



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



Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: GEOCHEMICAL SURVEY

TOTAL COST: \$23,065.53

AUTHOR(S): Dustin Perry

SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A

YEAR OF WORK: 2012

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5421760 / December 12, 2012

PROPERTY NAME: Catface NE

CLAIM NAME(S) (on which the work was done): 636865 and 636883

COMMODITIES SOUGHT: Cu, Mo, Au

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 092F 120, 092F 231, 092F 251

MINING DIVISION: Alberni

NTS/BCGS: 92F/5W / 092F021, 092F031

LATITUDE: 49 ° 20 ' 17 " **LONGITUDE:** 125 ° 52 ' 13 " **(at centre of work)**

OWNER(S):

1) Catface Copper Mines Limited

2)

MAILING ADDRESS:

200-580 Hornby Street

Vancouver, BC V6C 3B6

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

1) Catface Copper Mines Limited

2)

MAILING ADDRESS:

200-580 Hornby Street

Vancouver, BC V6C 3B6

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

The Catface NE Property is underlain by Paleozoic Sicker Group volcanics and sediments composed of felsic pyroclastics and mafic flow units; later intrusion by dykes and sills ranging from gabbro to diorite crosscut all lithologies. Karmutsen volcanics dip gently and overlay the Sicker Group at elevation while Questing Limestone is sparsely represented. No known mineral showings occur.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 19330, 19766, 20561, 31891, 32940

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo Interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil 28 Ah soils / 53 element ICP-MS	636865, 636883	\$5,415.42	
Silt 3 (36 element ICP-MS)	636865, 636883	\$580.22	
Rock 11 (36 element ICP-MS)	636865, 636883	\$2,127.48	
Other 65 B soils / 36 element ICP-MS	636865, 636883	\$12,571.49	
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying 107 samples		\$2,370.92	
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	\$23,065.53

**BC Geological Survey
Assessment Report
33720**

**GEOCHEMICAL SURVEY REPORT
on the
CATFACE NE PROPERTY**

Tenure Nos. 636865 and 636883

Alberni Mining Division

NTS: 92F/05W

BCGS Map Sheet: 092F031

Latitude: 49° 20.3' N; Longitude 125° 52.2' W

UTM (NAD 83 – Zone 10): 5 469 000 N; 291 500 E

Owner / Operator: Catface Copper Mines Limited – 100%

Author: Dustin Perry

March 8, 2013

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SECTION A: REPORT

INTRODUCTION

The Catface NE Property (the “Property”) is located from 1.5 to 19 km northeast of the Catface deposit, a large copper-molybdenum porphyry style deposit located on the west coast of Vancouver Island, British Columbia. The property is owned by Catface Copper Mines Limited (the “Company”), a company 100% owned by Selkirk Metals Corp., itself a wholly-owned subsidiary of Imperial Metals Corporation of Vancouver, BC. The Property is located in the Cypre River Valley within the Bedingfield Range, and extends from 14 to 27 km north of Tofino, BC. This report documents a geochemical survey program that was undertaken by the Company in May and July of 2012.

PROPERTY:

The Catface NE Property is owned 100% by Catface Copper Mines Limited, a company owned 100% by Selkirk Metals Corp. Catface Copper Mines Limited is the registered owner of the 14 mineral tenures comprising the Property.

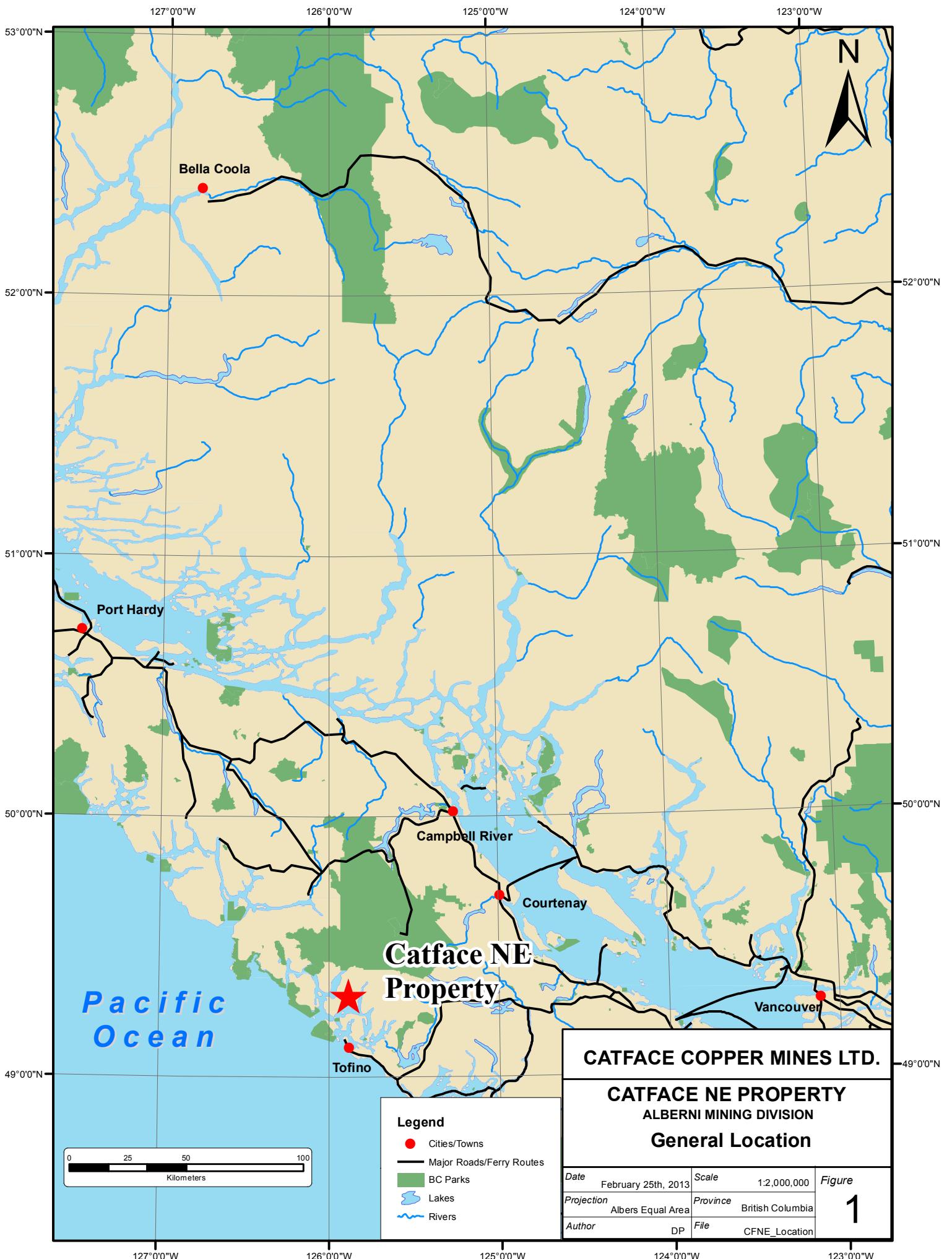
The Property (Figure 1) extends from 14 to 27 km north of Tofino, BC in the Bedingfield Range of Vancouver Island between Bedwell Sound and Herbert Inlet and consists of 14 mineral tenures (301 cells / 6334.66 ha) (Figure 2). The details of the mineral tenure that comprise the Property are set out in Section B of this report. The “good to dates” are based on the Statement of Work filed on December 12th, 2012 as Event #5421760 and assume that the work contained in this report will be accepted for assessment purposes.

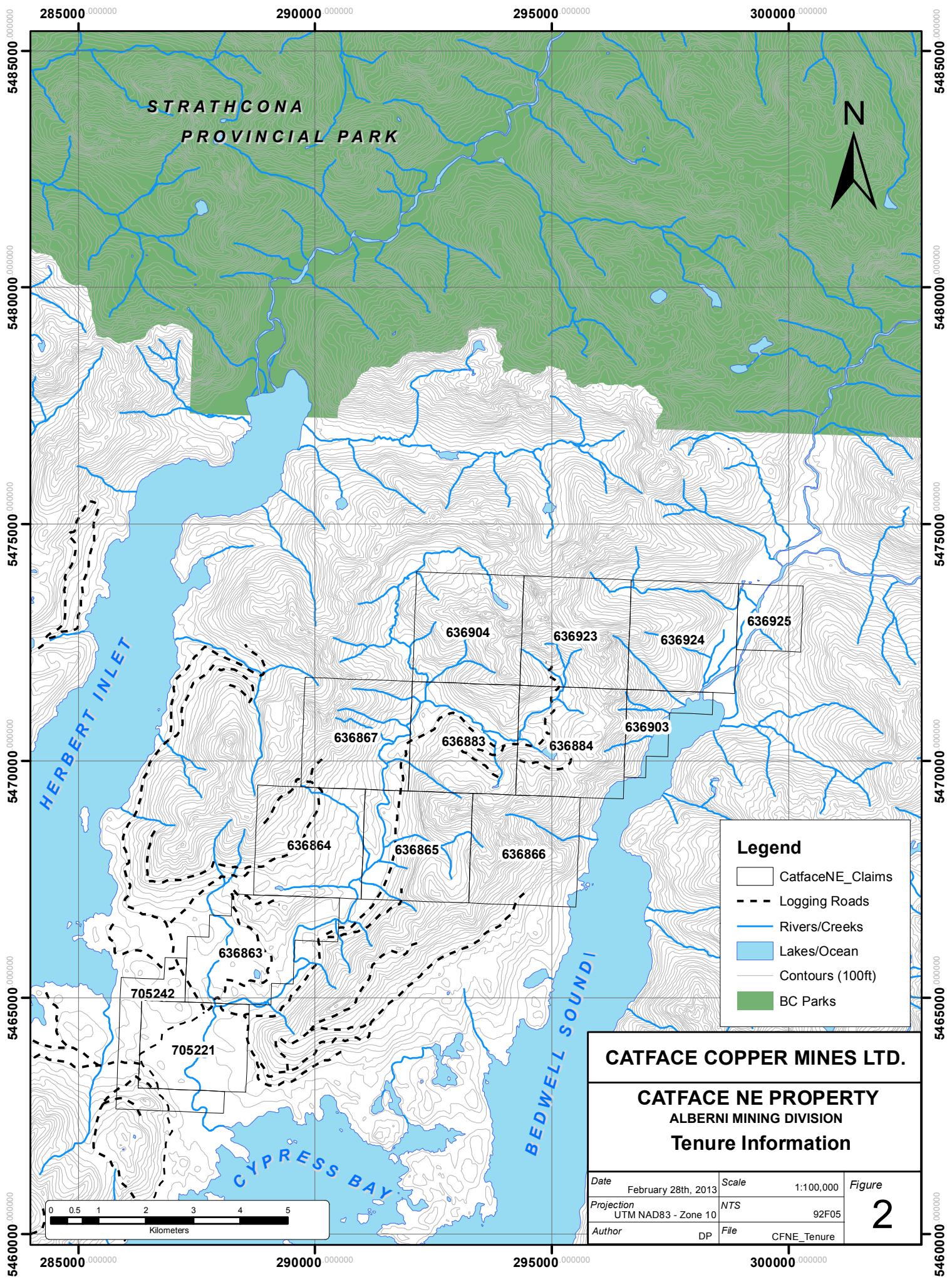
LOCATION AND ACCESS:

The Catface NE property is situated in the Cypre River Valley and the Bedingfield Range, on the west coast of Vancouver Island, southwestern British Columbia (see figures 1 to 2). The Property sits between Bedwell Sound and Herbert Inlet and is located on NTS map sheet 92F/05W and the BCGS map sheets are 092F021, 092F031 and 092F032. The centre of the 2012 work area is 49° 20.3' North latitude and 125° 52.2' West longitude while the UTM coordinates are 291,500E., 5,469,000 (NAD 83, Zone 10). The town of Tofino is approximately 14 km south of the southern boundary of the property.

Access to the Property is possible by boat, fixed-wing aircraft or helicopter and then by vehicle. A barge is required to transport vehicles from Tofino across Bedwell Sound to Hecate Bay on the Catface Peninsula. Logging roads are then used to gain access up the Cypre River Valley into the central portion of the claim block. Water taxis are also employed to move personnel on a daily basis from either Ahousaht or Tofino to either Whitepine Cove or Hecate Bay. They are then transported by vehicle to the Property. The barge and boat docking facilities are in good order at Hecate Bay on the east side of the property, as there continues to be some logging and shake/shingle activity on the Catface Peninsula and in the Cypre River area. A short gravel airstrip near the Hecate Bay dock facilities could accommodate wheeled plane access with a significant amount of upgrading, while floatplanes can land in the relatively protected confines of Hecate Bay itself. A 10 km logging access road extends from Hecate Bay into the central portion of the property.

The reactivation of several forestry roads following the 2010 field program made the northern end of the Cypre River valley accessible by truck, however; a landslide during the winter of 2011-2012 has prevented access to the final ~5km of the property. An ATV would enable access to these parts of the property.





CLIMATE, TOPOGRAPHY AND VEGETATION:

The climate of the region is classified as West Coast Marine, with mild but wet winter seasons and cool drier summers. Mean annual precipitation is 3,235 mm as rain, and 536 mm of snow. The annual temperature range varies from -15.0°C to 32.8°C, with a mean of 9.0°C (Knight Piésold, 2004). Temperatures are moderated by the proximity of the ocean so that prolonged periods of freezing weather are unusual.

The heavy rainfall that is common in this area can deliver large volumes of water over short periods of time, much of which is intercepted by the forest canopy. The remainder normally runs off rapidly through the soil. Hydrologic data has been collected for Bawden Creek (also referred to in earlier references as Irishman Creek), which runs through the centre of the Catface Property. This data indicates that the flow can be highly variable, with the mean annual high flows in December and low flows in July – August.

The Catface NE Property is located in the Clayoquot Sound region of western Vancouver Island. This area is dominated by the Estevan Coastal Plain, a gently undulating terrain that has been broken into numerous islands and peninsulas by inlets and channels. Steep highly dissected rocky hills are formed by outliers of the Westcoast intrusive complex which forms the Vancouver Island Mountains. The Catface Peninsula is a heavily treed peninsula 4 to 8 km wide. Recently significant areas of forest land have been harvested within the property boundaries and nearby areas. The Bedingfield Range runs on a SW-NE axis on the west side of Bedwell Sound with elevations ranging up to 1184 m on Mt. Saavedra and 1291 m on Mt. Guemes.

The Property is covered in a typical assemblage of west coast second growth vegetation consisting of thick stands of western hemlock, red cedar, Douglas fir and white pine. There is a thick undergrowth of salal and salmonberry throughout the area.

HISTORY:

The Catface NE claims were originally known as Bedingfield and Cypre mineral claims, and were first staked in 1985 (Vande Guchte *et al.* 1989). Cominco Limited optioned the property from 1985 to 1988 during which geological mapping, rock and soil geochemical sampling, and reconnaissance UTEM surveys were completed but only a total of 3 line km were surveyed (Jackisch, 1987). At the time the Property was held under a joint venture exploration agreement with BP Resources (Blackwell, 1988).

The results of the UTEM surveys lead to the establishment of three grids totalling 49 line km to be mapped and surveyed by UTEM, horizontal loop EM and magnetometer. Nine holes totalling 1061 m were drilled in two areas during 1987. Cominco returned the claims to the vendors in 1988.

Falconbridge Ltd acquired the Cypre River Option in June, 1987 and contracted Aerodat Limited to fly airborne surveys of the Property during 1989. The EM, VLF-EM and MAG surveys covered about 70% of the property (Stewart, 1989).

Project geologist Robert Stewart attributed resistivity and IP responses to graphite along a thrust fault below the Karmutsen Formation, and did not recommend the extension of the grid to the north (Stewart & Hendrickson, 1989). Later in 1989, Vande Guchte *et al* followed up on the geophysical surveys by 1:5000 mapping and rock sampling.

