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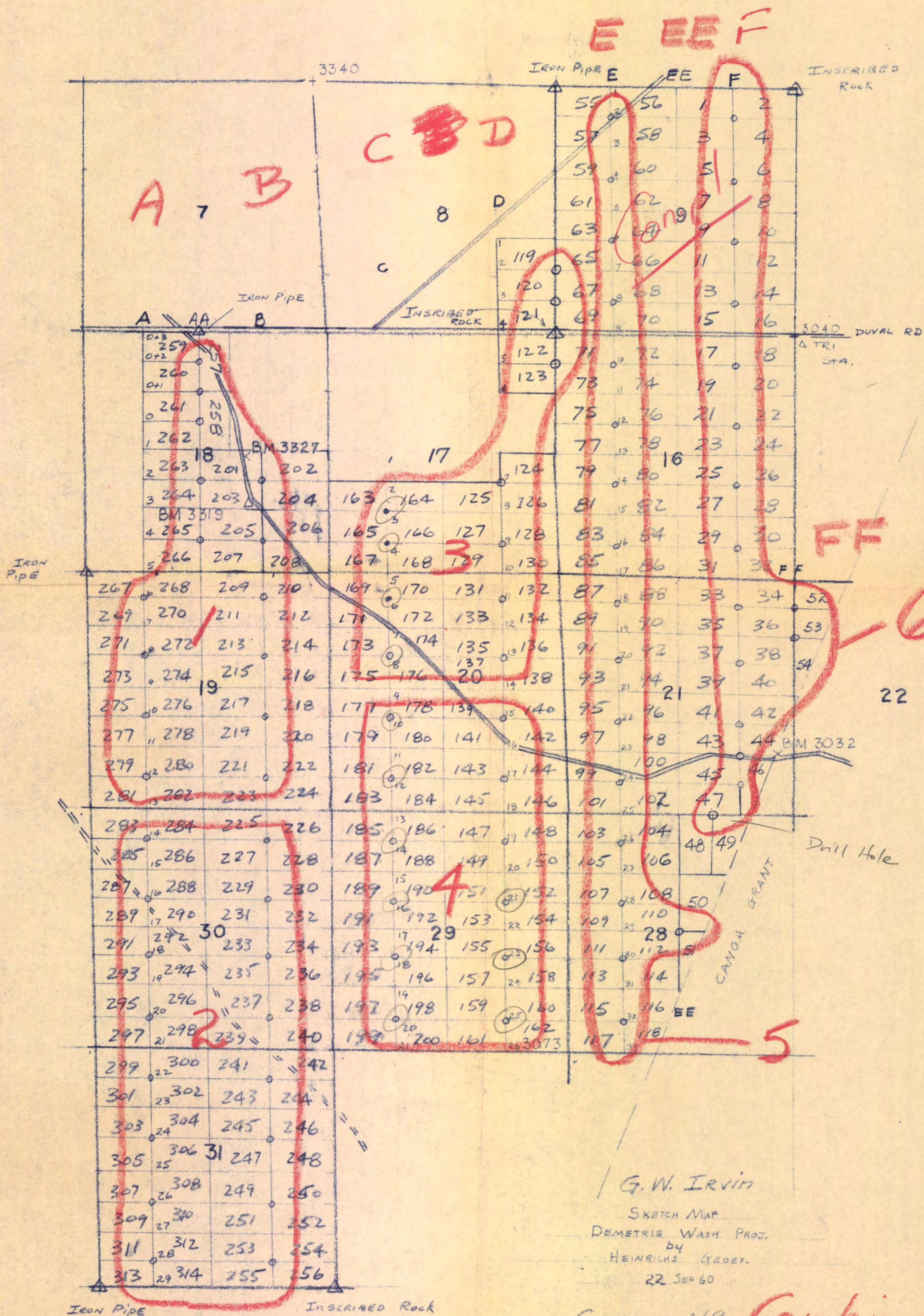
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