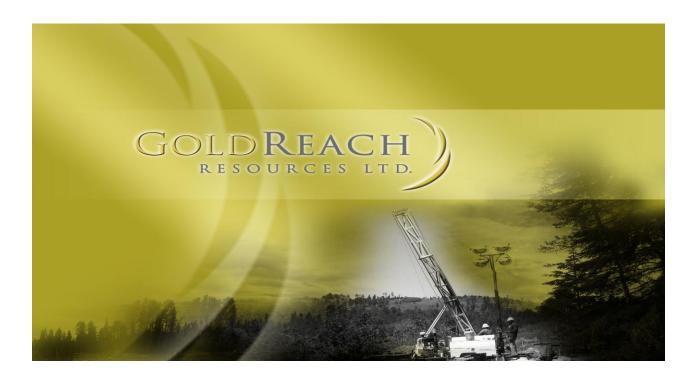
# A Mineral Resource Estimate Update for the Seel and Ox Deposits -- Ootsa Property, February 2014



# Gold Reach Resources Ltd.

Tahtsa Reach Area
British Columbia, Canada
Latitude 53°38' N
Longitude 127°05' W

Prepared for
Gold Reach Resources Ltd.
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Effective date for Ox deposit: January 09, 2014 Effective date for Seel deposit: January 27, 2014



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# 1.0 Summary

The Ootsa Property is 100% owned by Gold Reach Resources Ltd. (GRV) or its subsidiary Ootsa Lake Resources Ltd. and is located in west-central British Columbia on the south side of Tahtsa Reach, an arm of Ootsa Lake. There is good access to the property via a network of well-maintained all season logging roads. The towns of Houston and Smithers, BC are the nearest populated centers that serve as local supply and logistic headquarters to the mineral exploration industry. The Ootsa claims are adjacent to and contiguous with the operating Huckleberry mine property, located 8km northwest of the center of exploration activity on the Ootsa property.

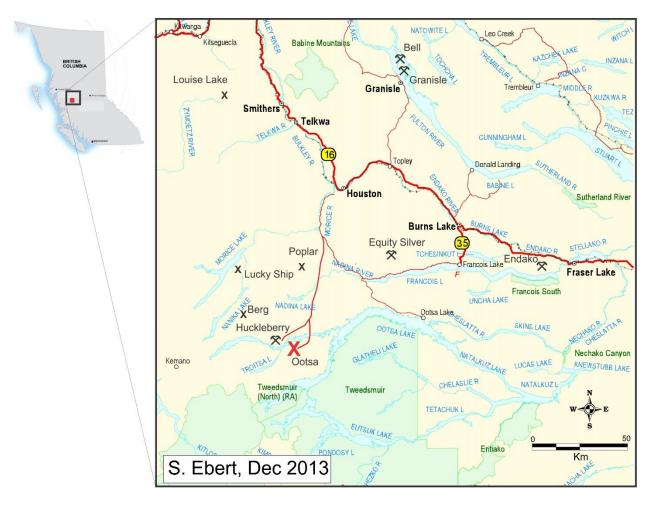


Figure 1-1: Ootsa Property location in west central British Columbia. Mine locations are denoted by crossed hammers and deposit locations with an X.



The Ootsa Property comprises several claim blocks that total over 67,000 hectares (Ha) and contains 2 porphyry deposits, Seel and Ox, along with a high grade silver-base metal vein system at Damascus. Details of these deposits along with past exploration work can be found in this report, and in several historic assessment reports and technical reports supporting resource estimates on both Seel and Ox. This report is intended to support the most current resource update completed on the Seel and Ox deposits. The effective date for the Seel deposit data is January 27<sup>th</sup>, 2014. The effective date for the Ox deposit data is January 9<sup>th</sup>, 2014.

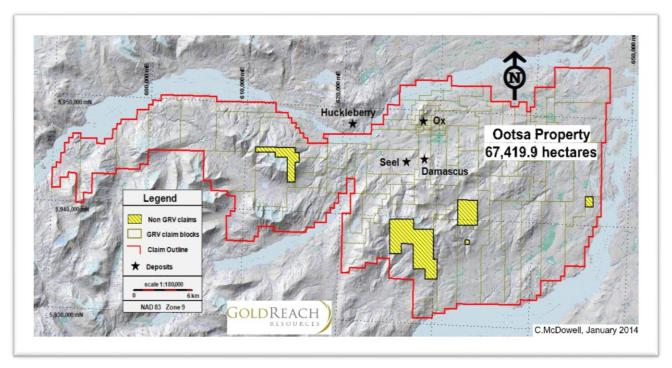


Figure 1-2: Ootsa Property Overview.

The Seel and Ox deposits are located at the southeast end of a southeast trending belt of porphyry deposits which includes the Huckleberry Mine, the Berg, and Lucky Ship deposits (Figure 1-1). The Ootsa Property is underlain by a series of juxtaposed fault blocks containing tilted and locally folded strata of the Lower to Middle Jurassic Hazelton Group. These rocks are cut by multi-phase intrusive complexes that are correlative with the Late Cretaceous Bulkley Intrusive suite. Intrusive phases include diorite, granodiorite, quartz diorite, porphyritic quartz monzonite (aka quartz porphyry), porphyritic granodiorite, feldspar porphyry, and quartz feldspar porphyry. The youngest rocks on the



property are gently dipping basaltic and rhyolitic flows of the Eocene Ootsa Lake Group that cap older strata in the Whitesail and Kasalka ranges.

Mineralization at the Seel deposit (East and West Seel) is largely hosted within various intrusive phases and to a volumetrically lesser extent in the altered sedimentary or volcanic rocks that host them. In contrast, mineralization at both Huckleberry and Ox formed in the hornfelsed wallrocks surrounding equigranular to porphyritic granodiorite stocks. The current level of erosion at Huckleberry is interpreted to be near the base of the Hazelton Group exposing the roots of a porphyry system (Christensen et al., 2011). Geologic characteristics at the Ox deposit are similar to those of Huckleberry in terms of interpreted stratigraphic level, intrusive textures and simple Cu +/- Mo with limited Au or Ag mineralization. These observations support the suggestion that the Huckleberry and Ox deposits expose moderately deep level porphyry systems. The reported age of mineralization at Ox is 83 +/- 3 Ma (Richards, 1974) and at Huckleberry 82.3 +/- 3Ma (Christensen et al., 2011). There are no published mineralization dates for the Seel deposit.

## 1.1 Seel Deposit Resource

The Seel deposit is an advanced stage exploration target that has had over 83,000 metres drilled to define the porphyry style mineralization contained within four domains; East Seel, West Seel, Breccia and North East zone. An initial 43-101 compliant resource for Seel was completed in 2008 by Wardrop Engineering. The Seel resource estimate was updated by Giroux Consultants Ltd. of Vancouver, B.C. in 2012 and 2013 after drill programs in 2011 and 2012. This report is meant to support the most current resource estimate updates completed on the Seel and Ox deposits in early 2014 after continued drilling in 2013. This combined resource estimate update was completed in accordance with Canadian Securities Administrators National Instrument 43-101 ("NI 43-101") and the CIM Standards on Mineral Resources and Reserves.

The unconstrained resource estimation (Section 14) was carried out by Giroux Consultants Ltd of Vancouver, British Columbia and Independent Qualified Person Gary Giroux, P.Eng is responsible for the estimate. Surface mapping and drill hole geology at the Seel deposit were used to establish geologic continuity of the mineralized zone and formed the basis for modelling. Geologic modeling was done using GemCom software. Mineralized domains (solids) have been defined based on alteration type and grades > 0.15% Cu Eq. All assays outside the solids were considered waste.

Uniform down hole 5 m composites were formed from the drill data and a block model with blocks 10 x 10 x 5 m in dimension was superimposed over all of the mineralized solids. Grades for Cu, Au, Mo and Ag were interpolated into each block by Ordinary Kriging. Due to the polymetallic nature of the Seel deposit a copper equivalent based cut off was used for modelling. As three year trailing average metal prices currently exceed



the spot price for Cu, Au, Ag, and Mo due to a downturn in metal prices, prices near spot were used for the resource calculation. Copper equivalent values were calculated using metal prices of \$3.00/lb for Cu, \$1300/ounce Au, \$22/ounce Ag, and \$10/lb for Mo. Recoveries used were obtained from metallurgical test work completed on Seel rocks by Inspectorate Exploration and Mining Services Ltd. and assume 95.0% recovery for Cu, 85.0% recovery for Au, 86.0% recovery for Ag, and 91.5% recovery for Mo. Tables 1-1 to 1-3 summarize the unconstrained resource at the Seel deposit.

Table 1-1: Contained metals in Seel Unconstrained Resource (0.2% Cu Eq cut-off)

| Element    | Measured and Indicated | Inferred             |
|------------|------------------------|----------------------|
| Copper     | 558,916,000 pounds     | 1,316,023,000 pounds |
| Molybdenum | 44,713,000 pounds      | 147,085,000 pounds   |
| Gold       | 652,000 ounces         | 1,242,000 ounces     |
| Silver     | 10,066,000 ounces      | 22,014,000 ounces    |
|            |                        |                      |
| Cu Eq.     | 1,033,994,000 pounds   | 2,399,807,000 pounds |

Table 1-2: Unconstrained Measured + Indicated Resource at the Seel Deposit

| Cut-off | Tonnes                                  | Grade > Cut-off |          |        |          |          |
|---------|---|-----------------|----------|--------|----------|----------|
| (CUEQ)  | (x1000)                                 | Cu              |          |        |          |          |
| (0024)  | (************************************** | (%)             | Au (g/t) | Mo (%) | Ag (g/t) | CuEq (%) |
| 0.10    | 167,540                                 | 0.17            | 0.14     | 0.014  | 2.11     | 0.32     |
| 0.15    | 152,010                                 | 0.18            | 0.14     | 0.015  | 2.23     | 0.34     |
| 0.20    | 126,760                                 | 0.20            | 0.16     | 0.016  | 2.47     | 0.37     |
| 0.25    | 100,300                                 | 0.22            | 0.17     | 0.018  | 2.74     | 0.40     |
| 0.30    | 75,390                                  | 0.24            | 0.20     | 0.020  | 2.96     | 0.45     |
| 0.35    | 55,560                                  | 0.27            | 0.22     | 0.022  | 3.08     | 0.49     |
| 0.40    | 40,080                                  | 0.29            | 0.25     | 0.024  | 3.14     | 0.54     |
| 0.45    | 29,010                                  | 0.31            | 0.28     | 0.025  | 3.15     | 0.58     |
| 0.50    | 20,900                                  | 0.33            | 0.31     | 0.027  | 3.17     | 0.62     |
| 0.55    | 14,650                                  | 0.35            | 0.34     | 0.028  | 3.20     | 0.67     |



Table 1-3: Unconstrained Inferred Resource at the Seel Deposit

|                   | Tonnes  | Grade > Cut-off |          |        |          |          |  |
|-------------------|---------|-----------------|----------|--------|----------|----------|--|
| Cut-off<br>(CUEQ) | (x1000) | Cu<br>(%)       | Au (g/t) | Mo (%) | Ag (g/t) | CuEq (%) |  |
| 0.10              | 468,130 | 0.15            | 0.10     | 0.016  | 1.75     | 0.27     |  |
| 0.15              | 436,180 | 0.15            | 0.10     | 0.017  | 1.80     | 0.29     |  |
| 0.20              | 351,140 | 0.17            | 0.11     | 0.019  | 1.95     | 0.31     |  |
| 0.25              | 242,890 | 0.19            | 0.13     | 0.021  | 2.16     | 0.35     |  |
| 0.30              | 154,640 | 0.21            | 0.15     | 0.024  | 2.37     | 0.39     |  |
| 0.35              | 94,030  | 0.23            | 0.17     | 0.027  | 2.56     | 0.44     |  |
| 0.40              | 54,380  | 0.25            | 0.20     | 0.030  | 2.75     | 0.49     |  |
| 0.45              | 32,090  | 0.27            | 0.22     | 0.033  | 2.96     | 0.53     |  |
| 0.50              | 18,250  | 0.29            | 0.25     | 0.036  | 3.18     | 0.58     |  |
| 0.55              | 9,800   | 0.32            | 0.28     | 0.038  | 3.51     | 0.63     |  |

The Seel resource estimate has been constrained by a conceptual pit shell in order to confirm reasonable prospects of economic extraction. Moose Mountain Technical Services of Cranbrook, BC, provided engineering and open pit constraints for the Seel resource under the supervision of Independent Qualified Person Tracey Meintjes, P.Eng. The constrained measured plus indicated and inferred mineral resource estimates are contained within a single resource-limiting open-pit shell that is up to 1600 metres long by up to 1000 metres wide, and extends to up to 400 metres deep. The open pit was designed using a conventional Lerchs and Grossmann (LG) pit outline. Parameters used to establish the conceptual pit are: Maximum pit slope of 50 degrees, process recoveries of 95% for copper, 91.5% for molybdenum, and 85% for gold and 86% for silver, mining costs of \$2.20 per tonne and processing costs of \$10 per tonne. Metal prices for the limiting pit were set at \$4.50/lb. Cu, \$20/lb. Mo, \$1600/oz Au, \$30/oz Ag. Results for the pit-constrained Seel resource estimate are summarized in the tables below.

Table 1-4: Pit-constrained Contained Metals at the Seel Deposit (0.2% Cu Eq cut-off)

| Element    | Measured and Indicated | Inferred             |  |  |
|------------|------------------------|----------------------|--|--|
| Copper     | 538,620,000 pounds     | 838,863,000 pounds   |  |  |
| Molybdenum | 43,603,000 pounds      | 97,867,000 pounds    |  |  |
| Gold       | 598,500 ounces         | 816,000 ounces       |  |  |
| Silver     | 9,575,500 ounces       | 15,564,000 ounces    |  |  |
|            |                        |                      |  |  |
| Cu Eq.     | 974,646,000 pounds     | 1,584,520,000 pounds |  |  |



Table 1-5: Pit-constrained Measured and Indicated Resource at the Seel Deposit

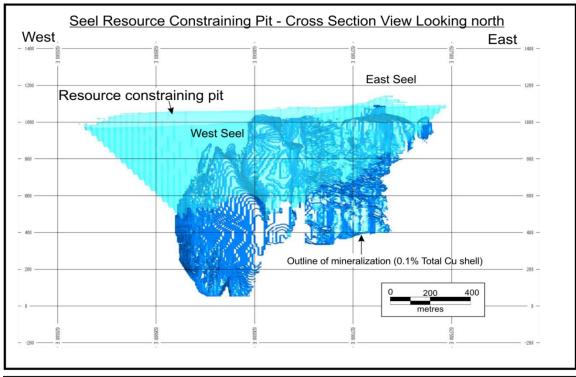
| Cut-off Tonnes |         | Grade > Cut-off |          |        |          |          |  |
|----------------|---------|-----------------|----------|--------|----------|----------|--|
| (CUEQ)         | (x1000) | Cu              |          |        |          |          |  |
| (OOLQ)         | (X1000) | (%)             | Au (g/t) | Mo (%) | Ag (g/t) | CuEq (%) |  |
| 0.10           | 147,530 | 0.18            | 0.14     | 0.015  | 2.23     | 0.33     |  |
| 0.15           | 135,640 | 0.19            | 0.15     | 0.016  | 2.35     | 0.35     |  |
| 0.20           | 116,340 | 0.21            | 0.16     | 0.017  | 2.56     | 0.38     |  |
| 0.25           | 95,360  | 0.22            | 0.18     | 0.018  | 2.80     | 0.41     |  |
| 0.30           | 73,670  | 0.25            | 0.20     | 0.020  | 2.99     | 0.45     |  |
| 0.35           | 54,940  | 0.27            | 0.22     | 0.022  | 3.10     | 0.49     |  |
| 0.40           | 39,780  | 0.29            | 0.25     | 0.024  | 3.14     | 0.54     |  |
| 0.45           | 28,830  | 0.31            | 0.28     | 0.025  | 3.16     | 0.58     |  |
| 0.50           | 20,790  | 0.33            | 0.31     | 0.027  | 3.18     | 0.62     |  |

Table 1-6: Pit-constrained Inferred Resource at the Seel Deposit.

|         | Tonnes  | Grade > Cut-off |          |        |          |          |  |  |
|---------|---------|-----------------|----------|--------|----------|----------|--|--|
| Cut-off | (x1000) | Cu              |          |        |          |          |  |  |
| (CUEQ)  | (X1000) | (%)             | Au (g/t) | Mo (%) | Ag (g/t) | CuEq (%) |  |  |
| 0.10    | 257,830 | 0.17            | 0.11     | 0.019  | 2.11     | 0.31     |  |  |
| 0.15    | 244,350 | 0.17            | 0.12     | 0.019  | 2.17     | 0.32     |  |  |
| 0.20    | 211,390 | 0.18            | 0.12     | 0.021  | 2.29     | 0.34     |  |  |
| 0.25    | 169,290 | 0.20            | 0.14     | 0.022  | 2.42     | 0.37     |  |  |
| 0.30    | 126,680 | 0.22            | 0.15     | 0.025  | 2.51     | 0.40     |  |  |
| 0.35    | 85,090  | 0.24            | 0.17     | 0.028  | 2.63     | 0.44     |  |  |
| 0.40    | 51,640  | 0.26            | 0.19     | 0.031  | 2.80     | 0.49     |  |  |
| 0.45    | 31,080  | 0.28            | 0.21     | 0.033  | 2.99     | 0.53     |  |  |
| 0.50    | 17,860  | 0.30            | 0.24     | 0.036  | 3.21     | 0.58     |  |  |

The updated Seel resource features over 1 billion pounds of copper equivalent material in the global measured and indicated categories and 2.4 billion pounds within the inferred category. Over 52% of the global indicated resource in the East Seel domain has been upgraded to the measured category while the West Seel domain has realized a 285% increase in the global measured and indicated categories. Moreover, 92% of the global measured and indicated resource at the Seel deposit is contained within the limiting pit defined by Moose Mountain.





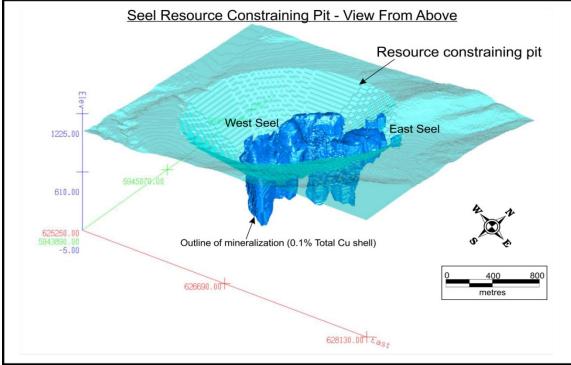


Figure 1-3: Cross section (above) and plan view (below) showing Seel conceptual pit and resource outline



## 1.2 Ox Deposit Resource

The Ox deposit is an advanced stage exploration target that has had over 33,000 metres drilled to define the porphyry style mineralization contained within. An initial 43-101 compliant resource was completed in 2008 by Wardrop Engineering and updated in early 2013 by Giroux Consultants Ltd. after Gold Reach completed further drilling in 2012. The latest resource update follows the completion of 17,372.8 metres of infill and expansion drilling in 90 holes at the Ox deposit in 2013. The most current Ox resource is based on 22,123.5 metres of drilling in 108 holes.

The unconstrained resource estimation was carried out by Giroux Consultants Ltd of Vancouver, British Columbia and Independent Qualified Person Gary Giroux, P.Eng is responsible for the estimate. Surface mapping and drill hole geology at the Ox deposit were used to establish geologic continuity of the mineralized zone and formed the basis for modelling. Geologic modeling was done using GemCom software. Mineralized domains (solids) have been defined based on alteration type and grades > 0.15% Cu Eq. All assays outside the solids were considered waste.

Uniform down hole 5 m composites were formed from the drill data and a block model with blocks 10 x 10 x 5 m in dimension was superimposed over all of the mineralized solids. Grades for Cu, Au, Mo and Ag were interpolated into each block by Ordinary Kriging. Due to the polymetallic nature of the Ox deposit a copper equivalent based cut off was used for modelling. As three year trailing average metal prices currently exceed the spot price for Cu, Au, Ag, and Mo, due to a downturn in metal prices, prices near spot were used for the resource calculation. Copper equivalent values were calculated using metal prices of \$3.00/lb for Cu, \$1300/ounce Au, \$22/ounce Ag, and \$10/lb for Mo. Recoveries used were obtained from recent metallurgical test work completed on Ox rocks by Inspectorate Exploration and Mining Services Ltd. and assume 94.3% recovery for Cu, 70.7% recovery for Au, 84.1% recovery for Ag, and 92.4% recovery for Mo. An average specific gravity of 2.69 was used to convert volumes to tonnes based on 1054 specific gravity measurements conducted on drill core using the weight in air / weight in water method. Results from the unconstrained Ox resource are summarized in the tables below.

Table 1-7: Contained Metals in Unconstrained Ox Resource (0.2% Cu Eq. cut-off)

| Element    | Measured and Indicated | Inferred          |  |  |
|------------|------------------------|-------------------|--|--|
| Copper     | 174,297,464 pounds     | 61,314,964 pounds |  |  |
| Molybdenum | 22,658,670 pounds      | 7,231,525 pounds  |  |  |
| Gold       | 50,837 ounces          | 15,780 ounces     |  |  |
| Silver     | 1,944,506 ounces       | 715,341 ounces    |  |  |
|            |                        |                   |  |  |
| Cu Eq.     | 278,875,943 pounds     | 97,382,590 pounds |  |  |



Table 1-8: Ox Unconstrained Measured + Indicated Resource

| Cut-off | Tonnes  | Grade > | Grade > Cut-off |          |          |          |  |  |  |
|---------|---------|---------|-----------------|----------|----------|----------|--|--|--|
| (CUEQ)  | (x1000) | Cu (%)  | Mo (%)          | Au (g/t) | Ag (g/t) | CuEq (%) |  |  |  |
| 0.10    | 52,290  | 0.18    | 0.023           | 0.03     | 1.37     | 0.28     |  |  |  |
| 0.15    | 47,720  | 0.19    | 0.024           | 0.04     | 1.43     | 0.30     |  |  |  |
| 0.20    | 39,530  | 0.20    | 0.026           | 0.04     | 1.53     | 0.32     |  |  |  |
| 0.25    | 29,410  | 0.23    | 0.029           | 0.04     | 1.66     | 0.36     |  |  |  |
| 0.30    | 20,490  | 0.25    | 0.031           | 0.04     | 1.81     | 0.39     |  |  |  |
| 0.35    | 13,260  | 0.28    | 0.033           | 0.05     | 1.95     | 0.43     |  |  |  |
| 0.40    | 7,740   | 0.31    | 0.035           | 0.05     | 2.11     | 0.47     |  |  |  |
| 0.45    | 3,880   | 0.34    | 0.037           | 0.06     | 2.24     | 0.51     |  |  |  |

Table 1-9: Ox Unconstrained Inferred Resource

|                   | Tonnes (x1000) | Grade > | Grade > Cut-off |          |          |          |  |  |  |
|-------------------|----------------|---------|-----------------|----------|----------|----------|--|--|--|
| Cut-off<br>(CUEQ) |                | Cu (%)  | Mo (%)          | Au (g/t) | Ag (g/t) | CuEq (%) |  |  |  |
| 0.10              | 35,640         | 0.13    | 0.016           | 0.02     | 1.22     | 0.20     |  |  |  |
| 0.15              | 26,640         | 0.15    | 0.018           | 0.03     | 1.29     | 0.23     |  |  |  |
| 0.20              | 16,360         | 0.17    | 0.020           | 0.03     | 1.36     | 0.27     |  |  |  |
| 0.25              | 8,470          | 0.20    | 0.023           | 0.03     | 1.43     | 0.31     |  |  |  |
| 0.30              | 3,750          | 0.23    | 0.027           | 0.04     | 1.58     | 0.35     |  |  |  |
| 0.35              | 1,370          | 0.26    | 0.029           | 0.04     | 1.72     | 0.39     |  |  |  |
| 0.40              | 380            | 0.30    | 0.033           | 0.04     | 1.87     | 0.44     |  |  |  |
| 0.45              | 130            | 0.33    | 0.034           | 0.04     | 2.03     | 0.48     |  |  |  |

The Ox resource estimate has been constrained by a conceptual pit shell in order to confirm reasonable prospects of economic extraction. Moose Mountain Technical Services of Cranbrook, BC, provided engineering and open pit constraints for the Ox resource under the supervision of Independent Qualified Person Tracey Meintjes, P.Eng. The constrained measured plus indicated and inferred mineral resource estimates are contained within a single resource-limiting open-pit shell that is up to 900 metres long by up to 600 metres wide, and extends to up to 250 metres deep. The open pit was designed using a conventional Lerchs and Grossmann (LG) pit outline. Parameters used to establish the conceptual pit are: Maximum pit slope of 50 degrees, process recoveries of 90% for copper, 80% for molybdenum, and 75% for gold and silver, mining costs of \$2.20 per tonne and processing costs of \$10 per tonne. Metal prices for the limiting pit were set at \$4.50/lb. Cu, \$20/lb. Mo, \$1600/oz Au, \$30/oz Ag. Results for the pit constrained and unconstrained Ox resource estimate are summarized in the tables below.



Table 1-10: Contained Metals in Ox Pit-Constrained Resource (0.2% Cu. Eq. cut-off)

| Element    | Measured and Indicated | Inferred          |  |  |
|------------|------------------------|-------------------|--|--|
| Copper     | 174,169,596 pounds     | 48,334,146 pounds |  |  |
| Molybdenum | 22,393,234 pounds      | 5,638,984 pounds  |  |  |
| Gold       | 48,380 ounces          | 11,748 ounces     |  |  |
| Silver     | 1,850,552 ounces       | 512,991 ounces    |  |  |
|            |                        |                   |  |  |
| Cu Eq.     | 273,695,080 pounds     | 75,186,450 pounds |  |  |

Table 1-11: Ox Pit-Constrained Measured + Indicated Resource

| Cut-off | Tonnes  | Grade > | > Cut-off |          |          |          |
|---------|---------|---------|-----------|----------|----------|----------|
| (CUEQ)  | (x1000) | Cu (%)  | Mo (%)    | Au (g/t) | Ag (g/t) | CuEq (%) |
| 0.10    | 48,140  | 0.18    | 0.024     | 0.04     | 1.39     | 0.29     |
| 0.15    | 44,640  | 0.19    | 0.025     | 0.04     | 1.44     | 0.30     |
| 0.20    | 37,620  | 0.21    | 0.027     | 0.04     | 1.53     | 0.33     |
| 0.25    | 28,630  | 0.23    | 0.029     | 0.04     | 1.66     | 0.36     |
| 0.30    | 20,230  | 0.25    | 0.031     | 0.04     | 1.80     | 0.39     |
| 0.35    | 13,160  | 0.28    | 0.033     | 0.05     | 1.95     | 0.43     |
| 0.40    | 7,710   | 0.31    | 0.035     | 0.05     | 2.10     | 0.47     |
| 0.45    | 3,870   | 0.34    | 0.037     | 0.06     | 2.24     | 0.51     |

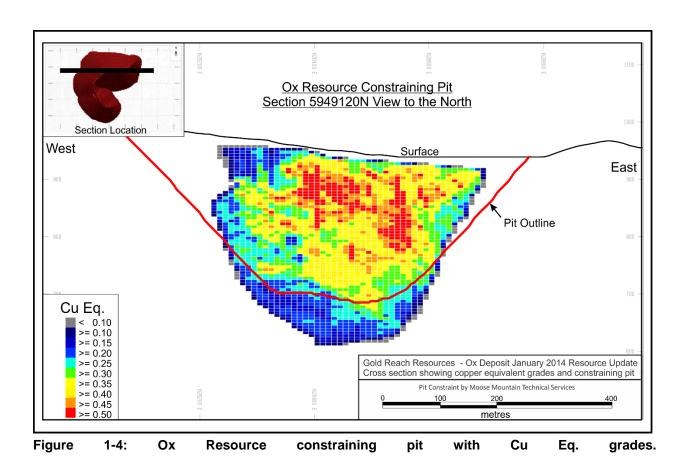
Table 1-12: Ox Pit-Constrained Inferred Resource

| Cut-off | Tonnes  | Grade > | Grade > Cut-off |          |          |          |  |  |  |
|---------|---------|---------|-----------------|----------|----------|----------|--|--|--|
| (CUEQ)  | (x1000) | Cu (%)  | Mo (%)          | Au (g/t) | Ag (g/t) | CuEq (%) |  |  |  |
| 0.10    | 17,780  | 0.16    | 0.018           | 0.03     | 1.20     | 0.24     |  |  |  |
| 0.15    | 15,720  | 0.17    | 0.020           | 0.03     | 1.25     | 0.25     |  |  |  |
| 0.20    | 12,180  | 0.18    | 0.021           | 0.03     | 1.31     | 0.28     |  |  |  |
| 0.25    | 7,690   | 0.20    | 0.024           | 0.03     | 1.41     | 0.31     |  |  |  |
| 0.30    | 3,570   | 0.23    | 0.027           | 0.04     | 1.55     | 0.35     |  |  |  |
| 0.35    | 1,300   | 0.26    | 0.030           | 0.04     | 1.69     | 0.39     |  |  |  |
| 0.40    | 370     | 0.30    | 0.033           | 0.04     | 1.86     | 0.44     |  |  |  |
| 0.45    | 130     | 0.33    | 0.034           | 0.04     | 2.03     | 0.48     |  |  |  |

The above tabulated results show that the majority of the Ox resource is now classified in the measured and indicated categories, a substantial change from the 2013 resource update when the entire deposit was classified within the inferred confidence category. The positive metal recovery estimates and favorable open pit geometry with near surface higher grade concentration (Figure 1-4) provide affirmation that further advancement of the Ox deposit is justifiable. Potential next steps include continued definition drilling, more



comprehensive economic studies and initiating early stage aquatic and wildlife studies. Figure 1-4 shows copper equivalent grades within the pit outline and Figure 1-5 illustrates the extent of the mineralized zone contained within the pit shell.





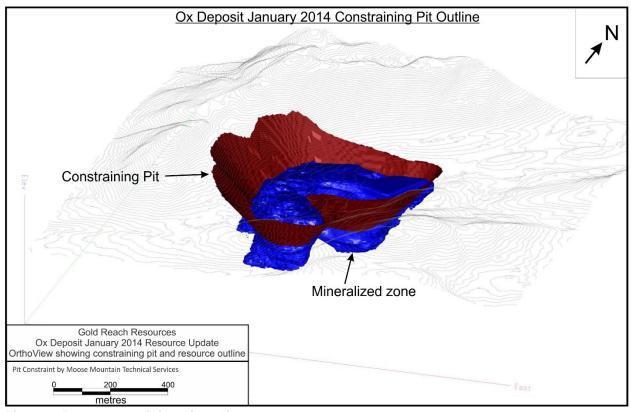


Figure 1-5: Ox constraining pit outline.

### 2.0 Introduction

This report on estimation of mineral resources for the Seel and Ox deposits was prepared by R. Boyce and G. Giroux on behalf of Gold Reach Resources in order to comply with technical reporting and disclosure requirements set out under National Instrument 43-101. It is considered to be in accordance with Canadian Institute of Mining, Metallurgy and Petroleum Standards on Mineral Resources and Reserves Definitions and Guidelines (the CIM Standards). Authors Boyce and Giroux are independent of Gold Reach. Some of the information and figures contained in this report have been taken from historic assessment and technical reports pertaining to the project and are noted in the References section and/or where directly cited in the body of this report. These reports are available as PDF documents on the SEDAR website (http://www.sedar.com).

Authors Boyce and Giroux take responsibility for all of the information referenced in this report.

Terms of reference were established through discussions between Dr. Shane Ebert, President of Gold Reach, and Gary Giroux of Giroux Consultants Ltd. between December



2011 and January 2014. It was subsequently determined that the estimate would be based upon validated results for all core drilling completed by Gold Reach during the 2007 through 2013 period. The Seel resource estimate is based on 160 holes totaling 70,417 metres. The Ox resource estimate is based on 108 historic and recent drill holes totaling 22,123 metres, details of which can be found in Section 14 and Appendix 1 & 2 of this report and in technical reports supporting the 2008 resource estimate (Arseneau et al, 2008) and the 2012 resource update (McDowell and Giroux, 2013). Au was analysed by fire assay while all other elements were analysed by inductively coupled plasma (ICP).

Hard copy and/or digital records of the 2013 drilling data were delivered to Giroux Consultants Ltd by Gold Reach personnel for purposes of the current resource estimate update. The latest round of data was intended to augment previously supplied data from past programs and resource estimates which included digital elevation files, geologic reports, drill logs, drill plans, assay and laboratory records. Based on the preceding, Giroux Consultants Ltd assembled and validated a digital drilling database upon which the three-dimensional resource estimate block model was developed. Mineralization was constrained within 3D geologic solids built using Gemcom software.

Author Boyce was on site at the Ootsa project for a total of 27 days in two separate periods between August 12 to 16<sup>th</sup> and October 24 to November 14, 2013. He participated in all aspects of the drill program including core logging, data collection and digital entry and assay handling including QA/QC procedure auditing. Author Giroux has not visited the property.

Units of measure in this report are metric; monetary amounts referred to are in Canadian Dollars.

# 3.0 Reliance on Other Experts

#### 3.1 General

Gold Reach Resources has been relied upon with respect to confirmation of validity of mineral exploration titles, definition or assessment of environmental liabilities, details of mineral property agreements and identification of surface title issues.

#### 3.2 Limitations

This report was prepared by authors Boyce and Giroux for Gold Reach Resources. All information, conclusions and estimates contained herein are based upon information available at the time of report preparation. This includes data made available by Gold Reach Resources as well as from government and public record sources. Information contained in this report is believed reliable and no reason has been found to question the quality or validity of data used in this report. Comments and conclusions presented herein



reflect the Authors best judgment at the time of report preparation. G. Giroux takes responsibility for Section 14 of this report and R. Boyce takes responsibility for the remaining sections.

# 4.0 Property Description and Location

The Ootsa Property is located within the Omineca Mining Division approximately 120 km by gravel road from the town of Houston in west central British Columbia (Figure 1.1). The property is located on the south side of Tahtsa Reach, an arm of Ootsa Lake, an artificial lake created by the Kenney Dam which blocks the Nechako River. The property is immediately east-southeast of the operating Huckleberry Mine property. The mineral claims are on National Topographic System sheet 093E 11E, centered at approximately Universe Transverse Mercator (UTM) coordinates 627000E, 5945500N using North American Datum (NAD) 83, or latitude 53°38'N longitude 127°05'W. Gold Reach Resources Ltd. in conjunction with its 100% wholly owned subsidiary Ootsa Lake Resources Ltd. owns 100% of the Ootsa Property. The Ootsa Property consists of 97 contiguous non-survey mineral claims totaling 67,554.1 hectares. There is some overlap within the claims, especially around the Ox deposit area as they represent some of the oldest claims in the area.



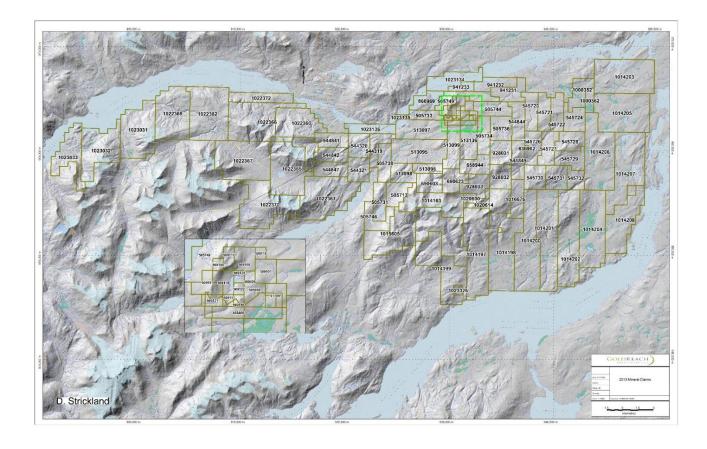


Figure 4-1: Ootsa Property claims map with mineral tenure labels.

The Author is not aware of any environmental liabilities related to the Ootsa Property. Trenches and other surface disturbances do not appear to be acid generating and for the most part do not pose significant slope stability hazards. Most are dry, some are partially to completely filled with water and most have started to re-vegetate naturally. The Ootsa Property is on Crown land, and the area is open to mineral exploration and development.

The author undertook a search of the tenure data on the British Columbia government's Mineral Titles Online (MTO) web site which confirms the geospatial locations of the claims boundaries of the Ootsa Property. It is common practice in the mineral exploration industry in British Columbia to locate claim boundaries on the internet, since the advent of internet staking. The claims locations on the MTO website are assumed to be correct.



**Table 4-1: Tenure and Claim Information** 

| Tenure  | Claim    | Tuble 4 | Tenure      | Map     | Jimanon     | Good To      |        | Area   |
|---------|----------|---------|-------------|---------|-------------|--------------|--------|--------|
| #       | Name     | Owner   | Type        | Number  | Issue Date  | Date         | Status | (ha)   |
| π       | Name     | 201965  | Турс        | Namber  | 133de Date  | Date         | Otatus | 300.0  |
| 403806  | SEEL 9   | (100%)  | Mineral     | 093E065 | 2003/jul/20 | 2024/jul/02  | GOOD   | 300.0  |
| 403000  | OLLL 9   | 201965  | Willielai   | 0932003 | 2003/jul/20 | 2024/jul/02  | GOOD   | 441.3  |
| 505713  | Seel 11  | (100%)  | Mineral     | 093E    | 2005/feb/03 | 2024/jul/02  | GOOD   | 441.5  |
| 303713  | Occi i i | 201965  | Willielai   | 093L    | 2003/165/03 | 2024/jul/02  | GOOD   | 460.6  |
| 505731  | Seel 12  | (100%)  | Mineral     | 093E    | 2005/feb/03 | 2024/jul/02  | GOOD   | 400.0  |
| 303731  | 3661 12  | 201965  | Willicial   | 093L    | 2003/16b/03 | 2024/jul/02  | GOOD   | 306.5  |
| 505733  | Seel 13  | (100%)  | Mineral     | 093E    | 2005/feb/03 | 2024/jul/02  | GOOD   | 300.3  |
| 303733  | 0661 13  | 201965  | Willielai   | 093L    | 2003/165/03 | 2024/jul/02  | GOOD   | 459.9  |
| 505734  | Seel 13  | (100%)  | Mineral     | 093E    | 2005/feb/03 | 2024/jul/02  | GOOD   | 400.0  |
| 303734  | 0661 13  | 201965  | Willielai   | 093L    | 2003/165/03 | 2024/jul/02  | GOOD   | 479.0  |
| 505736  | Seel 15  | (100%)  | Mineral     | 093E    | 2005/feb/03 | 2024/jul/02  | GOOD   | 473.0  |
| 303730  | 0eei 13  | 201965  | Willielai   | 093L    | 2003/165/03 | 2024/jul/02  | GOOD   | 460.2  |
| 505738  | Seel 16  | (100%)  | Mineral     | 093E    | 2005/feb/03 | 2024/jul/02  | GOOD   | 400.2  |
| 000700  | 000110   | 201965  | Williolai   | OSOL    | 2000/100/00 | 2024/301/02  | OOOD   | 478.8  |
| 505744  | Seel 17  | (100%)  | Mineral     | 093E    | 2005/feb/03 | 2024/jul/02  | GOOD   | 470.0  |
| 0007 11 | 000117   | 201965  | Willioral   | 0002    | 2000/100/00 | 202 1/jai/02 | 0000   | 479.9  |
| 505746  | Seel 18  | (100%)  | Mineral     | 093E    | 2005/feb/03 | 2024/jul/02  | GOOD   | 170.0  |
| 0007.10 | 000.10   | 201965  | - Millioral | 0002    | 2000/100/00 | 202 1/jai/02 | 0002   | 478.7  |
| 505749  | Seel 19  | (100%)  | Mineral     | 093E    | 2005/feb/03 | 2024/jul/02  | GOOD   | 17 0.7 |
|         | 000.10   | 201965  |             | 000_    | 2000/100/00 |              |        | 1226.9 |
| 513095  |          | (100%)  | Mineral     | 093E    | 2005/may/19 | 2024/jul/02  | GOOD   |        |
|         |          | 201965  |             |         |             |              |        | 268.5  |
| 513096  |          | (100%)  | Mineral     | 093E    | 2005/may/19 | 2024/jul/02  | GOOD   |        |
|         |          | 201965  |             |         | ,           | ,            |        | 919.8  |
| 513097  |          | (100%)  | Mineral     | 093E    | 2005/may/19 | 2024/jul/02  | GOOD   |        |
|         |          | 201965  |             |         |             | ,            |        | 421.9  |
| 513098  |          | (100%)  | Mineral     | 093E    | 2005/may/19 | 2024/jul/02  | GOOD   |        |
|         |          | 201965  |             |         | -           | -            |        | 613.4  |
| 513099  |          | (100%)  | Mineral     | 093E    | 2005/may/19 | 2024/jul/02  | GOOD   |        |
|         |          | 201965  |             |         |             |              |        | 613.3  |
| 513136  |          | (100%)  | Mineral     | 093E    | 2005/may/20 | 2024/jul/02  | GOOD   |        |
|         |          | 201965  |             |         |             |              |        | 57.5   |
| 517041  | SEEL 20  | (100%)  | Mineral     | 093E    | 2005/jul/12 | 2024/jul/02  | GOOD   |        |
|         |          | 201965  |             |         |             |              |        | 460.2  |
| 658944  | SEEL L1  | (100%)  | Mineral     | 093E    | 2009/oct/24 | 2024/jul/02  | GOOD   |        |
|         |          | 201965  |             |         |             |              |        | 421.3  |
| 866969  |          | (100%)  | Mineral     | 093E    | 2011/jul/21 | 2024/jul/02  | GOOD   |        |
|         |          | 201965  |             |         |             |              |        | 479.3  |
| 928031  |          | (100%)  | Mineral     | 093E    | 2011/nov/03 | 2024/jul/02  | GOOD   |        |
|         |          | 201965  |             |         |             |              |        | 479.5  |
| 928032  |          | (100%)  | Mineral     | 093E    | 2011/nov/03 | 2024/jul/02  | GOOD   |        |
|         |          | 201965  |             |         |             |              |        | 479.6  |
| 928033  |          | (100%)  | Mineral     | 093E    | 2011/nov/03 | 2024/jul/02  | GOOD   |        |



| 044224  | 201965 | Mineral      | 093E | 2012/jan/19   | 2024/in//02  | COOD | 478.7   |
|---------|--------|--------------|------|---------------|--------------|------|---------|
| 941231  | (100%) | Mineral      | 093E | 2012/jan/18   | 2024/jul/02  | GOOD | 404.0   |
| 044000  | 201965 | Minoral      | 093E | 2012/ion/19   | 2024/5.1/02  | COOD | 421.2   |
| 941232  | (100%) | Mineral      | 093E | 2012/jan/18   | 2024/jul/02  | GOOD | 172.3   |
| 044000  | 201965 | Minaral      | 0005 | 2042/inm/40   | 2024/:1/02   | COOD | 172.3   |
| 941233  | (100%) | Mineral      | 093E | 2012/jan/18   | 2024/jul/02  | GOOD | 4 470 7 |
| 4045005 | 201965 | B.41         | 0005 | 0040/1/04     | 0004/: 1/00  | 0000 | 1478.7  |
| 1015605 | (100%) | Mineral      | 093E | 2013/jan/01   | 2024/jul/02  | GOOD | 1000 5  |
| 400004  | 201965 |              |      | 00404 440     | 0004/1.1/00  | 0000 | 1880.5  |
| 1022361 | (100%) | Mineral      | 093E | 2013/sep/16   | 2024/jul/02  | GOOD |         |
|         | 201965 |              |      |               |              |      | 1917.5  |
| 1022367 | (100%) | Mineral      | 093E | 2013/sep/16   | 2024/jul/02  | GOOD |         |
|         | 201965 |              |      |               |              |      | 1590.7  |
| 1023031 | (100%) | Mineral      | 093E | 2013/oct/13   | 2024/jul/02  | GOOD |         |
|         | 201965 |              |      |               |              |      | 1437.9  |
| 1023032 | (100%) | Mineral      | 093E | 2013/oct/13   | 2024/jul/02  | GOOD |         |
|         | 201965 |              |      |               |              |      | 997.1   |
| 1023033 | (100%) | Mineral      | 093E | 2013/oct/13   | 2024/jul/02  | GOOD |         |
|         | 201965 |              |      |               |              |      | 689.1   |
| 1023134 | (100%) | Mineral      | 093E | 2013/oct/17   | 2024/jul/02  | GOOD |         |
|         | 201965 |              |      |               |              |      | 38.3    |
| 1023135 | (100%) | Mineral      | 093E | 2013/oct/17   | 2024/jul/02  | GOOD |         |
|         | 201965 |              |      |               |              |      | 440.7   |
| 1023136 | (100%) | Mineral      | 093E | 2013/oct/17   | 2024/jul/02  | GOOD |         |
|         | 201965 |              |      |               | ,            |      | 134.2   |
| 1025306 | (100%) | Mineral      | 093E | 2014/jan/20   | 2015/jan/20  | GOOD |         |
|         | 206087 |              |      | ,             | ,            |      | 76.6    |
| 505930  | (100%) | Mineral      | 093E | 2005/feb/04   | 2024/jul/02  | GOOD |         |
|         | 206087 |              |      |               | ,            |      | 76.6    |
| 505931  | (100%) | Mineral      | 093E | 2005/feb/04   | 2024/jul/02  | GOOD | . 5.5   |
|         | 206087 | 111111111111 |      |               |              |      | 76.6    |
| 509107  | (100%) | Mineral      | 093E | 2005/mar/17   | 2024/jul/02  | GOOD | . 5.5   |
| 000101  | 206087 | - IIIIII     | 0002 | 2000/11101/11 | 202 1/101/02 | 0002 | 76.6    |
| 509109  | (100%) | Mineral      | 093E | 2005/mar/17   | 2024/jul/02  | GOOD | 70.0    |
| 000100  | 206087 | Williotal    | 0002 | 2000/11101/17 | 202 1/101/02 | 0000 | 19.2    |
| 509116  | (100%) | Mineral      | 093E | 2005/mar/17   | 2024/jul/02  | GOOD | 13.2    |
| 303110  | 206087 | Willieral    | 033L | 2003/11181/17 | 2024/jul/02  | GOOD | 38.3    |
| 509117  | (100%) | Mineral      | 093E | 2005/mar/17   | 2024/jul/02  | GOOD | 30.3    |
| 7111600 | 206087 | ivillielal   | 0335 | 2005/111d1/17 | 2024/Jul/02  | 9000 | 57.5    |
| 500110  |        | Minoral      | 002E | 2005/201/17   | 2024/5.4/02  | COOD | 01.0    |
| 509119  | (100%) | Mineral      | 093E | 2005/mar/17   | 2024/jul/02  | GOOD | 20.2    |
| E00404  | 206087 | NA:          | 0005 | 2005/         | 2024/:1/22   | 0000 | 38.3    |
| 509121  | (100%) | Mineral      | 093E | 2005/mar/17   | 2024/jul/02  | GOOD | 40.0    |
| 500466  | 206087 |              | 0005 | 0005/ //-     | 0004" 1/00   | 0005 | 19.2    |
| 509122  | (100%) | Mineral      | 093E | 2005/mar/17   | 2024/jul/02  | GOOD | 10.5    |
|         | 206087 |              |      |               |              | 000= | 19.2    |
| 509125  | (100%) | Mineral      | 093E | 2005/mar/17   | 2024/jul/02  | GOOD |         |
|         | 206087 |              |      |               |              |      | 19.2    |
| 509126  | (100%) | Mineral      | 093E | 2005/mar/17   | 2024/jul/02  | GOOD |         |



| 509140      |         | 206087 (100%) | Mineral    | 093E | 2005/mar/17     | 2024/jul/02  | GOOD | 19.2   |
|-------------|---------|---------------|------------|------|-----------------|--------------|------|--------|
| 309140      |         | , ,           | Willierai  | 093E | 2005/IIIai/ I / | 2024/Jul/02  | GOOD | 19.2   |
| E004E0      |         | 206087        | Minoral    | 093E | 2005/mar/17     | 2024/5.1/02  | COOD | 19.2   |
| 509150      |         | (100%)        | Mineral    | 093E | 2005/mar/17     | 2024/jul/02  | GOOD | 19.2   |
| E004E4      |         | 206087        | Minoral    | 0025 | 2005/mar/17     | 2024/5.1/02  | COOD | 19.2   |
| 509151      |         | (100%)        | Mineral    | 093E | 2005/mar/17     | 2024/jul/02  | GOOD | 400.5  |
| E44040      | 0551.00 | 206087        | Minanal    | 0005 | 0000/+/04       | 0004/5-1/00  | 0000 | 402.5  |
| 544319      | SEEL20  | (100%)        | Mineral    | 093E | 2006/oct/24     | 2024/jul/02  | GOOD | 470.0  |
| 544000      |         | 206087        |            | 2005 | 0000/ //04      | 0004" 1/00   | 0000 | 479.2  |
| 544320      |         | (100%)        | Mineral    | 093E | 2006/oct/24     | 2024/jul/02  | GOOD | 470.4  |
|             | 0==1.00 | 206087        |            |      | 0000/ //04      | 0004/1.1/00  | 0000 | 479.4  |
| 544321      | SEEL22  | (100%)        | Mineral    | 093E | 2006/oct/24     | 2024/jul/02  | GOOD |        |
|             |         | 206087        |            |      |                 |              |      | 440.8  |
| 544841      | SEEL23  | (100%)        | Mineral    | 093E | 2006/nov/03     | 2024/jul/02  | GOOD |        |
|             |         | 206087        |            |      |                 |              |      | 441.0  |
| 544842      | SEEL24  | (100%)        | Mineral    | 093E | 2006/nov/03     | 2024/jul/02  | GOOD |        |
|             |         | 206087        |            |      |                 |              |      | 479.0  |
| 544844      | SEEL25  | (100%)        | Mineral    | 093E | 2006/nov/03     | 2024/jul/02  | GOOD |        |
|             |         | 206087        |            |      |                 |              |      | 460.2  |
| 544845      | SEEL26  | (100%)        | Mineral    | 093E | 2006/nov/03     | 2024/jul/02  | GOOD |        |
|             |         | 206087        |            |      |                 |              |      | 460.3  |
| 544847      | SEEL27  | (100%)        | Mineral    | 093E | 2006/nov/03     | 2024/jul/02  | GOOD |        |
|             |         | 206087        |            |      |                 | -            |      | 478.9  |
| 545720      | SEEL28  | (100%)        | Mineral    | 093E | 2006/nov/22     | 2024/jul/02  | GOOD |        |
|             |         | 206087        |            |      |                 |              |      | 440.6  |
| 545721      | SEEL29  | (100%)        | Mineral    | 093E | 2006/nov/22     | 2024/jul/02  | GOOD |        |
|             |         | 206087        |            |      |                 | ,            |      | 440.6  |
| 545722      | SEEL30  | (100%)        | Mineral    | 093E | 2006/nov/22     | 2024/jul/02  | GOOD |        |
|             |         | 206087        |            |      |                 | ,            |      | 478.9  |
| 545724      | SEEL31  | (100%)        | Mineral    | 093E | 2006/nov/22     | 2024/jul/02  | GOOD |        |
|             |         | 206087        |            |      |                 |              |      | 479.2  |
| 545726      | SEEL32  | (100%)        | Mineral    | 093E | 2006/nov/22     | 2024/jul/02  | GOOD | 170.2  |
| 0 107 20    | OLLLOZ  | 206087        | IVIIIIOIGI | 0002 | 2000/1101/22    | 202 1/101/02 | 0000 | 479.2  |
| 545727      | SEEL33  | (100%)        | Mineral    | 093E | 2006/nov/22     | 2024/jul/02  | GOOD | 77 3.2 |
| 343727      | OLLLOS  | 206087        | IVIIIICIAI | 033L | 2000/1107/22    | 2024/jul/02  | GOOD | 479.2  |
| 545728      | SEEL34  | (100%)        | Mineral    | 093E | 2006/nov/22     | 2024/jul/02  | GOOD | 413.2  |
| 343720      | OLLL34  | 206087        | Willierai  | 033L | 2000/1107/22    | 2024/jul/02  | GOOD | 479.3  |
| 545720      | SEEL35  |               | Minoral    | 093E | 2006/nov/22     | 2024/64/02   | GOOD | 4/9.3  |
| 545729      | SEELSS  | (100%)        | Mineral    | USSE | 2000/1107/22    | 2024/jul/02  | GOOD | 470 E  |
| E 4 E 7 O O | 000     | 206087        | Minaral    | 0025 | 2006/55:/22     | 2024/:1/02   | COOD | 479.5  |
| 545730      | SEEL36  | (100%)        | Mineral    | 093E | 2006/nov/22     | 2024/jul/02  | GOOD | 470.5  |
| F 45704     | 055: 07 | 206087        | NA:        | 0005 | 0000/ /00       | 0004/11/00   | 0005 | 479.5  |
| 545731      | SEEL37  | (100%)        | Mineral    | 093E | 2006/nov/22     | 2024/jul/02  | GOOD | 000 1  |
| F 4         | 0551.55 | 206087        |            | 000= | 00001 155       | 0001" "      | 000= | 326.1  |
| 545732      | SEEL38  | (100%)        | Mineral    | 093E | 2006/nov/22     | 2024/jul/02  | GOOD |        |
|             |         | 206087        |            |      |                 |              |      | 460.4  |
| 690603      | SEEL 40 | (100%)        | Mineral    | 093E | 2009/dec/29     | 2024/jul/02  | GOOD |        |
|             |         | 206087        |            |      |                 |              |      | 460.4  |
| 690623      | SEEL41  | (100%)        | Mineral    | 093E | 2009/dec/29     | 2024/jul/02  | GOOD |        |



|         |       | 206087 |         |      |             |                 |      | 19.2   |
|---------|-------|--------|---------|------|-------------|-----------------|------|--------|
| 836962  | XE1   | (100%) | Mineral | 093E | 2010/oct/29 | 2024/jul/02     | GOOD |        |
|         | OOTSA | 206087 |         |      |             |                 |      | 191.5  |
| 1000362 | EAST  | (100%) | Mineral | 093E | 2012/jun/22 | 2024/jul/02     | GOOD |        |
|         | OOTSA | 206087 |         |      |             |                 |      | 478.7  |
| 1000382 | EAST2 | (100%) | Mineral | 093E | 2012/jun/22 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 1132.2 |
| 1014163 |       | (100%) | Mineral | 093E | 2012/nov/01 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 1920.9 |
| 1014197 |       | (100%) | Mineral | 093E | 2012/nov/01 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 1901.7 |
| 1014198 |       | (100%) | Mineral | 093E | 2012/nov/01 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 1633.4 |
| 1014199 |       | (100%) | Mineral | 093E | 2012/nov/01 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 1882.4 |
| 1014200 |       | (100%) | Mineral | 093E | 2012/nov/01 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 1805.1 |
| 1014201 |       | (100%) | Mineral | 093E | 2012/nov/01 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 1901.2 |
| 1014202 |       | (100%) | Mineral | 093E | 2012/nov/01 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 1875.8 |
| 1014203 |       | (100%) | Mineral | 093E | 2012/nov/01 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 1824.0 |
| 1014204 |       | (100%) | Mineral | 093E | 2012/nov/01 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 1915.5 |
| 1014205 |       | (100%) | Mineral | 093E | 2012/nov/01 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 1840.5 |
| 1014206 |       | (100%) | Mineral | 093E | 2012/nov/01 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 1898.4 |
| 1014207 |       | (100%) | Mineral | 093E | 2012/nov/01 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 1343.8 |
| 1014208 |       | (100%) | Mineral | 093E | 2012/nov/01 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 479.7  |
| 1016676 |       | (100%) | Mineral | 093E | 2013/feb/04 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      |             |                 |      | 115.1  |
| 1020600 |       | (100%) | Mineral | 093E | 2013/jun/28 | 2024/jul/02     | GOOD |        |
|         |       | 206087 |         |      | 0045#       | 000 : 11 : 12 - | 000= | 211.1  |
| 1020614 |       | (100%) | Mineral | 093E | 2013/jun/29 | 2024/jul/02     | GOOD |        |
| 400000  |       | 206087 |         |      | 00101 11-   | 0004/11/25      | 0000 | 1130.5 |
| 1022360 |       | (100%) | Mineral | 093E | 2013/sep/16 | 2024/jul/02     | GOOD | 101-5  |
| 400000  |       | 206087 |         |      |             | 0004/11/25      | 0000 | 1915.8 |
| 1022362 |       | (100%) | Mineral | 093E | 2013/sep/16 | 2024/jul/02     | GOOD | 4000 = |
| 1000555 |       | 206087 |         | 000= | 00404 415   | 0004" :/==      | 000= | 1668.5 |
| 1022365 |       | (100%) | Mineral | 093E | 2013/sep/16 | 2024/jul/02     | GOOD | 4001.0 |
| 400000  |       | 206087 |         | 0005 | 0040/ //-   | 0004/11/05      | 0005 | 1801.0 |
| 1022366 |       | (100%) | Mineral | 093E | 2013/sep/16 | 2024/jul/02     | GOOD | 4500 : |
| 4000000 |       | 206087 |         | 0005 | 0040/ /45   | 0004/11/00      | 0005 | 1590.1 |
| 1022369 |       | (100%) | Mineral | 093E | 2013/sep/16 | 2024/jul/02     | GOOD |        |



|         | 206  | 6087        |      |             |             |      | 1784.9 |
|---------|------|-------------|------|-------------|-------------|------|--------|
| 1022370 | (100 | 0%) Mineral | 093E | 2013/sep/16 | 2024/jul/02 | GOOD |        |
|         | 206  | 087         |      |             |             |      | 574.5  |
| 1022372 | (100 | 0%) Mineral | 093E | 2013/sep/16 | 2024/jul/02 | GOOD |        |
|         | 206  | 087         |      |             |             |      | 76.9   |
| 1023326 | (100 | 0%) Mineral | 093E | 2013/oct/26 | 2024/jul/02 | GOOD |        |

## 4.1 Agreements

Gold Reach acquired the Ootsa Property (Seel Claims 1-7) by way of an option agreement on January 31, 2003. On October 11, 2005, Grayd Resources Ltd staked additional claims 8-20 and included them in the option agreement. On October 15, 2007 Grayd Resources Ltd declined their back in right which allowed Gold Reach to claim 100% ownership of the Seel Claims 1-20.

An underlying royalty agreement applies to legacy claims Seel 1 to 7, comprising 2600 hectares, covering the area of the Seel deposit. The previous option agreement of Grayd Resources with the initial claim owner Seel Enterprises and Rupert Seel subjects the optionee (now Gold Reach) to a 1% royalty on Net Smelter Return (NSR) payable to Seel Enterprises. Gold Reach is entitled at any time to purchase half of the NSR royalty for \$1,000,000. The agreement applies to an associated Area of Interest which extends one kilometre outward from the external boundaries of the claims.

In November 2006, Gold Reach staked 19 additional claims under its wholly owned subsidiary, Ootsa Lake Resources Ltd. and all of them remain in good standing. On January 7, 2007, Gold Reach Resources Ltd and its wholly owned subsidiary, Oosta Lake Resources Ltd., acquired a 100% interest in 14 claims totalling approximately 538 ha known as the "Ox Lake Mineral Property" from Silver Standard Resources Inc., in consideration of the issuance to Silver Standard of 2 million common shares of Gold Reach Resources Ltd. Silver Standard Resources Inc. holds a 2% net smelter royalty on these 14 claims. At any time Gold Reach Resources Ltd can repurchase the entire royalty by paying \$500,000 for the first half (1% NSR) and \$1,000,000 for the remaining half (1% NSR). In November 2011 and January 2012 Gold Reach staked 5 additional claims under its wholly owned subsidiary, Ootsa Lake Resources Ltd. and all of them remain in good standing. In 2013 an additional 20 claims were added to the Ootsa property. Claim acquisition in the immediate area of the Ootsa Property continues up to the time of this report writing.

In British Columbia, the owner of a mineral claim acquires the right to the minerals which were available at the time of claim location and as defined in the Mineral Tenure Act of British Columbia. Surface rights and placer rights are not included. Claims are valid for



one year and the anniversary date is the annual occurrence of the date of record (the staking completion date of the claim). To maintain a claim in good standing the claim holder must, on or before the anniversary date of the claim, either: (a) record the exploration and development work carried out on that claim during the current anniversary year; or (b) pay cash in lieu of work. The amount of work required in the year one and two is \$5 per hectare per year, year 3 and 4 \$10 per hectare, year 5 and 6 \$15 per hectare, and \$20 per hectare for each subsequent year. Only work and associated costs for the current anniversary year of the mineral claim may be applied toward that claim unit. If the value of work performed in any year exceeds the required minimum, the value of the excess work can be applied, in full year multiples, to cover work requirements for that claim for additional years (subject to the regulations). A report detailing work done and expenditures must be filed with, and approved by, the B.C. Ministry of Energy and Mines.