In 1990 Falconbridge Ltd continued with mapping and rock sampling to evaluate the possible economic potential of the Sicker Group (Vande Guchte & Stewart, 1990). Alteration zones were investigated with emphasis, but no significant base metal or precious metal mineralization was found.

None of the exploration programs undertaken on this Property have yielded results indicating the possible presence of another VMS style deposit similar to Myra Falls or a porphyry deposit like the Catface copper-molybdenum deposit.

In 2010, 44 stream sediment samples were taken on the property between June 1 and July 31. The geochemical program was completed concurrently with the 2010 drilling program on Catface Mountain by the Company.

In 2011, a follow up program of 38 silt samples, 128 B-soil samples, and 3 rock samples, was undertaken to test the western side of the Cypre Valley as well as the anomalous drainages highlighted in the 2010 survey.

REGIONAL GEOLOGY:

The Catface copper-molybdenum porphyry deposit is hosted within volcanic rocks of the Upper Permian Sicker or Vancouver Group (dominantly Karmutsen volcanics) and Eocene porphyritic intrusives. The volcanic suite consists of basalts, andesitic flows, tuff breccias and agglomeratic rocks that are locally weakly hornfelsed near the intrusive contacts. These lithologies are in fault contact with diorites of the Westcoast Complex (Figure 3). All of the older units were intruded by Jurassic age quartz monzonite sills and dykes. The entire assemblage was subsequently intruded by several phases of the Tertiary Tofino Intrusive Suite (Catface Intrusions), which consist of porphyritic quartz diorite/granodiorite stocks (McDougall, 1976 Muller, 1981; and Nilsson, 2001).

The Catface deposit is atypical of most calc-alkalic porphyry deposits in BC in that it lacks a pyritic halo or a distinct phyllitic alteration envelope. Quartz stockworks are poorly developed and there is little evidence of base metal zonation outside of the copper zone.

The following discussion is taken from McDougall (1976) as it summarizes the regional setting of the deposit:

“The Catface regional setting is that of a cupola of quartz diorite emplaced in and capped by volcanic rocks. The cupola is genetically related to a large elongate Tertiary intrusion that is sparingly exposed. The emplacement of this pluton was guided by intersections of regional and local faults and by contacts which guided earlier and smaller quartz monzonite intrusions. Mineralization affects both the upper portion of the cupola, which consists largely of dyke like porphyritic bodies and porphyry dykes, and the invaded host rocks, which consist of Paleozoic and possibly Triassic volcanic sequences intruded by the quartz monzonite of undetermined age”

“Fracturing of the host rocks occurred, particularly at higher levels, related to intrusive-induced doming as well as local faulting. Micro-shattering of rock forming minerals was extensive. Hydrothermal alteration, although not intense, was widespread, with processes such as silicification influencing rock competency. The mineralizing process, which occurred after all the rocks were emplaced and major structures developed, was controlled by fault and fracture systems.”

“Mineral zoning, probably caused by sulphur and iron availability, resulted in the central annular pyrite-free bornite-chalcopyrite zone, which approximately coincides with a siliceous one, and an outer pyrite-pyrrhotite-chalcopyrite zone.”

PROPERTY GEOLOGY:

The geology of the Catface Deposit has been detailed in papers by J.J. McDougall and is discussed in Porphyry Deposits of the Cordillera - CIM Special Volume 15 and Special Volume 46. Relevant geological information from these papers has been summarized by Chapman (2009) in the descriptions below.

The geologic setting of the adjacent Catface deposit is a cupola of quartz diorite emplaced in, and capped by volcanic rocks. The cupola is genetically related to a large Tertiary intrusion that is elongate in a northwesterly direction. Intersections of regional and local faults provided the controls on the emplacement of this pluton, and the smaller quartz monzonite intrusions which preceded it. Mineralization is distributed through the upper portion of the cupola and the invaded country rocks. The upper levels of the cupola consist of dyke like porphyry bodies. The country rocks are Paleozoic and possibly Tertiary volcanic sequences, which had been previously intruded by the quartz monzonite bodies of undetermined age.

Some blocks of the volcanic rocks have been assimilated by both the monzonite and the quartz diorite, but most can still be recognized, with the origin of the blocks being the roof and walls of the original magma chamber. Intrusion and collapse breccias formed at various times within the enclosing rocks. Fracturing of the country rocks was extensive and related to doming as well as local faulting. The mineralizing event occurred after all rocks were emplaced and major structures developed, and was controlled by fault and fracture systems.

The Catface project contains three known mineralized zones as a result of exploration work completed to date. These are the Cliff Zone, the Irishman Creek Zone and the Hecate Bay Zone. The main deposit is the Cliff Zone situated on the west side of Catface Mountain. Mineralization at the Cliff Zone covers an area of approximately 900 m by 600 m to a depth of 350 m, and consists of disseminated and fracture controlled chalcopyrite, bornite and molybdenite. The mineralization occurs in both the intrusive rocks and the volcanic country rocks. The Cliff Zone is a copper – molybdenum porphyry system related to a small mid-Eocene porphyritic quartz diorite to granodiorite intrusive stock that is one of the “*Cliff Intrusions*”. The Irishman Creek Zone is a smaller but higher grade deposit associated with a series of pipe like breccia zones. The size and style of the Hecate Bay prospect has not yet been determined.

The Catface NE Property is contains similar geology as the Catface Property, but sedimentary and metamorphic units are more prominent.

On the west side of the Cypre River the Sicker Group volcanic unit is exposed. Muller (1980) suggested that the Sicker Group consists of four dominant units, although other research indicates possible additional units. Vande Gutche and Stewart (1990) summarized the Sicker Group from youngest to oldest, as originally proposed by Muller.

Buttle Lake Formation

Calcarenitic and commonly recrystallized (marbleized) limestone interbedded with calcareous siltstone and chert with minor diabase sills. This unit is of Pennsylvanian to Permian age and forms the top of the Sicker Group, underlying the Karmutsen Volcanics Formation. Thickness is estimated at 300 to 400 m.

Sediment-Sill Unit

This unit does not have an estimated thickness but consists of thinly bedded to massive argillite, siltstone and chert with diabase sills.

Myra Formation

Basic to rhyodacitic banded tuff, breccias and lava thinly bedded to massive argillite, siltstone, and chert overlying the Nitinat Formation. The base of the Myra is defined by the first appearance of bedded volcaniclastic rock.

Nitinat Formation

Lavas that are metabasaltic, pillow or agglomeratic; this unit is marked by large pyroxene phenocrysts and quartz amygdules. Minor tuffs are massive to banded and thickness is estimated at 1500 to 2000 m.

The Cyre River valley's stratigraphic units trend southeast with the most important units on the eastern side being intermediate to felsic pyroclastics, local interbedded argillites and a thick marbleized limestone (Vande Gutche *et al.*, 1989). Visual alteration is reportedly confined to sericitic and pyritic felsic pyroclastics; no significant sulphide showings have been reported on or were observed during the 2010 field program. Folding and extensive faulting of all stratigraphic units complicates a chronological reconstruction of geological events.

2012 GEOCHEMICAL SURVEY:

The 2012 geochemical program was designed to evaluate areas within the upper Cyre River drainage that were deemed anomalous for copper and gold from the 2010 and 2011 surveys. A total of 65 B-horizon, 28 Ah-horizon, 3 silt, and 3 rock samples were collected on May 19th and July 6th-7th, 2012. An additional 8 rock samples were taken off claim and are not shown on the attached maps. Personal were based in Ucluelet and Tofino and transportation to the site was accommodated by water taxi and helicopter. A truck maintained on the Property by the Company was used on forestry roads where possible.

Sampling was done within areas deemed prospective for Cu-Mo ± Au porphyry mineralization similar to that at the Catface deposit to the southwest. Due to the marine biogeoclimatic zone, it is sometimes impossible to expose the B-horizon and therefore Ah-horizon soil samples were taken in conjunction with some of the B-horizon samples to determine whether or not it was an effective medium for sampling on the property.

Prospecting was completed in conjunction with soil sampling in an attempt to uncover bedrock sources for the anomalous stream values. An additional 3 stream sediment samples were taken upstream of previous sample sites in an effort to constrain locations of mineralization.

During the 1 day visit in May, an attempt was made to locate a gossan seen while accessing the site via helicopter. The first attempt was thwarted by high snow levels and the danger of travelling on exposed snowy ridges without proper mountaineering gear. A second attempt was made in June by accessing the area on foot from below. The gossan was determined to be comprised of pyritic tuffs in contact with a barren diorite. Representative samples 1965401 and 1965402 were taken and demonstrate that the area does not contain significant values for copper and gold and is not of interest.

Another region of interest was uncovered while crews were soil sampling. The area consisted of an outcrop of pyritic tuff similar in appearance to the gossan prospected higher up. Malachite staining was observed higher up on the cliff face but sampling it was not possible. A sample was taken at the bottom of the cliff face (1965403) and contained interested albeit not economic concentrations of copper (230.3 ppm Cu).

Maps for sample locations, copper, and gold, can be found in Section F. Sample descriptions and assay certificates can be found in Section D and E.

CONCLUSIONS:

Although brief, the 2012 geochemical program was successful at delineating areas of anomalous copper. Given the extremely difficult terrain for sampling, further work programs will require significantly more time in order to properly evaluate the potential of this property. Given that anomalous copper-in soils were found near the outcrop with visible malachite, the method of B-sampling on the property appears to be an effective medium for sampling. For a proper test of the effectiveness of Ah sampling on the Property, more samples will need to be taken. Additionally, future work should be supported with ATV's which will enable crews to bypass the landslide on the main access work.

Future work should also include the brushing of access trails through the dense second growth forest. This will allow crews to spend more time prospecting and less time accessing the areas of interest.

Given the prospective geology and the proximity to the Catface porphyry deposit, the Property remains a viable exploration target.

RECOMMENDATIONS:

Further exploration should be completed in and around the area of work from the 2012 program. Soil lines should be extended in both directions as well as additional lines upslope. Prospecting and geologic mapping should be completed within this area of interest as well.

On the remainder of the property, soil sampling should be completed at 50 m spacing on 300 m spaced lines. This should be done for the entirety of the property since historic sampling has for the most part focused on roads where access was easy. Future work will be labour intensive given the difficult topography. Additional silt sampling should be completed on anomalous streams to the west of the Cypre River.

Prior to further field work, a detailed GIS compilation of historic work should be completed.

Respectfully submitted,



Dustin Perry

REFERENCES:

- Blackwell, J.D., **1988**; Geology and Rock Geochemistry of the Bedingfield 9, 10, 11 and 19 Claims. Geological Branch Assessment Report No. 17670
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- Corlazzoli, J. **2012**; Geochemical Survey Report on the Catface NE Property, Tenure # 636864, 636865, 636867 and 636883; for Catface Copper Mines Limited; British Columbia. Assessment Report No. 32940
- Grey, P. D. & Knight Piesold Consulting; **2004**; Environmental Baseline Technical Assessment Report on the Catface Copper Property. British Columbia Assessment Report No.27773
- Hartmann, S.,**2010**; Geochemical Survey Report on the Catface NE Property, Tenure # 636863, 636864, 636865, 636867, 636883, 705221, and 705242; for Catface Copper Mines Limited.; British Columbia Assessment Report No. 31891
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- McDougall, J. J.: **1976**; Catface; In Porphyry Deposits of the Canadian Cordillera, Part B - Porphyry Copper and Copper-Molybdenum Deposits of the Calc-Alkalic Suite – Special Volume 15, Paper 29, pp. 299-310
- Muller, R.R., **1981**; Westmin Resources' Massive Sulphide Deposits, Vancouver Island. In Field Guides to Geology and Mineral Deposits in the Southern Canadian Cordillera
- Nilsson, J.W., **2001**; Catface Project, Project Summary. Prepared for Doublestar Resources Ltd. and filed with SEDAR for 43-101
- Stewart R., Hendrickson G.; **1989**; VLF-EM, Magnetometer and Induced Polarization Surveys on the Cypre 89-C and Cypre 89-D Claim Zones. British Columbia Assessment Report No. 19766
- Vande Guchte M. J, Money D. P. & Stewart R. D.; **1989**; Geological and Geochemical Surveys of the Cypre 89-C, Cypre 89-D and Cypre 89-E Claim Groupes. British Columbia Assessment Report No. 19330
- Vande Guchte M. J. & Stewart R. D.; **1990**; Geologocal and Geochemical Surveys on the Cypre 90-A, Cypre 90-B and Cypre 90-C Claim Groups. British Columbia Assessment Report No. 20561

Statement of Qualifications:

For: Dustin Perry of 14-7450 Prospect St. Pemberton, B.C. V0N 2L1

I have completed the science requirements of a Bachelor of Science in Earth and Ocean Science degree and the University of British Columbia and I am currently enrolled in my final course with expected graduation in May 2013.

I have been practising my profession as a geologist in mineral exploration and mining continuously since May 2010 and seasonally since May 2008.

The observations, conclusions and recommendations contained in the report are based on data generated from field work I performed in May and July of 2012 while under the supervision of Jim Miller-Tait, P.Geo.



Dustin Perry
March 8th, 2013

SECTION B: PROPERTY

Schedule of Mineral Tenures

CATFACE NE PROPERTY - MINERAL TENURES								Date:	Dec 12 2012		
OWNER: Catface Copper Mines Limited				100.0%	BC Client No.		104480	Tenures	14		
								Cells	301		
								Area (ha)	6,334.66		
MINING DIVISION: Alberni				LAND DISTRICT: Clayoquot							
LOCATION: in the Cypre River Valley and the Bedingfield Range 22 km north Tofino, BC											
MAP NO.	NTS:	92F/05W		GEOGRAPHIC COORDINATES:		49° 21.0' N;	125° 52.0' W				
				BCGS:	92F021, 92F031, 92F032	UTM COORDINATES (NAD 83, ZONE 10):	5 470 320 N		291 810 E		
Tenure No.	Tenure Type	Claim Name	Map No.	Record Date	Good To Date	Cells	Area (ha)	Work Year	Work Factor		
636863	Mineral	CC 1	092F031	2009/sep/18	2013/dec 31	25	526.45	2	\$5.00		
636864	Mineral	CC 2	092F031	2009/sep/18	2013/dec 31	25	526.24	2	\$5.00		
636865	Mineral	CC 3	092F031	2009/sep/18	2013/dec 31	25	526.23	2	\$5.00		
636866	Mineral	CC 4	092F031	2009/sep/18	2013/dec 31	25	526.23	2	\$5.00		
636867	Mineral	CC 5	092F031	2009/sep/18	2013/dec 31	25	526.03	2	\$5.00		
636883	Mineral	CC 6	092F031	2009/sep/18	2013/dec 31	25	526.04	2	\$5.00		
636884	Mineral	CC 7	092F031	2009/sep/18	2013/dec 31	25	526.06	2	\$5.00		
636903	Mineral	CC 8	092F032	2009/sep/18	2013/dec 31	9	189.37	2	\$5.00		
636904	Mineral	CC 9	092F031	2009/sep/18	2013/dec 31	25	525.81	2	\$5.00		
636923	Mineral	CC 10	092F031	2009/sep/18	2013/dec 31	25	525.84	2	\$5.00		
636924	Mineral	CC 11	092F032	2009/sep/18	2013/dec 31	25	525.86	2	\$5.00		
636925	Mineral	CC 12	092F032	2009/sep/18	2013/dec 31	9	189.30	2	\$5.00		
705221	Mineral	CC 13	092F021	2010/feb/02	2013/dec/31	20	421.33	1	\$5.00		
705242	Mineral	CC 14	092F021,092F031	2010/feb/02	2013/dec/31	13	273.87	1	\$5.00		
Total	14					301	6,334.66		\$31,673.30		

