KENO No. 9, MAIN FAULT & SHAMROCK J18

SITE #36

MINFILE #105M 001ao, aq & ap(?)

This report describes the field investigation of parts of the Keno No.9 Vein system including the:

- No.9 Vein Open Pit;
- No.3 Vein Open Pit and Adit;
- Shamrock J18 Vein Raise;
- Faro Gulch Portal;
- Keno No.4 and No.5 Vein Adits and Trenches

Investigations of the Keno 200 and 700 levels, the Porcupine Open Pit, and the Comstock 150 and 200 levels are reported separately (site #32). The sites of the Keno No.1 Vein Adits and the No.12 Vein Adit were not investigated.

1. LOCATION AND ACCESS

This site report includes north portions of the Keno No. 9 Vein system. The No. 3 and 9 Vein Open Pits are located on Keno Hill summit at the Signpost, at the end of the Keno Signpost road. The Faro Gulch Portal is approximately 300m east northeast of the Signpost in the cliff forming Faro Gulch cirque and is inaccessible. The No. 4 and 5 Veins, 300m south of the Signpost, cross Keno Hill summit and are accessible on the north end by a bulldozer trail, and on the south by the road from the Keno Signpost to the Keno 200 Adit. The covered raise on the Shamrock J - Keno 18 Vein is approximately 450m west of the Signpost and is reached by a road from the Keno Signpost to the Shamrock Mine. The approximate UTM co-ordinates are 7 090 200m N and 489 300m E.

SITE LOCATIONS

SITE	Minfile	UTM North	UTM East	Elevation
Keno #9 & #3 Pits	105M001ao	7 090 500m	489 550m	1,615m
Shamrock J18	n/a	7 090 625m	489,200m	1,680m
Faro Gulch Portal	105M001aq	7 090 550m	489 700m	1,680m
No 4 & 5 Vein Adits	n/a	7 090 125m	489 300m	1,670m

2. SITE PHYSIOGRAPHY

The site area is spread between elevations of 1,460m to 1,700m on the northern, western and southern facing slopes of Keno Summit. The areas south of the Faro Gulch headwall have very shallow to shallow slopes. The Faro Gulch headwall is a very steep, rocky cliff. All of the workings are above treeline and the area is populated

with sparse grasses, moss and small shrubs. The area is underlain by permafrost conditions that extend to depths of up to 120m. Soils are poorly developed to absent over all of the area. The Faro Gulch Portal is located on a barren rock cliff. Surface runoff for the area drains in three directions: to the north into Faro Gulch, a tributary of the Keno Ladue River; to the west into Erickson Gulch, a tributary of Christal Creek, and; to the south into Charity Gulch and Hope Gulch, tributaries of Lightening Creek. Standing water was present in the No. 3 Vein pit. Surface water runoff from the No. 3 Vein and the No. 9 Vein pits has formed channels in the loose waste rock dump material below the pits in headwall of Faro Gulch.

3. GEOLOGY AND MINERALIZATION

No. 3 Vein & No. 9 Vein Open Pits

The pits are located along the No. 3 and No. 9 Vein structures where they branch off from the east-northeast Main Fault. Both the No. 3 and No. 9 Vein fault structures are up to 30cm wide and strike roughly northeast. Ore shoots up to 0.15m wide of oxidized galena and variable tetrahedrite, sphalerite, siderite, cerussite and anglesite were mined in both open pits. Oxidation intensity reportedly decreased with depth. Both open pits occur along the irregular contact between Earn Group quartz-sericite-chlorite and carbonaceous phyllite and thick-banded Keno Hill quartzite. At the time of our visit, wallrock had sloughed and covered the vein.

Shamrock J18 Vein

The geology at the Shamrock J18 Vein raise was not inspected. The area is mapped as Keno Hill quartzites.

Faro Gulch Portal

The site was not inspected. The area of the collar is mapped as Keno Hill quartzites. The portal was used as an end dump for mine waste rock from the Main Fault Vein and No. 12 Vein on the Keno 200 Level. Waste rock in the waste dump below would likely include a mixture of Earn Group quartz-sericite-chlorite and carbonaceous phyllite, thick-banded Keno Hill quartzite and lesser greenstone.

No. 4 and 5 Vein

At the southwest end of the No. 4 Vein and No. 5 Vein faults, a total of 3 adits were driven. Dump material from the adits is composed of strongly fractured greenstone with minor oxidized siderite and brecciated to fractured greenstone vein material, with moderate to strong fist size pieces of oxidized siderite. No metallic mineralization was seen in either dump.

Another vein was seen at the south end of the Trench L7, where a 5m wide vein consisting of brown soil and fine brecciated greenstone with abundant oxidized siderite was cut. This may be the 5 vein that was explored

by a short adit. Considerable bulldozer trenching has been done in this area and the adit may have been removed. Two stock piles, made up of strong reddish brown soil and fine rock chips - oxidized vein material, may be the adit dump, that have been moved from its original site and repiled.