Portions of the area of the claim lie within areas of interest claimed by the Wet'suwet'en, Cheslatta-Carrier or Carrier-Sekani First Nations. On January 24 2013, Gold Reach Resources Ltd. issued a press release to announce the signing of a letter of understanding (LOU) with the Cheslatta Carrier Nation. The LOU between Gold Reach and Cheslatta will help the two parties establish a business relationship and understanding regarding the continuing mineral exploration and development work on the Ootsa Property. The parties have agreed to act in good faith in negotiating an Impact and Benefits Agreement should the Ootsa Project proceed to a positive feasibility study. Cheslatta is a First Nations community located on the south side of Francois Lake near the community of Burns Lake, B.C., and has rights and title asserted over the area that the Seel and Ox Seel deposits are located. In addition, as of December 17, 2013, Gold Reach has signed a Communications & Engagement Agreement (CEA) with the Office of the Wet'suwet'en in Smithers, BC. This office represents the title, rights and interests of five Wet'suwet'en hereditary clans over an area of 22,000 km2 of traditional territory. The Ootsa Property lies within territory claimed by one of these clans, the Gilseyhyu.

# 5.0 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

# 5.1 Accessibility

The Ootsa Property is located approximately 120 km south of the town of Houston in the west-central interior of British Columbia. Houston and the nearby community of Smithers, 63 km to the west, serve as major supply and industrial centres to the region. Both the CNR transcontinental railway and Trans-Canada Highway 16 pass through both centers. Smithers and Houston together claim over 9000 inhabitants while the surrounding Bulkley Valley region hosts an additional rural population of approximately 8000.



Smithers has an airport with several daily scheduled flights to and from Vancouver, and less frequent flights to other destinations in BC, as well charter air services with fixed-wing on wheels or floats, and helicopters. Smithers and Houston are home to several drilling and equipment contractors and hosts numerous mining and exploration services companies.

The Ootsa property is accessible by two-wheel drive vehicles and large industrial trucks via a network of well-maintained all weather gravel roads from Houston. The Morice Forest Service Road (FSR) network is accessed by a southbound turn from Highway 16 approximately 3km west of Houston. Travel south 56.5 km on the Morice FSR then veer southwest on the Morice-Nadina FSR for a further 33 kilometers. At km 89 turn south on the Tahtsa Reach FSR and follow to kilometre 103 to the site of the Tahtsa Reach barge landing. A logging camp exists at the north barge landing. Crossing of the 1.6 km reach can be achieved on the privately operated barge for a sailing fee. Once at the south barge landing follow the Troitsa Main FSR west to km 14 where the Gold Reach exploration camp is located.

#### 5.2 Climate

The climate at the Ootsa Property is typical of the Coast Mountains and that of the Central Interior Plateau, with short cool summers, and long relatively mild winters. Annual temperature variation in the region is approximately -25°C to +25°C. During winter the snowpack generally ranges from 1 to 5 metres but has been known to reach a maximum of 12 metres at the adjacent Huckleberry Mine. The operating season for ground based activities such as geological mapping, surface sampling and geophysical surveys would extend from approximately early June to late October. With sufficient support some exploration activities such as diamond drilling can be conducted year round.

### 5.3 Local Resources and Infrastructure

A network of logging roads that connect to the main transportation network from Houston transects the claim block and provide good access to most of the Ootsa Property. Drill specific roads have been constructed to access several areas around the Seel and Ox deposits. Gold Reach resurfaced the main Seel drill access road with gravel in 2012 to ensure consistent access to the core of the deposit during wet conditions. In addition, a new bridge was installed to facilitate local creek crossing and minimize impact on the creek.

Both Houston and Smithers contain rail facilities, while port facilities are located in Stewart, Prince Rupert, and Kitimat. The adjacent Huckleberry Mine, 8 km NW of the Seel deposit, operates an open-pit mine, a 16,000 tonne per day mill and concentrator and a camp to house employees and contractors. A 138 KVA power line connects the Huckleberry Mine to the BC provincial grid at the Houston substation. Abundant water resource in Tahtsa Reach is readily accessible to identified mineral deposits for any



mining or process operation. Sufficient low-relief terrain resides within the property for siting of infrastructure for mining or process operations, such as waste disposal facilities, haul roads and plant site.

## 5.4 Physiography

The property is located in the Tahtsa Ranges physiographic region of central British Columbia, part of the transition zone between the Coast Mountains and Interior Plateau. It lies astride the northern flank of the Whitesail Range on the southern shore of Tahtsa Reach. This range is an up-faulted, block-like mountain which rests abruptly along its north-western margin and slopes cuesta-like generally towards the south and east (Richards, 1984). It represents an uplifted portion of the Interior Plateau. Relief is moderate on the property, with elevations rising from a valley base of approximately 900 m to 1861 m. Terrain above 1550 m elevation is alpine in nature. Between 1350 and 1550 m, the area is forested with white spruce and pine and below 1350 m by white spruce and fir. Valley bottoms are U-shaped and filled with till and fluvioglacial debris. Outcrop is sparse except on steep slopes, in creek scours and mountain peaks. Logging development has progressed onto the property, and several clear cuts occur through the center of the property, with the closest one located about 1.5 km north of the Seel deposit.

# **6.0 Property History**

#### **6.1 Introduction**

The following section on the history of the property is in part taken from previous technical reports by Ogryzlo (2004) and MacIntyre (2005) as summarized by Stubens and Veljkovic (2008). Section 6.4 on the exploration history of the Ox Deposit was taken from Arseneau et al., 2008. Figure 1-2 shows relative location of areas described in this section.

# 6.1.1 Tahtsa Reach-Francois Lake Area Mining History

The Tahtsa Reach area has been actively explored since the early part of the 20<sup>th</sup>century. Interest in mining the area began in 1915 in the Emerald Glacier Ag-Zn-Pb veins, on the Sibola Range, 9 km west of Huckleberry Mountain. Located approximately 20 km northwest of the Seel Claims, the Emerald Glacier Mine was one of the first mines developed in north central British Columbia. Underground exploration at Emerald Glacier commenced at the end of World War I and between 1951 and 1968 the property produced 8300 t of ore grading 311 g/t Ag, 9.2%Pb and 10.7% Zn.

The Tahtsa-Francois Area became a centre of intense exploration activity in the 1960's and 1970's when extensive stream sediment and soil sampling programs resulted in the discovery of several important porphyry copper and molybdenum deposits including the Berg and Ox porphyry deposits, located 29.5 km to the northwest and 3.5 km to the north



of the Seel deposit respectively. The Ox porphyry copper deposit was found in 1968 by the ASARCO-Silver Standard joint venture. The initial mineral resource calculated on the Ox deposit was completed in 2008 by Wardrop Engineering. It outlined an inferred mineral resource of 16 million tons grading 0.3% Cu and 0.04% Mo. A resource update was completed in 2013 by Giroux Consultants at the request of Gold Reach Resources.

The Equity Silver Mine, located 90 km east of the property, was discovered in 1967 and commenced production in 1980. Between 1981 and 1994, 32,649,393 t of ore yielded 2194 t (70.5 million ounces) of silver, 15.6 t (500,000 ounces) of gold and 83,260 t of copper.

Between 1968 and 1970, Bethlehem Copper Corp. staked the REA and TL claims east of Kasalka Creek (over the Seel deposit area) to cover anomalous copper-silver soil geochemistry. In 1972, they built a tote-road and drilled eight percussion holes (454 m) to test the anomalies. The Bethlehem claims lapsed and were re-staked by Lansdowne Oil and Minerals Limited in 1980 as the LEANTO Group. Soil sampling outlined a moderately strong copper anomaly with attendant anomalous gold, silver, lead, and zinc east of the area tested by Bethlehem. In 1982, 38 shallow diamond drill holes (917 m) were completed and a mineralized breccia zone was discovered (Ager and Holland, 1983). The best intersection contained 18 m grading 1.59 % Cu and 42.2 g/t Ag.

Exploration in the 1960's and 1970's led to the discovery of the Huckleberry deposit. The Huckleberry Mine commenced production in 1997. The Huckleberry Mine is located approximately 7 km northwest of the Seel deposit on the northern shore of Tahtsa Reach, and 86 km southwest of Houston. The mine, which remains in production at the time of preparation of this report, is a modern mine and mill industrial complex producing copper, molybdenum and silver. The mine is exceptionally well located with respect to roads, electrical power, water, and other infrastructure.

# **6.2 History-Ownership**

Between 1995 and 2000, different portions of the area enclosed by the Seel Mineral Claims were acquired at various times as the SEEL 1 to 29 two post claims by Seel Enterprises Ltd. These claims were all abandoned on June 25, 2001, and the area was restaked as the Seel #1 and Seel #2 Mineral Claims on June 28 and June 30, 2001 by the same owner. The Seel #3 to Seel #10 Mineral Claims were added at various time between June 30, 2001 and July 20, 2003.

The eastern portion of the area enclosed by the Seel #1 to Seel #10 Mineral Claims was previously held as the OX A, OX B, OX C, and OX-EAST Mineral Claims. These claims were staked between 1981 and 1982, and forfeited on October 1, 2002. The claims were held by Ravenhead Recovery Corporation of Vancouver, BC at the time of forfeiture. Gold Reach acquired the Seel Claims 1-7 by way of an option agreement with Grayd



Resources on January 31, 2003. On October 11, 2005, Grayd staked additional claims (8-20) and included them in the option agreement. On Oct. 15, 2007 Grayd declined their back in right and Gold Reach owned 100% of the Seel Claims 1-20. In November 2006, Gold Reach staked 19 additional claims under its wholly owned subsidiary, Ootsa Lake Resources Ltd. and all of them remain in good standing. On January 12, 2007 Gold Reach acquired 100% of the 14 claims known as the "Ox Lake Mineral Property" from Silver Standard Mines Ltd pursuant to an agreement dated January 3, 2007.

# 6.3 Previous Exploration -Seel (Lean-To) Project

The first recorded work on the Seel Claims was done on the REA group of mineral claims in the early 1970's by Bethlehem Copper (Anderson, 1972). A widely spaced geochemical grid survey covered the middle and upper reaches of Seel Creek for copper and silver. The geochemical survey appears to have led to a diamond or percussion drilling program, but there is no public record of the drilling.

The Lean-To prospect was staked by Lansdowne Oil and Minerals in 1980. They actively explored the area around the Seel Breccia from 1980 to 1985. Surface work consisted of geochemical soil sampling, trenching, magnetometer, and VLF (Ager, 1981). An Induced Polarization geophysical survey in 1985 reported very high chargeabilities (to 80 milliseconds). The area of high (+20 msec) chargeabilities extends beyond the limits of the survey (Ager, 1985). The raw IP data was reprocessed in 2003 using modern geophysical inversion techniques, and revealed in cross section a zone of high chargeabilities in the form of an inverted bowl. These geochemical and geophysical surveys have also been included in the project compilation.

This work led to three drilling programs in 1982, 1983 and 1985. The main focus of this work was the Lean-To showing. This showing was first drilled by Lansdowne Oil and Minerals Ltd. in 1982 when they completed 38 diamond drill holes in two phases totalling 917.3 m (Ager et al, 1983). The first 19 holes were drilled by Seel Enterprises Ltd. of Burnaby B.C. using a Winkie IEXS drill rig. Drilling covered an area 650 m long by 550 m wide. Lansdowne drilled an additional 24 holes totalling 1,480.9 m of BQ core in 1983. No drilling was done in 1984 but 10 more holes totalling 201 m were drilled in 1985. Select results from these drill programs were included in table format in a technical report filed in 2012 to support the previous Seel resource estimate (McDowell and Giroux, 2012). Most of these drill holes were shallow and drilled at a 45 degree angle to target the Seel breccia body. The best core intersections were split and sent to Acme Analytical Laboratories, Vancouver BC for standard assays for copper, silver, and gold and for geochemical analysis by ICP methods for copper, lead, zinc, silver and tungsten. Some of this core is stored on the property but only a few boxes remain intact. Of these, only a few boxes have readable labels on them. The surface exploration and drilling resulted in the delineation of an annular zone of sulphide cemented breccia. Highlights of the programs were DH82- 19 which reported 18 m of 1.59% Cu and 640 ppb Au; DH85-1



with 9.76 m of 2.08% Cu, 47 g/t Ag and 0.3 g/t Au; DH85-9 with 0.46m of 8.14% Cu, 112.7 g/t Ag and 6 g/t Au, and DH85-10 with 0.9 m of 8.26% Cu, 120 g/t Ag and 9.5 g/t Au. In general, the breccia has been intersected along an arc length of 450 m to a depth of approximately 40 m. Although the records as supplied are incomplete, the average width and grade as observed in core may be estimated at approximately 8.5 m at 1.7% Cu, 20 g/t Ag and 0.20 g/t Au. The author cautions that the above dimensions and grades should not be relied upon for a resource estimation, but are stated here as illustration of mineralization tenor.

There is an indication that a minor drill program took place in 1987, but there are no public records to verify this. Core from the earlier drill programs has suffered considerable damage and salvageable core has been transported to the Gold Reach core storage facility.

The property was revisited between 1995 and 2000 by Mr. Rupert Seel, who undertook a program of excavating trenches, and collecting rock and reconnaissance soil samples on the property. A limited program of stream sediment geochemical surveying and prospecting was performed in 2003 by Orgyzlo (2004).

## **6.4 Previous Exploration – Ox deposit**

The Ox porphyry copper deposit was found in 1968 during a regional prospecting program carried out by Silver Standard Mines Limited and American Smelting and Refining Company. Attention was drawn to the Ox Lake area due to a prominent gossan associated with a lead, zinc and silver vein on a bluff overlooking Ox lake; and a nearby granodiorite porphyry that was recognized as being virtually identical to that of the Huckleberry porphyry deposit 8km to the west of the Ox Lake claims.

Between 1968 and 1981 work has included geological mapping, 32.2 km of magnetometer surveying, 14.3 km of I.P. surveying, 2.4km of VLF-EM surveying, 843 soil samples and 61km of bulldozer trenching all to investigate copper-molybdenum mineralization (Holtby, 1989).

Silver Standard drilled 4826.5 meters of BQ core from 35 drill holes between 1968 and 1969. Drilling identified a steep, westerly dipping crescent shaped mineralized zone on the west side of Ox Lake. An additional 333.5 m from two drill holes were completed by Asarco Exploration in 1981. Various government publications report historical mineral resources for the Ox deposit. None of these estimates could be verified and they are of unknown reliability and not deemed relevant as they have been superseded by the estimate conducted by Wardrop Engineering (Arseneau et al., 2008).

# 6.5 Previous Exploration-Damascus Vein

Work on the Ox Property by International Damascus Resources Ltd. (Damascus Resources) began in 1981 when the current Ox-A, Ox-B and Ox-C Claims were staked.



In 1981, an airborne VLF-EM survey was completed. Between 1981 and 1983, prospecting, soil geochemical, and ground magnetometer surveys were completed on the Property as well as diamond drilling on the Ox-C Claim and southern portion of the Ox-B Claim. This work led to the drilling of four diamond drill holes in 1982. None of the holes encountered mineralization and the location and records are not available. Thirty six holes (910 m) were completed in 1983. The Damascus Vein and the Hilltop Vein were discovered and explored during this phase. The best intersection encountered on the Damascus Vein was in drill hole Ox-21 where a 3.82 metre core length (2.83 m true width) returned assays averaging 1228.6 g/t Ag, 7.32% Pb and 5.76% Zn. The property was operated by Cominco Ltd. in 1984, which recognised similarities between the Ox Property and the newly commissioned Equity Silver Mine. They optioned the property and completed work on the Ox-C and adjacent portion of the Ox-B Claim to search for bulktonnage (Equity-type) mineralization which they thought might be associated with the Damascus Vein system. Both the Ox Property and the Equity Mine area are underlain by steeply-dipping Mesozoic and Tertiary volcanic and intrusive rocks which are clay and tourmaline-altered and have widespread veinlet pyrite-sphalerite mineralization (Blackwell, 1985). Of particular interest to Cominco was "a 2000 by 600 metre high contrast Ag-As-Pb-Zn soil geochemical anomaly upslope from previously tested massive sulphide veins" (Blackwell, 1985). The Cominco program included ground geophysical surveys (VLF-EM and induced polarization), geological mapping, trenching (backhoe, cat and Wajax-pump) and rock geochemical sampling. The K Vein was discovered by prospecting during the 1984 Cominco program. Later in 1984, and following the Cominco program, Ager Consultants supervised an exploration program for Damascus Resources on the Ox-C Claim, completing an additional seven holes on the Damascus Vein and two on the Hilltop Vein. No report is available on the results from this work. On the Ox-East Claim, line cutting (26.7 km.), magnetometer (22.2 km.), induced polarization (11.65 km.) and soil geochemical surveys (787 samples analysed for Ag, Pb, Zn and As) were completed (Kallock, 1984). Seven diamond drill holes (721.4 m) were subsequently completed to test Aq-Pb- Zn-As anomalies. Hole 844 intersected 0.4 m grading 92.2 q/t Ag, 6.45 % Pb and 10.97 % Zn. None of the other holes intersected any significant mineralization. In 1986, Hi-Tee Resource Management Ltd. (Smallwood and Sorbara, 1986) completed a program on behalf of Damascus Resources consisting of 36.25 km. of line cutting, 30 km. of induced polarization surveying and 10.6 km. of VLF-EM surveying on the Ox-East Claim. This work outlined a strong induced polarization anomaly near the east margin of the Claim. Some trenching and sampling was completed near the K Vein, which is located approximately 200 m south and above the Damascus Vein. A more extensive Induced Polarization survey covering 30 line km was completed in 1986 (Smallwood and Sorbara, 1986).

In 1989, Granges Inc. optioned the property, completing a total of 748.6 m of diamond drilling in eight holes. Six holes (561.4 m) tested depth extensions of the Damascus Vein



on the Ox-C Claim and two (187.2 m) tested the induced polarization (IP) anomaly at the east margin of the Ox-East Claim. The results were encouraging and intersected significant mineralization at depth on the Damascus Vein, the best intersection being 4.5 m (1.5 m true width) grading 194.3 g/t Ag, 0.7 g/t Au, 2.7 % Zn and 1.1 % Pb at a depth of 88.0 m (DDH-OX51). Granges (Deveaux, 1989) concluded that the mineralized zone has a shallow plunge to the south of 28°, and is still open in that direction and at depth. Of the two holes which were designed to test the strong induced polarization anomaly on the east side of the Ox-East Claim only one tested part of the target, the other was lost due to bad ground conditions. The holes intersected an intensely fractured and altered zone containing disseminated pyrite but no base or precious metal mineralization - the cause of the silver and arsenic-in-soil geochemical anomaly remains unexplained. Granges subsequently dropped their option on the Ox Property because "values and width did not improve with depth" on the Damascus Vein (Deveaux, 1989).

#### 6.5.1 Historical Resources Estimate

A historical resource estimate has been reported for the Damascus Vein containing resources of 196,000 tonnes at 411 g/t Ag, and 7% combined Pb + Zn to a down dip depth of 100 m (Goldsmith et al, 1984). This historical resource figure was determined before the implementation of NI 43-101, and does not comply with NI 43-101 standards.

The Author does not consider this historic resource estimate to be accurate and should not be relied upon.

There has been no recorded production from any portion of the Ootsa Property.

## 6.6 Exploration in 2003 and 2004

Reconnaissance exploration was undertaken on the Seel Property by Gold Reach/Grayd Resources between June 6 and June 13, 2003. Eight days were spent on the property by two prospectors under the direction of Peter Ogryzlo. The purpose of the program was to visit areas of anomalous gold and copper concentrations outside of the known occurrences; visit areas of high IP response revealed in previous geophysical surveys; and to explore the possibility for the existence of a large porphyry copper gold system on the property. The methods used were grass roots prospecting and stream sediment sampling, both directed by the extensive geochemical and geophysical database. Forty-five rock and 38 stream sediment samples were collected. The Seel Breccia was examined, but only for instructional purposes to familiarize the prospectors with the breccia style (angular clasts cemented with pyrite and chalcopyrite) and with the ferricrete blanket. This proved useful, as both prospectors later identified mineralized breccias and ferricrete in float and in outcrop. The most important of the new occurrences are:

1. Radio (Breccia Creek) Breccia prospect. A single cobble of chalcopyrite cemented breccia was found in float near the south bank of the creek near the junction with Seel



Creek at 625572E 5945118N (NAD 83). Examination of the creek revealed several hundred metres of outcrop with exposures of ferricrete and quartz-sericite-pyrite altered sedimentary and intrusive rocks. Sulphide contents were locally high. One enigmatic outcrop of chalcopyrite cemented breccia was discovered, which reported appreciable concentration of copper and gold. An exposure of "tight" breccia (well mineralized with pyrite, but with little porosity) was noted over several hundred meters in the creek. There is a strong possibility that an unidentified breccia pipe is located close to these exposures, most likely on the south bank of the creek.

- 2. Upper Damascus tourmaline zone. A single cobble of tourmaline and pyrite cemented breccia float was collected (628460, 5945652) from one of the upper trenches on the Damascus (Ox-C) showing. Tourmaline cemented breccias are of considerable importance in Chilean breccia pipes, and may be either barren or highly mineralized. The area lies within the Damascus IP anomaly, and warrants further work. The cobble reported 323 parts per million (ppm) Cu and 48 parts per billion (ppb) gold.
- 3. Breccia knoll. An occurrence of weathered breccia (with galena? cement) was collected at the top of the knoll (627236, 5945732) which contains the Seel Breccia. The occurrence is approximately 400 m northeast of the Seel Breccia. This area lies near the edge of a gap in the sampling between the Lean-To (Seel) and the Damascus historical work. The underlying lithology is QFP (quartz-feldspar porphyry) pervasively altered to quartz-sericite pyrite. The occurrence reported 7080 ppm Pb and 18.5 g/t silver.
- 4. Creek C: This drainage was visited and sampled by R. Seel in 1997, who reported a sample at 0+600 of around 2.3 g/t Au. The creek cuts through quartz-sericite-pyrite altered sandstone and felsic volcanics attributed to the Smithers Formation. Sandstones are decalcified and pyritized, giving a "sanded" texture. A sample of sandstone with around 30% pyrite was collected from an outcrop believed to be the same as the one sampled by R. Seel, and returned 1373 ppb gold.

A stream sediment survey was conducted to test the south-eastern portion of the property, which has no recorded sampling or ground geophysical surveying. Six orientation samples were collected, three regional samples and three samples from "mineralized" drainages. Six conventional silt samples were also collected at the same sites. Approximately five kilograms of sample were collected over 50 m of stream bed at each site. The sample was field sieved down to –20 mesh, with the collection of approximately 300 g of sieved sample. The orientation samples were further sieved to – 80 mesh in the lab, and the –80 mesh fraction and the +80-20 mesh fraction were both analyzed by ICP-MS on a 30 g split for base and precious metals. The sample program successfully identified new areas with anomalous copper, gold, silver and zinc. This program was followed up in 2004 by the cutting of a new grid, IP and magnetometer surveys and geological mapping. This work is described in a previous technical report by



MacIntyre (2005). The IP survey defined a large chargeability anomaly which was tested by 3370 m of diamond drilling in late 2004 and early 2005 under the direction of Gold Reach Resources, the current property operators. A description of exploration activities conducted by Gold Reach from 2004 until current can be found in Section 9 of this report.

# 7.0 Geological Setting and Mineralization

The following section is compiled in part from earlier geological reports prepared by Ogryzlo (2004), MacIntyre (2005), Stubens and Veljkovic (2008), and Christensen et al. (2011).

### 7.1 Local Geology

The Ootsa project is located at the southeast end of a southeast trending belt of porphyry deposits which includes the Huckleberry Mine, the Berg, and Lucky Ship deposits (Figure 1-1). The Ootsa Property is underlain by a series of juxtaposed fault blocks containing tilted and locally folded strata of the Telkwa, Nilkitkwa, Whitesail and Smithers Formations of the Lower to Middle Jurassic Hazelton Group. These rocks are cut by multi-phase intrusive complexes that are correlative with the Late Cretaceous Bulkley Intrusive suite. Intrusive phases include diorite, granodiorite, quartz diorite, porphyritic quartz monzonite (aka quartz porphyry), porphyritic granodiorite, feldspar porphyry, and quartz feldspar porphyry. The youngest rocks on the property are gently dipping basaltic and rhyolitic flows of the Eocene Ootsa Lake Group that cap older strata in the Whitesail and Kasalka ranges. These units are described in more detail below.

Figure 7-1 shows a simplified geology map of the Tahtsa Reach area with geology derived and simplified from the 2006 BCGS Geoscience map. The most extensive rock unit in this region is the Telkwa Formation of the Lower to Middle Jurassic Hazelton Group. These rocks consist of lapilli tuff, lithic tuff, crystal tuff, tuff breccia and minor amounts of porphyritic augite andesite, dacite, tuffaceous siliceous argillite and pebble conglomerate. The Huckleberry Mine is located within the Whiting-Huckleberry horst with mineralization hosted in both hornfelsed Telkwa Formation and intrusive rocks. The Seel and Ox deposits are situated within the down dropped Sibola Creek Graben and are hosted in Smithers Formation marine sedimentary rocks and intermediate to felsic porphyritic intrusive rocks.

The structural setting of Tahtsa Lake and Tahtsa Reach is one of dextral shear, compressional faulting, and crustal extension and rifting. The following structural description is taken from Christensen et al. (2011). Compressional stresses from the amalgamation of the Stikine Terrane with ancestral North America led to the development of deep seated faults in the region. Relaxation and extension following amalgamation were accompanied by the emplacement of calc-alkaline intrusive rocks with their accompanying zones of hydrothermal alteration and mineralization. Extension was



characterized by the formation of northerly trending horsts and grabens. Further compression and dextral shear resulting from subsequent collisional events led to the dismemberment of the Huckleberry Main Zone and East Zone deposits along kilometre scale curved faults that dissect the mineralized zone.

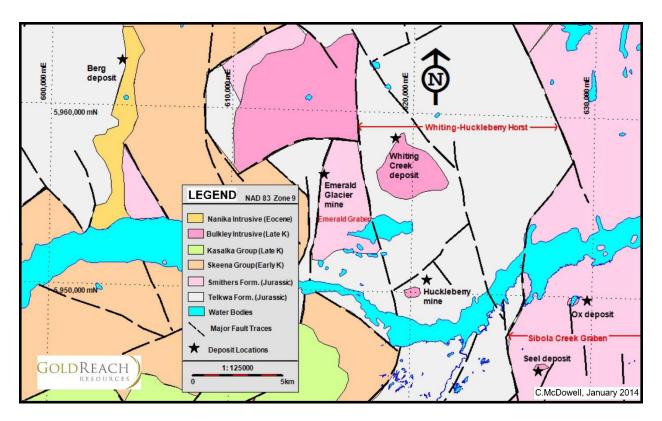


Figure 7-1: Geology of Tahtsa Reach. Geology taken and simplified from BCGS geoscience map (2006). Note position of Ox and Seel deposits in down-dropped Sibola Creek graben relative to Huckleberry's location in Whiting-Huckleberry horst.

Mineralization at Huckleberry formed in the hornfelsed wallrocks surrounding equigranular granodiorite intrusions. The current level of erosion is interpreted to be near the base of the Hazelton Group exposing the roots of a porphyry system (Christensen et al., 2011). The stratigraphic level, equigranular intrusive rocks, and simple Cu +/- Mo with limited Au or Ag support the inference that the Huckleberry deposit exposes a fairly deep level porphyry system. Geologic characteristics at the Ox deposit are similar to those of Huckleberry and both deposits have returned similar ages for mineralization of 83 +/-3 Ma at Ox (Richards, 1974) and 82.3 +/- 3Ma at Huckleberry (Christensen et al., 2011). There are no published age-dates available for the Seel host rocks.



### 7.1.1 Telkwa Formation (LJT)

Widely spaced outcrops of maroon, purple, and red lapilli tuff with lesser crystal, lithic and ash tuff, volcanic breccia and agglomerate interbeds occur along the Troitsa Main Forest Service Road and at isolated localities throughout the property. These rocks, which typically contain 30-60% 1-2 mm feldspar crystal fragments, are lithologically identical to the lower Telkwa Formation elsewhere in central B.C. Therefore, these rocks are correlated with the Telkwa Formation (MacIntyre, 2005).

# 7.1.2 Nilkitkwa Formation (LMJS)

Medium to thin bedded, dark grey siltstones and mudstones crop out in a number of steep sided creek gullies that are part of the upper Seel Creek drainage system. exposures also occur along the banks of Seel Creek near the old Bethlehem Copper camp. These fine grained sedimentary rocks were mapped as unit 6 argillites by Bethlehem Copper (Anderson, 1971). The GSC assigned these rocks to the Middle to Upper Jurassic Ashman Formation (Woodsworth, 1980), but these rocks are sufficiently different in lithology and stratigraphic position that others consider them to be a separate and older unit. The primary differences between these rocks and the Smithers or Ashman formations is the lack of feldspar detritus and the more reduced, finer-grained and presumably deeper marine nature of these rocks. These features are similar to the Lower Jurassic Nilkitkwa Formation that is found further north in the Smithers-Babine Lake area. This correlation is supported by the apparent stratigraphic position of these rocks which suggest they overlie the Lower Jurassic Telkwa Formation. Similar marine sedimentary rocks occur near the mouth of Kasalka Creek but these rocks were either mapped as the Smithers or Ashman Formations (Woodsworth, 1980) or included in the Telkwa Formation (MacIntyre, 1985).

#### 7.1.3 Whitesail Formation (LMJW)

A distinctive unit comprised of well bedded cream to light grey rhyolitic ash flow tuffs with lesser interbeds of chert, feldspathic wacke, felsic lapilli tuff and volcanic breccia crops out in creeks draining the steep north facing slope of the Whitesail range and in the area east of the Damascus vein. These rocks occur elsewhere in the Whitesail- Tahtsa Lake area and were mapped as the Lower to Middle Jurassic Whitesail Formation by the GSC (Woodsworth, 1980). These rocks grade upward and are in part interbedded with the lower part of the Middle Jurassic Smithers Formation. The best section where this transition is exposed is on the steep north facing slope of the ridge south of the Lean-To showing. Here outcrops exposed in creek gullies at the base of the ridge are mainly rhyolitic ash flows interbedded with feldspathic wackes and granule conglomerates and these grade up slope and up section into predominantly feldspathic wacke, siltstone and granule conglomerate of the Smithers Formation. A similar transition is observed in the area east of the Damascus vein where the section dips gently to the north. Rocks exposed



near the top of the knoll are typical Whitesail Formation whereas those further down slope and up section are typical of the Smithers Formation (MacIntyre, 2005).

### 7.1.4 Smithers Formation (MJS)

Medium to thin-bedded feldspathic wackes, siltstones and heterolithic granule to pebble conglomerates are exposed on the steep north facing slope south of the Lean-To grid and along prominent cliffs, road cuts and trenches northeast and west of the Damascus vein. These rocks are assigned to the Smithers Formation based on lithology and apparent stratigraphic position. Some limy beds containing macrofossils are reported to occur at the base of cliffs east of the Damascus vein (Blackwell, 1985) but these could not be located.

### 7.1.5 Ootsa Lake Group

The southern boundary of the Seel Property overlaps the northern edge of the Whitesail Range. At higher elevations tilted and folded fault blocks of Hazelton Group rocks are uncomformably overlain by gently dipping feldspar-phyric basalt and lapilli tuff of the Eocene Ootsa Lake Group. Blackwell (1985) reports small outliers of these rocks in Poison Creek west of the Damascus vein. Two small stocks, one comprising coarse feldspar porphyry, the other biotite-feldspar porphyry intrude Eocene Ootsa Lake Group rocks south of the Seel property. These high level intrusions were probably feeders for Eocene flows that cap the Whitesail range.

### 7.1.6 Bulkley Intrusive Suite

Intrusive rocks on the Ootsa property crop out in trenches, road cuts, creeks, and along the crest of some ridges. Drilling at the Seel and Ox deposits has intersected large zones of highly altered, mainly feldspathic intrusive rocks. At least 7 distinct intrusive phases have been recognized at Seel within an intrusive complex that is at least 1.6 km long by 0.5 km wide and is elongate in a northeast direction. The oldest intrusives, determined by cross cutting relationships are an equigranular feldspar-quartz-biotite intrusive (locally dioritic) and a coarse crowded feldspar porphyry that varies somewhat in grain size and phenocryst abundance. The intrusive complex also contains a medium grained feldspar porphyry and a medium to coarse grained feldspar-quartz porphyry. All of the above intrusive units are observed to host porphyry Cu-Au-Mo mineralization. At the northeast end of the intrusive complex is coarse quartz porphyry along with a finer grained feldspar-quartz porphyry that is spatially related. A volumetrically minor set of relatively late felsic and mafic fine grained dikes have been intersected in some drill holes.

# 7.2 Geology and Mineralization of the Seel Deposit

The Seel deposit can be separated into four domains; East Seel, West Seel, Seel Breccia and the Far East Zone (also called NE zone) (Figure 7-2). The "East Seel" zone hosts porphyry Cu-Au mineralization associated with quartz-magnetite veins on the east side of the Seel deposit. It is hosted mainly in highly altered porphyritic intrusive rocks with



some mineralization hosted in hornfelsed sedimentary rocks near its north and west margins. The "West Seel" deposit defines porphyry Cu-Au-Mo-Ag mineralization hosted in fine grained clastic sedimentary rocks, with lesser sandstone to conglomerate beds, and undifferentiated porphyry intrusives associated with pyrite-pyrrhotite-chalcopyritemolybdenite veins. At depth the West Seel deposit is hosted by a large weakly porphyritic intrusive containing strong biotite alteration (potassic) that does not crop out at surface. This intrusive contains 70 to 80% euhedral to subhedral feldspar crystals 1-5mm in size, with 5 to 10% interstitial quartz and abundant secondary biotite, and is likely granodiorite in composition. A late episode of structurally controlled veins and breccias containing quartz-carbonate + Cu-Zn-Pb-Ag mineralization occur at the "Seel Breccia" and along some of the more significant faults in the area. Carbonate associated with these zones consists of tan Fe-carbonate, pink Mn-carbonate, and local calcite. Sulfides consist mainly of chalcopyrite, pyrite, sphalerite and galena. In places these veins contain open spaces, drusy cavities, crustiform banding and cockade textures, indicating they are lower temperature and higher level than the earlier porphyry Cu-Au +/- Mo +/- Ag events. The "Far East" zone is characterized by mixed sediments and various porphyritic rocks that contain intermittent zones of weak to moderate Cu + Au + Ag mineralization. High grade Ag + base metal mineralization, characteristic of the Seel Breccia zone, has also been intersected by drilling in the Far East zone.

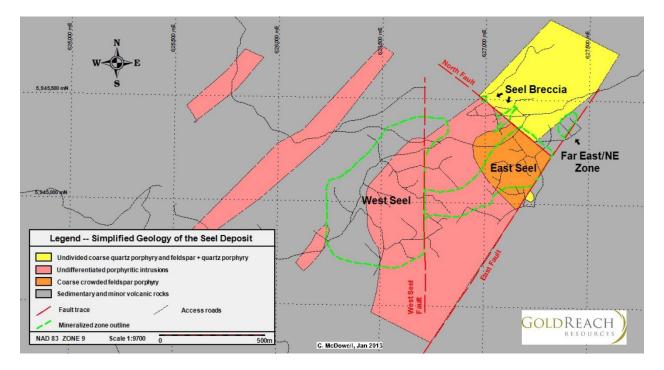


Figure 7-2: Simplified Geology of the Seel deposit.



Evidence of faulting is fairly common in drill holes at Seel. Three significant faults have been identified during the various drill programs and are labelled on Figure 7-2 as the North Fault, the East Fault, and the West Seel Fault. These faults postdate the main episode of porphyry mineralization but locally host younger lower-temperature vein and breccia style mineralization and related alteration. The amount of displacements on the faults remains unconstrained and porphyry related alteration and mineralization occurs on either side of the structures. High grade gold-silver and local base metal mineralization can occur along the faults and are often associated with strong clay alteration which can be grade destructive in the surrounding porphyry. The West Seel fault loosely defines the boundary between the West Seel and East Seel mineralized zones. Cataclasite and brecciated textures, often accompanied by quartz-carbonate-sulfide veining, have been observed in drill core from near the West Seel fault but often the fault location has been inferred through subtle criteria such as grade and changes in lithology or alteration.

Several zones of brecciation are recognized at the Seel deposit. The largest known zone occurs at the Seel Breccia which locally hosts high grade Ag-Cu-Zn-Pb mineralization. Several linear, fault controlled zones of brecciation occur throughout the Seel deposit and can often be well mineralized.

#### 7.2.1 The East Seel Cu-Au zone

Seel Cu-Au style porphyry mineralization is associated with early potassic alteration and quartz + magnetite veining with a moderate to strong chloritic component. This style of mineralization forms a distinct airborne magnetic high. The main intrusive throughout the Cu-Au zone is a coarse crowded porphyry containing 40 to 60% phenocrysts in a fine grained aphanitic matrix. Feldspar is the dominant phenocryst consisting of euhedral and sub rounded crystals, 3 to 7mm in size. Biotite phenocrysts, 2 to 3mm in size make up about 2 to 5% of the rock but are often completely masked by alteration. This rock is termed crowded feldspar porphyry. Alteration causes the color and appearance of this rock to change considerably over short distances, however, the texture and phenocryst composition remains fairly constant. Locally, strong sericite alteration and matrix silicification within the crowded feldspar porphyry bleaches and masks any biotite that might have been present. In the mineralized zone the rock contains 2 to 4% finely disseminated pyrite and chalcopyrite in a variably silica flooded groundmass. Pyrite and chalcopyrite also occur along fractures, and pyrite-chalcopyrite-magnetite occurs in quartz veins, locally concentrated in the vein centers. Traces of bornite have been found in the higher grade zones of East Seel. There are generally 5 to 7 quartz veins per metre, 0.5 to 1cm in size, within the mineralized zone. Early high temperature quartz-chalcopyrite veins occur in this zone along with several episodes of later veins. Two styles of alteration dominate in the Cu-Au zone. The first is an early potassic alteration characterized by salmon to pink color K-feldspar within the crowded feldspar porphyry groundmass and as selvages to veins, along with biotite veins and zones, and quartz-pyrite-chalcopyrite-



magnetite veins. Locally potassic alteration occurs with chlorite which has altered a large portion of the biotite crystals. The second alteration style seen in places features sericite alteration overprinting potassic alteration, where the rock is bleached to a light grey green or tan color, mafic minerals have been destroyed, and often the feldspar phenocrysts and porphyry groundmass are soft. In some zones there appears to be similar Cu and Au grades in both sericite altered zones and potassic altered zones, whereas in others chalcopyrite abundance is visibly reduced in the sericite altered zones indicating the sericite alteration is grade destructive. This is confirmed locally by assay values. Grade destructive sericite alteration, and locally grade destructive structurally controlled late argillic alteration are important features within parts of the Seel Cu-Au zone.



Figure 7-3: Photos from East Seel drill core. A) top-Sericite dominated alteration, bottom-Potassic alteration B) Potassic alteration with fine grained disseminated chalcopyrite and pyrite, K-feldspar porphyry matrix, quartz-sulfide veinlets and black biotite + chalcopyrite veinlets. C) Potassic + chlorite altered feldspar porphyry with purple anhydrite vein. D) Mixed potassic and sericite altered porphyry with quartz-magnetite-chalcopyrite veins. E) Magnetite-chalcopyrite vein.



Figure 7-4 shows a representative cross section (Section 15NE) through the middle of the East Seel zone. A map illustrating the location and orientation of all Seel cross sections can be viewed in Figure 10-1. Figure 7-5 illustrates the location and relative grades of Cu. Eq. mineralization on Section 15NE.



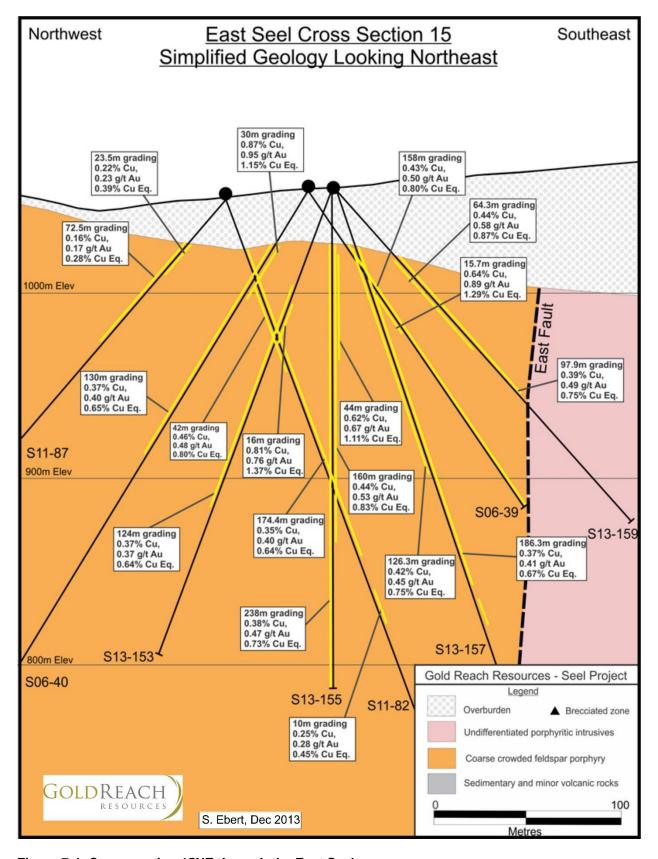


Figure 7-4: Cross section 15NE through the East Seel zone.



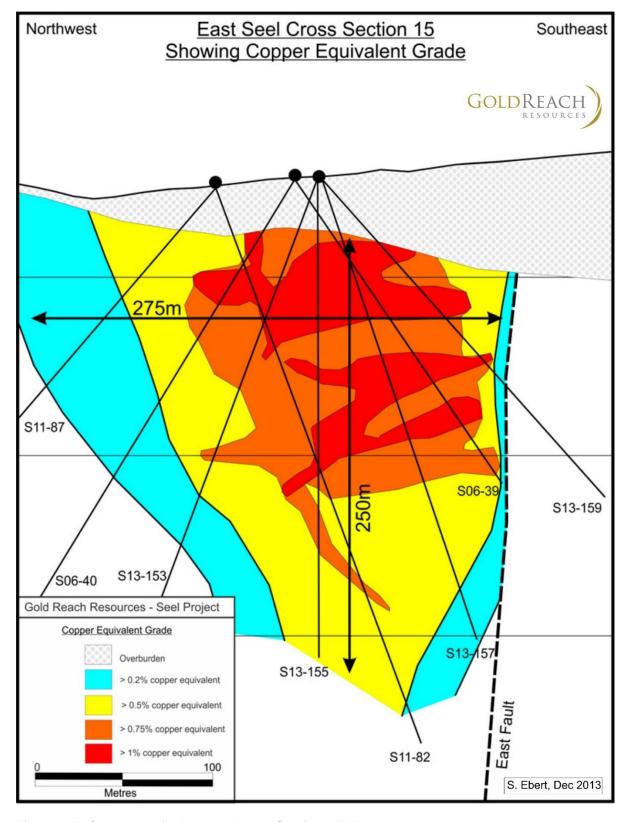


Figure 7-5: Copper equivalent grades on Section 15NE.



#### 7.2.2 West Seel Cu-Au-Mo-Ag zone

The West Seel zone was discovered by drilling during the late 2011 field season when holes 91, 95, 97 and 100 all intersected Cu-Au-Mo-Ag bearing porphyry style mineralization. The 2012 field season saw 45 of 46 drill holes pierced into the West Seel zone with the lone hole located outside this zone completed for metallurgical purposes. In 2013, 12 holes for a total of 4675 metres were drilled into the central portion of the West Seel zone where near-surface mineralization was encountered in 2012. Mineralization at West Seel is hosted in three different lithologies including a suite of undifferentiated porphyritic intrusives, a sedimentary package with variable biotite hornfelsing and in an equigranular weakly porphyritic intrusive rock with strong biotite alteration. The undifferentiated porphyritic intrusives range in grain size from fine to medium, are feldspar dominant (10-30%) with common biotite and rare to minor quartz eyes. Sericite alteration is widespread with intermittent zones of silicic flooding and an occasional potassic component. Quartz veining varies between 1-2 veins per metre to greater than 5 with a sulfide assemblage consisting of pyrite-chalcopyrite-molybdenite. The wall rocks comprise mainly fine grained sedimentary rocks, dominant mud to siltstone with minor sandstone, and occasional conglomerate that have been variably hornfelsed. This hornfelsed contact zone is manifested by strong biotite alteration with vein controlled and disseminated sulfide mineralization consisting of pyrite-chalcopyrite-molybdenite with pyrrhotite variably present. Mineralization in this package is consistent and can be host to some of the highest Cu grades in the deposit. The lower West Seel intrusion is equigranular to weakly porphyritic and has moderate to strong biotite (potassic) alteration throughout. This intrusion exerts a strong control on mineralization at West Seel. The sulfide assemblage is notably different from elsewhere at Seel due to the amount of pyrrhotite that appears with pyrite, chalcopyrite and molybdenite. Secondary biotite is abundant and widespread at depth in the West Seel zone, and largely masks the original intrusive texture. The rock contains up to 1% disseminated chalcopyrite and minor disseminated molybdenite with 3 to 4 quartz-pyrrhotite-chalcopyrite-pyrite-molybdenite veins per metre, 1-2mm in size. The rock averages about 2 to 4% pyrrhotite and is strongly magnetic.

The mineralized zone at West Seel is volumetrically large and remains open to the south at depth where the mineralized zone is 800m to 1000m wide. To date the mineralization has been traced roughly 800 metres along a northeast-southwest strike, over widths up to 800 metres and to depths in excess of 1000m below surface. West Seel mineralization forms a gradational contact on the west side but is truncated on the east side by the West Seel Fault. However strong alteration and localized mineralization does occur to the east side of the West Seel Fault. Late quartz-carbonate veins with precious and base metal sulfides are found in fault splays and sub-parallel structures and fractures near the fault.



The sense of displacement along the West Seel fault remains poorly understood so the faulted east side of the West Seel deposit remains a valid conceptual exploration target.

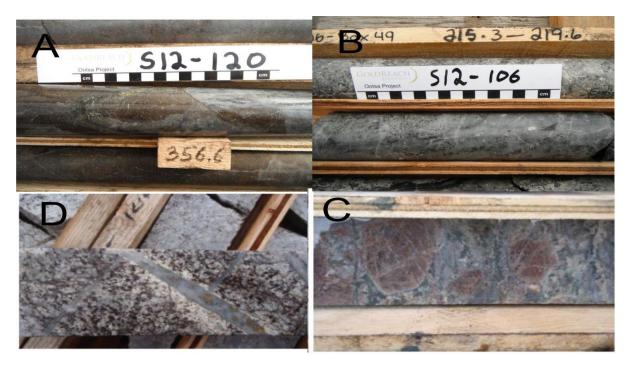


Figure 7-6: Photos from West Seel drill core. A) Biotite hornfels with strong silicic component. B) Sericite-silicic alteration of fine grain feldspar porphyry. C) Conglomeritic sedimentary rock with biotite alteration. D) Biotite altered equigranular intrusive with multi-generational quartz-sulfide veining from West Seel Intrusive.

Figure 7-7 shows a representative cross section through the middle of the West Seel zone. Consult Figure 10-1 for location and orientation of all Seel deposit cross sections. Mineralization extends to surface on this section and the West Seel intrusive occurs at a level just over 400 metres below surface.

Mineralization is encountered at gradually deeper levels toward a southwesterly direction at West Seel. The West Seel deposit is a well-developed porphyry system with modest to strong ore grades and room for expansion in the south at depth.



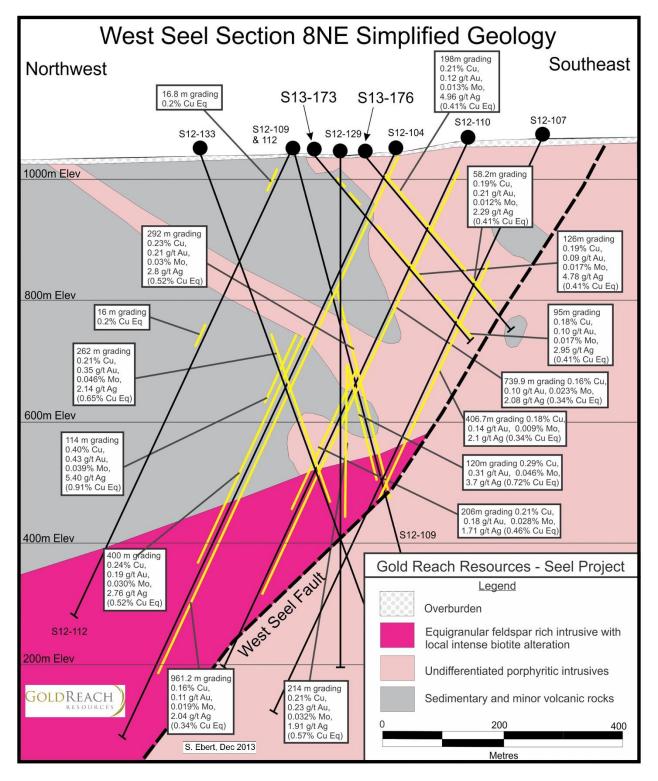


Figure 7-7: Section 8NE through the West Seel zone.



# 7.3 Geology and Mineralization of the Ox Deposit

The Ox deposit is located in the north-central portion of the Ootsa Property claim block, about 4km northeast of the Seel deposit and 7km east-southeast of the Huckleberry mine. The Ox deposit is roughly crescent shaped with some fault controlled offsets and is characterized by disseminated and vein controlled porphyry Cu + Mo mineralization. Mineralization contains pyrite, chalcopyrite, and molybdenite hosted in hornfelsed sedimentary rocks near the western margin of a granodiorite porphyry stock (Ox intrusive).

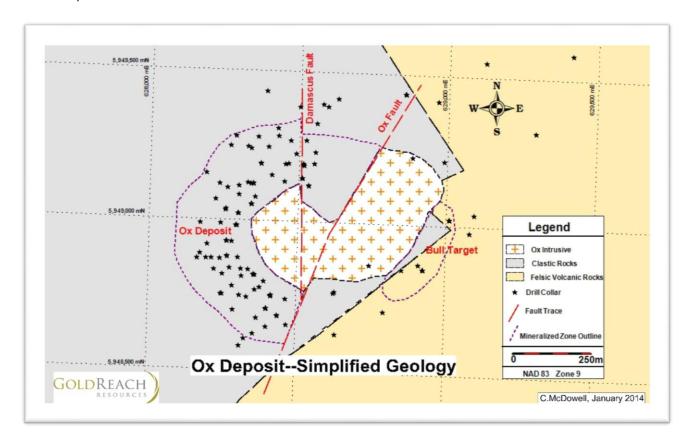


Figure 7-8: Ox deposit-simplified geology map.

The main host rock for mineralization is a hard siliceous fine grained clastic sedimentary rock with patchy zones of strong biotite hornfels, and zones with K-feldspar, biotite, sericite, chlorite, anhydrite, silicification and clay alteration. Blebs and patches of epidote occur throughout the zone. Quartz veining is weak to moderate but present within mineralized zones, comprising quartz with K-feldspar, and quartz with chalcopyrite and/or molybdenite. Minor magnetite can be found locally at Ox. Quartz-chalcopyrite veins generally cut molybdenite bearing veinlets. Pyrite veinlets and disseminated pyrite (2-3%) are widespread as are late calcite veinlets.



A fine grained feldspar porphyry occurs as dikes or sills within the mineralized zones and contains mineralization and alteration similar to the surrounding sedimentary rocks. A coarse crowded feldspar biotite porphyry forms an intrusive body on the east side of the Ox mineralized zone. The porphyry contains 90% feldspar crystals 2 to 10mm in size (average 6mm), 5-10% biotite as books to 5mm, plus minor interstitial quartz, and is interpreted to have a granodiorite composition. The crowded porphyry does not contain significant zones of mineralization but does have variable K-feldspar, sericite, chlorite, pyrite, and clay alteration with weak copper and molybdenum locally. Quartz veining is typically weak. Several drill holes indicate the crowded porphyry is locally in fault contact with the adjacent mineralized sedimentary rocks.

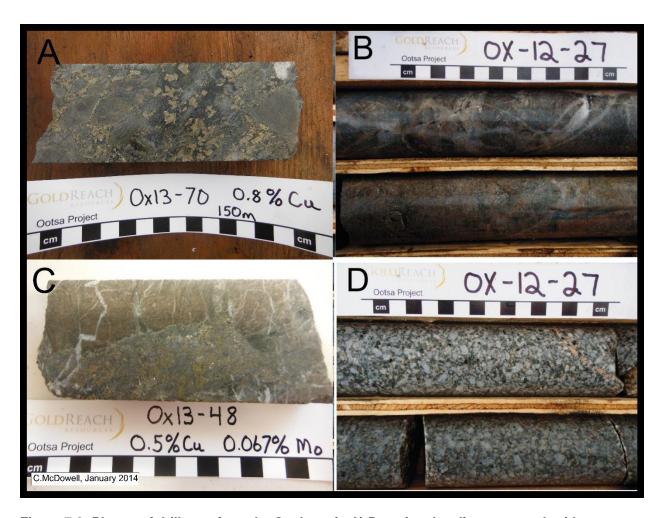


Figure 7-9: Photos of drill core from the Ox deposit. A) Brecciated sedimentary rock with strong sulfide mineralization. B) Biotite and K-feldspar altered fine grained sedimentary rock cut by quartz sulfide veins. C) Strong quartz + chalcopyrite + molybdenite veining in hornfelsed sedimentary rock with late carbonate veining. D) Coarse crowded feldspar biotite porphyry intrusion that occurs on the east side of the Ox deposit. Note the pink K-feldspar vein in the upper right.



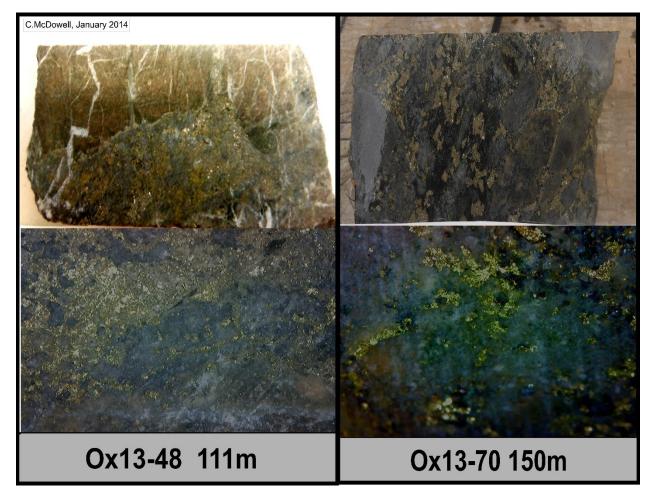


Figure 7-10: Bottom frames are macro images of top frames from Ox drill core 2013. Left) Quartz veining with strong chalcopyrite + molybdenite mineralization. Right) Abundant sulfide mineralization in brecciated sediment

A volumetrically minor episode of late unmineralized mafic dikes with quartz-carbonate veins and chlorite alteration occur locally, some controlled by late faults. The majority of the Ox zone is strongly fractured with several fractures per metre. Brecciated zones and thin cataclasite zones are common as faulting clearly plays a strong role in controlling and bounding mineralization at the Ox deposit.

A late episode of fault-controlled calcite-tan Fe-carbonate-quartz and base metal sulfide veins locally cut the Ox mineralization. Ten metres of quartz-carbonate veining (4m true width) with faint crustiform banding was encountered in Ox12-33. The vein returned 147 g/t Ag (4.3 ounces per tonne) and 11.1% combined lead and zinc from 246 to 256 meters,



including 304 g/t Ag (8.7 ounces per tonne) and 23.2% combined lead and zinc over 4 meters from 246 to 250 meters depth.

Several cross sections have been constructed through the Ox deposit to help illustrate the known geometry of the zone (see www.goldreachresources.com). Three typical sections through the south, central and north portions of the deposit have been included in this report (Figures 7-12 to 7-14). To date the mineralized zone at Ox has been identified over a curved length of 1000m and typically has widths ranging from 175 to 200 meters and extends to depths between 150 and 250 metres below surface. Within this mineralized zone lies a higher grade core measuring 850m x 100m x 100m.

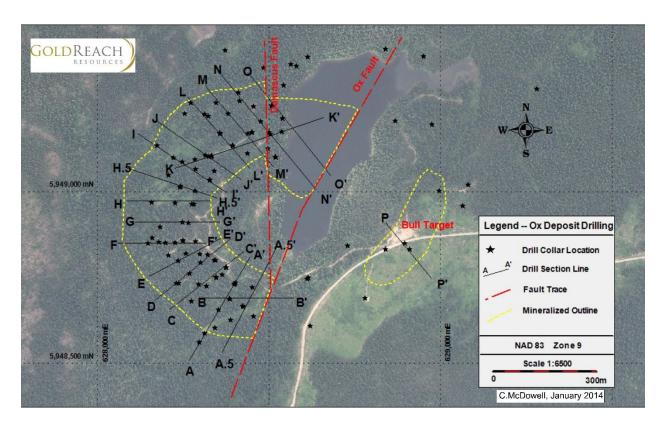


Figure 7-11: Ox deposit--Cross section locations.

On all sections mineralization is hosted in the sedimentary (grey) rocks with variable amounts of fine to medium grained porphyry (pink). Mineralization has a gradational boundary on the west side whereas a crowded feldspar biotite porphyry (orange) bounds mineralization on the east side. In general, mineralization appears to be highest grade at or near surface and adjacent to the intrusive contact, with an apparent grade decrease with depth, with the main mineralized body extending 150 to 250 metres below surface. Significant alteration is still present in the rocks underlying the mineralized zone but Cu



and Mo values are generally weak and patchy. It is possible that the Ox mineralized zone was originally east dipping and has been truncated along its length by the Ox Fault depicted in Figure 7-11.

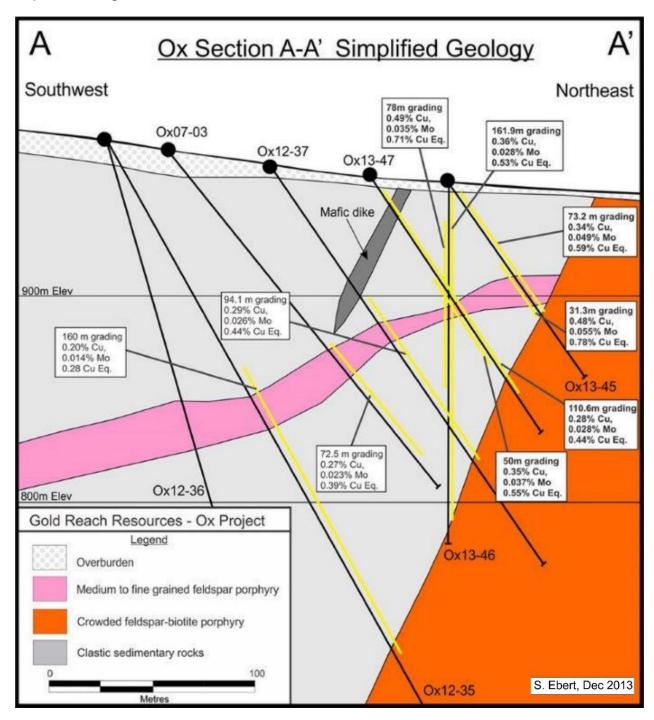


Figure 7-12: Ox cross section A-A' with drill holes and simplified geology.



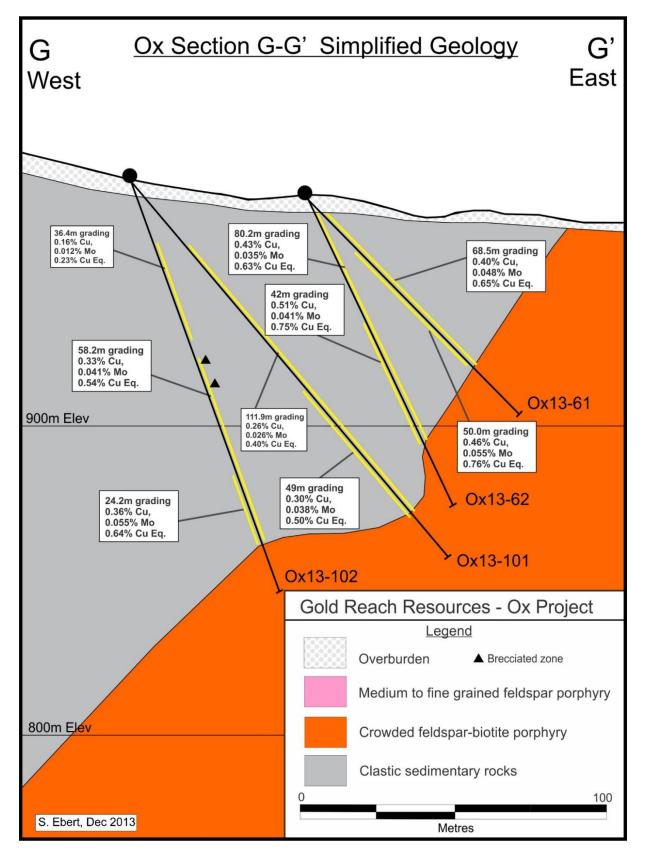


Figure 7-13: Ox cross section G-G' with drill holes and simplified geology.