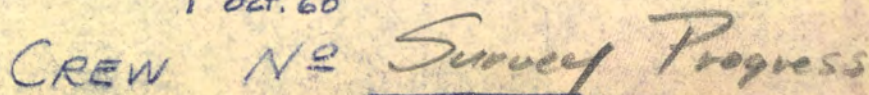
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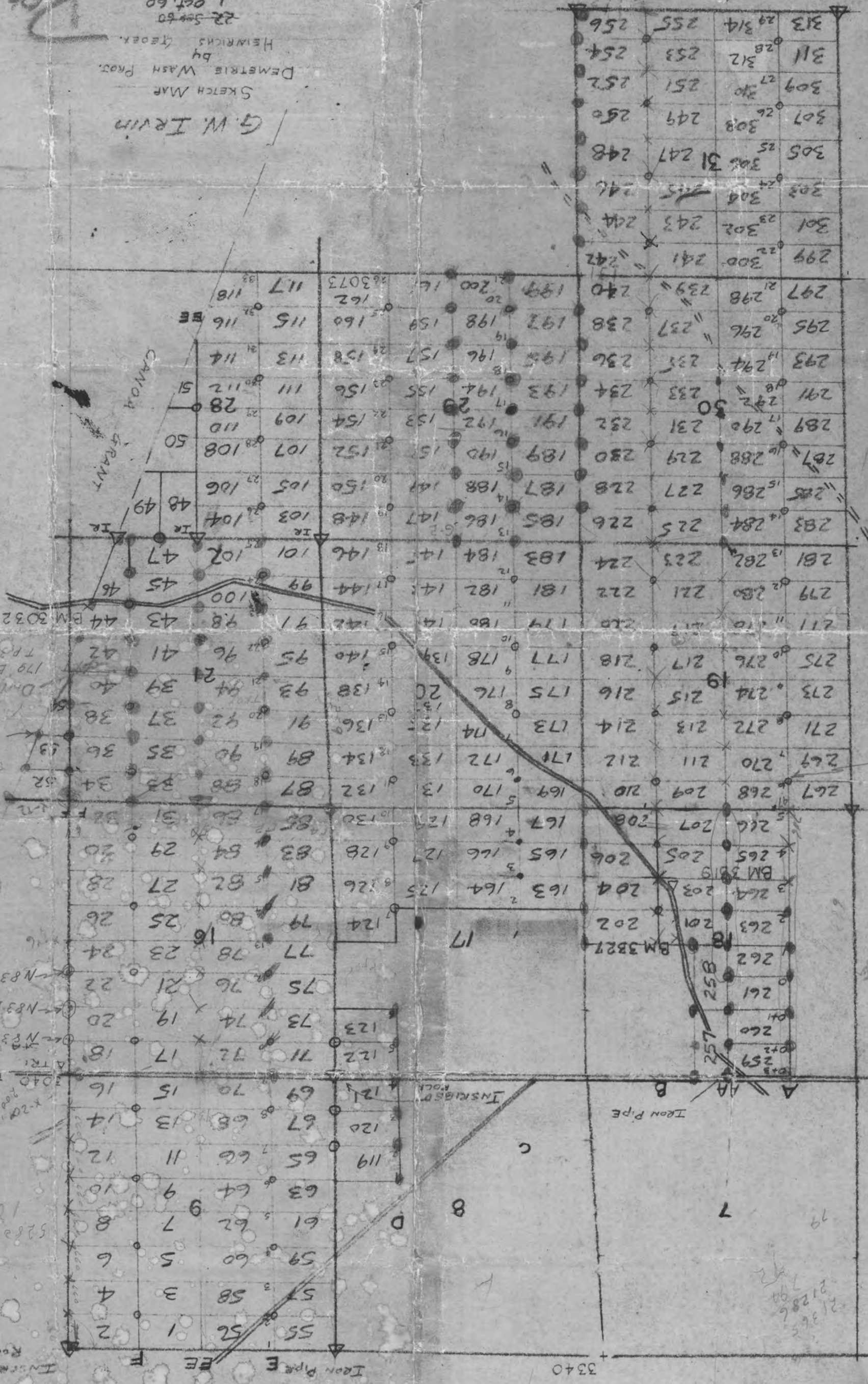
CREW No Combined

