MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

RECEIVED FEB 28 1957 DMEA

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 4660
Metal or Mineral Mercury
Date Received 12/28/57
Estimated Cost $60,080.90
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Mullen-Buckley Uranium Corporation
8949 Sunset Boulevard
Los Angeles 46, California
(Incorporated in State of Nevada - see attached)

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract

(See attached application)

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore .....

.....

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if nee[illegible] of any present mine workings, and the location of the proposed exploration work as related to such features as cont[illegible], veins, ore-bearing beds, etc.

(*c*) The work will start within ..... days and be completed within ..... months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or [illegible] other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(*b*) How do you propose to furnish your share of the costs?

☒ Money ☒ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated February 20, 195 7

MULLEN-BUCKLEY URANIUM CORPORATION
(Applicant)

By Frank E. Mullen, Pres.

Frank E. Mullen, President

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any dep[illegible]ment or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

Mullen-Buckley Uranium Corp.
8949 Sunset Blvd.
Los Angeles 46, California

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DATE	INITIALS	CODE

D. M. E. A. LOAN APPLICATION

1- NAME OF APPLICANT

(a) Mullen-Buckley Uranium Corporation
8949 Sunset Boulevard
Los Angeles 46, California

(b) A Nevada Corporation

(c) President — Frank E. Mullen
~~8949 Sunset Blvd.~~
Los Angeles 46, Calif-

Executive Vice President — Allen F. Buckley
8949 Sunset Blvd.
Los Angeles 46, Calif.

Vice President — H. Peter Kriendler
21 West 52nd. Street
New York, N. Y.

Vice-President — D. C. Smith
Carson City, Nevada

Secretary-Treasurer — Florence E. Mullen
8949 Sunset Boulevard
Los Angeles 46, Calif.

(d) - - -

2- GENERAL

3- APPLICANT'S PROPERTY RIGHTS

(a) The property consists of claims described as follows:

Andies Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 20, 21, 22, 23, Unpatented Lode Mining Claims, situated in the Unknown Mining District, Lincoln County, Nevada, and Shendell & WM & UC Fraction, Unpatented Lode Mining Claims, situated in the same district.

(b) Andies Mine

(c) Sub-lessee of the Western Mercury & Uranium Corporation, a Nevada Corporation, 4225 Garden Place, Las Vegas, Nevada.

C O P Y

SUB-LEASE AND OPTION

THIS AGREEMENT made and entered into this 18th day of May, 1956.

W I T N E S S E T H:

1. That Whereas, the WESTERN MERCURY AND URANIUM CORP., a Nevada corporation, is the assignee of a certain Lease and Option Agreement, dated August 22, 1955, between C. A. ANDERSON and R. R. ROBINSON, Lessors, and J. H. SMITH and LOWELL BONNETT, Lessees, wherein the following unpatented lode mining claims, situate in an unknown mining district, Lincoln County, State of Nevada, were leased, which said claims are described as follows, to wit:

Andies Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12,
14, 15, 16, 17, 18, 20, 21, 22, 23,
Unpatented Lode Mining Claims, situated in the Unknown
Mining District, Lincoln County, Nevada,
and

Whereas, the WESTERN MERCURY AND URANIUM CORP., subsequently located the
Shendell and WM & UC Fraction,
Unpatented Lode Mining Claims,
situated in the same district.

WHEREAS, MULLEN-BUCKLEY URANIUM CORP. is desirous of sub-leasing all of said mining claims and obtaining an option to purchase same, which sub-lease and option is to be for the balance of the term of said original lease and option, to wit: from May 18, 1956, to and including August 21, 1962; it is therefore mutually agreed that said sub-lease shall commence as of the date both parties have fully completed the signatures of the proper officers of the respective parties hereto and shall have each affixed their

corporate seals hereto.

2. It is further agreed that said sub-lessee shall have possession of said mining claims on May 18, 1956; the sum of $500.00 cash, shall be paid to sub-lessors on or before said date.

3. It is further agreed that the WM & UC Fraction and Shendell mining claims, situate in the same general area as the above described mining claims, which said claims are owned by the sub-lessor herein are also hereby leased to said sub-lessee pursuant to all of the terms and conditions as herein set forth as provided for said Andies group herein sub-leased.

4. In further consideration of the sum of One Dollar, and the mutual agreements herein set forth, said sub-lessor does hereby give and grant to said sub-lessee the exclusive option to purchase Andies Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 20, 21, 22 and 23, the WM & UC Fraction and the Shendell mining claims, for the sum of $400,000.00, in lawful current money of the United States; said option may be exercised at any time on or before August 21, 1962, provided all conditions and agreements herein set forth have been complied with.

5. It is further agreed that from said sum, the sum of $80,000.00, less any royalties paid, shall be first paid to C. A. ANDERSON and R. R. ROBINSON, Lessors and Owners of Andies group, and the balance shall be divided between the parties hereto, as follows:

Sub-Lessors	49%
Sub-Lessees	51%

In the event said sub-lessees exercise said option and pay said sub-lessors in full as aforesaid, all right, title and interest of sub-lessors shall forthwith cease, and title to all said mining claims shall be conveyed to said sub-lessees.

6. It is further agreed that said sub-lessees shall pay to said C. A. ANDERSON and R. R. ROBINSON, 10% ~~of~~ royalties on all furnace retort

returns on minerals removed from the Andies No. 1 to 23 group until the sum of $80,000.00 has been paid said parties. It is further agreed that no royalty shall be paid on the WM & UC Fraction and/or Shendell mining claim.

7. Said sub-lessees agree to perform at least 58 shifts of 8 hours each during each calendar month on said Andies Nos. 1 to 23 group of mining claims, unless hampered by bad weather or adverse conditions beyond their control. Said work to be done in a minerlike fashion with due regard to the safety and proper working of said premises.

8. Said sub-lessees shall hold the owners and lessee of said mining claims free and exempt from any and all costs, charges and liabilities contracted for labor, supplies, material, injuries, accidents, or any and all other liabilities of any kind or character during the term of this sub-lease and shall immediately cause to be posted in conspicuous places upon said mining claims notice of such non-liability of the owners and lessees of said claims and shall record such notices in the Recorder's Office, Lincoln County, Nevada. Said notice to be kept continuously posted at all times.

9. Said sub-lessees further agree to operate and conduct mining, milling and all other operations upon said claims in accordance with statutes, rules and regulationsof the United States Government, the State of Nevada, the County of Lincoln, and any district mining rules.

10. It is further agreed that the provisions of this sub-lease shall extend to, and be binding upon the successors and assigns and sub-lessees of the respective parties hereto.

11. It is further agreed that if said sub-lessees violate any of the terms or conditions of this agreement, and upon receipt of written notice directed to said sub-lessees, postage prepaid, addressed to 8949 Sunset Boulevard, Los Angeles 13, California, specifying the particular breach or omission, if said sub-lessees fail to repair such breach within 30 days of the date said notice is mailed then this agreement is automatically cancelled

and said sub-lessors or their agents, or attorneys may re-enter said premises with or without legal process and remove all persons therefrom by force, if necessary. In the event of such default or abandonment all buildings and fixtures shall be left on said premises in as good condition as when taken, reasonable wear and tear excepted.

12. Said sub-lessees may cancel this lease at any time by giving said sub-lessors 30 days notice in writing of such intention, directed to 4225 Garden Place, Las Vegas, Nevada; in the event of default or abandonment by said sub-lessee, all engineers' maps, reports, geology work, results of exploration, drill holes, shall be forthwith delivered to sub-lessors in good condition. In the event of abandonment said sub-lessees shall have 60 days to remove their own personal property.

13. Sub-lessors shall have the right to enter said claims at any time and take any samples desired by them.

14. On or before June 1, 1956, said sub-lessees agree to pay to said sub-lessors the sum of $4900.00 in lawful current money of the United States; said sub-lessors agree to issue to said sub-lessees 5400 shares of its unissued capital stock.

15. In further consideration of this lease said sub-lessees agree to operate said mining claims as economically as possible, that salaries and all other costs must be reasonable, necessary and not excessive; that from the net profits of any minerals recovered the division shall be as follows, and full payment must be made on or before October 15, 1956; February 15, 1957; thence with the fiscal year begining February 1, 1957, on the 15th day of the month following each quarter of each fiscal year, except at the end of each fiscal year, on or before ~~March~~ April 15th of such fiscal year:

/s/ JHS
AFB
LWB

Sub-lessors 49%

Sub-lessees 51%

The sub-lessors shall have the right to examine sub-lessees books at any time. It being expressly understood that until such time as said sub-lessees exercise their option to purchase said property as set forth in paragraph 4 herein, it will be the duty of the said sub-lessees to operate said mining claims for the mutual benefit of the sub-lessors and sub-lessees herein in accordance with the best interests of both parties heretok and in accordance with the division of profits as hereinabove set forth.

16. It is further agreed that said sub-lessors shall give said sub-lessees an option to renew this lease for an additional seven year period immediately subsequent to August 21, 1962, provided the $80,000.00 referred to in paragraph 5 herein to be paid C. A. ANDERSON and R. R. ROBINSON, original owners of the said claims, has been fully paid by royalties as in said original lease provided; should said sub-lessees desire to exercise said renewal for an additional period of seven years, they shall notify said sub-lessors by registered mail, directed to their address as hereinabove set forth, at least 30 days prior to the expiration of this lease; said renewal shall be pursuant to the same terms, conditions and covenants as herein set forth in this original term of sub-lease, including the option to purchase as aforesaid, it being expressly understood, however that if said $80,000.00 has not been fully paid on or before the expiration of said original sub-lease, that this provision shall be null and void. /s/JHS AFB

IN WITNESS WHEREOF, said parties have caused their proper officers to affix their signatures hereto and their respective corporate seals to be affixed hereto, on the date hereinabove set forth.

WESTERN MERCURY AND URANIUM CORP.

By /s/ J. H. Smith, Pres. SEAL

By /s/ Lowell W. Bonnett, Vice-Pres. & Secty

MULLEN-BUCKLEY URANIUM CORP.

By /s/ A. F. Buckley, Exec. Vice Pres.

By /s/ Florence E. Mullen, Secretary

Mullen-Buckley Uranium Corp.
8949 Sunset Blvd.
Los Angeles 46, California

(d) See Attached (in pocket)

(e) - - - -

(f) Recorded in City of Pioche, Lincoln County, Nevada:

Andies	# 1	12- 9-54	Book Q-1	Pg. 400	Locator:	C. A. Anderson
"	# 2	9- 8-55	R-1	478	"	C.A.Anderson & .RR. Robinson
"	# 3	"	"	478	"	" "
"	# 4	"	"	479	"	" "
"	# 5	6-23-55	"	357	"	" "
"	# 6	9- 8-55	"	479	"	" "
"	# 7	"	"	480	"	" "
"	# 8	"	"	480	"	" "
"	# 9	"	"	481	"	" "
"	#10	"	"	481	"	" "
"	#11	"	"	481	"	" "
"	#12	"	"	482	"	" "
"	#14	"	"	482	"	" "
"	#15	"	"	483	"	" "
"	#16	"	"	483	"	" "
"	#17	"	"	483	"	" "
"	#18	"	"	484	"	" " ½
"	#20	"	"	484	"	" "
"	#21	"	"	484	"	" "
"	#22	"	"	485	"	" "
"	#23	"	"	483	"	" "
Shendell		11- 1-55	S-1	78	"	Western Mercury & Uranium Corp. & Lowell W. Bonnett
Western Mercury & Uranium Fraction		1-23-56	S-1	148	"	Western Mercury & Uranium Corporation

4- PHYSICAL DESCRIPTION

(a) See attached Economic Evaluation of Andies Mercury property.

(b) " " "

(c) " " "

(d) " " "

(e) " " "

6- THE EXPLORATION PROJECT

(a) State the mineral - - - -

Mercury

(b) Describe fully - - - -

The contemplated exploration program has been divided into two phases. Both involve a drilling program but because the Phase 1 results will determine the location of the Phase 2 drilling, only the Location of Phase 1 holes are shown on Plate 1A which accompanies this application.

The objectives of the applicant in exploring the property are two fold:

1- To determine the extent and grade of any mercury mineralization located in the favorable area surrounding the presently drilled out and proven ore body.

2- To test the underlying unoxidized or blue andesite for commercial mercury mineralization within the ore body. It is proposed that two holes be drilled in this area to the limestone-andesite contact.

To accomplish these objectives under Phase 1, the applicant proposes to drill, with a rotary air drill supplied with a suitable sample collector, 55 vertical holes on a staggered 200-foot grid. The collar location of these holes is shown on Plate 1A.

Since the thickness of the silicified cap rock remains unknown, it is impossible to state the exact depth to which each hole will be drilled but from experience gained in the area by past drilling, it is thought that the average depth of hole will be 75 feet with 2 holes in the immediate vicinity of the ore body estimated at 250 feet each. The following are the coordinates and depth of the holes planned for Phase 1.

Drill Hole	Coordinates	Approx. Depth
1	4300E - 10N000	75 Ft.
2	4500E - 10N000	"
3	4700E - 10N000	"
4	3400E - 9N800	"
5	3600E - 9N800	"
6	3800E - 9N800	"
7	4000E - 9N800	"
8	4200E - 9N800	"
9	4400E - 9N800	"
10	4600E - 9N800	"
11	4800E - 9N800	"
12	3300E - 9N600	"
13	3500E - 9N600	"
14	3700E - 9N600	½250 Ft.
15	3900E - 9N600	75 Ft.
16	4100E - 9N600	"

17	4300E -	9N600	75 Ft.
18	4500E -	9N600	"
19	4700E -	9N600	"
20	3200E -	9N400	"
21	3400E -	9N400	"
22	3600E -	9N400	"
23	3800E -	9N400	250 Ft.
24	4000E -	9N400	75 Ft.
25	4200E -	9N400	"
26	4400E -	9N400	"
27	3100E -	9N200	"
28	3300E -	9N200	"
29	3500E -	9N200	"
30	3700E -	9N200	"
31	3900E -	9N200	"
32	4100E -	9N200	"
33	4300E -	9N200	"
34	4500E -	9N200	"
35	3200E -	9N000	"
36	3400E -	9N000	"
37	3600E -	9N600	"
38	3800E -	9N000	"
39	4000E -	9N000	"
40	4200E -	9N000	"
41	4400E -	9N000	"
42	3300E -	8N800	"
43	3500E -	8N800	"
44	3700E -	8N800	"
45	3900E -	8N800	"
46	4100E -	8N800	"
47	4300E -	8N800	"
48	3400E -	8N600	"
49	3600E -	8N600	"
50	3800E -	8N600	"
51	4000E -	8N600	"
52	4200E -	8N600	"
53	3500E -	8N400	"
54	3700E -	8N400	"
55	3900E -	8N400	"

In planning this program it was felt that the Phase 1 project should eover as wide an area as possible with the already proven orebody in its approximate center. Consideration was given to the volcanic limestone contact since it is believed that the deposition of the volcanics occurred in an erosional depression within the limestone and that this formation would be reached at relatively shallow depths if holes were placed near the contact.

It is considered highly probable that the mercury mineralization is controlled by major faulting, evidences of which may exist in the drainage pattern. The detailed mapping done in the immediate vicinity did not prove such major structural conditions but the complex nature of minor faulting and fractures observed was indicative of such. The program as planned will test extensions of this possible fracture zone control.

The drilling will follow a rigid grid, allowing only for access difficulty. It is requested that because of the difficulty of bulldozing in the silicified rhyolite caprock, an allowance be made for shifting the location of any hole.

From the preceeding table it may be seen that approximately 4495 feet of plug bit drilling will be necessary to complete Phase 1. Since the average thickness of the cap rock is estimated to be 35 feet, 1925 feet will require the use of a diamond bit. Except for the two deep test holes in the present orebody (Nos. 14 and 23), it is expected to penetrate approximately 40 feet of oxidized volcanic rock before entering the blue or unaltered zone.

In the estimate of costs to follow, it is contemplated to utilize geological engineering services as needed. Recognition of the different lithologic boundaries is comparatively simple since the rock varies markedly in hardness and in color. Accurate driller's logs will be kept and cuttings at 5-foot intervals split and saved. All work will be done by and under the supervision of the Colorado Exploration Company. This company has completed the geological and drilling work todate.

All samples beneath the cap rock and above the "blue" andesite will be assayed by the Union Assay Company of Salt Lake City. The two deep holes, Nos. 14 and 23, will be assayed to the limestone. Any visible cinnabar will be recorded in the driller's log. Four samples will be split. One will be kept at the mine; one for reserve, one for D. M. E. A. use and one to the assayer.

(c) Work on Phase 1 will starte within 90 days from the date of contract and will be completed within four months.

(d) The Mullen-Buckley Uranium Corporation plans to let all work under the proposed program out on contract to firms familiar with mineral exploration. The applicant feels that the successful completion of its initial exploration effort is sufficient cause to maintain this attitude.

Mr. Frank E. Mullen, President of Mullen-Buckley Uranium

Corporation is an experienced business man. The Corporation has for more than two years been engaged in exploration on uranium and base metal properties and is familiar with exploration techniques and costs.

6- ESTIMATE OF COSTS:

(a) Independent Contracts - All proposed work under both Phase ;1 and Phase 2 will be contracted. It is contemplated to utilize the services of the Colorado Exploration Company, who have completed the work done todate, on a contract basis. This work will include all necessary drilling and geological engineering services but excludes drill site preparation and assaying. Separate cost estimates have been prepared and are here included for these last two items.

The services of the Colorado Exploration Company will include the following:

1- Engineering control of drill site locations.

2- Supervision of the entire program.

3- Geological services pertaining to the operation, results and interpretation of drilling.

4- Drilling of 4475 feet of hole under Phase 1 and, if authorized, 4050 feet of hole under Phase 2.

5- Supplying of a full time sampler to assist the drill crew.

6- Supplying of a cook, food and living condittions and accomodations for the field crew.

