

A BUREAU OF MINES AND GEOLOGY/178  
Y OF NEVADA, RENO  
/ADA 89557-0088 U.S.A.

FACE GUARANTEED

ONE THA MINER

327

Then 113

5190 0133

6615127-N- 1987

(327) Item 113



5290 0123

327

Itc-113

January 26, 1970

Mr. Jack Q. Frizzell  
International Energy Company  
Division Office  
Patterson Building  
Denver, Colorado 80202

Dear Mr. Frizzell:

After due consideration Straus Exploration has told me that they are not interested in your Onetha mine. If you had had the surrounding properties they might well have shown some interest.

How is the copper prospect coming along? The one that was showing up in your seismic drilling, I believe. When you are ready to present it to a company let me know.

Sincerely yours,

J. McLaren Forbes

P.S. Do you wish the maps you sent me returned?



5290 0123  
Texas American Oil Co. Midland Texas

327

Item 113

Have a lease - 10% net smelter return Royalty

~~2/3 Another~~

~~1/2 Grace M Jackson E & L R~~

DMEA. has expired

\$50,000<sup>00</sup> worth equipment insurance is \$90,000<sup>00</sup>

Sell - or joint venture on a net profit split.

Shipping to USSMNC - SLC. \$10<sup>00</sup> smelter  
10<sup>00</sup> transportation  
net \$0.00

Grace has some of neighboring claims

Dooley wanted to do deep drilling for an interest.

289-2447 Hal Jensen

Cactus flat near Lone Pine uranium

International Energy Co.

628 Patterson Bldg.

Denver Colo, 80201

303 2948177

Jack Frizzell



400 to 666 ± stepped

Canyon fit comes in on S at 750 250° ± 75° N

Raise on fit 786 220' high - in + out at ore along fault

S split 807 } Roomake or  
face of split 825- } another

S 528 Drift pillar

S 825 : 3' across shear  
yellow stain

N 80 E 95° N ± 1" hr red +

327

Iden 113



5290 0123



327  
Item 113

## INTERNATIONAL ENERGY COMPANY

HOME OFFICE:  
300 WEST WALL STREET  
MIDLAND, TEXAS 79701  
915, 683-4811

October 28, 1969

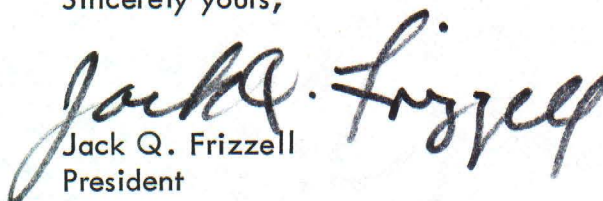
DIVISION OFFICE:  
PATTERSON BUILDING  
DENVER, COLORADO 80202  
303, 244-8177

Mr. J. McLaren Forbes  
2275 Mueller Drive  
Reno, Nevada 89502

Dear Mr. Forbes:

With reference to your letter of October 17, 1969, we are attempting to locate the East Sheet of the Ken McGriffin map of the Onetha workings. If we are successful in locating the map, we will furnish you with a copy.

Sincerely yours,

  
Jack Q. Frizzell  
President

Return Maps



5290 0123



327

Item 113

## INTERNATIONAL ENERGY COMPANY

February 3, 1970

HOME OFFICE:  
300 WEST WALL STREET  
MIDLAND, TEXAS 79701  
915, 683-4811

DIVISION OFFICE:  
PATTERSON BUILDING  
DENVER, COLORADO 80202  
303, 244-8177

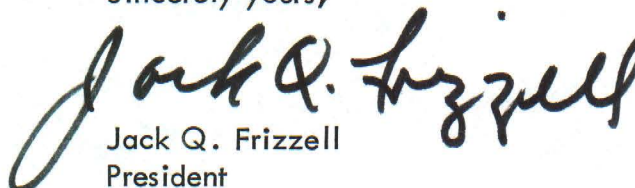
Mr. J. McLaren Forbes  
2275 Mueller Drive  
Reno, Nevada 89502

Dear Mr. Forbes:

I appreciate your letter advising that Straus Exploration was not interested in the Onetha property. We are still producing ore from that mine and are considering a joint venture with W. R. Grace and Company at the present time for deeper exploration. You may keep the maps that you have on this property.

The copper showings which were found on the seismic drilling in northern Nevada turned out to be non-commercial and no further work was done on this property. I have looked at an interesting copper-silver property in the North Wickenburg Area of Arizona recently and, if it checks out as it appears, I will be glad to furnish you the information on this. You may be interested in a joint venture on this property.

Sincerely yours,

  
Jack Q. Frizzell  
President



5290 0123

327  
Item 113

February 11, 1970

Mr. Jack Q. Frizzell  
International Energy Company  
Division Office  
Patterson Building  
Denver, Colorado 80202

Dear Mr Frizzell:

I would be interested in seeing the data on your copper-silver property in the North Wickenburg Area of Arizona, if it checks out as you hope it will.

I hope to be in Denver for the AIME meeting this coming week and if so may call you on the telephone.

Sincerely yours,

*J. McEwen Forbes*  
J. McEwen Forbes



5290 0123  
PHONE 870-6771

EINAR C. ERICKSON  
709 CLINE STREET  
LAS VEGAS, NEVADA 89107

327  
Item 113  
July 26, 1968

Mr. J. Frizzell  
International Energy, Inc.  
628 Patterson Bldg.  
Denver, Colorado 80203

SUBJECT: SUBMITTAL OF REPORT ON THE ONETHA LEAD-SILVER PROPERTY  
WHITE PINE COUNTY, HAMILTON MINING DISTRICT, NEVADA

Herewith is the more detailed report submitting the requested data on the equipment inventory, estimate and evaluation of stockpiled reserve, possible potential of the Onetha Mine, and supporting data.

The report contains some petrographic data and analytical results which are important in linking the Onetha mineralized structure with the main silver area to the east, in the direction which recommended work would extend the Onetha workings.

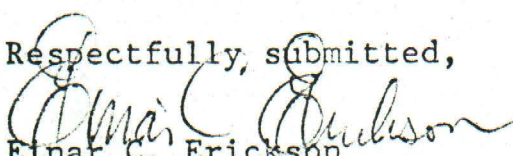
Maps, with some redrafting to prepare new base maps for future work on the lower levels, are included in the map box, and provide plan and cross section data, based on what seems to be an incomplete project started by K. McGriffin in October 1967. Some topographic maps are also included.

Recommendations involving resumption of work on the richer silver-lead zones sampled and reported in the submitted material, and preliminary drilling which would be preceded by some additional surface mapping to complete the base maps and provide subsurface control for the drilling, have also been discussed.

The depth and extent of the discussions are limited, of course by the amount of time authorized and spent in the field but do touch on most pertinent subjects. If there are any questions about any portion of the submitted material please let me know.

The Onehta property has a considerable potential, the past work has only developed a very small portion of this potential.

Respectfully submitted,

  
Einar C. Erickson  
Consulting GEologist

PRELIMINARY REPORT  
ONETHA LEAD-SILVER MINE  
WHITE PINE COUNTY, NEVADA  
INTERNATIONAL ENERGY, INC.

July 1968

Einar C. Erickson



PRELIMINARY REPORT  
ONETHA LEAD-SILVER MINE  
WHITE PINE COUNTY, NEVADA

1. INTRODUCTION

1.1 GENERAL:

On July 1, 1968, a preliminary examination of the Onetha Mine, located in the Hamilton (White Pine) Mining District was made with the following main objectives in mind:

1. Development of an inventory of equipment
2. Evaluation of stockpile reserves that could possibly be shipped.
3. Examination of the mine for possible future working and expansion of mining activities.
4. To possibly relate the mineralization of the Onetha Mine to the general picture of silver mineralization in the district.
5. Possibly suggest some development and further exploration activities and targets to increase the potential of the mine and extend its life.