Completed

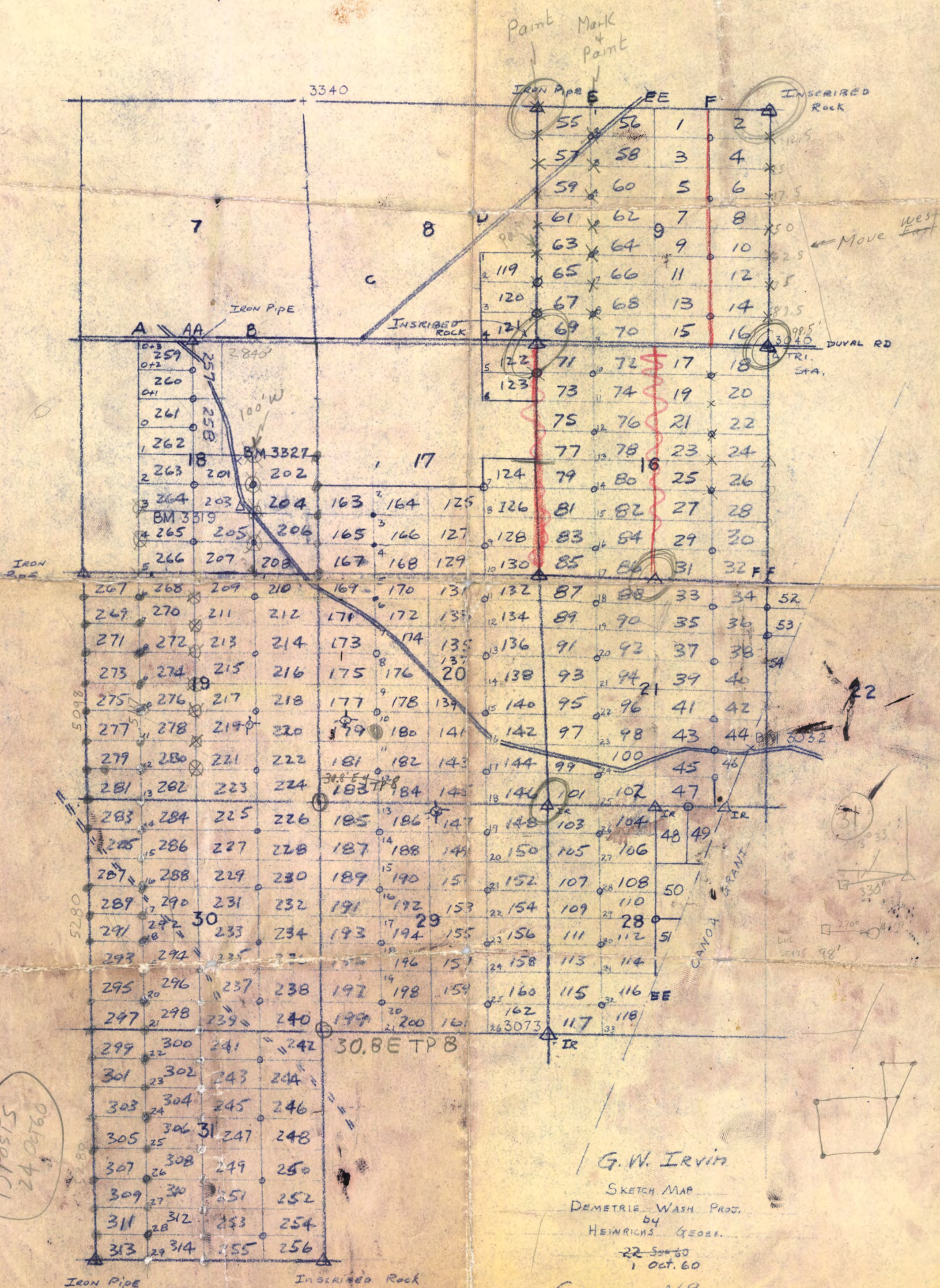


CREW No
1 Oct. 60
Sketch Map
DEMESTRIE WASH PROT.
HEAVY 3/4
22.5
20327
Don Green

Iron Pipe