4. SITE HISTORY

The No. 3 Vein fault was investigated in the early 1920s by a 45.7m shaft and underground development on three levels. A small quantity of ore was mined during this period.

The No. 9 Vein was first developed in the 1920s by shafts, adits, and winze to 450 feet below surface, and drifting on levels to 300 feet below surface. Massive high-grade ore was mined, placed into sacks at the surface and transported to Mayo for shipment by paddle wheeler. Approximately 9,000 tons of disseminated ore remains in the mine.

In approximately 1957, United Keno Hill Mines reopened the mine with a 200 Level and 700 Level Adits, an internal shaft below the 700 Adit, and 8 levels over a vertical distance about 1000 feet. The 200 and 700 Levels were collared on the south slopes of Keno Summit at the 1,640m and 1,430m elevations respectively. In total, 283,557 tons of ore grading 44.26oz / ton silver, 10.62% lead and 3.74% zinc was mined underground on the No. 9 Vein before shut down in the late 1970's.

Small open pits were established on the No. 3 and 9 Veins by Archer, Cathro & Associates Limited during the period 1989-90. The No.3 Open Pit is up to 15m deep and the No. 9 Vein is 30m deep. Both encountered old workings dating from the 1920's that were ice filled. The original No.3 and No.9 Vein Shafts were collapsed and backfilled at this time.

The No.4 Vein was explored by 2 adits and a number of hand trenches in the 1920s, where ore shoots containing a few hundred tons of highly oxidized ore were intersected. No history was available for the No.5-2 or No.5 Vein Adits, although it is likely related to the work completed on the No.4 Vein. The most recent work is bulldozer trenching.

The Shamrock J18 Vein was discovered and mined from the Keno Mine underground workings in the early 1970's. A raise to surface, complete with hoist building, electrical supply lines and shop, was established to provide access for supplies, equipment and miners.

The Faro Gulch Portal was developed by UKHM from a cross cut driven from a drift on the 200 Level Main Fault Vein. It was used for ventilation and to dump waste rock form underground development on the Main Fault Vein and No. 12 Vein. Any ore was transported by tram to the 200 Level Adit dump.

5. MINE DEVELOPMENT

The Keno Mine was developed intermittently over a period of over 70 years. This report describes workings and mine infrastructure developed on the north portion of the mine including: the No. 9 Vein Open Pit; No. 3 Vein Open Pit and Adit; Shamrock J18 Vein Raise; Faro Gulch Portal; the Keno No 4 Trenches and Upper Adit, and; the No. 5 Vein Trenches. There are a number of waste rock piles associated with these workings. Ore was not processed at this site and no tailings were encountered. There is no mine waste water treatment facility at this site.

5.1 Mine Openings and Excavations

Adits/Shafts/Portals

No. 5-2 Vein Adit, Upper and Lower No. 4 Vein Adits (Photo 36-1)

All three of these adits are located just south of the Keno Hill summit, on the No. 5-2 Vein and No.4 Vein structures respectively. The portal timbers of only the No.5-2 Vein Adit were found and are described below. The portals of the No.4 Vein Adits have either collapsed entirely or have been bulldozed. The adits predate and are not connected to the Keno Mine.

Dimensions (L x W x H): unknown

Supports: The portal to the adit was supported by log cribbing.

Condition: The log cribbing has collapsed and there is roughly $2m^3$ of wood debris scattered around the adit.

Accessibility: The adit cannot be accessed.

Shamrock J18 Covered Raise (Photo 36-2)

The raise is located 450m west of the Signpost, on the eastern side of the road leading to the Shamrock site. The building covering the raise is described in Section 6.1 below.

Dimensions (L x W x H): unknown

Condition: The ground around the raise and building covering it are unstable and collapsing. An area of approximately 7m by 10 m has collapsed.

Accessibility: The building can be accessed. The raise and the collapsed area around it have been fenced off.

No. 3 Vein Adit (Photo 36-3)

The excavation of the No. 3 Vein Open Pit exposed an adit from earlier development. An adit was reportedly uncovered in the base of the No.9 Vein Open Pit, but has been recovered by loose rock.

Dimensions (L x W x H): unknown

Condition: The support structure for the adit has been broken up by the later pitting.

Accessibility: The adit cannot be accessed.

Faro Gulch Portal (Photo 36-4)

The portal is located 280m east of the SignPost, on the steep northern face of Keno Hill, within the face of the Faro Gulch cirque. The portal was used as an end dump for waste rock.

Dimensions (L x W x H): (~7m long) x (~2.5m high) x (?).

Supports: The portal is constructed with square set timbers.

Condition: Condition of the portal structure is not known.

Accessibility: The portal is not easily accessed, although hikers could climb up the scree slopes from below.

Open Pits

No. 3 Vein Open Pit (Photos 36-3, 36-5)

To the east of the Signpost is a 'Y-shaped' open pit excavated on the No. 3 Vein. The north end of the pit opens up into the Faro Gulch cirque. There are three ponds at the base of the pit.