** Based on Mineral Tenure Act Regulation Amendments effective July 1, 2012: Year 1 and 2 / \$5.00/ha; Year 3 and 4 / \$10.00/ha;
Year 5 and 6 / \$15.00/ha; Year 7 and beyond / \$20.00/ha

SECTION C: EXPENDITURES (Catface NE - 2012 Geochemical Survey)

Catface Copper Mines Limited

Catface NE Project

Statement of Expenditures: 2012 Geochemical Sampling Program

Mar 01 2013

Item / Contractor	Work	Period	Quantity	Unit	Rate	Amount
Personnel:						
Jim Miller-Tait, P.Geo.	Exploration Manager, general supervision		1	days	\$715.00	\$715.00
Dustin Perry	Project geologist	May 19, 20, Jul 5-9, 2012	9	days	\$390.00	\$3,510.00
Michael Weldon	Field assistant	Jul 4-9, 2012	6	days	\$299.00	\$1,794.00
Sam McIlwain	Field assistant	May 19, Jul 5-9, 2012	6	days	\$247.00	\$1,482.00
George P. Frank	Field assistant	May 19, Jul 6-8, 2012	4	days	\$325.00	\$1,300.00
Keon Frank	Field assistant	May 19, 2012	1	days	\$247.00	\$247.00
Johnny John	Field assistant	May 19, 2012	1	days	\$247.00	\$247.00
Subtotal						\$9,295.00
Accommodation & Meals:						
Pacific Rim Motel	D. Perry, M. Weldon, S. McIlwain	May 19, 20, 2012	6	days	\$69.36	\$416.16
Pacific Rim Motel	D. Perry, M. Weldon, S. McIlwain	July 4-8, 2012	15	days	\$86.70	\$1,300.50
Marina West Motel	George Frank	Jul 5-7, 2012	3	days	\$146.88	\$440.64
Food / Meal Expenditures	Dustin Perry	May 19, 20, Jul 5-9, 2012	9	days		\$912.38
Food / Meal Expenditures	Michael Weldon	Jul 4-9, 2012	6	days		\$298.93
Subtotal						\$3,368.61
Transportation (Air):						
Coulson Aircrane Ltd.	Helicopter transport from Tofino to property	May 19, 20, 2012	3.6	hours	\$1,133.13	\$4,079.25
Air Canada / Orca Airways	M. Weldon: Kelowna - Vancouver - Tofino	Jul 4, 2012				\$387.05
Subtotal						\$4,466.30
Transportation (Water):						
Tofino Water Taxi	Tofino to Cypre River and return	Jul 6-8, 2012	6	hours	\$150.00	\$900.00
Transportation (Vehicle):						
Toyota Tacoma	D. Perry vehicle	May 19 to Jul 09, 2012	1252	km	\$0.40	\$500.80
Fuel	D. Perry vehicle	May 19 to Jul 09, 2012				\$372.99
BC Ferry	D. Perry vehicle	May 21, Jul 9, 2012				\$166.20
Subtotal						\$1,039.99
Assaying:						
Acme Analytical Laboratories	B Soil Samples: 1DX2 analytical code		65	samples	\$20.18	\$1,311.70
	Ah Soil Samples: 1F05 analytical code		28	samples	\$26.90	\$753.20
	Rock Samples: 1DX2 analytical code		11	samples	\$22.32	\$245.48
	Silt Samples: 1DX2 analytical code		3	samples	\$20.18	\$60.54

Subtotal			107	samples	\$22.16	\$2,370.92
Field Supplies:						
Deakin Equipment Ltd.	Sampling & engineering supplies					\$111.51
Subtotal						
Drafting:						
Dustin Perry, Project Geologist	GIS work: geochem maps		1	days	\$390.00	\$390.00
Report Preparation:						
Dustin Perry, Project Geologist	Data compilation, report preparation		2	days	\$390.00	\$780.00
Erik Andersen	Data preparation, report editing		6	hours	\$57.20	\$343.20
Subtotal						\$1,123.20
Total	Tenures 636865 and 636883		107	samples	\$215.57	\$23,065.53

SECTION D: SAMPLE DESCRIPTIONS

Sample Type	Property	Sample ID	Zone	Easting	Northing	Moisture	Environment	Slope	Sampler	Date	Notes
Ah Horizon	Catface NE	1720451	10	292446	5470569	2	2	2	George	19-May-12	
Ah Horizon	Catface NE	1720453	10	292422	5470550	2	2	2	George	19-May-12	Sample taken 10 m past 25 m @ edge of stream bank
Ah Horizon	Catface NE	1720455	10	292411	5470530	2	2	2	George	19-May-12	
Ah Horizon	Catface NE	1720457	10	292396	5470516	2	2	2	George	19-May-12	Sample taken at edge of stream bank
Ah Horizon	Catface NE	1720459	10	292372	5470496	2	2	2	George	19-May-12	Other side of creek sample taken
Ah Horizon	Catface NE	1720461	10	292357	5470482	3	2	2	George	19-May-12	below rock bluff
Ah Horizon	Catface NE	1720463	10	292334	5470457	2	2	2	George	19-May-12	Same as last plot
Ah Horizon	Catface NE	1720465	10	292315	5470436	2	2	2	George	19-May-12	
Ah Horizon	Catface NE	1720467	10	292297	5470428	2	2	2	George	19-May-12	below rock bluff
Ah Horizon	Catface NE	1720469	10	292275	5470403	2	2	2	George	19-May-12	Rock bluff 3 m up from plot
Ah Horizon	Catface NE	1720471	10	292263	5470384	2	2	2	George	19-May-12	
Ah Horizon	Catface NE	1720473	10	292252	5470372	2	2	2	George	19-May-12	
Ah Horizon	Catface NE	1720475	10	292233	5470347	2	2	2	George	19-May-12	No depth reported
Ah Horizon	Catface NE	1722380	10	292425	5470602	2	1	2	SM	19-May-12	
Ah Horizon	Catface NE	1722382	10	292402	5470579	2	1	2	SM	19-May-12	Creek
Ah Horizon	Catface NE	1722384	10	292385	5470568	2	1	2	SM	19-May-12	
Ah Horizon	Catface NE	1722386	10	292369	5470549	2	1	2	SM	19-May-12	
Ah Horizon	Catface NE	1722388	10	292346	5470529	2	1	2	SM	19-May-12	Creek
Ah Horizon	Catface NE	1722390	10	292323	5470512	3	1	3	SM	19-May-12	
Ah Horizon	Catface NE	1722392	10	292305	5470496	2	1	2	SM	19-May-12	
Ah Horizon	Catface NE	1722394	10	292286	5470475	3	1	2	SM	19-May-12	Creek
Ah Horizon	Catface NE	1722396	10	292262	5470449	2	1	2	SM	19-May-12	
Ah Horizon	Catface NE	1722398	10	292239	5470428	2	1	2	SM	19-May-12	
Ah Horizon	Catface NE	1722400	10	292219	5470411	3	1	2	SM	19-May-12	Rock face
Ah Horizon	Catface NE	1720501	10	292203	5470396	1	1	3	SM	19-May-12	
Ah Horizon	Catface NE	1720503	10	292182	5470376	1	1	2	SM	19-May-12	
Ah Horizon	Catface NE	1720505	10	292150	5470349	2	1	2	SM	19-May-12	Massive cliff
Ah Horizon	Catface NE	1720507	10	292126	5470331	1	1	2	SM	19-May-12	

Sample Type	Property	Sample ID	Zone	Easting	Northing	Depth (cm)	Environment	Slope	Sampler	Date	Notes
B Horizon	Catface NE	1720452	10	292446	5470569	10	2	2	George	19-May-12	
B Horizon	Catface NE	1720454	10	292422	5470550	40	2	2	George	19-May-12	Sample taken 10 m past 25 m @ edge of stream bank
B Horizon	Catface NE	1720456	10	292411	5470530	30	2	2	George	19-May-12	
B Horizon	Catface NE	1720458	10	292396	5470516	30	2	2	George	19-May-12	Sample taken at edge of stream bank
B Horizon	Catface NE	1720460	10	292372	5470496	1	2	2	George	19-May-12	Other side of creek sample taken
B Horizon	Catface NE	1720462	10	292357	5470482	10	2	2	George	19-May-12	Below rock bluff
B Horizon	Catface NE	1720464	10	292334	5470457	25	2	2	George	19-May-12	Same as last plot
B Horizon	Catface NE	1720466	10	292315	5470436	15	2	2	George	19-May-12	
B Horizon	Catface NE	1720468	10	292297	5470428	15	2	2	George	19-May-12	Below rock bluff
B Horizon	Catface NE	1720470	10	292275	5470403	15	2	2	George	19-May-12	Rock bluff 3 m up from plot
B Horizon	Catface NE	1720472	10	292263	5470384	40	2	2	George	19-May-12	
B Horizon	Catface NE	1720474	10	292252	5470372	25	2	2	George	19-May-12	
B Horizon	Catface NE	1720476	10	292233	5470347	N/A	2	2	George	19-May-12	No depth reported
B Horizon	Catface NE	1720502	10	292203	5470396	15	1	3	SM	19-May-12	
B Horizon	Catface NE	1720504	10	292182	5470376	10	1	2	SM	19-May-12	
B Horizon	Catface NE	1720506	10	292150	5470349	10	1	2	SM	19-May-12	Massive cliff
B Horizon	Catface NE	1720508	10	292126	5470331	30	1	2	SM	19-May-12	
B Horizon	Catface NE	1722381	10	292425	5470602	10	1	2	SM	19-May-12	
B Horizon	Catface NE	1722383	10	292402	5470579	15	1	2	SM	19-May-12	Creek
B Horizon	Catface NE	1722385	10	292385	5470568	15	1	2	SM	19-May-12	
B Horizon	Catface NE	1722387	10	292369	5470549	20	1	2	SM	19-May-12	
B Horizon	Catface NE	1722389	10	292346	5470529	15	1	2	SM	19-May-12	Creek
B Horizon	Catface NE	1722391	10	292323	5470512	20	1	3	SM	19-May-12	
B Horizon	Catface NE	1722393	10	292305	5470496	10	1	2	SM	19-May-12	
B Horizon	Catface NE	1722395	10	292286	5470475	30	1	2	SM	19-May-12	Creek
B Horizon	Catface NE	1722397	10	292262	5470449	10	1	2	SM	19-May-12	
B Horizon	Catface NE	1722399	10	292239	5470428	15	1	2	SM	19-May-12	
B Horizon	Catface NE	1720481	10	292234	5470348	20	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720482	10	292224	5470323	10	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720483	10	292220	5470300	20	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720484	10	292214	5470272	15	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720485	10	292200	5470255	20	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720486	10	292196	5470233	15	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720487	10	292185	5470206	10	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720488	10	292175	5470193	15	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720489	10	292167	5470168	5	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720490	10	292157	5470147	10	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720491	10	292141	5470115	15	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720492	10	292134	5470098	20	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720493	10	292125	5470072	10	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720494	10	292117	5470052	10	2	3	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720495	10	292100	5470025	15	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720496	10	292091	5470013	15	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720497	10	292080	5469984	5	2	3	SM and GF	6-Jul-12	

Sample Type	Property	Sample ID	Zone	Easting	Northing	Depth (cm)	Environment	Slope	Sampler	Date	Notes
B Horizon	Catface NE	1720498	10	292082	5469957	10	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720499	10	292074	5469934	10	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720500	10	292071	5469913	15	2	2	SM and GF	6-Jul-12	Stream
B Horizon	Catface NE	1720886	10	292062	5469886	5	2	2	SM and GF	6-Jul-12	
B Horizon	Catface NE	1720887	10	292473	5470479	5	2	2	SM and GF	7-Jul-12	Stream
B Horizon	Catface NE	1720888	10	292453	5470462	25	2	2	SM and GF	7-Jul-12	
B Horizon	Catface NE	1720889	10	292435	5470441	10	2	2	SM and GF	7-Jul-12	
B Horizon	Catface NE	1720890	10	292420	5470432	15	2	2	SM and GF	7-Jul-12	
B Horizon	Catface NE	1720891	10	292396	5470415	20	2	2	SM and GF	7-Jul-12	
B Horizon	Catface NE	1720892	10	292375	5470399	5	2	2	SM and GF	7-Jul-12	
B Horizon	Catface NE	1720893	10	292361	5470383	15	2	2	SM and GF	7-Jul-12	Stream
B Horizon	Catface NE	1720894	10	292345	5470370	10	2	2	SM and GF	7-Jul-12	Cliff
B Horizon	Catface NE	1720895	10	292324	5470330	5	2	2	SM and GF	7-Jul-12	
B Horizon	Catface NE	1720896	10	292315	5470293	15	2	2	SM and GF	7-Jul-12	Cliff with copper staining 50m East
B Horizon	Catface NE	1720897	10	292314	5470280	10	2	2	SM and GF	7-Jul-12	Rock Face
B Horizon	Catface NE	1720898	10	292300	5470249	15	2	2	SM and GF	7-Jul-12	
B Horizon	Catface NE	1720899	10	292295	5470229	10	2	2	SM and GF	7-Jul-12	
B Horizon	Catface NE	1720900	10	292290	5470204	15	2	2	SM and GF	7-Jul-12	Stream
B Horizon	Catface NE	1721651	10	292276	5470186	10	2	2	SM and GF	7-Jul-12	
B Horizon	Catface NE	1721652	10	292271	5470168	10	2	2	SM and GF	7-Jul-12	Rock Face
B Horizon	Catface NE	1721653	10	292261	5470147	5	2	2	SM and GF	7-Jul-12	

Sample Type	Property	Sample ID	Zone	Easting	Northing	Width	Energy	Sampler	Date	Notes
Silt	Catface NE	1722131	10	292350	5470547	4	Med	DP	19-May-12	
Silt	Catface NE	1722132	10	292373	5470502	2	Med	DP	19-May-12	Draining area north of main branch
Silt	Catface NE	1722133	10	292374	5470502	3	Med	DP	19-May-12	main branch

Sample Type	Property	Sample ID	Zone	Easting	Northing	Lithology	Alteration	Outcrop/Float	Sampler	Date	Notes
Rock	Catface NE	1965401	10	292435	5469108	Tuff	Silica	O/C	DP	07-Jul-12	Composite grab sample from upper limits of gossan zone. Strongly oxidized tuffs with 1% py along fractures and stringers. Some epidote along fractures in nearby diorite. Tuffs appear to be dipping into hill.
Rock	Catface NE	1965402	10	292430	5469098	Tuff	Silica	O/C	DP	07-Jul-12	Composite grab sample from lower limits of gossan zone. Strongly oxidized tuffs with 1% py along fractures and stringers. Some epidote along fractures in nearby diorite. Tuffs appear to be dipping into hill.
Rock	Catface NE	1965403	10	292318	5470261	Tuff	Silica	O/C	DP	07-Jul-12	Below malachite stained cliff. Composite grab from sil Tuff. Similar to gossan higher up. Oxidized with 1% pyrite along fractures and in stringers. Malachite staining above on cliff. Doesn't look like there is much Cu and that it is just weathering down the cliff face appearing greater than it is. Area warrants further prospecting and soil sampling but a trail should be brushed in.