A brief Interim report on the field examination and some of the observations made at the time was submitted July 3, 1968. The report assembled herewith submits details summarized in the earlier report and presents data on the above main objectives. Certain areas are expanded, and maps, in part supplied by Mr. Ranney, and also obtained from former operators of the mine, are also included in this report. However, a claim map showing the exact locations and relationships of the various claims involved has not as yet been received, so cannot be included in this report. A claim map will no doubt be provided by Industrial Uranium Co. as part of their title assignment on the properties, which are all patented claims. (one unpatented)

Quantitative assays, and petrographic analyses made on samples taken at the time of the field examination are included with this submittal. Photographs of the area are also included herewith.



Mr. W. Gergen, a former operator of the mine, was hired to drive the writer to the property and was a source of considerable information, shipping records and one of the maps. Mr. Hal Jensen, and Mr. R. Ranney, were on the property during most of the examination and showed the writer much of the equipment, and conducted the group through the old and new workings, especially the new work accomplished by Industrial Uranium Co.

## 2. LOCATION AND HISTORY

### 2.1 GENERAL:

The Onetha Mine is located in Sections 25, Township 16 North, Range 57 East, and 30 of Township 16 North Range 58 East, as shown on the Treasure Hill and Green Springs Quadrangles which accompany this report. A map showing the location of the mine was submitted with the Interim Report.

Six patented claims, including the Milwaukee, Cedar Ridge, Ora, West Onetha, Onetha, and Roenok, dating from the early days of silver mining in the Treasure Hill area prior to 1878, comprise the properties. The Ora Mine is located on the Green Springs Quadrangle and is west of the Onetha Mine as it is now known to day-essentially new work since 1955.

After 1885 little work was done in the entire Hamilton District. A DMEA application for funds to sink and shaft and to explore the Onetha Vein was applied for under Sam Bida, and approved during the 1954-55 period. The essential claims for the project belonging to the William Issacs group, and united into the Hamilton Corporation involving Fred Anderson, L. Belouetagi, and Sam Bida.

The DMEA work, for about \$35,000.00, resulted in a shaft 120 feet deep, a 5 x 7 foot drift 450 feet eastward along the strike of the vein, all of which work was completed by 1958.

Independent work on the upper portions of the vein, east and at a higher elevation than the collar of the shaft, had been conducted, with success and ore shipments, by the Jensen's. This work is reported to have been done during the period 1952-53.

Some ore was shipped from the DMEA work off of the lower workings. Blaine Steel seems to have raised the first stopes near the back end of the underground work during the period 1959-60, sub-leasing from Hamilton Corporation. Strikes in the smelting industry seems to have terminated some of this work, with resumptions only after a period of unrecorded activity. Bill Gergen and associates mined during the period 1963-64, and copies of their shipping records are extant and available.



Lead-Silver ore having a grade of about 4.5 ounces of silver, 18.00 % lead, and about 8 % zinc with some minor amounts of gold, and .30 or more % copper, was shipped during this period. Royalties were paid to the DMEA, Issacs and other parties, and insufficient profits and bad winters terminated this activity.

Glen Smart resumed operations in late 1964 and continued work until 1966. The writer visited the operations during this work, much of which was not conducted on the lower workings, but was involved in the driving of the upper workings eastward and mining overhead portions of the mineralization east of where the Jensen's had had success. Some work was also accomplished during about this same time under some sub-lease arrangements by Nyes and Osmond, though details are not known, much of which seems to have involved the lower workings.

Claghorn and the Jensen's conducted exploration and some minor mining during the period 1966-1968, and involved Industrial Uranium Corporation in the project.

After acquiring working interest in the property in 1966 Industrial Uranium Corporation contracted most of the work, essentially confined to the upper workings, to the Jensens. The new work extended the upper adit workings several hundred feet to its present 875 foot point, and initiated several additional chutes and raises. Some 1000 tons of ore were removed during this work and stockpiled prior to December 25, 1967. No work or mining was conducted after that date mainly due to the prolonged smelter strike and adverse winter conditions.

In October 1967, K. McGriffen, a consulting engineer, was retained to prepare underground and surface maps, and some of these are incorporated into this report and included in the map box.

A watchman has been tending the property since the close down in December 1967, and work has not resumed.

Improvements to the installations were accomplished by Industrial Unraium Company, and considerable equipment was moved onto the property, the camp was improved, a steel head frame for the shaft was moved into place, but not completed or anchored. Electrical facilities and a generator power plant were installed, and other improvements were made which will permit continued activity on the property to be resumed and further exploitation to be initiated.

Most of the equipment is in working condition, some of it is simply junk and would be useful only as scrap metal and salvage. The stockpile of ore remains unshipped. The mine remains essentially a little-prospected and exploited property which has considerable merit.



P. O. BOX 1980 SALT LAKE CITY, UTAH 84110

Salt Lake City, Utah,

JUNE 9, 1964

Purchased From **MINIUM CORPORATION**Pay **MINIUM CORPORATION, P. O. BOX 337, SALT LAKE CITY, UTAH**Shipping Point: **SALT LAKE CITY, UTAH**Lot No. **11** Product **CHES**Mine **CHES** Gold License No.Sampled by **MINIUM** Received **5-25-64**Sampled **5-25-64** Assayed **6-1-64**Metal Quotations—Gold Silver **1.50** Copper, N. Y. Lead, N. Y. **15.50** Zinc, E. St. L.

ASSAYS	GOLD OZS. PER TON	SILVER OZS. PER TON	COPPER %	LEAD %	INSOLUBLE %	IRON %	ZINC %	SULPHUR %	LIME %	%	NON-SULPHIDE LEAD %	NON-SULPHIDE ZINC %
J. S. S. R. & M. Co.	<b>4.5</b>	<b>4.15</b>		<b>20.1</b>			<b>6.8</b>					
CCM	<b>.01</b>	<b>4.70</b>		<b>20.2</b>			<b>6.9</b>					
Umpire				<b>20.3</b>								
Less Non-Sulphide				<b>1.5</b>								
Settlement	<b>.005</b>	<b>4.58</b>	<b>.00</b>	<b>20.3</b>	<b>6.6</b>	<b>36.1</b>	<b>6.85</b>	<b>.40</b>	<b>9.1</b>	<b>.40</b>		

CAR NOS.	NET WEIGHT	METAL VALUES	TREATMENT CHARGES	DEBIT	CREDIT
<b>11</b>		Gold <b>4.5</b> % @ <b>1.50</b>			
		Silver <b>4.15</b> % @ <b>1.50</b>			
		Copper			
		Lead			
		Zinc			
			Based on <b>30</b> % Lead	<b>0.19</b>	
			Variation from <b>30</b> % Lead	<b>1.22</b>	
			Labor		
			Insoluble		
			Zinc, excess over %		
			Sul., excess over %		
			As., excess over %		
			Iron		
			Lime		
Total Weight					
Containers					
Wet Weight	<b>129042</b>				
Moisture <b>3.91</b> %	<b>7712</b>	Total Metal Value			
Dry Weight	<b>121230</b>	Less Treatment Charge			
			Net Treatment Charge	<b>1.41</b>	

