	
47.24	48.77	1.53	1.36	89	0.18	12	W	MW	
48.77	50.29	1.52	1.22	80	0.27	18	MS	MW	
50.29	51.82	1.53	1.27	83	0.44	29	MS	MW	
51.82	53.34	1.52	1.15	76	0.39	26	W	SW	
53.34	54.86	1.52	1.35	89	0.48	32	MS	SW	
54.86	56.39	1.53	0.94	61	0.00	0	EW	FR	
56.39	57.91	1.52	1.23	81	0.53	35	W	FR	
57.91	59.44	1.53	1.24	81	0.17	11	MS	FR	
59.44	60.96	1.52	1.26	83	0.00	0	VW	FR	
60.96	62.48	1.52	1.41	93	0.00	0	W	FR	
62.48	64.01	1.53	0.79	52	0.00	0	W	FR	
64.01	65.53	1.52	1.17	77	0.00	0	W	FR	
65.53	67.06	1.53	1.27	83	0.00	0	W	FR	
67.06	68.58	1.52	1.24	82	0.14	9	W	FR	
68.58	70.10	1.52	0.97	64	0.00	0	W	FR	
70.10	71.63	1.53	1.10	72	0.00	0	W	FR	
71.63	73.15	1.52	0.91	60	0.00	0	W	FR	
73.15	74.67	1.52	1.22	80	0.00	0	MS	FR	
74.67	76.20	1.53	0.95	62	0.31	20	MS	FR	
76.20	77.72	1.52	0.90	59	0.00	0	W	FR	
77.72	79.25	1.53	0.71	46	0.00	0	W	FR	
79.25	80.77	1.52	0.54	36	0.00	0	VW	FR	
80.77	82.30	1.53	0.65	42	0.00	0	W	FR	
82.30	83.82	1.52	1.00	66	0.00	0	EW	FR	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
83.82	85.34	1.52	0.77	51	0.00	0	VW	FR	
85.34	86.87	1.53	0.47	31	0.00	0	EW	FR	
86.87	88.39	1.52	0.49	32	0.00	0	EW	FR	
88.39	89.92	1.53	0.98	64	0.00	0	VW	FR	
89.92	91.44	1.52	1.22	80	0.00	0	W	FR	
91.44	92.96	1.52	1.33	88	0.00	0	W	FR	
92.96	94.49	1.53	1.40	92	0.63	41	MS	FR	
94.49	96.01	1.52	1.39	91	0.63	41	MS	FR	
96.01	97.54	1.53	1.43	93	0.35	23	MS	FR	
97.54	99.06	1.52	1.35	89	0.58	38	MS	FR	
99.06	100.58	1.52	1.52	100	0.69	45	MS	FR	
100.58	102.11	1.53	1.39	91	0.52	34	MS	FR	
102.11	103.63	1.52	1.46	96	0.87	57	MS	FR	
103.63	105.16	1.53	1.51	99	1.10	72	MS	FR	
105.16	106.68	1.52	1.38	91	0.84	55	MS	FR	
106.68	108.20	1.52	1.33	88	0.23	15	MS	FR	
108.20	109.73	1.53	1.41	92	0.25	16	MS	FR	
109.73	E.O.H.								

MAGNETIC SUSCEPTIBILITY LOG

HOLE: OS-10-08

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
1.00	OVB		N/A	
2.00	OVB		N/A	
3.00	OVB		N/A	
4.00	OVB		N/A	
5.00	OVB		N/A	
6.00	OVB		N/A	
7.00	OVB		N/A	
8.00	OVB		N/A	
9.00	OVB		N/A	
10.00	OVB		N/A	
11.00	OVB		N/A	
12.00	OVB		N/A	
13.00	OVB		N/A	
14.00	OVB		N/A	
15.00	MST	CLY	0	
16.00	LST	CLY	0	
17.00	LST	CLY	0	
18.00	MST	CLY	0	
19.00	MST	CLY	0	
20.00	MST	CLY	0	
21.00	MST	CLY	0	
22.00	MST	CLY	0	
23.00	MST	CLY	0	
24.00	MST	CLY	0	
25.00	MST	CLY	0	
26.00	MST	CLY	0	
27.00	MST	CLY	0	
28.00	SHL	CLY	0	
29.00	SHL	CLY	0	
30.00	SHL	CLY	0	
31.00	SHL	CLY	0	
32.00	LST	CLY	0	
33.00	LST	CLY	0	
34.00	LST	CLY	0	
35.00	LST	CLY	0	
36.00	LST	CLY	0	
37.00	LST	CLY	0	
38.00	LST	CLY	0	
39.00	LST	CLY	0	
40.00	LST	CLY	0	
41.00	LST	CLY	0	
42.00	SHL	CLY	0	
43.00	SHL	CLY	0	
44.00	SHL	CLY	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
45.00	SHL	CLY	0	
46.00	LST	CLY	0	
47.00	LST	CLY	0	
48.00	LST	CLY	0	
49.00	LST	CLY	0	
50.00	GRT	DCA	0	
51.00	GRT	DCA	0	
52.00	GRT	DCA	0	
53.00	GRT	DCA	0	
54.00	LST	GRT	0	
55.00	LST	GRT	0	
56.00	LST	GRT	0	
57.00	LST	GRT	0	
58.00	LST	GRT	0	
59.00	LST	GRT	0	
60.00	LST	GRT	0	
61.00	LST	GRT	0	
62.00	LST	GRT	0	
63.00	LST	GRT	0	
64.00	LST	GRT	0	
65.00	LST	GRT	0	
66.00	LST	GRT	0	
67.00	LST	GRT	0	
68.00	LST	CLY	0	
69.00	LST	CLY	0	
70.00	LST	CLY	0	
71.00	LST	CLY	0	
72.00	LST	CLY	0	
73.00	LST	CLY	0	
74.00	LST	CLY	0	
75.00	LST	CLY	0	
76.00	LST	CLY	0	
77.00	LST	CLY	0	
78.00	LST	CLY	0	
79.00	LST	CLY	0	
80.00	LST	CLY	0	
81.00	LST	CLY	0	
82.00	LST	CLY	0	
83.00	LST	CLY	0	
84.00	LST	CLY	0	
85.00	LST	CLY	0	
86.00	LST	CLY	0	
87.00	LST	CLY	0	
88.00	LST	CLY	0	
89.00	LST	CLY	0	
90.00	LST	CLY	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
91.00	LST	CLY	0	
92.00	LST	CLY	0	
93.00	LST	CLY	0	
94.00	LST	GRT	0	
95.00	LST	GRT	0	
96.00	LST	GRT	0	
97.00	LST	GRT	0	
98.00	LST	GRT	0	
99.00	LST	GRT	0	
100.00	LST	GRT	0	
101.00	LST	GRT	0	
102.00	LST	GRT	0	
103.00	LST	GRT	0	
104.00	LST	GRT	0	
105.00	LST	GRT	0	
106.00	LST	GRT	0	
107.00	LST	GRT	0	
108.00	LST	GRT	0	
109.00	LST	GRT	0	EOH

BOX LOG

HOLE: OS-10-08

BOX	FROM (m)	TO (m)
1	14.19	17.58
2	17.58	22.18
3	22.18	26.39
4	26.39	30.59
5	30.59	35.55
6	33.55	39.88
7	39.88	44.20
8	44.20	48.26
9	48.26	52.10
10	52.10	55.85
11	55.85	59.56
12	59.56	63.96
13	63.96	68.25
14	68.25	72.94
15	72.94	77.55
16	77.95	84.00
17	84.00	89.92
18	89.92	93.39
19	93.39	97.15
20	97.15	101.04
21	101.04	105.16
22	105.16	108.84
23	108.84	109.73
209.73 m - E.O.H.		

NADALEEN TREND PROJECT

Grid East	Grid North	Easting	Northing	Elev.	Depth (m)
					176.48

ZONE: Eaton

SECTION:

HOLE: OS-10-09

CLAIM: STEN 26

Contractor: Beaudoin

Drill: 5

Core size: NTW

Casing depth: 10.67 m out

Drilling dates: Sept 19, 2010 - Sept 22, 2010

Geology logged by: J. Lane

SURVEY

Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	340	-50.0	compass				
176.78	-	-50.0	acid				

TARGET: The projection of mineralization found on surface.

SUMMARY

From (m)	To (m)	Interval	Unit	Comments
0.00	10.18	10.18	OVB	Overburden.
10.18	10.49	0.31	LST	Possibly overburden.
10.49	30.44	19.95	MST	With variable clay alteration.
30.44	49.27	18.83	LST	Decalcified with minor debris flow textures.
49.27	51.62	2.35	GRT	Quartz rich.
51.62	73.48	21.86	LST	Decalcified with minor quartz grit intervals.
73.48	101.10	27.62	GRT	Quartz rich with trace realgar and weak pyrite.
101.10	105.38	4.28	LST	Decalcified with fair pyrite and trace realgar.
105.38	117.84	12.46	GRT	Quartz rich with fair pyrite and trace realgar.
117.84	144.23	26.39	GRT	Quartz rich with trace realgar and weak pyrite.
144.23	145.67	1.44	LST	Decalcified with fair pyrite.
145.67	156.03	10.36	GRT	Quratz rich with moderate pyrite.
156.03	158.15	2.12	CGL	Quatrz clasts are now up to 1.5 cm in diameter.
158.15	176.48	18.33	LST	Decalcified with fair disseminated pyrite.
176.48	EOH			

SAMPLES

Numbers: E146556-E146647

Total: 92

Batch: 21, 22, 23, 24

Date Sent: October 8, 2010

Certificate: VA10147126, VA10147127, VA10147128

VA10147129

COMMENTS

The hole was ended at 176.48 m because it was past the projected mineralization and the drill was beginning to have difficulty. In the field this hole was named EA-10-01.

GEOLOGY LOG

HOLE: OS-10-09

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
0.00	10.18	10.18				OVB			Overburden - no recovery																		
10.18	10.49	0.31				LST		BD	Dark to medium grey banded LST with narrow interbeds of fine and medium grained, up to 2 mm thick beds oriented at 30 deg TCA. This material is quite rubbly and may represent overburden.	BD	30															
10.49	30.44	19.95				MST		BD	Dark grey to rusty orange, shaley mudstone that easily fractures along bedding planes. Rusty-orange alteration occurs on fracture faces. The unit is variably blocky to rubbly throughout. Bedding is defined by a laminated fabric at 30 deg TCA.	BD	30															X
			16.66	30.44	13.78	MST	CLY	BD	Green to black, FG, variably clay altered LST with compositionally defined bedding that is slightly irregular. Bands 3 mm thick occur with trace very fine grained Py disseminated throughout. Because the unit is fragile and fissile, it breaks along the more clay altered planes making the core rubbly to blocky. More competent sections of core have bedding at 30 deg TCA. Trace Om is present at 29.70 m as patches in soft clay altered core.	BD	30							CLY	m	t		t					X
									Black stringers <1 mm thick variably cut the core at 20 deg to CA.	VT	20	n/a														
30.44	49.27	18.83				LST	DCA	BD	Black to medium grey, fine grained, non-calcareous LST with zones of strong Ca crackle fracturing. The upper part of the unit contains minor clastic components while the lower portions have a fine to medium grained clastic appearance. Areas of repeated graded bedding sequences also occur.						s											
			30.44	32.85	2.41	LST	DCA	BD	Dark to medium greyish-tan, very fragile and crumbly core. The tan bands most likely represent a more mud rich component of the sequence. The core is too crumbly to determine a bedding orientation.						s											

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			32.85	34.60	1.75	LST	DCA	DF	Dark grey to black, non-calcareous LST debris flow that cracks/crumbles easily when the core begins to dry out. 1-3 % 0.5-0.7 cm wide white non-calcareous clasts are supported by a fine grained black matrix. These clasts are associated with fine grained slightly greenish-yellow Py. Bedding is very faint to non-existent but occurs at 25 deg TCA. Trace calcite veinlets cut the interval in varying orientations.	BD	25				i						t					
			34.60	35.75	1.15	LST	SIL		Medium to dark grey, fine to medium grained, clastic, non-calcareous LST. The interval is very hard may be SIL altered or it may be a consequence of a high concentration of silica-rich grit. The interval is also has a strong concentration of Qz+/-Ca veinlets forming an intense crackle texture. Bedding is very faint but occurs at 40 deg TCA. The interval is fairly rubbly with a light grey clay coating only some fractures.	BD	40			s	i			CLY	t							X
									2-3 mm quartz veinlets are preferentially oriented a 70 deg TCA.	VT	70	n/a														
									A secondary orientation of the 2-3 mm quartz veinlets occurs at 15 deg TCA.	VT	15	n/a														
			35.75	44.40	8.65	LST	DCA	BD	Medium to very dark grey to black, very fine grained to fine grained, non calcareous LST with bedding defined by slight colour variations in the LST. The lighter the colour of the beds, the harder they are (possibly a result of the clastic silica component of the beds). Up to 2 cm wide patches of very fine grained brassy occur (digenetic ?). Pyrite overall is weak in concentration. Both the upper and lower contacts are gradational.	BD	55			s	s					w					X
									Weak to fair Qz+/-Dolomite(?) white veinlets occur erratically cutting the unit. These veinlets appear, in part, to be infilled tension cracks. The orientation of these structures is erratic but most common at 70 deg TCA.	CR	70														
			44.40	49.27	4.87	LST	DCA	BD	This interval is mainly defined by obvious rhythmic bedding. The graded beds are on average 6 cm thick, evenly grading from medium grey fine to medium grained sediments at the bottom up to very fine grained dark grey to black LST sediments at the top.	BD	60															
									1-3 mm creamy white irregular Qz veinlets cut the unit at 15 deg TCA.	VT	15	120	5													

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
49.27	51.62	2.35				GRT	Qz	BD	Medium grey quartz rich grit. The grit sediments are up to 1 cm in diameter and are subrounded to rounded in shape. They range in colour from translucent white/clear to pinkish reddish and greenish white. There are faint gradational variations in grain size representing normal bedding For the most part the unit appears matrix supported, with portions where the clast concentration increases into a more clast supported character. The clasts appear to represent multiple lithologies al of which are silicified. Trace green fluorite (?) occurs within as a minor variety of clast. The upper contact is gradational, the lower contact is rubbly but occurs at 60 deg TCA. The unit is quite massive making bedding orientation unrecognisable	ICN	60			ms									Fl	t			X
51.62	73.48	21.86				LST	DCA	BD	Medium to dark grey strongly decalcified, strongly silicified LST with a strong clastic component. Bedding is faint at 40-50 deg TCA. The unit fizzes weakly after a few minutes with acid. Trace very fine grained brassy pyrite is disseminated throughout the matrix of the gritty areas. Much of this pyrite appears to be digenetic and is closely associated with the lighter grey gritty areas.	BD	45			s	s								t	f					
			54.90	56.01	1.11				A series of Qz+/-Ca veinlets (only very weakly calcareous) occur at 45 and 60 deg TCA. These veinlets contain bright orange-pink realgar. In the area of the Ca veinletting, the bedding is indistinguishable as the unit is quite massive.	VT	45																	X
			55.73	56.39	0.66				The main area of realgar mineralization associated with Ca/Qz veinlets.	VT	60										w							X
			56.50	62.30	5.80				Very fine grained brassy patches and patchy layers of pyrite occur.												w							
			59.02	59.36	0.34	GRT	Qz	BD	An interval with interfingered very fine grained bands and coarse quartz grit that are irregularly banded and do not show signs of grading.	BD	50																	
			59.36	62.22	2.86	LST	DCA	BD	Very thinly interbedded, very fine grained and fine grained decalcified variably gritty LST. Non-calcareous Ca bands run parallel to bedding and have trace Rg associated with them. Within the interval Rg is trace to weak overall.	BD	50				s						t							X
			60.91	60.96	0.05				A 5 cm light grey gritty clay interval occurs and has fair reddish-orange realgar scattered throughout.									CLY	ms		f							

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			62.22	64.67	2.45	LST	GRT	BD	Medium grey, fine grained siliceous grit that is quite massive with only very faint bedding at 40 deg TCA. Some fractured surfaces have a thin light to dark grey clay coating. Fractures are parallel to bedding and at 60 deg TCA. Very fine grained bright yellow-silver pyrite is weakly disseminated throughout the grit.	BD	40						CLY	t			w						X
									Qz+/- Ca veinlets 1-3 mm thick cut the unit at 10 deg TCA.	VT	10	n/a	3														
									Common fracture orientation	FR	60	n/a															
									Common fracture orientation	FR	40	0															
			64.67	67.18	2.51	LST	DCA	BD	Medium grey gritty strongly decalcified, moderately silicified LST with a weak banded texture and black fragile sooty bands parallel TCA. Fine grained brassy pyrite bands occur throughout - most likely representing digenetic pyrite. Banding is at times disrupted but when it is clean it occurs at 55 deg TCA. The total concentration of black sooty bands is ~ 3%.	BD	55			m	s						w						
			65.92	66.20	0.28	LST	DCA		This interval is particularity fragile and crumbly possibly shale or sooty pyrite??																		
			67.18	71.63	4.45	GRT	Qz	BD	Bands of coarse grained grit occur with very fine grained dark grey decalcified LST and medium grey gritty fine to medium grained DCA LST. These bands are interbedded and show soft sediment deformation but are not graded. Up to 1 cm blebs of pyrite occur in gritty medium grey bands. Some of these bands contain ~ 1 mm wide rims of peachy-orange realgar (replacing a Ca rim??). Very fine grained patches of realgar also occur on fractures. The majority of the overall trace realgar occurs between 70.10-71.63 m.	BD	45				s					t	f						
									Ca veinlets are weak to trace throughout and generally parallel bedding or occur at 30 deg TCA.	VT	55	0	4														
			73.40	73.48	0.08				A shattered Qz vein with associated clay grit alteration occurs at 50 deg TCA. This vein marks a sharp lower contact into the next unit.	VN	50	230															
73.48	101.10	27.62				GRT	Qz		Medium to dark grey, fine to medium grained, strongly decalcified, moderately to strongly silicified grit. The clasts are generally between <1 - 1 mm wide but range up to 0.5 cm. The larger clasts are almost all quartz with the smaller clasts a combination of Qz and black lithic fragments. These finer grained bands define the only sense of bedding in the unit.					ms	s					t	w						

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			73.48	85.59	12.11	LST	DCA	BD	Dull brassy, vFG pyrite is disseminated throughout with overprinting bright yellow-silvery slightly coarse grained blebby pyrite. As well, trace very fine grained realgar replaces specific clasts within the grit - this can only be seen in one or two isolated locations. The grit contains 1-15 cm wide bands of very fine grained non-gritty DCA LST. These bands are similar in composition to the matrix of the grit.	BD	65			ms	s					t	m					X
			78.98	79.08	0.10	GRT	CLY		A zone of dark grey clay gouge									CLY	s								
									Qz +/- Ca veins rarely cut the unit, but where they are present they occur at between 10-20 deg TCA in the massive areas. When in the interbedded areas they are seen parallel to bedding.	VT	15															
			85.59	88.72	3.13	GRT	Qz	BD	Sharp transition into a very similar looking grit but with only weak Py. The grit contains 5-7% up to 4 mm white rounded quartz clasts, 15% 1-2 mm clear round quartz clasts, 5-10% dark grey to black slightly elongate and rounded black clasts infilled by a very fine grained, medium grey non-calcareous matrix. Trace to weak bright yellow-silver vFG pyrite is disseminated within the matrix. Bedding is subtle at 50 deg TCA defined by non-gritty interlayers.	BD	50			ms	s						w					X
									1-2 mm white quartz veinlets cut at 35 deg TCA. Some of these veinlets cause up to 1 cm displacement to larger clasts and bands in the unit.	VT	35	200	4												
									Upper and lower contacts are sharp at 60 deg TCA.	CN	60															
			88.72	101.10	12.38	LST	DCA	BD	Thinly bedded (~0.5 cm frequency) dark grey, vFG, graded LST and medium grey variably pyrite rich Qz rich grit in a vFG LST matrix. Bedding is well defined at 50 deg TCA. Yellowy-silver, vFG pyrite is disseminated throughout the unit but is slightly more concentrated in the lighter grey bands. Overall pyrite concentration is fair.	BD	50			s	s						f					
									White quartz veinlets follow the orientation of 1 mm scale bedding offset 35 deg to CA.	VT	35	195	4														
			96.00	98.02	2.02	LST	CLY		This interval is noticeably more fractured than the rest of the unit with medium grey clay gouge common on fractured surfaces. Trace to weak bright pink to orange realgar occurs along some of the fractures. Two fracture orientations are common.	BD	50			ms	s			CLY	w			w				
									Two fracture orientations are common	FR	65	200															

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other				Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
									Two fracture orientations are common	FR	15	n/a															
101.10	105.38	4.28				LST	DCA	MX	Medium to dark grey non-calcareous LST with bands of black sooty pyrite running at 15 deg TCA. Very fine grained brassy pyrite occurs in swaley bands parallel to the black very fine grained sooty (? bands that appear to overprint a thin pre-existing white crackle texture. The LST itself has a pitted texture under hand lens. Trace realgar occurs as fine grained orange-pink spots associated with smal white spots.	BD	15										t	f					X
									White quartz veins cut the unit particularly near the upper contact. These veins are up to 5 cm thick and have a weak shattered crackle texture across crystals. Black sooty bands have stringers that cut the quartz veins.	VN	50																X
			104.00					BD	By this point the sooty bands occur at 45 deg TCA.	BD	45																
			104.47	105.38	0.91	LST	DCA	MX	The concentration of realgar in this later part of the unit has increased to weak. It mainly occurs in very rubbly areas that have an increased concentration of black sooty pyrite.											w	f					
105.38	117.84	12.46				GRT	Qz	MX	Medium to dark grey, variably banded, very fine grained to fine grained grit with weak to moderate realgar infilling hairline fractures in the rock. The gri is non-calcareous and strongly silicified. Bedding occurs at 30 deg TCA.	BD	30			s							f	f					X
								MX	Realgar occurs in 3 main ways. 1) As trace vFG disseminations within FG quartz rich grit. 2) In 0.3-1 cm thick quartz veinlets running at 35 deg TCA; 170 deg to bedding. These quartz veins have a vuggy texture with crystalline MG crystals in the cavities with realgar in these cavities. 3) As hairline stringers overprinting bedding and quartz veins in the core. The stringers are up to 2 mm thick and where most concentrated they form a net-like crackle texture. Two common orientations of these veinlets occur. On some fractured faces gem-quality, euhedral, fine to medium grained realgar occurs. Within the bedding of the grit very fine grained dustings of yellow pyrite occurs.	VT	35	170													
										VT	45	220															
			112.78	113.88	1.10	GRT	Qz	MX	This is the most concentrated zone of realgar mineralized veinlets - up to moderate concentration.											m						X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
			113.88	117.84	3.96	LST	DCA	MX	This interval has very fragile rubbly sections that are mainly spongy gritty grey, silicified, decalcified LST. Weak clay alteration occurs within this zone.						s			CLY	w									X
117.84	144.23	26.39				GRT	Qz	BD	Medium grey weakly bedded very fine grained to fine grained quartz rich grit with overprinting Qz veinlets and weak portions of fair realgar mineralization in thin slightly irregular veinlets. Within the grit 3-5% are represented by 0.3-0.6 mm rounded quartz grains. Moderate dull brassy very fine grained disseminated pyrite occurs throughout the matrix of the quartz rich grit.	BD	30											w	m					
									Non-mineralized quartz veinlets that are occur very irregularly at between 10-30 deg TCA and are not always continuous throughout the rock.	VT	20	n/a	5																
			129.98	144.23	14.25	GRT	Qz	MX	The grit has increased in realgar content to fair. It occurs replacing specific grains in the grit as well as within white quartz veinlets that cut the unit. The grit is quite massive with possible fair bedding at 40 deg TCA. Very fine grained dull brassy pyrite occurs throughout the matrix of the grit. The higher the concentration of secondary quartz veinlets the higher the concentration of realgar.	BD	40											f	m					X
			140.21	141.00	0.79	GRT	Qz	MX	This interval of quartz rich grit contains a moderate concentration of very fine grained disseminated realgar in the matrix of the grit.													m						
			141.91	142.01	0.10	Ca		VN	A 10 cm strongly calcareous calcite vein cuts the grit and has fair to moderate realgar mineralization associated with it.	VN	50																	X
144.23	145.67	1.44				LST	DCA	MX	Medium to dark grey, moderately to strongly silicified, swaley banded, non calcareous LST with fair very fine grained bands of dull brassy pyrite. Swaley bands of black overprinting sooty pyrite (?) with thin bands of brassy pyrite occur (see photo). These bands define the main textural characteristic of the unit.	BD	20			ms	s							f					X

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			DETAILED DESCRIPTION	STRUCTURE				ALTERATION						MINERALS							Photo
																		Other					Other		Other		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture		Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Silicification	Decalcification	Oxidation	Limonite	Type	Intensity	Orpiment	Realgar	Pyrite	Type	Intensity	Type	Intensity	
145.67	156.03	10.36				GRT	Qz	BD	Back into medium to dark grey strongly silicified, non-calcareous quartz rich grit with moderate very fine grained pyrite disseminated throughout the matrix. Within the grit there are bands of black very fine grained non-calcareous LST. These bands are what define the bedding in the unit. A few large blebs of flashy yellow pyrite occur associated with the dark grey-black intervals. The grit contains 5-7% 3-4 mm round very coarse grained sand to gravel.	BD	55			s	s						m						
156.03	158.15	2.12				CGL	Qz		Quartz gravel conglomerate with a matrix mainly consisting of finer grained quartz fragments but also with a light grey non-calcareous cement. The quartz clasts are up to 1.5 cm in diameter and are rounded to elongate with coarse to medium grained quartz sand filling them. Most of the clasts are clear to opaque white but others are brownish grey, greenish and pinkish brown (mudstone?). No mineralization is seen within the unit.																		
									Milky white quartz veins cut the unit at 70 deg TCA. Possibly associated with a shattered texture of many of the clasts. The clasts are still intact but show stress cracks throughout.	VT	70	n/a															
									Bedding is rare but in a few locations black mud is interlayered within the gravel.	BD	55																
									Upper contact is sharp at 40 deg TCA	uCN	40																
									Lower contact is sharp at 20 deg TCA	lCN	20																
158.15	176.48	18.33				LST	DCA	BD	Dark grey to black, very thinly banded strongly decalcified, weakly silicified LST with minor subrounded to subangular quartz grit. Very fine grained Py is disseminated in the unit in fine grained dustings and bands. This unit also appears weakly structurally deformed with offset structures at 80 deg TCA.	BD	50			w	s						f						
									176.48 m - E.O.H. The hole was ended because it was past the targeted mineralization and was beginning to run into difficulty drilling.																		

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

SAMPLE LOG

HOLE: OS-10-09

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
10.49	13.72	3.23	MST	SHL	2.78	86	E146556	21	0.02	55.8	0.35	1.03	1.96	
13.72	16.66	2.94	MST	SHL	2.11	72	E146557	21	<0.01	141	0.50	0.90	2.89	
16.66	19.66	3.00	MST	CLY	2.57	86	E146558	21	<0.01	47.9	0.47	0.70	2.31	
19.66	21.33	1.67	MST	CLY	1.36	81	E146559	21	<0.01	49.5	0.41	0.63	2.02	
21.33	24.38	3.05	MST	CLY	2.91	95	E146560	21	0.02	209	0.78	0.97	2.14	
24.38	27.43	3.05	MST	CLY	2.93	96	E146562	21	0.01	103	0.76	0.95	1.97	
27.43	29.24	1.81	MST	CLY	1.81	100	E146563	21	<0.01	422	0.53	1.85	1.60	
29.40	30.48	1.08	MST	CLY	0.92	85	E146564	21	0.04	805	1.23	2.54	2.85	
30.48	33.53	3.05	LST	DCA	3.05	100	E146565	21	0.03	644	4.76	7.36	7.56	
33.53	34.60	1.07	LST	DCA	0.91	85	E146567	21	0.06	499	2.97	4.32	5.72	
34.60	35.75	1.15	LST	DCA	1.15	100	E146568	22	0.30	1720	4.78	5.62	6.39	
35.75	38.10	2.35	LST	DCA	2.10	89	E146569	22	0.04	1075	3.68	3.31	5.51	
38.10	41.15	3.05	LST	DCA	2.90	95	E146570	22	<0.01	73.9	0.44	0.45	1.60	
41.15	43.00	1.85	LST	DCA	1.85	100	E146571	22	0.01	92.6	0.44	0.44	0.92	
43.00	44.40	1.40	LST	DCA	1.40	100	E146572	22	<0.01	67.9	0.44	0.50	1.34	
44.40	47.24	2.84	LST	DCA	2.55	90	E146573	22	<0.01	36.8	0.32	0.45	1.02	
47.24	49.27	2.03	LST	DCA	1.75	86	E146574	22	0.05	94.7	0.41	0.50	1.33	
49.27	51.62	2.35	GRT	SIL	2.27	97	E146575	22	0.01	50.9	0.09	0.26	0.54	
51.62	53.34	1.72	LST	DCA	1.70	99	E146576	22	<0.01	134	0.24	0.55	1.07	
53.34	55.44	2.10	LST	DCA	2.02	96	E146578	22	0.02	102.5	0.52	0.76	1.83	
55.44	56.39	0.95	LST	DCA	0.95	100	E146579	22	1.06	2730	3.52	7.99	12.95	
56.39	59.44	3.05	LST	DCA	2.85	93	E146580	22	0.05	580	1.37	1.57	4.30	
59.44	60.96	1.52	LST	DCA	1.45	95	E146582	22	0.14	4320	6.67	13.35	11.05	
60.96	62.22	1.26	LST	DCA	1.20	95	E146583	22	0.23	4200	2.65	6.82	6.93	
62.22	64.67	2.45	GRT	SIL	2.40	98	E146584	22	0.04	331	0.94	1.72	3.44	
64.67	65.84	1.17	LST	DCA	1.15	98	E146585	22	0.03	208	1.29	1.67	4.20	
65.84	67.49	1.65	LST	DCA	1.60	97	E146586	22	<0.01	140.5	0.74	1.00	2.98	
67.49	70.10	2.61	LST	DCA	2.61	100	E146587	22	<0.01	127	0.12	0.46	1.10	
70.10	71.63	1.53	LST	DCA	1.50	98	E146588	22	<0.01	116.5	0.13	0.56	1.03	
71.63	73.43	1.80	LST	DCA	1.80	100	E146590	22	<0.01	110.5	0.07	0.40	1.05	
73.43	76.20	2.77	GRT	SIL	2.72	98	E146591	22	0.02	95.4	0.16	0.43	1.27	
76.20	78.98	2.78	GRT	SIL	2.62	94	E146592	22	0.03	165.5	0.66	0.59	3.62	
78.98	80.77	1.79	GRT	SIL	1.54	86	E146593	22	0.21	496	1.91	5.38	9.65	
80.77	83.48	2.71	GRT	SIL	2.71	100	E146594	22	0.50	1185	3.13	7.24	8.48	
83.48	85.59	2.11	GRT	SIL	2.03	96	E146595	22	0.02	304	1.17	0.96	5.18	
85.59	87.00	1.41	GRT	SIL	1.41	100	E146597	22	<0.01	114	0.09	0.39	0.83	
87.00	88.72	1.72	GRT	SIL	1.72	100	E146598	22	<0.01	93	0.07	0.43	0.92	
88.72	91.44	2.72	LST	DCA	2.70	99	E146600	22	0.01	76.2	0.09	0.43	1.09	
91.44	94.00	2.56	LST	DCA	2.56	100	E146601	22	0.01	175.5	0.31	0.65	2.27	
94.00	96.00	2.00	LST	DCA	1.97	99	E146602	22	0.36	390	1.27	2.95	5.75	
96.00	98.02	2.02	LST	CLY	2.05	101	E146603	22	0.74	2210	4.24	10.45	8.68	
98.02	99.42	1.40	LST	DCA	1.40	100	E146604	23	0.08	428	1.06	2.16	3.83	
99.42	101.10	1.68	LST	DCA	1.68	100	E146605	23	0.09	353	1.34	2.34	4.27	
101.10	103.63	2.53	LST	DCA	2.42	96	E146606	23	0.90	541	4.65	7.74	13.30	
103.63	104.47	0.84	LST	DCA	0.83	99	E146608	23	0.26	342	4.98	6.10	12.50	
104.47	105.38	0.91	LST	DCA	0.85	93	E146609	23	0.79	709	5.71	9.11	14.30	
105.38	108.20	2.82	GRT	SIL	2.69	95	E146610	23	0.05	234	2.07	1.37	3.76	
108.20	110.85	2.65	GRT	SIL	2.50	94	E146611	23	2.75	5300	17.00	20.80	47.10	
110.85	112.78	1.93	GRT	SIL	1.82	94	E146612	23	2.08	6750	12.20	16.00	37.00	
112.78	115.23	2.45	GRT	SIL	2.24	91	E146614	23	6.98	18150	35.00	60.30	48.50	
115.23	117.84	2.61	GRT	SIL	2.57	98	E146615	23	1.53	3020	10.70	11.60	25.60	
117.84	119.91	2.07	GRT	SIL	2.05	99	E146617	23	0.53	2780	13.80	5.56	18.65	
119.91	121.92	2.01	GRT	SIL	1.97	98	E146618	23	0.35	538	25.90	3.77	15.75	
121.92	124.40	2.48	GRT	SIL	2.35	95	E146619	23	0.35	873	16.30	2.71	23.90	
124.40	126.49	2.09	GRT	SIL	2.09	100	E146620	23	1.22	8600	12.40	5.83	27.40	
126.49	128.02	1.53	GRT	SIL	1.60	105	E146622	23	2.03	872	14.20	4.73	25.10	
128.02	129.98	1.96	GRT	SIL	1.89	96	E146623	23	1.96	966	12.70	4.95	24.10	
129.98	132.00	2.02	GRT	SIL	1.96	97	E146624	23	1.14	3330	12.20	4.79	26.60	
132.00	134.22	2.22	GRT	SIL	2.10	95	E146625	23	1.14	1670	12.60	4.81	25.00	
134.22	136.00	1.78	GRT	SIL	1.72	97	E146626	23	2.15	14500	18.50	15.40	36.30	
136.00	138.68	2.68	GRT	SIL	2.56	96	E146627	23	0.78	8430	12.10	14.00	25.20	
138.68	141.40	2.72	GRT	SIL	2.45	90	E146628	23	1.71	8820	10.50	14.95	27.40	
141.40	144.23	2.83	GRT	SIL	2.60	92	E146629	23	1.19	11450	9.90	14.95	19.60	
144.23	145.67	1.44	LST	DCA	1.35	94	E146630	23	0.19	365	4.96	1.90	9.01	

SAMPLE LOG

From (m)	To (m)	Interval (m)	Unit	Modifier	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)	Comments
145.67	147.67	2.00	GRT	SIL	1.80	90	E146632	23	0.22	461	3.62	1.25	8.03	
147.67	149.35	1.68	GRT	SIL	1.68	100	E146633	23	0.01	149	0.53	0.36	2.29	
149.35	151.63	2.28	GRT	SIL	2.16	95	E146634	23	0.02	87.2	0.36	0.34	1.24	
151.63	153.40	1.77	GRT	SIL	1.77	100	E146635	23	<0.01	106.5	0.26	0.46	0.93	
153.40	156.03	2.63	GRT	SIL	2.61	99	E146636	23	0.01	116	0.23	0.39	0.93	
156.03	158.15	2.12	GRT	SIL	1.91	90	E146637	23	0.10	68.2	0.07	0.17	0.50	
158.15	161.13	2.98	LST	DCA	2.98	100	E146638	23	0.02	54.8	0.31	0.44	1.09	
161.13	163.07	1.94	LST	DCA	1.90	98	E146639	23	<0.01	113.5	0.30	1.13	2.62	
163.07	166.12	3.05	LST	DCA	3.05	100	E146640	24	0.03	193.5	0.29	1.22	1.89	
166.12	169.16	3.04	LST	DCA	2.99	98	E146641	24	<0.01	97.6	0.17	0.39	1.06	
169.16	172.21	3.05	LST	DCA	2.89	95	E146643	24	<0.01	83	0.38	0.41	1.75	
172.21	175.26	3.05	LST	DCA	2.82	92	E146644	24	0.33	3880	2.14	11.55	5.39	
175.26	176.48	1.22	LST	DCA	1.17	96	E146646	24	0.03	1555	1.36	7.19	4.04	
-	-	-	-	-	-	-	E146561	21	13.95	438	0.50	43.90	4.03	**Standard (OS-2)**
-	-	-	-	-	-	-	E146566	21	<0.01	<5	0.01	0.26	0.02	**Blank**
-	-	-	-	-	-	-	E146577	22	2.34	156	1.90	154.50	11.70	**Standard (OS-3)**
-	-	-	-	-	-	-	E146581	22	0.01	5	<0.01	0.19	0.02	**Blank**
70.10	71.63	1.53	LST	DCA	1.50	98	E146589	22	<0.01	98	0.08	0.30	0.93	**Duplicate**
-	-	-	-	-	-	-	E146596	22	<0.01	6	<0.01	<0.05	0.02	**Blank**
-	-	-	-	-	-	-	E146599	22	2.19	167	1.96	154.00	12.30	**Standard OS-3**
-	-	-	-	-	-	-	E146607	23	14.60	464	0.42	41.90	4.41	**Standard 0S-2**
110.85	112.78	1.93	GRT	SIL	1.82	94	E146613	23	2.14	5490	13.10	15.15	36.90	**Duplicate**
-	-	-	-	-	-	-	E146616	23	<0.01	38	0.04	0.15	0.13	**Blank**
-	-	-	-	-	-	-	E146621	23	15.35	1180	5.93	146.00	3.71	**Standard OS-4**
-	-	-	-	-	-	-	E146631	23	<0.01	17	0.01	<0.05	0.05	**Blank**
166.12	169.16	3.04	LST	DCA	2.99	98	E146642	24	<0.01	98.4	0.16	0.38	1.02	**Duplicate**
-	-	-	-	-	-	-	E146645	24	<0.01	12	<0.01	<0.05	0.02	**Blank**
-	-	-	-	-	-	-	E146647	24	2.28	170.5	1.83	147.00	12.90	**Standard OS-3**

GEOTECHNICAL LOG

HOLE: OS-10-09

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
10.18	10.67	0.49	0.49	100	0.00	0	W	MW	
10.67	12.19	1.52	1.27	84	0.00	0	W	MW	
12.19	13.72	1.53	1.13	74	0.00	0	W	MW	
13.72	15.24	1.52	0.95	63	0.00	0	W	MW	
15.24	16.76	1.52	0.87	57	0.00	0	W	MW	
16.76	18.29	1.53	1.10	72	0.00	0	W	FR	
18.29	19.81	1.52	1.18	78	0.26	17	W	FR	
19.81	21.33	1.52	1.17	77	0.13	9	W	FR	
21.33	22.86	1.53	1.32	86	0.30	20	W	FR	
22.86	24.38	1.52	1.34	88	0.17	11	W	FR	
24.38	25.91	1.53	1.28	84	0.10	7	W	FR	
25.91	27.43	1.52	1.35	89	0.00	0	W	FR	
27.43	28.96	1.53	1.34	88	0.00	0	W	FR	
28.96	30.48	1.52	1.21	80	0.00	0	W	FR	
30.48	32.00	1.52	1.52	100	0.29	19	W	FR	
32.00	33.53	1.53	1.51	99	0.92	60	W	FR	
33.53	35.05	1.52	1.38	91	0.20	13	W	FR	
35.05	36.58	1.53	1.37	90	0.00	0	W	FR	
36.58	38.10	1.52	1.39	91	0.32	21	W	FR	
38.10	39.62	1.52	1.50	99	0.00	0	W	FR	
39.62	41.15	1.53	1.44	94	0.16	10	MS	FR	
41.15	42.67	1.52	1.49	98	0.42	28	MS	FR	
42.67	44.20	1.53	1.43	93	0.12	8	MS	FR	
44.20	45.72	1.52	1.48	97	0.00	0	MS	FR	
45.72	47.24	1.52	1.45	95	0.18	12	MS	FR	
47.24	48.77	1.53	1.49	97	0.35	23	MS	FR	
48.77	50.29	1.52	1.43	94	1.00	66	MS	FR	
50.29	51.82	1.53	1.52	99	0.80	52	MS	FR	
51.82	53.34	1.52	1.42	93	0.00	0	MS	FR	
53.34	54.86	1.52	1.48	97	0.23	15	MS	FR	
54.86	56.39	1.53	1.53	100	0.79	52	MS	FR	
56.39	57.91	1.52	1.39	91	0.74	49	MS	FR	
57.91	59.44	1.53	1.52	99	0.56	37	MS	FR	
59.44	60.96	1.52	1.33	87	0.30	20	MS	FR	
60.96	62.48	1.52	1.44	95	0.22	14	MS	FR	
62.48	64.01	1.53	1.53	100	0.84	55	MS	FR	
64.01	65.53	1.52	1.48	97	0.42	28	MS	FR	
65.53	67.06	1.53	1.41	92	0.25	16	MS	FR	
67.06	68.58	1.52	1.34	88	0.46	30	MS	FR	
68.58	70.10	1.52	1.52	100	0.63	41	MS	FR	
70.10	71.63	1.53	1.46	95	0.97	63	MS	FR	
71.63	73.15	1.52	1.41	93	0.55	36	MS	FR	
73.15	74.68	1.53	1.45	95	0.90	59	MS	FR	
74.68	76.20	1.52	1.46	96	0.99	65	MS	FR	
76.20	77.72	1.52	1.45	95	1.34	88	MS	FR	
77.72	79.25	1.53	1.42	93	0.75	49	MS	FR	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
79.25	80.77	1.52	1.52	100	0.96	63	MS	FR	
80.77	82.30	1.53	1.51	99	0.43	28	MS	FR	
82.30	83.82	1.52	1.52	100	0.43	28	MS	FR	
83.82	85.34	1.52	1.52	100	1.01	66	MS	FR	
85.34	86.87	1.53	1.53	100	1.11	73	MS	FR	
86.87	88.39	1.52	1.48	97	1.24	82	MS	FR	
88.39	89.92	1.53	1.52	99	1.13	74	MS	FR	
89.92	91.44	1.52	1.46	96	1.13	74	MS	FR	
91.44	92.96	1.52	1.45	95	1.19	78	MS	FR	
92.96	94.49	1.53	1.45	95	0.99	65	MS	FR	
94.49	96.01	1.52	1.52	100	1.02	67	MS	FR	
96.01	97.54	1.53	1.53	100	0.47	31	MS	FR	
97.54	99.06	1.52	1.52	100	0.77	51	MS	FR	
99.06	100.58	1.52	1.52	100	0.73	48	MS	FR	
100.58	102.11	1.53	1.53	100	1.07	70	MS	FR	
102.11	103.63	1.52	1.52	100	1.09	72	MS	FR	
103.63	105.16	1.53	1.53	100	0.75	49	MS	FR	
105.16	106.68	1.52	1.52	100	0.90	59	MS	FR	
106.68	108.20	1.52	1.52	100	1.15	76	MS	FR	
108.20	109.73	1.53	1.40	92	1.01	66	MS	FR	
109.73	111.25	1.52	1.51	99	0.37	24	MS	FR	
111.25	112.78	1.53	1.43	93	0.65	42	MS	FR	
112.78	114.30	1.52	1.43	94	0.70	46	MS	FR	
114.30	115.82	1.52	1.40	92	0.50	33	MS	FR	
115.82	117.35	1.53	1.50	98	1.12	73	MS	FR	
117.35	118.87	1.52	1.45	95	0.80	53	MS	FR	
118.87	120.40	1.53	1.47	96	0.89	58	MS	FR	
120.40	121.92	1.52	1.43	94	1.43	94	MS	FR	
121.92	123.44	1.52	1.45	95	1.32	87	MS	FR	
123.44	124.97	1.53	1.49	97	1.03	67	MS	FR	
124.97	126.49	1.52	1.52	100	1.17	77	MS	FR	
126.49	128.02	1.53	1.52	99	1.35	88	MS	FR	
128.02	129.54	1.52	1.51	99	1.01	66	MS	FR	
129.54	131.06	1.52	1.37	90	1.05	69	MS	FR	
131.06	132.59	1.53	1.52	100	1.15	75	MS	FR	
132.59	134.11	1.52	1.49	98	0.97	64	MS	FR	
134.11	135.64	1.53	1.50	98	1.02	67	MS	FR	
135.64	137.16	1.52	1.52	100	1.40	92	MS	FR	
137.16	138.68	1.52	1.45	95	1.19	78	MS	FR	
138.68	140.21	1.53	1.42	93	1.20	78	MS	FR	
140.21	141.73	1.52	1.48	97	1.05	69	MS	FR	
141.73	143.26	1.53	1.53	100	1.14	75	MS	FR	
143.26	144.78	1.52	1.21	80	0.47	31	MS	FR	
144.78	146.30	1.52	1.50	99	0.97	64	MS	FR	
146.30	147.83	1.53	1.53	100	1.39	91	MS	FR	
147.83	149.35	1.52	1.52	100	1.25	82	MS	FR	
149.35	150.88	1.53	1.46	95	1.21	79	MS	FR	

GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
150.88	152.40	1.52	1.52	100	1.28	84	MS	FR	
152.40	153.92	1.52	1.52	100	1.46	96	MS	FR	
153.92	155.45	1.53	1.52	99	1.46	95	MS	FR	
155.45	156.97	1.52	1.51	99	1.47	97	MS	FR	
156.97	158.50	1.53	1.47	96	1.10	72	MS	FR	
158.50	160.02	1.52	1.52	100	1.47	97	MS	FR	
160.02	161.54	1.52	1.47	97	1.47	97	MS	FR	
161.54	163.07	1.53	1.53	100	1.16	76	MS	FR	
163.07	164.59	1.52	1.46	96	1.23	81	MS	FR	
164.59	166.12	1.53	1.53	100	1.21	79	MS	FR	
166.12	167.64	1.52	1.52	100	1.26	83	MS	FR	
167.64	169.16	1.52	1.45	95	1.08	71	MS	FR	
169.16	170.69	1.53	1.53	100	1.22	80	MS	FR	
170.69	172.21	1.52	1.42	93	1.35	89	MS	FR	
172.21	173.74	1.53	1.43	93	1.30	85	MS	FR	
173.74	175.26	1.52	1.32	87	1.30	86	W	FR	
175.26	176.48	1.22	1.14	93	0.57	47	W	FR	
176.48	EOH								

MAGNETIC SUSCEPTIBILITY LOG

HOLE: OS-10-09

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
1.00	OVB		n/a	
2.00	OVB		n/a	
3.00	OVB		n/a	
4.00	OVB		n/a	
5.00	OVB		n/a	
6.00	OVB		n/a	
7.00	OVB		n/a	
8.00	OVB		n/a	
9.00	OVB		n/a	
10.00	OVB		n/a	
11.00	MST		2	
12.00	MST		2	
13.00	MST		0	
14.00	MST		0	
15.00	MST		0	
16.00	MST		0	
17.00	MST	CLY	0	
18.00	MST	CLY	0	
19.00	MST	CLY	0	
20.00	MST	CLY	0	
21.00	MST	CLY	0	
22.00	MST	CLY	0	
23.00	MST	CLY	0	
24.00	MST	CLY	0	
25.00	MST	CLY	0	
26.00	MST	CLY	0	
27.00	MST	CLY	0	
28.00	MST	CLY	0	
29.00	MST	CLY	0	
30.00	MST	CLY	0	
31.00	LST	DCA	0	
32.00	LST	DCA	0	
33.00	LST	DCA	0	
34.00	LST	DCA	0	
35.00	LST	SIL	0	
36.00	LST	DCA	0	
37.00	LST	DCA	0	
38.00	LST	DCA	0	
39.00	LST	DCA	0	
40.00	LST	DCA	0	
41.00	LST	DCA	0	
42.00	LST	DCA	0	
43.00	LST	DCA	0	
44.00	LST	DCA	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
45.00	LST	DCA	0	
46.00	LST	DCA	0	
47.00	LST	DCA	0	
48.00	LST	DCA	0	
49.00	LST	DCA	0	
50.00	GRT	Qz	0	
51.00	GRT	Qz	0	
52.00	LST	DCA	0	
53.00	LST	DCA	0	
54.00	LST	DCA	0	
55.00	LST	DCA	0	
56.00	LST	DCA	0	
57.00	LST	DCA	0	
58.00	LST	DCA	0	
59.00	LST	DCA	0	
60.00	LST	DCA	0	
61.00	LST	DCA	0	
62.00	LST	DCA	0	
63.00	LST	GRT	0	
64.00	LST	GRT	0	
65.00	LST	DCA	0	
66.00	LST	DCA	0	
67.00	LST	DCA	0	
68.00	LST	DCA	0	
69.00	LST	DCA	0	
70.00	LST	DCA	0	
71.00	LST	DCA	0	
72.00	LST	DCA	0	
73.00	LST	DCA	0	
74.00	GRT	Qz	0	
75.00	GRT	Qz	0	
76.00	GRT	Qz	0	
77.00	GRT	Qz	0	
78.00	GRT	Qz	0	
79.00	GRT	CLY	0	
80.00	GRT	Qz	0	
81.00	GRT	Qz	0	
82.00	GRT	Qz	0	
83.00	GRT	Qz	0	
84.00	GRT	Qz	0	
85.00	GRT	Qz	0	
86.00	GRT	Qz	0	
87.00	GRT	Qz	0	
88.00	GRT	Qz	0	
89.00	LST	DCA	0	
90.00	LST	DCA	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
91.00	LST	DCA	0	
92.00	LST	DCA	0	
93.00	LST	DCA	0	
94.00	LST	DCA	0	
95.00	LST	DCA	0	
96.00	LST	CLY	0	
97.00	LST	CLY	0	
98.00	LST	CLY	0	
99.00	LST	DCA	0	
100.00	LST	DCA	0	
101.00	LST	DCA	0	
102.00	LST	DCA	0	
103.00	LST	DCA	0	
104.00	LST	DCA	0	
105.00	LST	DCA	0	
106.00	GRT	Qz	0	
107.00	GRT	Qz	0	
108.00	GRT	Qz	0	
109.00	GRT	Qz	0	
110.00	GRT	Qz	0	
111.00	GRT	Qz	0	
112.00	GRT	Qz	0	
113.00	GRT	Qz	0	
114.00	GRT	Qz	0	
115.00	GRT	Qz	0	
116.00	GRT	Qz	0	
117.00	GRT	Qz	0	
118.00	GRT	Qz	0	
119.00	GRT	Qz	0	
120.00	GRT	Qz	0	
121.00	GRT	Qz	0	
122.00	GRT	Qz	0	
123.00	GRT	Qz	0	
124.00	GRT	Qz	0	
125.00	GRT	Qz	0	
126.00	GRT	Qz	0	
127.00	GRT	Qz	0	
128.00	GRT	Qz	0	
129.00	GRT	Qz	0	
130.00	GRT	Qz	0	
131.00	GRT	Qz	0	
132.00	GRT	Qz	0	
133.00	GRT	Qz	0	
134.00	GRT	Qz	0	
135.00	GRT	Qz	0	
136.00	GRT	Qz	0	

MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
137.00	GRT	Qz	0	
138.00	GRT	Qz	0	
139.00	GRT	Qz	0	
140.00	GRT	Qz	0	
141.00	GRT	Qz	0	
142.00	GRT	Qz	0	
143.00	GRT	Qz	0	
144.00	GRT	Qz	0	
145.00	LST	DCA	0	
146.00	GRT	Qz	0	
147.00	GRT	Qz	0	
148.00	GRT	Qz	0	
149.00	GRT	Qz	0	
150.00	GRT	Qz	0	
151.00	GRT	Qz	0	
152.00	GRT	Qz	0	
153.00	GRT	Qz	0	
154.00	GRT	Qz	0	
155.00	GRT	Qz	0	
156.00	GRT	Qz	0	
157.00	CGL	Qz	0	
158.00	CGL	Qz	0	
159.00	LST	DCA	0	
160.00	LST	DCA	0	
161.00	LST	DCA	0	
162.00	LST	DCA	0	
163.00	LST	DCA	0	
164.00	LST	DCA	0	
165.00	LST	DCA	0	
166.00	LST	DCA	0	
167.00	LST	DCA	0	
168.00	LST	DCA	0	
169.00	LST	DCA	0	
170.00	LST	DCA	0	
171.00	LST	DCA	0	
172.00	LST	DCA	0	
173.00	LST	DCA	0	
174.00	LST	DCA	0	
175.00	LST	DCA	0	
176.00	LST	DCA	0	EOH

BOX LOG

HOLE: OS-10-09

BOX	FROM (m)	TO (m)
1	10.18	13.72
2	13.72	17.60
3	17.60	21.34
4	21.34	25.03
5	25.03	28.96
6	28.96	32.85
7	32.85	36.58
8	36.58	40.50
9	40.50	44.31
10	44.31	48.33
11	48.33	52.07
12	52.07	56.01
13	56.01	59.67
14	59.67	63.75
15	63.75	67.78
16	67.78	71.63
17	71.63	75.68
18	75.68	79.60
19	79.60	83.48
20	83.48	87.50
21	87.50	91.64
22	91.64	95.46
23	95.46	99.42
24	99.42	103.33
25	103.33	107.30
26	107.30	111.25
27	111.25	115.23
28	115.23	119.20
29	119.20	123.40
30	123.40	127.34
31	127.34	131.44
32	131.44	135.64
33	135.64	139.63
34	139.63	143.73
35	143.73	148.67
36	148.67	151.63
37	151.63	155.63
38	155.63	159.79
39	159.79	163.84
40	163.84	167.87
41	167.87	171.21
42	171.21	176.48
176.48 m - E.O.H.		

APPENDIX VII

GEOPHYSICAL REPORT BY CONDOR CONSULTING INC.

REPORT ON PROCESSING AND INTERPRETATION

OF

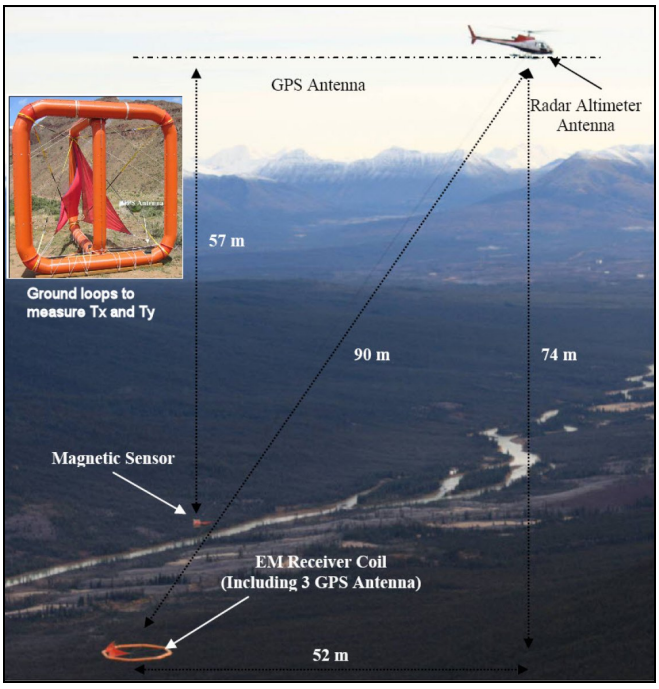
ZTEM SURVEYS

RAU PROPERTY

YUKON, CANADA

ATAC RESOURCES LTD.

DECEMBER 2010



Condor Consulting, Inc.
Lakewood Colorado
USA

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1. INTRODUCTION

This report describes the analysis of a ZTEM airborne geophysical data over the Rau property, located near Mayo, Yukon, Canada (Figure 1). The survey was flown between June 14-22, 2010 by Geotech Ltd. (Geotech) for ATAC Resources Ltd. (ATAC) and comprised three blocks, Central, NW and SE. The Central block encompasses the Tiger zone, where recent drilling has defined a gold resource, the El zone where drilling has been undertaken and a number of other Au prospects. The SE block encompasses the recently discovered Osiris zone, which has also been drilled.

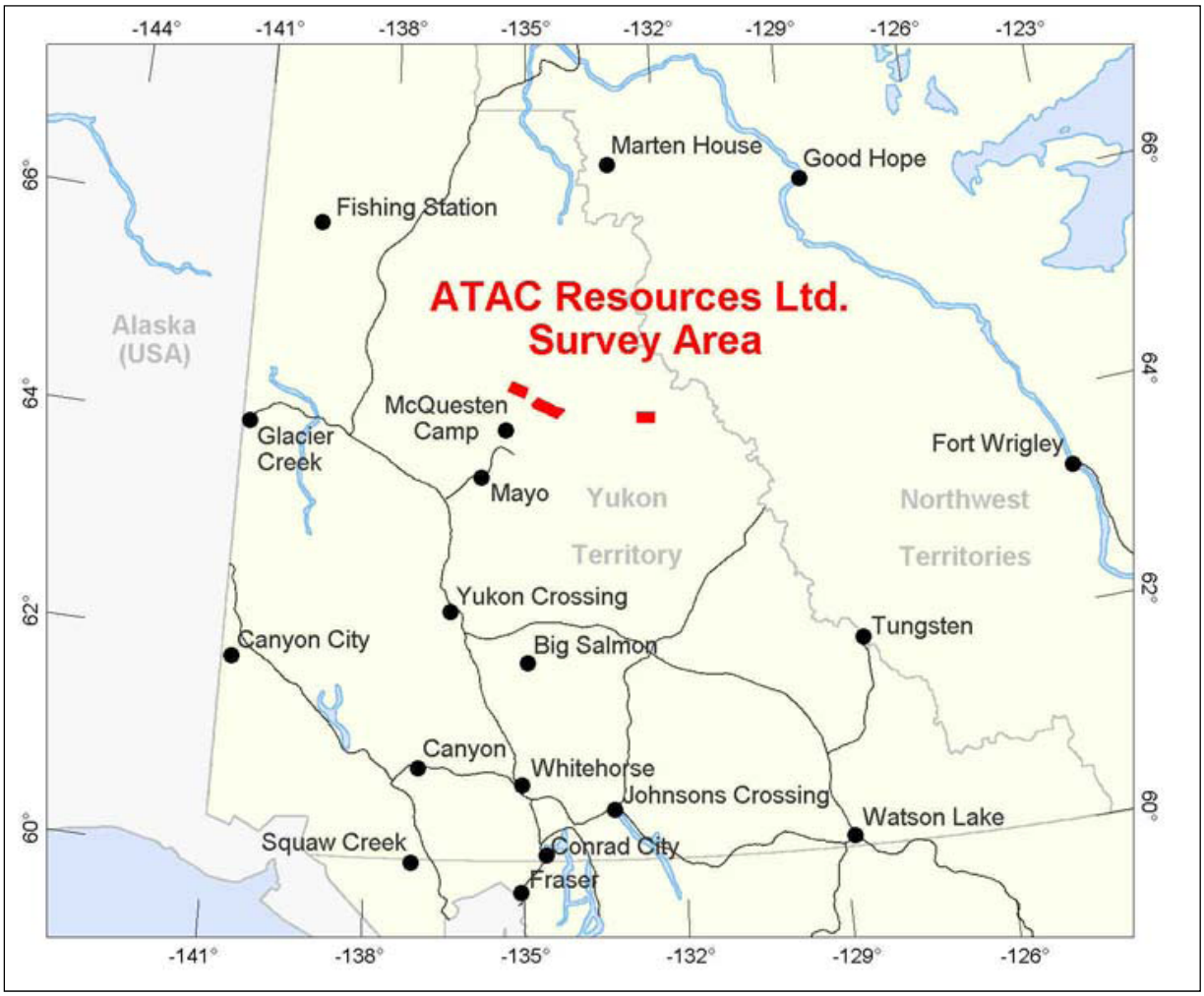

Figure 1: Location of ZTEM surveys.

The aim of the ZTEM survey was to map structures and lithologies controlling gold mineralization and thus generate additional targets.

Previously, in 2007-2008, a VTEM survey was flown over a similar area to the ZTEM Central block. The VTEM data defined relatively modest conductive zones correlating with the Tiger zone and extending northwest across other Au mineralized zones, including the El zone.

In early 2010, ATAC decided to fly additional AEM to assist in defining targets elsewhere in their extensive land package at Rau. Because of the relatively poor conductivity of the Au mineralization and associated alteration, a ZTEM test survey was carried out between May 27-June 6, 2010 over the Tiger zone to evaluate whether ZTEM could define this target style better than VTEM. A well-defined conductive zone was delineated by the ZTEM over the Tiger zone, which extended northwest and correlated with other Au mineralized prospects. Consequently ZTEM was adjudged to be a more effective method for mapping features significant to the gold mineralization in this environment.

Following the positive results from the test survey, additional ZTEM was flown to cover most of the area of the 2007-2008 VTEM survey. The data from the test survey have been merged into the main survey for this report.

Condor Consulting Inc. (Condor) was commissioned to carry out comprehensive processing, analysis and interpretation of the ZTEM and magnetic data. The interpretation had two principal goals:

- Identify the EM and magnetic signatures of the known gold mineralization at a local scale
- Generate additional targets, either extensions of the known mineralization or new zones elsewhere within the three survey blocks.

The principles of the ZTEM system, together with modelling and analysis techniques, are summarized in Condor Technical Note “ZTEM Primer” (Appendix A).

2. SURVEY DETAILS

The ZTEM survey comprised three blocks (Central, NW and SE), as shown in Figure 2. The survey was flown out of ATAC's McQuesten Camp, shown on the figure. The magnetic base station was located close to the camp, while the ZTEM base station was located approximately half way between the camp and the Central block.

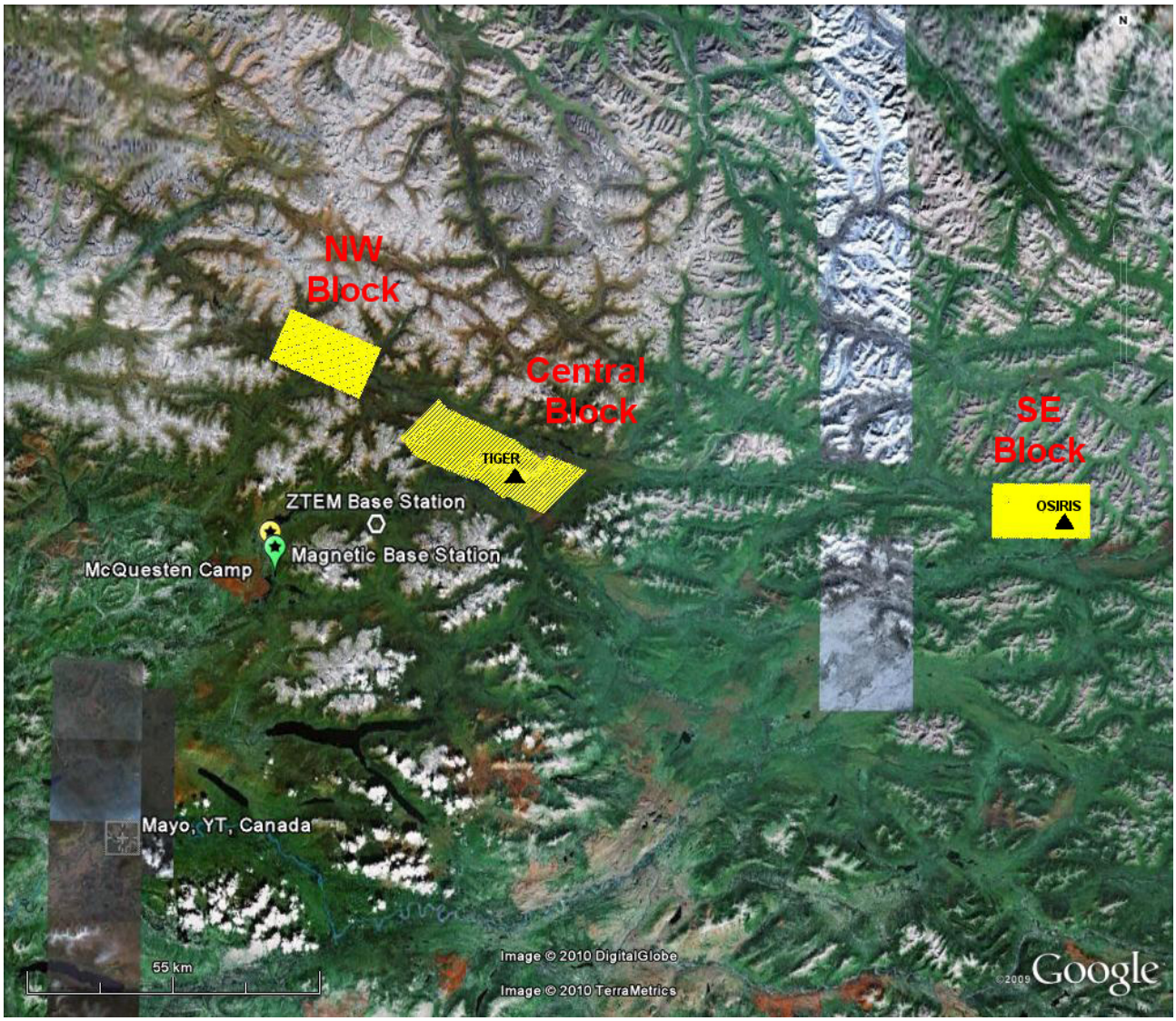

Figure 2: Locations of three survey blocks.

The Central block consisted of 1531.4 line km, of which 322.6 km had been flown during the initial test survey stage (Figure 3).

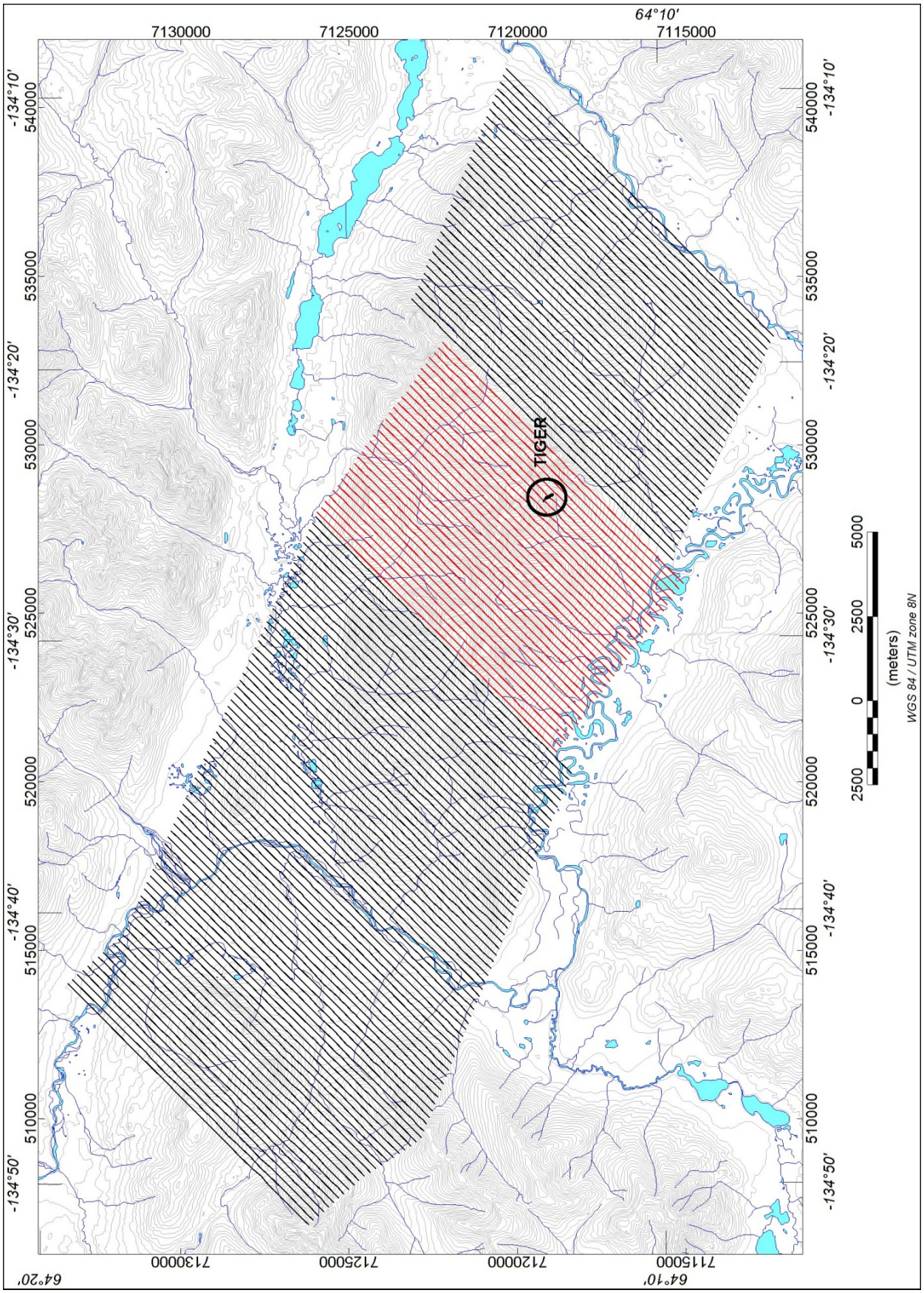

Figure 3: Central block - ZTEM flight path.

The Northwest block comprised 922.5 line km (Figure 4) and the Southeast block 923.1 line km (Figure 5).

The total line Km of ZTEM (including the test survey) was 3 377 km.

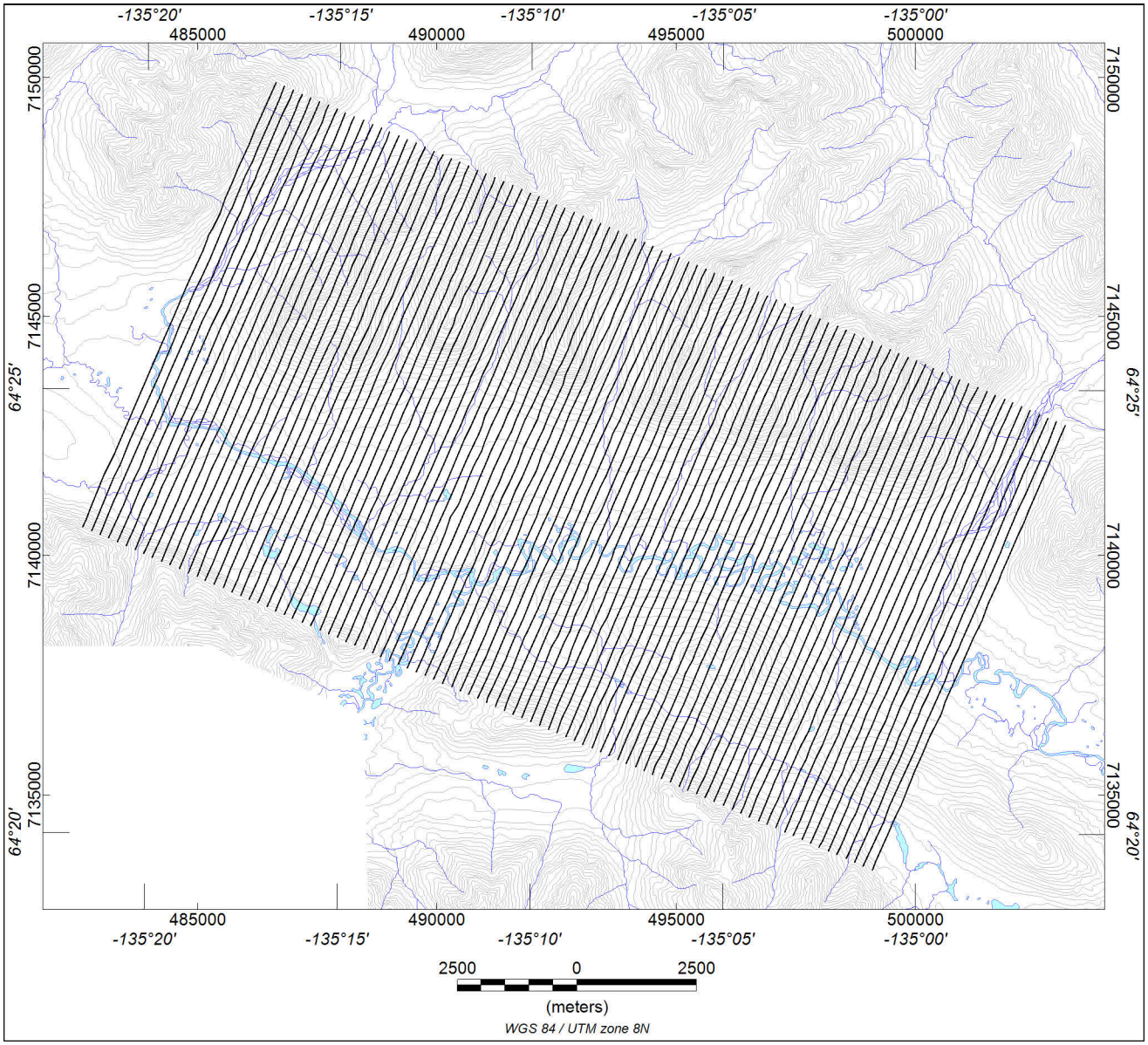

Figure 4: Northwest block - ZTEM flight path.

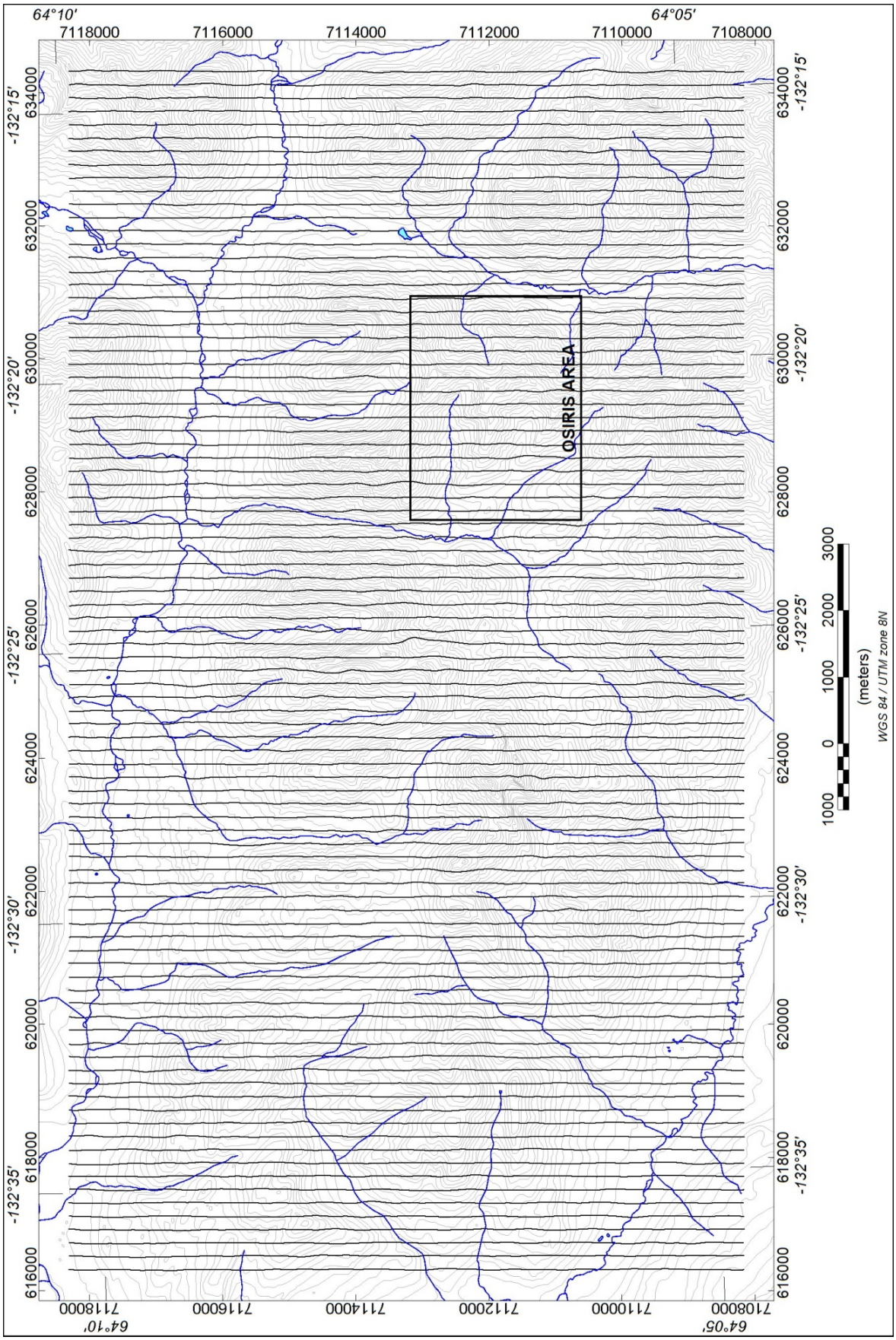

Figure 5: Southeast block - ZTEM flight path.

3. GEOLOGY

The geology of the Central block is shown in Figure 6a and the accompanying legend in Figure 6b. No geologic maps covering the other blocks were available, except for a small area covering the Osiris prospect in the Southeast block, which is shown on the interpretation maps later in this report.

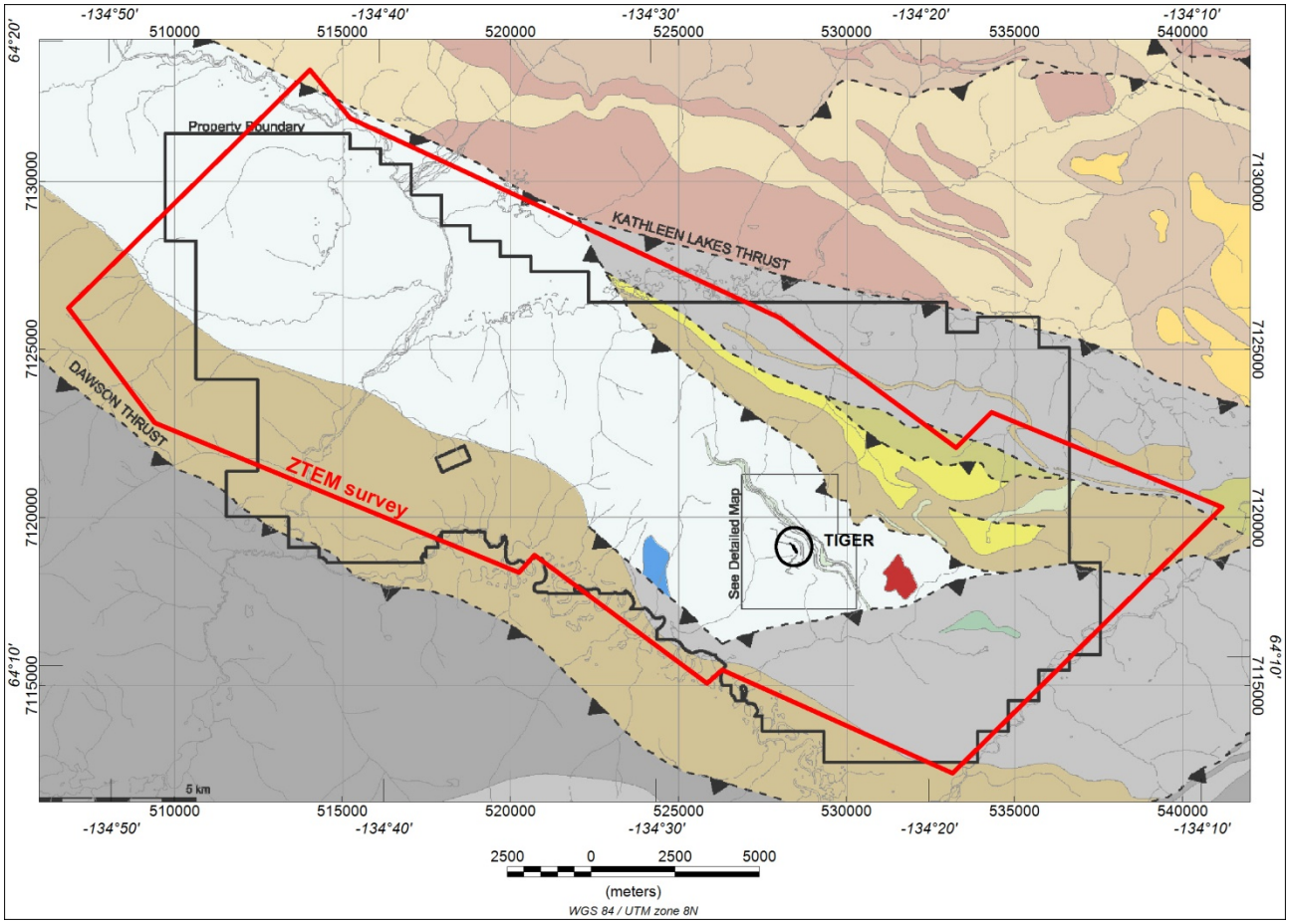

Figure 6a: Geology of Central block, showing boundary of ZTEM survey.

The following description of the geology and mineralization is extracted from ATAC's web site:

http://www.atacresources.com

The Rau Project is located 55 km northeast of Keno City in Central Yukon. The project is over 1300 sq km and is situated between the regional-scale Dawson thrust and Kathleen Lakes fault, within a Paleozoic carbonate inlier of the Selwyn Basin tectonic province. Replacement-style, gold-bearing sulphide and oxide mineralization occurs in Bouvette Formation shallow water limestone, dolomite, and calcareous siltstone of Cambrian to Devonian age. ATAC Resources Ltd. wholly owns the project, which was a grass roots discovery in 2006. Since then, it has acquired by staking over 160 km of potential strike length of favourable structure and stratigraphy, of which only a very small portion has been explored for gold.

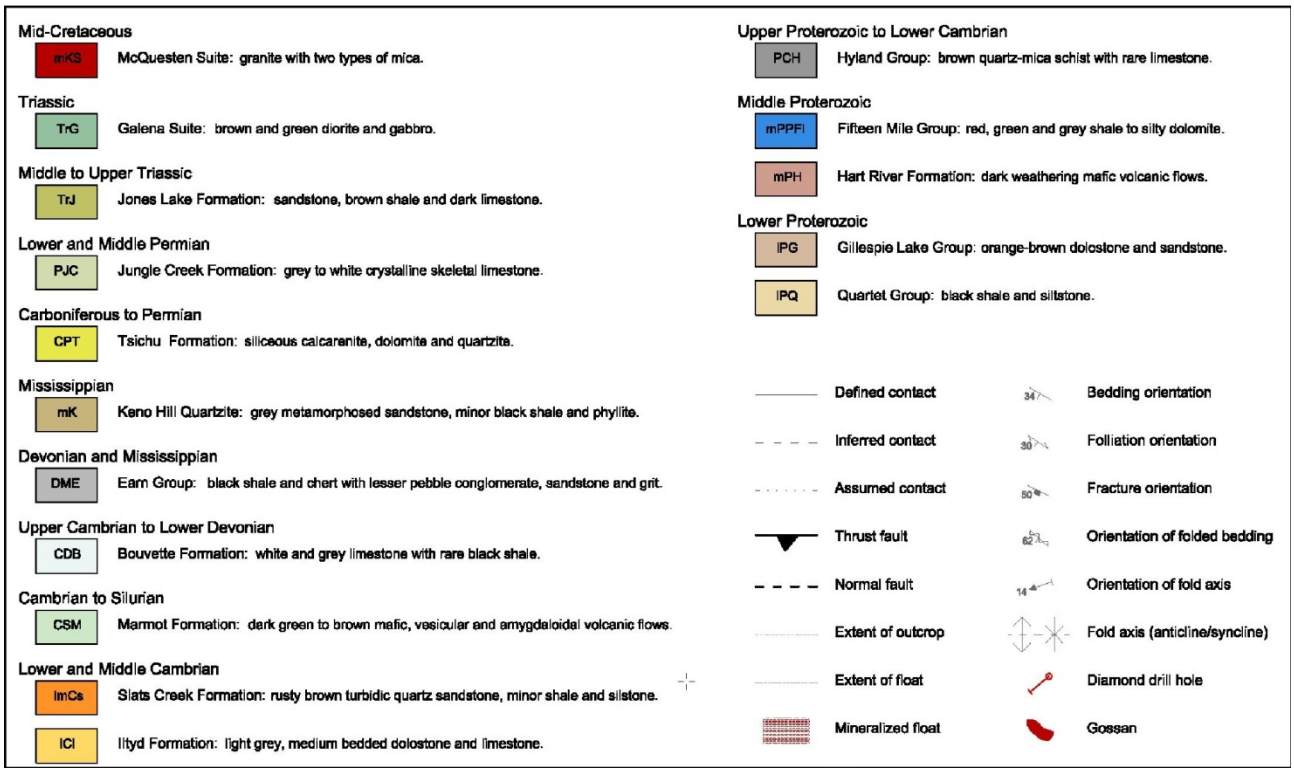

Figure 6b: Legend for geological map shown in Figure 6a.

Exploration conducted by ATAC has focused along a 15 km portion of the Bouvette Formation where it forms a local ridge system bound by the Beaver and Rackla Rivers. Carbonate strata at the southeast end of the ridge system is intruded by a small early Tertiary (62.9+0.5 Ma) granite stock. Work along the 15 km trend comprises widely spaced soil geochemical surveys, airborne VTEM surveys plus limited geological mapping and prospecting. Detailed work conducted in a 3 km by 5 km area at the southeastern end of this trend focused on the Tiger Zone and included detailed grid soil geochemical surveys and diamond drilling of 71 holes.

The Tiger Zone is a stratigraphically-controlled gold deposit that trends northwest and dips moderately northeast and is characterized by replacement of host carbonates. It is currently 650 m long, 100 to 200 m wide, and up to 96 m thick. Mineralization is contained within a 40 m to 150 m wide zone of small-scale folding and shearing, which is itself developed in and adjacent to a regionally extensive corridor of highly strained rocks. The mineralized system is defined by a series of stacked and folded limestone horizons intercalated with locally extensive mafic flows and volcaniclastic units. Most of the exploration has been directed toward the Discovery Horizon, although there is evidence for at least two additional stratabound intervals of gold mineralization

Gold occurs in both sulphide and oxide material. Sulphide mineralization is accompanied by, and developed within, limestone which is replaced by ferruginous dolomite and iron carbonate minerals. Sulphide species consist of disseminated to banded pyrite, with subordinate arsenopyrite and pyrrhotite, and minor bismuthinite and sphalerite. Small amounts of disseminated scheelite are also present. The main sulphide minerals exhibit at least three stages of mineralization. The best intersection from sulphide-bearing mineralization averaged 4.04 g/t gold over 96.01 m from hole Rau-09-66.

Oxide mineralization is completely devoid of sulphide minerals and ranges from very competent, weakly

porous limonitic mud to rubbly porous limonitic grit. The oxide appears texturally amorphous in most intersections but occasionally exhibits residual color banding that may represent relict sulphide textures. Complete oxidation extends up to 150 m from surface. The best oxide grades (e.g., hole Rau-09-19, which assayed 24.07 g/t gold across 28.04 m) and deepest oxidation occur where north-striking extensional faults intersect the regional northwest-striking structure. The nature of the contacts between the oxide and sulphide facies is poorly understood, as is the gold distribution in the mineralized horizon and within individual sulphide species. Mineralization at the Tiger Zone remains open along strike and down dip, as well as at depth across a normal fault that locally defines the southwest margin of the favourable structural corridor.

In addition to the work done at the Tiger Zone, ATAC identified six new surface gold zones by following up high values from grid and widely spaced reconnaissance soil sampling. The best zones are in a 500 m wide belt, which lies 2 to 5 km along strike to the northwest of the Tiger Zone, in and adjacent to the northwest-striking structural corridor. Anomalous soil geochemical values stretch intermittently for about 22 km to the northwest along the projected trace of the structural corridor, which is marked by electromagnetic conductors. Surface rock samples collected from talus or recessively weathered areas assayed between 1.0 and 18.5 g/t gold.

The Osiris Target Area in the SE block was delineated during the 2010 field season. The following description is taken from ATAC's press release dated July 29, 2010.

The Osiris Showing occurs within the Sten claim block that was staked in 2009 to cover a 17 km long mountain range where five of six stream sediment samples in the federal government stream sediment database were highly anomalous for arsenic. Follow up reconnaissance-scale stream sediment sampling in 2009 identified several areas that warranted additional exploration, in particular one 2 km long tributary of one of the anomalous drainages that is characterized by stream sediment gold values ranging from trace to 2 g/t gold. Prospecting in the headwaters of this creek revealed gold mineralization over a widespread area.

Mineralization is hosted by carbonate rocks of uncertain age that are folded into a southerly plunging anticline and occurs in the form of narrow veins, veinlets, stockworks and disseminations of realgar and orpiment (both are arsenic sulphide minerals) accompanied by calcite flooding. The discovery has been traced for a 1 km strike length on both limbs of the fold. The strongest soil geochemical response corresponds to a 40 m wide breccia zone that lies along the fold axis where soils commonly contain in excess of 1 g/t gold, and range from trace to a maximum value of 17.5 g/t gold. The core of the gold and arsenic geochemical anomaly covers an area of approximately 150 by 500 m with 60% of the soil samples grading in excess of 1 g/t gold.

The Osiris mineralization is distinctly different in character from the Tiger Zone mineralization in that realgar and orpiment appear to be the primary gold bearing minerals -- rather than pyrite and arsenopyrite. The Osiris mineralization occurs in limestone debris flows and turbidite deposits characteristic of an offshore sedimentary environment, whereas the Tiger Zone is hosted by shallow water dolomitized limestone. The mineralogy, chemistry and geological setting of the Osiris Showing are more characteristic of Carlin-style mineralization than Tiger Zone. Realgar and orpiment with calcite flooding are common attributes of areas peripheral to, or above, certain gold deposits of the Carlin type.

4. PREVIOUS WORK

Figure 7 shows an image of the regional TMI magnetics. The Central and NW blocks are located within a large area of more complex magnetics, while the SE block lies in a relatively “quiet” area, on the southeast flank of a broad magnetic high.

Figure 8 shows the regional gravity, with the stations marked. The station spacing is too wide to delineate prospect scale features. A broad gravity high loosely correlates with the complex magnetic feature covering the Central and NW blocks, suggesting that more mafic rocks may underlie this area. The SE block is located within a gravity low. A more localized gravity high correlates with the magnetic high northwest of the SE block, but this is defined by a single reading and consequently its size is questionable.

A VTEM airborne EM and magnetic survey was flown for Archer, Cathro and Associates Ltd. between August 2007-September 2008, over an area similar to the ZTEM Central block (the flying was interrupted several times by bad weather). Figure 9 compares the survey boundaries of these surveys. The VTEM survey data was interpreted by Condor (Irvine, 2009).

The VTEM survey defined relatively subtle conductive zones correlating with the Tiger zone and other Au prospects to the northwest. Comparison of the VTEM and ZTEM data is discussed later in this report.

Exploration to date has been concentrated on the Tiger zone in the Central block (Figure 10) and extensions along strike to the northwest. In early 2010 gravity surveys were carried out over the Grid2 (Tiger), ZTEM, Puma and El zone grids and an IP survey was carried out over the El zone (these grids are shown in Figure 10). Correlation of the gravity and IP with the ZTEM results is discussed later in this report.

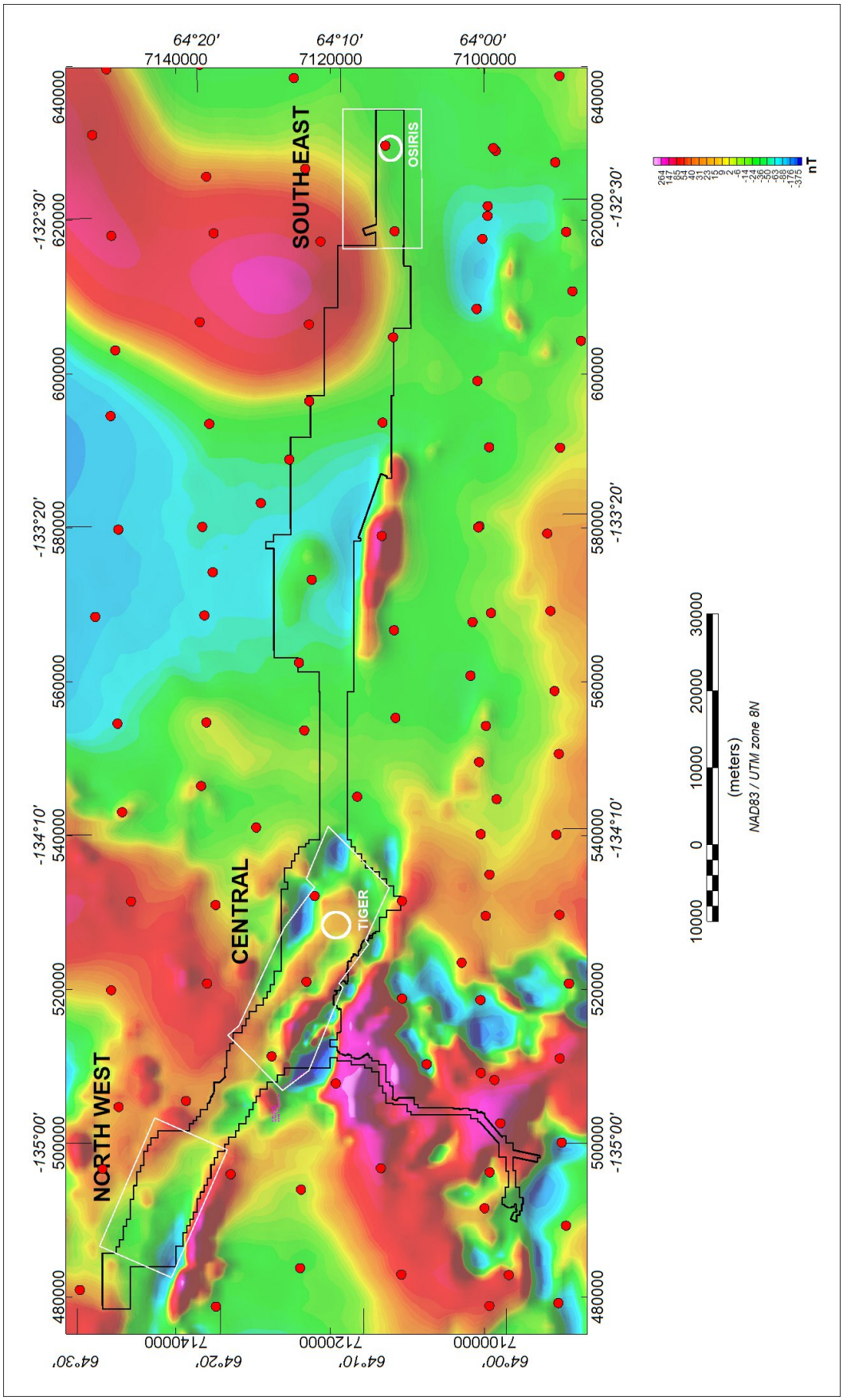

Figure 7: Regional TMI image, with ZTEM survey blocks annotated.