SECTION E: ANALYTICAL REPORTS



1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Acme Analytical Laboratories (Vancouver) Ltd.

www.acmelab.com

Client: **Catface Copper Mines Limited**

200 - 580 Hornby Street
Vancouver BC V6C 3B6 Canada

Submitted By: Email Distribution List

Receiving Lab: Canada-Vancouver

Received: May 22, 2012

Report Date: June 02, 2012

Page: 1 of 2

CERTIFICATE OF ANALYSIS

VAN12002349.1

CLIENT JOB INFORMATION

Project: CATFACE NE
Shipment ID: CFNE-1
P.O. Number
Number of Samples: 27

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
STOR-RJT-SOIL Store Soil Reject - RJSV Charges Apply

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	27	Dry at 60C			VAN
SS80	27	Dry at 60C sieve 100g to -80 mesh			VAN
RJSV	27	Saving all or part of Soil Reject			VAN
1DX2	27	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

ADDITIONAL COMMENTS

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

Invoice To: Catface Copper Mines Limited
200 - 580 Hornby Street
Vancouver BC V6C 3B6
Canada

CC: Dustin Perry



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



1020 Cordova St. East Vancouver BC V6A 4A3 Canada
Phone (604) 253-3158 Fax (604) 253-1716

Acme Analytical Laboratories (Vancouver) Ltd.

www.acmelab.com

Client:

Catface Copper Mines Limited

200 - 580 Hornby Street
Vancouver BC V6C 3B6 Canada

Project:

CATFACE NE

Report Date:

June 02, 2012

CERTIFICATE OF ANALYSIS

VAN12002349.1

Method Analyte Unit MDL	1DX15																			
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm							
	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	0.1	0.1	0.1	0.1	2	0.01	0.001	1
1720452	Soil	7.6	34.1	4.3	25	<0.1	8.5	7.5	126	6.48	3.4	1.9	0.9	8	<0.1	0.2	0.1	176	0.11	0.031
1720454	Soil	8.1	24.7	5.0	35	<0.1	16.8	12.5	243	5.80	5.7	2.3	0.7	18	<0.1	0.2	0.1	194	0.26	0.014
1720456	Soil	5.5	48.1	6.4	40	0.1	22.9	15.3	361	7.70	13.2	3.1	0.6	19	<0.1	0.3	0.1	196	0.36	0.028
1720458	Soil	4.8	57.3	5.3	44	0.2	24.7	17.1	379	8.84	14.2	4.0	0.7	19	0.1	0.3	0.1	236	0.34	0.028
1720460	Soil	5.0	18.4	5.3	12	<0.1	5.0	4.5	76	7.31	2.5	1.5	0.9	5	<0.1	0.2	0.1	250	0.08	0.026
1720462	Soil	3.8	64.9	6.5	130	0.1	47.5	36.8	494	4.65	56.6	19.1	0.5	18	0.6	0.3	0.1	138	0.71	0.067
1720464	Soil	2.4	31.1	8.7	23	<0.1	9.3	29.0	1254	5.20	5.1	0.9	0.6	13	<0.1	0.2	0.2	280	0.12	0.033
1720466	Soil	3.3	47.8	17.0	63	0.1	31.2	25.1	655	4.66	36.9	3.2	0.7	11	0.5	0.4	0.2	150	0.26	0.041
1720468	Soil	2.9	157.2	12.8	62	0.2	65.3	18.2	308	5.03	36.9	2.2	0.6	10	0.2	0.4	0.2	192	0.20	0.032
1720470	Soil	11.7	86.8	17.4	53	0.2	37.4	9.2	253	6.45	44.3	3.8	0.5	4	0.2	0.5	0.3	272	0.08	0.033
1720472	Soil	2.1	42.3	5.3	17	0.2	6.8	5.3	66	5.36	8.2	3.0	0.5	8	<0.1	0.3	0.1	222	0.13	0.048
1720474	Soil	1.1	74.3	5.4	8	0.5	2.8	4.4	67	4.81	4.6	1.2	0.4	6	<0.1	0.3	0.1	405	0.12	0.023
1720476	Soil	11.3	193.7	5.1	14	0.6	4.0	5.4	53	5.76	10.3	1.8	0.5	6	<0.1	0.4	0.2	353	0.09	0.029
1722381	Soil	4.1	39.1	6.5	39	<0.1	18.7	26.2	551	4.50	3.0	1.6	0.5	21	0.2	0.1	<0.1	107	0.58	0.042
1722383	Soil	5.3	38.1	4.1	37	<0.1	22.1	14.6	308	5.54	6.8	1.9	0.6	19	0.1	0.2	<0.1	151	0.28	0.025
1722385	Soil	3.0	24.3	5.3	14	0.2	9.7	5.0	104	6.44	5.3	1.9	0.9	7	0.1	0.2	<0.1	178	0.10	0.027
1722387	Soil	1.8	27.5	4.7	8	<0.1	3.3	3.7	45	8.02	3.0	2.2	0.9	5	<0.1	0.3	0.1	289	0.07	0.018
1722389	Soil	3.2	35.6	4.8	29	<0.1	17.0	12.2	268	5.47	9.8	2.2	0.6	15	<0.1	0.2	<0.1	170	0.23	0.016
1722391	Soil	3.5	35.9	3.9	19	<0.1	10.4	5.7	162	5.13	2.8	2.9	1.8	6	<0.1	0.1	<0.1	135	0.10	0.031
1722393	Soil	0.6	6.7	5.6	4	<0.1	1.1	1.4	37	3.45	0.8	1.5	0.3	3	<0.1	0.2	0.2	228	0.05	0.012
1722395	Soil	3.1	46.7	3.5	17	0.1	10.4	6.5	147	6.42	6.8	3.0	2.7	5	<0.1	0.1	<0.1	159	0.10	0.033
1722397	Soil	1.3	24.1	5.6	15	<0.1	8.4	6.1	269	5.49	3.8	1.8	0.9	8	<0.1	0.1	<0.1	165	0.12	0.031
1722399	Soil	1.7	44.6	3.6	18	<0.1	10.4	7.1	205	4.60	3.2	3.3	1.0	7	0.2	0.1	<0.1	127	0.14	0.039
1720502	Soil	5.1	25.2	7.6	6	0.1	4.5	3.5	49	1.19	<0.5	2.4	0.3	3	<0.1	0.3	0.2	199	0.05	0.017
1720504	Soil	9.4	14.3	8.4	8	<0.1	2.9	2.9	56	6.86	1.2	3.3	0.4	5	<0.1	0.3	0.2	300	0.07	0.030
1720506	Soil	8.6	24.8	10.2	13	0.2	3.9	4.3	183	6.15	2.0	5.0	0.4	6	0.1	0.3	0.3	274	0.09	0.061
1720508	Soil	4.0	29.6	5.1	10	<0.1	5.1	5.3	92	7.54	3.0	1.8	1.1	5	<0.1	0.2	0.2	244	0.07	0.023



1020 Cordova St. East Vancouver BC V6A 4A3 Canada
Phone (604) 253-3158 Fax (604) 253-1716

Acme Analytical Laboratories (Vancouver) Ltd.

www.acmelab.com

Client:

Catface Copper Mines Limited

200 - 580 Hornby Street
Vancouver BC V6C 3B6 Canada

Project:

CATFACE NE

Report Date:

June 02, 2012

Page:

2 of 2

Part: 2 of 2

CERTIFICATE OF ANALYSIS

VAN12002349.1

Method	Analyte	1DX15															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
1720452	Soil	40	0.31	14	0.174	2	4.06	0.014	0.02	<0.1	0.19	3.1	<0.1	0.06	14	2.2	<0.2
1720454	Soil	35	0.96	55	0.221	2	2.96	0.014	0.02	<0.1	0.07	2.8	<0.1	<0.05	16	0.7	<0.2
1720456	Soil	50	1.23	89	0.278	3	2.85	0.013	0.02	<0.1	0.13	3.2	<0.1	<0.05	15	1.2	0.2
1720458	Soil	60	1.46	86	0.324	2	3.54	0.012	0.02	0.1	0.13	4.3	<0.1	<0.05	16	1.7	0.2
1720460	Soil	45	0.14	11	0.247	1	2.50	0.008	0.01	<0.1	0.12	2.4	<0.1	<0.05	20	0.9	<0.2
1720462	Soil	64	1.54	67	0.154	3	5.77	0.016	0.02	0.1	0.16	5.7	<0.1	0.07	11	2.1	<0.2
1720464	Soil	64	0.35	20	0.422	1	1.33	0.008	0.02	<0.1	0.12	3.6	<0.1	<0.05	16	<0.5	<0.2
1720466	Soil	45	1.08	67	0.168	3	3.70	0.014	0.03	<0.1	0.32	5.0	<0.1	<0.05	12	1.4	<0.2
1720468	Soil	47	0.84	66	0.197	2	3.08	0.014	0.03	<0.1	0.19	4.4	<0.1	<0.05	14	1.0	<0.2
1720470	Soil	144	0.82	92	0.149	1	1.99	0.007	0.02	<0.1	0.11	3.5	<0.1	<0.05	16	1.7	0.4
1720472	Soil	47	0.16	23	0.232	2	2.14	0.009	0.02	<0.1	0.19	2.2	<0.1	<0.05	16	1.2	<0.2
1720474	Soil	15	0.08	7	0.452	1	0.78	0.009	<0.01	<0.1	0.16	1.7	<0.1	<0.05	16	0.6	<0.2
1720476	Soil	16	0.14	77	0.253	<1	1.34	0.008	0.01	<0.1	0.10	1.9	<0.1	<0.05	16	1.1	<0.2
1722381	Soil	31	0.76	27	0.124	3	3.45	0.015	0.03	<0.1	0.16	3.2	<0.1	<0.05	10	1.6	<0.2
1722383	Soil	41	1.28	56	0.194	2	3.21	0.015	0.02	<0.1	0.12	3.7	<0.1	<0.05	12	1.5	<0.2
1722385	Soil	55	0.33	14	0.220	1	1.98	0.009	0.02	<0.1	0.13	2.0	<0.1	<0.05	14	0.9	<0.2
1722387	Soil	36	0.08	9	0.393	<1	1.77	0.007	0.01	<0.1	0.12	1.7	<0.1	<0.05	21	0.6	<0.2
1722389	Soil	39	0.83	69	0.229	1	2.11	0.011	0.01	<0.1	0.08	2.8	<0.1	<0.05	13	0.6	<0.2
1722391	Soil	52	0.45	10	0.220	2	4.97	0.008	0.01	<0.1	0.31	11.7	<0.1	<0.05	12	3.0	<0.2
1722393	Soil	13	0.03	8	0.335	<1	0.64	0.003	<0.01	<0.1	0.04	0.7	<0.1	<0.05	15	<0.5	<0.2
1722395	Soil	84	0.35	14	0.232	2	8.56	0.009	<0.01	0.1	0.33	12.5	<0.1	0.14	13	2.6	<0.2
1722397	Soil	44	0.33	21	0.235	2	2.56	0.009	0.01	<0.1	0.16	3.2	<0.1	<0.05	14	1.1	<0.2
1722399	Soil	45	0.42	18	0.201	2	4.06	0.012	0.01	<0.1	0.28	5.5	<0.1	<0.05	11	2.6	<0.2
1720502	Soil	11	0.07	14	0.269	<1	0.27	0.006	0.01	<0.1	0.08	0.8	<0.1	<0.05	5	<0.5	<0.2
1720504	Soil	28	0.07	20	0.289	<1	1.12	0.006	0.02	<0.1	0.08	1.0	<0.1	<0.05	25	<0.5	<0.2
1720506	Soil	22	0.12	72	0.243	2	1.50	0.007	0.03	<0.1	0.17	2.1	<0.1	<0.05	24	0.7	<0.2
1720508	Soil	51	0.12	22	0.278	<1	2.71	0.007	<0.01	<0.1	0.20	4.4	<0.1	<0.05	20	2.2	<0.2



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Project:

CATFACE NE

Report Date:

June 02, 2012

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Part: 1 of 2

QUALITY CONTROL REPORT

VAN12002349.1

Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
	Unit	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm							
	MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
Pulp Duplicates																					
1720452	Soil	7.6	34.1	4.3	25	<0.1	8.5	7.5	126	6.48	3.4	1.9	0.9	8	<0.1	0.2	0.1	176	0.11	0.031	2
REP 1720452	QC	7.7	34.4	4.4	25	<0.1	8.9	7.7	127	6.66	3.3	1.5	1.0	8	0.1	0.2	0.1	179	0.11	0.032	2
Reference Materials																					
STD DS8	Standard	13.2	107.0	123.7	310	1.8	40.6	8.2	628	2.49	23.0	118.4	6.1	62	2.0	5.0	5.9	44	0.67	0.078	14
STD DS9	Standard	12.6	105.4	127.5	313	1.8	41.0	7.9	571	2.30	24.0	103.9	5.6	66	2.1	4.8	6.2	44	0.68	0.079	12
STD DS9 Expected		12.74	104	126	322	1.69	39.5	7.6	586	2.37	27	102	7.15	76.1	2.3	4.84	6.78	40	0.776	0.0844	15.7
STD DS8 Expected		13.44	110	123	312	1.69	38.1	7.5	615	2.46	26	107	6.89	67.7	2.38	5.7	6.67	41.1	0.7	0.08	14.6
BLK	Blank	<0.1	0.1	<0.1	<1	<0.1	<0.1	<1	0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1	



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Project:

CATFACE NE

Report Date:

June 02, 2012

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Part: 2 of 2

QUALITY CONTROL REPORT

VAN12002349.1

Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																	
1720452	Soil	40	0.31	14	0.174	2	4.06	0.014	0.02	<0.1	0.19	3.1	<0.1	0.06	14	2.2	<0.2
REP 1720452	QC	40	0.32	15	0.187	2	4.05	0.012	0.02	<0.1	0.20	3.3	<0.1	0.05	15	2.0	<0.2
Reference Materials																	
STD DS8	Standard	130	0.63	255	0.112	2	0.92	0.090	0.41	3.1	0.20	2.3	5.5	0.18	5	5.5	4.9
STD DS9	Standard	124	0.62	275	0.105	3	0.93	0.083	0.38	3.1	0.21	2.1	5.4	0.19	5	5.2	5.0
STD DS9 Expected		119	0.6437	308	0.1239		0.9915	0.0905	0.3874	3	0.225	2.8	5.48	0.1737	4.84	5.4	5
STD DS8 Expected		115	0.6045	279	0.113	2.6	0.93	0.0883	0.41	3	0.192	2.3	5.4	0.1679	4.7	5.23	5
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



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Submitted By: Email Distribution List

Receiving Lab: Canada-Vancouver

Received: May 22, 2012

Report Date: June 26, 2012

Page: 1 of 2

CERTIFICATE OF ANALYSIS

VAN12002351.1

CLIENT JOB INFORMATION

Project: CATFACE NE
Shipment ID: CFNE-1
P.O. Number
Number of Samples: 28

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
STOR-RJT-SOIL Store Soil Reject - RJSV Charges Apply

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	28	Dry at 60C			VAN
SS80	28	Dry at 60C sieve 100g to -80 mesh			VAN
RJSV	28	Saving all or part of Soil Reject			VAN
1F05	28	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	15	Completed	VAN

ADDITIONAL COMMENTS

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

Invoice To: Catface Copper Mines Limited
200 - 580 Hornby Street
Vancouver BC V6C 3B6
Canada

CC: Dustin Perry



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Project: CATFACE NE
Report Date: June 26, 2012