Dimensions (L x W x H): 280m x 30m x 12m

Condition: The pit walls were stable at the time of the site visit.

Accessibility: The pit is accessible.

No. 9 Vein Open Pit (Photo 36-6)

The No.9 Vein Open Pit is located roughly 100m east of the No.3 Vein Open Pit. The north end of the pit opens up into the Faro Gulch cirque. The pit is excavated on the No. 9 Vein.

Dimensions (L x W x H): 180m x 30m-60m x 10m-30m

Condition: The boulders at the bottom of the trench likely are from the steep western pit wall. The pit wall is fairly stable but given the boulders at the base, occasional rocks do break off. The eastern wall is a gentler slope and appeared stable at the time of the site visit.

Accessibility: The pit is accessible.

Trenches (Photo 36-7)

Eight trenches were examined extending southwest along the trend of the No. 4 and No. 5 Veins over the Keno Hill Summit from the Signpost. The trenches varied in length from 26m to 70m, in width from 1m to 5m (5m average) and in depth from 1m to 3m. The trench walls appeared stable at the time of the site visit and the trenches could be easily accessed. All the trenches, except Trench L3, were cut by a bulldozer.

5.2 Waste Rock Disposal Areas (Photo 36-4)

There were ten waste rock piles identified during the site visit. Three of the piles are composed of stripped overburden from the trenches along the No.4 and No.5. The composition is predominantly greenstone with minor manganese and siderite, minor quartz vein material. Waste rock from the trenches totals approximately 155m^3. These piles were not individually identified. A total of seven waste rock piles were identified that are associated with underground or open pit mining. These are identified below. Samples were collected and analyzed for Acid-Base Accounting (ABA) and metals from only 5 of the piles (see results attached).

WR-01

Location: No.5-2 Vein Adit

Description: Approximately 50m^3 of brecciated to fractured greenstone with moderately to strongly oxidized siderite. No metallic mineralization was observed.

Sample: No sample was collected.

WR-02

Location: No.4 Vein Lower Adit

Description: Approximately 80m^3 of brecciated to fractured greenstone with moderately to strongly oxidized siderite. No metallic mineralization was observed.

Sample: Keno Hill 9 Vein L3 - Waste Rock - Sept.20/99.

WR-03 & -04

Location: No.5 Vein Adit

Description: Moderately oxidized ore stockpiles of quartzite, schists and siderite-quartz vein material with variable galena, tetrahedrite and pyrite.

Sample: (composite)Keno Hill 9 Vein - Waste Rock - Sept.20/99.

WR-05

Location: No. 3 and No. 9 Vein Open Pits above Faro Gulch cirque rim.

Description: Roughly 1,400m^3 composed of carbonaceous phyllite with up to 5% pyrite fracture filling stripped off the hanging wall of the No. 3 Vein.

Sample: Main Vein WR1&WR2 - Waste Rock- Sept. 20/99);

WR-06

Location: Faro Gulch Portal, dumped down Faro gulch cirque headwall.

Description: Roughly 4,500m^3 composed of chlorite-sericite and carbonaceous schist, thick-banded quartzite and minor greenstone. Located on large scree slopes of similar composition

Sample: Keno Hill 12 Vein – Waste Rock – Sept. 18/99.

WR-07

Location: No. 3 and No. 9 Vein Open Pits and Adits, dumped down Faro gulch cirque headwall.

Description: Over 5,000m^3 composed of pyritic carbonaceous phyllite and thick banded quartzite. Located on large scree slopes of similar composition.

Sample: No sample was collected.

6. MINE SITE INFRASTRUCTURE

A wood frame building covers the Shamrock J18 Raise. A power line extends from Keno to the Raise. No fuel storage areas, milling infrastructure or any rail and trestle were encountered.

6.1 Building 32A (Photos 36-2)

A wood frame building clad in corrugated steel covers Shamrock J18 Raise. Part of the building and the underground workings below it have collapsed and are fenced off.

Dimensions (L x W x H): 15m x 10m x 4m

Paint: No paint was observed.

Asbestos: The interior of the building is clad in a gyprock with asbestos coating.

Foundation: None.

Condition: Half the building is unstable and has partially collapsed into the underground workings below.

Non-Hazardous Contents: There is an electrical panel inside of the building.

Hazardous Contents: No hazardous contents were observed.

6.2 Electrical Equipment (Photo 36-2, 36-8)

There is a power line that roughly follows the Signpost Road and goes from Keno City to the Shamrock J18 Raise Building. One of the poles beside the building has a transformer on it. An electrical panel is present in the Raise Building (Building 36A).

7. SOLID WASTE DUMPS

No solid waste dumps were encountered at this site. Minor scrap metal and wooden timbers were encountered in the Faro Gulch Portal Waste Rock Pile.

8. POTENTIAL CONTAMINANTS OF CONCERN

The transformer on a power pole near the Shamrock J18 Raise Building is suspected of containing PCB's based on its age. Other potential contaminants of concern include any metals washing off the pit or trench walls and from the waste rock piles.