7- Preparation of a comprehensive summary report.

8- All transportation necessary.

The Colorado Exploration Company will supply the above services on a unit price basis as follows:

PHASE I

1925 Ft. Diamond Cap Rock Drilling @ $9.10/Ft.	$17,517.50
2550 Ft. Rotary Air Drilling @ $3.15 Ft.	8,032.50
TOTAL - PHASE 1 Drilling & Geo. Engineering	$25,550.00

PHASE II

1890 Ft. Diamond Cap Rock Drilling @ $9.10/Ft.	$ 17,199.00
2160 Ft. Rotary Air Drilling @ $3.15/Ft.	6,804.00
TOTAL PHASE II Drilling & Geo. Engineering	$ 24,003.00

Drill site preparation for Phase I drilling is estimated to entail 100 hours of work. A suitable bulldozer and operator for this work may be obtained for $14.00 per hour or a total of $1400.00 for Phase I site preparation.

Phase II site (drill) preparation will require an estimated 60 hours of bulldozing and would cost $840.00.

(b) Labor, supervision, consultants - - -

The Colorado Exploration Company will supply the supervision and the geological consulting services on a per-foot-of-drilling basis. This work has been included in the cost per foot cited under 6 (a) above.

(c) None

(d) None

(e) None

(f) None

(g) Miscellaneous - - - - -

Under Phase I it is estimated that in the 2550 feet of rotary air drilling a total of 510 samples will be collected at 5-foot intervals. Assaying of these 510 samples @ $3.50 each will cost $1530.00. Phase II assays, totaling 432 in number in the 2160 feet of rotary air drilling will cost $1296.00.

(h) Contingencies - - -

The applicant requests that an allowance be made to cover contingencies arising during the course of the exploration contract, such as excessive drilling depths, need to purchase water, or unusual number of assays. Ten percent (10%) of the costs set forth will cover the forseeable excess of those computed. This will amount to $2,848.00 under Phase I and $2,613.90 under Phase II.

RECAPITULATION OF COSTS

PHASE I

1925 Ft. Diamond Caprock drilling, including geological engineering & supervision @ $9/10 Ft.	$17,517.50
2550 Ft. Rotary air drilling including geological engineering, sample collection and summary report @ $3.15/Ft.	8,032.50
Site preparation (100 hours @ 14.00/hr.)	1,530.00
Contingencies (10% of above items)	2,848.00
TOTAL - PHASE I	$31,328.00

PHASE II

1890 Ft. Diamond Caprock drilling, including geological engineering & supervision @ $9.10/Ft.	$17,199.00
2160 Ft. Rotary air drilling including geological engineering, sample collection & summary report @ $3.15/Ft.	6,804.00
Site preparation (60 hours @ $14.00/hr.)	840.00
Assays (432 @ $3.00 each)	1,296.00
Contingencies (10% of above items)	2,613.90
TOTAL - PHASE II	$28,752.90
TOTAL - PHASE I and II	$60,080.90

7- (a) Are you prepared - - - -

Yes

(b) Money

ECONOMIC EVALUATION OF THE ANDIES MERCURY PROPERTY

TEMPIUTE DISTRICT

Lincoln County - Nevada

OFFICIAL FILE COPY
D M E A
RECEIVED FEB 28 1957

DATE	INITIALS	CODE
2/28	WSM	400

Charles E. Melbye
Charles F. Arnold

COLORADO EXPLORATION COMPANY
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ECONOMIC EVALUATION OF THE ANDIES MERCURY PROPERTY

TEMPIUTE DISTRICT

Lincoln County - Nevada

INTRODUCTION

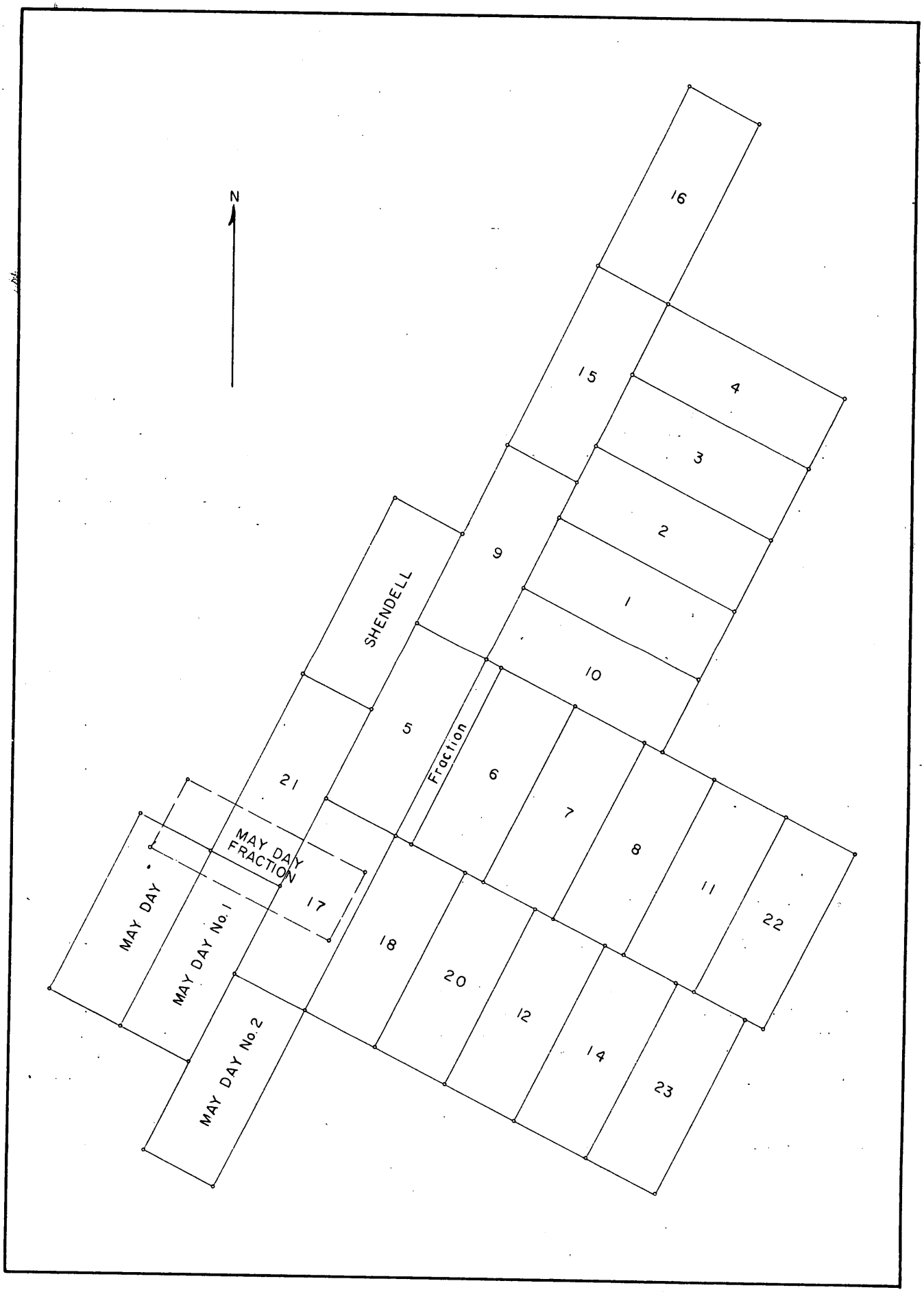
The Andies Mine is located in Lincoln County, Nevada on the eastern slope of the Timpahute Range about 5 miles, airline, southwest of Tempiute, Nevada as shown by Plate 1. It's approximate location is Section 4, Twp. 5S, R56E. The area is unsurveyed. The property comprises 21 claims and 2 fractions (See Plate 2). Most of the investigations were confined to Andies Claims Nos. 5, 6, 7 and 21.

This report summarizes the results of detailed geologic mapping, sampling and rotary drilling done by the Colorado Exploration Company for the Mullen Buckley Uranium Corporation. Sampling and geologic mapping was done by J. R. O'Leary, staff geologist for the Colorado Exploration Company during June, July and August 1956. Rotary drilling by the Colorado Exploration Company commenced September 1, 1956 and terminated December 15, 1956. A total of 4,218 feet was drilled in 67 holes. Ore reserve estimates were prepared following completion of the field work.

HISTORY

Mercury was first discovered in this area in 1919 by Mr. C. A. Anderson. Mr. Anderson did not stake the claims until June 1955. In August 1955, Western Mercury & Uranium Corporation leased the property and completed exploration work consisting of a 30-foot vertical shaft, a 145-foot inclined shaft, 7 trenches, numerous prospect pits and 11 churn drill holes. In February 1956, two flasks of mercury were produced from the property. The Mullen Buckley Uranium Corporation subleased the claims in May 1956.

The closest known commercial mercury deposit in the Tempiute District occurs approximately 10 miles north of the Andies Mine.



COLORADO EXPLORATION CO.

MAP of ANDIES & ADJOINING CLAIMS

Tempiute Mining District
Lincoln Co., Nevada
Scale: 1" = 1000'

Plate No. 2

LOCAL GEOLOGY

Geologic mapping of a portion of the claims was completed on a scale of 1 inch equal to 50 feet (See Plates 3, 4 and 5).

Lithology

Sedimentary rocks cropping out apparently consist of one formation, a dark gray limestone or limestone breccia, which is usually medium-bedded and occasionally argillaceous or impure. It is probably part of the Cambrian Lyndon limestone. At the west end of the mapped area considerable shale float, probably derived from the underlying Pioche shale, is observed.

Above the limestone is a series of andesite flows and above that rhyolite flows. The volcanic rocks rest on the highly irregular eroded limestone surface. The fresh andesite is a dark purplish gray with well-crystallized biotite, quartz and feldspar phenocrysts. More properly, the quartz would make the rock a dacite but the term "andesite" is retained to avoid confusion. The fresh rhyolite is orange-red with round quartz phenocrysts. It is very hard and silicified. Some interbedding of the two types may occur but the original nature of the rock types is obscured by the intense alteration and identification is difficult. One small basic dike is exposed on the south side of the main hill.

Structure

Limestone exposures in the area strike north, predominantly and dip east an average of about 50 degrees. The general north strike conforms to the strike of the sedimentary rocks flanking the Timpahute Range.

Folding of the limestones on a small scale is evident. The importance of this, if any, to the ore deposition is not known. Some faulting and brecciation of the limestone can also be seen.

The important structural feature is the myriad faults and fractures in the rhyolite and andesite, which has provided openings for the deposition of cinnabar. All of the faults seem to be short and disconnected. The main fault zone seems to be across the saddle between the two hills but the silicified rhyolite capping obscures the faulted, altered volcanics and the zone as seen may be due mainly to the chance exposure by erosion. The gulch on the south side of the hill, running down to camp, may be along a major fault with the south side down-dropped. Silicified rhyolite appears to be adjacent to altered volcanics, and the limestones on the west end of the hill show brecciation along the projected fault strike.

At the south end of the area drilled, a block of andesite has been upthrown into the overlying rhyolite by a fault to the west, dipping west, and a fault to the east, dipping east (see sections, Plate 6).

Alteration & Mineralization

The amount and intensity of alteration is noteworthy. In the area, the feldspars of the andesites and rhyolites are completely kaolinized and sericitized. The rhyolites are now largely white or light pink and the andesites are light tan or light purple. Considerable pyritization was also seen in the andesite. The capping on the hills consists of unaltered rhyolite, except for the fact that it is completely silicified. Quite possibly this represents a different flow which silicified and resisted alteration by hydrothermal solutions.

The term "unaltered andesite" or "sulfide andesite", as used in this report, is relative as all the volcanics are hydrothermally altered.

Cinnabar is found both as fracture fillings and disseminations in the altered volcanics. Grade of the mercury seems directly proportional to the intensity of the fracturing as well as intensity of alteration. Higher grade zones are usually bleached white. The mineralizing solution apparently accounted for most of the alteration as mercury values decreased abruptly in the unaltered andesite. Consequently, after the initial drilling, later holes were bottomed at the top of the bluish-gray unaltered andesite. No mercury has been found in the limestones or in the silicified rhyolite capping. However, a sample taken in the blue andesite from the bottom of the inclined shaft, from a 1-foot streak along a fault, assayed 30.9 lbs. Hg/ton.

The main mineralized fractures strike northeast but the crushed and fractured nature of the entire zone seems to be the main ore control.

DRILLING & SAMPLING

Drilling

Colorado Exploration Company completed a total of 4218 feet of rotary air drilling in 67 holes between September 1, 1956 and December 15, 1956, using a Failing 1500 combination drill. The first holes were drilled to a depth of 100 feet. Assay returns from the first holes showed low grade values below a depth of about 50 feet, the approximate bottom of the rhyolite. There-

fore, subsequent holes were bottomed in the top of the bluish-gray unaltered andesite ("sulfide andesite") between 40 and 55 feet below the surface.

Drilling was done on a minimum spacing of 25-foot centers in the vicinity of the shafts, trenches and pits over an area of about 500 feet by 250 feet, as shown by the plan maps.

Previous drilling consisted of 11 churn drill holes totaling 1004 feet, by Western Mercury & Uranium Corporation.

Sampling

A total of 969 samples were collected by Colorado Exploration Company from most surface exposures of altered rhyolite and andesite, from the shafts and trenches and from drill holes. Samples were cut at 10-foot intervals in the trenches and in the inclined shaft. Rotary drill hole samples were collected at 5-foot intervals, using a cone-type dust collector. A minimum of dust was lost around the collars of the holes. To be certain of no appreciable loss of mercury values, samples of the dust around each drill hole collar were assayed. Only those holes which penetrated a large amount of high grade mercury showed any appreciable mercury in the collar dust.

Results of all sampling done previously by the Cordero Mining Company, who sampled the property at various times during 1955 and 1956, were made available to the Colorado Exploration Company. As their sampling appeared to have been done in a highly competent manner, the results were used in computing ore reserves. Cordero's work consisted of channel samples cut at 4½-foot intervals in the 140-foot trench, samples of drill cuttings from each round drilled in sinking the vertical shaft, and channel samples at 1-5 foot intervals in the vertical shaft. Random samples collected by Cordero from the 140-foot inclined shaft were not used in computing ore reserves as their exact location was not known.

Western Mercury & Uranium Corporation assayed only one of the 11 churn drill holes they drilled. This was churn drill Hole No. 1, the pilot hole for the vertical shaft. Samples were collected at 5-foot intervals from the remaining 10 churn drill holes drilled by Western Mercury & Uranium Corporation but these were only panned. The results could not be evaluated quantitatively with any degree of accuracy and were not used in this ore estimate. Assays of several of the panned samples made by the Colorado Exploration Company showed insignificant mercury values. However, Western Mercury & Uranium Corporation utilized a dart bailer with no sand pump in collecting the samples. It is possible that the heavy cinnabar concentrated in

the bottom of the holes and was not recovered by the dart bailer.

ORE RESERVES

The ore reserve estimate is as follows:

Classification	Tonnage	Mercury Lbs/Ton	$ Value per ton	Gross $ Value
Positive	44,869	3.37	$11.30	$507,020
Probable	13,210	3.54	11.87	156,803
Possible	20,454	3.50	11.74	240,130
TOTAL	78,533	3.43	$11.50	$903,953

Method of Calculation

A tonnage factor of 12.5 cubic feet per ton was used in the calculations based on the average specific gravity of rhyolite and andesite. Outlines and extent of all ore reserve classifications are shown by Plate 6.

Positive Ore

Triangular ore reserve blocks were calculated with ore holes comprising the apex's of the triangles. Volume of each block was calculated by multiplying the average width of the ore in the holes at the apex's by the area of the triangle. Positive ore was extended 12½ feet beyond ore holes on the perimeter of the drilled areas.

Ore found by samples collected from the workings were included in the estimate, extending positive ore 12½ feet beyond the area of sample control.

In the area of the vertical shaft, positive ore was extended 17 feet below the bottom, based on Western Mercury & Uranium Corporation's churn drill Hole #1, which assayed 17.2 lbs Hg/ton to a depth of 45 feet. A grade of 8.8 lbs. Hg/ton was conservatively used for this extension based on the average grade of mercury sampled in the vertical shaft and in the two stub drifts off the vertical shaft.

Probable Ore

Where ore holes are not bounded by barren holes which delimit the ore body, probable ore was considered to extend 12½ feet beyond the positive ore boundary. Grade and width of probable ore was based on the grade and width of the closest positive ore blocks.

Possible Ore

Possible ore was considered to extend 25 feet beyond the boundary of probable ore, except where barren drill holes delimit the extension.

Grade and width of possible ore was based on the average grade and width of the closest probable ore blocks. Block "C" was classified as possible rather than positive ore because of the fact that it may be too deep to mine economically.

Evaluation of Additional Ore Potential

Mercury mineralization was exposed at the Andies Mine as a reresult of erosion of the silicified rhyolite capping. Although detailed geologic work was done in the area of surface exposures of mercury, very little geology has been done on the remainder of the claim group. Silicified rhyolite capped hills overlying the andesite and rhyolite in which the ore occurs are located to the east, west and south of the saddle, all unexplored at depth. Several trenches cut in the hill between the saddle and the camp show a small amount of cinnabar. It is reasonable to expect the occurrence of additional commercial deposits in these untested areas. Practically the entire area of the 21 claims and 2 fractions covers highly altered volcanics.

The ore showings in the vicinity of the old workings have not been delimited by drilling. A study of the plan maps shows several directions of ore trends as yet untested by drilling. The most promising untested area is to the south and east of rotary drill Hole No. 53 which penetrated 16 feet of 10.76 lbs/ton mercury.

It was presumed, based on the first drilling done, that the andesite below the altered rhyolite and andesite in which the ore occurs is unfavorable for mercury mineralization, but not enough drilling to depth has been done to substantiate this theory. High grade mercury was found at the bottom of the inclined shaft in the unaltered andesite. Also, several drill holes bottomed at the top of the unaltered andesite in ore grade mineralization and a few of the deeper drill holes penetrated some ore grade mineralization in the unaltered andesite.

