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State Department of Geology and Mineral Industries

1069 State Office Building
Portland 1, Oregon

LIGHTNING RIDGE PROSPECT (HgS) (Elkhorn Mn)

Josephine County
Illinois River Dist.

Owners: Lester Smith & Paul Baird, Canyonville, Oregon.

Area: One lode claim originally discovered about 1908.

Location: The prospect is located at 3,330 feet elevation on a sharp ridge in the north edge of sec. 24 near the $\frac{1}{4}$ corner between sec. 13-24, T. 36 S., R. 9 W. The prospect is reached via the Chrome Ridge Road and is about 20 miles from Galice.

History: The prospect is described in U. S. Bureau of Mines Report of Investigations 5369, 1958, Manganese Deposits of Southwestern Oregon, by R. N. Appling, Jr., as follows:

"The Elkhorn prospect is in Josephine County on the crest of the ridge between Brush Creek and Elkhorn Creek. It is approximately 1 mile from the Chrome Ridge road and 37 miles from Merlin, the nearest rail shipping point. Access is by the county road that follows the Rogue River to Galice, then by the Galice Creek and Chrome Ridge roads. The latter road is impassable from November through March because of snow. The area has high relief, but an access road could easily be bulldozed to the prospect from the Chrome Ridge road by following the ridge.

"Two small, elongated pods of rhodonite occur in a banded quartzite that has been folded intensely. There is great variation in the attitude of the quartzite because of the extreme folding.

"Development consists of 2 pits 5 feet deep and a trench 3 to 6 feet deep (fig. 10). Rhodonite and intermixed quartz occur in the trench and in one of the pits as elongated pods oriented parallel to the fold axes of the quartzite. The largest pod occurs along the crest of an anticlinal fold and strikes N. 27° W., with a dip of 40° E. It is exposed in one of the pits to a depth of 5 feet. The smaller pod in the trench is exposed to a depth of 3 feet. It strikes N. 2° E. and dips 46° W.

"The principal mineral is rhodonite that has been altered to the oxides of manganese to a depth of one-half inch on fracture surfaces. At the south end of the west pod alteration to the oxides of manganese extends to a depth of 1 foot.

RECORDED
MAY 27 1958
STATE DEPARTMENT OF
& MINERAL INDUSTRIES

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- 2 -

A few quartz veinlets cut the rhodonite. Cinnabar occurs along fractures of the rhodonite and in the oxides but is not disseminated throughout the pod. Yellow garnet is disseminated in small quantities through the rhodonite. A grab sample of the ore assayed 36.6 percent Mn and 0.05 percent Hg.

"The absence of manganese outcrops or float on the steep slopes of the ridge at the ends of the pods indicates that the known length would not be increased more than a few feet by exploration."

The quartzite is impure and grades into quartz mica schist and amphibole gneiss. The tightly folded metasediments strike from N. 10° W. to N. 25° W. The manganese mineralization exposed in the eastern cuts is concentrated in a small anticline where rhodonite and secondary manganese oxides occur in a zone up to about 5 feet wide. Mineralization in the western cut about 35 feet away occurs in a zone about 3 feet wide. The rhodonite has been fractured and penetrated by quartz veinlets and later cinnabar. The cinnabar mineralization appears to be sparse and confined to the western zone. There is some evidence of an anticline at the western zone also (see map).

Samples assayed by the Department include the following:

<u>Sample Number</u>	<u>Au</u>	<u>Mn</u>	<u>Fe</u>	<u>Hg (lbs./ton)</u>	<u>Insol.</u>
P-21950, NS-428	- -	15.30	2.60	3.30	68.38
P-25163, NS-84	\$1.05	- - -	- - -	16.7	- - -

Visited: 5/4/60.

Report by: L. Ramp.

Informant: V. R. Hooper, Azalea.

Reference: R. N. Appling, Jr., U.S.B.M., R.I. 5369, 1958 quoted.

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SITE NAME: LIGHTNING RIDGE COUNTY: JOSEPHINE
 SYNONYMS:
 OWNER: LESTER SMITH, PAUL BAIRD, 1963
 LOCATION: 20 MI. FROM GALICE
 MINING_DIS: BRIGGS CREEK
 BLM_FS_DIS:
 QUAD1: GRANTS PASS SCALE: 100000 TOWNSHIP: 036S
 QUAD2: SELMA SCALE: 62500 RANGE: 009W
 RIVER BASIN: SECTION: 24
 PHYSIOG: 13 SECT_FRACT: N,N

USGS NUM: M055893 LAT: 42-25-45N
 DOGAMI MLR: LONG: 123-42-59W
 REPORTER: PETERSON, JOCELYN A. UTM_N: 4697460
 AFFILIATION: USGS UTM_E: 441075
 REP_DATE: 76 08 UTM_Z: +10
 UPDATE BY: ALTITUDE:
 AFFILIATION:

UP DATE:

