

**CORAL WIGWAM #5**  
**(MINFILE# 105M 001C)**

**1. LOCATION AND ACCESS**

Access to the site is from the Elsa Townsite at the junction of Calumet Drive and Wernecke Road travel 6.9 Km. along Calumet Drive to the Hector Portal, switchback to the right (S. W.) and follow the Bermingham Rd. for 2.8 Km. At this point, a rough cat trail leads N.W. for 100 meters to the Coral-Wigwam Site. The Coral Wigwam mine site is at an approximate elevation of 1200m. UTM co ordinates are 7,086,250m N 477,900m E.

**2. SITE PHYSIOGRAPHY**

The site is on a Northwest facing slope, dipping at ~20% overlooking the McQuesten Valley with an elevation of 1220m. It lies at the uppermost portion of Porcupine Gulch and all drainage is into Porcupine Creek. The site consists of an area 300m x 120 m were the soils have been stripped off and pushed down-slope. The exposed bedrock has a series of backhoe trenches in it. The stripped material consists of a mixture of glacial till and quartzite & schist colluvium stripped from the bedrock. The surrounding vegetation consists of stunted black spruce, willows, and alder with a floor covering of mosses, indicative of a permafrost environment.

**3. GEOLOGY AND MINERALIZATION**

The site is hosted in interbedded schists and massive quartzite. Vein material consists of brecciated quartzite and schist with quartz stringers and disseminated pyrite, there is considerable limonite and manganese staining. Mineralization is reported to consist primarily of galena, with lessor amounts of freibergite in a gangue of siderite, with minor quantities of quartz and pyrite.

**4. SITE HISTORY**

Staked in 1921, by 1924 three shafts (one ~8 m deep with a drift and crosscut off it) had been developed and approximately 7 tonnes of ore shipped. In the 1950's minor bulldozer trenching was done. In the 1980's the area was stripped and seven shallow (1-2 m) backhoe trenches dug and drilled with a percussion drill.

**5. MINE DEVELOPMENT**

**5.1 Mine Openings and Excavations**

## Adits/Shafts/Portals

No adits were observed or reported in the literature. Two shafts were found and are detailed below.

### Shaft 1

Location: Western shaft

Dimensions: The inside dimensions are 1.6m x 1m about 8m deep with what appears to be a drift taking off in a SE direction.

Supports: The shaft is cribbed with round timber that appears sound.

Condition: The shaft is open and unguarded and should be considered a safety hazard. The dump from shaft has been bulldozed away during the stripping operation.

Accessibility: The shaft is open and accessible.

### Shaft 2

Location: Eastern Shaft

Dimensions: Subsidence zone is about 5 m in diameter and 3 m deep.

Supports: The shaft is unguarded and poses a safety hazard.

Condition: This shaft is collapsed with timber with an old ladder in the hole. The waste rock dump dimensions are 15 m x 3 m x 6 m (~ 600 tonnes) consisting of Quartzite with quartz veining and minor pyrite.

Accessibility: The shaft is collapsed and is a safety hazard.

### Open Pits

There are no open pits at this site.

### Trenches

There are seven backhoe trenches in the stripped area. They are 1.5 to 2 m deep by 2 to 3 m wide and from 10 to 15 m long. The material taken from the cuts is piled alongside the trenches. The trenches present a minor hazard.

## 5.2 Waste Rock Disposal Areas

### Waste piles

The waste piles are made up of the overburden stripping, mainly glacial till with some quartzite and schist colluvium mixed in. The waste piles comprise approximately 75,000 tonnes of material. Vegetation is reestablishing itself on the waste piles and no evidences of vegetation stress were

observed below the toe of the piles. There is significant drainage through the site and no sign of water being impounded.

### 5.3 Tailings Impoundments

There are no tailings at this site.

### 5.4 Mine Site Water Treatment

There are no water treatment facilities at this site.

## 6. MINE SITE INFRASTRUCTURE

### 6.1 Buildings

There were structural remains of four buildings at the site. Two of the structures appeared to have been residential and the third was potentially a workshop, however, this is difficult to determine from the deteriorated debris remaining at the site. The fourth structure was a collapsed shaft house.

Building 5A – Residential (collapsed)

Building has collapsed and deteriorated.