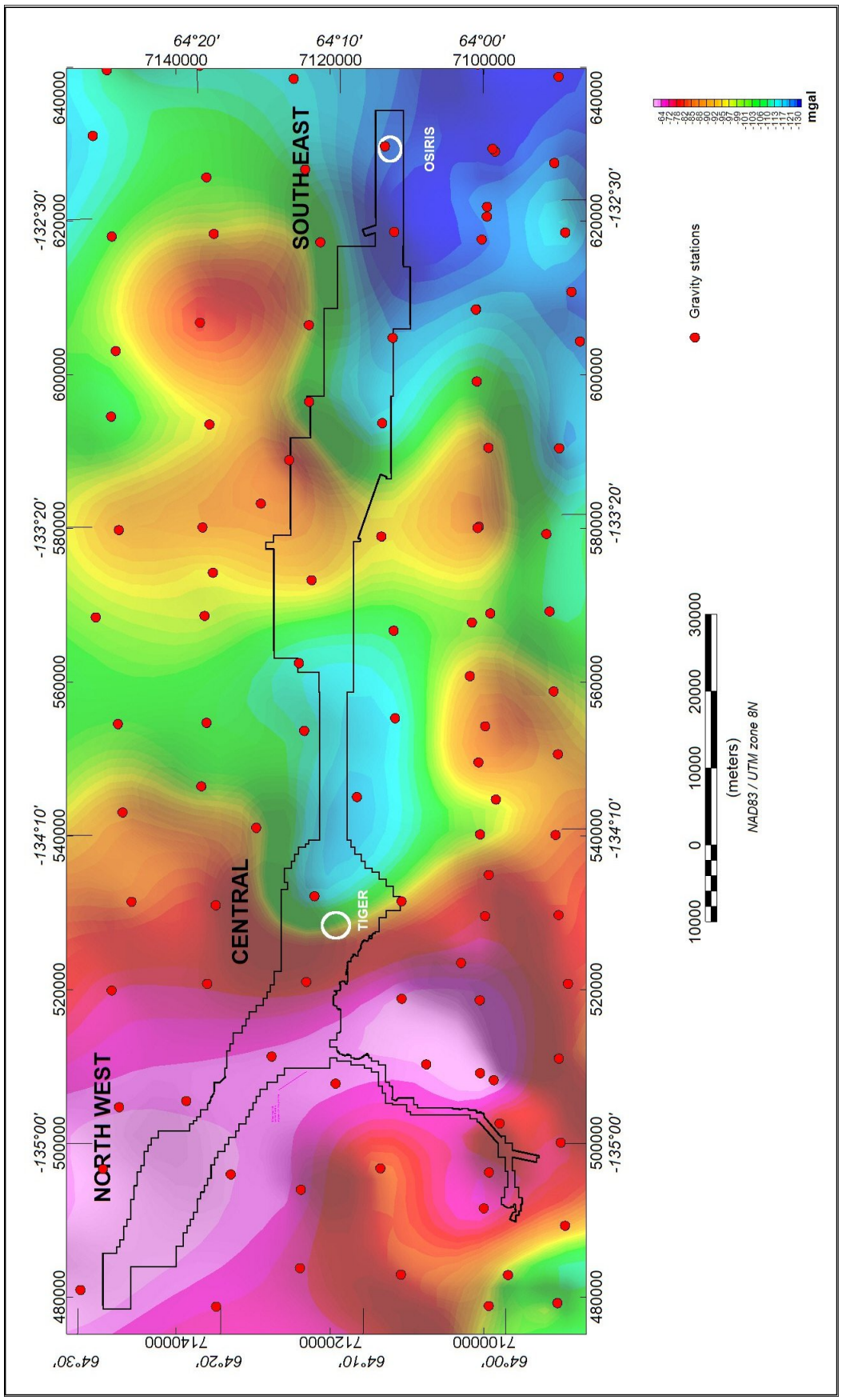

Figure 8: Regional gravity.

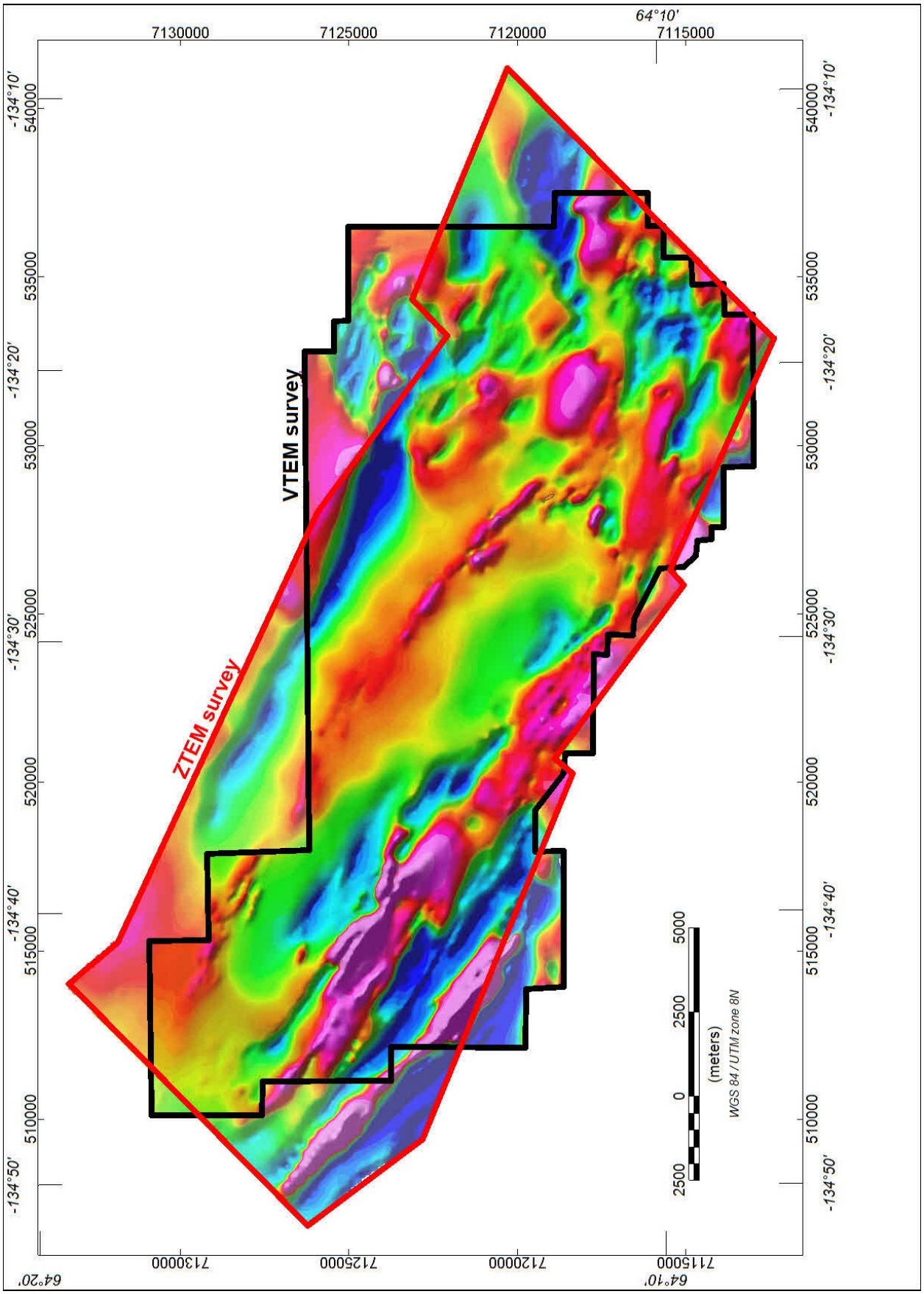

Figure 9: Central block – comparison of VTEM and ZTEM survey areas (image is TMI).

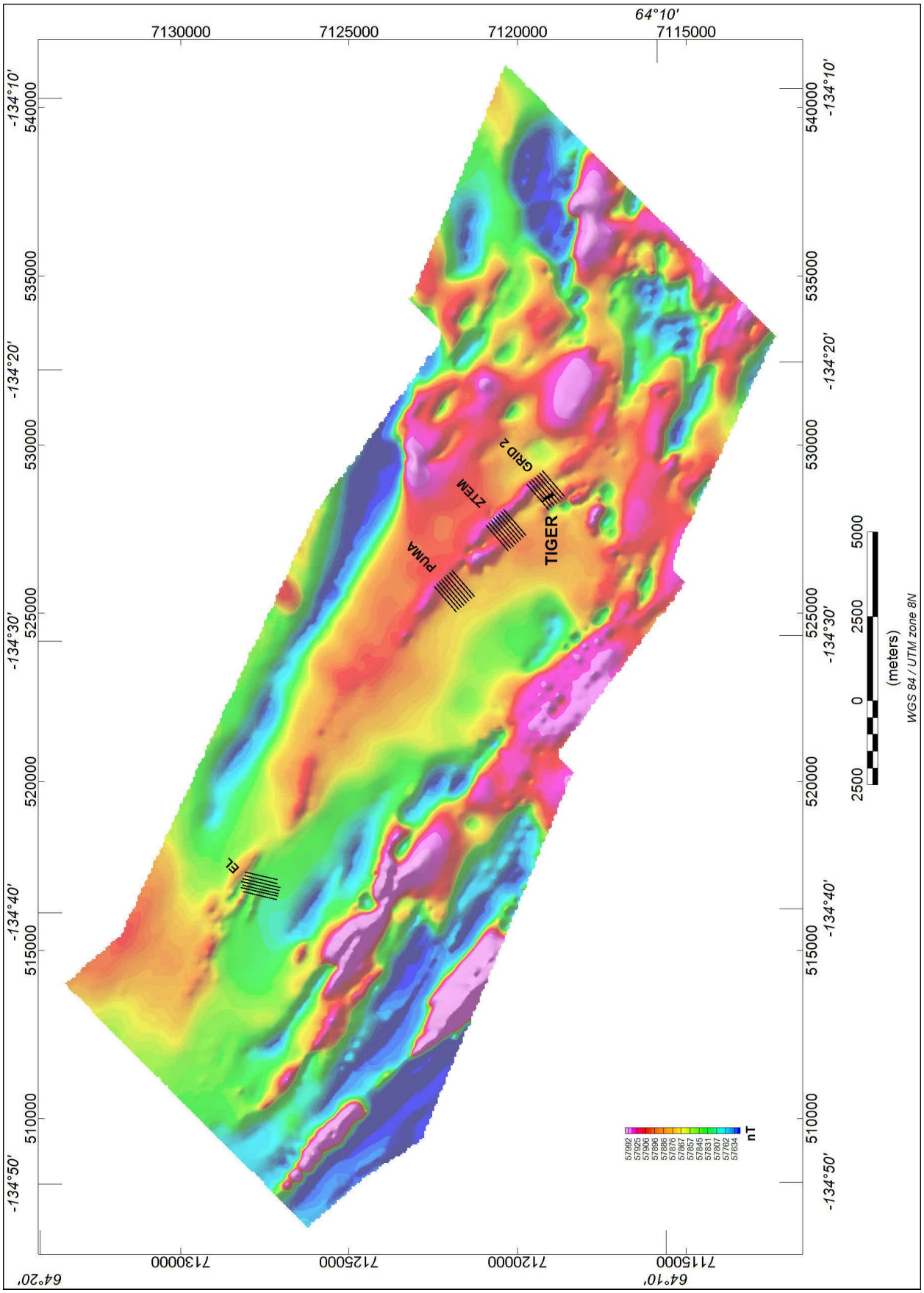

Figure 10: Central block - location of detailed grids.

5. PRODUCTS, PROCESSING AND ANALYSIS TECHNIQUES

ZTEM

Geotech Products

Geotech delivered grids and maps produced from the ZTEM data for each of the three blocks. An explanation of these products is included in their report (Milicevic, B., Legault, J. and Smith, G., 2010). For convenience, their description of Total Divergence and Phase Rotation is included in Appendix B.

The 720Hz data is typically somewhat noisy and less reliable than the lower frequencies.

The ZTEM receiver measures the vertical (Z) component, which is normalized by the horizontal components (X and Y) at the ground base station. X is component in the along-line direction while Y is the component in the across-line direction. In this report, the terminology Z/X and Tzx are equivalent, as are Z/Y and Tzy. In parts of this report, Z/X and Z/Y are abbreviated to X and Y components.

GRIDS (for each frequency 30, 45, 90, 180, 360 and 720Hz):
Z/X In-Phase Component Phase Rotated
Z/X Quadrature component Phase Rotated
Z/Y In-Phase Component Phase Rotated
Z/Y Quadrature component Phase Rotated
Total Divergence grid from In-phase components
Total Divergence grid from Quadrature components
Total Phase Rotated grid from In-phase components
Total Phase Rotated grid from Quadrature components

MAPS @1:20 000 scale in Geosoft MAP format, as follows:
Total Magnetic Intensity (TMI)
Digital Elevation model (DEM)
3D View of In-Phase Total Phase Rotated Grids versus Skin Depth
30Hz Z/X Component In-Phase Phase Rotated
90Hz Z/X Component In-Phase Phase Rotated
360Hz Z/X Component In-Phase Phase Rotated
30Hz In-Phase Total Phase Rotated Grid
90Hz In-Phase Total Phase Rotated Grid
360Hz In-Phase Total Phase Rotated Grid

30Hz Quadrature Total Phase Rotated Grid
90Hz Quadrature Total Phase Rotated Grid
360Hz Quadrature Total Phase Rotated Grid
Z/X (In-line) In-Phase Profiles over 90Hz Phase Rotated In-Phase Grid
Z/X (In-line) Quadrature Profiles over a 90Hz Phase Rotated Quadrature Grid.
Z/Y (Cross-line) In-Phase Profiles over 90Hz Phase Rotated In-Phase Grid
Z/Y (Cross-line) Quadrature Profiles over a 90Hz Phase Rotated Quadrature Grid.

Geotech provides what might be considered an excessive number of grids for the ZTEM survey, likely due to the relative newness of the technique and the lack of controlled case studies to define the likely geological significance of the various grids. Condor has been working on a number of ZTEM case studies to assist in the general better understanding of the technique; these are provided in Appendix A.

The Z/X grids are generated using the Tzx (along line) component and are thus more sensitive to conductive and resistive features generally perpendicular to the flight lines. The Z/Y grids are generated using the Tzy (across line) component and thus are more sensitive to features parallel to the flight lines. The Total Divergence (DT) and Total Phase Rotated (TPR) grids use both components and consequently provide less strike-sensitive maps.

For an individual survey, it is useful to examine the correlation of the various grids with the known geology and empirically the one which best defines the lithologies and structures. For the Central block, the Z/X In-Phase Component Phase Rotated grid for 180Hz best defines the Tiger mineralized zone and its extension through Puma to the northwest, so interpretation has been based principally on this grid. (This grid has the file name XIP_180Hz_PR). In the Southeast block a small area surrounding the newly-discovered Osiris zone has geological mapping, but no mapping covering the Northwest block was available to the author. In view of its application in the Central block, the Z/X In-Phase Component Phase Rotated grid for 180Hz was also used for interpretation in the other two blocks, but since the geology, alteration and style of mineralization is likely different other grids were also used.

Geotech ran 2D inversions on a limited data set in the Central block - two lines over Puma (4050 and 4070) and two lines over El (6680 and 6690). Details of their software and the conductivity depth sections generated from these inversions are contained in their report (Milicevic et al, 2010).

Condor Processing

2D Inversions

Condor carried out 2D Occam inversions of every line of the ZTEM data to produce conductivity depth sections, using open source code (deGroot-Hedlin and Constable, 1990; Wannamaker at al., 1987; deLugao and Wannamaker, 1996), modified for ZTEM data. These inversions use only the Tzx (along-line) component and thus are most sensitive to across-line conductivity variations. Details are contained in Appendix B.

Apparent Resistivity Maps

Apparent conductivity maps were produced for each frequency, using the method of Becken and Pedersen (2003). This product uses both the Tzx and Tzy components and thus maps both across-line and along-line conductivity variations. The higher frequencies map shallow conductivity variations while the lower frequencies respond more to deeper features.

Karous-Hjelt Filter

This filter facilitates data interpretation by turning cross-overs into peaks and troughs. Grids and pseudosections were derived from the Tzx inphase response.

MAGNETICS AND GRAVITY

In addition to the normal filters available in the Geosoft application, additional processing was done on the ZTEM magnetic data using the encompass[1] software and algorithms described by Shi and Butt (2004) – this paper is included in Appendix G (DVD). These enhancements are termed ZS filters. A variety of enhancements were produced, but one is deemed to be particularly useful in the present study, termed Tilt (Verduzco et al, 2004). This grid is provided as one of the TargetMaps (see Section 10).

UBC MAG3D and GRAV3D Inversion

The University of British Columbia (UBC) 3D magnetic data inversion program MAG3DINV, version 4.0, was used to invert the ZTEM magnetic data to a voxel model (Li and Oldenburg, 1996). The similar program GRAV3D (Li and Oldenburg, 1998) was used to invert gravity data acquired in early 2010 on four grids shown in Figure 8. More information on these programs is included in Appendix C.

[1] encompass is the product of Pitney Bowes Business Insight.

INDUCED POLARIZATION

The IP data acquired in early 2010 on the El grid (Aurora Geosciences, 2010) was inverted by Condor using UBC DCIP2D software (Oldenburg and Li, 1994). A description on this software is included in Appendix D.

ANALYSIS TECHNIQUES AND ISSUES

Target Zones

The ZTEM system operates quite differently than traditional airborne EM systems such as VTEM. Condor has provided a short note on these differences in Appendix A.

In this survey Target Zones (TZs) are deemed to be conductive zones and have been prioritized based on their relative conductivity, together with their magnetic association and any other available geoscience data.

6. CENTRAL BLOCK INTERPRETATION

Several grids derived from the ZTEM data are shown in Figure 11 to facilitate comparisons. The images are:

(a) DEM
(b) XIP 180Hz PR
(c) IP 180Hz TPR
(d) YIP 180Hz PR
(e) IP 180Hz DT (reversed color palate)
(f) 180Hz Apparent Conductivity (Condor)

The “warm” colors represent conductors and the “cool” colors represent resistors. The color palate for the IP 180Hz DT image has been reversed to be compatible with this convention.

Significant differences are observed between the XIP_180Hz_PR and YIP_180Hz_PR grids, indicating that the strike direction of the geology is variable and not simply east-west (perpendicular to the flight lines). The IP_180Hz_TPR and 180Hz_Apparent_Conductivity grids, which are generated using both the Tzx and Tzy (along and across line) components, provide a better representation of the overall distribution of conductors in this block. The DT (Total Divergence) grid provides a (somewhat noisy) picture of conductor axes.

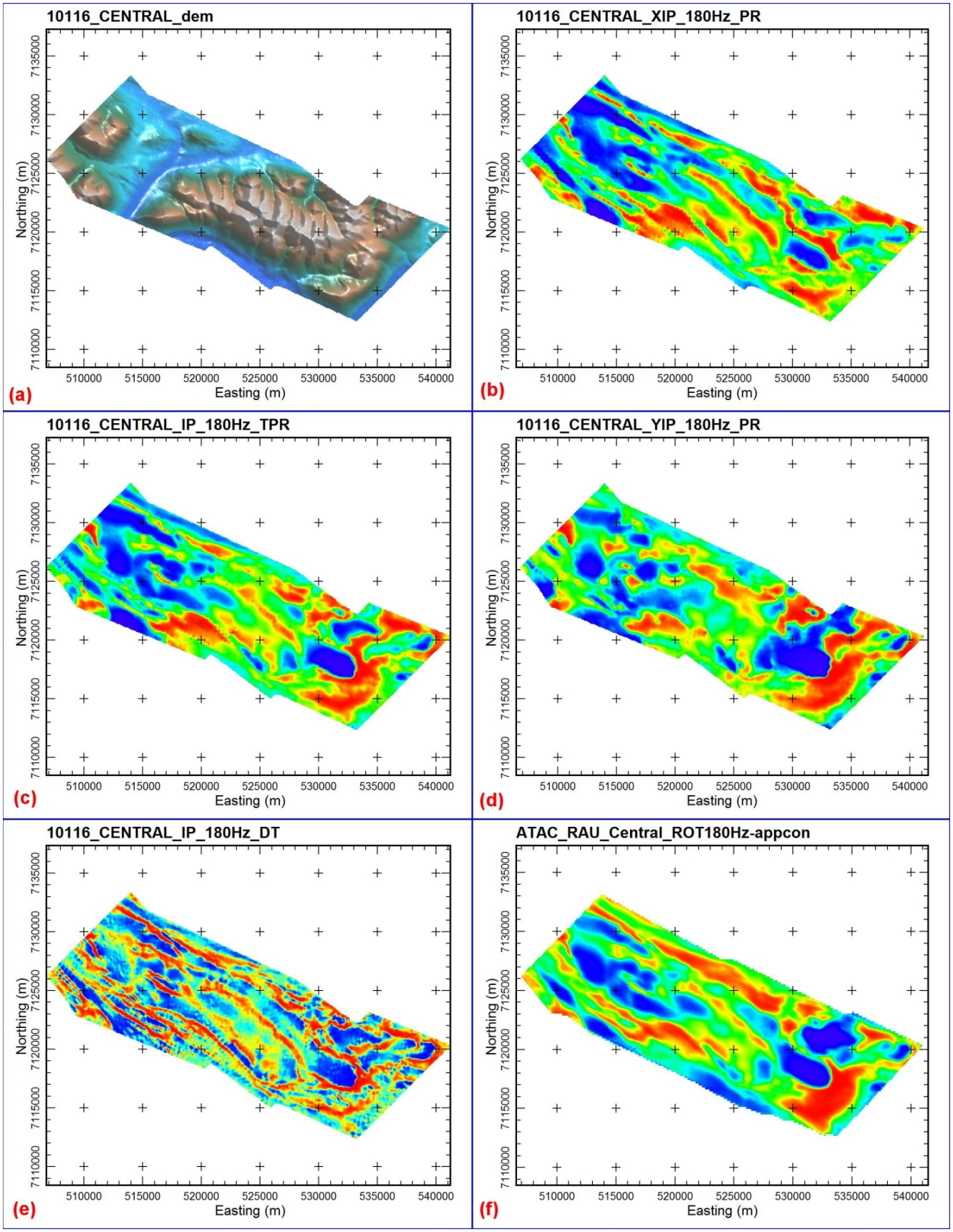

Figure 11: Central block – comparison of grids derived from ZTEM data (see text for details).

Figure 12 shows the Tilt magnetic image from the ZTEM survey, together with the axes of magnetic trends, interpreted faults and the extent of the magnetic unit apparently associated with mineralization. The latter was defined using the VTEM magnetics, which has better resolution than the ZTEM magnetics, as the average sensor height was significantly lower (80 m compared to 166 m). The same features are overlaid on the RTP image in Figure 13.

The favorable sedimentary package containing Tiger and the other mineralized zones has relatively subdued magnetic character. A linear, relatively narrow magnetic unit extends in almost unbroken fashion for approximately 22 km, from southeast of Tiger to beyond El. This unit trends in a NW-SE direction approximately 500 m northeast of Tiger. This suggests that Tiger, El and the prospects between (ZTEM and Puma grids) all lie within the same stratigraphic horizon. To the north and south of this unit the magnetic images show numerous magnetic lows which appear to be due to reversely magnetized intrusive and/or volcanics. These areas do not appear prospective for Au mineralization. Based on these observations, the block has been divided into Prospective and Non-Prospective areas (Figure 14).

Figure 15 shows the XIP 180Hz PR image, with conductor axes highlighted. This appears to be the best image and frequency for tracing conductors in this area. The Tiger mineralization lies at the southeastern end of a well-defined conductor trend approximately 10.0 km long, which extends northwest through the Puma zone. There is a gap of 2.5 km and then another, weaker, conductor trend extends through the El zone. Many other conductor trends have been defined on this image.

The complete interpretation of the magnetic and ZTEM is shown in Figure 16. As this is a crowded figure, the TZs have been isolated in Figure 17.

The TZs are defined as ZTEM conductors which lie within the Prospective sedimentary areas shown in Figure 14. They are labeled A-H, with A-E being 1st Priority and F-H being 2nd Priority (based on the strength of the conductor).

- TZ A is a long conductor encompassing Tiger at the SE end, as well as the ZTEM and Puma gravity grids.
- TZ B contains the El grid.
- TZ C is a relatively long and open to the NW) conductor in the far north of the block, which has no direct magnetic expression. It lies on the opposite side of the magnetic unit associated with mineralization compared to El, but possibly in a similar stratigraphic position if the latter unit has been folded.

- TZ D is a relatively strong conductor in the far west of the Block (and open to the west), that has no obvious magnetic signature.
- TZ E lies southeast of Tiger and appears to lie in a similar stratigraphic position.
- TZ F is located 1 500 m ESE of the El grid in a similar stratigraphic position.
- TZ G comprises possibly two weaker conductors on the western side of El grid and represents possible continuations of the mineralization.
- TZ H is a reasonable conductor located approximately 3 000 m southwest of Puma grid, but still within the Prospective area.

The ZTEM conductors do not appear to significantly correlate with terrain clearance or with the topography. Figure 18 shows the conductor axes superimposed on the DEM image. The conductors shown in the XIP 180Hz PR image in Figure 15 also do not show any significant correlation with topography.

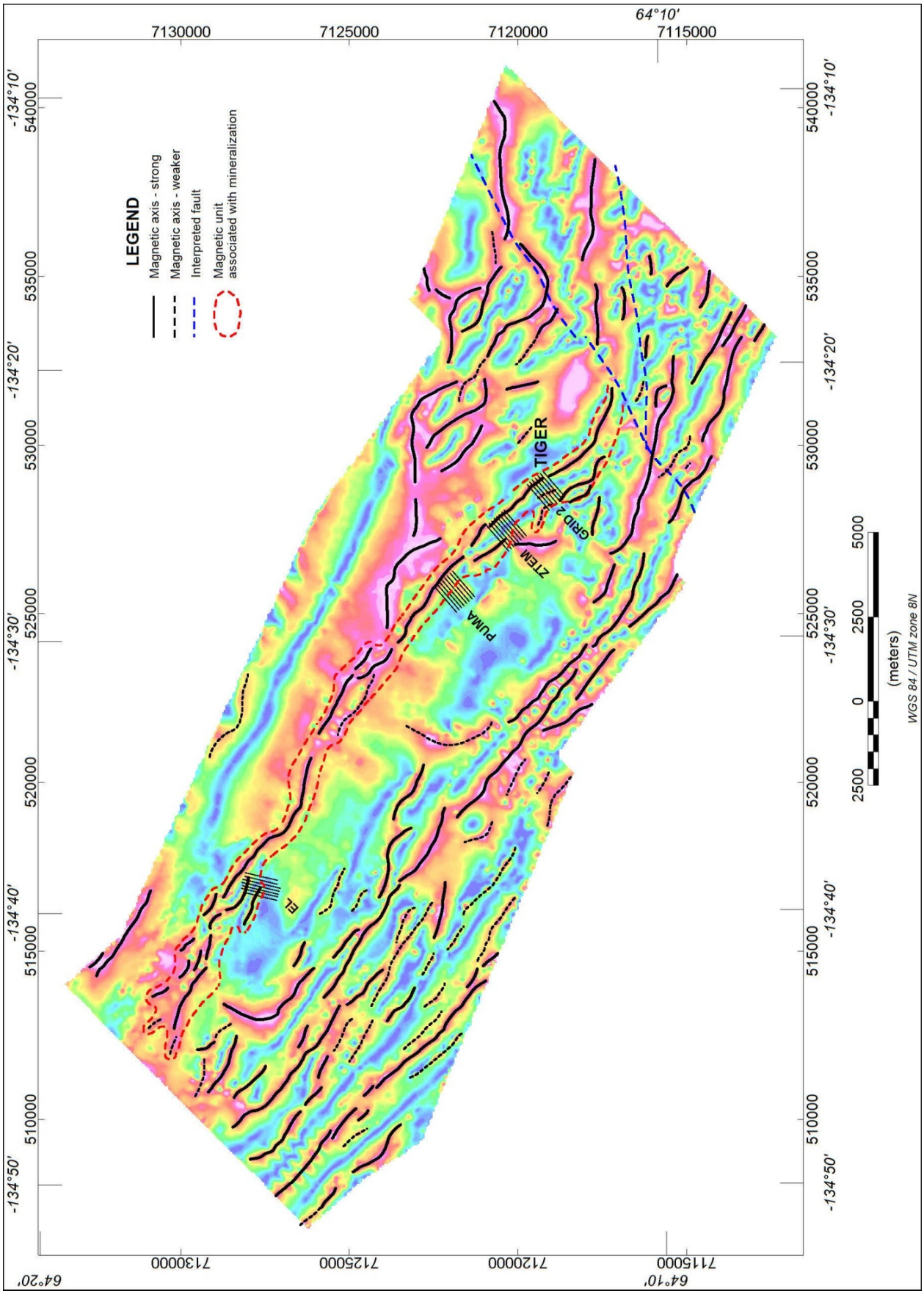

Figure 12: Central block - Magnetic interpretation on Tilt image.

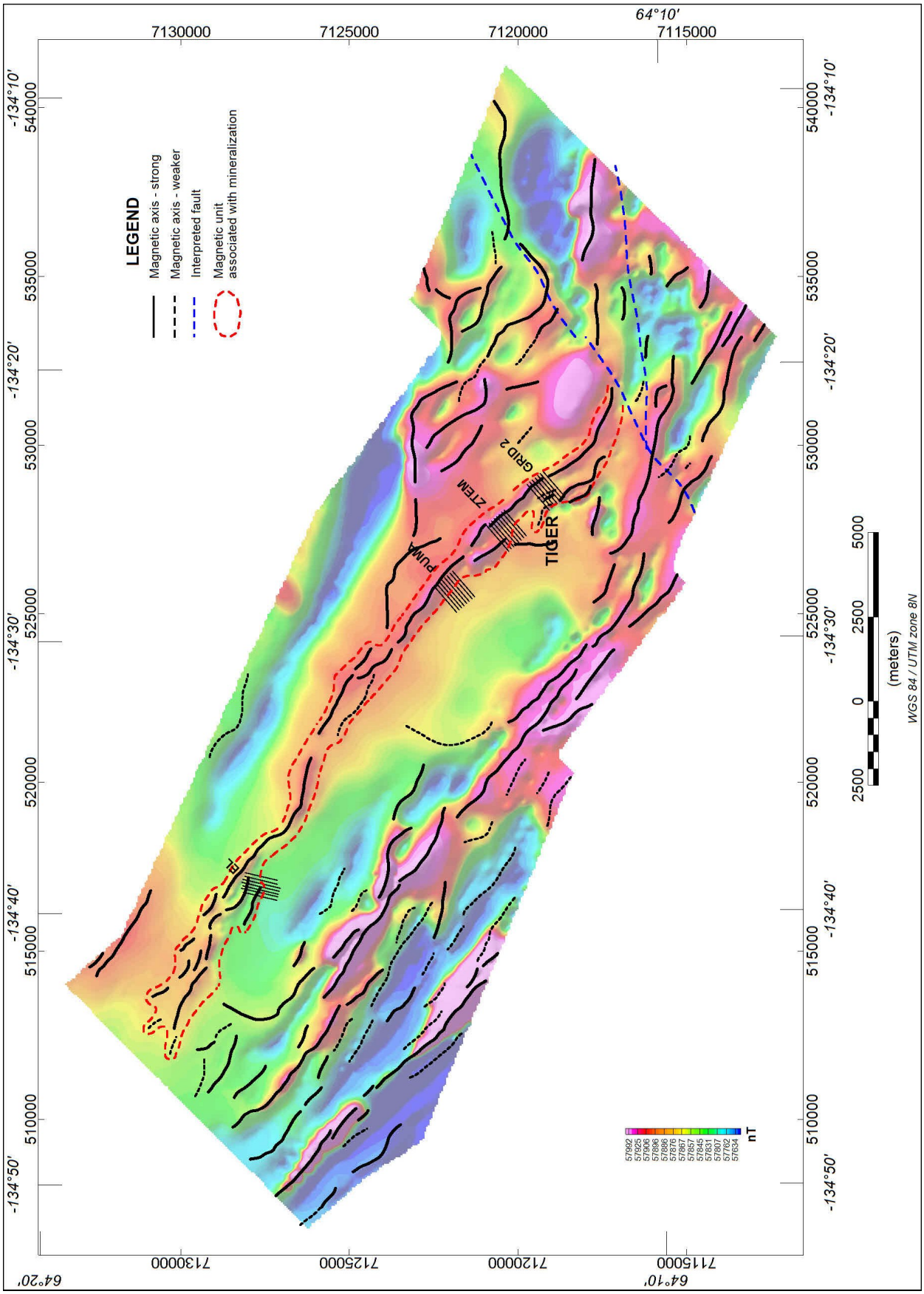

Figure 13: Central block - Magnetic interpretation on RTP image.

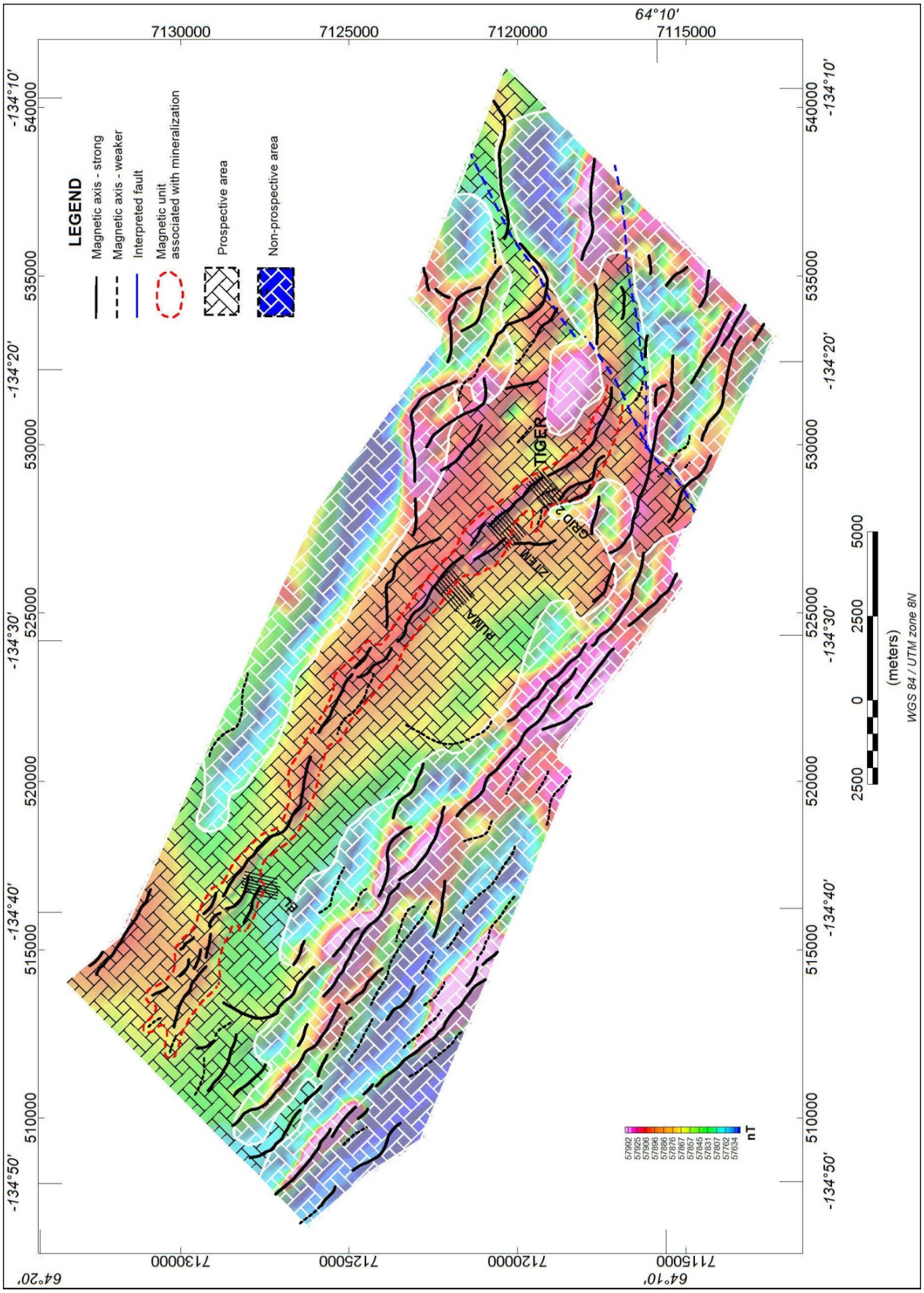

Figure 14: Central block - Magnetic interpretation showing prospective areas on RTP image.

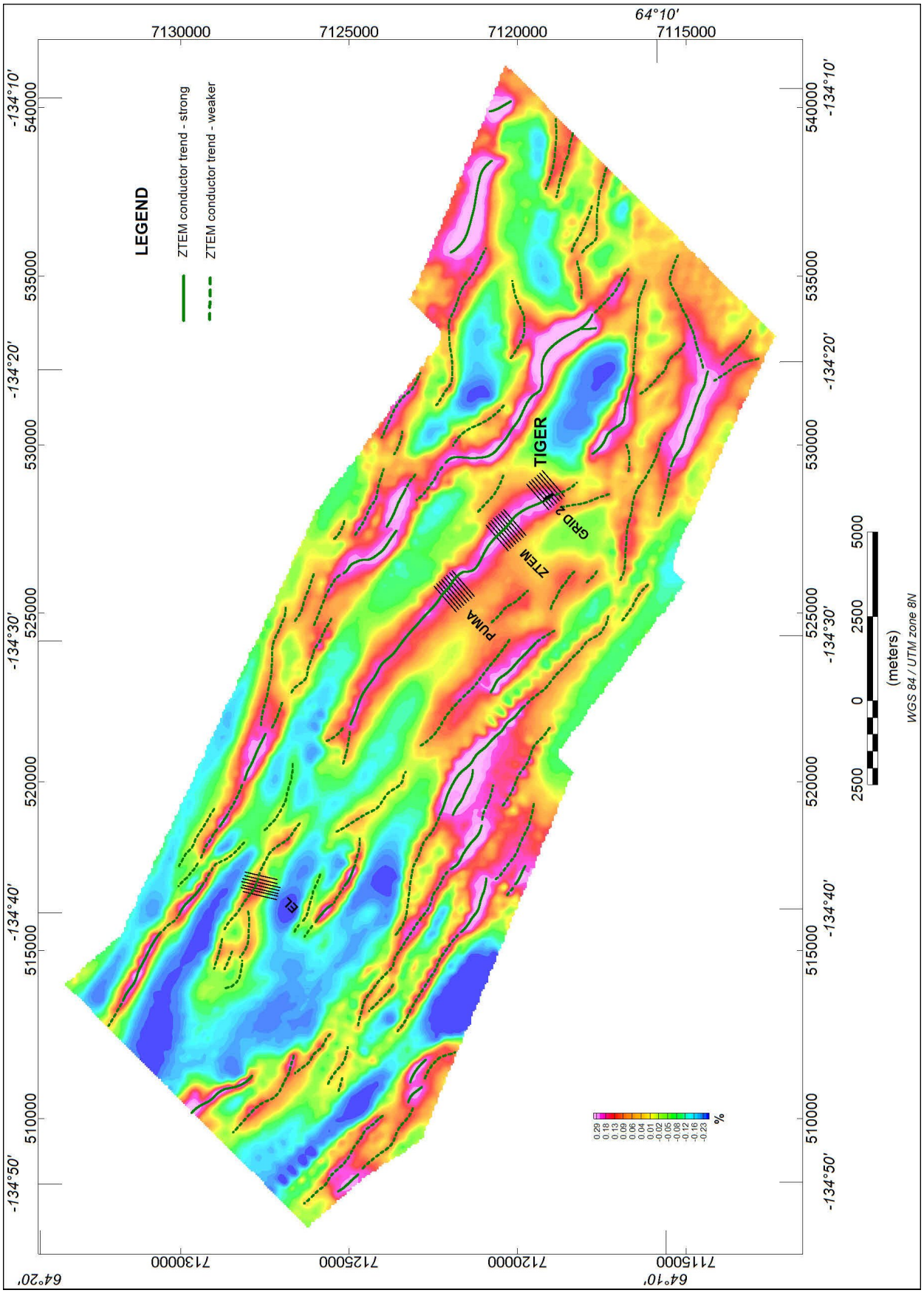

Figure 15: Central block – Conductor trends on XIP 180Hz PR image.

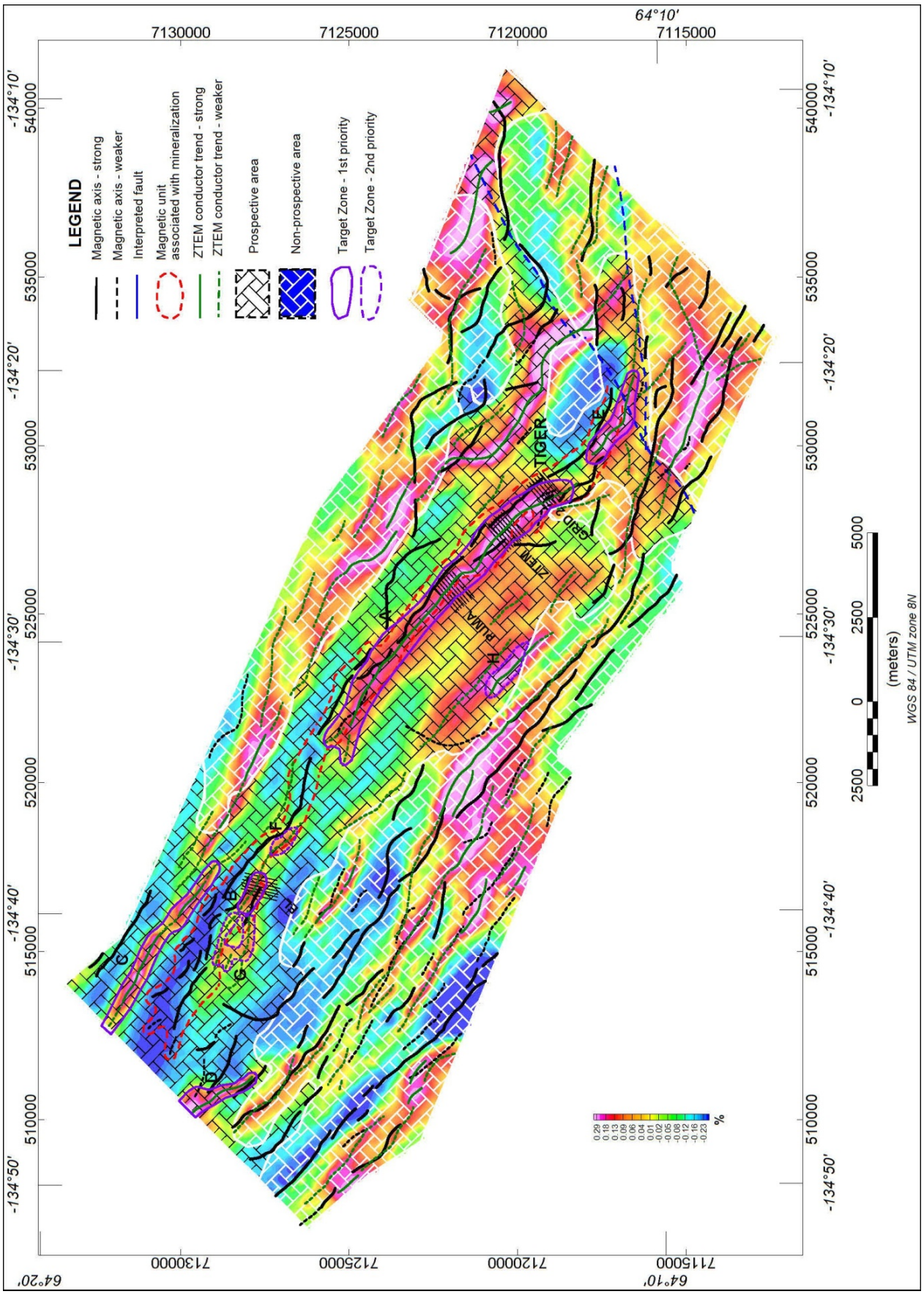

Figure 16: Central block – Complete interpretation XIP 180Hz PR image.

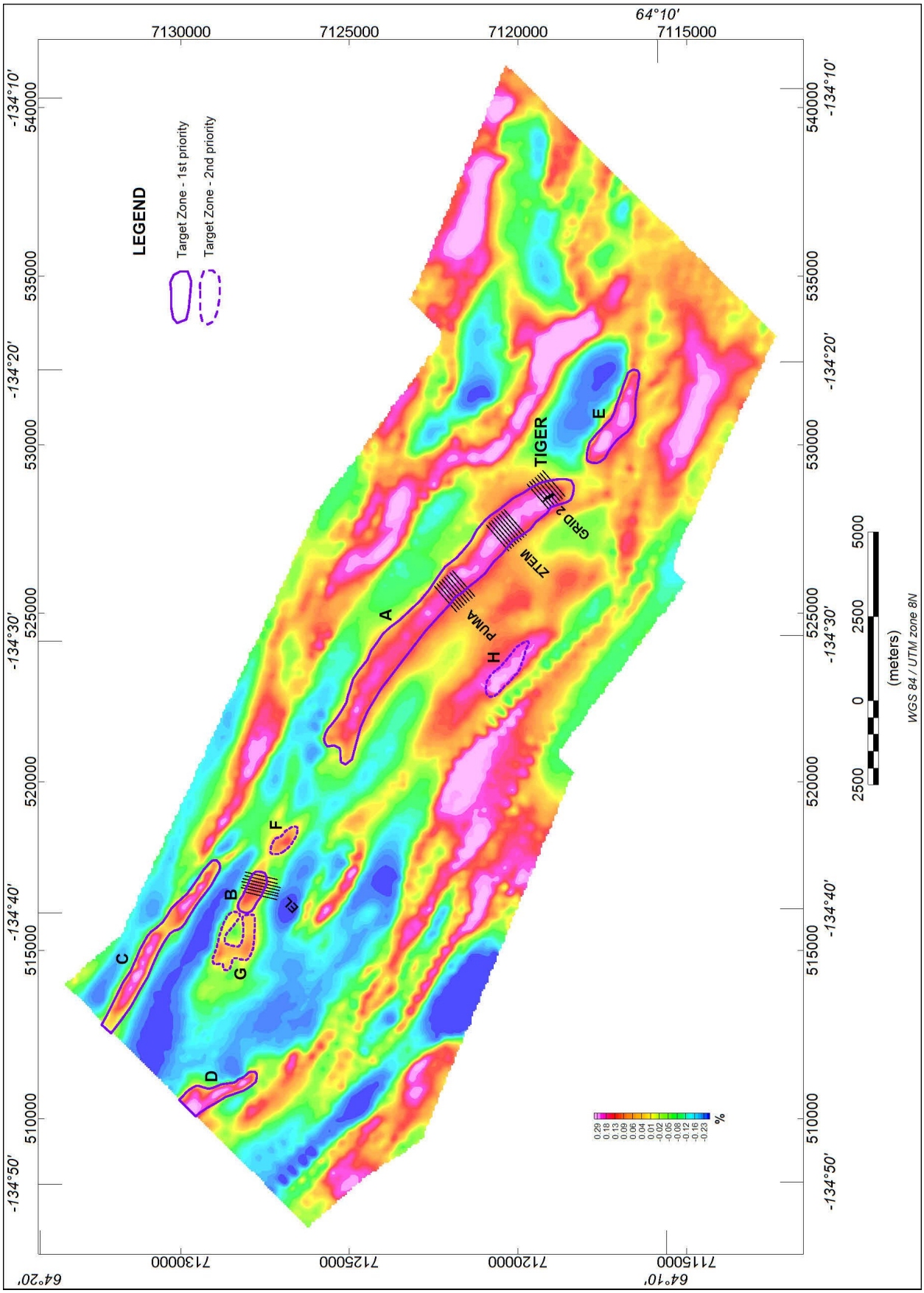

Figure 17: Central block – Target Zones on XIP 180Hz PR image.

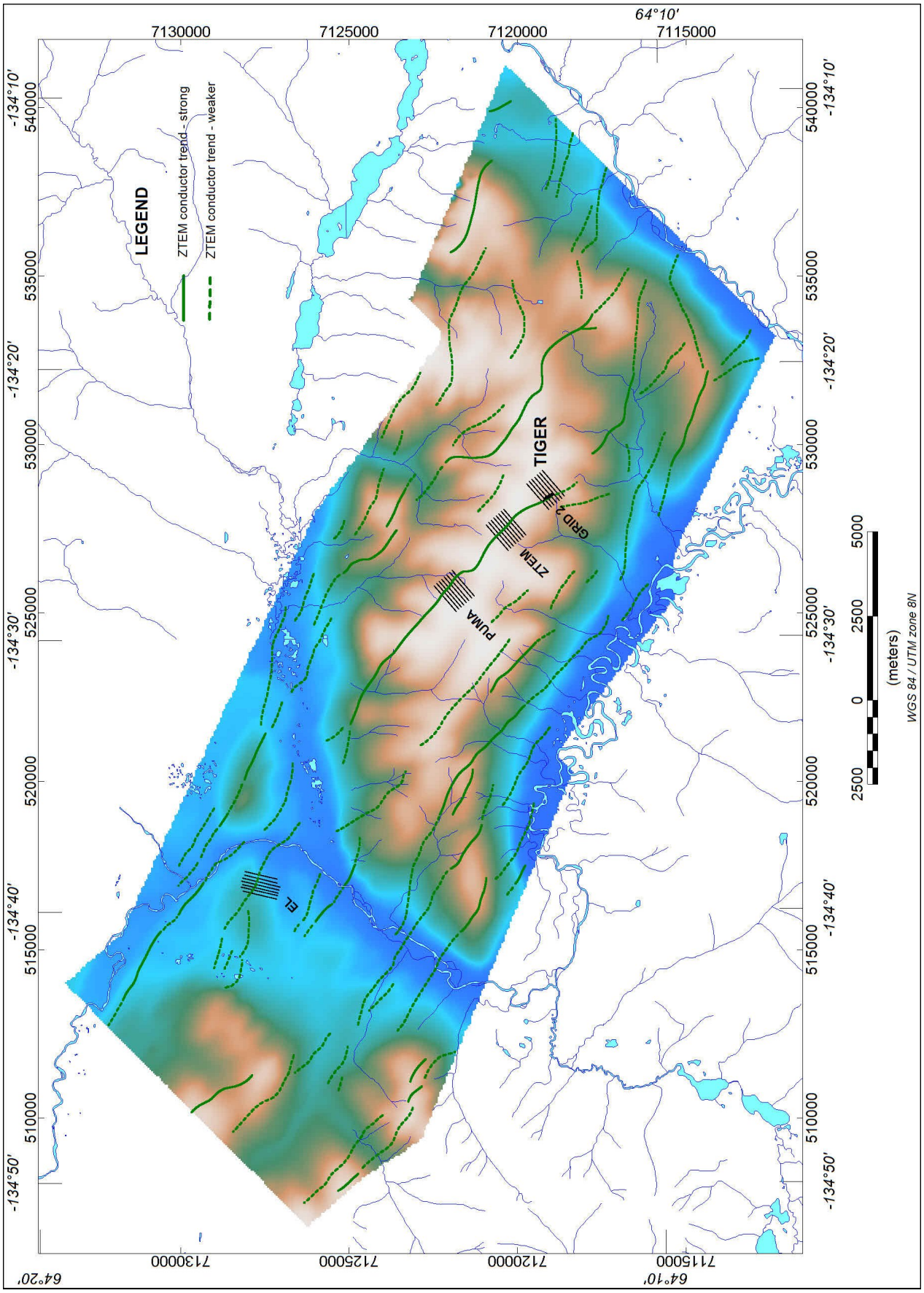

Figure 18: Central block – Conductor trends on DEM image.

7. SE BLOCK INTERPRETATION

To facilitate comparisons, several grids derived from the ZTEM data are shown in Figure 19. The images are:

(a) DEM
(b) XIP 180Hz PR
(c) IP 180Hz TPR
(d) YIP 180Hz PR
(e) IP 180Hz DT (reversed color palate)
(f) 180Hz Apparent Conductivity (Condor)

Differences are observed between the XIP_180Hz_PR and YIP_180Hz_PR grids, indicating that the strike direction of the geology is variable and not simply east-west (perpendicular to the flight lines). The IP_180Hz_TPR and 180Hz_Apparent_Conductivity grids, which are generated using both the Tzx and Tzy (along and across line) components, provide a better representation of the distribution of conductors in this block and indicate that the general strike direction is WNW-ESE. The DT grid provides a (somewhat noisy) picture of conductor axes.

The RTP magnetic image (Figure 20) shows a major, east-west trending magnetic boundary which extends across the entire block, with more magnetic rocks to the north and less magnetic to the south. The Tilt image (Figure 21) shows a variation in magnetic trends – there is a lack of dominant curvilinear features. In the western part of the block, the more obvious trends are WNW-ESE, but elsewhere the trend directions are more random, with one stronger E-W trend in the eastern part, just north of the major magnetic boundary. The Osiris area (outlined by a black rectangle) does not stand out on either of the magnetic images.

Conductor trends based on the XIP_180Hz_PR image are shown in Figure 22.

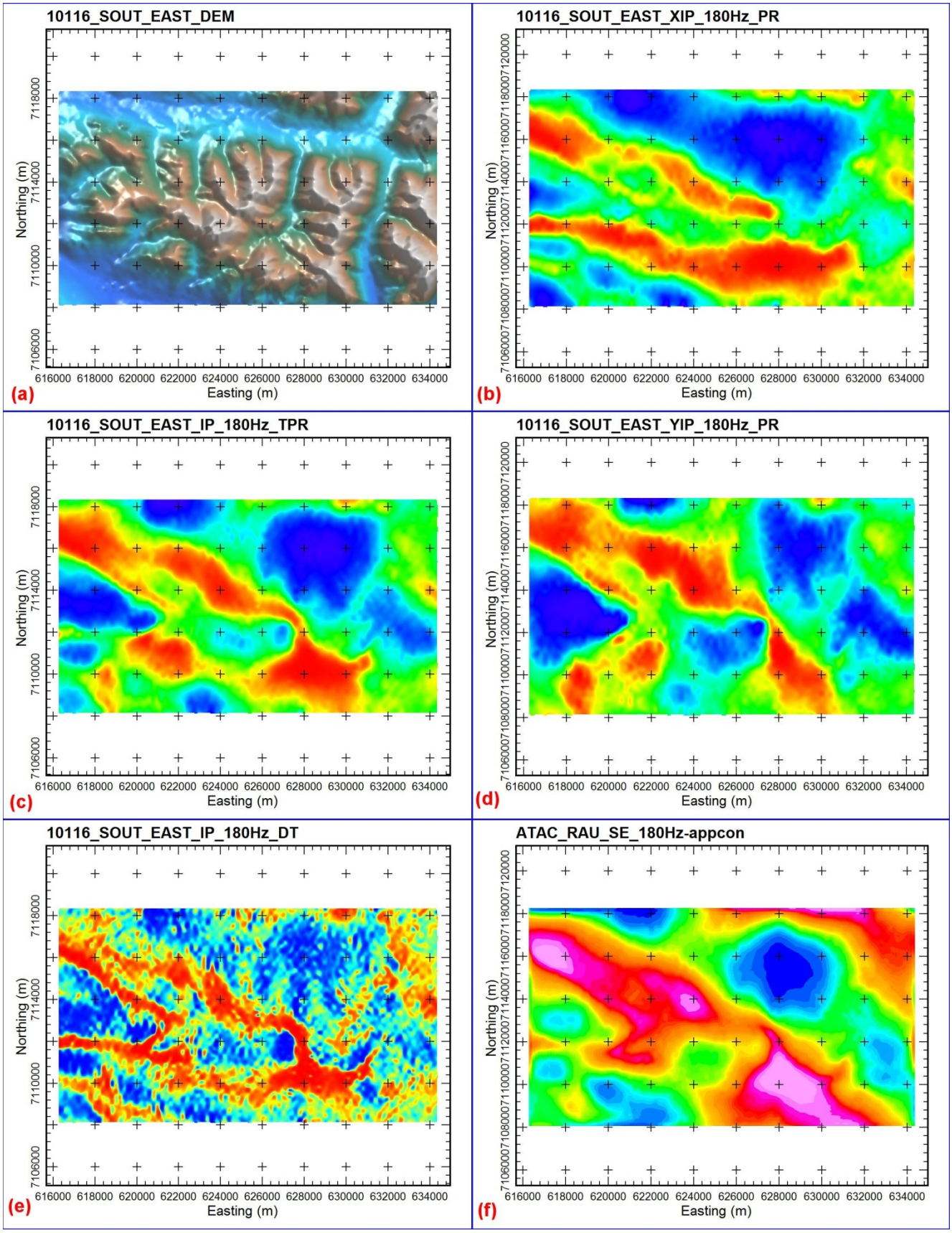

Figure 19: SE block – comparison of grids derived from ZTEM data (see text for details).

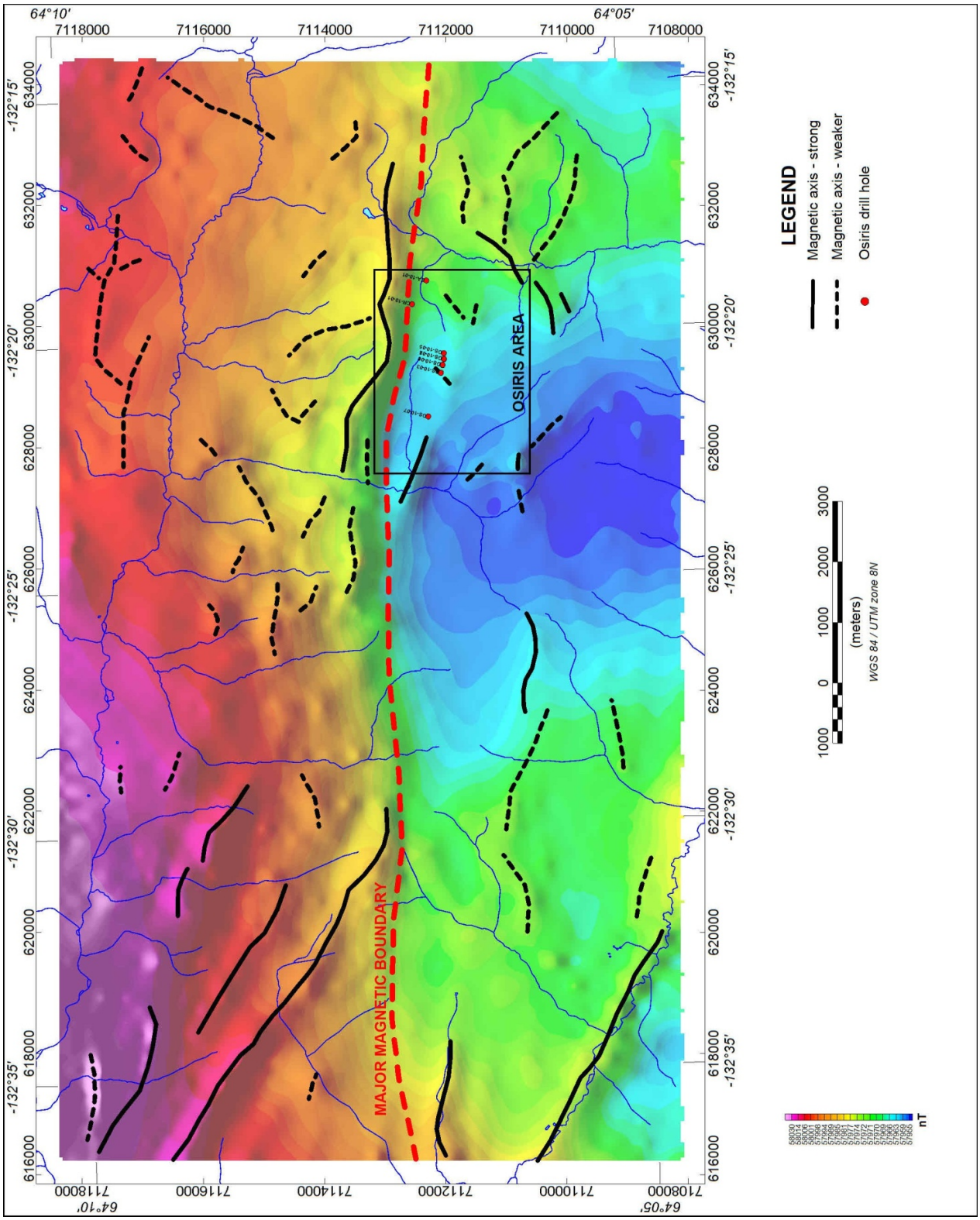

Figure 20: SE block – Magnetic interpretation on RTP image.

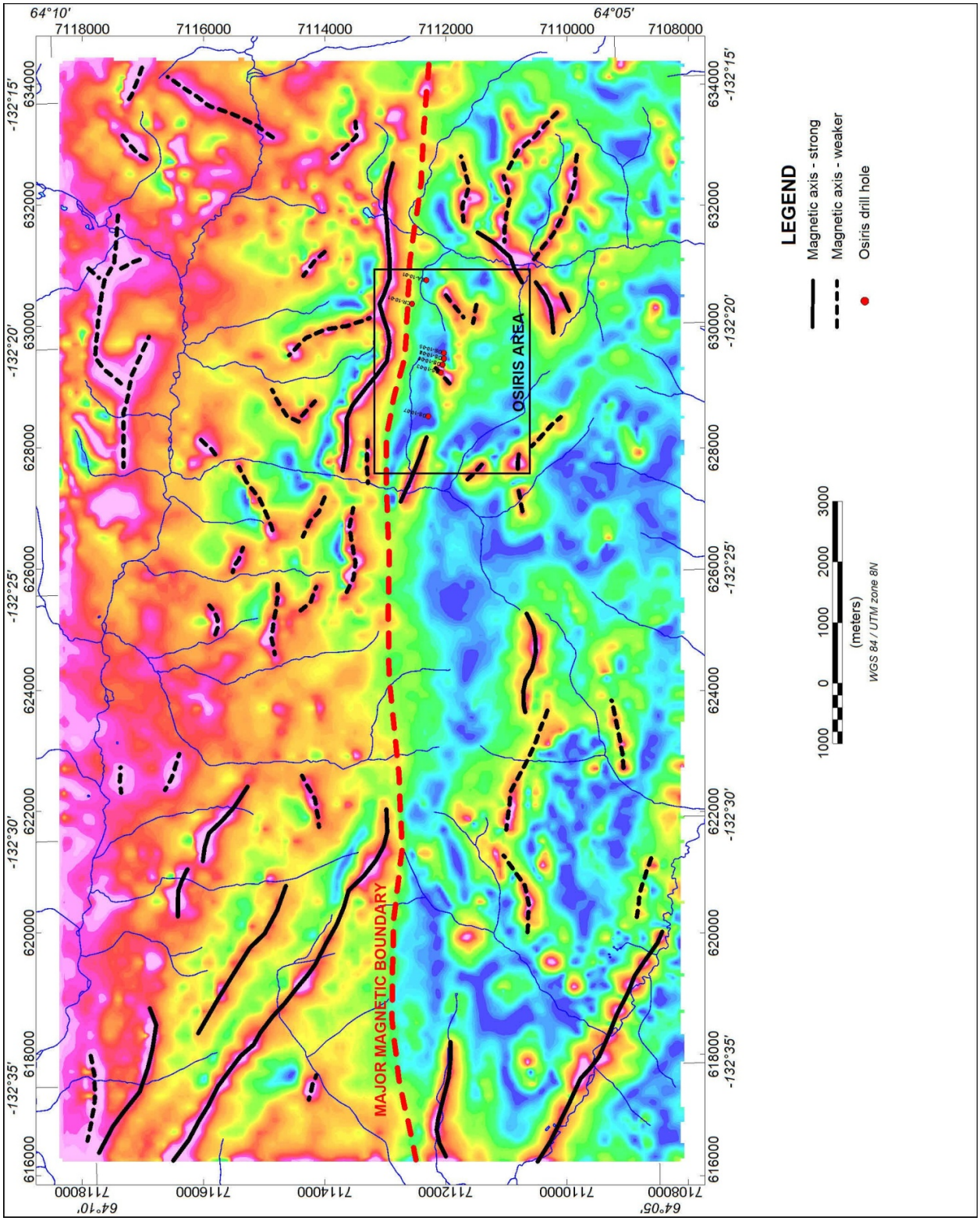

Figure 21: SE block – Magnetic interpretation on Tilt image.

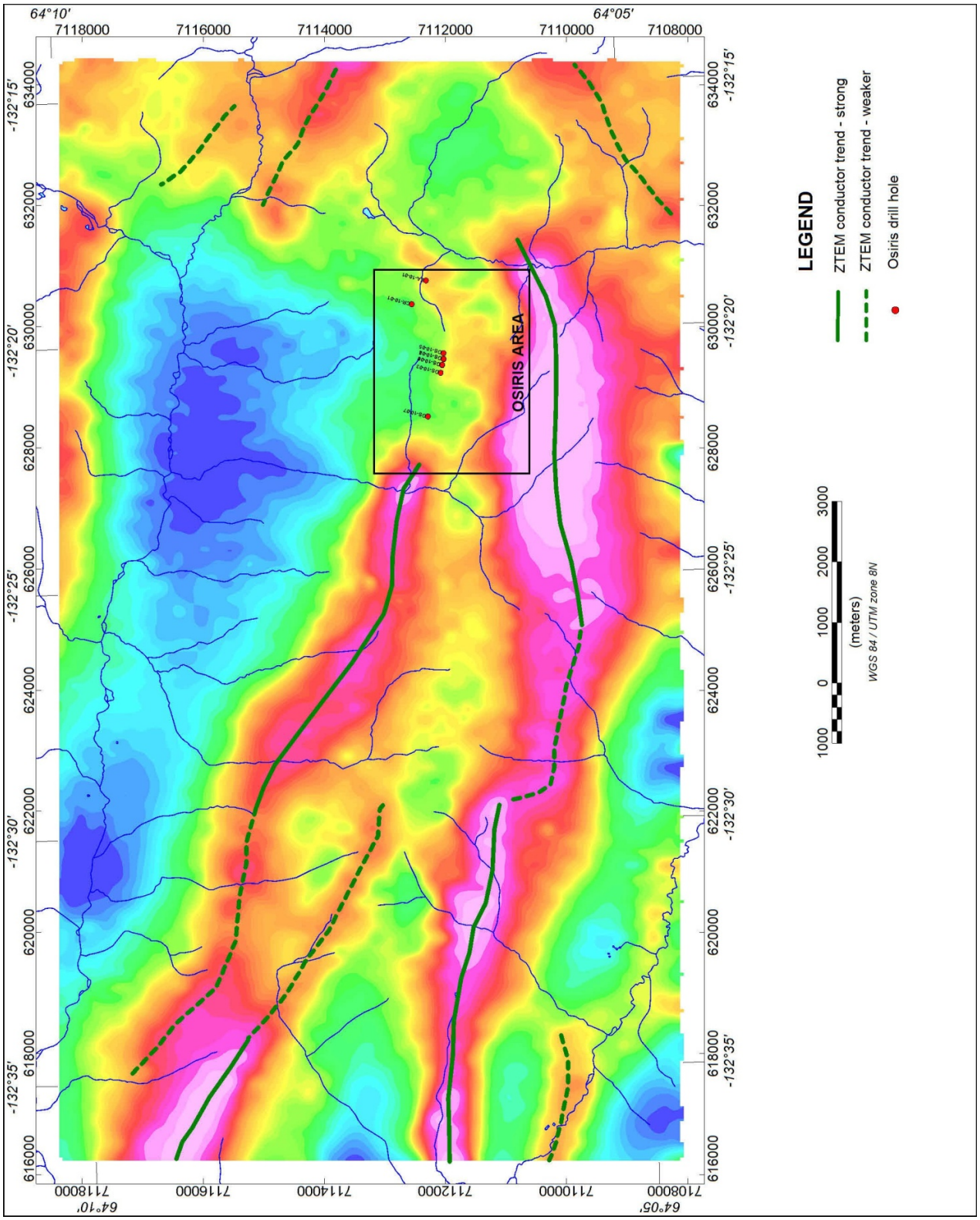

Figure 22: SE block – Conductor trends on XIP 180Hz PR image.

Three relatively strong conductive zones (1st priority) have been defined, labeled as TZ A, B and C, together with three relatively weaker zones (2nd priority) labeled as D, E and F (Figure 23).

- TZ A is relatively wide (up to 2 km), trends approximately E-W and lies south of the major magnetic boundary in less magnetic rocks. Several relatively weak magnetic axes lie within this TZ, but it does not have an obvious magnetic association.
- TZ B trends NW-SE (open to the west) and lies completely north of the major magnetic boundary. It correlates closely with a linear magnetic trend. Both the conductor and the magnetic trend appear to be truncated at the major magnetic boundary.
- TZ C is sub-parallel to TZ B, but has no obvious magnetic association, except at the extreme southeast end. It lies mostly north of the major magnetic boundary, but the southern part extends across this boundary, where the conductor is associated with the magnetic trend.
- TZ D is a weaker conductor located at the northern edge of the block and extending outside it, so it is not fully defined. It has no obvious magnetic signature.
- TZ E is a weaker conductor extending outside the eastern edge of the block, where it is stronger. It has no obvious magnetic signature.
- TZ F is a broad, diffuse, weakly conductive zone at the southeast corner of the block, with no obvious magnetic signature

Figure 24 shows the geophysical interpretation overlain on the DEM image. There is no obvious correlation of the TZ with the topography, other than the TZ mainly occupy the higher ground and none are located in the valleys.

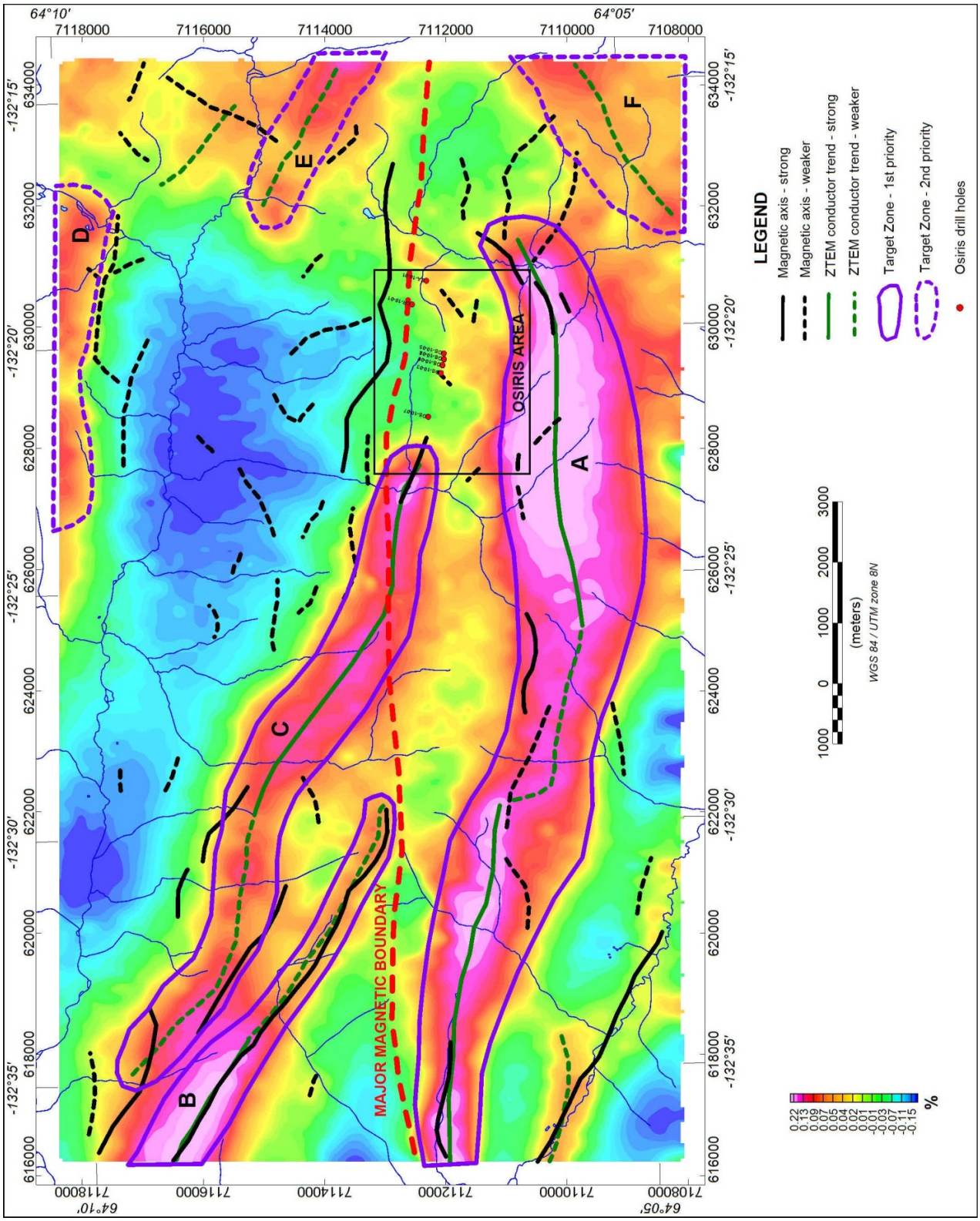

Figure 23: SE block – Interpretation and TZs on XIP 180Hz PR image.

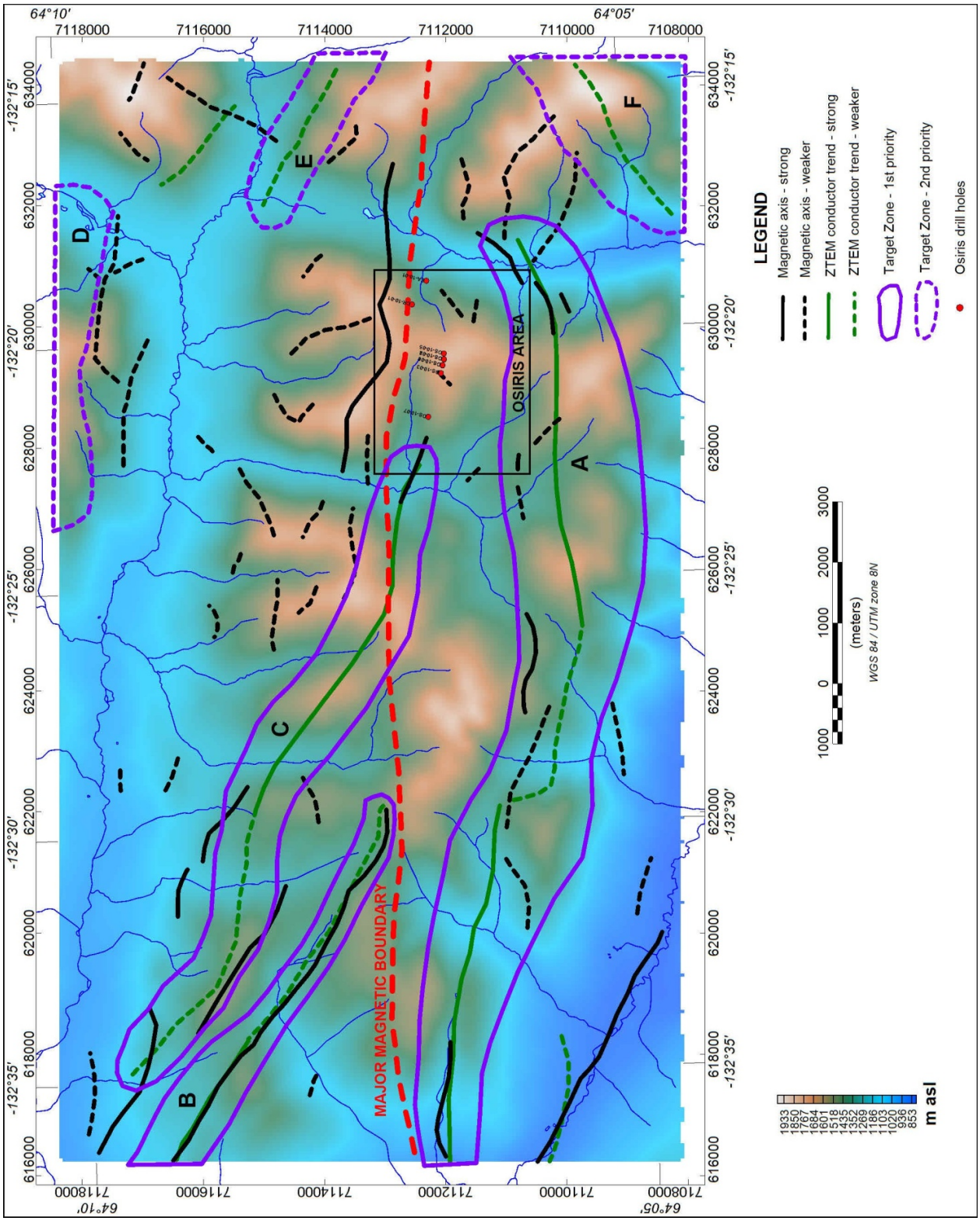

Figure 24: SE block – Magnetic interpretation and conductor trends on DEM image

OSIRIS AREA

The Osiris area is shown in Figures 20 to 24, along with the collar locations of nine holes drilled in mid-late-2010. Significant Au mineralization was delineated in these holes (ATAC news release Sept 15, 2010).

In the Central block, the XIP 180Hz PR image best mapped the mineralized zone at Tiger and the trend to the northwest though Puma and El (Figure 15). However, the comparable grid for the Southeast block (Figure 22) does not show any clear conductivity enhancement associated with the Osiris area. Other grid products were examined to determine if any of these better define this zone.

Figure 25 shows the 180Hz Apparent Conductivity image produced by Condor. This shows a major conductivity boundary extending in a NW-SE direction across the middle of the block, which passes close to the Osiris mineralized zone. This boundary is better defined on this image than on the other images in Figure 19. The significance of this feature is not clear.

The geology of the Osiris area as mapped by ATAC is shown in Figure 26.

To investigate if this mineralized area has a more subtle signature, the mapped geology is shown compared to a number of magnetic enhancements in Figure 27 and compared to several of the ZTEM grid products in Figure 28.

The magnetic enhancements in Figure 27 were produced using the ZS filter discussed in Section 4:

(a) Geology
(b) RTP (Reduced to Pole)
(c) Tilt
(d) AS (Analytic Signal)
(e) Block
(f) Plateau

The outline of the mapped area shown in (a) is replicated in the other boxes for reference. Collar positions of the nine drill holes are also shown. Red areas are more magnetic, green and blue less magnetic.

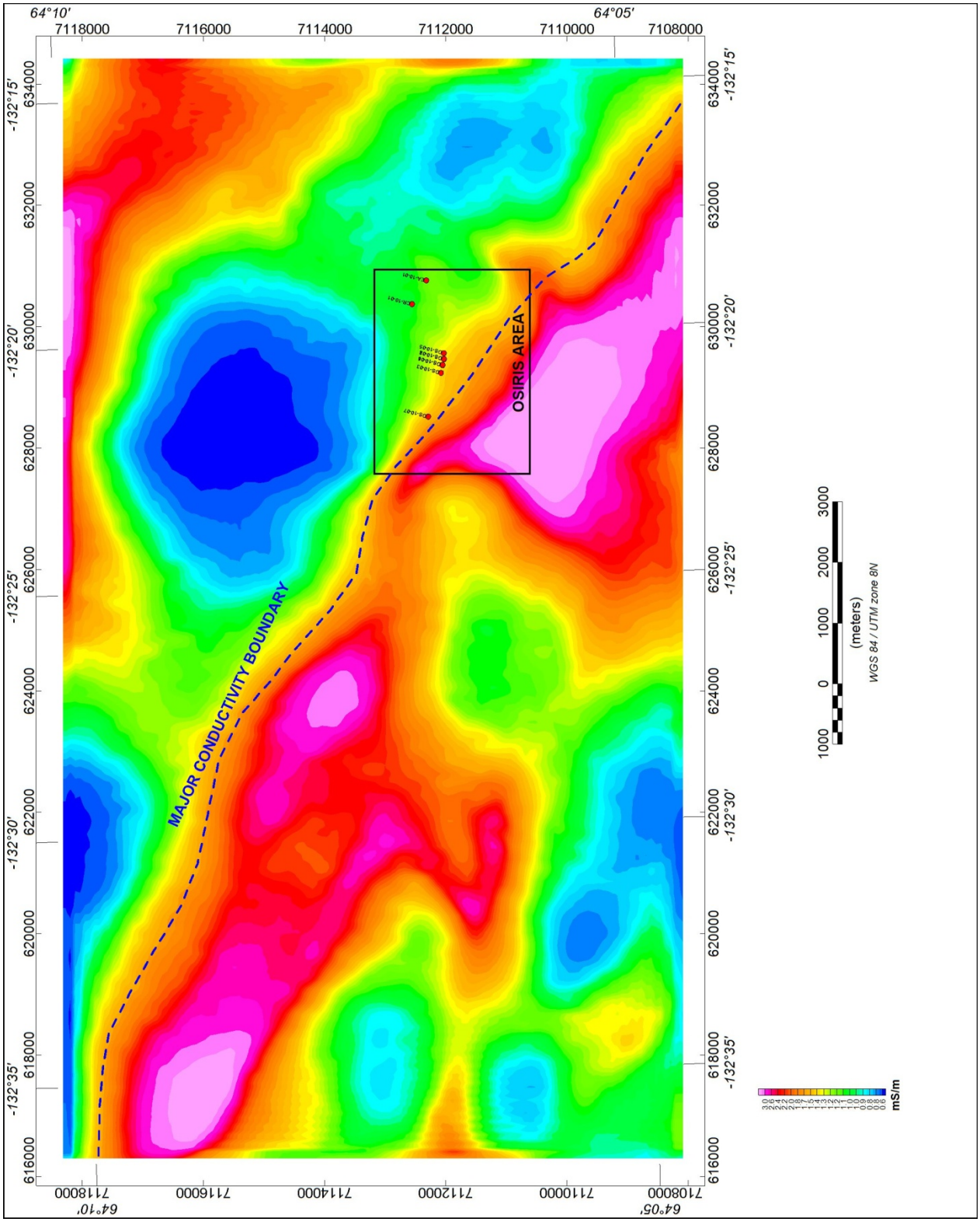

Figure 25: SE block – Condor Apparent Conductivity 180Hz image.

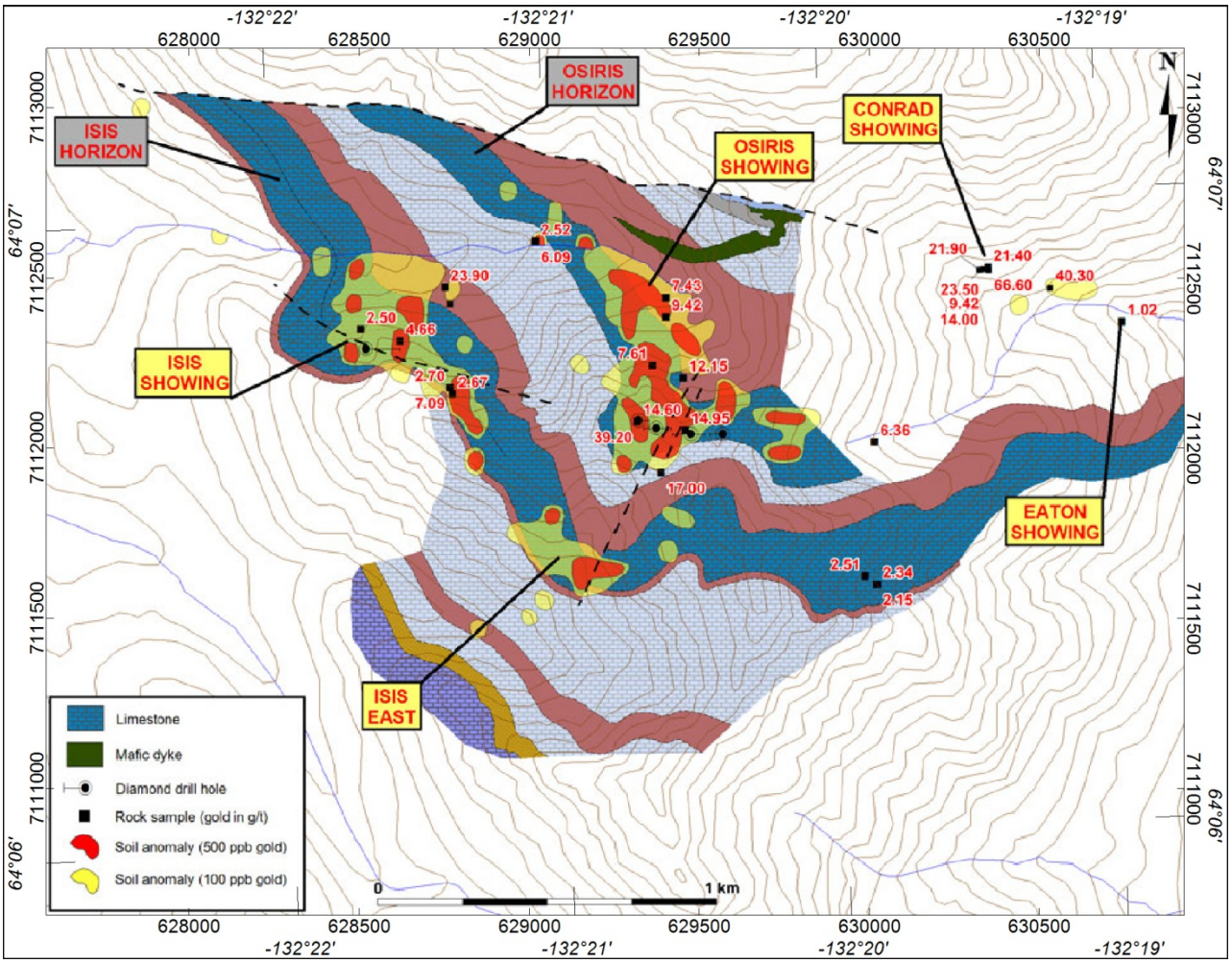

Figure 26: Osiris geology (after ATAC)

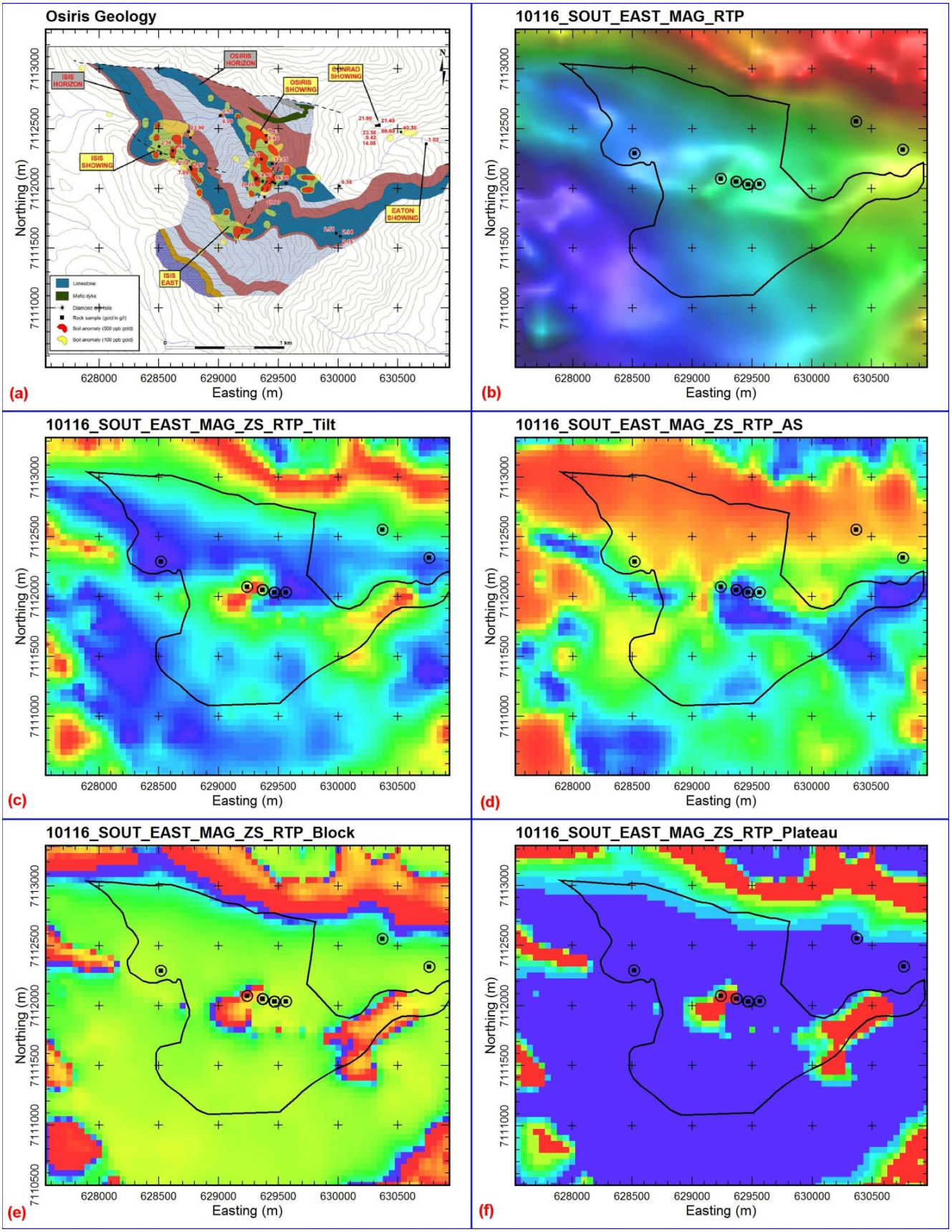

Figure 27: Osiris: Comparison of geology and MAG grids (see text for details).

On the Tilt magnetic image, a magnetic horizon wraps around the anticline axis. It is stronger on the western side and weaker on the southern side, but appears to be continuous. The stronger anomaly on the western side is also apparent on the Block and Plateau images. The E-W trending fault on the north side of the geology map lies close to the major magnetic boundary shown in Figures 20 and 21.

The ZTEM grid products in Figure 28 are:

(a) Geology
(b) XIP 180Hz PR
(c) IP 180Hz TPR
(d) YIP 180Hz PR
(e) IP 180Hz DT (reversed color palate)
(f) 180Hz Appcon (Condor product)

Red areas are more conductive while blue areas are more resistive.

Images (b), (c), (d) and (f) all show a strong conductivity boundary trending NW-SE located on the southwest edge of the Osiris area, but no clear signature for the mineralized area. The IP_180Hz_DT image in (e) shows a subtle, rather amorphous conductor, part of which correlates with four drill holes in the Osiris mineralized zone. However, this weak conductor is not definitive.