Payment for	<b>61.084</b>	Dry Tons @	<b>33.20</b>	Per Ton	<b>2119</b>
Freight (Value under <b>200.00</b> Per Ton)	<b>0.740</b>	Wet Tons @	<b>66.74</b>	Per Ton	<b>437.50</b>
Handling Charge					<b>8.00</b>
Assay Charge					<b>9.00</b>
Umpire Charge					
Watching Charge					
Hauling <b>4.500</b>	Wet Tons @ <b>15.00</b>	Per Ton			<b>324.00</b>
Pay Hauling to:	<b>Don O'Brien</b>				
	<b>14 Corcoran Court</b>				
	<b>Sty, Nevada</b>				
Royalty: <b>6 7/8</b> of <b>\$1378.29</b>					<b>92.59</b>
	<b>Bill Kessels</b>				
	<b>Sty, Nevada</b>				
Royalty: <b>3 1/8</b> of <b>\$1378.29</b>					<b>45.94</b>
	<b>Grace H. Jackson</b>				
	<b>635 Mason Street</b>				
	<b>San Francisco, California</b>				
Royalty: <b>5%</b> of <b>\$1378.29</b>					<b>68.92</b>
	<b>Office of Mineral Exploration - 6,742, Field Team, Region 11</b>				
	<b>200 Battery Street - San Francisco, California</b>				
Total Deductions					
Net Payment					



NINTH FLOOR NEWHOUSE BUILDING  
P. O. BOX 1980 SALT LAKE CITY, UTAH 84110

Salt Lake City, Utah, JUNE 12, 1964

Purchased From IMBILTON CORPORATION

Pay IMBILTON CORPORATION, P. O. BOX 337, MEX, UTAH

Shipping Point: CAPT RIT, NEVADA

Lot No. 13 Product ORPES

Mine ORPES Gold License No.

Sampled by MOORE Received 6-1-64

Sampled 6-6-64 Assayed 6-10-64

Metal Quotations—Gold Silver Copper, N. Y. Lead, N. Y. Zinc, E. St. L.

ASSAYS	GOLD OZS. PER TON	SILVER OZS. PER TON	COPPER %	LEAD %	INSOLUBLE %	IRON %	ZINC %	SULPHUR %	LIME %	ANTHRACITE %	NON-SULPHIDE LEAD %	NON-SULPHIDE IRON %
U. S. S. R. & M. Co.												
Umpire												
Less Non-Sulphide												
Settlement	.005	4.60	1.0	19.50	7.4	27.0	7.15	.40	8.0	.00		

CAR NOS.	NET WEIGHT	METAL VALUES	TREATMENT CHARGES	DEBIT	CREDIT
		Gold % @			
		Silver % @	Based on % Lead		
		Copper	Variation from % Lead		
		Lead	Labor		
		Zinc	Insoluble		
			Zinc, excess over %		
			Sul., excess over %		
			As., excess over %		
			Iron		
			Lime		
Freight Weight	120000				
Total Weight					
Containers					
Wet Weight	128260				
Moisture 7.48 %	5098	Total Metal Value			
Dry Weight	120162	Less Treatment Charge	Net Treatment Charge		

Payment for 50.001 Dry Tons @ 39.66 Per Ton 1992

Freight (Value under \$60.00 Per Ton) 60 Ton 120.00 Wet Tons @ 35.50 Per Ton 330.00

Handling Charge

Assay Charge JUL 7 1964 9.00

Umpire Charge 5.00

Watching Charge

Hauling 54.120 Wet Tons @ 5.00 Per Ton 270.60

Pay Hauling tons Royalty: 6 2/3% of \$1351.58 = 892.71

Former Settlement 50.78

Additional amount due 82.39

Royalty: 111 Issues - Mx, Nevada

Royalty: 3 1/3% of \$1351.58 = 516.05

Former Settlement 14.00

Additional amount due 81.16

Once R. Jackson - 635 Beach Street - San Francisco, California

5% of \$1351.58 = 67.58

Former Settlement 67.34

Additional amount due 81.74

Office of Mineral Exploration - C.M.E. Field Team, Region II

545 Battery Street

San Francisco, California

Total Deductions

Net Payment

70000000 NO.  
**48341**  
**PAID**

62  
532



FLOOR HOUSE BUILDING  
P. O. BOX 1900 SALT LAKE CITY, UTAH 84110

Salt Lake City, Utah, JUN 15, 1964

Purchased From TAMMILTON CORPORATION  
Pay TAMMILTON CORPORATION, P. O. BOX 307, WELLS, UTAH

Shipping Point: PORT OF, NEVADA

Lot No. 10 Product ORE Mine Utah Gold License No.   
Sampled by 10000 Received 6-10-64 Sampled 6-10-64 Assayed 6-10-64  
Metal Quotations—Gold 1.000 Silver 1.000 Copper, N. Y. 13.00 Lead, N. Y. 13.00 Zinc, E. St. L. 13.00

ASSAYS	GOLD OZS. PER TON	SILVER OZS. PER TON	COPPER %	LEAD %	INSOLUBLE %	IRON %	ZINC %	SULPHUR %	LIME %	NON-SULPHIDE LEAD %	NON-SULPHIDE ZINC %
U. S. S. R. & M. Co.	22	1.50		20.7			7.0				
ONS	201	1.70		21.7			7.3				
UMPIRE				21.0							
Less Non-Sulphide				1.5							
Settlement	205	1.60	1.0	19.57	7.1	17.0	7.15	1.0	6.8	1.0	

CAR NOS.	NET WEIGHT	METAL VALUES	TREATMENT CHARGES	DEBIT	CREDIT
UP 91771		Gold <u>15.00</u> % @ <u>1.000</u> Silver <u>1.70</u> % @ <u>1.000</u> Copper <u>1.0</u> % @ <u>13.00</u> Lead <u>20.7</u> % @ <u>13.00</u> Zinc <u>7.0</u> % @ <u>13.00</u>	Based on <u>20</u> % Lead Variation from <u>20</u> % Lead Labor Insoluble Zinc, excess over % Sul., excess over % As., excess over % Iron Lime	6.00 1.00	
Total Weight					
Containers					
Wet Weight	10000				
Moisture <u>7.10</u> %		Total Metal Value <u>27.00</u>			
Dry Weight	10000	Less Treatment Charge <u>7.10</u>	Net Treatment Charge		

Payment for 50.081 Dry Tons @ 39.66 Per Ton 1963

	Wet Tons @ <u>39.66</u> Per Ton	DEDUCTIONS
Freight (Value under <u>200.00</u> Per Ton) <u>24.00</u>		<u>24.00</u>
Handling Charge		
Assay Charge		<u>9.00</u>
Umpire Charge		<u>3.00</u>
Watching Charge		
Hauling <u>51.250</u> Wet Tons @ <u>39.66</u> Per Ton		<u>2036.50</u>
Pay Hauling to:		
Royalty: <u>6 2/3</u> of <u>11346.74</u> = <u>613.10</u>		<u>613.10</u>
Royalty: <u>3 1/4</u> of <u>11346.74</u> = <u>460.15</u>		<u>460.15</u>
Royalty: <u>50</u> of <u>11346.74</u> = <u>567.34</u>		<u>567.34</u>
Total Deductions		
Net Payment		

JUN 15 1964  
VOUCHER NO.  
48066  
PAID



FOURTH FLOOR NEWHOUSE BUILDING  
P. O. BOX 1980 SALT LAKE CITY, UTAH 84110

Salt Lake City, Utah,

JUL 18, 1964

Purchased From **MINERAL EXPLORATION**  
**MINERAL EXPLORATION, P. O. BOX 35, SALT LAKE CITY, UTAH**

Shipping Point: **SALT LAKE CITY, UTAH**  
Lot No. **11** Product **COPPER** Mine **GRACE M. JACKSON** Gold License No. **1-1941**  
Sampled by **11** Received **6-15-64** Sampled **6-15-64** Assayed **1-1941**  
Metal Quotations—Gold **1.005** Silver **4.50** Copper, N. Y. **.70** Lead, N. Y. **10.4** Zinc, E. St. L. **10.7**