Location: The building can be found in a forested area along the access road to the site and adjacent to buildings 5B and 5C.

Dimensions (L x W x H): N/A

Construction: The structure appeared to be of one room log construction.

Paint: No paint.

Asbestos: No asbestos visible.

Foundation: No foundation present.

Non-Hazardous Contents: Wood debris.

Hazardous Contents: No hazardous materials visible at the building location.

Samples: No samples were taken at the building site 5A.

Building 5B

Building has burnt and collapsed.

Location: The foundation can be located at the junction of the small path and the access road.

Dimensions (L x W x H): N/A

Construction: There is some metal debris at the site, however, there is very little wood debris left at the site as any flammable or combustible materials have been incinerated.

Paint: No paint.

Asbestos: No asbestos visible.

Foundation: No foundation.

Non-Hazardous Contents: Metal and partial wood debris.

Hazardous Contents: No hazardous materials visible at the building location.

Samples: No samples were taken at the building site 5B.

#### Building 5C

There is only wood plank floor remnants left at the site. A drum utilized as a stove was situated in the corner of the building site.

Location: The foundation can be found just beyond building 5B along the pathway.

Dimensions (L x W x H): N/A

Construction: There is no structure at the site, however, it appears to have been constructed of wood.

Asbestos: No asbestos visible.

Foundation: No foundation other than the wood plank flooring.

Non-Hazardous Contents: Metal and partial wood debris.

Hazardous Contents: No hazardous materials visible at the building location.

Samples: No samples were taken at building site 5C.

#### Building 5D

The structure was utilized as a shaft house, however, it has collapsed and deteriorated and is a safety hazard.

Location: [map/describe]

Dimensions (L x W x H): N/A

Construction: The collapsed structure consists of wood plank sheathing and roofing.

Asbestos: No asbestos visible.

Foundation: No foundation.

Non-Hazardous Contents: Wood debris.

Hazardous Contents: No hazardous materials visible at the building location.

Samples: No samples were taken at building site 5D.

## 6.2 Fuel Storage

### Drum Storage Area(s)

There were no fuel storage areas visible at the site.

### Above Ground Storage Tanks

No above ground storage tanks were noted at the site.

Samples:

No samples were taken at the site.

### **6.3 Rail and Trestle**

There was no evidence that a rail and trestle structure existed at the site.

### **6.4 Milling and Processing Infrastructure**

There was no indication that milling and processing structures were constructed at the site.

### **6.5 Electrical Equipment**

In-Service Transformers

There were no transformers visible at the site nor any electrical equipment.

Capacitors

N/A

## **7. SOLID WASTE DUMPS**

There was no evidence of any solid waste dumping at the site. The area appears to have been abandoned for a number of years. Any biodegradable wastes are gone, there does not appear to be any metals other than two empty fuel drums at the site. Surrounding areas are void of wastes. No sampling was conducted.

## **8. POTENTIAL CONTAMINANTS OF CONCERN**

### **8.1 Out-of-Service Transformers**

There were no transformers noted at the site.

### **8.2 Metals and Hydrocarbons in Soil**

There was no visible contamination noted at the site, nor were any materials or sources noted that would have contributed to potential site contamination.

### **8.3 Liquid Hazardous Materials**

No liquid hazardous materials were visible at the site. There were two fuel drums noted on the site, however, they were empty. There were no labels to indicate historical contents, no residue nor any staining noted in the vicinity of the drums.

#### **8.4 Solid Hazardous Materials**

No solid hazardous materials were present on the site at the time of the inspection.

### **9. WATER QUALITY**

A water sample (03-01-upstream) was collected at Porcupine Creek, just above the townsite of Elsa. The water appeared clear with very little sediment loading. Moss and lichens were abundant on the surrounding exposed rock faces. Sample analyses results can be found in Attachment B for sample location 03-01-upstream.

### **10. RECLAMATION**

The site does not appear to be greatly disturbed by the historical mining activities other than by mine waste rock disposal areas. These areas have started to revegetate with native vegetation and consist mostly of low shrub and lichens, although there are still many areas of exposed waste rock. This appears to be natural attenuation and no visible reclamation measures that have been carried out by past site operators.

### **11. OTHER SOURCES OF INFORMATION AND DATA**

No other sources of information and data were identified.