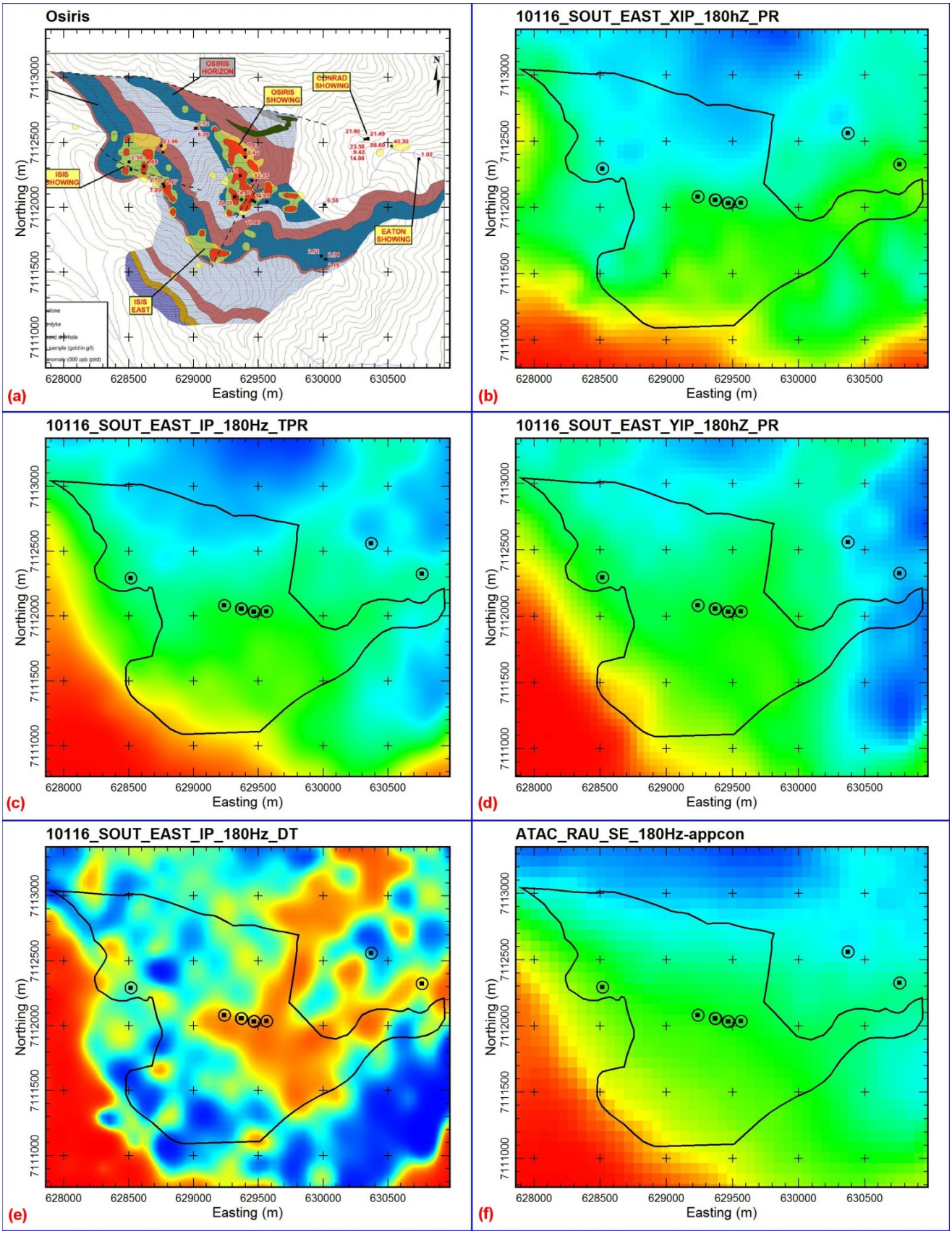

Figure 28: Osiris: Comparison of geology and ZTEM grids (see text for details).

8. NW BLOCK INTERPRETATION

Several grids derived from the ZTEM data are shown in Figure 29, to facilitate comparisons. The images are:

(a) DEM
(b) XIP 180Hz PR
(c) IP 180Hz TPR
(d) YIP 180Hz PR
(e) IP 180Hz DT (reversed color palate)
(f) 180Hz Apparent Conductivity (Condor)

The differences between the XIP_180Hz_PR and YIP_180Hz_PR grids indicate that the strike direction of the geology is variable and not simply east-west (perpendicular to the flight lines). The IP_180Hz_TPR and 180Hz_Apparent_Conductivity grids, which are generated using both the Tzx and Tzy (along and across line) components, provide a better representation of the overall distribution of conductors in this block. The DT (Total Divergence) grid provides a (somewhat noisy) picture of conductor axes.

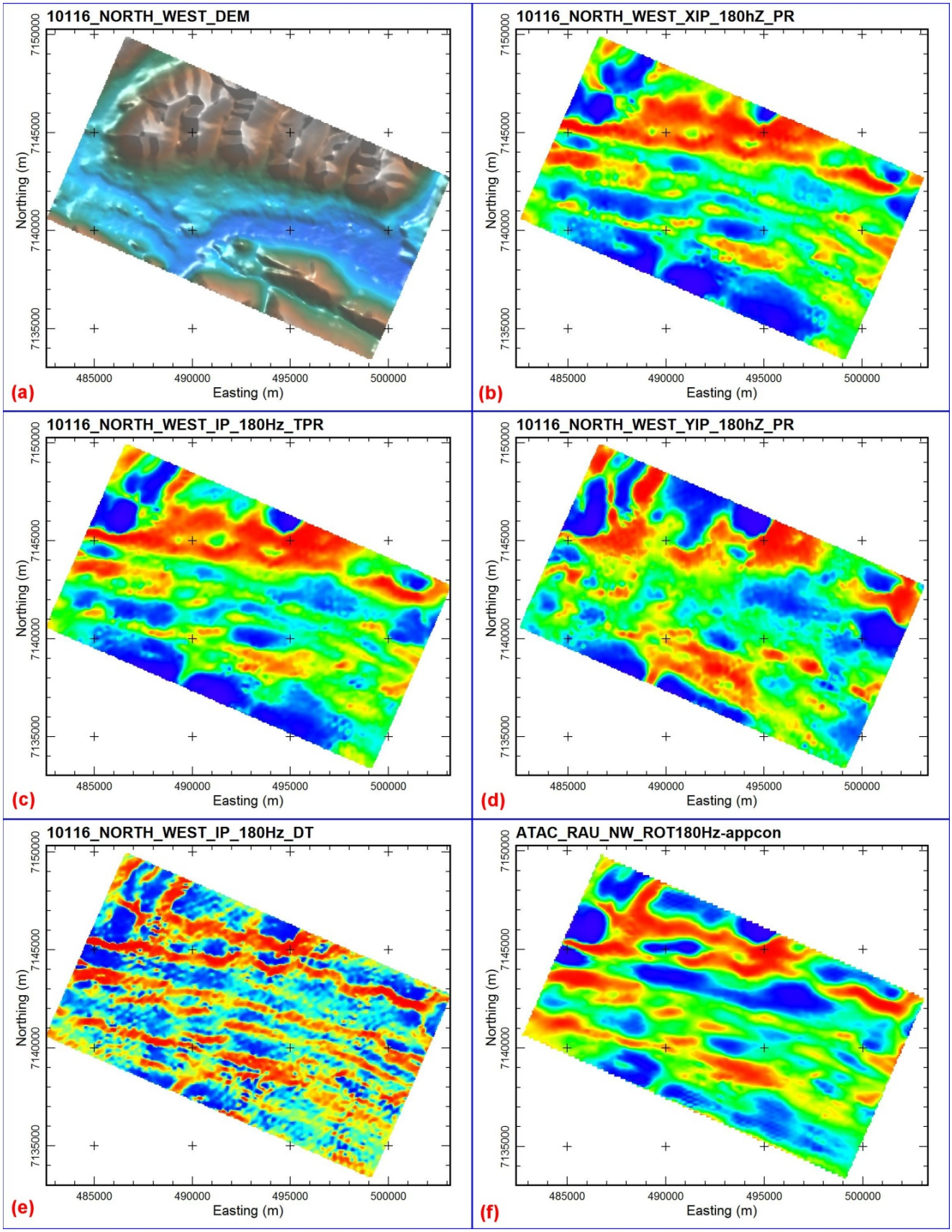

Figure 29: NW block – comparison of grids derived from ZTEM data (see text for details).

The RTP and Tilt images (Figures 30 and 31) highlight a semi-continuous curvi-linear magnetic trend extending in an E-W direction across the northern part of the block. North of this magnetic horizon the trends are more random. South of this horizon most of the magnetic trends are approximately E-W, although the lateral continuity is generally poor. Along most of the southern boundary a relatively strong and continuous magnetic unit is highlighted on the RTP image, but extends outside the boundary and is not defined. This appears to be part of a relatively extensive, magnetic lithology quite different from the rocks to the north.

Conductor trends based on the XIP 180Hz PR image are shown in Figure 32. The relatively strong, extensive magnetic unit along the southern edge of the block has no significant conductivity.

Target Zones are defined in Figure 33. Two bands of relatively good conductors extending across the northern part of the block, named TZ A and TZ B are designated 1st Priority, together with TZ C and TZ D.

- TZ A correlates closely with the curvi-linear magnetic horizon described above.
- TZ B lies sub-parallel to TZ A, about 1200-1500 m north, but without any obvious magnetic signature.
- TZ C has similar conductivity as TZ A and TZ B, and correlates with a magnetic low. It is open to the west.
- TZ D has slightly lower conductivity, but loosely correlates with several linear magnetic highs.

The 2nd Priority TZs consist of:-

- TZ E comprises an enhanced conductive zone east of TZ C. Two weak magnetic trends correlate with the northern part of this TZ.
- TZ F, G and H are similar conductors in the eastern part of the block, open to the east. Although several linear magnetic highs lie within these conductive zones, there is no obvious correlation of the magnetic and conductivity.
- TZ I has anomalous, but lower, conductivity. It loosely correlates with a magnetic low, except at the western end where the northern section overlaps with a magnetic high.
- TZ J and K are conductive zones in the northwestern part of the block. They trend in a more northerly direction and both extend outside the survey area. Neither have any obvious magnetic signature.

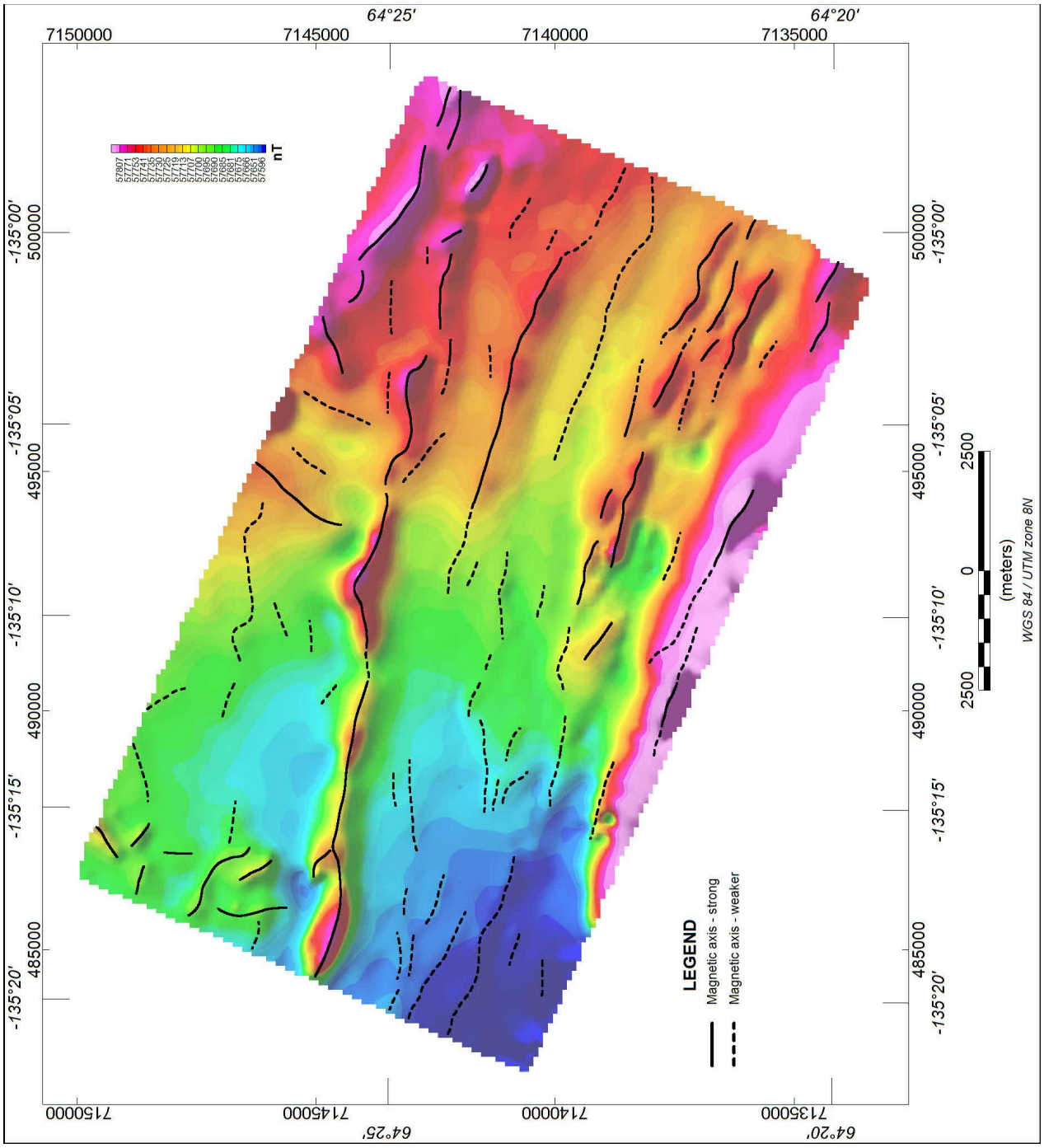

Figure 30: NW block - Magnetic interpretation on RTP image.

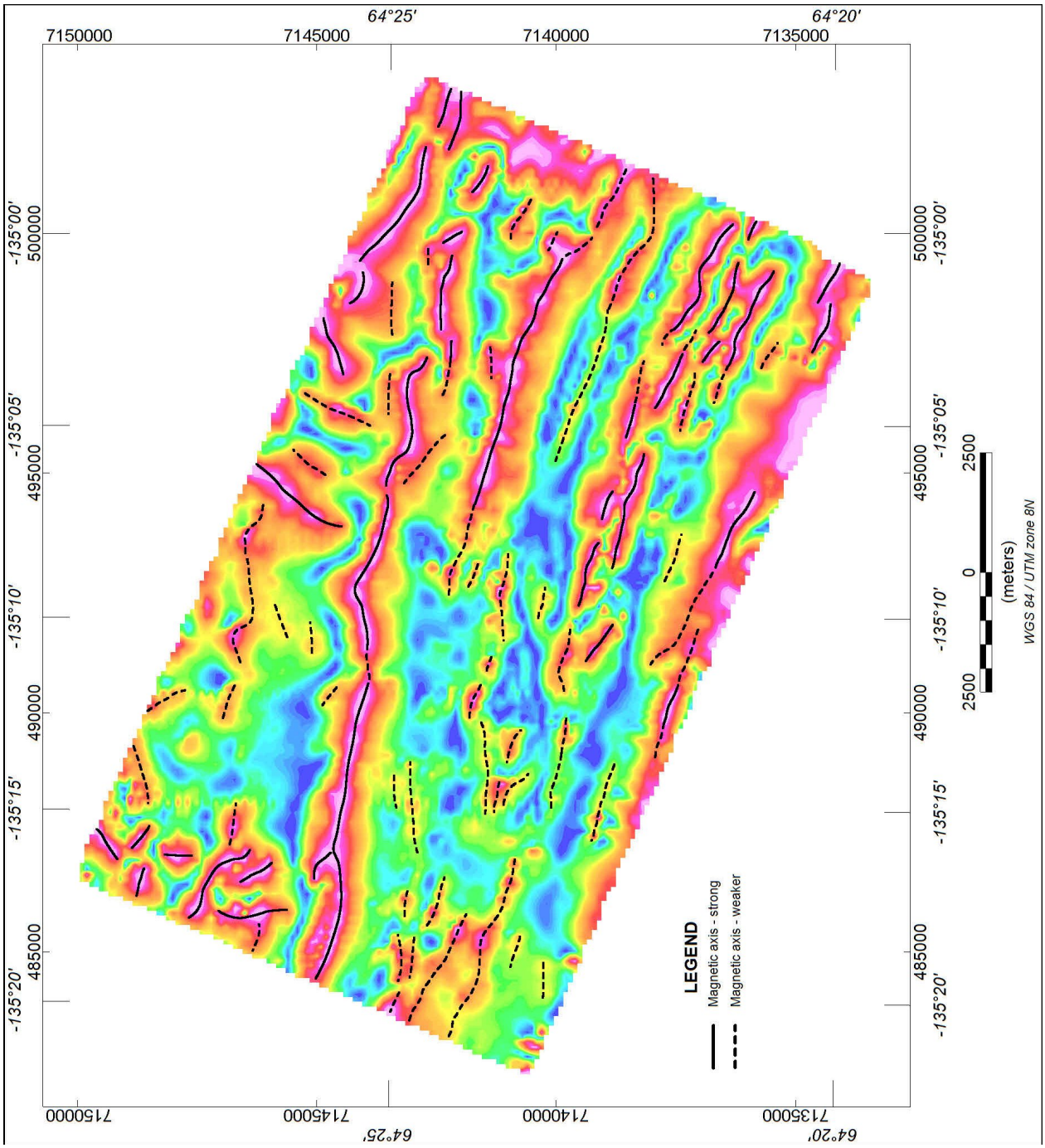

Figure 31: NW block - Magnetic interpretation on Tilt image.

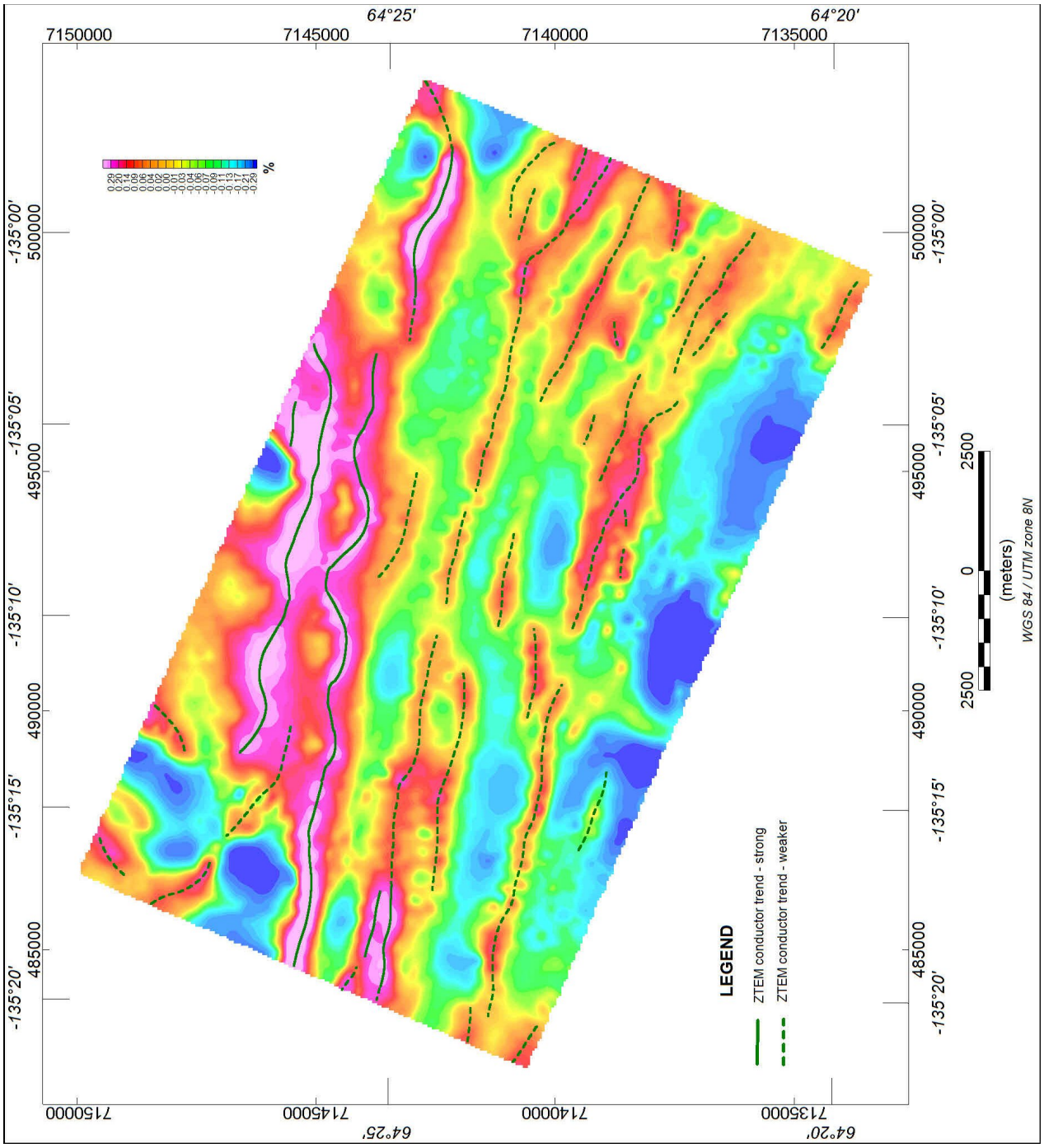

Figure 32: NW block – Conductor trends on XIP 180Hz PR image.

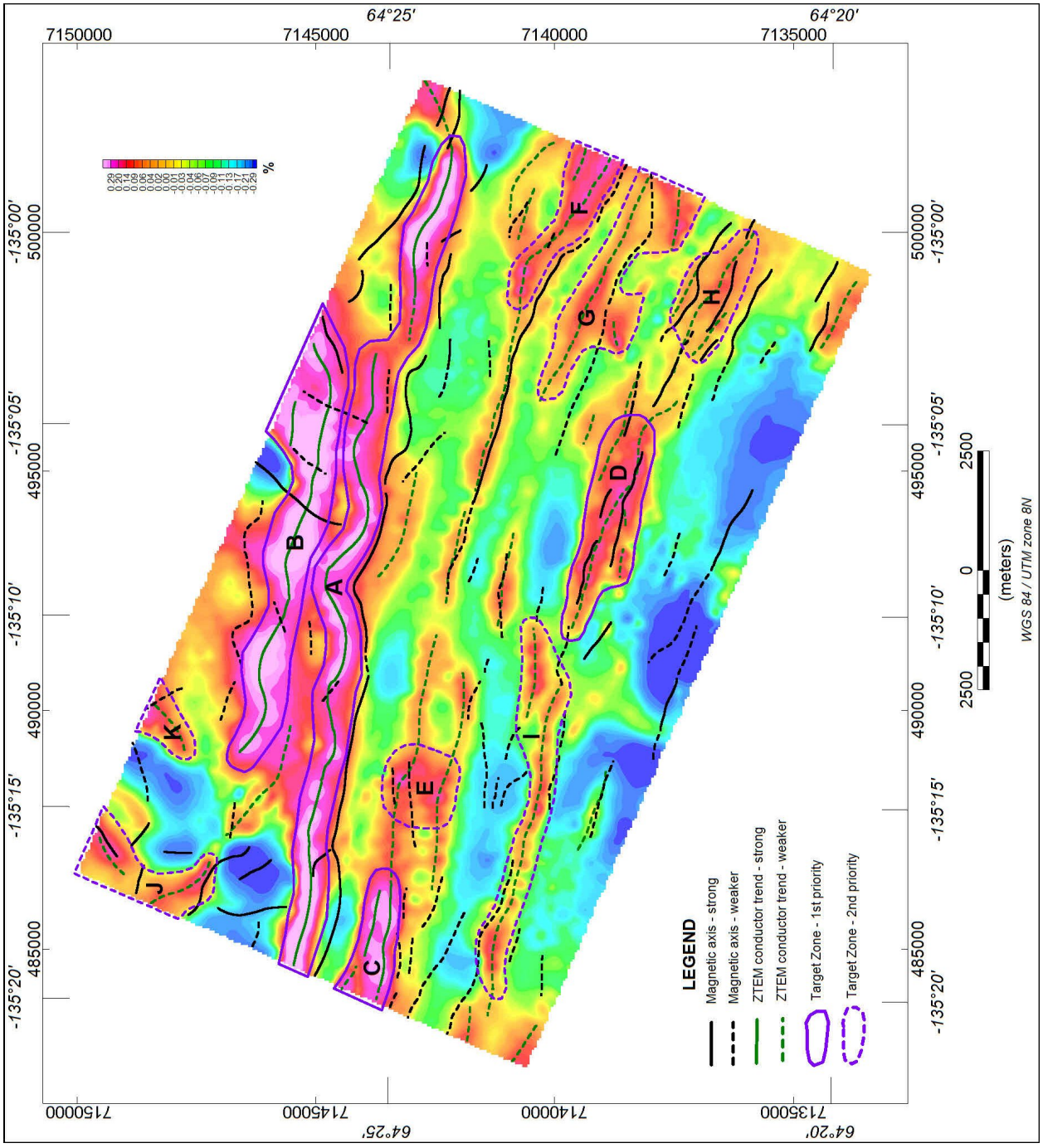

Figure 33: NW block - Interpretation and TZs superimposed on XIP 180Hz PR image.

Figure 34 shows the interpretation and TZs overlain on the DEM image. There is no obvious correlation of ZTEM conductors and topography. Most of TZ A and TZ B are aligned along the E-W trending topographic high in the north of the block, but the west end of TZ A continues uninterrupted across a valley. The other TZs correlate with topographic highs, lows and slopes.

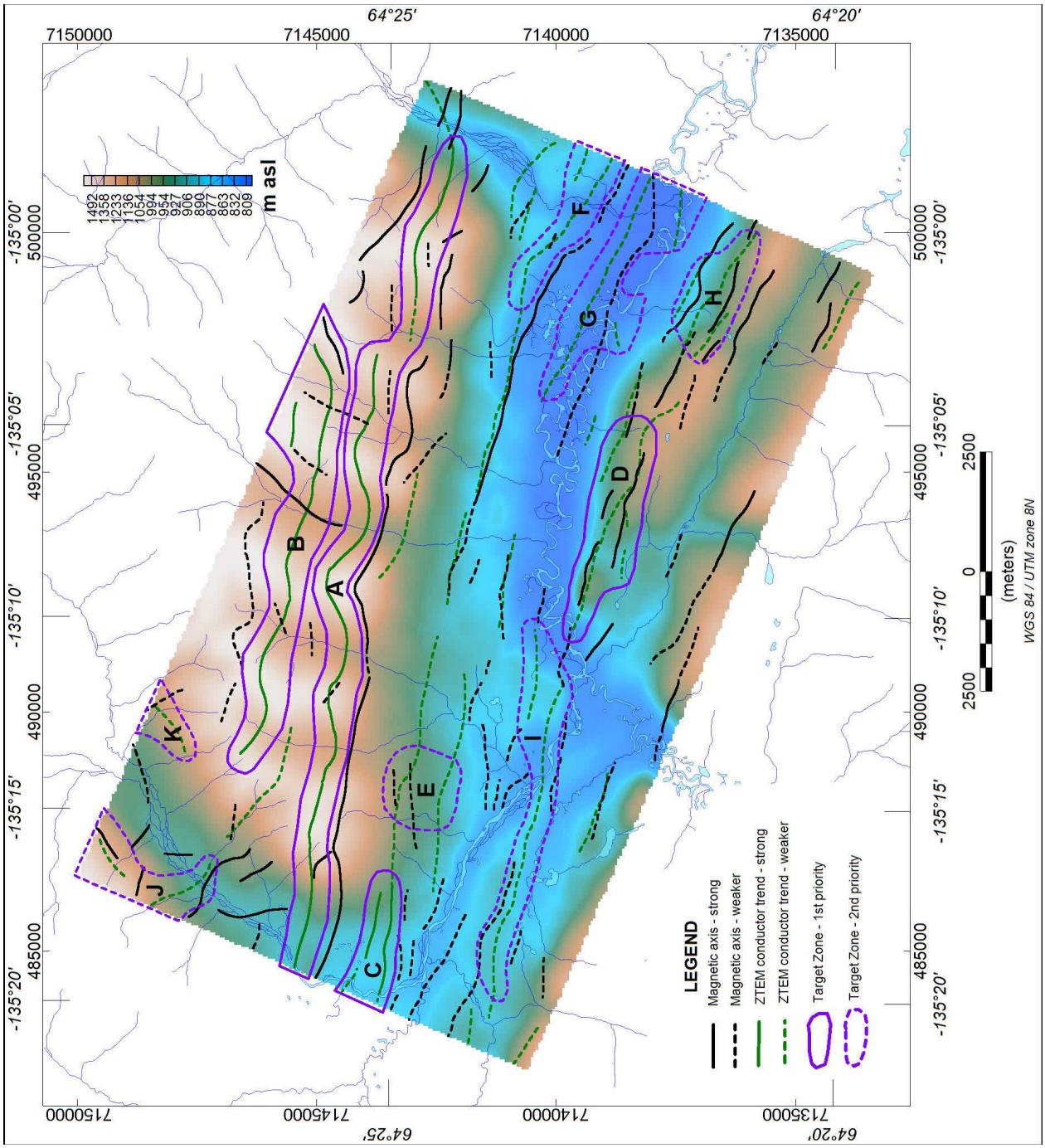

Figure 34: NW block – Magnetic interpretation and conductor trends on DEM image.

9. COMPARISON OF GEOTECH AND CONDOR ZTEM INVERSIONS

Geotech carried out 2D inversions of four ZTEM lines within the Central block, viz. 4050 and 4070 crossing the Puma prospect and 6680 and 6690 crossing the El Gossan prospect. These inversions are compared with Condor's 2D inversions in Figures 35, 36, 37 and 38 respectively.

The observed inphase and quadrature profiles for the five frequencies are shown in black and the modeled profiles in red. The conductivity depth sections are limited in depth to -500 m asl, which is approximately 1 000 m below surface. The Karous-Hjeldt (K-H) pseudosection is included at the bottom of the plots, for comparison with the 2D inversions.

The inversions compare closely, although the Condor inversions exhibit finer detail compared to the Geotech inversions, which appear to have more smoothing. The modeled profiles (red) look similar, but close examination demonstrates that the Condor inversion is fitting the observed profiles more closely. A balance is required between fitting the data more closely, but avoiding fitting noise.

The K-H pseudosection is useful as a check on over-fitting the data. Any conductors in the 2D inversion conductivity depth section which do not correlate with a conductor in the K-H pseudosection are probably produced by noise rather than signal. However, depths on the K-H pseudosection are not reliable and should not be used for any quantitative purposes.

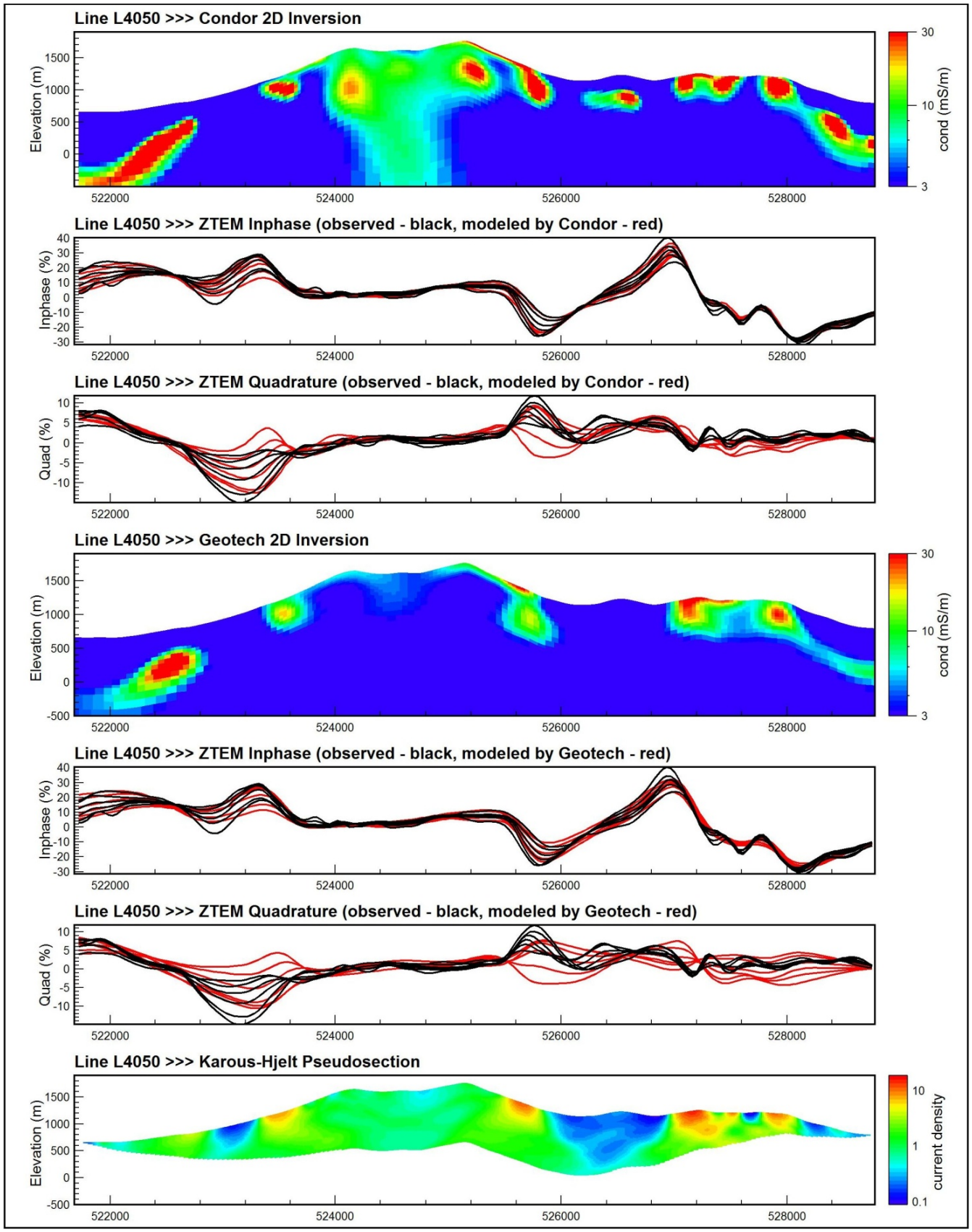

Figure 35: Comparison of Condor and Geotech 2D inversions of ZTEM – Line 4050.

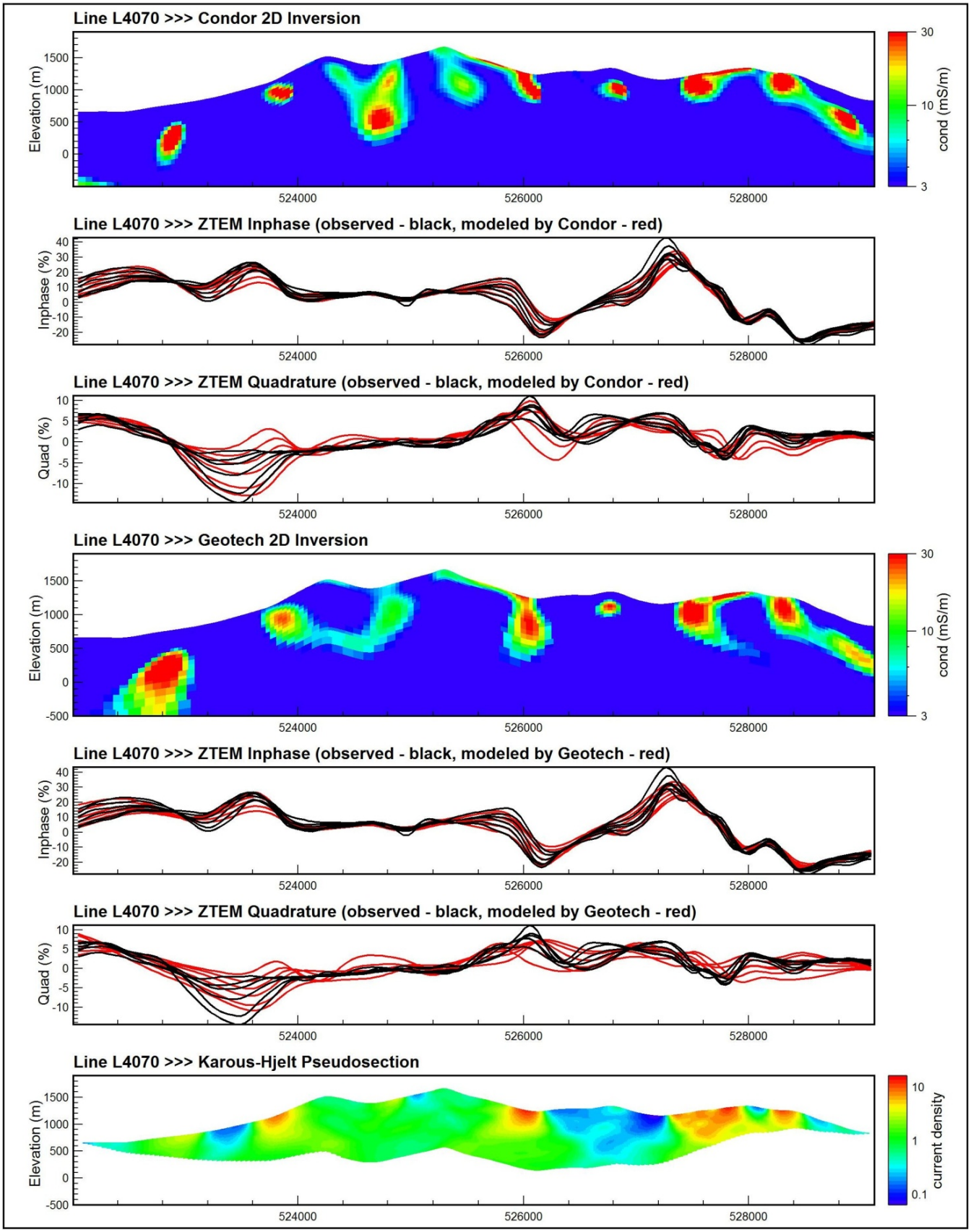

Figure 36: Comparison of Condor and Geotech 2D inversions of ZTEM – Line 4070.

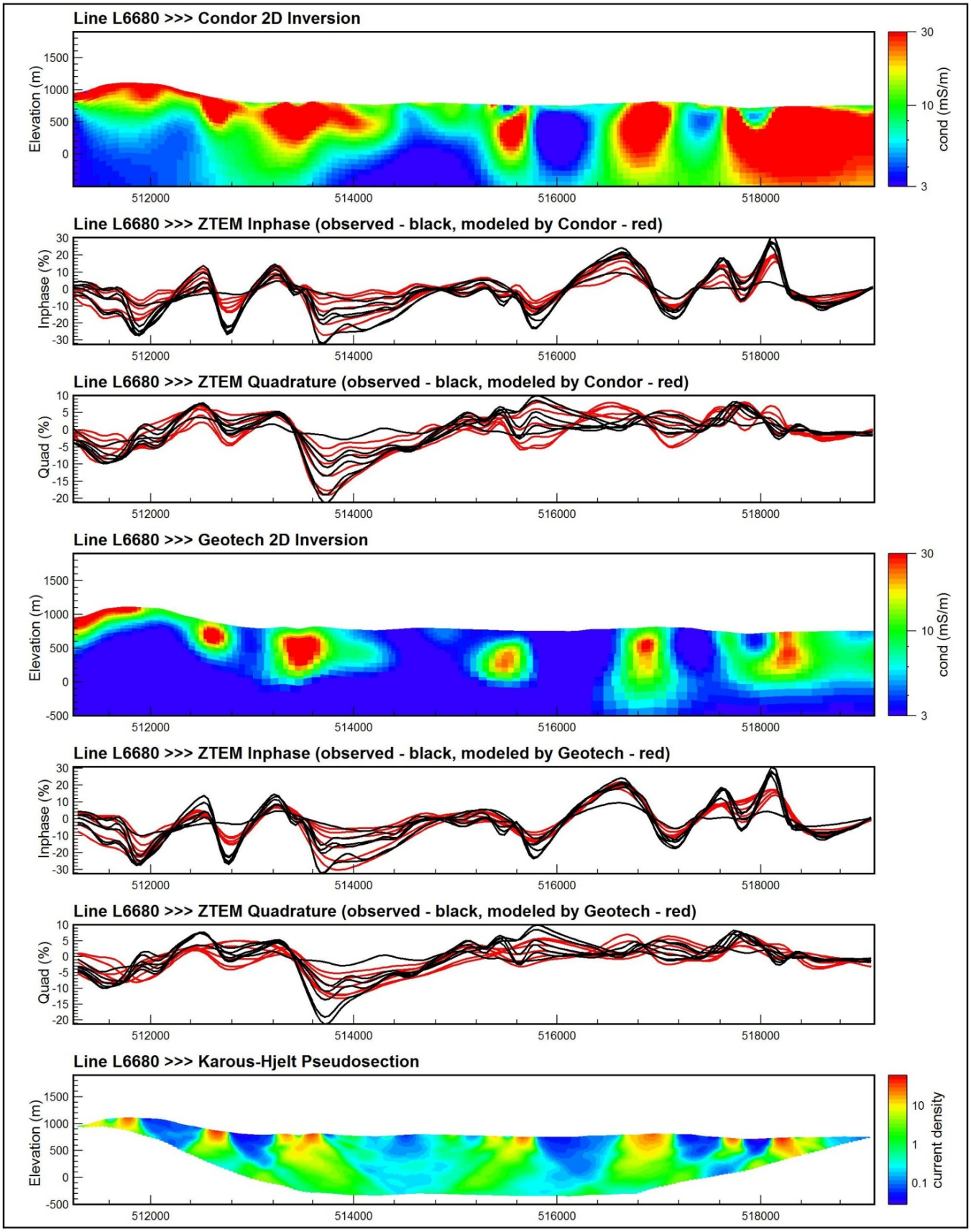

Figure 37: Comparison of Condor and Geotech 2D inversions of ZTEM – Line 6680.

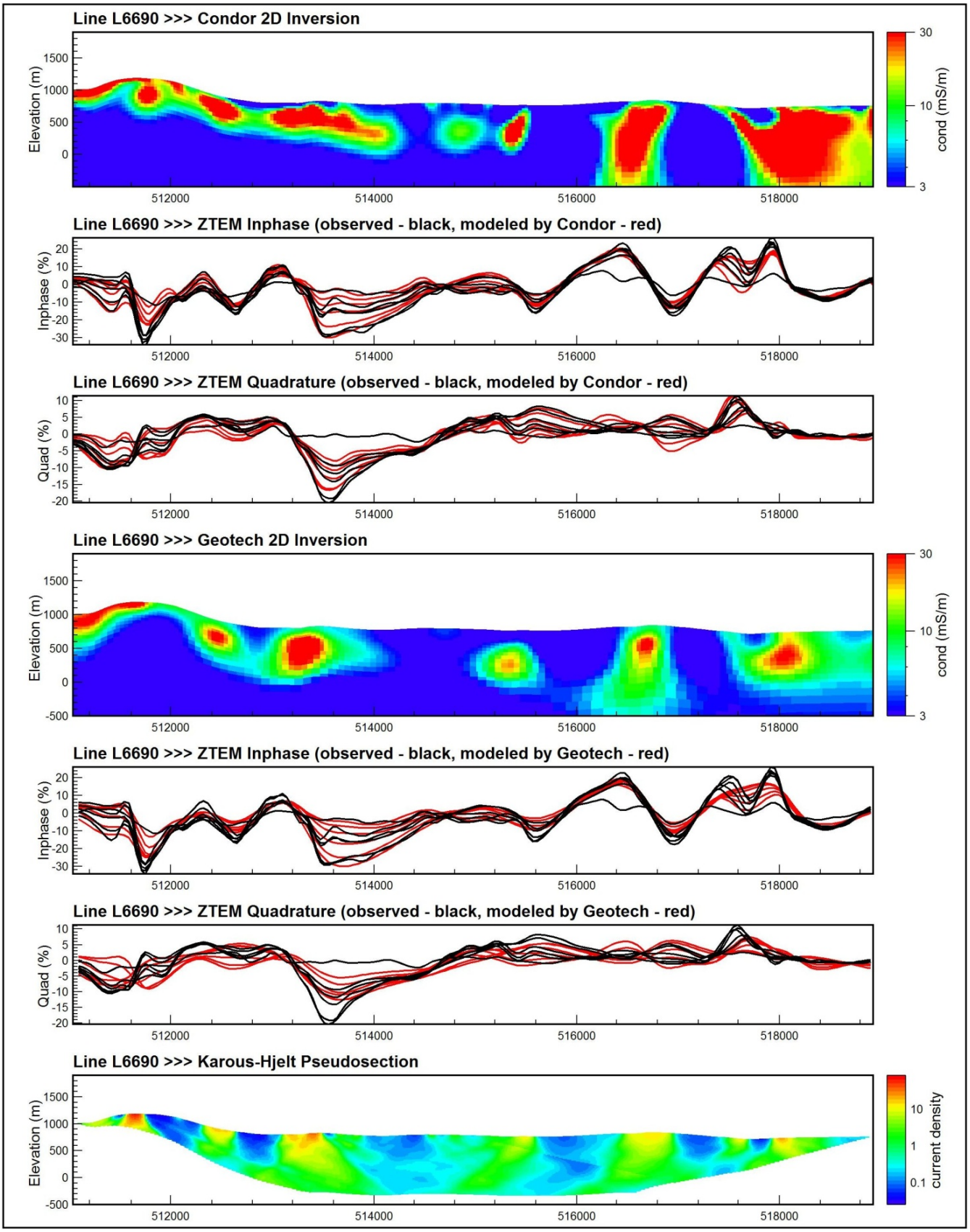

Figure 38: Comparison of Condor and Geotech 2D inversions of ZTEM – Line 6690.

10. COMPARISON OF ZTEM WITH VTEM

The 2008 VTEM survey covered a similar area to that of the ZTEM Central block (Figure 9). A detailed comparison of the VTEM and ZTEM is included in Appendix E, while a summary of the most important conclusions is presented here.

Figure 39 compares images of VTEM conductance from 25-431 m and ZTEM 30Hz Apparent Conductivity. The former is representative of the conductivity from near-surface to moderate depth for the VTEM survey, while the later is the comparable conductivity from the ZTEM survey. Of the numerous products generated from the ZTEM survey, the 30Hz Apparent Conductivity image appears to best map the overall conductivity distribution in plan view (see Appendix E. The conductivity distributions generally correlate well, although the Tiger-Puma mineralized trend is better defined by the ZTEM image. Due to the nature of the system, ZTEM is more suited to defining zones with longer strike length than discrete conductors.

The VTEM TZs defined by Condor in 2009 (Irvine, 2009) are shown in Figure 40, superimposed on the XIP 180Hz PR image, which has been used to define the ZTEM TZs in this report. Both VTEM and ZTEM TZs are shown in Figure 41. The two sets of TZs correlate reasonably well:

- The extensive ZTEM TZ A, which covers the Tiger-Puma trend, correlates with VTEM TZs C, F, G, H and part of M.
- ZTEM TZs B, F and G correlate with the extensive VTEM TZ S.
- ZTEM TZ D correlates with VTEM TZs W and X.
- The west end of ZTEM TZ E correlates with VTEM TZ D.
- ZTEM TZ H partially correlates with VTEM TZ K.
- VTEM TZ O correlates with a ZTEM conductor, but lies within the non-prospective area (Figure 12) and so was not selected as a ZTEM TZ.

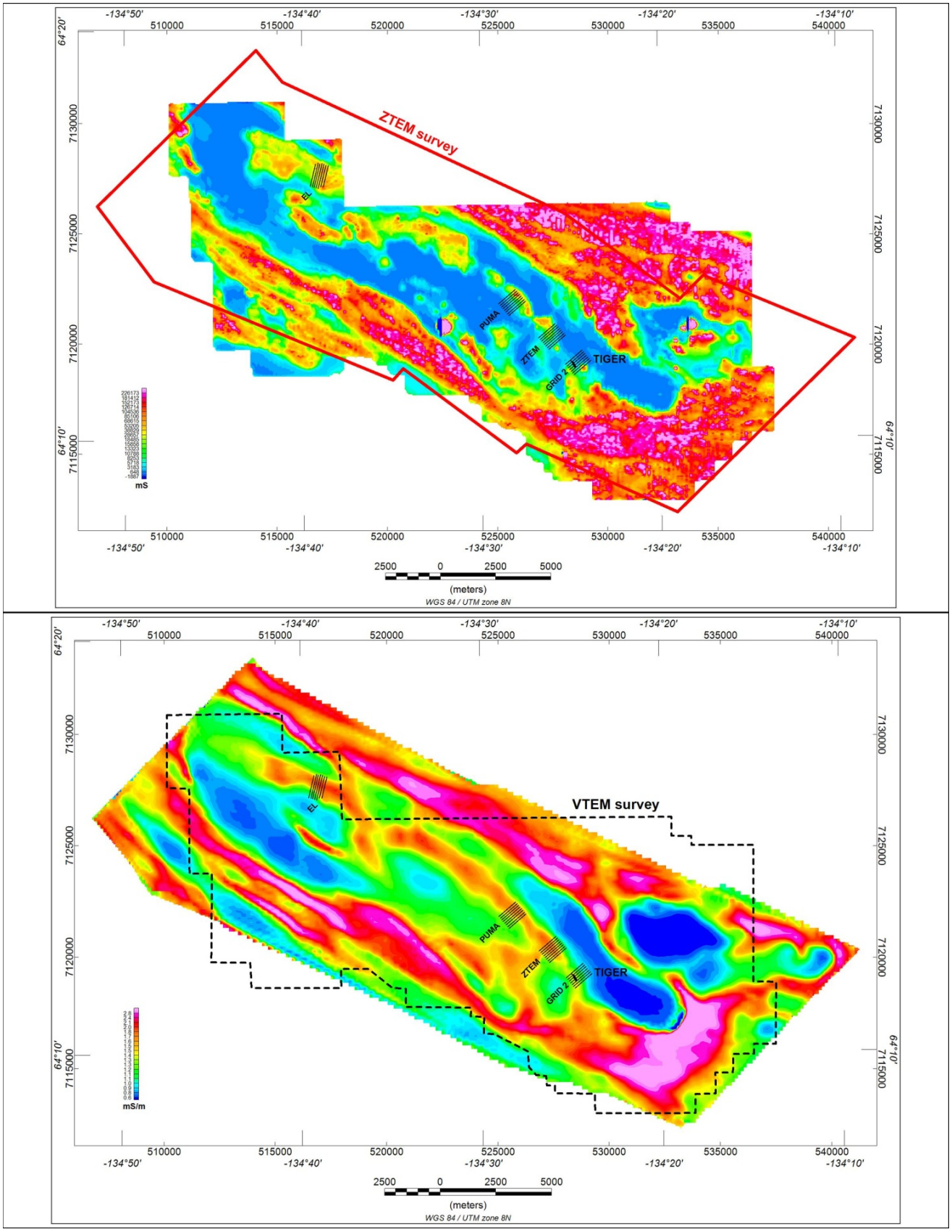

Figure 39: Central block – comparison of VTEM conductance (top) and ZTEM 30Hz Apparent Conductivity (bottom).

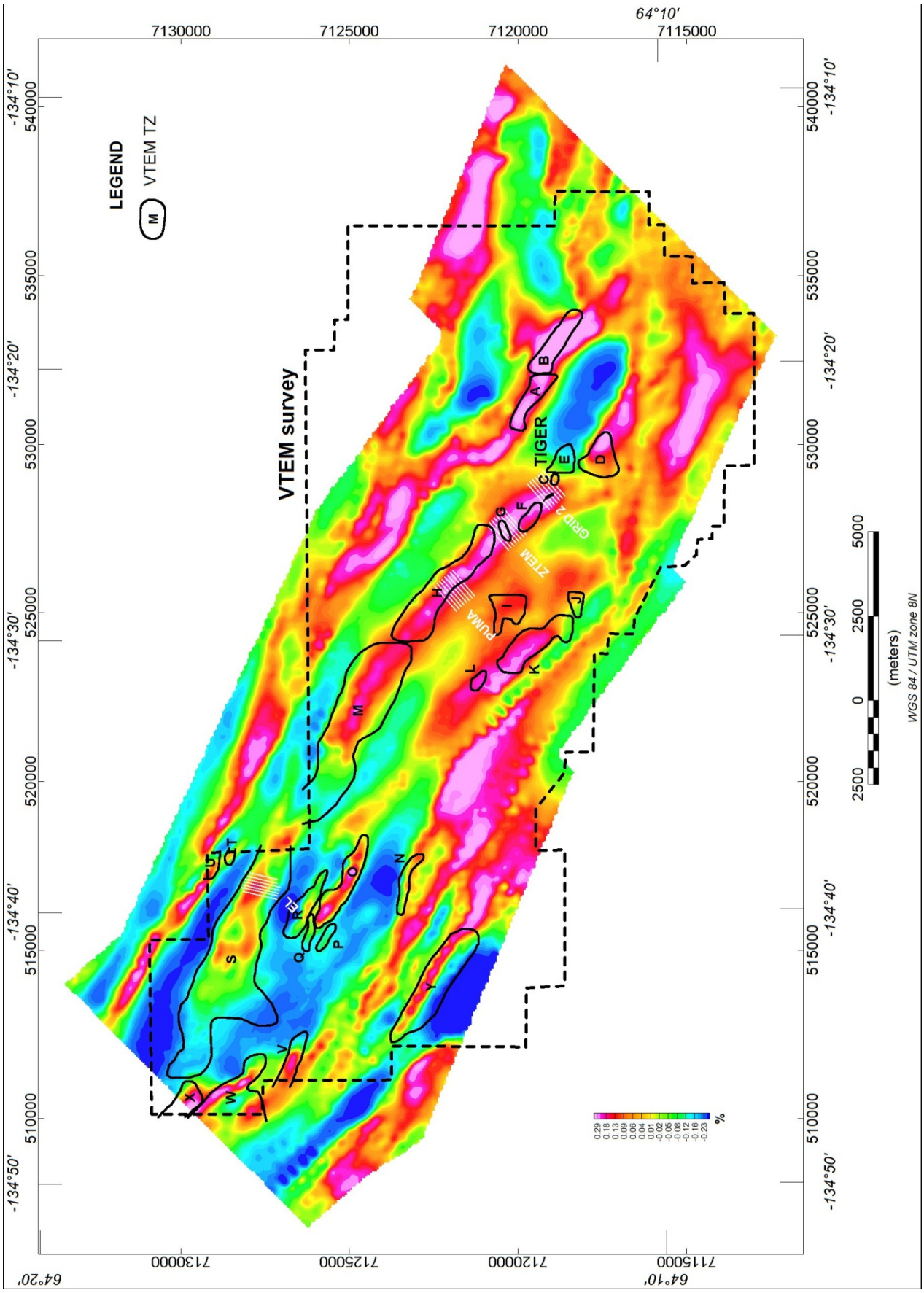

Figure 40: VTEM TZs superimposed on ZTEM XIP 180Hz PR image.

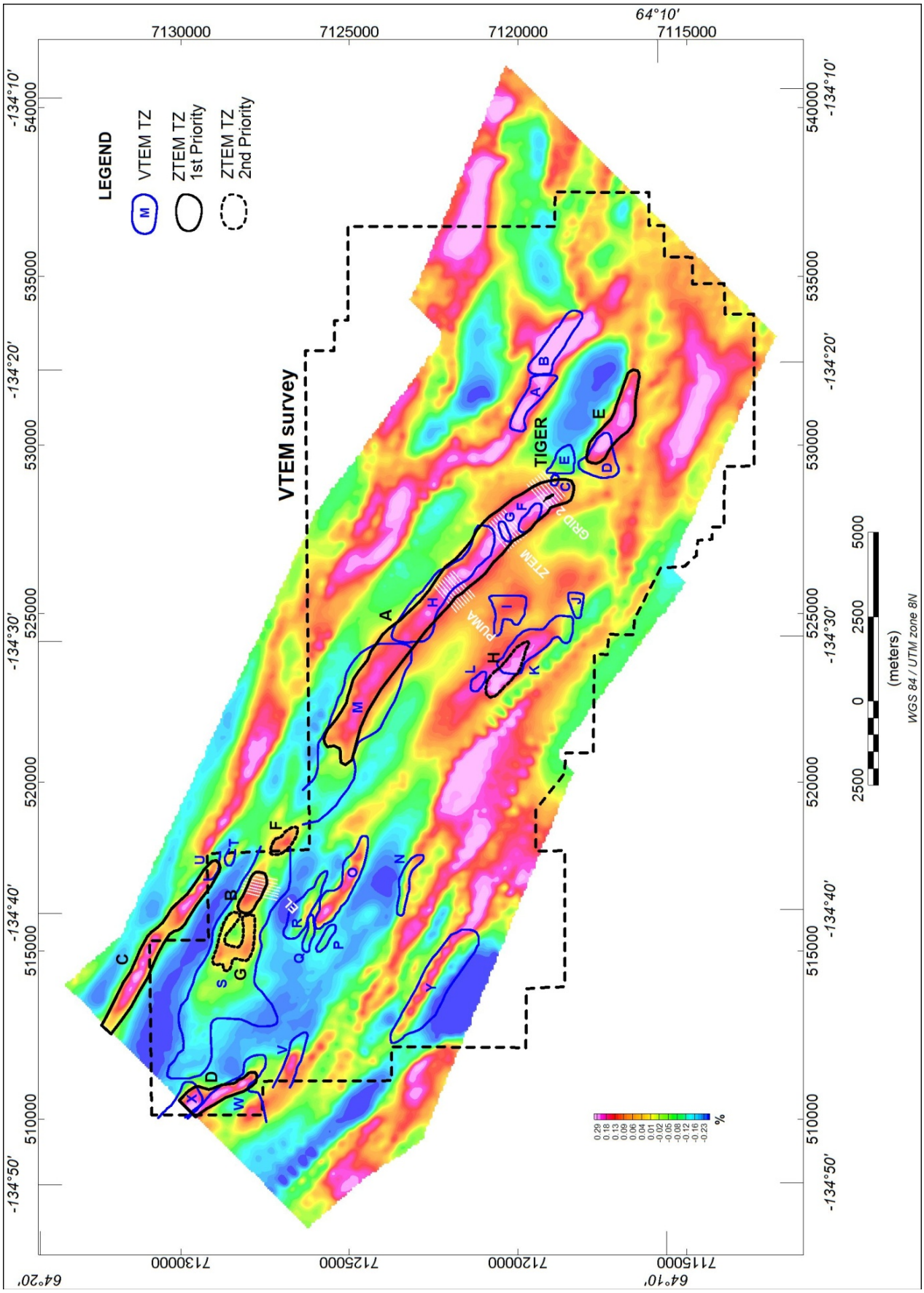

Figure 41: Central block: comparison of VTEM and ZTEM TZs, superimposed on ZTEM XIP 180Hz PR image.

11. COMPARISON OF ZTEM WITH IP AND GRAVITY SURVEYS

As discussed in Section 4, gravity surveys were carried out over the four grids in the Central block - Grid2 (Tiger), ZTEM, Puma and El. Also, an IP survey was carried out over the El grid. The locations of these grids are shown in Figure 10.

GRAVITY SURVEYS

The gravity surveys were carried out for ATAC by MWH Geo-Surveys, Inc. in June 2010. The line spacing was 100 m and the station spacing was 50 m.

These gravity data were inverted by Condor using the GRAV3D software, to produce a voxel model. A brief explanation of the inversion process is included in Appendix C.

IP SURVEY

The IP survey over the El grid was carried out by Aurora Geosciences Ltd. (Aurora) in June 2010. The configuration used was a modified Pole-Dipole array, with dipole spacing of 50 m, reading N=1 through 10 wherever possible.

Aurora carried out 2D inversions of each line to produce resistivity and chargeability depth sections. However, these sections extended to depths over 150 m where, in Condor's opinion, the inversions are unreliable. Also, the inversion errors at depth were large in areas where very low resistivities were observed near the middle of the lines.

Consequently, Condor ran new 2D inversions of all seven lines using DCIP2D software (Appendix D), but constraining the depth extents to reliable data.

PA MULTIPLOTS

Sections along each of the gravity lines were extracted from the voxel models of the inverted gravity, VTEM, ZTEM and magnetic data. To facilitate direct comparison, these sections have been plotted as MultiPlots, using Encom PA software. In the El area, the inverted IP resistivity and chargeability have been included. MiniPlates of the VTEM magnetics, Bouguer gravity and DEM are shown at the top of the MultiPlot, with the gravity stations and drill holes shown on the gravity MiniPlate. Drill holes are also shown on the sections. All the MultiPlots are included in Appendix F.

TIGER (GRID 2) AREA

An example MultiPlot (for Line 4.2) is shown in Figure 42. The gravity shows that the Tiger drill area lies just north of probable fault, which juxtaposes lower densities to the north with higher densities to the south. Small areas of higher density correlate with the mineralized zone on lines 3.2, 4.2 and 5.2.

The magnetic inversion does not indicate any specific signature for the mineralization. A shallow north-dipping magnetic unit is well defined on the middle and southeastern lines of the grid.

The VTEM conductivity depth sections show a conductor south of the mineralized zone, which appears to correlate with higher densities shown on the gravity inversion. This conductor is deeper and may not crop out. A shallow, thin conductor correlates with the mineralized zone on the northwestern lines 7.2, 6.2 and 5.2 but this conductor then trends south and merges with the previously mentioned deeper conductor.

The ZTEM conductivity depth section shows a relatively strong, shallow conductor which directly correlates with the Tiger mineralization. This conductor has limited depth extent – approximately the base of existing drilling. The northern extent of this conductor is located close to the northern limit of drilling, but it extends (possibly dipping flat to the south) several hundred meters south of existing drilling.

ZTEM GRID

An example MultiPlot (Line 5) is shown in Figure 43. The gravity inversions shows a shallow, higher density unit which dips flat to the southwest. This is similar to the denser unit delineated on the Tiger grid. The greatest density contrast is located in the southwestern section of the grid.

The magnetic inversion is relatively featureless, other than defining a more magnetic unit along the northeast edge of the grid.

The VTEM conductivity depth sections show a well-defined conductor, which is strongest in the northwest of the grid area and weakens to the southeast. This conductor does not appear to extend to the surface – possibly it is covered by a non-conductive lithology.

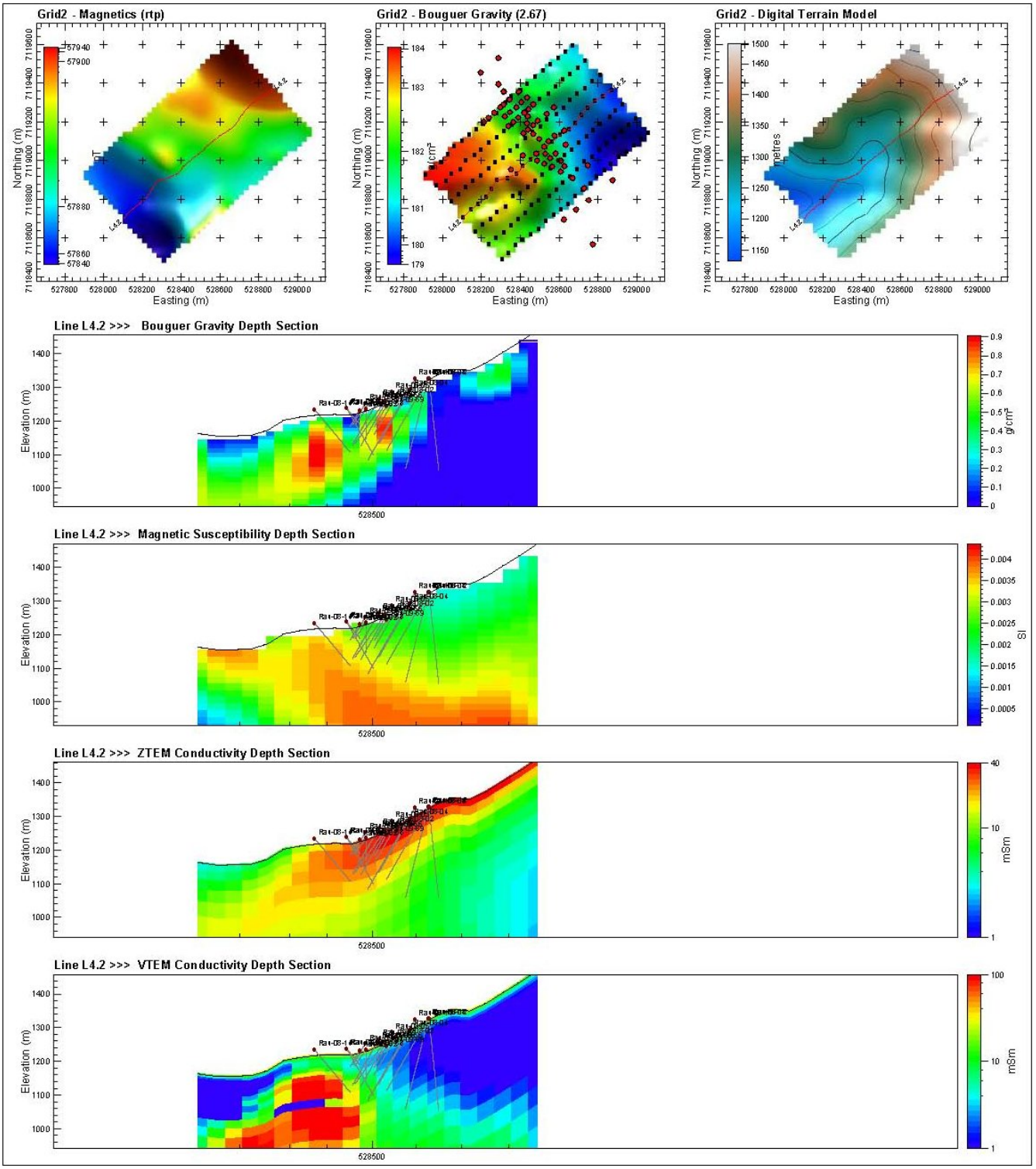

Figure 42: Grid2 (Tiger). Example MultiPlot - Line 4.2.

The ZTEM conductivity depth sections show a strong, localized conductor which extends across all eight lines of this grid (and extends further along strike in both directions). This conductor correlates closely with the VTEM conductor and also does not extend to the surface. As it lies only 1-2 km along

strike from the Tiger mineralization and has similar characteristics, this conductor represents an attractive target for future drill testing.

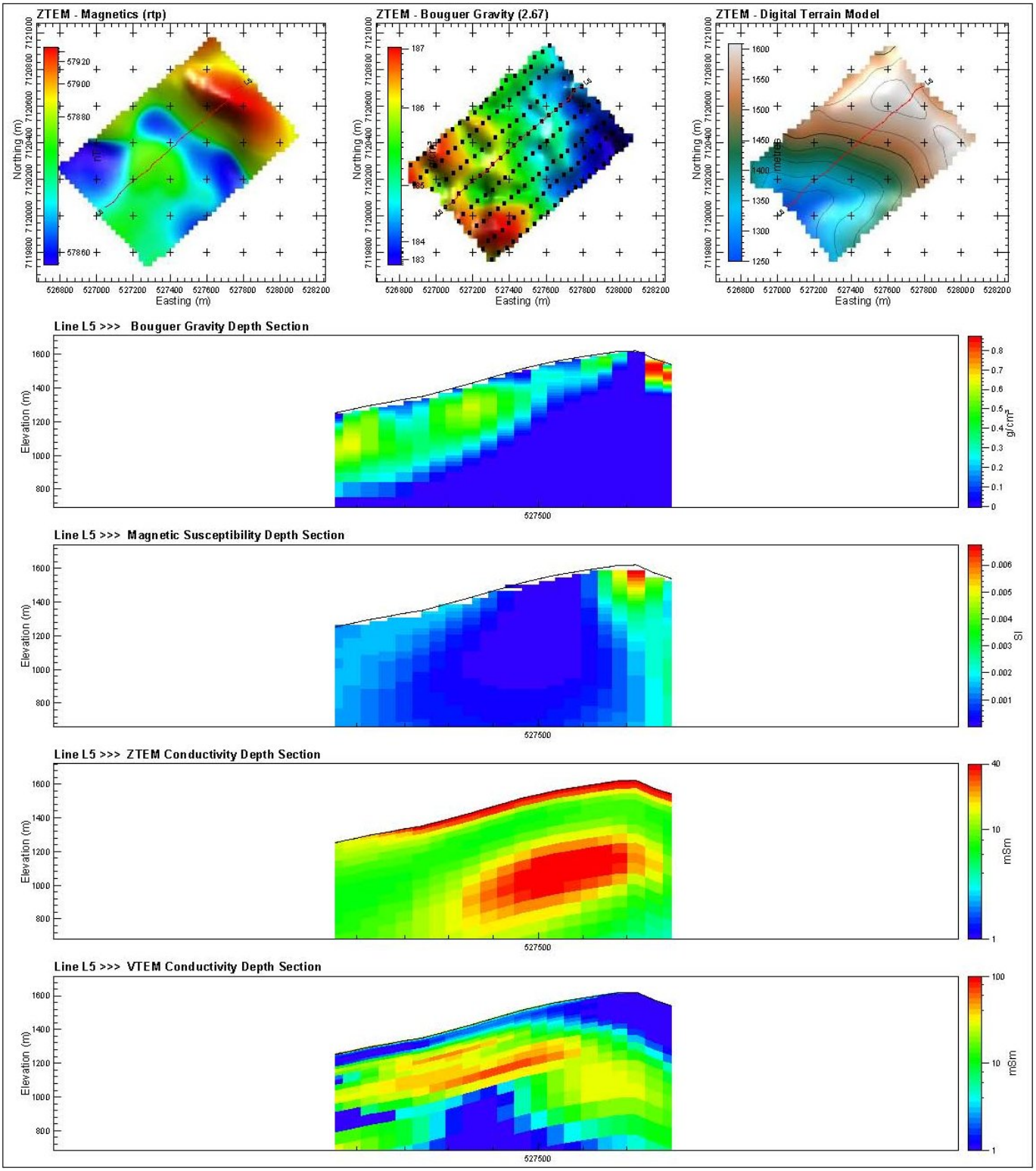

Figure 43: ZTEM grid. Example MultiPlot - Line 5.

PUMA GRID

An example MultiPlot (Line 1.1) is shown in Figure 44. The gravity inversions show a denser unit extending across the western section of the grid. The density within this unit shows considerable variability, with small, isolated highs distributed somewhat randomly.

The magnetic inversion is relatively featureless, other than defining a more magnetic unit along the northeast edge of the grid.

Both VTEM and ZTEM inversions show a very similar conductor which extends across every line at the northeastern edge of the grid and extends beyond the grid area. This conductor is similar to the one defined on the ZTEM grid and may not extend to the surface. It lies approximately 4 km along strike from the Tiger zone and represents another attractive target for drill testing.

EL GRID

An example MultiPlot (for Line 9600) is shown in Figure 45. A local gravity high extends across the western side of the grid and the inversions show discrete density highs on most lines.

The magnetic inversion shows several discrete susceptibility highs corresponding to the magnetic anomalies on the MiniPlate. These susceptibility highs do not correlate exactly with the density highs.

Both VTEM and ZTEM inversions show a broad, very conductive zone extending most of the way across the grid, beneath a relatively resistive surface layer which varies in thickness from 50-100 m.

The Condor inversions of the Aurora IP data also show a similar strong conductor (with resistivities down to 1 ohm-m) beneath a resistive surface layer (resistivities > 1 000 ohm-m) varying in thickness from 50-100 m. A number of discrete chargeability highs are delineated on the inversions-these are relatively small and near-surface and mostly lie within the more resistive surface layer, not within the deeper, strong conductor.

Two drill holes were targeted on the gravity high and susceptibility high on Line 9600 (Figure 45). Geological mapping indicated that the dip was relatively shallow to the north, so the holes were drilled to the south. Hole No 1 was designed to intersect the density high and chargeability high centered just north

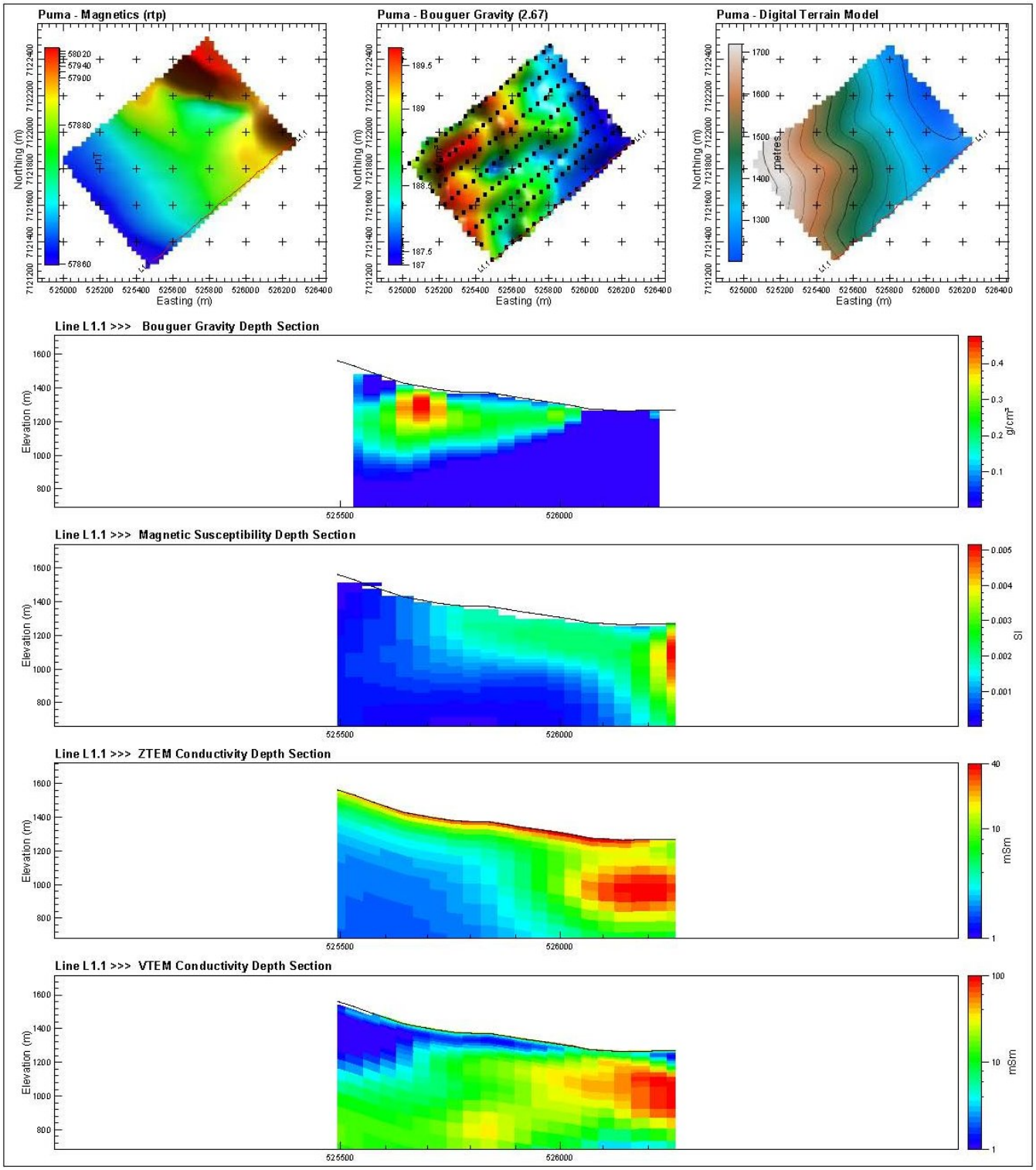

Figure 44: Puma grid. Example MultiPlot - Line 1.1.

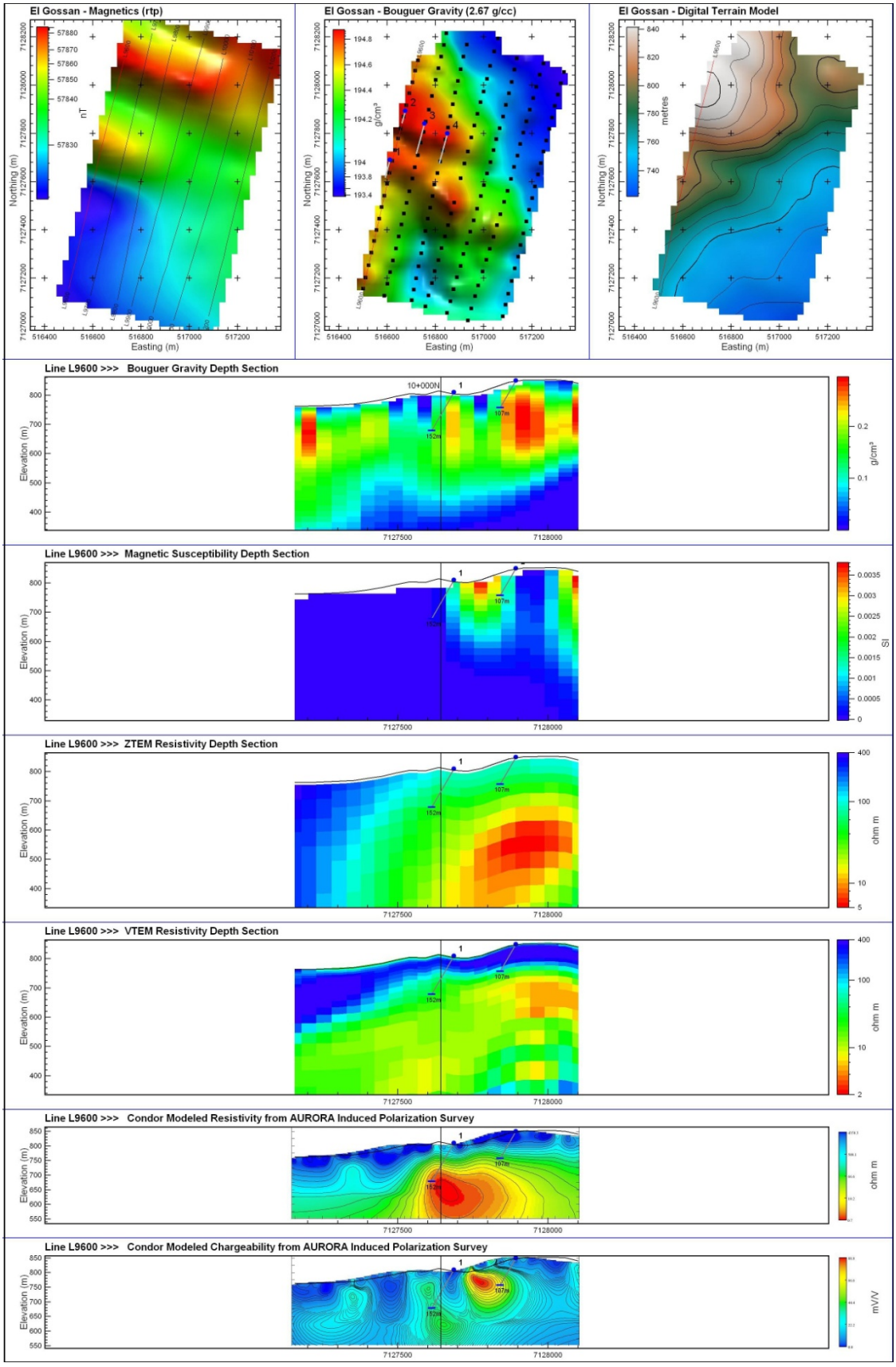

Figure 45: El grid. Example MultiPlot - Line 9600.

of the base line 10 000N. However, in hindsight the collar was located too far south and the hole may have gone over the top of these targets. It intersected a 1 m zone of galena/smithsonite approximately correlating with the density high - however this thin sulphide zone is not sufficient to generate the observed gravity anomaly. Graphite/pyrobitumen was also present within the carbonates

Hole No 2 was drilled under Hole No 1, at a steeper angle. It was designed to test the zone of higher density and higher chargeability. This hole intersected weak mineralization for 70 m down hole in the center of the IP anomaly, which was interpreted as weakly altered, dolomitized karst-filled limestone. Pyrobitumen was also present.

The gravity and chargeability anomalies have not been satisfactorily explained by the two drill holes. The very low resistivities at depth also require an explanation – the holes appear to have barely penetrated this zone. Although graphite/pyrobitumen has been observed in the drill core, graphite does not appear to be the explanation for the low resistivity zone because the observed chargeability highs are localized in the surface resistive zone and do not correlate with this conductor.

12. CONDOR PRODUCTS

TargetMaps

Scale 1:40 000 (Central block) and 1:20 000 (SE and NW blocks) NAD83 / UTM Zone 14N

For each block, eight maps have been generated, with base layer images as follows:

- TMI-RTP
- Magnetic Tilt Angle
- Digital Terrain Model
- XIP_180Hz_PR (Z/X In-phase Component Phase Rotated at 180Hz)
- YIP_180Hz_PR (Z/Y In-phase Component Phase Rotated at 180Hz)
- IP_180Hz_TPR (Total Phase Rotated from In-phase Components at 180Hz)
- IP_180Hz_DT (Total Divergence from In-phase Components at 180Hz)
- 180Hz_Apparent_Conductivity

On each map the following layers are presented:

- Magnetic interpretation
- ZTEM conductor axes
- Target Zones
- Ground grids (in Central block)
- Drainage

MultiPlots

Horizontal scale 1:20 000

MiniPlates: RTP, Tilt Angle, Apparent Conductivity 180 Hz, DTM

Tracks:

- EM X In-phase profiles 30-720 Hz
- EM X Quadrature profiles 30-720 Hz
- TMI, Tilt Angle, 1st vertical derivative
- Conductivity Depth Section showing EM system height and drill holes (where present)
- Magnetic susceptibility model from MAG3D inversion
- Trackmap of Tilt Angle, with flight path

Stacked CDS

Horizontal scale 1:20 000 Vertical scale 1:40 000

Central block – 11 sheets

SE block – 7 sheets

NW block – 7 sheets

Processing and Analysis Report (2 hard copies)

Archive DVD contains the following files:

- PDF files and Geosoft Map files of all **TargetMaps**
- DXF files of interpretation
- Geotiff images of ZTEM magnetic grids (TMI, RTP, 1st vertical derivative and Tilt)
- Geotiff images of ZTEM EM grids (IP_180Hz_TPR, IP_180Hz_DT, XIP_180Hz_PR, YIP_180Hz_PR, 180Hz_AppCon)
- PDF MultiPlots for Central, SE and NW blocks
- PDF stacked CDS for Central, SE and NW blocks
- PDF MultiPlots comparing ground and airborne geophysics over Grid2 (Tiger), ZTEM, Puma and El grids within Central block
- PDF copy of this report
- Geotech report and products for ZTEM Central Test survey (June 2010)
- Geotech report and products for ZTEM Main survey (August 2010)
- ZTEM Primer
- Interim Interpretations June-Aug 2010

13. CONCLUSIONS AND RECOMMENDATIONS

The ZTEM survey has delineated conductive zones in all three blocks which may be caused by lithologies and/or alteration associated with Au (and possibly base metal) mineralization. Due to the nature of the system, ZTEM is more suited to defining zones with longer strike length than discrete conductors. Because ZTEM responds to conductivity contrasts rather than absolute conductivity, it is suited to geological mapping and delineation of structures and alteration associated with precious metal deposition.

In the Central block, a ZTEM conductor correlates with the Tiger zone and extends northwest for a total strike length of approximately 10 km, encompassing a number of Au prospects including Puma. A similar, but separated, conductor correlates with the EI zone. These were partially defined by the previous VTEM survey as relatively weak and discontinuous conductors, but the ZTEM conductors are stronger, more continuous and better resolved from other conductors.

Standard products from the ZTEM include maps of various parameters, some of which are based on either the X (along line) or Y (across line) components and some are based on the combined responses. In the Central block the image of the XIP_180Hz_PR (180Hz inphase z/x component phase-rotated) best defined the Tiger zone and its extension to the northwest. Consequently, this parameter was chosen as the primary data for initial interpretation of the other two blocks. The 180Hz data is a mid-frequency which provides suitable depth penetration – images of the same parameter at other frequencies do not differ markedly.

The Z/X measurement is most sensitive to conductors approximately perpendicular to the flight lines, while the Z/Y measurement is most sensitive to conductors sub-parallel to the lines. Examination of both sets of images suggests that in the Central block the majority of conductors are oriented across the flight lines and so the X component data is most useful for mapping conductors. However, in parts of the SE and NW blocks, significant differences are noted between the grids generated using the X component and those generated using the Y component, indicating that the conductors are not perpendicular to the flight line direction. In these areas the TPR (Total Phase Rotated), DT (Total Divergence) and Apparent Conductivity (Condor) which combine the X and Y components have also been utilized in the interpretation.

The Osiris mineralized zone in the SE block does not show any clear ZTEM signature, although it does lie close to a major conductor boundary extending in a NW-SE direction across most of the block. Con-

sequently, this style of mineralization appears to be different from that of the Tiger zone in the Central block.

The Target Zones generated during the interpretation are based on the Tiger zone model – strike extensive, relatively narrow, weak-moderate conductors oriented close to the magnetic strike direction. These TZs are usually relatively large and no viable method has been identified to utilize other geophysical parameters to focus within these zones. Consequently, other techniques including geochemistry and geological mapping will be required in conjunction with the ZTEM conductivity and magnetic data to generate specific drill targets.

Respectfully submitted,

CONDOR CONSULTING, Inc.
December 24, 2010

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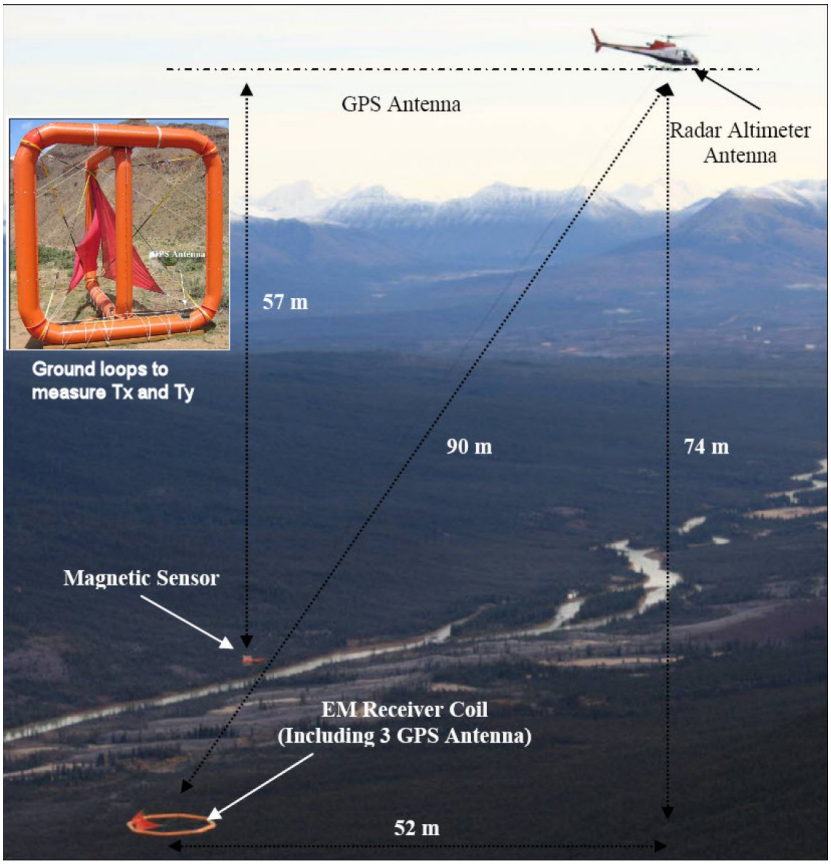
APPENDIX A: ZTEM PRIMER

ZTEM PRIMER

DECEMBER 2010



Condor Consulting, Inc.
Lakewood Colorado
USA

THE ZTEM SYSTEM
PRINCIPLES, MODELING AND ANALYSIS TECHNIQUES

GENERAL BACKGROUND

The ZTEM system was developed over the first part of the last decade (Kuzman et al 2005) and has been flying commercially since 2006. This technical note was written so as to provide Condor's clients with a basic background on the system, how the data is processed and interpreted. Additional information on the system and data processing is included with all of Geotech's ZTEM survey reports. As the system is quite new to the exploration industry, this document will most likely be modified from time to time.

The ZTEM system operates quite differently from traditional airborne EM systems such as VTEM. For VTEM and other what are sometimes referred to as active source EM systems, EM signals are transmitted into the earth and return signals received as the system moves over the ground in a fashion analogous to a towed marine sonar 'pinger'. Unlike sonar however, the transmitted EM field interacts with the underlying conductivity in the earth and the received signal (or secondary signal) gives a response that with suitable processing and analysis can define the location and quality of conductors within the earth. The image below shows the transmit and receive modes of an active source EM system.

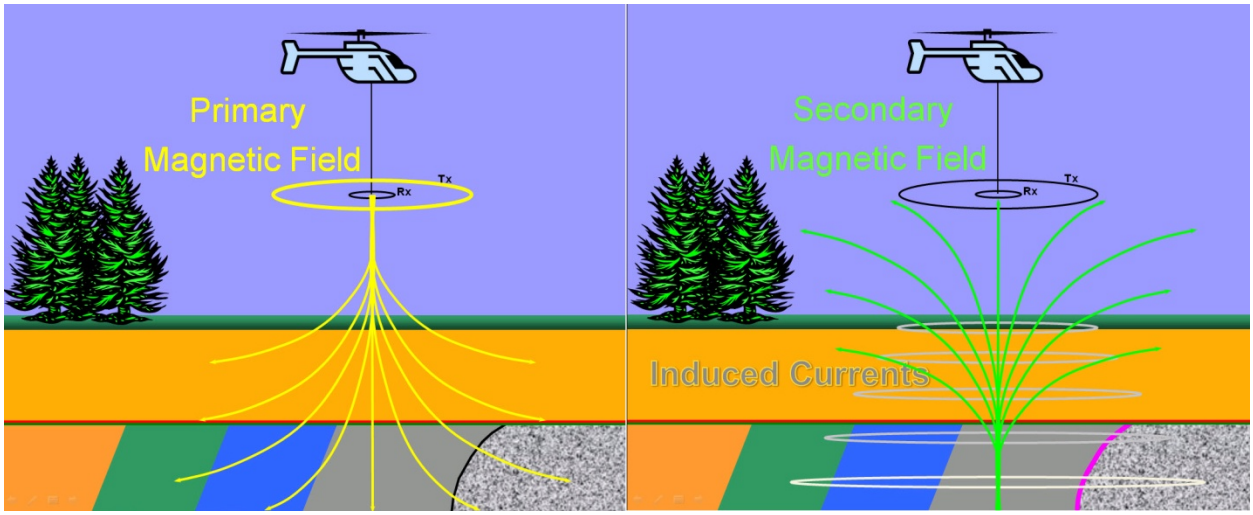


Figure 1

Rather than relying on a signal generated by the equipment on board the aircraft, ZTEM measures naturally occurring magnetic fields in the earth in a fashion similar to the Magnetotelluric (MT) technique. Fig. 2 shows the power spectrum and bandwidth of EM responses that the ZTEM operates in. ZTEM typically operates between 30-720 Hz.

Unlike conventional AEM methods which are designed to map confined conductors (targets of limited sizes) the ZTEM technique responds best to conductivity contrasts or resistivity gradients most often associated with large geological features such as shown in Fig. 3 below.

The ZTEM system measures the vertical MT field (referred to as Hz) in a loop carried below the helicopter. The other two components Hx and Hy are measured on

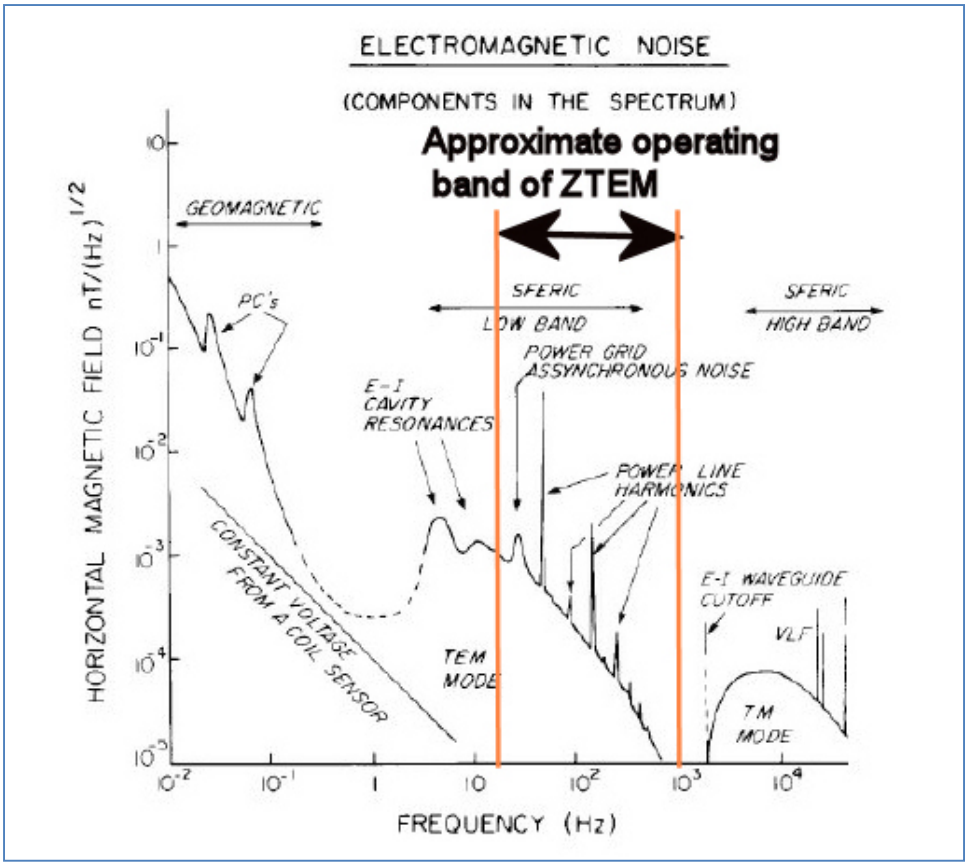


Figure 2

the ground with two fixed coils. The primary delivered data is the ratio of the Hz/Hy and Hz/Hx, commonly referred to as the tipper ratios and expressed in the form Tzx and Tzy. Geotech routinely delivers information (in-phase and quadrature data as a fraction) at the frequencies 30, 45, 90, 180, 360 and sometimes 720 Hz. As can be seen in the naturally occurring EM spectrum plot)Fig 2), the ZTEM signal strength drops as the frequency increases and the 720 Hz signal can sometimes not be obtained. Fig. 4 shows what the various parts of the ZTEM system look like.

