

MAR 19670003: SOUTHWESTERN ALBERTA

Received date: Dec 31, 1967

Public release date: Jan 01, 1969

DISCLAIMER

By accessing and using the Alberta Energy website to download or otherwise obtain a scanned mineral assessment report, you ("User") agree to be bound by the following terms and conditions:

- a) Each scanned mineral assessment report that is downloaded or otherwise obtained from Alberta Energy is provided "AS IS", with no warranties or representations of any kind whatsoever from Her Majesty the Queen in Right of Alberta, as represented by the Minister of Energy ("Minister"), expressed or implied, including, but not limited to, no warranties or other representations from the Minister, regarding the content, accuracy, reliability, use or results from the use of or the integrity, completeness, quality or legibility of each such scanned mineral assessment report;
- b) To the fullest extent permitted by applicable laws, the Minister hereby expressly disclaims, and is released from, liability and responsibility for all warranties and conditions, expressed or implied, in relation to each scanned mineral assessment report shown or displayed on the Alberta Energy website including but not limited to warranties as to the satisfactory quality of or the fitness of the scanned mineral assessment report for a particular purpose and warranties as to the non-infringement or other non-violation of the proprietary rights held by any third party in respect of the scanned mineral assessment report;
- c) To the fullest extent permitted by applicable law, the Minister, and the Minister's employees and agents, exclude and disclaim liability to the User for losses and damages of whatsoever nature and howsoever arising including, without limitation, any direct, indirect, special, consequential, punitive or incidental damages, loss of use, loss of data, loss caused by a virus, loss of income or profit, claims of third parties, even if Alberta Energy have been advised of the possibility of such damages or losses, arising out of or in connection with the use of the Alberta Energy website, including the accessing or downloading of the scanned mineral assessment report and the use for any purpose of the scanned mineral assessment report so downloaded or retrieved.
- d) User agrees to indemnify and hold harmless the Minister, and the Minister's employees and agents against and from any and all third party claims, losses, liabilities, demands, actions or proceedings related to the downloading, distribution, transmissions, storage, redistribution, reproduction or exploitation of each scanned mineral assessment report obtained by the User from Alberta Energy.

196 70003

KENNCO EXPLORATIONS, (WESTERN) LIMITED

GEOLOGICAL REPORT

QUARTZ PROSPECTING PERMIT AREA
(White and Lyons)
Southwestern Alberta

ECONOMIC MINERALS
FILE REPORT No.
ca-AF-3005(1)

Summary:

Prospecting and geological traversing found no significant copper mineralization, nor thick, well developed beds of quartzite in the Grinnell formation. Minor chalcopyrite, occasional bornite, pyrite occur in thin beds of quartzite in the Appekunny, Grinnell and at the base of the Siyeh formations. Chalcopyrite also was found in dolomitic argillite, dolomite and in limestone in the Kintla (Gateway).

Recommendation:

No further work is recommended on the Quartz Prospecting Permit Area and the option should be terminated. *(See Permit No. 8... plastic sleeve)*.

Location:

The Quartz Prospecting Permit Area is located in southwestern Alberta near Waterton Park and comprises about 60,000 acres located in parts of Township 3, Range 1; Township 4, Ranges 1, 2, 3, and 4; and Township 5, Range 4.

Title:

This area was optioned by Kennco Explorations, (Western) Limited from White Minerals Limited and Verne Lyons Consultants Limited, under an agreement dated October 31, 1966.

Geology & Mineral Occurrences:

The geology of the area is shown on the attached map and is derived from G.S.C. Map 35-1962. The area was prospected and the favourable geological sections were traversed at regular intervals. The geological sections examined included the Appekunny, Grinnell and Siyeh formations and in the western and southeastern part of the Permit Area, the Purcell, Sheppard, Gateway and Phillips (Kintla) formations.

No thick, well developed beds of quartzites were found in the northernmost exposures of the Grinnell formation, the only significant development being either at the top or occasionally at the bottom of the formation. Quartzite was found to be abundant in the upper half of the Grinnell near Pincher and Drywood creeks, where thicknesses of 12 to 18 feet occur.