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Part: 1 of 3

CERTIFICATE OF ANALYSIS

VAN12002351.1

Method	Analyte	SS80	SS80	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	
		-80 Wt	+80 Wt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V
		g	g	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	
		0	0.01	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2
1720451	Soil	22.00	31.00	3.19	15.12	18.23	18.3	105	6.0	3.4	67	1.89	1.6	0.2	3.4	0.2	24.1	0.20	0.28	0.18	72
1720453	Soil	20.00	35.00	2.60	34.43	8.51	59.1	72	26.6	35.0	970	3.30	3.0	1.0	2.4	0.2	33.4	0.28	0.24	0.09	78
1720455	Soil	28.00	26.00	4.85	98.97	10.49	57.7	160	33.7	33.7	1049	4.25	12.2	1.4	4.9	0.5	37.0	0.30	0.34	0.14	108
1720457	Soil	20.00	47.00	1.70	18.07	14.49	21.7	223	7.3	4.5	93	1.16	4.1	0.2	3.0	0.1	34.6	0.27	0.40	0.14	55
1720459	Soil	24.00	29.00	2.04	21.77	13.09	22.9	134	13.6	8.5	291	3.03	3.8	0.3	8.4	0.3	26.1	0.24	0.28	0.13	114
1720461	Soil	13.00	13.00	2.76	53.59	11.28	70.9	194	24.4	69.7	5394	3.74	52.4	1.2	2.9	<0.1	31.6	1.44	0.38	0.10	72
1720463	Soil	16.00	29.00	3.24	29.32	25.15	65.8	225	22.2	78.0	9225	2.69	4.8	0.5	2.6	0.2	28.0	0.77	0.43	0.21	142
1720465	Soil	9.000	5.00	0.92	17.31	12.39	34.6	154	10.3	5.9	273	0.95	8.7	0.4	2.5	<0.1	27.8	0.36	0.31	0.11	36
1720467	Soil	13.00	7.00	0.90	17.18	8.50	29.8	136	11.2	4.5	369	1.44	9.1	0.3	2.2	0.1	17.6	0.45	0.31	0.10	62
1720469	Soil	9.000	8.00	2.48	25.94	18.01	35.6	246	4.1	1.7	977	1.12	4.3	0.1	2.4	<0.1	24.4	0.46	0.39	0.12	65
1720471	Soil	11.00	11.00	0.61	13.07	11.45	27.7	171	3.6	1.4	318	0.88	2.0	<0.1	1.5	<0.1	37.7	0.29	0.34	0.30	48
1720473	Soil	15.00	22.00	0.74	62.83	8.69	10.3	295	4.7	5.0	70	0.97	1.2	0.3	1.4	<0.1	7.9	0.42	0.29	0.12	15
1720475	Soil	15.00	24.00	0.54	15.30	14.04	22.8	435	3.5	0.6	109	0.09	1.2	<0.1	1.1	<0.1	36.3	0.47	0.35	0.09	3
1722380	Soil	35.00	34.00	1.86	53.05	5.66	45.8	61	29.8	29.1	857	3.32	3.6	0.9	3.3	0.4	41.1	0.22	0.21	0.05	79
1722382	Soil	34.00	150.0	3.48	47.17	7.86	39.7	102	23.8	24.5	601	5.14	5.5	1.0	7.5	0.5	34.5	0.19	0.26	0.08	129
1722384	Soil	22.00	54.00	1.97	17.46	7.73	13.5	249	5.5	2.4	45	1.90	2.7	0.3	2.2	0.1	19.4	0.30	0.20	0.07	64
1722386	Soil	29.00	91.00	1.03	16.73	7.15	10.5	101	3.0	2.9	40	4.47	2.2	0.1	1.6	0.3	13.8	0.07	0.30	0.09	187
1722388	Soil	50.00	110.0	3.68	66.48	9.84	46.1	142	27.5	30.4	1330	3.86	11.0	1.0	4.0	0.3	33.7	0.40	0.29	0.08	108
1722390	Soil	17.00	64.00	1.25	18.47	7.05	9.7	274	3.8	1.5	40	3.45	1.5	0.4	0.4	<0.1	7.9	0.15	0.19	0.14	67
1722392	Soil	22.00	78.00	0.31	5.76	17.44	18.0	157	2.4	0.5	19	0.17	1.3	0.1	0.5	0.1	29.4	0.30	0.30	0.19	6
1722394	Soil	32.00	127.0	1.78	63.17	8.90	67.7	123	29.8	22.4	1403	2.98	31.2	2.8	2.7	0.3	29.4	1.24	0.35	0.08	93
1722396	Soil	62.00	102.0	1.41	16.65	4.53	11.4	168	5.2	3.8	67	4.36	2.9	0.5	1.7	0.4	11.1	0.07	0.24	0.08	184
1722398	Soil	55.00	209.0	1.31	35.96	7.98	22.4	214	12.5	8.4	362	4.69	3.3	0.6	5.8	0.6	16.3	0.20	0.21	0.08	129
1722400	Soil	31.00	105.0	0.45	7.93	18.45	10.6	167	3.4	1.3	45	0.74	0.8	0.2	3.3	0.1	14.3	0.15	0.25	0.19	93
1720501	Soil	31.00	72.00	3.62	27.35	15.50	15.7	169	8.2	4.2	105	1.13	1.3	0.4	2.2	0.2	10.6	0.20	0.39	0.24	113
1720503	Soil	30.00	44.00	3.70	13.02	12.24	20.9	146	5.5	2.2	60	1.34	0.9	0.5	1.1	0.1	17.5	0.17	0.27	0.21	93
1720505	Soil	32.00	104.0	3.19	27.99	17.70	24.7	192	6.1	2.5	122	1.96	1.5	0.5	0.6	<0.1	27.1	0.50	0.27	0.16	72
1720507	Soil	44.00	110.0	6.04	33.95	11.19	20.9	229	8.3	8.7	277	7.33	4.1	1.2	3.4	0.7	12.1	0.24	0.33	0.24	210



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CATFACE NE
June 26, 2012

Report Date:

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CERTIFICATE OF ANALYSIS

VAN12002351.1

Method	Analyte	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	
		Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs
		%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm
		0.01	0.001	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02
1720451	Soil	0.30	0.060	10.7	14.4	0.17	57.9	0.099	4	1.00	0.018	0.04	0.1	1.6	0.04	0.12	350	1.1	0.06	5.1	0.33
1720453	Soil	0.73	0.049	3.7	21.0	0.86	50.8	0.079	5	3.05	0.017	0.03	<0.1	3.2	0.04	0.09	172	1.9	0.05	7.4	0.62
1720455	Soil	0.81	0.065	9.3	35.8	1.51	183.8	0.141	4	3.42	0.018	0.04	0.2	5.4	0.08	0.08	206	1.8	0.14	9.0	0.49
1720457	Soil	0.94	0.061	5.6	9.9	0.22	92.1	0.084	5	0.51	0.018	0.03	0.1	1.6	0.03	0.14	377	1.2	0.07	3.6	0.11
1720459	Soil	0.47	0.065	5.1	25.3	0.60	118.9	0.170	4	1.27	0.015	0.03	<0.1	2.8	0.03	0.10	251	0.8	0.07	8.4	0.31
1720461	Soil	1.80	0.098	8.4	28.6	0.45	94.5	0.067	9	2.85	0.013	0.03	<0.1	3.5	0.10	0.19	302	2.9	0.06	4.7	0.51
1720463	Soil	0.76	0.089	4.7	38.2	0.27	112.4	0.174	4	1.33	0.013	0.05	<0.1	4.0	0.17	0.14	386	1.6	0.03	9.9	0.66
1720465	Soil	0.76	0.089	35.4	15.0	0.32	135.9	0.058	5	0.72	0.021	0.06	<0.1	1.6	0.03	0.15	374	1.1	<0.02	2.8	0.24
1720467	Soil	0.53	0.067	6.6	18.4	0.37	64.6	0.119	5	0.89	0.022	0.04	<0.1	2.2	0.04	0.10	233	0.6	0.07	4.8	0.38
1720469	Soil	0.88	0.097	3.7	7.8	0.17	157.6	0.075	7	0.37	0.017	0.05	0.1	1.2	0.04	0.15	396	1.0	0.04	3.8	0.21
1720471	Soil	1.01	0.081	11.5	9.8	0.19	114.4	0.101	7	0.37	0.018	0.04	0.1	1.0	<0.02	0.13	311	0.9	<0.02	3.5	0.24
1720473	Soil	0.29	0.128	4.9	7.1	0.04	29.3	0.011	5	1.42	0.007	0.03	<0.1	1.0	0.04	0.19	417	1.5	<0.02	2.0	0.12
1720475	Soil	0.93	0.084	0.5	3.1	0.17	118.8	0.004	4	0.16	0.022	0.03	<0.1	0.4	0.04	0.18	455	1.2	<0.02	0.3	0.05
1722380	Soil	1.08	0.055	3.8	29.1	1.31	54.2	0.124	5	3.26	0.022	0.03	<0.1	4.4	0.03	0.08	128	1.1	0.03	6.8	0.52
1722382	Soil	0.69	0.049	3.9	31.8	1.09	123.5	0.151	4	3.36	0.019	0.03	<0.1	4.6	0.04	0.09	166	1.7	0.07	11.2	0.60
1722384	Soil	0.48	0.050	3.0	13.6	0.14	49.1	0.086	3	0.98	0.009	0.03	0.1	1.8	0.02	0.10	191	0.9	<0.02	4.8	0.17
1722386	Soil	0.18	0.038	3.4	20.8	0.09	28.8	0.252	2	0.85	0.009	0.03	<0.1	1.4	<0.02	0.06	111	0.4	0.05	14.2	0.14
1722388	Soil	0.75	0.072	3.9	34.6	1.14	159.5	0.153	4	2.80	0.016	0.03	0.1	4.8	0.05	0.11	202	2.0	0.16	8.5	0.45
1722390	Soil	0.10	0.102	2.6	12.6	0.10	13.5	0.089	4	1.48	0.011	0.05	<0.1	2.4	0.02	0.17	321	1.8	<0.02	6.0	0.38
1722392	Soil	0.18	0.074	1.3	4.9	0.13	36.3	0.014	4	0.18	0.030	0.06	<0.1	0.8	0.03	0.16	330	1.7	<0.02	0.6	0.10
1722394	Soil	1.85	0.069	8.1	36.6	0.78	105.1	0.120	6	3.42	0.013	0.03	0.1	5.4	0.05	0.09	210	2.0	0.06	7.2	0.52
1722396	Soil	0.14	0.059	2.2	31.2	0.16	19.1	0.241	2	1.37	0.007	0.03	<0.1	2.3	0.03	0.08	165	1.0	0.03	13.9	0.29
1722398	Soil	0.26	0.051	3.7	36.9	0.55	36.1	0.217	3	2.60	0.013	0.03	<0.1	3.7	0.04	0.07	242	1.4	0.02	11.5	0.60
1722400	Soil	0.28	0.069	2.4	8.1	0.07	15.7	0.187	3	0.52	0.011	0.05	<0.1	2.4	<0.02	0.12	224	0.3	<0.02	5.1	0.17
1720501	Soil	0.16	0.054	2.2	12.8	0.09	33.0	0.172	2	0.26	0.009	0.04	<0.1	1.9	<0.02	0.11	207	0.4	0.06	2.6	0.19
1720503	Soil	0.28	0.093	3.0	9.5	0.11	78.2	0.125	2	0.81	0.011	0.07	<0.1	1.8	0.04	0.14	238	0.6	<0.02	10.4	0.63
1720505	Soil	0.59	0.089	2.9	10.0	0.13	167.2	0.098	3	0.80	0.016	0.04	<0.1	1.6	0.04	0.16	566	1.0	0.05	7.5	0.31
1720507	Soil	0.16	0.076	4.6	34.9	0.21	96.9	0.243	2	2.62	0.007	0.03	<0.1	3.6	0.07	0.09	323	1.9	0.08	20.2	0.57



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200 - 580 Hornby Street
Vancouver BC V6C 3B6 Canada

Project: CATFACE NE

Report Date: June 26, 2012

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Part: 3 of 3

CERTIFICATE OF ANALYSIS

VAN12002351.1

Method	Analyte	1F15														
		Ge	Hf	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
MDL		0.1	0.02	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
1720451	Soil	<0.1	0.07	1.38	1.5	0.5	<0.05	1.4	9.71	18.6	0.03	<1	<0.1	1.1	<10	<2
1720453	Soil	<0.1	0.04	1.01	2.1	0.3	<0.05	1.1	5.45	9.5	0.03	<1	0.3	6.9	<10	<2
1720455	Soil	<0.1	0.10	1.51	3.0	0.4	<0.05	2.4	14.51	20.4	0.04	<1	0.4	6.7	11	3
1720457	Soil	<0.1	0.03	0.97	1.1	0.4	<0.05	1.0	5.31	8.9	<0.02	<1	<0.1	0.4	<10	<2
1720459	Soil	<0.1	0.06	1.90	2.3	0.6	<0.05	1.5	5.70	10.0	<0.02	<1	<0.1	2.1	<10	<2
1720461	Soil	<0.1	<0.02	0.73	1.6	0.3	<0.05	<0.1	11.51	22.2	0.02	<1	0.6	4.9	<10	<2
1720463	Soil	<0.1	<0.02	1.58	2.0	0.9	<0.05	0.2	5.73	17.7	0.04	<1	0.2	3.7	<10	<2
1720465	Soil	<0.1	<0.02	0.61	2.1	0.3	<0.05	0.3	27.53	30.1	<0.02	<1	<0.1	1.7	<10	<2
1720467	Soil	<0.1	0.03	1.26	1.4	0.4	<0.05	0.7	5.96	8.8	0.02	<1	<0.1	1.9	<10	<2
1720469	Soil	<0.1	<0.02	0.87	1.8	0.4	<0.05	0.4	2.89	6.5	<0.02	<1	<0.1	0.3	<10	<2
1720471	Soil	0.1	0.03	0.92	1.3	0.3	<0.05	0.7	10.92	18.4	<0.02	<1	<0.1	0.2	<10	<2
1720473	Soil	0.2	<0.02	0.24	0.5	0.3	<0.05	0.2	9.92	10.6	<0.02	<1	0.3	0.2	<10	<2
1720475	Soil	<0.1	<0.02	0.07	0.6	0.2	<0.05	0.2	0.26	0.9	<0.02	<1	<0.1	<0.1	<10	<2
1722380	Soil	<0.1	0.08	1.26	2.1	0.3	<0.05	1.8	5.72	9.9	0.02	<1	0.2	6.3	<10	<2
1722382	Soil	<0.1	0.08	1.70	2.6	0.4	<0.05	2.2	7.09	9.9	0.03	<1	0.3	7.1	<10	<2
1722384	Soil	<0.1	0.04	1.06	1.3	0.4	<0.05	1.0	3.27	5.9	<0.02	<1	<0.1	0.5	<10	<2
1722386	Soil	<0.1	0.08	2.75	1.3	0.8	<0.05	2.0	2.28	6.1	0.03	<1	<0.1	0.3	<10	<2
1722388	Soil	<0.1	0.06	1.48	1.9	0.4	<0.05	1.6	6.72	9.5	0.02	<1	0.3	5.2	<10	<2
1722390	Soil	<0.1	0.05	1.26	1.9	0.4	<0.05	1.9	2.42	4.9	0.03	<1	<0.1	0.8	<10	<2
1722392	Soil	<0.1	<0.02	0.18	1.2	0.3	<0.05	0.6	0.36	2.3	<0.02	<1	<0.1	0.2	<10	<2
1722394	Soil	<0.1	0.05	1.53	2.0	0.4	<0.05	1.7	13.76	16.4	0.03	<1	0.4	6.9	<10	<2
1722396	Soil	<0.1	0.06	2.67	1.8	0.7	<0.05	1.9	1.24	4.1	0.03	<1	<0.1	1.1	<10	<2
1722398	Soil	<0.1	0.09	2.07	2.3	0.6	<0.05	2.2	4.14	8.3	0.03	<1	0.2	3.8	<10	<2
1722400	Soil	<0.1	0.08	2.25	1.2	0.8	<0.05	1.8	1.60	4.8	<0.02	<1	<0.1	0.3	<10	<2
1720501	Soil	<0.1	0.06	1.80	1.4	0.9	<0.05	1.4	1.19	4.3	<0.02	<1	<0.1	0.3	<10	<2
1720503	Soil	<0.1	0.06	1.92	2.9	0.9	<0.05	1.8	2.15	5.7	<0.02	<1	<0.1	0.6	<10	<2
1720505	Soil	<0.1	0.03	1.19	1.5	0.6	<0.05	1.0	2.25	5.3	<0.02	<1	0.1	0.4	<10	<2
1720507	Soil	<0.1	0.07	3.07	2.1	1.1	<0.05	3.2	5.11	9.7	0.08	<1	0.3	3.0	<10	<2



