

0910 0002

N. of (160)

Item 15

DART PROSPECT (GOLD)
LANDER COUNTY, NEVADA

by

J. V. Tingley

Reno, Nevada

December 18, 1968

see also Lander Co.
general, Item

0910 0002

Reno, Nevada - December 30, 1968

Mr. P. A. Meyer - Salt Lake City

Re: Dart Prospect (Gold)
Lander County, Nevada

Attached hereto is a report prepared by Mr. J. V. Tingley covering our most recent and final examination of the Dart Prospect, Lander County, Nevada.

Since this additional study showed no indications of favorable gold mineralization and the lack of appropriate good geologic conditions, I concur with Mr. Tingley's thinking that no further work be done on this property.

R. J. Anctil

R. J. Anctil

CC: Los Angeles (1)
L A M D F (1)
Salt Lake City (2)
Reno (2)

DART PROSPECT (GOLD)
LANDER COUNTY, NEVADA

by
J. V. Tingley

Distribution:

Los Angeles - (1)
L A M D F - (1)
Salt Lake City - (2)
Reno - (2)

Reno, Nevada

December 18, 1968

SUMMARY AND CONCLUSIONS

This property, submitted by Lyle F. Campbell of Reno, Nevada, is a disseminated-gold prospect located in the Roberts Mountains thrust belt. The history of discovery, location, and some points concerning the geology are well covered in Campbell's prospectus (included in the Appendix of this report).

Sampling done last summer showed the presence of an arsenic-gold anomaly near the Roberts Mountains thrust trace in the center of the property.

Additional sampling and examination indicated:

1) no geochemical anomaly could be found in upper-plate rocks in the area thought to be underlain by Roberts Mountains formation; 2) if present, the Roberts Mountains formation would be steeply dipping and occur beneath an excessive thickness of unmineralized upper-plate rocks.

Therefore, no further work is recommended for this property.

RESULTS OF INVESTIGATIONS

The Roberts Mountains thrust fault is exposed in the central portion of the Dart claim group. The fault trace strikes east-west, and is marked by a thick, highly iron-stained breccia zone. An east-west trending vertical fault cuts the thrust breccia, apparently down-^{dropping} ~~dipping~~ the southern side. Anomalous gold and arsenic values are confined to the thrust breccia where it is intersected by the vertical fault. Below the thrust trace, the lower-plate sediments are unmineralized, with the exception of a small jasperoid mass about one-half mile north of the claim area. This material is thought to be a residual jasperoid, formed from leaching and erosion of overlying limey sediments. Silica included in these eroded rocks, along with trace amounts of heavy metals, is known to concentrate to form residual jasperoid gossans of this type.

The lower-plate sediments exposed are older than the Roberts Mountains formation. If present, it should lie up-section, or southwest of the exposed rocks.

This projected location would be beneath the thrust fault in the southern portion of the claim group. The dip of the lower-plate rocks is steeply to the southwest. Therefore, unless vertical faulting has lifted the rocks nearer the surface, the favorable Roberts Mountains limestone would lie beneath an excessive thickness of upper-plate rocks. Geochemical sampling of iron-stained fractures in the upper plate failed to detect anomalous heavy-metal concentrations in the projected favorable area.

Therefore, no additional work is recommended for this property.