Minor chalcopyrite with bornite, malachite and rare chalcocite, are localized in the uppermost beds. However, the mineralized beds have thicknesses of 8 inches to at most 4 feet, except in the North Drywood Creek area where it is 16 feet.

Traces of chalcopyrite were found in occasional thin (2-4 inch) quartzite beds of the Appekunny formation; the best being in the upper 2 feet of an 8-foot quartzite bed about 680 feet from the top of the formation located on the north side of Syncline Brook.

Small amounts of chalcopyrite occur in quartzite laminae at the base of the Siyeh formation. The base of the Siyeh is characterized by marcasite pellets in thin quartzite beds. Thin beds of quartzite, generally less than one inch and never thicker than one foot, are common in the lower 265 feet of the Siyeh formation and generally contain traces of chalcopyrite.

Chalcopyrite was found in a 4-foot limestone bed in argillite in the Gateway formation near the head of Yarrow Creek. A sample across this bed assayed 0.26% copper and 0.084 oz/ton silver. Thin dolomite or dolomitic argillite beds with widths of 1 to 7 feet were found with traces

of chalcopyrite in the lower and middle Kintla formation. A sample from a 7-foot dolomite bed on the west side of Mill Creek assayed 0.054% copper.

In the Purcell lavas at the head of Yarrow Creek, chalcopyrite was found as amygdaloidal, cavity fillings. Chalcopyrite, pyrite and galena occur in minute quartz-calcite veinlets adjacent to a thin black sill on the west side of South Drywood Creek.

One area of interest was found on North Drywood Creek in the upper Grinnell and lower part of the Siyeh formations. The maximum thickness of quartzite found is 40 feet, but thins within 100 feet to 12 feet to the south and 3 feet to the north. A 14-foot section of argillite at the base of the Siyeh assayed 0.25% copper and 0.033 oz/ton silver. The top 16 feet of Grinnell quartzite assayed 0.05% copper and 0.011 oz/ton silver.

Geochemical Data:

Sediment samples were taken in all the streams and side drainage that traverse the area. No anomalous stream sediment sample sites occur. The values are at background level. The maximum copper value is 53 ppm, for zinc 153 ppm, and for lead 55 ppm.

Vancouver, B. C.

December 6, 1967

*2 values at 53
and 1 at 65
1 at 73 ppm!*

B. A. Bradshaw
B. A. Bradshaw

QUARTZ MINERAL EXPLORATION PERMIT No. 8

(82H/178)