Inscribed Rock



21266 AM 1
21366 PM 1
21433 PM 2



G. W. Irvin

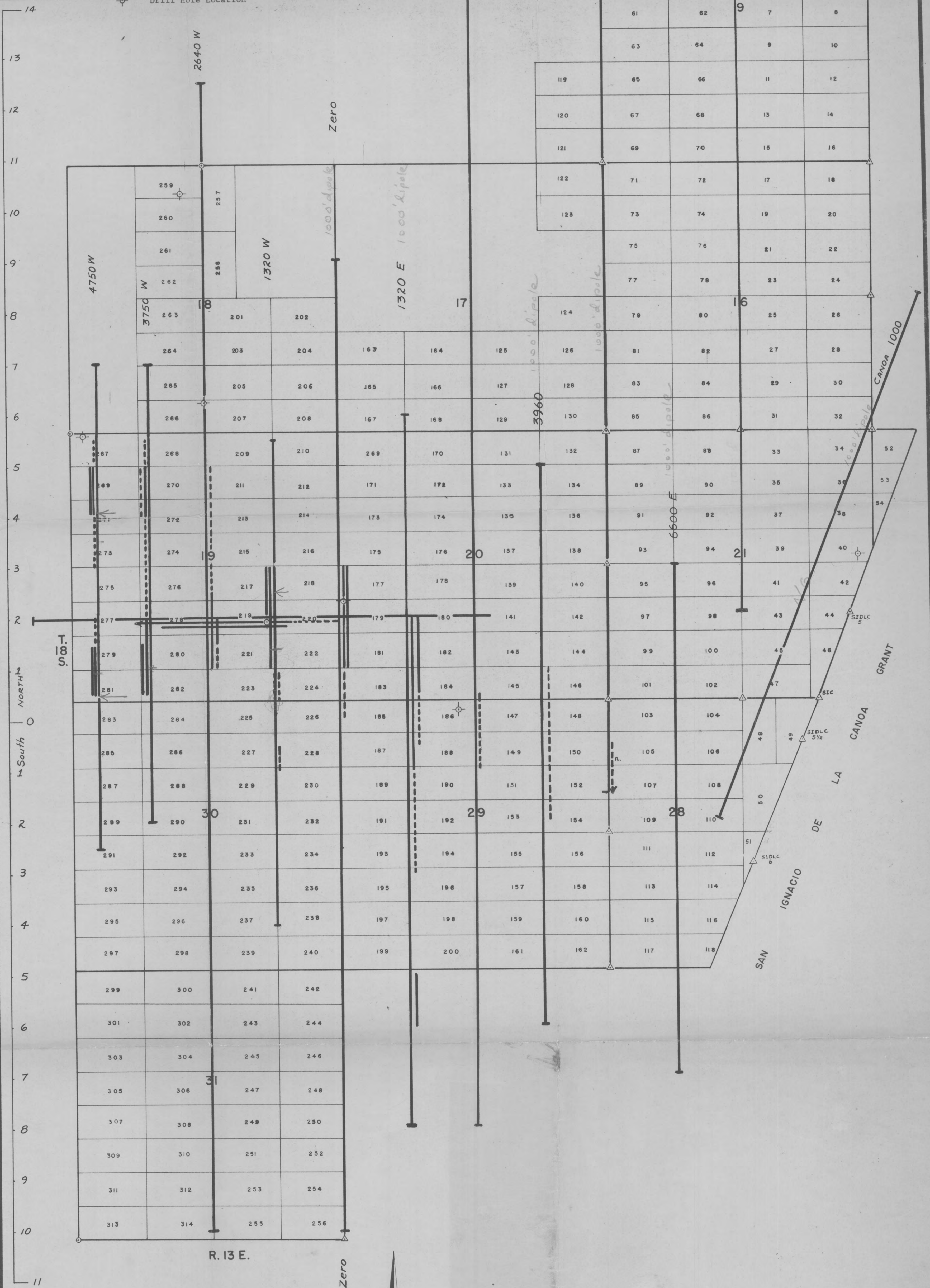
SKETCH MAP
DEMETRIE WASH PROJ.
by
HEINRICHS GEOR.