YR_DISC: STATUS: 1
 PRODUCTION: NO PRODUCTION SIZE:
 COMMODITIES PRESENT: HG
 YR_1ST_PRO: YR_LASTPRO:
 COMMODITIES PRODUCED:
 ORE_MAT: CINNABAR
 GANGUE: RHODONITE, MN OXIDES, QUARTZ, GARNET
 DEPOS_TYP:
 MIN_AGE:
 HOST_ROCK: QUARTZITE, MICA SCHISTS, AMPHIBOLITES
 HOST_R_AGE: PRE-TERT
 ALTERATION:
 IGNEOUS_R:
 IG_R_AGE:
 ORE_CNTRL:
 DEP_DESCOM:
 GEOL_COM:
 TYPE_OF_WORKINGS: SURFACE
 WORKINGS DESCRIPTION:

CUMULATIVE PRODUCTION (UNITS IN 1000'S)

ITEM1:	ITEM2:	ITEM3:
AMT1:	AMT2:	AMT3:
UNIT1:	UNIT2:	UNIT3:
YEAR1:	YEAR2:	YEAR3:
ITEM4:	ITEM5:	ITEM6:
AMT4:	AMT5:	AMT6:
UNIT4:	UNIT5:	UNIT6:
YEAR4:	YEAR5:	YEAR6:

GENERAL COMMENTS:

REFERENCES:

BROOKS, H. C., 1963, QUICKSILVER IN OREGON: OREGON DEPT. OF GEOLOGY AND MINERAL INDUSTRIES, BULL. 55, 223 P.

RECORD IDENTIFICATION

RECORD NO..... M013465
RECORD TYPE..... XIM
COUNTRY/ORGANIZATION. USGS
FILE LINK ID..... CONSV
MAP CODE NO. OF REC..

REPORTER

NAME..... LEE, W
DATE..... 74 01

NAME AND LOCATION

DEPOSIT NAME..... LIGHTNING RIDGE PROSPECT

MINING DISTRICT/AREA/SUBDIST. CHROME RIDGE

COUNTRY CODE..... JS
COUNTRY NAME: UNITED STATES

STATE CODE..... OR
STATE NAME: OREGON

COUNTY..... JOSEPHINE

QUAD SCALE QUAD NO OR NAME
1: SELMA

TWP..... 36S
RANGE..... 09W
SECTION.. 24
MERIDIAN. W.M.

POSITION FROM NEAREST PROMINENT LOCALITY: NE1/4 NW1/4

COMMODITY INFORMATION

COMMODITIES PRESENT..... HG

EXPLORATION AND DEVELOPMENT

STATUS OF EXPLOR. OR DEV. 1

DESCRIPTION OF WORKINGS

COMMENTS(DESCRIP. OF WORKINGS):

DEVELOPED BY 2 PITS 5 FEET DEEP AND A TRENCH 3 TO 6 FEET DEEP.

GEOLOGY AND MINERALOGY

RECORD IDENTIFICATION

RECORD NO..... M055929
RECORD TYPE..... XIM
COUNTRY/ORGANIZATION. USGS
MAP CODE NO. OF REC..

REPORTER

NAME..... PETERSON, JOCELYN A.
DATE..... 76 08
UPDATED..... 81 01
BY..... FERNS, MARK L.; (BROOKS, HOWARD C.)

NAME AND LOCATION

DEPOSIT NAME..... ELKHORN CREEK MANGANESE

COUNTRY CODE..... US
COUNTRY NAME: UNITED STATES

STATE CODE..... OR
STATE NAME: OREGON

COUNTY..... JOSEPHINE
DRAINAGE AREA..... 17
PHYSIOGRAPHIC PROV..... 13

QUAD SCALE QUAD NO OR NAME
1: 62500 SELMA

LATITUDE LONGITUDE
42-26-46N 123-42-32W

UTM NORTHING UTM EASTING UTM ZONE NO
4699350. 441700. +10

TWP..... 086S
RANGE..... 009W
SECTION.. 13
MERIDIAN. WILLAMETTE

COMMODITY INFORMATION

COMMODITIES PRESENT..... MN HG

OCCURRENCE(S) OR POTENTIAL PRODUCT(S):
POTENTIAL.....
OCCURRENCE..... MN HG

ORE MATERIALS (MINERALS, ROCKS, ETC.):

EXPLORATION AND DEVELOPMENT
STATUS OF EXPLOR. OR DEV. 2
PROPERTY IS INACTIVE

DESCRIPTION OF DEPOSIT
FORM/SHAPE OF DEPOSIT: PODS

SIZE/DIRECTIONAL DATA

SIZE OF DEPOSIT..... SMALL
DEPTH TO BOTTOM..... 5 FT
STRIKE OF DREBODY..... N 27 W
DIP OF DREBODY..... 40 E

PRODUCTION
NO PRODUCTION

GEOLOGY AND MINERALOGY

HOST ROCK TYPES..... AMPHIBOLITE GNEISS, BANDED QUARTZITE

PERTINENT MINERALOGY..... YELLOW GARNET

GEOLOGICAL DESCRIPTIVE NOTES. 2 SMALL ELONGATE PODS - LARGEST DIMENSION GIVEN

LOCAL GEOLOGY

NAMES/AGE OF FORMATIONS, UNITS, OR ROCK TYPES

1) NAME: BRIGGS CREEK AMPHIBOLITE
AGE: TRI

SIGNIFICANT LOCAL STRUCTURES:

BANDED QUARTZITE IS INTENSELY FOLDED

GENERAL REFERENCES

- 1) APPLING, R.N., JR., 1958, MANGANESE DEPOSITS OF SOUTHWESTERN OREGON: USBM RI 5369
- 2) MERCURY IN OREGON, 1965, USBM IC 8252
- 3) RAMP, L AND PETERSON, N V, 1979, GEOLOGY AND MINERAL RESOURCES OF JOSEPHINE COUNTY, OREGON: ODGMI BULL 100, TABLE 1 NO 181

RECORD IDENTIFICATION

RECORD NO..... M055893
RECORD TYPE..... XIM
COUNTRY/ORGANIZATION. USGS
MAP CODE NO. OF REC..

REPORTER

NAME..... PETERSON, JOCELYN A.
DATE..... 76 08

NAME AND LOCATION

DEPOSIT NAME..... LIGHTNING RIDGE

MINING DISTRICT/AREA/SUBDIST. BRIGGS CREEK

COUNTRY CODE..... US
COUNTRY NAME: UNITED STATES

STATE CODE..... OR
STATE NAME: OREGON

COUNTY..... JOSEPHINE

QUAD SCALE 1: QUAD NO OR NAME
SELMA

LATITUDE 42-25-45N LONGITUDE 123-42-59W

UTM NORTHING 4697460.0 UTM EASTING 441075.0 UTM ZONE NO +10

TWP..... 036S
RANGE..... 009W
SECTION.. 24
MERIDIAN. WILLAMETTE

POSITION FROM NEAREST PROMINENT LOCALITY: 20 MI. FROM GALICE

LOCATION COMMENTS: NEAR N EDGE SEC 24

COMMODITY INFORMATION

COMMODITIES PRESENT..... HG

OCCURRENCE(S) OR POTENTIAL PRODUCT(S):
POTENTIAL.....
OCCURRENCE..... HG

ANALYTICAL DATA (GENERAL)
ASSAYS GAVE 3.3 AND 16.7 LB/TON HG

EXPLORATION AND DEVELOPMENT

STATUS OF EXPLOR. OR DEV. 1

PROPERTY IS INACTIVE

PRESENT/LAST OWNER.....

LESTER SMITH, PAUL BAIRD, 1963

DESCRIPTION OF DEPOSIT

FORM/SHAPE OF DEPOSIT:

SIZE/DIRECTIONAL DATA

SIZE OF DEPOSIT..... SMALL

DESCRIPTION OF WORKINGS

SURFACE

PRODUCTION

NO PRODUCTION

GEOLOGY AND MINERALOGY

AGE OF HOST ROCKS..... PRE-TERT

HOST ROCK TYPES..... QUARTZITE, MICA SCHISTS, AMPHIBOLITES

PERTINENT MINERALOGY..... RHODONITE, MN OXIDES, QUARTZ, GARNET

GEOLOGICAL DESCRIPTIVE NOTES. VERY LIMITED IN SIZE

LOCAL GEOLOGY

GEOLOGICAL PROCESSES OF CONCENTRATION OR ENRICHMENT:

HYDROTHERMAL SOLUTIONS

GENERAL REFERENCES

1) BROOKS, H. C., 1963, QUICKSILVER IN OREGON: OREGON DEPT. OF GEOLOGY AND MINERAL INDUSTRIES, BULL. 55, 223 P.

RECORD IDENTIFICATION

RECORD NO..... MO15240
RECORD TYPE..... X1M
COUNTRY/ORGANIZATION. USGS
FILE LINK ID..... CONSV
MAP CODE NO. OF REC..

REPORTER

NAME..... LEE, W.
DATE..... 77 01

NAME AND LOCATION

DEPOSIT NAME..... LIGHTENING RIDGE PROSPECT

MINING DISTRICT/AREA/SUBDIST. CHROME RIDGE

COUNTRY CODE..... US
COUNTRY NAME: UNITED STATES

STATE CODE..... OR
STATE NAME: OREGON

COUNTY..... JOSEPHINE

QUAD SCALE QUAD NO OR NAME
1: 62500 SELMA QUAD.

TWP..... 036S
RANGE..... 009W
SECTION.. 24
MERIDIAN. WM

LOCATION COMMENTS: NE 1/4 NW 1/4

COMMODITY INFORMATION

COMMODITIES PRESENT..... HG

EXPLORATION AND DEVELOPMENT

STATUS OF EXPLOR. OR DEV. 1

DESCRIPTION OF WORKINGS

COMMENTS(DESCRIP. OF WORKINGS):
DEVELOPED BY 2 PITS 5 FEET DEEP AND A TRENCH 3 TO 6 FEET DEEP.