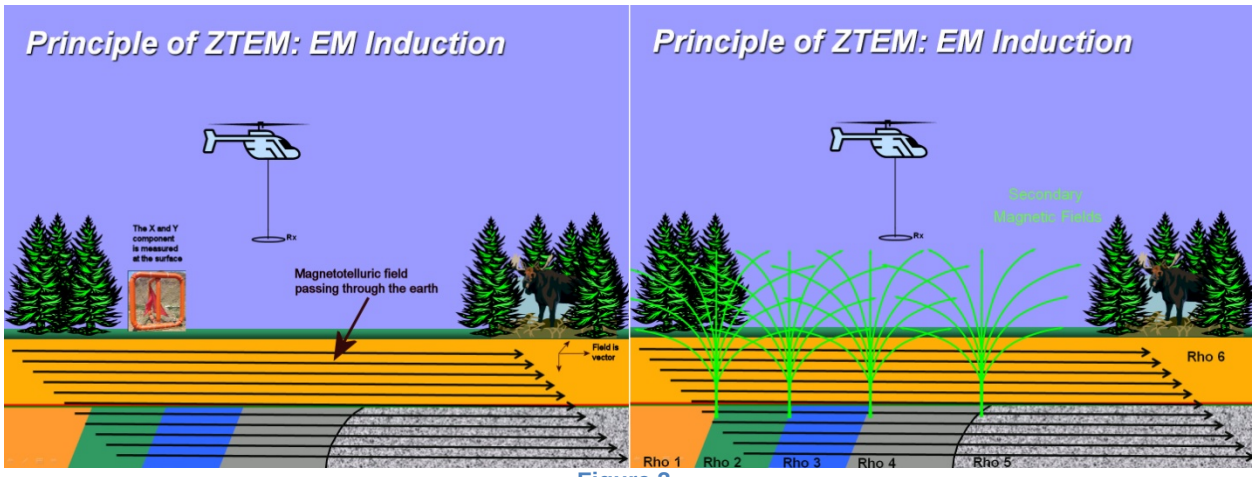


Figure 3

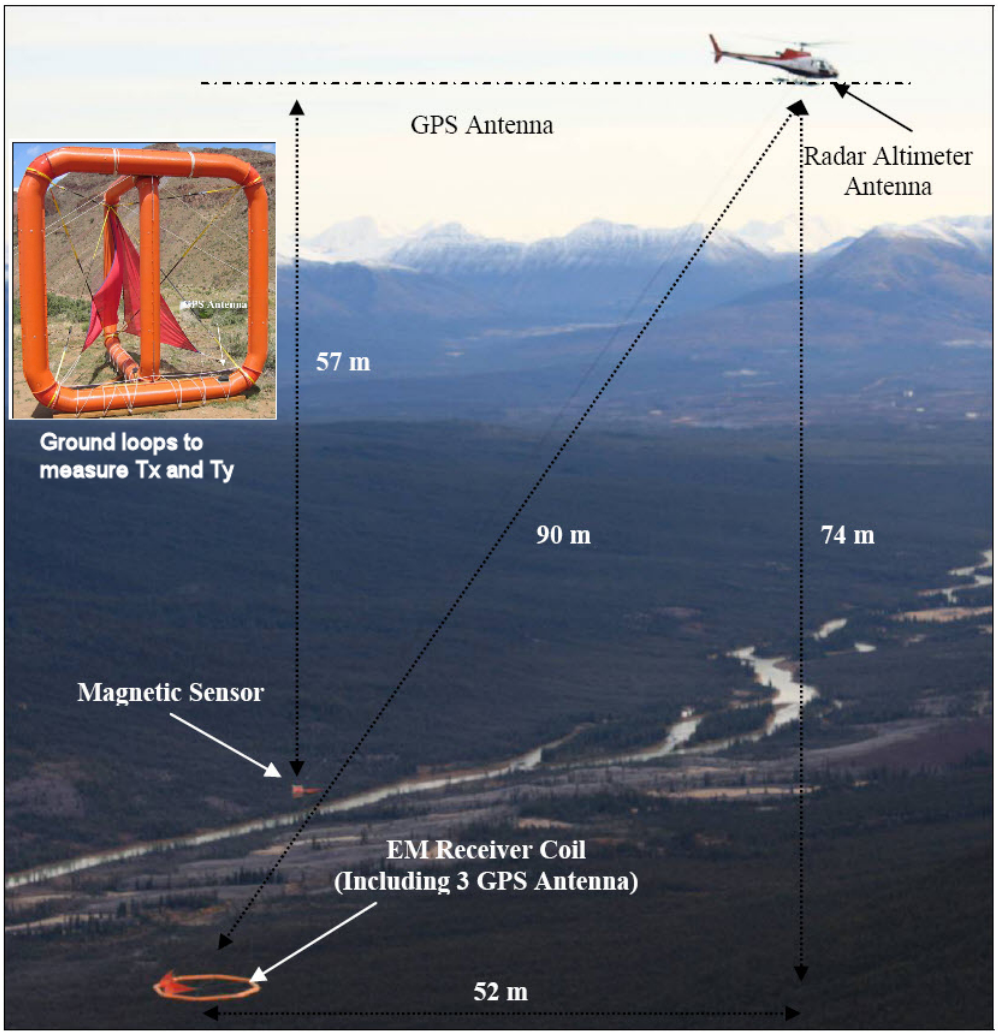


Figure 4

The Geotech standard field report discusses important issues about how the data is processed and presented to clients. A copy of a recent version is attached with this Technical Note (November 2010).

Even though ZTEM data are sensitive to lateral variations conductivity contrasts, the system can't resolve absolute earth conductivities. While calibration of the ZTEM responses using external information is theoretically possible, we have not achieved generally better outcomes of our ZTEM processing using a priori resistivity information.

The setting up of a ZTEM survey is fairly normal compared with other airborne techniques. Flight lines should be normal to the likely geological strike. As to line spacing however, due the more slowly changing primary field strength, little additional information is gained by going to line spacings closer than 100 m. For the primary processing Geotech performs to the raw ZTEM data, Geotech requires a minimum line length of 10 km to be used.

The strength of the natural EM field drops off slower with height than the primary field generated by active-source EM systems. For this reason ZTEM can operate in more rugged terrain (flying higher) and still obtain a useful signal. Condor believes that while this aspect of ZTEM is beneficial to getting good quality data in rugged areas, the system should still be operated as close to the ground as can be safely accommodated in the specific survey conditions.

ZTEM is more sensitive to power line noise than active source EM techniques and in some instances, Geotech will decline to undertake a ZTEM survey if they feel the data will be sub-standard due to excessive power line interference.

SYSTEM RESPONSES

This section shows the ZTEM response to some basic geological scenarios. These results were generated using the 2D finite element code developed by Phil Wannamaker (Wannamaker et al 1987). The first plot (Fig. 5) shows the response across a layered earth. Since Hz is zero above a 1D (layered) earth, the ZTEM Tzx response is also zero.

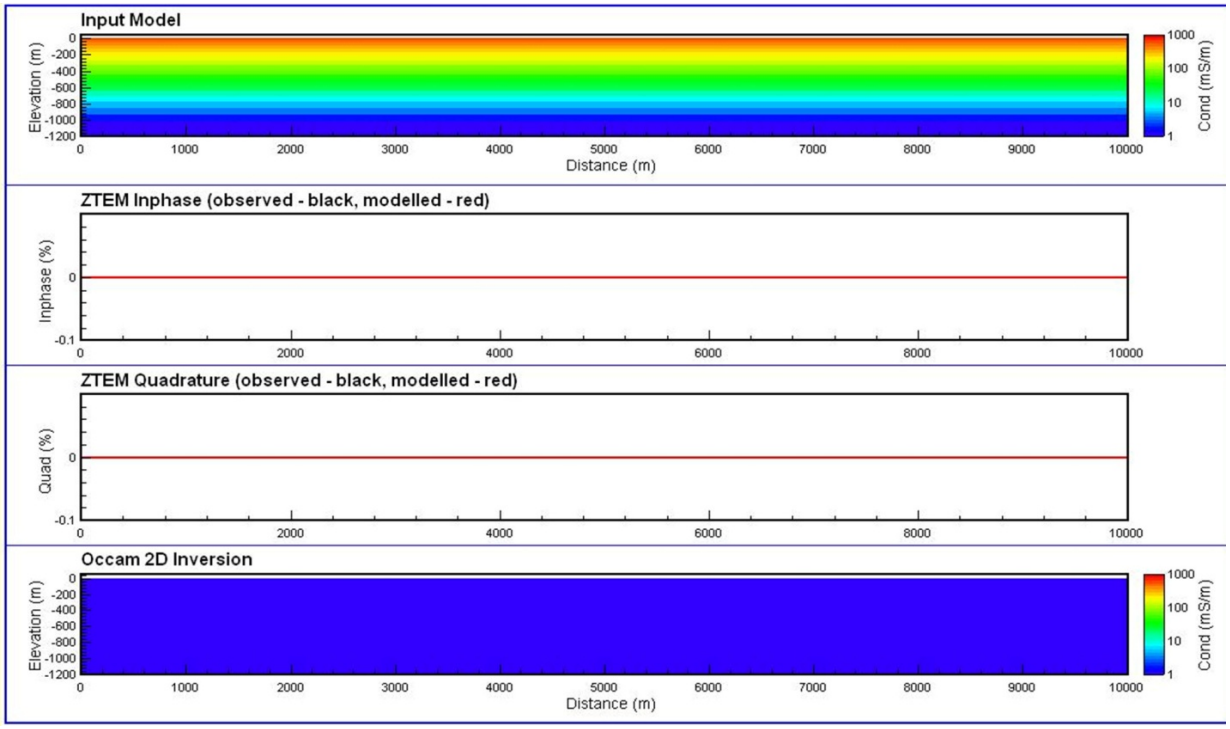


Figure 5

In the next figure (Fig. 6) the response over a contact with a fixed ratio between the two sides (1:100) but with the absolute resistivity values allowed to vary. This shows the basic shape of the ZTEM responses, a peak overtop of the contact. Note the slope of the response is steep on the conductive side and broad on the resistive side. There is also a change in amplitude with absolute value of the resistivity; higher resistivities produce slightly higher peak responses.

The next set of models (Fig. 7) shows the response for a variable contrast contact; 1:2 at the top of the figure and 1:1000 at the bottom. The higher the contrast the higher the amplitude of the response; lower contrasts also produce broader, more symmetric responses.

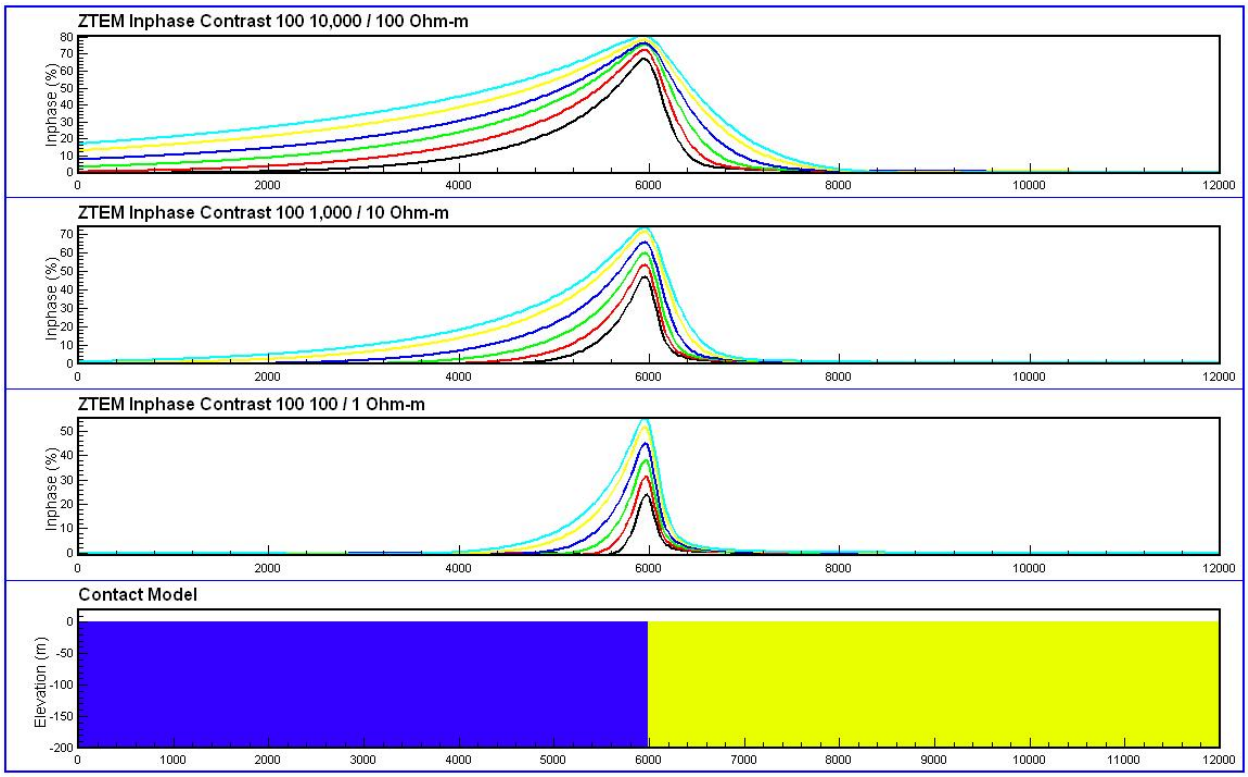


Figure 6

The next model (Fig. 8) shows the 1:100 ratio contact model that has been processed with Condor's 2D Occam code (Sattel and Witherly 2010). The observed and model fits to the data are shown in profile form and the resulting conductivity depth section at the bottom of the image. Note the resistive part of the model is well recovered but the conductive section is over-estimated in conductivity value. As well a minor contact 'artifact' appears at the contact.

A conductive body is added in the next figure (Fig. 9). In the modeling this then produces a strong conductor that is slightly shallower than the actual target depth. The resistivity of conductive unit (on right) is also better recovered in this situation.

The response over a conductive slab is shown in the next figure (Fig. 10). This highlights that ZTEM responds primarily to resistivity gradients at contacts or edges. At both edges, a strong response is observed but over the conductive slab proper, there is no response observed.

The final figure (Fig. 11) shows the response of a target under a conductive slab. Note this discrete response also allows the inversion program to achieve some definition of the surface layer as well.

In terms of anomaly shapes, over contacts (example in Figs. 6-7-8) the anomaly shapes are peaks whereas for discrete targets, the responses are more cross-over's (examples in Figs 9 & 11). This means that contact-type responses will be displaced if a phase-rotated product is used for interpretation.

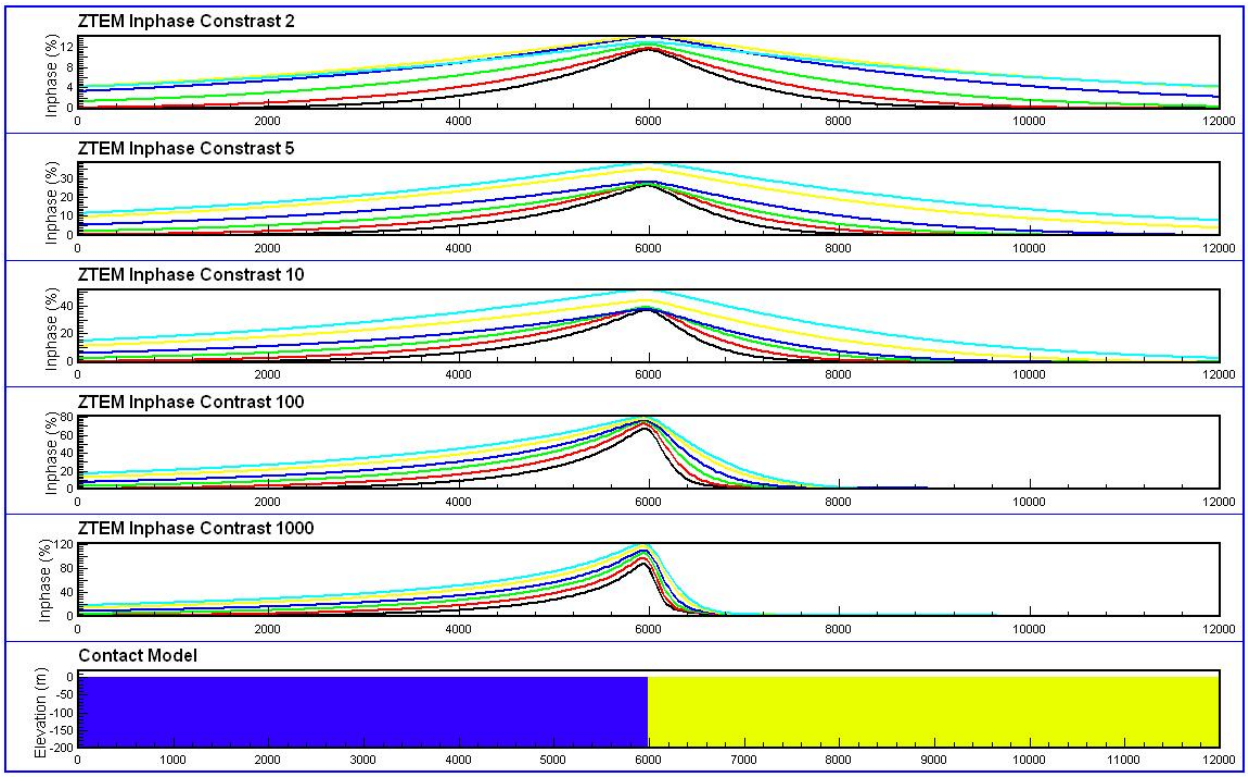


Figure 7

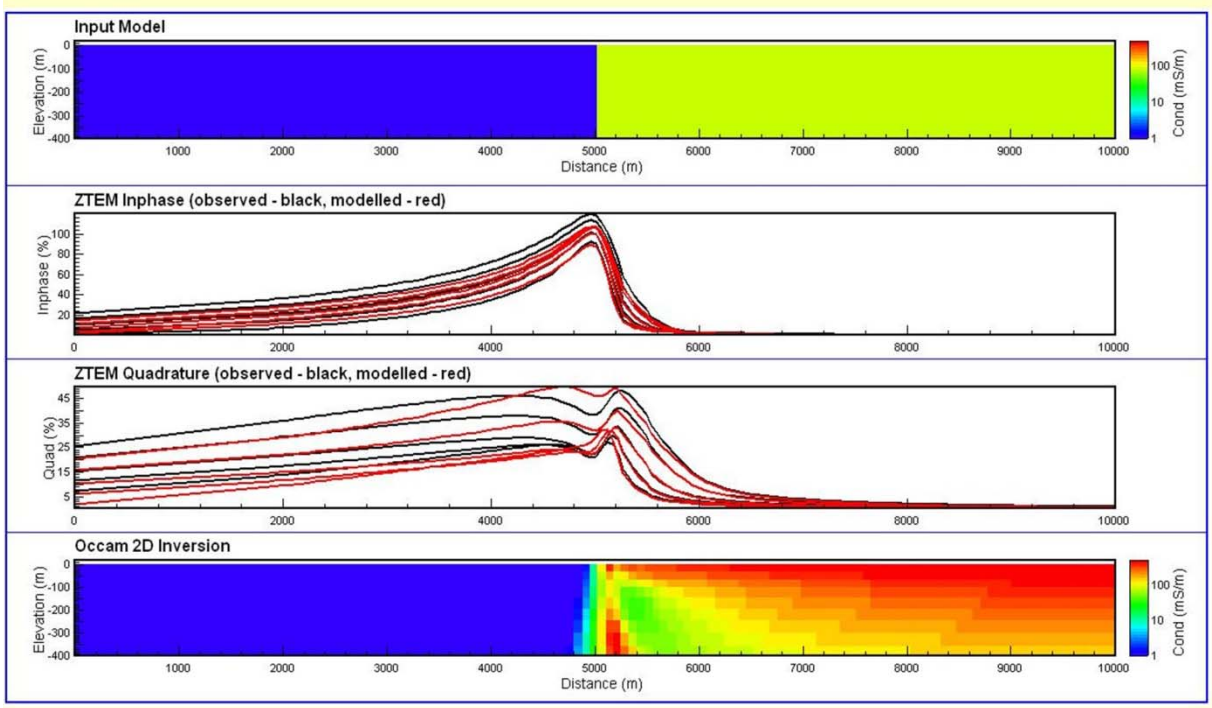


Figure 8

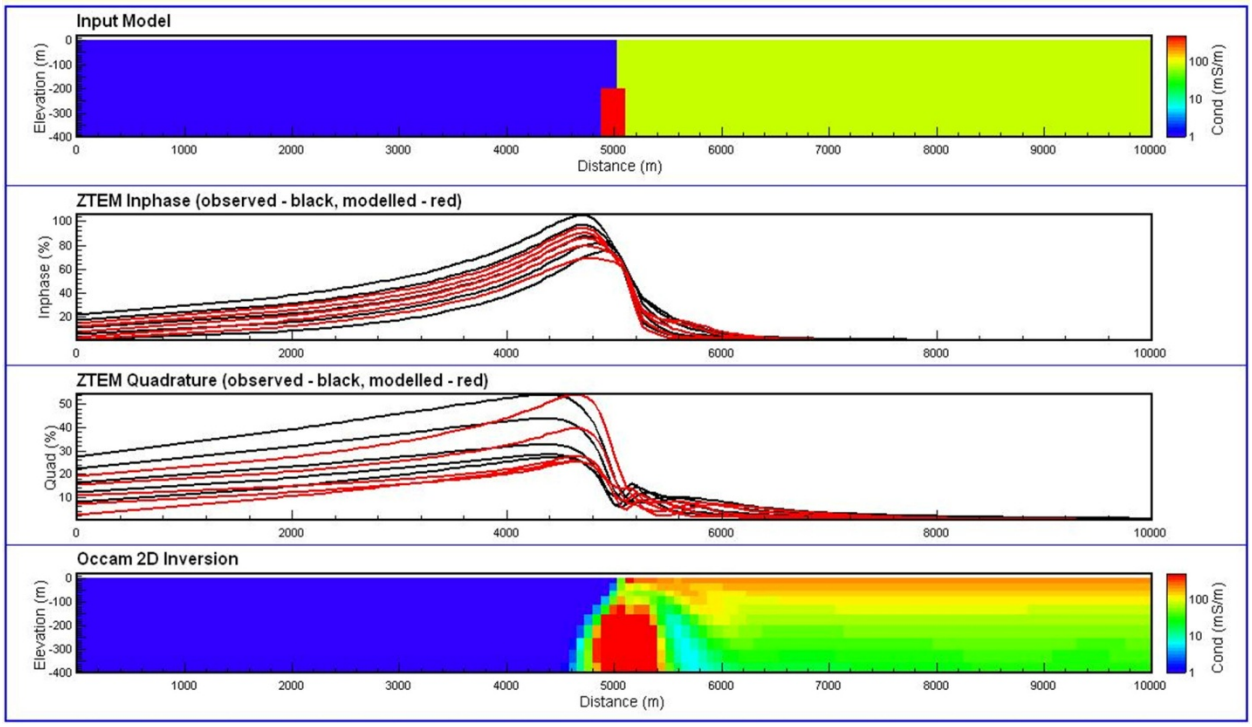


Figure 9

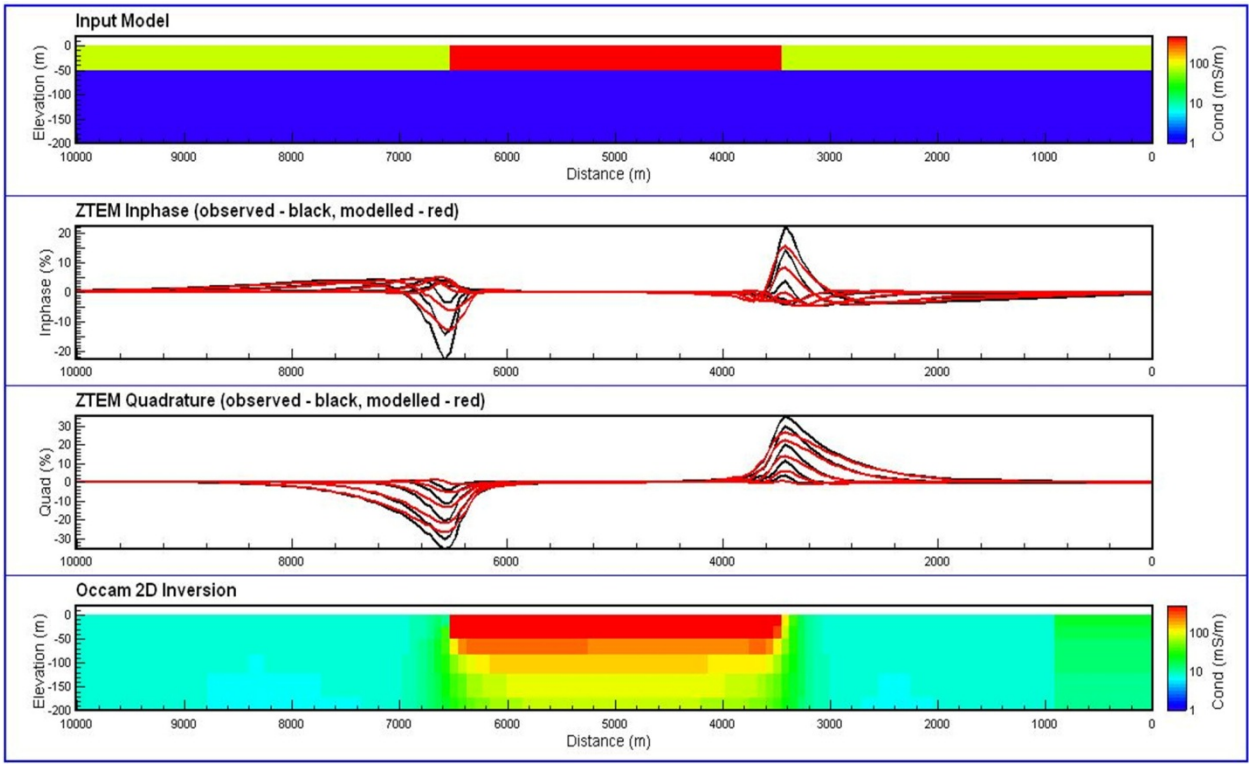


Figure 10

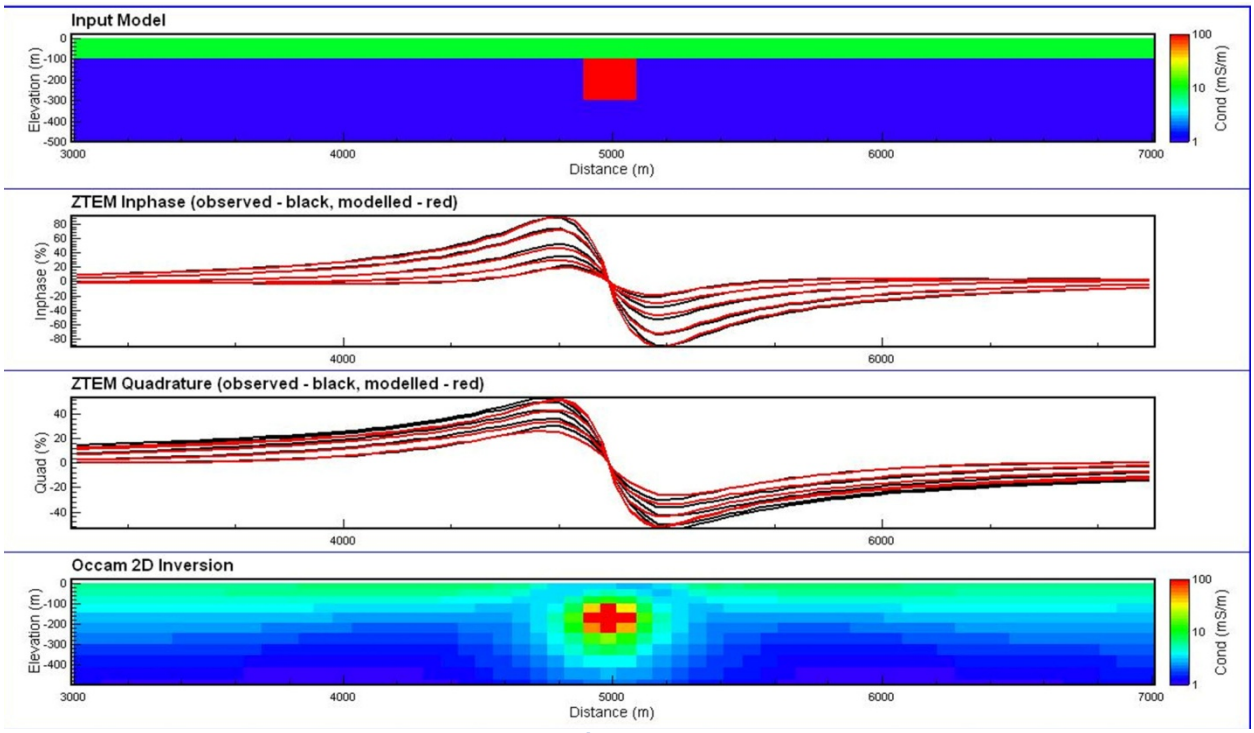


Figure 11

PROCESSING & PRODUCTS

The three main forms of products that are currently generated from the ZTEM data are:

1) Profiles of the tipper ratios (for each of the acquired frequencies, each with an in-phase and quadrature component.

2) Grids of original and phase-rotated in-phase and quadrature information of the Tzx and Tzy components. The phase-rotation produces positive peaks over discrete conductive features. The same filtering over formational contacts (examples in Fig 6-7-8) will produce a slightly displaced peak since the primary anomaly shape is a positive peak (rather than a cross-over as is present over a discrete conductor (examples Fig. 9 & 11)). A further grid set is also generated from the merging of the Tzx and Tzy grids and the peaker (sum of the horizontal derivatives). The derivation of these products is discussed in more detail in the Geotech field survey report.

3) 2D conductivity inversions.

The application of 3D inversions, such as described by Holtham and Oldenburg (2010), for the modeling of large scale ZTEM surveys is still considered impractical due computing time to perform 3D inversions over large areas.

Examples of these products are shown below from ZTEM surveys Condor has worked on over the last six months.

Profiles
Typically the in-phase and quadrature information for the various frequencies is what is commonly displayed.

Grids-Geotech
The definitions of the Geotech-derived grids are provided below. The DT and TPR grids are generated from the peaker and phase-rotated, merged Tzx and Tzy component data respectively.

DT (Total Divergence): The DT gives a clearer image of conductor's location and shape but, as a derivative, it does not preserve some of the long wavelength information and is also sensitive to noise.

TPR (Total Phase Rotation): As an alternative, a 90 degree Phase Rotation (PR) technique is also applied to the grids of each individual component (Tzx and Tzy). It transforms bipolar (cross over) anomalies into single pole anomalies with a maximum over conductors, while preserving long wavelength information (Lo et al., 2009). The two orthogonal grids are then usually added to obtain a Total Phase Rotated grid for the in-phase and quadrature.

The major purpose of various grid displays is try and provide an optimal means to show the contained geological content. On a component basis, the Tzx component contains the most information about the geology normal to the survey line and the Tzy about across-line conductivity. Together (in the form of the DT or TPR products), a more 3D-view of the geology is conveyed.

Fig 12 shows all of the Geotech-generated grids for the Pebble 45 Hz signal. As noted above, some of the products are unique and some are the merged product of the Tzx and Tzy component data; this is indicated in the figure. There is a suite of such grids for each frequency being provided by Geotech.

Currently, there are likely more choices in grid-based products than are effective for most exploration situations; i.e. too many choices. Geotech has likely pursued this approach given the nascent state of ZTEM interpretation and a fear they might 'miss something' if they did not provide what they felt were all the products that might show useful information. At this stage, Condor has usually performed 'quick looks' using the Tx-in-phase data at one of the lower frequencies.

Condor also produces a set of products defined below. Some have similarity to what Geotech provides and some considered different. As noted above, there are likely too many derived products currently being produced for ZTEM surveys and with experience, we'll know the best suite of products to employ in most situations.

1) AppCon grid

2) 2D Occam conductivity depth model

3) Karous-Hjelt depth section & grids

AppCon: The apparent conductivities and phases are derived using both the Tzx and Tzy Tipper information for each frequency. This approach uses an approach first developed for VLF data by Becken and Peterson (2003) and is believed to derive a superior estimate of the conductivities being mapped.

The AppCon outcomes for Pebble are shown in Fig. 13.

2D Occam: This uses a modified version of a 2D MT inversion program developed over a number of years by Constable and Wannamaker (deGroot-Hedlin and Constable, 1990; Wannamaker at al., 1987; deLugao and Wannamaker, 1996). The primary output of the inversion is a conductivity depth section such as shown in Figs. 8-11. In addition, grids can then be created showing the conductivity at a particular depth below surface.

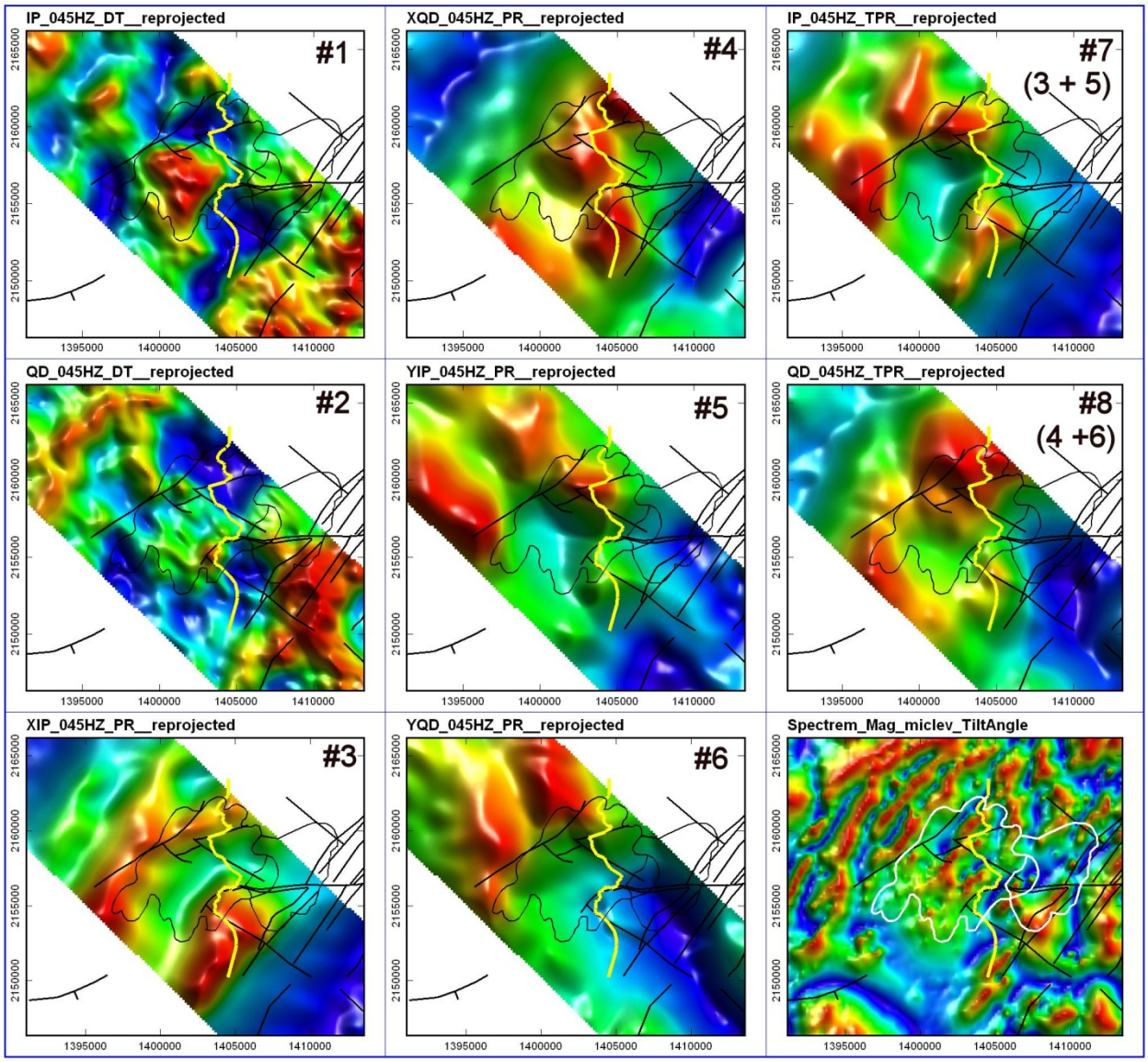


Figure 12

The result of a 2D Occam inversion for Pebble is shown in Fig. 14; the result of an inverted line of Spectrem data (active-source time domain EM system) is shown as well for comparison.

Fig. 15 shows a series of depth slices through a block of models derived with 2D Occam inversions from ZTEM data acquired across the Pozo Seco deposit (Witherly 2010). The depth slices from a VTEM-derived conductivity model over the same area are also shown. This example shows that the ZTEM results provide considerably more detail about the conductivity structure of the earth than the VTEM. This is considered a good example of ZTEM being more sensitive to high resistivity zones and contacts within these zones.

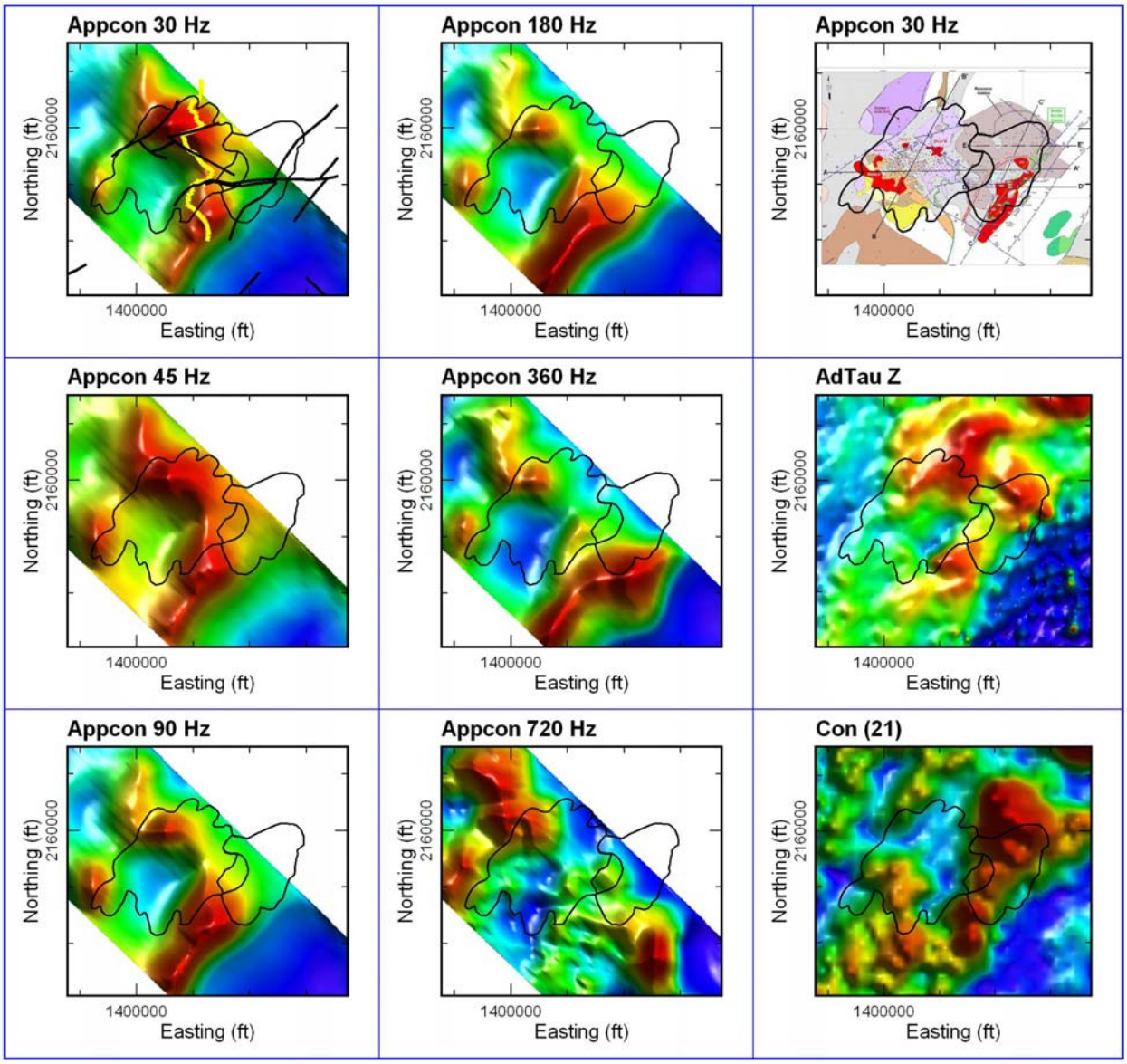


Figure 13

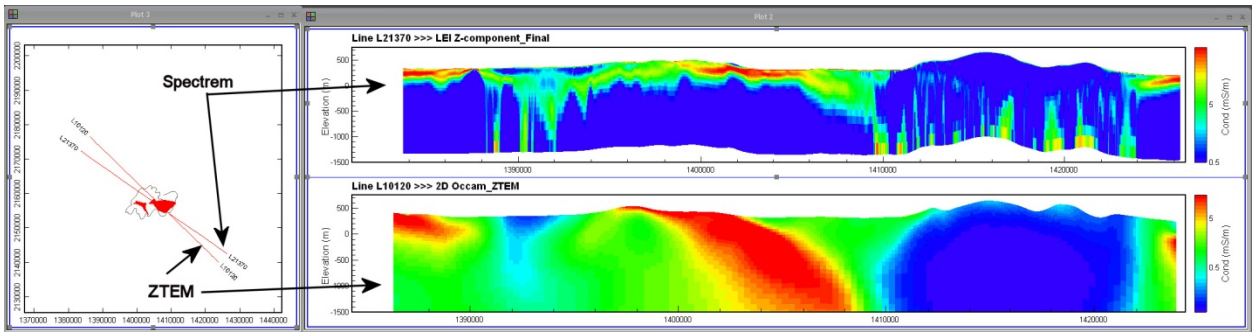


Figure 14

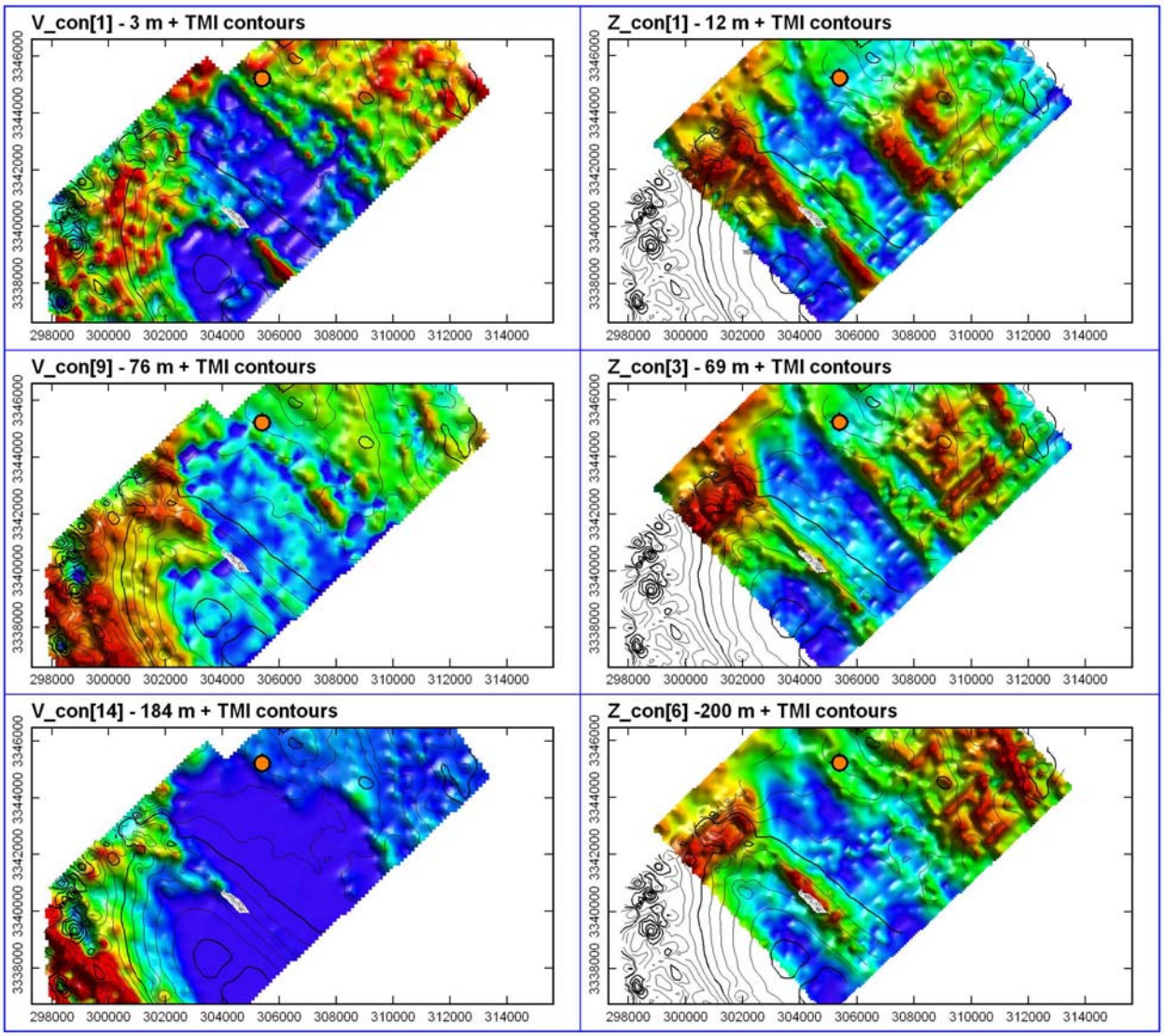


Figure 15

Karous-Hjelt depth section & grids: Pseudo-sections derived with the Karous-Hjelt filter (Karous and Hjelt, 1983) can be useful to extract subtle conductors from the ZTEM profiles. The main property of the Karous-Hjelt filter is to turn cross-

over's into peaks. **G**rids can as well be generated from the Karous-Hjelt processing. These grids are similar to divergence grids generated by Geotech that are based on the VLF peaker derivation (Pedersen et al., 1994). The latter however, makes use of the spatial derivatives of the Tzx and Tzy tippers, whereas the Karous-Hjelt-filtered grids shown are derived from either the Tzx or Tzy data.

Fig. 16 shows the Karous-Hjelt pseudosections for a line of ZTEM over the Forrestania deposit (Sattel and Witherly 2010). Also shown is the 2D Occam inversion as well.

Depth of Investigation of ZTEM

A theoretical assessment of the ZTEM frequency group using a skin depth assumption is shown in Fig. 17 (Lo et al 2008). While this concept has merit, it over simplifies the understanding of where the ZTEM signals are being generated. The VTEM system has a base frequency of 30 Hz (same as lowest frequency available with ZTEM) but the deepest useable signal Condor has observed is over conductors in the Athabasca Basin that have been drilled to a depth ~825 m depth. This is believed to be close to the effective depth of investigation of VTEM and is the result of both the skin depth of the primary signal as well as the signal/noise characteristics of the actual acquired data.

An examination of the modeling examples presented there and field results such as from Pebble (Fig. 14) show that the ZTEM results when modeled can produce a smeared result that is wider and deeper than the actual geological sources are most likely coming from.

CONCLUSIONS

ZTEM is one of the most exciting developments in airborne geophysics in the past decade. However, Condor advises caution when trying to interpret ZTEM outcomes as geological information whether profiles, grids or conductivity depth products are being used. More than most EM techniques, ZTEM is a somewhat paradoxical technique in that it is seen as both very sensitive to subtle changes in the earth's conductivity structure but then in some cases will only allow us to view these features as fairly unsatisfactory blurry images. In other instances, ZTEM can produce high resolution images that appear to capture very subtle geological features that no other technique is likely capable of. It is therefore deemed very important to make every effort to calibrate ZTEM outcomes with ground truth (geological or constrained geophysical results) before embracing the ZTEM results 'geo-truth'.

Condor Consulting, Inc.

December 20, 2010

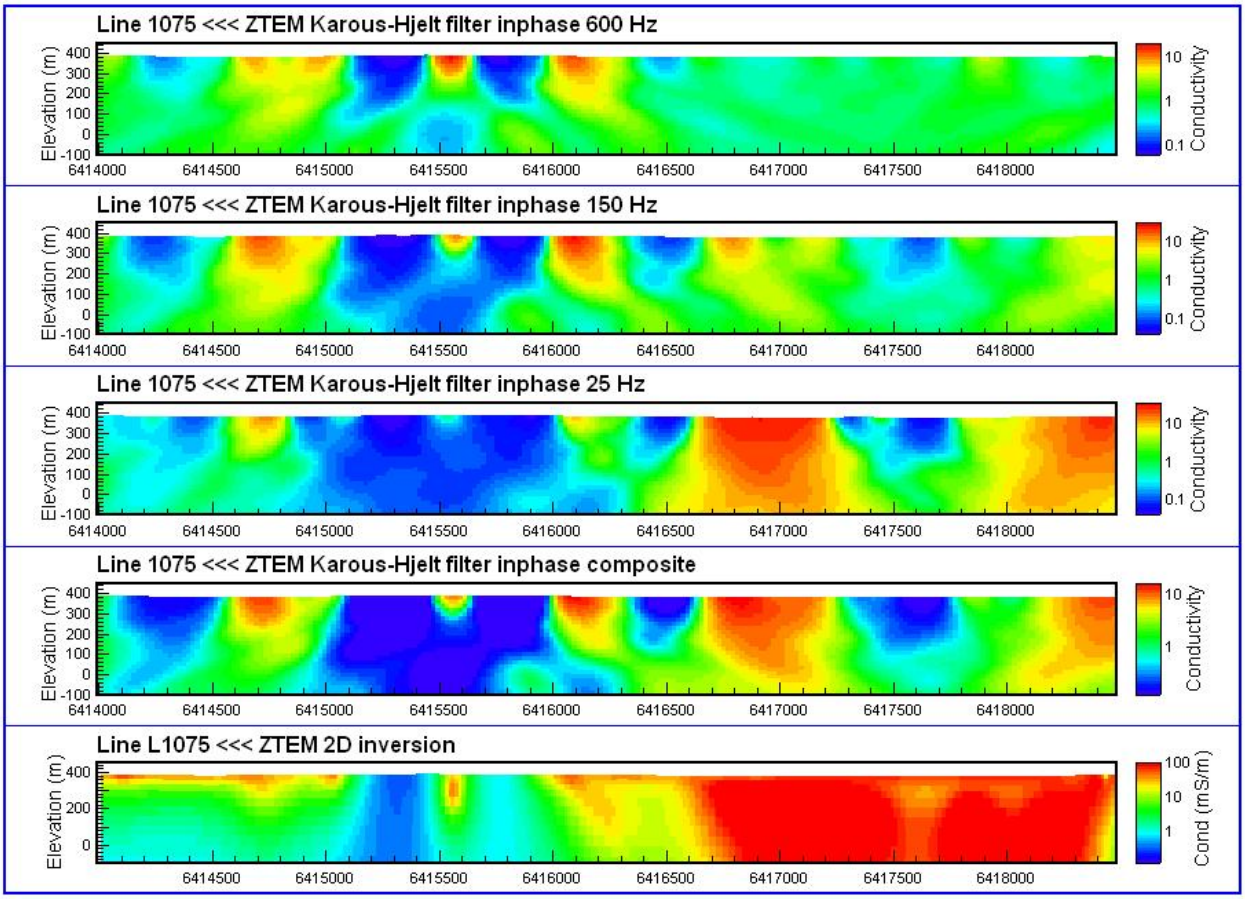

Line 1075 <<< ZTEM Karous-Hjelt filter inphase 600 Hz
Line 1075 <<< ZTEM Karous-Hjelt filter inphase 150 Hz
Line 1075 <<< ZTEM Karous-Hjelt filter inphase 25 Hz
Line 1075 <<< ZTEM Karous-Hjelt filter inphase composite
Line L1075 <<< ZTEM 2D inversion
Elevation (m)
400
300
200
100
0
-100
6414000
6414500
6415000
6415500
6416000
6416500
6417000
6417500
6418000
Conductivity
10
1
0.1
Cond (mS/m)
100

Figure 16

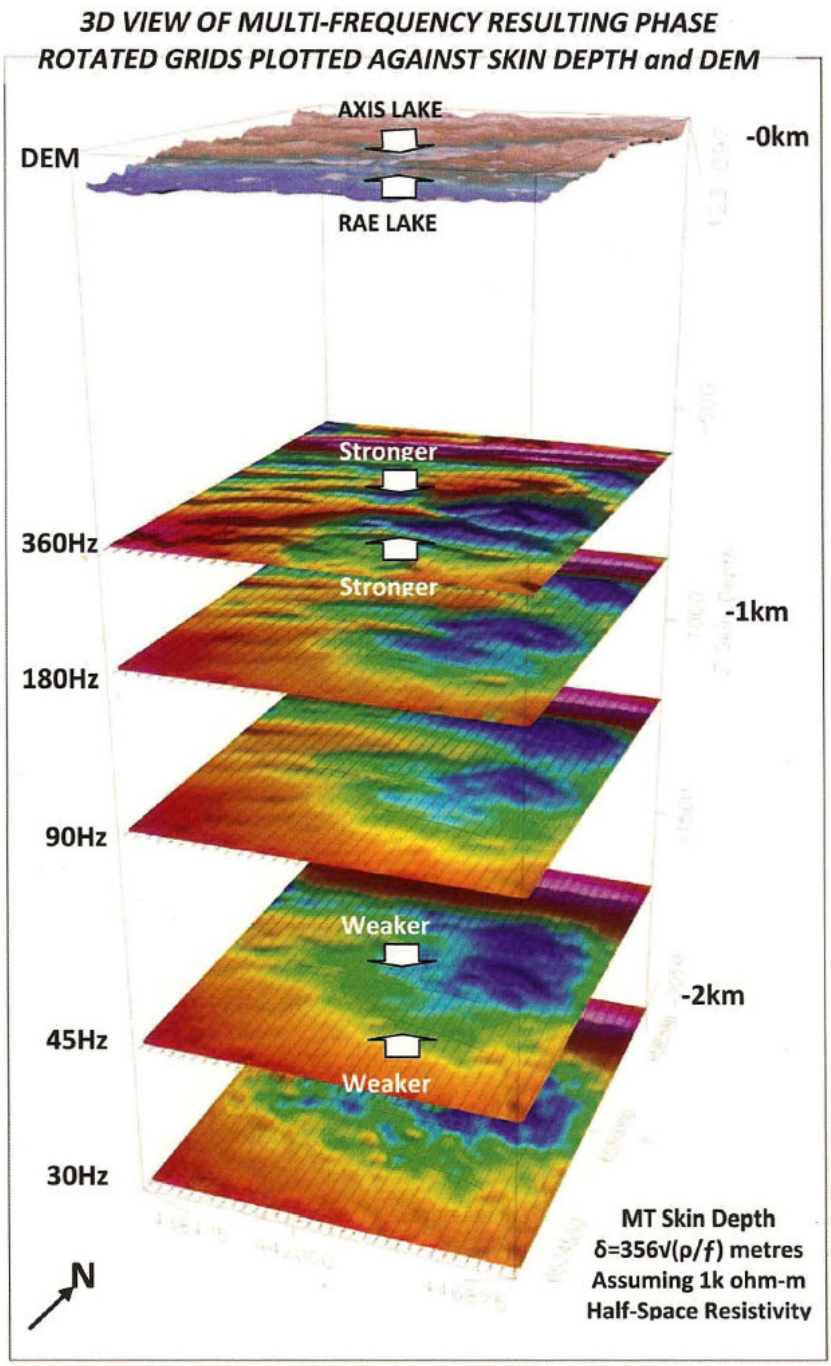


Figure 17

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Witherly, K. 2010 An Assessment of VTEM And ZTEM Data Over the Pozo Seco Skarn-CRD Molybdenum-Gold Deposit, Mexico; Condor Consulting, Inc. internal report, August 2010

[1] Note: Geotech revises their report contents from time to time and the example provided here is representative of a recent commercial report.

APPENDIX B: DETAILS OF ZTEM PROCESSING

GEOTECH TOTAL DIVERGENCE AND PHASE ROTATION PROCESSING

Extracted from Geotech report - Milicevic, B., Legault, J. and Smith, G. (2010)

In a final processing step DT (Total Divergence) and PR (Phase Rotation) processing are applied to the multi-frequency In-phase and Quadrature ZTEM data. This is due to the crossover nature of the Tipper Responses; these additional processing steps are applied to convert them into local maxima for easier interpretation.

To present the data from both tipper components into one image, the Total Divergence parameter, termed the DT is calculated from the horizontal derivatives of the Z/X and Z/Y tippers (Lo and Zang, 2008). It is analogous to the "Peaker" parameter in VLF (Pedersen, 1998).

Total Divergence DT: *DT = DIV (Z/X, Z/Y)*
= d(Z/X)/dx+d(Z/Y)/dy

This DT parameter was introduced by Petr Kuzmin (Milicevic, 2007, p. 13) and is derived for each of the In Phase and Quadrature components at individual frequencies. These in turn allow for minima over conductors and maxima over resistive zones. DT grids for each of the extracted frequencies were generated accordingly, using a reverse colour scheme with warm colours over conductors and cool colours over resistors.

The DT gives a clearer image of conductor's location and shape but, as a derivative, it does not preserve some of the long wavelength information and is also sensitive to noise. As an alternative, a 90 degree Phase Rotation (PR) technique is also applied to the grids of each individual component (Z/X and Z/Y). It transforms bipolar (cross over) anomalies into single pole anomalies with a maximum over conductors, while preserving long wavelength information (Lo et al., 2009). The two orthogonal grids are then usually added to obtain a Total Phase Rotated grid for the In-Phase and Quadrature.

Total Phase-Rotation: *= PR (Z/X) + PR (Z/Y)*

CONDOR PROCESSING OF ZTEM DATA

2D Inversion Algorithm

The recorded ZTEM data were inverted using a 2D MT algorithm, developed by Constable and Wannamaker (deGroot-Hedlin and Constable, 1990; Wannamaker at al., 1987; deLugao and Wannamaker, 1996). The algorithm models the along-line tipper data Tzx (loosely called the X component), taking into account that the vertical component is airborne and the horizontal component sits on a uniform ground. The responses of all frequencies (30 - 720Hz) were included in the inversion.

Model specifications

The cell widths are 15 m, and the cell thicknesses increase with increasing depth, as listed in the following table:

Layer	Depth to bottom (m)	Thickness (m)		Layer (cont.)	Depth to bottom (m)	Thickness (m)		Layer (cont.)	Depth to bottom (m)	Thickness (m)
1	12	12		15	639	66		29	1897	116
2	24	12		16	707	68		30	2018	121
3	38	14		17	778	71		31	2145	127
4	52	14		18	852	74		32	2278	133
5	85	33		19	929	77		33	2428	150
6	125	40		20	1009	80		34	2608	180
7	174	49		21	1092	83		35	2828	220
8	225	51		22	1179	87		36	3088	260
9	278	53		23	1269	90		37	3388	300
10	333	55		24	1363	94		38	3728	340
11	390	57		25	1461	98		39	4148	420
12	449	59		26	1563	102		40	4568	420
13	510	61		27	1670	107		41	5108	540
14	573	63		28	1781	111		42	5648	540

Padding was added in symmetric fashion to the left and right of each section. The padding cells to the right have the following widths: 60, 60, 80, 200, 200, 200, 400, 400, 400, 800, 800, 800, 2 700, 8 100, 24 300 m.

A 1 000 ohm-m halfspace was used as a start model, and a reference resistivity of 10 000 ohm-m was used for depths beneath 4 568 m.

Noise and target fit

After testing a range of noise levels, the final noise level, specified for the inversion, was the maximum of 7% of the ZTEM response (relative noise level) and 0.7% (absolute noise level). The noise level for the high-frequency responses at 360 and 720Hz were set twice and five times those values, respectively. These noise estimates resulted in a stringent target data fit that was hardly ever met by the inversion, due to the actual noise level exceeding the noise estimates and the occasional inappropriateness of the 2D algorithm in a 3D conductivity scenario. As a result, the algorithm has occasionally over-fitted the data, i.e. fitted noise rather signal. However, using this approach, as much information as possible is extracted from the data.

Apparent Conductivity and phase

The derivation of apparent conductivity and phase from VLF data is discussed by Becken and Pedersen (2003). The method has been applied to the ZTEM data, making joint use of the Tzx and Tzy tipper data (loosely called the X and Y components).

Karous-Hjelt Filter

The application of the Karous-Hjelt filter to VLF data is described by Karous and Hjelt (1983). This filter facilitates data interpretation by turning cross-overs into peaks and troughs. Grids and pseudo-sections were derived from the Tzx inphase response.

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De Lugao, P.P., and Wannamaker, P., 1996, Calculating the two-dimensional magnetotelluric Jacobian in finite elements using reciprocity, Geophys. J. Int., 127, 806-810.

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Wannamaker, P.E., Stodt, J.A., and Rijo, L., 1987, A stable finite-element solution for two-dimensional magnetotelluric modeling: Geophysical Journal of the Royal Astronomical Society, 88, 277-296.

APPENDIX C: UBC MAGNETIC AND GRAVITY INVERSION SOFTWARE

Condor uses the UBC (University of British Columbia, Canada) magnetic and gravity inversion software, MAG3D and GRAV3D.

Summary

The earth is divided into cubes, or prisms starting at surface and extending to approximately 1 km in depth. These cubes are called VOXELS. The aim of the software is to determine a relatively smooth susceptibility or density distribution within the voxels which produces a response closest to the observed data. This process is called inversion and is an iterative (trial and error) approach where the susceptibility or density of each voxel is systematically varied, a new calculation of the response is performed and this model result is compared to the observed data. The susceptibility or density is then modified to produce a better match of model and observed data and the process is repeated until a good match is achieved. This iterative method is computer intensive and takes a considerable amount of time, minutes to hours for small data sets and days for larger data sets. The susceptibility or density distribution across the voxels may then be displayed either as a 3D voxel model, or in vertical or horizontal slices through this model.

Smooth Model Inversion

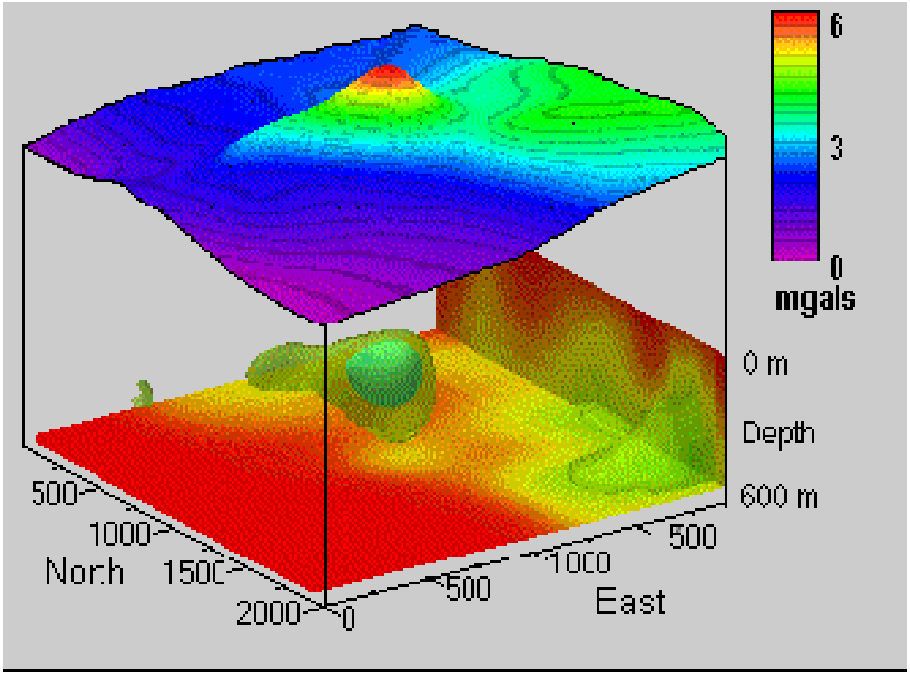
The UBC 3D magnetic inversion is a smooth model inversion, producing fuzzy objects in the resulting block model. This can be mitigated to some extent by sharpening techniques and by constraints. However, the model will still contain a large spatial uncertainty, which manifests as indistinct boundaries. Therefore, the magnetic susceptibility or density values in this model in general underestimate the actual susceptibility/density of the magnetic objects being imaged, since the susceptibility/density is smeared over a greater volume than the actual object.

Depth Weighting

It is a well known fact that magnetic and gravity data have no inherent depth resolution. A numerical consequence of this is that when an inversion is performed the constructed susceptibility/density is concentrated close to the observation locations. In order to overcome this, the inversion introduces a depth weighting to counteract this natural decay. The weighting approximately cancels the sensitivity decay and gives cells at different locations equal probability to enter into the solution with a non-zero susceptibility/density. This weighting is approximately the depth of the finite element cell to the 3rd power, to counter a sensitivity drop of that is approximately $1/z^3$.

Example

An example of a UBC GRAV3D inversion of gravity data over the Voisey Bay Ni deposit is shown below. The measured gravity data in color is displayed draped onto the topographic surface at the top (red=high, blue=low values). The density distribution generated by the inversion is shown below, with the green and yellow "blob" corresponding to the Ovoid Ni zone.



3D inversion of gravity: Voisey's Bay Ovoid Ore Body

- Observed gravity data on top of recovered density contrast.
- Isosurfaces at 0.8 g/cc (inside) and 0.4 g/cc.

APPENDIX D: UBC DCIP2D SOFTWARE

IP/resistivity data are usually initially presented as pseudo-sections. The pseudo-section is the traditional method of plotting the IP and resistivity data, but it is not a true geological cross-section. The vertical axis is based upon electrode separation rather than depth.

A formal 2D or 3D inversion is increasingly being used to quantify IP/resistivity data, because it generates a cross-section which is close to a “true” geological section. However, the non-uniqueness of applying an inversion to geophysical data must be appreciated; i.e. a single data asset may yield multiple interpretations. Only by applying some independent constraints derived from other surveys, or from geological insights, can the inherent non-uniqueness problem be mitigated.

The IP/resistivity inversions performed by Condor utilized the DCIP2D software developed by the University of British Columbia (UBC) Geophysical Inversion Facility (Oldenburg and Li, 1994). The earth is divided into rectangular prisms and the resistivity and chargeability are assumed to be constant in each cell. DCIP2D is an example of a geophysical inverse modeling program that estimates the distribution of resistivity and/or chargeability in the subsurface based on a numerical solution to an over-parameterized, constrained optimization problem. Such problems are intrinsically non-linear and require iterative solutions, as well as some form of regularization to stabilize the solution and yield models that are realistic in a geological sense. The DCIP2D modeling code uses finite difference approximations to the relevant differential equations. The 2D limitation means that the physical property distributions and topography are assumed to not vary in the direction that is perpendicular to the survey profile.

APPENDIX E: COMPARISON OF VTEM AND ZTEM – CENTRAL BLOCK

The layered earth inversion (LEI) of the 2007-2008 VTEM data used a 28-layer earth model, increasing in thickness from the surface to depth in an approximately logarithmic fashion. The first layer was 5 m thick while the deepest was 232 m thick. To show an overall conductor distribution, the conductance (conductivity x thickness) has been calculated for two depth ranges, (a) 25-143 m and (b) 25-431 m (Figure E1). The former shows shallower features and the latter shows the conductance down to close to the depth of investigation of the VTEM survey. The conductances of the layers down to 25 m have not been included because these sometimes contains “glitches” in the inversions. The major conductivity boundaries on the 25-431 m image are highlighted with black lines, which are replicated on the upper image.

The two images are quite similar indicating that most of the conductivity is near-surface. The Tiger-El mineralization is enclosed in a relatively resistive unit approximately 5 km wide. Northeast and south of this unit relatively high conductivities are seen. The Tiger-El mineralized trend itself produces a relatively narrow (approximately 500 m wide) zone of moderate conductivity, which is intermittent along strike.

Figure E2 compares the VTEM conductance from 25-431 m with the ZTEM conductance from 24-449 m. The major conductivity boundaries from the VTEM are replicated on the ZTEM image for reference. The principal features of the ZTEM conductance correlate closely with the VTEM, but significant differences can be seen. For wide conductors, the ZTEM conductance tends to be concentrated at the edges of the conductor, while the VTEM conductance is more uniform. For narrower conductors, the ZTEM response is more similar to the VTEM. The conductive trend correlating with the Tiger to El mineralized trend is better resolved on the ZTEM conductance image.

Figure E3 compares the VTEM conductance with the ZTEM IP 30Hz TPR image. The major conductivity boundaries are very similar to those on the VTEM. On the latter, the conductivity highs (hot colors) are more evenly distributed across wide conductors compared to the ZTEM conductance image in Figure E2.

Figure E4 compares the VTEM conductance with the ZTEM 30 Hz DT image. As the latter is similar to a gradient filter, conductor edges are highlighted and the conductivity is generally not extended across wide conductors. However, narrow conductors are well defined, including the Tiger to El mineralized trend.

Figure E5 compares the VTEM conductance with the ZTEM 30 Hz Apparent Conductivity image. The latter exhibits the closest correlation with the VTEM conductance of all of the ZTEM image products. Both the wide conductors and narrow conductors are well defined, including the Tiger to El mineralized trend.

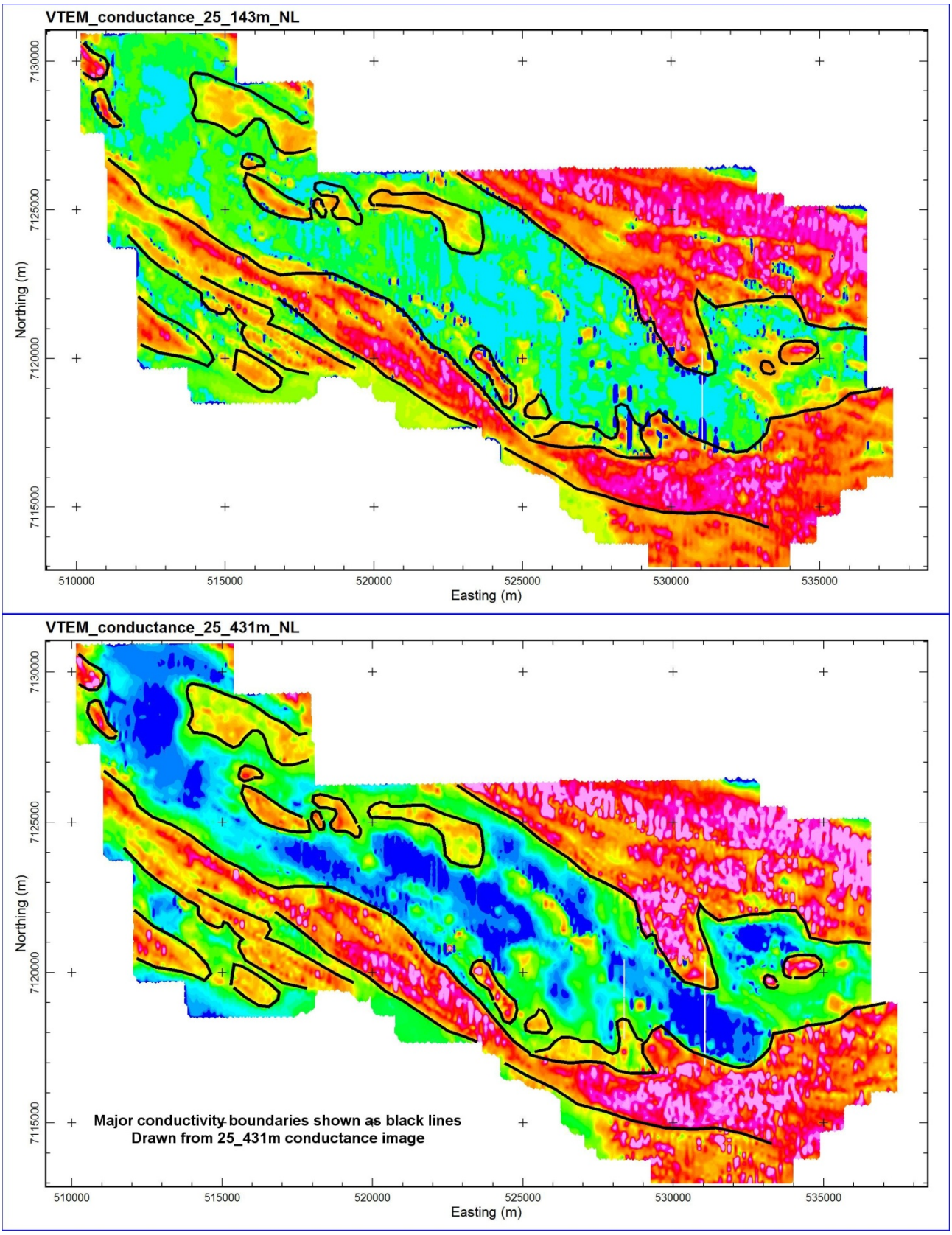


Figure E1: VTEM conductance 25-143m (top) and 25-431m (bottom).

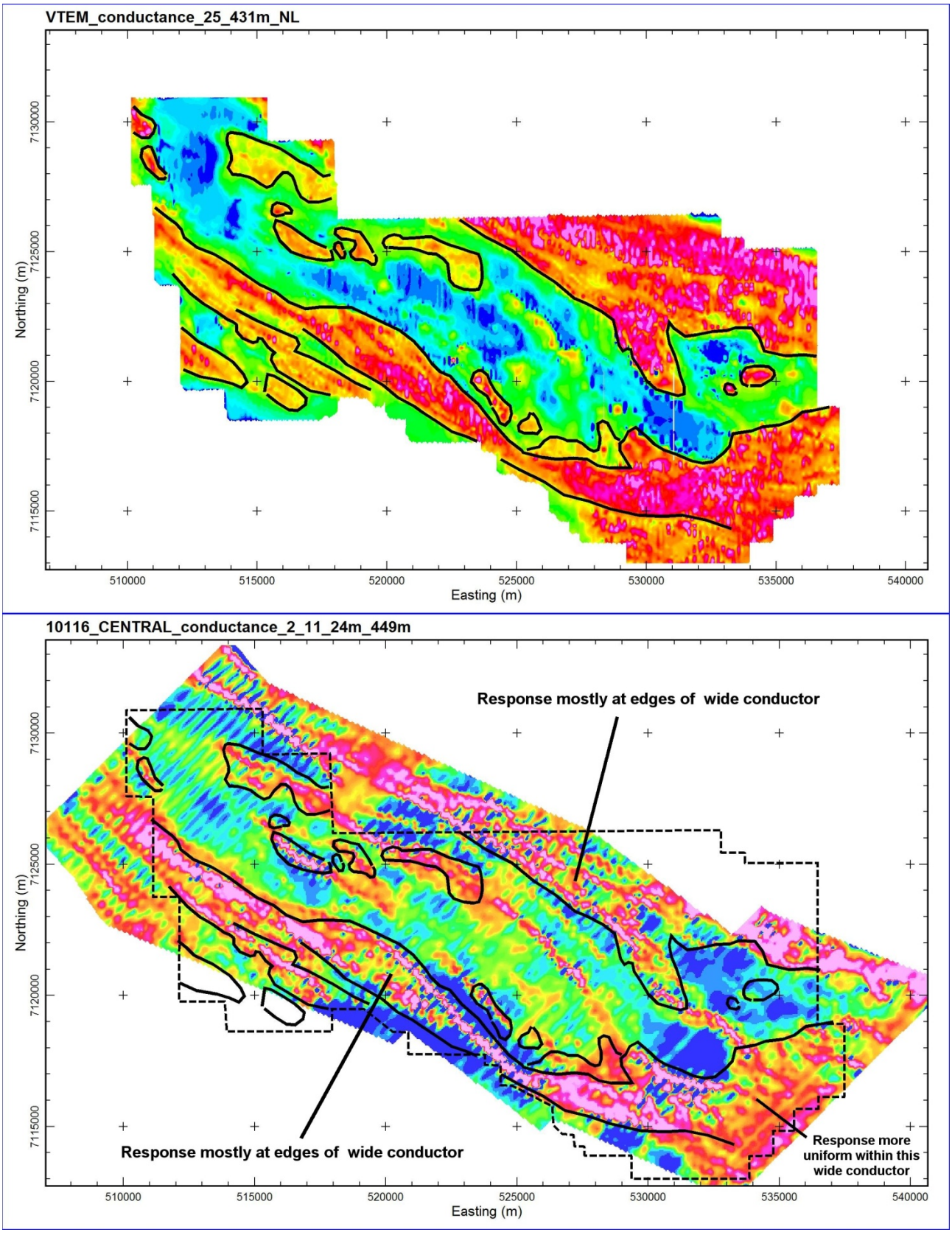


Figure E2: VTEM conductance 25-143m (top) and ZTEM conductance 24-449m (bottom).

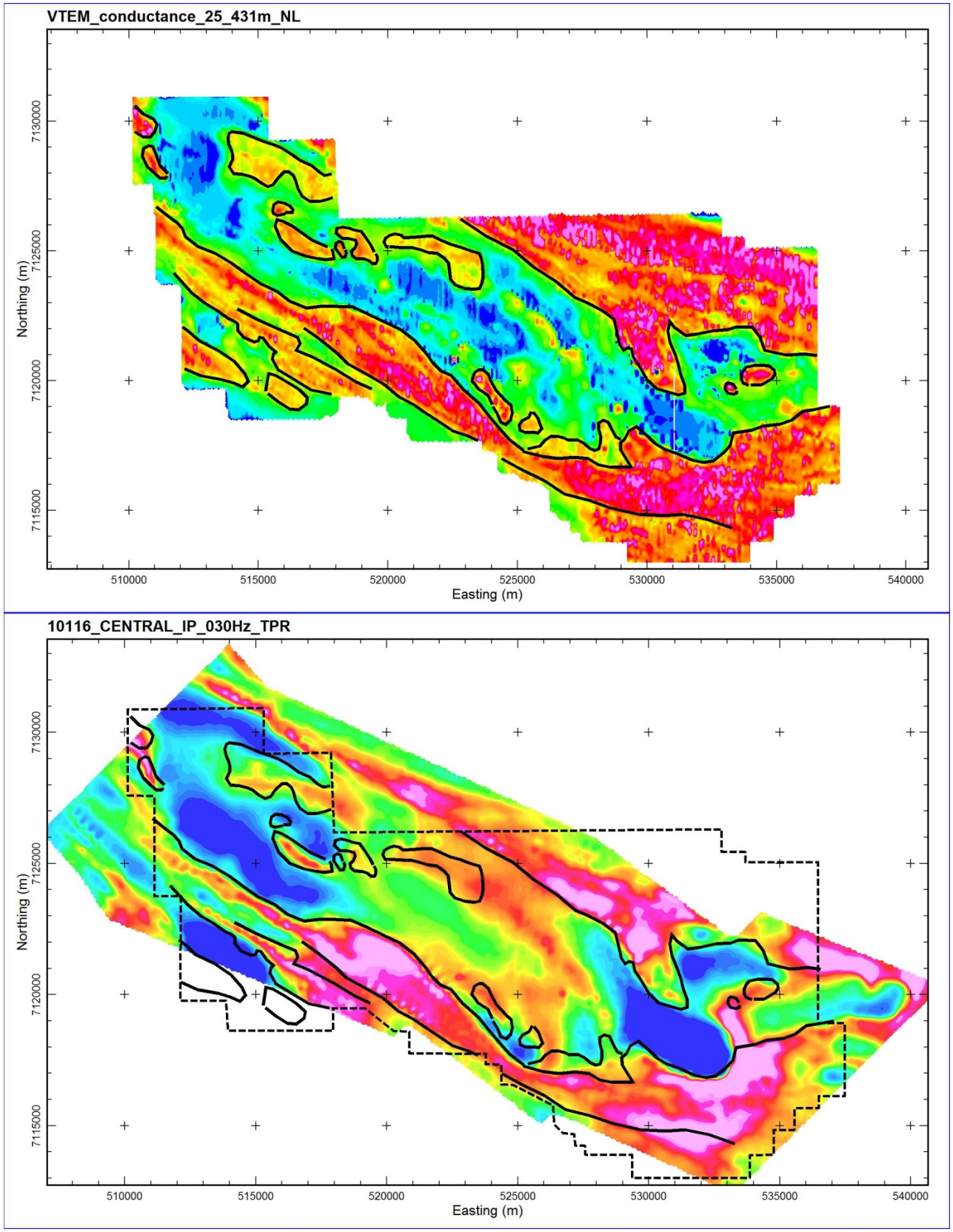


Figure E3: VTEM conductance 25-143m (top) and ZTEM IP 30Hz TPR (bottom).

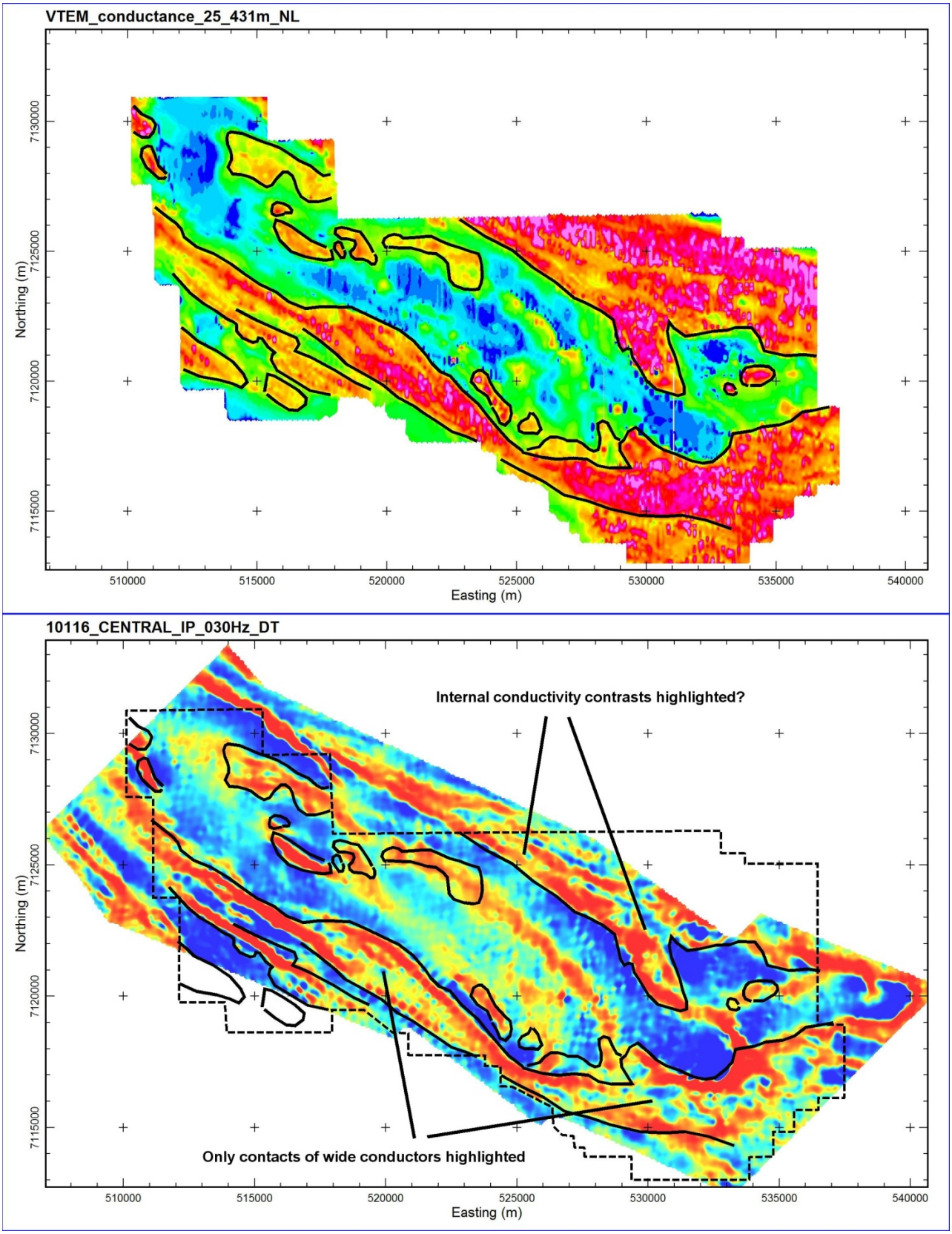


Figure E4: VTEM conductance 25-143m (top) and ZTEM 30Hz DT (bottom).

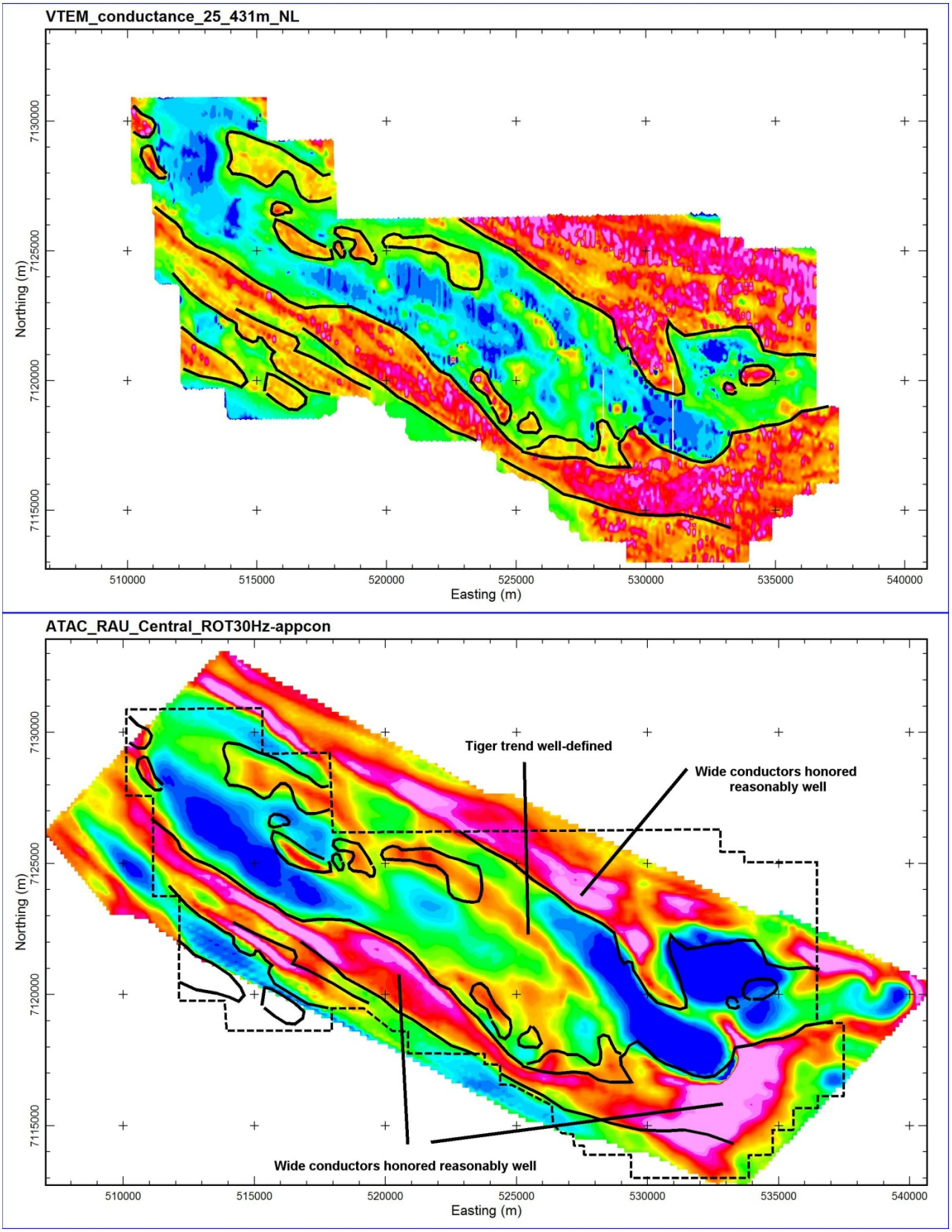


Figure E5: VTEM conductance 25-143m (top) and 30Hz Apparent Conductivity (bottom).