J. V. Tingley

JVT:cm

APPENDIX

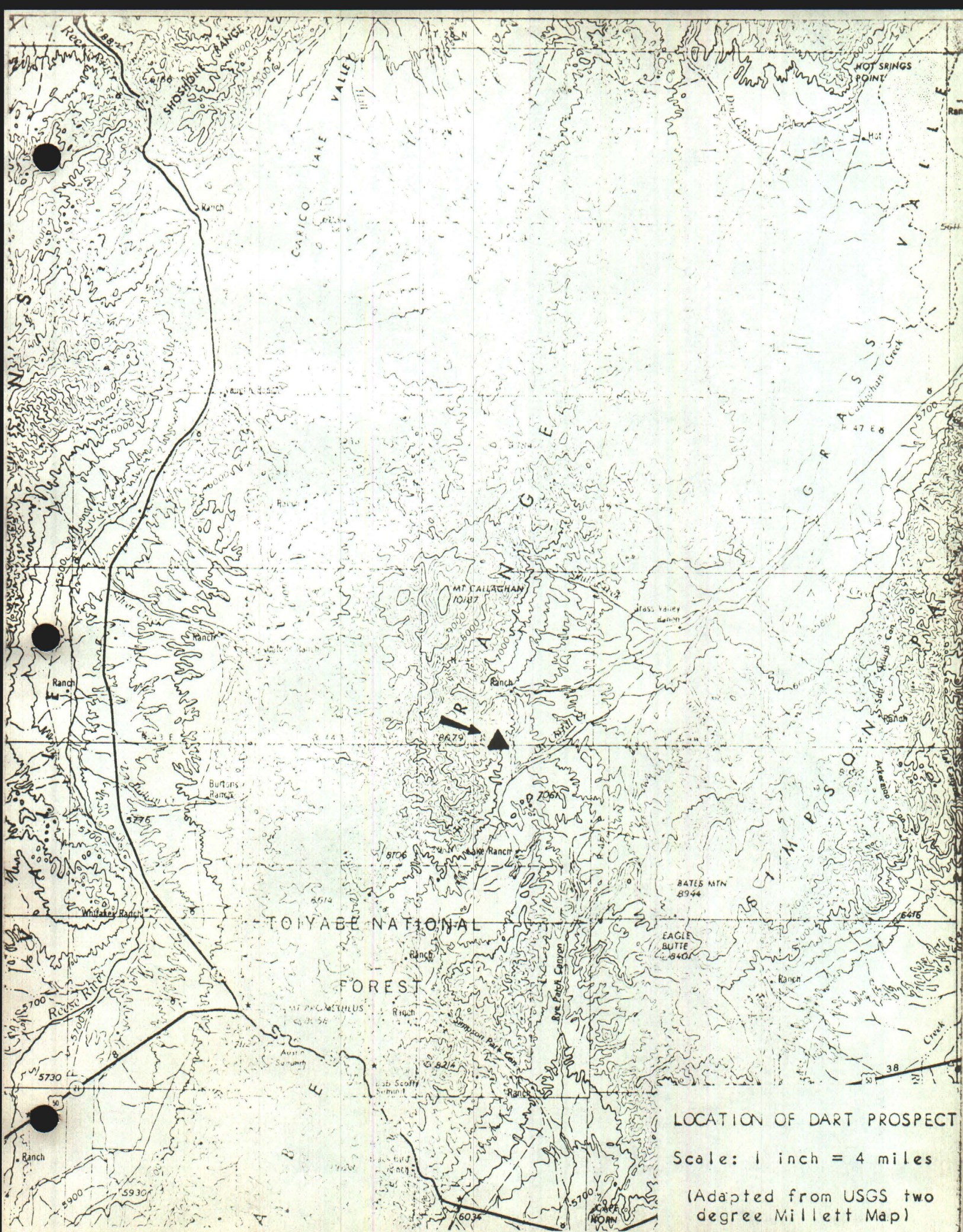
DART PROSPECT, TOIYABE RANGE
LANDER COUNTY, NEVADA

INTRODUCTION

The Dart prospect was discovered May 1, 1967, by Lyle F. Campbell. What appeared to be a window in the upper plate of the Roberts Mountain thrust fault had been observed from the Grass Valley Road. (Subsequently, the U.S.G.S. publications in 1968 named this the Callaghan window.) A weak gold anomaly and strong arsenic and mercury anomalies were found in outcrops at the southern edge of the window.