### **12. REFERENCES**

United Keno Hill Mines Limited. 1996. *United Keno Hill Mines Limited – Site Characterization*. Report No. UKH/96/01, prepared by Access Mining Consultants Limited.

United Keno Hill Mines Limited. 1996. *United Keno Hill Mines Limited – Site Characterization, Technical Appendices I-VI*. Report No. UKH/96/01, prepared by Access Mining Consultants Limited.

Geological Survey of Canada.

Bulletin 111 R.W.Boyle

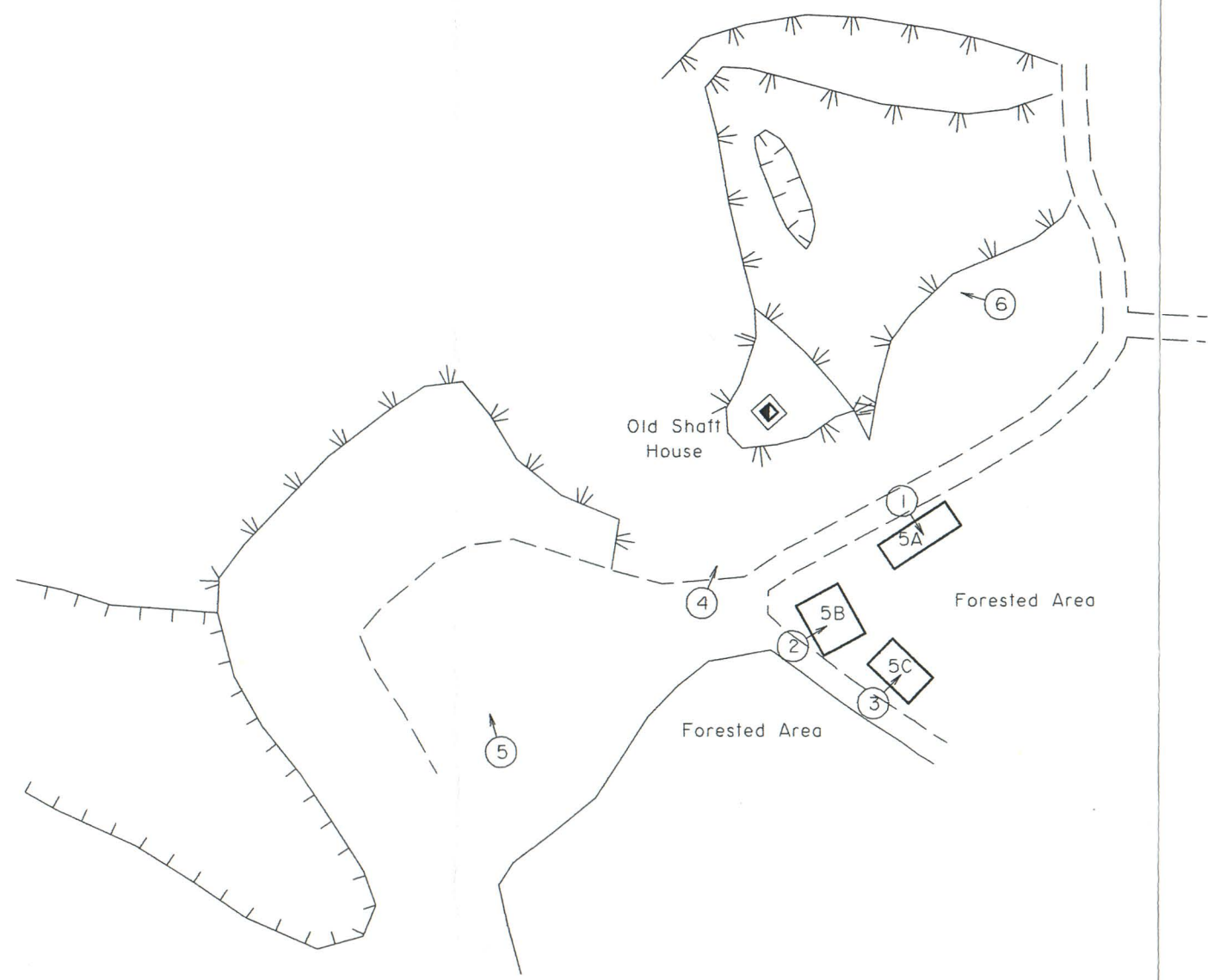
**ATTACHMENT B: 1999 CORAL WIGWAM WATER SAMPLES**