CANCELLED

VERNE LYONS CONSULTANTS LIMITED,
712 BAMLETT BLDG.,
CALGARY, ALBERTA

DATE OF ISSUE - OCTOBER 19, 1967
AREA - 38,198 ACRES

NO LEASES SELECTED

WATERTON
LAKES
NATIONAL
PARK
BOUNDARY

CORRECTION LINE

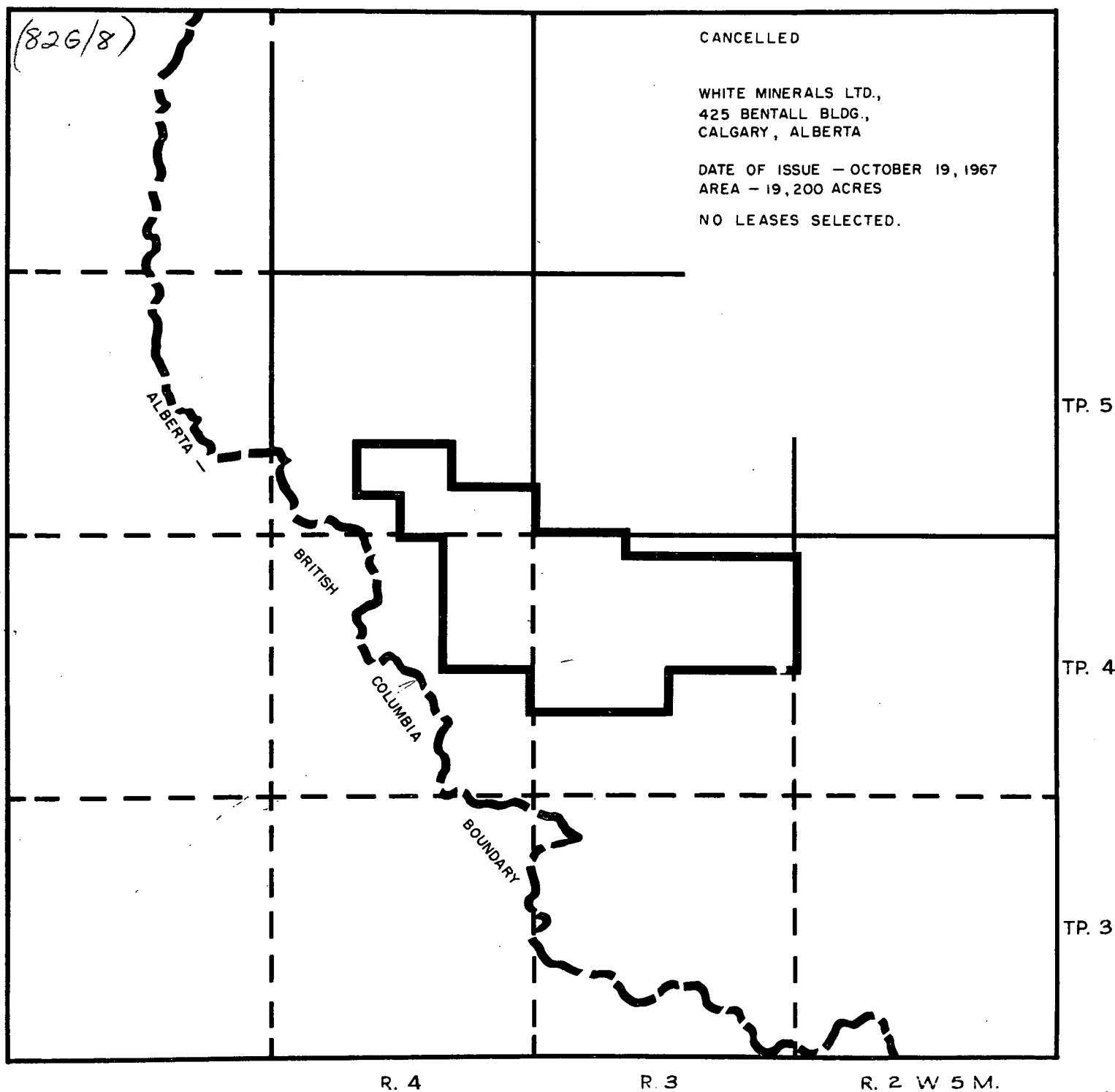
TP. 4

TP. 3

R. 2

R. 1 W. 5 M.

1967002 QUARTZ MINERAL EXPLORATION PERMIT No. 9

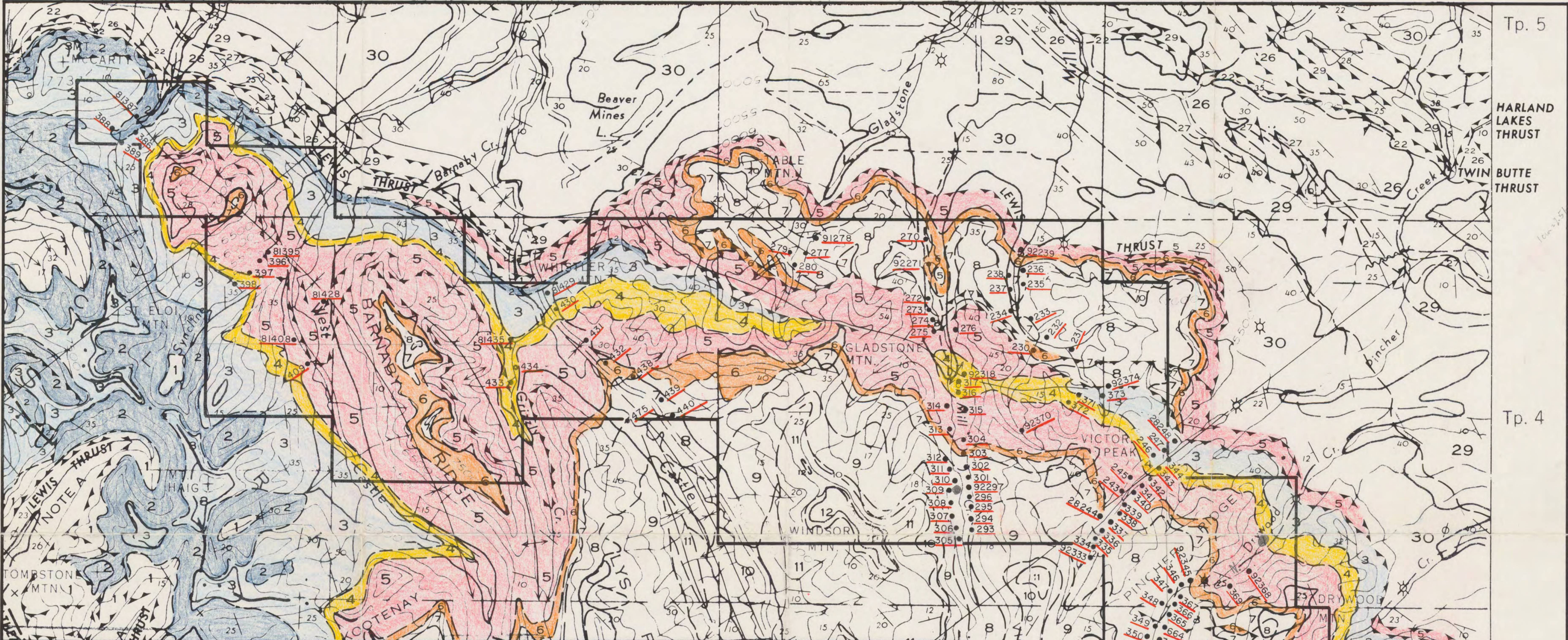


RH

R3

R2

R1W5M



Tp. 5
HARLAND LAKES THRUST
BUTTE THRUST

Tp. 4

15'

Tp. 3

- 9 Phillips Formation
- 8 Grateway
- 7 Sheppard Formation
- 6 Purcell Lava - andesite
- 5 Siyeh Formation - limestone, dolomite, argillite
- 4 Grinnell Formation - argillite, sandstone, siltstone
- 3 Appekunny Formation - argillite, sandstone
- 2 Altn Formation - limestone, argillite, dolomite

Geology - from G.S.C. Map 35-1962 - Fernie (East half)

