



MINFILE Detail Report
BC Geological Survey
Ministry of Energy, Mines and Petroleum Resources

Location/Identification

MINFILE Number:	082M 005	National Mineral Inventory Number:	082M1 Zn1
Name(s):	MASTODON MASTADON, ERIC (L.15617)		
Status:	Past Producer	Mining Division:	Revelstoke
Mining Method	Underground	Electoral District:	Columbia River-Revelstoke
Regions:	British Columbia	Resource District:	Columbia Forest District
BCGS Map:	082M030		
NTS Map:	082M01E	UTM Zone:	11 (NAD 83)
Latitude:	51 14 30 N	Northing:	5677296
Longitude:	118 07 14 W	Easting:	421781
Elevation:	1680 metres		
Location Accuracy:	Within 500M		
Comments:	Symbol 5, Map 12-1964, GSC Paper 64-32, pp. 29-30, 35.		

Mineral Occurrence

Commodities:	Zinc, Lead, Cadmium, Silver, Gold, Copper		
Minerals	Significant:	Sphalerite, Galena, Tetrahedrite	
	Associated:	Quartz, Calcite	
	Mineralization Age:	Unknown	
Deposit	Character:	Breccia, Massive, Disseminated	
	Classification:	Replacement	
	Type:	E12: Mississippi Valley-type Pb-Zn, E13: Irish-type carbonate-hosted Zn-Pb	
	Shape:	Modifier:	Folded, Sheared
	Dimension:	Strike/Dip:	90x60x3 metres 330/50E
	Comments:	Dimension describes maximum extent of largest orebody.	

Host Rock

Dominant Host Rock:	Metasedimentary		
Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Lower Cambrian	Undefined Group	Badshot	-----
Isotopic Age	Dating Method	Material Dated	
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Lithology:	Limestone, Dolomite, Phyllite		

Geological Setting

Tectonic Belt:	Omineca	Physiographic Area:	Selkirk Mountains
Terrane:	Kootenay		
Metamorphic Type:	Regional		

Inventory

Summary Production

		Metric	Imperial
	Mined:	28,975 tonnes	31,939 tons
	Milled:	28,967 tonnes	31,930 tons
Recovery	Silver	190,132 grams	6,113 ounces
	Gold	249 grams	8 ounces
	Zinc	2,681,451 kilograms	5,911,588 pounds
	Lead	81,798 kilograms	180,334 pounds
	Cadmium	11,654 kilograms	25,693 pounds

Capsule Geology

The Mastadon occurrence is located at the head of La Forme Creek, approximately 29 kilometres north east of Revelstoke.

The showings were discovered in 1898, and were known as the Noble Three group. Little of this early history has been recorded. In 1918 the property was acquired by Mastodon Mining Company and the first development work of an inclined shaft was done. Work since then was sporadic and consisted of surface trenching. In 1941, the claims lapsed, and were relocated by D.F. Kidd. A drilling program was attempted in 1942 but abandoned after the eighth hole due to poor drilling conditions and core loss in critical areas. The property was optioned to New Jersey Zinc in the late 1940's, with minor surface trenching being performed before the option was terminated. In 1952-1953, Mastodon Zinc Mines Ltd. developed the property, including the production of 34,400 tonnes ore. In 1960 the mine was closed permanently and all facilities dismantled. In 2008-2010, Rich River Exploration Ltd. performed a series of geochemical and geological surveys on the showings as apart of their Allco-Redtop-Slide Project.

The orebodies lie on the west side of a lenticular mass of Lower Cambrian limestone and dolomite of the Badshot Formation in contact, both east and west, with dark-grey and green phyllites of the Lower Cambrian and younger Lardeau Group. The rocks are isoclinally folded and strongly sheared. Several strike faults cut the rocks trending northwest and dipping at moderate angles to the northeast parallel to foliation. The strike faults appear to be the primary control for zinc mineralization.

The mineralized zones are replacements of limestone, dolomite and phyllite mainly by sphalerite and occasionally galena and grey copper. The sphalerite, ranging in colour from light yellowish-brown to dark brown, is disseminated and massive within the limestone and occurs as the matrix of breccia associated with the strike faults. Some mineralized zones are in folds or in banding related to cleavage, both of which are cut by the faults. The orebodies dip to the north-east and rake to the north. They are tabular or lenticular and commonly split or branch.

In 1952-1953, Mastodon Zinc Mines Ltd. produced a total of 34,400 tonnes averaging 10.0 per cent zinc and approximately 0.3 per cent lead and 0.04 per cent cadmium (Assessment Report 32051).

Bibliography

EMPR AR 1898-1060; 1899-672; 1900-809; 1916-192; 1917-150-152, 181; 1918-155,189; 1924-204; 1933-212,229; 1935-G51; 1936-E53; 1946-175; 1949-208; *1950-159-166; 1951-193; 1952-43, 205; 1953-157; *1959-106-117; 1960-86

EMPR ASS RPT *5724, *6522, 30804, 32051

EMPR EXPL 1975-56; 1977-86

EMPR INDEX 3-206; 4-123

EMPR OF 2000-22

EMPR PF (Air photos)

EMR MP CORPFILE (Fawn Mining Company, Limited; Golden Maniton Mines, Limited; Mastodon-Highland Bell Mines Limited; Le Mans Resources Ltd.)

GSC BULL 14, pp. 5-10

GSC MAP 4404G; 12-1964

GSC P 64-32, pp. 29-30,35

CANMET IR 1951, NO. MD 2759 (Investigations in Ore Dressing and Metallurgy)

CIM BULL Vol.75, No.842, pp. 119,124 (Hoy, T. 1982); *July 1953, pp. 403-410 (Pike, A.E. 1953)

GCNL Nov.14, 1975

WWW http://www.infomine.com/index/properties/MASTODON-LEAD_QUEEN-LEAD_KING.html

EMPR PFD 4773, 4774, 4775, 4776, 4777, 4778, 4779, 4780, 4781, 4782, 752009, 752010, 752011, 752012, 752013, 752014, 752015, 752016, 752017, 752018, 752019, 752020, 752021, 752022, 752023, 752024, 752025, 752026, 752027, 750192, 750193, 750194, 750195, 750198, 750199, 750200, 750201, 750196, 750197, 600373, 600378, 600379, 680297

Date Coded: 1985/07/24

Coded By: BC Geological Survey (BCGS)

Field Check: N

Date Revised: 2012/03/27

Revised By: Karl A. Flower (KAF)

Field Check: N