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Project:

CATFACE NE

Report Date:

June 26, 2012

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QUALITY CONTROL REPORT

VAN12002351.1

Method	SS80	SS80	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	
Analyte	-80 Wt	+80 Wt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	
Unit	g	g	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	
MDL	0	0.01	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	
Pulp Duplicates																					
1720475	Soil	15.00	24.00	0.54	15.30	14.04	22.8	435	3.5	0.6	109	0.09	1.2	<0.1	1.1	<0.1	36.3	0.47	0.35	0.09	3
REP 1722396	QC			1.45	17.17	4.68	11.4	187	5.3	3.8	67	4.48	3.0	0.5	2.4	0.5	12.0	0.06	0.23	0.09	190
Reference Materials																					
STD DS8	Standard			15.18	121.5	127.8	311.9	1865	42.7	8.6	669	2.67	24.9	3.1	119.9	7.7	71.3	2.28	5.42	6.52	46
STD DS9	Standard			15.50	119.4	137.5	340.8	2031	43.8	8.4	640	2.53	26.0	3.1	137.8	7.6	80.8	2.38	5.92	6.84	45
STD DS9 Expected				12.84	108	126	317	1830	40.3	7.6	575	2.33	25.5	2.69	118	6.38	69.6	2.4	4.94	6.32	40
STD DS8 Expected				13.44	110	123	312	1690	38.1	7.5	615	2.46	26	2.8	107	6.89	67.7	2.38	5.7	6.67	41.1
BLK	Blank			<0.01	<0.01	<0.01	<0.1	3	<0.1	<0.1	<1	<0.01	0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	
																				<2	



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Project:

CATFACE NE

Report Date:

June 26, 2012

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QUALITY CONTROL REPORT

VAN12002351.1

Method	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	
Analyte	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	
Unit	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	
MDL	0.01	0.001	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	
Pulp Duplicates																					
1720475	Soil	0.93	0.084	0.5	3.1	0.17	118.8	0.004	4	0.16	0.022	0.03	<0.1	0.4	0.04	0.18	455	1.2	<0.02	0.3	0.05
REP 1722396	QC	0.14	0.059	2.4	33.8	0.16	21.6	0.252	2	1.43	0.008	0.03	<0.1	2.4	0.03	0.08	185	0.9	0.04	14.6	0.32
Reference Materials																					
STD DS8	Standard	0.80	0.086	19.3	128.5	0.66	289.0	0.139	3	1.03	0.104	0.45	3.3	3.1	5.99	0.17	193	5.5	5.52	5.4	2.59
STD DS9	Standard	0.82	0.088	17.8	129.8	0.67	326.5	0.136	4	1.07	0.095	0.43	3.4	2.9	6.32	0.18	230	5.7	5.80	5.5	2.78
STD DS9 Expected		0.7201	0.0819	13.3	121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	2.5	5.3	0.1615	200	5.2	5.02	4.59	2.37
STD DS8 Expected		0.7	0.08	14.6	115	0.6045	279	0.113	2.6	0.93	0.0883	0.41	3	2.3	5.4	0.1679	192	5.23	5	4.7	2.48
BLK	Blank	<0.01	<0.001	<0.5	0.9	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	6	<0.1	<0.02	<0.1	<0.02



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Project:

CATFACE NE
Report Date: June 26, 2012

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QUALITY CONTROL REPORT

VAN12002351.1

Method	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15
Analyte	Ge	Hf	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb
MDL	0.1	0.02	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
Pulp Duplicates															
1720475	Soil	<0.1	<0.02	0.07	0.6	0.2	<0.05	0.2	0.26	0.9	<0.02	<1	<0.1	<0.1	<10
REP 1722396	QC	<0.1	0.08	2.71	1.8	0.7	<0.05	1.9	1.28	4.5	<0.02	<1	<0.1	1.1	<10
Reference Materials															
STD DS8	Standard	0.1	0.10	1.69	40.7	6.4	<0.05	2.2	7.11	37.4	2.24	55	5.8	31.2	128
STD DS9	Standard	0.1	0.11	1.69	37.0	6.6	<0.05	2.1	7.66	36.4	2.44	67	6.0	28.6	154
STD DS9 Expected		0.1	0.08	1.33	33.8	6.4	0.004	2	5.97	25.4	2.2	61	5.4	25.2	120
STD DS8 Expected		0.13	0.08	1.65	39	6.7	0.003	2.3	6.1	29.8	2.19	55	5.2	26.34	110
BLK	Blank	<0.1	<0.02	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10
<2															



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Submitted By: Email Distribution List

Receiving Lab: Canada-Vancouver

Received: May 22, 2012

Report Date: June 02, 2012

Page: 1 of 2

CERTIFICATE OF ANALYSIS

VAN12002352.1

CLIENT JOB INFORMATION

Project: CATFACE NE

Shipment ID: CFNE-1

P.O. Number

Number of Samples: 3

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage

STOR-RJT-SOIL Store Soil Reject - RJSV Charges Apply

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	3	Dry at 60C			VAN
SS80	3	Dry at 60C sieve 100g to -80 mesh			VAN
RJSV	3	Saving all or part of Soil Reject			VAN
1DX2	3	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

ADDITIONAL COMMENTS

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

Invoice To: Catface Copper Mines Limited
200 - 580 Hornby Street
Vancouver BC V6C 3B6
Canada

CC: Dustin Perry



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Project:

CATFACE NE

Report Date:

June 02, 2012

CERTIFICATE OF ANALYSIS

VAN12002352.1

Method	1DX15																					
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La		
Unit	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm									
MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1		
1722131	Silt	4.8	79.2	7.0	71	0.1	37.2	35.4	967	4.89	15.4	2.5	0.5	32	0.2	0.3	<0.1	126	0.87	0.053	3	
1722132	Silt	5.3	89.2	6.4	92	<0.1	44.9	36.8	986	5.32	16.8	4.7	0.6	40	0.2	0.3	<0.1	139	1.02	0.050	3	
1722133	Silt	7.9	105.0	7.2	94	<0.1	42.8	33.6	906	5.38	17.7	4.3	0.7	33	0.2	0.3	0.1	141	0.88	0.047	3	



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Project: CATFACE NE
Report Date: June 02, 2012

Page: 2 of 2

Part: 2 of 2

CERTIFICATE OF ANALYSIS

VAN12002352.1

Method	1DX15																
Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
1722131	Silt	44	1.70	189	0.161	3	3.66	0.017	0.02	<0.1	0.11	4.9	<0.1	0.06	10	1.5	<0.2
1722132	Silt	49	2.22	245	0.178	2	3.96	0.015	0.03	0.1	0.05	5.8	<0.1	<0.05	9	1.3	<0.2
1722133	Silt	45	2.14	356	0.174	2	3.91	0.016	0.03	<0.1	0.05	5.6	<0.1	<0.05	9	1.3	0.2



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Acme Analytical Laboratories (Vancouver) Ltd.

Client: **Catface Copper Mines Limited**
200 - 580 Hornby Street
Vancouver BC V6C 3B6 Canada

Project: CATFACE NE
Report Date: June 02, 2012

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QUALITY CONTROL REPORT

VAN12002352.1

Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
Reference Materials																					
STD DS8	Standard	13.2	107.0	123.7	310	1.8	40.6	8.2	628	2.49	23.0	118.4	6.1	62	2.0	5.0	5.9	44	0.67	0.078	14
STD DS9	Standard	12.6	105.4	127.5	313	1.8	41.0	7.9	571	2.30	24.0	103.9	5.6	66	2.1	4.8	6.2	44	0.68	0.079	12
STD DS9 Expected		12.74	104	126	322	1.69	39.5	7.6	586	2.37	27	102	7.15	76.1	2.3	4.84	6.78	40	0.776	0.0844	15.7
STD DS8 Expected		13.44	110	123	312	1.69	38.1	7.5	615	2.46	26	107	6.89	67.7	2.38	5.7	6.67	41.1	0.7	0.08	14.6
BLK	Blank	<0.1	0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1



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Part: 2 of 2

QUALITY CONTROL REPORT

VAN12002352.1

Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
Reference Materials																	
STD DS8	Standard	130	0.63	255	0.112	2	0.92	0.090	0.41	3.1	0.20	2.3	5.5	0.18	5	5.5	4.9
STD DS9	Standard	124	0.62	275	0.105	3	0.93	0.083	0.38	3.1	0.21	2.1	5.4	0.19	5	5.2	5.0
STD DS9 Expected		119	0.6437	308	0.1239		0.9915	0.0905	0.3874	3	0.225	2.8	5.48	0.1737	4.84	5.4	5
STD DS8 Expected		115	0.6045	279	0.113	2.6	0.93	0.0883	0.41	3	0.192	2.3	5.4	0.1679	4.7	5.23	5
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



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Acme Analytical Laboratories (Vancouver) Ltd.

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Client: **Catface Copper Mines Limited**

200 - 580 Hornby Street
Vancouver BC V6C 3B6 Canada

Submitted By: Email Distribution List

Receiving Lab: Canada-Vancouver

Received: July 24, 2012

Report Date: August 09, 2012

Page: 1 of 3

CERTIFICATE OF ANALYSIS

VAN12003461.1

CLIENT JOB INFORMATION

Project: CATFACE NE

Shipment ID: Catface NE-2

P.O. Number

Number of Samples: 41

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage

STOR-RJT-SOIL Store Soil Reject - RJSV Charges Apply

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	38	Dry at 60C			VAN
SS80	38	Dry at 60C sieve 100g to -80 mesh			VAN
RJSV	38	Saving all or part of Soil Reject			VAN
1DX2	38	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

ADDITIONAL COMMENTS

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

Invoice To: Catface Copper Mines Limited
200 - 580 Hornby Street
Vancouver BC V6C 3B6
Canada

CC: Dustin Perry



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** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Client:

Catface Copper Mines Limited

200 - 580 Hornby Street

Vancouver BC V6C 3B6 Canada

Project: CATFACE NE

Report Date: August 09, 2012

Page: 2 of 3

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CERTIFICATE OF ANALYSIS

VAN12003461.1

Method Analyte Unit MDL	1DX15																				
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm								
	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
1720481	Soil	14.0	133.4	7.5	28	0.1	6.5	5.2	110	9.31	11.8	2.9	1.1	6	0.1	0.5	0.2	326	0.08	0.038	2
1720482	Soil	10.0	57.1	10.2	17	0.1	7.3	8.3	123	6.30	7.4	6.5	0.5	5	0.1	0.7	0.2	306	0.12	0.031	2
1720483	Soil	12.6	25.7	8.0	30	<0.1	6.8	6.8	120	6.17	24.4	2.1	0.5	10	<0.1	0.4	0.2	267	0.19	0.033	2
1720484	Soil	5.0	53.4	4.9	20	<0.1	6.6	6.1	74	5.48	7.4	1.9	1.1	8	0.1	0.3	0.1	200	0.12	0.028	3
1720485	Soil	2.9	27.9	6.6	12	0.1	3.6	3.2	55	6.44	14.0	7.8	0.4	5	<0.1	0.4	0.2	388	0.11	0.028	2
1720486	Soil	2.1	49.4	6.9	62	<0.1	34.5	18.9	345	4.01	67.1	1.8	0.8	8	0.8	0.4	<0.1	99	0.21	0.041	8
1720487	Soil	1.3	49.7	5.2	34	<0.1	19.6	10.0	238	3.83	5.9	1.4	1.0	7	0.2	0.2	<0.1	113	0.13	0.043	3
1720488	Soil	1.9	37.9	4.9	38	<0.1	16.6	10.1	202	4.12	50.3	1.8	1.1	9	0.4	0.5	<0.1	116	0.15	0.035	3
1720489	Soil	0.3	23.4	8.6	95	<0.1	56.1	20.6	2828	2.48	20.3	1.4	0.3	6	4.2	0.3	<0.1	53	0.29	0.119	17
1720490	Soil	1.2	22.9	8.5	69	<0.1	41.6	20.2	1571	3.00	186.6	1.8	0.4	11	3.1	0.9	<0.1	79	0.58	0.109	16
1720491	Soil	0.5	8.2	13.8	64	<0.1	19.0	8.7	797	2.79	8.5	0.7	0.4	4	0.4	0.2	<0.1	66	0.18	0.043	7
1720492	Soil	0.5	9.0	6.6	56	<0.1	13.5	5.9	319	2.76	18.8	0.7	0.2	2	0.2	0.2	<0.1	59	0.07	0.041	2
1720493	Soil	0.3	9.5	7.1	70	<0.1	17.0	6.8	1847	1.94	5.4	0.5	0.1	7	0.7	0.2	<0.1	35	0.36	0.063	6
1720494	Soil	1.1	12.8	8.4	29	<0.1	9.6	4.5	73	5.22	36.4	10.0	1.0	5	0.4	0.3	0.1	142	0.10	0.035	2
1720495	Soil	0.2	15.3	4.7	72	<0.1	27.4	10.2	3148	1.83	4.3	0.9	0.1	11	2.2	0.1	<0.1	41	0.64	0.081	13
1720496	Soil	0.3	4.5	5.4	57	<0.1	12.4	6.9	480	1.42	3.1	<0.5	0.3	4	0.3	0.1	<0.1	36	0.15	0.016	3
1720497	Soil	0.5	61.4	4.2	35	0.1	24.1	9.0	187	3.78	3.2	1.8	1.3	7	0.2	0.1	<0.1	102	0.13	0.048	3
1720498	Soil	1.6	76.5	9.8	102	0.1	46.4	22.9	880	4.55	49.9	11.1	0.7	9	1.5	0.9	0.2	131	0.37	0.072	14
1720499	Soil	2.3	30.4	5.8	16	0.2	6.2	3.8	83	4.61	5.7	3.4	0.4	7	0.1	0.5	0.1	249	0.13	0.031	2
1720500	Soil	1.8	134.2	6.7	63	0.3	32.8	26.7	1018	4.44	24.6	4.1	0.2	19	0.9	0.8	<0.1	124	0.40	0.079	3
1720886	Soil	1.9	157.6	7.9	135	0.1	53.3	28.0	1723	4.70	172.3	4.7	0.6	8	0.9	2.2	<0.1	125	0.18	0.092	15
1720887	Soil	6.0	34.9	4.5	22	0.2	11.9	9.1	161	8.07	11.5	4.9	1.1	12	0.1	0.2	<0.1	183	0.14	0.032	5
1720888	Soil	2.4	73.7	3.3	38	0.2	24.2	14.2	308	4.28	8.2	2.2	0.7	23	0.2	0.2	<0.1	110	0.54	0.041	3
1720889	Soil	3.3	58.7	6.5	51	0.2	28.0	26.8	487	5.10	10.8	3.4	0.8	24	0.2	0.2	<0.1	140	0.50	0.029	3
1720890	Soil	1.5	29.7	3.9	12	0.1	7.9	5.7	85	5.64	2.9	2.3	1.1	8	<0.1	0.2	<0.1	190	0.14	0.022	2
1720891	Soil	1.9	26.3	3.1	13	<0.1	7.1	6.0	114	3.97	2.1	1.8	0.7	8	<0.1	0.1	<0.1	122	0.11	0.016	2
1720892	Soil	1.2	31.3	4.2	10	<0.1	5.7	4.4	73	6.71	2.7	2.6	1.3	6	<0.1	0.2	<0.1	212	0.09	0.020	2
1720893	Soil	3.1	63.5	6.4	74	0.1	35.5	26.5	449	4.15	53.0	4.0	0.7	14	0.7	0.4	<0.1	150	0.64	0.036	5
1720894	Soil	1.0	25.1	5.5	8	<0.1	4.1	3.5	70	2.51	27.0	4.1	0.4	10	<0.1	0.8	<0.1	263	0.14	0.011	2
1720895	Soil	3.8	22.8	4.6	10	<0.1	5.0	4.0	60	6.17	4.3	2.5	0.8	6	<0.1	0.3	<0.1	252	0.09	0.023	2