ECONOMIC FACTORS

Grade

The average mercury price for December 1956 of $255.00 per flask, or $3.36 per pound, was used.

The indicated grade of the deposit warrants a low-cost open pit type of operation. Average grade of the Andies mercury deposit is $3.436 lbs/ton. This would make a gross value of about $11.52 per ton before deduction of mining and furnacing charges.

out $11.54

Mining

Open pit mining costs, including shipping, based on a 50-ton per day operation, are estimated at approximately $1.50 per ton. This is assuming one miner and a helper would be needed to drill and blast; and one front end loader and truck would be required to load and transport the ore. Only part of the ore body would require drilling and blasting as the ground is loosely consolidated due to the intense alteration of the rock. In previous blast-hole drilling, a fast, inexpensive auger drill was efficiently used. A backhoe shovel was used to dig trenches in exploratory work without the aid of explosives.

Furnacing

A rotary furnace would be necessary for the treatment of the ore as there are no custom facilities in this part of Nevada. The approximate cost of a Gould rotary furnace for a 50-ton capacity would be as follows:

Furnace and condensing system -	$ 40,000.00
Additional equipment (crusher, conveyors, bins and generator) -	17,000.00
Installation and construction	20,000.00
TOTAL	$ 77,000.00

The favorable potential of the area indicates that a larger rotary furnace would be desirable but this may only be determined by further exploration. Operating costs of a 50-ton capacity furnace would be about $3.50 per ton. Fuel oil for the furnace is available at Caliente, Nevada, a distance of 65 miles.

Water

Although there are no nearby developed sources of water, adequate supplies should be available from wells in the valley gravels as the area is at an elevation of some 6,000 feet, with considerably more rainfall than normal desert areas. Open pit mining will require only small amounts of water as little drilling will be necessary. The rotary furnace will require only 2,000 gallons per week to wash down the condenser pipes.

Labor

The nearby Tempiute operations of the Wah Chang Mining Corporation attracts a considerable number of miners to the area. Labor would be a very small problem due to the size of the operation. - if board is good!

Power

A small gasoline powered generator would be sufficient for all power requirements on the property. ? good

CONCLUSIONS

1- Ore reserves in the area drilled are estimated at 78,533 tons, with a grade of 3.43 lbs. Hg/ton, having a value of $11.50 per ton and a gross value of $903,953.00.

2- Total operating costs per ton are estimated as follows:

Mining	$ 1.50
Furnacing	3.50
Amortization of mining & furnacing equipment	1.25
Administration and marketing	1.00
Camp facilities	.15*
Total operating costs per ton	7.40
Gross value per ton	11.50
Profit per ton	4.10
TOTAL NET PROFIT	$321,985.00

*Initial price estimated at $10,000 (operation of camp at cost).

3- Exploration possibilities on the remainder of the claim group are excellent. The orebody has not been delineated by drilling, laterally or at depth. No exploration has been done below the silicified rhyolite capped hills on a large part of the claim group.

RECOMMENDATIONS

Although profitable operation of the property is feasible now, based on the results of the exploration described in this report, it is recommended that additional drilling be done to fully delineate the orebody and to test the other favorable areas on the claim group. Further exploration should be done before mining and furnacing operations begin.

It is anticipated that a greater tonnage will be developed by further exploration, possibly resulting in the necessity for a larger furnace. A greater profit may be realized by a lower cost per ton resulting from a larger operation.

Respectfully submitted,

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Charles F. Arnold

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January 15, 1957

APPENDIX A

DRILL HOLE LOGS, ASSAYS & CALCULATIONS

Hole No. 12
9N292 3E746
C. E. : 51'

Sam. #	Interval From	Interval To	Hq. Lbs/Ton Union	Hq. Lbs/Ton Pioche	Lithology	Remarks
201	0	14		1.0	Stream Material	
202	14	20		1.2	Alt. And. & Alt. Rhy. ?	
203	20	25		1.1	"	
204	25	30		1.5	"	
205	30	35		.5	"	
206	35	40		.9	"	
207	40	45		.1	Sul. And. @ 42'	
208	45	50		.2	Sul. And.	Some qtz.
209	50	55		Tr	"	
210	55	60		.1	"	
211	60	65		.25	"	
212	65	70		.25	"	
213	70	75		.2	"	
214	75	80		.3	"	
215	80	85		.2	"	
216	85	90		.1	"	
217	90	95		.1	"	
218	95	100		Tr	"	T.D. 100'

Hole No. 14
9N327 3E707
C. E.: 59'

Sam. #	From	To	Union	Pioche	Lithology	Remarks
838	0	5	.30			
839	5	10	.20		Brn. Alt. Rhyl.	
840	10	15	.40		"	
841	15	20	.20		"	
842	20	25	.20		"	
843	25	30	.10		"	
845	35	40	.30		"	
844	30	35	None		"	
846	40	44	.70		Sul. And. @ 44'	T.D. - 44'

Hole No. 15
9N344 3E688
C. E.: 62'

Sam. #	From	To	Union	Pioche	Lithology	Remarks
818	0	5	.80		Small Amt. Caprock	
819	5	10	.70		Brn. & Yel. Alt. Rhyl.	
820	10	15	2.70		"	
821	15	20	1.40		"	
822	20	25	.30		"	
823	25	30	.90		"	
824	30	35	2.50		Yel. Alt. Rhyl.	
825	35	40	1.30		"	
826	40	45	1.40		"	
827	45	49	.60		"	
					Sul. And. @ 49'	T.D. 49'

Weighted Averages:

	10	15	2.70
	30	35	2.50

Hole No. 16
9N359 3E670
C. E.: 66'

Sam. #	Interval From	Interval To	Hq. Lbs/Ton. Union	Hq. Lbs/Ton. Pioche	Lithology	Remarks
219	0	9		.5	Overburden	
220	9	15		2.1	Alt. Rhy. & And.	
221	15	20		2.9	"	
222	20	25		2.1	"	
223	25	30		.9	"	
224	30	35		1.0	"	
225	35	40		1.5	"	
226	40	45		1.1 (.6)	"	Very kaol. @ 42'
227	45	50		.9	"	
228	50	55		.8	Sul. And. @ 52'	
229	55	60		Tr	Sul. And.	
230	60	65		.2	"	
231	65	70		.2	"	
232	70	75		.2	"	
233	75	80		.3	"	
234	80	85		.3	"	
235	85	90		Tr	"	
236	90	95		.3	"	
237	95	100		Tr	"	T:D. - 100'
Weighted Averages:						
	9	20		2.46		
	15	25		2.50		

Hole No. 17-A
9N361 3E651
C. E.: - 70'

828	0	5	1.90	Yel. Alt. Rhyl.	
829	5	10	1.10	"	
830	10	15	2.20	"	
831	15	20	1.30	"	
832	20	25	1.60	"	
833	25	30	2.50	"	
834	30	35	3.80	"	
835	35	40	2.30n	"	
836	40	45	2.30	Brown Alt. Rhy.	
837	45	47	1.50	Sul. And. @ 47'	T.D. - 47'
Weighted Averages:					
	25	45	2.75		
	25	35	3.15		

Hole No. 20
9N365 3E706
C. E.: 63'

Sam. #	Interval From	Interval To	Hq. Lbs/Ton Union	Hq. Lbs/Ton Pioche	Lithology	Remarks
	0	3	0		0-3' Overburden	
144	5	15	0.7		Alt. And. bedrock ?	
145	15	20	0.4		"	
146	20	25	7.9		"	
147	25	30	1.8		"	
148	30	35	0.3		"	
149	35	40	0.3		"	(tr. and.)
150	40	45	0.1		"	
151	45	50	0.1		Sul. And. @ 49'	
152	50	55	0.1		Sul. And.	
153	55	60.	0.3		"	
154	60	65	0.1		"	
155	65	70	0.1		"	
156	70	75	Nil		"	
157	75	80	0.1		"	
158	80	85	Nil		"	
159	85	90			"	
160	90	95	Nil		"	
161	95	100	Nil		"	T.D. - 100'

Weighted Averages:

	5	30	2.16 lb.
	15	30	3.40 lb.
	20	30	4.85 lb.

Hole No. 21
9N339 3E772
C. E.: 54'

182	0	10	Nil		Stream Material	
183	10	15	.80		Alt. And ? @ 14' Sul. And	
184	15	20	1.70		Alt. And ? or Alt. Rhy.	
185	20	25	.20		"	
186	25	30	.20		Alt. Rhy ? or And ?	
187	30	35	.10		"	
188	35	40	Nil		"	
189	40	45	Nil		"	Sul. And. @ 42'
190	45	50	Nil		Sul. And.	
191	50	55	Nil		"	
192	55	60	Nil		"	
193	60	65	Nil		"	
194	65	70	Nil		"	
195	70	75	Nil		"	
196	75	80	Nil		"	Some qtz.
197	80	85	Nil		"	
198	85	90	Nil		"	
199	90	95	Nil		"	
200	95	100	Nil		"	T.D. - 100'

Hole No. 25
9N404 3E698
C. E.: 69'

Sam. #	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology	Remarks
705	0	5		1.8	Brown & Yel. AH Rhyl.	
706	5	10		2.7	"	
707	10	15		1.7	"	
708	15	20		2.3	"	
709	20	25		4.0	"	
710	25	30		4.8	"	
711	30	35		2.0	"	
712	35	40		1.0	"	
713	40	45		.4	"	
714	45	50		2.2	"	
715	50	53		.5	"	
					Sul. And. @ 53'	T.D. - 53'

Weighted Averages:

	5	35	2.93
	15	35	3.30
	15	30	3.73

Hole No. 26
9N422 3E679
C. E. : 74'

Sam. #	From	To	Union	Pioche	Lithology	Remarks
756	0	5	1.10	1.10	Brn. Alt. Rhyl.	
757	5	10	1.30		"	
758	10	15	1.60		"	
759	15	20	1.60		"	
760	20	25	3.60		"	
761	25	30	3.30		"	
762	30	35	5.10		"	
763	35	40	1.30		Yel. Alt. Rhyl.	
764	40	45	.50		"	
765	45	50	1.20		"	
766	50	55	.40		"	
767n	55	58	.10		"	
					Sul. And. @ 58'	T.D. - 58'

Weighted Averages:

	5	40	2.54
	10	35	3.04
	20	35	4.00

Hole No. 30
9N712 3E806
C. E. : 52'

Sam. #	Interval From	Interval To	Hg.Lbs/Ton Union	Hg.Lbs/Ton Pioche	Lithology	Remarks
	0	5			Overburden (no sample)	
238	5	10	0		Alt. And.	
239	10	15	.10		"	
240	15	20	Nil		"	
241	20	25	.10		"	
242	25	30	.10		"	
243	30	35	.10		"	
244	35	40	.10		"	
245	40	45	Nil		"	
246	45	50	.10		"	
247	50	55	.10		Sul. And. @ 54'	
248	55	60	Nil		Sul. And.	
	60	65	0		No sample	
250	65	70	Nil		Sul. And.	
251	70	75	Nil		"	
	75	80	0		No sample	
	80	85	0		No sample	
254	85	90	Nil		Sul. And.	
255	90	95	Nil		"	
	95	100	0		"	T.D. - 100'

Hole No. 32
9N396 3E740
C. E.: 59'

799	0	5	.80		Hard Wh. Alt. Rhyl.	
800	5	10	.10		"	
801	10	15	.20		Brn. Soft Alt. Rhyl.	
802	15	20	.50		"	
803	20	25	.90		Yel. - Wh. Alt. Rhyl.	
804	25	30	.30		"	
805	30	35	.10		"	
806	35	40	Nil		"	
807	40	42	Nil		"	
					Sul. And. @ 42' - T.D. - 42'	

Hole No. 33
9N413 3E721
C.E. : 63'

747	0	5		2.1	Yel. & Wh. Alt. Rhyl.	
748	5	10		2.0	"	
749	10	15	Nil		"	
750	15	20		2.1	"	
751	20	25		2.7	"	
752	25	30		.5	"	
753	30	35	.60		"	
754	35	40	.10		"	
755	40	43		.6	"	
					Sul. And. @ 43'	T.D. - 43'
Weighted Averages:						
	20	25		2.7		

Hole No. 34
9N430 3E702
C. E.: 69'

Sam.#	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology	Remarks
716	0	5		2.1	Brown & Yel. Alt. Rhyl.	
717	5	10		2.4	"	
718	10	15		2.9	"	
719	15	20		3.0	"	
720	20	25		1.6	"	
721	25	30		2.4	"	
722	30	35		1.0	"	
723	35	40		1.6	"	
724	40	45		.5	"	
725	45	50		1.5	"	
726	50	52		.6	"	
					Sul. And. @ 52'	T.D. - 52'
Weighted Averages:						
	0	30		2.40		
	0	20		2.60		
	5	20		2.77		
	5	80		2.46		

Hole No. 35
9N447 3E684
C. E. : 77'

768	;0	5			Yel. Alt. Rhyl.	
769	5	10			"	
770	10	15	.20		"	
771	15	20	.60		"	
772	20	25	.80		"	
773	25	30	1.80		"	
774	30	35	1.90		"	
775	35	40	1.60		"	
776	40	45	.50		"	
777	45	50	.30		"	
778	50	55	.10		"	
					Sul. And. @ 55'	T.D. - 55'

Hole No. 37
9N388 3E789
C. E. : 52'

896	0	5	0.50		Caprk. w/bn. Alt. Rhyl.	
897	5	10	0.40		V. Hd. "	
898	10	15	Nil		Hd. Wht. & Yel. Alt. Rhyl.	
899	15	20	Nil		"	
900	20	25	Nil		"	
901	25	30	0.50		Sul. And. @ 30.5	
						T.D. -

Hole No. 38
9N405 3E772
C. E. : 57'

Sam.#	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology	Remarks
888	0	5	.20		Yel. Alt. Rhyl.	
889	5	10	.40		"	
890	10	15	5.10		"	Cinnabar
891	15	20	1.20		"	Tr. "
892	20	25	0.90		"	
893	25	30	.70		Brn. Alt. Rhyl.	
894	30	35	.30		Yel. (hd.) Rhyl.	Cinnabar
895	35	37	.20		Sul. And. @ 37'	T.D. - 37'

Hole No. 39
9N422 3E753
C. E. : 59'

Sam.#	From	To	Union	Pioche	Lithology	Remarks
790	0	5	.20		Brn. Alt. Rhyl.	
791	5	10	.30		"	
792	10	15	.10		"	
793	15	20	.20		"	
794	20	25	2.80		Yel. Alt. Rhyl.	
795	25	30	.60		"	
796	30	35	.20		"	
797	35	40	Nil		"	
798	40	43	.10		"	
					Sul. And. @ 43'	T.D. - 43'
Weighted Average:	20	25	2.80			

Hole No. 40
9N438 3E734
C. E. : 64'

Sam.#	From	To	Union	Pioche	Lithology	Remarks
738	0	5	.50		Brn. Alt. Rhyl.	
739	5	10		2.0	"	
740	10	15	.10		"	
741	15	20		2.0	"	
742	20	25	.50		"	
743	25	30	.40		"	
744	30	35		1.9	Yel. Alt. Rhyl.	
745	35	40	Nil		"	
746	40	42	Nil		"	
					Sul. And. @ 42'	T.D. - 42'

Hole No. 41
9N455 3E715
C. E. : 69

Sam. #	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology	Remarks
727	0	5	.80		Brn. & Yel. Alt. Rhyl.	
728	5	10	1.50		"	
729	10	15	1.40		"	
730	15	20	1.40		"	
731	20	25	.80		"	
732	25	30	2.40		"	
733	30	35	1.60		"	
734	35	40	1.20		"	
735	40	45	.20		"	
736	45	50	.10		"	
737	50	52	.10		"	
					Sul. And. @ 52'	T.D. - 52'
Weighted averages:	25	35	2.0			

Hole No. 42
9N472 3E698
C. E. : 78'

779	0	5		.5	Yel. Alt. Rhyl.	
780	5	10	.20		"	
781	10	15	.50		"	
782	15	20	2.30		"	
783	20	25		2.1	"	
784	25	30		2.8	"	
785	30	35	1.30		"	
786	35	40		1.1	"	
787	40	45		1.0	"	
788	;45	50		.5	"	
789	50	55		Tr	"	
					Sul. And. @ 55'	T.D. - 55'
Weighted Averages:	25	30		2.80		
	15	30		2.40		

Hole No. 44-A
9N435 3E785
C. E. : 56'

671	0	5		0.5	1-2' Caprock	
672	5	10		0.7	Hard Alt. Rhyl.	
673	10	15		1.5	Alt. Rhyl.	
674	15	20		1.1	"	
675	20	25		1.3	"	
676	25	30		2.0	"	
677	30	35		2.1	"	
678i	35	38		0.5	Sul. And. @ 37'	T.D. - 38'
Weighted Averages:	20	35		1.80		
	25	35		2.05		

Hole No. 45
9N446 3E764
C. E. : 60'

Sam.#	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology	Remarks
679	0	5		13.1	Brn. earth andesite	cinnabar
680	5	10		6.2		cinnabar
681	10	15		2.2	Alt. Rhyl.	
682	15	20		1.0	"	
683	20	25		2.	"	
684	25	30		3.0	"	
685	30	35		3.0	"	
686	35	38		2.2	Sul. And. @ 37'	T.D. - 38'
Weighted Averages:						
	0	38		4.30		
	0	15		7.17		
	20	38		2.84		

Hole No. 46
9N469 3E776
C. E. : 62'