~~22-5-60~~
1 Oct. 60

CREW No

EXPLANATION

- Indicates land survey monument other than U.S.B.L.M., origin shown if known
- △ Indicates inscribed rock U.S.B.L.M.
- Indicates magnetic traverse route
- ▬ Indicates Induced Polarization Survey
- ⊕ Drill Hole Location



INDUCED POLARIZATION INFORMATION

- End of line
No anomaly
I.P. Line
- Weak or questionable
- Moderate Anomaly
- Moderate to Strong anomaly
- Strong anomaly
Anomaly continues beyond last data point

0 0 10 20 30 40
SCALE IN HUNDREDS OF FEET

INDUCED POLARIZATION SURVEY TROY CLAIM GROUP

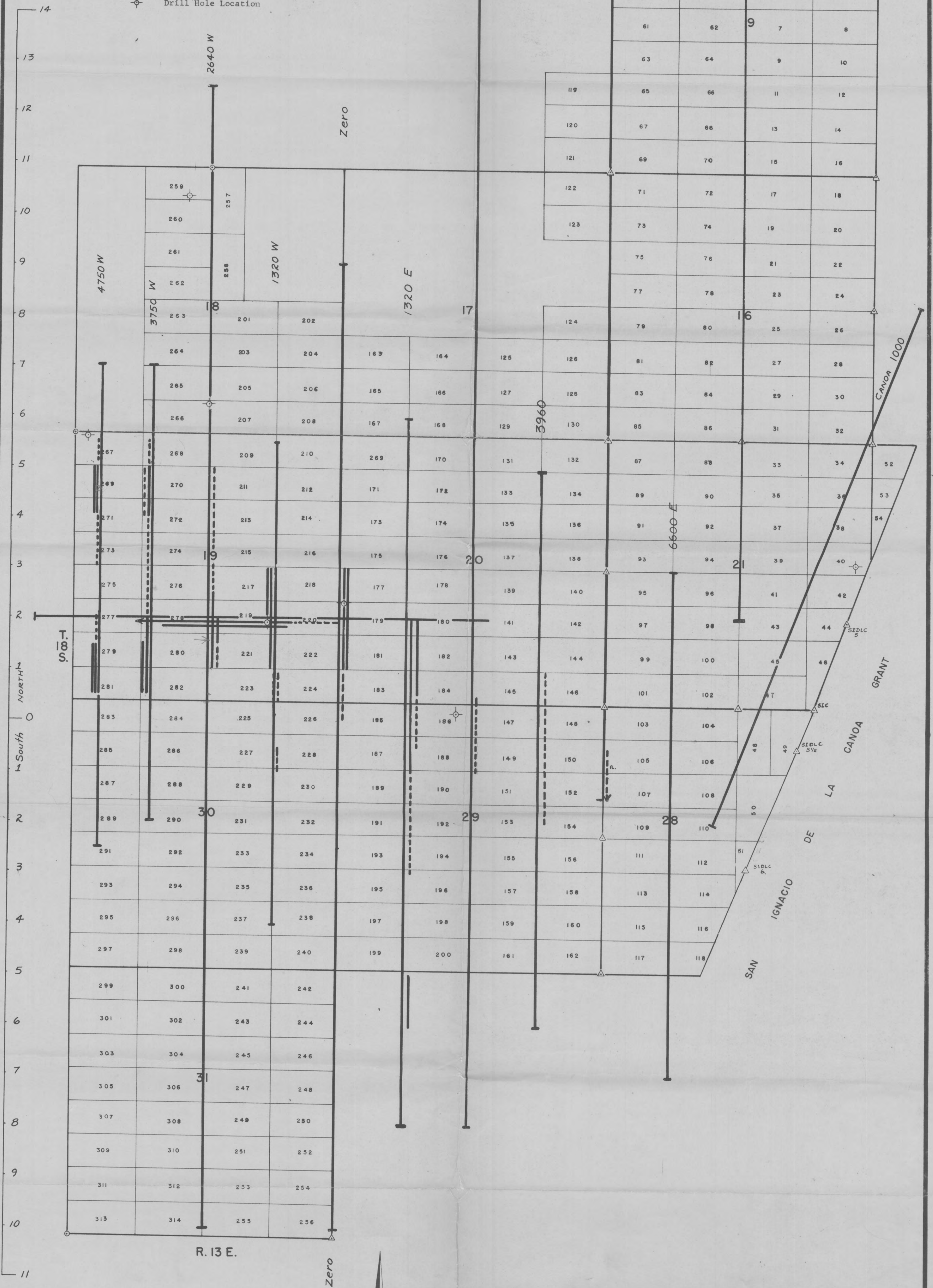
DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA
FOR