LOCATION

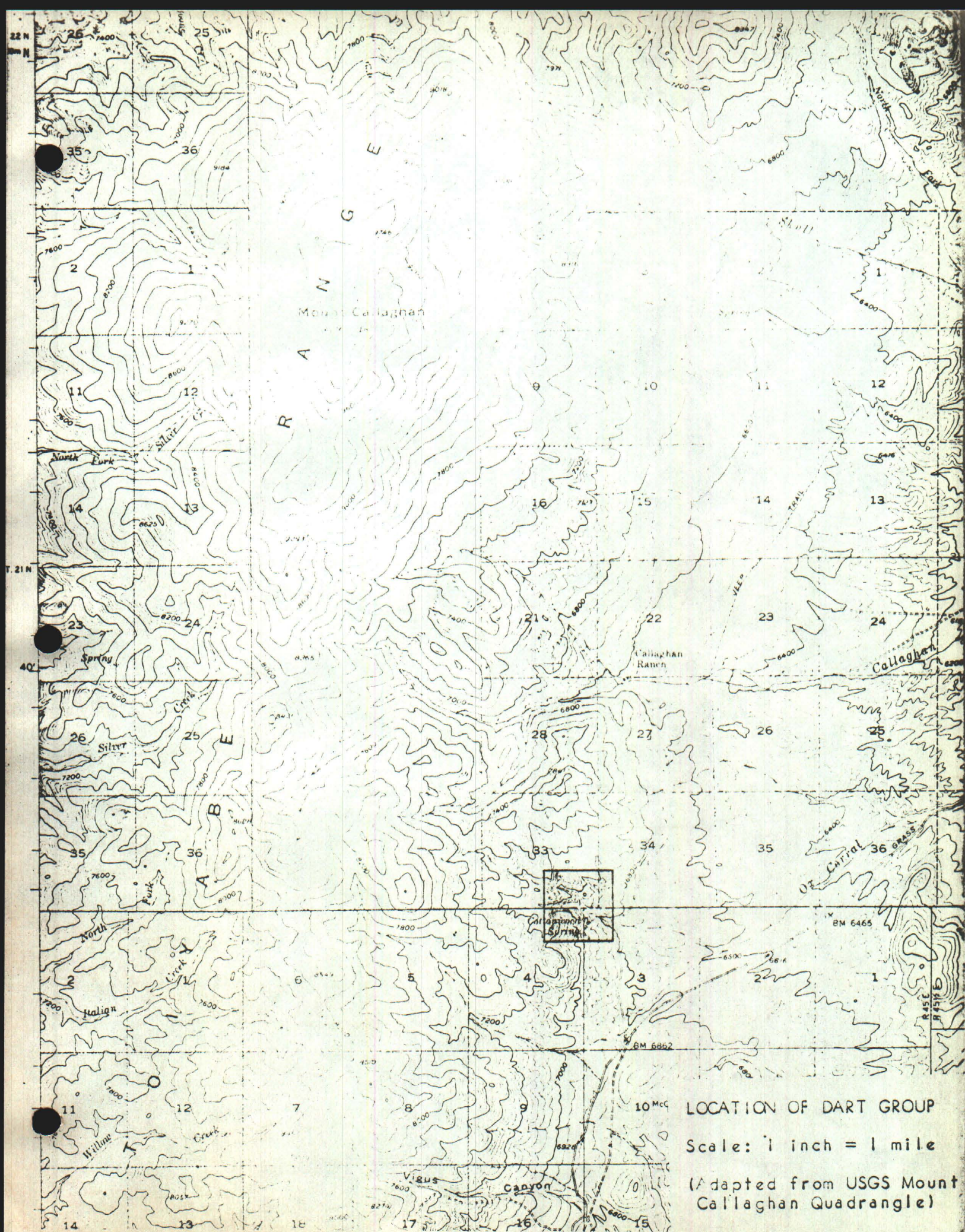
This prospect is located on the east slope of the Toiyabe Range in the southwest part of Grass Valley in Sections 3 and 4, Township 20 North, Range 45 East. The claims are most easily accessible from Austin. Proceed six miles east of Austin on U.S. 50 to Nevada highway 21, also known as the Grass Valley Road. Proceed north on 21 for 12 miles to a fork leading left. Go northerly on this fork one mile to Cottonwood Spring drainage. Turn left, go one-fourth mile to Cottonwood Spring which is within the claim group.