9. WATER QUALITY

A water sample (Nine Vain Keno Hill Above P1&P2 - 09/18/99) was collected from above the two pits. Two water samples (Nine vein Keno Hill P1 and Nine vein Keno Hill P2) were collected from pits #1 and #2, near the cirque rim. A water sample and a duplicate (Nine Vein (S1) @ Waste Rock - 09/18/99 and Nine Vein (S2) @ Waste Rock - 09/18/99 (duplicate)) were collected from the base of Waste Rock Pile WR-07 at the headwaters of creek in Faro Gulch.

10. RECLAMATION

Natural revegetation of the site is very slow due to the lack of suitable soil and the elevation.

11. REFERENCES AND PERSONAL COMMUNICATIONS

Minfile #'s 105M 001ao, 105M 001ap and 105M 001aq

United Keno Hill Mines Ltd. (1996) Report No. UKH/96/01 Site Characterization. Produced by Access Mining Consultants Ltd.

ATTACHMENT 2: 1999 KENO NO. 9 WATER SAMPLES LABORATORY RESULTS					
Sample Number	**Detection Limit**	**Units**	**Nine Vein (S1) @ Waste Rock - 09/18/99**	**Nine Vein (S2) @ Waste Rock - 09/18/99**	**Nine Vein Keno Hill P1 - 09/20/99**
Site Desciption			Water draining from pit #1 into Faro Gulch	duplicate	Ponded water at the base of open pit #1
pH (field)	N/A	pH	6.2	-	7
Conductivity (field)	N/A	µS/cm	500	-	1160
pH (Lab)	0.01	pH	7.2	7.17	7.92
Conductivity (Lab)	0.01	µS/cm	570	570	1150
Total Alkalinity	5	mg CaCO3/L	21	14	111
Chloride	0.25	mg/L	<0.25	<0.25	<0.25
Hardness (CaCO3 equiv)	5	mg/L	294	298	687
Nitrate-N	0.05	mg/L	0.35	0.32	0.54
Nitrite-N	0.003	mg/L	0.003	<0.003	0.003
Sulphate	1	mg/L	256	244	480
Total Dissolved Solids	5	mg/L	402	402	889
Analysis by ICP-USN					
Aluminum	0.0008	mg/L	0.347	1.04	0.0027
Antimony	0.005	mg/L	<0.005	0.017	<0.005
Arsenic	0.01	mg/L	0.02	0.03	<0.01
Barium	0.00004	mg/L	0.0558	0.0593	0.00366
Beryllium	0.00001	mg/L	<0.00001	<0.00001	<0.00001
Bismuth	0.0004	mg/L	<0.0004	<0.0004	<0.0004
Boron	0.002	mg/L	<0.002	0.003	<0.002
Cadmium	0.00006	mg/L	0.033	0.0347	0.00362
Calcium	0.002	mg/L	78.9	80.2	173
Chromium	0.00006	mg/L	0.00128	0.00103	<0.00006
Cobalt	0.00003	mg/L	0.00346	0.0077	<0.00003
Copper	0.00003	mg/L	0.0218	0.0388	0.00062
Iron	0.00001	mg/L	2.85	12.4	0.045
Lead	0.0003	mg/L	1.09	2.36	0.0084
Lithium	0.001	mg/L	0.01	0.011	0.008
Magnesium	0.0005	mg/L	21	22.3	52.1
Manganese	0.00002	mg/L	0.87	2.41	0.00586
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001
Molybdenum	0.00007	mg/L	0.00028	0.00096	0.00226
Nickel	0.00001	mg/L	0.039	0.0496	0.0116
Phosphorus	0.03	mg/L	0.61	0.85	<0.03
Potassium	0.4	mg/L	<0.4	0.6	<0.4
Selenium	0.004	mg/L	<0.004	<0.004	<0.004
Silicon	0.004	mg/L	1.64	2.58	2.34
Silver	0.00005	mg/L	0.00244	0.0107	<0.00005
Sodium	0.004	mg/L	0.8	0.8	2.1
Strontium	0.00002	mg/L	0.208	0.214	0.667
Sulphur	0.008	mg/L	82.3	82.3	161
Thallium	0.001	mg/L	<0.001	0.003	<0.001
Titanium	0.00002	mg/L	0.00272	0.0129	<0.00002
Vanadium	0.00003	mg/L	0.00057	0.00174	<0.00003
Zinc	0.0002	mg/L	1.32	1.48	0.124
Analysis by Hydride AA					
Arsenic	0.0002	mg/L	0.0166	0.026	0.0054
Selenium	0.0001	mg/L	0.0004	0.0008	0.0004