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Client:

Catface Copper Mines Limited

200 - 580 Hornby Street
Vancouver BC V6C 3B6 Canada

Project: CATFACE NE

Report Date: August 09, 2012

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Part: 2 of 2

CERTIFICATE OF ANALYSIS

VAN12003461.1

Method	Analyte	1DX15															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
1720481	Soil	55	0.21	35	0.287	3	5.30	0.008	0.02	<0.1	0.11	3.5	<0.1	<0.05	22	1.8	<0.2
1720482	Soil	58	0.13	27	0.287	2	1.66	0.009	0.01	<0.1	0.10	2.7	<0.1	0.08	20	0.9	0.3
1720483	Soil	30	0.30	24	0.249	3	1.93	0.010	0.02	<0.1	0.10	1.7	<0.1	<0.05	25	0.8	<0.2
1720484	Soil	45	0.21	18	0.249	2	3.57	0.009	0.01	<0.1	0.18	5.3	<0.1	<0.05	16	2.2	<0.2
1720485	Soil	29	0.08	10	0.397	2	1.08	0.007	0.01	<0.1	0.07	1.0	<0.1	<0.05	24	0.6	<0.2
1720486	Soil	54	1.50	33	0.145	3	4.06	0.012	0.02	0.2	0.22	8.1	<0.1	<0.05	8	2.2	<0.2
1720487	Soil	52	0.63	15	0.140	3	5.32	0.009	0.02	0.1	0.19	7.7	<0.1	0.06	10	2.5	<0.2
1720488	Soil	42	0.74	19	0.168	3	4.10	0.011	0.01	0.2	0.21	4.2	<0.1	<0.05	11	1.9	<0.2
1720489	Soil	42	2.03	34	0.036	4	2.94	0.005	<0.01	0.1	0.18	5.8	<0.1	<0.05	6	1.1	0.2
1720490	Soil	58	1.28	30	0.053	3	3.56	0.008	0.01	0.4	0.26	5.3	0.1	0.08	8	1.2	<0.2
1720491	Soil	25	1.16	10	0.090	2	2.28	0.004	<0.01	0.1	0.14	4.5	<0.1	<0.05	7	1.1	<0.2
1720492	Soil	23	0.70	9	0.061	2	1.59	0.005	0.01	0.2	0.15	2.6	<0.1	0.06	6	0.7	<0.2
1720493	Soil	10	0.60	17	0.014	3	1.19	0.003	0.02	<0.1	0.11	4.3	<0.1	0.07	3	0.8	<0.2
1720494	Soil	51	0.42	12	0.187	1	3.91	0.006	0.01	<0.1	0.10	2.1	<0.1	<0.05	13	0.6	<0.2
1720495	Soil	28	1.15	38	0.027	4	2.03	0.004	0.01	<0.1	0.17	3.7	<0.1	0.06	4	1.2	<0.2
1720496	Soil	10	0.57	14	0.046	1	1.09	0.004	0.01	0.1	0.07	2.4	<0.1	<0.05	4	<0.5	<0.2
1720497	Soil	53	0.97	22	0.154	2	4.96	0.009	0.01	0.1	0.25	6.1	<0.1	<0.05	8	1.5	<0.2
1720498	Soil	60	0.93	117	0.163	4	4.11	0.013	0.02	0.1	0.31	7.4	<0.1	<0.05	10	1.1	<0.2
1720499	Soil	32	0.21	51	0.358	2	1.29	0.011	0.01	<0.1	0.13	2.6	<0.1	0.07	16	0.9	<0.2
1720500	Soil	58	1.00	96	0.124	5	3.19	0.011	0.02	0.1	0.30	4.6	<0.1	<0.05	8	1.5	<0.2
1720886	Soil	95	1.81	90	0.093	4	5.81	0.007	<0.01	0.4	0.25	13.4	<0.1	0.05	9	2.9	0.2
1720887	Soil	44	0.66	44	0.226	3	4.47	0.011	0.01	0.1	0.22	3.2	<0.1	0.07	15	2.1	<0.2
1720888	Soil	42	1.07	142	0.134	3	3.25	0.015	0.02	0.1	0.12	4.7	<0.1	<0.05	9	1.8	<0.2
1720889	Soil	42	1.48	146	0.178	3	3.45	0.014	0.02	<0.1	0.14	5.3	<0.1	<0.05	11	1.5	0.2
1720890	Soil	49	0.30	8	0.209	2	3.34	0.012	<0.01	<0.1	0.21	3.2	<0.1	0.06	14	1.9	<0.2
1720891	Soil	34	0.29	6	0.151	2	2.76	0.009	0.01	<0.1	0.12	3.5	<0.1	<0.05	10	2.6	<0.2
1720892	Soil	55	0.21	7	0.213	1	3.07	0.008	<0.01	<0.1	0.26	4.0	<0.1	<0.05	18	1.9	<0.2
1720893	Soil	52	1.12	81	0.162	4	4.52	0.014	0.01	0.1	0.13	5.9	<0.1	<0.05	10	2.1	<0.2
1720894	Soil	22	0.11	23	0.290	<1	0.87	0.008	0.01	<0.1	0.05	1.8	<0.1	0.05	14	<0.5	<0.2
1720895	Soil	48	0.16	7	0.229	1	2.55	0.007	<0.01	<0.1	0.11	2.1	<0.1	<0.05	20	0.5	<0.2

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Client:

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200 - 580 Hornby Street

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Project:

CATFACE NE

Report Date:

August 09, 2012

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Part: 1 of 2

CERTIFICATE OF ANALYSIS

VAN12003461.1

Analyte	Method	1DX15																			
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm								
		0.1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.01	0.5	0.5	0.1	0.1	0.1	0.1	0.1	2	0.01	0.001	1
1720896	Soil	3.0	47.3	6.1	17	0.2	4.7	3.4	65	8.98	4.5	3.0	1.0	6	<0.1	0.2	0.1	228	0.11	0.032	3
1720897	Soil	5.0	115.1	8.3	17	0.2	6.5	4.0	81	5.10	2.9	4.0	0.3	8	0.1	0.1	0.1	226	0.15	0.027	2
1720898	Soil	8.1	289.2	4.9	30	0.1	15.2	8.9	164	8.12	10.9	21.0	1.9	5	0.1	0.2	<0.1	173	0.10	0.064	2
1720899	Soil	5.6	55.6	6.5	24	0.3	7.1	5.3	109	6.16	24.3	2.6	1.1	7	0.2	0.3	0.1	171	0.14	0.033	4
1720900	Soil	1.5	66.2	4.6	61	<0.1	31.7	28.5	656	3.30	45.3	3.5	0.8	10	0.7	0.3	<0.1	91	0.31	0.049	6
1720651	Soil	L.N.R.																			
1720652	Soil	L.N.R.																			
1720653	Soil	L.N.R.																			
1721651	Soil	0.5	25.0	3.8	61	<0.1	22.3	15.5	371	2.86	43.2	1.5	0.3	13	0.6	0.3	<0.1	72	0.87	0.040	10
1721652	Soil	0.6	11.9	7.5	101	<0.1	37.9	9.6	3375	3.10	4.6	1.4	0.2	13	1.9	<0.1	<0.1	53	1.14	0.157	11
1721653	Soil	0.4	22.4	5.0	57	<0.1	33.3	15.7	943	3.16	9.6	1.7	0.4	9	0.8	0.2	<0.1	90	0.26	0.049	5



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Vancouver BC V6C 3B6 Canada

Project:

CATFACE NE

Report Date:

August 09, 2012

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CERTIFICATE OF ANALYSIS

VAN12003461.1

Method	Analyte	1DX15															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
1720896	Soil	41	0.13	14	0.252	2	2.87	0.008	0.01	<0.1	0.19	3.3	<0.1	0.06	21	1.8	<0.2
1720897	Soil	27	0.28	30	0.284	3	1.57	0.009	0.02	<0.1	0.10	2.2	<0.1	<0.05	21	0.7	<0.2
1720898	Soil	76	0.57	14	0.309	2	>10	0.007	<0.01	<0.1	0.20	20.3	<0.1	0.09	19	4.5	<0.2
1720899	Soil	37	0.25	15	0.204	3	3.35	0.010	0.02	0.1	0.22	2.8	<0.1	<0.05	14	1.8	<0.2
1720900	Soil	47	1.21	33	0.108	4	4.48	0.014	0.01	<0.1	0.27	6.8	<0.1	<0.05	8	2.1	<0.2
1720651	Soil	L.N.R.															
1720652	Soil	L.N.R.															
1720653	Soil	L.N.R.															
1721651	Soil	29	0.89	21	0.077	3	3.63	0.011	<0.01	<0.1	0.15	3.8	<0.1	0.08	8	1.2	<0.2
1721652	Soil	46	2.67	31	0.027	4	3.81	0.006	<0.01	<0.1	0.18	6.0	<0.1	0.09	7	1.2	<0.2
1721653	Soil	38	1.10	16	0.085	3	2.86	0.009	0.01	<0.1	0.17	3.4	<0.1	<0.05	8	0.7	<0.2



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QUALITY CONTROL REPORT

VAN12003461.1

Method Analyte Unit MDL	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
Pulp Duplicates																				
1720493	Soil	0.3	9.5	7.1	70	<0.1	17.0	6.8	1847	1.94	5.4	0.5	0.1	7	0.7	0.2	<0.1	35	0.36	0.063
REP 1720493	QC	0.3	9.4	7.2	72	<0.1	17.4	7.0	1804	2.01	5.5	0.9	<0.1	7	0.7	0.2	<0.1	37	0.35	0.067
1720886	Soil	1.9	157.6	7.9	135	0.1	53.3	28.0	1723	4.70	172.3	4.7	0.6	8	0.9	2.2	<0.1	125	0.18	0.092
REP 1720886	QC	1.8	160.6	8.2	134	0.1	53.2	28.0	1741	4.85	166.5	5.3	0.6	8	0.9	2.2	<0.1	124	0.19	0.092
Reference Materials																				
STD DS9	Standard	13.5	110.1	112.6	299	1.8	42.5	7.8	594	2.40	24.5	129.6	5.6	62	2.3	5.1	5.0	44	0.76	0.083
STD DS9	Standard	12.7	96.8	112.7	288	1.8	40.0	7.5	554	2.19	22.5	116.9	5.1	61	2.0	5.2	5.0	41	0.68	0.074
STD DS9 Expected		12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	118	6.38	69.6	2.4	4.94	6.32	40	0.7201	0.0819
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001



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QUALITY CONTROL REPORT

VAN12003461.1

Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																	
1720493	Soil	10	0.60	17	0.014	3	1.19	0.003	0.02	<0.1	0.11	4.3	<0.1	0.07	3	0.8	<0.2
REP 1720493	QC	10	0.58	17	0.015	2	1.13	0.003	0.01	<0.1	0.12	4.1	<0.1	0.06	3	1.0	<0.2
1720886	Soil	95	1.81	90	0.093	4	5.81	0.007	<0.01	0.4	0.25	13.4	<0.1	0.05	9	2.9	0.2
REP 1720886	QC	97	1.84	88	0.096	5	5.70	0.008	0.01	0.4	0.23	13.2	<0.1	0.06	9	3.3	<0.2
Reference Materials																	
STD DS9	Standard	127	0.64	306	0.106	2	0.94	0.088	0.37	3.0	0.21	2.6	5.6	0.19	5	5.7	5.4
STD DS9	Standard	121	0.58	289	0.103	2	0.87	0.081	0.32	2.9	0.20	2.2	5.3	0.18	4	4.8	5.1
STD DS9 Expected		121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



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Submitted By: Email Distribution List

Receiving Lab: Canada-Vancouver

Received: July 24, 2012

Report Date: August 17, 2012

Page: 1 of 2

CERTIFICATE OF ANALYSIS

VAN12003462.1

CLIENT JOB INFORMATION

Project: CATFACE NE
Shipment ID: Catface NE-2
P.O. Number
Number of Samples: 11

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	11	Crush, split and pulverize 250 g rock to 200 mesh			VAN
1DX2	11	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
STOR-RJT Store After 90 days Invoice for Storage

ADDITIONAL COMMENTS

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

Invoice To: Catface Copper Mines Limited
200 - 580 Hornby Street
Vancouver BC V6C 3B6
Canada

CC: Dustin Perry



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



AcmeLabs

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Project: CATFACE NE

Report Date: August 17, 2012

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Part: 1 of 2

CERTIFICATE OF ANALYSIS

VAN12003462.1

Method	WGHT	1DX15																			
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%								
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
G1	Prep Blank	<0.01	0.1	2.5	2.6	47	<0.1	3.7	4.1	567	1.87	<0.5	0.6	4.8	58	<0.1	<0.1	<0.1	35	0.54	0.075
G1	Prep Blank	<0.01	0.1	2.6	2.9	48	<0.1	4.1	4.3	599	1.89	<0.5	0.8	5.3	70	<0.1	<0.1	<0.1	36	0.58	0.076
1965401	Rock	1.01	5.1	62.8	4.8	29	0.4	27.5	4.3	241	2.91	9.2	0.7	0.6	6	<0.1	0.4	<0.1	50	0.23	0.032
1965402	Rock	1.17	1.0	27.7	6.6	20	0.6	5.0	5.0	203	2.23	2.8	2.0	0.5	3	<0.1	0.5	<0.1	47	0.16	0.056
1965403	Rock	0.68	10.1	230.3	7.9	144	0.8	31.3	29.9	620	5.91	10.1	10.2	0.8	21	0.8	0.4	0.2	204	1.28	0.095
1965404	Rock	0.87	0.2	201.5	1.5	36	0.2	13.0	13.9	288	2.80	<0.5	3.3	0.3	67	0.1	<0.1	<0.1	140	1.63	0.119
1965405	Rock	0.49	1.4	1997	1.7	95	4.7	9.8	13.0	190	2.28	<0.5	11.1	<0.1	9	1.6	0.2	0.3	46	0.52	0.027
1965406	Rock	1.29	0.5	2978	1.0	118	1.9	14.9	26.5	267	2.78	<0.5	37.4	<0.1	42	3.3	<0.1	<0.1	73	5.42	0.021
1965407	Rock	1.40	0.7	2510	2.8	110	1.7	18.9	32.1	259	3.31	<0.5	36.2	<0.1	45	3.0	<0.1	0.2	70	6.00	0.029
1965408	Rock	1.32	1.1	5422	4.6	225	4.9	55.3	95.8	513	8.36	<0.5	70.0	0.1	28	3.3	0.2	2.5	271	1.03	0.100
1965409	Rock	0.57	2.1	6962	1.3	204	5.7	10.8	21.5	94	2.04	<0.5	88.4	<0.1	3	8.4	0.1	0.7	17	0.14	0.003
1965410	Rock	0.36	0.6	351.3	2.6	39	0.2	6.0	9.8	110	1.09	<0.5	21.9	<0.1	2	1.0	0.2	<0.1	36	0.23	0.003
1965411	Rock	0.34	1.8	2699	1.1	175	1.7	20.5	35.8	358	4.52	<0.5	71.8	0.1	9	5.0	<0.1	0.1	174	0.67	0.040



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Project: CATFACE NE
Report Date: August 17, 2012