LOCATION OF DART PROSPECT

Scale: 1 inch = 4 miles

(Adapted from USGS two degree Millett Map)



LOCATION OF DART GROUP

Scale: 1 inch = 1 mile

(Adapted from USGS Mount Callaghan Quadrangle)

MINING HISTORY

The Reese River district at Austin lies 12 miles southwest of the prospect. Discovered in 1862, it has a recorded production in excess of 18 million dollars.

The quartz monzonite of the Austin pluton lies about 3 miles south of the group, so it is assumed that the area was heavily prospected after Austin was discovered. Devonian black chert covers the low hill which occupies the south half of the claim group. Several shallow trenches were dug on this hill, presumably in a search for turquoise.

LAND STATUS

A search of B.L.M. records showed the land is public domain open to mineral entry. No patents have been issued. The group consists of 10 contiguous claims which were located August 14, 1967. Assessment work has been completed and affidavit filed for the assessment year ending September 1, 1968.

During the process of locating the claims, location notices dated July 2, 1964, and signed by Drescher and Hull of Homestake Mining Company, were found. A check with Mr. Hull revealed that these claims were never validated. A few ancient corner posts were found on the south half of the group, but no evidence of valid unpatented mining claims was found.

MINERALIZATION

The discovery rocks were found in an iron stained area in the upper plate chert (listed under 'A' below). Only a limited amount of sampling has been done on

this prospect. Trace element analyses by Rocky Mountain Geochemical Corporation and Skyline Labs are listed. All elements are in parts per million, except mercury which is listed in parts per billion. ND = none detected.

A. Iron stained area above spring.

<u>Sample No.</u>	<u>Au</u>	<u>Ag</u>	<u>As</u>	<u>Hg</u>
990-R	0.2	-1	+1000	1350
991-R	0.8	-1	+1000	1330
992-R	-0.1	-1	450	1040
993-R	1.1	-1	980	1430
994-R	0.2	-1	490	1770

B. Wide-spaced recon samples south of main drainage.

<u>Sample No.</u>	<u>Au</u>
1175	-0.1
1176	-0.1
1177	-0.1

C. Outcrops on south side of main drainage.

<u>Sample No.</u>	<u>Au</u>
1178	3.5
1179	1.0
1180	0.3
1181	0.2
1271	1.2
1272	0.4
1273	0.9
1274	-0.1
1275	1.4
1276	-0.1

D. Bulldozer cuts on south side of main drainage.

<u>Sample No.</u>	<u>Au</u>
1277	0.8
1278	-0.1
1279	-0.1
1280	2.3
1281	0.6
1282	0.3
1283	-0.1
1284	0.6
1285	-0.1
1286	1.2
1287	0.5
1288	0.2
1289	0.4

E. Random traverse along thrust fault contact (?) on north side of main drainage.

<u>Sample No.</u>	<u>Au</u>	<u>Ag</u>	<u>As</u>	<u>Hg</u>
1121	ND	-1	225	2100
1122	ND	-1	35	230
1123	ND	-1	10	400
1124	0.1	-1	35	310
1125	ND	-1	360	+2500
1126	0.1	-1	290	570
1127	0.1	-1	400	2500
1128	ND	-1	70	430
1129	ND	-1	960	1690

F. Bulldozer trench above Cottonwood Spring.

<u>Sample No.</u>	<u>Au</u>
1645	0.12
1646	0.15
1647	5.4
1648	0.45
1649	0.50

G. On road south of drainage, above D1/D2 monuments.

<u>Sample No.</u>	<u>Au</u>
1652	0.21
1653	0.32
1302	0.3

Fifteen miscellaneous samples which showed no gold are not included in the above list of samples.

Low grade turquoise is present in many places in the upper plate of the Roberts Mountain thrust on the low hill on the south side of the main drainage. Intense alteration with red, yellow and brown iron staining occurs on the hillside south of and closely adjacent to the main drainage.

EXPLORATION

Access road building and bulldozer trenching to comply with location and assessment work requirements is the only physical work that has been done on this property.