ASSAYS	GOLD OZS. PER TON	SILVER OZS. PER TON	COPPER %	LEAD %	INSOLUBLE %	IRON %	ZINC %	SULPHUR %	LIME %	NON-SULPHIDE %	NON-SULPHIDE LEAD %	NON-SULPHIDE ZINC %
U. S. S. R. & M. Co.	<b>.02</b>	<b>4.10</b>		<b>11.5</b>			<b>10.1</b>					
COP	<b>.01</b>	<b>4.00</b>		<b>12.0</b>			<b>10.7</b>					
Umpire				<b>11.75</b>			<b>10.4</b>					
Less Non-Sulphide				<b>1.00</b>								
Settlement	<b>1.005</b>	<b>4.50</b>	<b>.70</b>	<b>10.25</b>	<b>5.6</b>	<b>12.3</b>	<b>10.4</b>	<b>.20</b>	<b>21.6</b>	<b>.25</b>		

CAR NOS.	NET WEIGHT	METAL VALUES	TREATMENT CHARGES	DEBIT	CREDIT
		Gold <b>% @</b>			
		Silver <b>% @ 1.005</b>	Based on <b>30 % Lead</b>	<b>6.07</b>	
		Copper	Variation from <b>30 % Lead</b>	<b>1.90</b>	
		Lead	Labor		
		Zinc	Insoluble		
			Zinc, excess over <b>%</b>		
			Sul., excess over <b>%</b>		
			As., excess over <b>%</b>		
			Iron		
			Lime		
Freight Weight	<b>120000</b>				
Total Weight					
Containers					
Wet Weight	<b>118640</b>				
Moisture <b>1.36 %</b>	<b>1600</b>	Total Metal Value <b>20.05</b>			
Dry Weight	<b>116940</b>	Less Treatment Charge <b>8.07</b>	Net Treatment Charge	<b>8.07</b>	

Payment for	<b>55.0225</b>	Dry Tons @ <b>21.95</b>	Per Ton	DEDUCTIONS
Freight (Value under <b>100.00</b> Per Ton)	<b>60.00</b>	Wet Tons @ <b>10.50</b>	Per Ton	<b>120.00</b>
Handling Charge				<b>9.00</b>
Assay Charge				<b>2.10</b>
Umpire Charge				
Watching Charge				<b>296.65</b>
Hauling <b>57.500</b>	Wet Tons @ <b>45.00</b>	Per Ton		
Pay Hauling to:	<b>1000000</b>			
	<b>17,000000</b>			
	<b>117,000000</b>			
Royalty: <b>6 1/2 % of 1000.00</b>	<b>6.25</b>			<b>38.01</b>
Royalty: <b>3 1/2 % of 1000.00</b>	<b>3.50</b>			<b>17.10</b>
Royalty: <b>5 % of 1000.00</b>	<b>5.00</b>			<b>20.71</b>
				<b>85.52</b>
Total Deductions				
Net Payment				

JUL 7 1964  
VOUCHER NO.  
**48341**  
**PAID**



Salt Lake City, Utah,

Purchased From

PA 111207 0505043501

Pay\_

Shipping Point:

Lo. 10.

Product

Mine

Gold License No.

Sampled by

Received

Sampled

Assayed

### Metal Quotations—Gold

Silver

Copper, N. Y.

Lead, N. Y.

Zinc, E. St. L.

Net Payment



P. O. BOX 1900 SALT LAKE CITY, UTAH 84110

Salt Lake City, Utah,

SEPTEMBER 23, 1964

Purchased From HAMILTON CORPORATIONPay HAMILTON CORPORATION, P. O. BOX 337, ELY, NEVADAShipping Point: EAST ELY, NEVADA

Lot No. 50 Product CRUDE Mine CRUTIA Gold License No. 9-17-64  
 Sampled by TOORIE Received 9-11-64 Sampled 9-15-64 Assayed 9-17-64  
 Metal Quotations—Gold 1.289 Silver 1.289 Copper, N. Y. 13.80 Lead, N. Y. 13.50 Zinc, E. St. L. 13.50

ASSAYS	GOLD OZS. PER TON	SILVER OZS. PER TON	COPPER %	LEAD %	INSOLUBLE %	IRON %	ZINC %	SULPHUR %	LIME %	ARSENIC %	NON-SULPHIDE LEAD %	NON-SULPHIDE ZINC %
U. S. S. R. & M. Co.	.01	4.11		18.2			12.6					
C&N	.01	4.95		18.7			12.7					
M. S. Umpire		4.59		18.15 av.								
Less Non-Sulphide				1.50								
Settlement	.01	4.59	.80	16.95	10.0	13.9	12.65	.30	7.7	.25		

CAR NOS.	NET WEIGHT	METAL VALUES	TREATMENT CHARGES	DEBIT	CREDIT
		Gold - % @ -			
UP 87875		Silver @ 1.279	5 23	Based on 30 % Lead	6 09
		Copper		Variation from 30 % Lead	7 31
		Lead	35 97	Labor	
		Zinc	5 64	Insoluble	
				Zinc, excess over %	
				Sul., excess over %	
				As., excess over %	
				Iron	
				Lime	
Freight Weight	120000				
Total Weight					
Containers					
Wet Weight	112360				
Moisture 1.18 %	4697	Total Metal Value	16 24		
Dry Weight	107663	Less Treatment Charge	7 10	Net Treatment Charge	7 10

Payment for 53,8315 Dry Tons @ 39 14 Per Ton 2123

			DEDUCTIONS
Freight (Value under 60.00 Per Ton)	60 Ton Min. Wet Tons @ \$5.50 Per Ton		330 00
Handling Charge			
Assay Charge			9 00
Umpire Charge			5 00
Watching Charge			
Hauling 56,180	Wet Tons @ \$5.00 Per Ton		280 90
Pay Hauling to:	Dan Oxborrow		
	14 Connors Court		
	Ely, Nevada		
Royalty: 6 2/3% of \$1498.21	Bill Isaacs		99 88
	Ely, Nevada		
Royalty: 3 1/3% of \$1498.21	Grace M. Jackson		19 94
	635 Mason Street		
	San Francisco, California		
Royalty: 5% of \$1498.21	Office of Mineral Exploration		74 91
	O.M.E. Field Team Region II		
	555 Battery Street		
	San Francisco, California		
Total Deductions			
	Net Payment		



## 3. INVENTORY OF EQUIPMENT

## 3.1 GENERAL:

The following inventory of equipment was prepared from data obtained from Hal Jensen, and personal inspection of most of the larger pieces of equipment and supplies.