Sam.#	From	To	Union	Pioche	Lithology	Remarks
663	0	5	2.5		Alt. Rhyl.	
664	5	10	2.4		"	
665	10	15	6.4		"	
666	15	20	1.5		"	
667	20	25	1.3		"	
668	25	30	0.6		"	
669	30	35	1.2		"	
670	35	40	0.8		Sul. And. @ 37	T.D. - 40'
Weighted Averages:						
	0	15	3.77			
	0	20	3.20			
	0	25	2.82			

Hole No. 47
9N494 3E786
C. E. : 68'

Sam.#	From	To	Union	Pioche	Lithology	Remarks
655	0	5		1.5	Alt. Rhyl.	
656	5	10		0.8	"	
657	10	15		3.8	"	
658	15	20		1.7	"	
659	20	25		1.1	"	
660	25	30		5.2	"	
661	30	35		2.0	"	
662	35	39		1.6	Sul. And. @ 39'	T.D. 39'
Weighted Averages:						
	0	39		2.27		
	10	35		2.76		

Hole No. 48
9N525 3E775
C. E. : 74'

Sam.#	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology	
620	0	5	0.9		0-1 Overburden	Hole abandoned
621	5	10	.9		Alt. Rhyl.	Skidded 6' to 48A
622	10	15	1.2			

Hole No. 48A
9N531 3E775
C. E. :

					0-1 Overburden	
623	0	5	0.8		Alt. Rhyl.	
624	5	10	0.8		"	
625	10	15	1.3		"	
626	15	20	0.7		"	
627	20	25	2.7		"	
628	25	30	1.7		"	
629	30	35	2.0		"	
630	35	40	2.2		"	
631	40	44	2.8		Sul. And. @ 44	T.D. - 44'

Weighted Averages:

	10	44	1.89
	20	44	2.26
	30	44	2.30
	35	44	2.47
	20	25	2.7
	40	44	2.8

Hole No. 49
9N556 3E776
C. E. : 68'

619			3.3)		Top of Hole (collar dust)	
599	0	5	0.3)	Av.1.80	0' - 2' Overburden	
600	5	10	3.7		Alt. Rhyl.	
601	10	15	1.6		"	
602	15	20	4.4		"	
603	20	25	11.8		"	
604	25	30	2.5		"	
605	30	35	6.0		"	
606	35	40	0.9		Sul. And. (@ 41')	
607	40	45	1.5		"	
	45	100			"	T.D. - 100'

Weighted Averages:

	0	45	3.63	
	0	35	4.33	
	5	35	5.00	
	0	65.4	2.50	(Assuming no values below 45')

Hole No. 50
9N580 3E780
C. E. : 66'

Sam. #	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology	Remarks
578	0	5	0.2		0-2' Overburden	
579	5	10	0.3		Alt. Rhyl.	
580	10	15	2.4		"	
581	15	20	1.0		"	
582	20	25	0.6		"	
583	25	30	0.3		"	
584	30	35	0.4		"	
585	35	40	0.7		Sul. And. @ 87'	
	40	100			"	T.D. - 100'
Weighted Averages:						
	10	15	2.4			

Hole No. 51
9N605 3E783
C. E. : 63'

577			Tr			Top of Hole
557	0	5	0.6		0-3' Weathering	
558	5	10	2.9		Alt. Rhyl.	
559	10	15		0.8	"	
560	15	20	1.0		"	
561	20	25		1.3	"	
562	25	30	1.9		"	
563	30	35		2.0	"	
564	35	40		1.8	"	
	40	100			Sul.And. @ 40'	T.D. - 100'
Weighted Averages:						
	5	10	2.9			
	25	40	1.9			

Hole No. 52
9N631 3E787
C. E. : 59'

535				1.0		Top
515	0	5		1.10	Overburden	Assay missing
516	5	10		1.50	Alt. Rhyl.	"
517	10	15		1.40	"	"
518	15	20		1.60	"	"
519	20	25		2.10		"
520	25	30		2.00		"
521	30	35		2.90		"
522	35	40		3.70		"
523	40	45			Sul. And. @ 42'	
	45	100			"	T. D. - 100'
Weighted Averages:						
	20	40		2.67		

Hole No. 53
9N654 3E840
C. E. : 67'

Sam. #	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology	Remarks
467	0	5	0.3			
468	5	9	0.3		Overburden	
384	9	15	22.7		Yell. Alt. Rhyl.	
385	15	20	5.10		"	
386	20	25	2.10		"	
387	25	30	0.30		"	
388	30	35	0.50		"	
389	35	40	0.70		"	
390	40	45	0.40		"	
391	45	50	0.30		"	
392	50	55	0.30		Sul. And. @ 52'	
393	55	60			Sul. And.	
394	60	65			"	
395	65	70			"	
396	70	75			"	
397	75	80			"	
398	80	85	0.30		"	
399	85	90	1.10		"	
400	90	95	0.20		"	
401	95	100	0.70		"	T.D. - 100'
Weighted Averages:						
	9	25	10.76			
	0	25	5.56			
	0	30	4.68			
	0	35	4.08			
	0	40	3.66			
	0	45	3.298			
	0	50	2.99			
	0	55	2.75			

Hole No. 54
9N655 3E814
C. E. : 60'

Sam. #	From	To	Union	Pioche	Lithology	Remarks
366	9	15	.20		Alt. And.	
367	15	20	.20		"	
368	20	25	.10		"	
369	25	30	.10		"	
370	30	35	.10		"	
371	35	40		1.2	"	
372	40	45		.5	"	
373	45	50		.6	"	
374	50	55	Nil		Sul. And. @ 52'	
375	55	60	Nil		"	
376	60	65			"	
377	65	70			"	
378	70	75	Nil		"	
379	75	80	.20		"	
330	80	85			"	
381	85	90			"	
382	90	95	Nil		"	
383	95	100				T.D. - 100'
Weighted Averages:						
463	0	5	1.5		Overburden	
464	5	9	0.4		"	

Hole No. 55
9N655 3E787
C. E. : 57'

Sam. #	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology	Remarks
459	0	4	0.8		Overburden)	
460	4	8	1.8		")	Sam. recd. later
312	8	15	1.10		Highly alt.	and. or rhyl.
313	15	20		1.3	"	
314	20	25	1.50		"	
315	25	30	6.90		"	
316	30	35	2.30		"	
317	35	40		2.2	"	
318	40	45		.5	"	
319	45	50	1.9		Sul. And. @ 49'	
320	50	55		1.0	Sul. And.	T.D. - 100'

Weighted Averages:

20	35	3.57
25	35	4.60
20	40	3.23
15	40	2.84
8	40	2.46
10	40	2.55

Hole No. 56
9N654 3E762
C. E. : 58'

Sam. #	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology	Remarks
556				0.5		Top of hole
536	0	5		1.1	Alt. rhyl.	
537	5	10		0.4	"	
538	10	15		1.4	"	
539	15	20		5.0	"	S. cinnabar
540	20	25		3.7	"	grey @ 28-24'
541	25	30		1.4	"	
542	30	35		1.5	"	calcite crystals
543	35	40		Tr	"	
544	40	45		0.5	Sul. and. @ 44'	
	45	100			"	T.D. - 100'

Weighted Averages:

10	30	2.88
15	25	4.35
10	25	3.37
15	35	2.90
10	35	2.60

Hole No. 57
9N655 3E738
C. E. :

Sam. #	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology	
514				1.0		Top of hole
494	0	5		Tr.	0-3' Overburden	Alt. rhyl.
495	5	10		.40	Alt. rhyl.	
496	10	15		.30	"	
497	15	20		.50	"	
498	20	25		Tr.	"	
499	25	30		.50	"	
500	30	35		.40	"	
501	35	40		.80	"	
502	40	45		1.00	"	
503	45	50		.90	"	
504	50	55		.60	Gy. sul. and. @ 51'	
	55	80			"	
	80	95			"	(hard)
	95	100			"	T.D. - 100'

Hole No. 59
9N627 3E691
C. E. : 77'

632	0	5	.30		Alt. rhyl.	
633	5	10	Nil		"	
634	10	15	Nil		"	
635	15	20	Nil		"	
636	20	25	.10		"	
637	25	30	.10		"	
638	30	35	.20		"	
639	35	40	.60		"	
640	40	45	2.30		"	
641	45	50	1.0		"	
642	50	56	1.60		Sul. and. @ 56'	T.D. - 56'

Hole No. 60
9N614 3E665
C. E. : 85'

643	0	5		Tr.	Alt. rhyl.	
644	5	10		1.0	"	
645	10	15		1.3	"	
646	15	20		1.0	"	
647	20	25		Tr.	"	
648	25	30		0.9	"	
649	30	35		0.7	"	
650	35	40		0.7	"	
651	40	45		0.8	"	
652	45	50		0.6	"	
653	50	55		0.9	"	
654	55	58		2.5	Sul. and. @ 58'	T.D. - 58'

Weighted averages:

	55	58		2.5		

Hole No. 61
9N679 3E730
C. E. : 59'

Sam. #	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology	Remarks
493				2.8		Top of hole.
475	0	5	.10		Alt. rhyl.	
476	5	10	.20		"	
477	10	15	.20		"	
478	15	20	.40		"	
479	20	25	.30		"	
480	25	30	.40		"	
481	30	35	.30		"	
482	35	40	.70		"	Calcite xls.
483	40	45	1.00		"	"
484	45	50	1.10		Sul. and. @ 48'	
485	50	55	1.90		Sul. and.	
486	55	60			"	486-494 not assayed
487	60	65			"	
488	65	70			"	
489	70	75			"	
490	75	80			Very hard and.	(used 3 bits)
491	80	85				from 75-90'
492	85	90				
493	90	95			Sil. ls.	Too hard
494	95	100				T.D. - 100'

Hole No. 62
9N679 3E814
C. E. : 57'

455	0	5	1.9		Overburden	Spl. gotten later
456	5	9				"
276	9	15	Nil		Yel. alt. and.	
277	15	20	Nil		"	
278	20	25	Nil		"	
279	25	30	Nil		"	
280	30	35	Nil		"	
281	35	40	Nil		"	
282	40	45	Nil		"	
283	45	50	Nil		"	
284	50	55	Nil		Sul. and. @ 54'	
285	55	60	Nil		Sul. and.	
286	60	65	Nil		"	
287	65	70			"	No sample
288	70	75	Nil		"	
289	75	80	Nil		"	
290	80	85	Nil		"	
291	85	90	Nil		"	
292	90	95	Nil		"	
293	95	100	Nil			No sample

T. D. - 100'

Hole No. 63
9N679 3E240
C. E. : 61

Sam.#	Interval From	Interval To	Hg./Lbs/Ton Union	Hg./Lbs/Ton Pioche	Lithology	
465	0	4	1.00		Overburden (gravel)	
466	4	8	.50		"	
348	8	15	Nil		Yel. alt. rhyl.	
349	15	20	.10		"	
350	20	25	Nil		"	
351	25	30	Nil		"	
352	30	35	.10		"	
353	35	40	Nil		"	
354	40	45	Nil		"	
355	45	50	.10		"	
356	50	55	Nil		Sul. and. @ 52' (50')	
357	55	60	Nil		"	
358	60	65	.10		"	
359	65	70	Nil		"	
360	70	75	Nil		"	
361	75	80	.10		"	
362	80	85	Nil		"	
363	85	90	Nil		"	
364	90	95	Nil		"	
365	95	100	Nil		"	T.D. - 100'

Hole No. 64
9N702 3E829
C. E. : 53'

Sam.#	From	To	Union	Pioche	Lithology	
457	0	4	2.7			
458	4	8	0.1		Overburden	
294	8	15	.10		Alt. and.	
295	15	20	Nil		"	
296	20	25	.10		"	
297	25	30	Nil		"	
298	30	35	Nil		"	
299	35	40	Nil		"	
300	40	45	Nil		"	
301	45	50	Nil		"	
302	50	55	.10		Sul. and.	T.D. - 100'

Hole No. 65
9N702 3E760
C. E. : 55'

Sam.#	From	To	Union	Pioche	Lithology	
461	0	5	0.8			
462	5	10			Overburden (sam. gotten later)	
330	10	15	1.50		Yel. alt. and.	
331	15	20	1.40		"	
332	20	25	.60		"	
333	25	30		1.0	"	
334	30	35		1.2	"	
335	35	40		.4	"	
336	40	45		.3	"	
337	45	50		.3	"	
338	50	55		.4	"	
339	55	60		.8	"	
340	60	65	.10		Very hard sul. and.	
341	65	70	Nil		"	
342	70	75	.40		"	
343	75	80	1.40		"	
344	80	85	.10		"	
345	85	90	.10		" (soft and. @ 87')	
346	90	95	.80		Soft sul. and.	
347	95	100	.50		"	T.D. - 100'

Hole No. 66-A
9N702 3E710
C. E. : 60'

Sam. #	Interval From	Interval To	Hg. Lbs/ton Union	Hg. Lbs/ton Pioche	Lithology	Remarks
					Could not occupy Hole No. 66	
469	0	5		1.1	Alt. rhyl.	
470	5	10		.4	"	
471	10	15		Tr.	"	
472	15	20		.30	"	
473	20	25		.40	"	T.D. - 25'
474				.30	(top of hole 66-A abandoned after drlg. into UG Wkgs.	

Hole No. 67
9N760 3E661
C. E. :

432	0	5	0.2		Alt. rhyl.	
433	5	10	0.5		"	
434	10	15		.4	"	
435	15	20		1.0	"	
436	20	25	2.0		"	
437	25	30	2.2		"	
438	30	35	1.4		"	
439	35	40		1.9	"	
440	40	45		.3	"	
441	45	50	0.1		"	
442	50	55		Tr	Sul. and. @ 54'	
443	55	60			Sul. and.	
444	60	65			"	
445	65	70			"	
446	70	75			"	
447	75	80			"	
448	80	85			"	
449	85	90			"	
450	90	95			"	
451	95	100			"	T.D. - 100'
452			0.2		Top of hole #67	

Hole No. 68
9N740 3E711
C. E. : 58'

Sam. #	Interval From	Interval To	Hg. lbs/ton Union	Hg. lbs/ton Pioche	Lithology
402	0	5	0.2		Alt. rhyl.
403	5	10	1.60		"
404	10	15	1.2		"
405	15	20	.90		"
406	20	25	1.80		"
407	25	30	1.4		"
408	30	35	2.00		"
409	35	40	1.90		"
410	40	45	0.3		"
411	45	50	..20		"
412	50	55	Nil		Sul. and. @ 52'
413	55	60	.10		Sul. and.
414	60	65	Nil		"
415	65	70	Nil		"
416	70	75	0.2		"
417	75	80	.10		"
418	80	85	.30		"
419	85	90	.10		"
420	90	95	0.1		"
421	95	100	Nil		"
422			0.3		Top of Hole 68 (recov'd from around collar)

Hole No. 69
9N762 3E729
C. E. : 55'

Sam. #	From	To	Union	Pioche	Lithology
423	0	5	0.7		Weathered - boulders
424	5	10	0.2		"
425	10	15		Tr.	Alt. rhyl. abandoned - boulder fell in on pipe. T. D. - 15'

Hole No. 69-A
9N769 3E722
C. E. : 56'

Sam. #	From	To	Union	Pioche	Lithology
426	0	5	0.1		Weathering & boulders
427	5	10		.5	Yell. alt. rhyl.
428	10	15		.3	"
429	15	20	0.1		"
430	20	25	0.1		"
431	25	30	0.1		" T.D. - 30'

Abandoned hole because of bldrs.