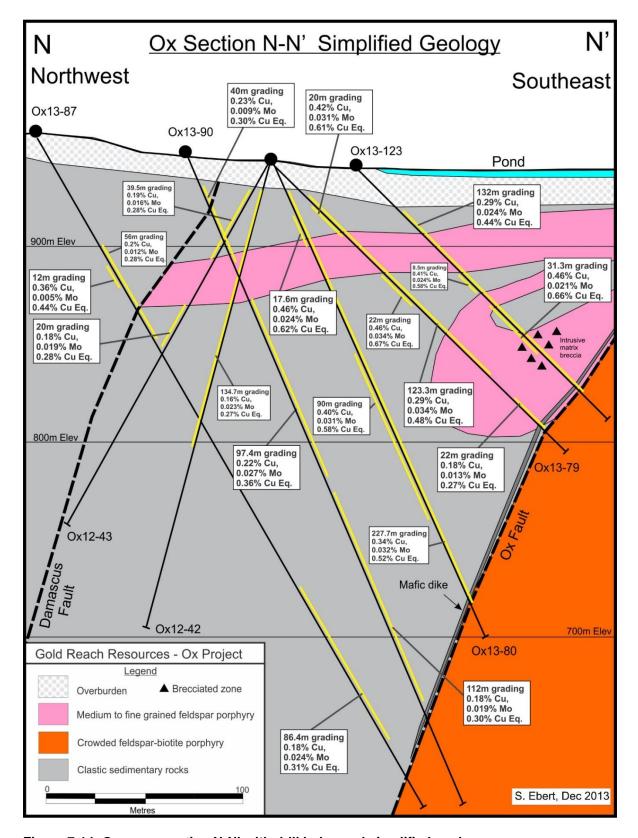


Figure 7-14: Ox cross section N-N' with drill holes and simplified geology.



# 8.0 Deposit Type

The Ox deposit, along with the Seel deposit and the adjacent Huckleberry Mine, share features characteristic of porphyry copper systems based on their geometry, association with intrusive rocks, nature of disseminated and veinlet controlled mineralization, alteration assemblage and alteration zonation, and metal associations.

Roughly three-quarters of global Cu production, half of global Mo production, and around one-fifth of global Au production come from porphyry Cu systems (Sillitoe, 2010). Significant by-product metals from porphyry systems include Re, Ag, Pd, Te, Se, Bi, Zn, and Pb. Porphyry Cu systems form at convergent plate boundaries and include a wide range of mineralization types, including porphyry deposits centered on intrusions, deposits in wallrocks, and a range of vein and replacement style deposits that form at different depths and different distances from intrusions (e.g. Sillitoe, 2010). Porphyry deposits commonly occur along linear trends reflecting structural controls above large composite plutons which supply magmas, fluids, and metals that form porphyry deposits.

Porphyry Cu ± Au ± Mo deposits are generally centered on intrusions or their hornfelsed wallrocks. In non-carbonate bearing rocks structurally controlled base metal and Ag bearing veins can occur peripheral to porphyry Cu centres and high-sulfidation epithermal deposits may occur in strongly altered and leached rocks above porphyry Cu deposits.

Porphyry Cu deposits display a consistent, broad-scale alteration and mineralization zoning pattern that typically affects several cubic kilometers of rock. Porphyry mineralization typically occurs in quartz-bearing veinlets, and locally sulfide veinlets, as well as disseminated throughout the host rocks. Large pyrite halos are known to occur around mineralized zones in several porphyry districts. The deposits typically contain large alteration zones consisting of deep sodic-calcic alteration, centrally located potassic alteration, and higher level or peripheral chlorite-sericite, sericitic, argillic, and advanced argillic alteration. Younger alteration zones commonly overprint older alteration zones in porphyry systems.

The Seel and Ox deposits contain disseminated and veinlet controlled Cu-Au-Mo-Ag mineralization and large zones of potassic, sericitic, chlorite-bearing, and argillic alteration assemblage consistent with classification as a porphyry Cu system. Late base metal silver veins at the Seel Breccia and Damascus areas share characteristics with base metal Ag veins known to occur around porphyry deposits.



The large size of porphyry deposits and the large zones of associated sulfide mineralization make them especially amenable to geophysical exploration. Induced polarization surveys are routinely used in porphyry exploration to outline sulfide zones and associated pyrite halos. Resistivity surveys have also been used to successfully outline the large zones of hydrothermal alteration. Conventional soil geochemical exploration is also very effective for identifying drill targets in areas of thin cover.

# 9.0 Exploration

This section will detail all work completed at the Seel and Ox properties by Gold Reach Resources from 2004 until present. Exploration previous to 2004 is described in Section 6.0 History.

# 9.1 2004 Exploration

During the latter stages of 2004 Gold Reach conducted an exploration program on the Seel property that involved diamond drilling and geophysical surveying. The initial step of grid cutting was completed in the late summer by CJL Enterprises Ltd. of Smithers B.C. A combined 2D/3D IP survey was done between September 27 and October 10 while a magnetic survey took place took place October 26-29, 2004. Both surveys were carried out by SJ Geophysics Ltd. of Delta, BC. The results of this work are discussed in a previous technical report (MacIntyre, 2005) but the summary is included in this report for continuity. The geophysical surveys were done on a single grid consisting of 10 lines, each 2000m in length. The 3D-IP lines had a separation of 100m while the three 2D lines were spaced at 200m interval with pickets placed every 50m for both surveys. The IP survey was successful in delineating some NNE linear features and showed a zone of high chargeability(sulfides) with a corresponding low resistivity (alteration) over a portion of the Seel deposit (Rastad, 2004). The data collected from the magnetic survey was analyzed by plotting the total magnetic field strength as a false colour contour map which also showed two NNE trending linear features.

A diamond drill program conducted during the winter of 2004-05 was designed to test the Seel breccia and various IP and magnetic anomalies outlined by the geophysical surveys. The drill program took place between December 7, 2004 and January 20, 2005 when 9 drill holes totalling 3370 metres were completed.

# 9.2 2005 Exploration

The 2005 exploration program at Seel involved diamond drilling, IP surveying, geologic mapping, prospecting and surface sampling.

A phase II drill program was designed to follow up on Cu-Au-Mo mineralization intersected during drilling activity in December 2004/January 2005. The eight hole program was completed between February 20 and March 20, 2005. The expenditures



from this diamond drill program were filed for assessment credit and the results from this work are reported in an assessment report written by Daubeny and Smit entitled "Report on Diamond Drilling on the Seel Mineral Claims" dated July 2005.

Between mid-June and mid-July 2005, Gold Reach conducted 51.4 line km of 3D/2D Induced Polarization and magnetometer surveying on a 5 km long, 2 to 4 km wide, and 29-line grid. The 2005 survey consisted of northeast and southwest extensions to a similar survey undertaken in 2004 and together these two surveys defined a 2.3 x 1.3-km strong IP response underlying the SW portion of the grid and a "peripheral" IP feature underlying the NE portion. The geophysical program was based out of Tahtsa Timber Company's Whitesail logging camp located approximately 14 km by all-weather logging road from the western boundary of the Seel claims.

Details from this survey are included in a report entitled "3D Induced Polarization and Magnetic Survey on the Seel Property for Grayd Resource Corporation and Gold Reach Resources Ltd." dated July 2005 (Chen and Rastad, 2005).

Reconnaissance exploration was undertaken on the Seel Property during the summer of 2005. This work included geologic mapping, prospecting, rock and stream sediment sampling. A description of this program and the results obtained are included in an assessment report entitled "Diamond Drilling Report on the Seel Property" by D.G. MacIntyre (2005).

Don MacIntyre PhD conducted geologic mapping over a nine-day period in late September. Field data gathered during this program was combined with the results of geological mapping done on and in the vicinity of the property by previous operators, and the federal and provincial governments to produce a geological compilation map. The purpose of this work was to better define the location of intrusive bodies and major structures on the property, particularly faults that could have an influence on the distribution and tenor of subsurface mineralization.

# 9.3 2006 Exploration

Field activities at Seel in 2006 included two separate diamond drill programs, access trail construction, line cutting, IP and magnetometer geophysical surveys and some limited stream sampling (Welsh, 2007).

An NQ diamond drill program commenced in early December 2005 and finished on February 1, 2006 with a total of 3243 meters in 15 drill holes from which 2903 meters of core was recovered with the remaining 340 meters deemed as overburden. The drill program was based out of a trailer camp located at the barge landing on the north shore of Tahtsa Reach. It was designed to further test the extent of potentially economic



porphyry copper-molybdenum-gold mineralization first intersected in 2003 and to test IP and magnetic anomalies defined in the 2004-2005 programs.

Later in 2006, between August 30 and September 26, a 15 hole 3,638-m diamond drill program was carried out. The drilling was designed to expand on the known porphyrystyle mineralization intersected during previous drill programs, and to test the area adjoining the Seel breccia, a higher-grade sulphide breccia drilled during the early 1980s by Landsdowne Oil & Gas.

Also during the summer of 2006, a modest IP survey and stream sampling program was completed. A 10.5 line km 3D Induced Polarization and magnetometer survey was carried out over a 1.5 km long by 1.2 km wide (7 lines) grid located in an area adjacent to two earlier surveys. A stream sediment survey was conducted to test the south-eastern portion of the property, which had no recorded sampling or ground geophysical surveying. Six orientation samples were collected, three regional samples and three samples from "mineralized" drainages. Six conventional silt samples were also collected at the same sites. Approximately 5 kg of samples were collected over 50 m of stream bed at each site.

# 9.4 2007-2008 Exploration

In 2007-2008 Gold Reach Resources conducted more diamond drilling and increased the footprint of past IP surveys. In two separate drill programs, from July-October 2007 and March-April of 2008, 7638.57 meters of NQ core was drilled from 33 holes. The summer 2007 program was designed to further test the Seel Breccia and Cu-Au areas that previous drilling had defined in a zone measuring approximately 700 m by 500 m. It was anticipated that this 12 hole program would allow the company to 3-D model these zones for possible resource calculations and expand the field through exploration extension drilling (Welsh, 2007).

The 2008 drill program consisted of 4,407 metres in 21 drill holes located near the Seel Breccia and Cu-Au areas (Strickland, 2008). The program included further testing of areas 200 metres away from the Seel Breccia where previous drill programs had intersected consistent mineralization. Drill results showed the area to contain wider and more continuous mineralization than previously thought. The breccia zone showed good correlation between silver values with copper mineralization in the areas of chalcopyrite mineralization. Overall, drilling in 2007 and 2008 confirmed that potentially economic copper-gold-molybdenum mineralization existed on the Seel property along a northeast-southwest strike.



A 3D Induced Polarization (3D IP) and Magnetometer survey was undertaken for Gold Reach Resources Ltd. on its Ootsa Property by SJ Geophysics Ltd. in June and July, 2007. The total length of the IP survey was 48.6 line kilometres on the Ox lake grid and 3.6 line kilometres on the Seel extension grid. This survey was an extension of geophysical surveys acquired in the previous three years. The purpose of the survey was to assist with the geological mapping process by outlining subsurface features, as well as to delineate drill targets in a known copper-gold-molybdenum porphyry system, and in a disseminated and vein controlled pyrite, chalcopyrite and molybdenite mineralization zone.

### 9.5 2009 Exploration

An airborne geophysical survey totalling 1,325 line kilometres was completed on the Ootsa Property between October 4 and 10, 2009. The survey consisted of Airborne Gamma Ray Spectrometer and a magnetometer survey over the entire claim block (Strickland, 2010). The survey was flown at 200 metre spacing with the line direction of 90°/270°.

### 9.6 2011 Exploration

During 2011 Gold Reach Resources completed an exploration program at the Ootsa property which included 10,393.4m of NQ2 core drilling in 20 holes at the Seel Deposit, 44.5 line km of 3D-IP surveying, surface mapping and sampling, and 1589 soil samples. Several historic core holes were re-logged and simplified geologic and alteration modelling of the Seel deposit was initiated. At the end of the season the applicable drill and survey data was used to compile a resource update on the Seel deposit (McDowell and Giroux, 2012).

A 3D Induced Polarization (3D IP) and Magnetometer survey was undertaken for Gold Reach Resources Ltd. on its Ootsa Property by SJ Geophysics Ltd. in July, 2011. The total length of the IP survey was 44.5 line kilometres. The survey expanded geophysical coverage to the northwest to tie in a zone between and west of the Seel and Ox porphyries. A total of 14 lines, roughly 3 km in length were surveyed. The lines were oriented at an azimuth of 135° and lines were spaced 200 metres apart. Station spacing for the IP survey was 100 metres; magnetometer readings were taken every 12.5 metres along the lines. Below are compilation maps of much of the IP data that had been collected in the previous years.



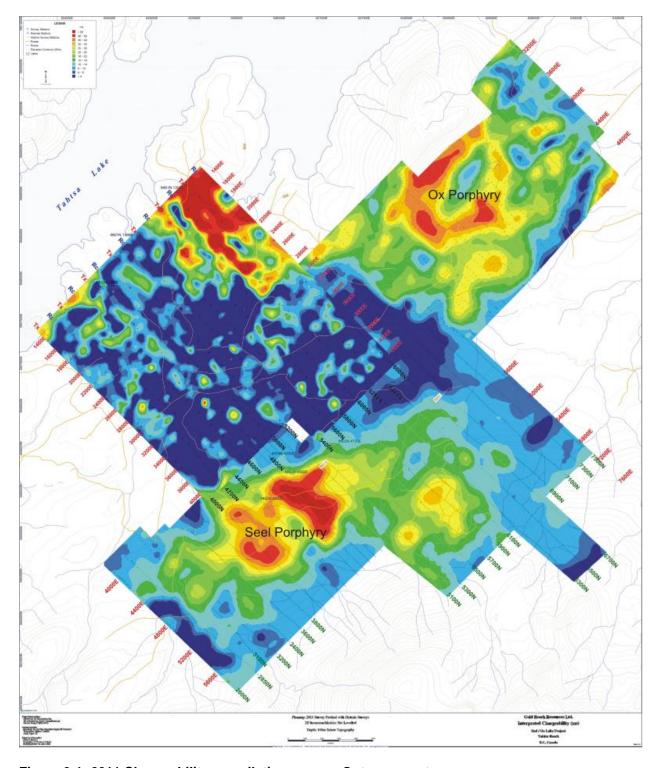


Figure 9-1: 2011 Chargeability compilation map on Ootsa property.



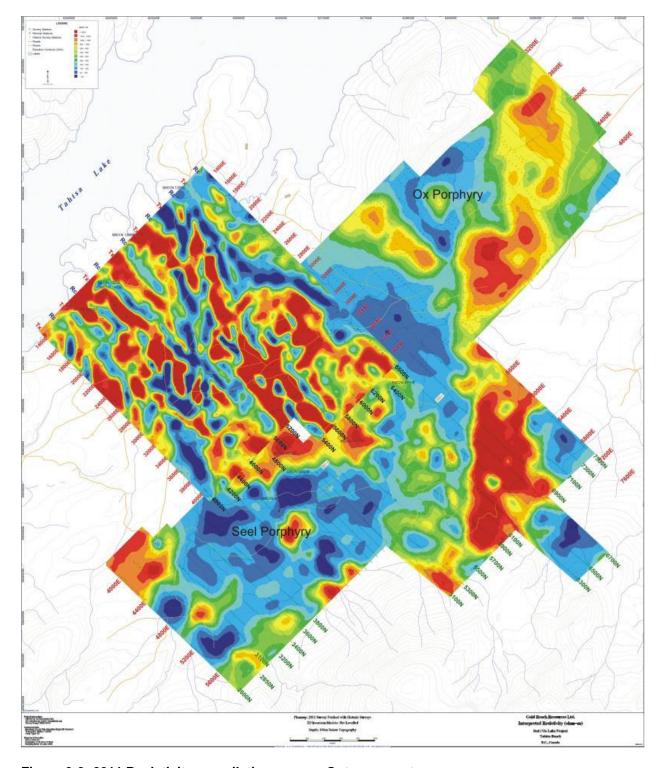


Figure 9-2: 2011 Resistivity compilation map on Ootsa property.

A total of 1589 conventional B-horizon soil samples were collected during the 2011 exploration program. Of that total, 859 were analysed for gold by fire assay and ICP aqua



regia digestion and 730 were analysed by field portable XRF spectrometer. Several hundred of the samples sent for ICP analyses were also analyzed by XRF and comparison of the two methods showed that Cu and other base metals analysed by XRF return comparable anomalies to those analysed by ICP. The 2011 soil sampling program showed a strong Cu-in-soil anomaly located to the northwest of the Ox deposit. The anomaly was spaced over an area roughly 800m long by 250m wide and partially coincided with a historic IP chargeability anomaly. The coincident anomaly was partially investigated by drilling in 2012. Also, a smaller less pronounced Cu-in-soil anomaly was shown to occur and partially overlap chargeability high about 2km west of Ox.

In 2011 a surface mapping program was initiated over the property. A simplified geology map that covers the Seel and Ox deposits can be viewed in Section 7 of this report.

During 2011 Gold Reach completed 10,393.4m of NQ2 core drilling in 20 holes at the Seel Deposit. All drill holes were spotted at the Seel deposit and eventually included the discovery of the West Seel zone during the latter stages of the drill campaign. Drill operations were performed by two skid mounted hydraulic drill rigs that recovered NQ2 drill core. A D6 bulldozer with a winch was used to move the drills, and an excavator was used to make drill pads and sumps and build access trails. The drills operated 24 hours per day, with two 12 hour shifts. Over the duration of the 2011 drill program the drillers averaged 36 meters of core per shift, with a maximum production of 152 meters per shift.

Core recovery was generally 100% with rare broken up zones where less that 100% recovery was obtained.

# 9.7 2012 Exploration

The 2012 field season at the Ootsa Property saw Gold Reach Resources conduct a large exploration program involving diamond drilling, IP surveying, soil sampling, mapping and improvements to property infrastructure (McDowell and Giroux, 2013).

A total of 2179 conventional B-horizon soil samples were taken in 2012 and all were analyzed on site with a portable XRF spectrometer. After conducting a comparison in 2011, Gold Reach personnel determined that the XRF data was comparable to ICP values with respect to base metal data. The data was used to generate thematic maps depicting anomalies in Cu, Mo, As, Pb, Zn, Mn and Sb. Figure 9.4 shows a Cu value thematic map with over 5000 soil samples collected over several years at the Ootsa property.

Gold Reach Resources completed 42.9 line kilometres of a combined IP and resistivity survey that involved 14 km of line cutting and greater than 28 km along existing roads. The 2012 survey partially covered a large area east of the Seel and Ox deposits and was effective in revealing some anomalous zones. Figure 9.5 shows the 2012 survey combined with the compilation of all earlier IP data collected in the past several years.



The zone denoted as 'anomalous' was drilled late in 2012 where abundant clay alteration and pyrite mineralization was discovered.

One metallurgy specific hole was drilled into the Seel Cu-Au zone in 2012 in order to augment metallurgical data already in hand.

Gold Reach made many infrastructure improvements on the Ootsa property during the field season including the addition of a trailer camp capable of sleeping 21 people and complete with kitchen, bath, laundry, workshop and storage facilities. A new septic system was designed and installed in order to handle the greater camp capacity as was a pressurized water system. In addition Gold Reach resurfaced 3.5 km of the Seel access road with gravel sourced locally.

### 9.8 2013 Exploration

Field exploration activities in 2013 across the Ootsa Property were conducted between May 22 and November 29. Work included diamond drilling, soil, stream sediment and rock grab sampling, geologic mapping and 76 line kilometres of geophysical surveying. Diamond drilling is described in this report under Section 10 Drilling.

#### 9.8.1 Soil, stream sediment and rock sampling

All soil and stream sediment (silt) samples were tested on site with a portable XRF unit. A total of 40 soil samples and 84 silt samples were sent to AGAT Labs for grade comparison with the XRF results. A comparison of the results was completed and found that the accuracy of the portable XRF unit to be adequate with respect to base metals and poor for precious metals. Assay results obtained with the XRF unit are only valid to guide follow up field exploration and are not published nor utilized in any mineral resource calculations.



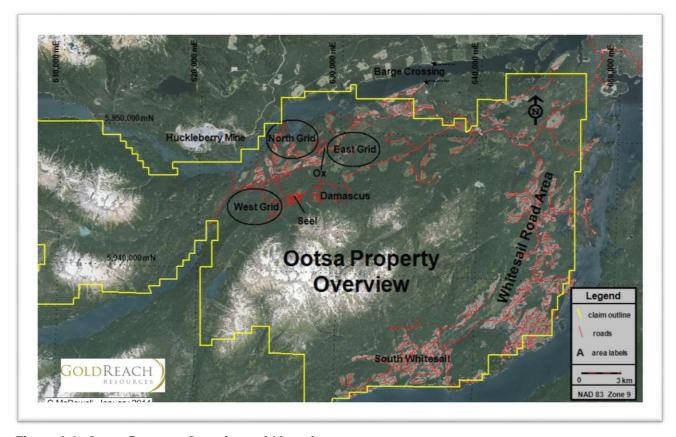


Figure 9-3: Ootsa Property Overview-grid locations.

A total of 1330 soil samples were taken which added to a current property wide database of 7000 soil samples. Thematic maps of copper in soil anomalies along the North grid and surrounding the Damascus zone can be seen in Figures 9-4 and 9-5. Both zones also contain some anomalous Lead (Pb) and Zinc (Zn) values in soil. The North grid displays a coincident geophysical and soil anomaly and corresponds to the newly named Ox West zone, which was the locus of four widely spaced exploration holes in 2013. The Damascus zone contains high grade silver (Ag) + Pb + Zn veins and has been the target of considerable shallow historic drilling. The Ootsa property is covered by variable amounts of transported glacial gravel deposits which tends to mute potential soil anomalies.



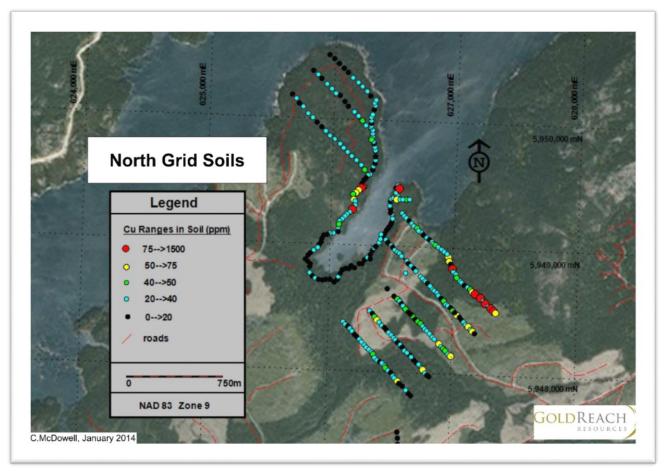


Figure 9-4: Cu Soil anomalies at North grid.



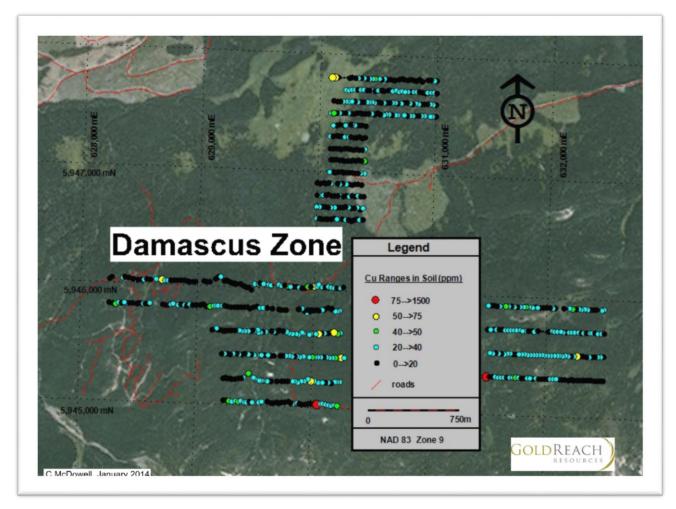


Figure 9-5: Cu Soil anomalies at Damascus.

The majority of silt and rock grab sampling was completed in the south-southeastern portion of the property in areas denoted as Whitesail Road or South Whitesail on Figure 9-3. Some areas of interest were identified as a result of this surface sampling although are not considered extensive enough to be detailed in this report. Geologic mapping was conducted concurrently while sampling over the same area with the intent of reconciling current work with a government map completed in 2006.

# 9.8.2 Geophysical Survey

The 2013 geophysical survey at Ootsa was completed in the East, North and West grid areas for the purpose of delineating the depth and horizontal extent of zones of interest in order to define potential drill targets. The East and North surveys were extensions to historic grids while the West grid represents a new area. A total of 76 line kilometres was completed by SJ Geophysics from Delta, BC using their proprietary Volterra Geoimaging



Distributed Acquisition System to collect 3D IP data. Current injection was controlled by a GDD Tx II transmitter and ground response was recorded by a series of full waveform, 24 bit, four channel Dabtube (Digital Acquisition Board) units. All line cutting was completed by subcontractors or employees of Gold Reach.

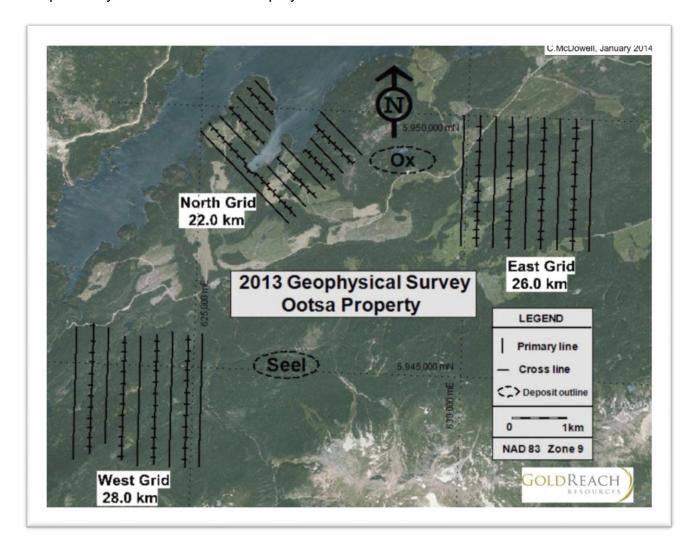


Figure 9-6: Geophysical grid configurations.

The North Grid involved 9 primary lines separated by 250m with cross lines cut on every second primary line for a total of 22 line kilometres. An inlet of Tahtsa Reach separated the majority of the grid into northwest and southeast sections. This grid differed from the other two in that the cross cut lines were spaced 50m apart and extended 50m on alternating sides of the primary line. Also, the two receiver system was configured in an 'interlaced parallelogram array' as opposed to the 'interlaced diamond array' that was utilized on both the East and West grids.

The East Grid comprised 26 line kilometres on 9 primary lines spaced 300m apart with cross lines located on alternating primaries extending 50m on either side every 200m.



The West grid involved 28 line kilometres and was of similar design except the cross lines were extended 75m on each side of every second primary line.

The IP surveys at both the North and East grids rendered a similar geophysical expression to that of the Ox deposit, which is located between the two grids and on trend with the adjacent Huckleberry mine. The compilation map shown below in figure 9-7 shows chargeability data combined from several historic IP surveys. The four distinct chargeability highs at Seel, Ox, West Ox and East Ox are coupled with resistivity lows, a signature of many porphyry deposits. Limited drilling of the East Ox target was completed in 2013 while four exploration holes were drilled at West Ox in 2014 (see Section 10 Drilling in this report).

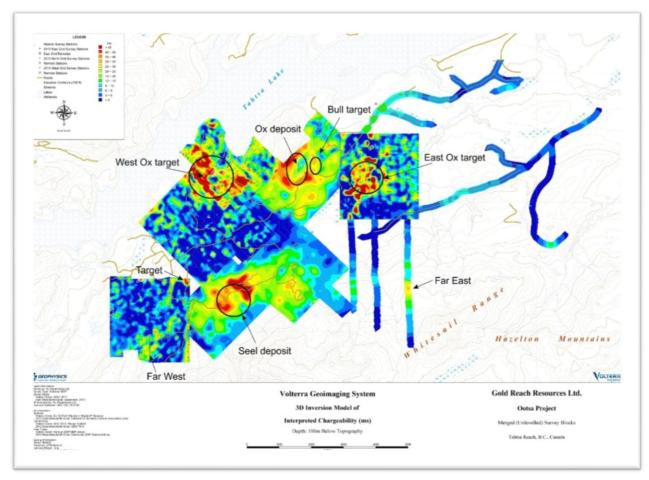


Figure 9-7: 2013 Chargeability compilation map on Ootsa property. Reproduced from original image by SJ Geophysics and posted on Gold Reach Resources website.



# 10.0 Drilling

The period of early exploration of the Ootsa Property prior to its acquisition by Gold Reach Resources is described in Section 6 History of this report. No data from this period has been used to generate the current resource estimate described in this report. Exploration activities conducted by Gold Reach from 2003 to present, other than drilling in 2012 and 2013, can be found in Section 9 Exploration.

Gold Reach Resources began exploration of Seel in 2003 and the first diamond drill holes were drilled in 2004. Successive drill campaigns proceeded from 2005 to present. The first Ox drill campaign directed by Gold Reach took place in 2007 with further drilling in 2012 and 2013. Yearly totals from both deposits are tabulated below in Tables 10-1 and 10-2. A complete list of collar locations, elevations and total depths for the Seel and Ox deposits can be found in Appendix 1 and 2 respectively.

Table 10-1: Drill Production since 2004 on Seel and Ox Deposits

| Total Amount Drilled |                         |          |          |
|----------------------|-------------------------|----------|----------|
| Year                 | Number of Holes         | Meterage | Location |
| 2004                 | 6 diamond drill holes   | 1096     | Seel     |
| 2005                 | 16 diamond drill holes  | 3525     | Seel     |
| 2006                 | 25 diamond drill holes  | 5641     | Seel     |
| 2007                 | 12 diamond drill holes  | 3232     | Seel     |
| 2008                 | 21 diamond drill holes  | 4408     | Seel     |
| 2011                 | 20 diamond drill holes  | 10393    | Seel     |
| 2012                 | 46 diamond drill holes  | 38627    | Seel     |
| 2013                 | 53 diamond drill holes  | 16887    | Seel     |
| Total                | 199 diamond drill holes | 83,809 m |          |
|                      |                         |          |          |
| Year                 | Number of Holes         | Meterage | Location |
| 2007                 | 26 diamond drill holes  | 6142     | Ox       |
| 2012                 | 18 diamond drill holes  | 4947.4   | Ox       |
| 2013                 | 90 diamond drill holes  | 17372.8  | Ox       |
| Total                | 134 diamond drill holes | 28,462 m |          |
|                      |                         | -        | _        |

In 2013, diamond drilling at Ootsa was performed by Full Force Diamond Drilling based in Peachland, British Columbia, utilizing a single skid-mounted drill rig until September 11, when a second rig was added. Drilling was done by the wireline method using N-size equipment, producing NQ2 size core. Drilling proceeded 24 hours per day on day and



night shift crews. Drilling was well supervised, the drill sites were clean and safe and the work was efficiently done. Drill sites that were not to be re-occupied were reclaimed after the drill was moved off.

Table 10-2: Drilling totals Utilized in Current Resource Estimates

| T T   | Total Contribution to Resource Estimate |          |          |  |  |  |  |  |  |  |  |  |
|-------|---|----------|----------|--|--|--|--|--|--|--|--|--|
| Year  | Number of Holes                         | Meterage | Location |  |  |  |  |  |  |  |  |  |
| 2004  | 4 diamond drill holes                   | 730      | Seel     |  |  |  |  |  |  |  |  |  |
| 2005  | 13 diamond drill holes                  | 2902.4   | Seel     |  |  |  |  |  |  |  |  |  |
| 2006  | 14 diamond drill holes                  | 3557     | Seel     |  |  |  |  |  |  |  |  |  |
| 2007  | 3 diamond drill holes                   | 631.2    | Seel     |  |  |  |  |  |  |  |  |  |
| 2008  | 12 diamond drill holes                  | 3294.8   | Seel     |  |  |  |  |  |  |  |  |  |
| 2011  | 18 diamond drill holes                  | 9021.5   | Seel     |  |  |  |  |  |  |  |  |  |
| 2012  | 44 diamond drill holes                  | 37355.9  | Seel     |  |  |  |  |  |  |  |  |  |
| 2013  | 52 diamond drill holes                  | 16557    | Seel     |  |  |  |  |  |  |  |  |  |
| Total | 160 diamond drill holes                 | 70,417 m |          |  |  |  |  |  |  |  |  |  |
|       |   |          |          |  |  |  |  |  |  |  |  |  |
| Year  | Number of Holes                         | Meterage | Location |  |  |  |  |  |  |  |  |  |
| 2007  | 16 diamond drill holes                  | 3356     | Ox       |  |  |  |  |  |  |  |  |  |
| 2012  | 15 diamond drill holes                  | 3676     | Ox       |  |  |  |  |  |  |  |  |  |
| 2013  | 77 diamond drill holes                  | 15,090   | Ox       |  |  |  |  |  |  |  |  |  |
| Total | 108 diamond drill holes                 | 22,123 m |          |  |  |  |  |  |  |  |  |  |

# 10.1 Seel Deposit

Drilling by Gold Reach at the Seel deposit began in 2004 when 6 diamond drill holes were completed in the vicinity of the Seel Breccia zone (MacIntyre, 2005) (Figure 10-1 shows collar and zone locations at Seel). A second phase of drilling in 2005 followed up on mineralization encountered the previous year (Daubeny, 2005). Two separate drill programs were completed in 2006 (Welsh, 2007). The first was designed to test the extent of potentially economic Cu-Au-Mo mineralization and to test IP and magnetic anomalies defined in previous surveys. The second program featured further testing of porphyry style mineralization across the Seel deposit and in the area adjacent to the Seel Breccia. In 2007 and 2008, a total of 33 diamond drill holes were completed in an area encompassing the Seel Breccia and portions of the East Seel Cu-Au zone (Welsh, 2007 and Stubens & Veljkovic, 2008). The bulk of contribution to the Seel resource began in 2011 when the East Seel Cu-Au zone was the focus of activities (McDowell and Giroux, 2012). Late in the 2011 program the first hole into the West Seel Cu-Au-Mo bearing intrusive was completed. A total of four holes pierced the West Seel intrusive in 2011 and



45 of 46 holes drilled in 2012 targeted the new West Seel zone (McDowell and Giroux, 2013). In 2013, a total of 53 diamond drill holes were completed at the Seel deposit. Twelve of the holes were drilled to define a core of near surface Cu-Au-Mo mineralization at West Seel. A further 37 holes were completed at East Seel as infill and expansion of the near surface Cu-Au zone. The remaining 4 holes were located at the eastern margin of the Seel deposit, in an area called Far East zone or NE zone (Figure 10-1).

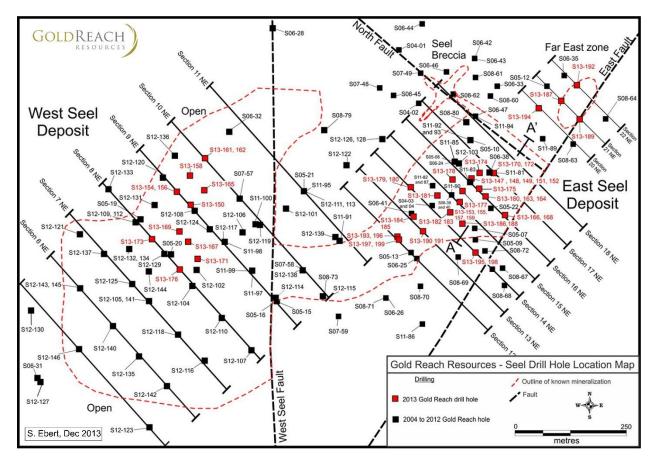


Figure 10-1: Collar and Zone locations at the Seel Deposit.

An initial 43-101 compliant resource for the Seel deposit was estimated in 2008 by Wardrop Engineering Inc. (Stubens and Veljkovic, 2008). At the completion of the 2011 drill program, Gold Reach awarded the new resource update to Giroux Consultants of Vancouver, British Columbia. The resource was once again updated by Giroux Consultants after 2012 drilling (McDowell and Giroux, 2013) and at the completion of the 2013 drill program, which is the subject of this report.



## 10.2 Ox Deposit

After the discovery of the Ox deposit in 1968 several drill programs by various operators were carried out including the first by Gold Reach in 2007. A more detailed compilation of historic drill programs across the Ootsa Property can be read in Section 6 History and Section 9 Exploration of this report. This section will focus on drilling completed at the Ox deposit in 2013.

An initial 43-101 compliant resource for the Ox deposit was calculated in 2008 by Wardrop Engineering Inc. (Arsenau et al, 2008). Subsequently, Giroux Consultants were contracted by Gold Reach to complete a resource update for the Ox deposit after a further 18 drill holes were completed in 2012. This resource, released in February 2013, was based on a total of 31 drill holes completed between 2007 and 2012. Giroux Consultants again provided the resource update following 2013 drilling, which is the subject of this report.

A total of 90 infill and stepout holes were drilled in 2013, for a total of 17,372.8 metres. Of the 90 holes, a total of 78 holes (15,255m) were used in the resource calculation, while the remaining 12 holes (2117m) were stepout holes that were collared immediately to the east of the Ox deposit and did not pierce the mineralized zone. An additional four holes (1878m) were collared about 2km west of the Ox deposit as a first pass investigation of coincident soil and geophysical anomalies. Table 10-1 lists the number of drill holes and meterage drilled by year and Table 10-2 lists number of drill holes and meterage used in the updated Ox resource.

The 2013 Ox drill program was focused on infilling and expanding known zones of higher grade near-surface mineralization. As a result the north end of Ox was extended over 200m to the East and a much better understanding of structural control was gleaned from the subsurface data (Relevant drill cross sections can be viewed in Section 7 Geologic Setting and Mineralization in this report). To date drilling has defined a high grade core measuring 850m long x 100m wide x 100m deep within a larger mineralized zone of 1000m long x 185m wide x 200m deep (dimensions are approximate averages).



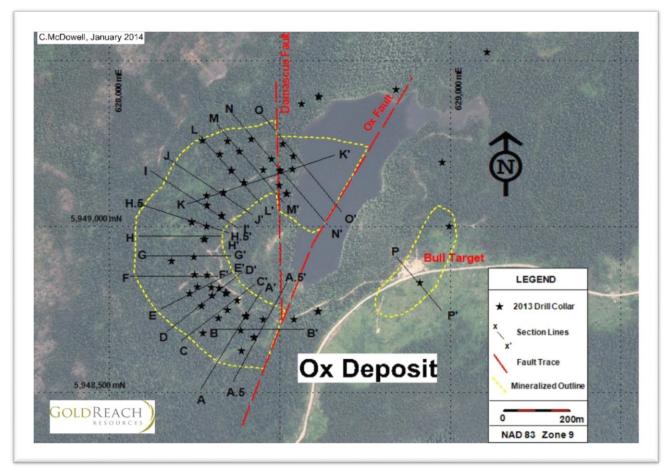


Figure 10-2: 2013 drill collars at Ox deposit with mineralized outline and major structures.

# 11.0 Sample Handling, Preparation, Analysis and Security

All drill core from the 2013 exploration program at Ootsa was handled in a manner commensurate with industry standards and similar to methods employed by Gold Reach Resources in 2011 and 2012. Core was delivered to the camp site by the drill crew at the end of each shift. Gold Reach personnel would then photograph, measure, log and mark the core for sampling. Gas powered core saws were used to split the core in half, then one half was placed in marked polyurethane sample bags with corresponding sample tags and sealed with plastic zip ties. Individual core samples were typically 2 metres in length and 100% of the drill core was sampled. All split core is retained for future reference, in original labeled core boxes, in sturdy racks labeled by drillhole. The racks were built on well-drained gravel, and protected from weather with Typar house-wrap. Four to five sample bags were inserted into each rice sack and subsequently marked and sealed with plastic zip ties. Two sample shipments per week were made by company personnel to Bandstra Transportation Systems depot in Smithers, BC, a bonded courier



company responsible for delivery of the samples to AGAT Laboratories in Terrace, BC. The samples were prepared for analysis in Terrace and forwarded by AGAT Labs to their testing facility in Mississauga, Ontario. Sample pulps are kept by the lab for 90 days, then stored for future reference by Gold Reach Resources Ltd in a secure warehouse in Vancouver.

Sample preparation followed the AGAT code 226-001 procedure. Samples are received from the courier and the numbers are checked with the Chain of Custody (COC) form and logged into AGAT's LIMS system. Deviations from the COC are entered into AGAT's Sample Integrity Report (SIR) and the client is notified immediately. If there are no problems with the COC the samples are dried to 60 C then crushed in a Rocklabs jaw crusher until 75% passed through a 10 mesh (2mm) screen. The samples are then mixed and split into a 250 g sub-sample via a Jones riffle splitter or rotary splitter. AGAT was responsible for shipping the crushed sub-samples to their Mississauga laboratory for analysis.

In Mississauga sub-samples are pulverized in a ring pulverizer until 85% would pass a 200 mesh (75µm) screen. After drying the samples are shaken on an 80 mesh sieve and the plus fraction is stored while the minus fraction is sent for analysis.

In Mississauga samples are processed using the AGAT method code 201 070 for 4 acid digestion and Inductively Coupled Plasma (ICP) with Optical Emission Spectroscopy (OES) finish (43 element). With this procedure samples are digested with a combination of HNO3 (nitric acid), HF (hydrofluoric acid) and HCIO4 (perchloric acid) then heated with HCI (hydrochloric acid) and diluted to 50 mL with de-ionized water. PerkinElmer 7300DV and 8300DV ICP-OES instruments are used in the analysis while Inter-Element Correction (IEC) techniques are used to correct for any spectral interference. Gold is analyzed using AGAT procedure 202 052, a Lead Fusion Fire Assay with Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-EOS) finish. Pulverized samples are fused using acceptable fire assay techniques, cupelled and parted in nitric and hydrochloric acid. Sample splits of 30g are routinely used in this procedure. Blanks, sample replicates, duplicates and internal reference materials (both aqueous and geochemical) are routinely used as part of the AGAT Lab's internal quality assurance program.

# 11.1 Quality Assurance and Quality Control—Seel Deposit

An independently monitored quality control program was established and implemented for all of the 2013 drilling at the Seel deposit. A total of 8195 samples were submitted to the lab for assay of which 782 were blanks, duplicates or certified standards, which equates to 10.6 % of all Seel core sampling dedicated to QA/QC purposes.



Blanks and duplicates were inserted into the sample stream at a rate of one each for every twenty samples for an overall rate of one QA/QC sample per ten core samples. Blank material was sourced from a road quarry located at km 21 on the Whitesail road. Duplicates were taken by sawing 2m core samples in half and then quartering one of the halves. Each quarter was inserted into a separate sample bag with a unique sample number and independently listed in the Gold Reach database. Gold Reach utilized four different certified reference standards (Table 11-1) during 2012 drilling at Seel. Three reference standards were included with each sample shipment to the lab.

All QA/QC charts and statistics were generated by C. McDowell with GeoSpark Core software, an Access based database management software available from GeoSpark Consulting.

#### 11.1.1 Blanks

A total of 349 field blanks were inserted into the sample stream from the 2013 Seel drilling for a ratio of 4.7:100 samples submitted. Gold Reach geologists attempt to insert the blanks into a sample range that is moderately to strongly mineralized as means to ensure that the preparation lab is properly cleaning their equipment between samples. The vast majority of blanks tested at acceptably low levels with the exception of two samples. The leftmost outlier in Figure 11-1 (Au values) below may have been caused by either a sample number recording error at the sampling/cutting stage or at the sample preparation stage. This conclusion has been reached after consultation with original assay reports that show discrepancies between expected sample weights and assay values for adjacent samples. It is the author's opinion that the most likely cause was a sample switching error and not a result of sample contamination. The author does not feel that this potential sample error materially affects the conclusion of mineralization tenor at the Seel deposit. The lone failure in the Cu chart (Figure 11-2) and the leftmost outlier in the Mo chart (Figure 11-3) corresponds to the same sample mentioned above. The other high outlier in Figure 11-1 (0.031 ppm Au) and a few others that returned Au values at or above +2 SD level may be a result of low-level contamination at the sampling, preparation or testing stage, or low background gold value in the blank material. Given that only a small percentage (2%) of samples tested above the +2 SD, and taking into account the low absolute Au value of the samples in question (<0.04ppm), the overall suitability of the blank material is deemed acceptable.



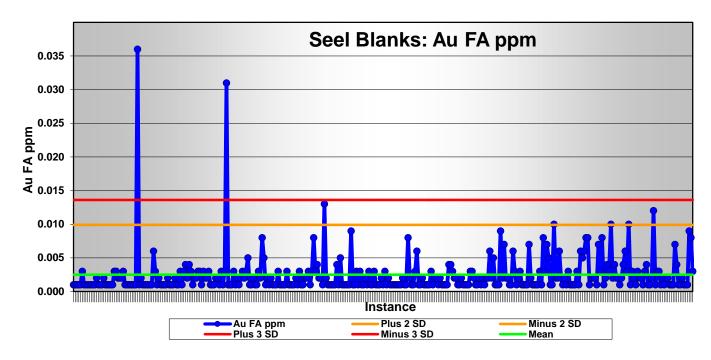


Figure 11-1: Gold values in blank material from Seel drilling 2013.



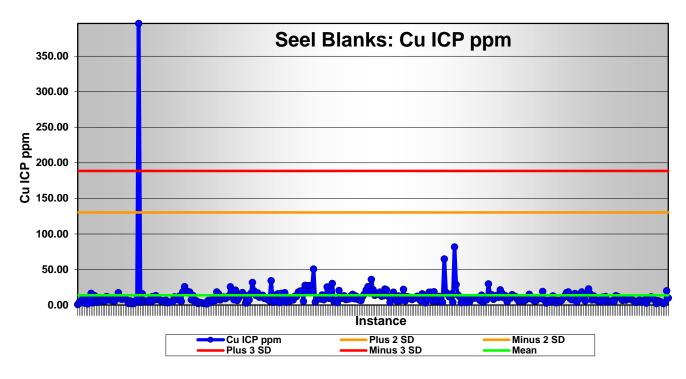


Figure 11-2: Copper values in blank material from Seel drilling 2013.

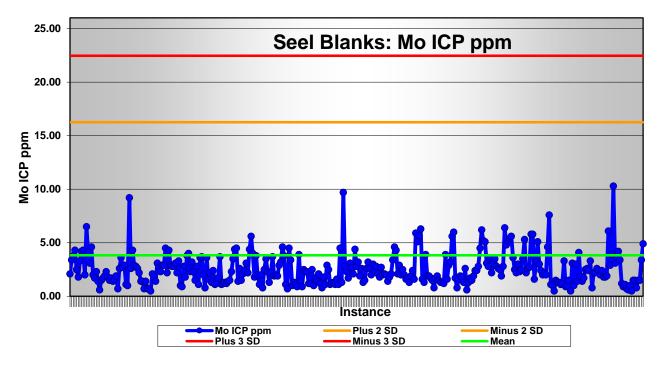


Figure 11-3: Molybdenum values in blank material from Seel drilling 2013.



# 11.1.2 Duplicates

A total of 376 Seel samples were duplicated by quartering one of the core halves and attaching a unique sample number to each sample. Duplicates were submitted at a ratio of 5.1:100 samples submitted. This method of quality control can check assay precision but is more likely to provide information about the continuity of mineralization in the rocks. The following charts are XY scatter plots that compare the original values to those of their duplicates. The Cu chart (Figure 11-5) shows good overall correlation with the vast majority of samples landing between the +/- 20% thresholds. By comparison the Mo chart (Figure 11-6) shows a greater discrepancy of values that may reflect the vein hosted nature of molybdenum mineralization versus the tendency for Cu to be disseminated throughout the rock. The Au chart (Figure 11-4) shows a greater dispersal at low levels and five samples that test outside of the 30 percent level beyond the 0.5 ppm level. All five samples correspond to zones of common to abundant quartz veining and in a few cases semi-massive quartz veins oriented at low angles to the core axis.

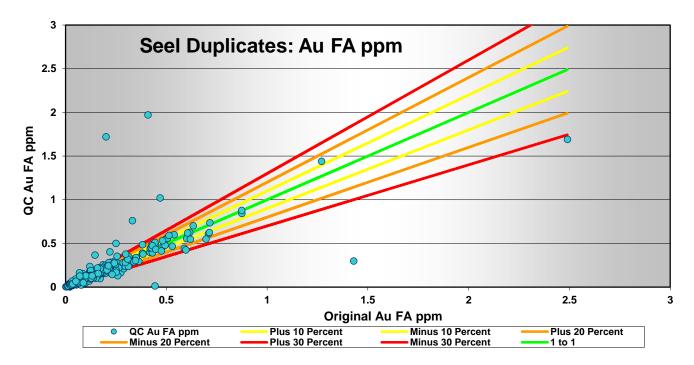


Figure 11-4: Comparison of Gold values in sample duplicates from Seel drilling 2013.



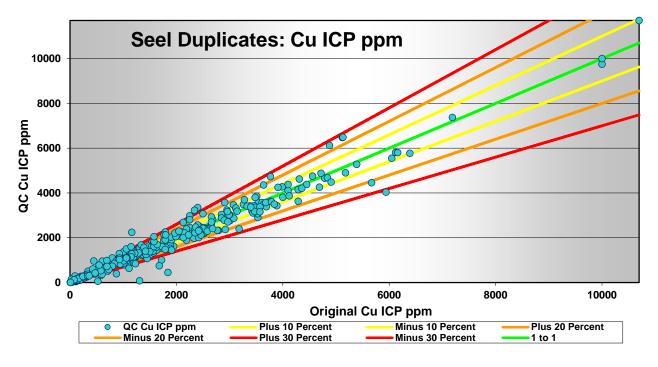


Figure 11-5: Comparison of Copper values in sample duplicates from Seel drilling 2013.

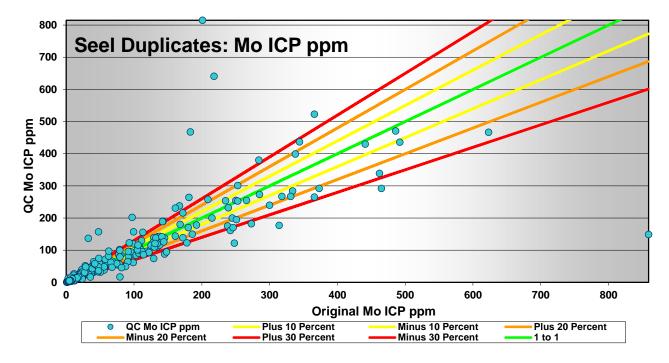


Figure 11-6: Comparison of Molybdenum values in sample duplicates from Seel drilling 2013.



#### 11.1.3 Standards

Four different lab-certified standards were utilized during the 2013 drill program at Seel. These were purchased from Canadian Resource Laboratories Ltd. of Langley, BC, a recognized supplier of reference materials. CDN-CM-13 and CDN-CM-29 were high grade standards, while CDN-CM-23 and CDN-CM-25 represented moderate and low grade standards respectively. The expected mean and one standard deviation values for Au, Cu and Mo are given below in Table 11-1. The mean and standard deviation values were determined after a 10 round-robin analysis by 15 Labs.

Table 11-1: Expected values for Certified Standards used on Ootsa Project 2013

Canadian Resource Laboratories Certified Standards

| CDN-CM-13       |       |       |  | CDN-CM-25       |       |       |  |  |
|-----------------|-------|-------|--|-----------------|-------|-------|--|--|
| Element         | Mean  | SD    |  | Element Mea     |       | SD    |  |  |
| Au (FA/AA)      | 0.74  | 0.047 |  | Au (FA/AA)      | 0.228 | 0.015 |  |  |
| Cu (4 acid/ICP) | 7860  | 180   |  | Cu (4 acid/ICP) | 1910  | 30    |  |  |
| Mo (4 acid/ICP) | 440   | 20    |  | Mo (4 acid/ICP) | 190   | 10    |  |  |
| CDN-CM-23       |       |       |  | CDN-CM-29       |       |       |  |  |
| Au (FA/AA)      | 0.549 | 0.03  |  | Au (FA/AA)      | 0.72  | 0.034 |  |  |
| Cu (4 acid/ICP) | 4720  | 130   |  | Cu (4 acid/ICP) | 7420  | 150   |  |  |
| Mo (4 acid/ICP) | 250   | 10    |  | Mo (4 acid/ICP) | 530   | 20    |  |  |
| *all values ppm |       |       |  |                 |       |       |  |  |

A total of 57 lab-certified standards were included with the twice weekly sample shipments during Seel drilling. Standards are helpful in determining the accuracy and/or precision of the lab assay equipment. Standard CDN-CM-13 was submitted 11 times and showed good results for all three charted elements with a marginally low bias for Au. Standard CDN-CM-23 was tested on 32 occasions and showed good results with two distinct exceptions. The sample at the left of Figures 11-10 to 11-12 that shows higher than expected values is likely the result of a labelling error at the sampling stage. The Au, Cu and Mo values for this sample correlate well with either of the two high grade certified standards, CDN-CM-13 or CDN-CM-29. The sample that shows very low values in charts 11-10 to 11-12 had a lab recorded sample weight of 1.26kg vs the average certified standard weight of 0.14kg. This sample was probably erroneously recorded as a certified standard but was in all likelihood a blank sample given the sample weight and extremely low assay values. Standard CDN-CM-25 was submitted only once into the Seel sample stream as its use was discontinued after several inaccurate results from drilling completed at the Ox deposit earlier in 2013. The one sample returned a slightly low value for Au, a Cu value that placed above the +2 SD level and a Mo value above the +3 SD level. Standard CDM-CM-29 was submitted 13 times with mixed results. The Au values showed



good repeatability, while Cu tested above the +2 SD level once and had one value well below the -3 SD threshold. Mo values in standard CDM-CN-29 showed a consistently low bias with only one sample recorded above the mean value, two others between the mean and -2 SD and ten registering values below -2 SD.

Table 11-2: Certified Standard statistics from 2013 drill program at Seel

| Number of times C | Number of times Certified Standard failed 2 Standard Deviation test |      |      |      |      |      |      |  |  |  |  |
|-------------------|---|------|------|------|------|------|------|--|--|--|--|
|                   |   | Au   |      | (    | Cu   | Мо   |      |  |  |  |  |
| Standard ID       | # of tests  | +2SD | -2SD | +2SD | -2SD | +2SD | -2SD |  |  |  |  |
| CDN-CM-13         | 11  | 0    | 0    | 0    | 0    | 1    | 1    |  |  |  |  |
| CDN-CM-23         | 32  | 1    | 1    | 1    | 1    | 1    | 1    |  |  |  |  |
| CDN-CM-25         | 1   | 0    | 0    | 0    | 0    | 1    | 0    |  |  |  |  |
| CDN-CM-29         | 13  | 0    | 1    | 1    | 1    | 0    | 10   |  |  |  |  |

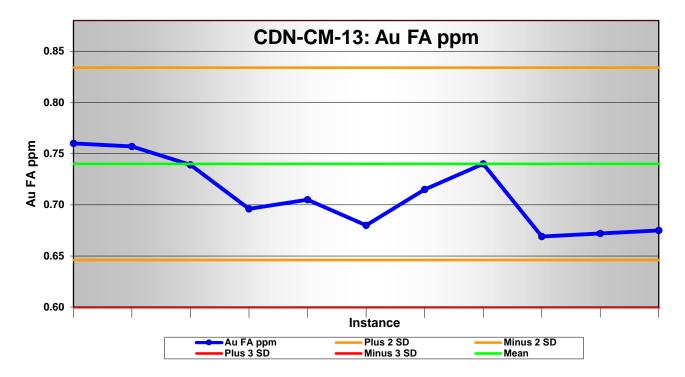


Figure 11-7: Gold values in Standard CDN-CM-13 from 2013 Seel drilling.



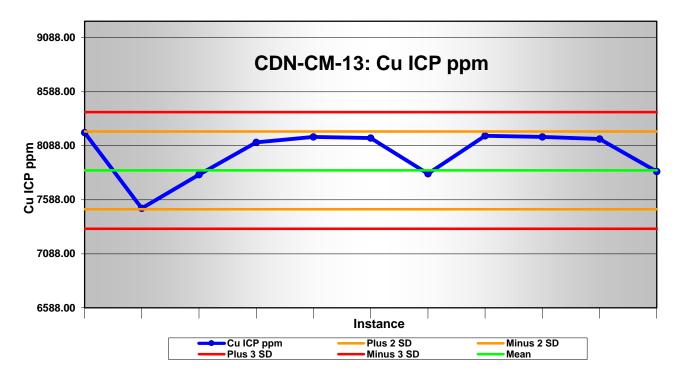


Figure 11-8: Copper values in Standard CDN-CM-13 from 2013 Seel drilling.

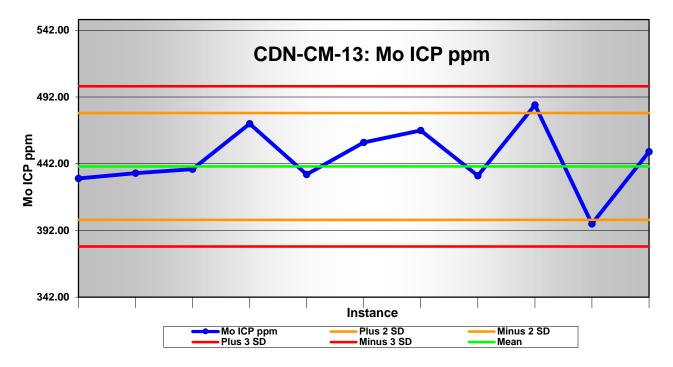


Figure 11-9: Molybdenum values in Standard CDN-CM-13 from 2013 Seel drilling.



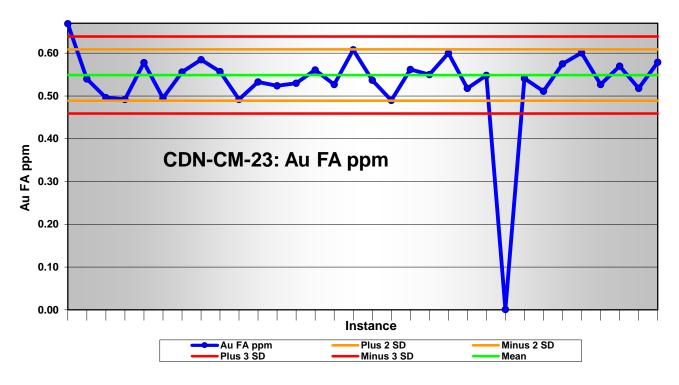


Figure 11-10: Gold values in Standard CDN-CM-23 from 2013 Seel drilling.

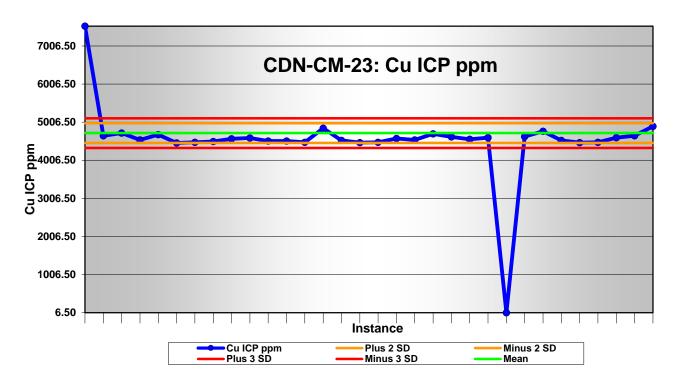


Figure 11-11: Copper values in Standard CDN-CM-23 from 2013 Seel drilling.



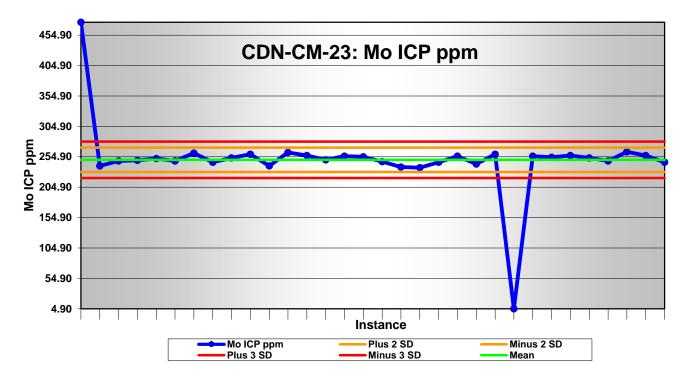


Figure 11-12: Molybdenum values in Standard CDN-CM-23 from 2013 Seel drilling.

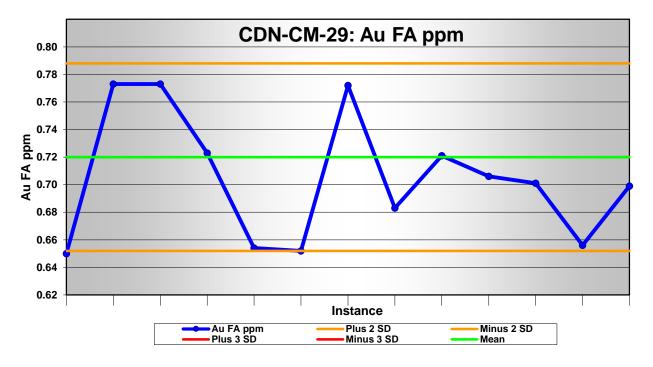


Figure 11-13: Gold values in Standard CDN-CM-29 from 2013 Seel drilling.



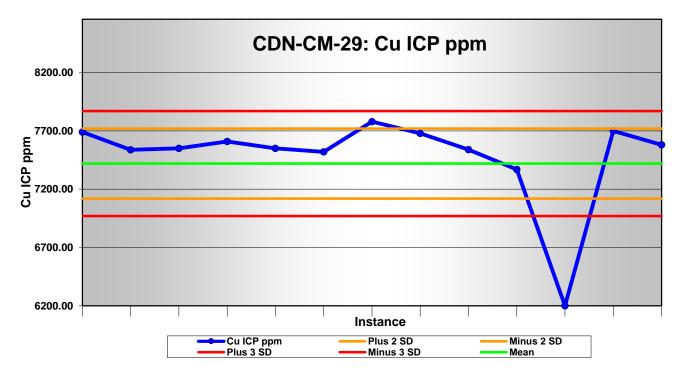


Figure 11-14: Copper values in Standard CDN-CM-29 from 2013 Seel drilling.