## MACHINERY IN THE SHAFT

Mine cars  
Air receiver tank  
Air pipe  
Rail

## MAIN INVENTORY OF EQUIPMENT

- 1 Three-ton Ford dump truck
- 1 One and  $\frac{1}{2}$  ton Ford truck-junk.
- 1 Water truck and tank-in very poor repair
- 1 D-4 Caterpillar bulldozer
- 1 Michigan front end loader
- 2 large trailer houses-in poor repair but useable.
- 1 Diesel generating set with 1 extra generator and excitor-219.
- 1 Dualelectrical panel board with above-housed, metal building.
- 1 Air compressor with electric motor to start generator.
- 6 50 KVA transformers-three installed.
- 6 Small transformers, various voltages, some installed.
- 1 500 cu. fit. Gardner-Denver compressor with electric motor.
- 1 Atlas-Copco compressor with Duetz diesel engine.
- 1 Metal building hoist house housing the above near shaft
- 3 Atlas Copco jack leg drill machines-for underground
- 1 Gardner-Denver jack leg drill machine.
- 2 Atlas-Copco stoper drill machines.
- 1 Gardner-Denver jack hammer
- 1 Joy wagon drill
- 1 Mancha charger for underground trammer
- 1 Mancha motor with battery
- 1 Extra battery for Mancha
- 1 Vibrating Screen with 10 h.p. electric motor & starting switch  
Outside-installed to screen oversized and rubble from ore.
- 1 Eimco 12B mucking machine-underground good shape
- 2 Eimco 12 B mucking machines-above ground-need repairs.
- 2 Mine blowers
- 2 Mine pumps-not located-be possible in shaft area.
- 1 Small water pump with gas engine



- 1 One thousand gallon water tank
- 1 Steel head frame over shaft-but not completed.
- 1 500 gallon fuel tank
- 1 200 amp lincoln arc welder-run down
- 1 Victor cutting & welding torch
- 1 40-gallon electric hot water heater in dry room next to generator area.
- 1 Jim crow-for rail work
- 1 Bucket for Eimco mucking machines-extra
- 1 Gardner-Denver double drum slusher-in slopes underground.
- 4 20 Ft. end dump mine cars
- 2 Shaft cages

#### TOOLS AND SMALL ITEMS

- 1 Air saw ✓
- 1 Rigid pipe threading set
- 1 Shop vise
- 6 Wheat mine lamps
- 1 Wheat lamp charger
- 2 MSA Mine lamps
- 1 MSA lamp charger
- 3 Tons of structural iron-scrap

#### OTHER ITEMS:

Plastic hoses  
 Spare parts for Eimco mucking machines  
 Pipe and rail installed in mine approx-1500 feet  
 Spare mechanical parts  
 Electric welding rod and brazing rod  
 Powder- 1 ton of prill  
 Caps- one case  
 Fuse- 3000 feet  
 4" pipe and fittings  
 6" pipe and fittings  
 Air and water hose  
 Air lines and fittings.  
 hand tools  
 Plumbing fixtures in dry room

#### MISCELLANEOUS

Electrical switches  
 Transmission lines-insulators, etc.  
 Drill steel and bits  
 12 tons of rail  
 Electric cable installed in mine  
 Small parts and supplies  
 Mine timber



# LEASED EQUIPMENT

- 2 Large fuel tanks leased from Phillips 66 Oil Co. Ely.
- 2 Large propane tanks leased from L & R Gas Company, Ely.

The following equipment will be removed from the property by Hal Jensen.

- 2 Air tanks 1 62 x 10'. 1 on compressor
- 1 Water tank-300 gallons
- 1 Stretcher basket
- 4 End dump mine cars
- 1 Oil-type transformer
- 6 lengths of air and water hose
- 1 Large track bar
- 1 Air water pump
- 1 Slucher bucket and block
- 1 125 amp switch

## EQUIPMENT LOCATED IN ELY.

- 1 Electric Hammer screen
- 1 Joy double drum air slusher
- Miscellaneous electric and slusher parts.

The above equipment is reported to be insured for \$65,000.00, the present writer would estimate the value of the equipment as less than \$50,000.00, and if work is resumed, would not recommend insurance greater than \$45,000.00, since some of the equipment has only scrap value.

The installation and value of the camp, access roads, stockpile pad, and buildings, trailers, etc., is also involved, and does have some stipulated cost based on the original expenditures associated with the direct work to prepare the installation.



#### 4. STOCKPILE RESERVES AT MINE

##### 4.1 GENERAL:

It was reported that some 1800 tons of ore were stockpiled on the reserve pad outside of the mine, and some 300 to 400 tons of ore were mined underground in the chute and stope areas. The stockpile was measured and it is estimated that the reserve in the stockpile is not less than 1000 tons, but probably not the reported 1800 tons. Access to the ore underground in the chute areas was difficult and may approach the reported amount.

##### 4.2 VALUE OF RESERVE STOCKPILE

Samples of the stockpile reserve were taken and composited and assayed, the following results were obtained:

Gold:	trace
Silver:	3.48 ounces
Copper:	.694 %
Lead:	12.30 %

The ore would therefore have more than a \$30.00 gross value, and could be shipped whenever desired. The value of the ore may be somewhat higher than the composite since the pile has been sitting some 8 to 10 months. The ore is mostly oxidized, but would probably gross more than \$30,000.00 out of which freight, hauling, royalties and smelter charges would have to be deducted. This would be considered a conservative value and reserve.

The reserve stockpile is in one area and can easily removed when desired. It is a screened product and not chunky. The smelters are now operating and receiving ore.

#### 5. ORE UNDERGROUND

##### 5.1 GENERAL:

Insufficient data exists to compute any tonnage for the reserve underground. It does appear that most of the work done to date is on the west edge of the mineralization and that the major portion of the ore reserves remain intact below ground, and probably extend to considerable depths down dip on the main structure and to the east.

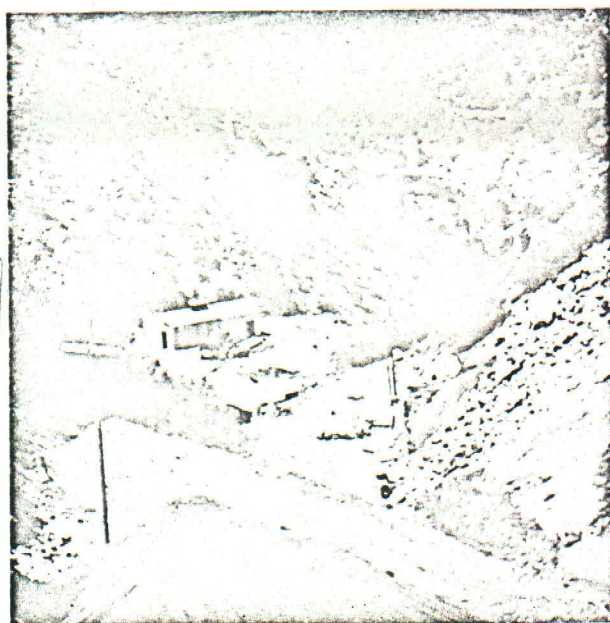
##### 5.2 ORE IN PLACE:

Very good ore was observed in two places above the upper level Adit, both fairly accessible, and probably representing some excellent grade and tonnages.



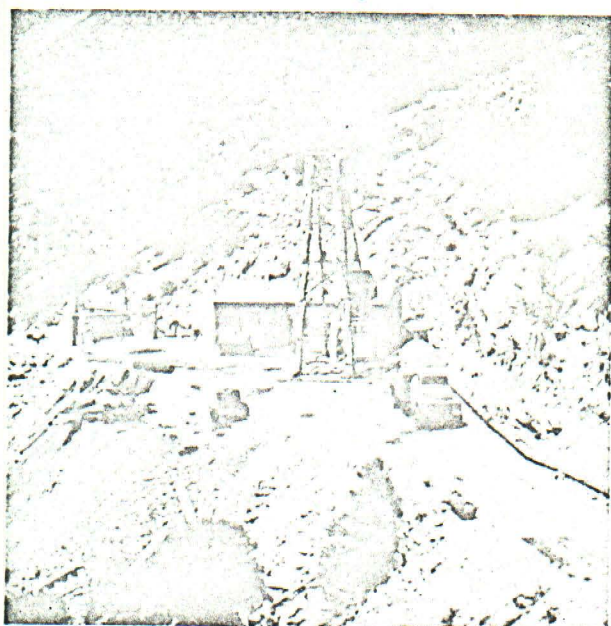


Stockpile reserve at Onetha Mine. Screen and Chute equipment shown. Picture taken from Steel Head Frame over the shaft area. Portal of upper level shown just above Chutes. Looking eastward.