Hole No. 70
9N734 3E795
C. E. : 47'

Sam. #	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology
	0	5			Overburden - spl. gotten later.
257	5	10		.5	Highly alt. and.
258	10	15		.5	Alt. rhyl.
259	15	20	1.20		"
260	20	25	Nil		"
261	25	30	.20		"
262	30	35	.10		"
263	35	40	Nil		"
264	40	45	Nil		"
265	45	50	Nil		"
266	50	55			Hard sul. and. @ 54' (no samp.)
267	55	60			Very hard "
268	60	65			Sul. and. "
269	65	70	Nil		" "
270	70	75			" "
271	75	80	Nil		" "
272	80	85			" "
273	85	90			" "
274	90	95			" "
275	95	100			" "
					T. D. - 100'

Hole No. 72
9N462 3E747
C. E. : 66'

687	0	5		3.1	Brn. & wh. alt. rhyl.
688	5	10		4.3	"
689	10	15		3.9	"
690	15	20		2.3	"
691	20	25		2.1	"
692	25	30		1.8	Yel. alt. rhyl.
693	30	35		2.0	"
694	35	40		2.0	"
695	40	45		4.8	Sul. and. @ 44' T.D. - 45'

Weighted averages:

0	45	2.92
0	25	3.14
30	45	2.93

Hole No. 72
9N488 3E758
C. E. : 69'

Sam.#	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology	Remarks
696	0	5		3.1	Brn. & wh. alt. rhyl.	
697	5	10		4.5	"	
698	10	15		3.0	"	
699	15	20		2.1	"	
700	20	25		2.1	"	
701	25	30		3.0	Yel. alt. rhyl.	
702	30	35		1.2	"	
703	35	40		1.1	"	
704	40	45		1.0	"	
					Sul. and. @ 45'	T. D. - 45'
Weighted averages:						
	0	30		2.97		
	0	15		3.53		
	25	30		3.00		
	0	35		2.71		
	0	40		2.51		

Hole No. 74
9N480 3E729
C. E. : 71'

847	0	5	.50	Brown alt. rhyl.	
848	5	10	Nil	"	
849	10	15	.10	"	
850	15	20	1.40	"	
851	20	25	.70	"	
852	25	30	2.50	Yel. alt. rhyl.	
853	30	35	.60	"	
854	35	40	.80	"	
855	40	45	1.20	Brn. alt. rhyl.	
856	45	50	.40	"	
857	50	52	.40	Sul. and. @ 52'	T.D. - 52'
Weighted averages:					
	25	30	2.50		

Hole No. 75
9N629 3E759
C. E. : 62'

878	0	5	.30	Firm yel. alt. rhyl.	
879	5	10	.20	"	
880	10	15	.50	"	
881	15	20	.70	"	
882	20	25	.80	"	
883	25	30	.90	"	
884	30	35	.60	Hard yel. alt. rhyl.	
885	35	40	.60	"	
886	40	45	1.10	"	
887	45	49	1.20	Sul. and. @ 49'	T. D. - 49'

Hole No. 76
9N591 3E758
C. E. : 67'

Sam. #	Interval From	Interval To	Hg. Lbs./Ton Union	Hg. Lbs./Ton Pioche	Lithology	Remarks
858	0	5	.20		Yel. alt. rhyl.	
859	5	10	.50		"	
860	10	15	3.50		"	
861	15	20	1.70		"	
862	20	25	.90		"	
863	25	30	.60		"	
864	30	35	.20		"	
865	35	40	.10		"	
866	40	45	.10		"	
867	45	49	.20		Sul. and. @ 49'	T. D. - 49'
Weighted Averages:						
	10	15	3.50			
	10	20	2.60			

Hole No. 77
9N611 3E744
C. E. : 70'

Sam. #	From	To	Union	Pioche	Lithology	Remarks
868	0	5	.20		Yel. alt. rhyl.	
869	5	10	.50		"	
870	10	15	3.50		"	
871	15	20	1.70		"	
872	20	25	.90		"	
873	25	30	.40		"	
874	30	35	.20		"	
875	35	40	Nil		Brown alt. rhyl.	
876	40	45	.10		"	
877	45	50	.10		Sul. and. @ 50'	T.D. - 50'
Weighted Averages:						
	10	15	3.50			
	10	20	2.60			

Hole No. 78
9N511 3E793
C. E. : 75

Sam. #	From	To	Union	Pioche	Lithology	Remarks
902	0	5	0.1		Hd. Caprk. & hd. wht. alt. rhyl.	
903	5	10	Nil		"	
904	10	15	0.5		"	
905	15	20	0.6		"	
906	20	25	1.6		"	
907	25	30	0.6		"	
908	30	35	0.8		Bn. alt. rhyl.	
909	35	40	1.4		Sul. and. @ 40'	T. D. - 40'

Hole No. 79
9N512 3E831
C. E. : 75'

Sam. #	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology
919	0	5	Nil		Caprk. hd. wht. alt. rhyl.
920	5	10	Nil		Wht. alt. rhyl.
921	10	15	Nil		"
922	15	20	Nil		"
923	20	25	Nil		"
924	25	30	Nil		"
925	30	35	Nil		Yel. alt. rhyl.
926	35	40	Nil		"
927	40	45	Nil		"
928	45	50	Nil		"
929	50	55	.80		Sul. and. @ 55' T. D. - 55'

Hole No. 80
(9N673 3E866
C. E. : 65'

910	0	5	Nil		Yel. alt. rhyl.
911	5	10	0.1		"
912	10	15	0.1		"
913	15	20	Nil		"
914	20	25	Nil		"
915	25	30	Nil		"
916	30	35	Nil		"
917	35	40	Nil		"
918	40	44	Nil		Sul. And. @ 44' T.D. - 44'

Hole No. 81
9N374 3E813
C. E. : 49'

965	0	5	.60		Caprk. rd. - bn.
966	5	10	.70		Alt. rhyl. (v. hard)
967	10	15	.20		"
968	15	20	.10		"
969	20	25	.10		"
970	25	30	Nil		Hd. wht. alt. rhyl.
971	30	35	.10		Rd. bn. hd. alt. rhyl.
972	35	40	.10		
973	40	42	5.90		Sul. and. @ 42' T. D. - 42'

Weighted Averages:

40	42	5.90
35	42	1.76

Hole No. 82
9N363 3E835
C. E. : 48'

Sam. #	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology
983	0	5	.20		V. hd. caprk. (s bk.phyllite)
984	5	10	Nil		"
985	10	15	1.20		Rd. bn. hd. alt. rhyl.
986	15	20	.50		"
987	20	25	1.10		" (v. hd.)
988	25	30	.20		"
989	30	35	.10		"
990	35	40	.80		Sul. and. @ 40' T.D. - 40'

Hole No. 83
9N363 3E786
C. E. : 52'

974	0	5	Nil		Bn. alt. rhyl.
975	5	10	Nil		"
976	10	15	Nil		"
977	15	20	6.40		"
978	20	25	.10		Yel. alt. rhyl.
979	25	30	.90		"
980	30	35	.30		Bn. alt. rhyl.
981	35	40	.40		"
982	40	44	Nil		Sul. and. @ 44' T.D. - 44'
Weighted Averages:					
	15	20	6.40		
	15	25	3.25		

Hole No. 84
9N572 3E757
C. E. : 71'

948	0	5	1.60		Yel. alt. rhyl.
949	5	10	2.40		"
950	10	15	1.50		"
951	15	20	3.80		"
952	20	25	4.50		"
953	25	30	1.20		"
954	30	35	2.80		"
955	35	40	.60		Sul. and. @ 40' T.D. - 40'
Weighted Averages:					
	5	10	2.4		
	15	20	3.8		
	20	25	4.5		
	30	35	2.80		
	0	35	2.54		

Hole No. 85
9N545 3E753
C. E. : 74'

Sam. #	Interval From	Interval To	Hg. Lbs/ton Union	Hg. Lbs/ton Pioche	Lithology	Remarks
956	0	5	1.90		Yel. alt. rhyl.	
957	5	10	2.50		"	
958	10	15	3.70		"	
959	15	20	1.60		"	
960	20	25	1.20		"	
961	25	30	4.90		Bn. alt. rhyl.	
962	30	35	.60		"	
963	35	40	2.70		"	
964	40	42	.70		Sul. and. @ 42'	T. D. - 42'
Weighted Averages:						
	5	10	2.50			
	10	15	3.70			
	25	30	4.90			
	35	40	2.70			
	0	40	2.51			

Hole No. 86
9N561 3E732
C. E. : 77'

991	0	5	.20		V. hd. caprk.	
992	5	10	1.20		Pink & red bn. v.hd. alt.rhyl.	
993	10	15	.10		"	
994	15	20	.40		"	
995	20	25	.10		"	
996	25	30	.80		"	
997	30	35	.50		"	
998	35	40	Nil		"	
999	40	42	.70		Sul. and. @ 42'	T. D. - 42'

Hole No. 87
9N613 3E763
C. E. : 64'

930	0	5	.70		Yel. & wht. alt. rhyl.	
931	5	10	.30		"	
932	10	15	.90		"	
933	15	20	1.00		"	
934	20	25	1.60		"	
935	25	30	2.50		"	
936	30	35	1.20		"	
937	35	40	1.50		"	
938	40	44	1.60		Sul. and. @ 44'	T. D. - 44'
Weighted averages:						
	25	30	2.50			

Hole No. 88
9N464 3E796
C. E. : 59'

Sam. #	Interval From	Interval To	Hg. Lbs/Ton Union	Hg. Lbs/Ton Pioche	Lithology
939	0	5	.20		Yel. alt. rhy. w/s caprk. at top.
940	5	10	.60		"
941	10	15	1.20		"
942	15	20	1.10		"
943	20	25	2.70		"
944	25	30	2.16		"
945	30	35	1.20		"
946	35	40	1.00		"
947	40	45	1.70		Sul. and. @ 45' T. D. - 45'

Weighted averages:

	20	25	2.70
	25	30	2.10

Hole No. 89
9N580 3E880
C. E. : 91'

Location is inaccessible.

APPENDIX B

CHANNEL, GRAB and CHURN DRILL HOLE ASSAYS

Part 1 - Sampled and Assayed by
Cordero Mining Company

Part 2 - Sampled by -
Colorado Exploration Co.

APPENDIX B

CHANNEL, GRAB and CHURN DRILL HOLE ASSAYS

Sam. #	Description	Type of Sample	Hg/Lbs. Ton
PART I:	(Sampled & assayed by Cordero Mining Company)		
B- 1	140-foot trench (140'x3'x14') sampled from south end to north end.	Channel	1.8
B- 2	"	"	2.4
B- 3	"	"	1.6
B- 4	"	"	1.7
B- 5	"	"	2.9
B- 6	"	"	1.8
B- 7	"	"	1.3
B- 8	"	"	2.5
B- 9	"	"	1.6
B-10	"	"	4.1
B-11	"	"	3.7
B-12	"	"	5.8
B-13	"	"	3.7
B-14	"	"	2.5
B-15	"	"	0.7
B-16	"	(Sample lost)	
B-17	"	Channel	3.7
B-18	"	"	6.8
B-19	"	"	3.1
B-20	"	"	6.9
B-21	"	"	1.5
B-22	"	"	2.6
B-23	"	"	5.4
B-24	"	"	1.5
B-25	"	"	1.2
B-26	"	"	2.2
B-27	"	"	0.6
B-28	"	"	3.1
B-29	"	"	0.5
B-30	"	"	1.4
B-31	"	"	5.6
6	Picked sample - 14' ditch	Grab	8.3

Sam. #	Description	Type of Sample	Hg./Lbs. Ton
	140-Ft. INCLINE TUNNEL		
1	Face incline - left side	Channel	5.6
2	Face incline - right side	"	5.5
3	14 drill holes bottom 140' incline	Cuttings	4.8
4	Picked sample - 140' incline	Grab	37.7
5	Chunks of mud in muck - 140' "	Grab	3.5
6	Bottom 140' incline (1' wide)	Channel	30.9
	45-FT. SHAFT		
1	12 holes - 10' shaft	Cuttings	24.6
2	Grab of 12 holes - 10' shaft	Grab	26.2
3	12 shaft holes - 12' to 16'	Cuttings	16.3
4	Grab of muck - 12' to 16'	Grab	15.2
5	12 drill holes - 16' to 19'	Cuttings	12.2
6	12 drill holes - 16' to 19'	Grab	16.6
7	21'6" to 24'6"	?	6.4
A-2	12 holes - shaft 24' to 28'	Cuttings	4.5
A-3	Grab of shaft - 24' to 28'	Grab	6.1
	5' sample - 25' shaft	Channel	4.3
	5' sample - 25' shaft	Grab	5.1
	(Master sample of 45' shaft from (Churn drill hole #1 cuttings 0-45'	Cuttings	17.2

PART II: (Sampled & assayed by Colorado Exploration Company)
See plan maps for sample number locations.

Sam. #	Description	Type of Sample	Hg. Lbs. Ton
1	W. M. & V. Corp. C.D. Hole #3 65-70'	Cuttings	None
2	" 70-75'	"	None
3	" 75-80'	"	None
4	" 80-85'	"	None
5	" 85-90'	"	None
6	" 90-95'	"	.10
7	" 95-100'	"	None
8	" 100-105'	"	.20
9	" 105-110'	"	None
10	" 110-115'	"	.10
11	" 115-120'	"	None
12	" 120-125'	"	None
13	" 125-127'	"	None
	140-FT. INCLINED SHAFT		
14	@ 10 ft. - 2.4' left channel	Channel	0.5
15	@ 20 ft. - 4.7' right channel	"	4.7
16	@ 30 ft. - 4.8' left channel	"	5.4
17	@ 40 ft. - 5.3' left channel	"	2.5
18	@ 50 ft. - 5. ' right channel	"	3.4
19	@ 60 ft. - 5.6' left channel	"	1.6
20	@ 70 ft. - 5.9' left channel	"	3.3
21	@ 80 ft. - 5 ' right channel	"	0.1
22	@ 90 ft. - 5 ' left channel	"	.40
23	@ 97 ft. - 4.5' right channel	"	0.5
24	@ 110 ft. - 3.9' left channel	"	2.10
25	@ 120 ft. - 4.6' left channel	"	1.20
26	@ 130 ft. - 3.4' right channel	"	2.10
27	@ 140 ft. - 3/3' right channel	"	1.90
28	@ 142 ft. - 3 ' face channel	" f	0.3
29	(@ 103 ft. - 2 '	"	6.3
	(@ 107 ft. - 2 '		
30	2 ' channel from pit	"	5.20
31	3.5' channel	"	1.30
32	From dump at pit	Grab	2.60
33	3.2' channel	Channel	3.30
34	4.0' channel	"	0.60
35	4.8' channel	"	1.50
36	2.0' channel	"	0.10
37	2.5' channel	"	1.50
38	2.0' channel	"	None
39	3.2' channel from pit	"	1.30
40	2.0' channel from pit	"	3.70
41	3.0' channel	"	3.00
42	1.5' channel	"	8.90
43	from pit	Chip	1.00
44	above pit	Chip	1.20

Sam. #		Description	Type of Sample	Hg./Lbs Tons
45		From trench dump	Grab	0.70
46	3.7'	Channel from adit @ 18'	Channel	5.50
47	3.6'	" 8'	"	3.50
48		From pit so. of adit #1	Chip	3.40
49		From pit so. of adit #2	Chip	0.40
50		From dump at pit	Grab	9.50
51		From dump at adit	Grab	0.80
52	3.0'	Channel from bottom of vertical shaft	Channel	1.20
53	5.5'	Channel from NW side of shaft - 20-ft. level	Channel	2.30
54	7.0'	Channel from drift SW side of shaft - 20-ft. level	Channel	7.90
55	7.7'	Channel from NE side of drift of shaft 20-ft. level	Chip	6.40
56	3.0'	Channel from SE side of shaft - 20-ft. level	Channel	3.60
57	14.7'	Channel - 38' from W. cor. shaft	Chip	1.90
58	7.8'	Channel - 46' from "	Chip	2.70
59	5.5'	Channel - 51' "	Chip	4.40
60	49 '	From W. corner of shaft	Channel	1.00
61	4.0'	Channel - 39' from N. cor. shaft	Channel	1.10
62	2.0'	Channel - Top same as bottom of #61	Channel	0.40
63	1.5'	Channel - Composite of N-S wall	Channel	0.30
64	4.7'	Channel - from trench	Channel	1.80
65	5.5'	Channel - from trench	Chip	None
66	7.0'	Channel (subsurface)	Channel	2.10
PI	Same	area as #66 (subsurface)	Grab	19.60
67		From pit	Chip	0.30
68		From pit	Chip	None
69		From pit	Chip	1.50
70		W.M. & V. Corp. C.D. Hole #11 0-5'	Cuttings	1.30
71		" 10-20'	Cuttings	0.30
72		" 20-25'	Cuttings	0.10
73		" 30-35'	Cuttings	0.4
74		" 40-45'	Cuttings	0.70
75		From dump from vert. shaft	Grab	15.8
76		So.big dump from vert. shaft	Grab	3.2
77		West of road	Grab	5.8
78		6' from pit w. of channel	Channel	7.1
79		N. of big dump from vert. shaft	Grab	9.3
80		Shallow pit w. of incline	Chip	0.8
81		East of trench	Grab	5.0
82	9. '	Cut west of incline	Channel	0.3
83	4. '	Channel	Channel	None
84	4.5'	Channel	Channel	0.2

Sam. #	Description	Type of Sample	Hg./Lbs. Tons
85	3.4' Channel	Channel	0.2
86	4.2' Channel	"	0.1
87	3.8' Channel	"	None
88	4.2' Channel	"	None
89	5. ' Channel	"	None
90	4.8' Channel	"	None
92	3.3' Channel from out crop	"	5.8
91	4.2 Channel from out crop	"	0.1
93	Near #77 - W of road	Chip	None
94	5.6' Channel from trench W of road	Channel	None
95	From pit	Chip	0.1
96	1.3' Channel in trench	Channel	None
97	5.6' Channel in trench	Channel	None
98	5. ' Channel in trench	Channel	None
99	1.8' Channel in trench	Channel	None
100	2.5' "	Channel	None
101	2.8' "	Channel	None
102	3.6' "	Channel	None
103	5. ' "	Channel	None
104	3.' "	Channel	None
105	2.8' "	Channel	None
106	1. ' "	Channel	None
107	2.6' "	Channel	None
108	3.3' "	Channel	None
109	4.7' "	Channel	None
110	6. ' "	Channel	0.1
111	From cut	Chip	None
112	From cut	Chip	None
113	5.4' Channel from trench	Channel	None

APPENDIX C

ORE RESERVE CALCULATIONS & DETAILED LISTINGS

POSITIVE ORE

Blk.#	Ft.	Assay	Ft. x Assay	Aver. Assay	Aver. Thick.	Area	Volume Cu. Ft.	Tons	# Hg.
	10	2.6	26.0						
	10	2.6	26.0						
	5	2.5	12.5						
1	25		64.5	2.58	8.33	213.75	1,780.54	142.44	367.5
	10	2.6	26.0						
	5	2.4	12.0						
	5	2.5	12.5						
2	20		50.5	2.53	6.67	285.00	1,901.00	152.00	384.6
	10	2.6	26.0						
	5	2.4	12.0						
	35	2.54	88.9						
3	50		126.9	2.54	16.67	195.5	3,258.99	260.72	662.2
	35	2.54	88.90						
	5	2.4	12.0						
	45	3.63	163.35						
4	85		264.25	3.1	28.33	287.5	8,144.88	651.59	2019.9
	45	3.63	163.35						
	35	2.54	88.90						
	40	2.51	100.4						
5	120		352.65	2.94	40.00	300,0	12,000.00	960.00	2822.4
	39	2.27	88.53						
	20	3.20	64.0						
	35	2.71	94.85						
6	94		247.38	2.63	31.33	315.0	9,868.95	789.5	2076.4
	35	2.71	94.85						
	20	3.20	64.00						
	45	2.92	131.4						
7	100		290.25	2.90	33.33	304.5	10,148.99	811.9	2354.5
	35	2.71	94.85						
	45	2.92	131.40						
	5	2.5	12.5						
8	85		238.75	2.81	28.33	315.0	8,923.95	713.9	2006.1
	5	2.5	12.5						
	45	2.92	131.40						
	10	2.0	20.0						
9	60		163.9	2.73	20.00	330.00	6,600.0	528.00	1441.4
	5	2.5	12.5						
	10	2.0	20.0						
	15	2.4	36.0						
10	30		68.5	2.28	10.0	330.00	3,300.00	264.00	601.9