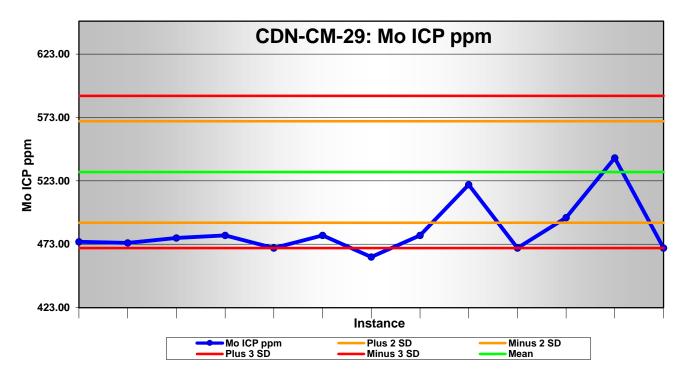


Figure 11-15: Molybdenum values in Standard CDN-CM-29 from 2013 Seel drilling.



The author of this technical report concludes that, at the Ootsa project during 2013, quality control for sample preparation, analysis and security are suitable and adequate for the purpose of generating quality data for the purpose of resource estimation of the Seel deposit.

## 11.2 Quality Assurance and Quality Control - Ox Deposit

An independently monitored quality control program was established and implemented for all of the 2013 drilling at the Ox deposit. A total of 8997 samples were submitted to the lab for assay of which 884 were blanks, duplicates or certified standards, which equates to 10.9 % of all Ox core sampling dedicated to QA/QC purposes.

Blanks and duplicates were inserted into the sample stream at a rate of one each for every twenty samples for an overall rate of one QA/QC sample per ten core samples. Blank material was sourced from a road quarry located at km 21 on the Whitesail road. Duplicates were taken by sawing 2m core samples in half and then quartering one of the halves. Each quarter was inserted into a separate sample bag with a unique sample number and independently listed in the Gold Reach database. Gold Reach utilized three different certified reference standards (Table 11-2) during 2013 drilling at Ox. Three reference standards were included with each sample shipment to the lab.

All QA/QC charts and statistics were generated by C. McDowell with GeoSpark Core software, an Access based database management software available from GeoSpark Consulting.

#### 11.2.1 Blanks

A total of 385 field blanks were inserted into the sample stream from the 2013 Ox drilling for a ratio of 4.8:100 samples submitted. Gold Reach geologists attempt to insert the blanks into a sample range that is moderately to strongly mineralized as means to ensure that the preparation lab is properly cleaning their equipment between samples. The vast majority of blanks tested at acceptably low levels with the exception of a few samples. The two largest outliers in Figure 11-16 (Cu values) below may have been caused by a sample number recording error at the sampling/cutting stage or possibly at the sample preparation stage. This conclusion has been reached after consultation with original assay reports that show discrepancies between expected sample weights and assay values for adjacent samples. It is the author's opinion that the most likely cause was a sample switching error and not a result of sample contamination. The author does not feel that this potential sample error materially affects the conclusion of mineralization tenor at the Ox deposit. The third outlier in Figure 11-6, which tested just above the +3 SD level, returned expected values for Au, Mo and sample weight, but had a Cu value of 0.022%. This anomaly may be a result of low-level contamination at the sampling stage.



The highest value in the Mo chart (Figure 11-17) corresponds to one of the samples that also tested high for Cu. The cause of elevated Mo levels in the group of samples on the extreme right of page are more difficult to explain. These 12 samples correspond to holes Ox13-45 to Ox13-48, which were drilled at the onset of the 2013 drill program, and included with the first two shipments to the lab. During the 2012 drill program at Ootsa, Gold Reach had used blank material from two separate locations, but after receiving assays reports with consistently elevated Cu and Mo values from one of the blanks ("10km Blank"), its use was discontinued. It is possible that some of this blank material was found in camp and mistakenly used to begin the 2013 drill program. This explanation is plausible, due to the fact that later-used blanks did not show consistent elevated values. in either the Ox or the later Seel program. However, these samples do not show the elevated Cu which had been recorded in the "10km Blank". It is also possible that some form of contamination in sampling, preparation or testing existed only at the beginning of the program. Confidence is lent to the assay values for core samples in these holes as the Cu and Au levels for these blanks are not elevated. As the Mo values fall between 0.0023 and 0.0043%, lower than significant values, the author believes this potential sample error or potential contamination does not materially affect the conclusion of mineralization tenor at the Ox deposit.

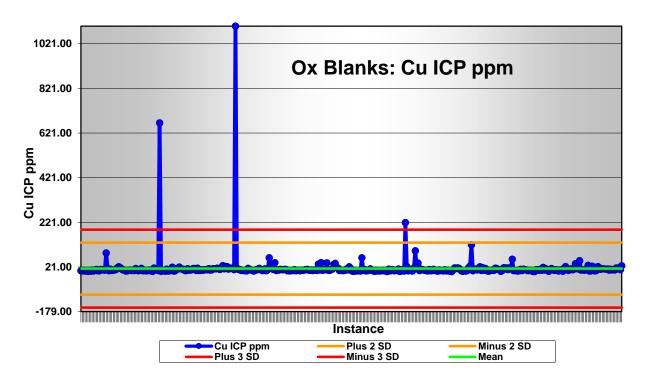


Figure 11-16: Copper values in blank material from 2013 Ox drilling.



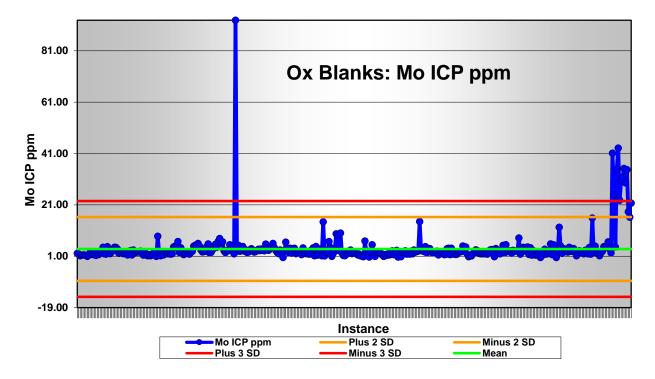


Figure 11-17: Molybdenum values in blank material from 2013 Ox drilling.

Figure 11-18 below shows graphical representation of Au values in the 385 blanks submitted. 10 samples tested above the +3 Standard Deviation (SD) level and 8 more fell within a range between +2 and +3 Standard Deviation levels. The outlier with the highest Au value corresponds to a sample that also displayed unusually high Cu values. The other outliers in Figure 11-18 that returned Au values at or above the +2 SD level may be a result of low-level contamination at the sampling, preparation or testing stage, or low background gold value in the blank material. Given that the total number of samples that tested above the +2 SD represent less than 4% of the blanks submitted, and taking into account the low absolute Au value (<0.03 ppm) of the samples, the overall suitability of the blank material is deemed acceptable.



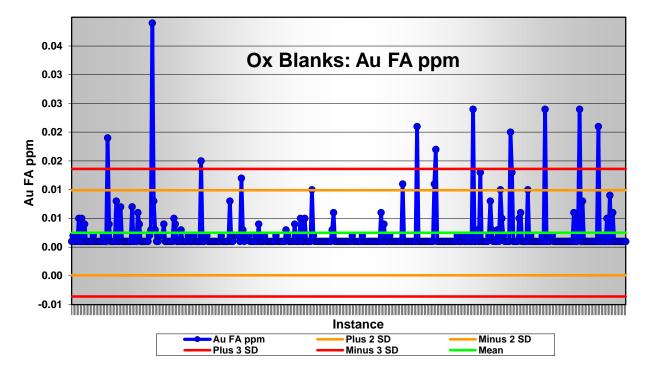


Figure 11-18: Gold values in blank material from 2013 Ox drilling.

#### 11.2.2 Duplicates

A total of 401 Ox samples were duplicated by quartering one of the core halves and attaching a unique sample number to each sample, a ratio of 4.9:100 samples submitted. This method of quality control can check assay precision but is more likely to provide information about the continuity of mineralization in the rocks. The following charts are XY scatter plots that compare the original values to those of their duplicates. The Cu chart (Figure 11-19) shows good overall correlation with the vast majority of samples landing between the +/- 20% thresholds. By comparison the Mo chart (Figure 11-20) shows a greater discrepancy of values that may reflect the vein hosted nature of molybdenum mineralization versus the tendency for Cu to be disseminated throughout the rock.

Table 11-1: Statistics for Copper and Molybdenum in duplicated samples.

| Percentage of samples in each category |      |      |  |  |  |  |  |  |
|--|------|------|--|--|--|--|--|--|
|  | Cu   | Mo   |  |  |  |  |  |  |
| <10%diff                               | 59.0 | 29.1 |  |  |  |  |  |  |
| 10-20%diff                             | 26.6 | 20.8 |  |  |  |  |  |  |
| 20-30%diff                             | 8.6  | 18.0 |  |  |  |  |  |  |
| >30% diff                              | 5.8  | 32.1 |  |  |  |  |  |  |



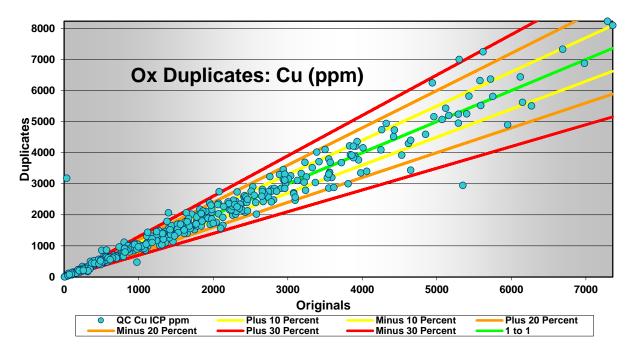


Figure 11-19: Comparison of copper values in duplicate samples from 2013 Ox drilling.



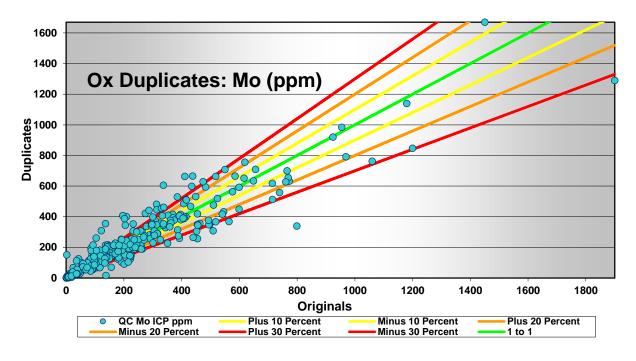


Figure 11-20: Comparison of molybdenum values in duplicate samples from 2013 Ox drilling.

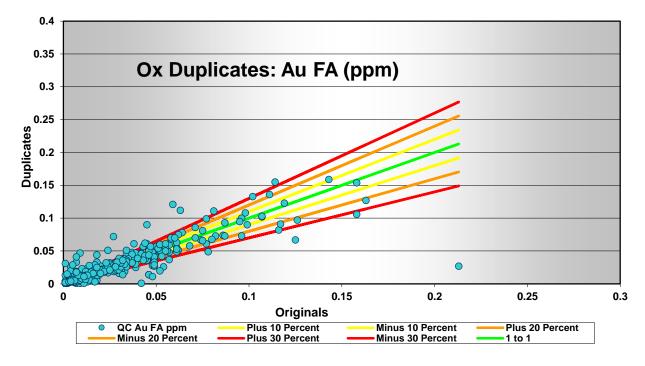


Figure 11-21: Comparison of gold values in duplicate samples from 2013 Ox drilling.



#### 11.2.3 Standards

Three distinct lab-certified standards were utilized during the 2013 drill program at Ox, purchased from CDN Resource Laboratories Ltd. CDN-CM-13, CDN-CM-23 and CDN-CM-25 represented high, moderate and low grade standards respectively. The expected mean and one standard deviation values for Au, Cu and Mo are given below in Table 11-3. The mean and standard deviation values were determined after a 10 round-robin analysis by 15 Labs.

Table 11-3: Expected values for Certified Standards used on Ootsa Project 2013.

Canadian Resource Laboratories Certified Standards

| Canadian resource East atomes Certified Citaridards |       |       |  |   |       |       |  |  |  |  |
|---|-------|-------|--|---|-------|-------|--|--|--|--|
| CDN-CM-13   |       |       |  | CDN-CM-25   |       |       |  |  |  |  |
| Element   | Mean  | SD    |  | Element   | Mean  | SD    |  |  |  |  |
| Au (FA/AA)  | 0.74  | 0.047 |  | Au (FA/AA)  | 0.228 | 0.015 |  |  |  |  |
| Cu (4 acid/ICP)                                     | 7860  | 180   |  | Cu (4 acid/ICP)   | 1910  | 30    |  |  |  |  |
| Mo (4 acid/ICP)                                     | 440   | 20    |  | Mo (4 acid/ICP)   | 190   | 10    |  |  |  |  |
| CDN-CM-23   |       |       |  | CDN Labs references   |       |       |  |  |  |  |
|   |       |       |  | Further information regarding standare preparation, source and round-round-round-round-round be found |       |       |  |  |  |  |
| Au (FA/AA)  | 0.549 | 0.03  |  | www.cdnlabs.com   |       |       |  |  |  |  |
| Cu (4 acid/ICP)                                     | 4720  | 130   |  |   |       |       |  |  |  |  |
| Mo (4 acid/ICP)                                     | 250   | 10    |  |   |       |       |  |  |  |  |
| *all values ppm                                     |       |       |  |   |       |       |  |  |  |  |

A total of 98 lab-certified standards were included with the twice weekly sample shipments during Ox drilling. Standards are helpful in determining the accuracy and/or precision of the lab assay equipment. Standard CDN-CM-13 was submitted 35 times and showed good results for both Au and Cu with a slightly high bias for Mo. Standard CDN-CM-23 was tested on 23 occasions and showed good results for all three elements although a slightly high bias can be detected for Cu and Mo in holes Ox76—81(extreme right-hand side of Figures 11-26 and 11-27). Standard CDN-CM-25 returned the most inaccurate results from the 40 instances in which it was used with good results for Au, erratic values for Cu and somewhat high bias for Mo. The use of this standard was discontinued after the scattered results were noted. Table 11-4 below shows some statistics for the various standards.



Table 11-4: Statistics for Certified Standards from Ox drilling 2013.

| Number of times Certified Standard failed 2 Standard Deviation test |            |      |      |      |      |      |      |  |  |  |
|---|------------|------|------|------|------|------|------|--|--|--|
|   |            | Α    | u    | С    | u    | Мо   |      |  |  |  |
| Standard ID   | # of tests | +2SD | -2SD | +2SD | -2SD | +2SD | -2SD |  |  |  |
| CDN-CM-13   | 35         | 0    | 1    | 5    | 0    | 2    | 0    |  |  |  |
| CDN-CM-23   | 23         | 0    | 0    | 0    | 1    | 2    | 0    |  |  |  |
| CDN-CM-25   | 40         | 2    | 4    | 9    | 7    | 2    | 0    |  |  |  |

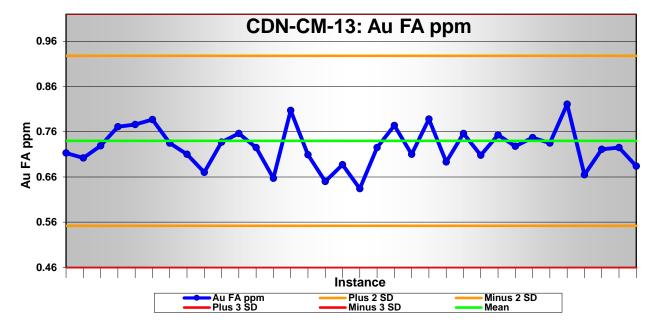


Figure 11-22: Gold values in Standard CDN-CM-13 from 2013 Ox drilling.



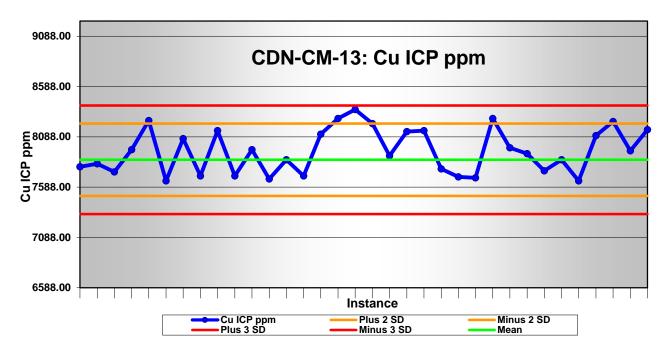


Figure 11-23: Copper values in Standard CDN-CM-13 from 2013 Ox drilling.

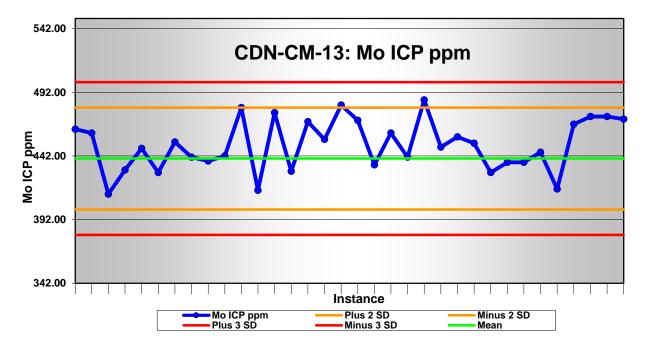


Figure 11-24: Molybdenum values in Standard CDN-CM-13 from 2013 Ox drilling.



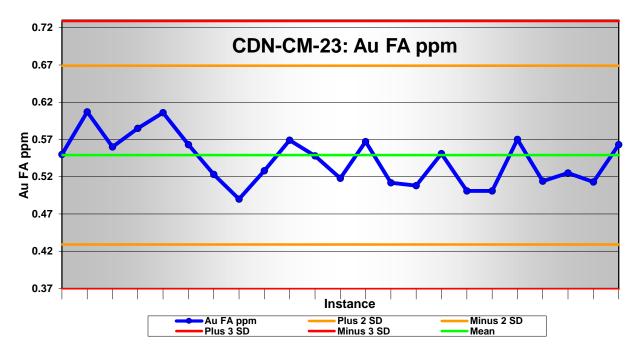


Figure 11-25: Gold values in Standard CDN-CM-23 from 2013 Ox drilling.

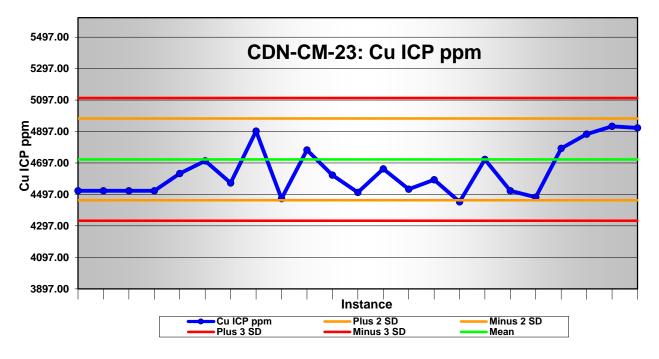


Figure 11-26: Copper values in Standard CDN-CM-23 from 2013 Ox drilling.



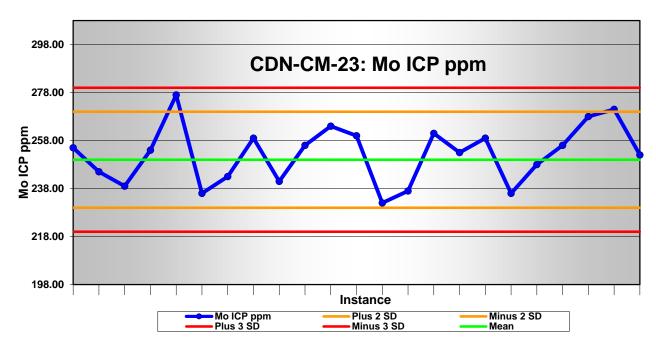


Figure 11-27: Molybdenum values in Standard CDN-CM-23 from 2013 Ox drilling.

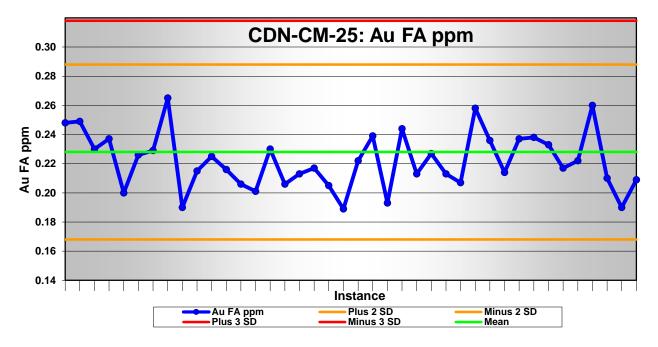


Figure 11-28: Gold values in Standard CDN-CM-25 from 2013 Ox drilling.



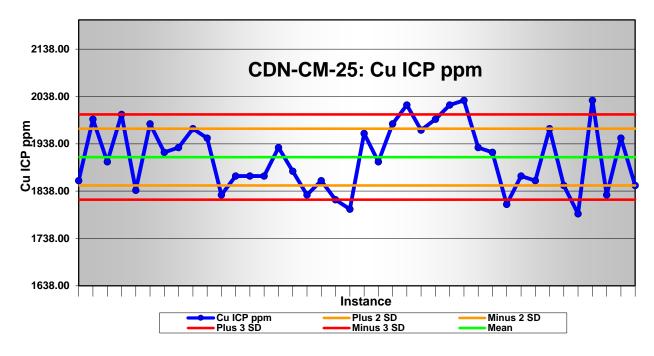


Figure 11-29: Copper values in Standard CDN-CM-25 from 2013 Ox drilling.

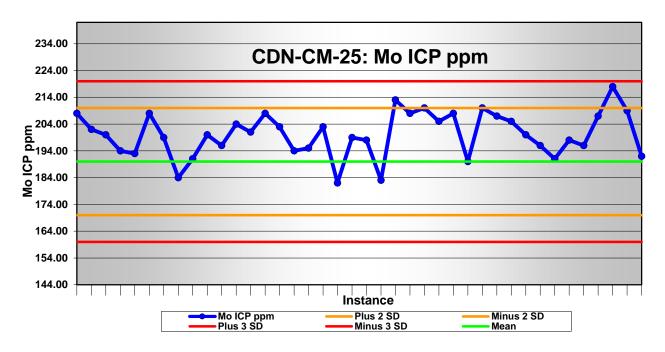


Figure 11-30: Molybdenum values in Standard CDN-CM-25 from 2013 Ox drilling.



The author of this technical report concludes that, at the Ootsa project during 2013, quality control for sample preparation, analysis and security are suitable and adequate for the purpose of generating quality data for the purpose of resource estimation of the Ox deposit.

#### 12.0 Data Verification

Drill core is logged and the samples are marked by geologists who act as consultants to Gold Reach Resources. Geotechnical information recorded includes recovery, RQD, specific gravity and details of fractures. Geological data recorded includes lithology, alteration, veining and mineralization, as well as sample location and interval. Drill hole data is entered into the database by the geologist that logged and sampled the hole. GeoSpark Core database software was utilized to handle all data in 2013. This software package is effective in helping to eliminate data entry errors through the use of drop-down menus and auto correction features. In addition the software contains a QA/QC module that generates charts, statistics and identifies samples that fall outside of acceptable levels. Assay data is received directly from the lab by the Qualified Person ("QP") for the Ootsa Project (note: this is a different person from the QP author of this report). The data is merged and proofread by the Project QP. Proofreading the data involves checking to make sure the QA/QC samples have acceptable values and that the assay values match descriptions in the drill logs as well as maintain consistency with adjacent lithologies and grades. If discrepancies or irregularities are found the core is re-examined and compared with the assay data. If the core and the assay data cannot be reconciled, the sample interval will be resampled and sent for testing. Once the drilling data has been made available to the public via a press release the original assay files are forwarded to the field geologists for assimilation into the field database. Data proofreading and reconciliation is performed by the field geologists.

Three reference standards are included with each sample shipment to monitor the accuracy of the lab analysis. Blanks are inserted at a rate of 1 blank for every 20 samples to ensure sample contamination is not a factor during sample collection, preparation and analysis. One in every 20 samples are duplicated by quartering the core then inserting two quarters in two separate sample bags with unique sample numbers and retaining half the core on site. Sample duplicates can help to determine the precision of lab analytical techniques. During the 2013 drilling at Seel, sample duplicates represented 5.0%, blanks 4.7% and certified standards 0.8% of the total of all samples sent to the lab. During the 2013 drilling at Ox, sample duplicates represented 4.9%, blanks 4.8% and certified standards 1.1% of the total of all samples sent to the lab. This translates into a grand total of 10.7% of all samples from the Ootsa (Seel and Ox) 2013 drilling program being QA/QC specific.



Drill hole collars are laid out using handheld GPS, or by chain and compass from a nearby previously-surveyed collar. At each drill setup, the azimuth of the hole is checked by a geologist and corrected before drilling begins. Downhole surveys are conducted by drill personnel using a Reflex Easy-shot instrument. At least three surveys are taken downhole, near collar, mid-depth, and near bottom, with additional surveys on longer holes so that spacing is less than 100 metres.

Completed drill hole collars are marked with a pressure-treated fence post that is labelled with an aluminum tag. Collar locations are professionally DGPS surveyed by a third party survey contractor hired by Gold Reach Resources. Maps of drill hole locations are supplied to the surveyors by Gold Reach and a representative of Gold Reach accompanies the surveyors to the applicable area as a means of orientation.

The QP of this report believes the data verification procedures utilized in Ootsa project in 2013 are adequate to ensure data quality for the purpose of resource estimation.

# 13.0 Mineral Processing and Metallurgical Testing

# 13.1 Mineral Processing and Metallurgical Testing – Seel Deposit

Initial-stage metallurgical testing was completed in April 2013 on three composite samples totalling 406 kg by Inspectorate Exploration and Mining Services Ltd. located in Richmond, British Columbia. The samples were obtained from 2012 drill core from the Seel deposit. Two variants of West Seel mineralized domain were represented (composites #1 & #2) as well as one from East Seel (composite #3). The primary objective of the testing was to investigate copper recovery and molybdenum separation using flotation.

A total of 30 batch tests, followed by three locked cycle tests were conducted on the copper circuit to produce a bulk Cu-Mo concentrate. Varying test parameters were utilized to help optimize the flotation process. A bulk test on 100 kg of Composite 2 was processed to provide sufficient copper concentrate to conduct a single Cu-Mo separation test followed by one molybdenum cleaning stage. Table 13-1 below summarizes results of six rougher flotation tests conducted at various grind sizes and test conditions on three composites. Results suggest very little difference in metallurgy due to the grind size.



Table 13-1: Seel Rougher Circuit Results at Varying Grind Sizes and Conditions

| Sample |      | Grind Size | Feed Grade | Rougher Circuit Recovery % |      |      |  |  |
|--------|------|------------|------------|----------------------------|------|------|--|--|
| Test   | Comp | microns    | % Cu       | Cu                         | Au   | Мо   |  |  |
| F1     | 1    | 128        | 0.28       | 96.6                       | 90.8 | 90.0 |  |  |
| F2     | 1    | 102        | 0.28       | 97.6                       | 81.3 | 91.4 |  |  |
| F3     | 2    | 128        | 0.29       | 93.6                       | 73.1 | 92.9 |  |  |
| F4     | 2    | 101        | 0.29       | 94.9                       | 72.9 | 92.3 |  |  |
| F5     | 3    | 127        | 0.42       | 95.6                       | 91.1 |      |  |  |
| F6     | 3    | 96         | 0.42       | 96.9                       | 92.6 |      |  |  |

Molybdenum separation from the bulk copper concentrate produced an acceptable 1st cleaner concentrate grade of 38.5% Mo, with a Rhenium (Re) content of 144 ppm, based on a single test. No optimization was attempted at this stage of investigation. These early-stage results demonstrate that excellent recoveries and concentrate grades are attainable.

Results of cleaner circuit tests show a decrease in recovery, but significant gain in concentrate grade with the use of a regrind. Loss in recovery can be overcome with adjustments to the cleaner flotation circuit.

Three locked cycle flotation tests were conducted on the 3 composites. The tests were run for six cycles, simulating actual plant operation. The predicted metallurgy for cycle 6 of each test is summarized in Table 13.2. Further testing of the Cu-Mo separation circuit and subsequent molybdenum up-grading circuit would be required to establish firm metallurgical figures.

Table 13.2: Summarized Predicted Metallurgy for Seel Composites

|      | Cu 3rd | Cleaner Conc | entrate | % Recovery |      |      |  |
|------|--------|--------------|---------|------------|------|------|--|
| Comp | % Cu   | % Mo         | g/t Au  | Cu         | Mo   | Au   |  |
| 1    | 26.4   | 2.5          | 12.6    | 88.9       | 85.8 | 59.1 |  |
| 2    | 23.1   | 4.4          | 9.2     | 86.4       | 91.6 | 47.0 |  |
| 3    | 31.4   |              | 28.1    | 89.5       |      | 69.0 |  |

Assaying of the final concentrate products shows they are 'clean' with very low trace element concentrations that can pose problems or penalties at smelters (such as As, Sb, Bi or Hg).

The rougher flotation results approach the maximum metal recoveries obtainable using standard flotation methods for typical porphyry Cu systems. The actual recoveries from



a mine scale flotation plant will be lower than the rougher concentrate, as subsequent steps are taken to remove unwanted materials and increase the grade of the final concentrates.

Subsequent investigation by Inspectorate (Beland & Redfearn, 2013), as supplement to a report on Ox deposit, tested centrifugal gravity recovery of gold in 48 kg of Seel core reject samples. Results indicate negligible recoverable free gold, as gold reports to flotation concentrate.

## 13.1.1 Description of Methodology for Metallurgical Testing

The following description of methodology was summarized from the draft metallurgy report produced by Inspectorate Exploration and Mining Services Ltd. (Redfearn, 2013).

A shipment consisting of 22 pails containing 85 bags of half-core, with a total weight of 405.99 kg was received July 18, 2012 via Bandstra Transportation. The samples were received into inventory, air dried and separated into three (3) composites. Each composite was separately crushed to 6 mesh, mixed and split into the required samples for testing. The three samples were described:

- composite 1: Hole S12-101, 308 to 378m West Seel Zone, weight 163.8 kg
  - Cu-Au-Mo-Ag mineralization with dominant pyrite
- composite 2: Hole S12-101, 646 to 714m West Seel Zone, weight 156.4 kg
  - o Cu-Au-Mo-Ag mineralization with dominant pyrrhotite
- composite 3: Hole S12-103, 54 to 88m East Seel Zone, weight 83.0 kg
  - Cu-Au mineralization with insignificant Mo

Representative head samples of the three composites were analysed for Cu, Mo Fe, Au, Ag, whole rock analysis (WRA) and ICP-MS. Results for economic metals are shown in Table 13-3 below.

**Table 13-3: Seel Head Sample Analyses** 

|         | Composite Analysis |       |        |  |  |  |  |  |
|---------|--------------------|-------|--------|--|--|--|--|--|
| Element | 1                  | 2     | 3      |  |  |  |  |  |
| Cu %    | 0.28               | 0.29  | 0.42   |  |  |  |  |  |
| Mo %    | 0.028              | 0.047 | 0.0007 |  |  |  |  |  |
| Au g/t  | 0.17               | 0.20  | 0.47   |  |  |  |  |  |
| Ag g/t  | 4.09               | 2.12  | 1.94   |  |  |  |  |  |

A brief optical mineralogical review was conducted by Dr. R. W. Lehne of Lehne & Associates of Germany, on samples representing the three composites, to characterize



mineral grain species and association. It was noted that sample #1 carries predominant pyrite in association with chalcopyrite, while sample #2 contains significant pyrrhotite and magnetite in addition to pyrite and chalcopyrite. Both samples contain accessory molybdenite. The locking textures of the West Seel ore minerals rarely exceed 150 microns. A substantial amount of chalcopyrite and most molybdenite are locked in dimensions below 50 microns. Sample #3 from East Seel represents pyrite-magnetite-chalcopyrite mineralization in which magnetite is often replaced by presumably hypogene hematite. Ore textures tend to be coarser than West Seel samples, possibly due to higher portion of vein mineralization.

Three 2 kg samples were ground at 65% solids in a #4 stainless steel mill for varying times from 12.5 to 19.0 minutes in order to establish a grind size versus time curve.

The flotation program consisted of 30 batch tests, 3 locked cycle tests performed on all three composites, and a bulk 100kg float to produce copper 3rd cleaner concentrate for molybdenum separation using composite 2. The objective was to identify the various parameters for each stage of flotation and compile a comparison among the three ore types. Two rougher circuit flotation tests were conducted on each composite at different grinds to identify the effect of grind size and particle liberation on the grade and recovery. Four stages of rougher concentrate were pulled and analysed separately. All tests were run at a natural pH of 8.2 - 8.6 using potassium ethyl xanthate and Aeropromoter 3302 as collectors, along with frother methyl isobutyl carbinol (MIBC). Flotation time over the four stages totaled 22 minutes. Metallurgical results are detailed in Table 13.1 above. At these grinds, typical for porphyry copper ores, there was very little difference in metallurgy due to the grind size. Based on these results, subsequent testing was conducted at grinds in the range of 120-130 microns. The difference in Cu recovery between composites 1 and 2 is due to the difference in rougher concentrate pull weights.

The next set of three tests on each composite consisted of i) increasing the collector, ii) changing one collector and iii) raising the pH from natural to 10.0. The increased collector dosage in the first two rougher stages showed negligible effect when the weight pull of rougher concentrate is taken into account. Replacing the A3302 collector with MX5140 had a negative effect on all three ore types. Similarly, a raise in pH to 10.0 either had no effect as in Composite 3 or negative effect as in Composites 1 and 2.

Two cleaner circuit kinetics tests were conducted on each composite, one with regrinding, and the other without a regrind. As indicated in Table 13.4, the results show a decrease in recovery, but significant gain in concentrate grade with the use of a regrind to a P80 in the range of 25 - 30 microns. The loss in recovery can be overcome with adjustments to the cleaner flotation circuit. However, the low concentrate grades cannot be improved sufficiently to produce a marketable product without a regrind in the circuit.



|     |      | Comp | Primary | Feed  | Ro.  | Ro.  | Regrind | 3rd CC | CC 3rd Cleaner Con |       |      | Cleaner Circuit |        |      | Total Circuit |      |      |
|-----|------|------|---------|-------|------|------|---------|--------|--------------------|-------|------|-----------------|--------|------|---------------|------|------|
| I   |      |      | Grind   | Grade | Con. | Con. |         | Wt     | Cu                 | Au    | Mo   | %               | Recove | ry   | % Recovery    |      |      |
| l   | Test |      | P80=µ   | % Cu  | Wt % | % Cu | P80=µ   | %      | %                  | g/t   | %    | Cu              | Au     | Мо   | Cu            | Au   | Мо   |
|     | F 16 | 1    | 127     | 0.28  | 16.4 | 1.44 | No RG   | 3.40   | 5.61               | 3.38  | 0.68 | 81.1            | 78.9   | 87.3 | 75.0          | 61.3 | 85.1 |
| ı   | F 17 | 1    | 124     | 0.28  | 18.0 | 1.33 | 25      | 1.35   | 12.92              | 11.14 | 1.56 | 72.9            | 66.5   | 68.7 | 66.9          | 48.8 | 65.8 |
|     | F 18 | 2    | 126     | 0.29  | 11.7 | 1.93 | No RG   | 2.20   | 8.72               | 4.96  | 2.48 | 85.4            | 76.2   | 96.0 | 76.5          | 55.6 | 89.5 |
| ı   | F 19 | 2    | 127     | 0.29  | 11.5 | 2.19 | 23      | 1.00   | 20.67              | 9.50  | 5.18 | 82.3            | 63.3   | 91.0 | 73.8          | 43.1 | 78.6 |
| - 1 | F 20 | 3    | 134     | 0.42  | 17.4 | 2.18 | No RG   | 4.52   | 6.84               | 8.82  |      | 81.6            | 82.0   |      | 76.7          | 73.3 |      |
|     | F21  | 3    | 132     | 0.42  | 17.0 | 2.17 | 32      | 3.34   | 8.89               | 15.68 |      | 80.5            | 85.7   |      | 75.1          | 80.2 |      |

Table 13-4: Seel Cleaner Circuit Kinetics vs Grind

Three complete tests on each composite were conducted varying a number of test parameters. This included replacing the A3302 collector with kerosene, a scavenger pyrite circuit, varying the rougher weight pull and variations of the primary grind.

Aeropromotor 3302 was found to produce superior molybdenum recovery to that using kerosene as the primary moly promotor. A pyrite scavenger circuit, following the four rougher flotation stages, was tried in tests F22 and F23, in which the pH was decreased from 8.3 to 6.0. This extra stage had no effect on the Cu-Mo flotation results.

Three locked cycle (LCT) flotation tests were conducted, one on each composite. The tests were run for six (6) cycles, in which the three recycle products were returned to the previous stage for processing, simulating actual plant operation. The predicted metallurgy for cycle 6 of each test is summarized in Table 13.2. The difference in recoveries between the ore types appears to be closely related to the feed grades and weight pull of the final concentrate. Overall, all three ore types can be expected to produce similar copper recoveries. Further testing will be required to increase the copper concentrate grade of Composite 2.

The 3rd cleaner concentrates from all three locked cycle tests were analysed for minor element content.

In order to generate sufficient Cu 3rd cleaner concentrate on which to conduct a molybdenum separation test, 100 kg of Composite 2 was floated in 5 x 20 kg lots for the rougher flotation stage. After three stages of copper cleaning, 977 grams of Cu 3rd cleaner concentrate was available for the separation test. Sodium hydrosulphide (NaHS) was used to depress the chalcopyrite while kerosene was added as the molybdenum collector. CO<sub>2</sub> gas was used to control pH at 9.5 in the rougher and 10.0 in the 1st cleaner stage. A good acceptable grade of molybdenum was produced into a 1st cleaner concentrate. However, recovery of the moly at this point is low with only 49% of the molybdenum being separated out of the 3rd cleaner concentrate. No optimization or variation of parameters was performed in this single test. The separation and molybdenum cleaning circuit require additional testing to properly optimize the metallurgy.



The molybdenum 1st cleaner concentrate at a grade of 38.5% Mo, assayed 144 ppm rhenium (Re).

Weighted head assays for all tests were calculated as a check to ensure overall consistency and no major errors. All are well within the normal variation for such a testing program.

## 13.2 Mineral Processing and Metallurgical Testing -- Ox Deposit

Metallurgical testing was completed in November 2013 on a single 323 kg composite sample by Inspectorate Exploration and Mining Services Ltd. located in Richmond British Columbia. The sample was obtained from 2013 drill core from the Ox deposit and is considered to be representative of the type of mineralization found in the deposit. The primary objectives of the testing were to determine the optimal flotation conditions for the Ox deposit material and to produce high-grade copper and molybdenum concentrates with acceptable recoveries of gold and silver.

A total of four batch rougher and four batch rougher-cleaner tests were completed with varying test parameters to help optimize the flotation process. Table 13-5 below shows the results of 4 rougher flotation tests conducted at various grind sizes and test conditions. These results show excellent copper recoveries are attainable at varying grind sizes. Molybdenum, gold, and silver also show strong recoveries over varying test conditions.

Table 13-5: Ox Sample Rougher Circuit Results at Different Grind Sizes and Varying Conditions

| Sample | Grind   | Feed    | Feed    | Ro         | ougher C | Circuit |      |
|--------|---------|---------|---------|------------|----------|---------|------|
| Test   | Size    | Grade % | Grade % | Recovery % |          |         |      |
| 1631   | microns | Cu      | Мо      | Cu         | Мо       | Au      | Ag   |
| F1     | 146     | 0.33    | 0.043   | 93.1       | 78.4     | 91.2    | 82.9 |
| F2     | 125     | 0.33    | 0.043   | 95.1       | 84.7     | 70.9    | 80.3 |
| F3     | 97      | 0.33    | 0.043   | 96.3       | 88.3     | 81.9    | 81.9 |
| F4     | 99      | 0.33    | 0.043   | 97.1       | 82.6     | 83.8    | 75.2 |

Following rougher optimization two bulk flotation tests (BF1 and BF2) utilizing 100 kg samples at optimized test conditions were performed and are shown in Table 13-6 below. This testing resulted in recoveries of 94.1 to 94.5% for copper, 91.7 to 93.1% for molybdenum, 62.1 to 79.2% for gold, and 78.0 to 90.1% for silver.



Table 13-6: Ox Rougher Circuit Bulk (100kg) Floatation Tests at Optimized Conditions

| Sample<br>Test | Grind | Feed    | Feed    | Ro         | ougher C | Circuit |      |
|----------------|-------|---------|---------|------------|----------|---------|------|
|                | Size  | Grade % | Grade % | Recovery % |          |         |      |
|                |       | Cu      | Мо      | Cu         | Мо       | Au      | Ag   |
| BF1            | 95    | 0.33    | 0.043   | 94.5       | 91.7     | 79.2    | 90.1 |
| BF2            | 95    | 0.33    | 0.043   | 94.1       | 93.1     | 62.1    | 78.0 |

Average: <u>94.3</u> <u>92.4</u> <u>70.7</u> <u>84.1</u>

Copper concentrates were produced from samples BF1 and BF2 based on only 4 open-circuit cleaner stages. Sample BF1 produced a copper concentrate grading 24.5% copper, 4.0 g/t gold, and 107.1 g/t silver. Sample BF2 produced a copper concentrate grading 23.6% copper, 3.3 g/t gold, and 97.7 g/t silver. A molybdenum separate was made from the BF2 concentrate producing a second cleaner concentrate grading 51.6% molybdenum along with 113.3 ppm rhenium.

Assaying of the final concentrate products shows they are 'clean' with very low trace element concentrations that can pose problems or penalties at smelters (such as As, Sb, Bi, Hg).

The rougher flotation results represent the maximum metal recoveries obtainable using standard flotation methods for typical porphyry Cu systems. The actual recoveries from a mine scale flotation plant will be lower than the rougher concentrate, as subsequent steps were taken to remove unwanted materials and increase the grade of the final concentrates.

# 13.2.1 Description of Methodology for Metallurgical Testing

The following description of methodology was summarized from the final metallurgy report produced by Inspectorate Exploration and Mining Services Ltd. (Beland & Redfearn, 2013).

A shipment consisting of 17 pails containing 71 bags of half core samples, with a total weight of 323 kg was received July 31, 2013 via Bandstra Transportation. The samples were received into inventory, air dried and combined into one primary composite, designated as Composite 1 for this test campaign. The core samples were crushed to 6 mesh, blended and split into the required samples for testing. A representative head sample of the combined composite was analysed for Cu, Mo, Fe, Au, Ag, whole rock analysis (WRA) and ICP-MS.



A 2 kg sample of the composite was ground at 65% solids in a #3 stainless steel mill for varying times in order to establish a grind size versus time curve. The test grind curve was used to estimate the grinding time required for preparing the 2kg samples for the batch tests and was used as a basis to estimate grind time required in the larger 25kg mill for the bulk flotation tests.

A QEMSCAN Bulk Mineral Analysis (BMA) and the standard chemical analysis protocols were conducted on a sample of composite 1. The sample was assayed at 0.33 % copper and about 0.04% molybdenum, equivalent to about 0.9 percent by weight chalcopyrite and 0.05 percent by weight molybdenite. No other copper sulphide minerals were observed in the sample composite. The pyrite was measured at about 2.4 percent by weight, and accounted for almost three quarters of the total sulphides in the sample. The ratio of chalcopyrite to pyrite was estimated close to 1 to 3. In order to assist the flotation tests, the fragmentation and association between chalcopyrite and pyrite or chalcopyrite and gangue minerals should be determined. This information can be achieved by performing QEMSCAN Particle Mineral Analysis (PMA) on the sized samples of the feed and intermediate products. The sulphide minerals were embraced in silicon-rich non-sulphide gangue host. Majority of the non-sulphide gangue comprised quartz, feldspar group minerals, micas, kaolinite, as well as carbonates. It is important to note that kaolinite and carbonates were elevated in the composite 1.

A series of rougher and cleaner open-circuit flotation tests were completed on composite 1 to determine the optimal conditions for the bulk float and Mo separation tests. The primary objectives were to determine the optimal flotation conditions for the Ox deposit material to produce both high-grade copper and moly concentrates with high recoveries of gold and silver. The results would help to produce a flowsheet from which project economics could be studied.

Open-cycle rougher kinetic tests were conducted on composite 1 using the best baseline conditions that were determined from past work on samples from the Seel deposit. Three grind sizes were compared: 150, 125 and 95 microns (F1 to F3 respectively). The test was run at a natural pH, using potassium ethyl xanthate (PEX) and Aeropromoter 3302 as collectors, along with frother methyl isobutyl carbinol (MIBC). Each rougher kinetic test was run for 4 stages at 5 minutes each, for a total of 20 minutes of flotation. At a constant rougher concentrate grade of 1.6% Cu and mass pull rate of 20%, both copper and molybdenum recoveries increased with finer grinds. At a P80 grind of 97 microns, recoveries were 96.3% Cu and 88.3% Mo respectively after 20 minutes of flotation. A fourth rougher test (F4) was conducted at the target P80 95 micron grind size using Aeropromoter 3418 collector instead of PEX to compare the flotation performance. The A3418 collector appeared to be a more aggressive collector by increasing mass yields, however both collectors produced similar copper and molybdenum recoveries at a given



mass pull. For this reason it was decided to use PEX in subsequent testing as it is the more economical collector.

Table 13-7: Cleaner Flotation Circuit Conditions for F5 to F8

| Test# | Primary Grind P80 (microns) | Regrinding size P80 (microns) | Reagent       |
|-------|-----------------------------|-------------------------------|---------------|
| F5    | 95                          | no regrind                    | PEX, A3302    |
| F6    | 95                          | 30                            | PEX, A3302    |
| F7    | 95                          | no regrind                    | PEX, kerosene |
| F8    | 95                          | 30                            | PEX, kerosene |

A series of open-circuit cleaner flotation tests (F5 to F8, see table 13-7) were conducted on the Ox composite sample, using the optimized rougher conditions discussed in the previous section. The tests involved examining the effects of regrinding to target P80 of 30 microns as well as comparing the flotation performance of A3302 and Kerosene as Mo collectors. Each cleaner test involved cleaning of the four (4) combined rougher concentrates by three cleaner stages, the first of which was followed by one stage of scavenging. Re-grinding of the rougher concentrates resulted in higher Cu concentrate grades at equal or higher Cu recoveries. It was similarly found to have a positive effect on both the molybdenum recovery and grade. Although the tests conducted using kerosene (F7 and F8) reported superior metal grades in each cleaning stage, the overall recoveries were significantly lower as a result of poor selectivity relative to A3302. For this reason it was recommended to use A3302 in subsequent testing. Based on test observations, it is recommended that a higher dosage of PEX is to be added in the first two bulk rougher stage to improve froth quality. To help further improve Cu and Mo grades, a 4th cleaner stage was also recommended to be included in the subsequent tests which, will be based on the F6 procedure.

In order to generate sufficient bulk cleaner concentrate on which to conduct two molybdenum separation tests, two 100 kg bulk samples of Composite 1 were each floated in 5 x 20 kg lots for the rougher flotation stage using the optimized parameters previously discussed in this report. After four stages of copper cleaning, just over 2kg of total bulk 4th cleaner concentrate was available to conduct the two separation tests. The primary variables which were examined between both tests was the pulp density in the Mo rougher separation stage, using 20 wt% and 30 wt% densities in BF1 and BF2 respectively, as well as the depressant dosages. NaHS was used to depress the chalcopyrite while A3302 was added as the molybdenum collector. CO2 gas was used to control pH at 9.5 in the rougher and 10.0 in the 1st and 2nd cleaner stages.



The results of the moly separation tests indicate that final copper concentrate gradings of 25.5% and 24.3% were achieved in tests BF1 and BF2, respectively. Test BF1 conducted at 20 wt% solids resulted in better froth quality and consequently a higher mass pull rate, but due to the lower initial dosage of NaHS, more Cu reported to the Mo rougher concentrate compared to BF2. The addition of NaHS to the scavenger stage in BF1 resulted in a Cu concentrate containing only 0.019% Mo. Test BF2 benefited from a higher initial dosage of NaHS in the rougher as well as both cleaning stages, producing the highest Mo concentrate grades with very good Mo separation. The 2nd cleaner concentrate Mo grade for test BF2 was 51.57% at a recovery rate of 56.4% relative to Mo separation circuit feed. Based on the findings of both tests, it is recommended in future testing to operate the Mo rougher circuit at 20 wt% solids density with a target of 12% mass pull to Mo rougher concentrate with an initial NaHS dosage of 400g/t accompanied by a 45g/t dosage to the rougher-scavenger cell. It is also recommended that a higher depressant dosage be added to each cleaning stage to improve cleaning efficiency and maximize Mo grade. The molybdenum 2nd cleaner concentrate from BF1 and BF2 assayed 97.8 and 113.3 ppm rhenium (Re), respectively.

Weighted head assays for all tests were calculated as a check to ensure overall consistency and no major errors. Tabulated results were all well within the normal variation for such a testing program.

## 14.0 MINERAL RESOURCE ESTIMATE

Giroux Consultants was contracted by Gold Reach Resources Ltd. ("GRV") to complete a Resource Estimate Update for the Seel and Ox deposits near Ootsa Lake, B.C. The resource was estimated by Gary Giroux, P.Eng., MASc. who is a qualified person and independent of the both the issuer and the title holder, based on the tests outlined in National Instrument 43-101.

The Ootsa Project is comprised of two separate mineral deposits located within the same general property package namely: the Seel and Ox.

# 14.1 Seel Deposit

The Seel Deposit has been explored and drill tested since 1982 by a number of companies. Gold Reach has supplied drill hole data collected since 2004 as shown below.



| Year  | Number of holes         | Total    |
|-------|-------------------------|----------|
|       |                         | Meterage |
| 2004  | 6 diamond drill holes   | 1,096 m  |
| 2005  | 16 diamond drill holes  | 3,525 m  |
| 2006  | 25 diamond drill holes  | 5,641 m  |
| 2007  | 12 diamond drill holes  | 3,232 m  |
| 2008  | 21 diamond drill holes  | 4,408 m  |
| 2011  | 20 diamond drill holes  | 10,393 m |
| 2012  | 46 diamond drill holes  | 38,628 m |
| 2013  | 53 diamond drill holes  | 16,887 m |
| Total | 199 diamond drill holes | 83,810 m |

This resource estimation represents an update of a resource estimated in February 2013 (McDowell and Giroux, 2013). Since the 2013 resource was estimated an additional 53 drill holes totalling 16,887 m have been completed by Gold Reach in 2013.

Supplied drill hole data consisted of collar locations, down hole surveys and assays for Cu, Au, Mo and Ag. In addition simplified lithologic and alteration information was supplied for each drill hole. Copper assays reported as 0.000 or < 0.001 were set to 0.001 %. Gold assays reported as 0.000 were set to 0.001 g/t. A total of 196 gaps in the from-to record were identified and values of 0.001%, 0.001 g/t, 0.5 ppm and 0.1 g/t were inserted for Cu, Au, Mo and Ag respectively.

Collar elevations were compared to a 1 m Lidar contour surface topography file and holes plotting above the topographic surface were adjusted downward.

In order to model this deposit a combination of alteration and grade using a > 0.15 CuEq % was used to constrain areas of mineralization. The geologic model was built using GemCom software and four mineralized domains were wire-framed: a west zone, an east zone, a breccia zone and a small north east zone (see Figure 14-1). All assays outside the solids were considered waste. The supplied drill holes are listed in Appendix 1 with the 160 holes that intersected the mineralized solids, highlighted.



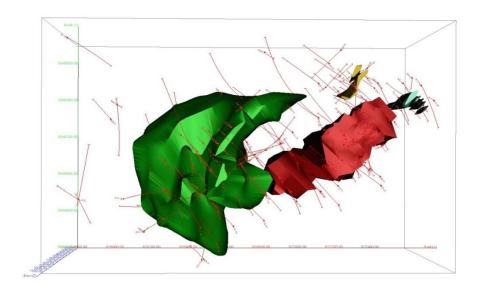


Figure 14-1: Plan view showing Mineralized Wire Frames (West in green, East in red, Breccia in yellow and NE in blue)

Assays were compared to these domain solids and "back tagged" with a domain code. Statistics for Cu, Au, Mo and Ag as a function of domain are tabulated below.

Table 14-1: Statistics for Cu, Au, Mo and Ag sorted by Domain

| Domain       | Variable | Number | Mean  | S.D.  | Min.   | Max.  | Coef. Of  |
|--------------|----------|--------|-------|-------|--------|-------|-----------|
|              |          |        |       |       |        |       | Variation |
| East Zone    | Cu %     | 8,490  | 0.20  | 0.21  | 0.001  | 8.56  | 1.05      |
|              | Au g/t   | 8,490  | 0.20  | 0.22  | 0.001  | 3.90  | 1.11      |
|              | Mo %     | 8,490  | 0.005 | 0.012 | 0.0001 | 0.44  | 2.37      |
|              | Ag g/t   | 8,490  | 1.27  | 3.80  | 0.1    | 223.0 | 2.99      |
| West Zone    | Cu %     | 14,960 | 0.18  | 0.14  | 0.001  | 7.07  | 0.78      |
|              | Au g/t   | 14,960 | 0.13  | 0.36  | 0.001  | 23.00 | 2.79      |
|              | Mo %     | 14,960 | 0.019 | 0.022 | 0.0001 | 0.40  | 1.21      |
|              | Ag g/t   | 14,960 | 2.60  | 2.87  | 0.1    | 131.0 | 1.10      |
| Breccia Zone | Cu %     | 221    | 0.50  | 0.61  | 0.001  | 3.10  | 1.21      |
|              | Au g/t   | 221    | 0.06  | 0.09  | 0.001  | 0.79  | 1.39      |
|              | Mo %     | 221    | 0.001 | 0.001 | 0.0001 | 0.006 | 1.33      |
|              | Ag g/t   | 221    | 13.56 | 16.62 | 0.1    | 93.3  | 1.23      |
| NE Zone      | Cu %     | 156    | 0.14  | 0.11  | 0.001  | 0.48  | 0.75      |
|              | Au g/t   | 156    | 0.11  | 0.11  | 0.001  | 1.07  | 0.98      |
|              | Mo %     | 156    | 0.005 | 0.004 | 0.0001 | 0.029 | 0.87      |
|              | Ag g/t   | 156    | 0.56  | 0.41  | 0.1    | 2.50  | 0.72      |
| Waste        | Cu %     | 14,608 | 0.03  | 0.06  | 0.001  | 1.88  | 1.77      |
|              | Au g/t   | 14,608 | 0.03  | 0.12  | 0.001  | 8.75  | 3.30      |
|              | Mo %     | 14,608 | 0.003 | 0.009 | 0.0001 | 0.61  | 3.38      |
|              | Ag g/t   | 14,608 | 0.94  | 1.50  | 0.1    | 42.9  | 1.59      |



To determine if capping was required and if so at what levels, the grade distribution for each variable was evaluated within each domain using lognormal cumulative frequency plots. The small NE zone was combined with the East zone for this exercise. In all cases multiple overlapping lognormal populations were observed. In most cases the top or highest grade population was considered erratic high grade and a cap level of two standard deviations above the mean of the 2<sup>nd</sup> highest population served as a cap level. The cap levels and number of samples capped are tabulated below for each variable in each domain.

Table 14-2: Cap Levels for all variables in all domains

| Domain          | Variable | Cap Level | Number Capped |
|-----------------|----------|-----------|---------------|
| East & NE Zones | Cu       | 2.0 %     | 6             |
|                 | Au       | 2.5 g/t   | 6             |
|                 | Мо       | 0.21 %    | 1             |
|                 | Ag       | 52.0 g/t  | 6             |
| West Zone       | Cu       | 1.3 %     | 5             |
|                 | Au       | 8.6 g/t   | 5             |
|                 | Мо       | 0.30 %    | 4             |
|                 | Ag       | 33.0 g/t  | 9             |
| Breccia Zone    | Cu       | 3.4 %     | 0             |
|                 | Au       | 0.28 g/t  | 3             |
|                 | Мо       | 0.006 %   | 0             |
|                 | Ag       | 76.0 g/t  | 2             |
| Waste           | Cu       | 0.33 %    | 56            |
|                 | Au       | 0.91 g/t  | 19            |
|                 | Мо       | 0.09 %    | 11            |
|                 | Ag       | 12.0 g/t  | 45            |

The results from capping are shown in Table 14-3 with small reductions in mean grade but significant reductions in standard deviation and as a result coefficient of variation.



Table 14-3: Statistics for Capped Cu, Au, Mo and Ag sorted by Domain

| Domain       | Variable | Number | Mean  |       | Min.   | Max.  | Coef. Of  |
|--------------|----------|--------|-------|-------|--------|-------|-----------|
|              |          |        |       |       |        |       | Variation |
| East Zone    | Cu %     | 8,490  | 0.19  | 0.18  | 0.001  | 2.00  | 0.93      |
|              | Au g/t   | 8,490  | 0.20  | 0.22  | 0.001  | 2.50  | 1.08      |
|              | Mo %     | 8,490  | 0.005 | 0.011 | 0.0001 | 0.21  | 2.23      |
|              | Ag g/t   | 8,490  | 1.24  | 2.77  | 0.1    | 52.00 | 2.23      |
| West Zone    | Cu %     | 14,960 | 0.18  | 0.13  | 0.001  | 1.30  | 0.71      |
|              | Au g/t   | 14,960 | 0.13  | 0.27  | 0.001  | 8.60  | 2.16      |
|              | Mo %     | 14,960 | 0.019 | 0.022 | 0.0001 | 0.40  | 1.19      |
|              | Ag g/t   | 14,960 | 2.59  | 2.50  | 0.1    | 33.00 | 0.97      |
| Breccia Zone | Cu %     | 221    | 0.50  | 0.61  | 0.001  | 3.10  | 1.21      |
|              | Au g/t   | 221    | 0.06  | 0.07  | 0.001  | 0.28  | 1.13      |
|              | Mo %     | 221    | 0.001 | 0.001 | 0.0001 | 0.006 | 1.33      |
|              | Ag g/t   | 221    | 13.47 | 16.26 | 0.1    | 76.00 | 1.21      |
| NE Zone      | Cu %     | 156    | 0.14  | 0.11  | 0.001  | 0.48  | 0.75      |
|              | Au g/t   | 156    | 0.11  | 0.11  | 0.001  | 1.07  | 0.98      |
|              | Mo %     | 156    | 0.005 | 0.004 | 0.0001 | 0.029 | 0.87      |
|              | Ag g/t   | 156    | 0.56  | 0.41  | 0.1    | 2.50  | 0.72      |
| Waste        | Cu %     | 14,608 | 0.03  | 0.04  | 0.001  | 0.33  | 1.27      |
|              | Au g/t   | 14,608 | 0.03  | 0.06  | 0.001  | 0.91  | 1.74      |
|              | Mo %     | 14,608 | 0.002 | 0.005 | 0.0001 | 0.09  | 2.23      |
|              | Ag g/t   | 14,608 | 0.91  | 1.09  | 0.1    | 12.00 | 1.19      |

# 14.1.1 Composites

Drill holes were "passed through" the various domain solids with the point that each hole entered and left each solid recorded. Uniform down hole 5 m composites were then formed to honour these limits. Small intervals at the domain boundaries were combined with the adjoining sample if less than 2.5 m. In this manner a uniform support of 5±2.5 m was obtained. The statistics for 5 m composites are tabulated below.