DISCUSSION

The anomalous gold occurs at or very near the Roberts Mountain thrust fault at the contact between the siliceous upper plate rocks and carbonate rocks of the lower plate. The actual thrust zone may be hidden under the talus slope on the steep hillside on the south side of the main drainage, or under the sediments in the drainage. Most gold explorers currently consider the Roberts Mountain

Formation, where it is close to the Roberts Mountain thrust, as the most favorable place to search for disseminated gold deposits. Two tiny windows of Roberts Mountain Formation have been mapped at a spot three-fourths of a mile southwest of this property. It is possible that this formation is present at shallow depths below the upper plate rocks of the Dart group. Several shallow drill holes in the main drainage in the area of the thrust might give a low cost, preliminary appraisal of this prospect. If these are favorable, a hole in the upper plate rocks close to the thrust to determine the depth to the carbonate rocks might have merit. Intense alteration and the gold anomaly, both localized near the thrust fault, plus the weak copper mineralization nearby, invite a drilling test of this prospect.

Lyle F. Campbell



Sample No.	T	F	Location	Sample Environment	Sample Description	Geological notes & remarks	Analytical Results
2601	R		Sect 33 T21N, R4SE	Road Cut	Fault Breccia	Koolhaired at crushed siliceous rock, crusted w/ limonite, deep brown on weathered surface	✓ See analysis sheet
2602	R		Sect 4 T20N, R4SE	"	"	Asthenitic & limonite stained Virginian, limonite brick red)
2603	R		" "	"	"	Koolhaired material, light tan-white, cinnamon brown limonite staining either dike rock or koolhaired	Virginian Fm. (?)
2604	R		" "	*	Shale	Black bed Virginian shale, grey & thin-bedded walls each side of 2603)
2605	R		" "	Doree Cut	Asthenitic Shale	Koolhaired Virginian Fm., heavy limonite webs throughout)
2606	R		Sect 33 T21N, R4SE	Road cut	"	Fault zone in Koolhaired Virginian Fm. Cinn- brown limonite)
2607	R		" "	"	"	" " ")
2608	R		" "	"	Siltstone	Orange-brown limonite coat in Virginian light tan siltstone,)
2609	R		Sect 4 T20N, R4SE	Trench	-	Highly fractured & Fe stained Virginian, possibly some dike rock, red brown & orange-brown velocity limonite coatings on rock, west 75' of trench)
2610	R		Sect 4 T20N, R4SE	"	"	Same as 2609, East 25' of trench	✓

Date _____

Map

Dart

Area

J. Tingley

Collector

[illegible]

SEP 3 1968

SKYLINE LABS, INC.

SPECIALISTS IN GEOCHEMICAL EXPLORATION

12090 WEST 50TH PLACE, WHEAT RIDGE, COLORADO 80033 TEL: (303) 424-7718

REPORT OF ANALYSIS

Job No. 3102

August 31, 1968

Natural Resources Division
 Union Pacific Railroad Company
 One East First Street, Room 801
 Reno, Nevada 89501

Attention: Mr. J. V. Tingley

18 Rock Chip Samples

Item	Sample No.	Au (ppm)	Cu (ppm)	As (ppm)	Hg (ppm)	Sb (ppm)
1.	R-2095	.14	55	1000	.04	8
2.	R-2096	.40	30	8000	.03	<1
3.	R-2097	<.02	25	160	.04	<1
4.	R-2098	.04	5	40	.02	2
5.	R-2099	<.02	35	80	.03	<1
6.	R-2100	.02	20	700	.02	<1
7.	R-2601	<.02	10	10	.68	<1
8.	R-2602	<.02	25	550	.48	4
9.	R-2603	.35	110	400	.11	<1
10.	R-2604	.04	55	160	.22	2
11.	R-2605	.32	80	150	1.0	1
12.	R-2606	.02	55	400	.68	4
13.	R-2607	.06	40	800	.36	8
14.	R-2608	.04	65	500	.20	1
15.	R-2609	.36	75	4000	.10	6
16.	R-2610	.14	70	2000	.22	1
17.	R-2611	<.02	25	800	.40	60
18.	R-2612	.03	20	200	.16	120

Temp
ClaimsStat
ClaimsDist
Claims

for Edwin V. Post
 Charles E. Thompson
 Chief Chemist

Don't know
SKYLINE LABS, INC.