APPENDIX F: COMPARISON OF GROUND AND AIRBORNE GEOPHYSICS

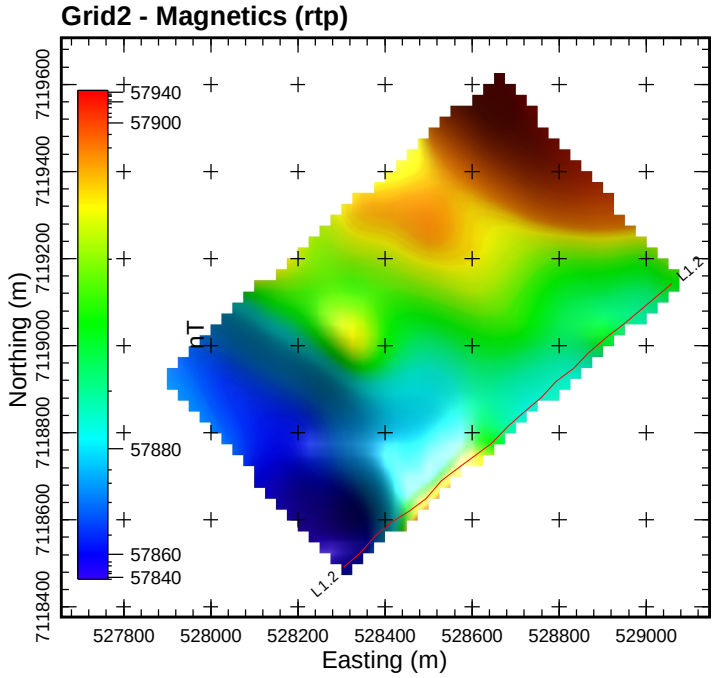
F1: GRID 2 (TIGER) MULTIPLOTS

Lines 1.2, 2.2, 3.2, 4.2, 5.2, 6.2 and 7.2

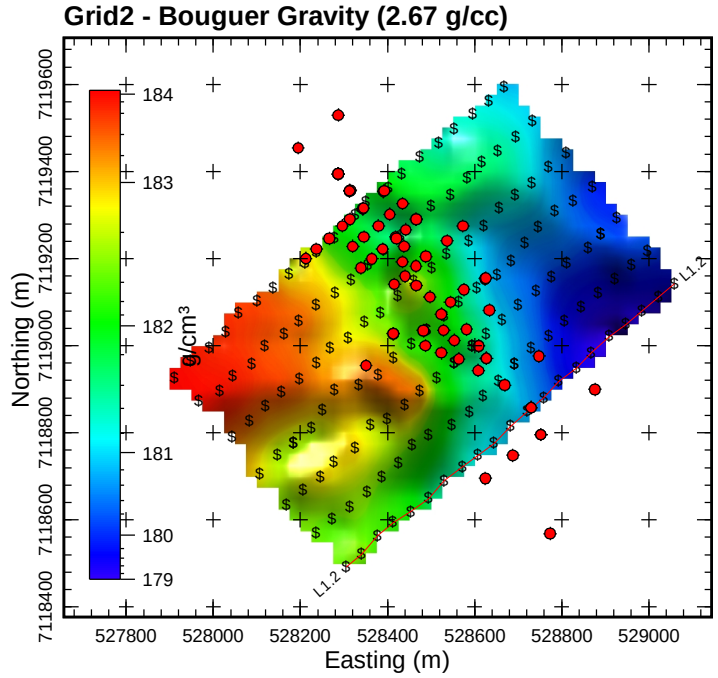
SECTIONS:

- Gravity from voxel model
- Magnetic susceptibility from voxel model of VTEM magnetics
- ZTEM conductivity from voxel model
- VTEM conductivity from voxel model

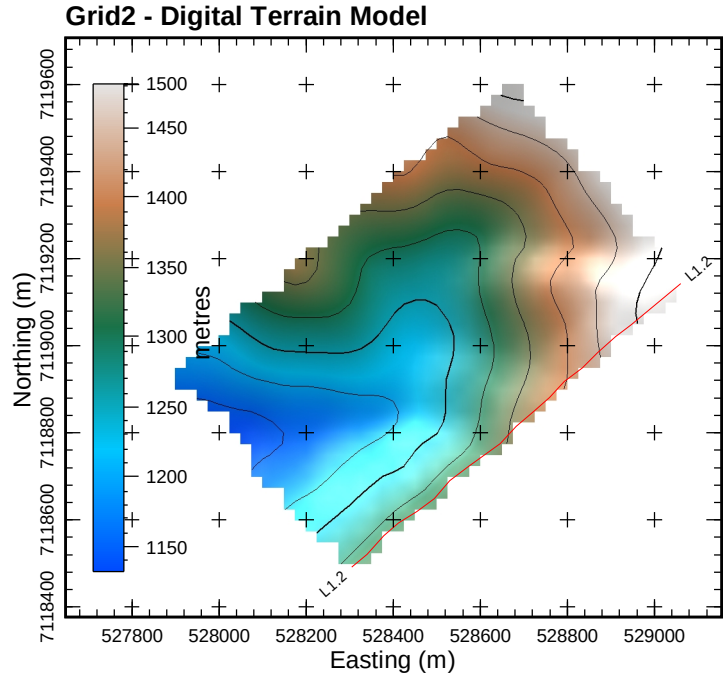
Grid2 - Magnetics (rtp)



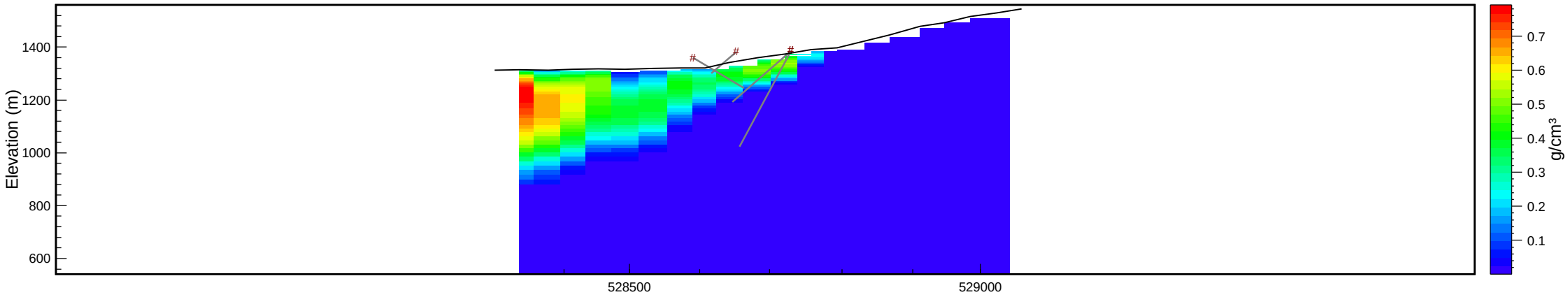
Grid2 - Bouguer Gravity (2.67 g/cc)



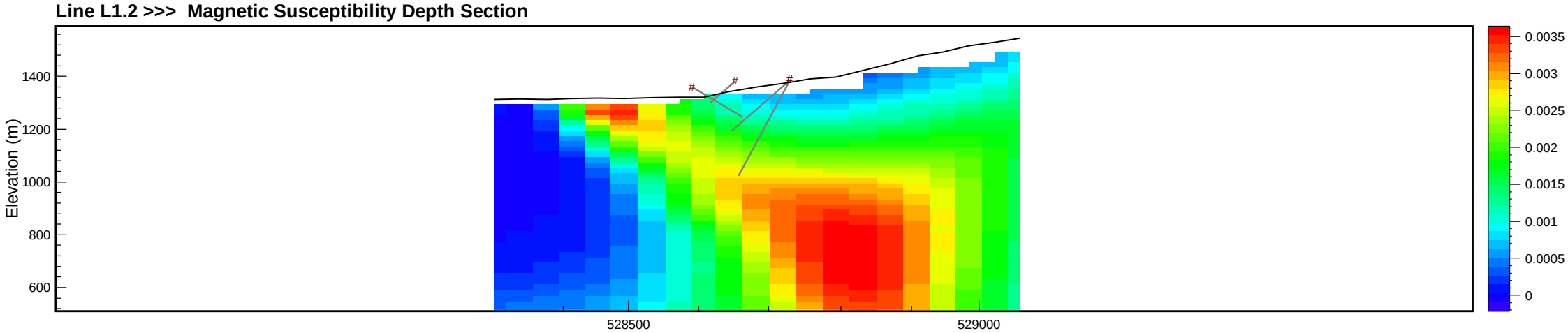
Grid2 - Digital Terrain Model



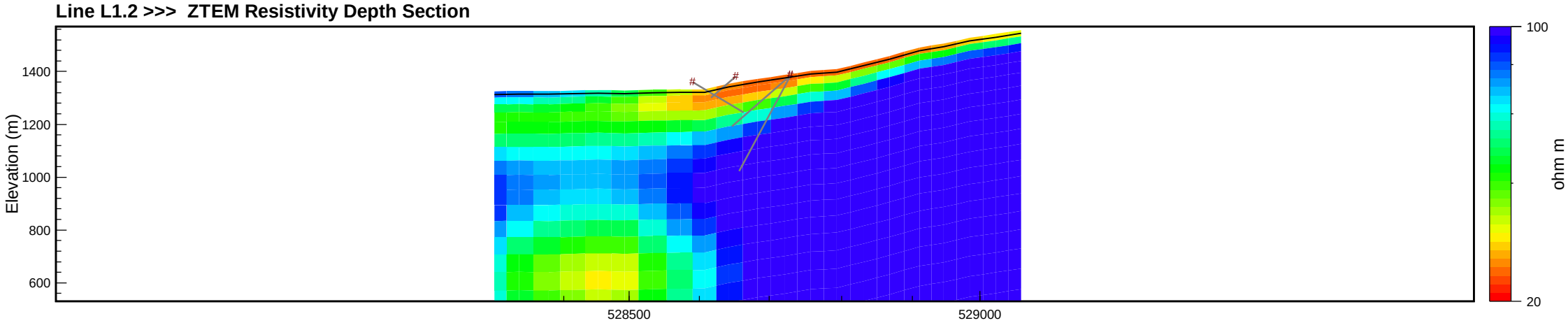
Line L1.2 >>> Bouguer Gravity Depth Section



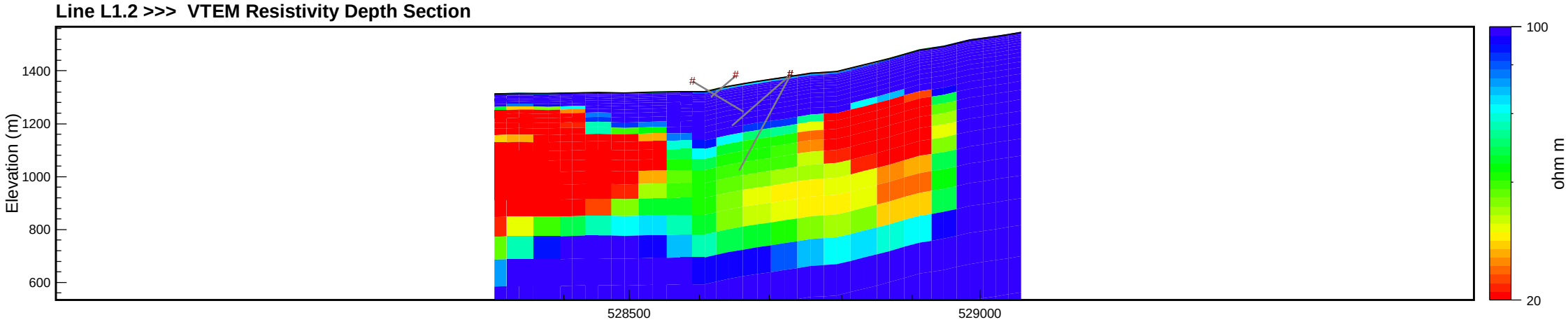
Line L1.2 >>> Magnetic Susceptibility Depth Section



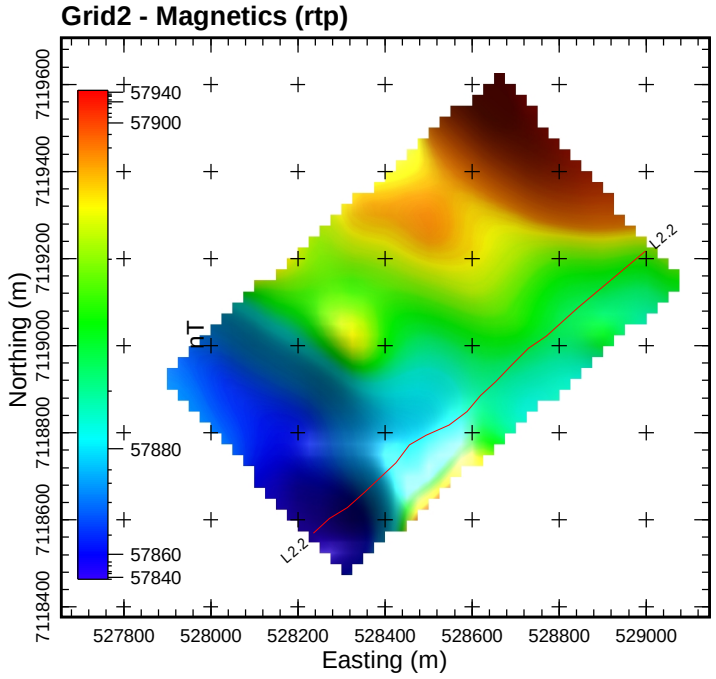
Line L1.2 >>> ZTEM Resistivity Depth Section



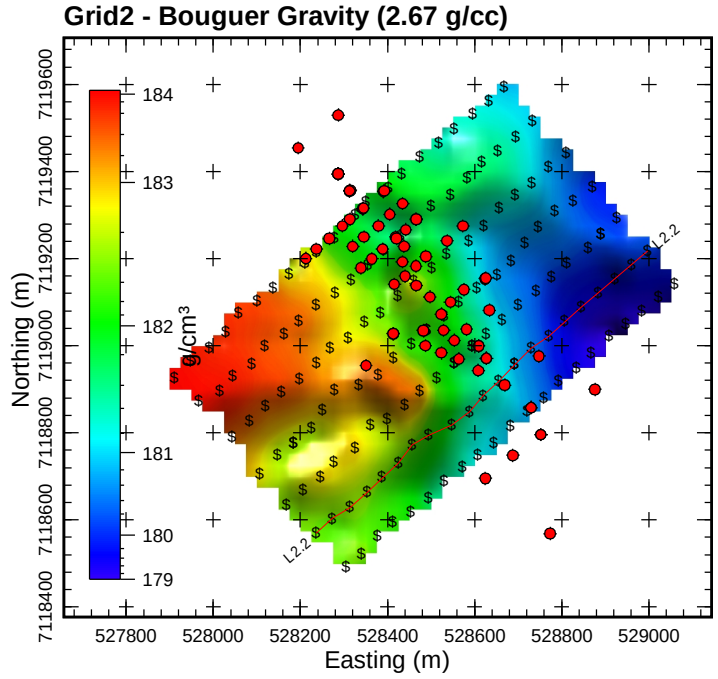
Line L1.2 >>> VTEM Resistivity Depth Section



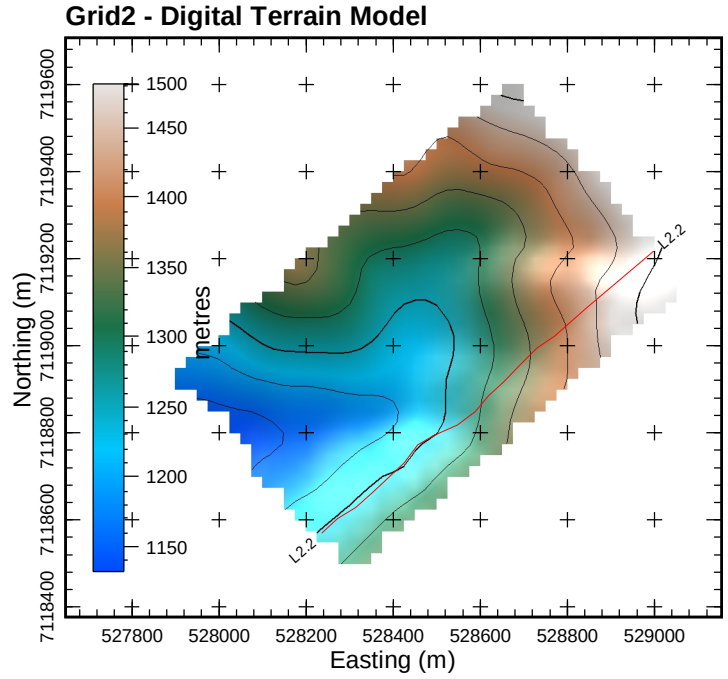
Grid2 - Magnetics (rtp)



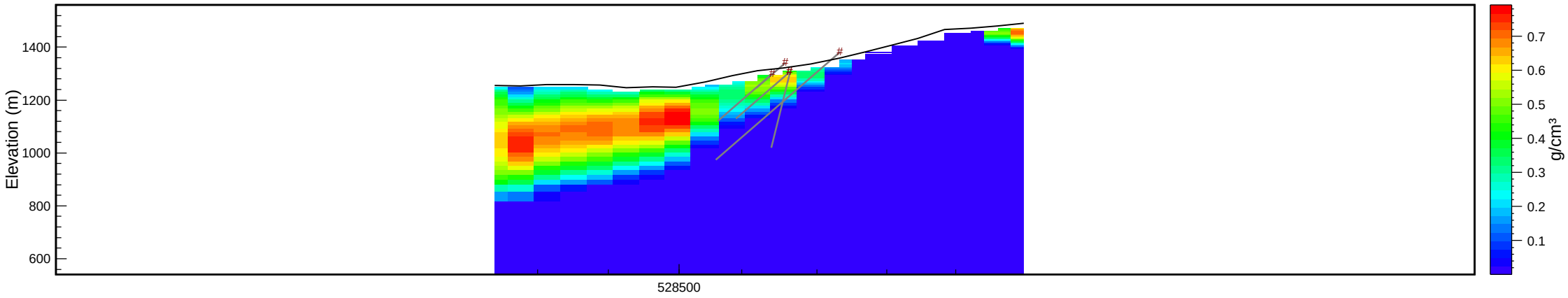
Grid2 - Bouguer Gravity (2.67 g/cc)



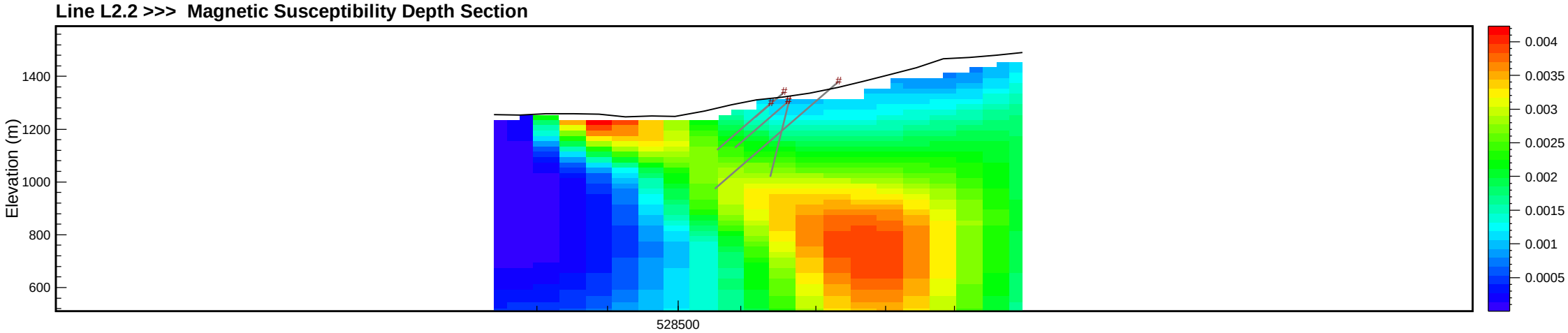
Grid2 - Digital Terrain Model



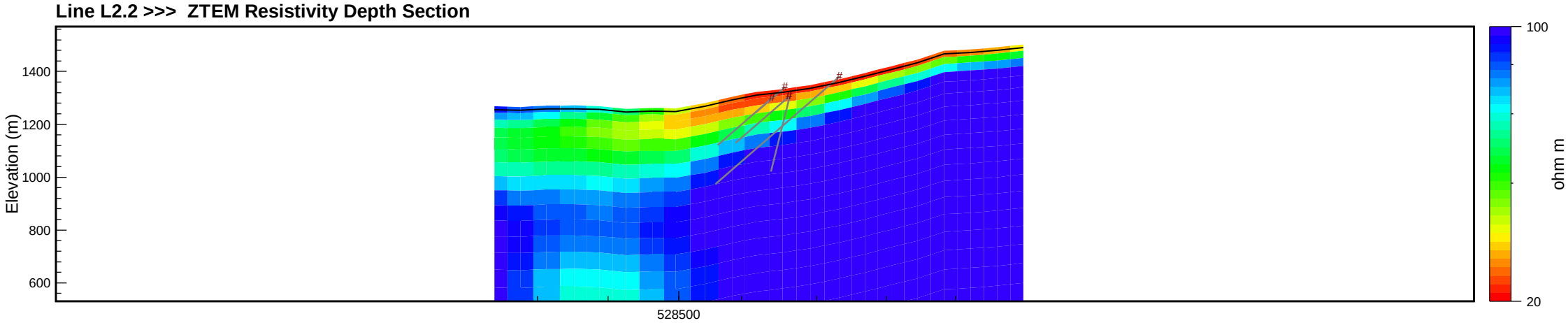
Line L2.2 >>> Bouguer Gravity Depth Section



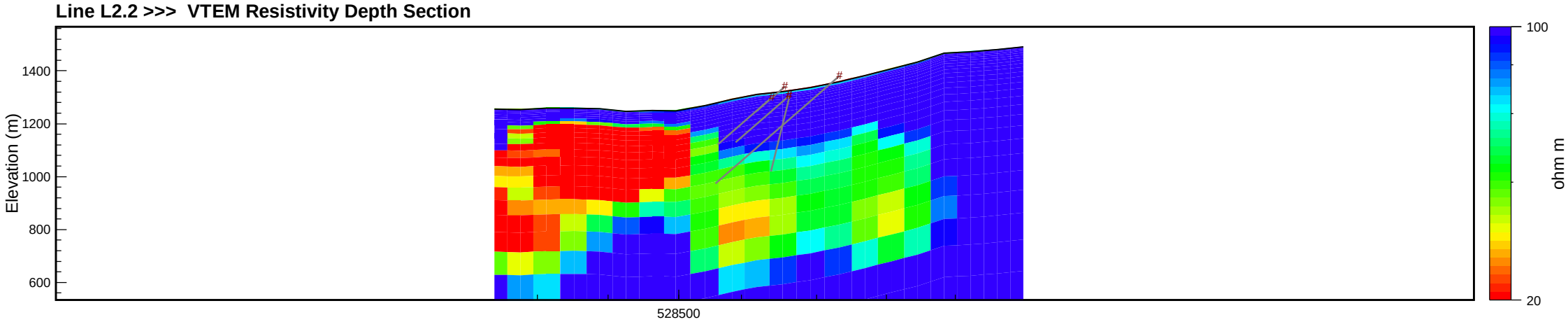
Line L2.2 >>> Magnetic Susceptibility Depth Section



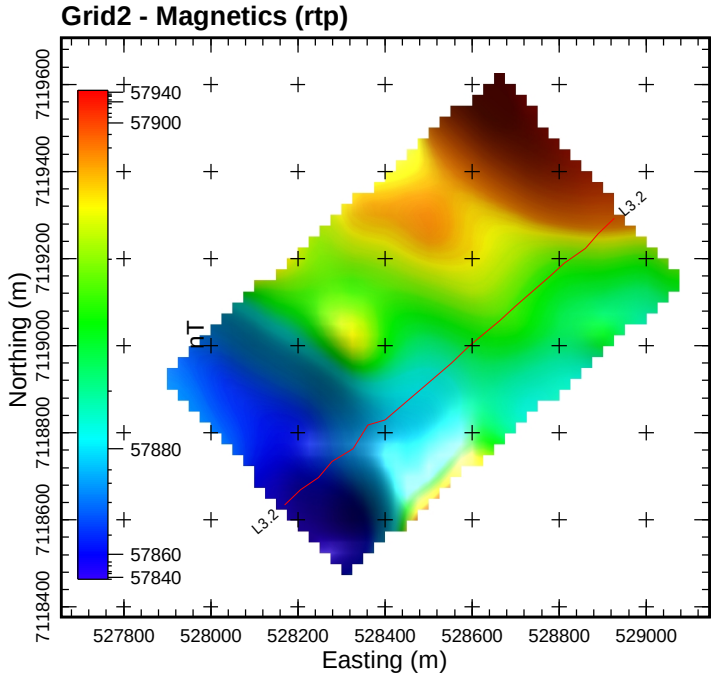
Line L2.2 >>> ZTEM Resistivity Depth Section



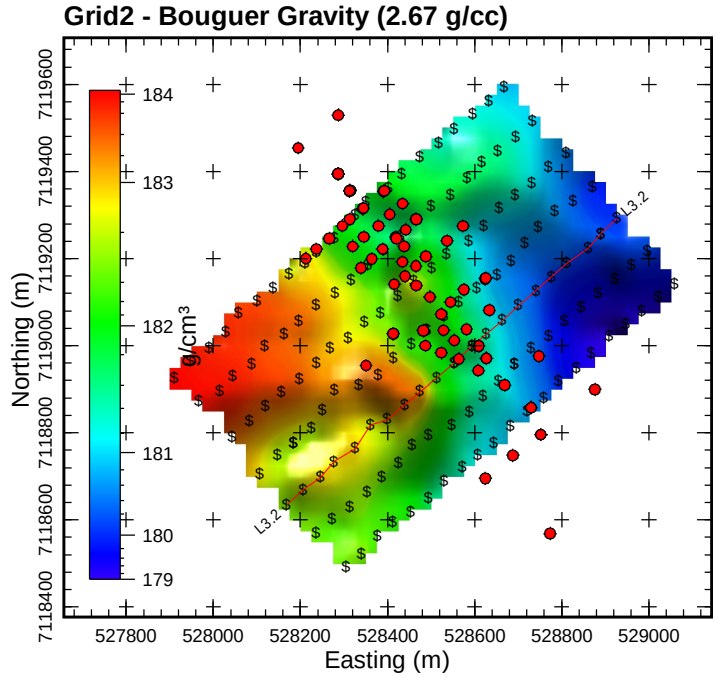
Line L2.2 >>> VTEM Resistivity Depth Section



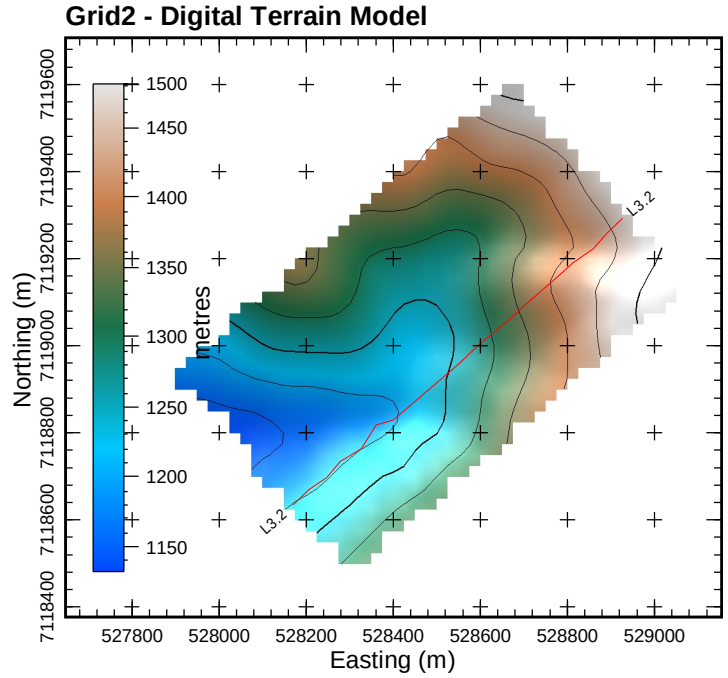
Grid2 - Magnetics (rtp)



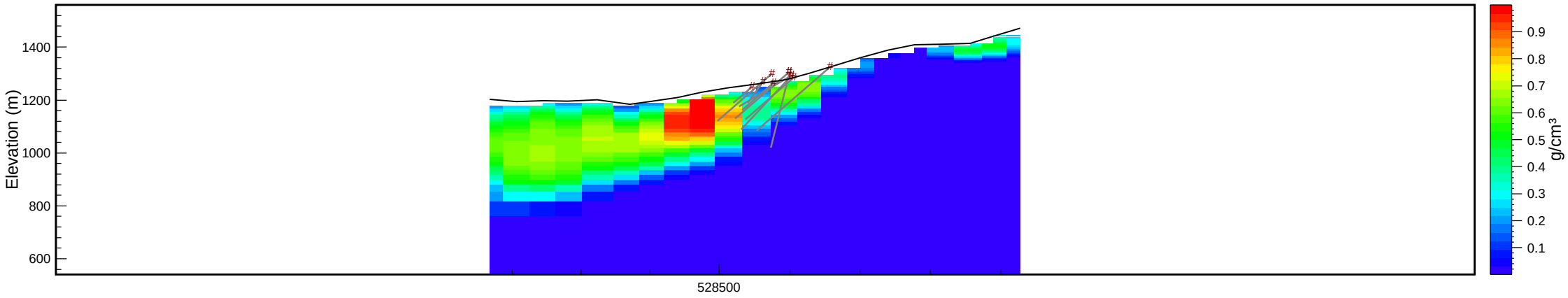
Grid2 - Bouguer Gravity (2.67 g/cc)



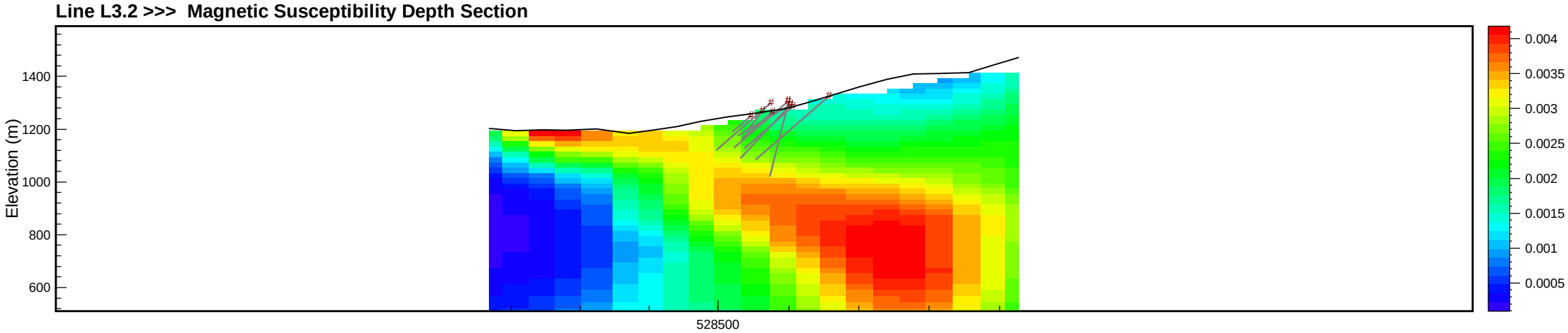
Grid2 - Digital Terrain Model



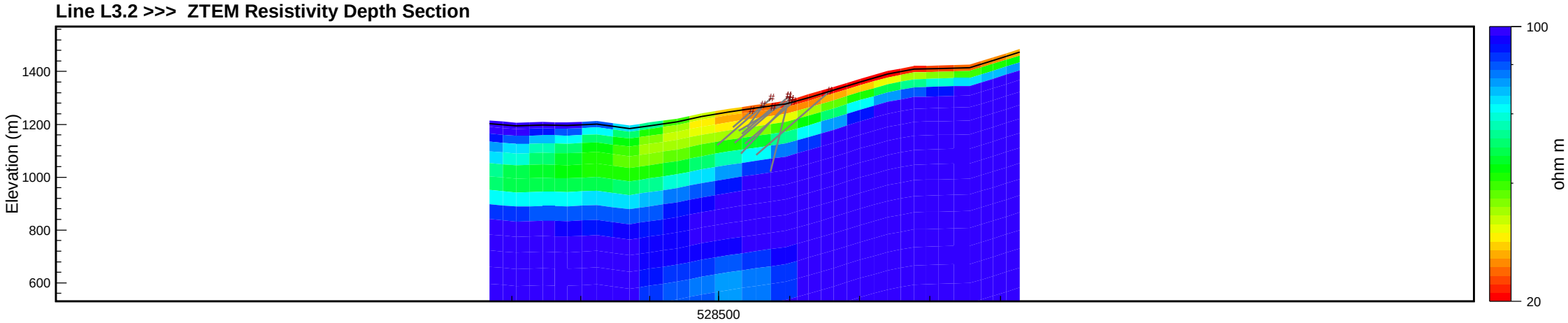
Line L3.2 >>> Bouguer Gravity Depth Section



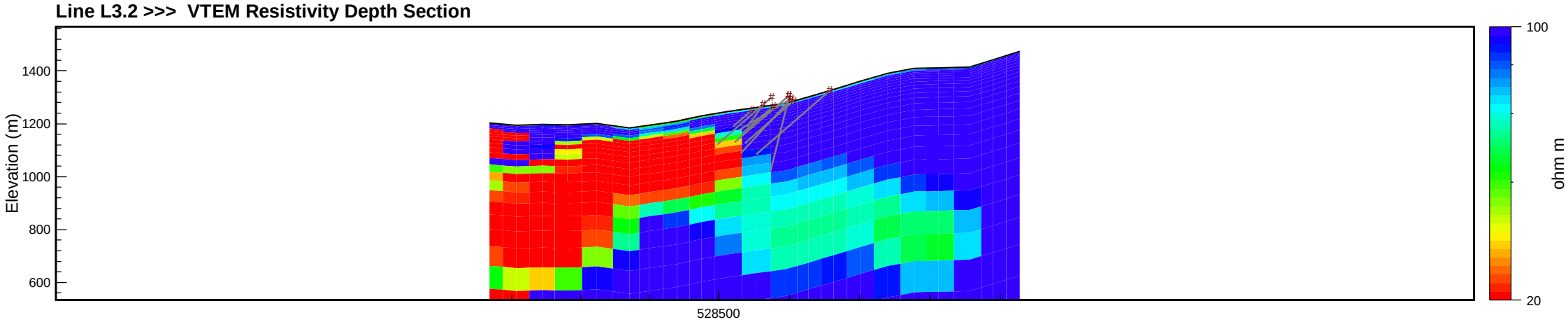
Line L3.2 >>> Magnetic Susceptibility Depth Section



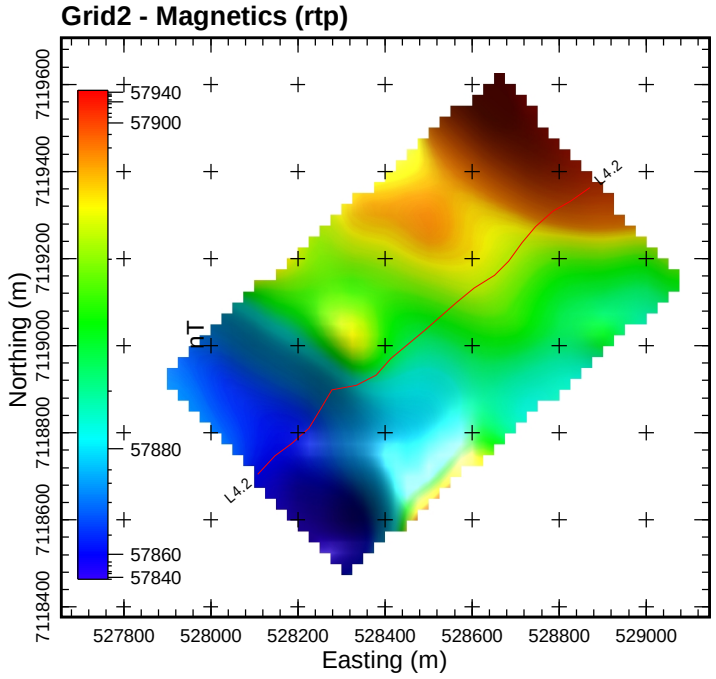
Line L3.2 >>> ZTEM Resistivity Depth Section



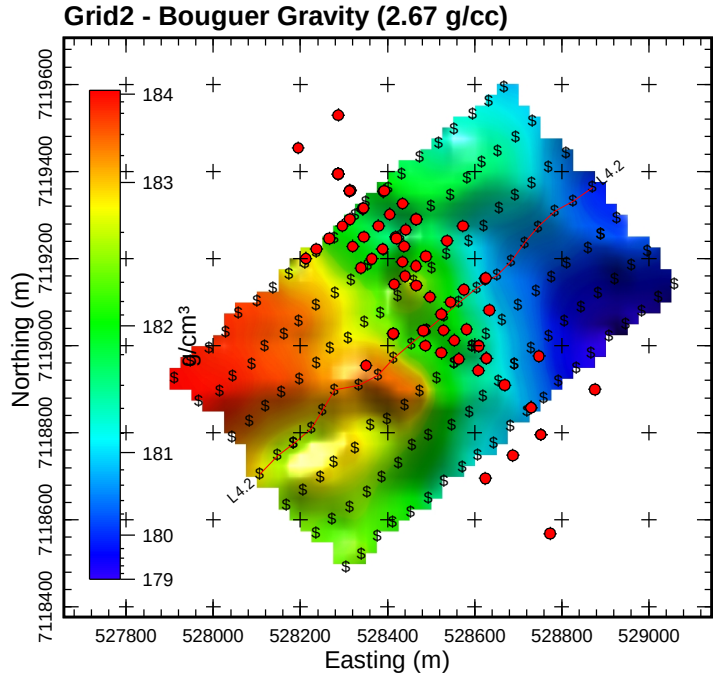
Line L3.2 >>> VTEM Resistivity Depth Section



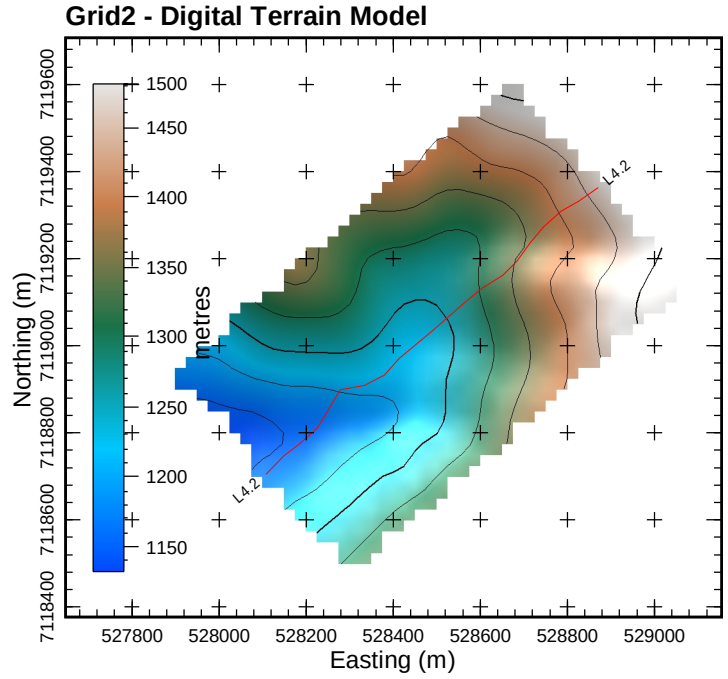
Grid2 - Magnetics (rtp)



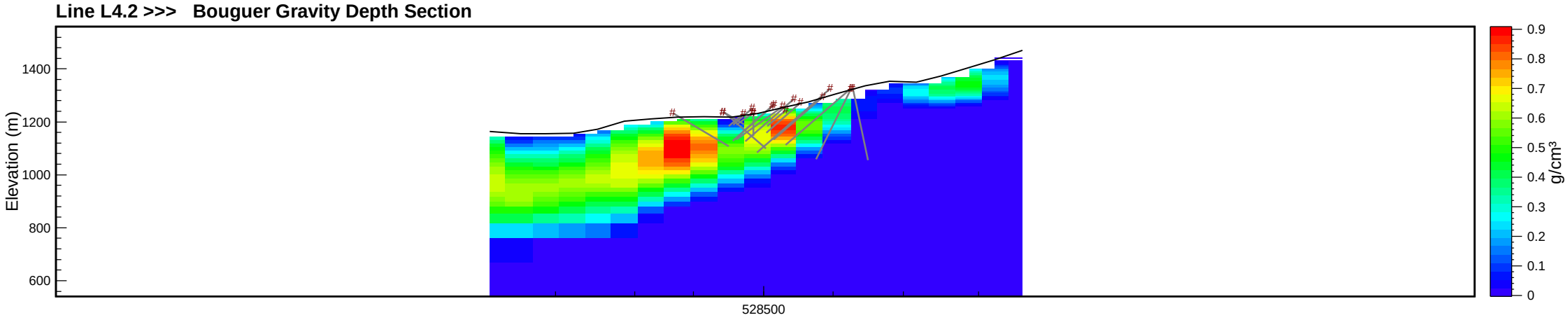
Grid2 - Bouguer Gravity (2.67 g/cc)



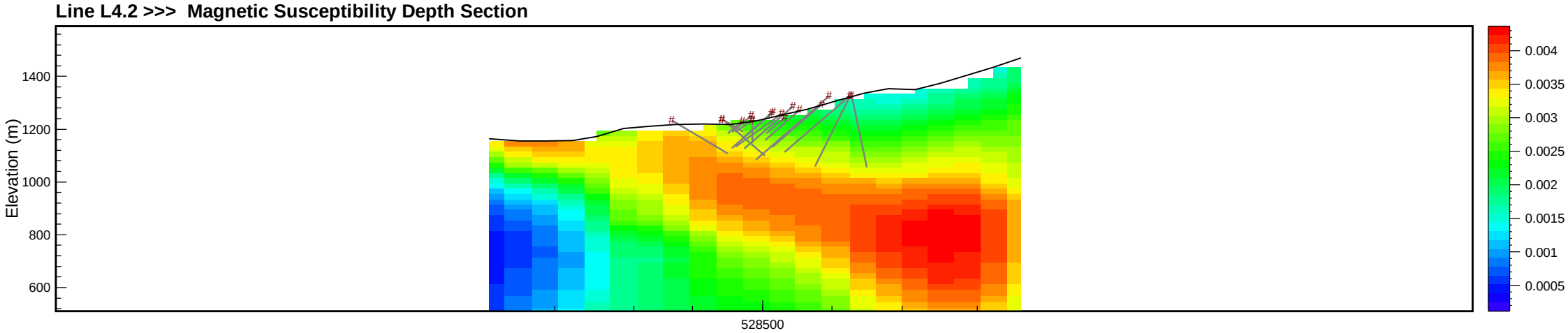
Grid2 - Digital Terrain Model



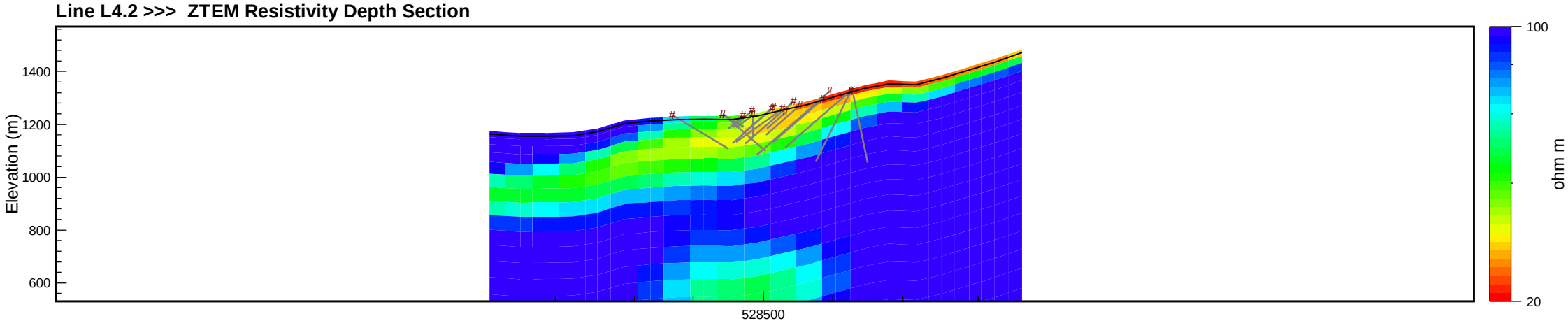
Line L4.2 >>> Bouguer Gravity Depth Section



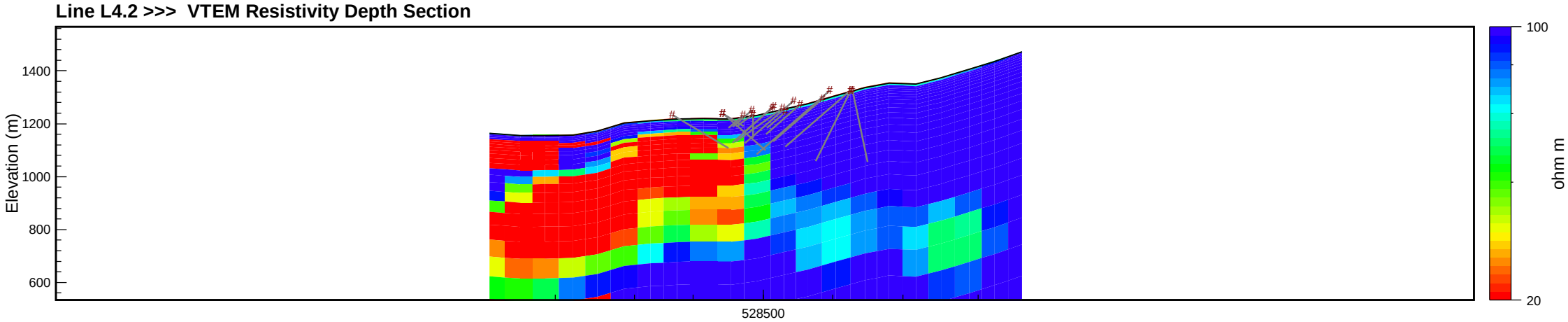
Line L4.2 >>> Magnetic Susceptibility Depth Section



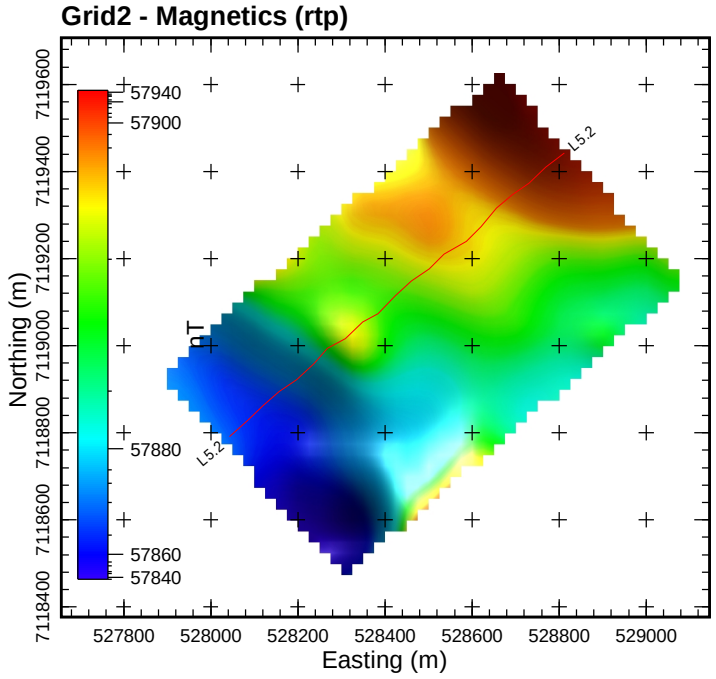
Line L4.2 >>> ZTEM Resistivity Depth Section



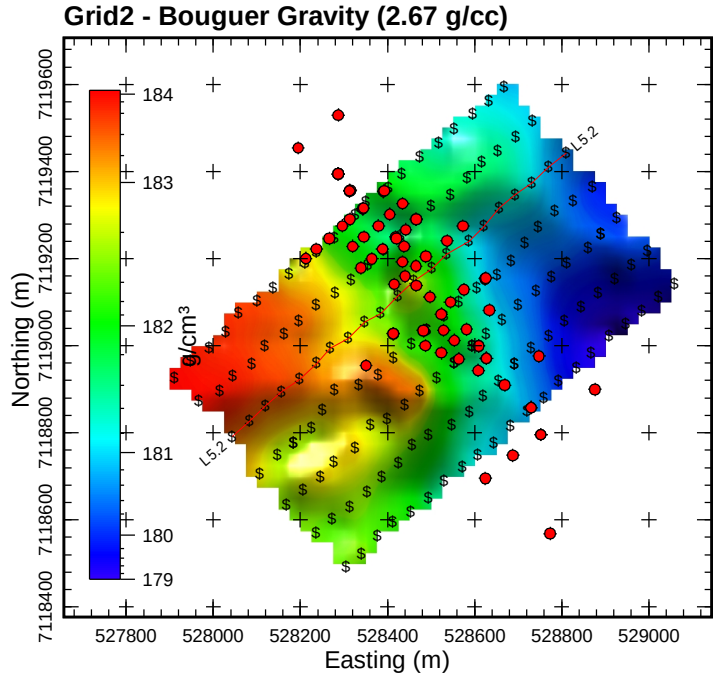
Line L4.2 >>> VTEM Resistivity Depth Section



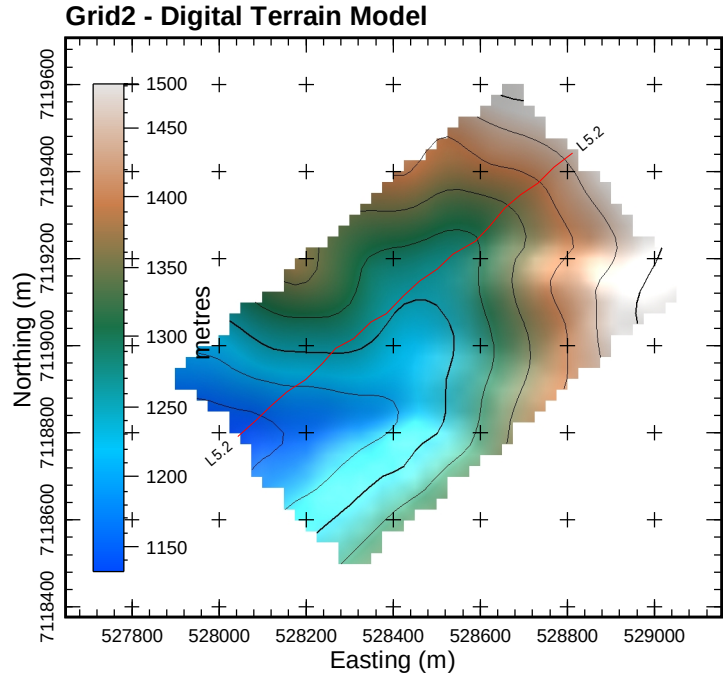
Grid2 - Magnetics (rtp)



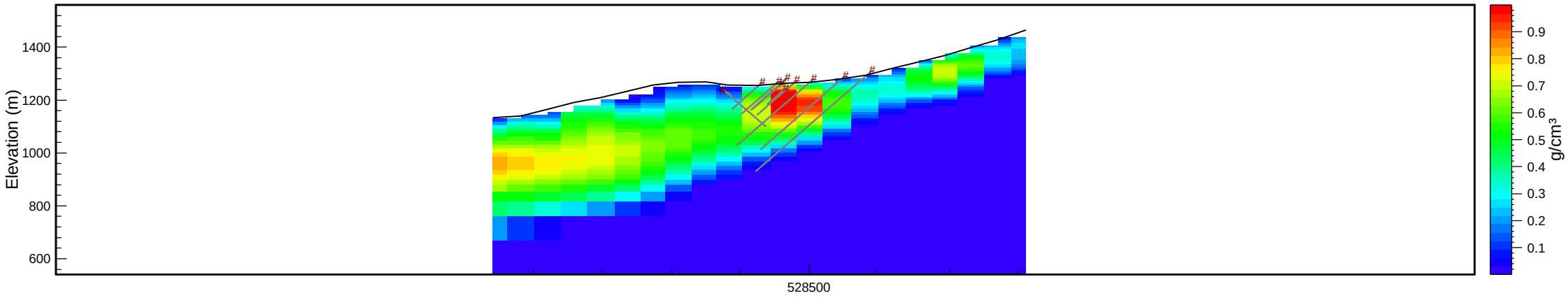
Grid2 - Bouguer Gravity (2.67 g/cc)



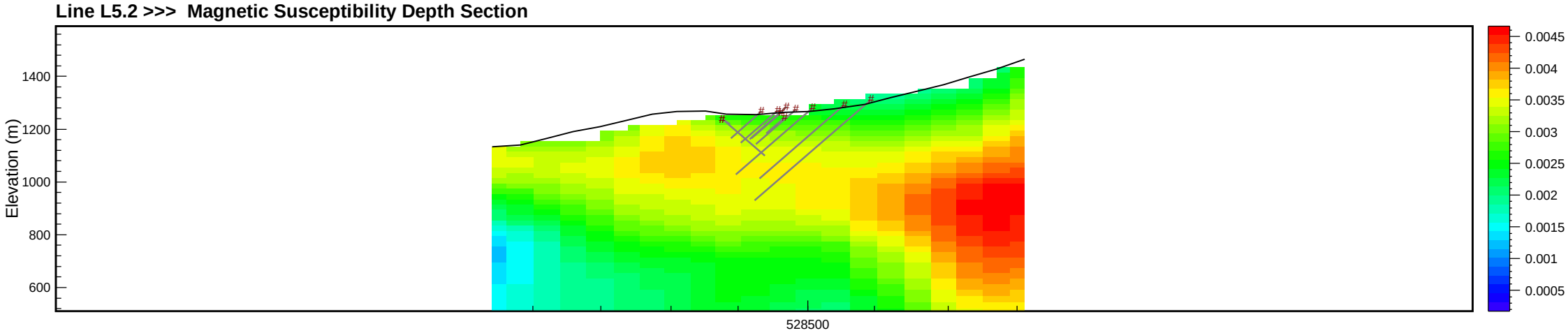
Grid2 - Digital Terrain Model



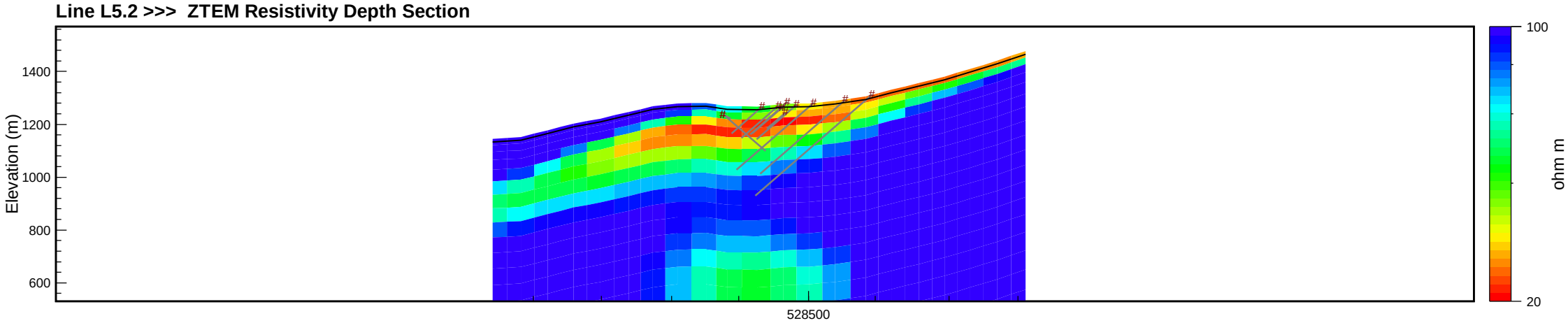
Line L5.2 >>> Bouguer Gravity Depth Section



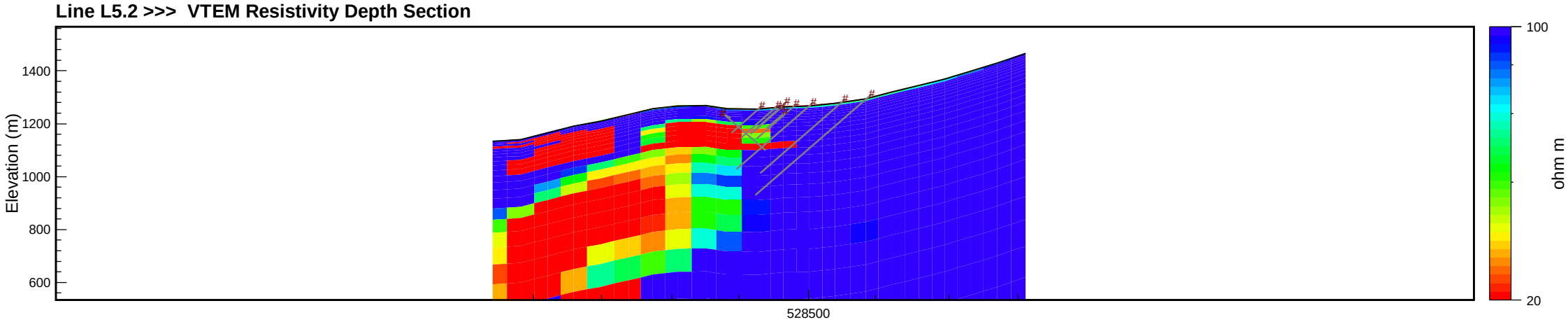
Line L5.2 >>> Magnetic Susceptibility Depth Section



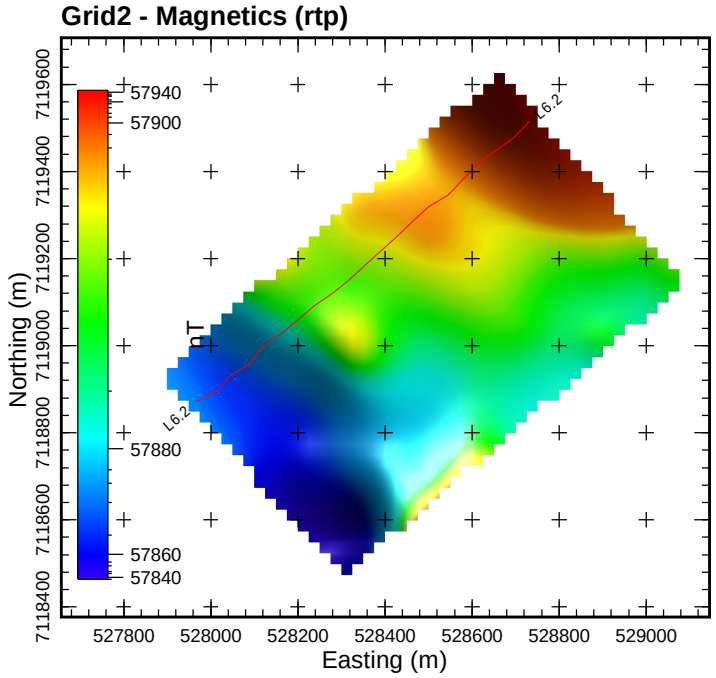
Line L5.2 >>> ZTEM Resistivity Depth Section



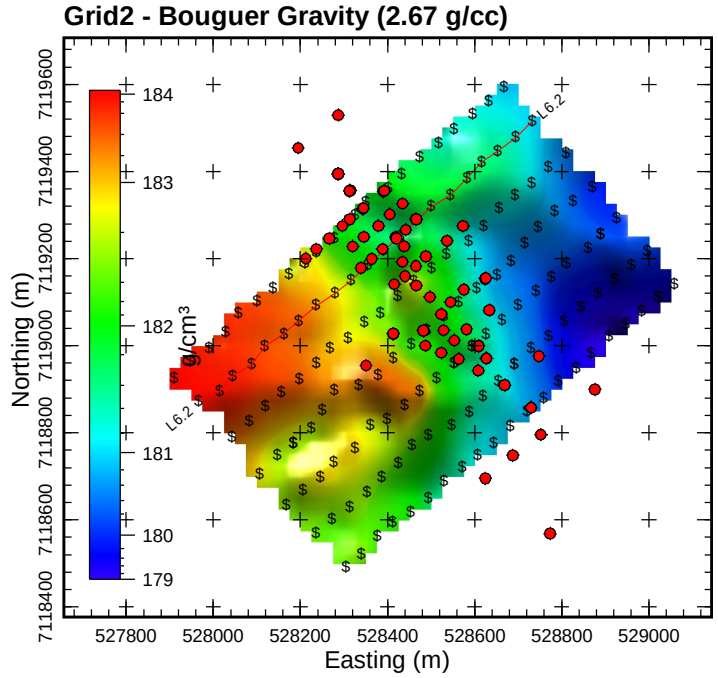
Line L5.2 >>> VTEM Resistivity Depth Section



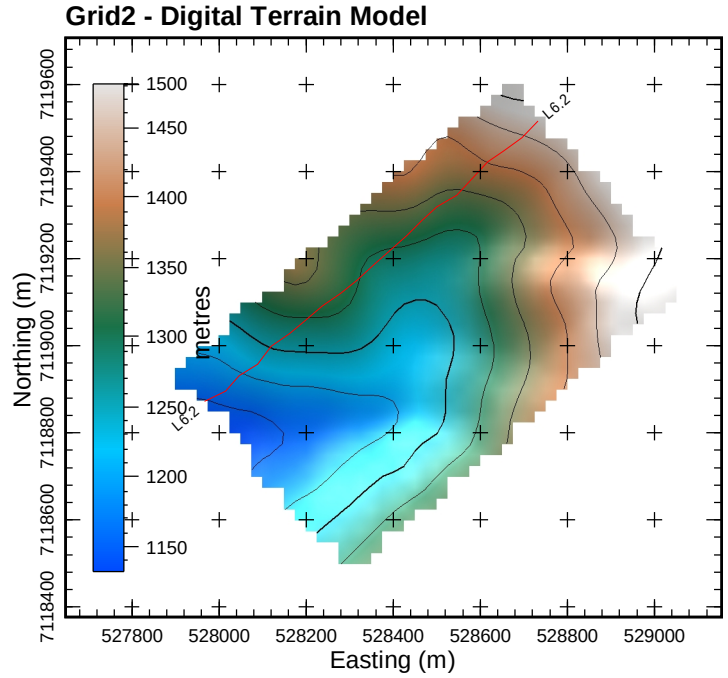
Grid2 - Magnetics (rtp)



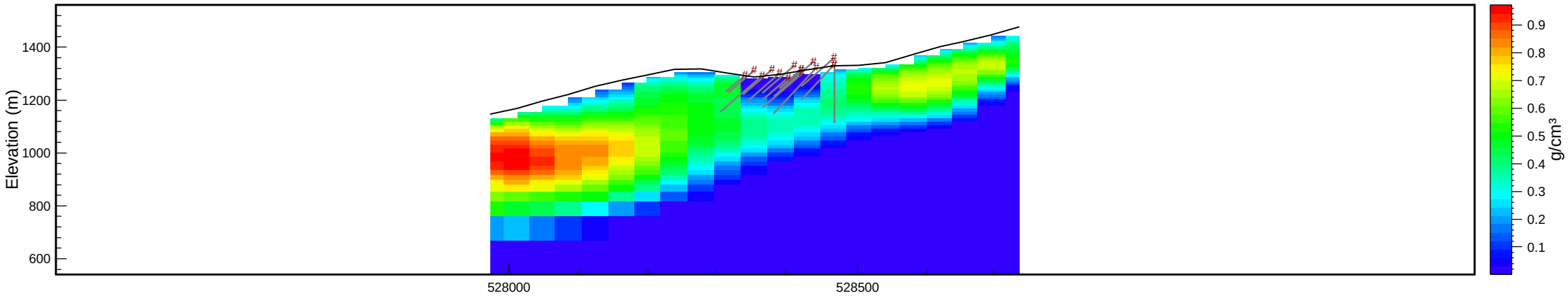
Grid2 - Bouguer Gravity (2.67 g/cc)



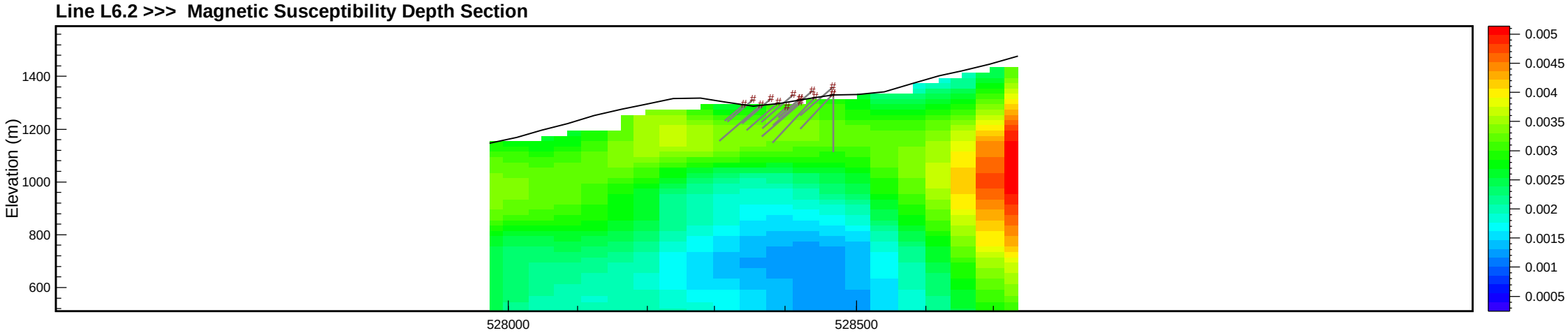
Grid2 - Digital Terrain Model



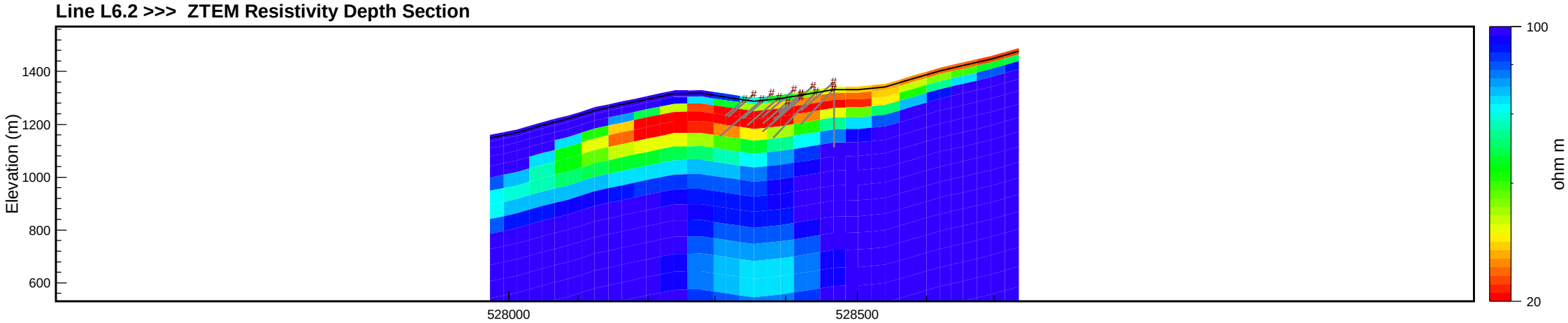
Line L6.2 >>> Bouguer Gravity Depth Section



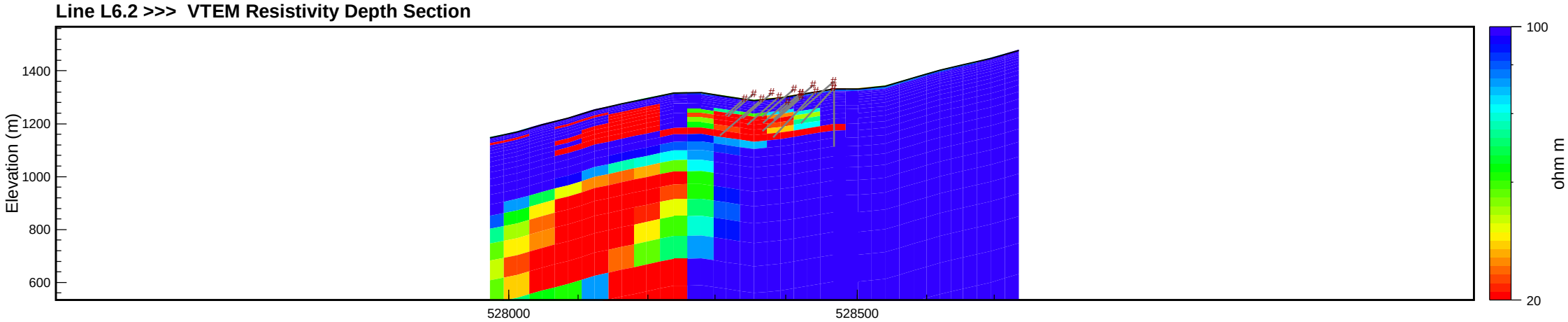
Line L6.2 >>> Magnetic Susceptibility Depth Section



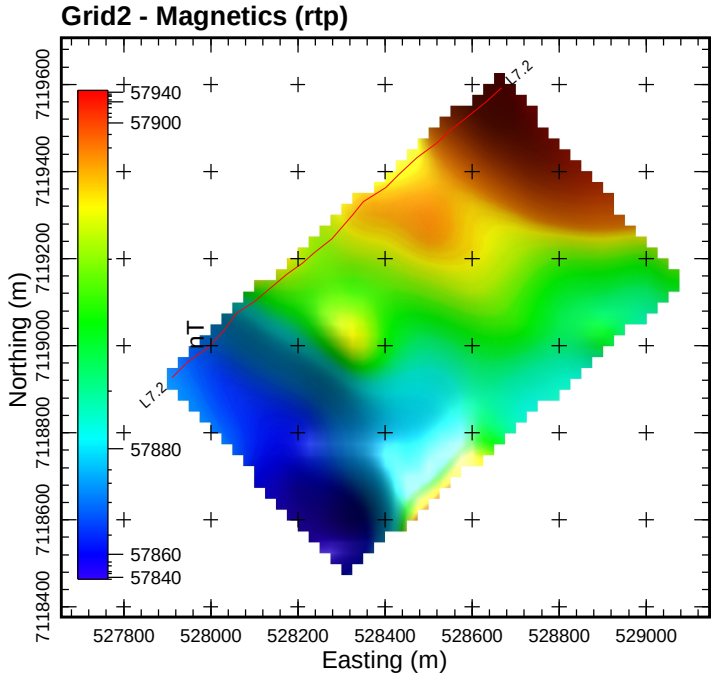
Line L6.2 >>> ZTEM Resistivity Depth Section



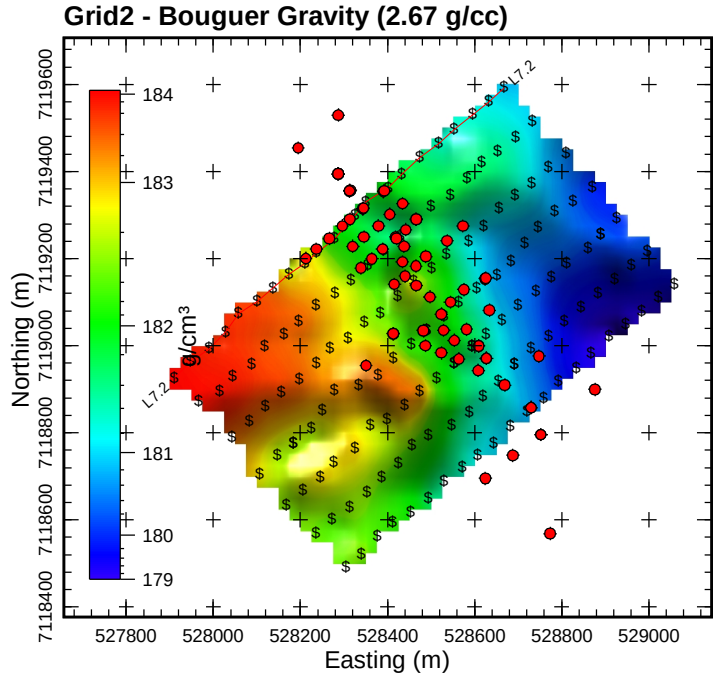
Line L6.2 >>> VTEM Resistivity Depth Section



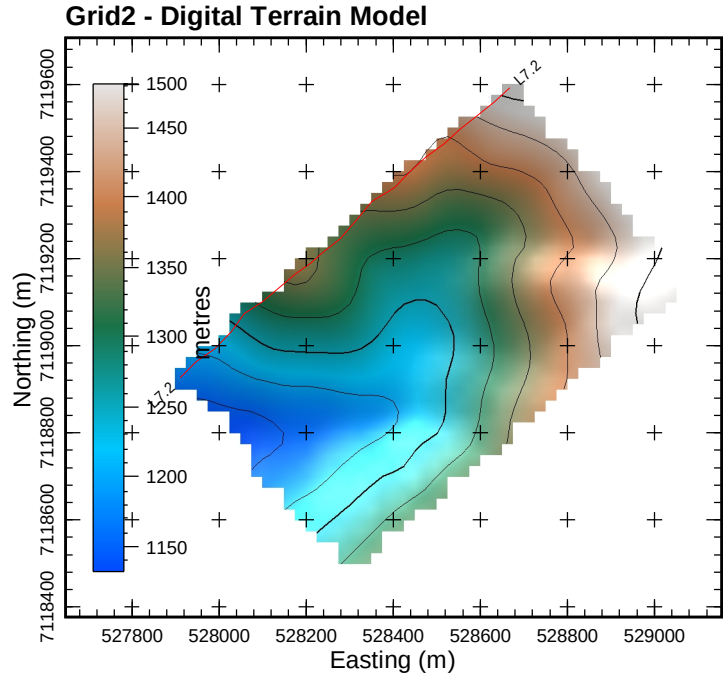
Grid2 - Magnetics (rtp)



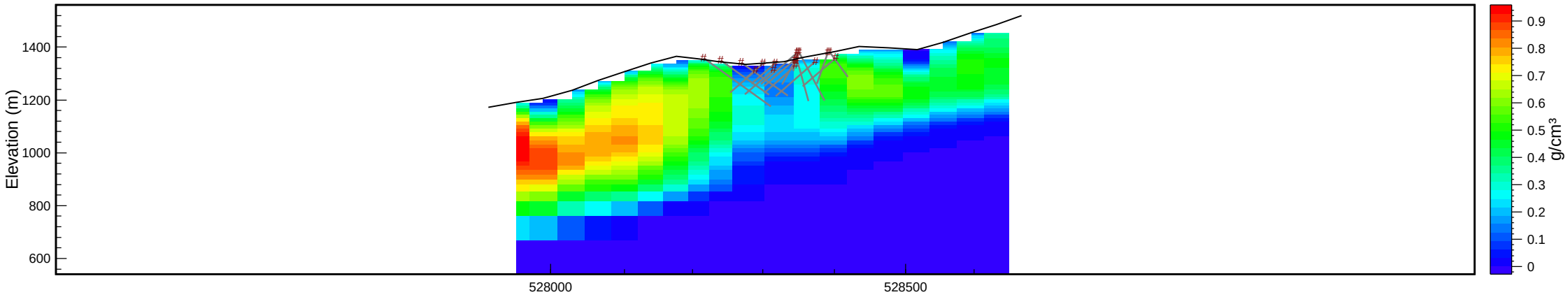
Grid2 - Bouguer Gravity (2.67 g/cc)



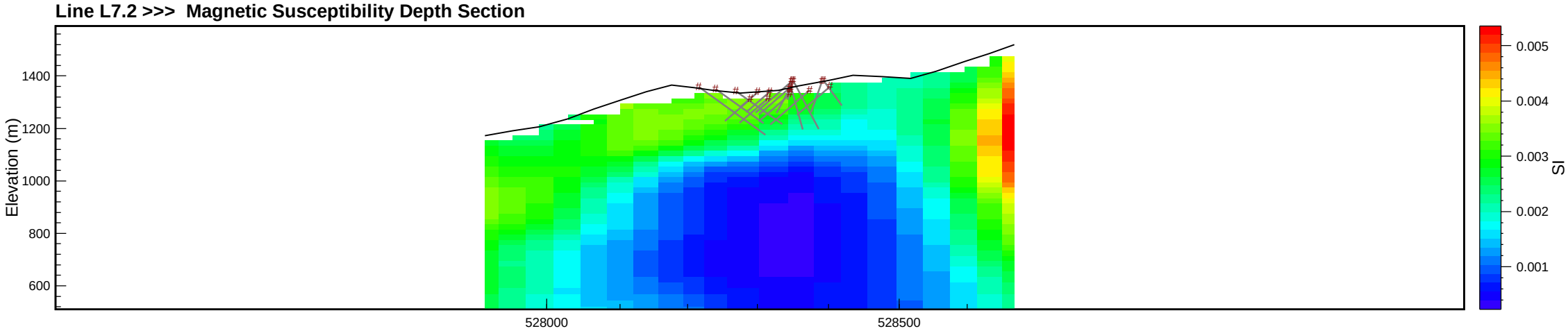
Grid2 - Digital Terrain Model



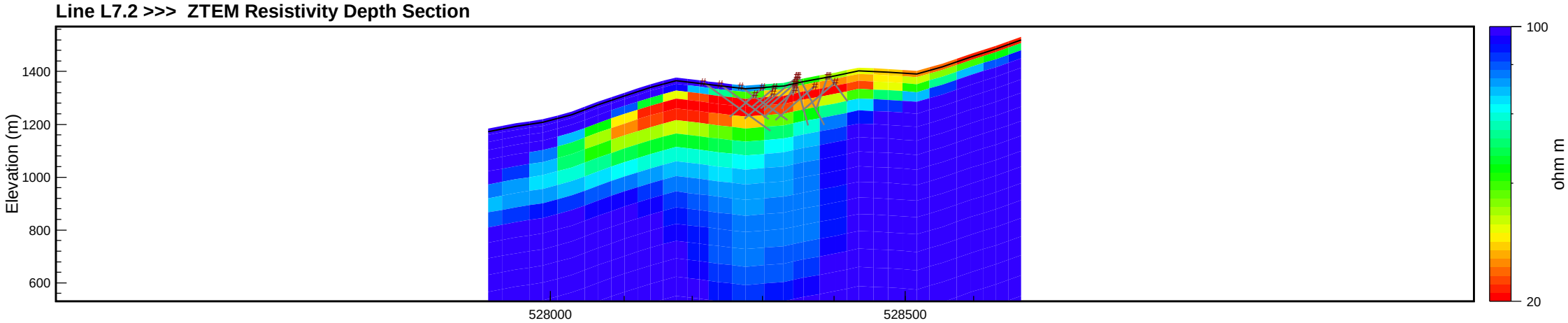
Line L7.2 >>> Bouguer Gravity Depth Section



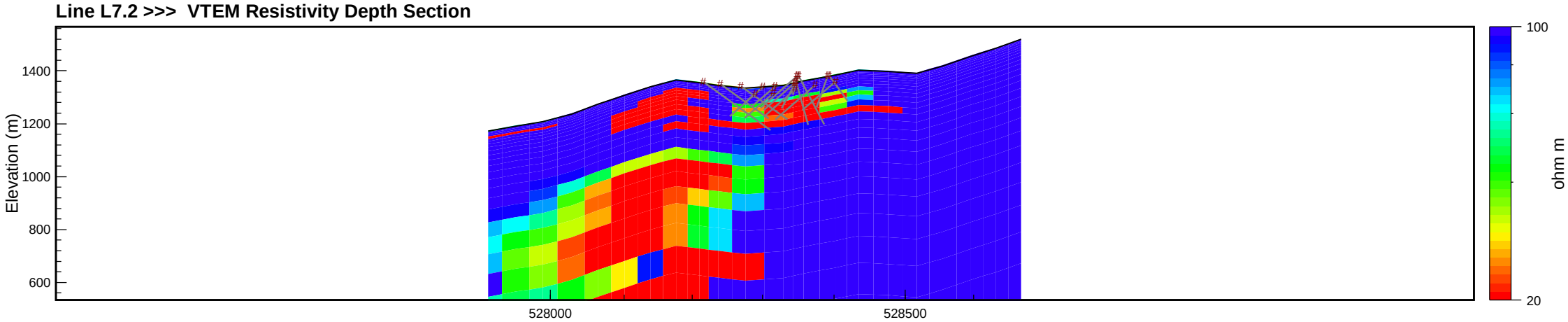
Line L7.2 >>> Magnetic Susceptibility Depth Section



Line L7.2 >>> ZTEM Resistivity Depth Section



Line L7.2 >>> VTEM Resistivity Depth Section



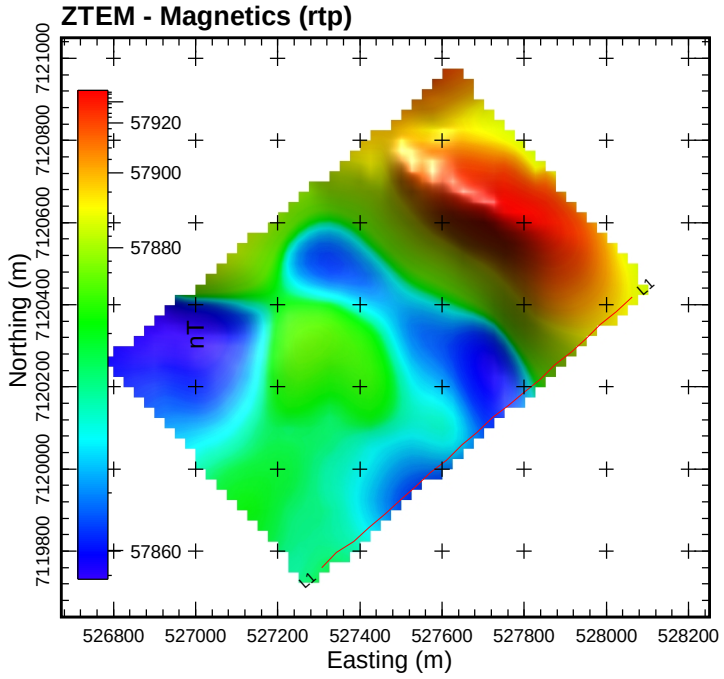
F2: ZTEM GRID MULTIPLOTS

Lines 1, 2, 3, 4, 5, 6, 7 and 8

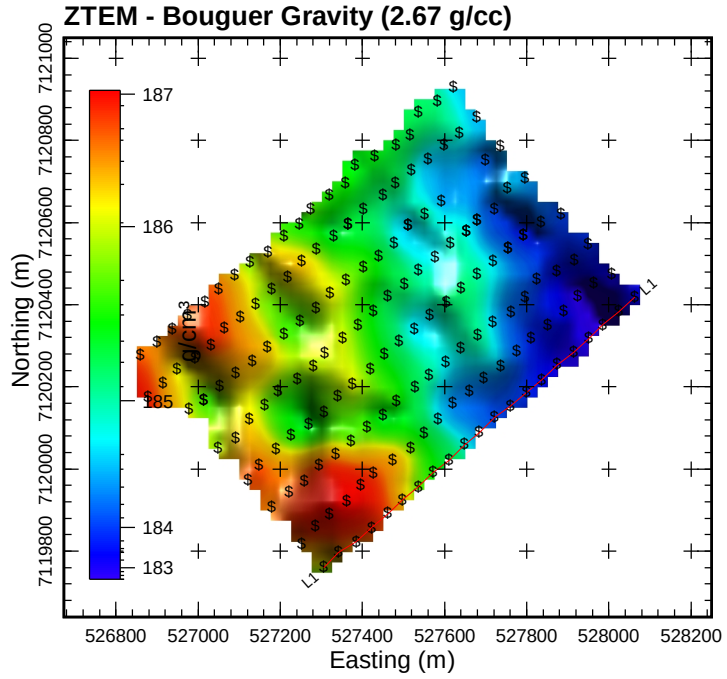
SECTIONS:

- Gravity from voxel model
- Magnetic susceptibility from voxel model of VTEM magnetics
- ZTEM conductivity from voxel model
- VTEM conductivity from voxel model

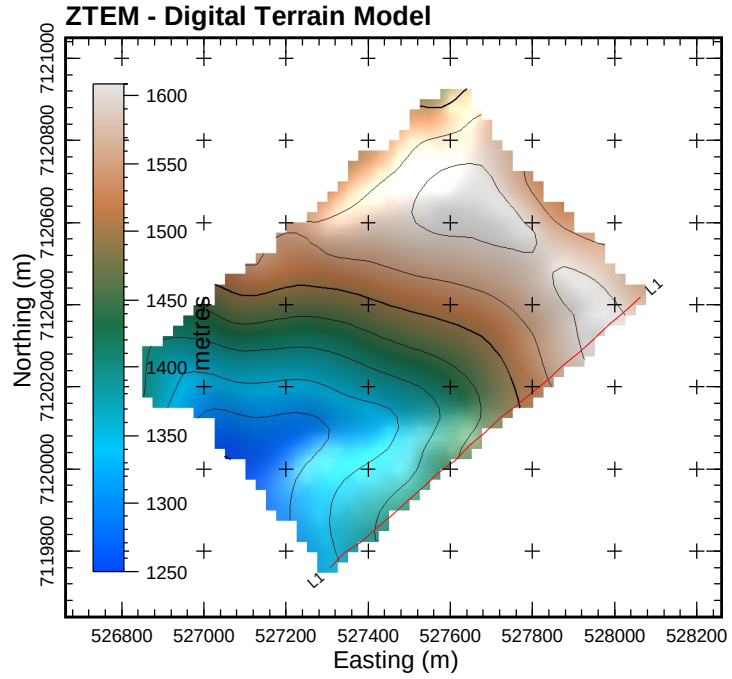
ZTEM - Magnetics (rtp)



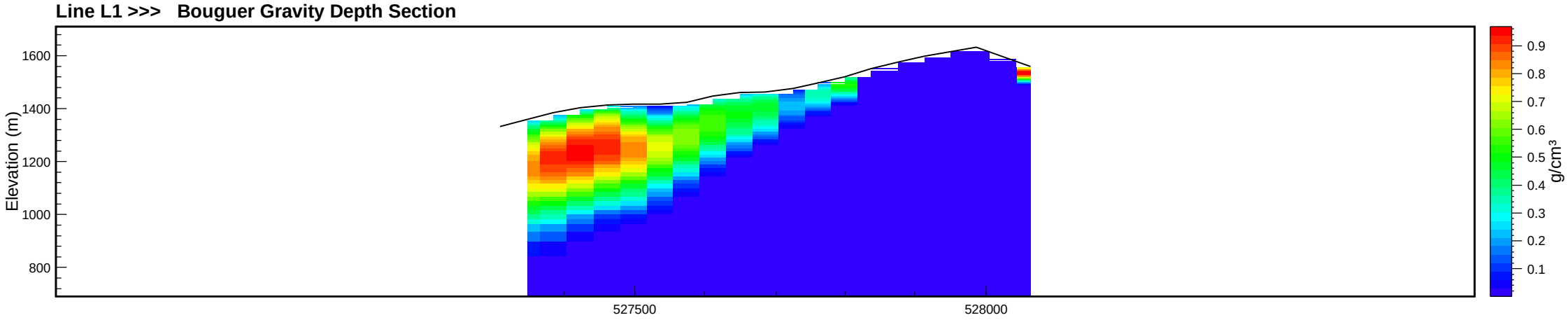
ZTEM - Bouguer Gravity (2.67 g/cc)



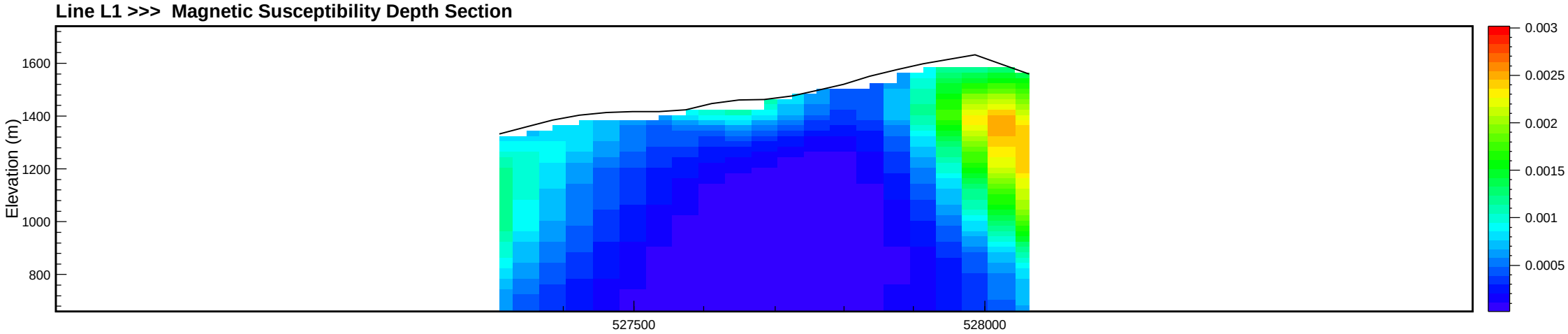
ZTEM - Digital Terrain Model



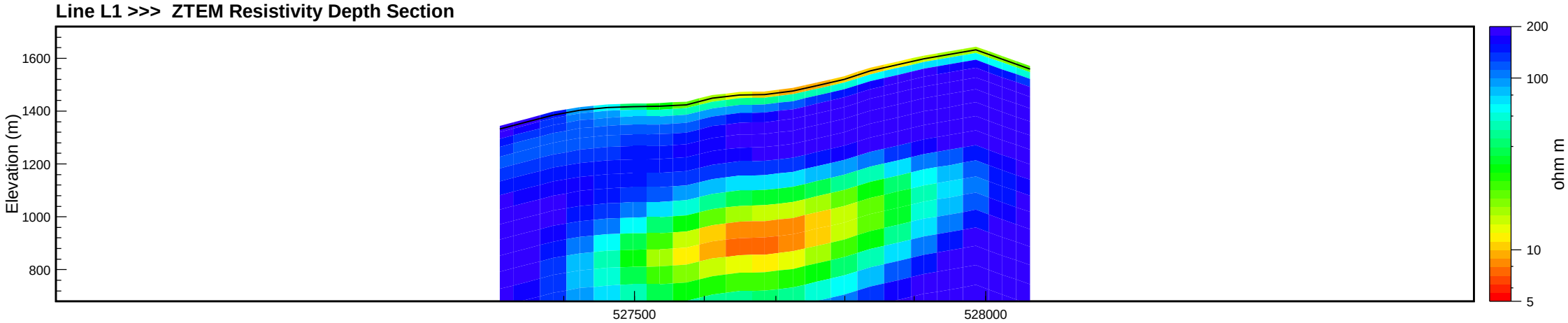
Line L1 >>> Bouguer Gravity Depth Section



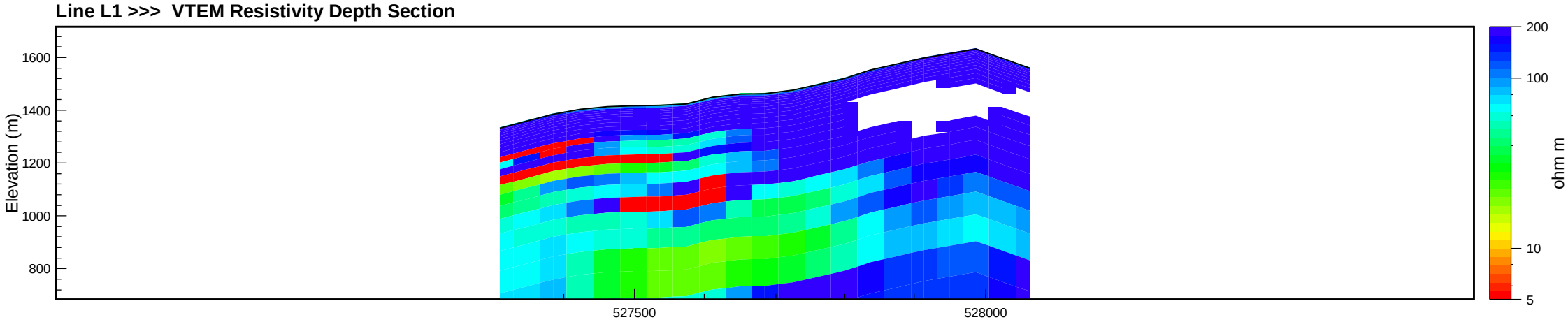
Line L1 >>> Magnetic Susceptibility Depth Section



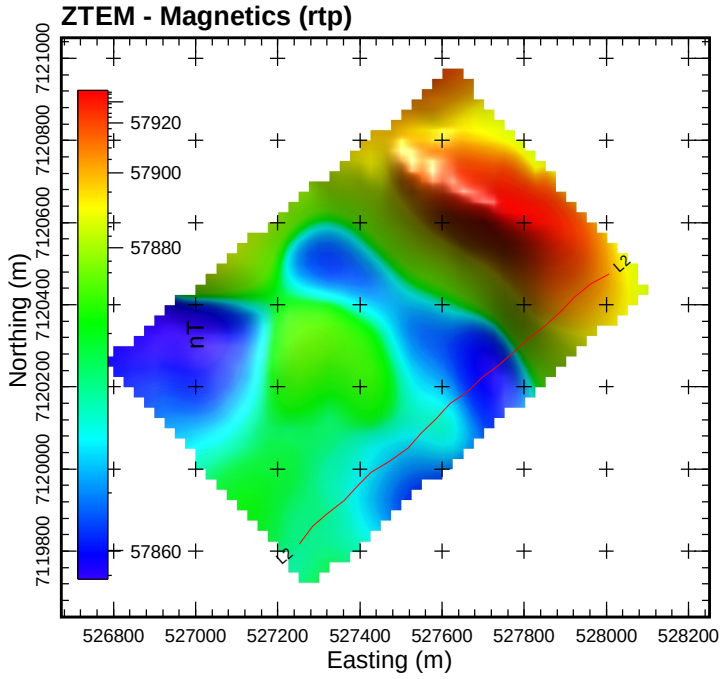
Line L1 >>> ZTEM Resistivity Depth Section



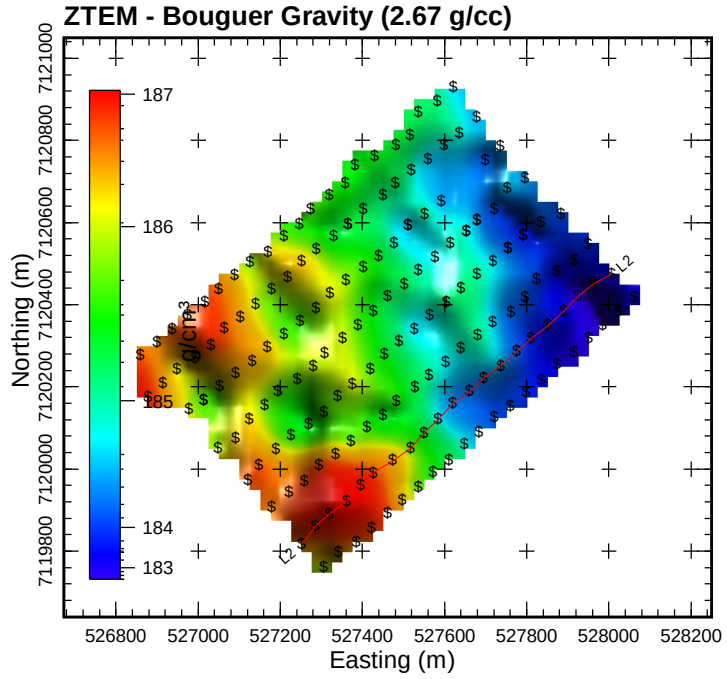
Line L1 >>> VTEM Resistivity Depth Section