ATTACHMENT 2: 1999 KENO NO. 9 WATER SAMPLES LABORATORY RESULTS				
Sample Number	**Detection Limit**	**Units**	**Nine Vein Keno Hill P2 - 09/20/99**	**Nine Vein Keno Hill Above P1&P2 - 09/18/99**
Site Desciption			Water at the base of Open Pit #2	Water that is upstream of the two open pits
pH (field)	N/A	pH	6.9	6.6
Conductivity (field)	N/A	µS/cm	470	720
pH (Lab)	0.01	pH	7.58	7.08
Conductivity (Lab)	0.01	µS/cm	440	1000
Total Alkalinity	5	mg CaCO3/L	47	146
Chloride	0.25	mg/L	<0.25	<0.25
Hardness (CaCO3 equiv)	5	mg/L	229	589
Nitrate-N	0.05	mg/L	0.18	0.24
Nitrite-N	0.003	mg/L	<0.003	0.004
Sulphate	1	mg/L	158	350
Total Dissolved Solids	5	mg/L	290	724
Analysis by ICP-USN				
Aluminum	0.0008	mg/L	0.398	0.337
Antimony	0.005	mg/L	<0.005	<0.005
Arsenic	0.01	mg/L	<0.01	<0.01
Barium	0.00004	mg/L	0.0141	0.0116
Beryllium	0.00001	mg/L	<0.00001	<0.00001
Bismuth	0.0004	mg/L	<0.0004	<0.0004
Boron	0.002	mg/L	<0.002	<0.002
Cadmium	0.00006	mg/L	0.0033	0.00166
Calcium	0.002	mg/L	62	157
Chromium	0.00006	mg/L	0.00013	0.0006
Cobalt	0.00003	mg/L	0.0001	0.00084
Copper	0.00003	mg/L	0.00197	0.00504
Iron	0.00001	mg/L	0.127	1.33
Lead	0.0003	mg/L	0.0171	0.0217
Lithium	0.001	mg/L	0.005	0.009
Magnesium	0.0005	mg/L	13.5	36.8
Manganese	0.00002	mg/L	0.0141	0.107
Mercury	0.0001	mg/L	<0.0001	<0.0001
Molybdenum	0.00007	mg/L	0.00018	0.00046
Nickel	0.00001	mg/L	0.0052	0.0145
Phosphorus	0.03	mg/L	<0.03	0.04
Potassium	0.4	mg/L	<0.4	<0.4
Selenium	0.004	mg/L	<0.004	0.004
Silicon	0.004	mg/L	2.02	2.94
Silver	0.00005	mg/L	<0.00005	<0.00005
Sodium	0.004	mg/L	0.8	1.4
Strontium	0.00002	mg/L	0.196	0.324
Sulphur	0.008	mg/L	50.2	119
Thallium	0.001	mg/L	<0.001	<0.001
Titanium	0.00002	mg/L	0.00116	0.00827
Vanadium	0.00003	mg/L	<0.00003	0.00046
Zinc	0.0002	mg/L	0.177	0.161
Analysis by Hydride AA				
Arsenic	0.0002	mg/L	0.0013	0.0035
Selenium	0.0001	mg/L	0.0003	0.0001

ATTACHMENT 2: 1999 KENO No. 9 WASTE ROCK SAMPLES LABORATORY RESULTS					
Site Number	**Detection Limit**	**Units**	**Keno Hill 9Vein L3 - Waste Rock - Sept 20/99**	**Keno Hill 9Vein - Waste Rock - Sept 20/99**	**Main Vein WR1&WR2 Waste Rock - Sept 20/99**
Sample Desciption			Waste rock located at trench #3	Waste rock located to the north of the uppermost trench	Waste rock pile between Open Pits #1 and #2
Paste pH (field)	N/A	pH	7.2	7.2	6.6
Conductivity (field)	N/A	µS/cm	1140	720	720
pH in Saturated Paste					
pH	0.1	pH	6.3	7.2	6.8
pH in Soil (1:2 water)					
pH	0.01	pH	6.7	7.1	7.1
ICP Semi-Trace Scan					
Aluminum	5	µg/g	44600	37000	25400
Antimony	2	µg/g	290	<2	520
Arsenic	2	µg/g	91	95	78
Barium	0.05	µg/g	163	578	191
Beryllium	0.1	µg/g	0.7	0.7	<0.1
Bismuth	5	µg/g	<5	<5	<5
Cadmium	0.1	µg/g	838	3.4	766
Calcium	5	µg/g	1830	16900	4310
Chromium	0.5	µg/g	35.2	37.2	48.3
Cobalt	0.1	µg/g	32.9	15.4	28.1
Copper	0.5	µg/g	862	45.9	884
Iron	1	µg/g	150000	41000	99000
Lead	1	µg/g	7100	122	2880
Lithium	0.5	µg/g	311	39.8	47.8
Magnesium	1	µg/g	2990	10900	7230
Manganese	0.5	µg/g	35700	891	24400
Mercury	0.01	µg/g	6	0.01	3
Molybdenum	1	µg/g	11	7	5
Nickel	1	µg/g	55.2	47.8	49.6
Phosphorus	5	µg/g	408	1440	599
Potassium	20	µg/g	8200	10700	5200
Selenium	2	µg/g	<2	<2	<2
Silicon	5	µg/g	489	378	234
Silver	0.5	µg/g	655	1.3	902
Sodium	5	µg/g	58	1360	708
Strontium	1	µg/g	12	91	26
Sulphur	10	µg/g	4300	14000	14600
Thorium	1	µg/g	<1	<1	<1
Tin	1	µg/g	31	2	14
Titanium	0.2	µg/g	64.7	108	498
Uranium	5	µg/g	<5	<5	<5
Vanadium	1	µg/g	170	54	83
Zinc	0.5	µg/g	65900	407	59200
Zirconium	0.1	µg/g	12.2	39.2	17

