MOON

SITE #66

MINFILE# 105M 046

1. LOCATION AND ACCESS

The site is located at the base of the north side of Keno Hill, between Faro and McKay Gulch, at an elevation of 2700ft (820m). Access is by an overgrown trail that branches off from the lower Faro Gulch Trail. The approximate UTM co-ordinates are 7 094 050m N and 489 200m E.

2. SITE PHYSIOGRAPHY

The area gently slopes to the north. The site is well vegetated with spruce trees, shrubs, grass and moss. Second growth vegetation of alders and willows grow up to 5m in height in the disturbed areas. Surface runoff flows into Keno Ladue River, located 1km to the north.

3. GEOLOGY AND MINERALIZATION

At the adit site, an approximately 20m wide Tombstone porphyritic sill-like intrusion, gently dipping to the south, within Earn Group carbonaceous phyllite occurs. The light brown colored porphyritic intrusion has fine quartz phenocrysts in a very fine-grained altered matrix with prominent muscovite.

The adit, now collapsed, was driven on a near vertical southwest striking vein which cross-cut the porphyritic intrusion. Mineralized vein material on the dump has quartz and minor siderite gangue, often containing abundant pyrite and lessor amounts of chalcopyrite, sphalerite, arsenopyrite and galena.

4. SITE HISTORY

In 1921, a 30m adit was driven and some hand trenches were excavated. Further trenching was undertaken between 1963 to 1993. In 1963, three drill holes were drilled.

5. MINE DEVELOPMENT

The adit and associated waste rock pile were investigated. No ore was processed at the site and no tailings were encountered. There is no wastewater treatment at this site. Site photos are located in Attachment 1 and laboratory results for sampling are in Attachment 2.

5.1 Mine Openings and Excavations

Moon Adit (photo 66-1)

The adit is located at the north end of the site area, 120m north of the campsite area. The portal and the first 10m of the adit have collapsed.

Dimensions (L x W x H): 1.5m x 1.5m x 30m

Supports: Log cribbing supported the portal.

Condition: The log cribbing is broken up and has collapsed. The first 10m of the adit has caved-in. The ground above the remainder of the adit appears stable.

Accessibility: The adit can still be accessed by an opening exposed by the cave-in.

5.2 Waste Rock Disposal Areas (photo 66-2)

There is a waste rock pile located near the entrance to the adit. Mineralized vein material on the dump has quartz and minor siderite gangue, often containing abundant pyrite and lessor amounts of chalcopyrite, sphalerite, arsenopyrite and galena. Oxidization is absent to very weak. On the waste rock pile are metal drums and a truck box containing sorted highly oxidized vein material are likely ore stockpiles. A waste rock sample (Moon-waste rock-Sept 18/99) was collected for analysis. The field paste pH was 3.6 and the conductivity was >1000µS/cm.

6. MINE SITE INFRASTRUCTURE

Three buildings and two fuel caches were encountered at this site. There is no electricity to the site. No rail or trestle was encountered.

6.1 Buildings

Building 66A (photo 66-3)

There is a flat roofed wooden shack located on the west side of the site. The building was likely used as sleeping quarters.

Dimensions (L x W x H): 6.1m x 3.0m x 2.4m

Paint: The building was not painted.

Asbestos: The roof is covered in asphalt asbestos roofing.

Foundation: none

Non-Hazardous Contents: The shack was filled with non-hazardous debris such as glass and metal.

Hazardous Contents: No hazardous contents were observed.

Building 66B (photo 66-4)

This peaked plywood and stud frame building is located 29m east of building 66A. It appears to have been a workshop.

Dimensions (L x W x H): 4.3m x 4.3m x 3.7m

Paint: The building is not painted.

Asbestos: No asbestos containing materials were observed.

Foundation: none

Non-Hazardous Contents: Inside the building there is assorted non-hazardous debris such as glass and metal and an empty 45-gallon drum.

Hazardous Contents: Inside and scattered outside there are three truck batteries and other car parts.

Building 66C (photo 66-5)

This building is a portable wooden structure on an iron skid that houses a kitchen inside.

Dimensions (L x W x H): 6.1m x 3.0m x 2.4m

Paint: Besides a painted 'Wide Load' sign above the door, the building is not painted.

Asbestos: No asbestos containing materials were encountered.

Foundation: The building rests on iron skids.

Non-Hazardous Contents: No non-hazardous contents were encountered.

Hazardous Contents: No hazardous contents were encountered.

6.2 Fuel Storage

Fuel Cache #1

Twenty-three empty fuel drums were encountered 13m east of Building 66A.