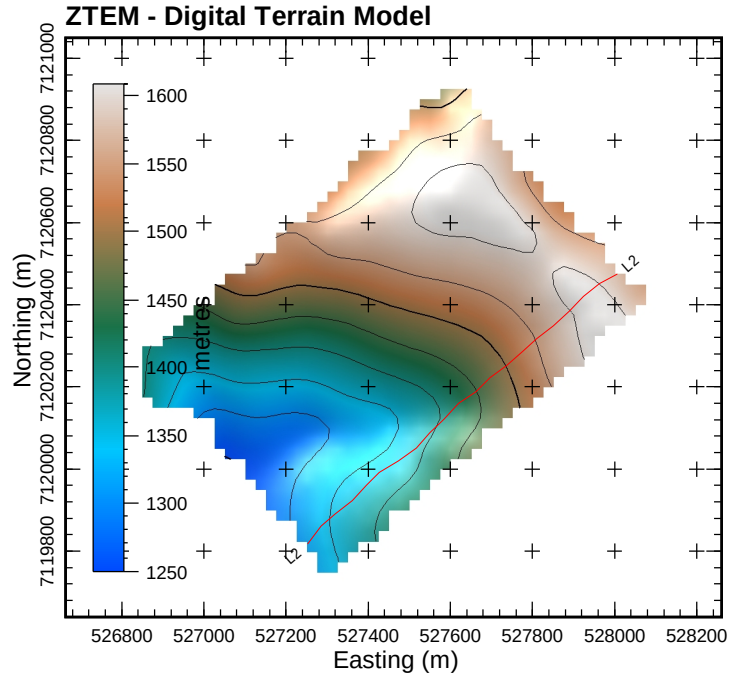
ZTEM - Magnetics (rtp)



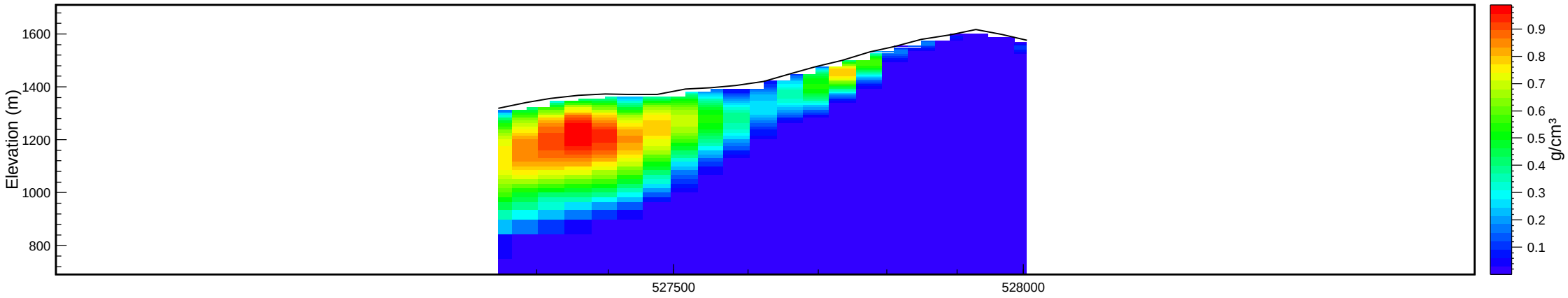
ZTEM - Bouguer Gravity (2.67 g/cc)



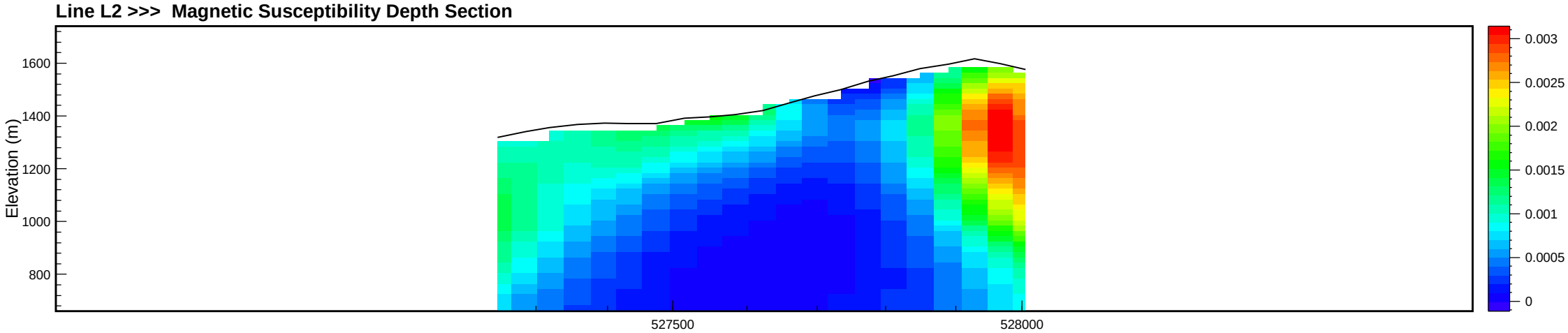
ZTEM - Digital Terrain Model



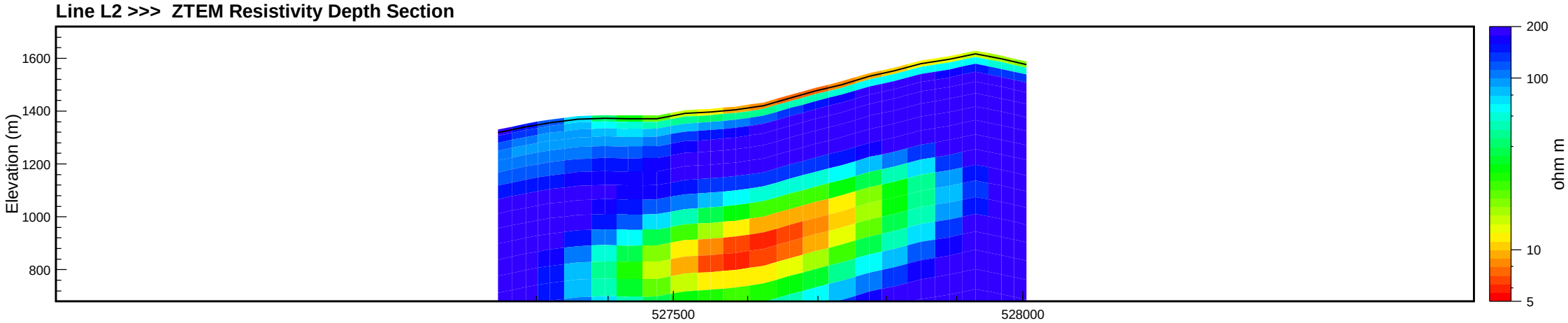
Line L2 >>> Bouguer Gravity Depth Section



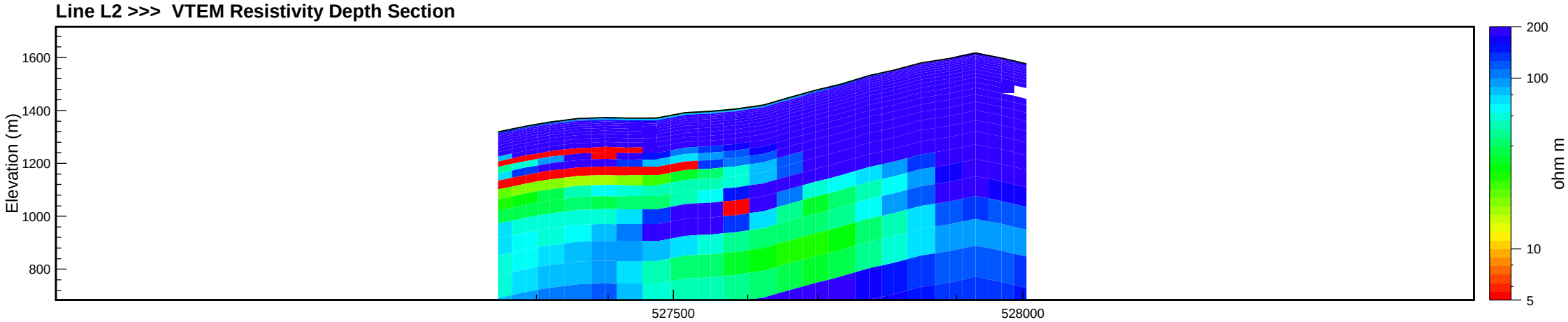
Line L2 >>> Magnetic Susceptibility Depth Section



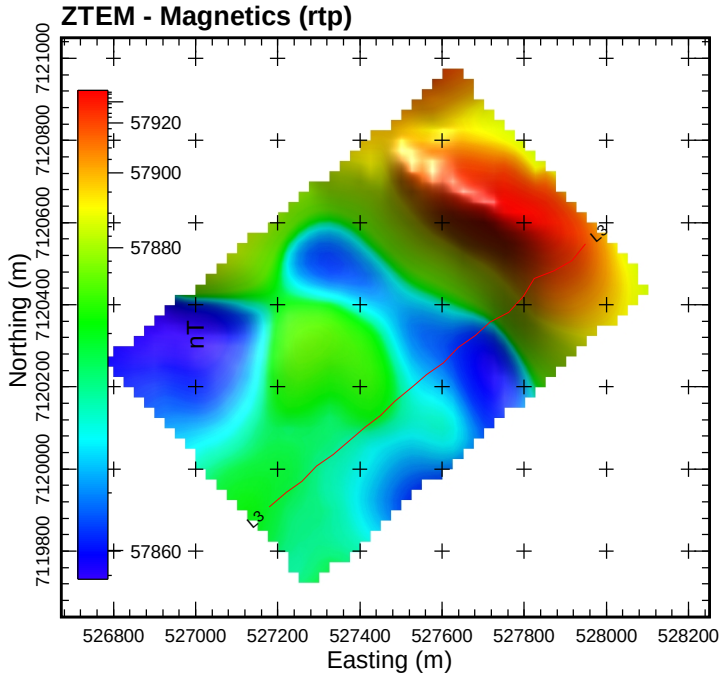
Line L2 >>> ZTEM Resistivity Depth Section



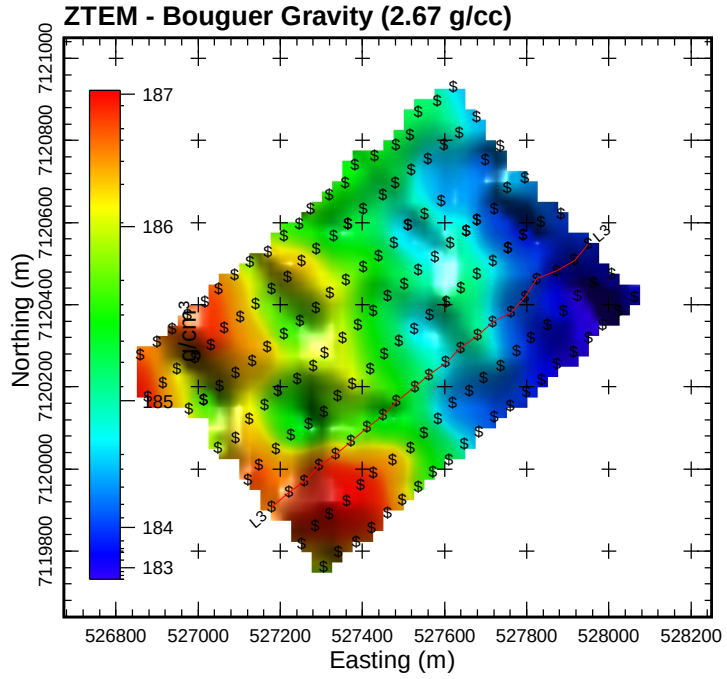
Line L2 >>> VTEM Resistivity Depth Section



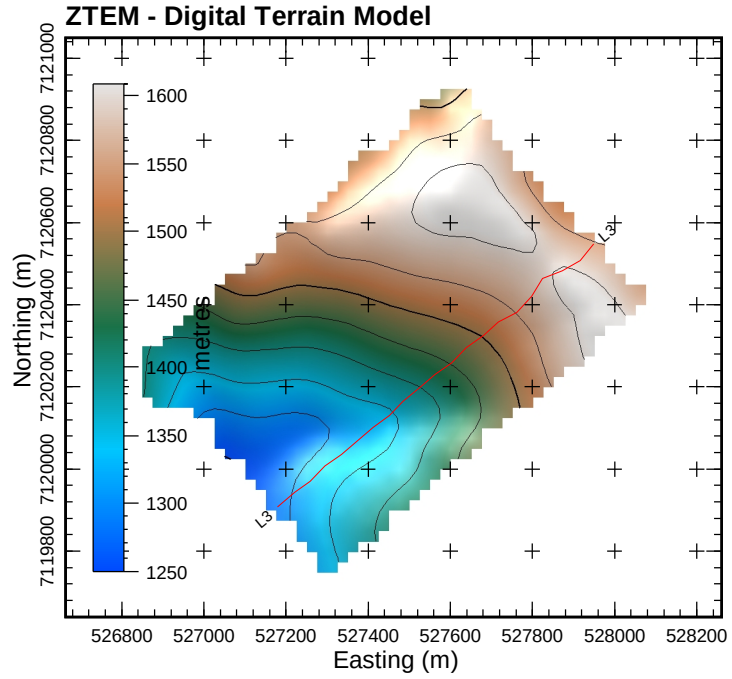
ZTEM - Magnetics (rtp)



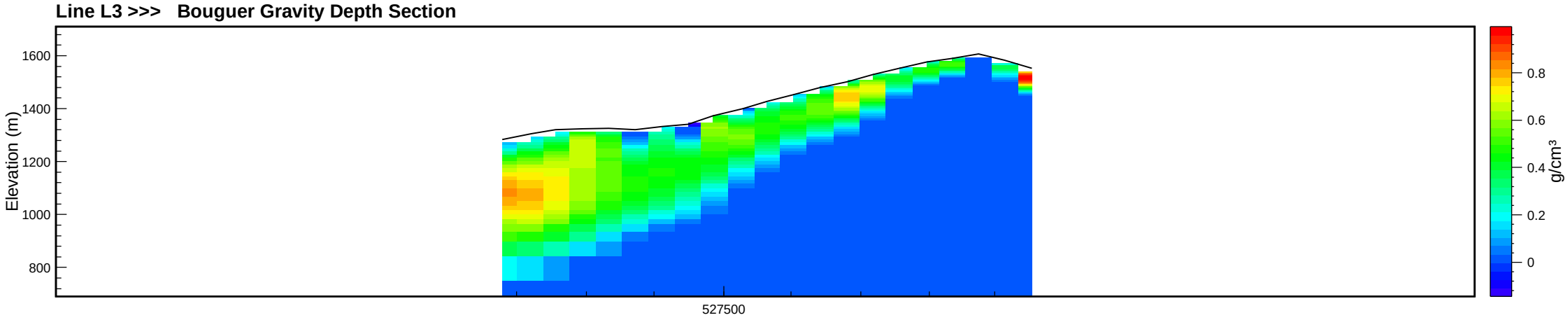
ZTEM - Bouguer Gravity (2.67 g/cc)



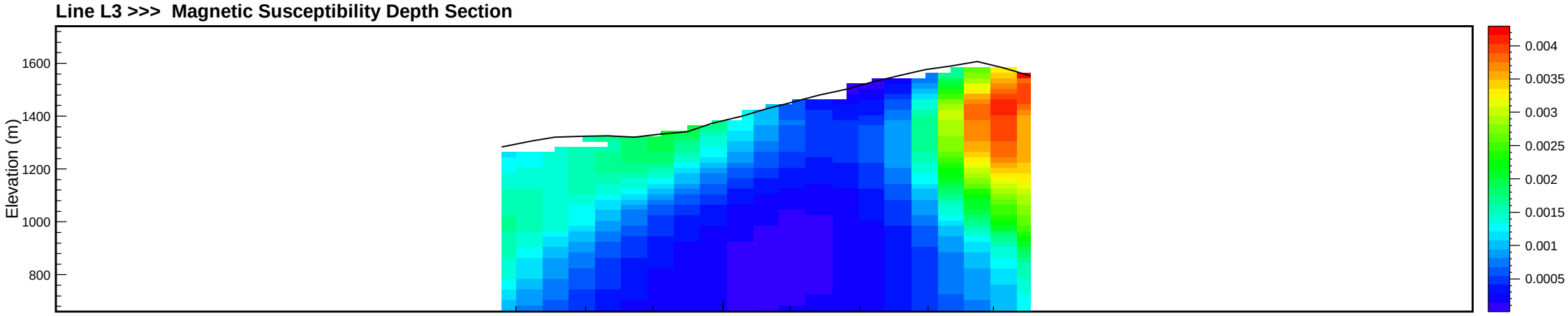
ZTEM - Digital Terrain Model



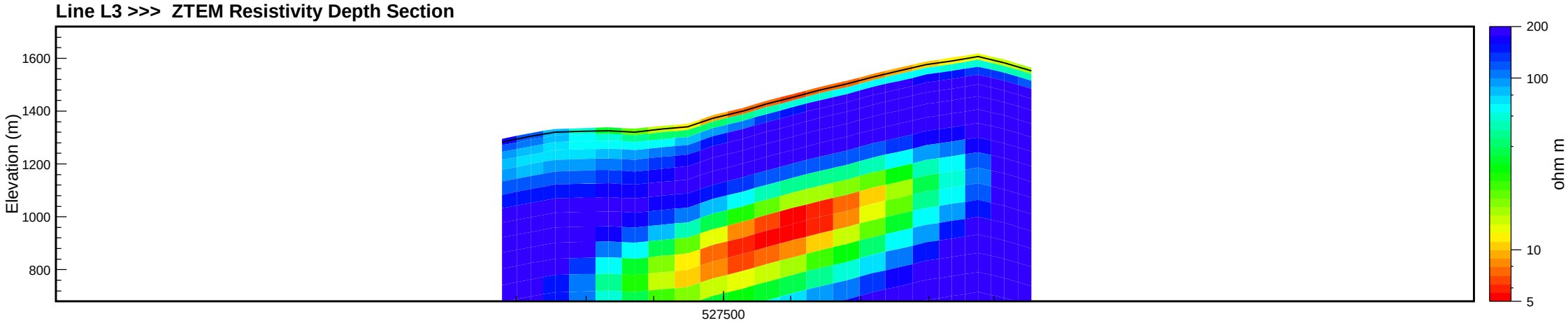
Line L3 >>> Bouguer Gravity Depth Section



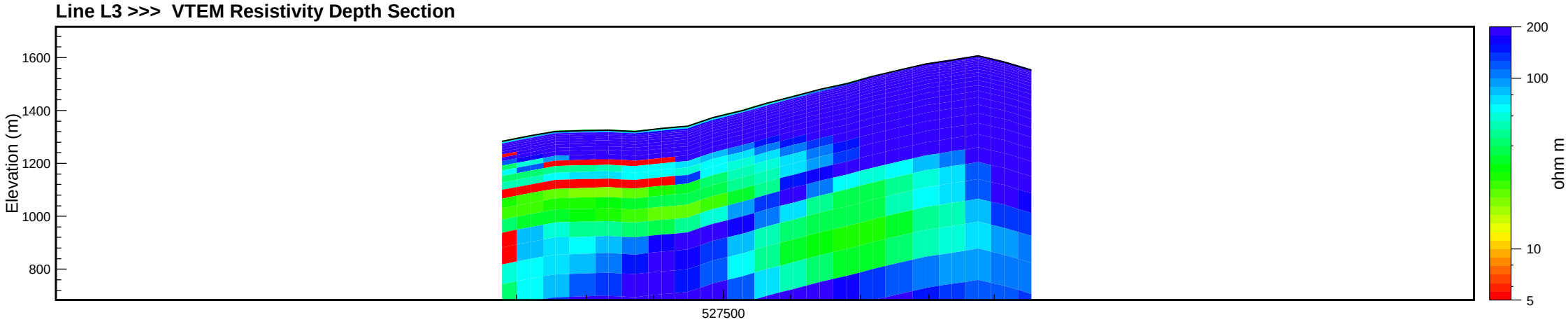
Line L3 >>> Magnetic Susceptibility Depth Section



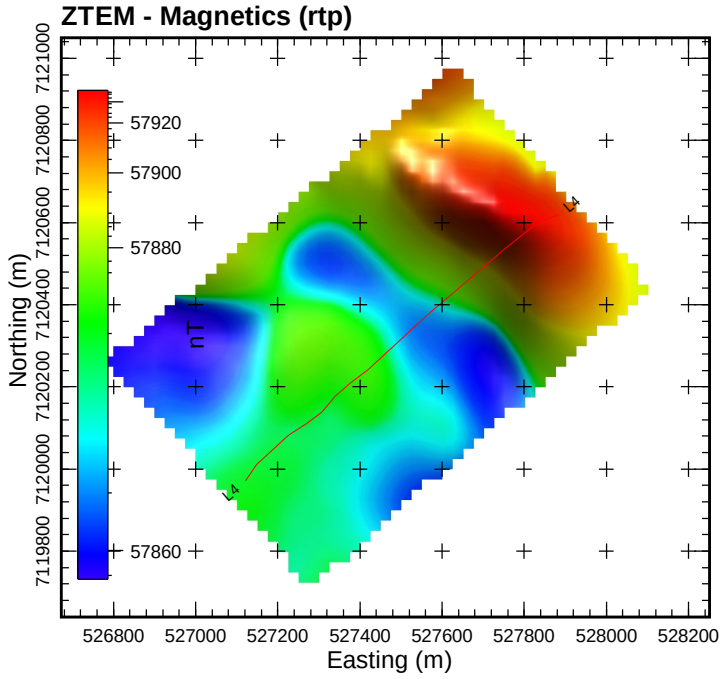
Line L3 >>> ZTEM Resistivity Depth Section



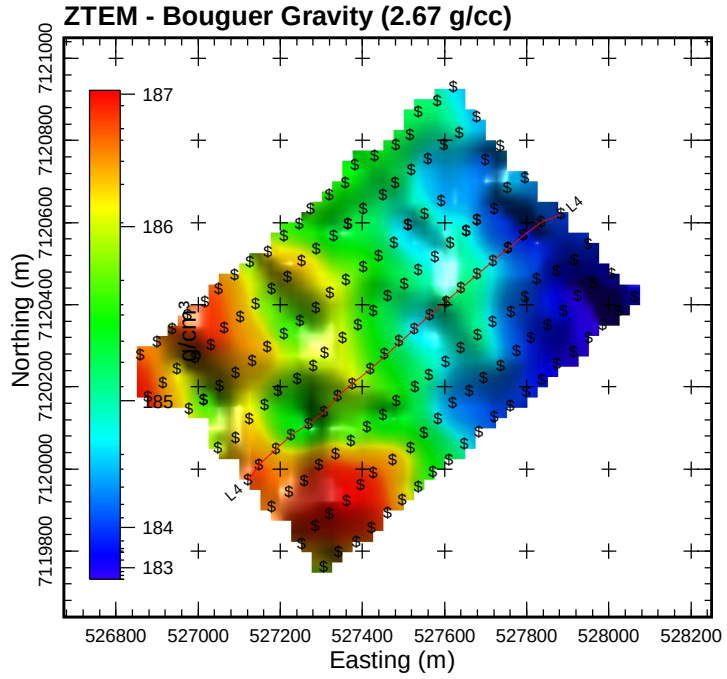
Line L3 >>> VTEM Resistivity Depth Section



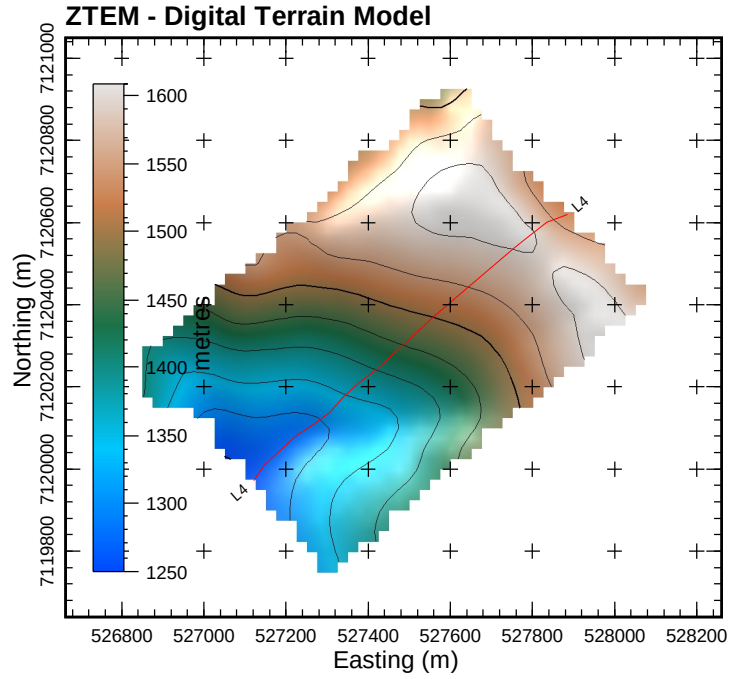
ZTEM - Magnetics (rtp)



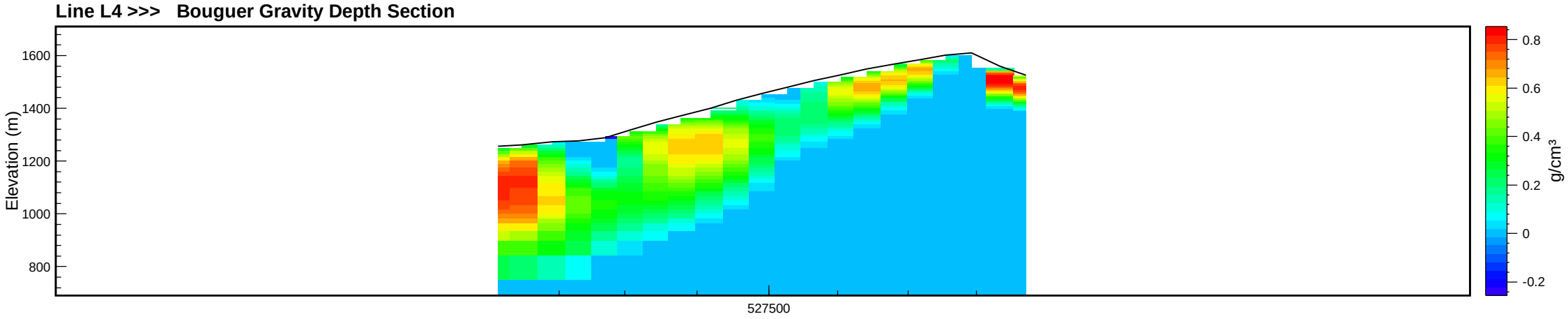
ZTEM - Bouguer Gravity (2.67 g/cc)



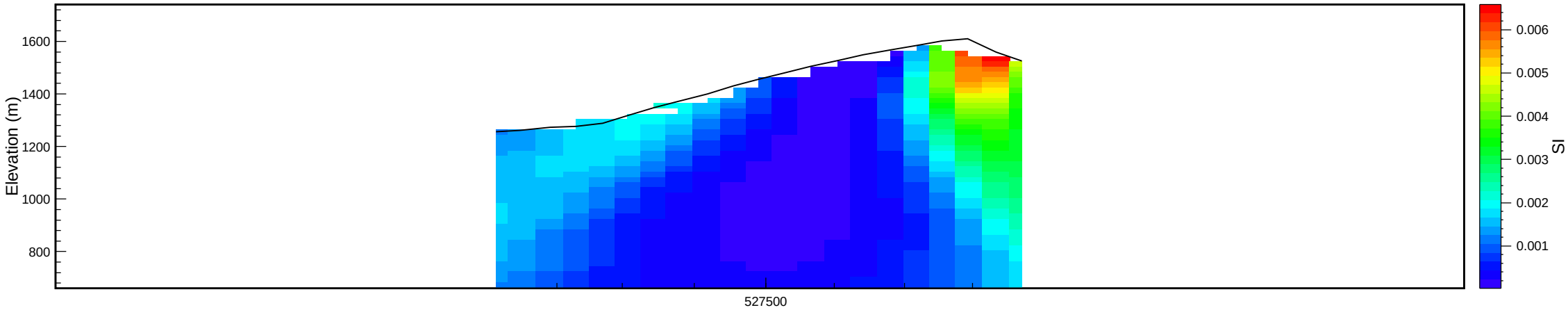
ZTEM - Digital Terrain Model



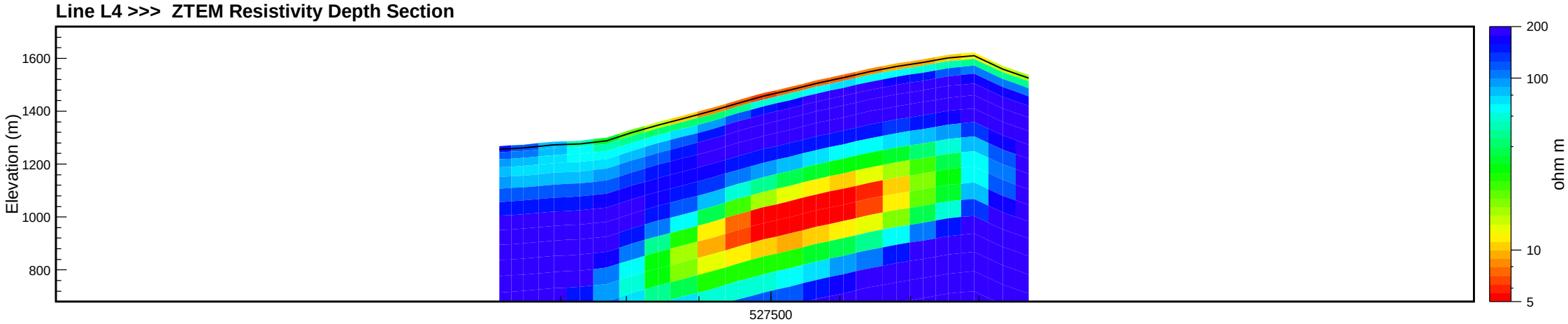
Line L4 >>> Bouguer Gravity Depth Section



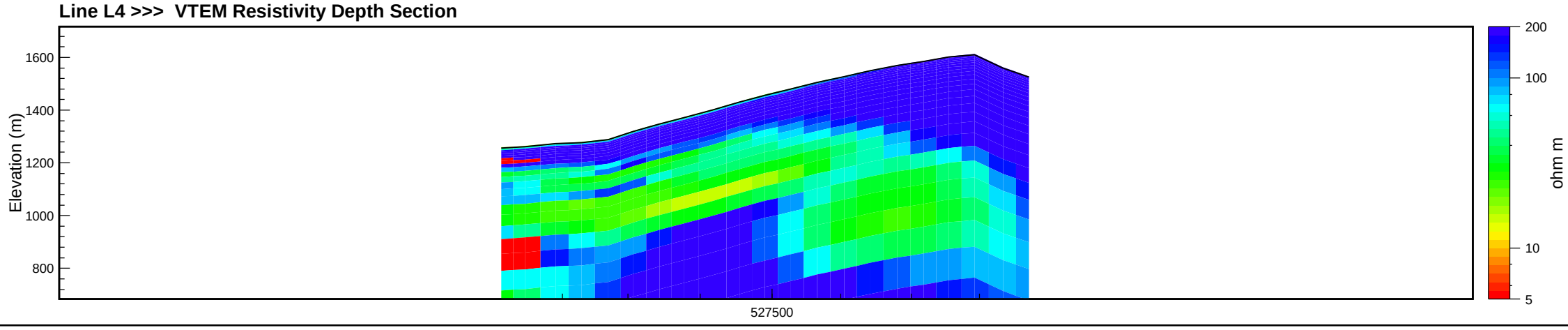
Line L4 >>> Magnetic Susceptibility Depth Section



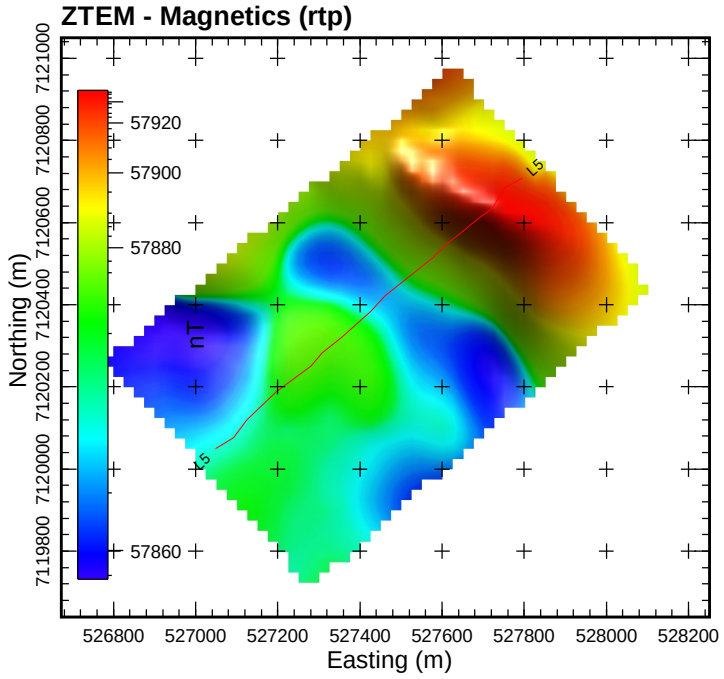
Line L4 >>> ZTEM Resistivity Depth Section



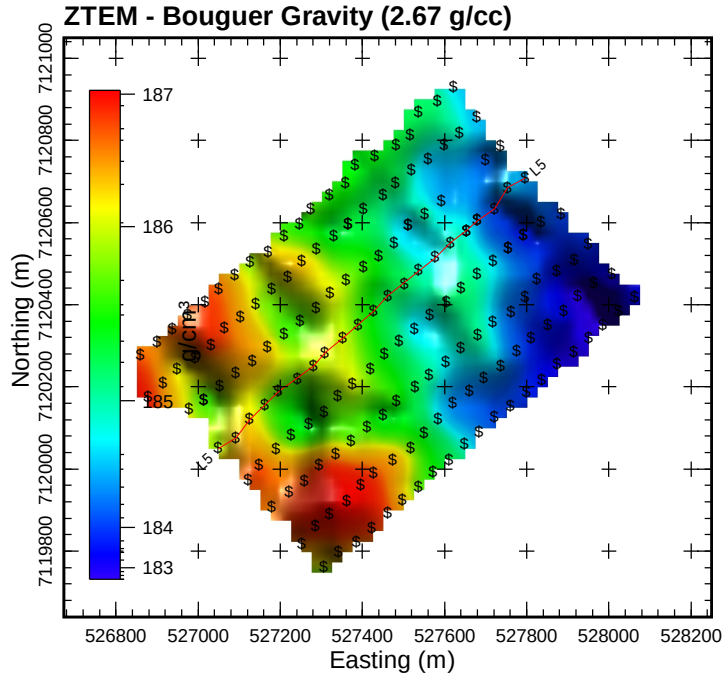
Line L4 >>> VTEM Resistivity Depth Section



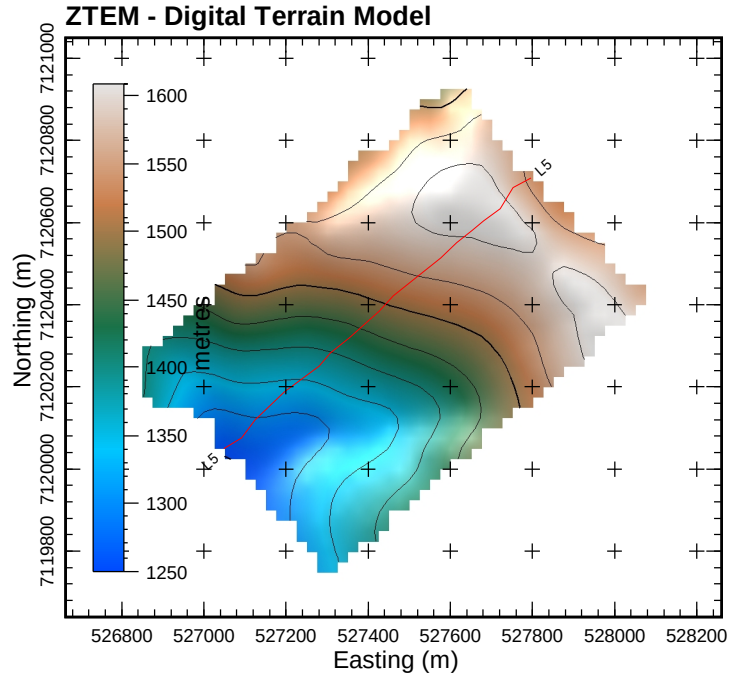
ZTEM - Magnetics (rtp)



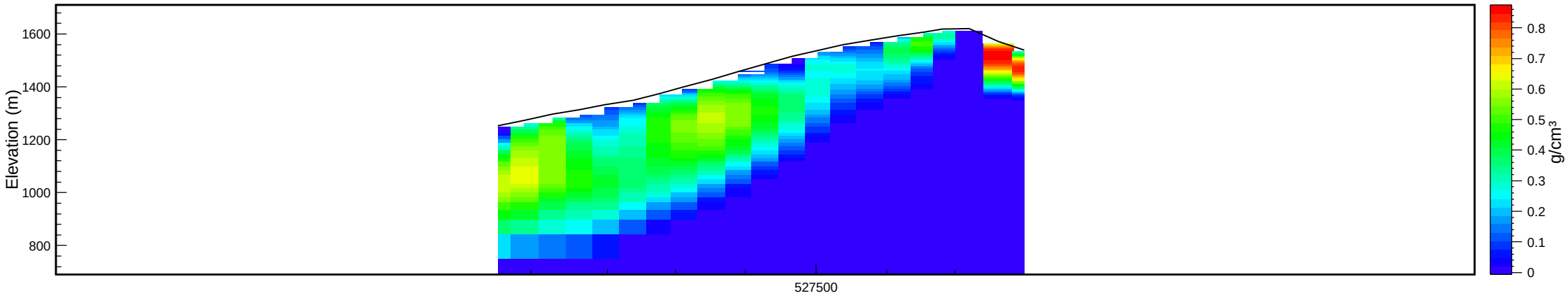
ZTEM - Bouguer Gravity (2.67 g/cc)



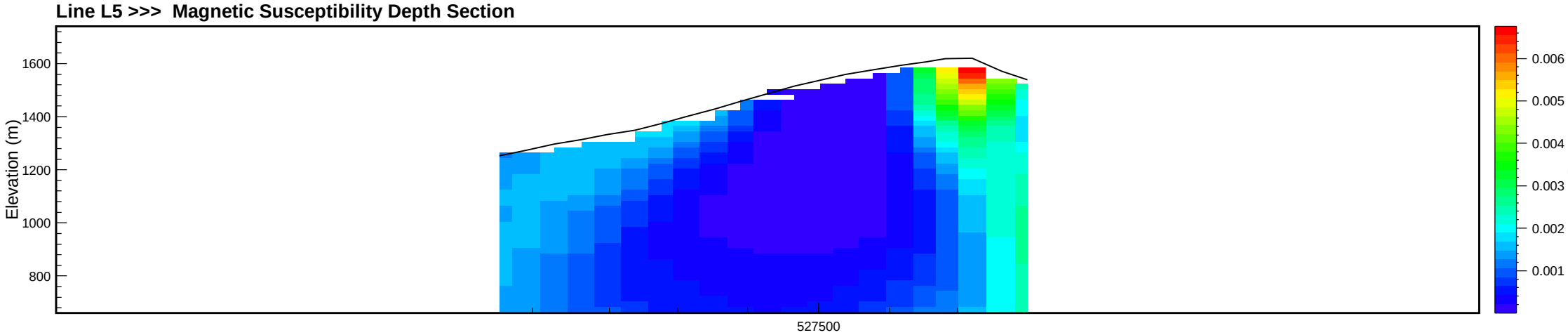
ZTEM - Digital Terrain Model



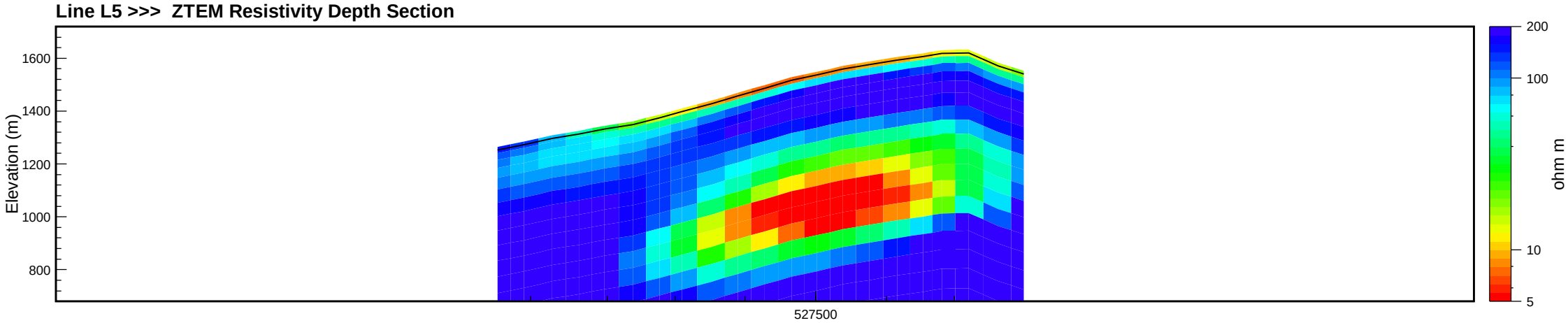
Line L5 >>> Bouguer Gravity Depth Section



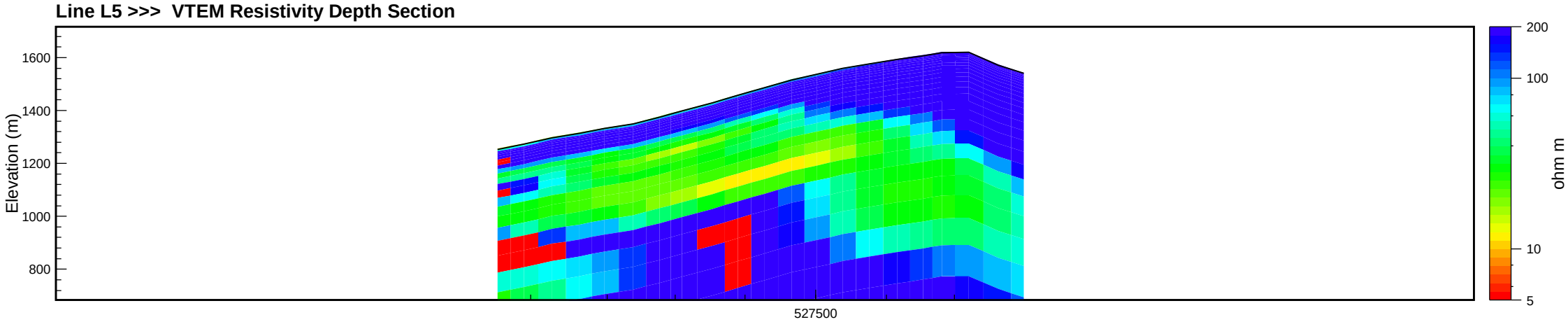
Line L5 >>> Magnetic Susceptibility Depth Section



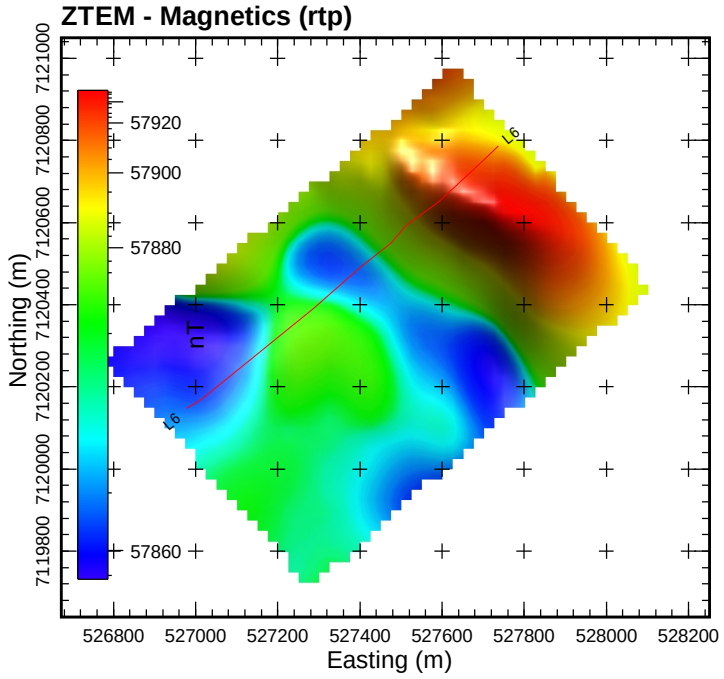
Line L5 >>> ZTEM Resistivity Depth Section



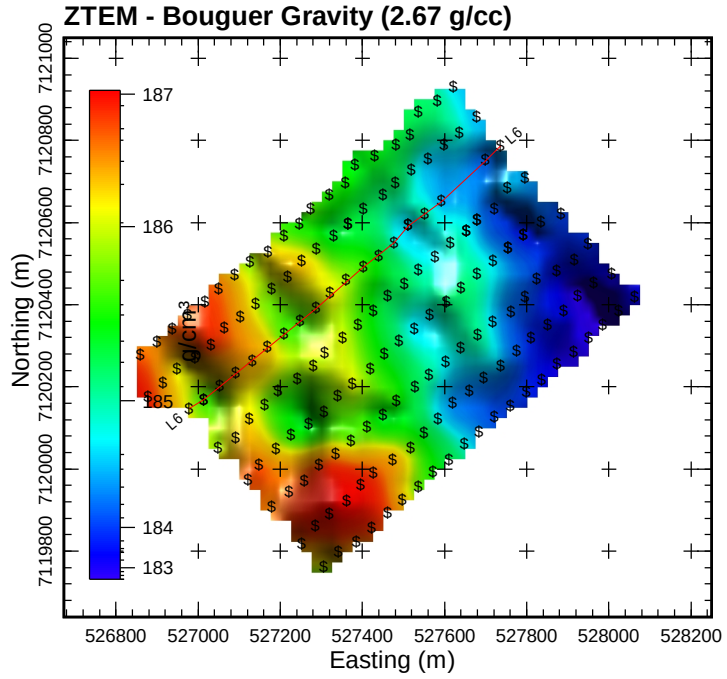
Line L5 >>> VTEM Resistivity Depth Section



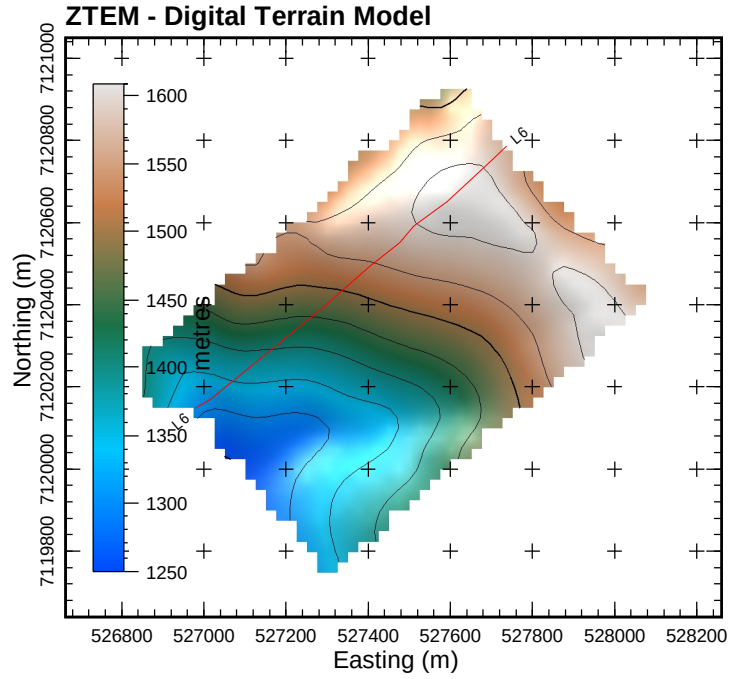
ZTEM - Magnetics (rtp)



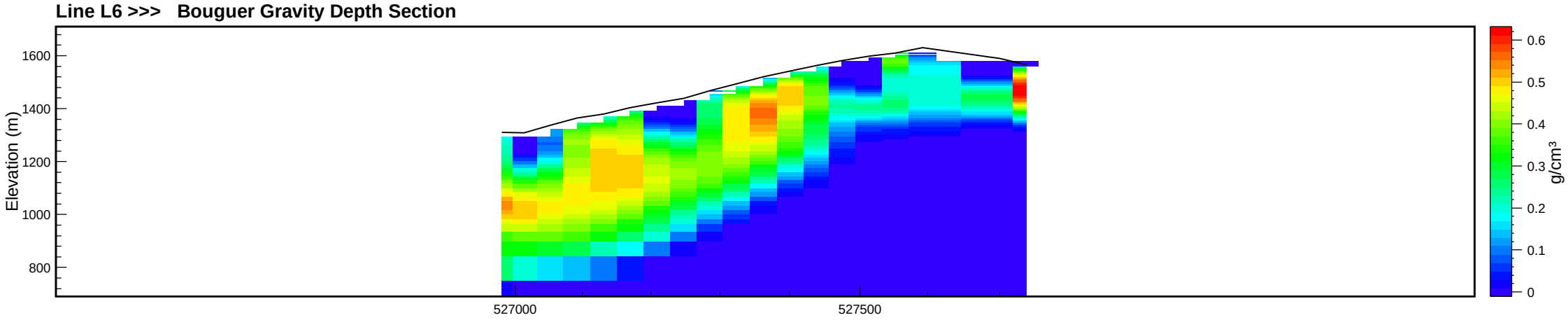
ZTEM - Bouguer Gravity (2.67 g/cc)



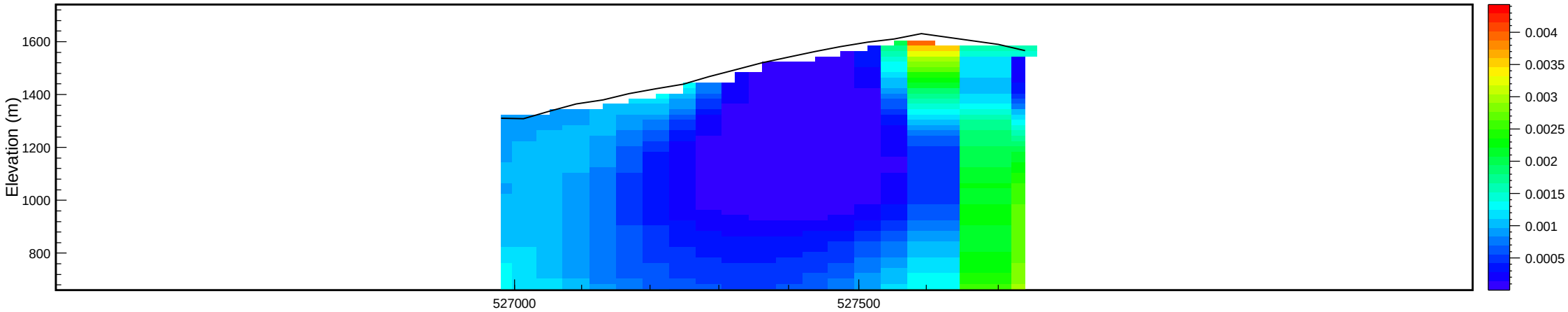
ZTEM - Digital Terrain Model



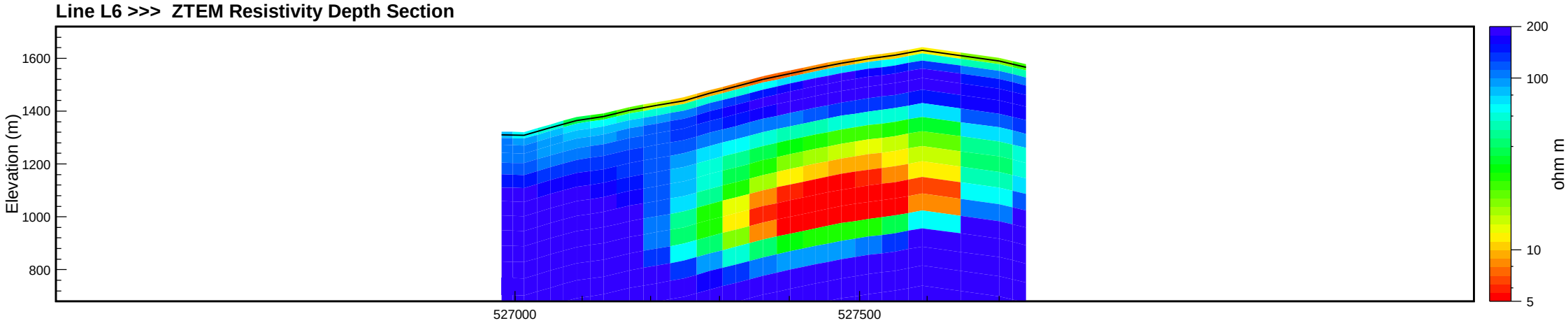
Line L6 >>> Bouguer Gravity Depth Section



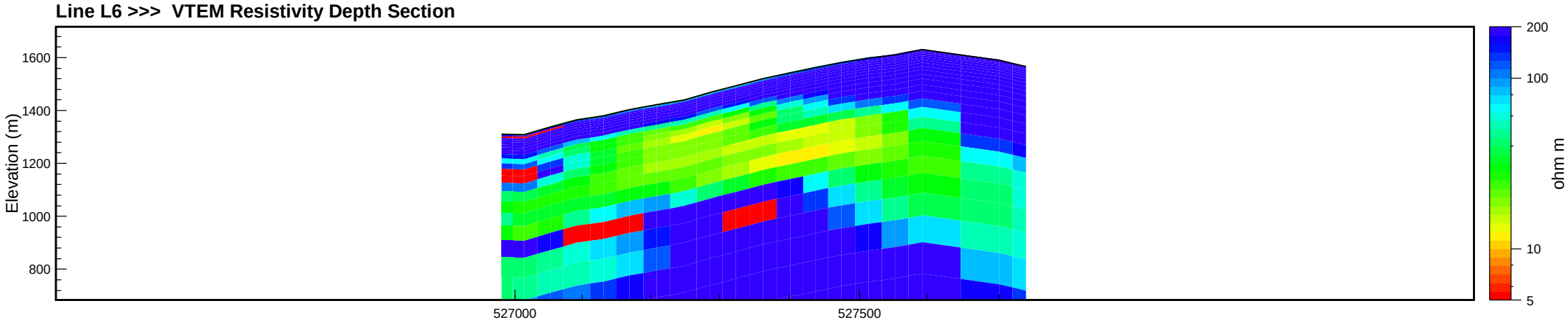
Line L6 >>> Magnetic Susceptibility Depth Section



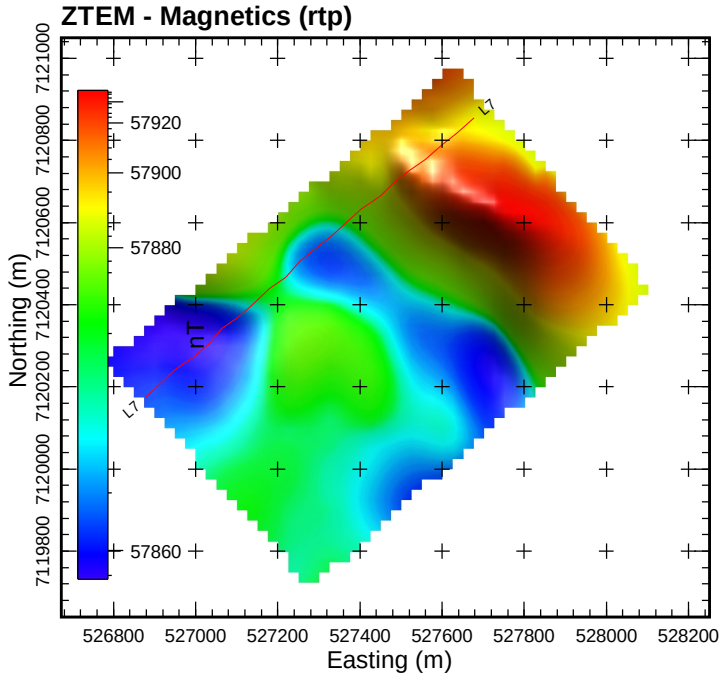
Line L6 >>> ZTEM Resistivity Depth Section



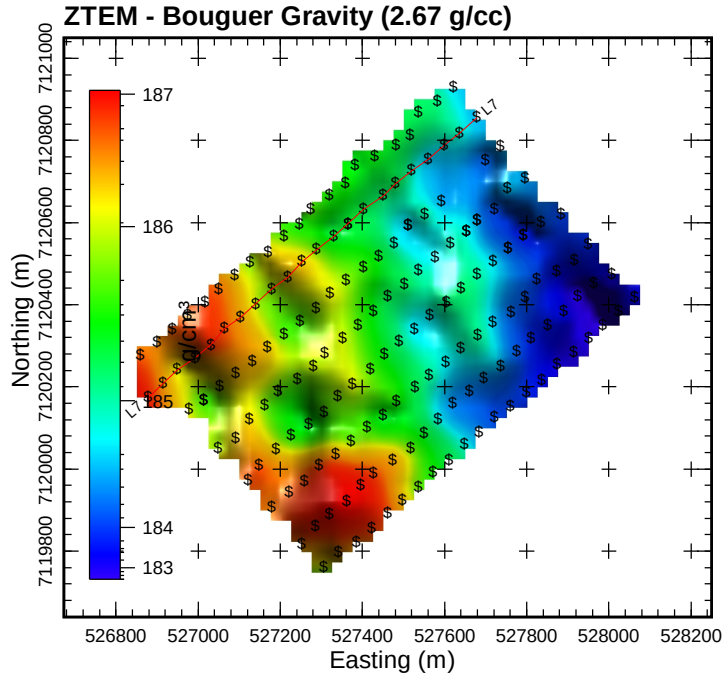
Line L6 >>> VTEM Resistivity Depth Section



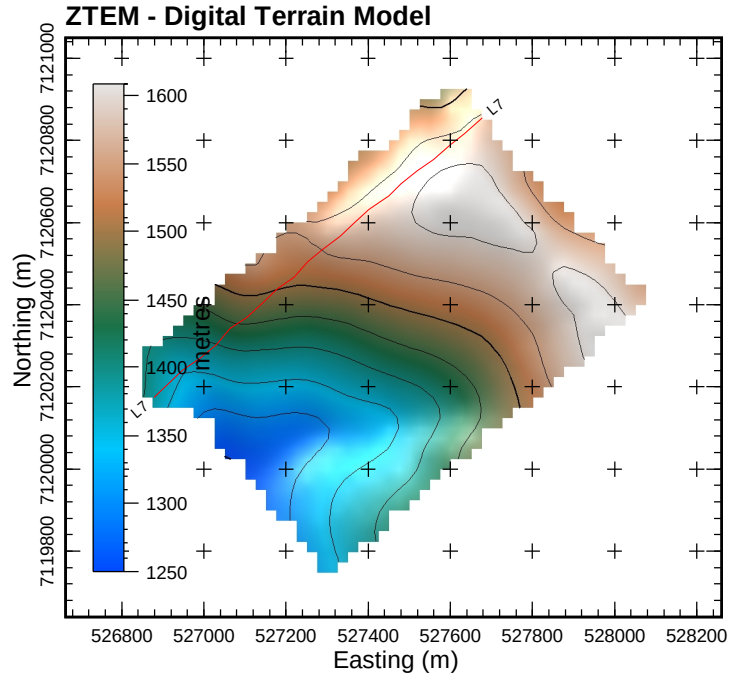
ZTEM - Magnetics (rtp)



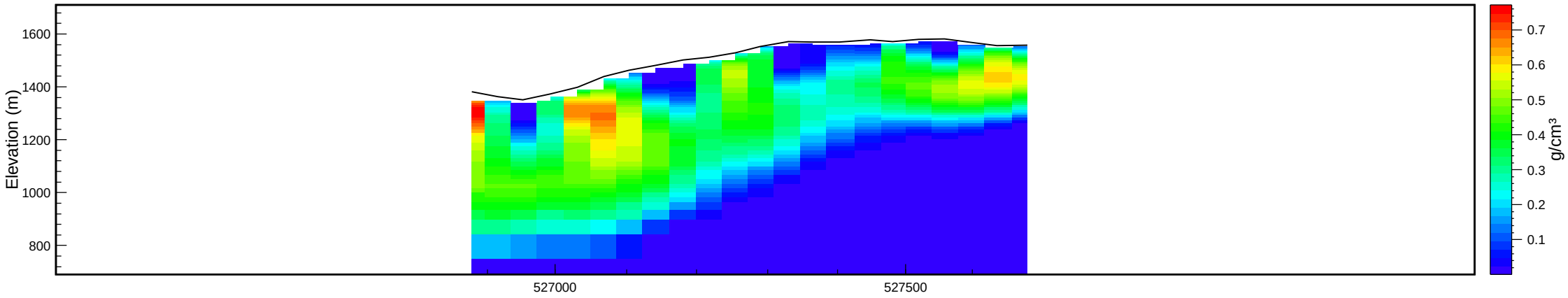
ZTEM - Bouguer Gravity (2.67 g/cc)



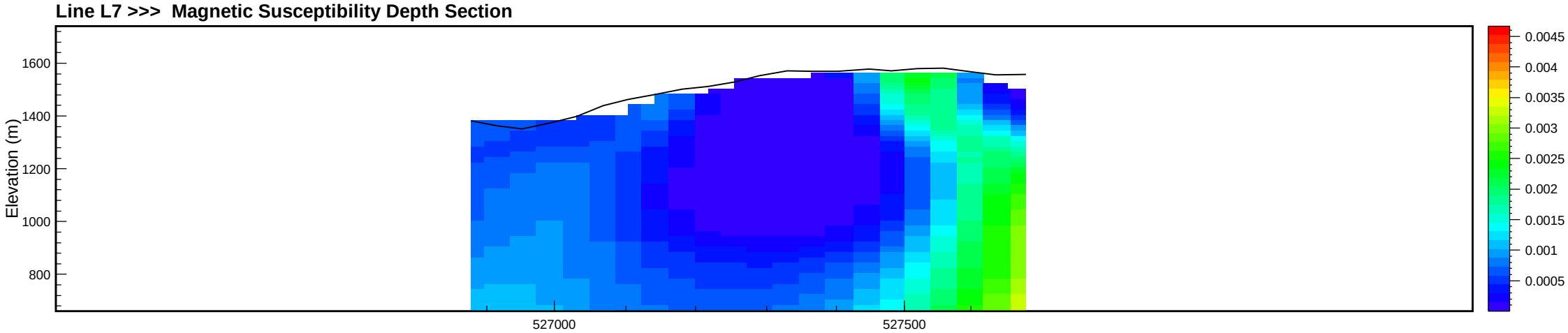
ZTEM - Digital Terrain Model



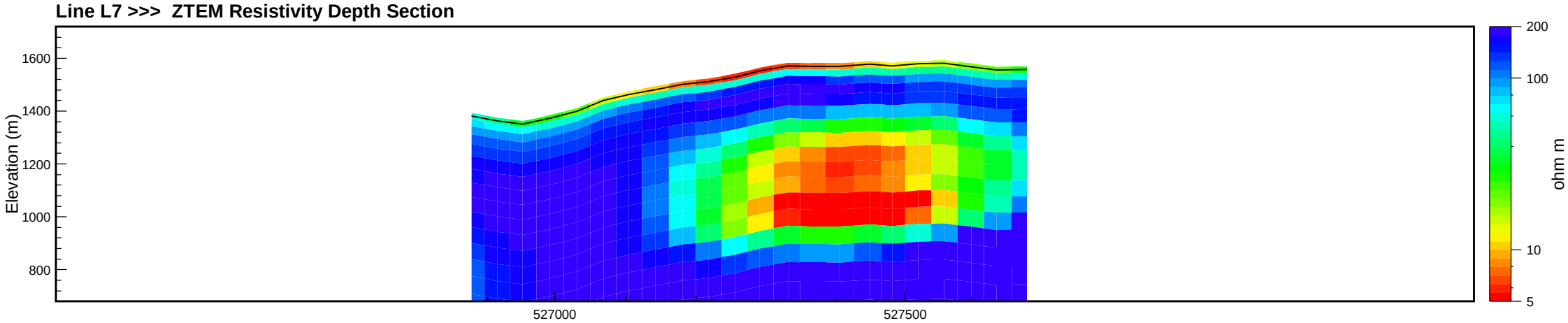
Line L7 >>> Bouguer Gravity Depth Section



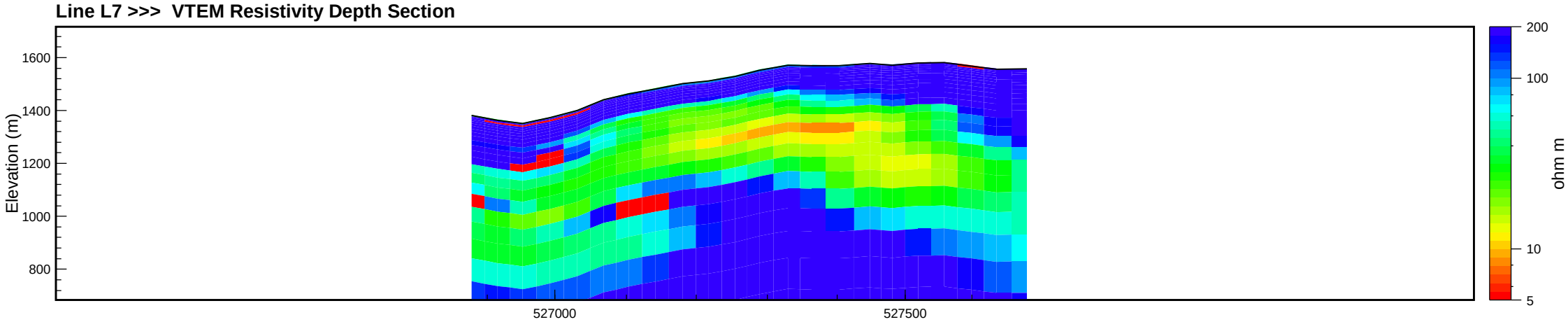
Line L7 >>> Magnetic Susceptibility Depth Section



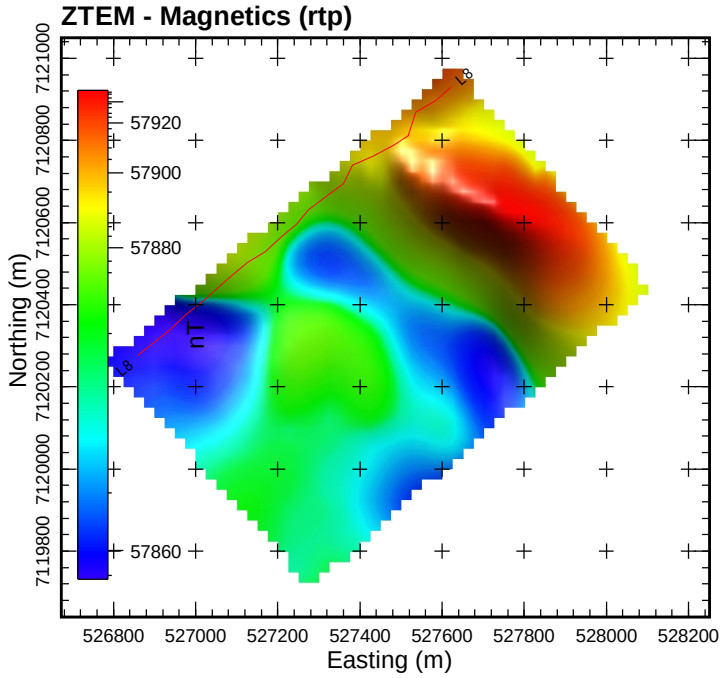
Line L7 >>> ZTEM Resistivity Depth Section



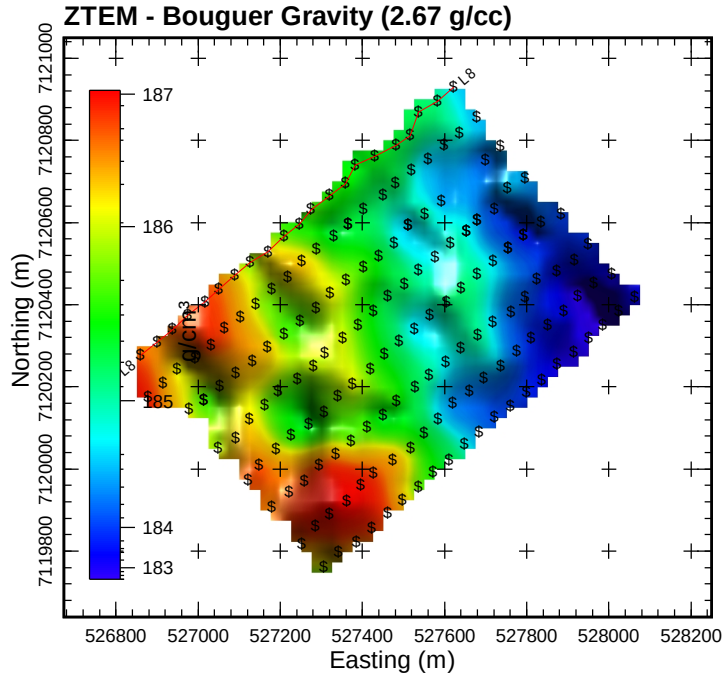
Line L7 >>> VTEM Resistivity Depth Section



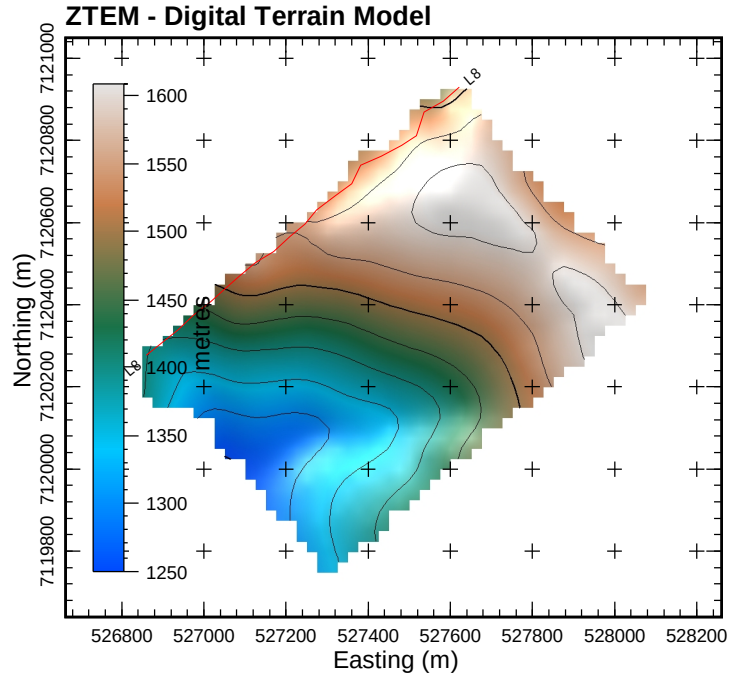
ZTEM - Magnetics (rtp)



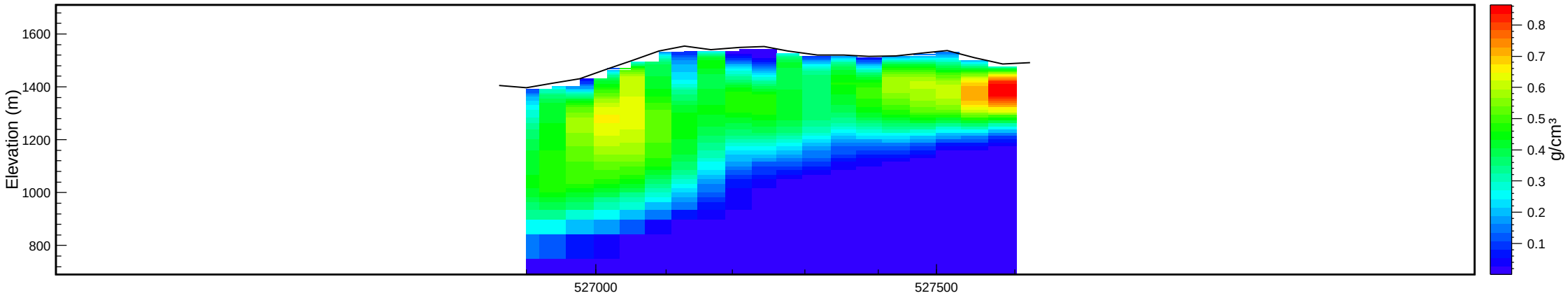
ZTEM - Bouguer Gravity (2.67 g/cc)



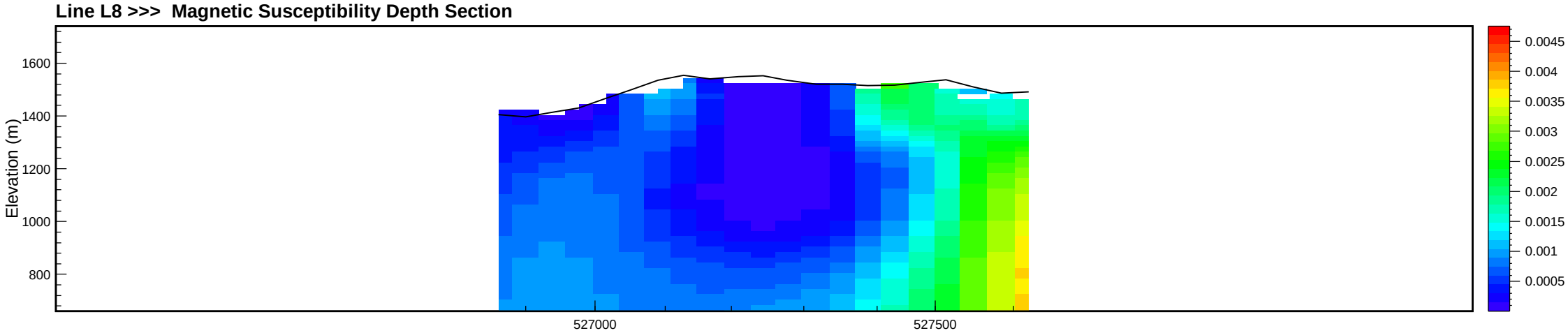
ZTEM - Digital Terrain Model



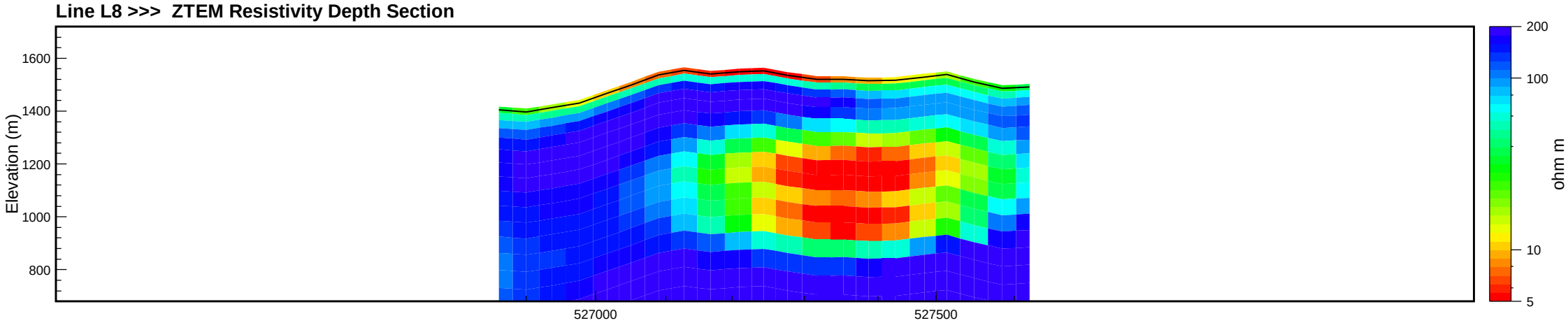
Line L8 >>> Bouguer Gravity Depth Section



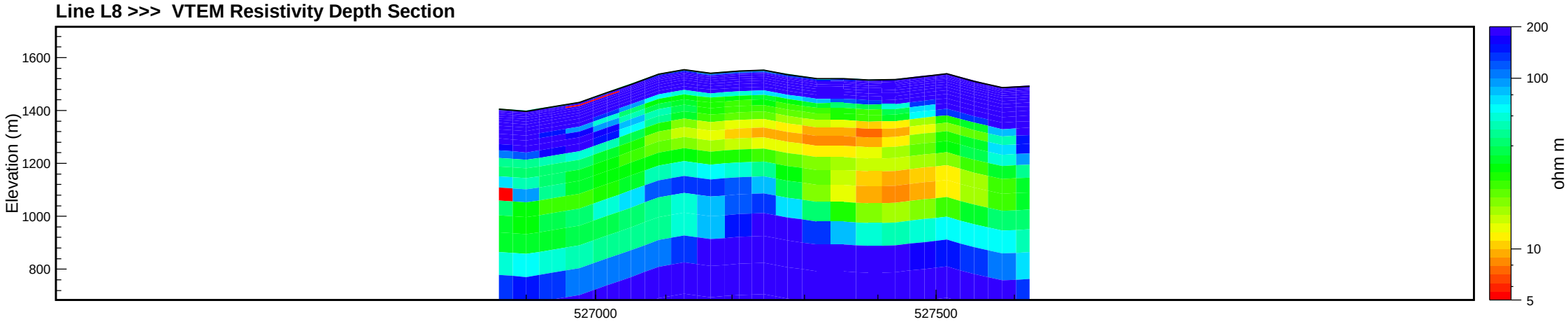
Line L8 >>> Magnetic Susceptibility Depth Section



Line L8 >>> ZTEM Resistivity Depth Section



Line L8 >>> VTEM Resistivity Depth Section



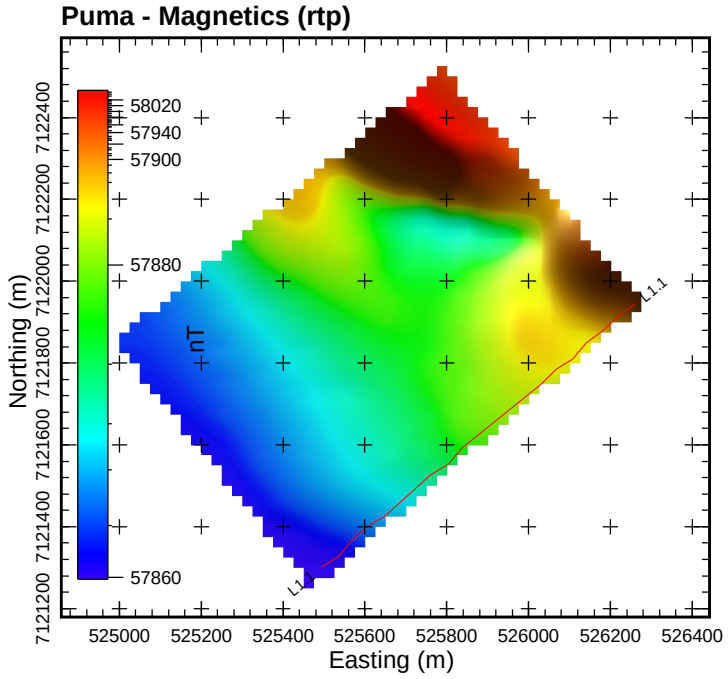
F3: PUMA GRID MULTIPLOTS

Lines 1.2, 2.2, 3.2, 4.2, 5.2, 6.2, 7.2 and 8.2

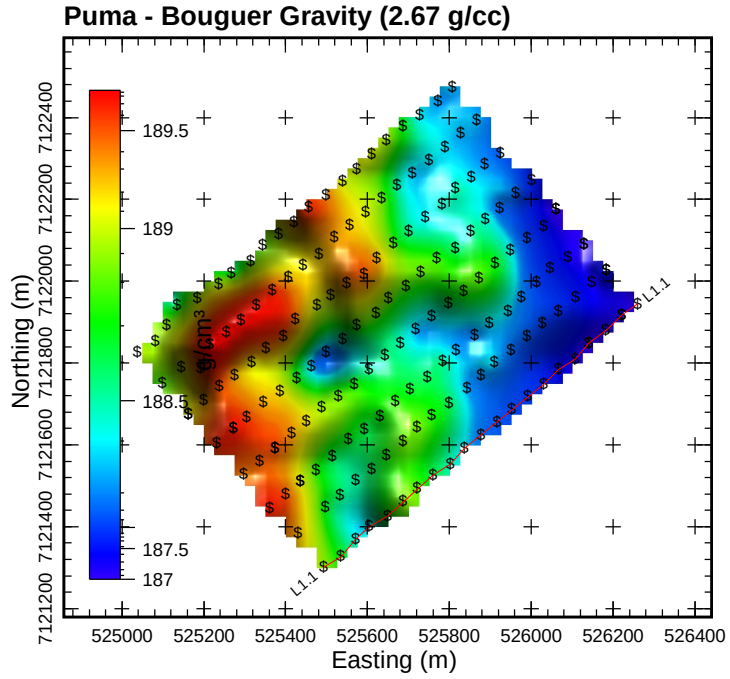
SECTIONS:

- Gravity from voxel model
- Magnetic susceptibility from voxel model of VTEM magnetics
- ZTEM conductivity from voxel model
- VTEM conductivity from voxel model

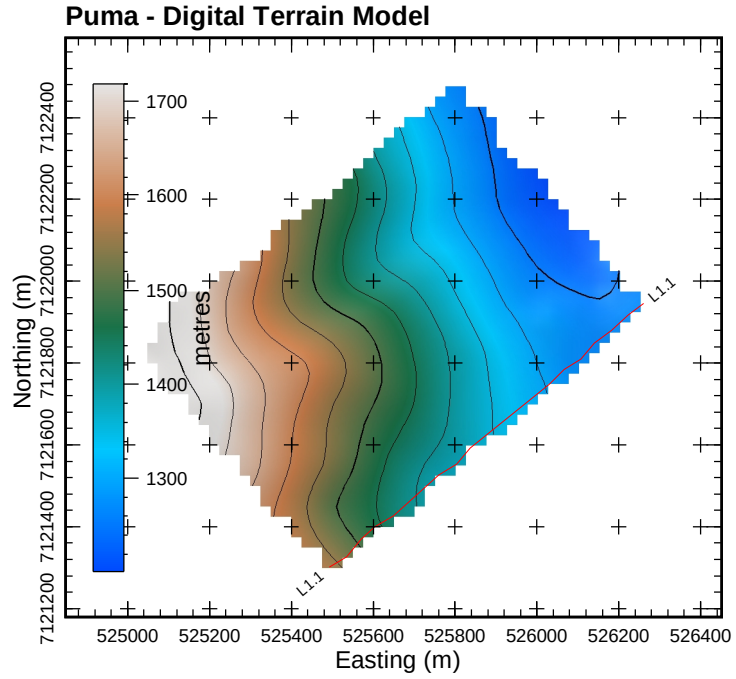
Puma - Magnetics (rtp)



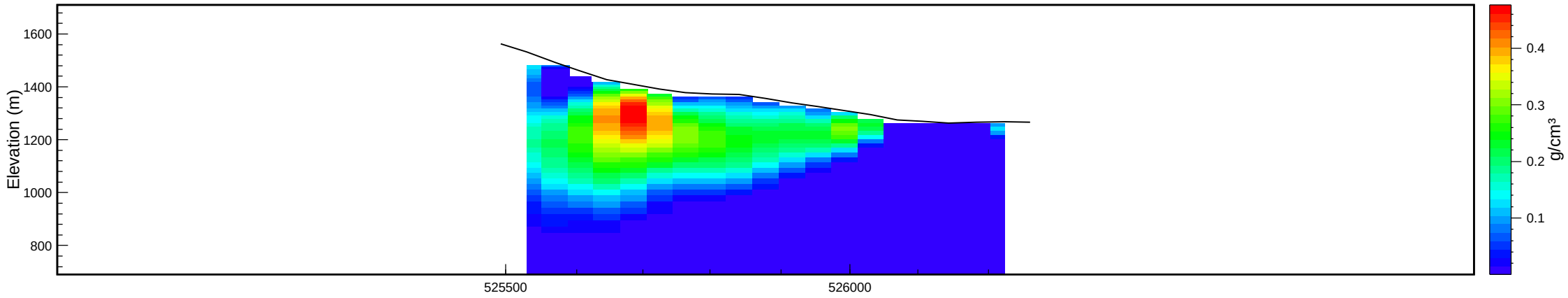
Puma - Bouguer Gravity (2.67 g/cc)



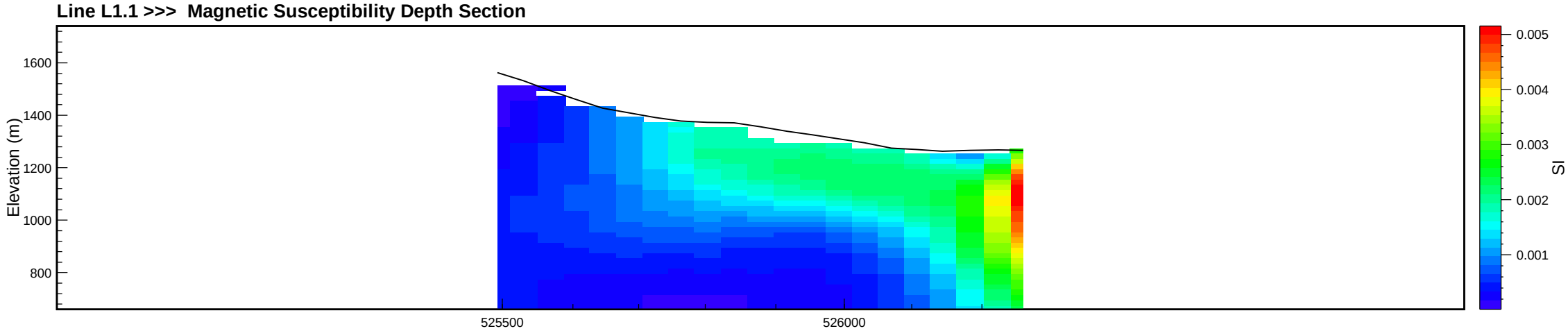
Puma - Digital Terrain Model



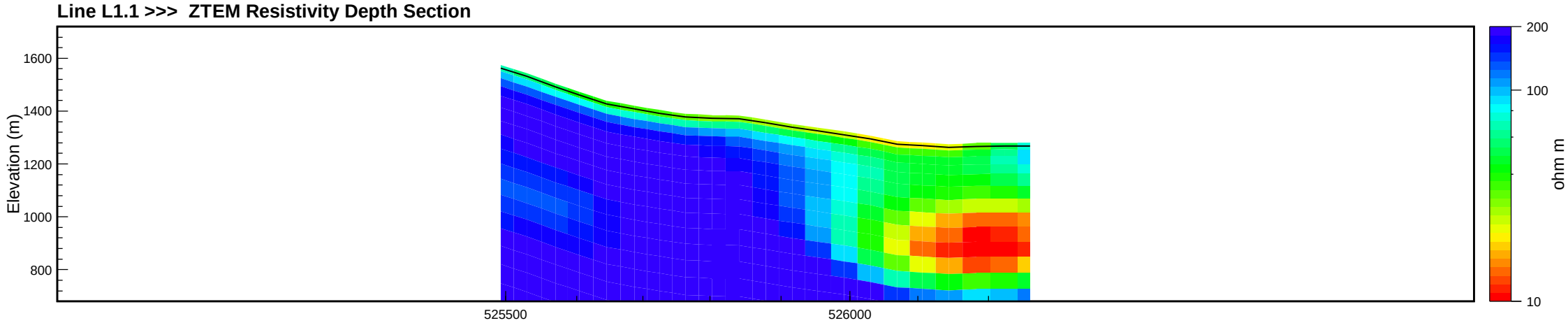
Line L1.1 >>> Bouguer Gravity Depth Section



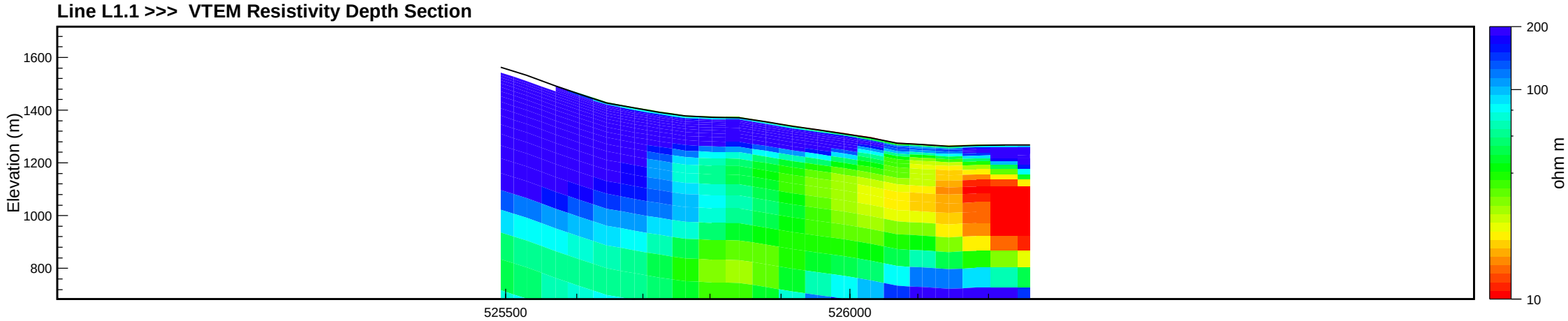
Line L1.1 >>> Magnetic Susceptibility Depth Section



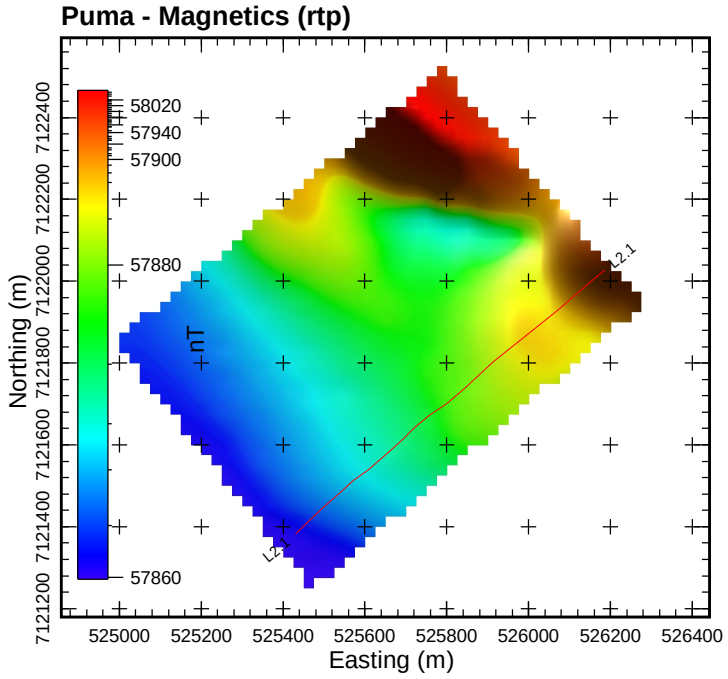
Line L1.1 >>> ZTEM Resistivity Depth Section



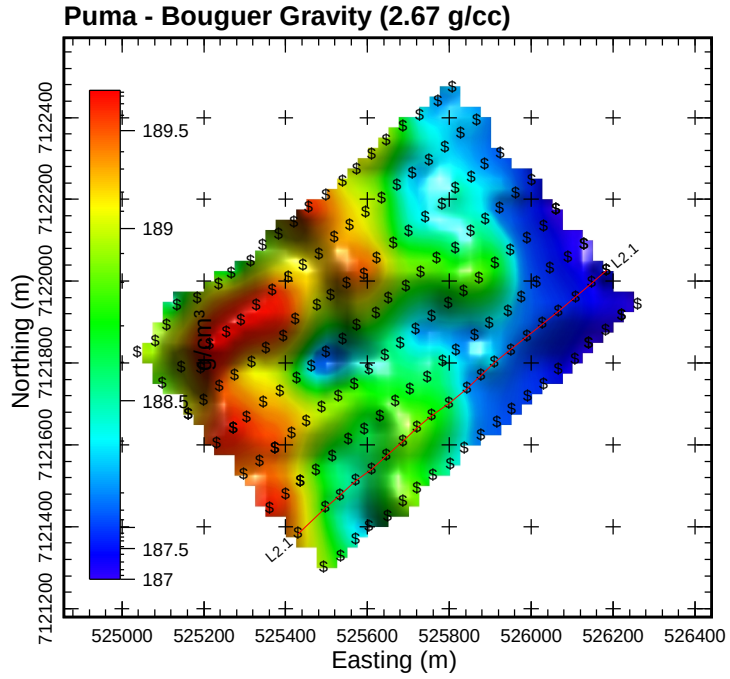
Line L1.1 >>> VTEM Resistivity Depth Section