Table 14-4: Statistics of 5m Composite for Cu, Au, Mo and Ag sorted by Domain

| Domain       | Variable | Number | Mean  | S.D.  | Min.   | Max.  | Coef. Of<br>Variation |
|--------------|----------|--------|-------|-------|--------|-------|-----------------------|
| East Zone    | Cu %     | 3,363  | 0.19  | 0.16  | 0.001  | 1.76  | 0.85                  |
|              | Au g/t   | 3,363  | 0.20  | 0.19  | 0.001  | 1.92  | 0.97                  |
|              | Mo %     | 3,363  | 0.005 | 0.009 | 0.0001 | 0.12  | 1.86                  |
|              | Ag g/t   | 3,363  | 1.23  | 2.30  | 0.1    | 45.95 | 1.87                  |
| West Zone    | Cu %     | 5,937  | 0.18  | 0.11  | 0.002  | 1.17  | 0.61                  |
|              | Au g/t   | 5,937  | 0.13  | 0.19  | 0.002  | 4.47  | 1.48                  |
|              | Mo %     | 5,937  | 0.019 | 0.018 | 0.0001 | 0.22  | 0.97                  |
|              | Ag g/t   | 5,937  | 2.57  | 2.09  | 0.1    | 30.62 | 0.81                  |
| Breccia Zone | Cu %     | 98     | 0.47  | 0.48  | 0.024  | 2.12  | 1.02                  |
|              | Au g/t   | 98     | 0.06  | 0.06  | 0.001  | 0.24  | 1.06                  |
|              | Mo %     | 98     | 0.001 | 0.001 | 0.0001 | 0.003 | .96                   |



|         | Ag g/t | 98    | 12.91 | 13.82 | 0.1    | 66.50 | 1.07 |
|---------|--------|-------|-------|-------|--------|-------|------|
| NE Zone | Cu %   | 57    | 0.14  | 0.10  | 0.002  | 0.38  | 0.68 |
|         | Au g/t | 57    | 0.11  | 0.07  | 0.004  | 0.37  | 0.67 |
|         | Mo %   | 57    | 0.005 | 0.004 | 0.0002 | 0.02  | 0.75 |
|         | Ag g/t | 57    | 0.55  | 0.35  | 0.16   | 1.68  | 0.64 |
| Waste   | Cu %   | 4,758 | 0.03  | 0.04  | 0.001  | 0.60  | 1.13 |
|         | Au g/t | 4,758 | 0.04  | 0.05  | 0.001  | 0.74  | 1.36 |
|         | Mo %   | 4,758 | 0.003 | 0.005 | 0.0001 | 0.08  | 1.68 |
|         | Ag g/t | 4,758 | 0.93  | 0.82  | 0.1    | 12.00 | 0.98 |

Pearson correlations coefficients were produced for each domain.

| East Zone | Cu (%)  | Au (g/t) | Mo (%)  | Ag (g/t) |
|-----------|---------|----------|---------|----------|
| Cu (%)    | 1.0000  |          |         |          |
| Au (g/t)  | 0.7828  | 1.0000   |         |          |
| Mo (%)    | -0.2316 | -0.4175  | 1.0000  |          |
| Ag (g/t)  | 0.5396  | 0.3888   | -0.1814 | 1.0000   |

| West Zone | Cu (%) | Au (g/t) | Mo (%) | Ag (g/t) |
|-----------|--------|----------|--------|----------|
| Cu (%)    | 1.0000 |          |        |          |
| Au (g/t)  | 0.5673 | 1.0000   |        |          |
| Mo (%)    | 0.4903 | 0.4347   | 1.0000 |          |
| Ag (g/t)  | 0.6351 | 0.4999   | 0.3190 | 1.0000   |

| Breccia Zone | Cu (%)  | Au (g/t) | Mo (%)  | Ag (g/t) |
|--------------|---------|----------|---------|----------|
| Cu (%)       | 1.0000  |          |         |          |
| Au (g/t)     | 0.2740  | 1.0000   |         |          |
| Mo (%)       | -0.1647 | -0.0698  | 1.0000  |          |
| Ag (g/t)     | 0.8068  | 0.3860   | -0.0470 | 1.0000   |

| NE Zone  | Cu (%) | Au (g/t) | Mo (%) | Ag (g/t) |
|----------|--------|----------|--------|----------|
| Cu (%)   | 1.0000 |          |        |          |
| Au (g/t) | 0.7404 | 1.0000   |        |          |
| Mo (%)   | 0.5155 | 0.2544   | 1.0000 |          |
| Ag (g/t) | 0.7394 | 0.5948   | 0.0554 | 1.0000   |

# 14.1.2 Variography

In general the additional drilling completed in 2013 has only slightly changed the models developed in the February 2013 Resource Estimate (McDowell and Giroux, 2013).

The two domains with the most data; East and West Zones were modelled for Cu, Au, Mo and Ag using pairwise relative semi-variograms to determine the grade continuity of



the Seel deposit. All variables in both domains showed geometric anisotropy with similar nugget effects and sill values but different ranges in different directions. In all cases the down hole direction was modelled first to determine the nugget effect and sill value. In both domains and for all four variables the horizontal plane was analyzed next by producing semivariograms along the azimuth directions of 90°, 0°, 45° and 135°. Azimuths between the two directions with longest ranges were then modelled to determine the direction of maximum continuity in the horizontal plane. The two perpendicular directions to this maximum were then evaluated using -45° dip semivariograms. The dip direction of longest range was then evaluated to determine the maximum range down dip. Once this dip direction was established the orthogonal direction was modelled.

Within the East domain the direction for maximum horizontal continuity for copper was along azimuth 65°. The longest range perpendicular to this was along azimuth 155° dipping -60°. Molybdenum in the east zone had a similar orientation. Gold showed a maximum horizontal continuity along azimuth 110° with a down dip direction of azimuth 200° dipping -55°. Silver in the east zone showed the best continuity along azimuth 0°. This variography points to perhaps different periods of deposition for the various elements with Cu and Mo perhaps introduced at a similar time along similar conduits. Gold and silver perhaps were introduced at different times along different structures.

Within the West domain copper showed a geometric anisotropy with longest horizontal range along azimuth 175°. For gold the directions of maximum continuity was along azimuth 145°. Molybdenum and silver within the West domain showed maximum continuity along azimuths 0°.

Nugget effect to sill ratios varied from a low of 13% in East zone Mo to a high of 36% in West zone Mo, all showing reasonable sampling variability.

The Breccia and NE domains had insufficient composites to model. In both cases the East domain models were applied. In all cases nested spherical models were used. The semivariogram parameters for all models are tabulated below with the models for Cu shown in Appendix 3.



**Table 14-5: Semivariogram Parameters for Seel** 

| Domain | Variable | Azimuth/Dip      | Co   | C <sub>1</sub> | C <sub>2</sub> | Short Range | Long Range |
|--------|----------|------------------|------|----------------|----------------|-------------|------------|
|        |          |                  |      |                |                | (m)         | (m)        |
|        |          | 065° / 0°        |      |                |                | 30.0        | 180.0      |
|        | Cu       | 335° / -30°      | 0.10 | 0.25           | 0.06           | 40.0        | 80.0       |
|        |          | 155° / -60°      |      |                |                | 50.0        | 150.0      |
|        |          | 110°/0°          |      |                |                | 25.0        | 150.0      |
|        | Au       | 020° / -35°      | 0.10 | 0.15           | 0.15           | 35.0        | 60.0       |
| East   |          | 200° / -55°      |      |                |                | 30.0        | 120.0      |
| Lasi   |          | 065° / 0°        |      |                |                | 12.0        | 130.0      |
|        | Мо       | 335° / -30°      | 0.08 | 0.12           | 0.42           | 40.0        | 180.0      |
|        |          | 155° / -60°      |      |                |                | 15.0        | 110.0      |
|        |          | 020°/0°          |      |                |                | 12.0        | 46.0       |
|        | Ag       | 110° / 0°        | 0.08 | 0.17           | 0.18           | 15.0        | 30.0       |
|        |          | 000°/-90°        |      |                |                | 35.0        | 100.0      |
|        |          | 175° / 0°        | 0.06 | 0.10           | 0.15           | 15.0        | 200.0      |
|        | Cu       | 85° / -10°       |      |                |                | 12.0        | 24.0       |
|        |          | 265° / -80°      |      |                |                | 30.0        | 140.0      |
|        |          | 145° / 0°        |      |                |                | 12.0        | 140.0      |
|        | Au       | 055° / -70°      | 0.14 | 0.10           | 0.18           | 15.0        | 150.0      |
| West   |          | 235° / -20°      |      |                |                | 10.0        | 60.0       |
| vvesi  |          | 0° / 0°          |      |                |                | 12.0        | 150.0      |
|        | Мо       | 270° / -60°      | 0.15 | 0.10           | 0.17           | 30.0        | 155.0      |
|        |          | 90°/-30°         |      |                |                | 15.0        | 70.0       |
|        |          | 0° / 0°          |      |                |                | 15.0        | 60.0       |
|        | Ag       | 270° / 0°        | 0.05 | 0.06           | 0.14           | 5.0         | 22.0       |
|        |          | 0°/-90°          |      |                |                | 15.0        | 100.0      |
| Waste  | Cu       | Omni Directional | 0.15 | 0.10           | 0.37           | 15.0        | 86.0       |
|        | Au       | Omni Directional | 0.14 | 0.05           | 0.28           | 12.0        | 80.0       |
|        | Мо       | Omni Directional | 0.22 | 0.05           | 0.35           | 40.0        | 80.0       |
|        | Ag       | Omni Directional | 0.05 | 0.05           | 0.20           | 40.0        | 80.0       |

Note: C<sub>0</sub> = Nugget Effect, C<sub>1</sub>=short range structure and C<sub>2</sub>= long range structure

## 14.1.3 Block Model

A block model with blocks  $10 \times 10 \times 5$  m in dimension was superimposed over all the mineralized solids. For each block in the model, the percentage of the block below surface topography, within overburden and within the various solids was recorded. The block model origin is as follows:

Lower Left Corner

626070 E Column size = 10 m 142 columns

5944580 N Row size = 10 m 96 rows

Top of Model



1130 elevation Level size = 5 m

217 levels

No Rotation

# 14.1.4 Bulk Density

A total of 2,781 specific gravity determinations were made from pieces of drill core on the Seel property by the weight in air/weight in water method during the 2011-2013 drill campaigns. The determinations within the main domains are tabulated below sorted by Lithology and Domain.

**Table 14-6: Specific Gravity Measurements** 

| Zone           | Unit                                     | Number of samples | Average SG |
|----------------|--|-------------------|------------|
|                |  |                   |            |
| West Seel      | Bio intrusive (deep West Seel intrusive) | 366               | 2.72       |
| West Seel      | Undifferentiated porphyries              | 932               | 2.71       |
| West Seel      | Sedimentary rocks                        | 813               | 2.76       |
| West Seel      | Felsic dikes                             | 7                 | 2.68       |
| West Seel      | Mafic dikes                              | 13                | 2.69       |
| East Seel      | Coarse crowded porphyry                  | 399               | 2.74       |
| East Seel      | Undifferentiated porphyry                | 145               | 2.74       |
| East Seel      | Sedimentary rocks                        | 29                | 2.81       |
| East Seel      | post mineral felsic dikes                | 9                 | 2.61       |
| East Seel      | post mineral mafic dikes                 | 10                | 2.63       |
| Seel Breccia   | Breccia unit                             | 3                 | 3.03       |
|                |  |                   |            |
| Average for We | st Seel and East Seel all units          | 2,726             | 2.73       |

For this resource estimate a specific gravity was interpolated using Inversed Distance Squared into every estimated block. A total block SG was determined using an assumed SG of 1.60 for overburden.

## 14.1.5 Grade Interpolation

Grades for Cu, Au, Mo and Ag were interpolated into each block, containing some percentage of mineralized solids, by Ordinary Kriging. Each domain was estimated separately using only composites from within that domain. For each variable, within each domain, kriging was completed in a series of 4 passes with the search ellipse for each pass a function of the semivariogram range for that variable within that domain. For the first pass the dimensions of the search ellipse were set to ¼ of the semivariogram range in each of the three principal directions. The ellipse was orientated along the azimuth and dip established by the semivariogram. A minimum of 4 composites with a maximum of 3 from any given drill hole were required to be found within the search ellipse to



estimate a block. For blocks not estimated in the first pass, the search ellipse was expanded to ½ the semivariogram range. A third pass using the full range and a fourth pass using twice the range completed the kriging. In all passes the maximum number of composite allowed was set to 16 and if more than 16 were within the search ellipse at any given time the closest 16 were used.

Table 14-7 shows the kriging search parameters for copper in each domain and shows the number of blocks estimated in each pass. For the Breccia and NE domains, there was not enough data to generate semivariograms, so the East domain models were used.

**Table 14-7: Kriging Parameters for Cu in all Domains** 

| Domain  | Pass | Number    | Az/Dip    | Dist. | Az/Dip      | Dist. | Az/Dip     | Dist. |
|---------|------|-----------|-----------|-------|-------------|-------|------------|-------|
|         |      | Estimated |           | (m)   |             | (m)   |            | (m)   |
| East    | 1    | 29,548    | 065° / 0° | 45.0  | 335° / -30° | 20.0  | 155º / -60 | 37.5  |
|         | 2    | 35,840    | 065° / 0° | 90.0  | 335° / -30° | 40.0  | 155º / -60 | 75.0  |
|         | 3    | 36,983    | 065° / 0° | 180.0 | 335° / -30° | 80.0  | 155° / -60 | 150.0 |
|         | 4    | 13,967    | 065° / 0° | 360.0 | 335° / -30° | 160.0 | 155º / -60 | 300.0 |
| West    | 1    | 16,490    | 175° / 0° | 50.0  | 85° / -10°  | 6.0   | 265° / -80 | 15.0  |
|         | 2    | 73,428    | 175° / 0° | 100.0 | 85° / -10°  | 12.0  | 265º / -80 | 30.0  |
|         | 3    | 149,516   | 175° / 0° | 200.0 | 85° / -10°  | 24.0  | 265° / -80 | 60.0  |
|         | 4    | 119,615   | 175° / 0° | 400.0 | 85° / -10°  | 48.0  | 265° / -80 | 120.0 |
| Breccia | 1    | 913       | 065° / 0° | 45.0  | 335° / -30° | 20.0  | 155° / -60 | 37.5  |
|         | 2    | 860       | 065° / 0° | 90.0  | 335° / -30° | 40.0  | 155º / -60 | 75.0  |
|         | 3    | 233       | 065° / 0° | 180.0 | 335° / -30° | 80.0  | 155° / -60 | 150.0 |
|         | 4    | 13        | 065° / 0° | 360.0 | 335° / -30° | 160.0 | 155º / -60 | 300.0 |
| NE      | 1    | 472       | 065° / 0° | 45.0  | 335° / -30° | 20.0  | 155º / -60 | 37.5  |
|         | 2    | 1,187     | 065° / 0° | 90.0  | 335° / -30° | 40.0  | 155° / -60 | 75.0  |
|         | 3    | 914       | 065° / 0° | 180.0 | 335° / -30° | 80.0  | 155º / -60 | 150.0 |
|         | 4    | 134       | 065° / 0° | 360.0 | 335° / -30° | 160.0 | 155º / -60 | 300.0 |



### 14.2 Ox Resource

The data base for the Ox resource consisted of 35 BQ diamond drill holes drilled from 1968 to 1969 by Silver Standard and an additional 2 diamond drill holes completed by Asarco in 1981. After acquiring the Property Gold Reach drilled 26 NQ diamond drill holes in 2007 and 18 diamond drill holes in 2012. In 2013 Gold Reach drilled an additional 90 diamond drill holes.

In a 43-101 Report completed in 2008, Wardrop completed data verification on both the historic and recent drilling;

"Wardrop verified the assay database records against the original paper assay certificates for both the historical and current drilling. Original assay sheets for the references to the sample numbers were missing for a number of the drill holes completed in 1968 and 1969, therefore comparisons could not be made to the original assay certificates. For these samples, verification was carried out against results compiled in a report prepared by Silver Standard in 1969. Of the 35 drill holes from 1968 - 1981 verified, a total of 5 samples out of 1321 could not be verified. A line error rate of 0.4% (52 line errors out of 1321 lines) was observed where the difference in grade was significant (ΔCu > 0.1%, ΔMo > 0.01%, ΔMoS2 > 0.01%). All errors were corrected in the digital database.

Wardrop received assay results from the twenty-six drill holes completed in 2007 directly from Assayers Canada as comma delimited text files. These were formatted and imported directly into Gems without verification of assay values.

Wardrop concluded that the assay and survey database was sufficiently free of error to be adequate for resource estimation of the Ox deposit."

"Wardrop determined that there were differences between the historical (pre-2007) and the recent (2007) drill hole assay populations."

Figure 14-2 shows the relative location of drill holes on the Ox Property.



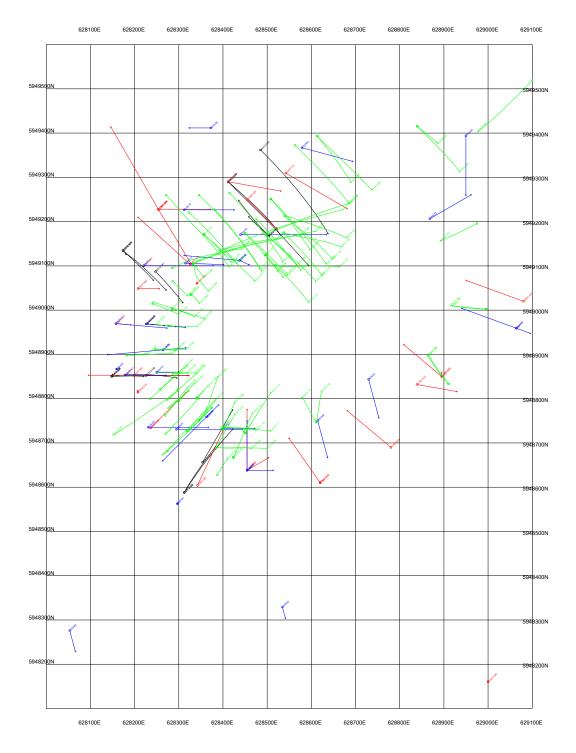


Figure 14-2: Ox Drill Hole plan with historic holes in blue (1968-1981), 2007 holes in red, 2012 holes in black and 2013 holes in green.



A comparison of the various drill campaigns was made in the 2012 report (McDowell and Giroux, Feb. 8, 2013). The comparison shows higher average grades and a different grade distribution for both Cu and Mo in the historic holes when compared to recent drilling. As a result the historic drill holes (1968 to 1981) were not used in this resource estimate.

A three dimensional geologic solid was constructed from the drill hole results guided by a 0.15 % Cu Equivalent grade and lithology. The geologic shell that wraps around a granodiorite porphyry intrusion is contained within a hornfelsed sedimentary rock (see Figure 14-3. The West Zone is highlighted in red and forms a contiguous body of mineralized rock. To the east a number of mineralized smaller bodies occur, but at this time these have not been included in the estimate, since it is highly unlikely that they could be mined given the current level of information.

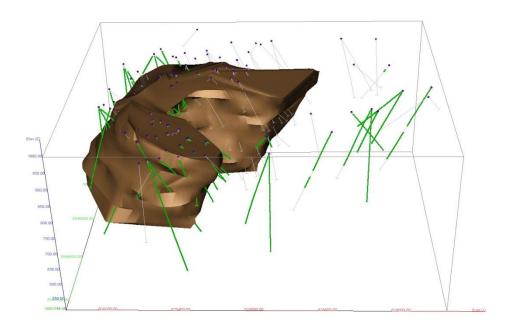


Figure 14-3: Isometric View looking N of the Geologic Solid that constrains the mineralization.

The drill holes were "passed through" the geologic solid and the assays were back tagged if within the mineralized zone. The simple statistics for assays inside the solid are compared to those outside in Table 14-8. Of the supplied drill holes, 108 intersected the mineralized solid. Appendix 2 lists all supplied drill holes with the holes used for the estimate highlighted.

When the drill holes were plotted with the 1m Lidar surface topography a number of hole collars plotted above the topographic surface. The topography was assumed to be more accurate so these holes were adjusted down to fit the topography.



Table 14-8: Assay Statistics for Inside and Outside Geologic Solid

| Variable   | Number     | Mean  | Standard  | Minimum | Maximum | Coefficient  |
|------------|------------|-------|-----------|---------|---------|--------------|
|            |            |       | Deviation | Value   | Value   | Of Variation |
| Mineralize | ed West So | olid  |           |         |         |              |
| Cu         | 7,699      | 0.18  | 0.16      | 0.0001  | 1.78    | 0.89         |
| Au         | 7,699      | 0.04  | 0.04      | 0.001   | 0.66    | 1.03         |
| Мо         | 7,699      | 0.024 | 0.023     | 0.0001  | 0.325   | 0.96         |
| Ag         | 7,699      | 1.45  | 6.26      | 0.01    | 370.00  | 4.31         |
| Waste      |            |       |           |         |         |              |
| Cu         | 2,541      | 0.05  | 0.06      | 0.0001  | 1.00    | 1.17         |
| Au         | 2,541      | 0.01  | 0.06      | 0.001   | 2.55    | 5.29         |
| Мо         | 2,541      | 0.004 | 0.007     | 0.0001  | 0.114   | 1.75         |
| Ag         | 2,541      | 0.76  | 3.23      | 0.10    | 91.70   | 4.24         |

Note: Holes east of coordinate 628800 E were ignored for this estimate

The grade distributions for each variable in each domain were examined using lognormal cumulative frequency plots to determine if capping was required. Two examples for Cu and Au are shown as Figures 14-4 and 14-5. In each case multiple overlapping lognormal populations were observed. In most cases, a threshold of 2 standard deviations above the mean of the second highest population was an effective cap level for each variable. The cap levels and number of samples capped are tabulated below.

Table 14-9: Capping Levels

| Table 14-9. Capping Levels |          |           |        |  |  |  |  |
|----------------------------|----------|-----------|--------|--|--|--|--|
| Domain                     | Variable | Cap Level | Number |  |  |  |  |
|                            |          |           | Capped |  |  |  |  |
| WEST                       | Cu       | 1.00 %    | 6      |  |  |  |  |
| Solid                      | Au       | 0.50 g/t  | 5      |  |  |  |  |
|                            | Мо       | 0.22 %    | 4      |  |  |  |  |
|                            | Ag       | 132.0 g/t | 3      |  |  |  |  |
| Waste                      | Cu       | 0.32 %    | 13     |  |  |  |  |
|                            | Au       | 0.27 g/t  | 6      |  |  |  |  |
|                            | Мо       | 0.04 %    | 14     |  |  |  |  |
|                            | Ag       | 25.0 g/t  | 7      |  |  |  |  |

Top capping resulted in slightly lower mean values and reductions in the coefficient of variation for all variables.



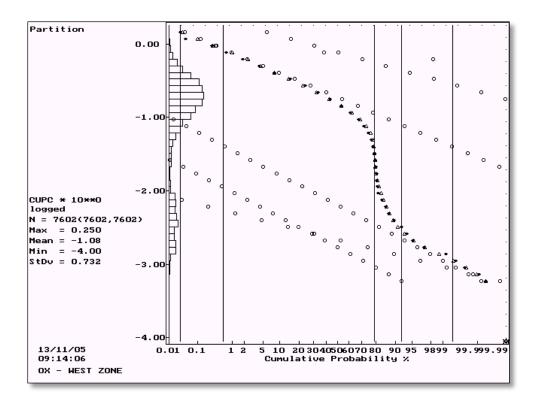


Figure 14-4: Lognormal Cumulative Frequency plot for Cu in West Zone

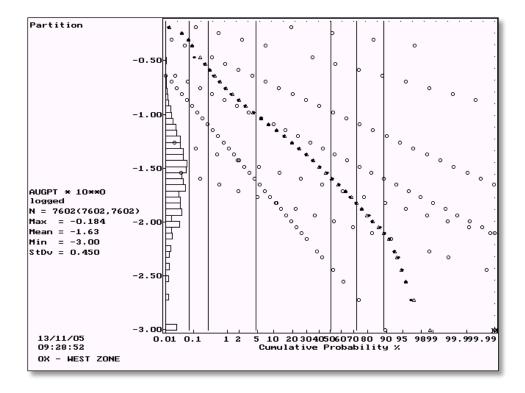


Figure 14-5: Lognormal Cumulative Frequency plot for Au in West Zone



Table 14-10: Capped Assay Statistics for Inside and Outside Geologic Solid

| Variable   | Number     | Mean  | Standard  | Minimum | Maximum | Coefficient  |
|------------|------------|-------|-----------|---------|---------|--------------|
|            |            |       | Deviation | Value   | Value   | Of Variation |
| Mineraliza | ed West So | olid  |           |         |         |              |
| Cu         | 7,699      | 0.18  | 0.16      | 0.0001  | 1.00    | 0.88         |
| Au         | 7,699      | 0.04  | 0.04      | 0.001   | 0.50    | 1.01         |
| Мо         | 7,699      | 0.024 | 0.023     | 0.0001  | 0.22    | 0.95         |
| Ag         | 7,699      | 1.40  | 3.86      | 0.01    | 132.00  | 2.76         |
| Waste      |            |       |           |         |         |              |
| Cu         | 2,541      | 0.05  | 0.05      | 0.0001  | 0.32    | 1.05         |
| Au         | 2,541      | 0.01  | 0.02      | 0.001   | 0.27    | 2.02         |
| Мо         | 2,541      | 0.004 | 0.006     | 0.0001  | 0.04    | 1.64         |
| Ag         | 2,541      | 0.68  | 1.64      | 0.10    | 25.0    | 2.41         |

# 14.2.1 Composites

Uniform 5 m down hole composites were formed, honouring the geologic solid boundaries. Small intervals at the solid boundaries were combined with an adjoining sample if less than 2.5 m. As a result a uniform support of  $5 \pm 2.5$  m was created. The statistics for 5 m composites are tabulated below. Holes in the area of the West Zone that didn't penetrate the solid were included as waste.

Table 14-11: 5 m Composite Statistics for Inside and Outside Geologic Solid

| Variable   | Number   | Mean  | Standard  | Minimum | Maximum | Coefficient  |
|------------|----------|-------|-----------|---------|---------|--------------|
|            |          |       | Deviation | Value   | Value   | Of Variation |
| Mineraliza | ed Solid |       |           |         |         |              |
| Cu         | 3,227    | 0.18  | 0.14      | 0.0001  | 0.87    | 0.80         |
| Au         | 3,227    | 0.04  | 0.03      | 0.001   | 0.31    | 0.83         |
| Мо         | 3,227    | 0.024 | 0.019     | 0.0001  | 0.15    | 0.79         |
| Ag         | 3,227    | 1.35  | 2.76      | 0.01    | 113.13  | 2.04         |
| Waste      |          |       |           |         |         |              |
| Cu         | 1,243    | 0.04  | 0.05      | 0.0001  | 0.32    | 1.06         |
| Au         | 1,243    | 0.01  | 0.01      | 0.001   | 0.22    | 1.58         |
| Мо         | 1,243    | 0.003 | 0.005     | 0.0001  | 0.040   | 1.47         |
| Ag         | 1,243    | 0.58  | 0.97      | 0.01    | 13.76   | 1.67         |

To test the correlation between the variables within the mineralized West Zone solid a Pearson Correlation was run on the log variables.

|    | Cu     | Au     | Мо     | Ag     |
|----|--------|--------|--------|--------|
| Cu | 1.0000 |        |        |        |
| Au | 0.3733 | 1.0000 |        |        |
| Мо | 0.3684 | 0.6842 | 1.0000 |        |
| Ag | 0.3274 | 0.6426 | 0.4514 | 1.0000 |



Copper is not very well correlated with any of the other variables while gold has a reasonable correlation with Mo and Ag.

# 14.2.2 Variography

Pairwise relative semivariograms were used to determine the grade continuity within both the mineralized solid and the surrounding waste. Each variable within the mineralized West zone was modeled first in the horizontal plane to determine the direction of maximum continuity and then in the vertical plane orthogonal to this direction. Nested spherical models were fit to all variables.

All variables in waste show isotropic structures.

The semivariogram parameters are listed below and the models are shown in Appendix 4.

Table 14-12: Semivariogram Parameters for OX

| Domain      | Variable | Azimuth/Dip      | Co   | C <sub>1</sub> | C <sub>2</sub> | Short Range (m) | Long Range (m) |
|-------------|----------|------------------|------|----------------|----------------|-----------------|----------------|
|             | Cu       | 060°/0°          |      |                |                | 18.0            | 240.0          |
|             | Cu       |                  |      |                |                |                 |                |
|             |          | 330° / -35°      | 0.10 | 0.56           | 0.15           | 30.0            | 90.0           |
|             |          | 150° / -55°      |      |                |                | 100.0           | 350.0          |
|             | Au       | 075° / 0°        |      |                |                | 20.0            | 110.0          |
|             |          | 345° / -55°      | 0.05 | 0.17           | 0.18           | 6.0             | 90.0           |
| Mineralized |          | 165° / -35°      |      |                |                | 6.0             | 40.0           |
| West Solid  | Мо       | 075° / 0°        |      |                |                | 40.0            | 160.0          |
|             |          | 345° / -55°      | 0.08 | 0.24           | 0.14           | 15.0            | 100.0          |
|             |          | 165° / -35°      |      |                |                | 8.0             | 30.0           |
|             | Ag       | 105° / 0°        |      |                |                | 30.0            | 170.0          |
|             |          | 015° / -75°      | 0.14 | 0.10           | 0.16           | 10.0            | 100.0          |
|             |          | 195° / -15°      |      |                |                | 8.0             | 40.0           |
| Waste       | Cu       | Omni Directional | 0.10 | 0.28           | 0.51           | 20.0            | 140.0          |
|             | Au       | Omni Directional | 0.18 | 0.25           | 0.25           | 25.0            | 140.0          |
|             | Мо       | Omni Directional | 0.18 | 0.28           | 0.44           | 22.0            | 140.0          |
|             | Ag       | Omni Directional | 0.10 | 0.08           | 0.28           | 10.0            | 140.0          |

Note: C<sub>0</sub> = Nugget Effect, C<sub>1</sub>=short range structure and C<sub>2</sub>= long range structure

### 14.2.3 Block Model

A block model with blocks  $10 \times 10 \times 5$  m in dimension was superimposed over the geologic solid with the percentage of each block below surface topography, below the bedrock surface and within the geologic solid recorded. The difference between the percentage below topography and the percentage below bedrock was assigned to overburden. The block model origin was as follows:



Lower Left Corner of Model

628000 E Column size = 10 m Number of columns = 80

5948600 N Row size = 10 m Number of rows = 72

Top of Model

1105 Elevation Level size = 5 m Number of levels = 104

No rotation

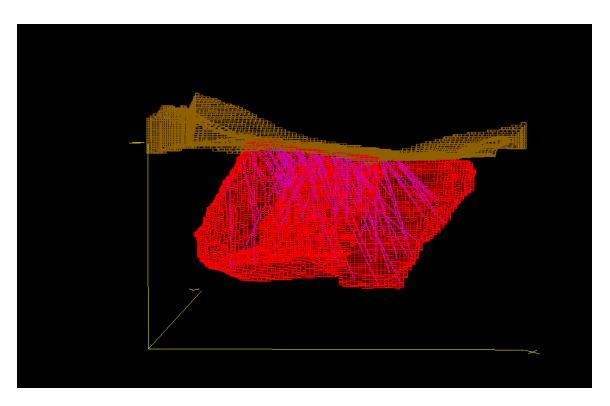


Figure 14-6: Isometric view looking N showing mineralized solid in red, overburden in brown and mineralized composites in magenta

## 14.2.4 Bulk Density

During the 2012 drill campaign a total of 235 specific gravity determinations were made from drill core using the weight in air / weight in water method. During the 2013 drill program an additional 819 measurements were made. The results are sorted by rock type below and show reasonably consistent values. For the resource estimate the average specific gravity of 2.69 was used to convert volume to tonnes. This compares with a value of 2.75 used in the previous 2012 resource estimate (McDowell and Giroux, Feb. 8, 2013). When determining the specific gravity of total blocks, a specific gravity of 1.60 was assumed for overburden.



Table 14-13: Specific Gravity Determinations for OX

| Rock Type                | Number | Minimum | Maximum | Average |
|--------------------------|--------|---------|---------|---------|
|                          |        | SG      | SG      | SG      |
| Coarse Ox Intrusives     | 141    | 2.55    | 2.79    | 2.66    |
| Mineralized Porphyry     | 152    | 2.53    | 2.90    | 2.65    |
| dykes and sills          |        |         |         |         |
| Mineralized Sedimentary  | 712    | 2.27    | 3.45    | 2.71    |
| Rocks                    |        |         |         |         |
| Post Mineral Mafic Dykes | 39     | 2.03    | 2.83    | 2.60    |
| Breccia                  | 10     | 2.55    | 2.72    | 2.65    |
|                          |        |         |         |         |
| TOTAL                    | 1,054  | 2.03    | 3.45    | 2.69    |

# 14.2.5 Grade Interpolation

Grades for Cu, Au, Mo and Ag were interpolated into blocks containing some percentage of mineralized solid by Ordinary Kriging. The kriging exercise was completed in a series of 4 passes with the search ellipse dimensions and orientation a function of the semivariogram for the variable being estimated. Pass 1 used search dimensions equal to ¼ of the semivariogram range and required a minimum of 4 composites to be found to estimate a block. For blocks not estimated in Pass 1 a second pass was completed using search ellipse dimensions equal to ½ the semivariogram range. A third pass using the full range and a fourth pass using twice the range completed the exercise. In all passes a maximum of 16 composites were allowed and if more than 16 were found the closest 16 were used. In all passes the maximum number of composites allowed from a single hole was set to 3 to force the estimate to use more than one drill hole. Due to the large ranges for Cu only three passes were required.

For estimated blocks that contained some percentage of material outside the mineralized solid, grades for the four variables were estimated by Ordinary Kriging in a similar manner using only composites outside the mineralized solid.

The weighted average grades for the total blocks were then determined using the following equation (shown for Cu as an example).

Total Cu = (% OVB \* 0.001) + (% MIN \* MIN\_CU) + (% WASTE \* WASTE\_CU)

#### **% BELOW TOPOGRAPHY**

The kriging parameters and number of blocks estimated in each pass are tabulated below.



**Table 14-14: Kriging Parameters for all variables** 

| Domain      | Variable | Number    | Az / Dip  | Distance | Az / Dip     | Distance | Az / Dip        | Distance |
|-------------|----------|-----------|-----------|----------|--------------|----------|-----------------|----------|
|             |          | Estimated |           | (m)      |              | (m)      |                 | (m)      |
|             |          | 48,018    | 60° / 0°  | 60.0     | 330° / -     | 22.5     | 150° / -        | 87.5     |
|             |          |           |           |          | 35°          |          | 55°             |          |
|             | Cu       | 20,908    | 60° / 0°  | 120.0    | 330° / -     | 45.0     | 150° / -        | 175.0    |
|             | Ou       |           |           |          | 35°          |          | 55°             |          |
|             |          | 4,890     | 60° / 0°  | 240.0    | 330° / -     | 90.0     | 150° / -        | 350.0    |
|             |          |           |           |          | 35°          |          | 55°             |          |
|             |          | 10,261    | 75° / 0°  | 27.5     | 345° / -     | 22.5     | 165° / -        | 10.0     |
|             |          |           |           |          | 55°          |          | 35°             |          |
|             |          | 31,078    | 75° / 0°  | 55.0     | 345° / -     | 45.0     | 165° / -        | 20.0     |
|             | Au       |           |           |          | 55°          |          | 35°             |          |
|             |          | 24,027    | 75° / 0°  | 110.0    | 345° / -     | 90.0     | 165° / -        | 40.0     |
|             |          |           |           |          | 55°          |          | 35°             |          |
|             |          | 8,450     | 75° / 0°  | 220.0    | 345° / -     | 180.0    | 165° / -        | 80.0     |
|             |          | 10.107    | 750 / 00  | 40.0     | 55°          | 05.0     | 35°             |          |
| Mineralized | Мо       | 16,487    | 75° / 0°  | 40.0     | 345° / -     | 25.0     | 165° / -        | 7.5      |
| West Solid  |          | 00.400    | 750 / 00  | 00.0     | 55°          | 50.0     | 35°             | 45.0     |
|             |          | 32,138    | 75° / 0°  | 80.0     | 345° / - 55° | 50.0     | 165° / -<br>35° | 15.0     |
|             |          | 10.015    | 75° / 0°  | 160.0    | 345° / -     | 100.0    | 165° / -        | 30.0     |
|             |          | 18,815    | 75° / 0°  | 160.0    | 55° / -      | 100.0    | 35°             | 30.0     |
|             |          | 6,376     | 75° / 0°  | 320.0    | 345° / -     | 200.0    | 165° / -        | 60.0     |
|             |          | 0,370     | 73.70     | 320.0    | 550          | 200.0    | 35°             | 00.0     |
|             |          | 13,113    | 105° /    | 42.5     | 15° / -75°   | 25.0     | 195° / -        | 10.0     |
|             |          | 10,110    | 0°        | 72.0     | 10 / 70      | 20.0     | 15°             | 10.0     |
|             |          | 32,922    | 105° /    | 85.0     | 15°/-75°     | 50.0     | 195° / -        | 20.0     |
|             |          | 02,022    | 0°        | 00.0     | 10 / 10      | 00.0     | 15°             | 20.0     |
|             | Ag       | 20,924    | 105° /    | 170.0    | 15°/-75°     | 100.0    | 195° / -        | 40.0     |
|             |          |           | 0°        |          |              |          | 15°             |          |
|             |          | 6,857     | 105° /    | 340.0    | 15°/-75°     | 200.0    | 195° / -        | 80.0     |
|             |          | ,         | 0°        |          |              |          | 15°             |          |
| Waste       | Cu, Au,  | 6,832     | Omni Dire | ectional | ı            | 35.0     |                 |          |
|             | Mo & Ag  | 7,688     | Omni Dire |          |              | 70.0     |                 |          |
|             |          | 4,305     | Omni Dire |          |              | 140.0    |                 |          |
|             |          | 85        | Omni Dire | ectional |              | 280.0    |                 |          |

# 14.3 Classification

Based on the study herein reported, delineated mineralization, at the Seel and Ox Deposits, is classified as a resource according to the following definitions from National Instrument 43-101 and from CIM (2005):



"In this Instrument, the terms "mineral resource", "inferred mineral resource", "indicated mineral resource" and "measured mineral resource" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as those definitions may be amended."

The terms Measured, Indicated and Inferred are defined by CIM (2005) as follows:

"A Mineral Resource is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge."

"The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socio-economic and governmental factors. The phrase 'reasonable prospects for economic extraction' implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. A Mineral Resource is an inventory of mineralization that under realistically assumed and justifiable technical and economic conditions might become economically extractable. These assumptions must be presented explicitly in both public and technical reports."

### Inferred Mineral Resource

"An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, workings and drill holes."

"Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies."



#### Indicated Mineral Resource

"An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed."

"Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Preliminary Feasibility Study which can serve as the basis for major development decisions."

### 14.3.1 Classification of Seel Resource

Within the Seel property surface mapping and drill hole interpretation is used to establish geologic continuity and the domain solids are based on this continuity. Grade continuity can be quantified by semivariogram analysis. By orienting the search ellipse in the directions of maximum continuity, as established by variography, the grade continuity can be utilized to classify the resource.

Within the more densely drilled Seel East and West domains blocks estimated in Pass 1 for <u>both</u> Cu and Au using 1/4 the range of the semivariogram were classified as Measured. Blocks estimated in Pass 2, for either Cu or Au, were classified as Indicated. All remaining blocks were classified as Inferred.

Within the Seel Breccia and NE domains, the drilling was not dense enough to classify any Indicated Resource. All blocks were classified as Inferred.

Do to the 4 elements of Cu, Mo, Au and Ag all contributing to the economic value of the deposit a Cu Equivalent value was calculated using the following assumptions. A three year trailing average for Cu, Au, Mo and Ag price would at present exceed the spot price due to a downturn in metal prices. A number near spot price was used for all variables at this time.



| Prices for metals |              | Recoveries | Unit Value     |
|-------------------|--------------|------------|----------------|
| Copper            | \$3.00 / lb  | 95 %       | 62.83 \$/%     |
| Gold              | \$1300 / oz  | 85 %       | 35.53 \$/(g/t) |
| Silver            | \$22.00 / oz | 86 %       | 0.61 \$/(g/t)  |
| Molybdenun        | n \$10 / lb  | 91.5 %     | 201.72 \$/%    |

CuEq = (Cu% \* 62.83) + (Au g/t \* 35.53) + (Ag g/t \* 0.61) + (Mo % \* 201.72)/62.83

While no economic analysis has been completed on this property and an economic cut-off at this time is unknown, a reasonable cut-off for an open pit operation might be  $0.2\,\%$  CuEq.

Tables 14-15 to 14-18 show the total resource within the Seel mineralized solids. No external edge dilution has been added and this assumes one could mine to the limits of the mineralized solid.

Table 14-15: Measured Resource Within the Seel Mineralized Solids

| Cut-off | Tonnes  | Grade     | Grade > Cut-off |        |          |          |  |  |
|---------|---------|-----------|-----------------|--------|----------|----------|--|--|
| (CUEQ)  | (x1000) | Cu<br>(%) | Au (g/t)        | Mo (%) | Ag (g/t) | CuEq (%) |  |  |
| 0.10    | 35,890  | 0.21      | 0.19            | 0.009  | 2.02     | 0.36     |  |  |
| 0.15    | 33,060  | 0.22      | 0.20            | 0.009  | 2.12     | 0.38     |  |  |
| 0.20    | 28,600  | 0.24      | 0.22            | 0.010  | 2.30     | 0.42     |  |  |
| 0.25    | 23,830  | 0.26      | 0.24            | 0.010  | 2.49     | 0.45     |  |  |
| 0.30    | 19,790  | 0.28      | 0.27            | 0.010  | 2.63     | 0.49     |  |  |
| 0.35    | 16,130  | 0.30      | 0.29            | 0.011  | 2.70     | 0.53     |  |  |
| 0.40    | 12,640  | 0.33      | 0.33            | 0.011  | 2.70     | 0.57     |  |  |
| 0.45    | 9,820   | 0.35      | 0.36            | 0.011  | 2.70     | 0.61     |  |  |
| 0.50    | 7,620   | 0.38      | 0.39            | 0.011  | 2.69     | 0.66     |  |  |
| 0.55    | 5,790   | 0.40      | 0.42            | 0.010  | 2.69     | 0.70     |  |  |



Table 14-16: Indicated Resource Within the Seel Mineralized Solids

|                   | Tonnes  | Grade     | rade > Cut-off |        |          |          |  |
|-------------------|---------|-----------|----------------|--------|----------|----------|--|
| Cut-off<br>(CUEQ) | (x1000) | Cu<br>(%) | Au (g/t)       | Mo (%) | Ag (g/t) | CuEq (%) |  |
| 0.10              | 126,400 | 0.17      | 0.13           | 0.016  | 2.18     | 0.31     |  |
| 0.15              | 117,710 | 0.18      | 0.13           | 0.017  | 2.28     | 0.32     |  |
| 0.20              | 98,600  | 0.19      | 0.14           | 0.018  | 2.53     | 0.35     |  |
| 0.25              | 77,250  | 0.21      | 0.15           | 0.020  | 2.82     | 0.39     |  |
| 0.30              | 56,300  | 0.23      | 0.17           | 0.023  | 3.09     | 0.43     |  |
| 0.35              | 39,930  | 0.25      | 0.19           | 0.026  | 3.25     | 0.48     |  |
| 0.40              | 27,780  | 0.27      | 0.22           | 0.029  | 3.35     | 0.52     |  |
| 0.45              | 19,470  | 0.29      | 0.25           | 0.033  | 3.40     | 0.57     |  |
| 0.50              | 13,500  | 0.31      | 0.27           | 0.036  | 3.45     | 0.61     |  |
| 0.55              | 9,000   | 0.32      | 0.30           | 0.039  | 3.55     | 0.65     |  |

Table 14-17: M + I Resource Within the Seel Mineralized Solids

| Cut-off | Tonnes   | Grade | > Cut-off |        |          |          |
|---------|----------|-------|-----------|--------|----------|----------|
|         | (x1000)  | Cu    |           |        |          |          |
| (00=4)  | (71.000) | (%)   | Au (g/t)  | Mo (%) | Ag (g/t) | CuEq (%) |
| 0.10    | 162,300  | 0.18  | 0.14      | 0.014  | 2.15     | 0.32     |
| 0.15    | 150,770  | 0.18  | 0.15      | 0.015  | 2.25     | 0.34     |
| 0.20    | 127,210  | 0.20  | 0.16      | 0.016  | 2.48     | 0.37     |
| 0.25    | 101,080  | 0.22  | 0.17      | 0.018  | 2.74     | 0.40     |
| 0.30    | 76,090   | 0.24  | 0.20      | 0.020  | 2.97     | 0.45     |
| 0.35    | 56,050   | 0.27  | 0.22      | 0.022  | 3.09     | 0.49     |
| 0.40    | 40,410   | 0.29  | 0.25      | 0.024  | 3.14     | 0.54     |
| 0.45    | 29,290   | 0.31  | 0.28      | 0.025  | 3.16     | 0.58     |
| 0.50    | 21,110   | 0.33  | 0.31      | 0.027  | 3.18     | 0.62     |
| 0.55    | 14,780   | 0.35  | 0.35      | 0.027  | 3.21     | 0.67     |



**Table 14-18: Inferred Resource Within the Seel Mineralized Solids** 

|                   | Tonnes  | Grade     | > Cut-off |        |          |          |  |
|-------------------|---------|-----------|-----------|--------|----------|----------|--|
| Cut-off<br>(CUEQ) | (x1000) | Cu<br>(%) | Au (g/t)  | Mo (%) | Ag (g/t) | CuEq (%) |  |
| 0.10              | 434,460 | 0.16      | 0.10      | 0.017  | 1.81     | 0.29     |  |
| 0.15              | 423,080 | 0.16      | 0.10      | 0.017  | 1.83     | 0.29     |  |
| 0.20              | 351,600 | 0.17      | 0.11      | 0.019  | 1.96     | 0.31     |  |
| 0.25              | 246,180 | 0.19      | 0.13      | 0.021  | 2.17     | 0.35     |  |
| 0.30              | 157,400 | 0.21      | 0.15      | 0.024  | 2.39     | 0.39     |  |
| 0.35              | 95,820  | 0.23      | 0.17      | 0.027  | 2.59     | 0.44     |  |
| 0.40              | 55,350  | 0.25      | 0.20      | 0.030  | 2.80     | 0.49     |  |
| 0.45              | 32,570  | 0.28      | 0.22      | 0.033  | 3.02     | 0.53     |  |
| 0.50              | 18,540  | 0.30      | 0.25      | 0.035  | 3.29     | 0.58     |  |
| 0.55              | 9,960   | 0.32      | 0.28      | 0.037  | 3.68     | 0.63     |  |

Tables 14-19 to 14-22 show the resource within the total blocks. The external edge dilution has been added and this assumes, due to equipment, one would mine the total  $10 \times 10 \times 5$  m blocks. Reality is somewhere between these two extremes as one could never mine to the extents of the mineralized solids and with decent grade control one should not take in this much external dilution.

Table 14-19: Measured Resource Within the Seel Total Blocks

| Cut-off  | Tonnes  | Grade | > Cut-off |        |          |          |  |  |
|----------|---------|-------|-----------|--------|----------|----------|--|--|
| (CUEQ)   | (x1000) | Cu    |           |        |          |          |  |  |
| (3 3 3.) | (       | (%)   | Au (g/t)  | Mo (%) | Ag (g/t) | CuEq (%) |  |  |
| 0.10     | 36,450  | 0.20  | 0.19      | 0.009  | 2.00     | 0.36     |  |  |
| 0.15     | 33,190  | 0.22  | 0.20      | 0.009  | 2.11     | 0.38     |  |  |
| 0.20     | 28,610  | 0.24  | 0.22      | 0.010  | 2.29     | 0.41     |  |  |
| 0.25     | 23,790  | 0.26  | 0.24      | 0.010  | 2.48     | 0.45     |  |  |
| 0.30     | 19,740  | 0.28  | 0.27      | 0.010  | 2.62     | 0.49     |  |  |
| 0.35     | 16,030  | 0.30  | 0.29      | 0.011  | 2.70     | 0.53     |  |  |
| 0.40     | 12,530  | 0.33  | 0.32      | 0.011  | 2.70     | 0.57     |  |  |
| 0.45     | 9,720   | 0.35  | 0.36      | 0.011  | 2.70     | 0.61     |  |  |
| 0.50     | 7,530   | 0.37  | 0.39      | 0.011  | 2.69     | 0.65     |  |  |
| 0.55     | 5,720   | 0.40  | 0.42      | 0.010  | 2.69     | 0.70     |  |  |



Table 14-20: Indicated Resource Within the Seel Total Blocks

|                   | Tonnes  | Grade     | e > Cut-off |        |          |          |  |  |
|-------------------|---------|-----------|-------------|--------|----------|----------|--|--|
| Cut-off<br>(CUEQ) | (x1000) | Cu<br>(%) | Au (g/t)    | Mo (%) | Ag (g/t) | CuEq (%) |  |  |
| 0.10              | 131,080 | 0.16      | 0.12        | 0.016  | 2.14     | 0.30     |  |  |
| 0.15              | 118,820 | 0.17      | 0.13        | 0.017  | 2.27     | 0.32     |  |  |
| 0.20              | 98,140  | 0.19      | 0.14        | 0.018  | 2.52     | 0.35     |  |  |
| 0.25              | 76,510  | 0.21      | 0.15        | 0.020  | 2.82     | 0.39     |  |  |
| 0.30              | 55,650  | 0.23      | 0.17        | 0.023  | 3.09     | 0.43     |  |  |
| 0.35              | 39,530  | 0.25      | 0.19        | 0.026  | 3.24     | 0.48     |  |  |
| 0.40              | 27,550  | 0.27      | 0.22        | 0.029  | 3.34     | 0.52     |  |  |
| 0.45              | 19,290  | 0.29      | 0.25        | 0.033  | 3.38     | 0.57     |  |  |
| 0.50              | 13,380  | 0.30      | 0.27        | 0.036  | 3.44     | 0.61     |  |  |
| 0.55              | 8,930   | 0.32      | 0.30        | 0.039  | 3.53     | 0.65     |  |  |

Table 14-21: M + I Resource Within the Seel Total Blocks

| Cut-off | Tonnes  | Grade     | > Cut-off |        |          |          |  |  |
|---------|---------|-----------|-----------|--------|----------|----------|--|--|
| (CUEQ)  | (x1000) | Cu<br>(%) | Au (g/t)  | Mo (%) | Ag (g/t) | CuEq (%) |  |  |
| 0.10    | 167,540 | 0.17      | 0.14      | 0.014  | 2.11     | 0.32     |  |  |
| 0.15    | 152,010 | 0.18      | 0.14      | 0.015  | 2.23     | 0.34     |  |  |
| 0.20    | 126,760 | 0.20      | 0.16      | 0.016  | 2.47     | 0.37     |  |  |
| 0.25    | 100,300 | 0.22      | 0.17      | 0.018  | 2.74     | 0.40     |  |  |
| 0.30    | 75,390  | 0.24      | 0.20      | 0.020  | 2.96     | 0.45     |  |  |
| 0.35    | 55,560  | 0.27      | 0.22      | 0.022  | 3.08     | 0.49     |  |  |
| 0.40    | 40,080  | 0.29      | 0.25      | 0.024  | 3.14     | 0.54     |  |  |
| 0.45    | 29,010  | 0.31      | 0.28      | 0.025  | 3.15     | 0.58     |  |  |
| 0.50    | 20,900  | 0.33      | 0.31      | 0.027  | 3.17     | 0.62     |  |  |
| 0.55    | 14,650  | 0.35      | 0.34      | 0.028  | 3.20     | 0.67     |  |  |



| I a     | Table 14-22: Interred Resource Within the Seel Total Blocks |       |           |         |          |          |  |  |
|---------|---|-------|-----------|---------|----------|----------|--|--|
|         | Tonnes  | Grade | > Cut-off | Cut-off |          |          |  |  |
| Cut-off | (x1000)   | Cu    |           |         |          |          |  |  |
| (CUEQ)  | (X1000)   | (%)   | Au (g/t)  | Mo (%)  | Ag (g/t) | CuEq (%) |  |  |
| 0.10    | 468,130   | 0.15  | 0.10      | 0.016   | 1.75     | 0.27     |  |  |
| 0.15    | 436,180   | 0.15  | 0.10      | 0.017   | 1.80     | 0.29     |  |  |
| 0.20    | 351,140   | 0.17  | 0.11      | 0.019   | 1.95     | 0.31     |  |  |
| 0.25    | 242,890   | 0.19  | 0.13      | 0.021   | 2.16     | 0.35     |  |  |
| 0.30    | 154,640   | 0.21  | 0.15      | 0.024   | 2.37     | 0.39     |  |  |
| 0.35    | 94,030  | 0.23  | 0.17      | 0.027   | 2.56     | 0.44     |  |  |
| 0.40    | 54,380  | 0.25  | 0.20      | 0.030   | 2.75     | 0.49     |  |  |
| 0.45    | 32,090  | 0.27  | 0.22      | 0.033   | 2.96     | 0.53     |  |  |
| 0.50    | 18,250  | 0.29  | 0.25      | 0.036   | 3.18     | 0.58     |  |  |
| 0.55    | 9.800   | 0.32  | 0.28      | 0.038   | 3 51     | 0.63     |  |  |

Table 14-22: Inferred Resource Within the Seel Total Blocks

### 14.3.2 Classification of Ox Resource

Within the Ox property surface mapping and drill hole interpretation is used to establish geologic continuity and the domain solids are based on this continuity. Grade continuity can be quantified by semivariogram analysis. By orienting the search ellipse in the directions of maximum continuity, as established by variography, the grade continuity can be utilized to classify the resource.

For this estimate the following classifications were established:

- Blocks estimate in Pass 1 using ¼ the semivariogram range for <u>both</u> Au and Cu were classified as Measured.
- Blocks estimated in Pass 2 for either Au or Cu were classified as Indicated.
- Blocks estimated in Pass 3 or 4 for either Au or Cu were classified as Inferred

Due to the 4 elements of Cu, Mo, Au and Ag all contributing to the economic value of the deposit a Cu Equivalent value was calculated using the following assumptions. A three year trailing average for Cu, Au, Mo and Ag price would at present exceed the spot price due to a downturn in metal prices. A number near spot price was used for all variables at this time. The recoveries were the average of samples (BF1 and BF2).

| Prices for metals |              | Recoveries | Unit Value     |
|-------------------|--------------|------------|----------------|
| Copper            | \$3.00 / lb  | 94.3 %     | 62.37 \$/%     |
| Gold              | \$1300 / oz  | 70.7 %     | 29.55 \$/(g/t) |
| Silver            | \$22.00 / oz | 84.1 %     | 0.59 \$/(g/t)  |
| Molybdenui        | m \$10 / lb  | 92.4%      | 203.71 \$/%    |

CuEq = (Cu% \* 62.37) + (Au g/t \* 29.55) + (Ag g/t \* 0.59) + (Mo % \* 203.71)/62.37



Tables 14-23 to 14-26 show the grade and tonnage estimated from within the mineralized solid. This resource assumes one could mine to the edge of the solid boundaries and includes no external dilution.

Tables 14-27 to 14-30 show the grade and tonnage estimated from within total 10 x 10 x 5 m blocks. This resource assumes one would mine total blocks and as a result includes the edge dilution around the mineralized solid.

In reality the results would lie somewhere between these two extremes. In all tables a CuEq cut-off of 0.20 % is highlighted as a possible open pit cut-off.

Table 14-23: OX Measured Resource within the Mineralized Solids

| Cut-off | Tonnes  | Grade > | > Cut-off |        |          |          |
|---------|---------|---------|-----------|--------|----------|----------|
| (CUEQ)  | (x1000) | Cu (%)  | Au (g/t)  | Mo (%) | Ag (g/t) | CuEq (%) |
| 0.10    | 12,880  | 0.19    | 0.04      | 0.027  | 1.52     | 0.31     |
| 0.15    | 12,140  | 0.20    | 0.04      | 0.028  | 1.57     | 0.32     |
| 0.20    | 10,790  | 0.21    | 0.04      | 0.029  | 1.64     | 0.34     |
| 0.25    | 8,670   | 0.23    | 0.04      | 0.030  | 1.76     | 0.37     |
| 0.30    | 6,330   | 0.26    | 0.05      | 0.033  | 1.94     | 0.41     |
| 0.35    | 4,470   | 0.28    | 0.05      | 0.035  | 2.09     | 0.44     |
| 0.40    | 2,920   | 0.31    | 0.06      | 0.037  | 2.24     | 0.48     |
| 0.45    | 1,620   | 0.34    | 0.06      | 0.039  | 2.43     | 0.52     |

Table 14-24: OX Indicated Resource within the Mineralized Solids

| Cut-off | Tonnes  |        | (        | Grade > Cu | ut-off   |          |
|---------|---------|--------|----------|------------|----------|----------|
| (CUEQ)  | (x1000) | Cu (%) | Au (g/t) | Mo (%)     | Ag (g/t) | CuEq (%) |
| 0.10    | 37,090  | 0.18   | 0.03     | 0.023      | 1.37     | 0.28     |
| 0.15    | 34,920  | 0.19   | 0.03     | 0.024      | 1.41     | 0.29     |
| 0.20    | 29,090  | 0.20   | 0.04     | 0.025      | 1.51     | 0.32     |
| 0.25    | 21,320  | 0.23   | 0.04     | 0.028      | 1.64     | 0.35     |
| 0.30    | 14,750  | 0.25   | 0.04     | 0.030      | 1.77     | 0.39     |
| 0.35    | 9,280   | 0.28   | 0.05     | 0.032      | 1.91     | 0.42     |
| 0.40    | 5,150   | 0.31   | 0.05     | 0.034      | 2.05     | 0.46     |
| 0.45    | 2,440   | 0.34   | 0.05     | 0.036      | 2.14     | 0.50     |



Table 14-25: OX M+I Resource within the Mineralized Solids

| Cut-off | Tonnes  |        | C        | Grade > Cu | ut-off   |          |  |  |  |
|---------|---------|--------|----------|------------|----------|----------|--|--|--|
| (CUEQ)  | (x1000) | Cu (%) | Au (g/t) | Mo (%)     | Ag (g/t) | CuEq (%) |  |  |  |
| 0.10    | 49,970  | 0.18   | 0.03     | 0.024      | 1.41     | 0.29     |  |  |  |
| 0.15    | 47,070  | 0.19   | 0.04     | 0.025      | 1.45     | 0.30     |  |  |  |
| 0.20    | 39,880  | 0.20   | 0.04     | 0.026      | 1.54     | 0.32     |  |  |  |
| 0.25    | 29,990  | 0.23   | 0.04     | 0.029      | 1.67     | 0.36     |  |  |  |
| 0.30    | 21,080  | 0.25   | 0.04     | 0.031      | 1.82     | 0.39     |  |  |  |
| 0.35    | 13,750  | 0.28   | 0.05     | 0.033      | 1.97     | 0.43     |  |  |  |
| 0.40    | 8,070   | 0.31   | 0.05     | 0.035      | 2.12     | 0.47     |  |  |  |
| 0.45    | 4,060   | 0.34   | 0.06     | 0.037      | 2.26     | 0.51     |  |  |  |

Table 14-26: OX Inferred Resource within the Mineralized Solids

| Cut-off | Tonnes  |        | C        | Grade > Cu | ut-off   |          |  |  |
|---------|---------|--------|----------|------------|----------|----------|--|--|
| (CUEQ)  | (x1000) | Cu (%) | Au (g/t) | Mo (%)     | Ag (g/t) | CuEq (%) |  |  |
| 0.10    | 31,050  | 0.14   | 0.03     | 0.017      | 1.32     | 0.22     |  |  |
| 0.15    | 26,240  | 0.15   | 0.03     | 0.018      | 1.33     | 0.24     |  |  |
| 0.20    | 17,410  | 0.17   | 0.03     | 0.021      | 1.37     | 0.27     |  |  |
| 0.25    | 9,280   | 0.20   | 0.03     | 0.024      | 1.45     | 0.31     |  |  |
| 0.30    | 4,280   | 0.23   | 0.04     | 0.027      | 1.59     | 0.35     |  |  |
| 0.35    | 1,670   | 0.26   | 0.04     | 0.029      | 1.73     | 0.39     |  |  |
| 0.40    | 480     | 0.29   | 0.04     | 0.033      | 1.89     | 0.44     |  |  |
| 0.45    | 160     | 0.33   | 0.04     | 0.034      | 2.01     | 0.48     |  |  |

Table 14-27: OX Measured Resource within the Total Blocks

| Cut-off | Tonnes<br>(x1000) | Grade > Cut-off |          |        |          |          |  |
|---------|-------------------|-----------------|----------|--------|----------|----------|--|
| (CUEQ)  |                   | Cu (%)          | Au (g/t) | Mo (%) | Ag (g/t) | CuEq (%) |  |
| 0.10    | 13,180            | 0.19            | 0.04     | 0.026  | 1.50     | 0.31     |  |
| 0.15    | 12,290            | 0.20            | 0.04     | 0.028  | 1.55     | 0.32     |  |
| 0.20    | 10,770            | 0.21            | 0.04     | 0.029  | 1.64     | 0.34     |  |
| 0.25    | 8,580             | 0.23            | 0.04     | 0.030  | 1.76     | 0.37     |  |
| 0.30    | 6,260             | 0.26            | 0.05     | 0.033  | 1.94     | 0.41     |  |
| 0.35    | 4,420             | 0.28            | 0.05     | 0.035  | 2.09     | 0.44     |  |
| 0.40    | 2,890             | 0.31            | 0.06     | 0.037  | 2.25     | 0.48     |  |
| 0.45    | 1,600             | 0.34            | 0.06     | 0.039  | 2.43     | 0.52     |  |



Table 14-28: OX Indicated Resource within the Total Blocks

| Cut-off     | Tonnes  | Grade > Cut-off |          |        |          |          |  |
|-------------|---------|-----------------|----------|--------|----------|----------|--|
| (CUEQ) (x10 | (x1000) | Cu (%)          | Au (g/t) | Mo (%) | Ag (g/t) | CuEq (%) |  |
| 0.10        | 39,110  | 0.17            | 0.03     | 0.022  | 1.33     | 0.27     |  |
| 0.15        | 35,440  | 0.18            | 0.03     | 0.023  | 1.39     | 0.29     |  |
| 0.20        | 28,760  | 0.20            | 0.04     | 0.025  | 1.49     | 0.31     |  |
| 0.25        | 20,820  | 0.22            | 0.04     | 0.028  | 1.62     | 0.35     |  |
| 0.30        | 14,230  | 0.25            | 0.04     | 0.030  | 1.75     | 0.38     |  |
| 0.35        | 8,850   | 0.28            | 0.05     | 0.032  | 1.89     | 0.42     |  |
| 0.40        | 4,840   | 0.31            | 0.05     | 0.034  | 2.02     | 0.46     |  |
| 0.45        | 2,270   | 0.34            | 0.05     | 0.036  | 2.10     | 0.50     |  |

Table 14-29: M+I RESOURCE WITHIN TOTAL BLOCKS

| Cut-off | Tonnes<br>(x1000) | Grade > Cut-off |          |        |          |          |  |
|---------|-------------------|-----------------|----------|--------|----------|----------|--|
| (CUEQ)  |                   | Cu (%)          | Au (g/t) | Mo (%) | Ag (g/t) | CuEq (%) |  |
| 0.10    | 52,290            | 0.18            | 0.03     | 0.023  | 1.37     | 0.28     |  |
| 0.15    | 47,720            | 0.19            | 0.04     | 0.024  | 1.43     | 0.30     |  |
| 0.20    | 39,530            | 0.20            | 0.04     | 0.026  | 1.53     | 0.32     |  |
| 0.25    | 29,410            | 0.23            | 0.04     | 0.029  | 1.66     | 0.36     |  |
| 0.30    | 20,490            | 0.25            | 0.04     | 0.031  | 1.81     | 0.39     |  |
| 0.35    | 13,260            | 0.28            | 0.05     | 0.033  | 1.95     | 0.43     |  |
| 0.40    | 7,740             | 0.31            | 0.05     | 0.035  | 2.11     | 0.47     |  |
| 0.45    | 3,880             | 0.34            | 0.06     | 0.037  | 2.24     | 0.51     |  |

Table 14-30: INFERRED RESOURCE WITHIN TOTAL BLOCKS

| Cut-off | Tonnes  | Grade > Cut-off |          |        |          |          |  |
|---------|---------|-----------------|----------|--------|----------|----------|--|
| (CUEQ)  | (x1000) | Cu (%)          | Au (g/t) | Mo (%) | Ag (g/t) | CuEq (%) |  |
| 0.10    | 35,640  | 0.13            | 0.02     | 0.016  | 1.22     | 0.20     |  |
| 0.15    | 26,640  | 0.15            | 0.03     | 0.018  | 1.29     | 0.23     |  |
| 0.20    | 16,360  | 0.17            | 0.03     | 0.020  | 1.36     | 0.27     |  |
| 0.25    | 8,470   | 0.20            | 0.03     | 0.023  | 1.43     | 0.31     |  |
| 0.30    | 3,750   | 0.23            | 0.04     | 0.027  | 1.58     | 0.35     |  |
| 0.35    | 1,370   | 0.26            | 0.04     | 0.029  | 1.72     | 0.39     |  |
| 0.40    | 380     | 0.30            | 0.04     | 0.033  | 1.87     | 0.44     |  |
| 0.45    | 130     | 0.33            | 0.04     | 0.034  | 2.03     | 0.48     |  |



### 14.4 Discussion of Results

## 14.4.1 - Ox Estimate

- 2013 drill holes increased the number within the mineralized solid from 30 to 108
- 2013 drill results increased the number of assays within the mineralized solid from 1,371 to 7,602
- The mineralized solid at OX increased 44% in volume, from 22,349,058 m³ to 32.107.234 m³
- The average grade of copper assays within this solid decreased from 0.20 % to 0.18% while the average grade of gold increased from 0.03 to 0.04 g/t.
   Molybdenum increased from 0.023 to 0.024% and the average grade for silver increased from 1.46 to 1.69 g/t.
- The increase in drill density has resulted in an increase in confidence. The entire resource was classified as Inferred in 2012 while in 2013 the resource contained 39.60 million tonnes classed as measured plus indicated at a 0.20 % CuEq cutoff.
- The additional 819 specific gravity measurements completed in 2013 have resulted in dropping the deposit average SG 2 % from 2.75 to 2.69. This in turn results in a 2% drop in tonnage and 2% drop in contained metal.