ATTACHMENT 2: 1999 KENO No. 9 WASTE ROCK LABORATORY RESULTS			
Site Number	**Detection Limit**	**Units**	**Keno Hill 12 Vein - Waste Rock - Sept 18/99**
Sample Desciption			Waste rock plume associated with No. 12 vein workings dumped in Faro Gulch
Paste pH (field)	N/A	pH	7.8
Conductivity (field)	N/A	µS/cm	10
pH in Saturated Paste			
pH	0.1	pH	6.4
pH in Soil (1:2 water)			
pH	0.01	pH	6.7
ICP Semi-Trace Scan			
Aluminum	5	µg/g	8860
Antimony	2	µg/g	13
Arsenic	2	µg/g	91
Barium	0.05	µg/g	104
Beryllium	0.1	µg/g	0.3
Bismuth	5	µg/g	<5
Cadmium	0.1	µg/g	9.5
Calcium	5	µg/g	636
Chromium	0.5	µg/g	19.9
Cobalt	0.1	µg/g	1.4
Copper	0.5	µg/g	11.2
Iron	1	µg/g	13600
Lead	1	µg/g	850
Lithium	0.5	µg/g	9.8
Magnesium	1	µg/g	304
Manganese	0.5	µg/g	1260
Mercury	0.01	µg/g	<0.01
Molybdenum	1	µg/g	<1
Nickel	1	µg/g	7.5
Phosphorus	5	µg/g	416
Potassium	20	µg/g	2630
Selenium	2	µg/g	<2
Silicon	5	µg/g	674
Silver	0.5	µg/g	13.6
Sodium	5	µg/g	363
Strontium	1	µg/g	22
Sulphur	10	µg/g	270
Thorium	1	µg/g	4
Tin	1	µg/g	2
Titanium	0.2	µg/g	19
Uranium	5	µg/g	<5
Vanadium	1	µg/g	16
Zinc	0.5	µg/g	516
Zirconium	0.1	µg/g	7.9

ATTACHMENT 2: 1999 KENO No. 9 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
Keno Hill 12 Vein - Waste Rock - Sept.18/99	Waste rock plume associated with No. 12 vein workings dumped in Faro Gulch	7.7	0.03	0.01	0.6	3.0	2.4	4.8
Keno Hill 9 Vein L3 - Waste Rock - Sept.20/99	Waste rock located to the north of the uppermost trench	6.9	0.42	0.21	6.6	9.9	3.3	1.5
Keno Hill 9 Vein - Waste Rock - Sept.20/99	Waste rock located to the north of the uppermost trench	8.2	0.92	0.03	27.8	84.8	56.9	3.0
Main Vein WR1&WR2 - Waste Rock - Sept.20/99	Waste rock pile between Open Pits #1 and #2	7.7	1.11	0.06	32.8	62.3	29.4	1.9

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#) / 22A* 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 / Tressle
- Collapsed Tressle
- Solid Waste Disposal Site
- Area of Soil Contamination
- *(6) Transformer Loaction (number of transformer in brackets)
- Power Line
- Power Line Collapsed
- Arial Transmission Towers
- (5) Photo Site (arrow shows view direction)
- GPS Survey Location
- Former Building Site (Elsa)

Shamrock Raised Building 36A

2

Collapsed Underground Mine Workings

5200'

5400'

WR-06 Faro Gulch Portal Waste Rock

Faro Gulch Portal/Shed

No.3 Vein Adit

Sign Post

Cirque Rim

MainVein WR1 & WR2 - Waste Rock-Sept20/99

NineVeinKenoHill P2-09/20/99

NineVeinKenoHillP1-09/20/99

WR-05

No.9 Vein Adit

No.9 Vein Pit

No.3 Vein Pit

6

5

NineVeinKenoHill AbovePI &P2-09/20/99

WR -04

WR-03

KenoHill9Vein-WasteRock-Sept/18/99

BLUFF

Trench L8

Trench L7

KNo.5 Vein Trenches

5600'

7

Trench L6

Trench L5

Trench L4

(4 Vein)

Trench L3

5400'

KNo.4 Vein Trenches

Trench L1

LowerNo..4 Vein Adit and WasteRockPile

WR-02

KenoHill 9 VeinL3-WasteRock-Sept20/99

5400'