Sample site and number

KENCO EXPLORATIONS (WESTERN) LIMITED

GEOLOGY & SAMPLE SITE LOCATION

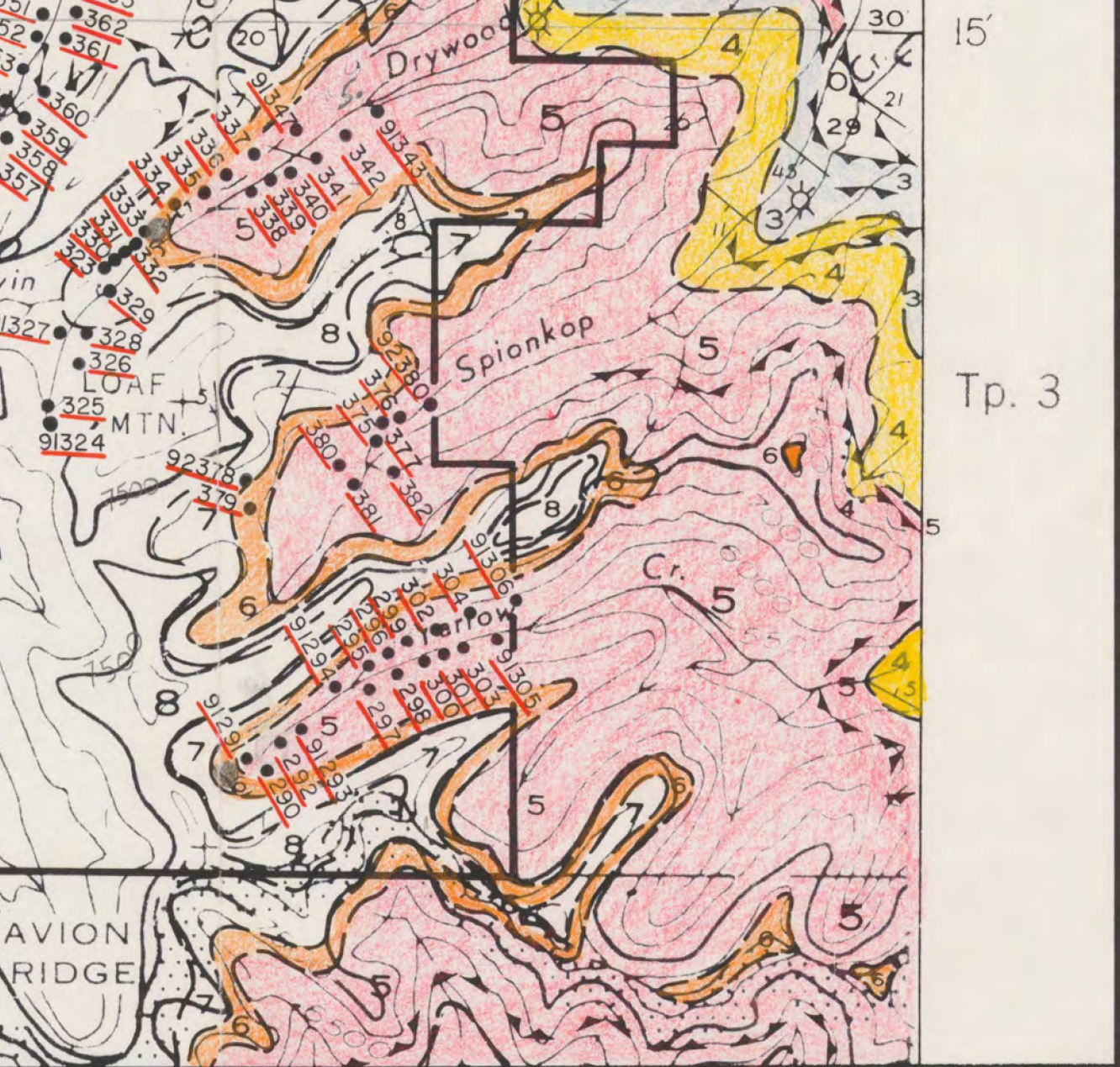
PROSPECT PERMIT AREA 132

SOUTHWESTERN ALTA.

DATE: NOV. 22/67 DRAWN BY: *RE* PLATE NO.:
 REVISIONS BY: DATE: SCALE: **1" to 1 mile**

Sample No.	P. P. M.										Sample No.	P. P. M.										Sample No.	P. P. M.									
	Mo	Cu	Zn	Pb	Co	Ni	Mo	Cu	Zn	Pb		Co	Ni	Mo	Cu	Zn	Pb	Co	Ni	Mo	Cu		Zn	Pb	Co	Ni						
92301	0	23	26	17	21	17																										
2	1	18	45	13	12	13																										
3	1	21	63	16	19	19																										
4	1	10	20	13	6	13																										
5	1	9	27	28	12	29																										
6	1	12	27	22	17	28																										
7	1	16	29	16	8	19																										
8	1	21	36	11	12	18																										
9	1	8	15	7	6	13																										
10	1	8	21	11	10	16																										
11	1	12	15	32	13	19																										
12	1	18	61	13	8	18																										
13	1	8	23	13	8	15																										
14	0	0	24	16	8	15																										
15	0	18	54	22	15	20																										
16	0	8	32	23	10	29																										
17	1	14	40	22	13	18																										
18	1	21	80	22	13	21																										
92333	0	12	36	20	12	14																										
34	1	14	34	13	10	21																										
35	1	23	45	31	13	16																										
36	1	23	27	9	12	16																										
37	1	10	34	11	10	19																										
38	1	12	34	16	10	14																										
39	1	29	57	37	15	19																										
40	1	18	44	22	17	19																										
41	1	23	65	37	17	21																										
42	1	21	100	55	19	24																										
43	1	18	75	34	15	21																										
44	1	17	45	28	10	19																										
45	1	10	37	22	10	21																										
46	1	18	82	34	10	16																										
47	1	16	30	28	10	16																										
48	1	10	28	13	8	18																										
49	1	21	42	22	12	20																										
50	0	12	29	13	8	14																										
51	0	12	33	22	10	18																										
52	0	12	34	13	13	16																										
53	0	12	36	22	10	14																										
54	0	12	36	16	15	14																										
55	0	17	36	19	10	14																										
56	0	23	59	28	25	44																										
57	1	7	23	11	8	5																										
58	1	30	43	41	17	21																										
59	1	15	37	13	13	23																										
60	1	23	36	19	8	18																										
61	0	16	44	16	10	18																										
62	1	28	34	13	12	16																										
63	1	21	32	22	10	18																										
64	1	85	67	34	19	28																										
65	1	23	19	21	11	21																										
66	1	15	45	19	15	16																										
67	1	12	44	16	13	20																										
68	1	16	75	26	13	16																										
69	1	9	29	13	15	16																										
92370	1	20	69	28	21	20																										
71	1	16	52	25	15	13																										
72	1	30	54	22	19	16																										
73	1	15	59	22	15	21																										
74	1	16	39	16	10	21																										
92375	1	23	34	16	15	16																										
76	1	18	32	28	15	24																										
77	1	30	47	13	12	16																										
78	1	18	40	22	12	18																										
79	1	16	36	13	12	18																										
80	0	14	28	16	10	16																										
81	1	18	34	22	8	20																										
82	1	16	24	25	8	14																										