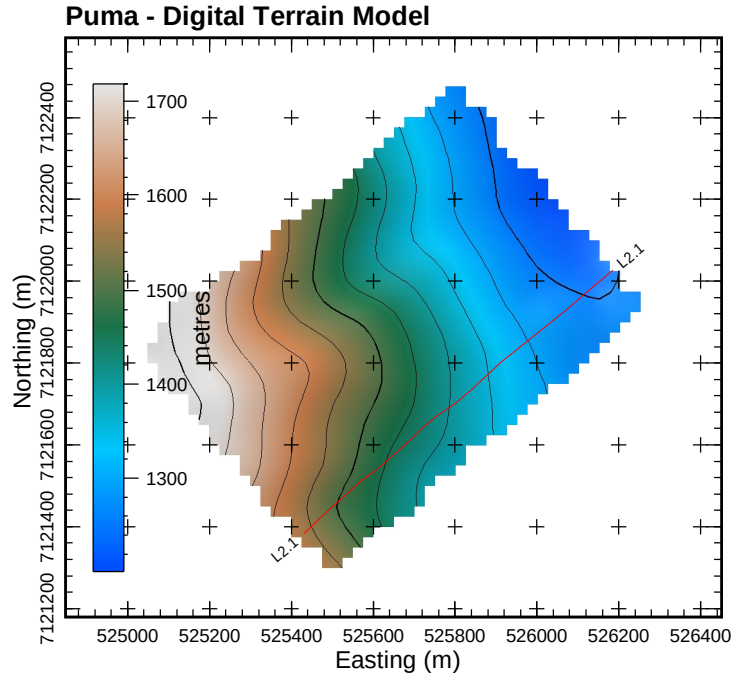
Puma - Magnetics (rtp)



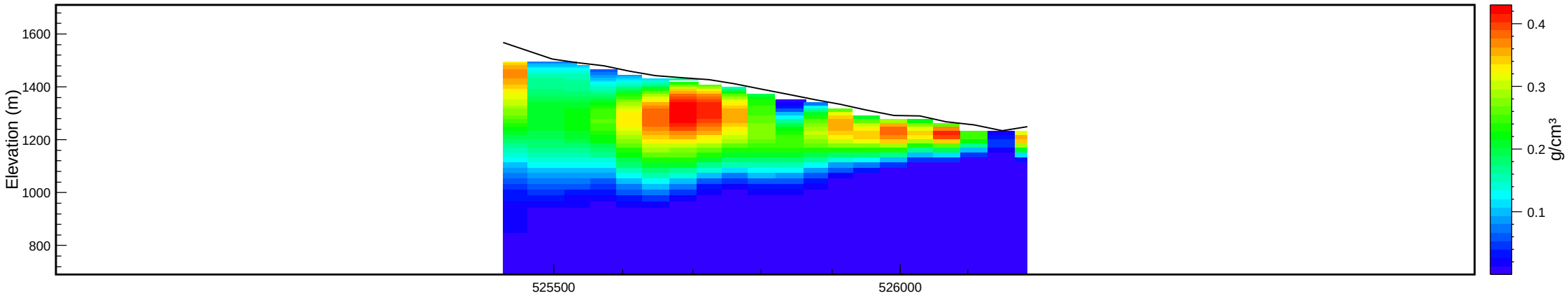
Puma - Bouguer Gravity (2.67 g/cc)



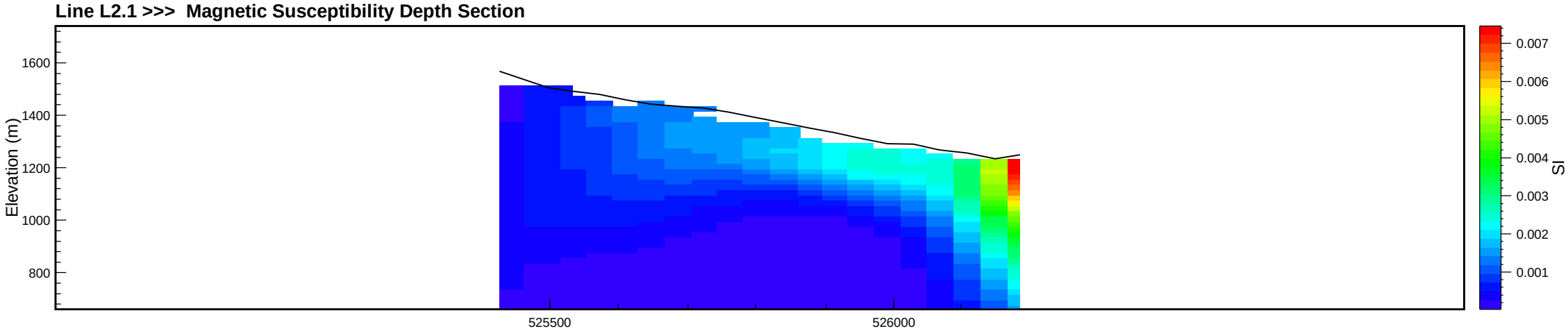
Puma - Digital Terrain Model



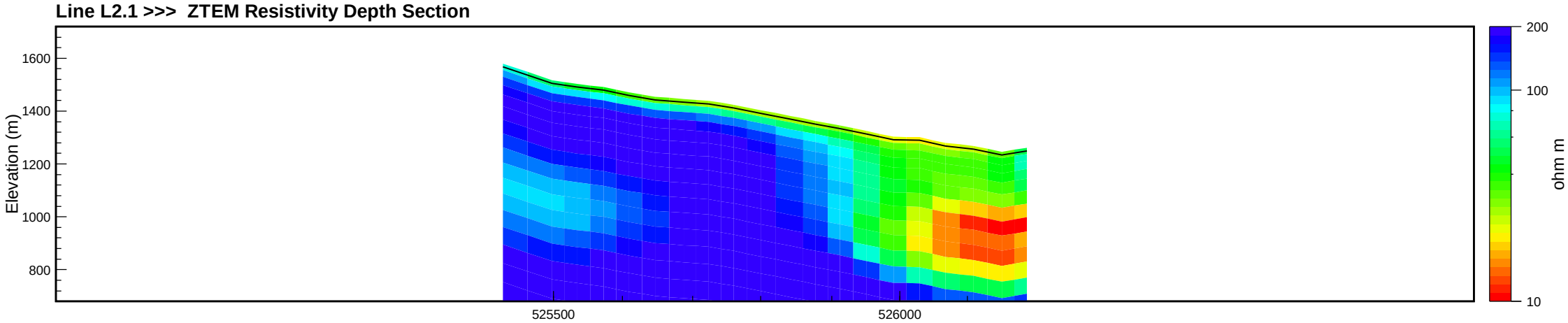
Line L2.1 >>> Bouguer Gravity Depth Section



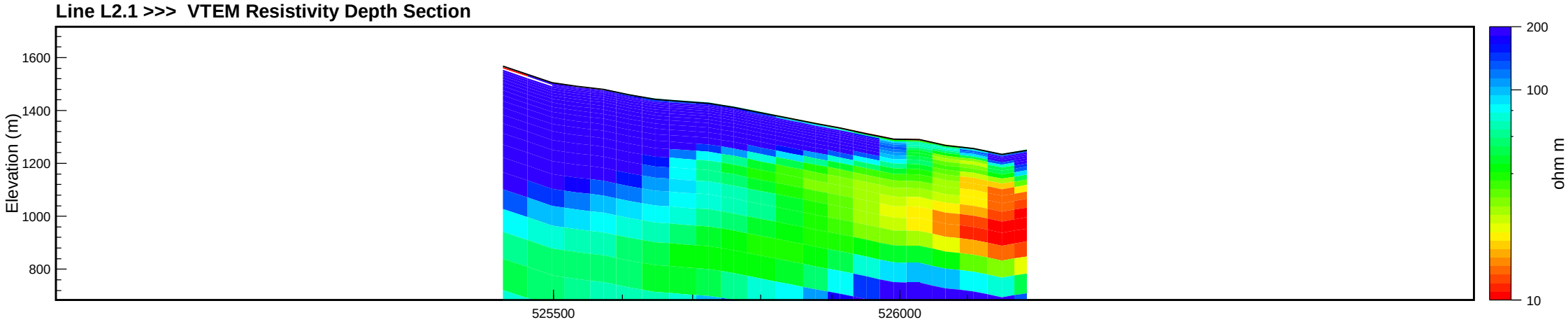
Line L2.1 >>> Magnetic Susceptibility Depth Section



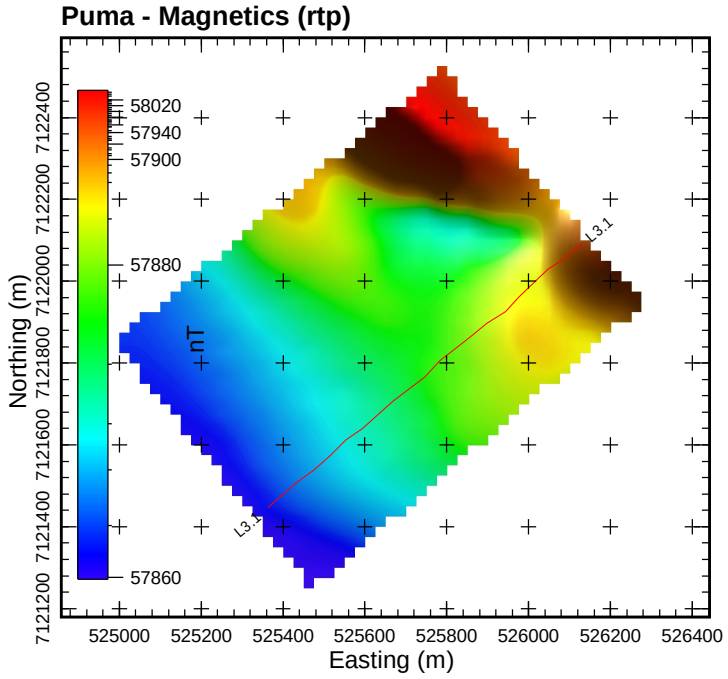
Line L2.1 >>> ZTEM Resistivity Depth Section



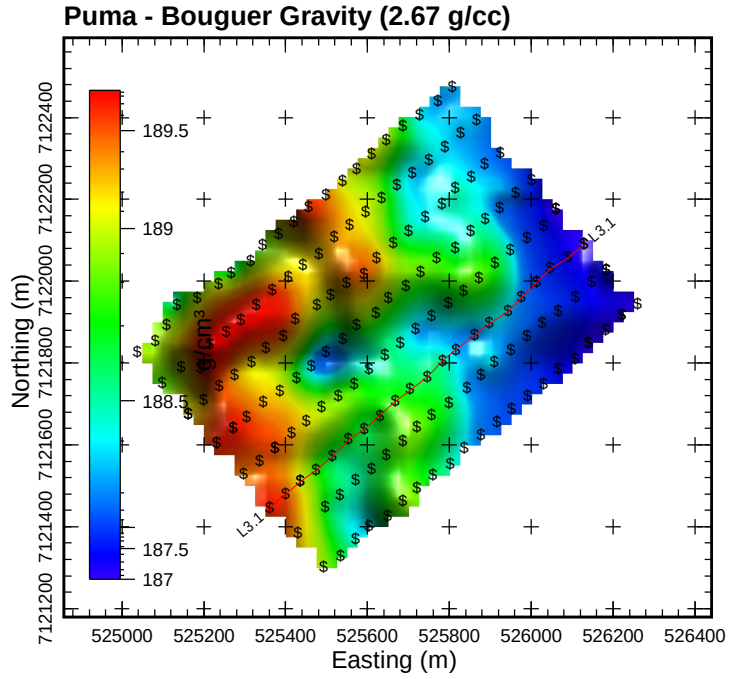
Line L2.1 >>> VTEM Resistivity Depth Section



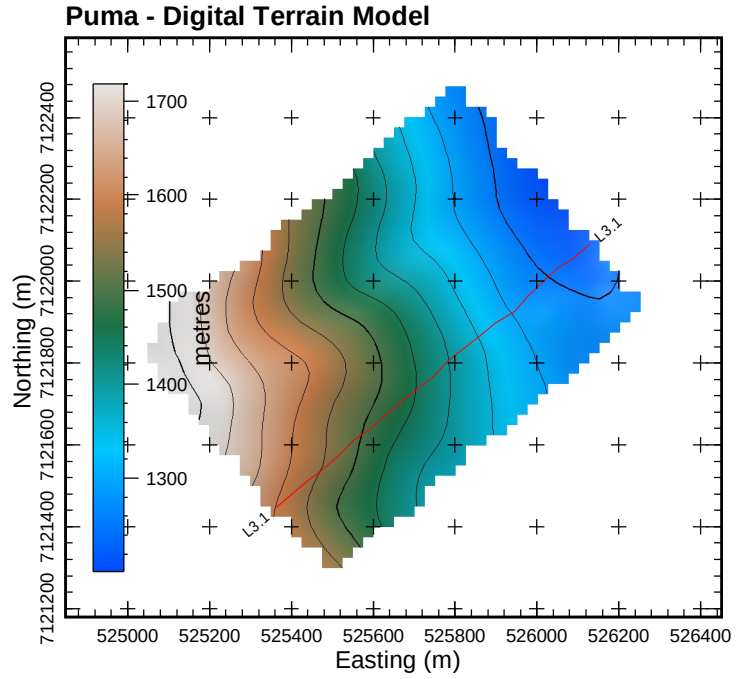
Puma - Magnetics (rtp)



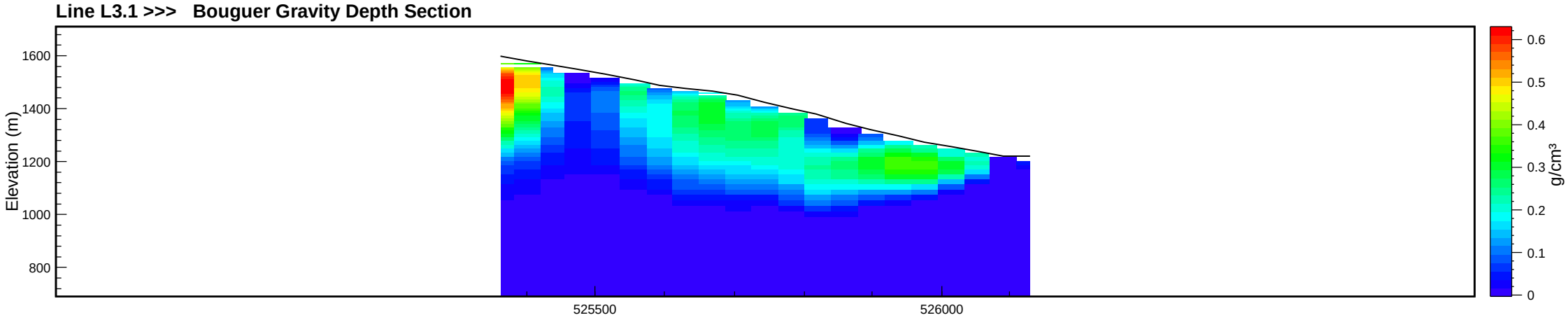
Puma - Bouguer Gravity (2.67 g/cc)



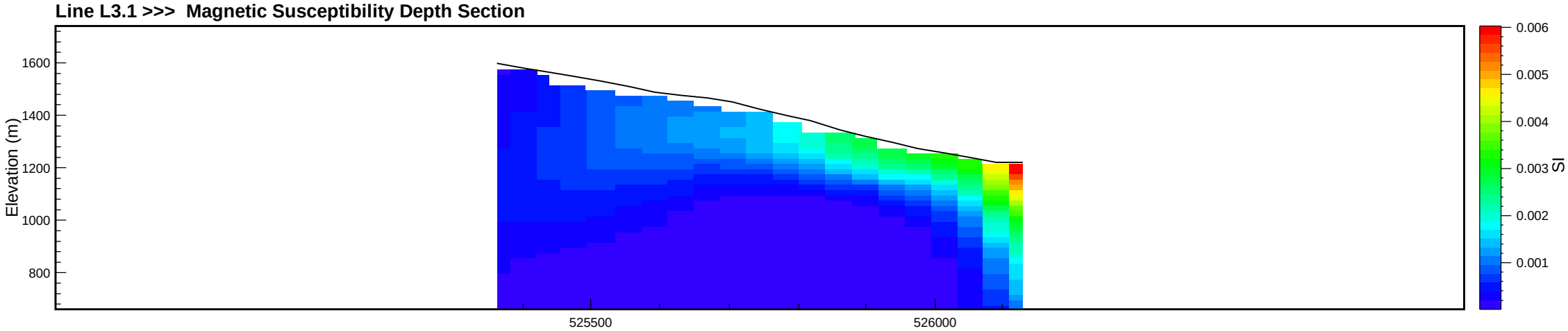
Puma - Digital Terrain Model



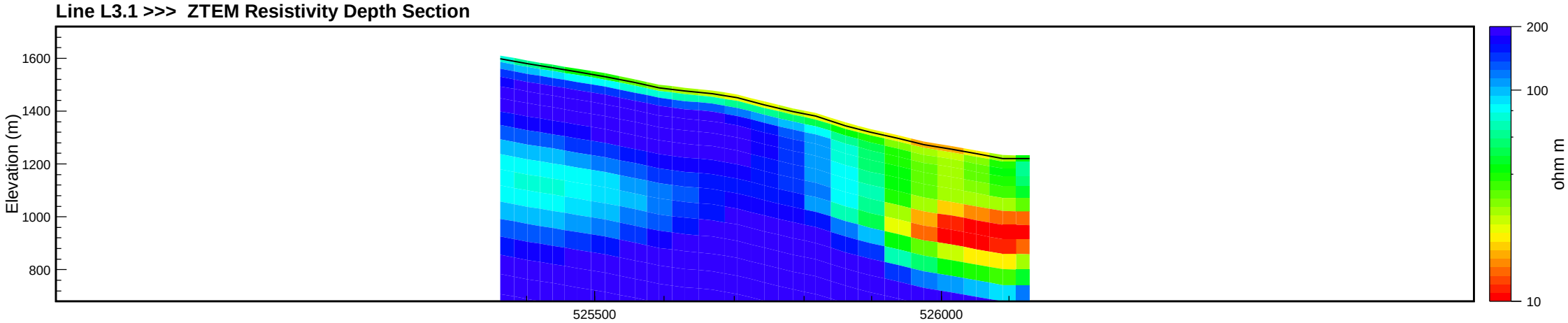
Line L3.1 >>> Bouguer Gravity Depth Section



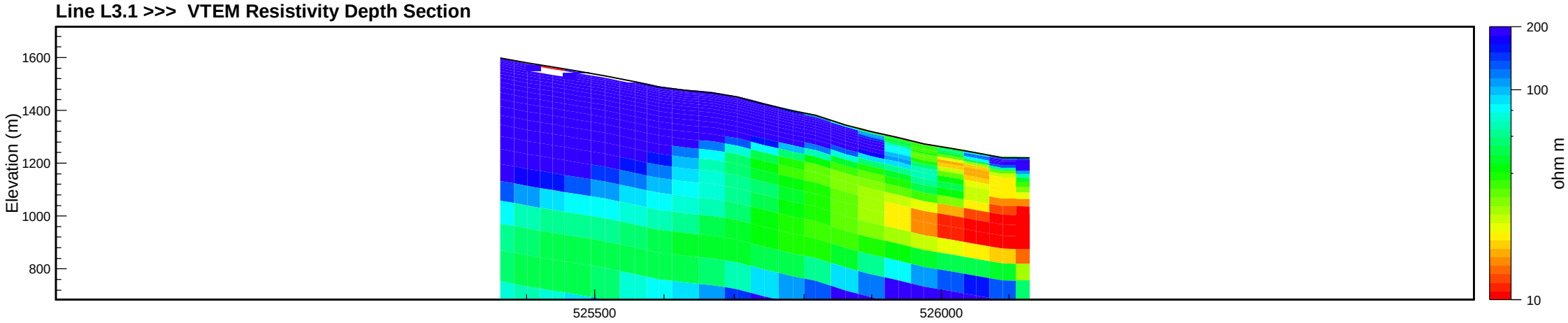
Line L3.1 >>> Magnetic Susceptibility Depth Section



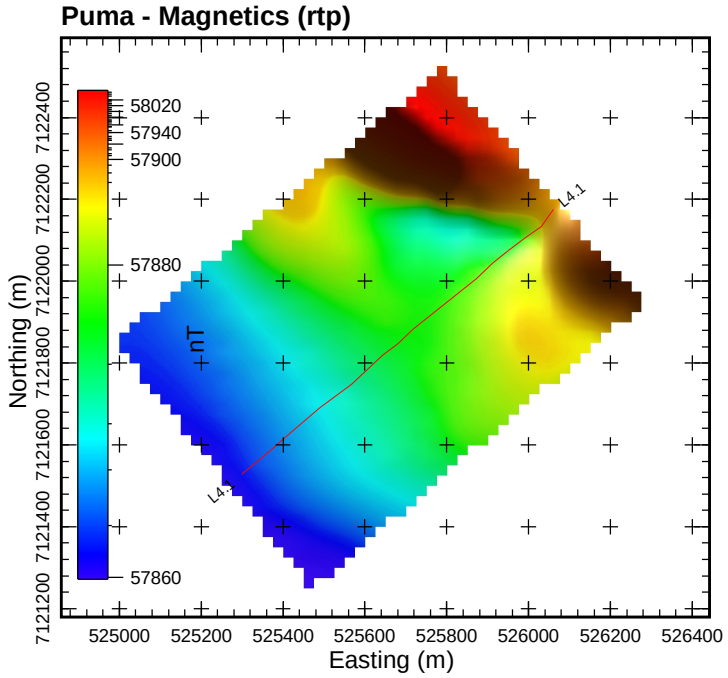
Line L3.1 >>> ZTEM Resistivity Depth Section



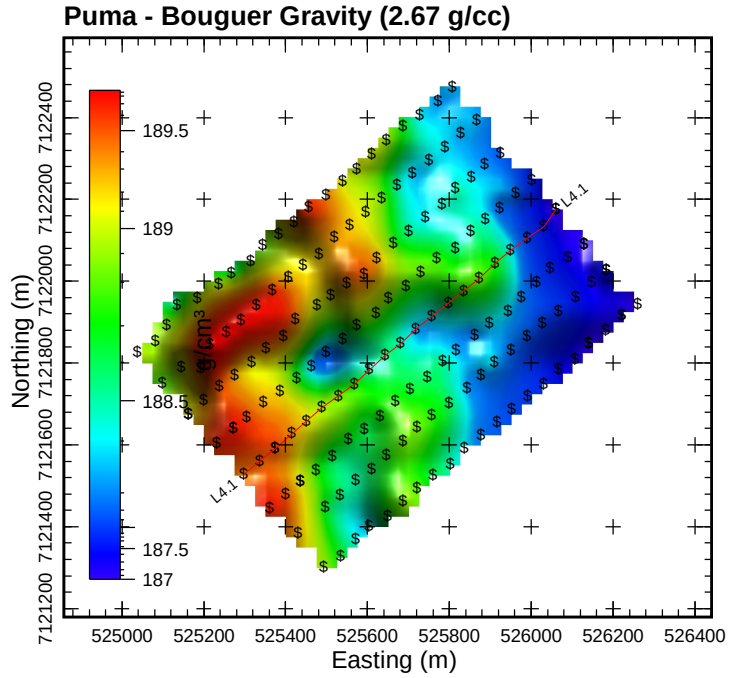
Line L3.1 >>> VTEM Resistivity Depth Section



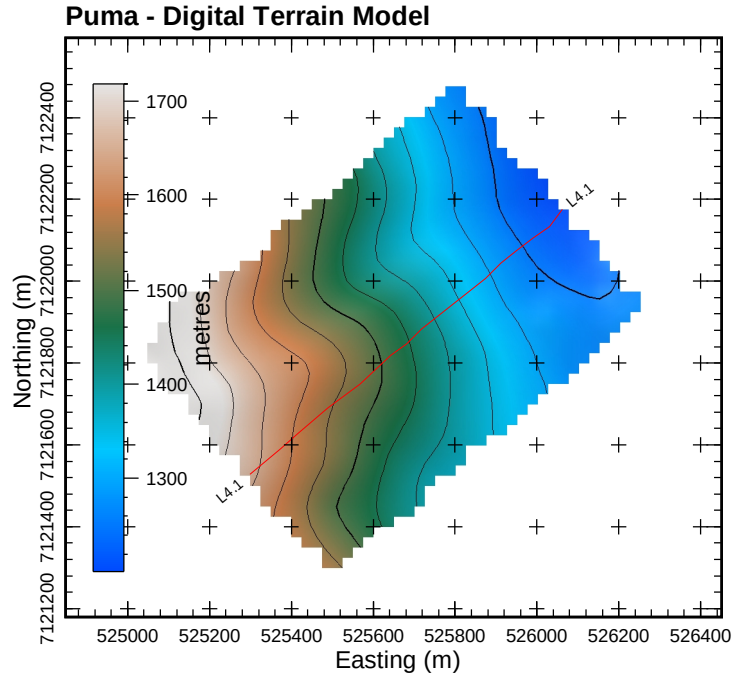
Puma - Magnetics (rtp)



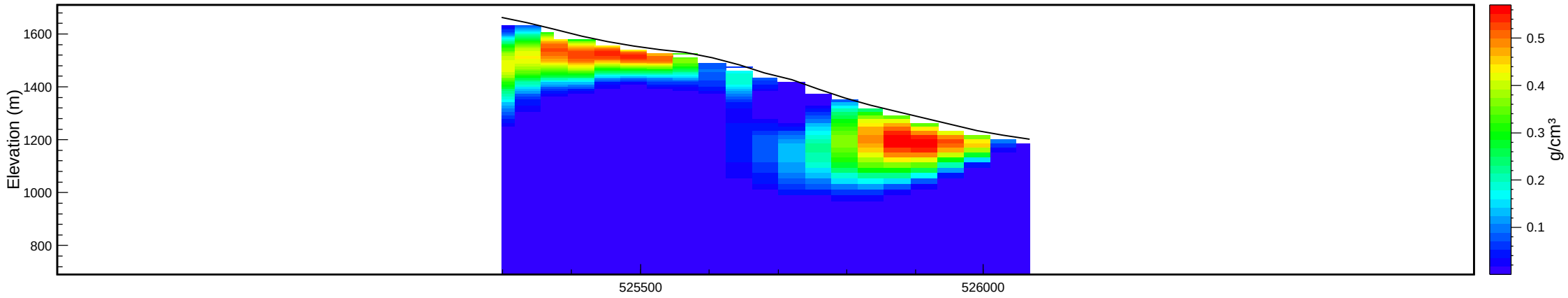
Puma - Bouguer Gravity (2.67 g/cc)



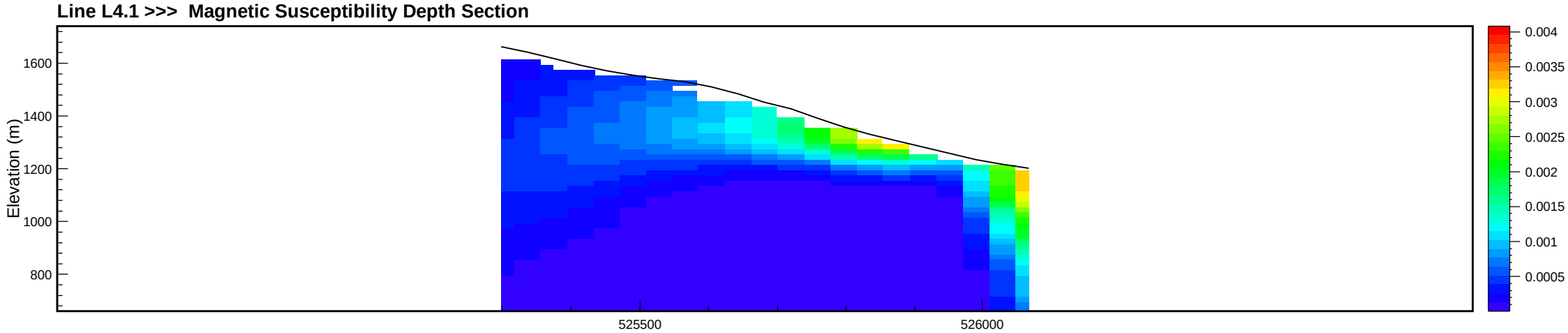
Puma - Digital Terrain Model



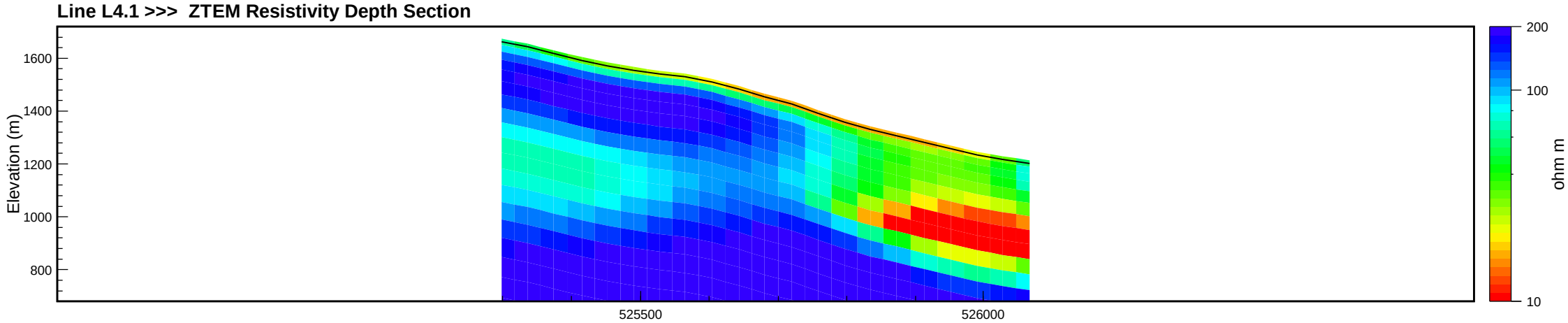
Line L4.1 >>> Bouguer Gravity Depth Section



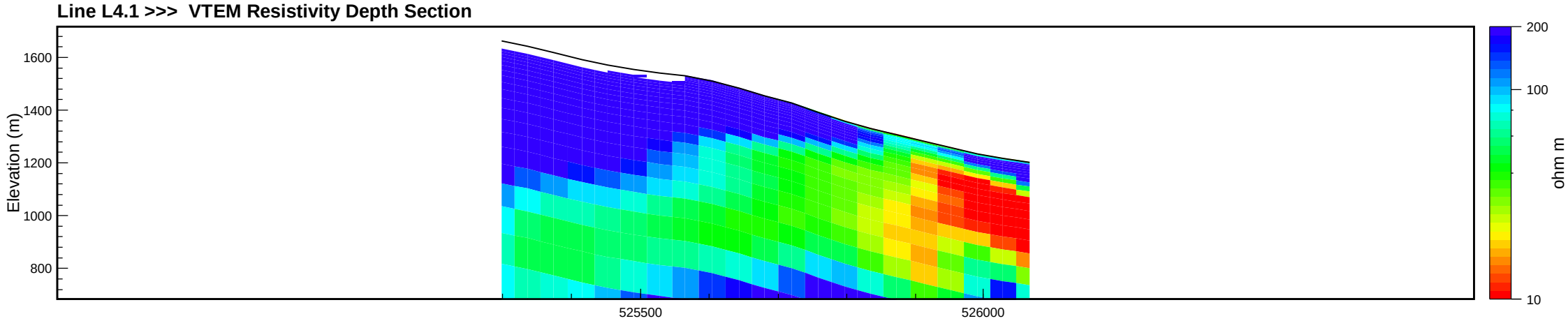
Line L4.1 >>> Magnetic Susceptibility Depth Section



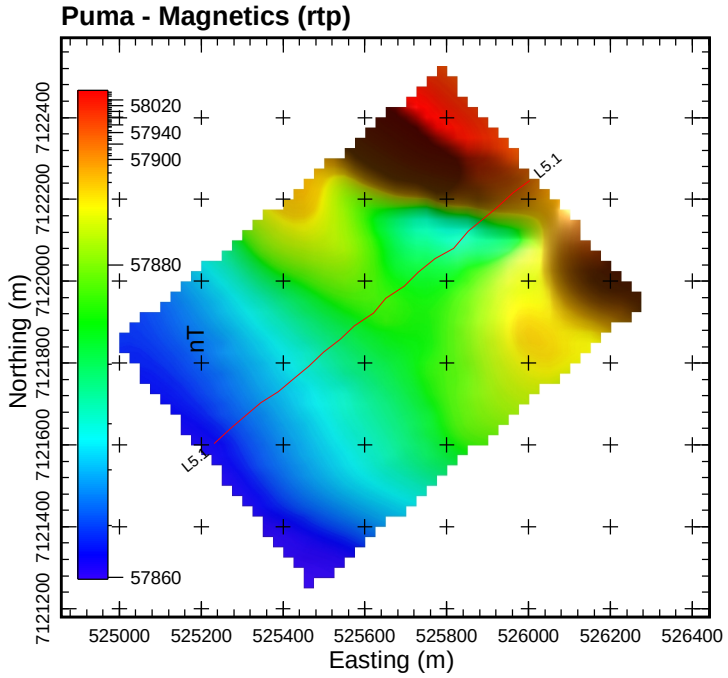
Line L4.1 >>> ZTEM Resistivity Depth Section



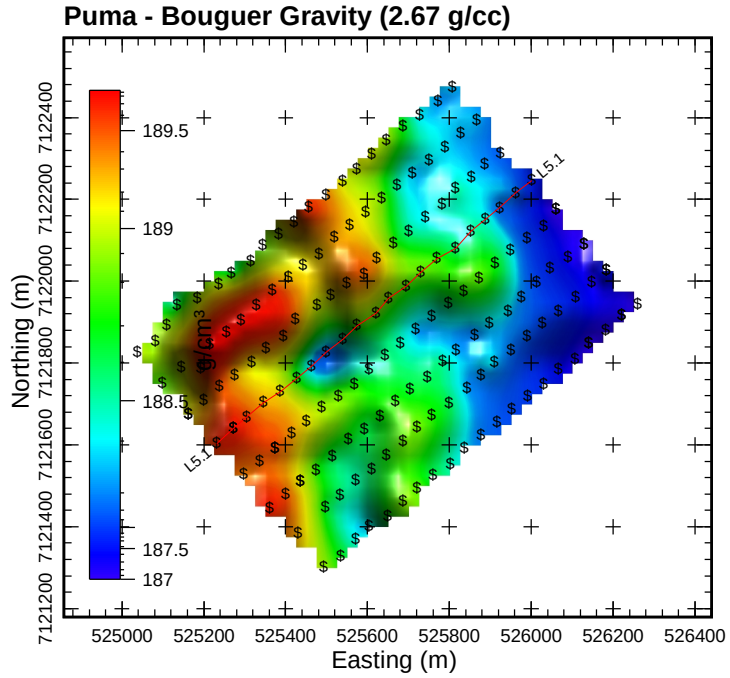
Line L4.1 >>> VTEM Resistivity Depth Section



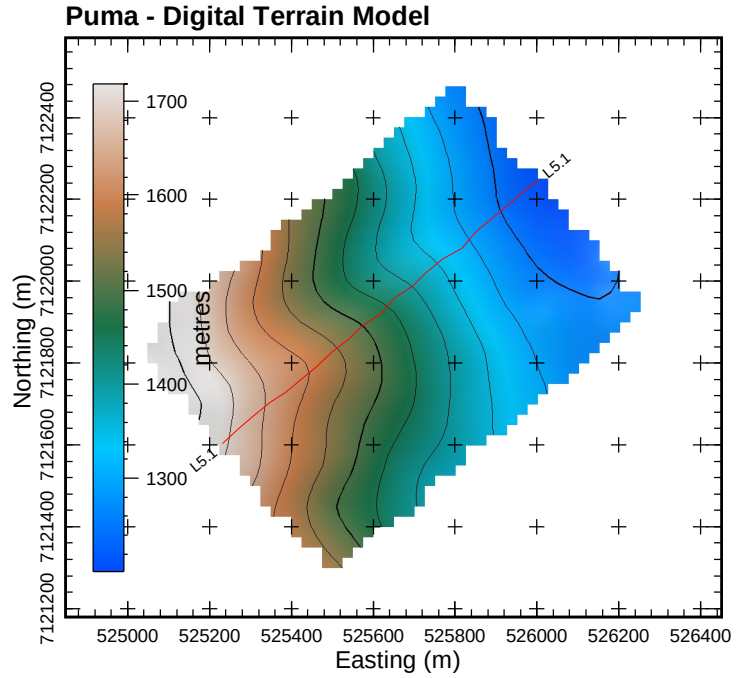
Puma - Magnetics (rtp)



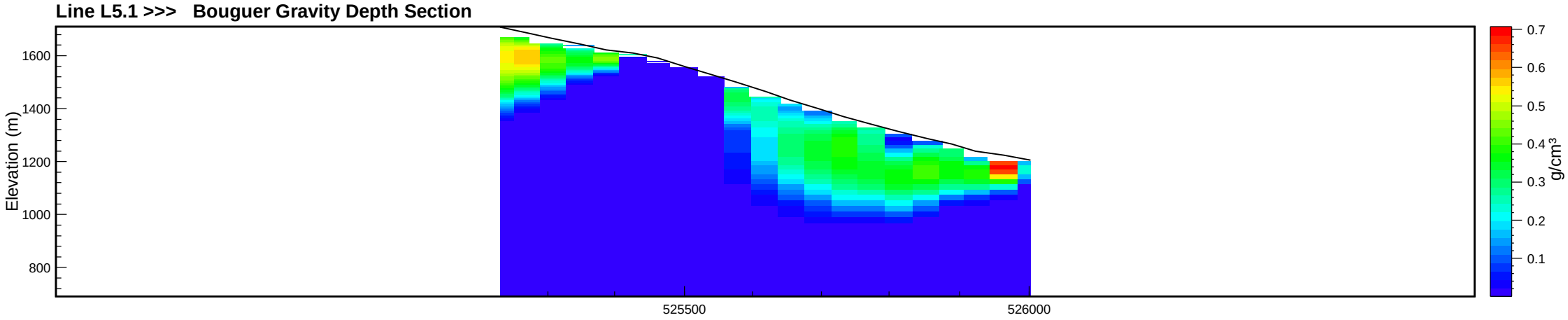
Puma - Bouguer Gravity (2.67 g/cc)



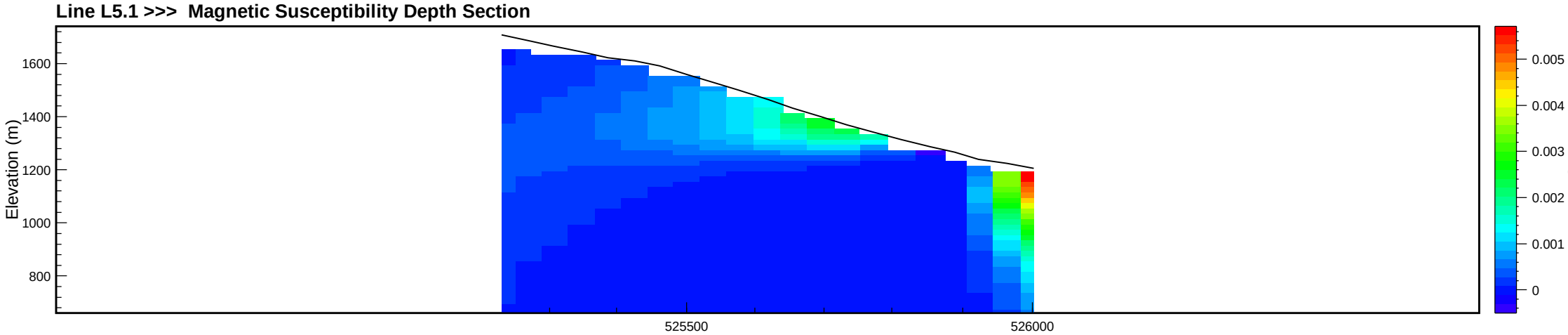
Puma - Digital Terrain Model



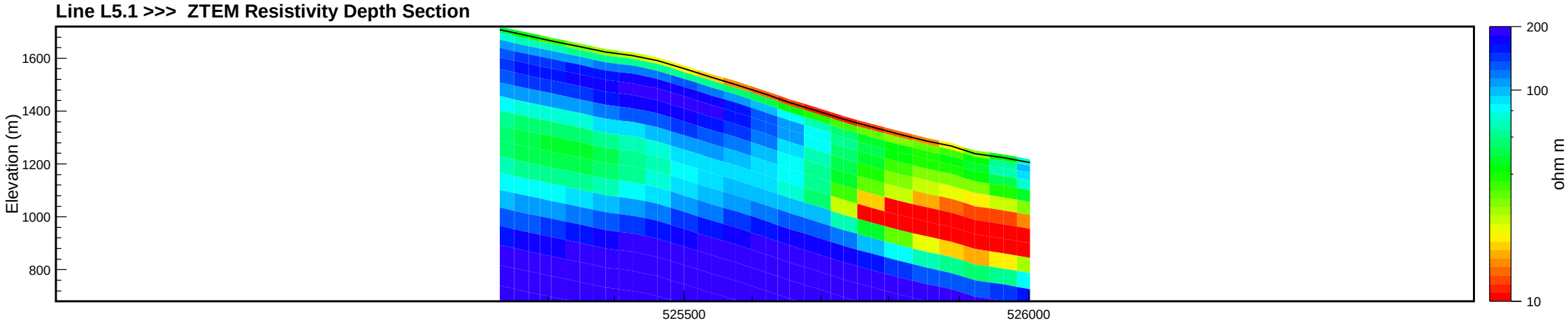
Line L5.1 >>> Bouguer Gravity Depth Section



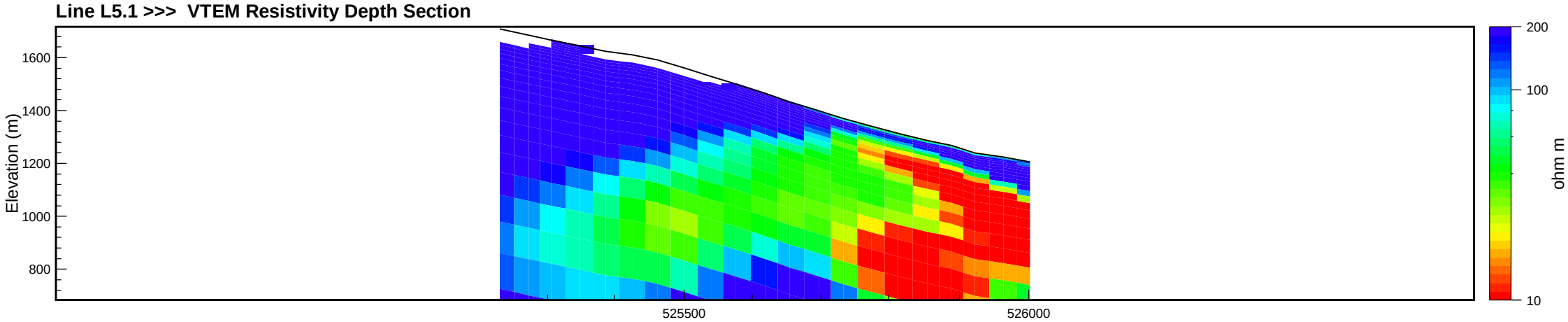
Line L5.1 >>> Magnetic Susceptibility Depth Section



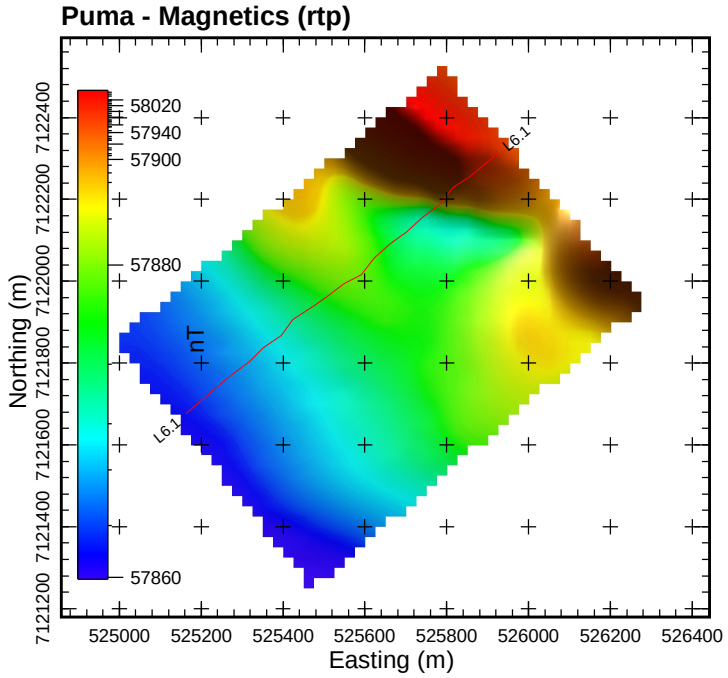
Line L5.1 >>> ZTEM Resistivity Depth Section



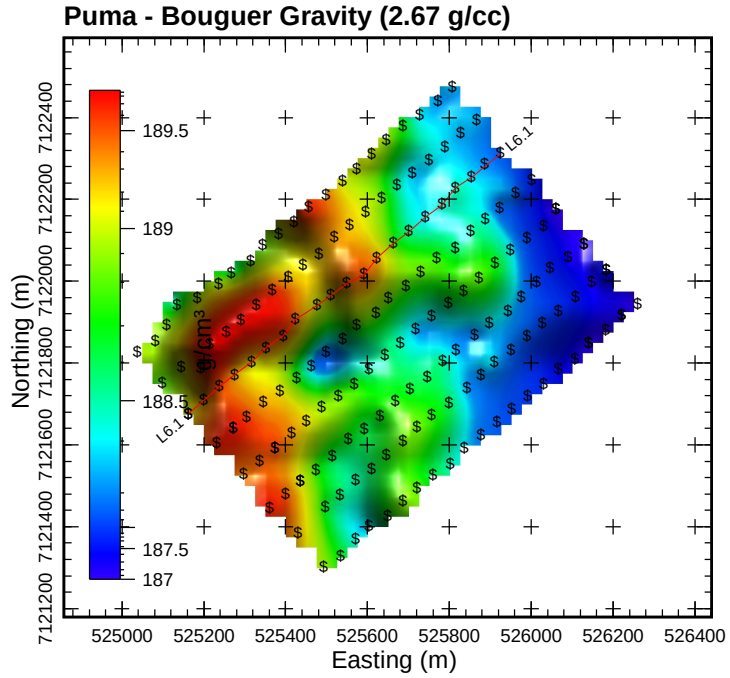
Line L5.1 >>> VTEM Resistivity Depth Section



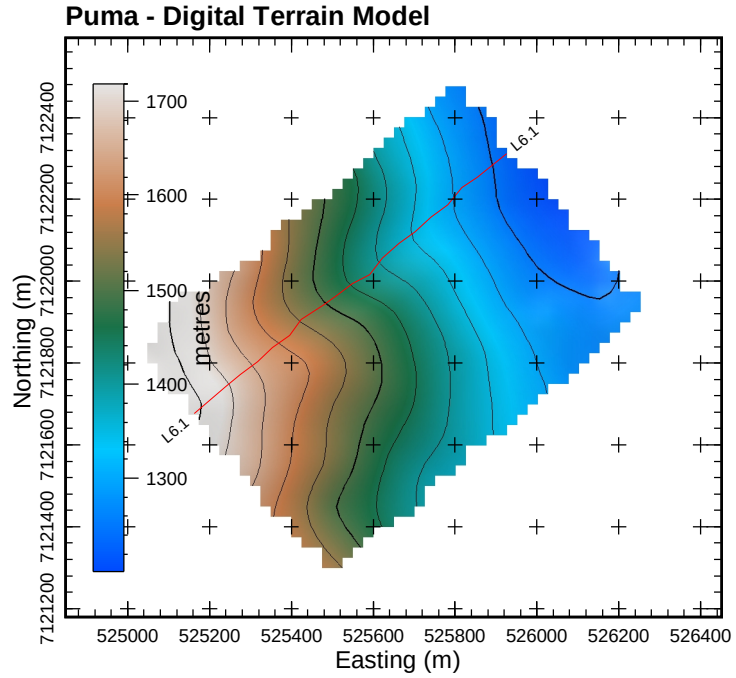
Puma - Magnetics (rtp)



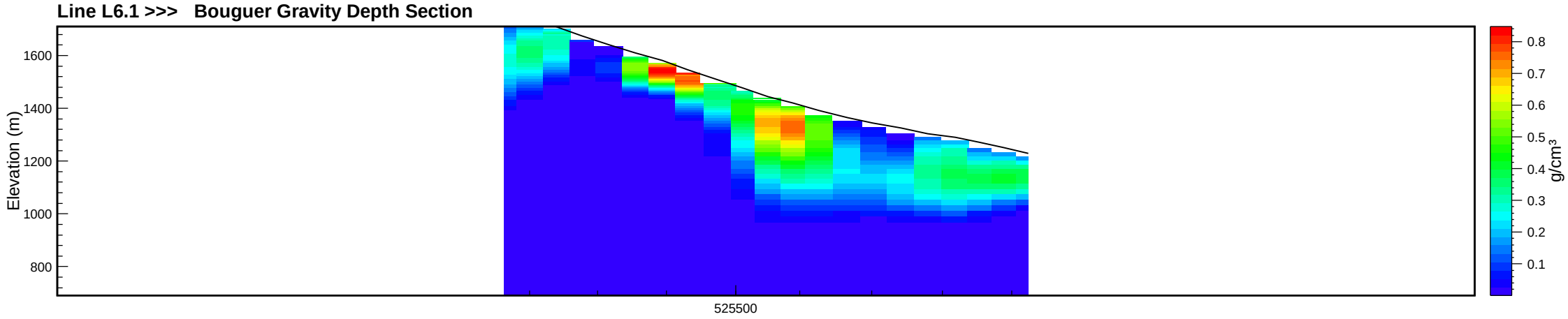
Puma - Bouguer Gravity (2.67 g/cc)



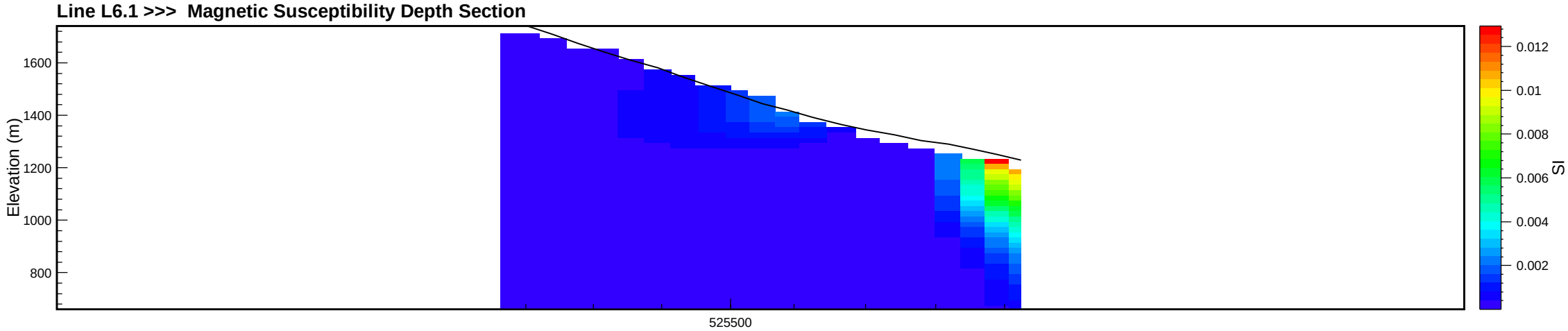
Puma - Digital Terrain Model



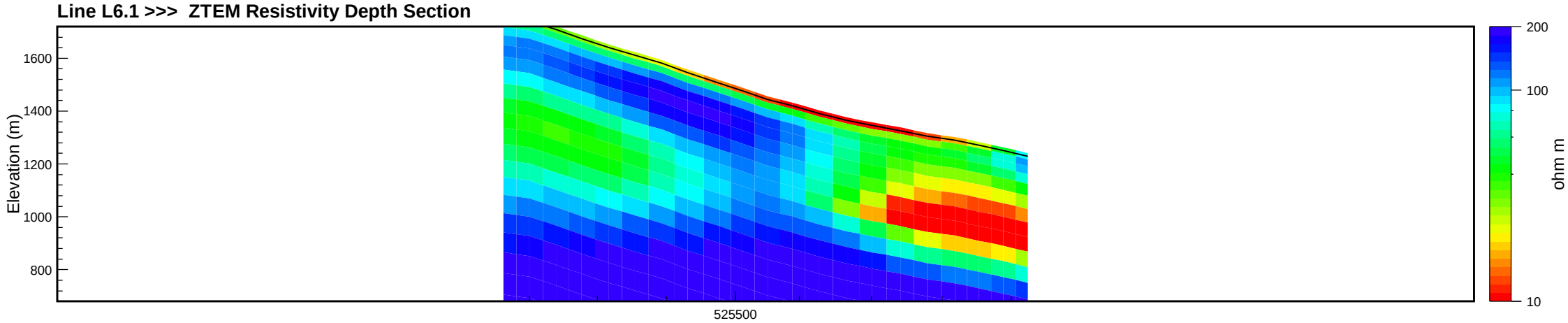
Line L6.1 >>> Bouguer Gravity Depth Section



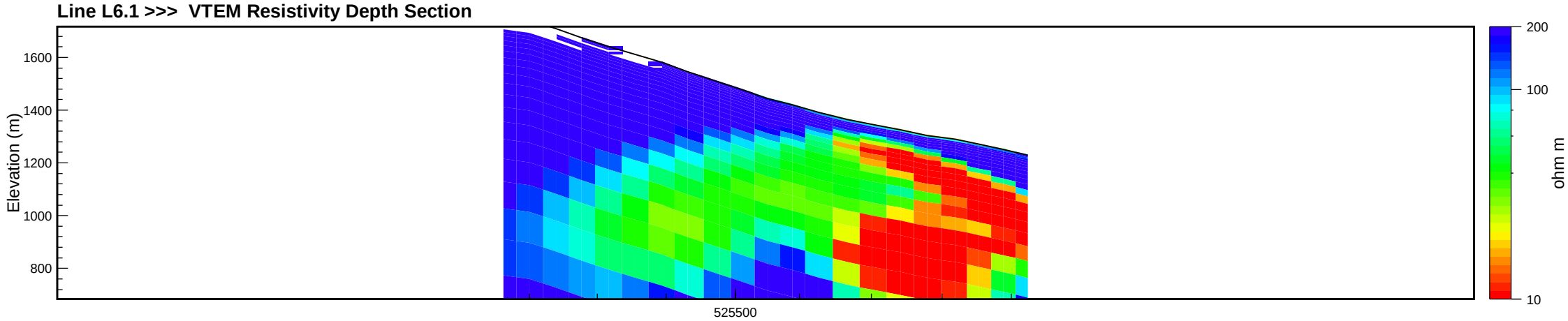
Line L6.1 >>> Magnetic Susceptibility Depth Section



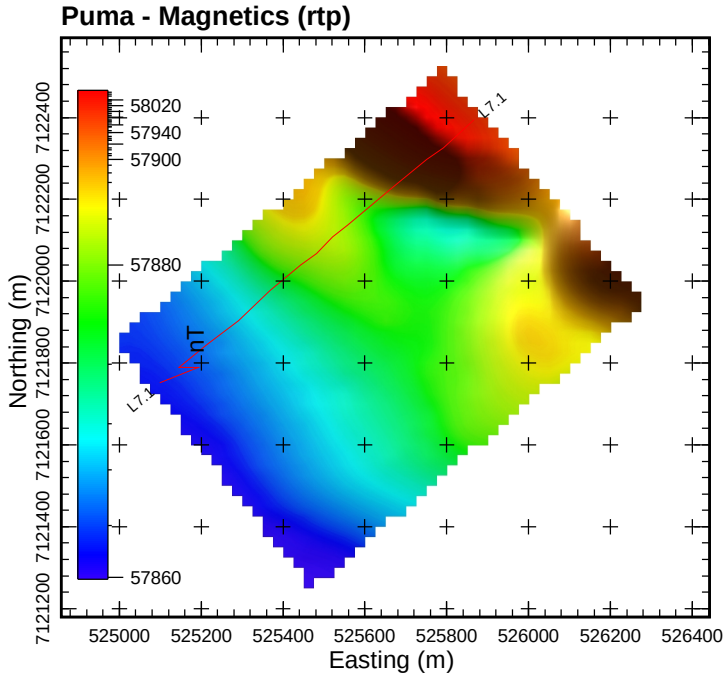
Line L6.1 >>> ZTEM Resistivity Depth Section



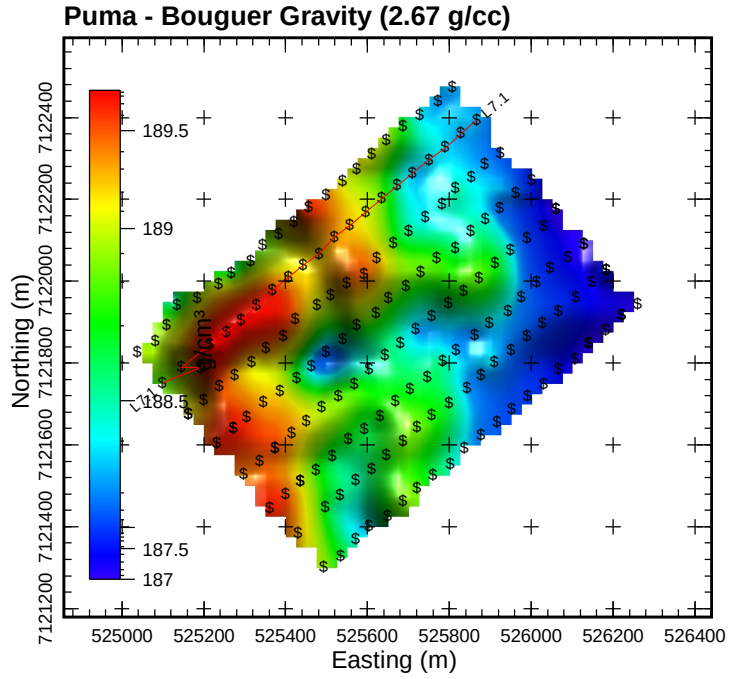
Line L6.1 >>> VTEM Resistivity Depth Section



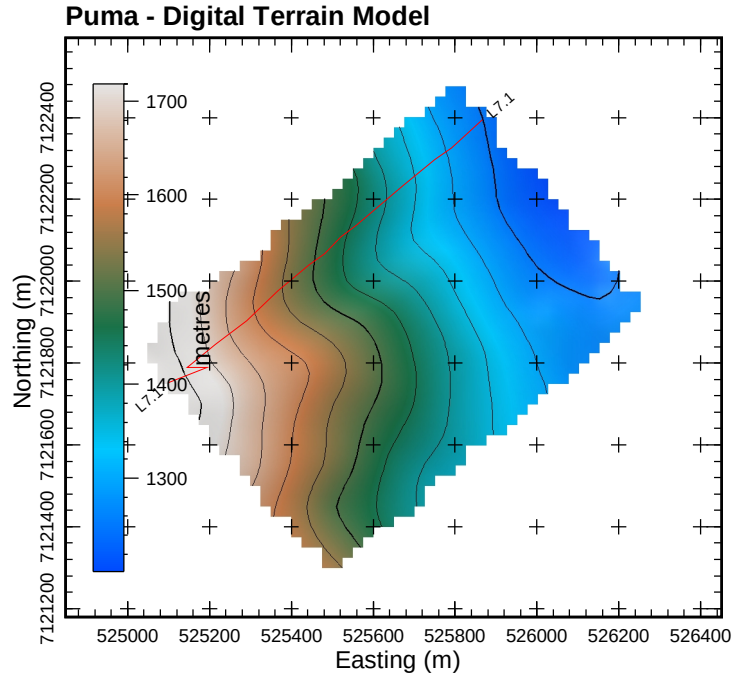
Puma - Magnetics (rtp)



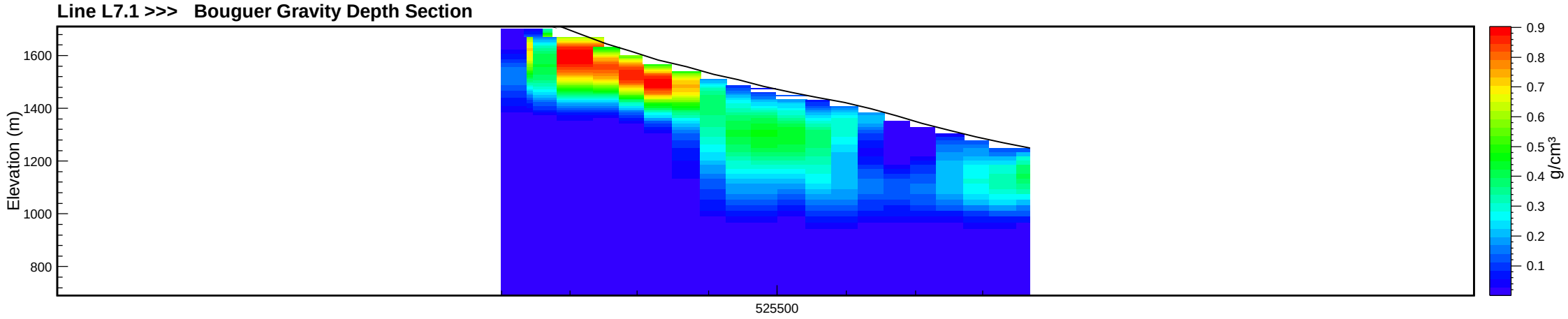
Puma - Bouguer Gravity (2.67 g/cc)



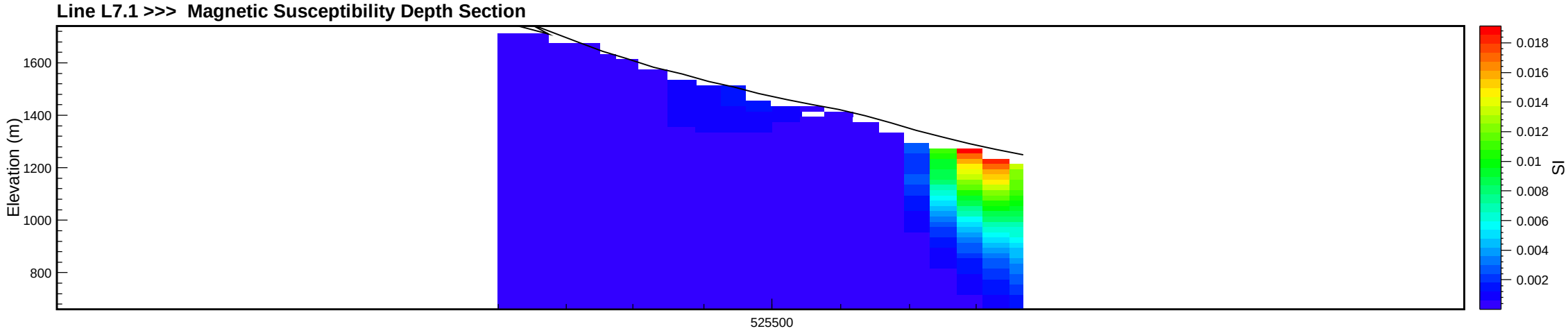
Puma - Digital Terrain Model



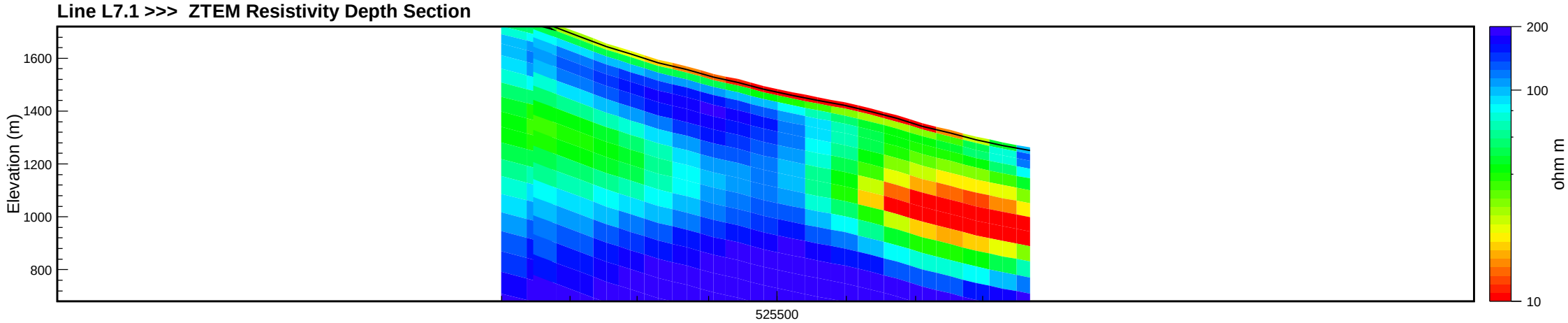
Line L7.1 >>> Bouguer Gravity Depth Section



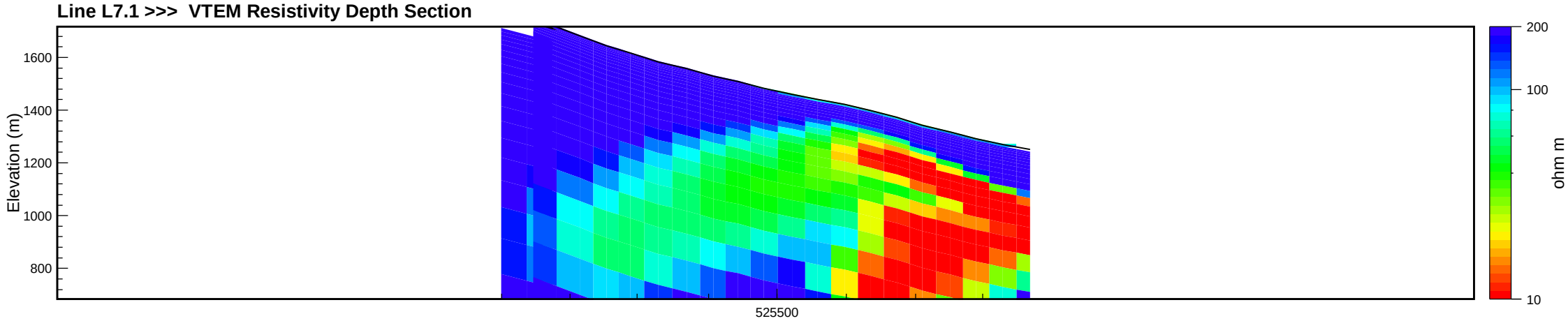
Line L7.1 >>> Magnetic Susceptibility Depth Section



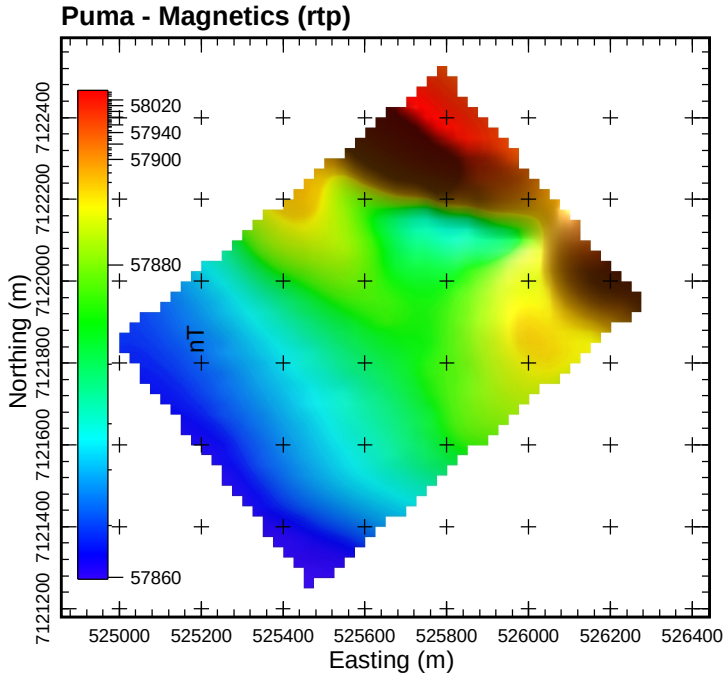
Line L7.1 >>> ZTEM Resistivity Depth Section



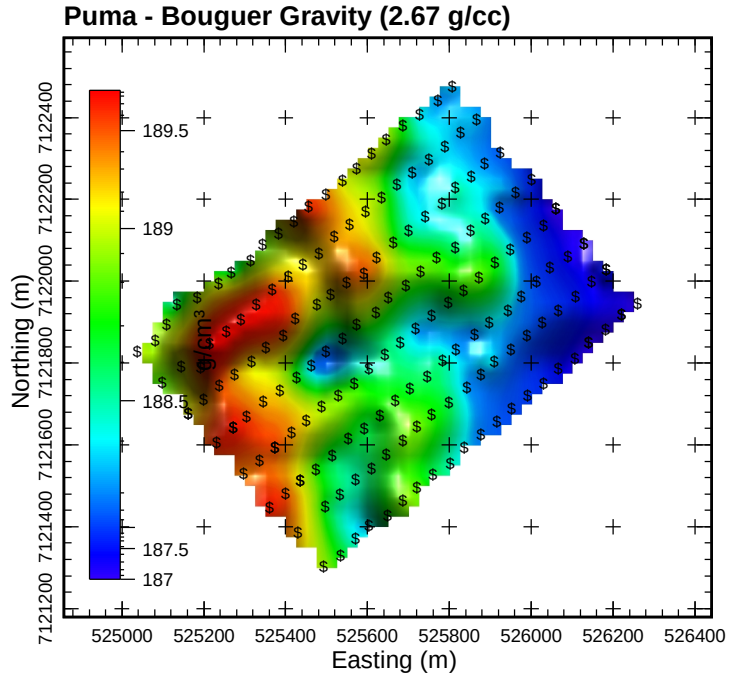
Line L7.1 >>> VTEM Resistivity Depth Section



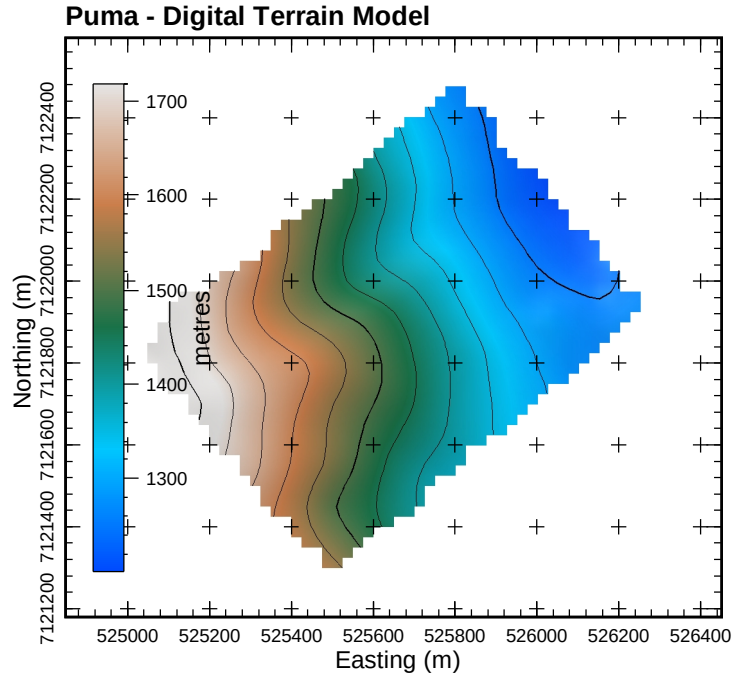
Puma - Magnetics (rtp)



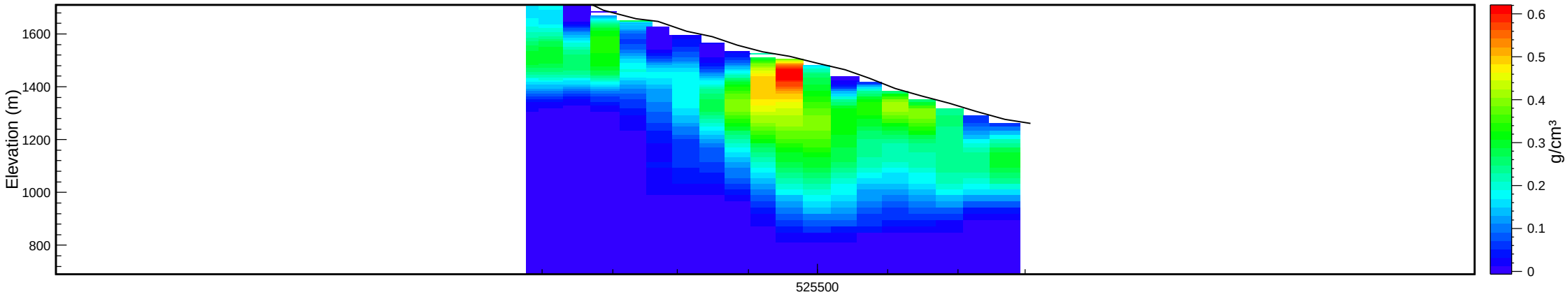
Puma - Bouguer Gravity (2.67 g/cc)



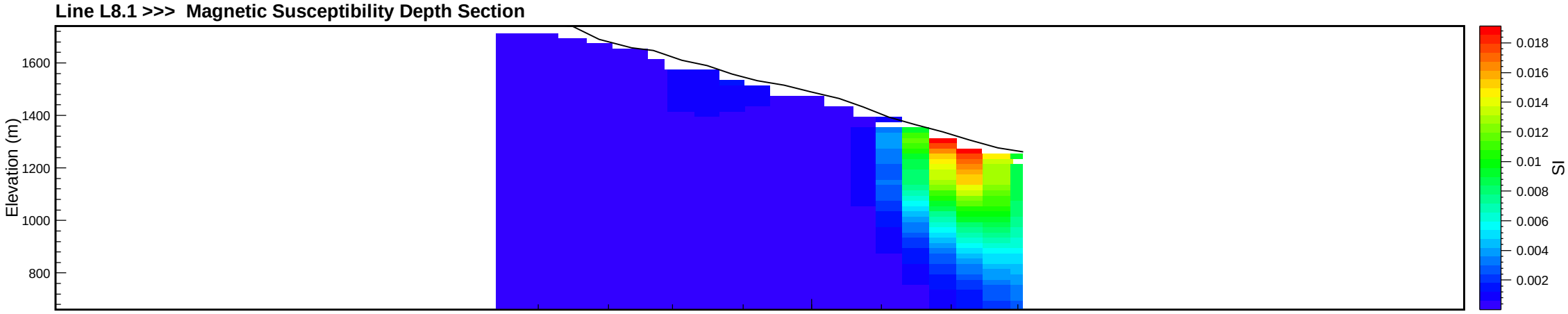
Puma - Digital Terrain Model



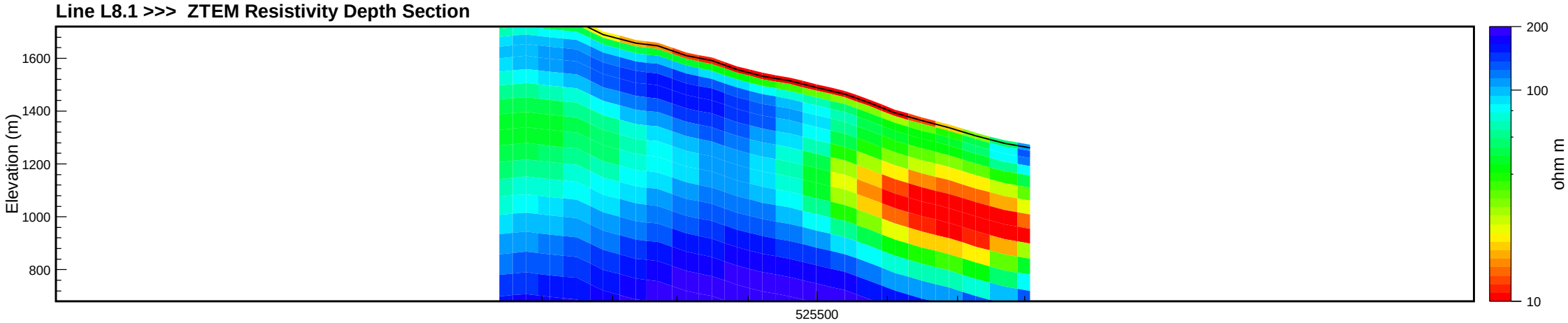
Line L8.1 >>> Bouguer Gravity Depth Section



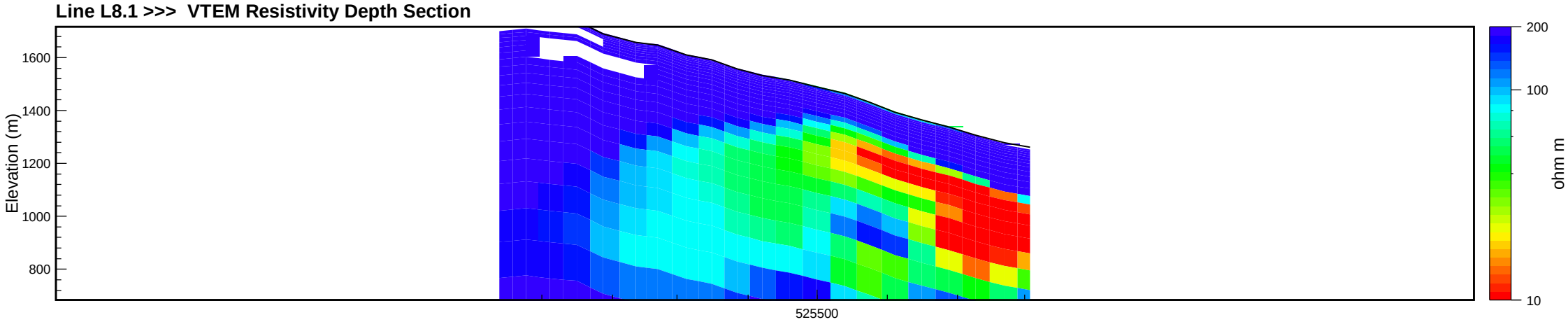
Line L8.1 >>> Magnetic Susceptibility Depth Section



Line L8.1 >>> ZTEM Resistivity Depth Section



Line L8.1 >>> VTEM Resistivity Depth Section



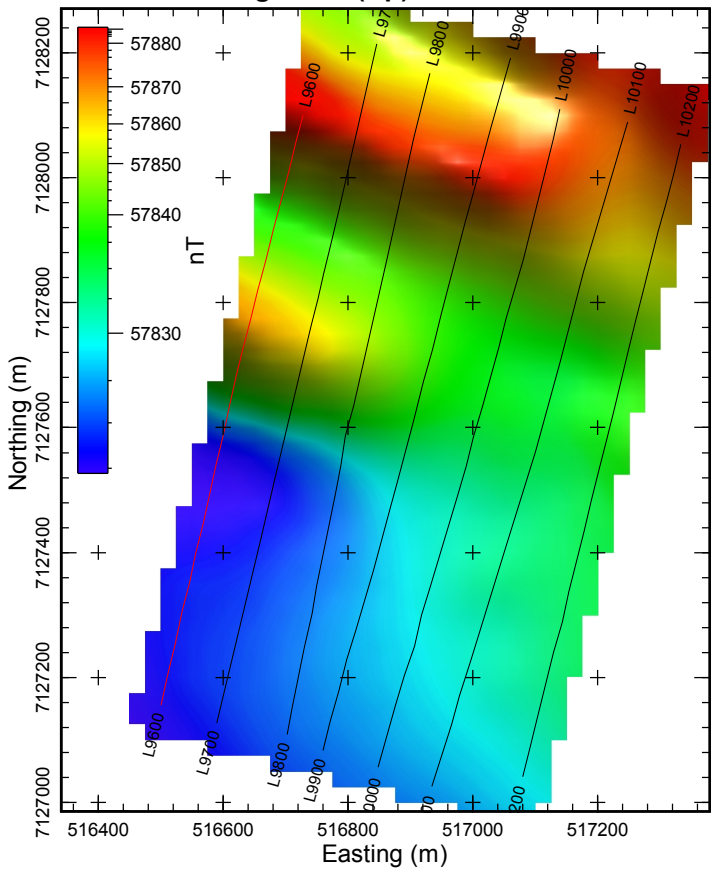
F4: EL GRID MULTIPLOTS

Lines 9600, 9700, 9800, 9900, 10000, 10100 and 10200

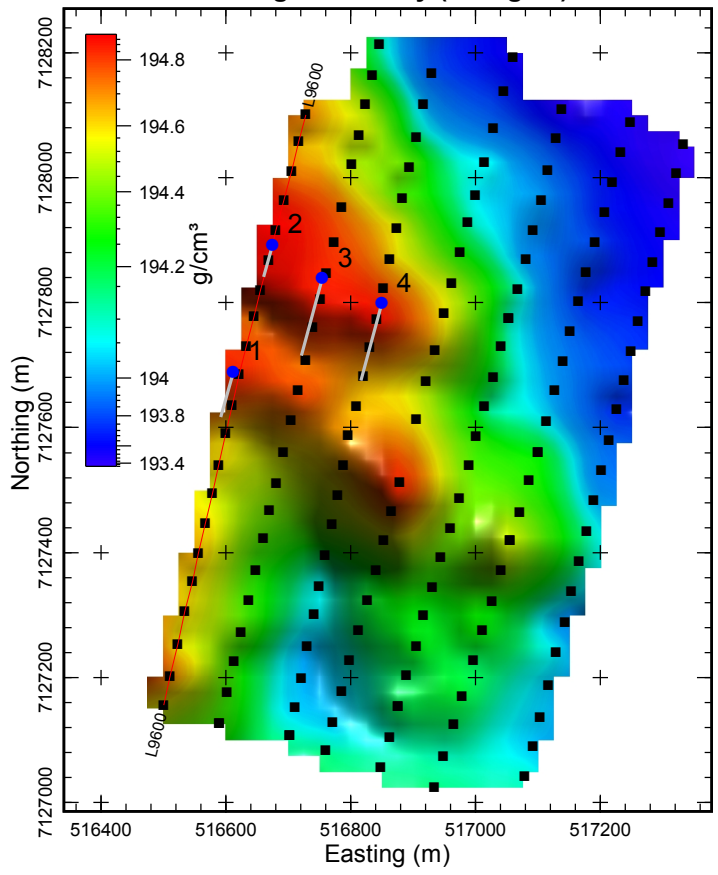
SECTIONS:

- Gravity from voxel model
- Magnetic susceptibility from voxel model of VTEM magnetics
- ZTEM conductivity from voxel model
- VTEM conductivity from voxel model
- Condor modeled resistivity from Aurora IP survey
- Condor modeled Chargeability from Aurora IP survey

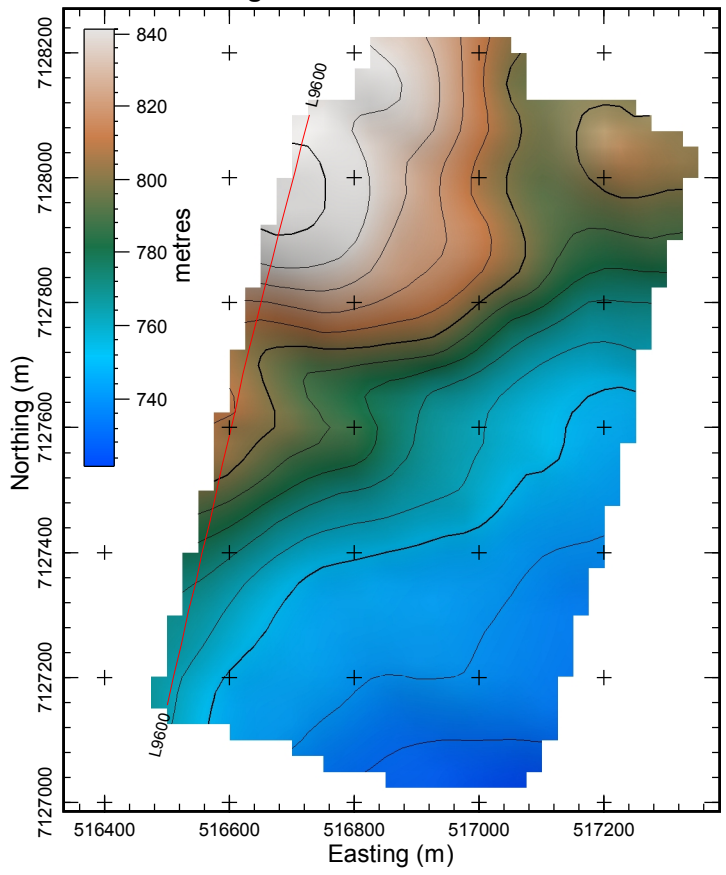
El Gossan - Magnetics (rtp)



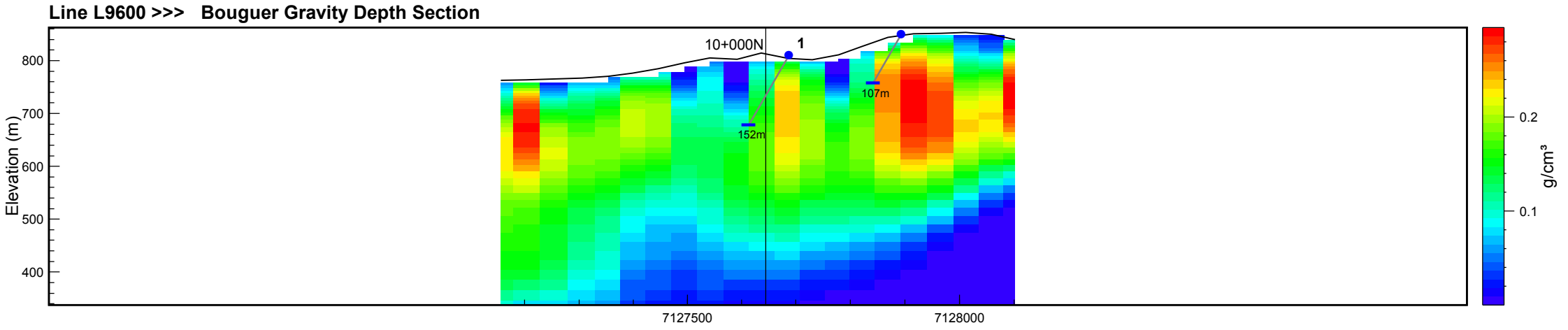
El Gossan - Bouguer Gravity (2.67 g/cc)



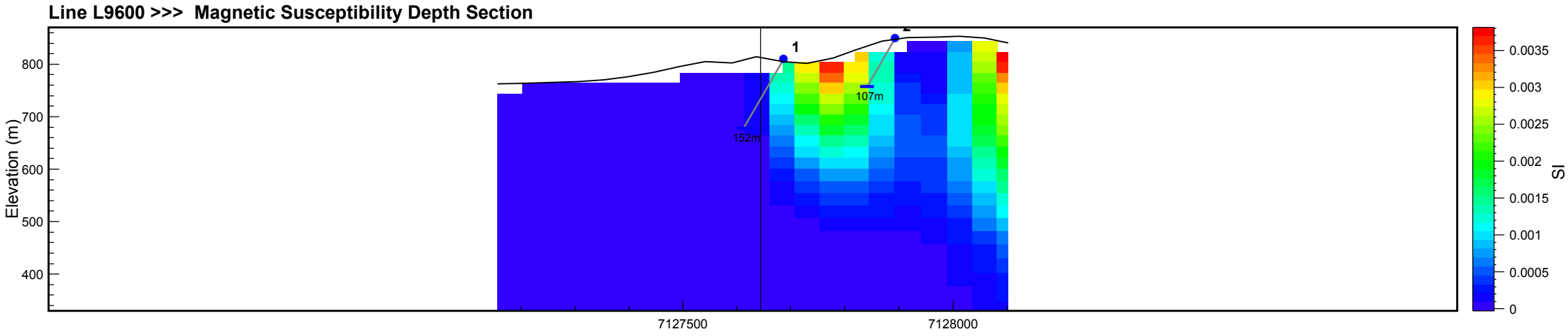
El Gossan - Digital Terrain Model



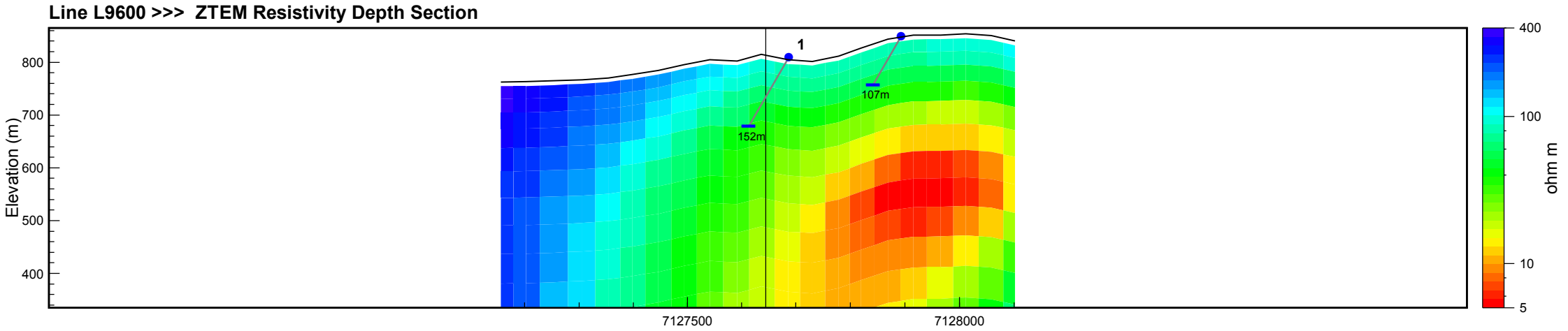
Line L9600 >>> Bouguer Gravity Depth Section



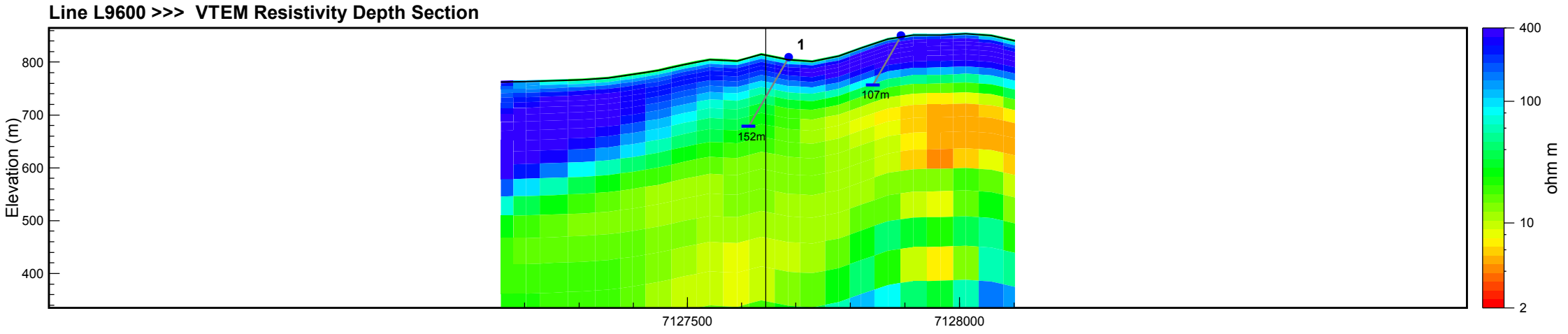
Line L9600 >>> Magnetic Susceptibility Depth Section



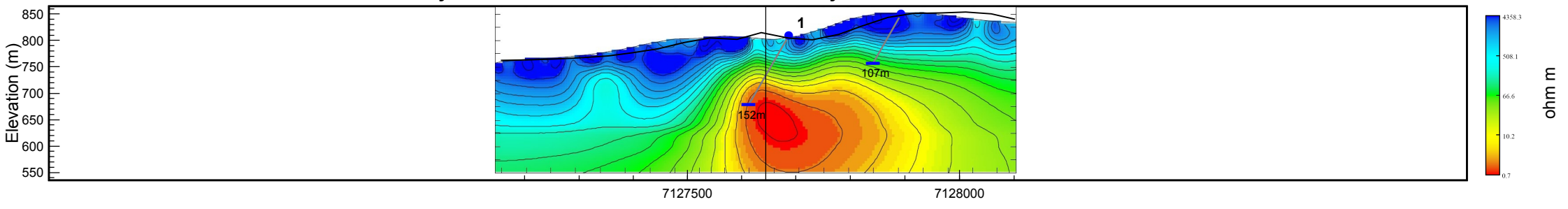
Line L9600 >>> ZTEM Resistivity Depth Section



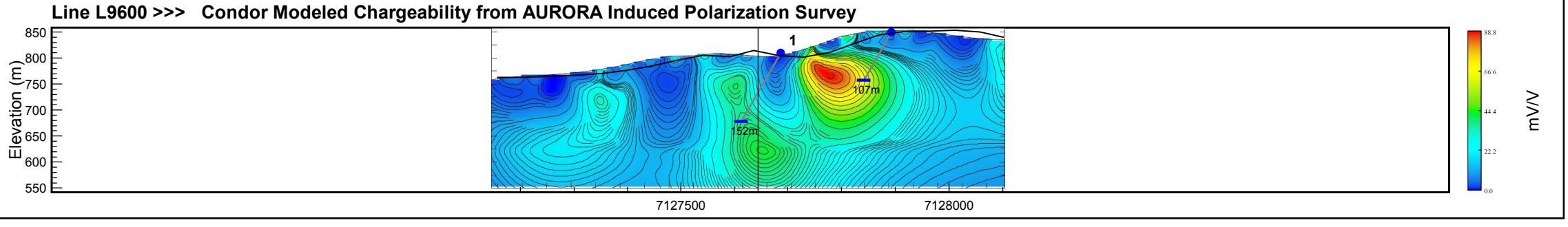
Line L9600 >>> VTEM Resistivity Depth Section