### 14.4.2 - Seel Estimate

- Drilling in 2013 has increased the number of holes within the mineralized solids from 110 to the 160 used for this estimate.
- With the additional drilling and a new geologic interpretation the volume within the mineralized solids decreased from 233,589,000 m³ to 229,456,000 m³.
- The number of assays within the mineralized solid increased from 18,188 in 2013 to 23,827 in this 2014 estimate.
- Based on the additional assays the average raw grades in the various zones changed as tabulated below. Of note from this table the additional drilling and changes in the geologic model for the East zone increased the average grade for Cu, Au and Ag while slightly dropping the average grade for Mo. Within the West zone the additional drilling has slightly increased the grade of all variables. Within the Breccia zone there was no new drilling but slight changes to the geologic model resulted in fewer assays within the solid and a slight increase in Cu and Ag grades. Finally in the NE zone the additional assays resulted in a slight drop in Cu and Ag grades.



Table 14-31: Average Grades for raw assays sorted by Domain

| DOMAIN  | ELEMENT  | 2013 Num  | of Assays | 2014 Num. of Assays |       |  |  |
|---------|----------|-----------|-----------|---------------------|-------|--|--|
|         |          | & average | grade     | & average grade     |       |  |  |
|         | Cu (%)   | 4,226     | 0.19      | 8,490               | 0.20  |  |  |
| East    | Au (g/t) | 4,226     | 0.18      | 8,490               | 0.20  |  |  |
| Lasi    | Mo (%)   | 4,226     | 0.007     | 8,490               | 0.005 |  |  |
|         | Ag (g/t) | 4,226     | 1.16      | 8,490               | 1.27  |  |  |
|         | Cu (%)   | 13,645    | 0.17      | 14,980              | 0.18  |  |  |
| West    | Au (g/t) | 13,645    | 0.12      | 14,980              | 0.13  |  |  |
| vvest   | Mo (%)   | 13,645    | 0.018     | 14,980              | 0.019 |  |  |
|         | Ag (g/t) | 13,645    | 2.35      | 14,980              | 2.60  |  |  |
|         | Cu (%)   | 245       | 0.48      | 221                 | 0.50  |  |  |
|         | Au (g/t) | 245       | 0.06      | 221                 | 0.06  |  |  |
| Breccia | Mo (%)   | 245       | 0.001     | 221                 | 0.001 |  |  |
|         |          |           |           |                     |       |  |  |
|         | Ag (g/t) | 245       | 13.42     | 221                 | 13.56 |  |  |
|         | Cu (%)   | 72        | 0.15      | 156                 | 0.14  |  |  |
| NE      | Au (g/t) | 72        | 0.11      | 156                 | 0.11  |  |  |
|         | Mo (%)   | 72        | 0.005     | 156                 | 0.005 |  |  |
|         | Ag (g/t) | 72        | 0.57      | 156                 | 0.56  |  |  |

- For the 2013 estimate average specific gravities of 2.75 for the East and NE Zones, 2.73 for the West zone and 3.03 for the Breccia zone were used to convert volume to tonnage. In the 2014 estimate there were sufficient specific gravity determinations to estimate SG into every block using Inverse Distance Squared interpolation. This resulted in estimated average specific gravities of 2.73 in the East zone, 2.72 in the West zone, 2.83 in the Breccia zone and 2.75 in the NE zone.
- The increase in drill density from 2013 drill holes has increased the confidence in the resource estimate for 2014 and established a measured resource within both the East and West Zones. In the 2013 estimate there was no measured resource classified.



The resource is subdivided by domain in Table 14-32.

Table 14-32: SUMMARY OF RESOURCE FOR ALL DOMAINS

| Domain       | Class     | Cut-off<br>(CUEQ) | Tonnes<br>(x1000) | Grade > Cut-off |          |        |          |          |  |
|--------------|-----------|-------------------|-------------------|-----------------|----------|--------|----------|----------|--|
|              |           |                   |                   | Cu (%)          | Au (g/t) | Mo (%) | Ag (g/t) | CuEq (%) |  |
| East Seel    | Measured  | 0.20              | 18,360            | 0.25            | 0.26     | 0.004  | 1.45     | 0.42     |  |
| West Seel    | Measured  | 0.20              | 10,260            | 0.21            | 0.15     | 0.021  | 3.81     | 0.40     |  |
| Ox           | Measured  | 0.20              | 10,790            | 0.21            | 0.04     | 0.029  | 1.64     | 0.34     |  |
| Total        | Measured  | 0.20              | 39,410            | 0.23            | 0.17     | 0.015  | 2.12     | 0.39     |  |
| East Seel    | Indicated | 0.20              | 20,190            | 0.16            | 0.15     | 0.009  | 1.40     | 0.29     |  |
| West Seel    | Indicated | 0.20              | 78,410            | 0.20            | 0.14     | 0.021  | 2.82     | 0.37     |  |
| Ox           | Indicated | 0.20              | 29,090            | 0.20            | 0.04     | 0.025  | 1.51     | 0.32     |  |
| Total        | Indicated | 0.20              | 127,690           | 0.19            | 0.12     | 0.020  | 2.30     | 0.35     |  |
| East Seel    | Inferred  | 0.20              | 37,680            | 0.12            | 0.10     | 0.016  | 0.82     | 0.24     |  |
| West Seel    | Inferred  | 0.20              | 312,170           | 0.17            | 0.11     | 0.019  | 2.06     | 0.32     |  |
| Seel Breccia | Inferred  | 0.20              | 1,110             | 0.42            | 0.06     | 0.001  | 12.59    | 0.58     |  |
| Seel NE      | Inferred  | 0.20              | 650               | 0.18            | 0.12     | 0.004  | 0.63     | 0.27     |  |
| Ox           | Inferred  | 0.20              | 17,410            | 0.17            | 0.03     | 0.021  | 1.37     | 0.27     |  |
| Total        | Inferred  | 0.20              | 369,020           | 0.17            | 0.11     | 0.019  | 1.93     | 0.31     |  |

<sup>\*</sup> Note – Differences in totals from earlier tables result from rounding.

### 14.5 Block Model Verification

Level plans for the Seel Deposit were produced showing estimated copper equivalent grades with composite grades from 10 m above and below block. These plots were examined and no bias was observed in the estimation. Six plots for levels 950, 900, 800, 700, 600 and 500 at Seel and five for levels 900, 880, 860, 840 and 820 at Ox can be viewed in Appendix 5.

# 14.6 Constraining Pits

For each of the Ox and Seel deposits, Gold Reach requested Moose Mountain Technical Services to produce conceptual open pits that could constrain the estimated resource. The reader is cautioned that no economic studies have been completed at this time and these pits make a number of key assumptions.

## 14.6.1 Ox Conceptual Pit

Moose Mountain Technical Services of Cranbrook, BC, provided engineering and open pit constraints for the Ox resource under the supervision of Independent Qualified Person Tracey Meintjes, P.Eng. The constrained measured, indicated and inferred Ox mineral resource estimates are contained within a single resource-limiting open-pit shell that is up to 900 metres long by up to 600 metres wide, and extends to up to 250 metres deep.

Parameters used to establish the Ox resource constraining pit are: Maximum pit slope of 50 degrees, process recoveries of 90% for copper, 80% for molybdenum, and 75% for



gold and silver, mining costs of \$2.20 per tonne and processing costs of \$10 per tonne. Metal prices for the limiting pit were set at \$4.50 lb. Cu, \$20 lb. Mo, \$1600 oz Au, \$30 oz Ag.

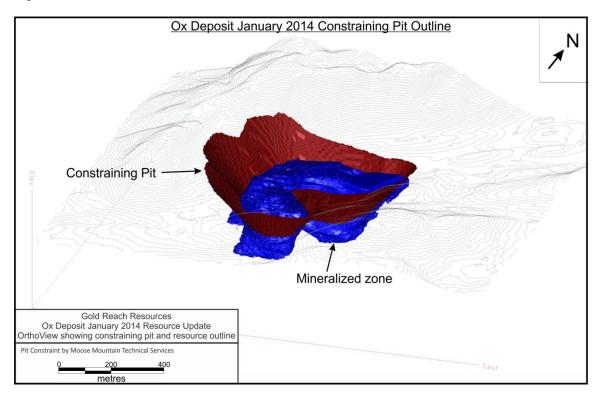


Figure 14-7: Orthogonal view showing constrained pit and resource outline



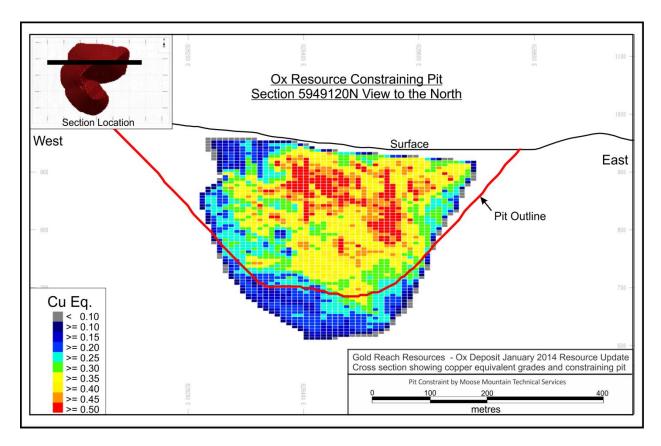


Figure 14-8: Section 5949120 N showing Ox Conceptual Pit outline and resource blocks

At a 0.2% copper equivalent cut-off 95.2 % of the estimated M+I Resource is contained inside the conceptual pit. Tables 14-33 to 14-36 report the resource, for the various categories contained within the conceptual pit.

Table 14-33: OX - Measured Resource within the Conceptual Pit

| Cut-off | Tonnes  | Grade > | > Cut-off |        |          |          |
|---------|---------|---------|-----------|--------|----------|----------|
| (CUEQ)  | (x1000) | Cu (%)  | Au (g/t)  | Mo (%) | Ag (g/t) | CuEq (%) |
| 0.05    | 13,100  | 0.19    | 0.04      | 0.026  | 1.49     | 0.30     |
| 0.10    | 12,760  | 0.19    | 0.04      | 0.027  | 1.52     | 0.31     |
| 0.15    | 12,000  | 0.20    | 0.04      | 0.028  | 1.56     | 0.32     |
| 0.20    | 10,560  | 0.21    | 0.04      | 0.029  | 1.64     | 0.34     |
| 0.25    | 8,470   | 0.23    | 0.04      | 0.031  | 1.77     | 0.37     |
| 0.30    | 6,220   | 0.26    | 0.05      | 0.033  | 1.94     | 0.41     |
| 0.35    | 4,400   | 0.28    | 0.05      | 0.035  | 2.09     | 0.44     |
| 0.40    | 2,890   | 0.31    | 0.06      | 0.037  | 2.25     | 0.48     |
| 0.45    | 1,600   | 0.34    | 0.06      | 0.039  | 2.43     | 0.52     |
| 0.50    | 820     | 0.37    | 0.07      | 0.041  | 2.51     | 0.56     |



Table 14-34: OX - Indicated Resource within the Conceptual Pit

| Cut-off | Tonnes  | Grade > | > Cut-off |        |          |          |
|---------|---------|---------|-----------|--------|----------|----------|
| (CUEQ)  | (x1000) | Cu (%)  | Au (g/t)  | Mo (%) | Ag (g/t) | CuEq (%) |
| 0.05    | 36,660  | 0.17    | 0.03      | 0.022  | 1.32     | 0.27     |
| 0.10    | 35,380  | 0.18    | 0.03      | 0.023  | 1.34     | 0.28     |
| 0.15    | 32,640  | 0.19    | 0.03      | 0.024  | 1.39     | 0.29     |
| 0.20    | 27,070  | 0.20    | 0.04      | 0.026  | 1.49     | 0.32     |
| 0.25    | 20,160  | 0.23    | 0.04      | 0.028  | 1.61     | 0.35     |
| 0.30    | 14,010  | 0.25    | 0.04      | 0.030  | 1.74     | 0.38     |
| 0.35    | 8,760   | 0.28    | 0.05      | 0.032  | 1.88     | 0.42     |
| 0.40    | 4,820   | 0.31    | 0.05      | 0.034  | 2.02     | 0.46     |
| 0.45    | 2,270   | 0.34    | 0.05      | 0.036  | 2.10     | 0.50     |
| 0.50    | 950     | 0.38    | 0.06      | 0.036  | 2.21     | 0.54     |

Table 14-35: OX - Inferred Resource within the Conceptual Pit

|         | Table 14 co. cx microa Recourse maint the conceptant it |        |                 |        |          |          |  |
|---------|---|--------|-----------------|--------|----------|----------|--|
| Cut-off | Tonnes  |        | Grade > Cut-off |        |          |          |  |
| (CUEQ)  | (x1000)   | Cu (%) | Au (g/t)        | Mo (%) | Ag (g/t) | CuEq (%) |  |
| 0.05    | 19,050  | 0.15   | 0.02            | 0.018  | 1.16     | 0.23     |  |
| 0.10    | 17,780  | 0.16   | 0.03            | 0.018  | 1.20     | 0.24     |  |
| 0.15    | 15,720  | 0.17   | 0.03            | 0.020  | 1.25     | 0.25     |  |
| 0.20    | 12,180  | 0.18   | 0.03            | 0.021  | 1.31     | 0.28     |  |
| 0.25    | 7,690   | 0.20   | 0.03            | 0.024  | 1.41     | 0.31     |  |
| 0.30    | 3,570   | 0.23   | 0.04            | 0.027  | 1.55     | 0.35     |  |
| 0.35    | 1,300   | 0.26   | 0.04            | 0.030  | 1.69     | 0.39     |  |
| 0.40    | 370   | 0.30   | 0.04            | 0.033  | 1.86     | 0.44     |  |
| 0.45    | 130   | 0.33   | 0.04            | 0.034  | 2.03     | 0.48     |  |
| 0.50    | 20  | 0.40   | 0.04            | 0.027  | 2.11     | 0.53     |  |

Table 14-36: OX - M + I Resource within the Conceptual Pit

| Cut-off | Tonnes  | Grade > | Cut-off  |        | •        |          |
|---------|---------|---------|----------|--------|----------|----------|
| (CUEQ)  | (x1000) | Cu (%)  | Au (g/t) | Mo (%) | Ag (g/t) | CuEq (%) |
| 0.05    | 49,760  | 0.18    | 0.03     | 0.023  | 1.36     | 0.28     |
| 0.10    | 48,140  | 0.18    | 0.04     | 0.024  | 1.39     | 0.29     |
| 0.15    | 44,640  | 0.19    | 0.04     | 0.025  | 1.44     | 0.30     |
| 0.20    | 37,620  | 0.21    | 0.04     | 0.027  | 1.53     | 0.33     |
| 0.25    | 28,630  | 0.23    | 0.04     | 0.029  | 1.66     | 0.36     |
| 0.30    | 20,230  | 0.25    | 0.04     | 0.031  | 1.80     | 0.39     |
| 0.35    | 13,160  | 0.28    | 0.05     | 0.033  | 1.95     | 0.43     |
| 0.40    | 7,710   | 0.31    | 0.05     | 0.035  | 2.10     | 0.47     |
| 0.45    | 3,870   | 0.34    | 0.06     | 0.037  | 2.24     | 0.51     |
| 0.50    | 1,770   | 0.37    | 0.06     | 0.038  | 2.35     | 0.55     |



#### 14.6.2 Seel Conceptual Pit

Moose Mountain Technical Services of Cranbrook, BC, provided engineering and open pit constraints for the Seel resource under the supervision of Independent Qualified Person Tracey Meintjes, P.Eng. The constrained measured, indicated and inferred Seel mineral resource estimates are contained within a single resource-limiting open-pit shell that is up to 1600 metres long by up to 1000 metres wide, and extends to up to 400 metres deep.

Parameters used to establish the Seel resource constraining pit are: Maximum pit slope of 50 degrees, process recoveries of 95% for copper, 91.5% for molybdenum, 85% for gold and 86% for silver, mining costs of \$2.20 per tonne and processing costs of \$10 per tonne. Metal prices for the limiting pit were set at \$4.50 lb. Cu, \$20 lb. Mo, \$1600 oz Au, \$30 oz Ag.

Tables 14-37 to 14-40 report the resource contained within the Seel Conceptual Pit. Of the resource reported in Total Blocks at a 0.20 % Cu Eq cut-off, 92 % of the M + I is within the conceptual pit.

Figure 14-20 shows the conceptual pit in light blue with the 0.1% Cu grade shell in dark blue. While it appears from the cross section that a significant portion of mineralization exists under the pit this is not the case. Figure 14-21 shows the conceptual pit in magenta with cross sections from the block model colour coded by NSR\$/t and the material below the pit is actually marginal grade blocks mainly classified as Inferred.

Table 14-37: Measured Resource Within the Conceptual Pit

| Cut-off | Tonnes  | Grade > Cut-off |          |        |          |          |  |
|---------|---------|-----------------|----------|--------|----------|----------|--|
| (CUEQ)  | (x1000) | Cu              |          |        |          |          |  |
| (0024)  | (X1000) | (%)             | Au (g/t) | Mo (%) | Ag (g/t) | CuEq (%) |  |
| 0.10    | 34,450  | 0.21            | 0.19     | 0.009  | 2.02     | 0.37     |  |
| 0.15    | 31,750  | 0.22            | 0.21     | 0.010  | 2.13     | 0.39     |  |
| 0.20    | 27,820  | 0.24            | 0.22     | 0.010  | 2.29     | 0.42     |  |
| 0.25    | 23,420  | 0.26            | 0.24     | 0.010  | 2.47     | 0.46     |  |
| 0.30    | 19,530  | 0.28            | 0.27     | 0.011  | 2.62     | 0.49     |  |
| 0.35    | 15,930  | 0.30            | 0.29     | 0.011  | 2.69     | 0.53     |  |
| 0.40    | 12,490  | 0.33            | 0.33     | 0.011  | 2.69     | 0.57     |  |
| 0.45    | 9,710   | 0.35            | 0.36     | 0.011  | 2.70     | 0.61     |  |
| 0.50    | 7,520   | 0.37            | 0.39     | 0.011  | 2.69     | 0.65     |  |



Table 14-38: Indicated Resource Within the Conceptual Pit

|         | Tonnes  | Grade | Grade > Cut-off |        |          |          |  |  |
|---------|---------|-------|-----------------|--------|----------|----------|--|--|
| Cut-off | (x1000) | Cu    |                 |        |          |          |  |  |
| (CUEQ)  | (X1000) | (%)   | Au (g/t)        | Mo (%) | Ag (g/t) | CuEq (%) |  |  |
| 0.10    | 113,090 | 0.17  | 0.13            | 0.017  | 2.29     | 0.32     |  |  |
| 0.15    | 103,890 | 0.18  | 0.13            | 0.018  | 2.41     | 0.34     |  |  |
| 0.20    | 88,520  | 0.20  | 0.14            | 0.019  | 2.65     | 0.36     |  |  |
| 0.25    | 71,940  | 0.21  | 0.15            | 0.021  | 2.90     | 0.39     |  |  |
| 0.30    | 54,130  | 0.23  | 0.17            | 0.023  | 3.12     | 0.43     |  |  |
| 0.35    | 39,010  | 0.25  | 0.19            | 0.026  | 3.26     | 0.48     |  |  |
| 0.40    | 27,280  | 0.27  | 0.22            | 0.030  | 3.35     | 0.52     |  |  |
| 0.45    | 19,130  | 0.29  | 0.24            | 0.033  | 3.39     | 0.56     |  |  |
| 0.50    | 13,260  | 0.31  | 0.27            | 0.036  | 3.45     | 0.61     |  |  |

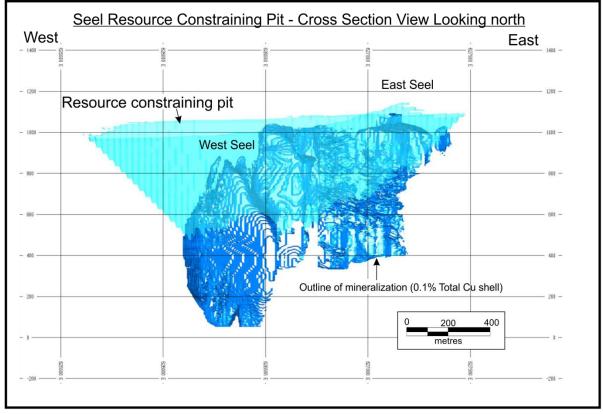
Table 14-39: M + I Resource Within the Conceptual Pit

| Cut-off | Tonnes  | Grade > Cut-off |          |        |          |          |  |
|---------|---------|-----------------|----------|--------|----------|----------|--|
| (CUEQ)  | (x1000) | Cu              |          |        |          |          |  |
| (0024)  | (X1000) | (%)             | Au (g/t) | Mo (%) | Ag (g/t) | CuEq (%) |  |
| 0.10    | 147,530 | 0.18            | 0.14     | 0.015  | 2.23     | 0.33     |  |
| 0.15    | 135,640 | 0.19            | 0.15     | 0.016  | 2.35     | 0.35     |  |
| 0.20    | 116,340 | 0.21            | 0.16     | 0.017  | 2.56     | 0.38     |  |
| 0.25    | 95,360  | 0.22            | 0.18     | 0.018  | 2.80     | 0.41     |  |
| 0.30    | 73,670  | 0.25            | 0.20     | 0.020  | 2.99     | 0.45     |  |
| 0.35    | 54,940  | 0.27            | 0.22     | 0.022  | 3.10     | 0.49     |  |
| 0.40    | 39,780  | 0.29            | 0.25     | 0.024  | 3.14     | 0.54     |  |
| 0.45    | 28,830  | 0.31            | 0.28     | 0.025  | 3.16     | 0.58     |  |
| 0.50    | 20,790  | 0.33            | 0.31     | 0.027  | 3.18     | 0.62     |  |

Table 14-40: Inferred Resource Within the Conceptual Pit

|                   | Tonnes  | Grade :   | Grade > Cut-off |        |          |          |  |
|-------------------|---------|-----------|-----------------|--------|----------|----------|--|
| Cut-off<br>(CUEQ) | (x1000) | Cu<br>(%) | Au (g/t)        | Mo (%) | Ag (g/t) | CuEq (%) |  |
| 0.10              | 257,830 | 0.17      | 0.11            | 0.019  | 2.11     | 0.31     |  |
| 0.15              | 244,350 | 0.17      | 0.12            | 0.019  | 2.17     | 0.32     |  |
| 0.20              | 211,390 | 0.18      | 0.12            | 0.021  | 2.29     | 0.34     |  |
| 0.25              | 169,290 | 0.20      | 0.14            | 0.022  | 2.42     | 0.37     |  |
| 0.30              | 126,680 | 0.22      | 0.15            | 0.025  | 2.51     | 0.40     |  |
| 0.35              | 85,090  | 0.24      | 0.17            | 0.028  | 2.63     | 0.44     |  |
| 0.40              | 51,640  | 0.26      | 0.19            | 0.031  | 2.80     | 0.49     |  |
| 0.45              | 31,080  | 0.28      | 0.21            | 0.033  | 2.99     | 0.53     |  |
| 0.50              | 17,860  | 0.30      | 0.24            | 0.036  | 3.21     | 0.58     |  |





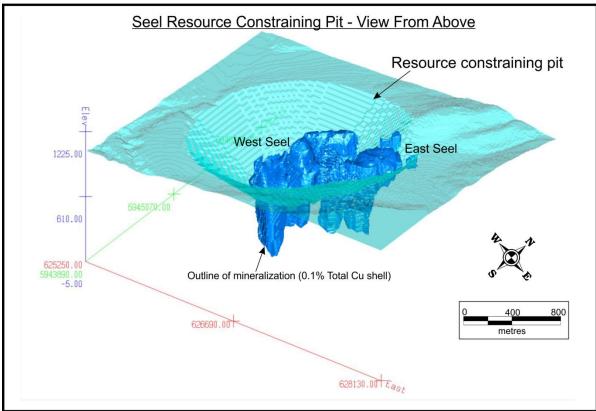


Figure 14-10: Cross section and plan showing Seel conceptual pit and resource outline



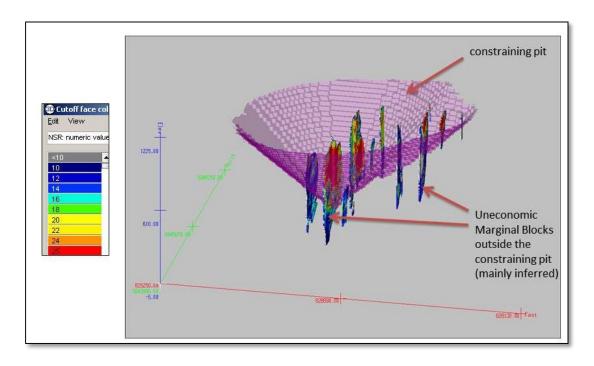


Figure 14-11: Resource Constraining Pit with NS Sections showing NSR\$/t (Moose Mt.)

#### 15.0 ADJACENT PROPERTIES

The Huckleberry Mine property is located adjacent to the Ootsa Property to the northwest. It is an open pit copper/molybdenum mine owned by Huckleberry Mines Ltd. of which Imperial Metals Corporation owns a 50% interest and a consortium of Japanese companies (Mitsubishi Materials Corporation, Marubeni Corporation, Furukawa Co. and Dowa Mining Co. Ltd.) own the remaining 50% interest. The mine produces copper and molybdenum, with accessory but lesser quantities of silver and gold from an open pit mine-mill complex. Production started in 1997 and was expected to produce 40 million pounds of copper in 2013.

The Main Zone Pit at Huckleberry currently contains a measured plus indicated mineral resource containing 180.7 million tonnes with grades of 0.315 % copper and 0.006% molybdenum, plus an inferred mineral resource of 48.0 million tonnes with grades of 0.263% copper and 0.003% molybdenum (Chrisensen et al., 2011). Within these resources Huckleberry Mines has defined a resource of 39.7 million tonnes at a grade of 0.343% copper and 0.009% molybdenum (using a 0.20% copper cutoff grade) that is contained with a pit shell known as the Main Zone Optimization (MZO) Pit. The MZO is



projected to extend the mine life from 2014 to 2021. (www.imperialmetals.com/s/HuckleberryMine.asp)

The Authors have not verified the mineral resources or reserves for the Huckleberry mine. The information is taken from a Technical Report by Christensen et al. (2011) and is stated here for reference only.

#### 16.0 Other Relevant Data and Information

The Authors are not aware of any environmental liabilities related to exploration activities on the Ootsa Property. Trenches and other surface disturbances do not appear to be acid generating and for the most part do not pose significant slope stability hazards. Most are dry, some are partially to completely filled with water and most have started to re-vegetate naturally. Similarly, roads, campsite and drillsites do not offer environmental risk.

The Ootsa property lies on Crown land, and the area is open to mineral exploration and development. The area of the claims lie within areas of interest asserted by the Cheslatta-Carrier or Carrier-Sekani, Wet'suwet'en, Skin Tyee, and Nee-Tahi-Buhn First Nations.

Prior to conducting an exploration program that will cause a physical disturbance, Gold Reach must first apply for and receive approval of a Notice of Work and Reclamation (NOW) as required by section 10 of the BC Mines Act. Gold Reach is operating its exploration activities under a 5-year Multi-year Area-based exploration approval (MYAB) for the Ootsa Property from the BC Ministry of Energy and Mines that is valid until March 31, 2016. The current MYAB enables the company to maintain and operate its on-site exploration camp, and allows for 7 more trenches, 35 additional drill hole sites, 20 kilometres more of excavated trails, and another 3.5 line kilometres of geophysical grids. Gold Reach may apply to amend the current MYAB in order to permit additional physical disturbance of approved type within the permit's 5-year time frame.

Gold Reach has posted a \$169,900 reclamation bond that is held in trust by the province of British Columbia to cover any future reclamation obligations. To date a limited amount of reclamation work has been completed on trenches, drill sites and access roads. This reclamation will be ongoing concurrent with exploration.

As part of Gold Reach's Cultural Resources Management program a preliminary field reconnaissance for assessment of Archaeological potential was completed on June 21, 2013. The visit was conducted by Frank Craig, a Registered Professional Consulting Archaeologist (RPCA) representing Archae CRM Partnership of Vanderhoof, BC. Mr. Craig was assisted by one member of the Cheslatta First Nation and one member from



the Office of the Wet'suwet'en, both of whom were working for contractors on the Ootsa Project. Three distinct areas within the Ootsa claim block were visited; the Ox deposit, the West Ox target and an area adjacent to the Seel deposit (Figure 9-7). The visit resulted in the issuance of a preliminary field report and subsequent Archaeological Overview Assessment (AOA), summarized details of which follow.

The Seel deposit was traversed via the road and deemed to have low archaeological potential throughout including at the constructed bridge crossing. No further work was recommended for this area.

The West Ox target was traversed and no landforms or areas containing archaeological potential were observed. It was noted that the West Ox target is located near the shore of Tahtsa Reach, a water reservoir, where changing water levels can affect the archaeological buffering zones. The zone contains mature pine trees that could contain historical markings, termed Culturally Modified Trees (CMTs). Three CMTs were identified and marked with yellow flagging, denoting a 10 metre no work clearance zone. The West Ox target was considered to represent low potential for other archaeological resources.

There were seven areas of archaeological potential (AOP) identified in the area surveyed near the Ox deposit. Each of the areas were marked with yellow flagging and surficial disturbance was avoided within the noted zones. If future exploration work is deemed necessary within any identified AOPs then further archaeological assessment work is recommended. The AOA notes that the measure of archaeological potential is relative and not absolute. Continued vigilance on the part of the operator and all contractors is required should any archaeological resource or heritage remains be identified.

### 17.0 Interpretation and Conclusions

The global Seel drill hole database contains 83,808.9 metres from 199 drill holes, including 73,547.7 metres from 152 holes that were drilled since 2007 under the supervision of Gold Reach Resources. The current Seel resource was derived from 74,786.5 metres from 161 holes.

The global Ox drill hole database contains 33,607.6 metres from 171 drill holes, which includes 28,361 metres from the 134 holes drilled since 2007 under the supervision of Gold Reach. The current resource was based on 22,123 metres from 108 holes, of which the great majority have been completed in 2012 and 2013.

In both deposits, geologic continuity of the mineralized zones was established based on geological characteristics, alteration patterns, and metal grades, and these parameters



formed the basis for modeling. Geologic modeling was done using GemCom software. Uniform down hole 5 m composites were formed from the drill data and a block model with blocks measuring 10 x 10 x 5 m were superimposed over all of the mineralized solids. Grades for Cu, Au, Mo and Ag were interpolated into each block by Ordinary Kriging. Due to the polymetallic nature of the two deposits, copper equivalent values were used for modeling. Copper equivalents were calculated using near spot prices for metals as the 3 year trailing averages are above current prices.

Preliminary metallurgical testing was completed on a 226kg sample from the Ootsa Property in June 2009. The testing was performed by PRA Metallurgical Division, a subsidiary of Inspectorate America Corp. Results from this round of testing indicate expected recoveries of 93 to 99.6% for Cu, 74 to 89% for Au, 74 to 94% for Ag, and around 87% for Mo. A metallurgical specific hole was drilled into the core of the East Seel domain of the Seel deposit in June 2012 and sent for testing. Initial-stage metallurgical testing was completed in April 2013 on three composite samples totalling 406 kg by Inspectorate Exploration and Mining Services Ltd. located in Richmond, British Columbia. Two variants of West Seel mineralized domain were represented as well as one from East Seel. The primary objective of the testing was to investigate copper recovery and molybdenum separation using flotation. Results indicate that expected Cu recoveries is excellent and that final concentrates are 'clean' with very little trace element concentrations that can pose problems at the smelting stage.

Metallurgical testing of a 323kg representative sample from Ox drill core has returned positive results that show expected metal recoveries to be of a high level. Ox rougher circuit bulk flotation tests at optimized conditions show expected recovery of 94.3% copper, 92.4% molybdenum, 70.7% gold and 84.1% for silver. Minor rhenium was recovered in the molybdenum concentrate. In addition, no metallurgical problems were reported nor did the concentrates contain significant deleterious elements. The >1000 specific gravity measurements recorded via weight in air/weight in water method are more than sufficient to produce a dependable average value for volume to tonne conversion. This report represents the third independent NI 43-101 compliant resource estimation for the Ox deposit and the first to have limiting pit constraints applied. All parameters used for the estimation represent industry standard best practices.

All logging, sampling and sample handling protocols employed by Gold Reach personnel are appropriate to the deposit type and are being conducted with sufficient diligence to meet or exceed accepted industry standards. Assay testing has been conducted by an accredited laboratory utilizing testing techniques and equipment that ensure accurate results. The QA/QC program conducted by Gold Reach also meets or exceeds industry standards. The author is confident that the resulting data is appropriate for use in a Mineral Resource calculation.

Risks and uncertainties that could negatively affect viability of developing the Seel and Ox deposits include potential of falling metal prices, variable metallurgy, permitting delays and unforeseen legislation, rising costs of labour, materials or power, environmental liabilities, or opposition groups. Any combination of these could delay or halt development. Similar risks are inherent to any mineral project, and the Seel and Ox



deposits are significantly de-risked by possessing a robust mineral resource with higher grades near surface and proximity to infrastructure.

The mineral resource estimated for the Ox deposit has grown substantially since the initial estimation in 2008. The most recent estimate represents a considerable increase in confidence with a large portion of the resource now residing in the measured and indicated categories. Open pit constrained resources at a 0.2% Cu Eq. cut off contain 37.62 million tonnes of 0.21% Cu, 0.027% Mo, 0.04g/t Au and 1.53g/t Ag (0.33% Cu Eq.) in the measured and indicated categories, plus 12.18 million tonnes grading 0.18% Cu, 0.021% Mo, 0.03g/t Au and 1.31g/t Ag (0.28% Cu Eq.) in the inferred category.

The geometry and location of the Ox mineralized zone suggest it would be well suited to open pit mining methods. Higher grade mineralization located near surface may enhance economic viability.

The mineral resource estimated for the Seel deposit has improved substantially in confidence since the estimation in 2012, with a large portion of the resource now residing in the measured and indicated categories. Open pit constrained resources at a 0.2% Cu Eq. cut off contain 116.34 million tonnes of 0.21% Cu, 0.017% Mo, 0.16 g/t Au and 2.56 g/t Ag (0.38% Cu Eq.) in the measured and indicated categories, plus 88.52 million tonnes grading 0.20% Cu, 0.019% Mo, 0.14 g/t Au and 2.65 g/t Ag (0.36% Cu Eq.) in the inferred category.

Preliminary pit design study indicates that similar to Ox, Seel deposit is amenable to open pit mining methods, due to favourable geometry and location. Higher grades near surface in East Seel as well as in part of West Seel may enhance economic viability.

The deposits are located in a mining friendly jurisdiction with available access to infrastructure. Gold Reach has an amenable relationship with local First Nation groups.

#### 18.0 Recommendations

The Author recognizes that a significant amount of drilling since 2011 has greatly increased the contained resource at the Seel and Ox deposits. Both deposits offer potential to increase in size and move resources into categories of higher confidence through further targeted infill drilling. In particular, the West Seel deposit is still open at depth to the south and there is potential to extend near-surface mineralization to the north. The resources have progressed sufficiently to warrant geotechnical pit design testing and more advanced metallurgical testing. Expanded IP surveying could prove beneficial in defining potential targets adjacent to the two deposits. In addition early stage aquatic and wildlife studies should be initiated.

The Ootsa Property, on which the Seel and Ox deposits are located, is a large land package (>67,000 ha) and has been under-explored outside of the main mineralized



zones. Once the West Seel deposit is fully delineated Preliminary Economic analysis is warranted. There are several coincident geophysical and soil anomalies that have had limited exploration completed but should be considered for investigation. A program of property-wide reconnaissance involving prospecting, mapping and surface sampling may discover other potential areas of interest. The ability of Gold Reach to complete all of the recommended exploration activities listed in Table 18-1 will be dependent on the company receiving approval of an amendment to its existing exploration permit.

**Table 18-1: Recommended Exploration Activities and Estimated Cost** 

| Activity  | Estimated Cost in CDN\$ |
|---|-------------------------|
| 15,000 m drill program (all in costs)                 | 2,700,000.00            |
| Engineering and geotechnical studies—pit slope design | 250,000.00              |
| Aquatic and wildlife studies                          | 250,000.00              |
| Advanced metallurgical testing                        | 100,000.00              |
| IP survey   | 100,000.00              |
| subtotal  | 3,400,000.00            |
| 10% Contingency                                       | 340,000.00              |
| Grand Total   | 3,740,000.00            |



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#### 20.0 Authors Statement of Qualification

#### STATEMENT OF QUALIFICATIONS - R Boyce

- I, Robert A. Boyce, P. Geo., am a Professional Geologist with office at 4375 Elm Drive, Smithers, British Columbia V0J 2N0, and do hereby certify that:
- 1. I have participated in preparation of this Technical Report: A Mineral Resource Estimate Update for the Seel and Ox Deposits Ootsa Property, February 2014, prepared for Gold Reach Resources Ltd, with effective date for the Ox deposit of January 09, 2014, and for the Seel deposit of January 27, 2014.
- 2. I am a "Qualified Person" as defined in National Instrument 43-101:Standards of Disclosure for Mineral Projects ("NI 43-101") and my qualifications include the following:
  - a). I graduated from University of British Columbia, Vancouver, BC in 1977, with a Bachelor of Science degree in Geological Sciences
  - b). I am a Professional Geoscientist (P. Geo.) registered with the Association of Professional Engineers and Geoscientists of British Columbia, member #19407, and have been a member in good standing since 1992.
  - c). From 1977 to present I have been continuously and actively engaged as a geologist in mineral exploration, mine development and mine production in Western Canada, principally within the province of British Columbia.
- 3. I have been involved with exploration work on the Ootsa property on behalf of Gold Reach Resources Ltd., August 12 to 16 and October 24 to November 14, 2013, participating in all aspects of the drill program. I am responsible for Sections 1 to 13 and Sections 15 to 19 of this Technical Report.
- 4. I have not had previous involvement with Ootsa property.
- 5. As of the date of this certificate, to the best of my knowledge, information, and belief, the portions of the of the Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the portions of the of the Technical Report for which I am responsible not misleading.
- 6. I am independent of the issuer based on the tests set out in Section 1.5 of NI 43-101.
- 7. I have read and understood NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

ESSIC

A. BOYCE

SCIENT

Dated this 18th day of February 2014.

Robert A. Boyce, P. Geo



#### **CERTIFICATE G.H. Giroux**

I, G.H. Giroux, of 982 Broadview Drive, North Vancouver, British Columbia, do hereby certify that:

- 1) I am a consulting geological engineer with an office at #1215 675 West Hastings Street, Vancouver, British Columbia.
- 2) I am a graduate of the University of British Columbia in 1970 with a B.A. Sc. and in 1984 with a M.A. Sc., both in Geological Engineering.
- I am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- 4) I have practiced my profession continuously since 1970. I have had over 30 years' experience calculating mineral resources. I have previously completed resource estimations on a wide variety of porphyry deposits both in B.C. and around the world, including Casino, Mt. Milligan, Cu Mountain, Zaldivar and Huckleberry.
- 5) I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of education, experience, independence and affiliation with a professional association, I meet the requirements of an Independent Qualified Person as defined in National Instrument 43-101.
- 6) I am responsible for the preparation of Section 14 of the technical report titled "A Mineral Resource Estimate Update for the Seel and Ox Deposits Ootsa Property" dated February 18, 2014 (the "Technical Report"). I have not visited the property.
- Prior to being retained by Goldreach Resources I have not previously worked on this deposit.
- 8) As of the date of this certificate, to the best of my knowledge, information and belief, the portion of the Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the portion of the Technical Report for which I am responsible not misleading.
- 9) I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
- 10) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

G. H. GIROUX

Dated this 18th day of February, 2014

G. H. Giroux, P.Eng., MASc



## 21.0 Date and Signature Page

#### 21.0 Date and Signature Page

This document, A MINERAL RESOURCE ESTIMATE UPDATE FOR THE SEEL AND OX DEPOSITS – OOTSA PROPERTY, FEBRUARY 2014, has been prepared for Gold Reach Resources Ltd. by:

R. A. BOYCE

SCIEN

Robert A. Boyce, P. Geo.

Dated at Smithers, BC, this 18th day of February, 2014

Signed: Robert A Boyce, P. Geo.

and

Gary Giroux, P.Eng., MASc

Dated at Vancouver, BC, this 18th day of February, 2014

Signed: Gary Giroux, P. Eng., MASc

The effective date of the exploration data for the Ox Deposit is January 09, 2014

The effective date of the exploration data for the Seel Deposit is January 27, 2014

# **APPENDIX 1 – LISTING OF DRILL HOLES FOR SEEL**

The holes used in the estimate are highlighted

| HOLE   | EASTING   | NORTHING   | ELEVATION | HLENGTH | OVB M | AREA |
|--------|-----------|------------|-----------|---------|-------|------|
| S04-01 | 626991.30 | 5945512.40 | 1109.40   | 210.30  | 3.00  | Seel |
| S04-02 | 627036.00 | 5945391.00 | 1090.90   | 182.90  | 4.60  | Seel |
| S04-03 | 627065.50 | 5945159.00 | 1053.70   | 178.30  | 33.50 | Seel |
| S04-04 | 627063.50 | 5945158.00 | 1053.70   | 182.90  | 30.50 | Seel |
| S04-05 | 626522.70 | 5945387.50 | 1017.30   | 155.40  | 3.00  | Seel |
| S04-06 | 626611.20 | 5945322.90 | 1020.40   | 185.90  | 9.10  | Seel |
| S05-07 | 627159.00 | 5945105.00 | 1062.90   | 73.90   | 70.10 | Seel |
| S05-08 | 627113.30 | 5945253.50 | 1053.40   | 222.60  | 18.30 | Seel |
| S05-09 | 627159.90 | 5945079.50 | 1064.10   | 239.87  | 70.10 | Seel |
| S05-10 | 627150.00 | 5945302.20 | 1059.10   | 218.54  | 12.20 | Seel |
| S05-11 | 627288.60 | 5945258.90 | 1067.40   | 218.54  | 37.80 | Seel |
| S05-12 | 627325.20 | 5945430.50 | 1072.10   | 212.45  | 6.10  | Seel |
| S05-13 | 627018.80 | 5945052.10 | 1052.90   | 220.98  | 52.50 | Seel |
| S05-14 | 626607.20 | 5945074.90 | 1050.60   | 270.36  | 7.30  | Seel |
| S05-15 | 626719.90 | 5944940.40 | 1051.90   | 178.92  | 7.50  | Seel |
| S05-16 | 626714.20 | 5944939.50 | 1051.90   | 219.64  | 6.10  | Seel |
| S05-17 | 626028.30 | 5945269.80 | 989.30    | 200.25  | 34.10 | Seel |
| S05-18 | 626528.90 | 5945140.20 | 1045.80   | 253.59  | 9.10  | Seel |
| S05-19 | 626413.60 | 5945125.40 | 1035.60   | 306.93  | 11.30 | Seel |
| S05-20 | 626479.80 | 5945045.60 | 1041.80   | 245.05  | 6.10  | Seel |
| S05-21 | 626777.70 | 5945184.20 | 1045.80   | 242.92  | 13.70 | Seel |
| S05-22 | 627197.40 | 5945151.70 | 1066.90   | 199.95  | 48.70 | Seel |
| S06-23 | 627317.50 | 5945310.30 | 1072.10   | 172.82  | 78.90 | Seel |
| S06-24 | 627115.30 | 5945251.50 | 1053.40   | 264.26  | 12.20 | Seel |
| S06-25 | 627030.10 | 5945040.10 | 1054.50   | 203.30  | 45.70 | Seel |
| S06-26 | 626963.40 | 5944952.60 | 1057.90   | 270.36  | 32.50 | Seel |
| S06-27 | 626777.70 | 5945184.20 | 1045.80   | 206.35  | 13.70 | Seel |
| S06-28 | 626711.80 | 5945563.60 | 1063.20   | 175.87  | 13.70 | Seel |
| S06-29 | 626486.50 | 5944898.90 | 1047.40   | 111.86  | 6.10  | Seel |
| S06-30 | 626444.80 | 5944653.40 | 1061.60   | 152.43  | 14.30 | Seel |
| S06-31 | 626181.30 | 5944771.30 | 1045.60   | 249.02  | 12.80 | Seel |
| S06-32 | 626611.20 | 5945322.90 | 1020.40   | 188.06  | 21.30 | Seel |
| S06-33 | 627213.30 | 5945431.00 | 1069.10   | 288.65  | 6.10  | Seel |
| S06-34 | 627213.30 | 5945431.00 | 1069.10   | 112.78  | 3.10  | Seel |
| S06-35 | 627364.90 | 5945453.80 | 1073.90   | 204.52  | 4.30  | Seel |

| S06-36 | 627160.30 | 5945354.60 | 1065.40 | 340.46 | 15.60 | Seel |  |
|--------|-----------|------------|---------|--------|-------|------|--|
| S06-37 | 627189.80 | 5945227.20 | 1060.30 | 325.22 | 39.60 | Seel |  |
| S06-38 | 627189.80 | 5945227.20 | 1060.30 | 212.45 | 35.70 | Seel |  |
| S06-39 | 627107.50 | 5945183.10 | 1056.00 | 206.35 | 41.20 | Seel |  |
| S06-40 | 627107.50 | 5945183.10 | 1056.00 | 343.51 | 33.50 | Seel |  |
| S06-41 | 627019.70 | 5945142.90 | 1050.70 | 343.51 | 35.10 | Seel |  |
| S06-42 | 627161.50 | 5945493.00 | 1094.20 | 280.72 | 3.70  | Seel |  |
| S06-43 | 627161.50 | 5945493.00 | 1094.20 | 121.01 | 3.70  | Seel |  |
| S06-44 | 627043.00 | 5945570.40 | 1111.90 | 233.78 | 4.30  | Seel |  |
| S06-45 | 626978.50 | 5945408.80 | 1094.90 | 267.31 | 6.10  | Seel |  |
| S06-46 | 627098.60 | 5945461.90 | 1092.20 | 154.50 | 6.10  | Seel |  |
| S06-47 | 627160.30 | 5945354.60 | 1065.40 | 211.84 | 10.10 | Seel |  |
| S07-48 | 626948.10 | 5945425.50 | 1097.90 | 344.42 | 6.10  | Seel |  |
| S07-49 | 627039.70 | 5945459.20 | 1104.70 | 216.41 | 3.70  | Seel |  |
| S07-50 | 627039.70 | 5945459.20 | 1104.70 | 182.88 | 3.00  | Seel |  |
| S07-51 | 625890.90 | 5944913.30 | 1021.80 | 426.72 | 22.90 | Seel |  |
| S07-52 | 625890.90 | 5944913.30 | 1021.80 | 320.04 | 29.30 | Seel |  |
| S07-53 | 625890.90 | 5944913.30 | 1021.80 | 210.01 | 27.40 | Seel |  |
| S07-54 | 628535.00 | 5945232.00 | 1308.00 | 225.00 | 6.70  | Seel |  |
| S07-55 | 628020.00 | 5945020.00 | 1195.00 | 316.08 | 6.10  | Seel |  |
| S07-56 | 628303.00 | 5945565.00 | 1219.00 | 358.75 | 10.70 | Seel |  |
| S07-57 | 626635.90 | 5945168.30 | 1049.50 | 303.89 | 9.10  | Seel |  |
| S07-58 | 626776.50 | 5945013.10 | 1052.80 | 245.97 | 13.70 | Seel |  |
| S07-59 | 626854.60 | 5944908.70 | 1059.70 | 81.38  | 15.20 | Seel |  |
| S08-60 | 627198.00 | 5945408.00 | 1073.00 | 151.20 | 8.20  | Seel |  |
| S08-61 | 627164.60 | 5945449.70 | 1082.70 | 90.00  | 6.10  | Seel |  |
| S08-62 | 627112.90 | 5945411.20 | 1083.80 | 99.40  | 6.10  | Seel |  |
| S08-63 | 627383.70 | 5945298.00 | 1074.50 | 39.30  | 18.60 | Seel |  |
| S08-64 | 627460.00 | 5945354.50 | 1084.90 | 38.40  | 27.40 | Seel |  |
| S08-65 | 627112.90 | 5945411.20 | 1083.80 | 498.70 | 6.10  | Seel |  |
| S08-66 | 627112.90 | 5945411.20 | 1083.80 | 154.20 | 4.60  | Seel |  |
| S08-67 | 627224.20 | 5945018.80 | 1073.20 | 91.40  | 91.40 | Seel |  |
| S08-68 | 627228.20 | 5944978.90 | 1074.60 | 263.00 | 48.80 | Seel |  |
| S08-69 | 627122.70 | 5945043.10 | 1062.80 | 315.80 | 73.20 | Seel |  |
| S08-70 | 627038.50 | 5944977.30 | 1061.00 | 313.03 | 48.80 | Seel |  |
| S08-71 | 626959.50 | 5944950.50 | 1057.90 | 313.03 | 30.50 | Seel |  |
| S08-72 | 627181.10 | 5945054.30 | 1067.30 | 339.00 | 83.80 | Seel |  |
| S08-73 | 626821.80 | 5944955.10 | 1052.80 | 294.74 | 12.20 | Seel |  |
| S08-74 | 626406.50 | 5944978.30 | 1041.40 | 12.20  | 12.20 | Seel |  |
| S08-75 | 626265.90 | 5945085.00 | 1024.00 | 232.87 | 18.30 | Seel |  |
| S08-76 | 626057.80 | 5945332.70 | 997.90  | 375.00 | 6.10  | Seel |  |
| S08-77 | 626057.80 | 5945332.70 | 997.90  | 218.54 | 6.10  | Seel |  |
| S08-78 | 627112.90 | 5945411.20 | 1083.80 | 303.90 | 6.10  | Seel |  |
|        |           |            |         |        |       |      |  |

|         |           |            |         |         |      | _       |
|---------|-----------|------------|---------|---------|------|---------|
| S08-79  | 626824.90 | 5945323.90 | 1036.90 | 258.20  | 6.10 | Seel    |
| S08-80  | 627139.60 | 5945342.40 | 1069.10 | 6.10    | 6.10 | Seel    |
| S11-81  | 627197.10 | 5945228.60 | 1062.00 | 694.94  |      | Seel    |
| S11-82  | 627064.40 | 5945200.60 | 1051.20 | 731.52  |      | Seel    |
| S11-83  | 627149.80 | 5945207.30 | 1058.60 | 237.20  |      | Seel    |
| S11-84  | 627122.10 | 5945257.70 | 1054.00 | 198.12  |      | Seel    |
| S11-85  | 627122.10 | 5945257.70 | 1054.00 | 281.64  |      | Seel    |
| S11-86  | 627042.70 | 5944892.70 | 1065.00 | 740.66  |      | Seel    |
| S11-87  | 627067.30 | 5945202.10 | 1049.70 | 414.53  |      | Seel    |
| S11-88  | 627104.60 | 5945178.30 | 1056.10 | 810.16  |      | Seel    |
| S11-89  | 627251.20 | 5945292.40 | 1067.70 | 423.67  |      | Seel Bx |
| S11-90  | 627104.60 | 5945178.30 | 1056.10 | 792.48  |      | Seel    |
| S11-91  | 626858.80 | 5945074.20 | 1046.90 | 661.41  |      | Seel    |
| S11-92  | 627150.00 | 5945301.20 | 1059.10 | 411.48  |      | Seel Bx |
| S11-93  | 627150.00 | 5945301.20 | 1059.10 | 292.60  |      | Seel Bx |
| S11-94  | 627160.30 | 5945354.60 | 1065.40 | 325.22  |      | Seel Bx |
| S11-95  | 626777.90 | 5945183.70 | 1045.60 | 557.78  |      | Seel    |
| S11-96  | 625833.00 | 5945632.30 | 978.60  | 309.98  |      | Explor  |
| S11-97  | 626662.60 | 5945010.90 | 1050.70 | 539.49  |      | Seel    |
| S11-98  | 626607.60 | 5945075.00 | 1050.60 | 623.92  |      | Seel    |
| S11-99  | 626662.60 | 5945010.90 | 1050.70 | 609.90  |      | Seel    |
| S11-100 | 626667.90 | 5945113.60 | 1051.90 | 736.70  |      | Seel    |
| S12-101 | 626720.28 | 5945133.56 | 1053.99 | 1079.00 |      | Seel    |
| S12-102 | 626553.81 | 5945030.75 | 1047.07 | 950.98  |      | Seel    |
| S12-103 | 627138.46 | 5945255.19 | 1059.17 | 618.00  |      | Seel    |
| S12-104 | 626530.82 | 5944985.00 | 1045.83 | 1067.80 |      | Seel    |
| S12-105 | 626423.49 | 5944939.51 | 1044.53 | 929.60  |      | Seel    |
| S12-106 | 626646.37 | 5945087.21 | 1053.80 | 1146.00 |      | Seel    |
| S12-107 | 626710.51 | 5944823.68 | 1063.94 | 1045.50 |      | Seel    |
| S12-108 | 626539.47 | 5945127.10 | 1047.67 | 606.00  |      | Seel    |
| S12-109 | 626415.68 | 5945114.89 | 1036.32 | 748.10  |      | Seel    |
| S12-110 | 626602.36 | 5944916.32 | 1049.81 | 945.10  |      | Seel    |
| S12-111 | 626786.96 | 5945161.62 | 1047.07 | 832.30  |      | Seel    |
| S12-112 | 626425.36 | 5945113.06 | 1036.99 | 841.20  |      | Seel    |
| S12-113 | 626782.90 | 5945164.98 | 1047.06 | 774.20  |      | Seel    |
| S12-114 | 626720.75 | 5944934.84 | 1053.64 | 825.60  |      | Seel    |
| S12-115 | 626830.90 | 5944951.07 | 1054.74 | 938.80  |      | Seel    |
| S12-116 | 626576.50 | 5944797.81 | 1055.64 | 972.30  |      | Seel    |
| S12-117 | 626614.63 | 5945062.20 | 1052.28 | 774.90  |      | Seel    |
| S12-118 | 626509.47 | 5944863.87 | 1051.89 | 887.00  |      | Seel    |
| S12-119 | 626679.66 | 5945097.46 | 1053.61 | 807.70  |      | Seel    |
| S12-120 | 626469.49 | 5945213.41 | 1037.28 | 742.50  |      | Seel    |
| S12-121 | 626280.61 | 5945063.09 | 1025.42 | 987.50  |      | Seel    |
| _       |           |            |         |         |      |         |

| S12-122 | 626837.92 | 5945213.52 | 1043.38 | 829.10  |       | Seel |  |
|---------|-----------|------------|---------|---------|-------|------|--|
| S12-123 | 626436.58 | 5944649.02 | 1060.70 | 789.40  |       | Seel |  |
| S12-124 | 626577.25 | 5945099.03 | 1049.81 | 769.60  |       | Seel |  |
| S12-125 | 626421.12 | 5944964.00 | 1042.88 | 719.30  |       | Seel |  |
| S12-126 | 626953.16 | 5945277.61 | 1044.83 | 713.40  |       | Seel |  |
| S12-127 | 626181.97 | 5944775.85 | 1044.33 | 874.80  |       | Seel |  |
| S12-128 | 626953.16 | 5945277.61 | 1044.83 | 430.70  |       | Seel |  |
| S12-129 | 626475.85 | 5945041.59 | 1041.32 | 850.50  |       | Seel |  |
| S12-130 | 626089.17 | 5944915.71 | 1025.81 | 868.70  |       | Seel |  |
| S12-131 | 626441.78 | 5945164.19 | 1038.08 | 621.80  |       | Seel |  |
| S12-132 | 626392.33 | 5945055.58 | 1032.47 | 606.60  |       | Seel |  |
| S12-133 | 626343.07 | 5945198.83 | 1021.17 | 835.20  |       | Seel |  |
| S12-134 | 626401.71 | 5945059.61 | 1032.83 | 862.60  |       | Seel |  |
| S12-135 | 626431.40 | 5944791.82 | 1051.65 | 957.30  |       | Seel |  |
| S12-136 | 626482.11 | 5945258.97 | 1037.55 | 664.50  |       | Seel |  |
| S12-137 | 626334.28 | 5945037.05 | 1028.25 | 947.90  |       | Seel |  |
| S12-138 | 626787.82 | 5945008.49 | 1053.56 | 573.00  |       | Seel |  |
| S12-139 | 626838.14 | 5945111.46 | 1049.96 | 527.30  |       | Seel |  |
| S12-140 | 626341.75 | 5944867.19 | 1045.45 | 1082.00 |       | Seel |  |
| S12-141 | 626427.02 | 5944936.07 | 1044.50 | 981.50  |       | Seel |  |
| S12-142 | 626505.46 | 5944721.15 | 1059.43 | 999.70  |       | Seel |  |
| S12-143 | 626274.87 | 5944954.67 | 1034.89 | 993.70  |       | Seel |  |
| S12-144 | 626444.22 | 5944996.42 | 1041.06 | 816.90  |       | Seel |  |
| S12-145 | 626274.87 | 5944954.67 | 1034.89 | 850.40  |       | Seel |  |
| S12-146 | 626273.00 | 5944825.00 | 1044.00 | 941.80  |       | Seel |  |
| S13-147 | 627156.03 | 5945221.99 | 1058.22 | 249.90  | 32.00 | Seel |  |
| S13-148 | 627157.74 | 5945221.21 | 1058.11 | 277.10  | 32.00 | Seel |  |
| S13-149 | 627156.03 | 5945221.99 | 1058.22 | 207.30  | 36.60 | Seel |  |
| S13-150 | 626539.21 | 5945135.62 | 1046.01 | 354.00  | 6.10  | Seel |  |
| S13-151 | 627156.81 | 5945220.68 | 1058.14 | 231.60  | 32.00 | Seel |  |
| S13-152 | 627156.81 | 5945220.68 | 1058.14 | 161.50  | 42.70 | Seel |  |
| S13-153 | 627124.44 | 5945180.61 | 1057.05 | 265.20  | 30.50 | Seel |  |
| S13-154 | 626508.04 | 5945161.93 | 1042.03 | 423.00  | 7.50  | Seel |  |
| S13-155 | 627124.44 | 5945180.61 | 1057.05 | 268.20  | 29.60 | Seel |  |
| S13-156 | 626508.04 | 5945161.93 | 1042.03 | 231.00  | 7.50  | Seel |  |
| S13-157 | 627124.44 | 5945180.61 | 1057.05 | 298.70  | 30.50 | Seel |  |
| S13-158 | 626536.89 | 5945201.06 | 1043.69 | 432.00  | 13.50 | Seel |  |
| S13-159 | 627124.44 | 5945180.61 | 1057.05 | 256.00  | 44.20 | Seel |  |
| S13-160 | 627189.16 | 5945184.85 | 1062.47 | 289.60  | 73.20 | Seel |  |
| S13-161 | 626568.52 | 5945233.54 | 1041.42 | 351.00  | 16.50 | Seel |  |
| S13-162 | 626568.52 | 5945233.54 | 1041.42 | 449.20  | 15.00 | Seel |  |
| S13-163 | 627192.27 | 5945184.26 | 1062.54 | 253.00  | 55.50 | Seel |  |
| S13-164 | 627192.27 | 5945184.26 | 1062.54 | 362.70  | 7.60  | Seel |  |

| S13-165 | 626573.25 | 5945163.43 | 1046.78 | 345.00 | 9.00  | Seel |  |
|---------|-----------|------------|---------|--------|-------|------|--|
| S13-166 | 627230.51 | 5945155.96 | 1068.63 | 362.70 | 61.00 | Seel |  |
| S13-167 | 626501.75 | 5945083.52 | 1043.42 | 410.00 | 9.00  | Seel |  |
| S13-168 | 627236.62 | 5945154.31 | 1068.79 | 371.90 | 79.80 | Seel |  |
| S13-169 | 626491.27 | 5945109.46 | 1042.62 | 504.00 | 9.00  | Seel |  |
| S13-170 | 627205.11 | 5945236.08 | 1062.48 | 277.40 | 56.40 | Seel |  |
| S13-171 | 626539.33 | 5945044.19 | 1046.81 | 387.00 | 4.50  | Seel |  |
| S13-172 | 627205.11 | 5945236.08 | 1062.48 | 253.00 | 39.60 | Seel |  |
| S13-173 | 626451.96 | 5945070.86 | 1038.35 | 405.00 | 6.00  | Seel |  |
| S13-174 | 627181.95 | 5945232.27 | 1061.06 | 350.50 | 36.60 | Seel |  |
| S13-175 | 627174.55 | 5945204.35 | 1060.65 | 353.60 | 54.90 | Seel |  |
| S13-176 | 626502.70 | 5945014.21 | 1042.32 | 384.00 | 4.50  | Seel |  |
| S13-177 | 627149.30 | 5945193.67 | 1059.48 | 347.50 | 26.50 | Seel |  |
| S13-178 | 627129.49 | 5945209.62 | 1056.64 | 332.20 | 25.90 | Seel |  |
| S13-179 | 626994.52 | 5945210.00 | 1045.42 | 329.20 | 21.30 | Seel |  |
| S13-180 | 626994.52 | 5945210.00 | 1045.42 | 317.00 | 21.30 | Seel |  |
| S13-181 | 627074.25 | 5945183.61 | 1053.09 | 371.90 | 25.90 | Seel |  |
| S13-182 | 627083.62 | 5945153.42 | 1055.05 | 368.80 | 37.20 | Seel |  |
| S13-183 | 627083.62 | 5945153.42 | 1055.05 | 402.30 | 30.50 | Seel |  |
| S13-184 | 627030.83 | 5945143.85 | 1051.12 | 283.50 | 40.20 | Seel |  |
| S13-185 | 627030.83 | 5945143.85 | 1051.12 | 296.00 | 33.50 | Seel |  |
| S13-186 | 627117.42 | 5945123.21 | 1058.64 | 246.90 | 53.30 | Seel |  |
| S13-187 | 627363.32 | 5945385.56 | 1071.95 | 252.00 | 72.00 | Seel |  |
| S13-188 | 627117.42 | 5945123.21 | 1058.64 | 320.00 | 41.10 | Seel |  |
| S13-189 | 627415.00 | 5945333.37 | 1074.94 | 333.00 | 67.50 | Seel |  |
| S13-190 | 627057.54 | 5945089.62 | 1054.76 | 307.80 | 57.00 | Seel |  |
| S13-191 | 627057.54 | 5945089.62 | 1054.76 | 323.10 | 56.40 | Seel |  |
| S13-192 | 627405.21 | 5945420.97 | 1074.35 | 330.00 | 58.50 | Seel |  |
| S13-193 | 627012.49 | 5945072.33 | 1049.50 | 228.60 | 66.80 | Seel |  |
| S13-194 | 627306.30 | 5945366.26 | 1068.59 | 243.00 | 55.50 | Seel |  |
| S13-195 | 627175.80 | 5945049.44 | 1065.81 | 318.00 | 81.00 | Seel |  |
| S13-196 | 627012.49 | 5945072.33 | 1049.50 | 286.50 | 50.30 | Seel |  |
| S13-197 | 627010.00 | 5945075.00 | 1048.50 | 292.60 | 42.70 | Seel |  |
| S13-198 | 627175.80 | 5945049.44 | 1065.81 | 339.00 | 82.50 | Seel |  |
| S13-199 | 627010.00 | 5945075.00 | 1048.50 | 253.00 | 45.70 | Seel |  |

