

*Horse Lake Valley Oil Structures*

*Oil & Gas*

*4/46*

NAME

OLD NAMES

PRINCIPAL ORE

MINOR MINERALS

395

19E

T

R

S

PUBLISHED REFERENCES

..... *Lake* ..... COUNTY

..... AREA

..... ELEVATION

..... ROAD OR HIGHWAY

..... DISTANCE TO SHIPPING POINT

MISCELLANEOUS RECORDS

PRESENT LEGAL OWNER (S) .....

Address .....

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OPERATOR .....

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Name of claims                      Area    Pat.    Unpat.

Name of claims                      Area    Pat.    Unpat.

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EQUIPMENT ON PROPERTY

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Abstract of a report on the oil structures of Goose Lake Valley, by

Charles J. Stone, Butte, Montana, June, 1932.

**Primary Assumption:**

Goose Lake Valley is an erosional valley rather than a fault block valley and the same beds can be seen on both sides although they are thicker on the east.

The floor of the valley is composed of soft fossiliferous fresh water Tertiary sediments overlain in part by a quaternary drift. The basalts of the valley sides lie upon these sediments. The uppermost Tertiary is a conglomerate composed of Archean pebbles. No Cretaceous is seen to underlie the Tertiary but carboniferous (Penn.) limestones and quartzites appear and on the west side of the valley overlie still older sediments.

**Structure: Hunter Anticline** - The dips on this anticline are to the west, north, and east, and it is cut off on the south by a fault strike N. 30 E. which raises limestones. Hunter Springs is at the northeast end of the fault.

These hot springs are derived from limestone caverns and the heat comes from the intrusions far under the hills to the east. Another transverse fault has elevated a massive quartzite on the east side of the lake at Eagle Point and limestone on the west at Dry Creek. At two points on the highway basalt can be seen overlying Tertiary sediments.

**West Anticline** - This structure is 10 miles long and 4 miles wide with dips of from  $2^{\circ}$ - $10^{\circ}$ .

The axis of the Hunter anticline passes through the southwest quarter of the southeast quarter of sec. 32, then West anticline near the corner of 15, 16 and 21, 22, T. 39 S., R. 19 E. in the block between faults in sec. 20 or the E. of sec. 19., south of the south fault two miles west of Scherard well on the west line of sec. 22. Stone recommends that wells be drilled on these four structures.

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Criticisms: There are no pre-Tertiary rocks in this area. The valley is a fault block valley. Structures indicated do seem to be present in soft tuffs and diatomites but the cross faults suggested are probably imaginary and the springs are due to the main N-S. fault along which uplift of the eastern range has occurred. Gas from wells in the valley is probably methane and has never been analyzed to prove derivation from oil-bearing sands.

5/17/39

John Eliot Allen.