5-2 Vein Adit

1

Trench L2

0 25 50 75 100

Scale 1:2500

CAD FILE: KEY.DGN

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

Architectural & Engineering Services
Western Region

Drawing title: / Titre du dessin:

Keno No. 9 System Site #36
Site Assessment
Yukon Territory

designed by: / conçu par:	date:
drawn by: / dessiné par:	C.S. Nov. '99
approved by: / approuvé par:	
revisions:	
project no. / no. du projet:	125-12.01
dwg. no. / dessin no.	1 of 1

Photo 36-1 : Keno No.9 Collapsed log timbers mark the location of the No.5-2 Vein Adit. (Azimuth 025^{o})

Photo 36-2 : Keno No.9 Shamrock J18 Vein Raise Building (36-A). Note collapse of building into failing underground workings and fencing around opening. Also, transformer on power pole in background. (Azimuth 290o).

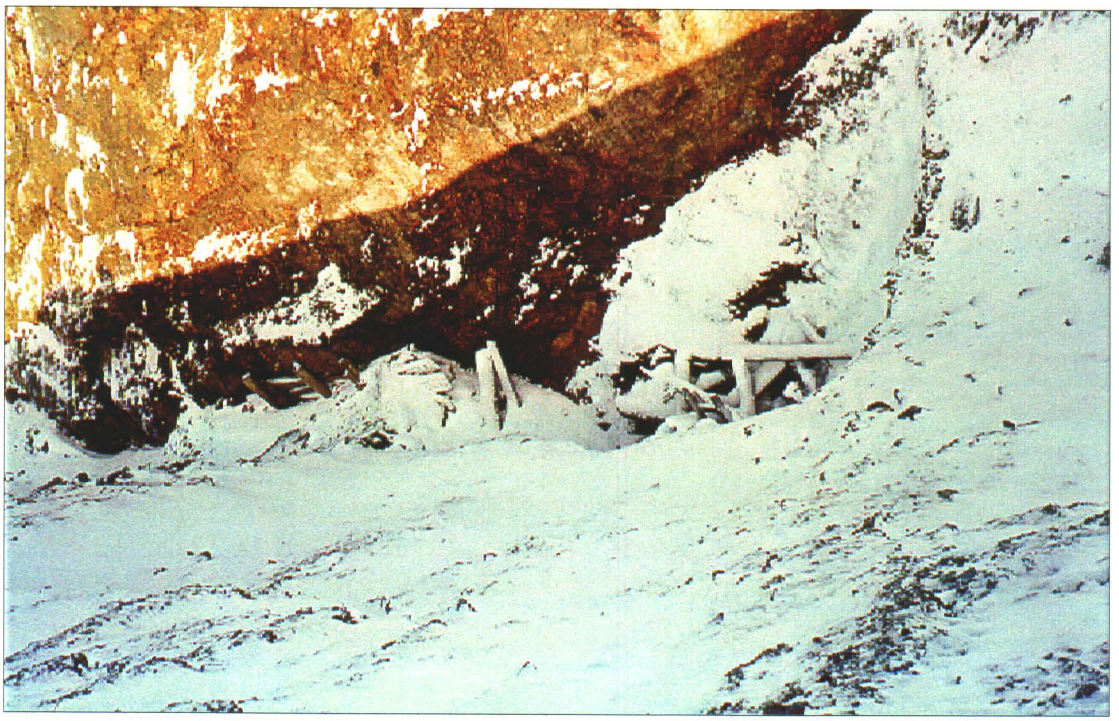

Photo 36-3 : Keno No.9 The log square sets and ladders of the No.3 Vein Adit exposed in the bottom of the No.3 Vein Pit. (Azimuth ~350°)

Photo 36-4 : Keno No.9 Faro Gulch cirque headwall with Faro Gulch Portal / Dump shed visible above person. Cuts along skyline left of person are (from left to right), No. 9 Vein and No.3 Vein Pits. Note waste rock dumps associated with each of the Pits and the Portal. Also note meltwater channels in waste rock from the No.3 and No.9 Vein Pits.