Blk.#	Ft.	Assay	Ft. X Assay	Aver. Assay	Aver. Thick.	Area	Volume Cu. Ft.	Tons	# Hg.
	39	2.27	88.53						
	10	2.1	21.0						
	20	3.2	64.						
11	69		173.53	2,51	23.00	272.0	6,256.00	500.5	1,256.3
	38	4.3	163.4						
	10	2.1	21.0						
	20	3.2	64.0						
12	68		248.4	3.65	22.7	270.0	6,129.00	490.3	1,789.6
	20	3.2	64.0						
	38	4.3	163.4						
	45	2.92	131.4						
13	103		358.8	3.48	34.3	290.0	9,947.00	795.8	2,769.4
	45	2.92	131.4						
	38	4.3	163.4						
	10	2.0	20.0						
14	93		314.8	3.38	31.0	350.0	10,850.00	868.00	2,933.8
	38	4.3	163.4						
	10	2.0	20.0						
	10	2.0	20.0						
15	58		203.4	3.51	19.3	350.0	6,755.00	540.4	1,896.8
	10	2.0	20.0						
	10	2.0	20.0						
	30	2.4	72.0						
16	50		112.0	2.24	16.7	362.5	6,054.00	484.3	1,084.8
	15	2.4	36.0						
	30	2.4	72.0						
	10	2.0	20.0						
17	55		128.0	2.33	18.3	357.0	6,533.00	522.6	1,217.7
	10	2.0	20.0						
	38	4.3	163.4						
	5	2.8	14.0						
18	53		197.4	3.72	17.7	324.0	5,735.00	548.8	2,041.5
	30	2.4	72.0						
	5	2.8	14.0						
	10	2.0	20.0						
19	45		106.0	2.36	15.0	338.0	5,070.00	405.6	957.2
	5	2.8	14.0						
	5	2.7	13.5						
	30	2.4	72.0						
20	40		99.5	2.49	13.3	338.0	4,495.00	359.6	895.4
	30	2.4	72.0						
	5	2.7	13.5						
	30	2.93	87.9						
21	65		173.4	2.67	21.7	310.5	6,738.00	539.0	1,439.1

Blk.#	Ft.	Assay	Ft. X Assay	Aver. Assay	Aver. Thick.	Area	Volume Cu. Ft.	Tons	# Hg.
	30	2.93	87.9						
	35	2.54	88.9						
	30	2.4	72.0						
22	95		248.8	2.62	31.7	297.0	9,415.00	753.2	1,973.4
	10	2.1	21.0						
	10	2.0	20.0						
	38	4.3	163.4						
23	58		204.4	3.52	19.3	450.0	8,685.00	694.8	2,445.7
	10	2.0	20.0						
	5	2.8	14.0						
	38	4.3	163.4						
24	53		197.4	3.72	17.7	363.0	6,425.00	514.0	1,912.1
	15	2.4	36.0						
	30	2.4	72.0						
	35	2.54	88.9						
25	80		196.9	2.46	26.7	503.5	13,443.70	1075.5	2,645.7
	20	2.88	57.60						
	20	3.23	64.60						
26	40		122.20	3.05	20.0	232.0	4,640.00	371.2	1,132.2
	5	2.5	12.5						
	20	2.67	53.4						
	20	2.88	57.60						
27	45		123.50	2.73	15.0	525.0	7,875.00	630.0	1,719.9
	20	2.88	57.60						
	20	3.23	64.6						
	20	2.67	53.40						
28	60		175.60	2.93	20.0	328.0	6,560.00	524.8	1,537.7
30	15	2.4		2.4	15.0	66.0	990.00	79.2	190.1
31	35	2.54		2.54	35.0	71.5	2,502.5	200.2	908.9
	45	3.63	163.35						
	40	2.51	100.4						
	24	2.26	54.24						
32	109		317.99	2.92	36.3	374.0	13,576.2	1086.1	3,171.4
	40	2.51	100.4						
	24	2.26	54.24						
	35	2.71	94.85						
33	99		249.49	2.52	33.0	725.0	23,925.00	1914.0	4,823.3
	24	2.26	54.24						
	39	2.27	88.53						
	35	2.71	94.85						
34	98		237.62	2.42	32.7	451.5	14,764.0	1181.1	2,858.3

Blk.#	Ft.	Assay	Ft. X Assay	Aver. Assay	Aver. Thick.	Area	Volume Cu. Ft.	Tons	# Hg.
	20	3.8	76.0	3.0	18.7	156.0	2,917.2	233.3	699.9
	16	2.34	37.44						
	20	2.73	54.60						
35	56		168.04	3.0	18.7	156.0	2,917.2	233.3	699.9
	20	2.73	54.6						
	5	2.7	13.5						
	16	2.34	37.44						
36	41		105.54	2.57	13.7	102.5	1,404.3	112.3	288.6
	15	2.4	36.0						
	5	2.5	12.5						
	35	2.71	94.85						
A	55		143.35	2.60	18.3	787.5	14,411.3	1,152.9	2,997.5
	35	2.54	88.9						
	15	1.76	26.4						
	15	2.4	36.0						
B	65		151.3	2.33	21.7	6,625.0	14,376.0	1,150.0	2,680.0
	39	2.27	88.53						
	10	2.1	21.0						
C	49		109.53	2.23	24.5	400.0	9,800.0	784.0	1,748.3
	10	2.1	21.0						
	10	2.0	20.0						
D	20		41.0	2.05	10.0	396.0	3,960.0	316.8	649.4
	5	2.7	13.5						
	5	2.8	14.0						
E	10		27.5	2.75	5.0	300.0	1,500.0	120.0	330.0
	30	2.93	87.9						
	5	2.7	13.5						
F	35		101.4	2.89	17.5	300.0	5,250.0	420.0	1,213.8
	16	2.34	37.44						
	5	2.7	13.5						
	20	3.8	76.0						
G	41		126.94	3.1	13.7	616.0	8,439.2	611.1	1,894.4
H	30	2.93	87.9						
	20	3.8	76.0						
H	50		163.9	3.28	25.0	301.0	7,525.0	602.0	1,974.6
	35	2.4	88.92						
	30	2.93	87.9						
J	65		176.82	2.72	32.5	325.0	10,562.5	845.0	2,298.4
	5	2.4	12.0						
	5	2.5	12.5						
	20	2.67	53.4						
K	30		77.9	2.60	10.0	550.0	5,500.0	440.0	1,144.0

Blk.#	Ft.	Assay	Ft. X Assay	Aver. Assay	Aver. Thick.	Area	Volume Cu. Ft.	Tons	$ Hg.
L	45	3.63	163.35						
	5	2.4	12.0						
L	50		175.35	3.507	25.0	276.0	6,900.0	552.0	1,937.5
	40	2.51	100.4						
	35	2.54	88.9						
N	75		189.3	2.52	37.5	308.0	11,550.0	924.0	2,328.5
	35	2.54	88.9						
	10	2.6	26.0						
P	45		114.9	2.55	22.5	204.0	4,590.0	367.2	936.4
v	10	2.6	26.0						
	10	2.6	26.0						
Q	20		52.0	2.6	10.0	297.0	2,970.0	237.6	617.8
	10	2.5	26.0						
	5	2.5	12.5						
R	15		38.5	2.57	7.5	412.5	3,093.8	247.5	636.1
	20	2.67	53.4						
	20	3.23	64.6						
S	40		118.0	2.95	20.0	531.3	10,626.0	850.0	2,507.5
	20	2.67	53.4						
	5	2.9	14.5						
T	25		67.9	2.72	12.5	325.0	4,062.5	325.0	884.0
	5	2.9	14.5						
	5	2.4	12.0						
V	10		26.5	2.65	5.0	288.0	1,440.0	115.2	305.3
	40	2.51	100.4						
	35	2.71	94.85						
W	75		195.25	2.60	37.5	528.0	13,200.0	1,056.0	2,745.6
	45	3.63	163.35						
	24	2.26	54.24						
X	69		217.59	3.15	34.5	444.0	15,318.0	1,225.4	3,860.0
	20	2.73	54.6						
	5	2.7	13.5						
Y	25		68.1	2.72	12.5	451.0	5,637.5	451.0	1,226.7
	2.0	3.7	7.4						
	3.0	3.0	9.0						
	1.5	8.9	13.35						
	10.0	1.4	14.0	3.76	5.3	753.0	7,530.0	602.4	2,265.0
	10.0	5.6	56.0						
Z	26.5		99.75						

Blk.#	Ft.	Assay	Ft. X Assay	Aver. Assay	Aver. Thick.	Area	Volume Cu. Ft.	Tons	# Hg.
	2.0	3.7	7.4						
	3.0	3.0	9.0						
	1.5	8.9	43.25						
	20.0	2.73	54.6						
AA	26.5		84.35	3.18	13.3	507.5	6,749.8	540.0	1,717.2
	3.6	3.5	12.60						
	3.7	5.5	20.35						
BB	7.3		32.95	3.9	10.0	1,029.0	10,290.0	823.2	3,210.5
CC	8.3	2.62		2.62	8.3	689.5	5,722.9	458.8	1,199.4
	5.0	2.8	14.0						
	10.0	2.0	20.0						
	10.0	3.15	31.5						
37	25.0		65.5	2.62	8.3	313.5	2,602.0	208.2	545.5
53	16.0	10.76	172.16	10.76	16.0	490.63	7,850.0	628. 0	6,757.3
	54.0	3.5		3.5					
Inc.	72.0	3.5		3.5			37,641.0	3,011.3	10,539.6
	1.	25.4	25.4						
	4.	15.8	63.2						
	3.0	14.4	43.2						
	3.0	6.4	19.2						
	4.0	5.3	21.2						
	1.0	4.7	4.7						
Shaft	16.0		176.9	10.1	45.0*	325.0	29,812.5	2,385.0	20,988.0

Total AVer. - Vert. 10.1#x28' - 310 (samples from shaft)
Horiz. 5.5#x20 - 110 (Sam.from stub drifts off sh.)
48 420

$\frac{420}{48}$ = 8.8# Hg/tOn for entire shaft

*For positive ore reserve calculation, the grade of 8.8 lbs/ton Hg. obtained from sampling in shaft was applied to a depth of 45', based on sampling of C.D.H. #1, which assayed 17.2 lb/ton. Hg. from 0-45' depth.

Sec. 56	20.0	2.88		2.88	20.0	300.0	6,000.0	480.0	1,382.4
	4.5	4.1							
	4.5	3.7							
	4.5	5.8							
	4.5	3.7							
140'	4.5	2.5							
Trench	22.5			3.8	20.	*1536.0	28,010.0**	2241.0	8,515.8

*Assumed to extend to 20' depth at 3.8 lbs. Hg/ton for calculating positive ore reserve.

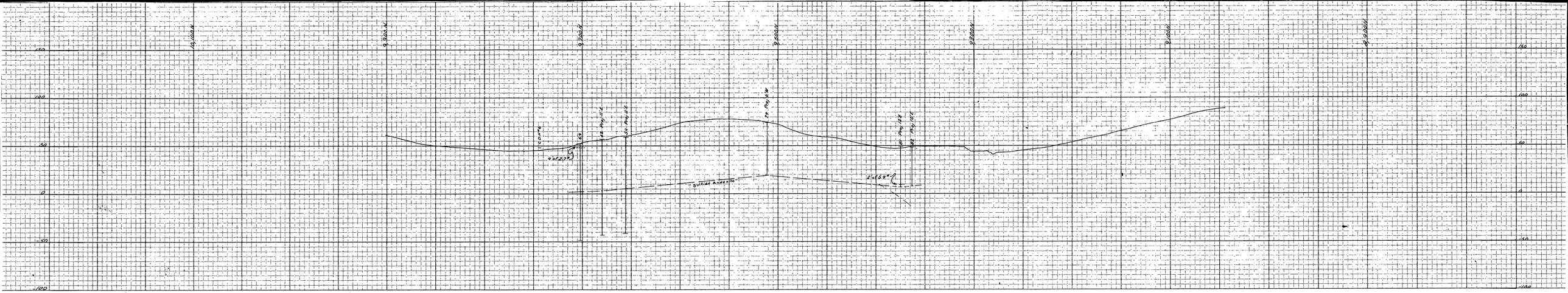
**After subtracting cubic ft. removed from trench by mining.

PROBABLE ORE

Blk.#	Ft.	Assay	Ft. X Assay	Aver. Assay	Aver. Thick.	Area	Volume Cu. Ft.	Tons	# Hg.
Cyl. 53'	16	10.76		10.76	16.	1,471.9	11,775.0	942.0	10,135.9
	20	2.67	53.40						
	5	2.9	14.5						
	5	2.4	12.0						
	45	3.63	163.35						
	24	2.26	62.88						
A'	99		306.13	3.0	19.8	1,452.25	28,219.95	2257.6	6,772.8
	39	2.27	88.53						
	10	2.1	21.0						
	10	2.0	20.0						
B'	59		129.53	2.2	14.7	1,032.25	20,335.3	1626.8	3,579.0
C'	10	2.57	25.7	2.57	10.	293.75	2,937.5	235.0	604.0
	5	2.5	12.5						
	10	2.6	26.0						
	10	2.6	26.0						
	35	2.54	88.9						
D'	60		153.4	2.55	15.0	1,055.25	15,828.75	1266.3	3,229.0
	35	2.54	88.9						
	40	2.51	100.4						
	35	2.71	94.9						
	5	2.5	12.5						
	15	2.4	37.5						
	15	1.76	26.4						
	35	2.54	88.9						
E'	180		449.5	2.5	25.7	2,571.0	66,074.7	5,286.0	13,215.0
	5.3	3.76	19.93						
	13.3	3.18	42.29						
	12.5	2.72	34.0						
F'	31.1		96.22	3.1	10.3	597.5	6,154.25	492.3	1,526.13
	45.	8.8	396.0						
	20.	2.88	57.6						
G'	65.		453.6	6.98	32.5	425.0	13,813.0	1104.2	7,707.3

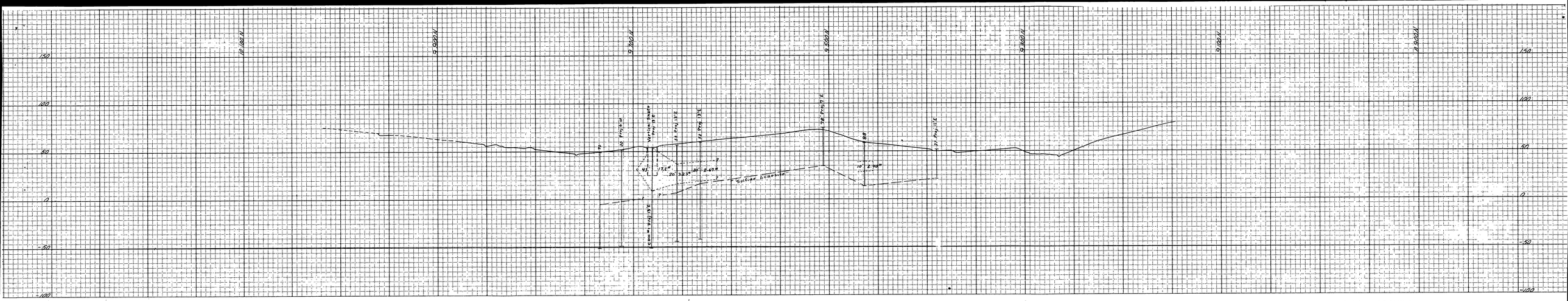
POSSIBLE ORE

Blk.#	Ft.	Assay	Ft. X Assay	Aver. Assay	Aver. Thick.	Area	Volume Cu. Ft.	Tons	# Hg.
A"	19.8	3.		3.0	19.8	2,700.	53,460.0	4,276.8	12,830.4
B"	19.7	2.2		2.2	19.7	1,639.5	32,298.2	2,583.9	5,684.6
	2.	5.9	11.8						
	5.	6.4	32.0						
C"	7.		43.8	6.25	3.5	1,291.0	4,518.5	361.5	2,259.4
D"	25.7	2.5		2.50	25.7	4,046.0	103,982.0	8,319.0	20,797.5
E"	15.0	2.55		2.55	15.0	1,237.5	18,562.5	1,485.0	3,786.8
F"	10.3	3.1		3.1	10.3	1,537.5	15,836.3	1,266.9	3,927.4
Cyl. 53"	16.0	10.76		10.76	16.0	1,536.1	24,577.6	1,966.2	21,156.3
	19.8	3.0	59.4						
	16.0	10.76	172.16						
G"	35.8		231.56	6.47	17.9	136.3	2,439.77	195.2	1,262.9



ANDIES MERCURY
SECTION LOOKING EAST ALONG LINE 3825E
SCALE: 1" = 50'

Plate No. 14



"PERFECT" cross section
10 X 10 = ONE INCH
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ANDIES MERCURY

SECTION LOOKING EAST ALONG LINE 3800

SCALE = 1" = 50'