Fuel Cache #2

Ten empty fuel drums were encountered 20m south of Building 66C.

7. SOLID WASTE DUMPS

A small solid waste dump is located above the adit. It contained batteries for vehicles, empty 45-gallon drums, a potbelly stove, and asbestos covered hoses.

8. POTENTIAL CONTAMINANTS OF CONCERN

Potential contaminants of concern include acid leaching from the batteries and any metals leaching from the waste rock pile or ore stockpiles.

9. WATER QUALITY

No surface water was encountered.

10. RECLAMATION

Thick second growth vegetation of willows and alders has revegetated the disturbed ground in most areas. Small bushes are growing on the adit cave-in and the waste rock pile. The ore stockpile is in the bed of a truck and therefore has no vegetation growing on it.

11. REFERENCES AND PERSONAL COMMUNICATIONS

Minfile #105M 046

ATTACHMENT 2: 1999 MOON WASTE ROCK LABORATORY RESULTS			
Site Number	**Detection Limit**	**Units**	**Moon - Waste Rock - Sept 18/99**
Sample Desciption			Sample collected from the waste rock pile outside of the Moon Adit.
Paste pH (field)	N/A	pH	3.6
Conductivity (field)	N/A	µS/cm	>1000
pH in Saturated Paste			
pH	0.1	pH	1.8
pH in Soil (1:2 water)			
pH	0.01	pH	3
ICP Semi-Trace Scan			
Aluminum	5	µg/g	3020
Antimony	2	µg/g	1070
Arsenic	2	µg/g	475
Barium	0.05	µg/g	19.6
Beryllium	0.1	µg/g	<0.1
Bismuth	5	µg/g	121
Cadmium	0.1	µg/g	77.3
Calcium	5	µg/g	92
Chromium	0.5	µg/g	2.7
Cobalt	0.1	µg/g	7.4
Copper	0.5	µg/g	212
Iron	1	µg/g	170000
Lead	1	µg/g	60500
Lithium	0.5	µg/g	4.5
Magnesium	1	µg/g	270
Manganese	0.5	µg/g	101
Mercury	0.01	µg/g	0.03
Molybdenum	1	µg/g	10
Nickel	1	µg/g	12.9
Phosphorus	5	µg/g	24
Potassium	20	µg/g	730
Selenium	2	µg/g	<2
Silicon	5	µg/g	325
Silver	0.5	µg/g	815
Sodium	5	µg/g	261
Strontium	1	µg/g	2
Sulphur	10	µg/g	82000
Thorium	1	µg/g	20
Tin	1	µg/g	4
Titanium	0.2	µg/g	25.3
Uranium	5	µg/g	<5
Vanadium	1	µg/g	5
Zinc	0.5	µg/g	6890
Zirconium	0.1	µg/g	9.9

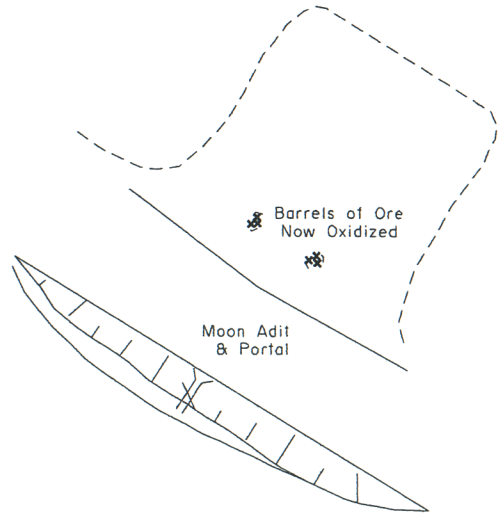
ATTACHMENT 2: 1999 MOON WASTE ROCK LABORATORY RESULTS
MODIFIED SOBEK METHOD ACID-BASE ACCOUNTING TEST

SAMPLE	SITE DESCRIPTION	PASTE pH	S(T) %	S(SO4) %	AP	NP	NET NP	NP/AP
Moon - Waste Rock - Sept.18/99	Sample collected from the waste rock pile outside of the Moon Adit.	3.3	11.20	2.30	278.1	-23.5	-301.6	<0.1

AP = ACID POTENTIAL IN TONNES CaCO3 EQUIVALENT PER 1000 TONNES OF MATERIAL.
NP = NEUTRALIZATION POTENTIAL IN TONNES CaCO3 EQUIVALENT PER 1000 TONNES OF MATERIAL.
NET NP = NET NEUTRALIZATION POTENTIAL = TONNES CaCO3 EQUIVALENT PER 1000 TONNES OF MATERIAL.
NOTE: WHEN S(T) AND/OR S(SO4) IS REPORTED AS <0.01, IT IS ASSUMED TO BE ZERO FOR THE AP CALCULATION.
N/D = NO DUPLICATE ASSAY. CALCULATIONS ARE BASED ON ASSAY RESULTS OF THE INITIAL SAMPLE.
RE = REPLICATE.