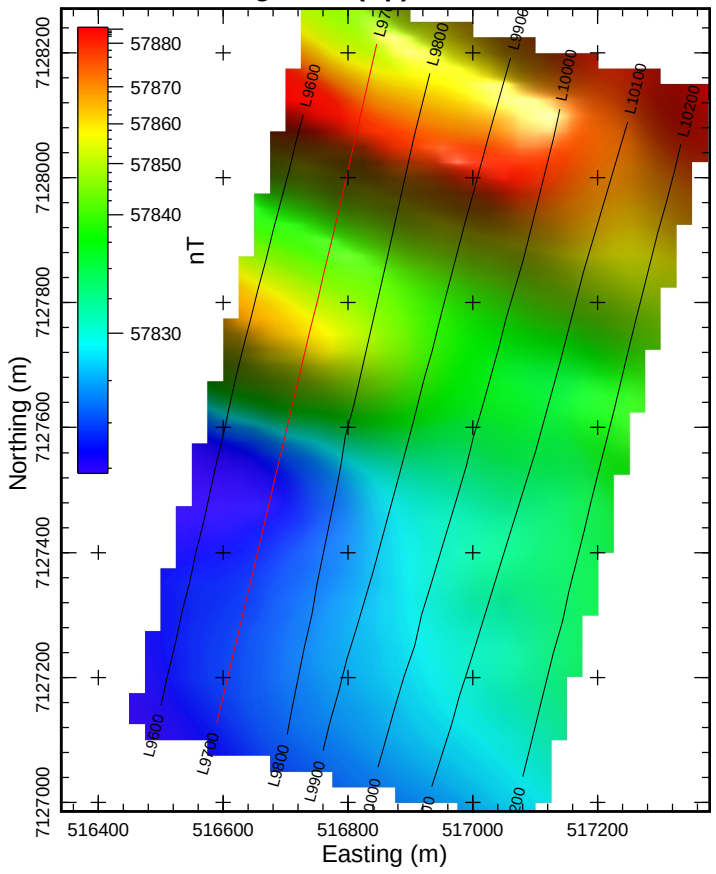
Line L9600 >>> Condor Modeled Resistivity from AURORA Induced Polarization Survey



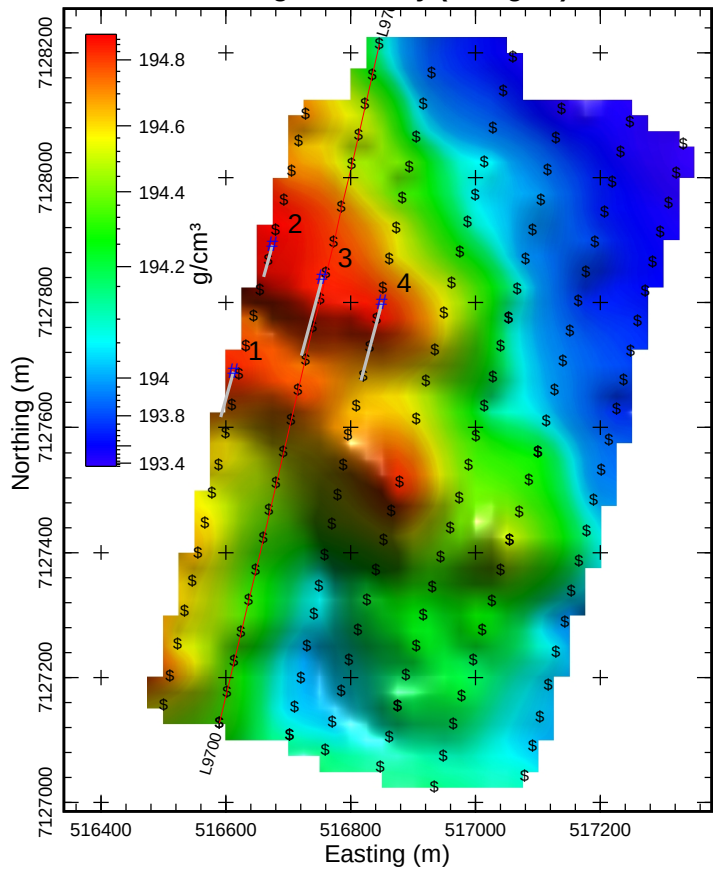
Line L9600 >>> Condor Modeled Chargeability from AURORA Induced Polarization Survey



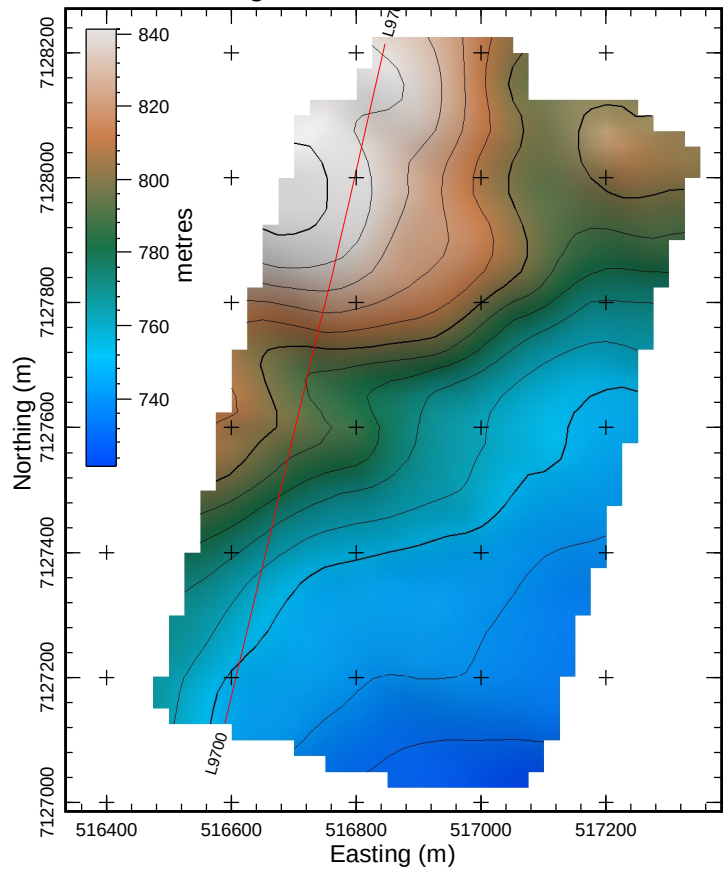
El Gossan - Magnetics (rtp)



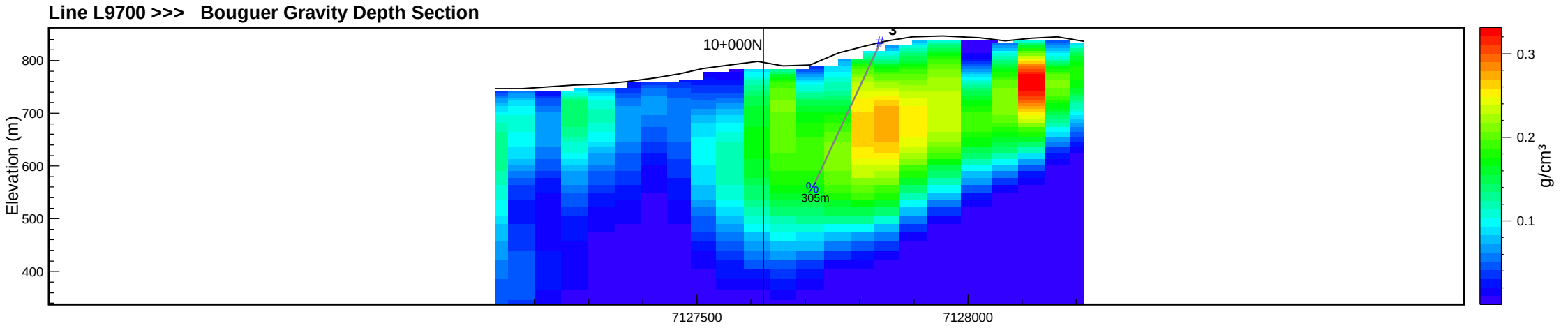
El Gossan - Bouguer Gravity (2.67 g/cc)



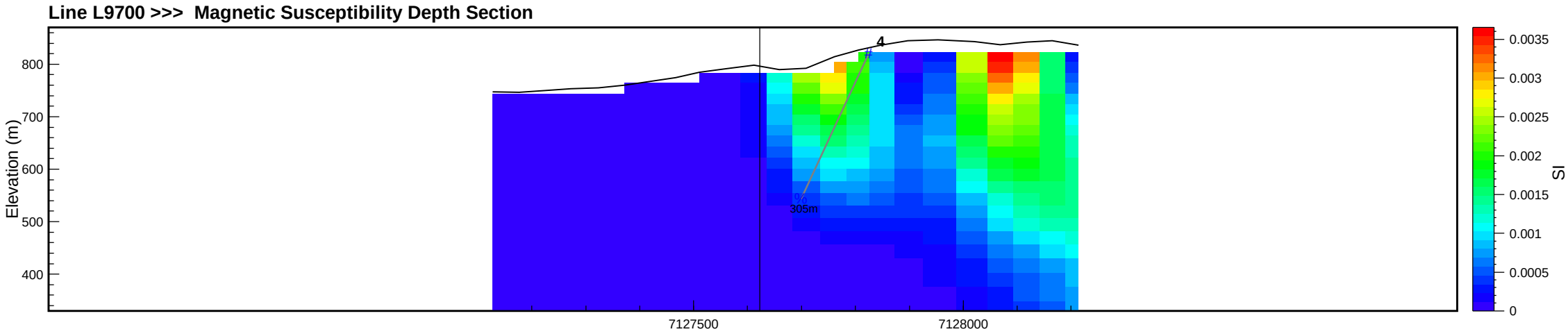
El Gossan - Digital Terrain Model



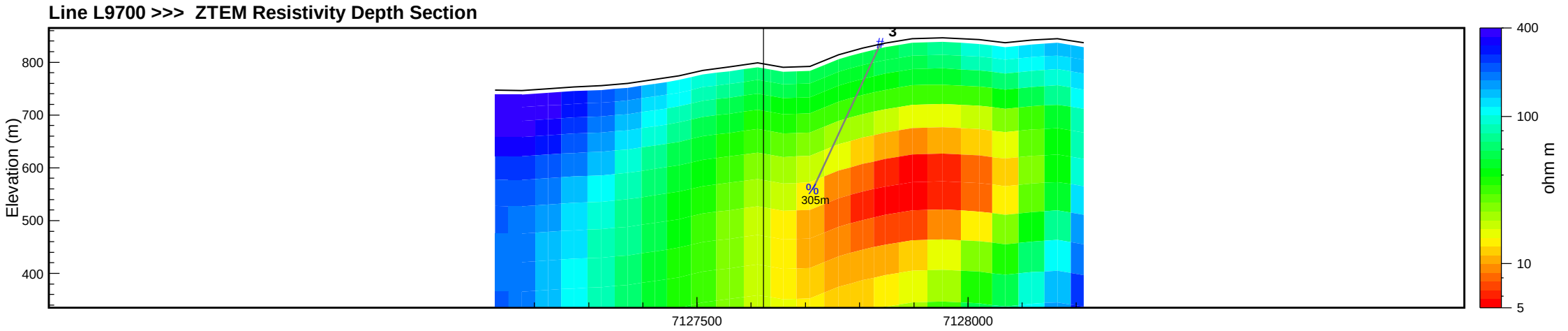
Line L9700 >>> Bouguer Gravity Depth Section



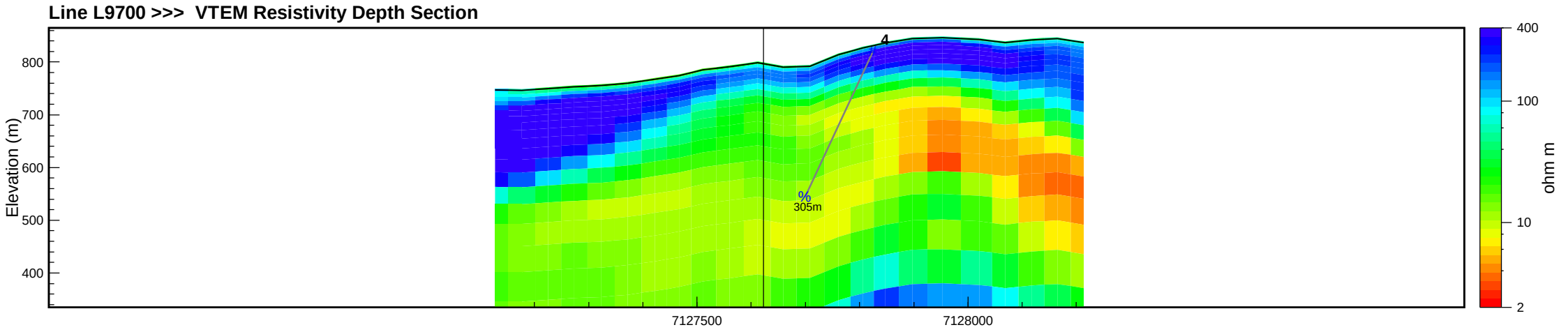
Line L9700 >>> Magnetic Susceptibility Depth Section



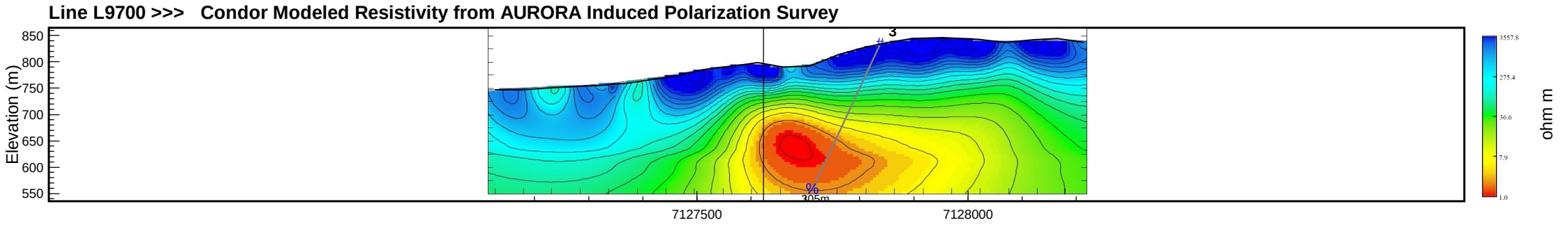
Line L9700 >>> ZTEM Resistivity Depth Section



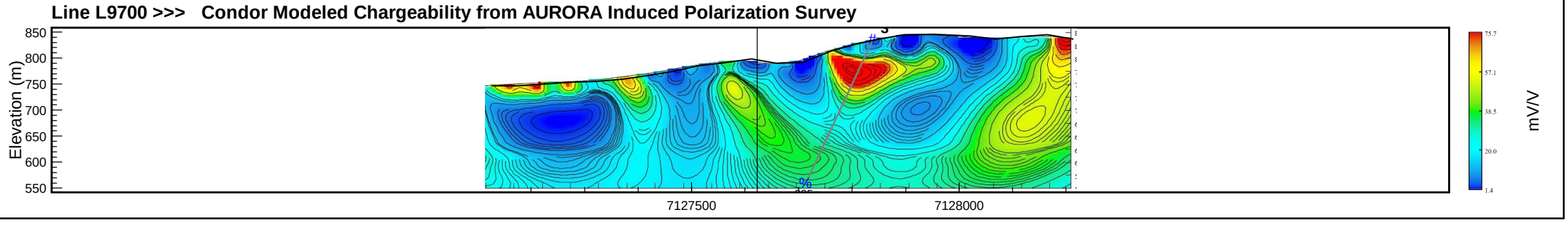
Line L9700 >>> VTEM Resistivity Depth Section



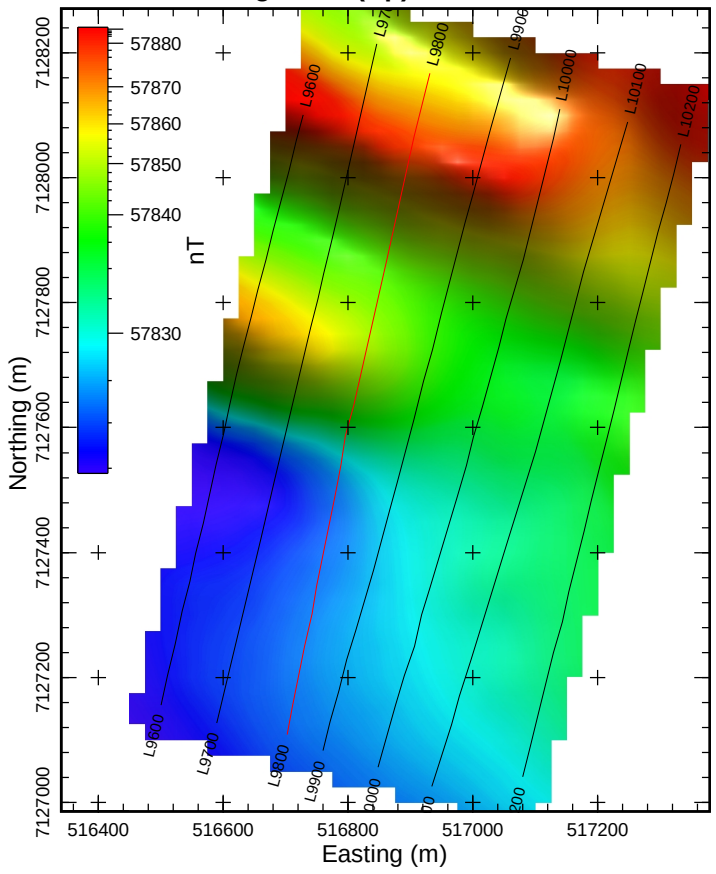
Line L9700 >>> Condor Modeled Resistivity from AURORA Induced Polarization Survey



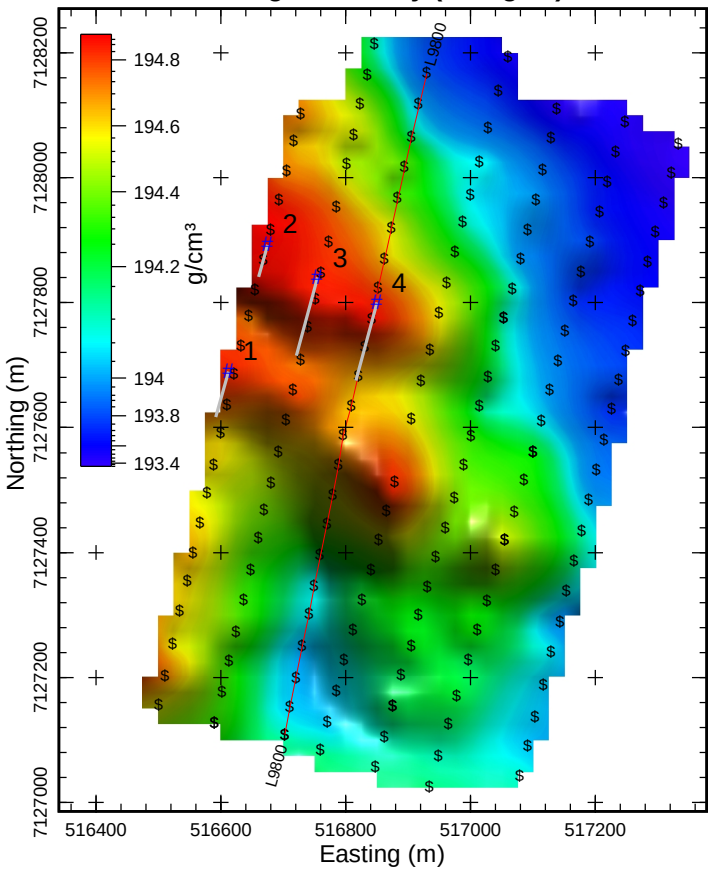
Line L9700 >>> Condor Modeled Chargeability from AURORA Induced Polarization Survey



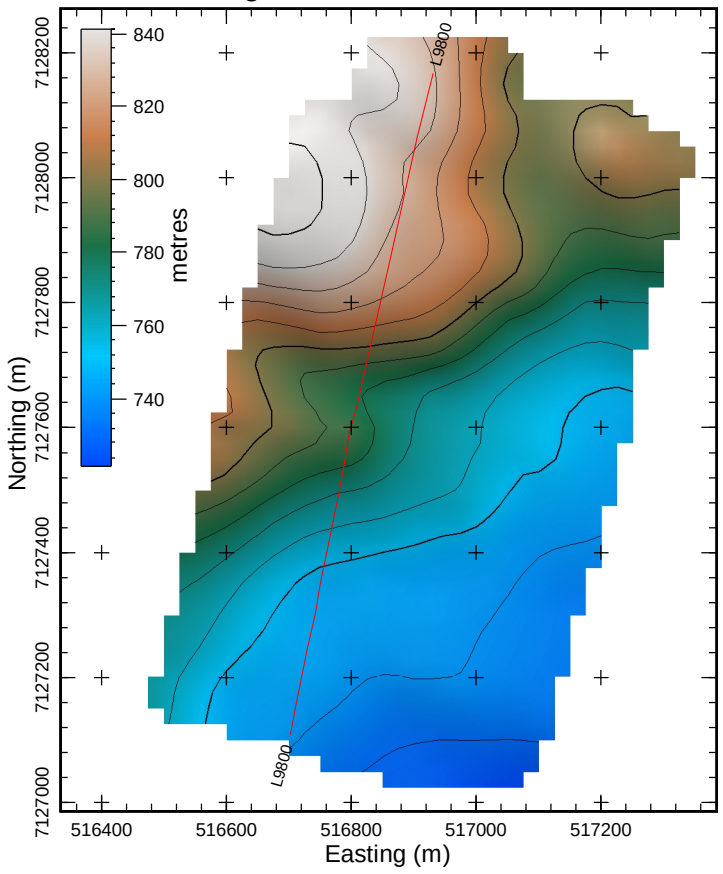
El Gossan - Magnetics (rtp)



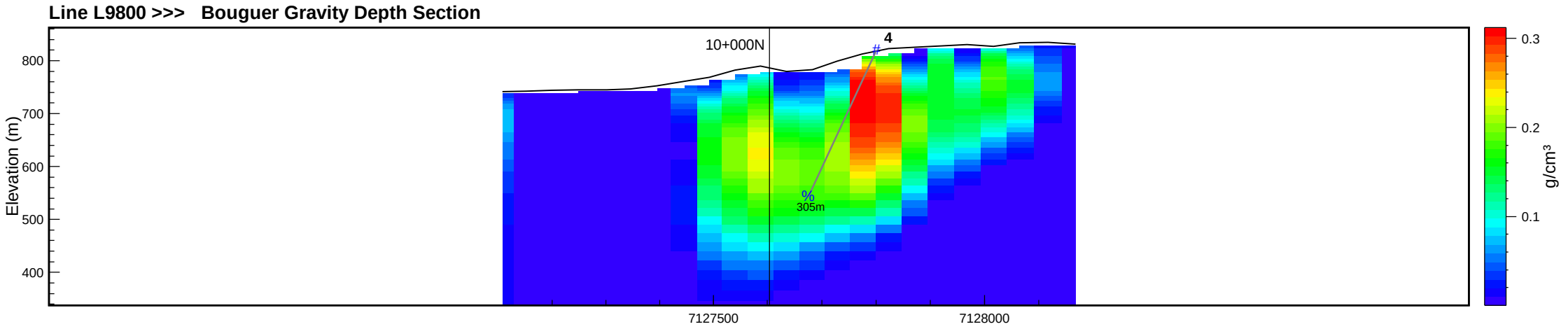
El Gossan - Bouguer Gravity (2.67 g/cc)



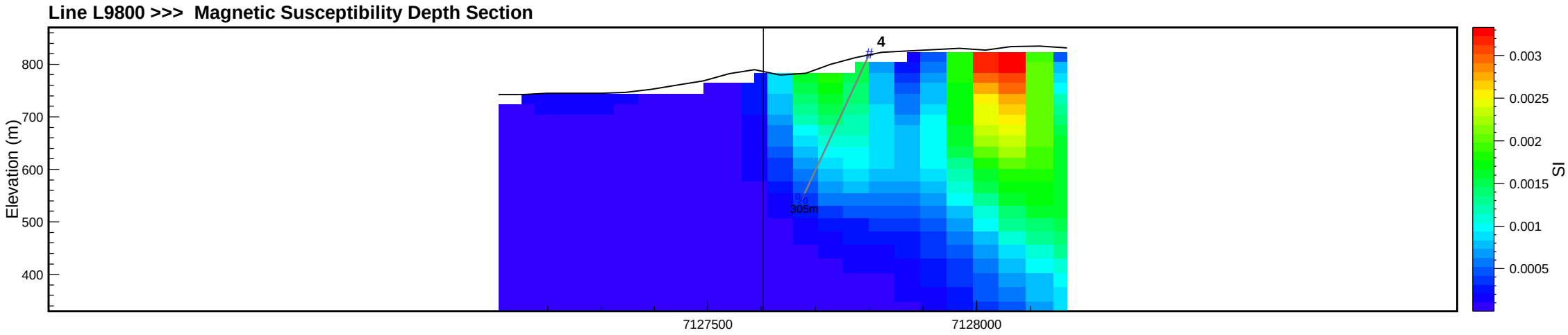
El Gossan - Digital Terrain Model



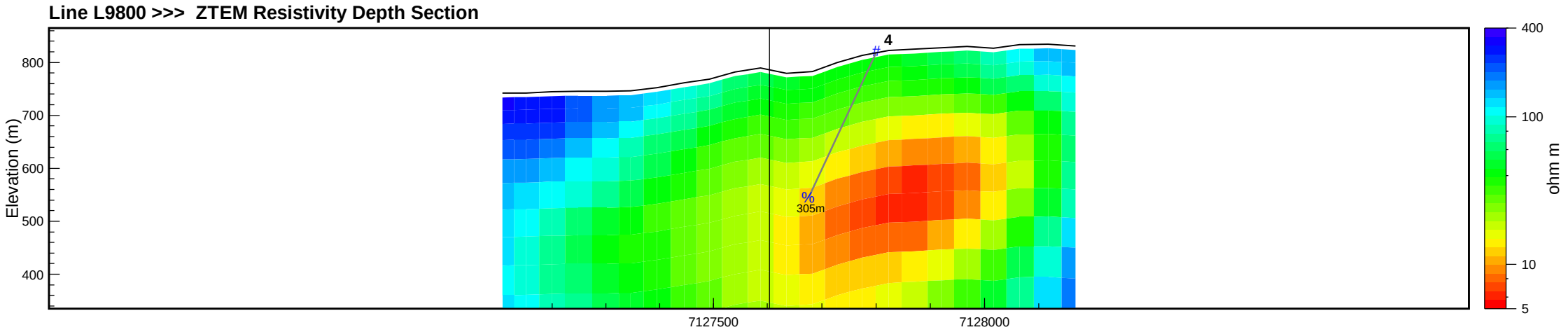
Line L9800 >>> Bouguer Gravity Depth Section



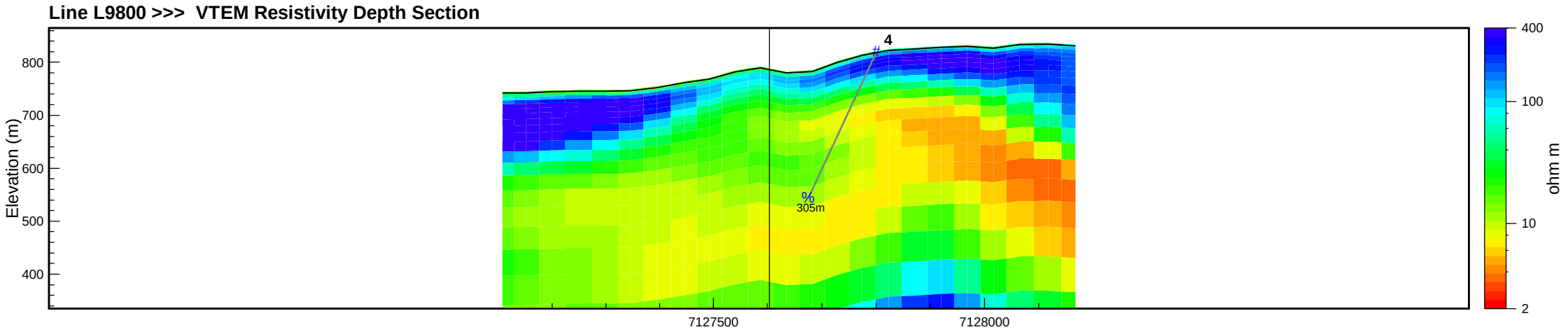
Line L9800 >>> Magnetic Susceptibility Depth Section



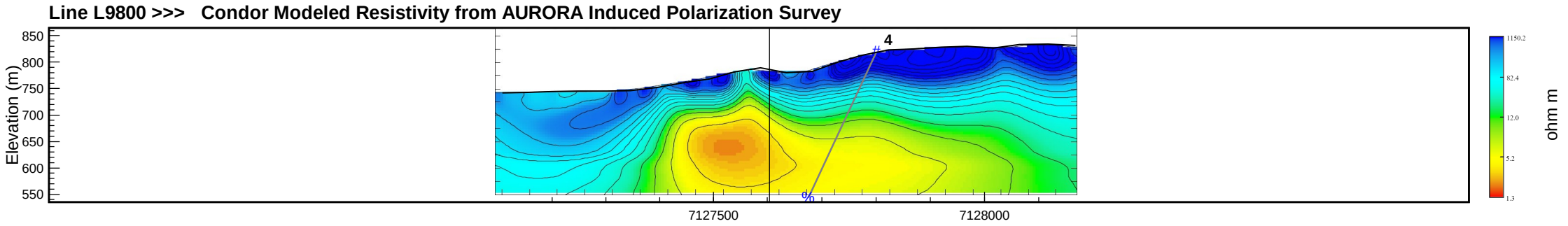
Line L9800 >>> ZTEM Resistivity Depth Section



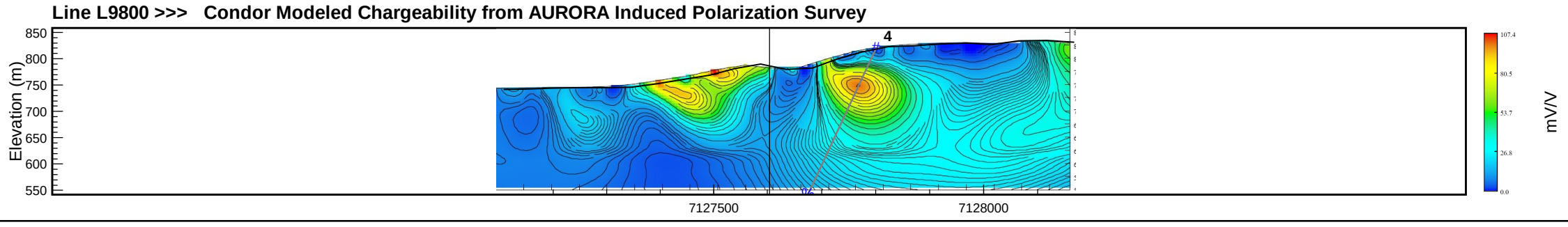
Line L9800 >>> VTEM Resistivity Depth Section



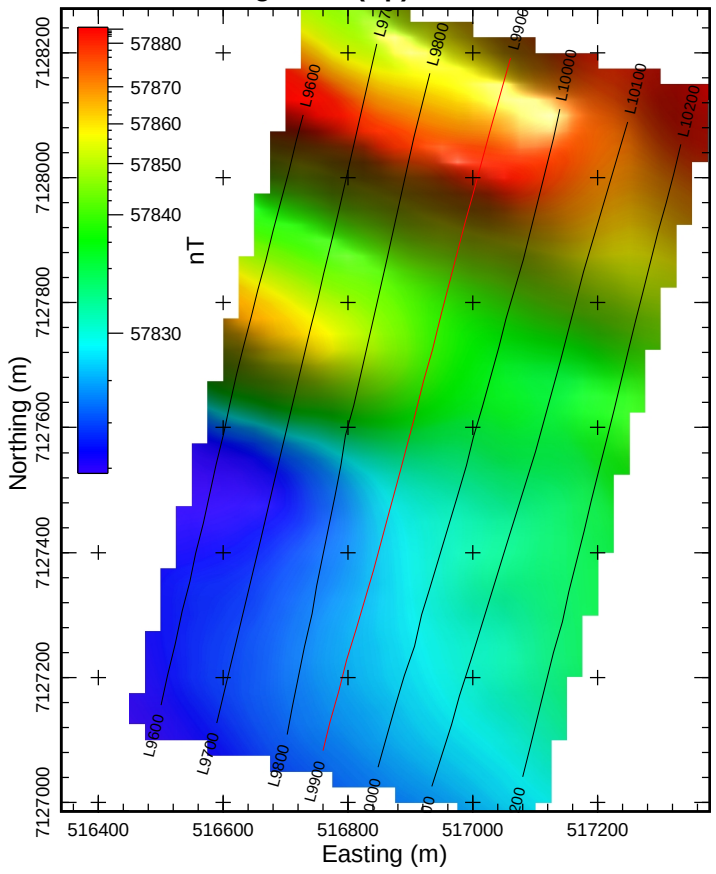
Line L9800 >>> Condor Modeled Resistivity from AURORA Induced Polarization Survey



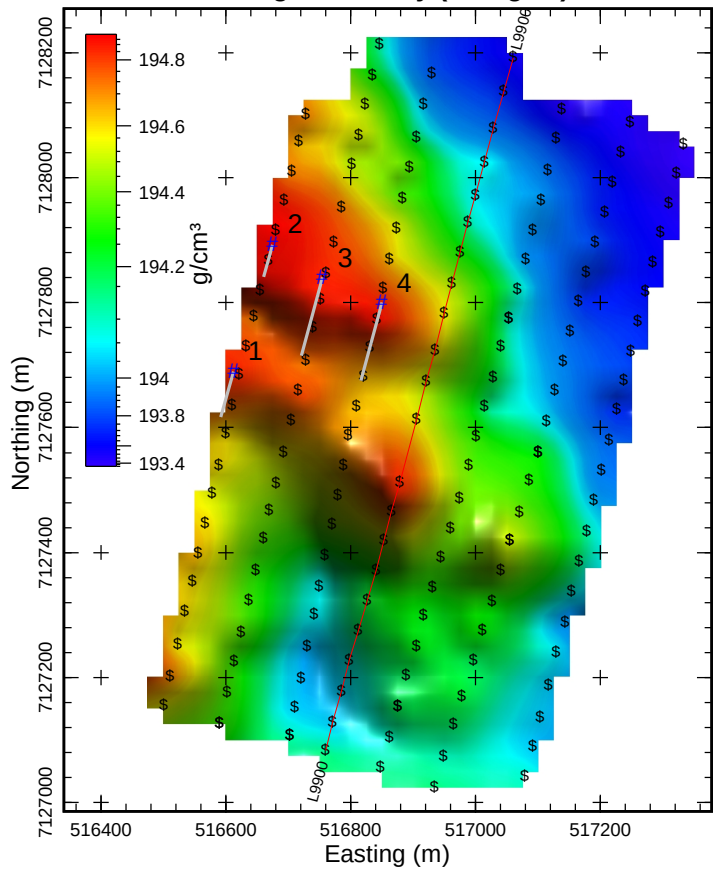
Line L9800 >>> Condor Modeled Chargeability from AURORA Induced Polarization Survey



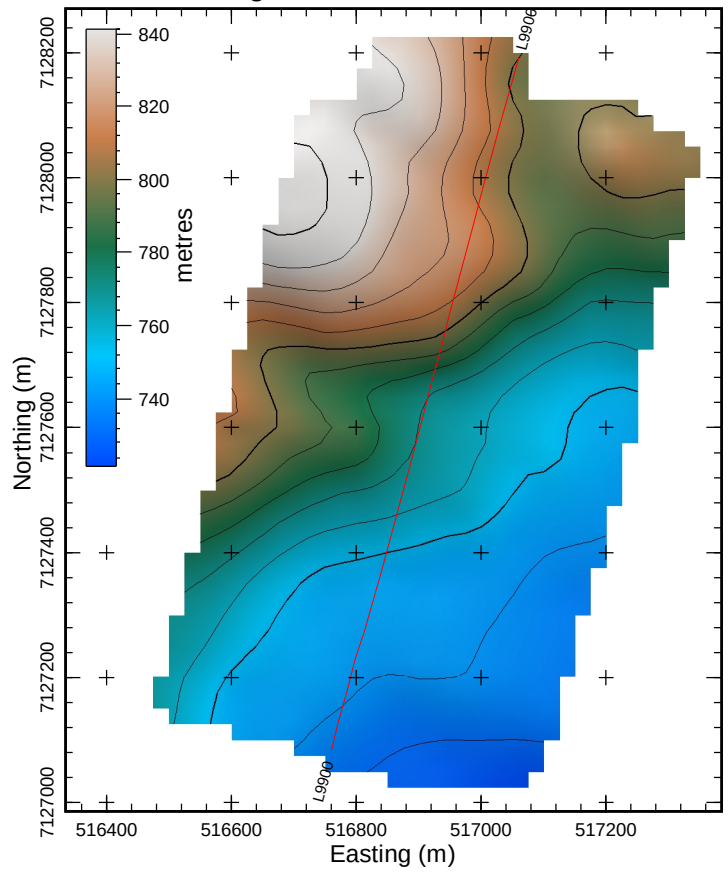
El Gossan - Magnetics (rtp)



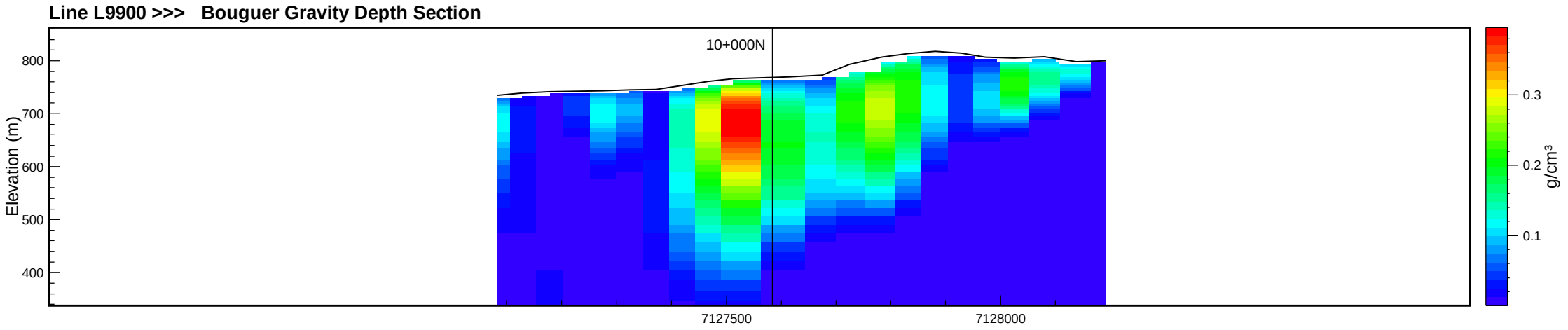
El Gossan - Bouguer Gravity (2.67 g/cc)



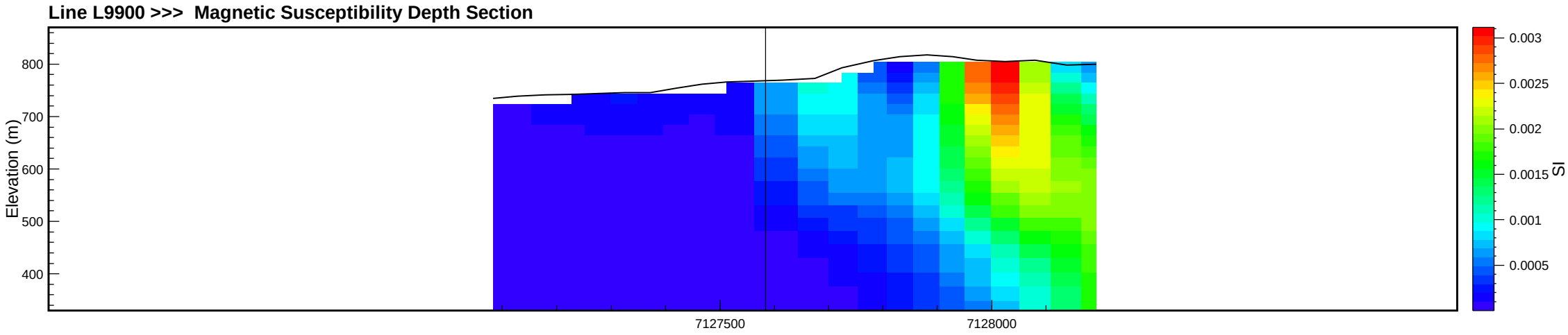
El Gossan - Digital Terrain Model



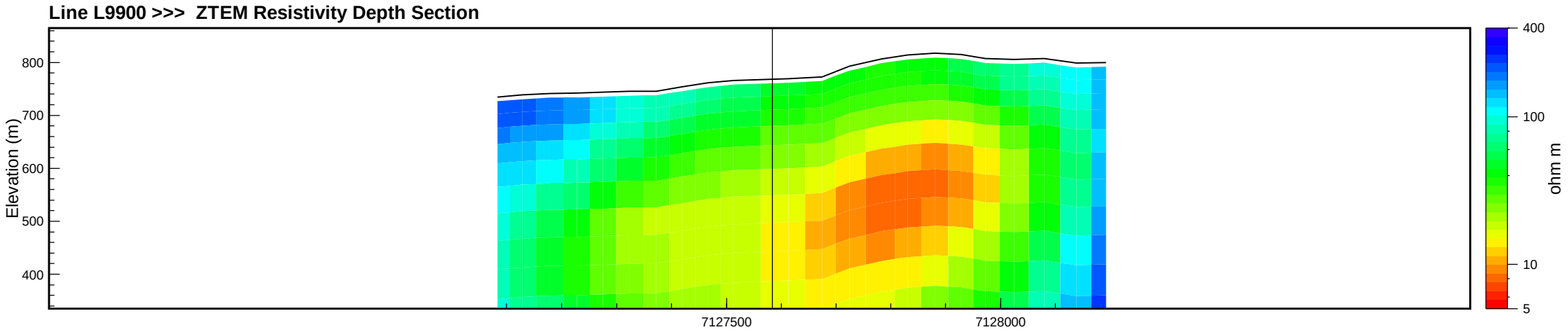
Line L9900 >>> Bouguer Gravity Depth Section



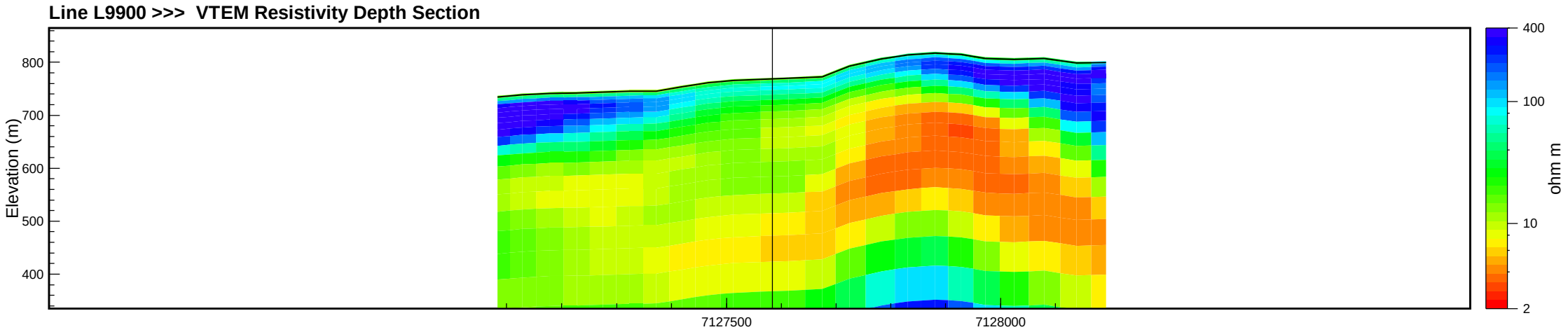
Line L9900 >>> Magnetic Susceptibility Depth Section



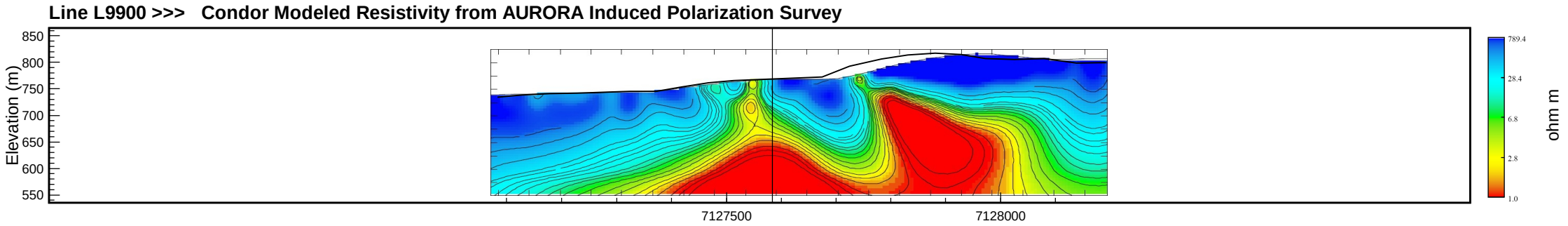
Line L9900 >>> ZTEM Resistivity Depth Section



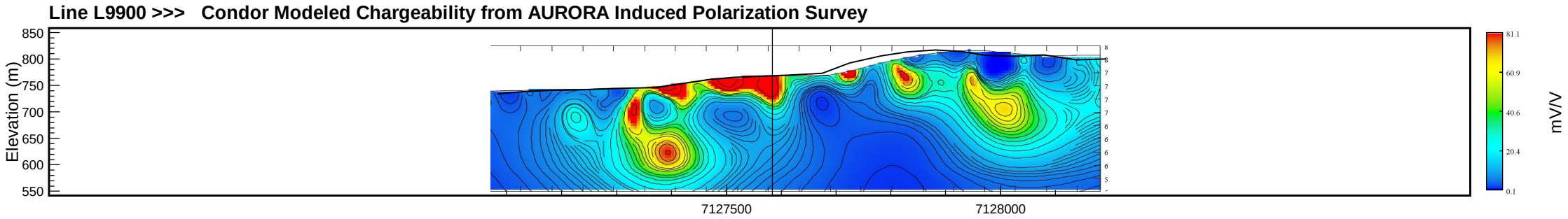
Line L9900 >>> VTEM Resistivity Depth Section



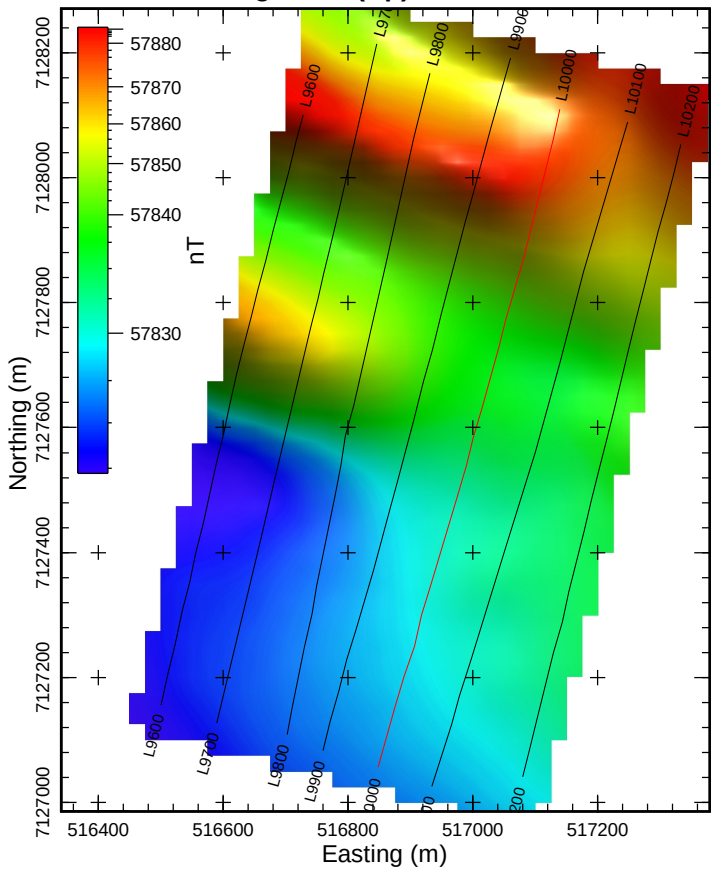
Line L9900 >>> Condor Modeled Resistivity from AURORA Induced Polarization Survey



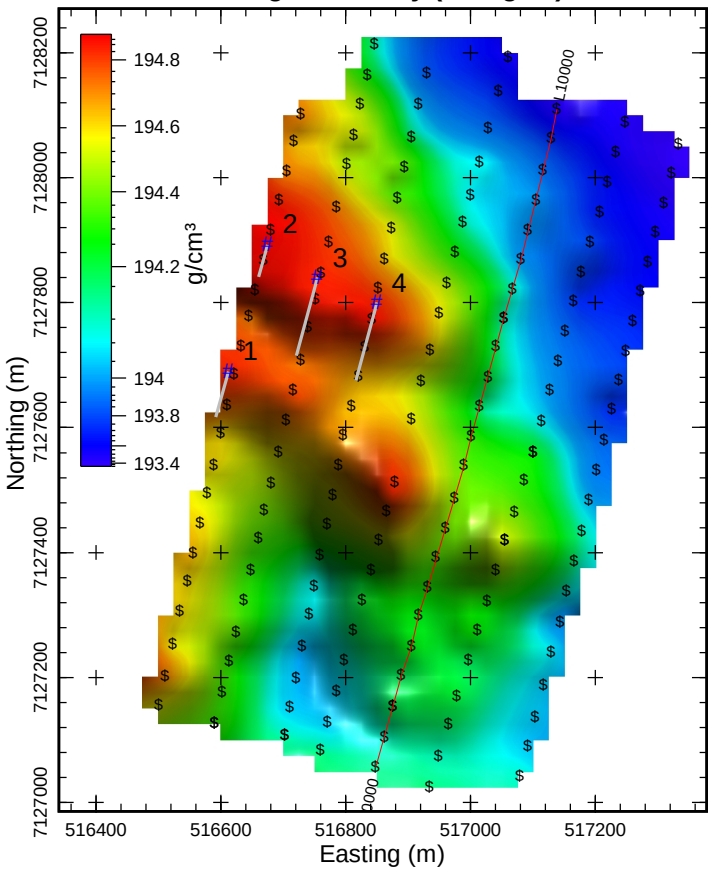
Line L9900 >>> Condor Modeled Chargeability from AURORA Induced Polarization Survey



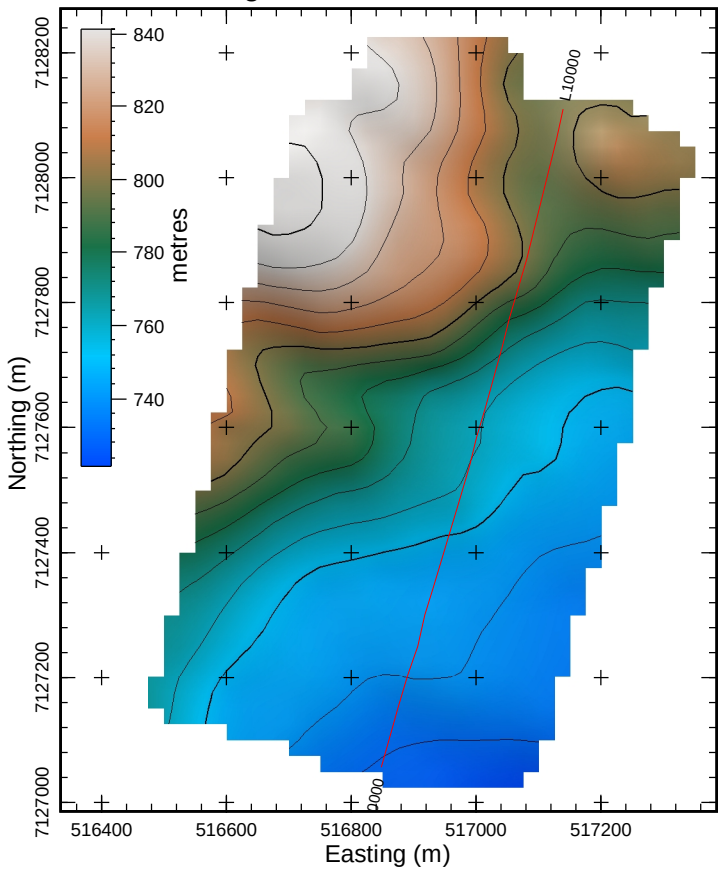
El Gossan - Magnetics (rtp)



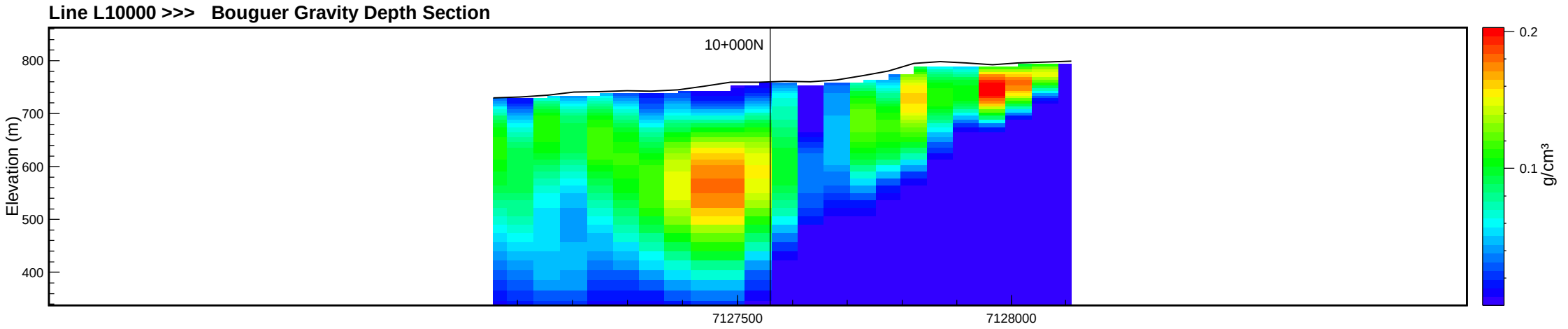
El Gossan - Bouguer Gravity (2.67 g/cc)



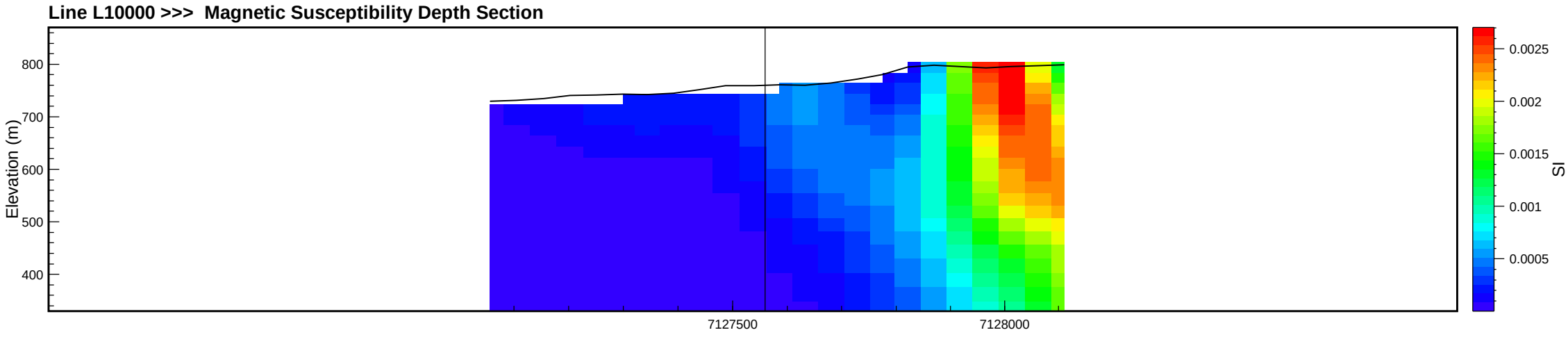
El Gossan - Digital Terrain Model



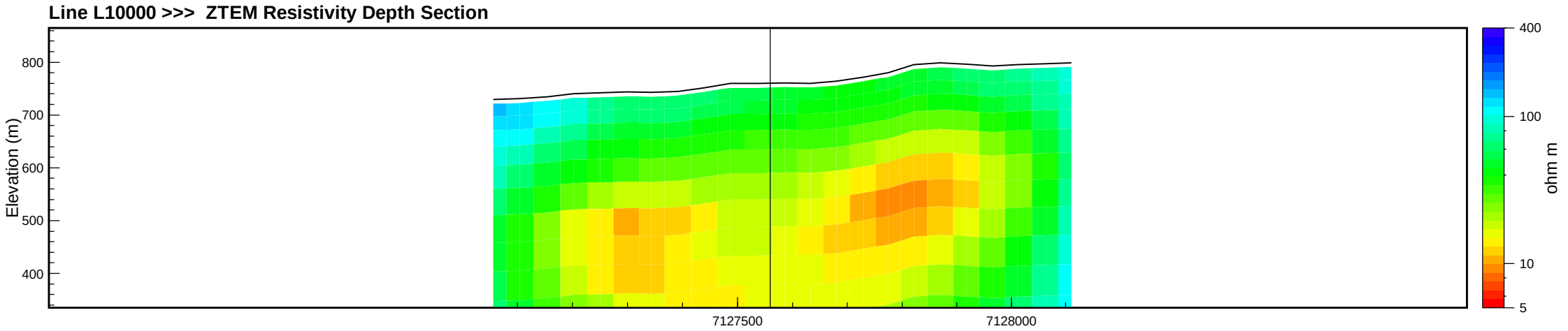
Line L10000 >>> Bouguer Gravity Depth Section



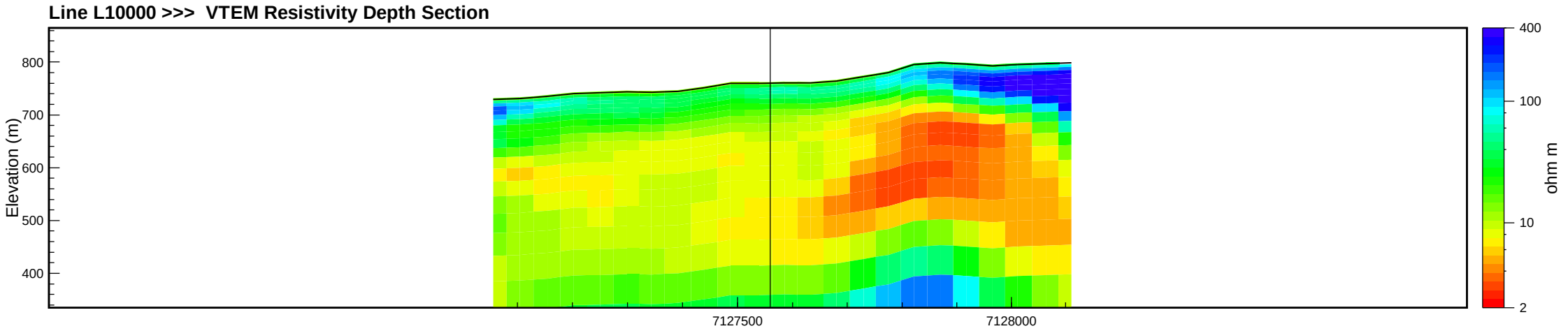
Line L10000 >>> Magnetic Susceptibility Depth Section



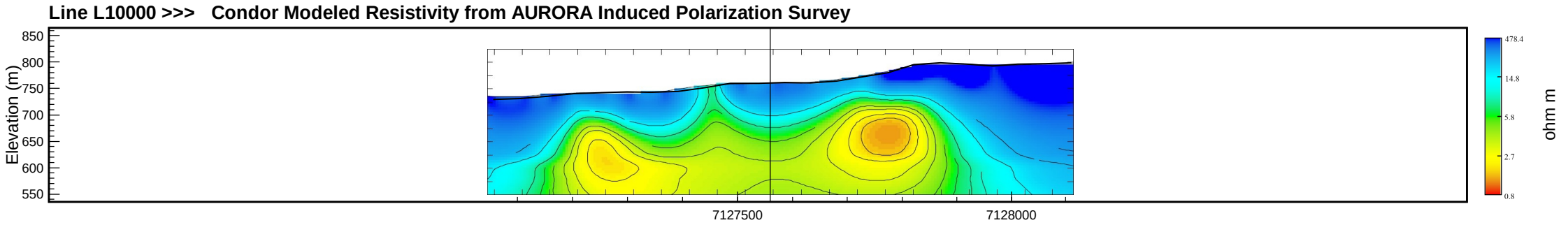
Line L10000 >>> ZTEM Resistivity Depth Section



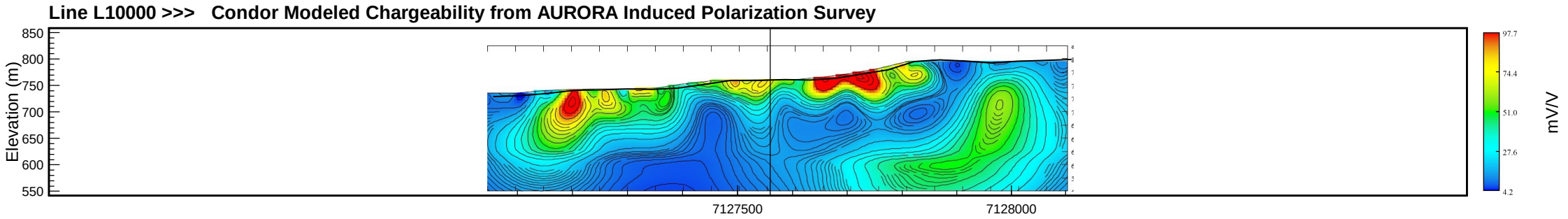
Line L10000 >>> VTEM Resistivity Depth Section



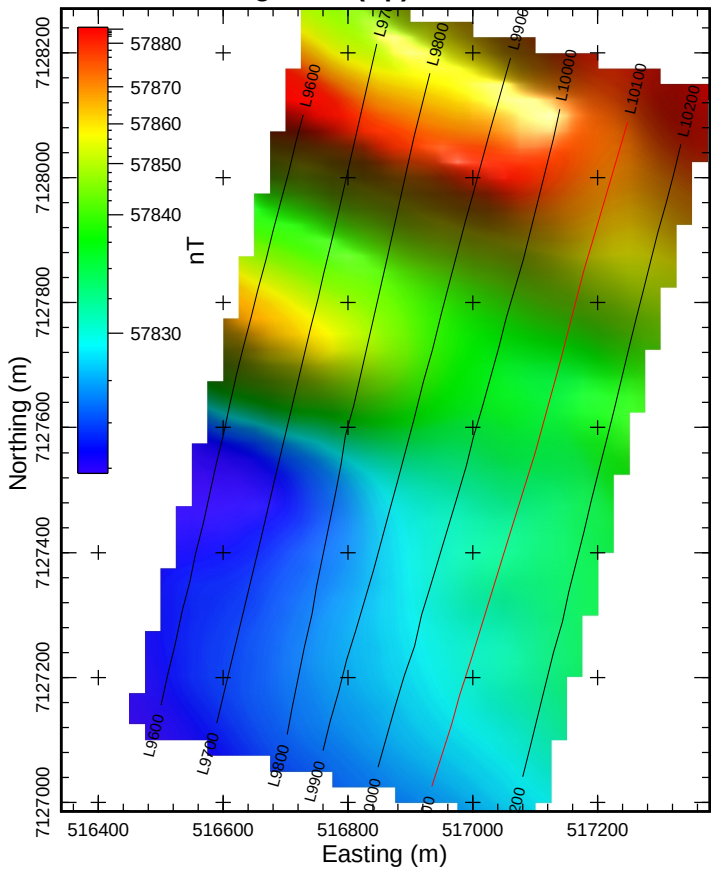
Line L10000 >>> Condor Modeled Resistivity from AURORA Induced Polarization Survey



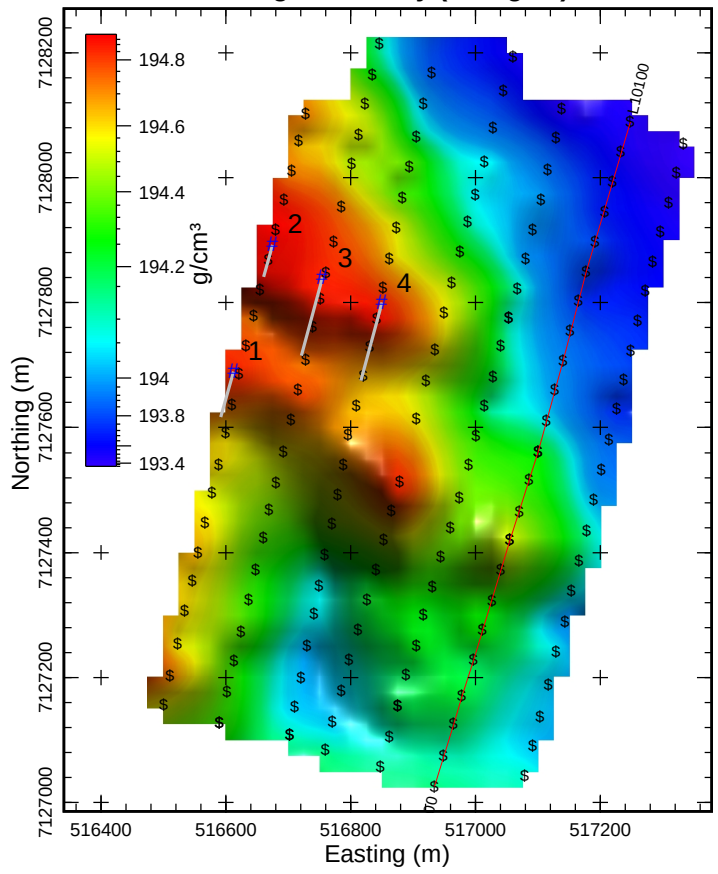
Line L10000 >>> Condor Modeled Chargeability from AURORA Induced Polarization Survey



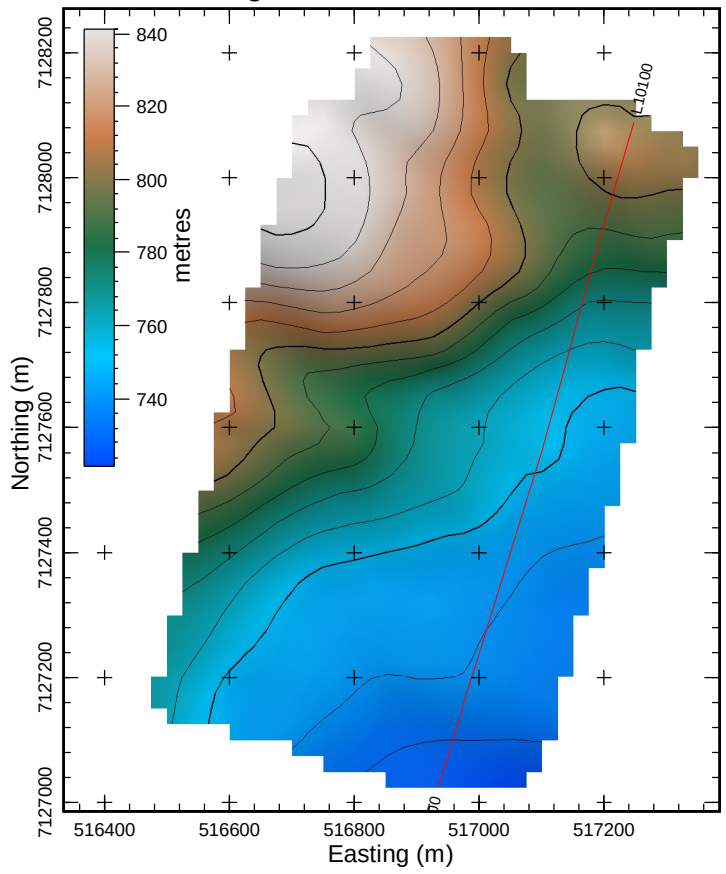
El Gossan - Magnetics (rtp)



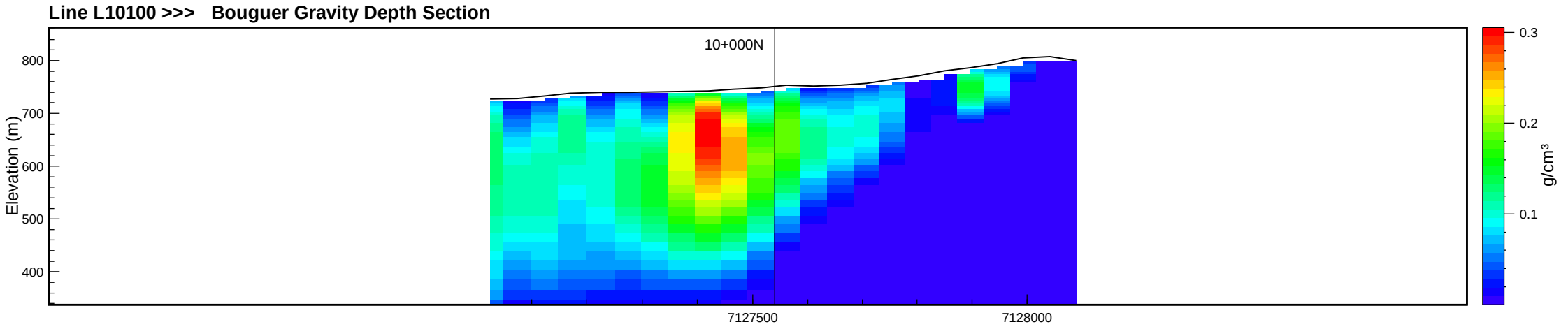
El Gossan - Bouguer Gravity (2.67 g/cc)



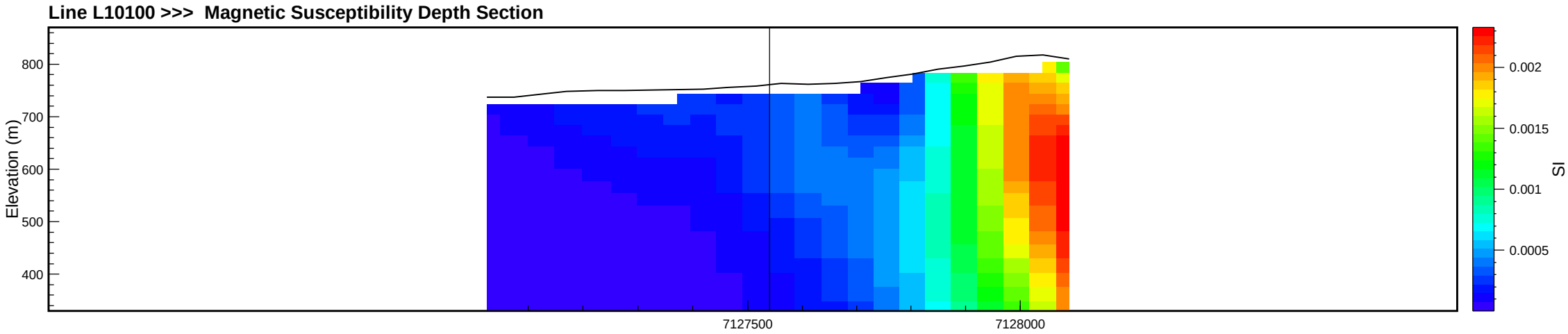
El Gossan - Digital Terrain Model



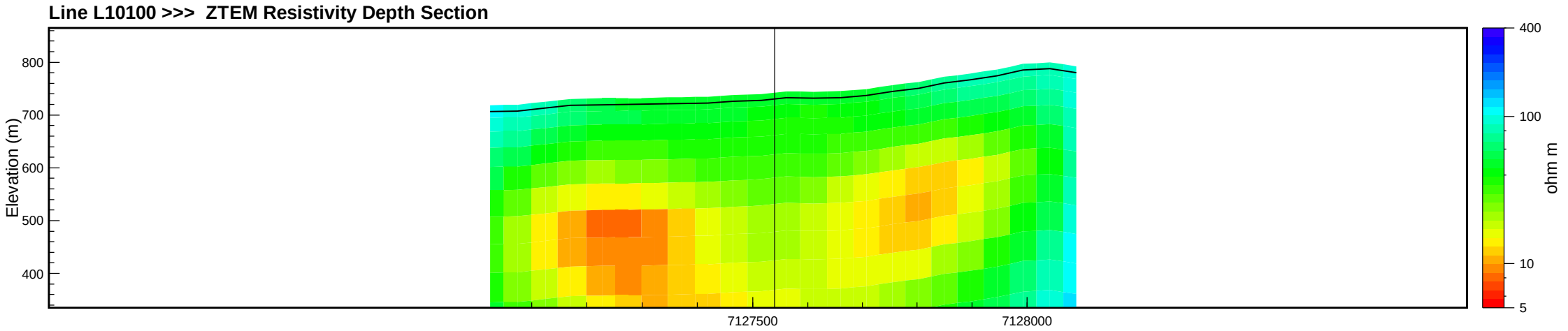
Line L10100 >>> Bouguer Gravity Depth Section



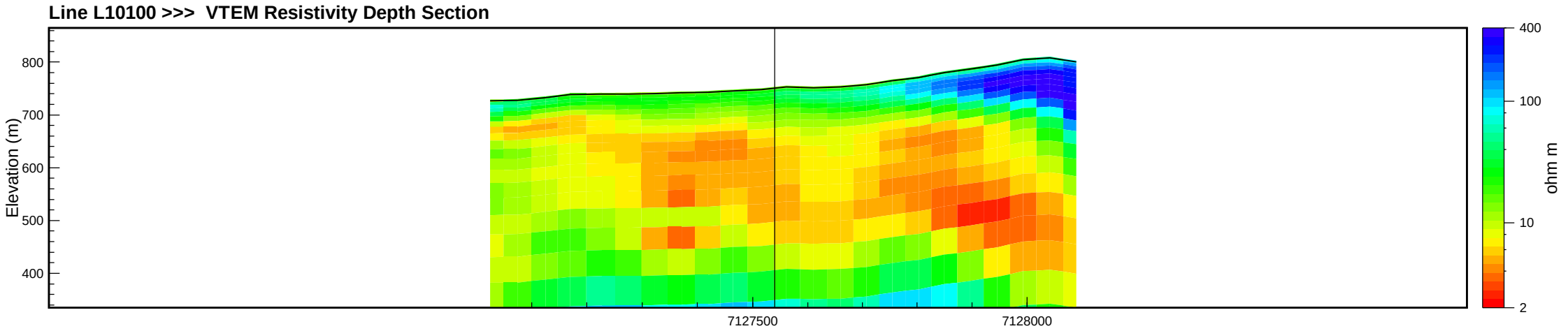
Line L10100 >>> Magnetic Susceptibility Depth Section



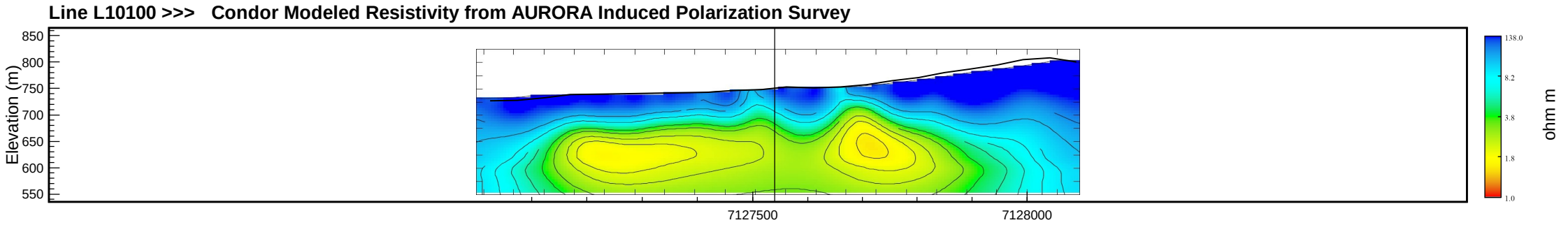
Line L10100 >>> ZTEM Resistivity Depth Section



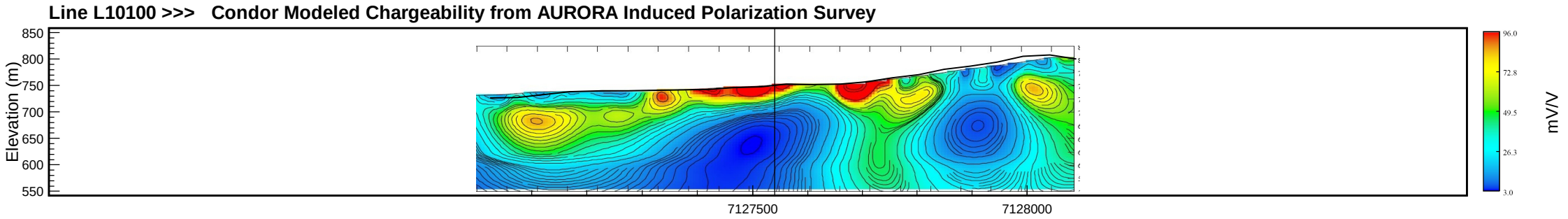
Line L10100 >>> VTEM Resistivity Depth Section



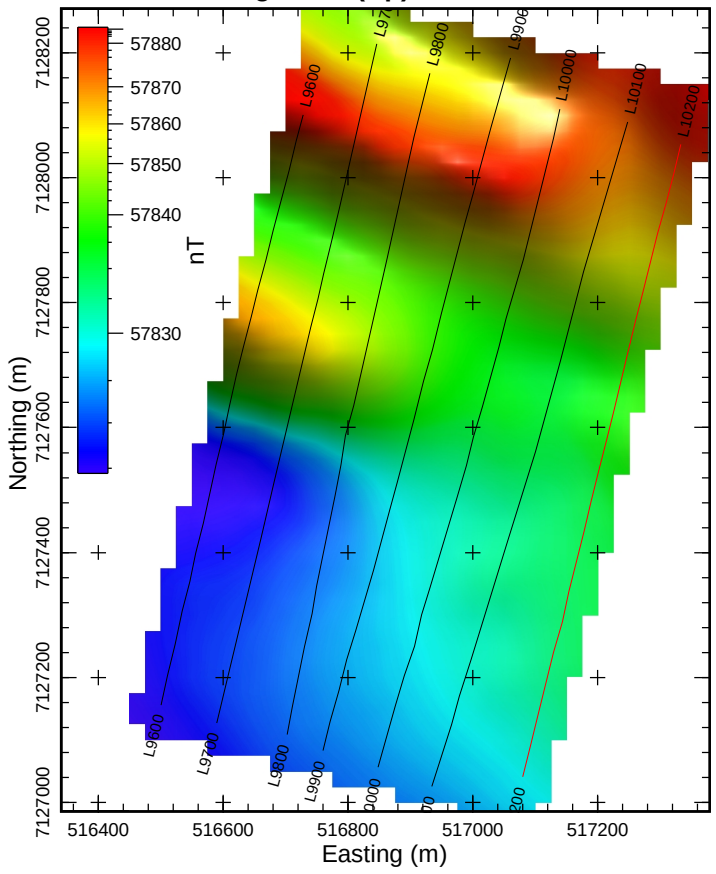
Line L10100 >>> Condor Modeled Resistivity from AURORA Induced Polarization Survey



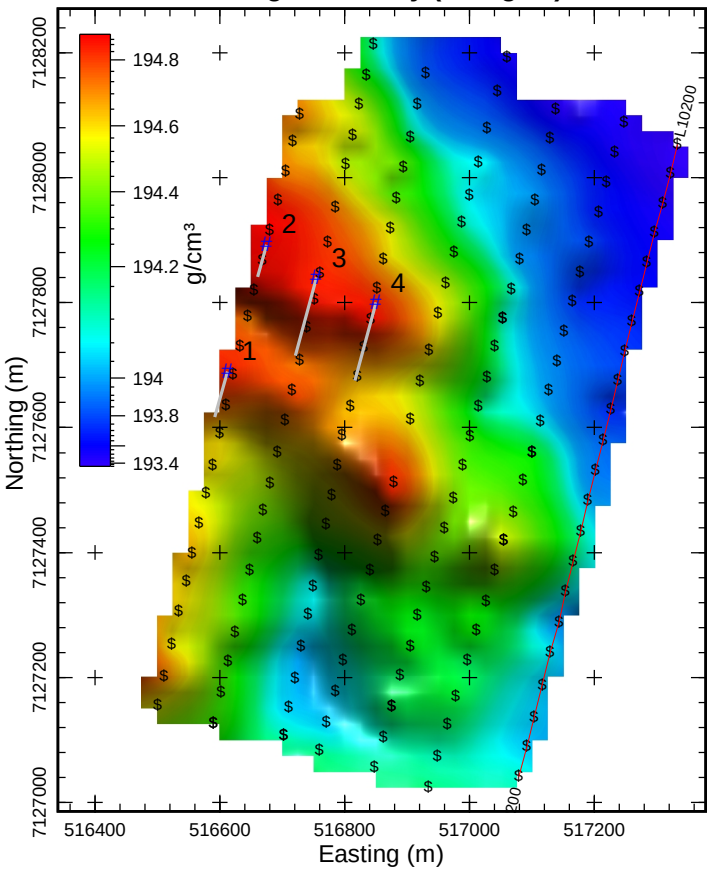
Line L10100 >>> Condor Modeled Chargeability from AURORA Induced Polarization Survey



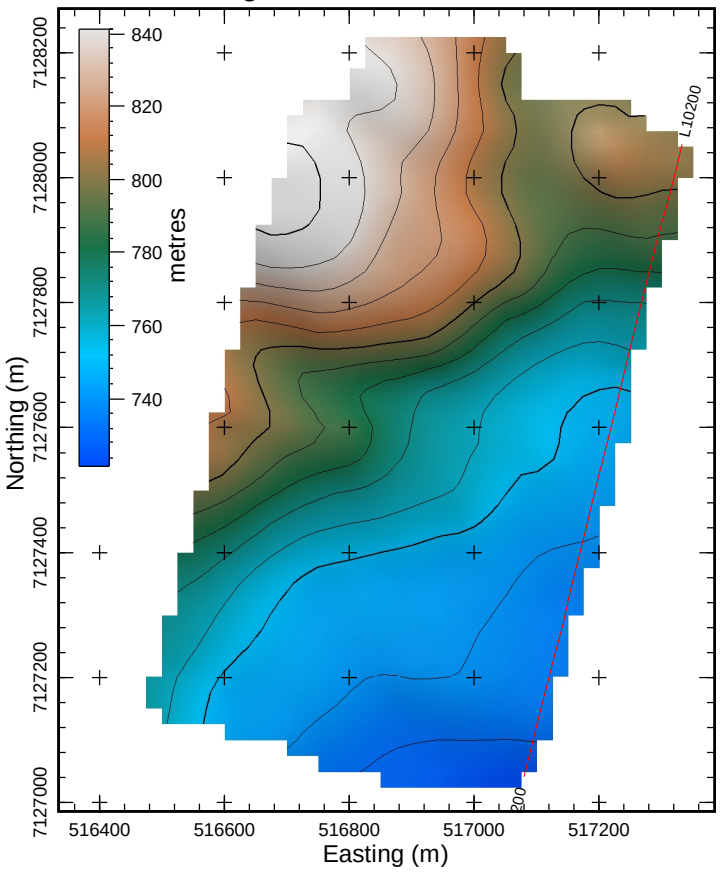
El Gossan - Magnetics (rtp)



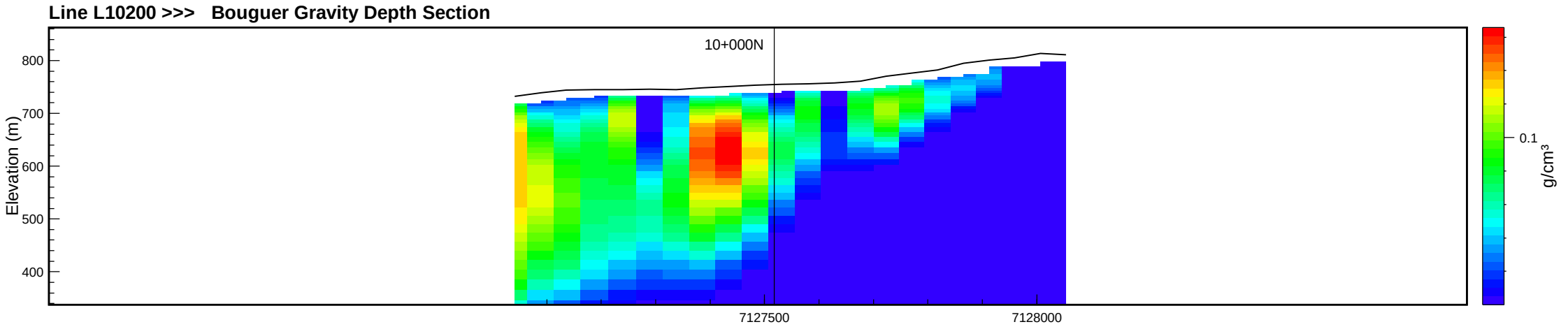
El Gossan - Bouguer Gravity (2.67 g/cc)



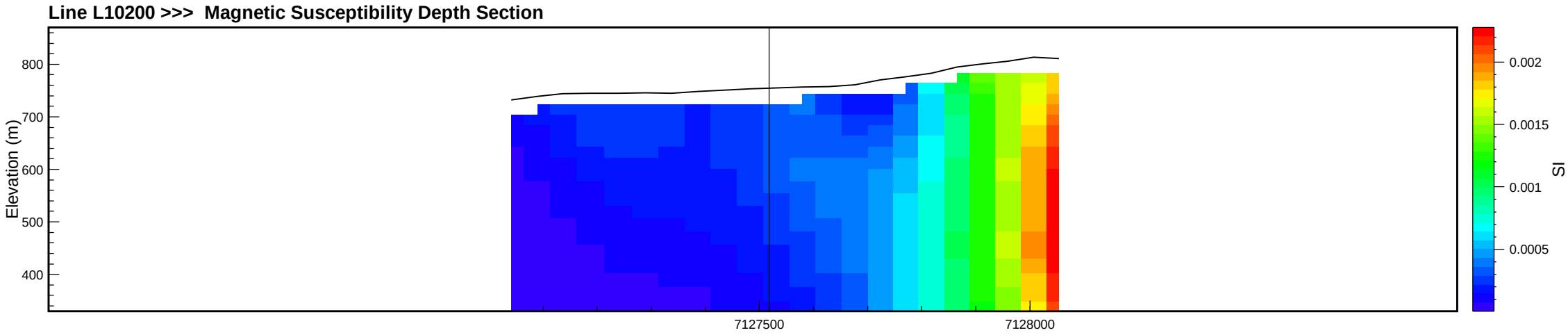
El Gossan - Digital Terrain Model



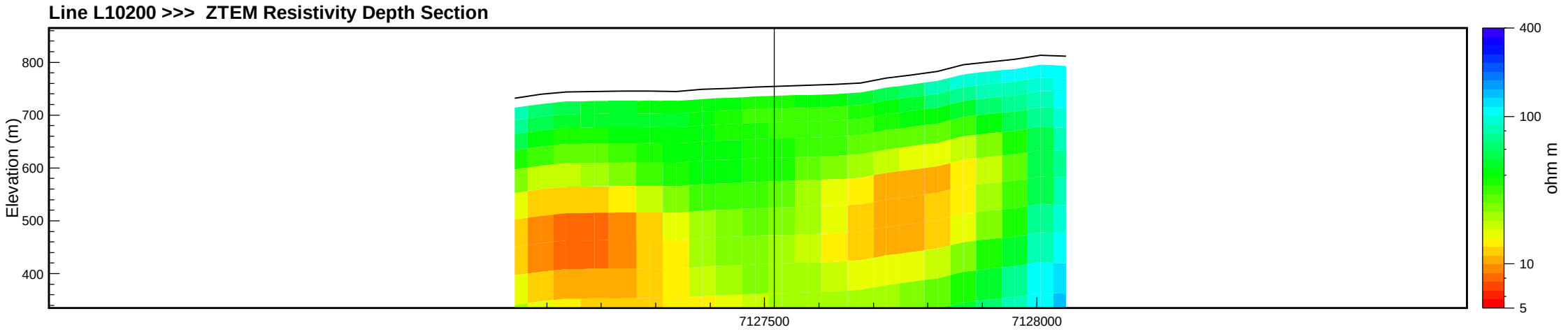
Line L10200 >>> Bouguer Gravity Depth Section



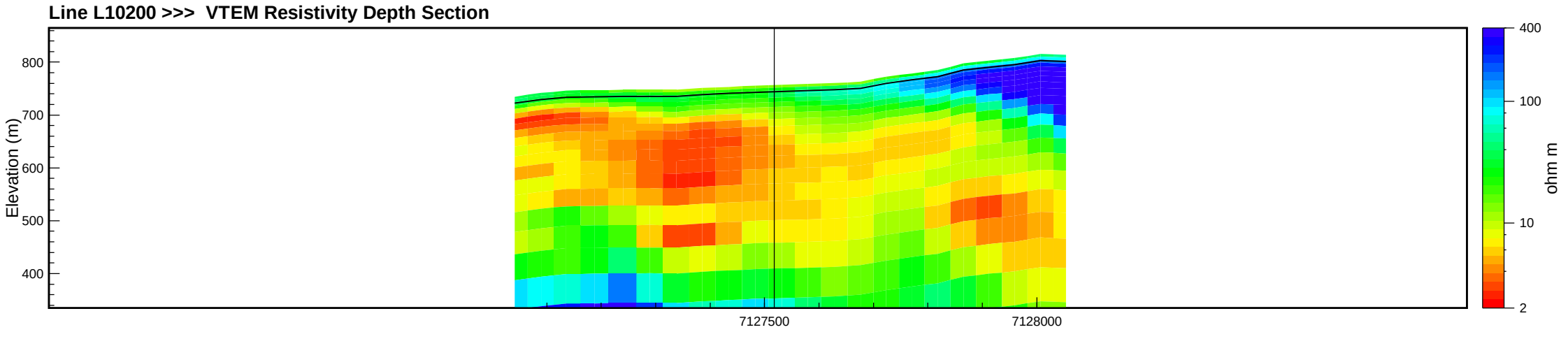
Line L10200 >>> Magnetic Susceptibility Depth Section



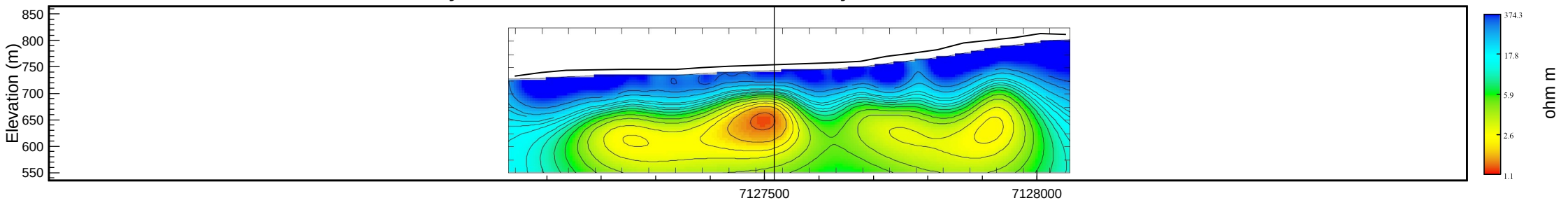
Line L10200 >>> ZTEM Resistivity Depth Section



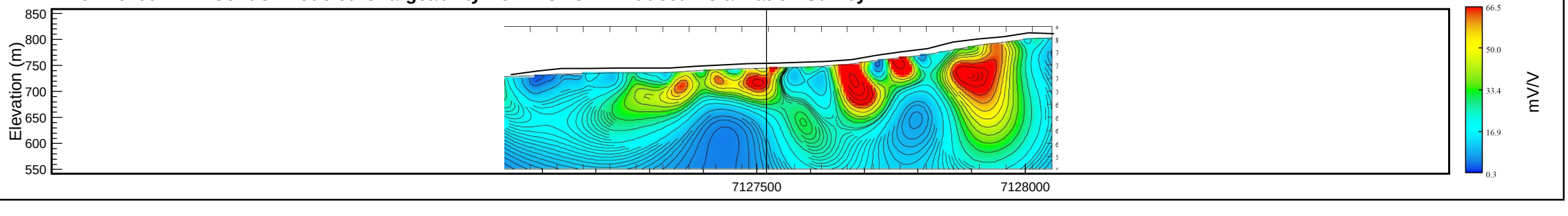
Line L10200 >>> VTEM Resistivity Depth Section



Line L10200 >>> Condor Modeled Resistivity from AURORA Induced Polarization Survey



Line L10200 >>> Condor Modeled Chargeability from AURORA Induced Polarization Survey



APPENDIX G: ARCHIVE DVD