# APPENDIX 2 – LISTING OF DRILL HOLES FOR OX

(The drill holes used in the Resource Estimate are highlighted)

| HOLE     | EASTING   | NORTHING   | ELEVATION | HOLE LENGTH (m) |
|----------|-----------|------------|-----------|-----------------|
| DDH01    | 628264.39 | 5948910.18 | 972.46    | 73.15           |
| DDH02    | 628264.39 | 5948910.18 | 972.46    | 177.39          |
| DDH03    | 628437.69 | 5949112.43 | 950.67    | 32.92           |
| DDH04    | 628437.69 | 5949112.43 | 950.67    | 178.31          |
| DDH05    | 628578.70 | 5949366.92 | 944.47    | 167.64          |
| DDH06    | 628362.88 | 5948758.92 | 961.15    | 198.73          |
| DDH07    | 628362.88 | 5948758.92 | 961.15    | 53.64           |
| DDH08    | 628614.26 | 5948750.62 | 953.95    | 121.92          |
| DDH09    | 628949.72 | 5949394.09 | 949.11    | 189.59          |
| DDH10    | 629063.82 | 5948959.15 | 961.70    | 185.32          |
| DDH11    | 629063.82 | 5948959.15 | 961.70    | 47.24           |
| DDH12    | 628220.70 | 5949100.45 | 977.11    | 243.84          |
| DDH13    | 628157.80 | 5948969.57 | 984.01    | 179.83          |
| DDH14    | 628178.74 | 5948853.03 | 983.41    | 143.26          |
| DDH15    | 628249.85 | 5948859.89 | 970.70    | 76.20           |
| DDH16    | 628226.72 | 5948968.79 | 974.60    | 137.16          |
| DDH17    | 628315.07 | 5949105.99 | 968.24    | 134.11          |
| DDH18    | 628439.55 | 5949170.55 | 949.78    | 302.06          |
| DDH19    | 628311.99 | 5949226.62 | 967.73    | 175.87          |
| DDH20    | 628294.48 | 5948730.72 | 966.05    | 232.56          |
| DDH21    | 628400.01 | 5948732.65 | 956.98    | 110.95          |
| DDH22    | 628053.12 | 5948276.29 | 991.99    | 76.50           |
| DDH23    | 628534.46 | 5948329.31 | 981.78    | 76.20           |
| DDH24    | 628372.54 | 5949411.70 | 978.06    | 76.20           |
| DDH25    | 628896.78 | 5949655.50 | 952.98    | 76.20           |
| DDH26    | 629151.11 | 5949919.68 | 935.25    | 76.81           |
| DDH27    | 629400.00 | 5949560.00 | 931.71    | 127.10          |
| DDH28    | 629280.00 | 5949300.00 | 959.12    | 76.20           |
| DDH29    | 629420.00 | 5948820.00 | 973.99    | 92.35           |
| DDH30    | 629870.00 | 5949070.00 | 950.00    | 76.50           |
| DDH31    | 628729.58 | 5948843.57 | 970.18    | 127.10          |
| DDH32    | 628868.04 | 5949206.49 | 946.97    | 152.40          |
| DDH33    | 628454.47 | 5948638.13 | 960.15    | 157.58          |
| DDH34    | 628159.10 | 5948866.87 | 987.11    | 246.89          |
| DDH35    | 628230.52 | 5948735.27 | 973.08    | 211.84          |
| DDH36    | 628454.47 | 5948638.13 | 960.15    | 93.60           |
| DDH37    | 628296.50 | 5948562.70 | 980.72    | 239.90          |
| OX07-001 | 628454.47 | 5948638.13 | 960.15    | 112.47          |
| OX07-002 | 628454.47 | 5948638.13 | 960.15    | 194.16          |
|          |           |            |           |                 |

|   | OX07-003 | 628342.25 | 5948603.99 | 970.78  | 212.45 |
|---|----------|-----------|------------|---------|--------|
|   | OX07-004 | 628236.27 | 5948733.93 | 972.04  | 175.87 |
|   | OX07-005 | 628198.10 | 5948852.06 | 979.21  | 194.16 |
|   | OX07-006 | 628207.67 | 5949048.68 | 978.64  | 186.23 |
|   | OX07-007 | 628220.70 | 5949100.45 | 977.11  | 239.88 |
|   | OX07-008 | 628253.90 | 5949227.40 | 975.98  | 303.89 |
|   | OX07-009 | 628253.90 | 5949227.40 | 975.98  | 181.97 |
| ı | OX07-010 | 628411.69 | 5949290.05 | 958.33  | 188.06 |
|   | OX07-011 | 628541.97 | 5949309.70 | 943.88  | 249.02 |
|   | OX07-012 | 628839.00 | 5948832.00 | 981.02  | 142.34 |
|   | OX07-013 | 628895.00 | 5948850.00 | 980.93  | 288.65 |
|   | OX07-014 | 628620.00 | 5948610.00 | 980.57  | 303.89 |
|   | OX07-015 | 628895.00 | 5948850.00 | 980.93  | 306.93 |
|   | OX07-016 | 628620.00 | 5948610.00 | 980.57  | 306.93 |
|   | OX07-017 | 628179.00 | 5948853.00 | 983.35  | 270.36 |
|   | OX07-018 | 628207.30 | 5948814.64 | 976.28  | 303.89 |
|   | OX07-019 | 628253.90 | 5949227.40 | 975.98  | 303.89 |
|   | OX07-020 | 628455.04 | 5949249.94 | 953.03  | 200.25 |
|   | OX07-021 | 628325.58 | 5949103.78 | 965.98  | 236.83 |
|   | OX07-022 | 628341.01 | 5949060.65 | 959.64  | 100.58 |
|   | OX07-023 | 628157.80 | 5948969.57 | 984.01  | 194.00 |
|   | OX07-024 | 628780.00 | 5948690.00 | 997.96  | 322.62 |
|   | OX07-025 | 629080.00 | 5949020.00 | 961.52  | 334.37 |
|   | OX07-026 | 629000.00 | 5948160.00 | 1027.57 | 288.65 |
|   | OX12-027 | 628148.11 | 5948850.39 | 988.79  | 228.60 |
|   | OX12-028 | 628148.11 | 5948850.39 | 988.79  | 204.27 |
|   | OX12-029 | 628148.11 | 5948850.39 | 988.79  | 371.95 |
|   | OX12-030 | 628173.84 | 5949134.67 | 985.52  | 201.30 |
|   | OX12-031 | 628173.84 | 5949134.67 | 985.52  | 262.20 |
|   | OX12-032 | 628173.84 | 5949134.67 | 985.52  | 356.71 |
|   | OX12-033 | 628411.69 | 5949290.05 | 958.33  | 405.40 |
| ı | OX12-034 | 628411.69 | 5949290.05 | 958.33  | 472.56 |
|   | OX12-035 | 628312.43 | 5948587.94 | 976.82  | 365.85 |
|   | OX12-036 | 628312.43 | 5948587.94 | 976.82  | 442.07 |
|   | OX12-037 | 628353.74 | 5948656.36 | 965.00  | 237.90 |
|   | OX12-038 | 628226.08 | 5948852.20 | 971.56  | 164.60 |
|   | OX12-039 | 628226.72 | 5948968.79 | 974.60  | 103.60 |
|   | OX12-040 | 628226.72 | 5948968.79 | 974.60  | 118.90 |
|   | OX12-041 | 628247.15 | 5949087.36 | 975.01  | 185.98 |
|   | OX12-042 | 628503.52 | 5949167.81 | 944.02  | 246.95 |
|   | OX12-043 | 628503.52 | 5949167.81 | 944.02  | 213.60 |
|   | OX12-044 | 628484.88 | 5949361.98 | 954.00  | 365.85 |
|   | OX13-045 | 628399.70 | 5948731.78 | 956.31  | 115.80 |
|   |          |           |            |         |        |

| OX13-046 | 628399.40 | 5948730.84 | 956.52 | 179.80 |
|----------|-----------|------------|--------|--------|
| OX13-047 | 628384.82 | 5948689.31 | 961.00 | 152.40 |
| OX13-048 | 628384.82 | 5948689.31 | 961.00 | 158.50 |
| OX13-049 | 628385.63 | 5948689.54 | 961.00 | 192.00 |
| OX13-050 | 628346.01 | 5948751.23 | 961.84 | 149.40 |
| OX13-051 | 628346.01 | 5948751.23 | 961.84 | 137.20 |
| OX13-052 | 628345.79 | 5948750.62 | 961.89 | 158.50 |
| OX13-053 | 628318.38 | 5948726.25 | 967.00 | 161.50 |
| OX13-054 | 628300.05 | 5948794.61 | 964.00 | 82.30  |
| OX13-055 | 628269.02 | 5948762.27 | 966.45 | 121.90 |
| OX13-056 | 628321.40 | 5948817.12 | 964.86 | 140.20 |
| OX13-057 | 628258.07 | 5948821.02 | 968.00 | 115.80 |
| OX13-058 | 628235.49 | 5948799.62 | 970.00 | 140.20 |
| OX13-059 | 628286.14 | 5948856.21 | 967.70 | 79.20  |
| OX13-060 | 628250.05 | 5948857.97 | 963.00 | 109.70 |
| OX13-061 | 628247.27 | 5948911.54 | 974.77 | 97.50  |
| OX13-062 | 628246.74 | 5948911.51 | 974.49 | 109.70 |
| OX13-063 | 628280.35 | 5948964.67 | 968.40 | 97.50  |
| OX13-064 | 628275.79 | 5948964.51 | 968.70 | 164.60 |
| OX13-065 | 628328.44 | 5949035.29 | 962.00 | 51.80  |
| OX13-066 | 628326.69 | 5949034.33 | 961.38 | 94.50  |
| OX13-067 | 628286.15 | 5949065.69 | 971.01 | 94.50  |
| OX13-068 | 628332.62 | 5949104.03 | 964.46 | 106.70 |
| OX13-069 | 628332.62 | 5949104.03 | 964.46 | 106.70 |
| OX13-070 | 628332.67 | 5949103.96 | 964.40 | 225.60 |
| OX13-071 | 628333.20 | 5949105.86 | 964.40 | 384.00 |
| OX13-072 | 628332.52 | 5949105.64 | 964.31 | 445.00 |
| OX13-073 | 628356.99 | 5949170.73 | 964.56 | 219.50 |
| OX13-074 | 628357.45 | 5949170.48 | 964.00 | 195.50 |
| OX13-075 | 628356.45 | 5949171.16 | 964.58 | 423.70 |
| OX13-076 | 628394.37 | 5949134.59 | 955.00 | 423.70 |
| OX13-077 | 628450.13 | 5949173.73 | 948.17 | 192.00 |
| OX13-078 | 628450.56 | 5949173.22 | 947.85 | 262.10 |
| OX13-079 | 628498.83 | 5949169.52 | 943.88 | 213.40 |
| OX13-080 | 628498.83 | 5949169.52 | 943.88 | 268.20 |
| OX13-081 | 628499.92 | 5949172.76 | 943.75 | 277.40 |
| OX13-082 | 628508.57 | 5949251.06 | 943.32 | 268.20 |
| OX13-083 | 628507.64 | 5949250.98 | 944.18 | 332.20 |
| OX13-084 | 628613.28 | 5949393.09 | 944.56 | 237.70 |
| OX13-085 | 628612.73 | 5949393.59 | 944.62 | 283.50 |
| OX13-086 | 628563.24 | 5949372.60 | 946.18 | 262.10 |
| OX13-087 | 628414.89 | 5949264.73 | 957.00 | 393.20 |
| OX13-088 | 628284.61 | 5949094.99 | 970.14 | 393.20 |
|          |           |            |        |        |

| OX13-089 | 628393.68 | 5949134.49 | 956.15 | 423.70 |
|----------|-----------|------------|--------|--------|
| OX13-090 | 628475.61 | 5949205.99 | 945.48 | 362.10 |
| OX13-091 | 628380.78 | 5949227.25 | 960.00 | 301.80 |
| OX13-092 | 628839.62 | 5949415.18 | 941.81 | 195.10 |
| OX13-093 | 628839.16 | 5949415.70 | 942.07 | 204.20 |
| OX13-094 | 629107.00 | 5949528.00 | 944.00 | 253.00 |
| OX13-095 | 628322.43 | 5949220.67 | 967.00 | 243.80 |
| OX13-096 | 628271.44 | 5949260.21 | 977.61 | 323.10 |
| OX13-097 | 628284.87 | 5949003.46 | 966.43 | 106.70 |
| OX13-098 | 628284.17 | 5949003.79 | 966.36 | 161.50 |
| OX13-099 | 628242.20 | 5949017.32 | 975.50 | 137.20 |
| OX13-100 | 628240.34 | 5949014.43 | 978.00 | 158.50 |
| OX13-101 | 628181.95 | 5948898.04 | 980.62 | 158.50 |
| OX13-102 | 628181.95 | 5948898.04 | 980.62 | 140.20 |
| OX13-103 | 628297.86 | 5948818.97 | 964.85 | 82.30  |
| OX13-104 | 628297.86 | 5948818.97 | 964.85 | 131.10 |
| OX13-105 | 628297.99 | 5948819.15 | 964.85 | 353.60 |
| OX13-106 | 628341.02 | 5948801.86 | 959.67 | 51.20  |
| OX13-107 | 628340.37 | 5948801.01 | 959.52 | 79.20  |
| OX13-108 | 628374.96 | 5948780.00 | 958.62 | 173.70 |
| OX13-109 | 628374.60 | 5948779.65 | 958.65 | 218.20 |
| OX13-110 | 628343.79 | 5948800.82 | 959.32 | 216.40 |
| OX13-111 | 628401.80 | 5948735.29 | 955.98 | 152.40 |
| OX13-112 | 628401.44 | 5948735.33 | 955.97 | 173.70 |
| OX13-113 | 628450.90 | 5948722.79 | 952.85 | 152.40 |
| OX13-114 | 628450.53 | 5948721.86 | 952.92 | 146.30 |
| OX13-115 | 628424.02 | 5948666.49 | 953.50 | 158.50 |
| OX13-116 | 628423.01 | 5948667.86 | 953.34 | 167.60 |
| OX13-117 | 628610.81 | 5948746.55 | 953.00 | 91.40  |
| OX13-118 | 628611.53 | 5948747.54 | 952.90 | 100.60 |
| OX13-119 | 628518.58 | 5949101.68 | 942.33 | 164.60 |
| OX13-120 | 628519.13 | 5949101.15 | 942.41 | 195.10 |
| OX13-121 | 628496.93 | 5949125.57 | 943.52 | 109.70 |
| OX13-122 | 628496.47 | 5949125.87 | 943.37 | 280.40 |
| OX13-123 | 628537.15 | 5949174.63 | 940.65 | 179.80 |
| OX13-124 | 628537.15 | 5949174.63 | 940.65 | 192.00 |
| OX13-125 | 628539.37 | 5949213.40 | 942.00 | 207.30 |
| OX13-126 | 628539.37 | 5949213.40 | 942.00 | 207.30 |
| OX13-127 | 628345.67 | 5949259.80 | 964.00 | 368.80 |
| OX13-128 | 628274.43 | 5948681.55 | 973.63 | 173.70 |
| OX13-129 | 628387.14 | 5948628.01 | 961.47 | 130.80 |
| OX13-130 | 628974.82 | 5949195.95 | 949.50 | 130.00 |
| OX13-131 | 628995.60 | 5949002.55 | 959.27 | 107.30 |
|          |           |            |        |        |

| OX13-132 | 628996.13 | 5949002.59 | 959.16 | 194.20 |
|----------|-----------|------------|--------|--------|
| OX13-133 | 628910.11 | 5948833.64 | 982.62 | 112.80 |
| OX13-134 | 628910.41 | 5948833.20 | 982.56 | 182.90 |