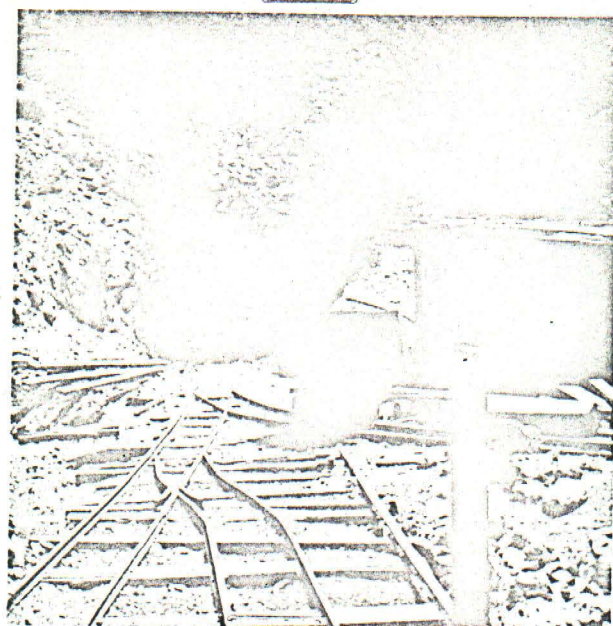


Looking south down the canyon from the Chutes at portal to upper adit level. End of stockpile reserve in foreground.

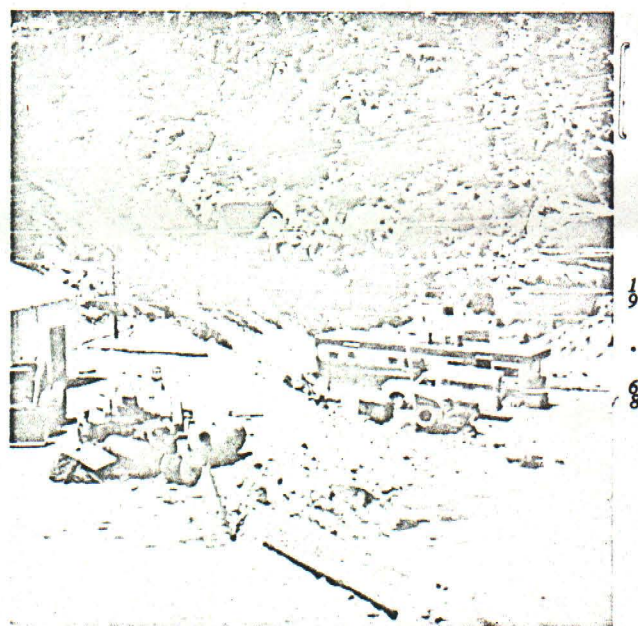




Looking west to the Steel Head Frame over the shaft. Water truck and hoist house visible.



Looking eastward into the Portal of the Upper Adit. Tool shed and some equipment.



Looking south down the Canyon. Generator building and equipment on left, trailers visible in the center. Transmission lines and access roads are apparent.



One of these places, the lowest grade of the two faces observed was sampled, the results were:

Gold:	.01	oz
Silver:	14.21	ounces
Lead:	17.05	%
Copper:	.483	%
Zinc:	not assayed.	

20  
25  
45  
57.5

The width of the nearly 80° dipping structure and veined area was 4.5 feet. A good stoping width, and very good ore, having a gross value in excess of \$65.00 per ton. Mining in this area could expect ore values to go upwards and eastward from this sampled area. Mining could resume in this area at most any time. With some changes in engineering efficient mining could be accomplished in this area.

The second face is a higher grade ore than the first, or that sampled above, and is a little less ready for mining, but an access stope and raise and chute area is in the proximity of the unmined portions of this structure. However, it will represent less tonage since it is closer to the existing surface and mining could be conducted westward into mined-out areas.

No mining has been conducted in the areas of these good ore faces below the level of the main adit which suggests a fairly large reserve below the adit level. The ore faces are about 500 feet east of the portal opening. On the lower level, the mineralized zone is 100 to 200 feet east of the existing face on the lower level (140 level). Thus, a very good potential exists on the lower level (140 level) east of its present extent, and perhaps good ore will also persist below the 140 level.

A very important point is to note that the silver content is higher in the unmined face area sampled above than in any other area of the mine previously worked. Most of the major silver mined from the Hamilton district was mined from workings about 3000 to 5000 feet east of the Onetha Mine. It is very possible that rich silver may occur at any time in the mineralized areas of the Onetha vein, and as indicated by the sample above, would provide excellent silver values.

Resumption of mining therefore should probably be made on the face as sampled above since it could open into richer silver ore, and it would open up the unmined potential of the area east of the existing workings. See the maps for the general picture.



North-South structures some distance from the present Onetha workings, dipping westward, must intersect the north dipping Onetha structure at some depth east and at depth beyond the present workings. These north-south structures carry richer silver. The increment in silver in the present area of the Onetha mine suggests a very good chance must exist that silver will increase with proximity to the north-south structures and as the distance to the main silver area to the east is decreased.

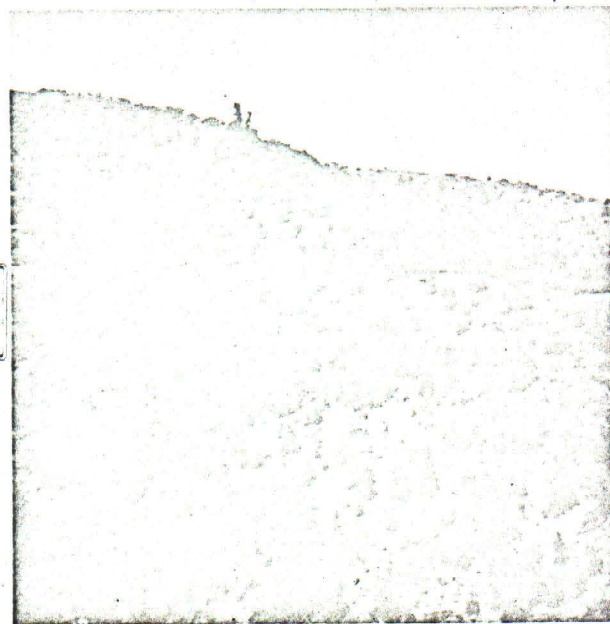
To evaluate the possibilities that therefore do exist, the following recommendations and suggests are made:

1. Complete the geological map of the surface of the Onetha Mine area and connect the map with the area to the east which was the loci for rich silver deposition.
2. Project the structural aspects of the geological data that will be obtained by the mapping and prepare cross sections of the area east of the Onetha and north.
3. The geological data and subsurface interpretations that Item 2 above will provide will permit the selection of two drill holes. These should be drilled to intersect the Onetha structure about 400 to 500 feet down dip from the present main level adit, or about 500 to 600 feet from the surface of the area that would be drilled. Photographs showing the terrain in this approximate area are included with this report.
4. The drilling results would then suggest the activity that would follow. Positive results could result in deepening of the shaft, extension of the two levels eastward, and development of under-hand mining activities to exploit any ore indicated below the 140 foot level. A discovery of ore at the depths indicated would constitute a major operation and provide a long range program for the project.