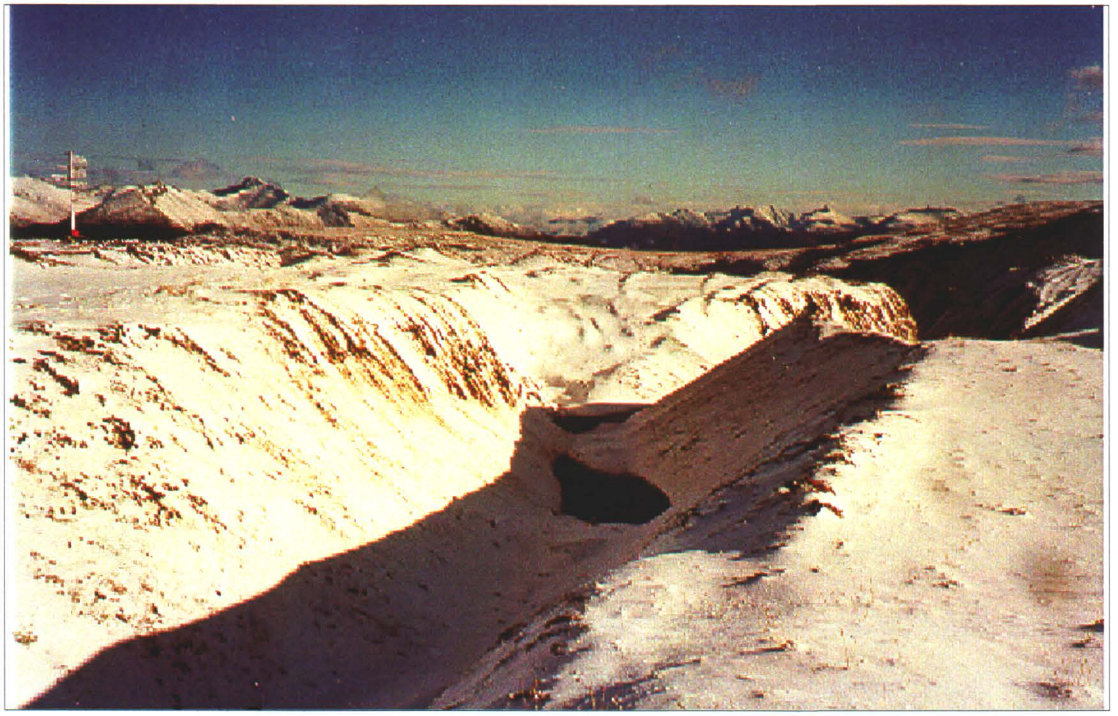

Photo 36-5 : Keno No.9 No.3 Open Pit. Note signpost on the left hand side and two of three ponds present.

Photo 36-6 : Keno No.9　No.9 Vein Open Pit.

Photo 36-7 : Keno No.9　View of Trench L5 located on the No.4 vein.　(Azimuth130°)

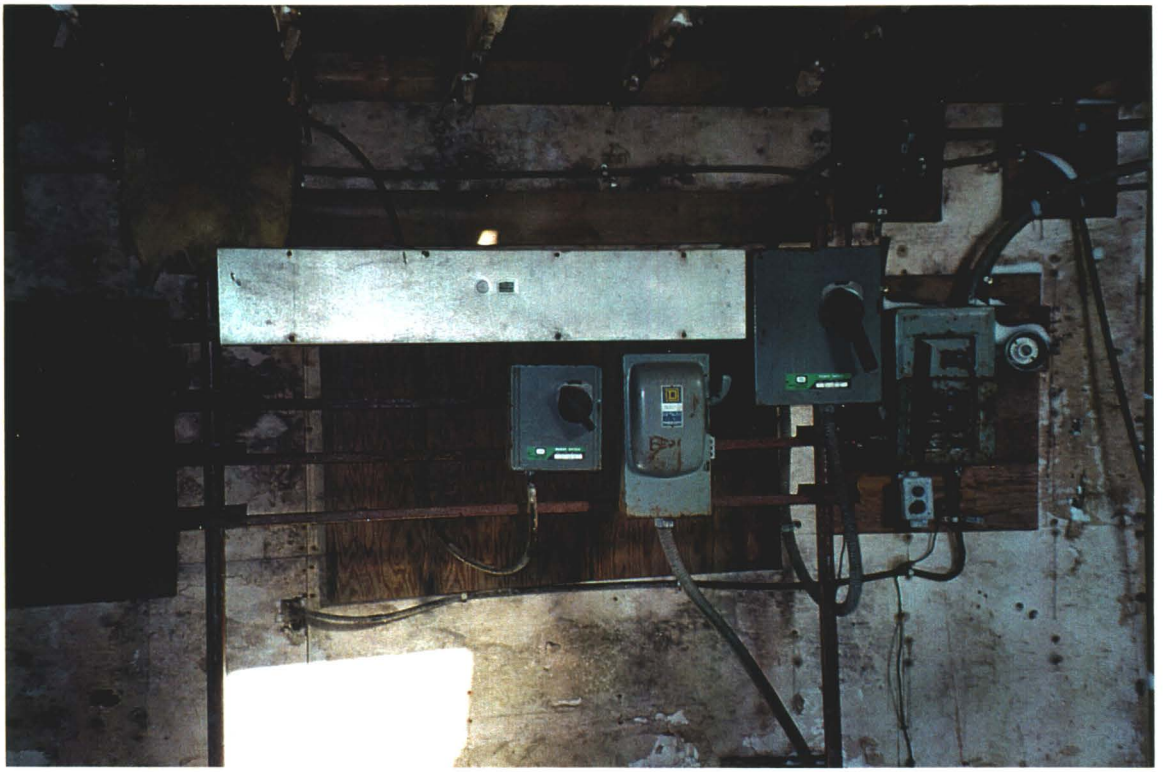

Photo 36-8: Keno No. 9 Electrical panel inside Building 36A.