Plate No. 13

"PERFECT" cross section
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"PERFECT" cross section
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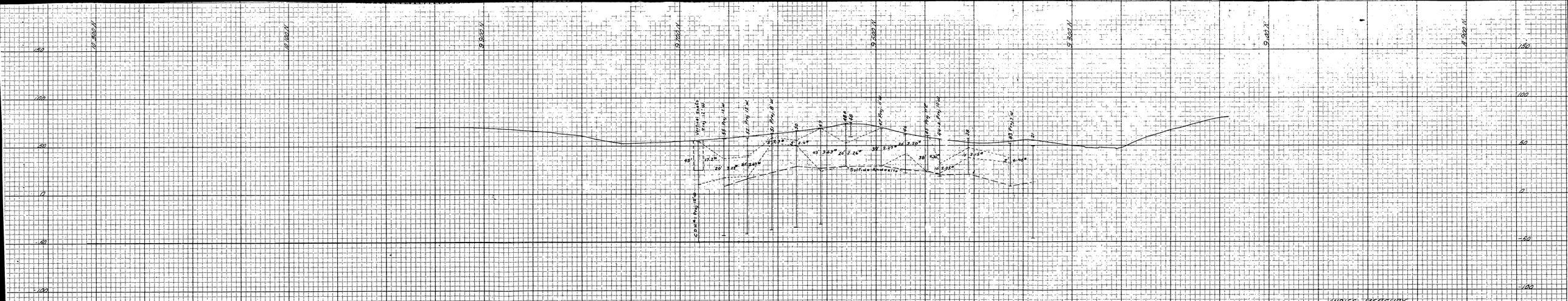
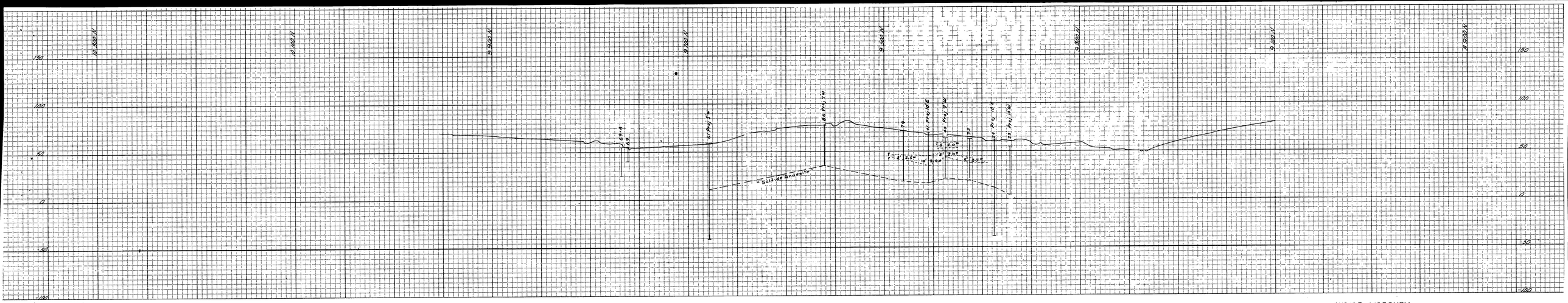


ANDES MERCURY
SECTION LOOKING EAST ALONG LINE 3773
SCALE: 1" = 50

PLATE No. 12

ANDIES MERCURY
SECTION LOOKING EAST ALONG LINE 3750
SCALE: 1" = 50'

Plate No. 11

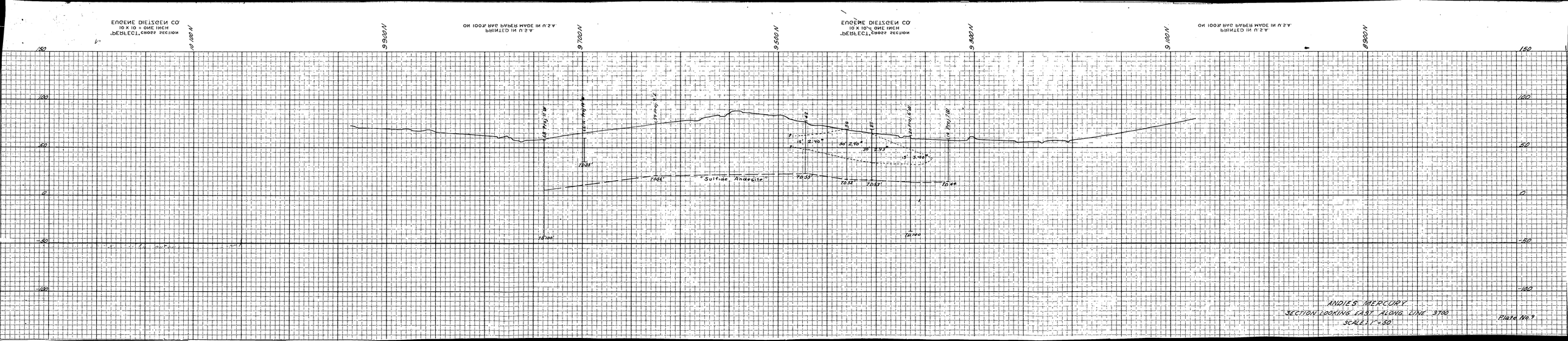


ANDIES MERCURY

SECTION LOOKING EAST ALONG LINE 3725

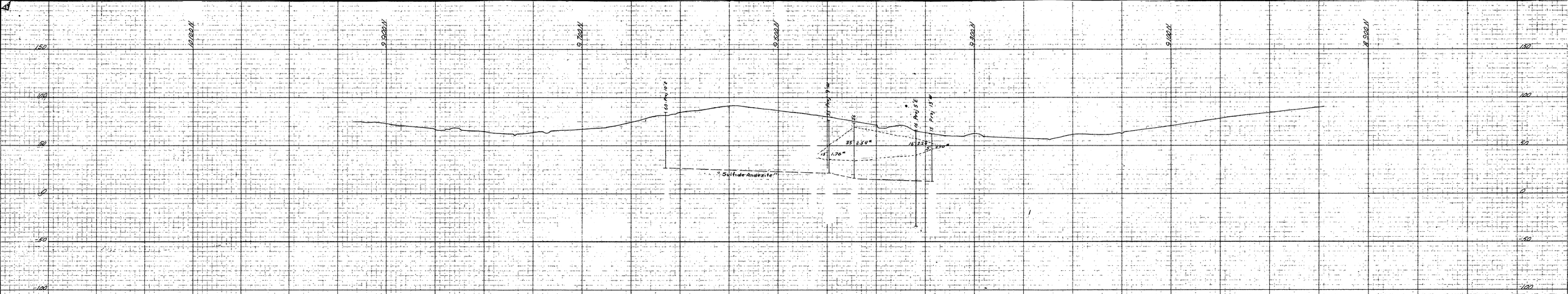
SCALE: 1" = 50'

Plate No. 10



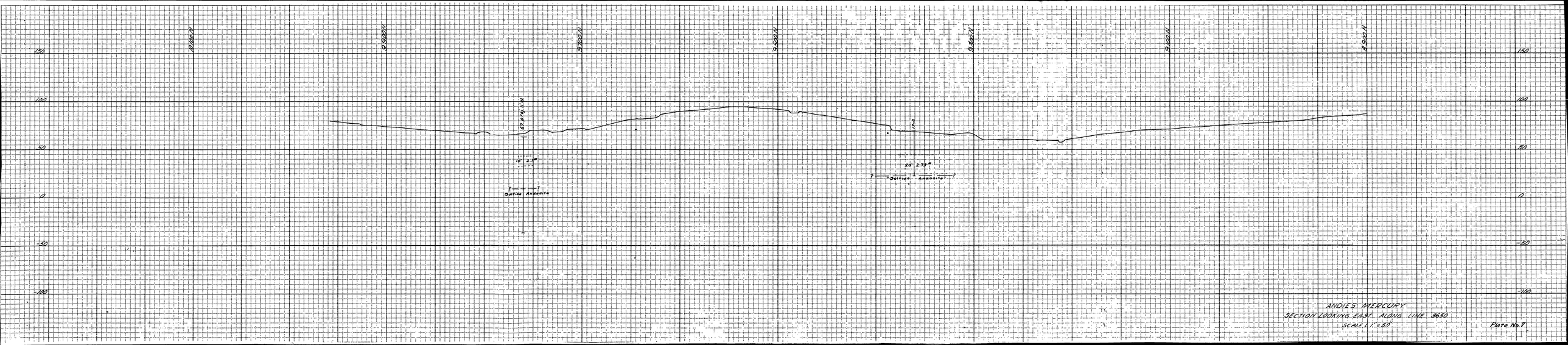
ANDIES MERCURY
SECTION LOOKING EAST ALONG LINE 3700
SCALE 1" = 50'

Plate No. 9



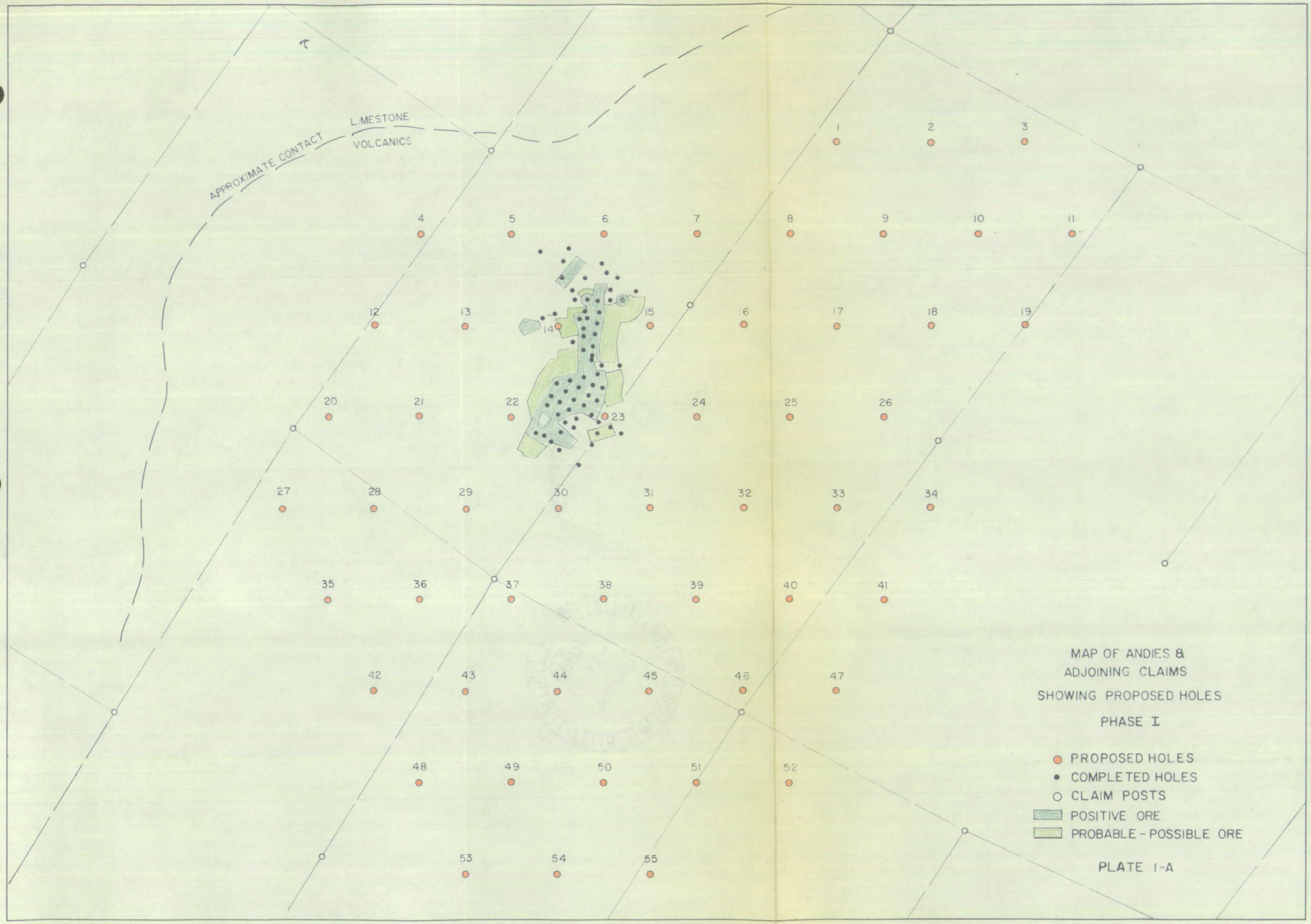
ANDIES MERCURY
SECTION LOOKING EAST ALONG LINE 3675
SCALE 1" = 50'

Plate No. 8



ANDIES MERCURY
SECTION LOOKING EAST ALONG LINE 3650
SCALE: 1" = 50'

Plate No. 7


APPROXIMATE CONTACT
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MAP OF ANDIES &
ADJOINING CLAIMS
SHOWING PROPOSED HOLES
PHASE I
PROPOSED HOLES
COMPLETED HOLES
CLAIM POSTS
POSITIVE ORE
PROBABLE - POSSIBLE ORE
PLATE I-A

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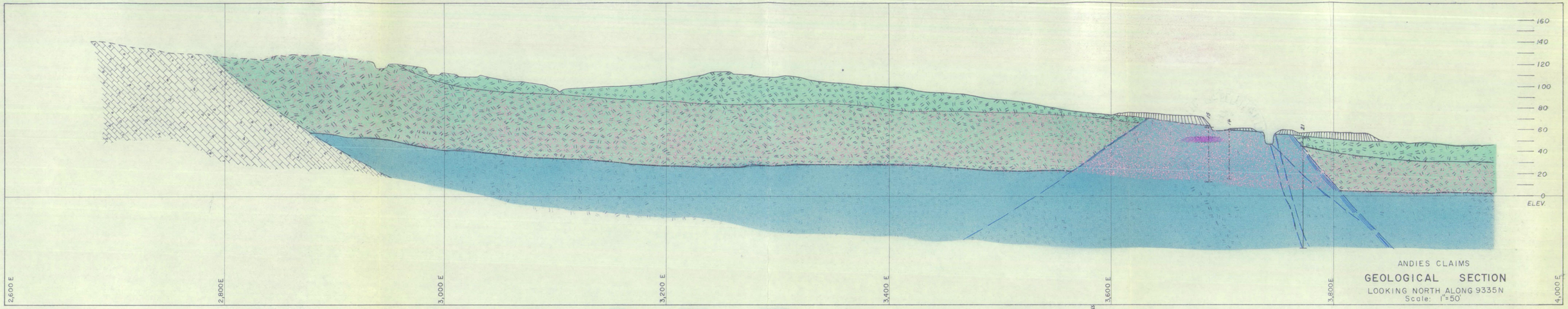
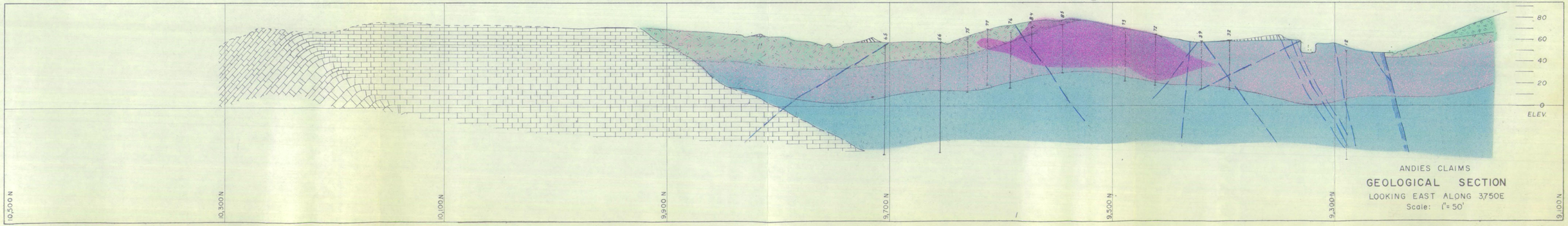
FEB 18 1957
D.M.E.A.