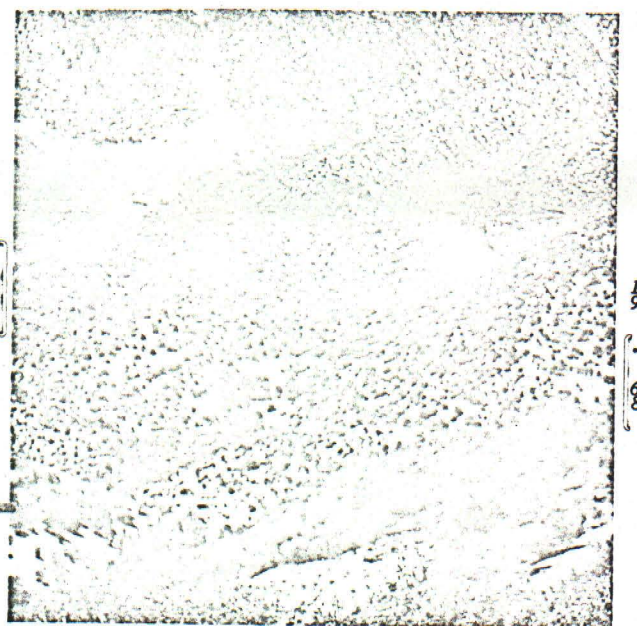
Drilling, geological work, assaying, and associated costs for the recommended work would approach \$15,000.00, involve upwards of more than 1200 feet of drilling, and a week or two of geological mapping in the field. A drilling rig on a rental basis might permit reducing the cost of the program to nearer \$10,000.00.

During this drilling and evaluation exploration, mining could be carried on and be directed, in the two existing levels. Production would in part pay for the project.





Looking southeastward. Possible location of Drill holes recommended in Text. Area is northeast of Onetha workings.



Looking westward from Treasure Hill area. Onetha Shaft is at intersection of black lines in lower left.



## 6. PETROGRAPHIC WORK

### 6.1 GENERAL:

Several samples of sulfide ore were found in the upper level workings. Most of the ore in the upper level is oxidized and therefore not very practical for paragenesis studies of the original hypogene mineralization.

### 6.2 OXIDIZED ORE:

The main ore, oxidized in the vein, but not leached very much, consists of vein material, quartz, broken limestone, and brecciated particles of silicified limestone.

The ore consists mainly of cerussite enclosing a few relict grains of pyrite and galena. Later aurichalcite, jarosite, and hemimorphite occur in vugs. The redistribution of the zinc results in local areas richer in zinc and sometimes without much zinc values.

Individual or discrete silver minerals were not identified in the oxidized zones. Some malachite is observed where later copper-silver mineralization occurred along the boundaries of the vein and earlier galena mineralization. Those zones that are richer in silver appear to have sustained at least two phases of mineralization. The copper-silver rich later phase is of the most interest. Prospecting should take into consideration that the best areas to concentrate mining and exploration in are those which exhibit more than one phase of mineralization, or which show that the mineralization that did occur is the copper-silver rich phase.

### 6.3 SULFIDE ORE:

A specimen of massive galena was obtained from the area about 500 feet in from the adit on the upper level. The sample shows massive galena enclosing earlier, fractured pyrite anhedral. Dr. Williams who did the petrographic work on the samples also identified for the writer the primary hypogene silver minerals in the Treasure Hill area east of the Onetha Mine. Eventually, with further work, the Onetha Mine can be correlated with the mineralizing activities that occurred to the east and which resulted in rich silver deposition.

The galena contains small, rounded earlier blebs of sphalerite and silver bearing tetrahedrite. The writer thinks that is the first identification of tetrahedrite in the area, and will add to the understanding of the mineralization in the district, and is more encouraging since the more abundance of silver mineralization the richer will be the ore and the potential at depth and to the east.



October 17, 1969

Mr. Jack Frizzell  
International Energy Co.  
628 Patterson Bldg.  
Denver Colorado 80201

Dear Mr. Frizzell:

I visited your Onetha mine on October 10th in the company of Mr. Hal Jensen. It is certainly a small property that is worth looking at.

The two maps that you let me have do not include the easternmost part of the upper workings. You may have told me this when you gave the maps to me. I do note that McGriffin's map, dated October 1967, is labeled "West Sheet". If you have his "East Sheet", provided that there is one, I would like to have a copy of it. It would help out in my evaluation of the Onetha mine.

I was pleased to make your acquaintance and hope to see you again.

J. McLaren Forbes



The tetrahedrite, in turn, contains minute droplets of bornite and chalcopyrite, the primary copper minerals.

Rare chalcopyrite blebs occur in the sphalerite, this exsolution activity generally is considered indicative of temperatures of mineralization at about 354° C.

Traces of chalcopyrite and tetrahedrite were also noted as inclusions in the pyrite.

The single sample only suggests the paragenetic sequence, but the following can be outlined:

Doming in the Treasure Hill Area  
Fracturing and dilation along east-west zones  
Fracturing and dilation along north-south zones.  
Mineralization

1. Bornite-Chalcopyrite mineralization
2. Tetrahedrite mineralization
3. Pyritization
4. Sphalerite mineralization - 355°C.
5. Fracturing-
6. Galena mineralization

Oxidization of the ore since the mineralizing activities have provided a thick coat or rim of coarse, randomly oriented covellite tablets and rare chalcocite on the galena.

Oxidation products include massive anglesite after the original galena, followed by crystalline cerussite at the expense of more galena. Rosasite, malachite, and hemimorphite also followed as oxidation progressed. Hematite and the cerussite are the most obvious minerals observed in hand samples.

The late silver mineralization, which involved selenium silver minerals, has not occurred in the sampled area, but could be expected eastward and closer to the north-south structures.

The increment in silver to the east suggests increasing freibergite (silver rich tetrahedrite) in that direction, and supports the recommendation to proceed with mining in that direction, especially since there is an excellent face of ore to start with.

More samples and associated geological work will provide insight into and clarify the mineralization picture for the district, much of which has not as yet been worked out by previous operators. Previous operators know very little about the nature and origins of the ore deposits, or their potential.



More sulfide ore was found on the lower level (140) and samples taken by the writer in 1965 showed only the pyrite-sphalerite-galena mineralization. The sampled area is about 200 feet west and 150 feet below the location of the present sample. Thus, again, further work on the lower level would be justified to possibly intersect downward projections of the richer ores now being found in the upper adit workings.

Most of the ores are being found in structural veins in the Nevada Limestone, a Devonian massive and thin bedded formation which is called the Guilmette formation east of Ely, and which is the loci of many of the ore deposits in east central Nevada.

Geological mapping would disclose more details of the control and localization of the ores, as well as the nature of the mineralizing details and paragenetic aspects and zoning in the Onetha structure. Most of the important aspects of this type of work have not been carried out on the Onetha or not recorded. Such work would advance the potential of the mine considerably.

The unmined potential of the Onetha Mine is considered therefore to be a very good one, and certainly justifies resumption of mining, preliminary prospect drilling following surface mapping and selection of drill sites and correlation of the Onetha area with the Treasure Hill general area.

## 7. MAPPING

### 7.1 GENERAL:

The maps assembled for this report were obtained from Mr. Ranney and Bill Gergen. Gergen's map was redrafted and can be utilized to plot stope assays and work between the two levels. McGriffins work will also provide some control for additional mapping that is recommended. All maps are in map box.

### 7.2 RECOMMENDED MAPPING:

The following mapping is recommended:

1. Surface Geological map utilizing as a base the Onetha Map prepared by McGriffin. The Map should extend from the Ora Mine to the Treasure Hill area. It could be a composite Map.
2. Map in the sampled face of silver-lead rich ore, and prepare stope maps to proceed with mining.