Sample No.	P. P. M.										Sample No.	P. P. M.										Sample No.	P. P. M.									
	Mo	Cu	Zn	Pb	Co	Ni	Mo	Cu	Zn	Pb		Co	Ni	Mo	Cu	Zn	Pb	Co	Ni	Mo	Cu		Zn	Pb	Co	Ni						
81395	0	18	59	29	21	18																										
81428	1	15	47	15	13	18																										
81395	1	16	42	20	13	13																										
81408	1	14	42	28	12	16																										
91429	0	42	36	25	13	14																										
91429	0	12	36	20	12	14																										
91429	1	14	34	13	10	21																										
91429	1	16	37	13	13	18																										
91429	1	21	63	25	12	16																										
91429	1	18	42	20	13	13																										
91429	1	14	42	28	12	16																										
91429	1	21	44	25	13	23																										
91429	0	21	34	13	12	13																										
91429	0	46	82	22	15	19																										
91429	1	39	61	13	13	16																										
91429	1	39	55	10	21	21																										
91429	1	25	57	33	19	21																										
91429	1	30	54	17	15	24																										
91429	1	19	61	13	13	16																										
91429	1	39	55	10	21	21																										
91429	1	25	57	33	19	21																										
91429	1	30	54	17	15	24																										
91429	1	23	48	20	17	23																										
92330	1	30	52	19	12	14																										
92330	1	53	125	34	13	14																										
92330	1	21	55	46	10	18																										
92330	1	21	75	34	17	16																										
92330	1	26	93	28	14	14																										
92330	1	33	91	28	15	18																										
92330	1	33	115	28	13	16																										
92330	1	25	59	11	13	18																										
92330	1	18	59	11	13	18																										
92330	1	14	47	21	6	10																										
92330	1	20	42	13	8	14																										
92330	1	10	37	22	10	13																										
92330	1	0	12	30	9	10	21																									
92330	1	12	43	13	15	18																										
92330	1	20	90	22	15	21																										
92330	1	18	57	13	15	21																										
92330	1	18	63	25	15	18																										
92330	1	14	37	7	17	21																										
92330	1	18	34	11	10	29																										
92330	1	12	43	13	15	18																										
92330	1	21	27	13	15	29																										
92330	1	14	23	16	8	11																										
92370	1	20	69	28	21	20																										
92370	1	16	52	25	15	13																										
92370	1	30	54	22	19	16																										
92370	1	15	59	22	15	21																										
92370	1	16	39	16	10	21																										
92375	1	23	34	16	15	16																										
92375	1	18	32	28	15	24																										
92375	1	30	47	13	12	16																										
92375	1	18	40	22	12	18																										
92375	1	16	36	13	12	18																										
92375	0	14	28	16	10	16																										
92375	1	18	34	22	8	20																										
92375	1	16	24	25	8	14																										



19670001
1670003 Map #1