### APPENDIX 3 – SEMIVARIOGRAMS USED FOR SEEL

East Zone - Copper

- Gold

- Molybdenum

- Silver

West Zone - Copper

- Gold

- Molybdenum

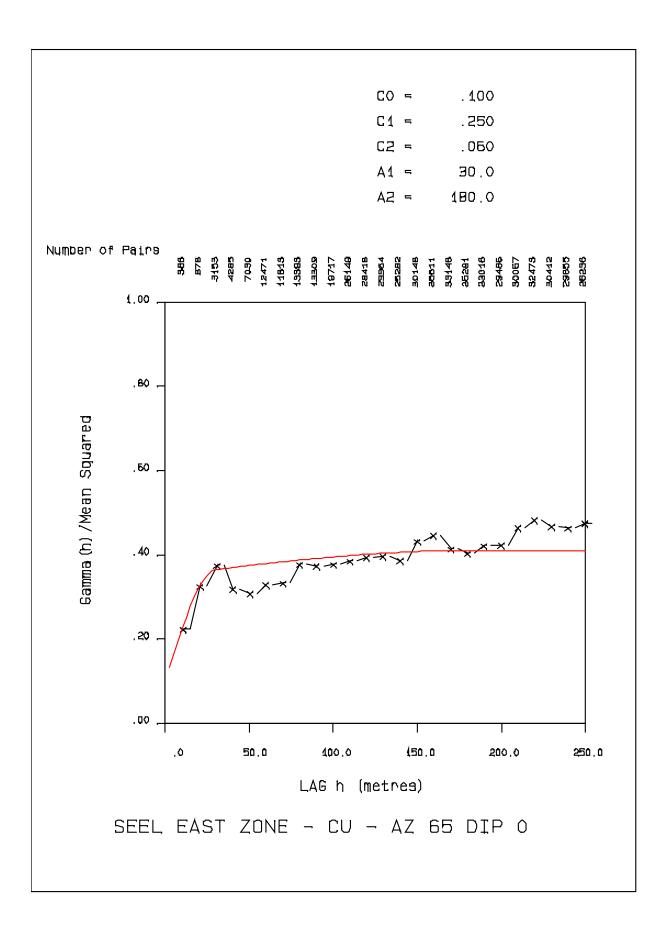
- Silver

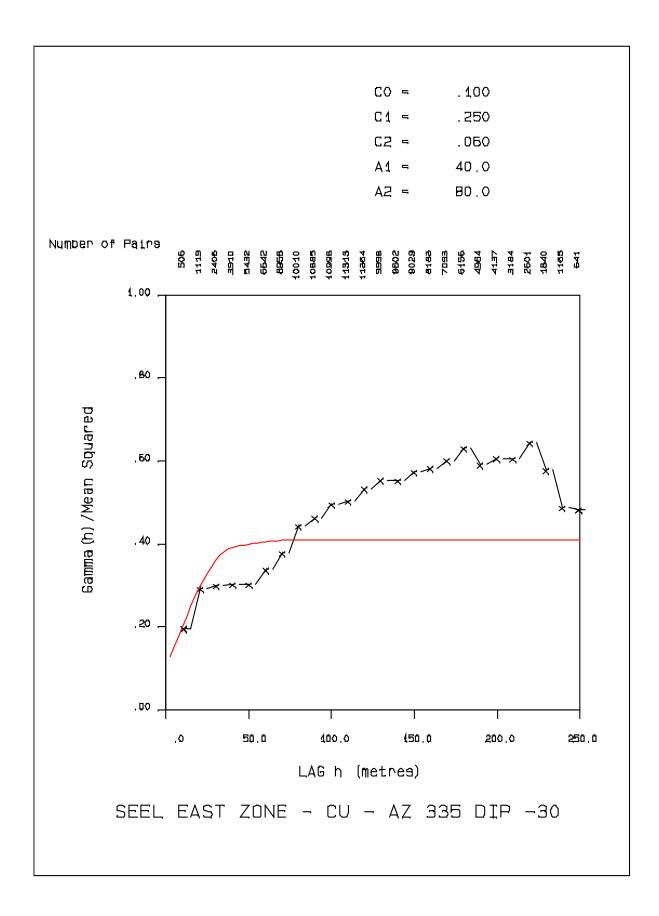
Waste - Copper

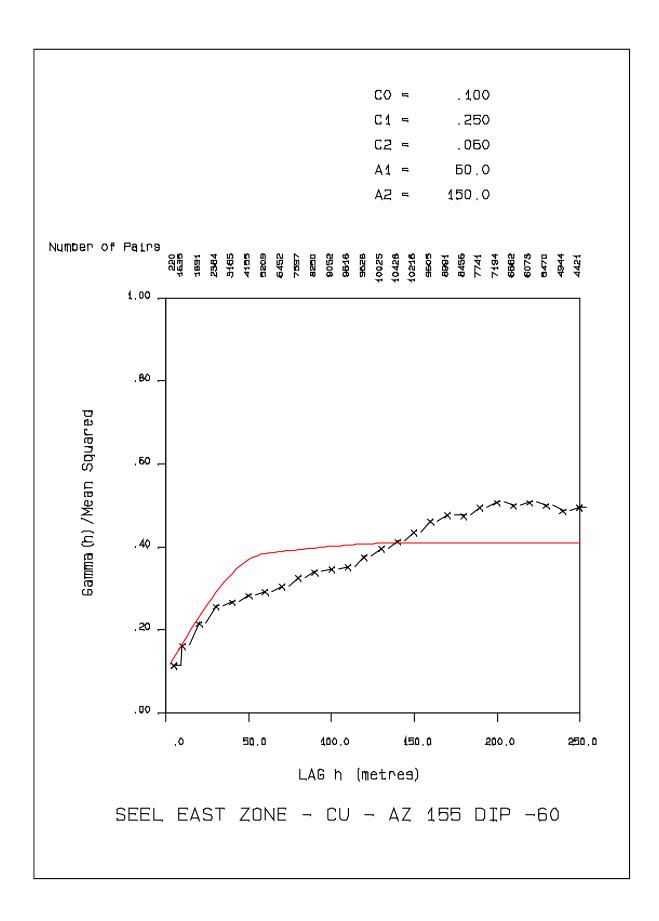
- Gold

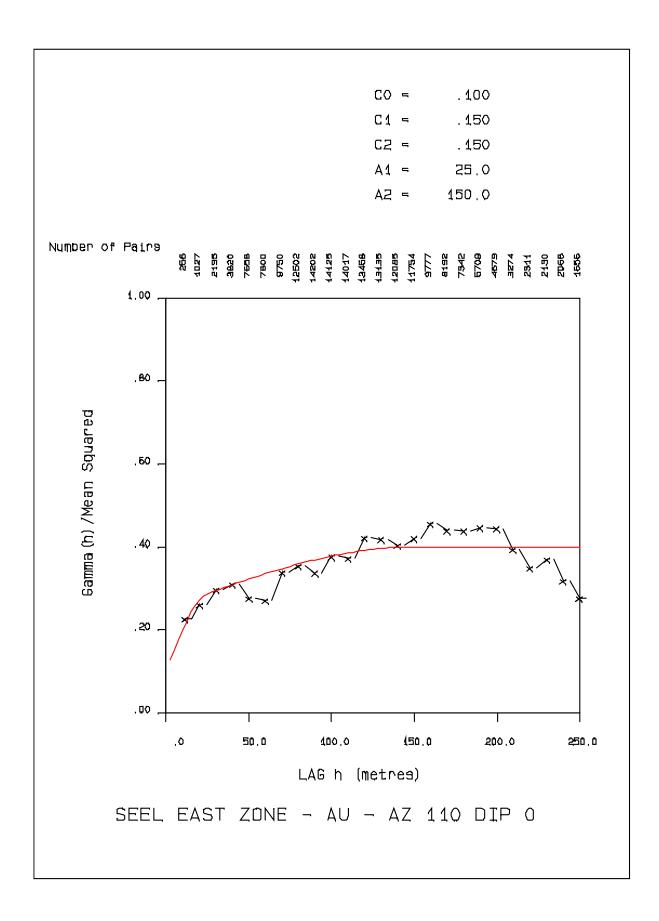
- Molybdenum

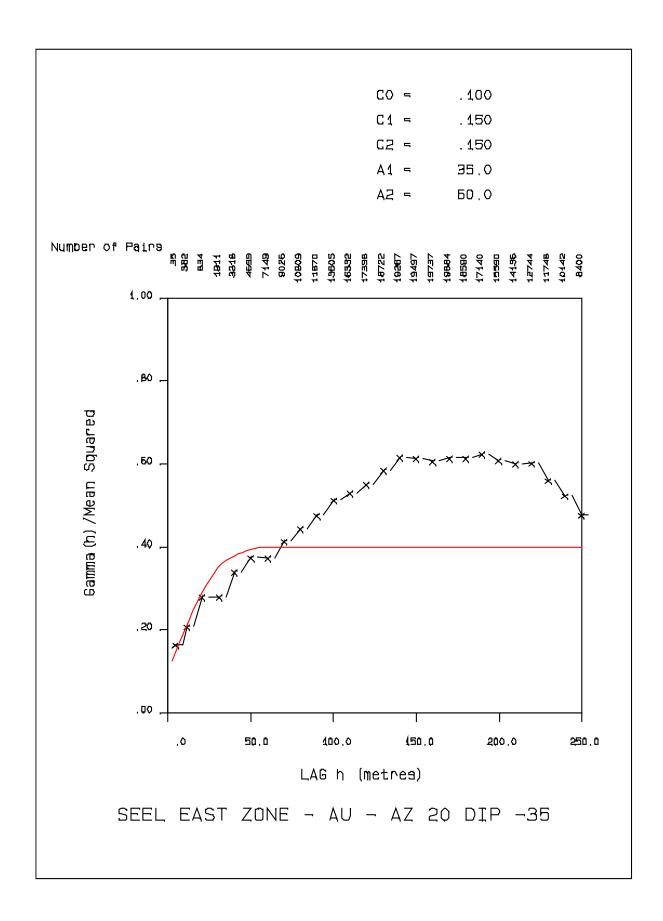
- Silver

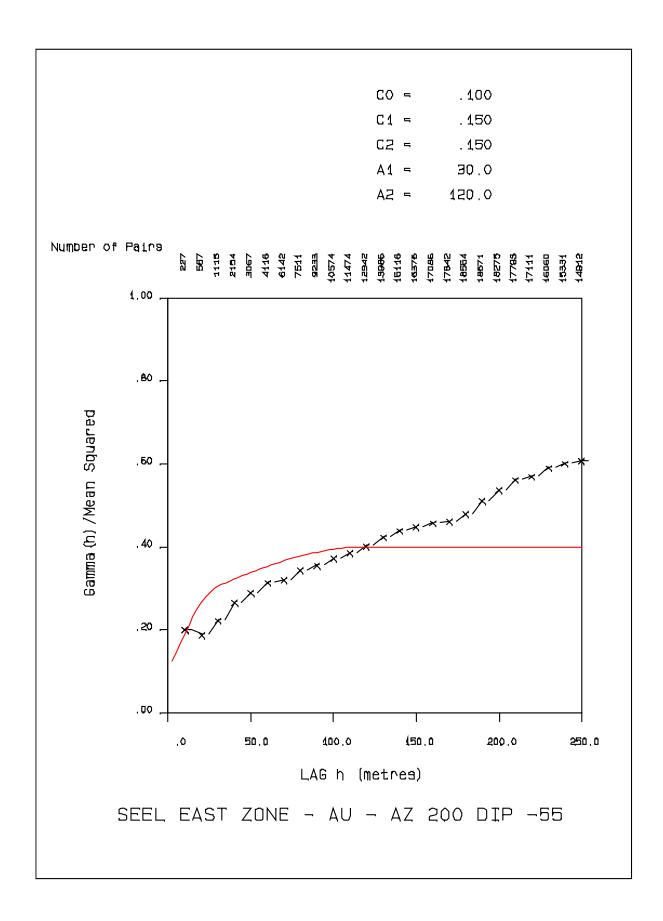


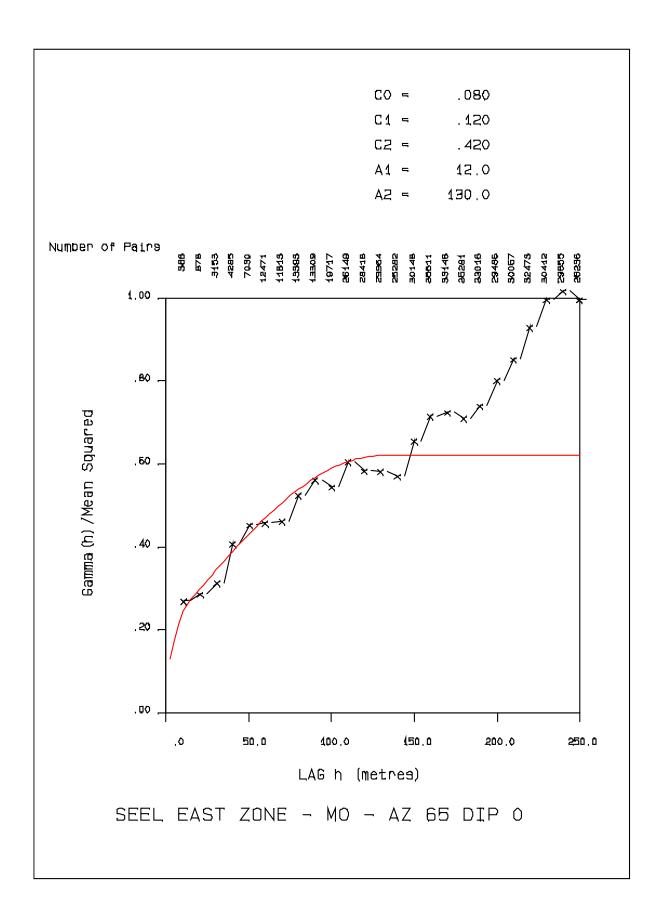


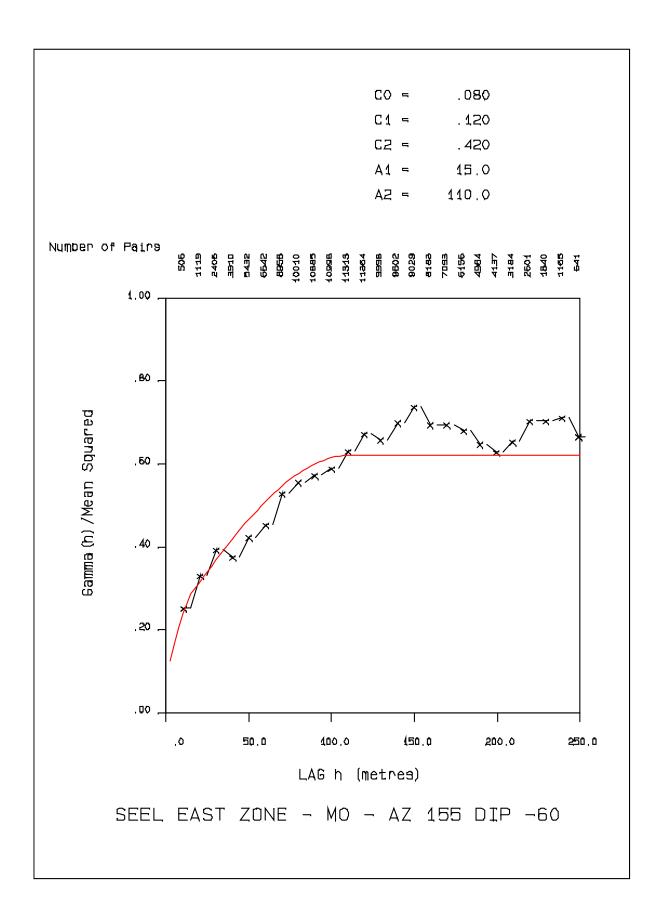


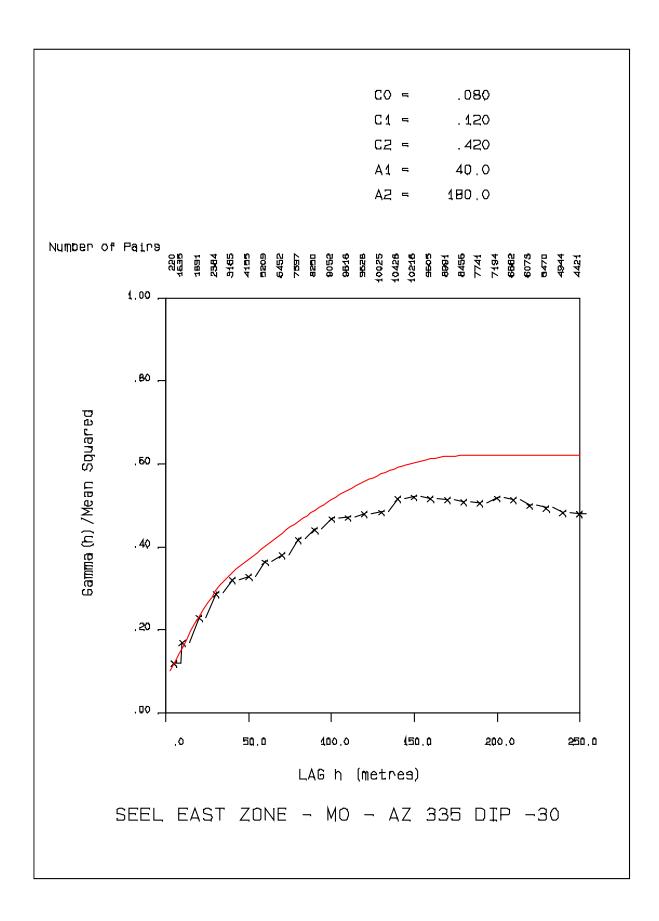


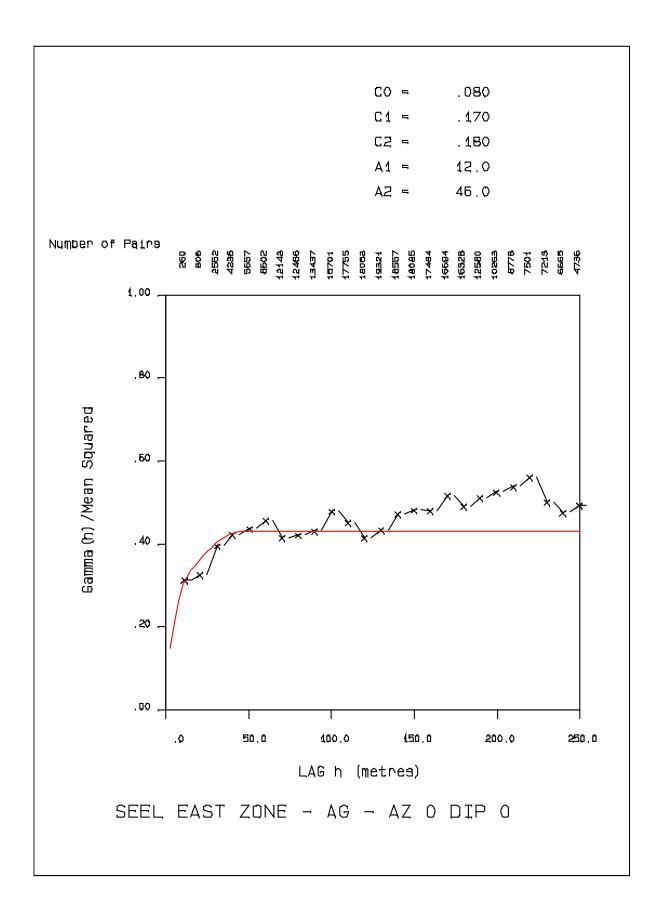


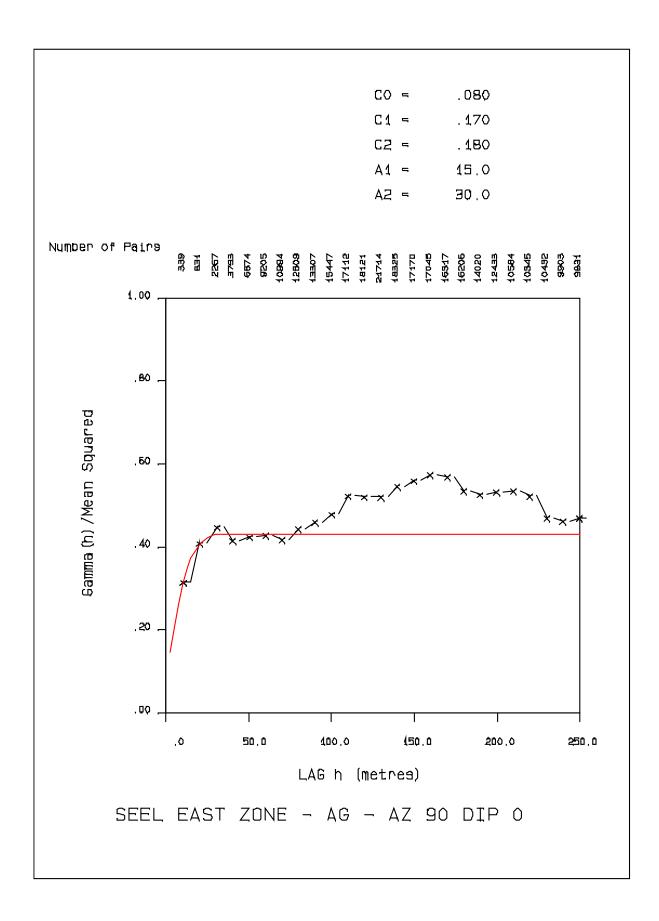


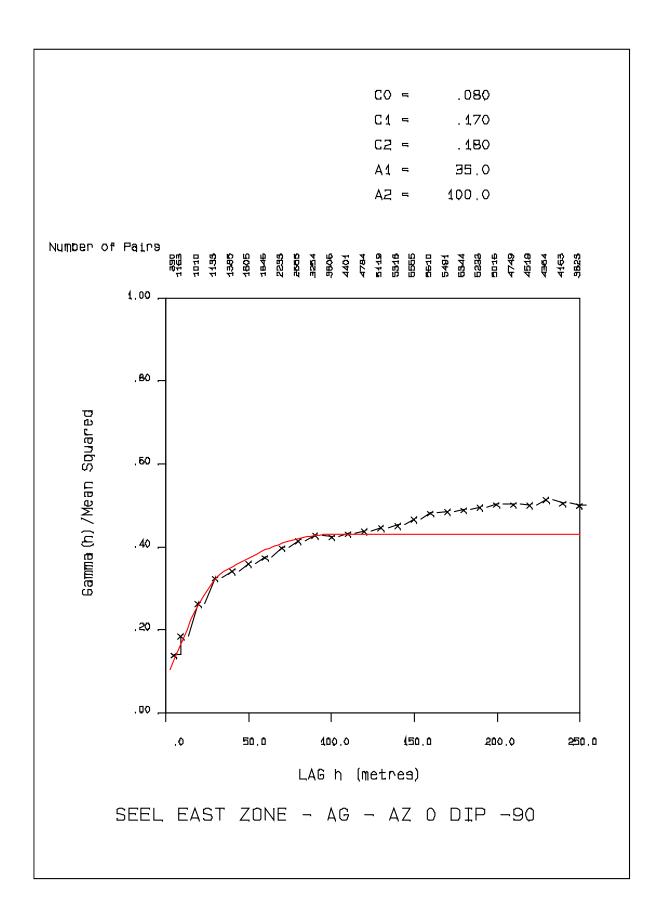


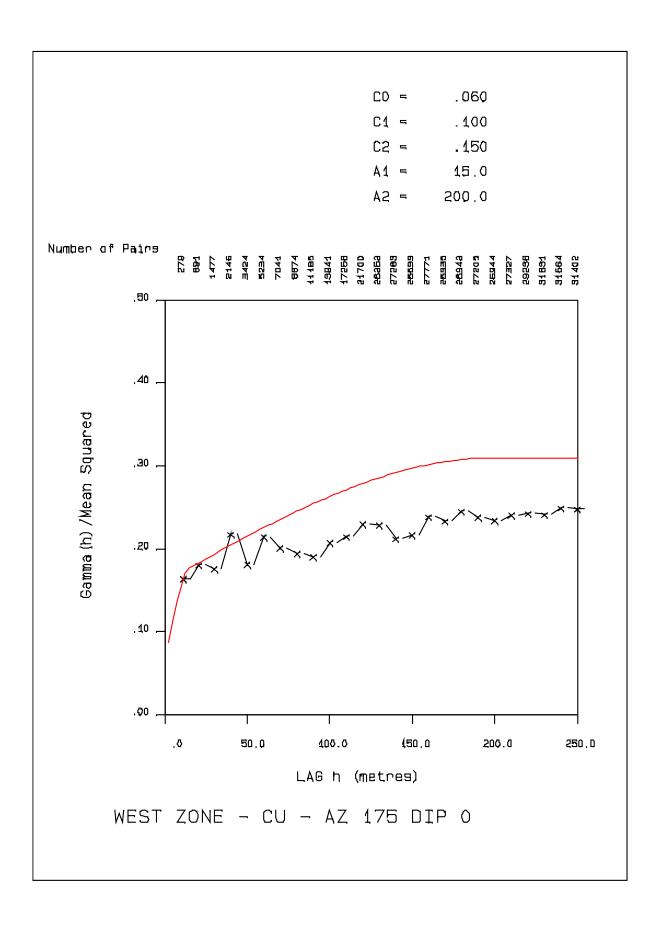


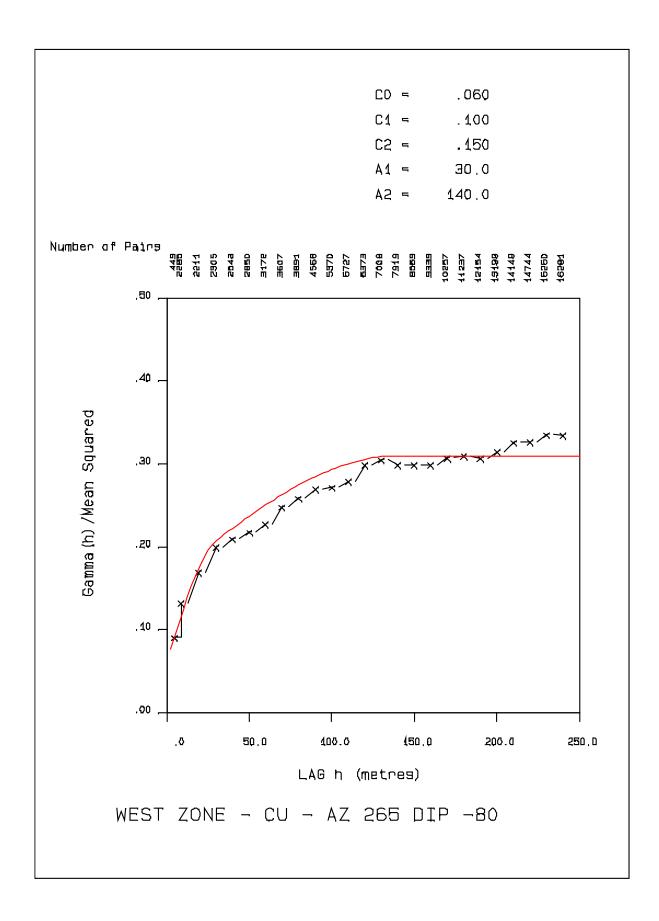


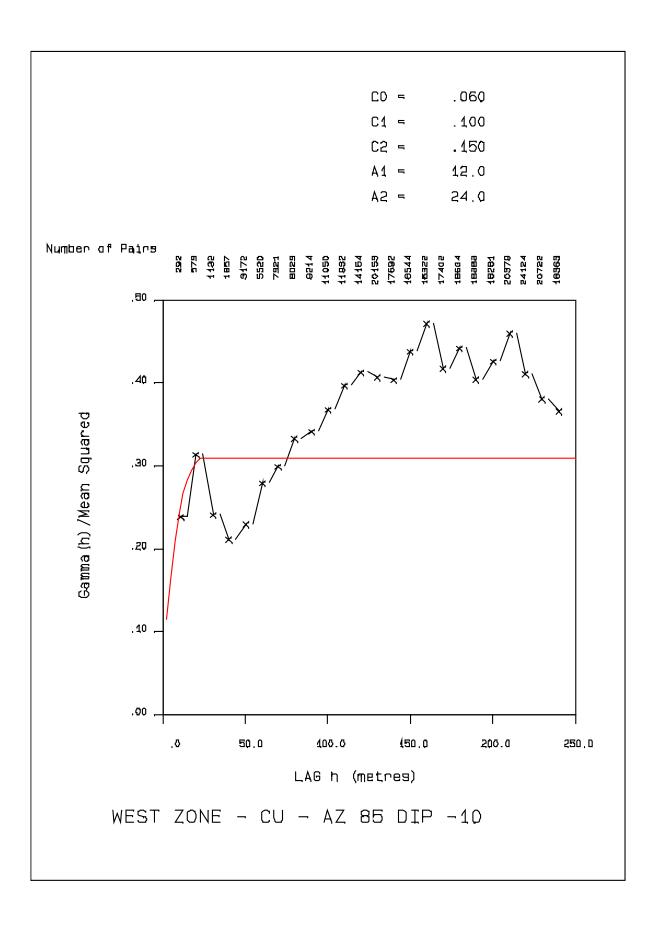


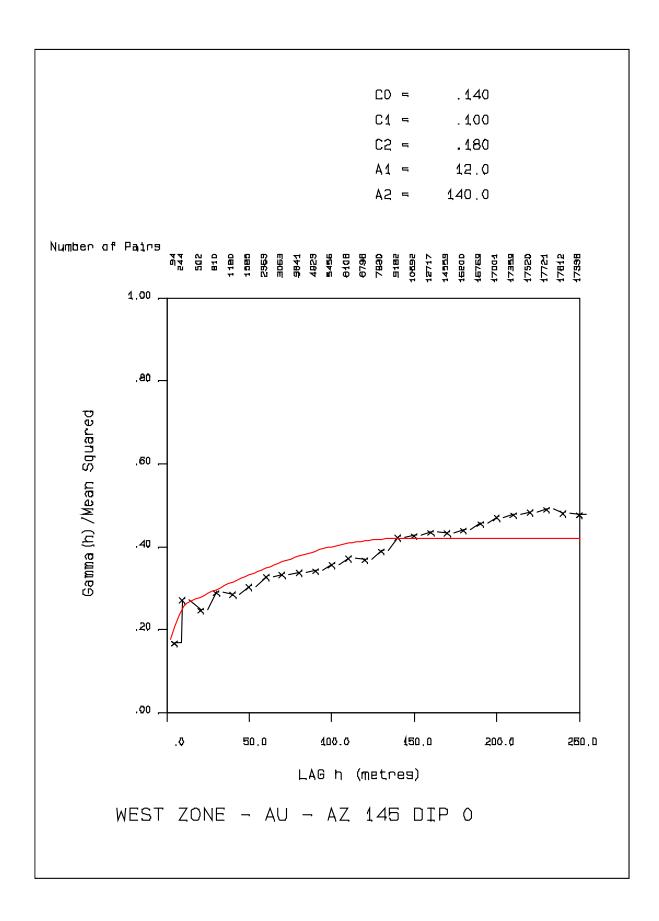


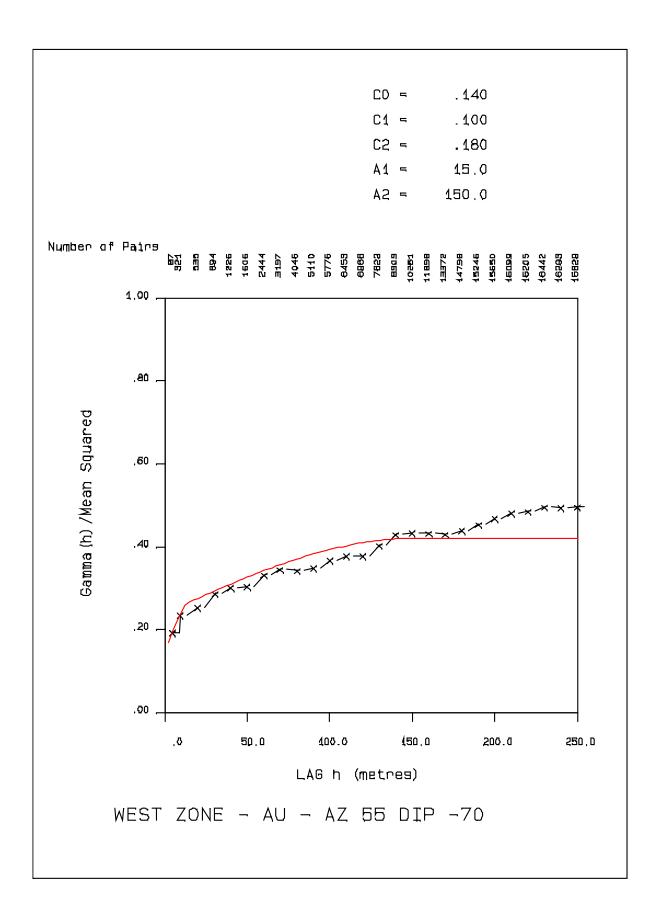


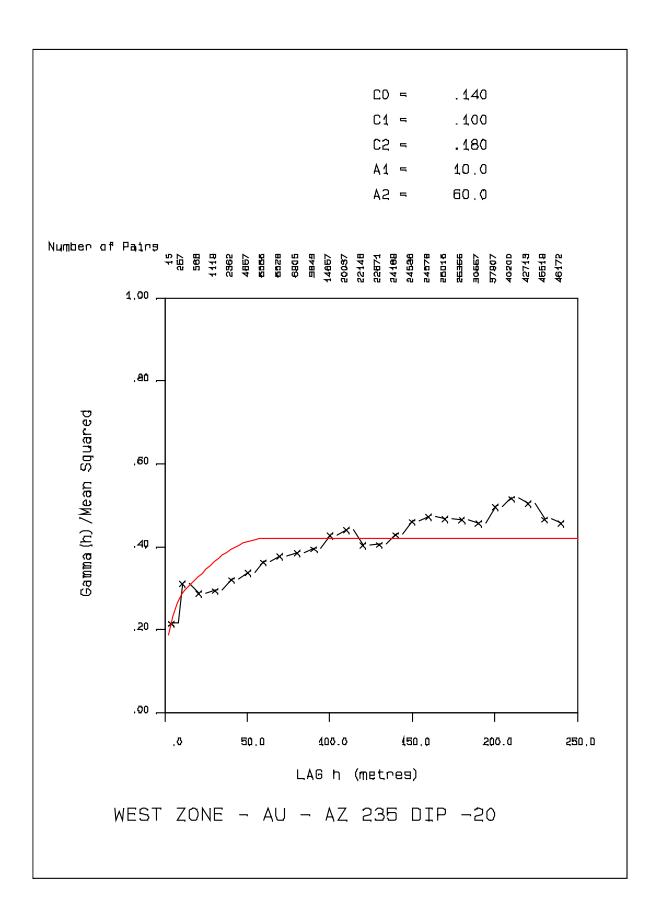


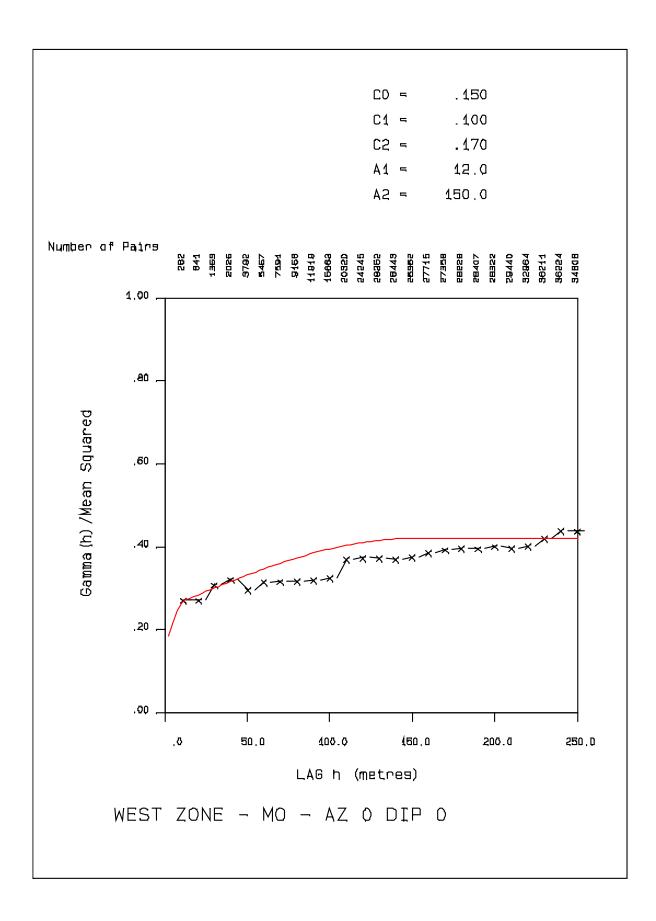


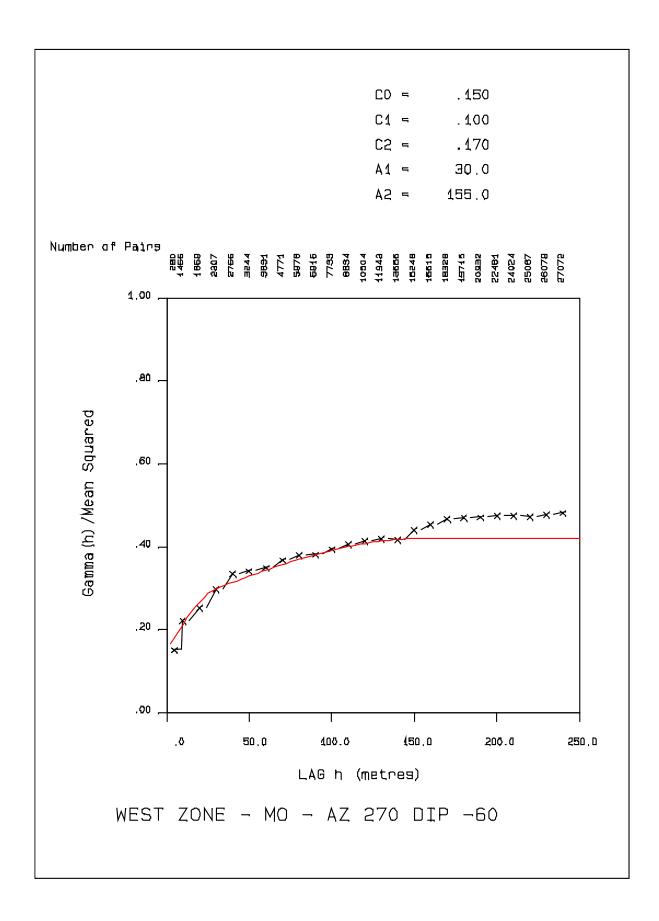


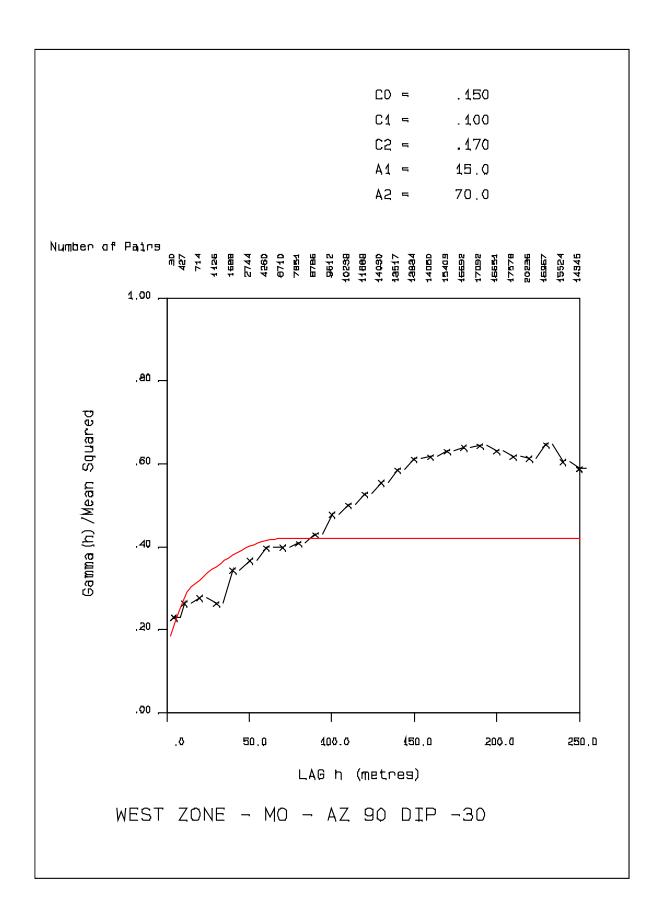


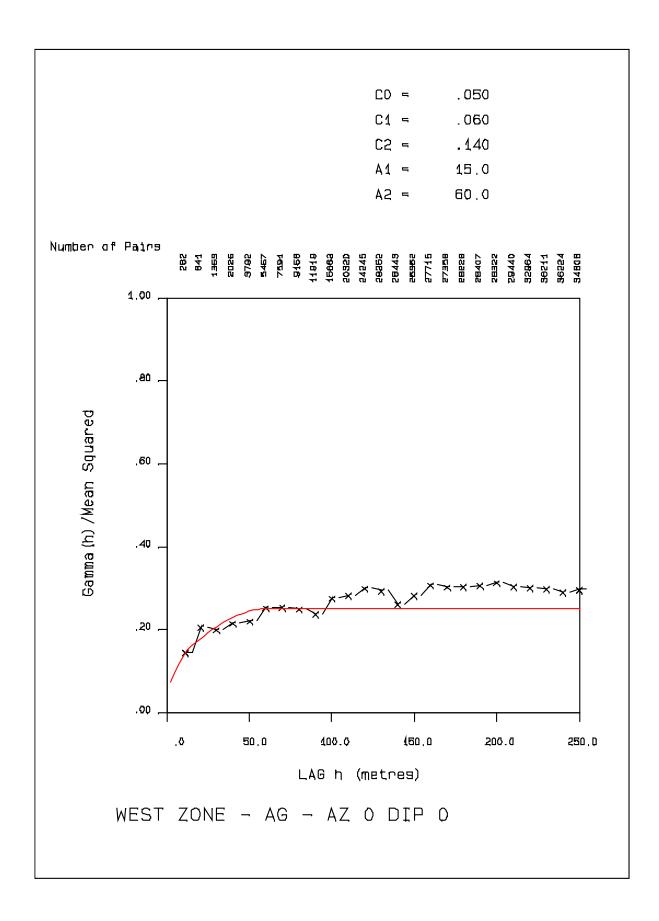


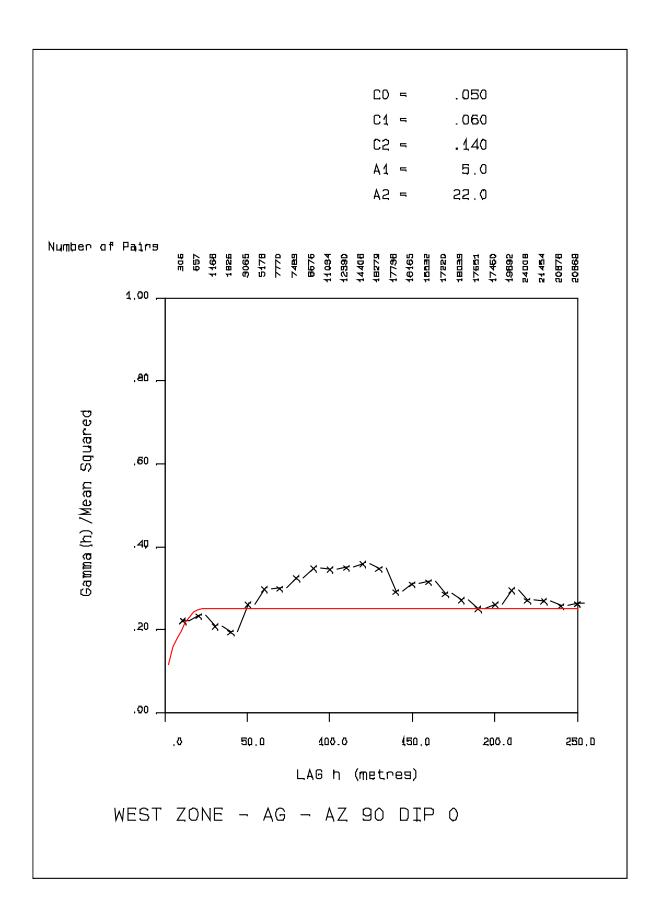


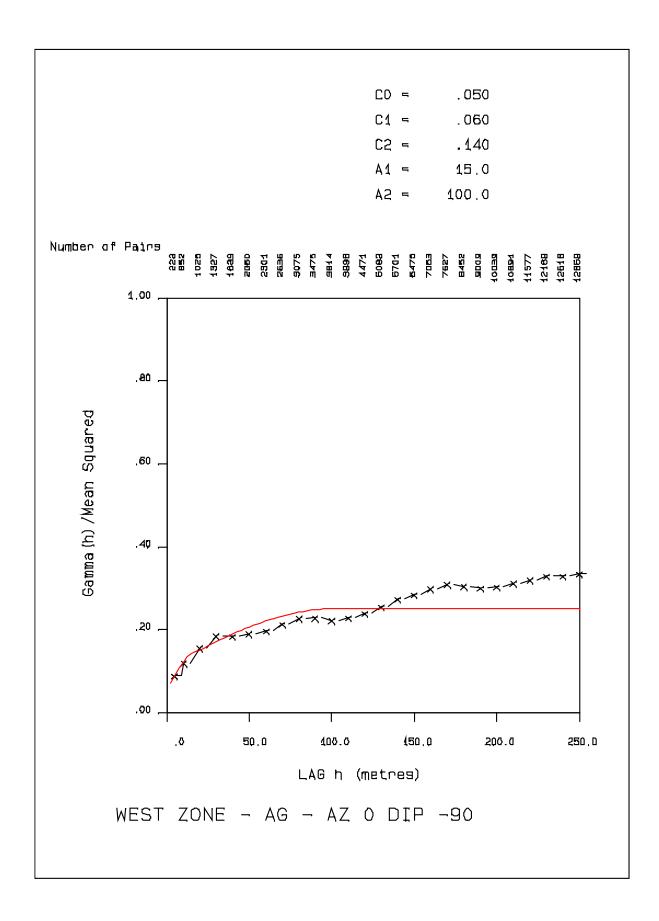


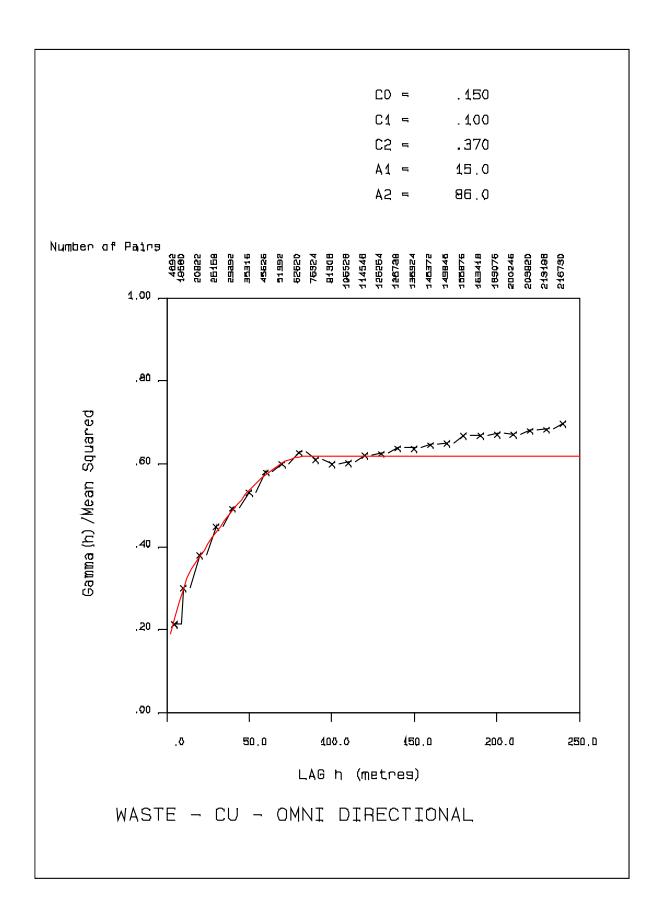


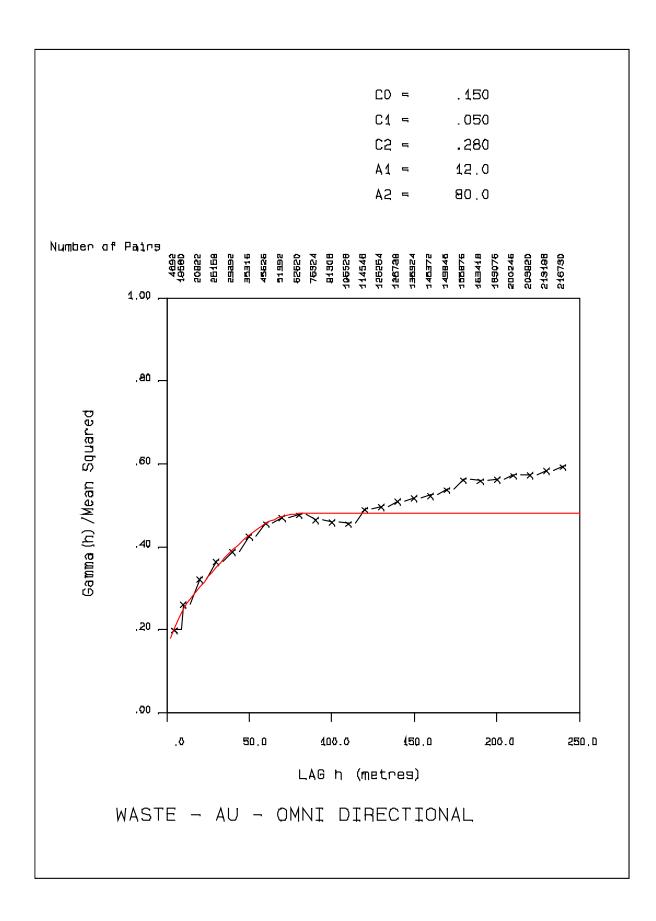


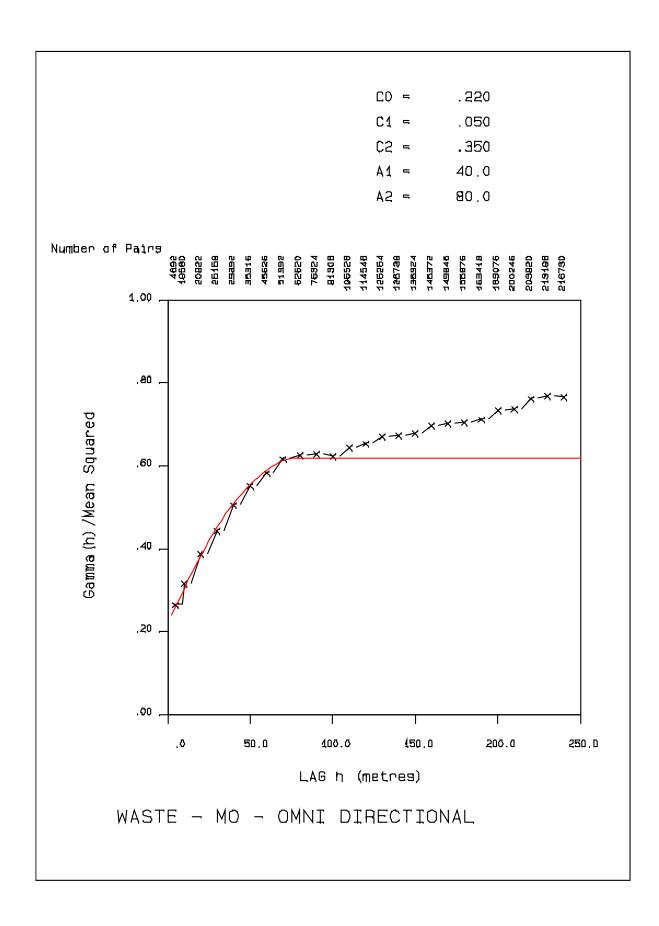


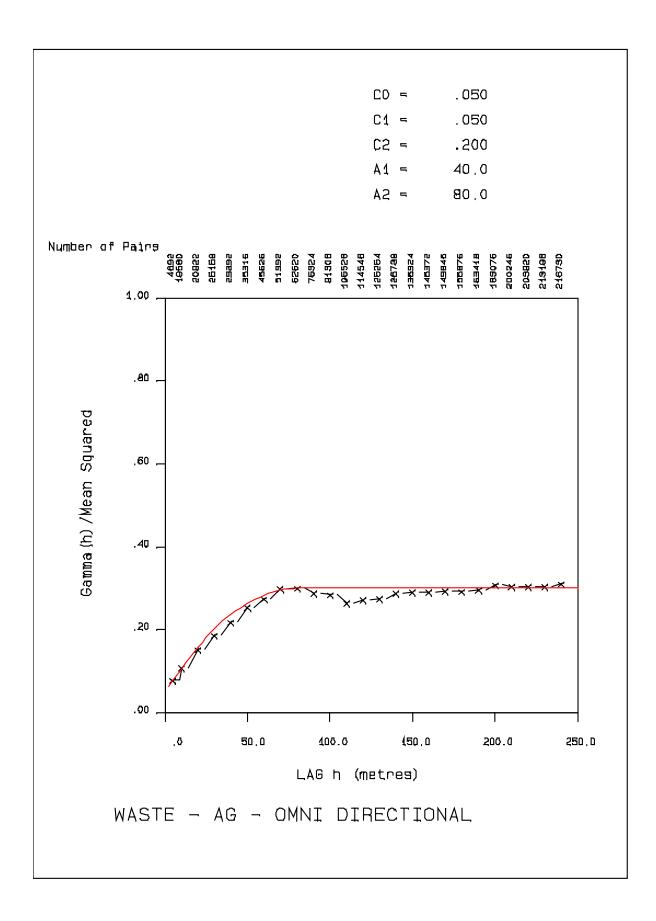












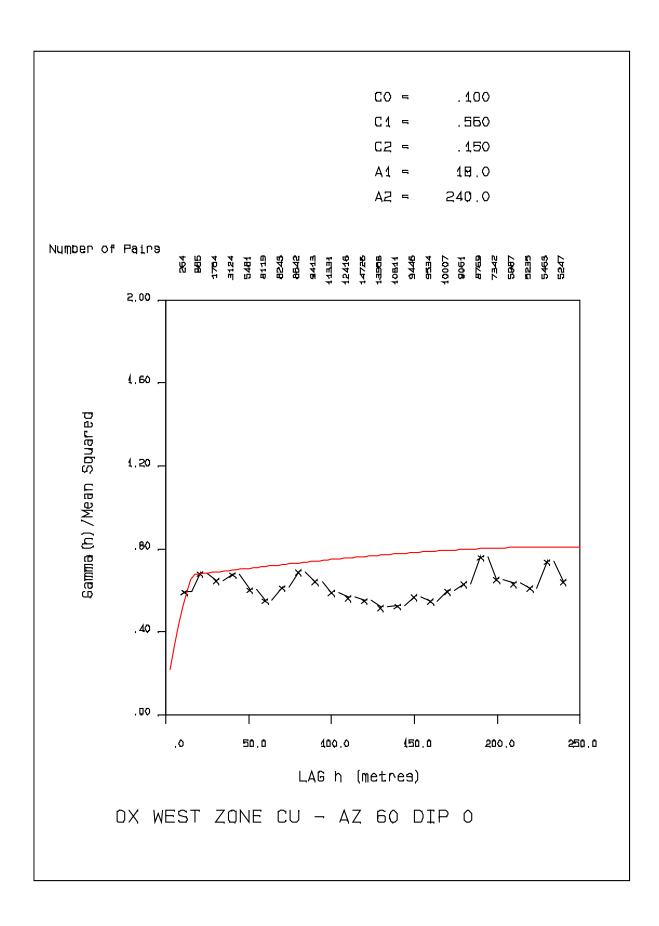
## **APPENDIX 4 – SEMIVARIOGRAMS FOR OX**

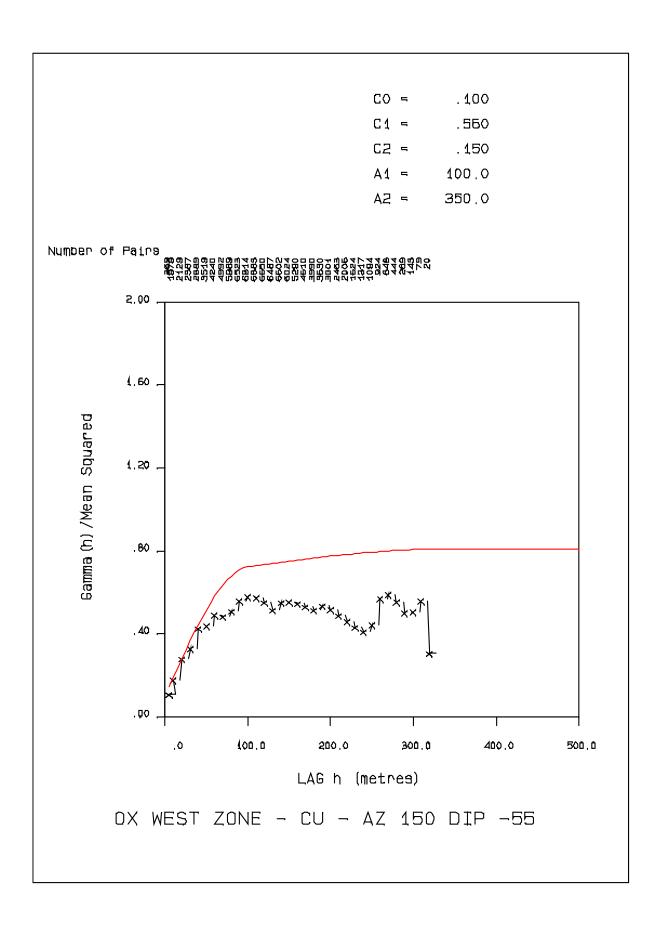
## MINERALIZED WEST ZONE

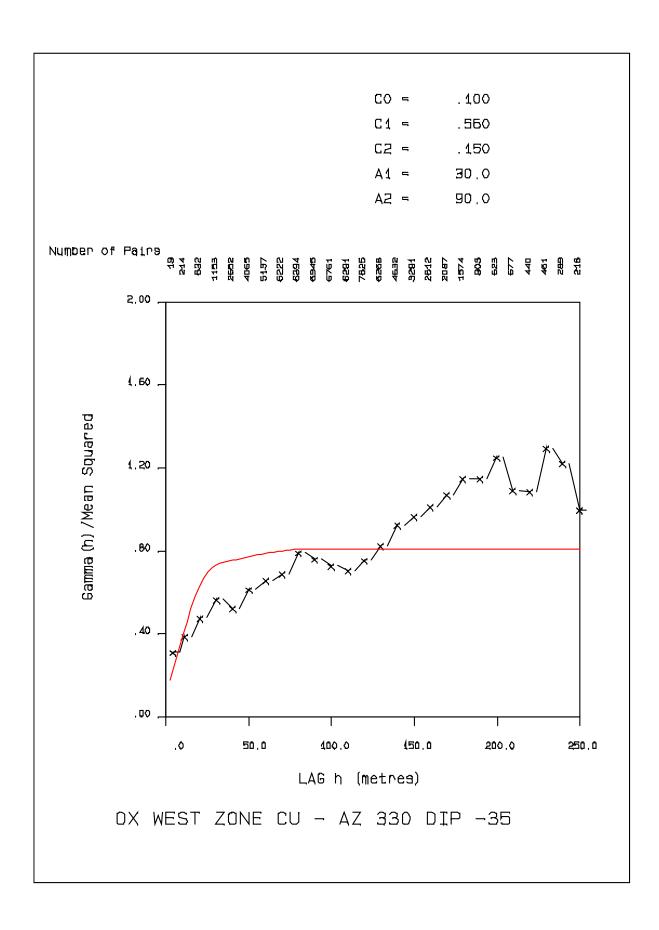
- COPPER
- GOLD
- MOLYBDENUM
- SILVER

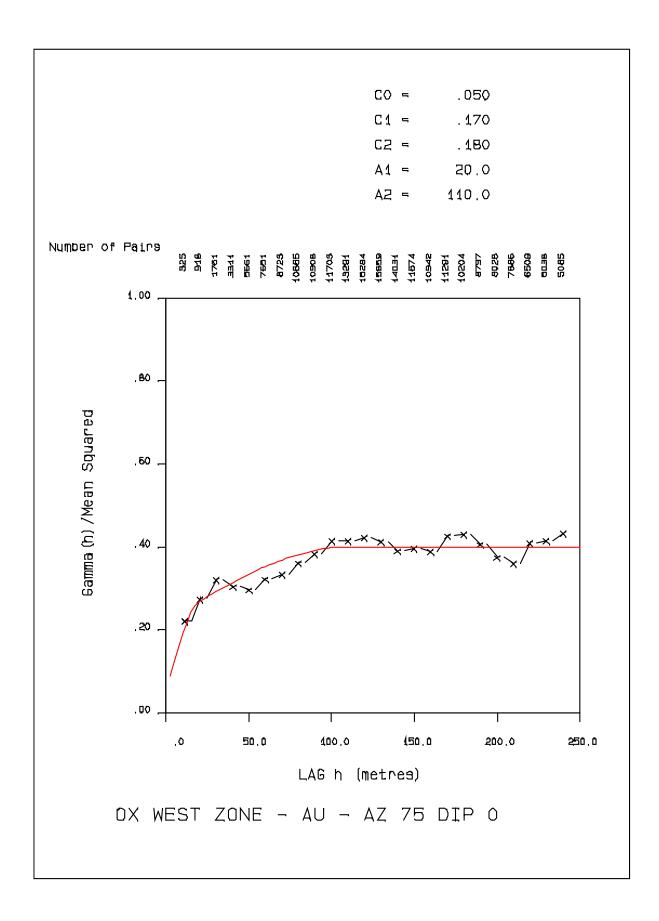
## WASTE

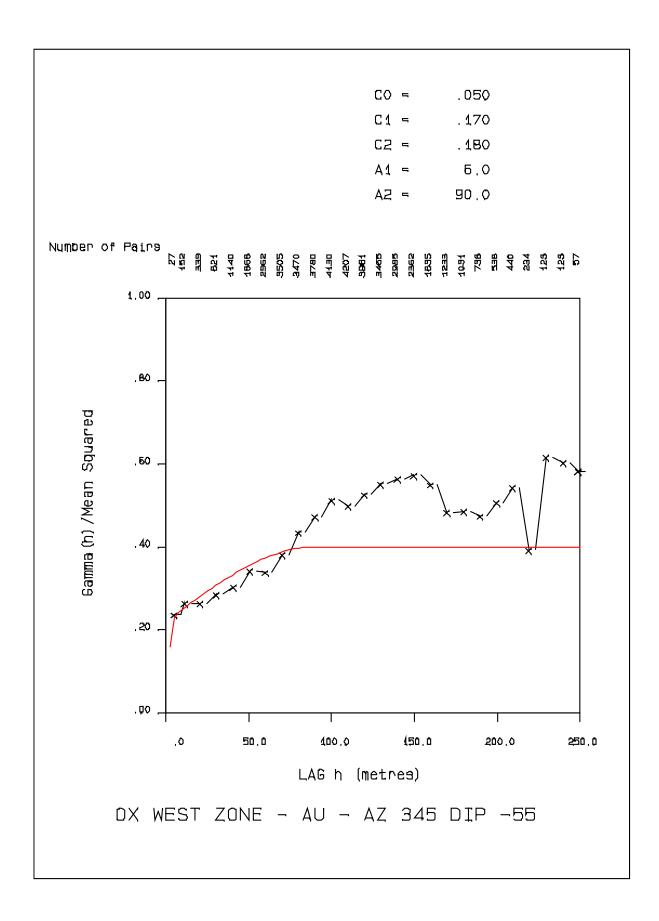
- COPPER
- GOLD
- MOLYBDENUM
- SILVER

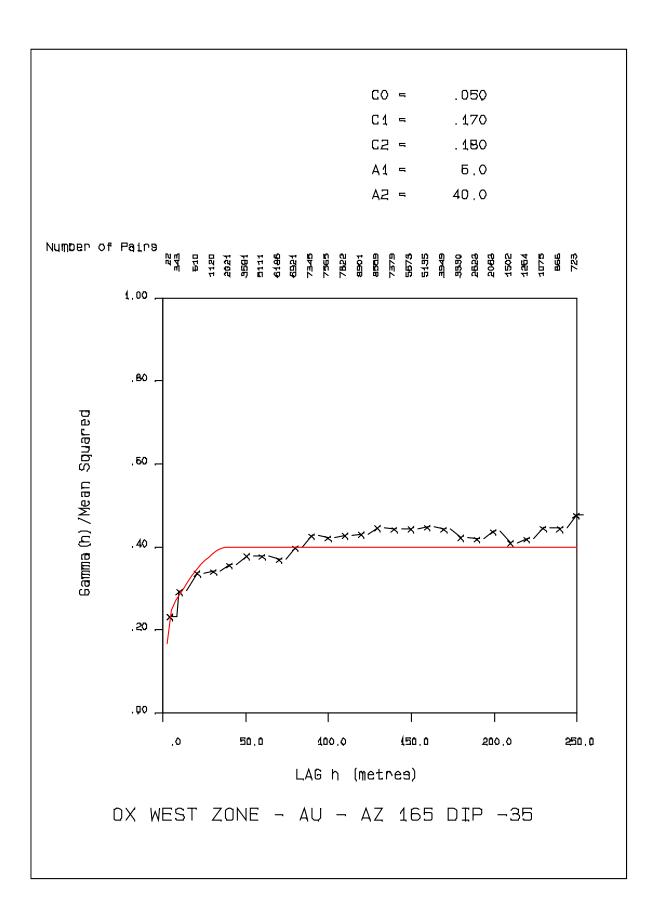


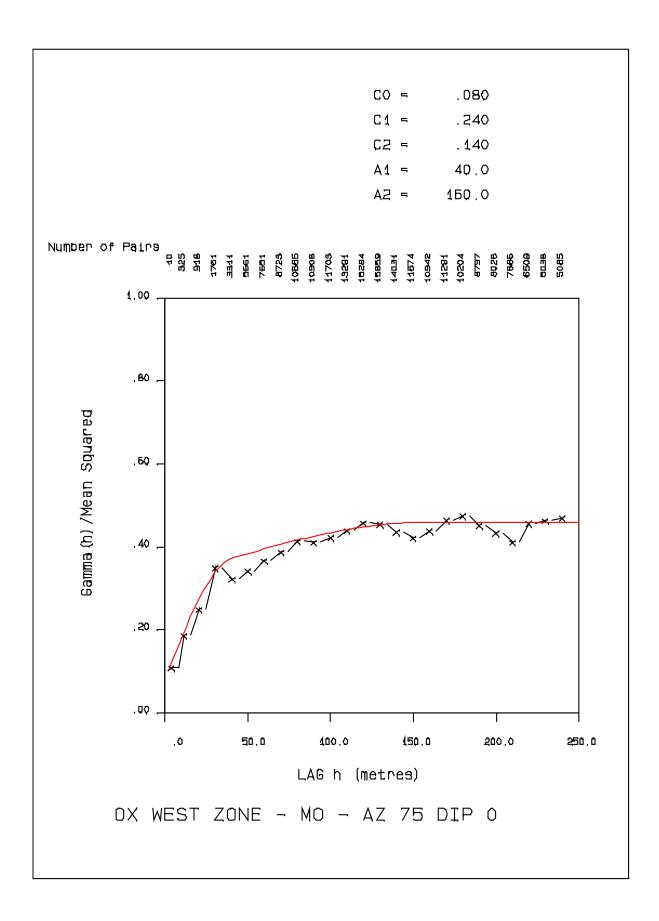


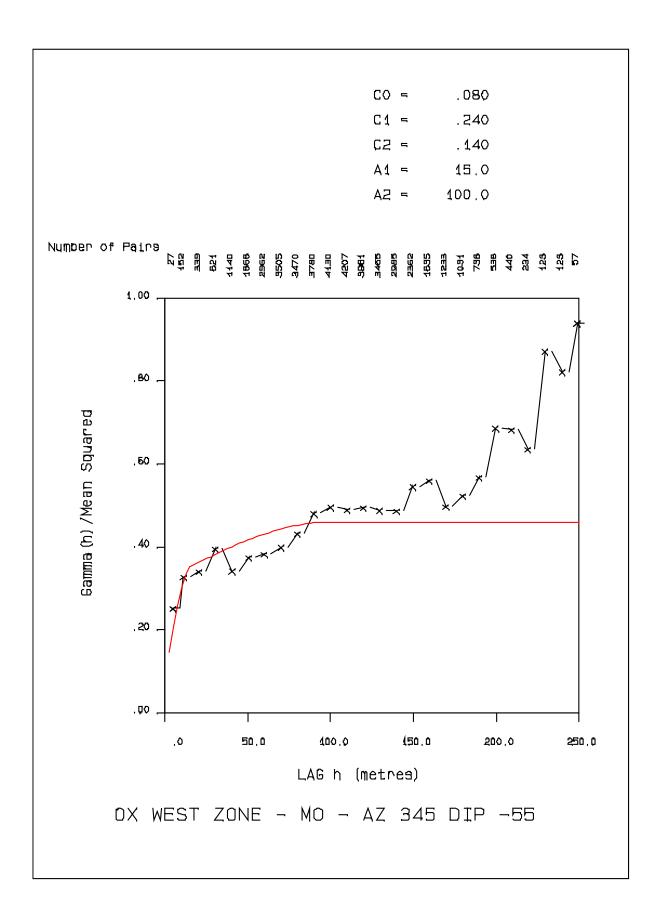


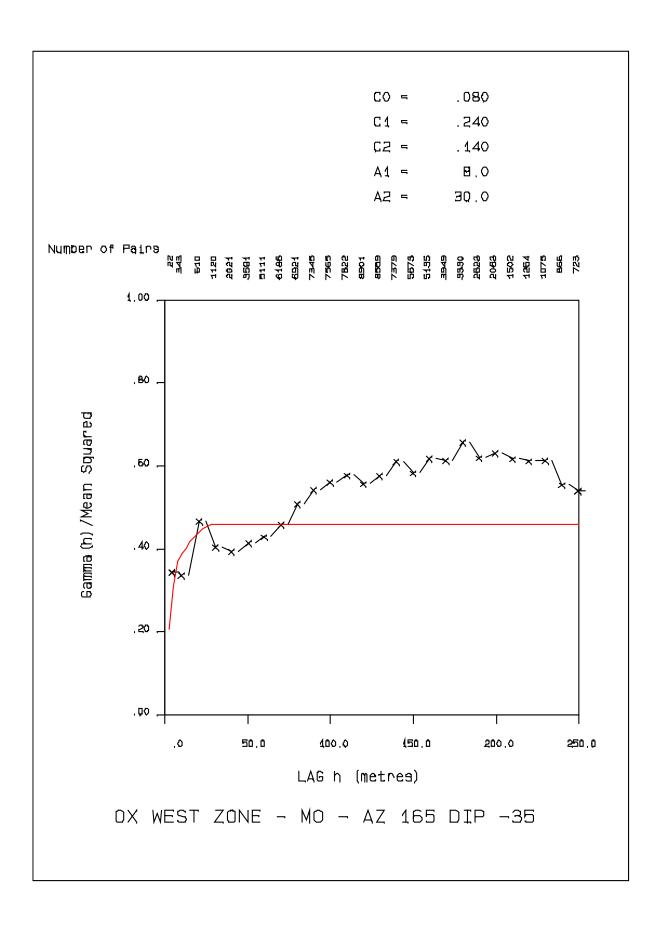


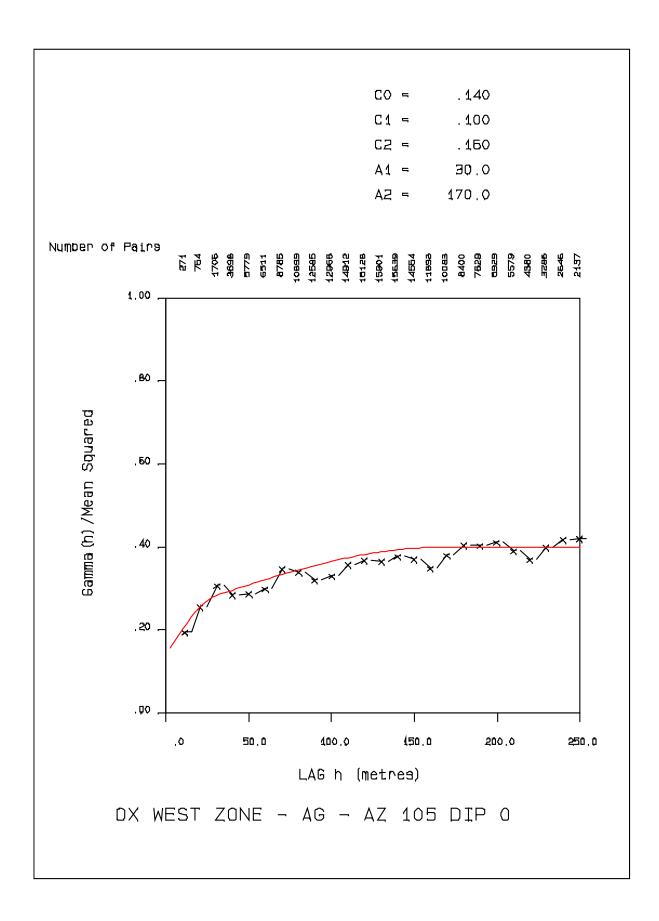


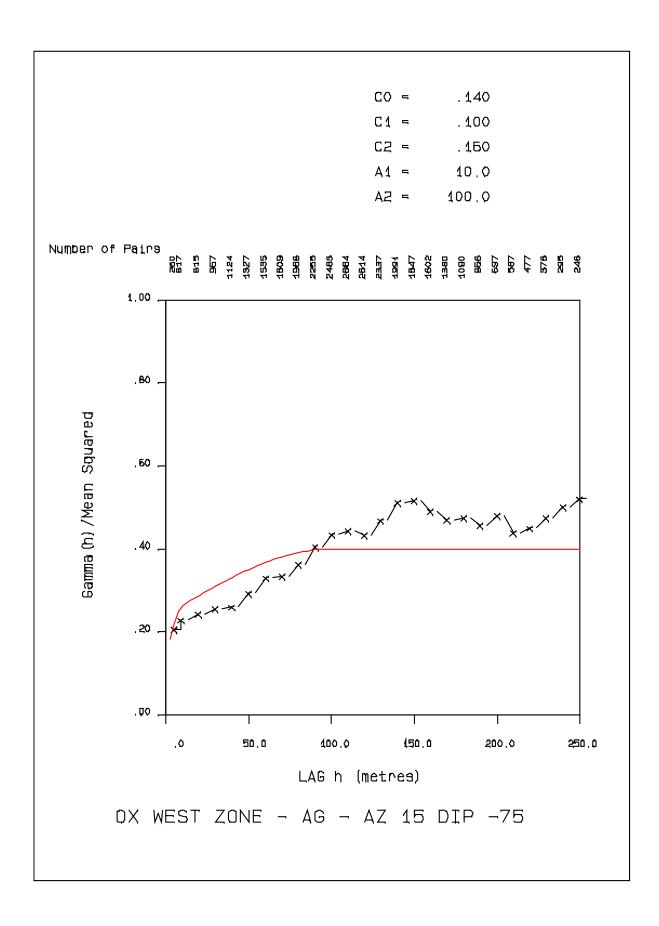


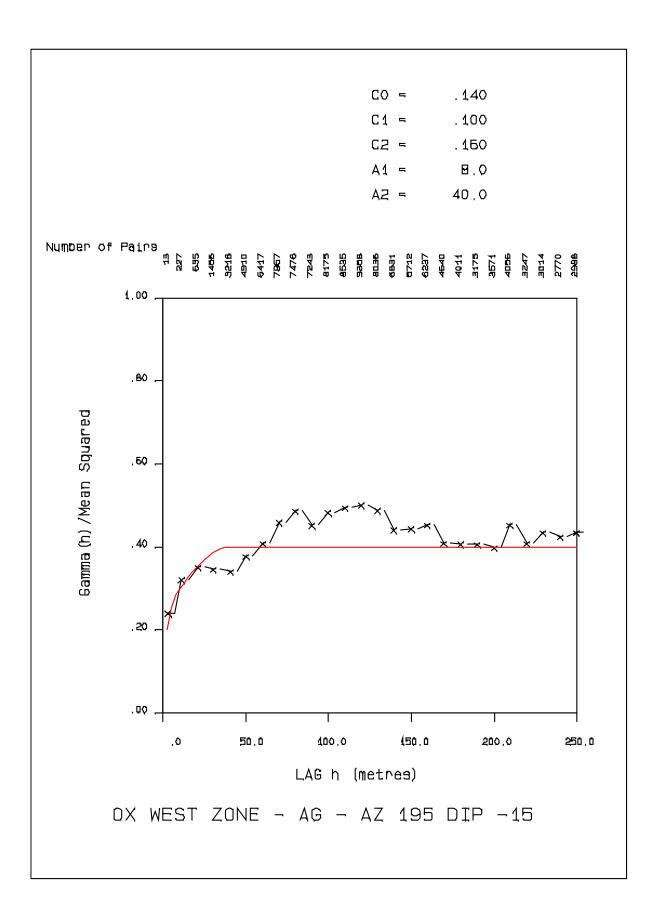


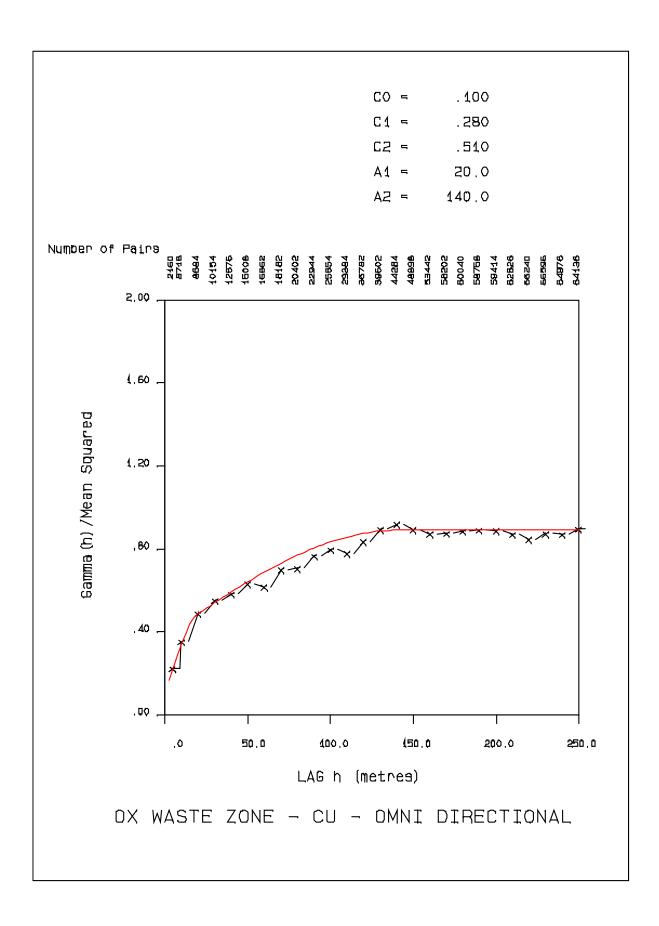


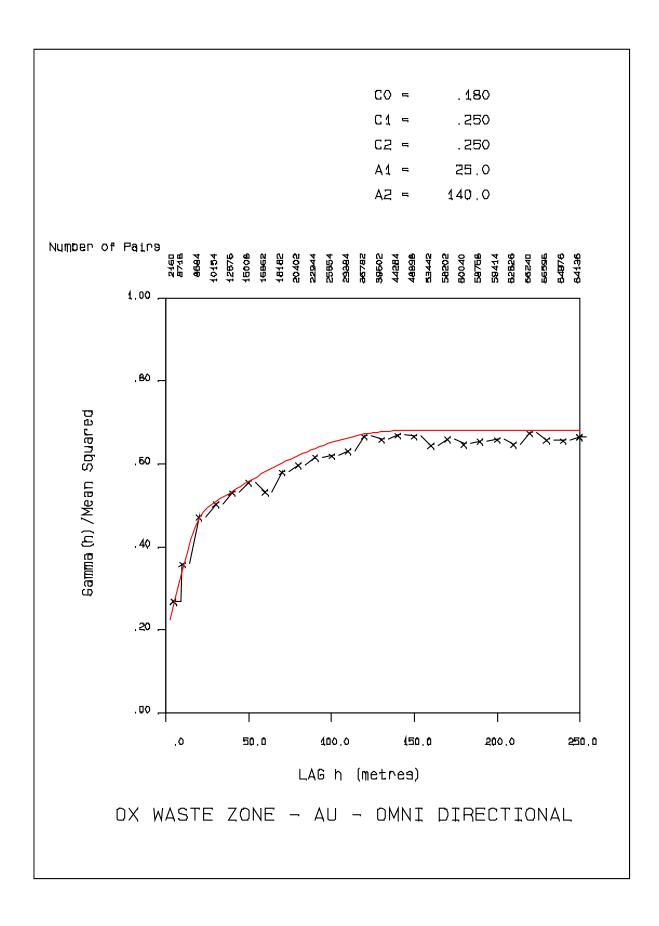


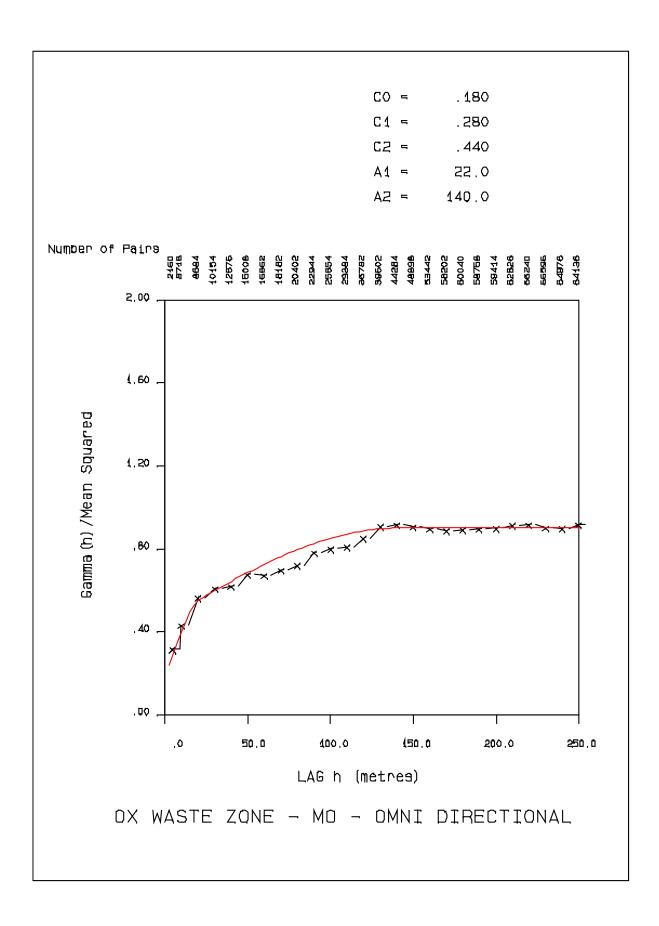


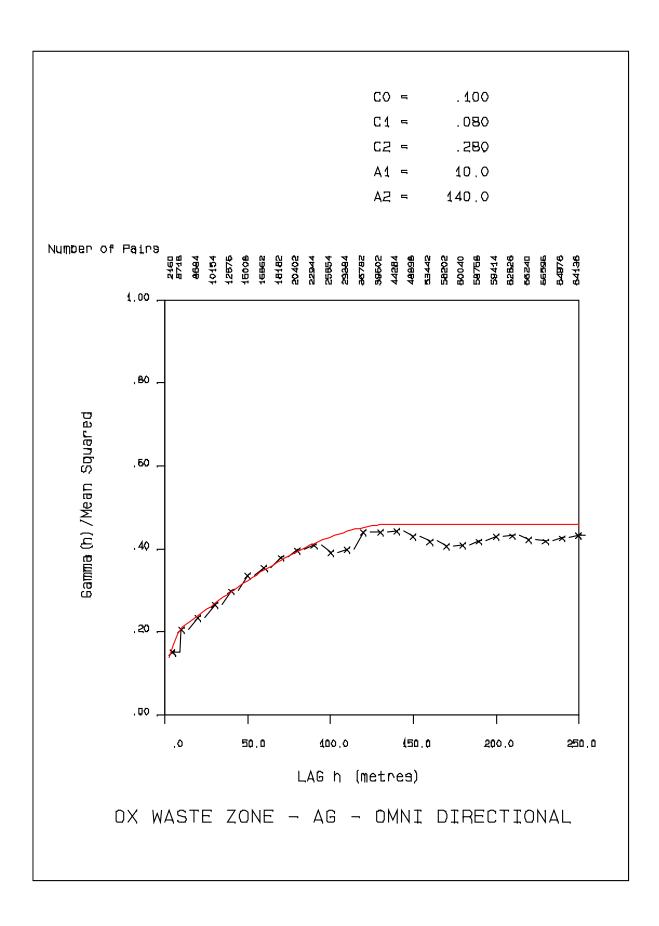




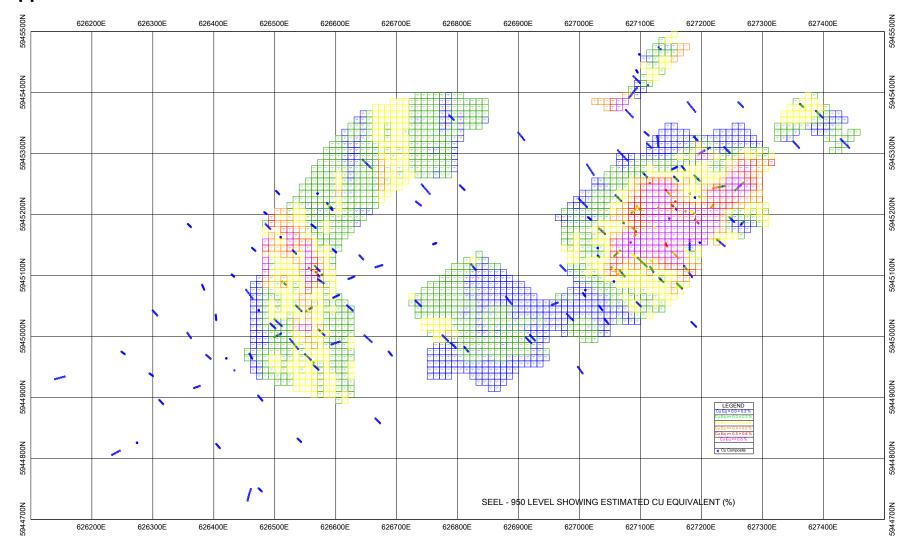




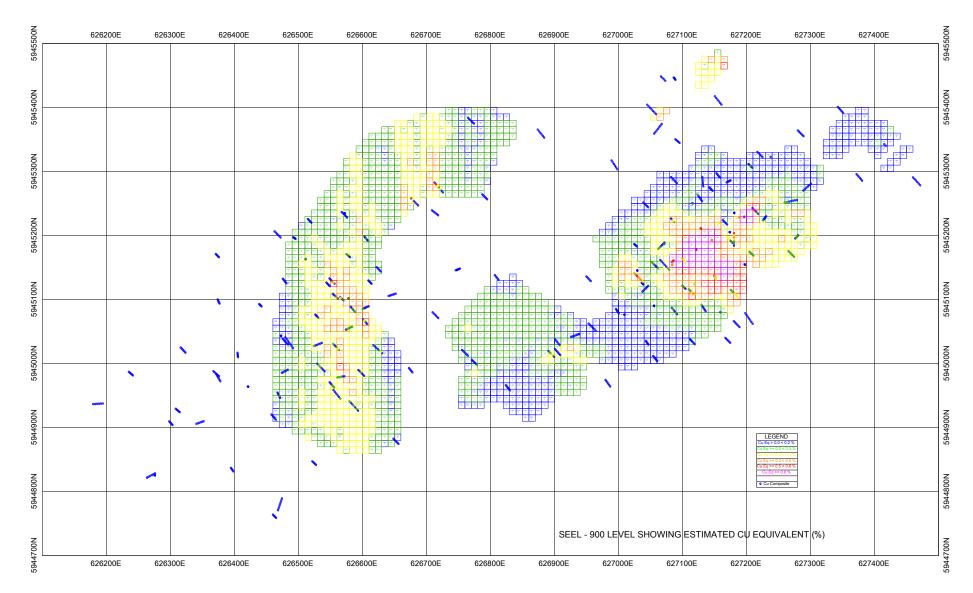




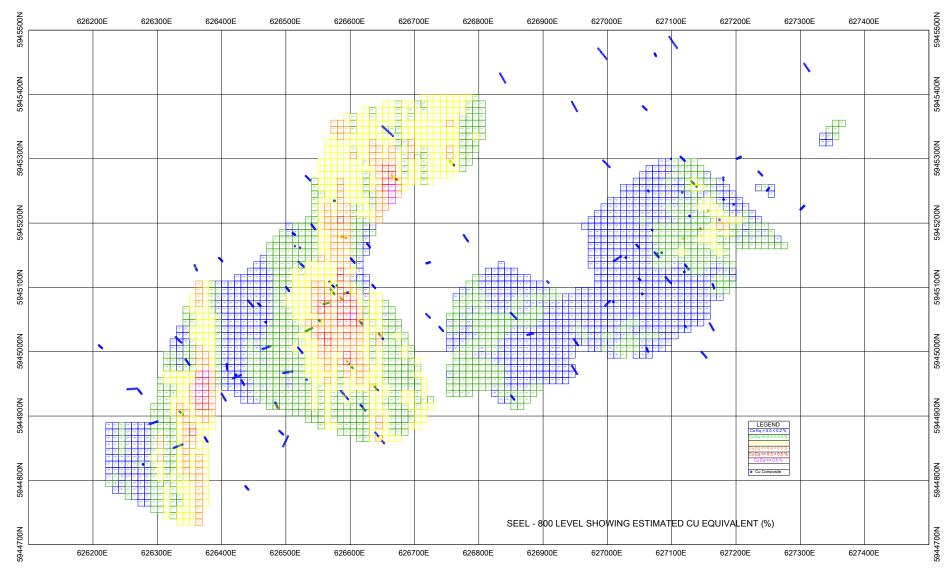
## **Appendix 5: Level Plans for Seel and Ox**



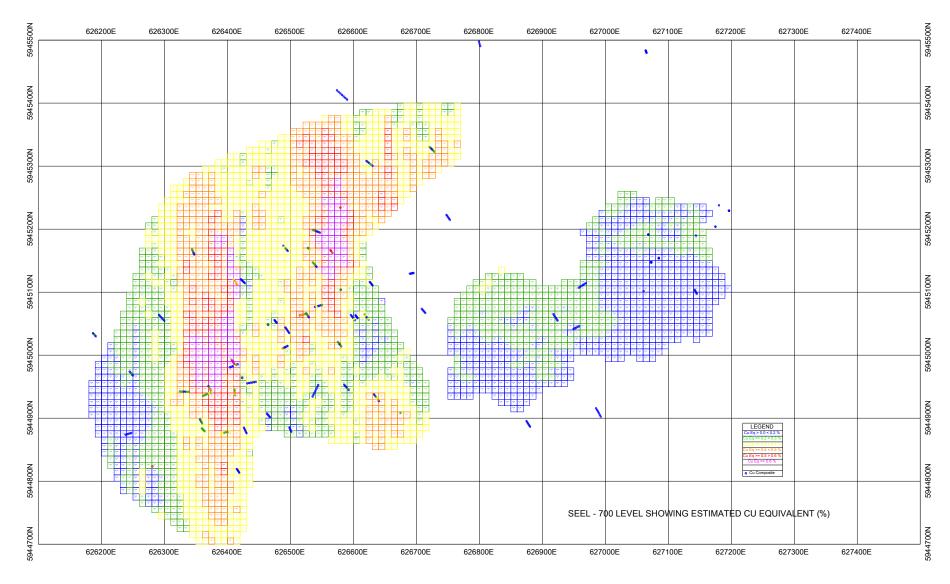
Seel 950 Level Plan Showing Estimated Cu Eq (%)



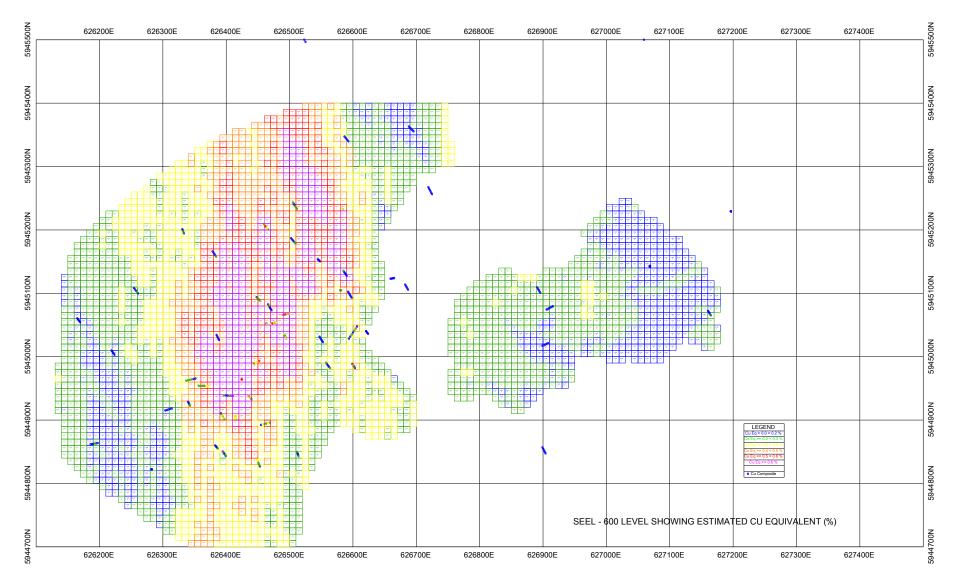
Seel 900 Level Plan Showing Estimated Cu Eq (%)



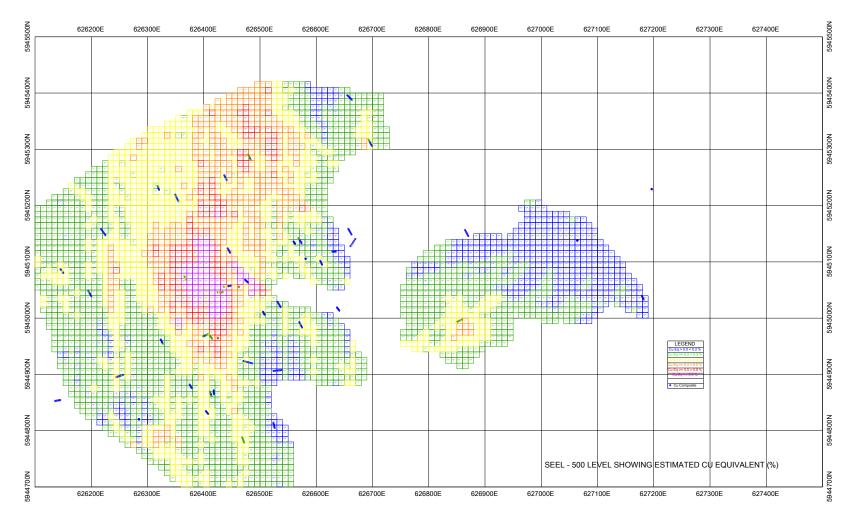
Seel 800 Level Plan Showing Estimated Cu Eq (%)



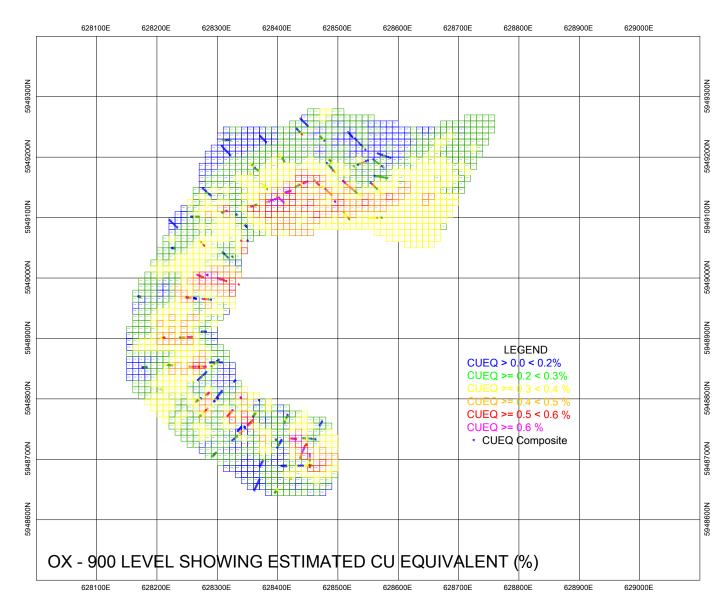
Seel 700 Level Plan Showing Estimated Cu Eq (%)



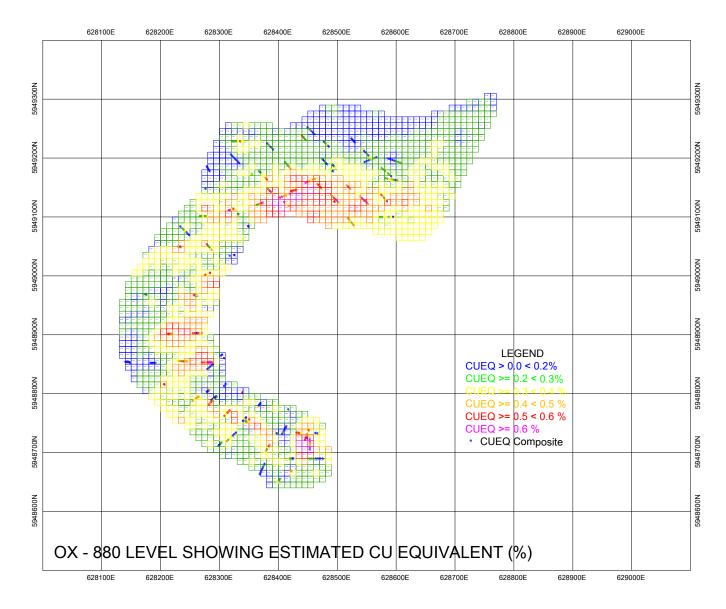
Seel 600 Level Plan Showing Estimated Cu Eq (%)



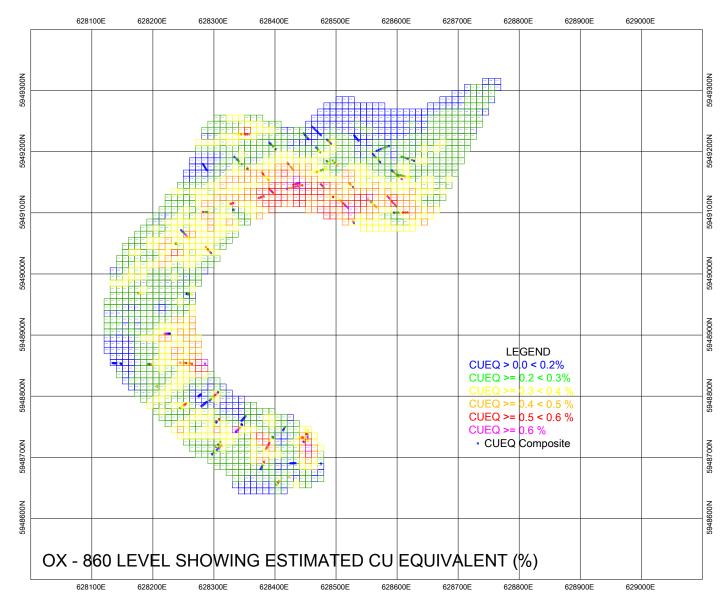
Seel 500 Level Plan Showing Estimated Cu Eq (%)



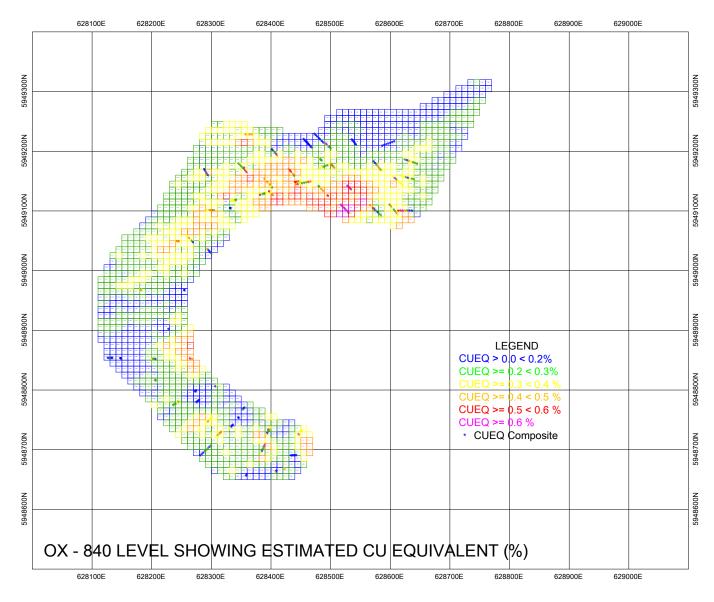
OX 900 Level Plan Showing Estimated Cu Eq (%)



OX 880 Level Plan Showing Estimated Cu Eq (%)



OX 860 Level Plan Showing Estimated Cu Eq (%)



OX 840 Level Plan Showing Estimated Cu Eq (%)