The existing maps can be utilized to a great advantage, and can be revised and redrawn for geological purposes.

Copies of the redrawn maps will then be available for petrographic, geochemical zoning, and assay plotting. Much of such work is not available for the Onetha Mine, and thus mining has been inefficient and often lacked direction. The objectives that are possible could not be recognized without the paragenetic work, partially started by this report, and the completion of geological work.

## 8. EXPLOITATION PROGRAM

### 8.1 GENERAL:

Mining can resume on the property by the replacement of some gear not belonging to Industrial Uranium and removed by Hal Jensen, re-stocking of expendable supplies, renovation of the chute and mine area near the ore faces that are exposed, and development of a well ordered program.

The present writer and associates could program the project and assist in executing it. However, any good mining geologist could develop the program, and certainly the writer recommends that work proceed. The Onetha mine is relatively undeveloped. More than 95 % of the potential seems to be untouched.

Respectfully submitted

*Einar C. Erickson*  
Einar C. Erickson

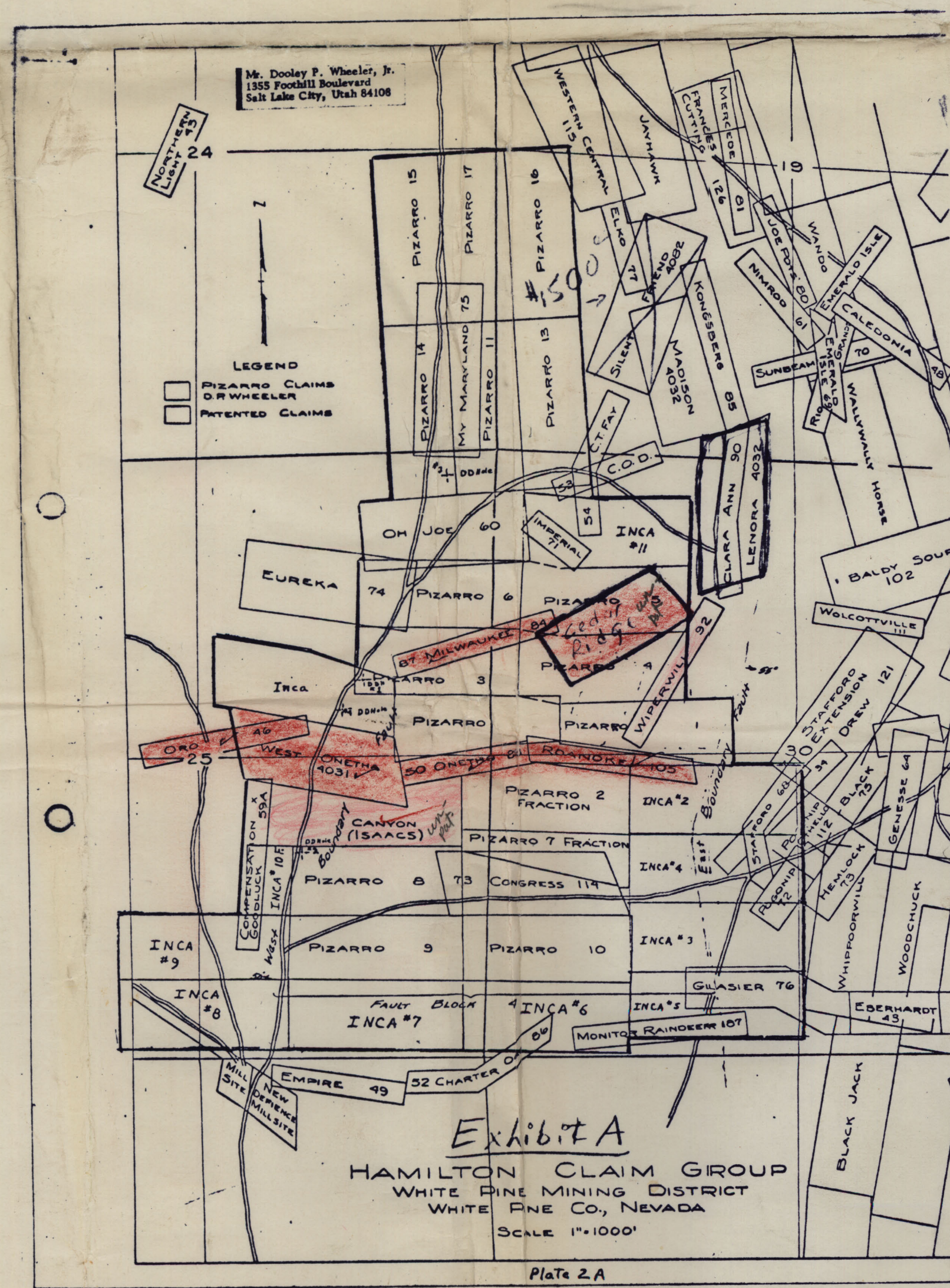
Registered Professional Engineer  
Geological Nevada 1653  
Ely, Nevada July 1968



5290 0123

140' Level

WEST ONETHA SHAFT  
(DMEA PROJECT)



Onetha Adit

No.	Au	Ag	Pb	Cu	Zn
1	.04	7.30	18.05	07	3.95
2	.02	5.20	14.85	55	14.96
3	.01	5.60	8.55	80	13.40
4	.01	6.00	4.90	60	11.30
5	.02	5.40	13.95	50	9.90
6	.01	5.50	8.85	70	10.40
7	.01	4.00	6.00	60	10.40
8	.01	4.00	6.00	60	10.40
9	.01	4.00	5.00	60	15.95

PROPOSED CROSS CUT

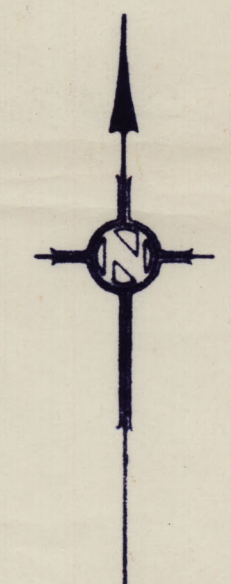
No.	Au	Ag	Cu	Pb
1	.01	4.90	70	11.90
2	.01	3.60	140	8.20
3	.01	3.20	—	4.10
4	—	3.40	90	18.55

No.	Au	Ag	Cu	Pb	Zn
1	.013	4.62	90	23.2	5.4
2	.013	4.90	65	18.0	8.3
3	.013	4.60	70	23.7	3.1

## EXPLANATION

DEVONIAN  
Dn Nevada Limestone

Contact  
Fault  
Veins  
Dip and strike  
Shaft



INTERNATIONAL ENERGY INC.  
628 PATTERSON BLDG.  
DENVER COLORADO

Plan Map  
ONETHA MINE

Scale 1"=20' Date  
Mapping Bldg. Erickson, Co. J. Owens

IE-0-1  
Revised July 1968

327  
Item 113





UNDERGROUND WORKINGS  
**ONETHA MINE**  
HAMILTON Mining District, White Pine Co., Nevada  
Section 25, T16N, R37E  
Section 30, T16N, R38E

- Limestone or Dolomite, Massive
- Strongly Fractured
- Breccia
- Calcite, veins and fillings
- Strike and Dip of Beds
- Prominent Shears or Fractures
- Faults, showing Dip and Striae Direction
- Veins as defined by iron goossans

Field work and map preparation by Ken Mc Griffin Oct 1967

WEST SHEET

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Item 113