**LABORATORY RESULTS**

Sample Number	Detection Limit	Units	03-01 - Upwater - 99/09/17
Site Description			Porcupine Creek, upstream from Elsa Village
pH (field)	N/A	pH	
Conductivity (field)	N/A	µS/cm	
pH (Lab)	0.01	pH	7.99
Conductivity (Lab)	0.01	µS/cm	510
Total Alkalinity	5	mg CaCO <sub>3</sub> /L	103
Chloride	2.5	mg/L	<0.25
Hardness (CaCO <sub>3</sub> equiv)	5	mg/L	316
Nitrate-N	0.05	mg/L	<0.05
Nitrite-N	0.003	mg/L	<0.003
Sulphate	1	mg/L	152
Total Dissolved Solids	5	mg/L	353
<b>Analysis by ICP-USN</b>			
Aluminum	0.0008	mg/L	0.0162
Antimony	0.005	mg/L	<0.005
Arsenic	0.01	mg/L	<0.01
Barium	0.00004	mg/L	0.0501
Beryllium	0.00001	mg/L	<0.00001
Bismuth	0.0004	mg/L	<0.0004
Boron	0.002	mg/L	0.016
Cadmium	0.00006	mg/L	0.00002
Calcium	0.002	mg/L	84.3
Chromium	0.00006	mg/L	0.00021
Cobalt	0.00003	mg/L	<0.00003
Copper	0.00003	mg/L	0.00118
Iron	0.00001	mg/L	0.027
Lead	0.0003	mg/L	<0.0003
Lithium	0.001	mg/L	0.004
Magnesium	0.0005	mg/L	11.9
Manganese	0.00002	mg/L	0.00303
Mercury	0.0001	mg/L	<0.0001
Molybdenum	0.00007	mg/L	0.00017
Nickel	0.00001	mg/L	0.0011
Phosphorus	0.03	mg/L	<0.03
Potassium	0.4	mg/L	<0.4
Selenium	0.004	mg/L	<0.004
Silicon	0.004	mg/L	3.38
Silver	0.00005	mg/L	<0.00005
Sodium	0.004	mg/L	1
Strontium	0.00002	mg/L	0.137
Sulphur	0.008	mg/L	49.6
Thallium	0.001	mg/L	<0.001
Titanium	0.00002	mg/L	0.00118
Vanadium	0.00003	mg/L	<0.00003
Zinc	0.0002	mg/L	<0.0002
<b>Analysis by Hydride AA</b>			
Arsenic	0.0002	mg/L	0.0007
Selenium	0.0001	mg/L	<0.0001



- 22A 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)
- W0-12-06 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 Location (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)



**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).

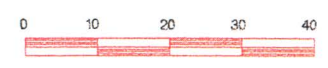
Quaternary: (5) Undifferentiated, unconsolidated colluvium, glacial till.

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

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

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

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



Scale 1:1000

CAD FILE: SITE05.DGN

Public Works And Government Services Canada Travaux publics et Services gouvernementaux Canada Architectural & Engineering Services Western Region	designed by: conçu par: drawn by: C.S.	date: Nov. / 99
	approved by: approuvé par:	revisions:
Drawing title: <b>Coral &amp; Wigwam Site #5 Site Assessment</b> Yukon Territory	Titre du dessin:	project no. no. du projet: 125-12.01
		desig. no. dessin no.: 1 of 1



Photo 5-1: Building 5A - Building was of log construction has deteriorated and collapsed.



Photo 5-2: Building 5B - Building had collapsed and burnt - metal debris appeared to be burnt.



Photo 5-3: Building 5C - Building has collapsed and only plank flooring is evident.



Photo 5-4: Trenched area below the collapsed shafthouse (shafthouse debris can be seen on the far right of photo).



Photo 5-5: Small trenched areas can be noted in the foreground of the photo within the leveled area of the waste rock dump.



Photo 5-6: Trenched area is on the southwest portion of the Coral and Wigwam site.