Ore | Rhyolite Cap | Altered Rhyolite | Altered Andesite | Unaltered Andesite | Limestone | Contacts | Faults | Drill hole



COLORADO EXPLORATION COMPANY

Plate no. 5

RECEIVED
FEB 28 1957
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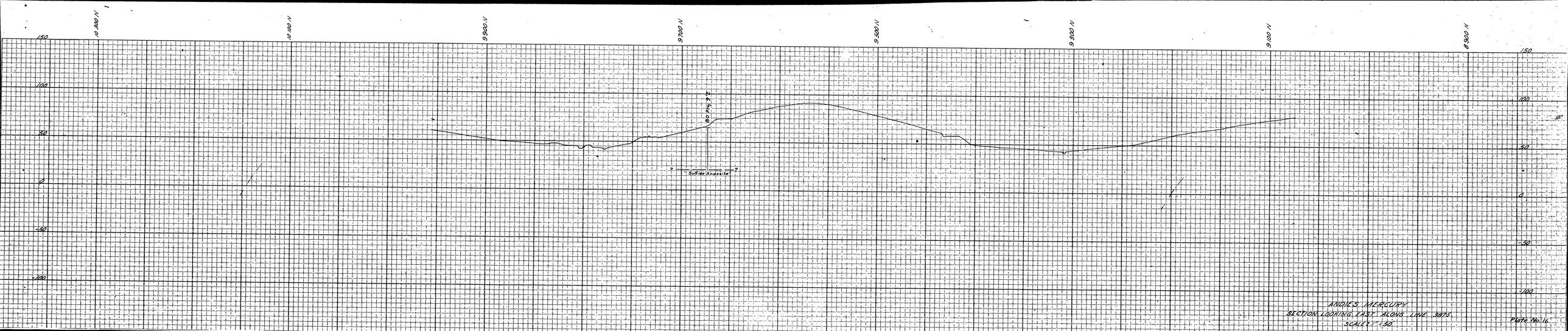
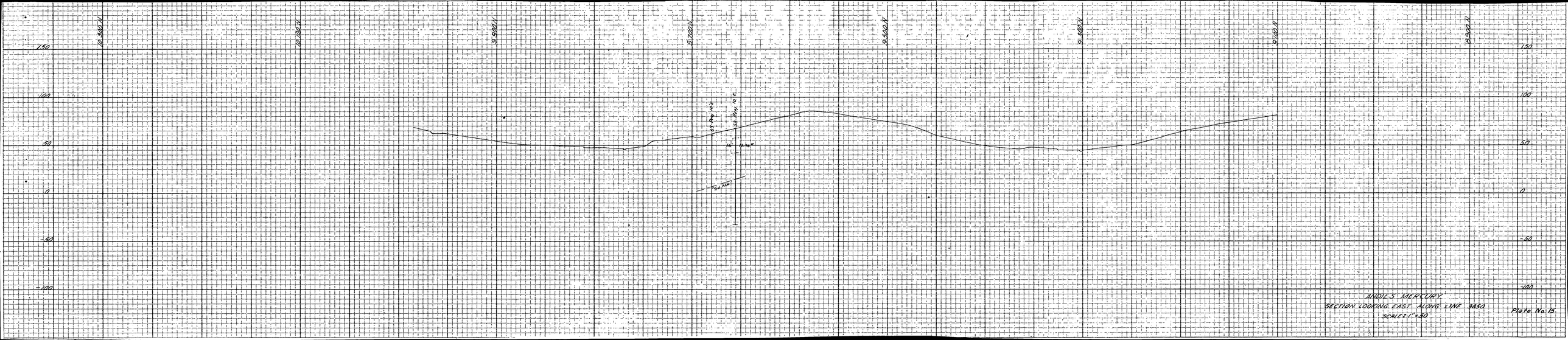


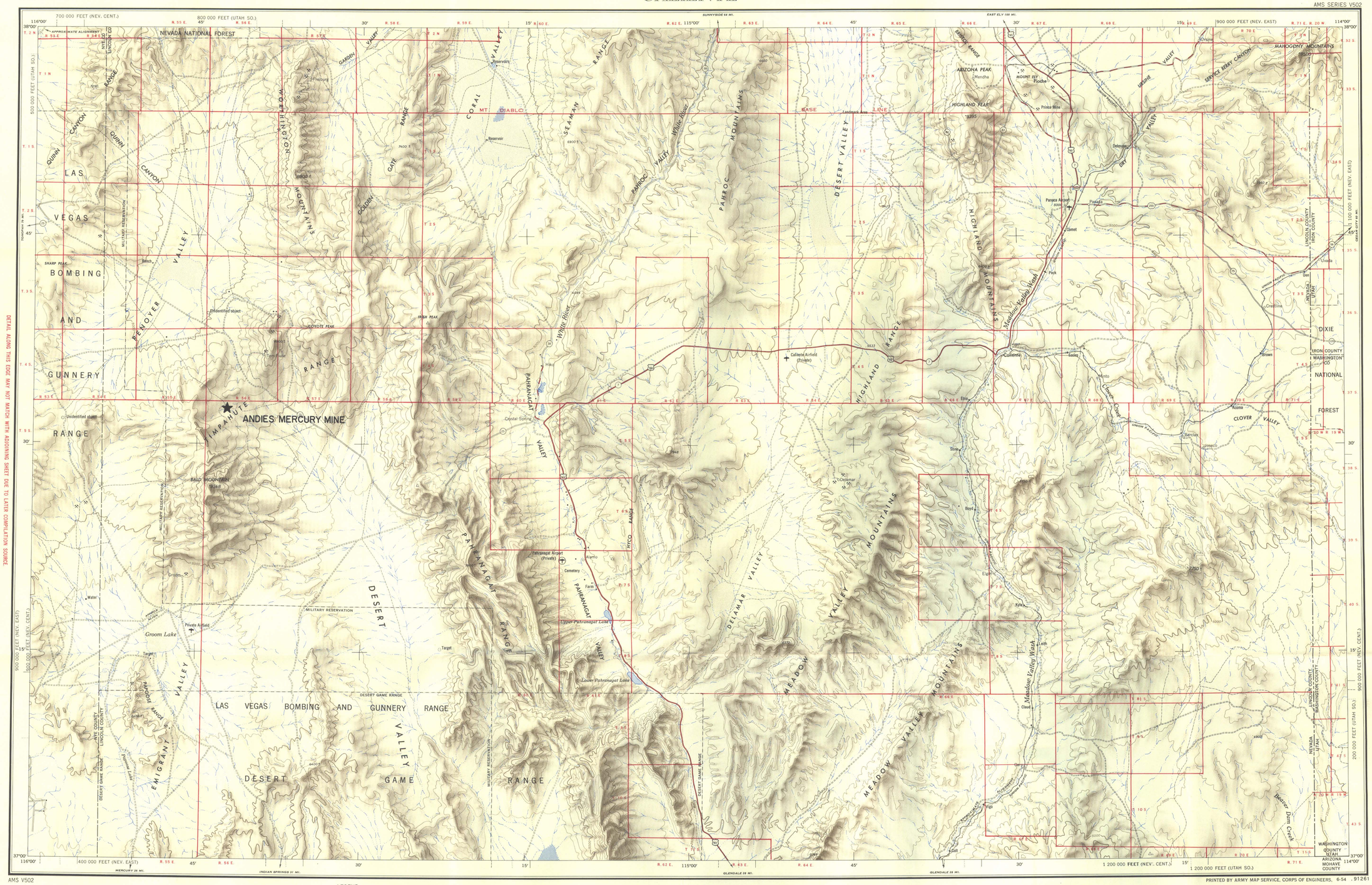
ANDES MERCURY
SECTION LOOKING EAST ALONG LINE 3075
SCALE 1" = 50'

Plate No. 16



ANDES MERCURY
SECTION LOOKING EAST ALONG LINE 3850
SCALE: 1" = 50'

Plate No. 15



AMS V502

PRINTED BY ARMY MAP SERVICE, CORPS OF ENGINEERS, 6-54 . 91261

Prepared by the Army Map Service (AM), Corps of Engineers, U. S. Army, Washington, D. C. Compiled in 1953 from: Special Aeronautical Charts, 1:250,000, ACIC, Charts 363 C I, 363 C II, 363 C III, 363 C IV, 1952, reliability good; County Highway Maps 1937-39. No woodland information available. Road classification should be referred to with caution.

DETAIL ALONG THIS EDGE MAY NOT MATCH WITH ADJOINING SHEET DUE TO LATER COMPILATION SOURCE.

LEGEND

ROAD DATA 1953

POPULATED PLACES
- Over 500,000 — BOSTON
- 100,000 to 500,000 — RICHMOND
- 25,000 to 100,000 — ALEXANDRIA
- 5,000 to 25,000 — Marion
- 1,000 to 5,000 — Old Dominion
- Less than 1,000 — Stowell

RAILROADS (Single track / Multiple track)
- Normal gauge
- Narrow gauge
- International boundary
- State boundary
- County boundary
- Park and reservation
- Landplane airport
- Landing area
- Seaplane airport
- Seaplane anchorage
- Landmark feature
- Hard surface, heavy duty road, more than two lanes wide — 2 LANES / 4 LANES
- Hard surface, heavy duty road, two lanes wide
- Hard surface, medium duty road, more than two lanes wide — 2 LANES / 4 LANES
- Hard surface, medium duty road, two lanes wide
- Loose surface, graded and drained road
- Dirt road; Trail
- Route markers: Federal; State
- Spot elevation in feet
- Depth curves in fathoms
- Swamp, marsh
- Reef; Limit of danger line
- Intermittent stream
- Rocks: Awash; Sunken
- Foreshore flats

Scale 1:250,000

5 0 5 10 15 20 Statute Miles

5 0 5 10 15 20 25 30 Kilometers

5 0 5 10 Nautical Miles

CONTOUR INTERVAL 500 FEET

TRANSVERSE MERCATOR PROJECTION

100,000-FOOT GRIDS BASED ON NEVADA COORDINATE SYSTEM, CENTRAL AND EAST ZONES, AND UTAH COORDINATE SYSTEM, SOUTH ZONE

1950 MAGNETIC DECLINATION FOR THIS SHEET VARIES FROM 16°30' EASTERLY FOR THE CENTER OF THE WEST EDGE TO 16°15' EASTERLY FOR THE CENTER OF THE EAST EDGE. MEAN ANNUAL CHANGE IS 0°03' WESTERLY.

FOR SALE BY U. S. GEOLOGICAL SURVEY, FEDERAL CENTER, DENVER, COLORADO OR WASHINGTON 25, D. C.

LOCATION DIAGRAM FOR NJ 11-9

RENO NJ 11-1	NJ 11-2 MILLETT	NJ 11-3 ELY	NJ 12-1 DELTA	PRICE NJ 12-2
FERNINGTON NJ 11-4	NEVADA NJ 11-5	LUND NJ 11-6	MONTICELLO NJ 12-4	SALINA NJ 12-5
MARIPOSA NJ 11-7	TONOPAH GOLDFIELD NJ 11-8	CALIENTE NJ 11-9	CEDAR CITY NJ 12-7	ESCALANTE NJ 12-8
CALIFORNIA FRESNO NJ 11-10	BEATTY NJ 11-11	NJ 11-12 LAS VEGAS	MARBLE CANYON NJ 12-10	NJ 12-11 GRAND CANYON
NJ 11-1 BAKERSFIELD	TRONA NJ 11-2	NJ 11-3 KINGMAN	NJ 12-1 WILLIAMS	ARIZONA NJ 12-2 FLAGSTAFF

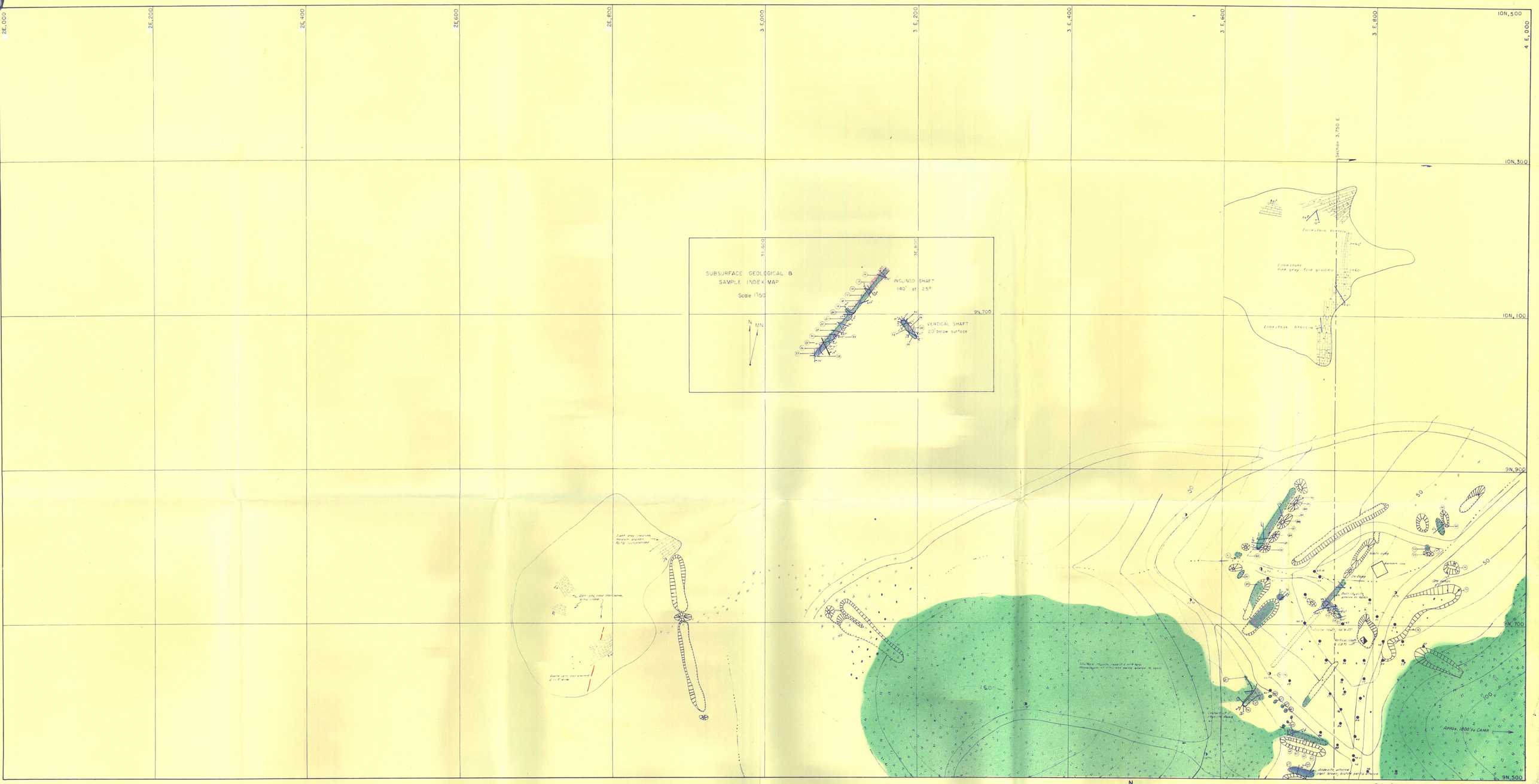
TOWNSHIP OR RANGE LINE

LAND GRANT BOUNDARY

SECTIONIZED TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

CALIENTE, UNITED STATES
INDEX MAP
PLATE NO. I



GEOLOGICAL MAP of ANDIES CLAIMS

TEMPIUTE MINING DISTRICT
LINCOLN COUNTY, NEVADA

Scale: 1"=50'—Contour Interval: 10'—Sept. 1956

N
MN

COLORADO EXPLORATION COMPANY

Plate No. 4

Sheet 2 of 2 sheets

Rhyolite
Andesite
Limestone
Limestone breccia
Float
Soil cover
Faults
Contacts
Alteration
Mineralization
(depth of color indicates intensity)
Contours
~100
Streams
(intermittent)
Roads, cuts & fills
Sample
Churn drill hole
Rotary drill hole

GEOLOGICAL MAP of ANDIES CLAIMS

TEMPIUTE MINING DISTRICT
LINCOLN COUNTY, NEVADA

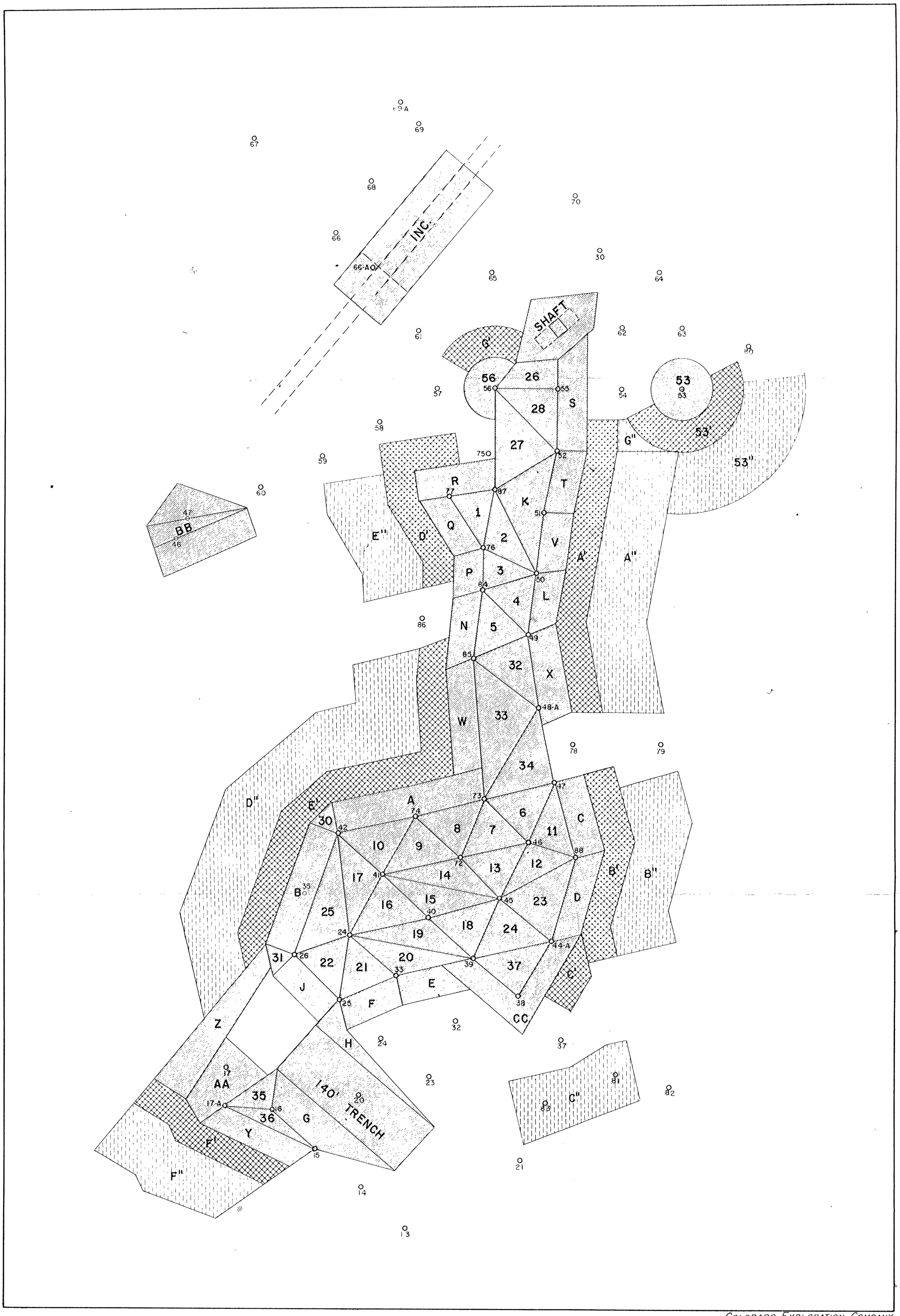
Scale: 1"=50'—Contour Interval: 10'—Sept. 1956

N
MN

COLORADO EXPLORATION COMPANY

Plate No 3

Sheet 1 of 2 sheets



LEGEND

POSITIVE ORE

PROBABLE ORE

POSSIBLE ORE

ORE RESERVE MAP

ANDIES MERCURY MINE

LINCOLN COUNTY, NEVADA

Scale 1" = 25' January, 1957

N

COLORADO EXPLORATION COMPANY

Plate No 6