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Part: 2 of 2

CERTIFICATE OF ANALYSIS

VAN12003462.1

Method	Analyte	1DX15																
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
G1	Prep Blank	9	13	0.60	210	0.116	<1	0.96	0.080	0.48	<0.1	<0.01	2.2	0.2	<0.05	5	<0.5	<0.2
G1	Prep Blank	10	14	0.61	229	0.133	<1	1.03	0.098	0.50	<0.1	<0.01	2.3	0.3	<0.05	5	<0.5	<0.2
1965401	Rock	2	70	1.12	18	0.090	<1	1.19	0.085	0.02	<0.1	<0.01	5.8	<0.1	0.53	5	12.5	<0.2
1965402	Rock	2	20	1.13	26	0.086	<1	0.97	0.117	<0.01	<0.1	<0.01	8.1	<0.1	0.99	6	6.3	<0.2
1965403	Rock	3	17	1.41	48	0.351	4	2.19	0.096	0.05	0.1	<0.01	8.0	<0.1	2.71	10	3.1	0.5
1965404	Rock	3	8	0.64	37	0.163	8	1.84	0.196	0.09	0.1	<0.01	5.1	<0.1	<0.05	8	<0.5	<0.2
1965405	Rock	<1	20	0.42	3	0.173	3	0.90	0.010	<0.01	0.2	0.18	2.1	<0.1	0.14	4	3.2	1.0
1965406	Rock	<1	19	0.59	8	0.118	11	1.63	0.014	0.02	0.3	0.16	2.5	<0.1	0.70	6	2.4	0.4
1965407	Rock	<1	18	0.45	8	0.234	10	1.28	0.002	0.03	0.6	0.24	3.0	<0.1	1.73	5	3.8	0.6
1965408	Rock	1	21	1.77	32	0.427	5	2.95	0.099	0.08	0.6	0.98	10.1	<0.1	1.84	13	5.3	2.1
1965409	Rock	<1	38	0.16	<1	0.018	<1	0.26	0.003	<0.01	<0.1	0.44	0.8	<0.1	1.06	1	4.6	1.3
1965410	Rock	<1	16	0.25	<1	0.037	<1	0.35	0.002	<0.01	0.1	0.09	1.4	<0.1	<0.05	2	<0.5	<0.2
1965411	Rock	<1	9	1.12	10	0.217	2	1.77	0.040	0.02	0.6	0.28	6.6	<0.1	0.39	8	1.6	0.3



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Project: CATFACE NE
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QUALITY CONTROL REPORT

VAN12003462.1

Method	WGHT	1DX15	1DX15																		
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%								
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
Pulp Duplicates																					
REP G1	QC	0.1	2.4	2.7	46	<0.1	3.6	4.1	574	1.89	<0.5	1.0	5.1	63	<0.1	<0.1	<0.1	36	0.56	0.078	
Reference Materials																					
STD DS9	Standard	12.5	103.9	123.5	306	1.8	42.3	7.9	602	2.30	26.1	117.2	7.2	82	2.4	5.9	7.5	40	0.73	0.082	
STD DS9 Expected		12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	118	6.38	69.6	2.4	4.94	6.32	40	0.7201	0.0819	
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	
Prep Wash																					
G1	Prep Blank	<0.01																			
G1	Prep Blank	<0.01	0.1	2.6	2.9	48	<0.1	4.1	4.3	599	1.89	<0.5	0.8	5.3	70	<0.1	<0.1	<0.1	36	0.58	0.076
G1	Prep Blank	0.1	2.5	2.6	47	<0.1	3.7	4.1	567	1.87	<0.5	0.6	4.8	58	<0.1	<0.1	<0.1	35	0.54	0.075	



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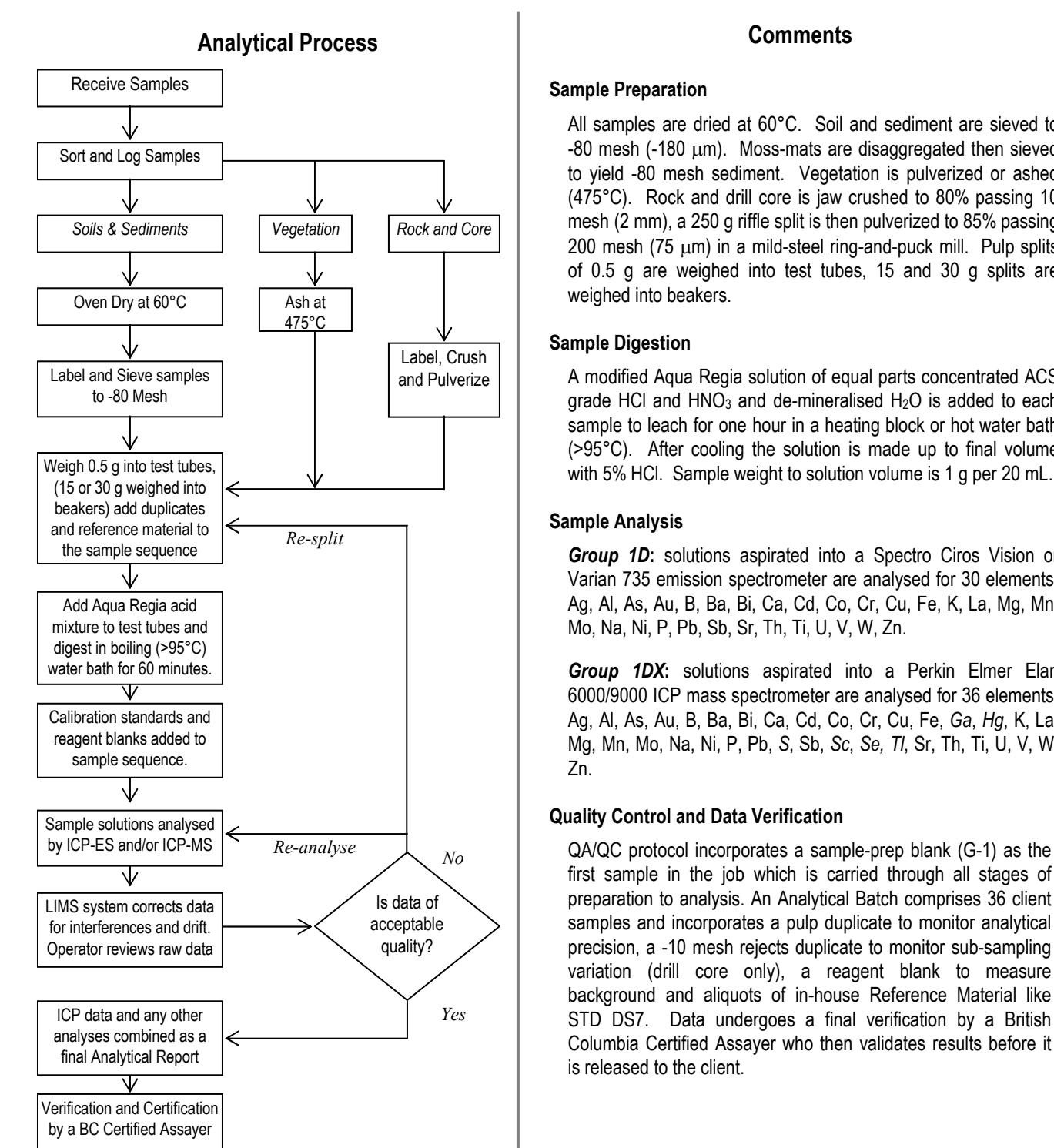
QUALITY CONTROL REPORT

VAN12003462.1

Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																		
REP G1	QC	9	13	0.60	217	0.121	<1	1.00	0.089	0.49	<0.1	<0.01	2.6	0.3	<0.05	5	<0.5	<0.2
Reference Materials																		
STD DS9	Standard	14	120	0.63	305	0.119	3	0.98	0.086	0.40	2.9	0.20	2.6	5.4	0.17	5	5.1	4.7
STD DS9 Expected		13.3	121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
Prep Wash																		
G1	Prep Blank																	
G1	Prep Blank	10	14	0.61	229	0.133	<1	1.03	0.098	0.50	<0.1	<0.01	2.3	0.3	<0.05	5	<0.5	<0.2
G1	Prep Blank	9	13	0.60	210	0.116	<1	0.96	0.080	0.48	<0.1	<0.01	2.2	0.2	<0.05	5	<0.5	<0.2

METHODS AND SPECIFICATIONS FOR ANALYTICAL PACKAGE

GROUP 1D & 1DX – ICP & ICP-MS ANALYSIS – AQUA REGIA



Group 1D, 1DX ICP-ES & ICP-MS DETECTION LIMITS

	Group 1D Detection	Group 1DX Detection	Upper Limit
Ag	0.3 ppm	0.1 ppm	100 ppm
Al*	0.01 %	0.01 %	10 %
As	2 ppm	0.5 ppm	10000 ppm
Au	2 ppm	0.5 ppb	100 ppm
B ^{*^}	20 ppm	20 ppm	2000 ppm
Ba*	1 ppm	1 ppm	10000 ppm
Bi	3 ppm	0.1 ppm	2000 ppm
Ca*	0.01 %	0.01 %	40 %
Cd	0.5 ppm	0.1 ppm	2000 ppm
Co	1 ppm	0.1 ppm	2000 ppm
Cr*	1 ppm	1 ppm	10000 ppm
Cu	1 ppm	0.1 ppm	10000 ppm
Fe*	0.01 %	0.01 %	40 %
Ga*	-	1 ppm	1000 ppm
Hg	1 ppm	0.01 ppm	100 ppm
K*	0.01 %	0.01 %	10 %
La*	1 ppm	1 ppm	10000 ppm
Mg*	0.01 %	0.01 %	30 %
Mn*	2 ppm	1 ppm	10000 ppm
Mo	1 ppm	0.1 ppm	2000 ppm
Na*	0.01 %	0.001 %	10 %
Ni	1 ppm	0.1 ppm	10000 ppm
P*	0.001 %	0.001 %	5 %
Pb	3 ppm	0.1 ppm	10000 ppm
S	-	0.05 %	10 %
Sb	3 ppm	0.1 ppm	2000 ppm
Sc	-	0.1 ppm	100 ppm
Se	-	0.5 ppm	100 ppm
Sr*	1 ppm	1 ppm	10000 ppm
Th*	2 ppm	0.1 ppm	2000 ppm
Ti*	0.01 %	0.001 %	10 %
Tl	5 ppm	0.1 ppm	1000 ppm
U*	8 ppm	0.1 ppm	2000 ppm
V*	1 ppm	2 ppm	10000 ppm
W*	2 ppm	0.1 ppm	100 ppm
Zn	1 ppm	1 ppm	10000 ppm

* Solubility of some elements will be limited by mineral species present.

[^]Detection limit = 1 ppm for 15g / 30g analysis.

METHOD SPECIFICATIONS

GROUP 1D AND 1F – GEOCHEMICAL AQUA REGIA DIGESTION

Package Codes: 1D01 to 1D03, 1DX1 to 1DX3, 1F01 to 1F07

Sample Digestion: HNO₃-HCl acid digestion

Instrumentation Method: ICP-ES (1D), ICP-MS (1DX, 1F)

Applicability: Sediment, Soil, Non-mineralized Rock and Drill Core

Method Description:

Prepared sample is digested with a modified Aqua Regia solution of equal parts concentrated HCl, HNO₃ and DI H₂O for one hour in a heating block of hot water bath. Sample is made up to volume with dilute HCl. Sample splits of 0.5g, 15g or 30g can be analyzed.

For 1F07, Lead isotopes (Pb₂₀₄, Pb₂₀₆, Pb₂₀₇, Pb₂₀₈) are suitable for geochemical exploration of U and other commodities where gross differences in natural to radiogenic Pb ratios, is a benefit. Isotope values can be reported in both concentrations and intensities. Sample splits of 0.25g, 0.5g, 15g or 30g can be analyzed.

Element	Group 1D Detection	Group 1DX Detection	Group 1F Detection	Upper Limit
Ag	0.3 ppm	0.1 ppm	2 ppb	100 ppm
Al*	0.01%	0.01%	0.01%	10%
As	2 ppm	0.5 ppm	0.1 ppm	10000 ppm
Au	2 ppm	0.5 ppb	0.2 ppb	100 ppm
B*^	20 ppm	20 ppm	20 ppm	2000 ppm
Ba*	1 ppm	1 ppm	0.5 ppm	10000 ppm
Bi	3 ppm	0.1 ppm	0.02 ppm	2000 ppm
Ca*	0.01%	0.01%	0.01%	40%
Cd	0.5 ppm	0.1 ppm	0.01 ppm	2000 ppm
Co	1 ppm	0.1 ppm	0.1 ppm	2000 ppm
Cr*	1 ppm	1 ppm	0.5 ppm	10000 ppm
Cu	1 ppm	0.1 ppm	0.01 ppm	10000 ppm
Fe*	0.01%	0.01%	0.01%	40%
Ga*	-	1 ppm	0.1 ppm	1000 ppm
Hg	1 ppm	0.01 ppm	5 ppb	50 ppm
K*	0.01%	0.01%	0.01%	10%
La*	1 ppm	1 ppm	0.5 ppm	10000 ppm
Mg*	0.01%	0.01%	0.01%	30%
Mn*	2 ppm	1 ppm	1 ppm	10000 ppm
Mo	1 ppm	0.1 ppm	0.01 ppm	2000 ppm

Element	Group 1D Detection	Group 1DX Detection	Group 1F Detection	Upper Limit
Na*	0.01%	0.001%	0.001%	5%
Ni	1 ppm	0.1 ppm	0.1 ppm	10000 ppm
P*	0.001%	0.001%	0.001%	5%
Pb	3 ppm	0.1 ppm	0.01 ppm	10000 ppm
S	0.05%	0.05%	0.02%	10%
Sb	3 ppm	0.1 ppm	0.02 ppm	2000 ppm
Sc	-	0.1 ppm	0.1 ppm	100 ppm
Se	-	0.5 ppm	0.1 ppm	100 ppm
Sr*	1 ppm	1 ppm	0.5 ppm	10000 ppm
Te	-	0.2 ppm	0.02 ppm	1000 ppm
Th*	2 ppm	0.1 ppm	0.1 ppm	2000 ppm
Ti*	0.01%	0.001%	0.001%	5%
Tl	5 ppm	0.1 ppm	0.02 ppm	1000 ppm
U*	8 ppm	0.1 ppm	0.05 ppm	2000 ppm
V*	1 ppm	2 ppm	2 ppm	10000 ppm
W*	2 ppm	0.1 ppm	0.05 ppm	100 ppm
Zn	1 ppm	1 ppm	0.1 ppm	10000 ppm
Be*	-	-	0.1 ppm	1000 ppm
Ce*	-	-	0.1 ppm	2000 ppm
Cs*	-	-	0.02 ppm	2000 ppm
Ge*	-	-	0.1 ppm	100 ppm
Hf*	-	-	0.02 ppm	1000 ppm
In	-	-	0.02 ppm	1000 ppm
Li*	-	-	0.1 ppm	2000 ppm
Nb*	-	-	0.02 ppm	2000 ppm
Rb*	-	-	0.1 ppm	2000 ppm
Re	-	-	1 ppb	1000 ppb
Sn*	-	-	0.1 ppm	100 ppm
Ta*	-	-	0.05 ppm	2000 ppm
Y*	-	-	0.01 ppm	2000 ppm
Zr*	-	-	0.1 ppm	2000 ppm
Pt*	-	-	2 ppb	100 ppm
Pd*	-	-	10 ppb	100 ppm
Pb ₂₀₄	-	-	0.01 ppm	10000 ppm
Pb ₂₀₆	-	-	0.01 ppm	10000 ppm
Pb ₂₀₇	-	-	0.01 ppm	10000 ppm
Pb ₂₀₈	-	-	0.01 ppm	10000 ppm

* Solubility of some elements will be limited by mineral species present.

^Detection limit = 1 ppm for 15g / 30g analysis.

Limitations:

Au solubility can be limited by refractory and graphitic samples.

SECTION F: ILLUSTRATIONS