SPECIALISTS IN GEOCHEMICAL EXPLORATION

12090 WEST 50TH PLACE, WHEAT RIDGE, COLORADO 80033 TEL.: (303) 424-7718

REPORT OF ANALYSIS

Job No. 3121
 November 5, 1968

Union Pacific Railroad Company
 Natural Resources Division
 One East First Street, Suite 801
 Reno, Nevada 89501

Attention: Mr. J. V. Tingley

51 Rock Chip Samples

Item	Sample No.	Au (ppm)	Ag (ppm)	As (ppm)	Hg (ppm)	Sb (ppm)
1.	R 2651	.02	1.4	40	.02	2
2.	R 2652	<.02	2.8	40	.02	2
3.	R 2653	<.02	.4	10	.02	2
4.	R 2654	<.02	<.2	20	.02	<1
5.	R 2655	<.02	.4	20	.01	<1
6.	R 2656	.06	1.2	20	.01	<1
7.	R 2657	<.02	<.2	30	.02	2
8.	R 2658	<.02	.2	20	.01	2
9.	R 2659	.02	<.2	30	.02	<1
10.	R 2660	<.02	<.2	20	.05	2
11.	R 2661	.02	<.2	30	.02	4
12.	R 2662	.02	.8	10	.02	1
13.	R 2663	<.02	6.0	20	.02	1
14.	R 2664	<.02	<.2	80	.02	8
15.	R 2665	<.02	<.2	120	.08	8
16.	R 2666	<.02	<.2	60	.05	3
17.	R 2667	.04	<.2	100	.02	4
18.	R 2668	.04	.2	40	.04	4
19.	R 2669	.02	<.2	20	.02	<1
20.	R 2670	.02	.4	140	.84	6
21.	R 2671	.04	.2	750	.14	3
22.	R 2672	.04	<.2	400	.40	10
23.	R 2673	.04	.8	120	.11	15
24.	R 2674	.08	.4	400	.21	8
25.	R 2675	.08	2.0	100	.24	12

Item	Sample No.	Au (ppm)	Ag (ppm)	As (ppm)	Hg (ppm)	Sb (ppm)
26.	R 2676	.06	.2	300	.04	<1
27.	R 2677	.04	.4	100	.03	15
28.	R 2678	.04 [±]	.4	40	.10	<1
29.	R 2679	.06	.2	100	.10	8
30.	R 2680	.04	-	10	.08	12
31.	R 2681	.02	-	300	.06	3
32.	R 2682	.06	-	800	.15	2
33.	R 2683	<.02	-	10	.03	<1
34.	R 2684	.02	-	80	.24	4
35.	R 2685	.06	-	200	.18	10
36.	R 2686	<.02	-	160	1.0	8
37.	R 2687	.04	-	280	1.1	8
38.	R 2688	.02	-	100	.28	2
39.	R 2689	.06	-	80	.46	<1
40.	R 2690	.12	-	1400	.16	10
41.	R 2691	.12	-	2800	1.7	60
42.	R 2692	<.02	.8	20	.07	8
43.	R 2693	.02	<.2	20	.04	4
44.	R 2694	<.02	<.2	10	.05	<1
45.	R 2695	.02	<.2	10	.02	<1
46.	R 2696	.02	<.2	10	.04	<1
47.	R 2697	.04	<.2	120	.07	<1
48.	R 2698	.02	<.2	40	.05	2
49.	R 2699	.04	<.2	20	.02	<1
50.	R 2700	<.02	<.2	<10	.02	2
51.	R 8963	<.02	<.2	<10	.01	<1

Charles E. Thompson
Charles E. Thompson
Chief Chemist

cc: Mr. P. A. Meyer