NOTE - A HIGH LEVEL OF SOLUBLE METALS (ESPECIALLY IRON) WERE OBSERVED IN MANY SAMPLES DURING THE ABA TITRATIONS.
SAMPLES WITH A NEGATIVE NET NP SHOULD BE TESTED FOR MOBILE METALS USING STANDARD SHAKE FLASK EXTRACTION TESTS.

- Building (22A: building site present reference*) Indicates Asbestos Material
- 22A — Collapsed Building
- Adit
- Collapsed Adit
- Shaft
- Collapsed/Backfilled Shaft
- Mine Rock Dump
- Bedrock Open Pit
- Trench
- Stripped Overburden Stockpile
- Stripped / Disturbed Area
- Outcrop Boundary
- Highway
- Road (gravel, 2 wheel drive)
- Road (gravel, 4X4 accessible)
- Road (inaccessible)
- Trail
- Culvert
- 24501-01 — 1999 Soil Sample (this study)
- Pre 1999 Soil Sample (other sources)
- 25WR04-01 — 1999 Waste Rock Sample (this study)
- Pre 1999 Waste Rock Sample (other sources)
- WO-12-06 — 1999 Water Sample
- Pre 1999 Water Sample
- Tension Cracks
- Mass Movement (note: for Forms: BelleKeno)
- Groundwater Seep
- Surface Water Flow (Stream, Creek, River)
- Lake
- Settling Pond / Water Treatment Pond
- Tailings Dam / Tailings Pond / Mill Tails
- Ponded Water / Trench
- Barrels
- Abandoned Equipment (compressors, ore cars, rails, air and water pipe)
- Mine Rails / Trestle
- Collapsed Trestle
- Solid Waste Disposal Site
- Area of Soil Contamination
- *(6) — Transformer Loaction (number of transformer in brackets)
- Power Line
- Power Line Collapsed
- Aerial Transmission Towers
- 5 — Photo Site (arrow shows view direction)
- GPS Survey Location
- Former Building Site (Elsa)



0 10 20 30 40

Scale 1:1000

CAD FILE: SITE66.DGN

Waste Rock Geological Legend

This legend intended for use as a key to the observed lithological content of the mine dumps and stockpiles of surficial materials investigated.It does not represent regional stratigraphy and no stratigraphic sequence is implied.

Pyrite content as percent: eg. Py 2%. Occurs as an alteration halo adjacent to vein fault structure.

Oxidation: Weak (wOx), moderate (mOx) and intense (iOx).

Quarternary: (5) Undifferentiated, unconsolidated colluvium, glacial till.

Veins:
(4a) Quartz veins;
(4b) Quartz-pyrite veins;
(4c) Quartz-siderite *trace galena-sphalerite veins;
(4d) Siderite-quartz *trace galena-sphalerite veins;
(4e) Suphide (galena-sphalerite) *quartz*siderite veins.

Greenstone: (3) Amphibole-chlorite-plagioclase metadiorite or metagabbro.

Quartzite:
(2a) Thick beded, blocky gray quartzite;
(2b) Thin banded, broken, quartzite with carbonaceous phyllite interbeds;
(2c) Calcareous quartzite.

Phyllite:
(1a) Broken sericite-chlorite phyllite;
(1b) Carbonaceous phyllite.

date:

Public Works And Government Services Canada
Travaux publics et Services gouvernementaux Canada

Architectural & Engineering Services
Western Region

designed by: / conçu par:
drawn by: / dessiné par: C.S. Nov./99
approved by: / approuvé par:
revisions:

Drawing title: / Titre du dessin:

Moon Site #66
Site Assessment
Yukon Territory

project no. / no. du projet: 125-12.01

dwg. no. / dessin no. 1 of 1

Photo 66-1 : Moon. The first 10m of the portal structure into the Moon adit has collapsed. (Azimuth 216°)

Photo 66-2 : Moon. Ore stockpiled in a truck box, portal structure in the background. (Azimuth 275°)

Photo 66-3 : Moon. Building 66A, most likely it was used as sleeping quarters. (Azimuth 315°)

Photo 66-4 : Moon. Building 66B, possibly it was a workshop. (Azimuth 135°)

Photo 66-5 : Moon. Building 66C, the kitchen is on an iron skid. (Azimuth 180°)