G.W. IRVIN
BY

HEINRICHS GEOEXPLORATION COMPANY
P.O. BOX 5671 TUCSON, ARIZONA
NOVEMBER, 1960

EXPLANATION

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INDUCED POLARIZATION INFORMATION

- End of line
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0 0 10 20 30 40
SCALE IN HUNDREDS OF FEET

INDUCED POLARIZATION SURVEY
TROY CLAIM GROUP

DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA
FOR

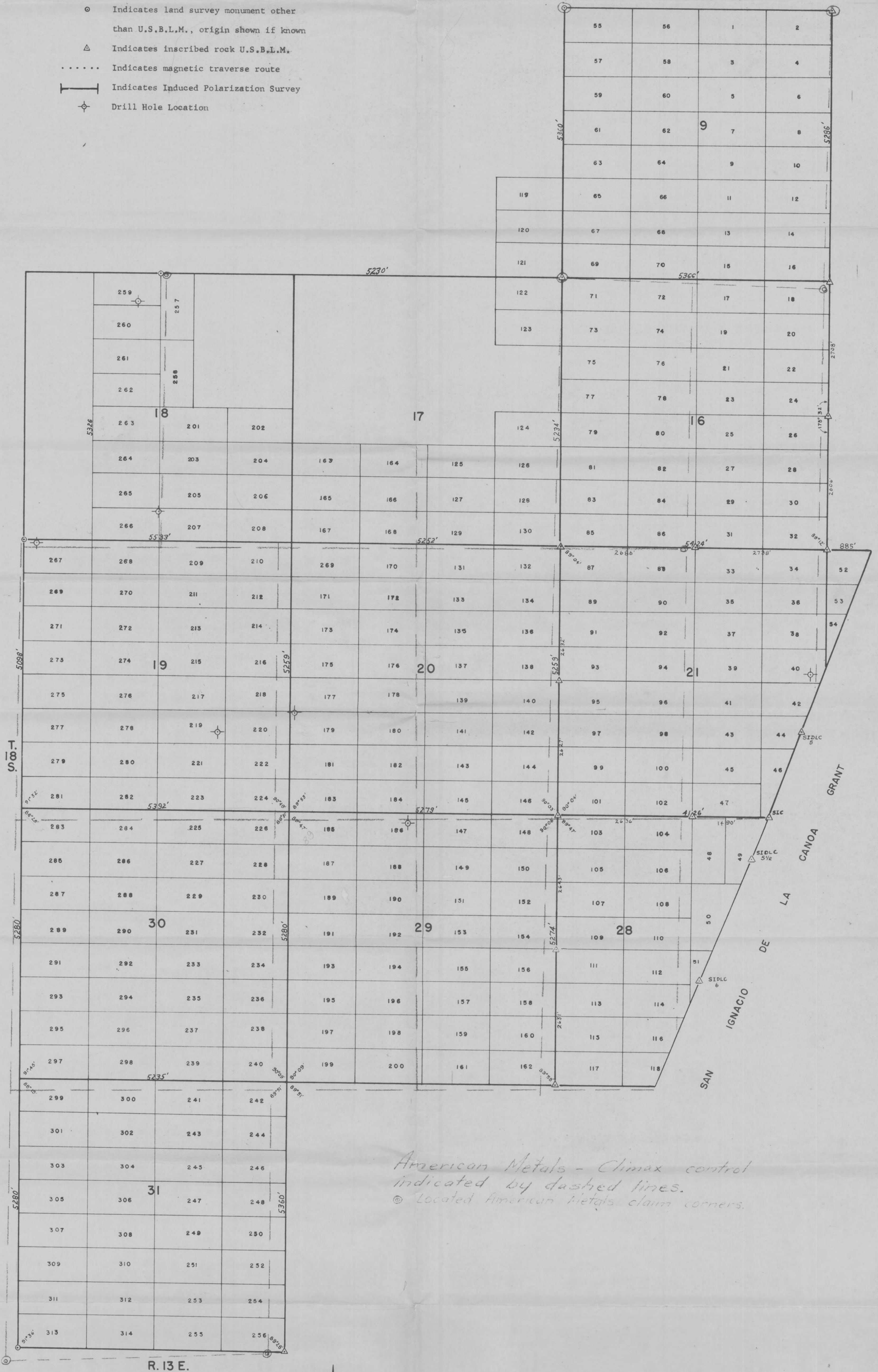
G. W. IRVIN

BY

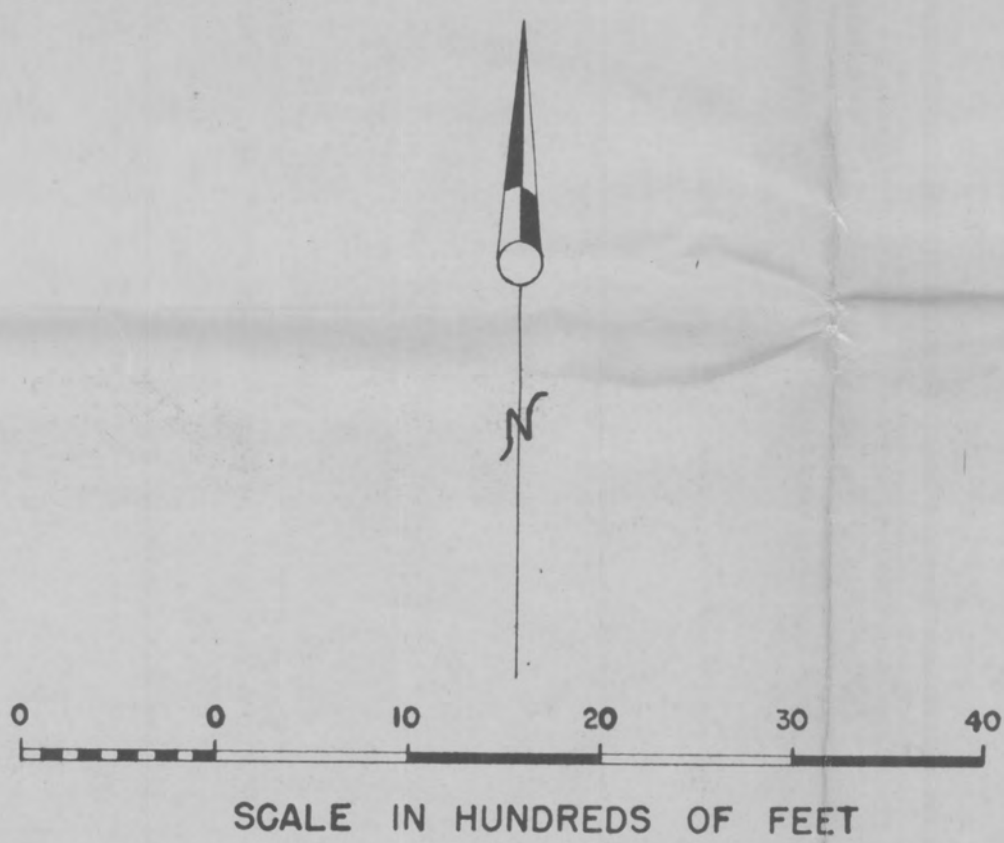
HEINRICHS GEOEXPLORATION COMPANY
P.O. BOX 5671 TUCSON, ARIZONA
NOVEMBER, 1960

EXPLANATION

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- △ Indicates inscribed rock U.S.B.L.M.
- Indicates magnetic traverse route
- |— Indicates Induced Polarization Survey
- ⊕ Drill Hole Location



American Metals - Climax control
indicated by dashed lines.
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TRANSIT - STADIA SURVEY
TROY CLAIM GROUP

DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA
FOR

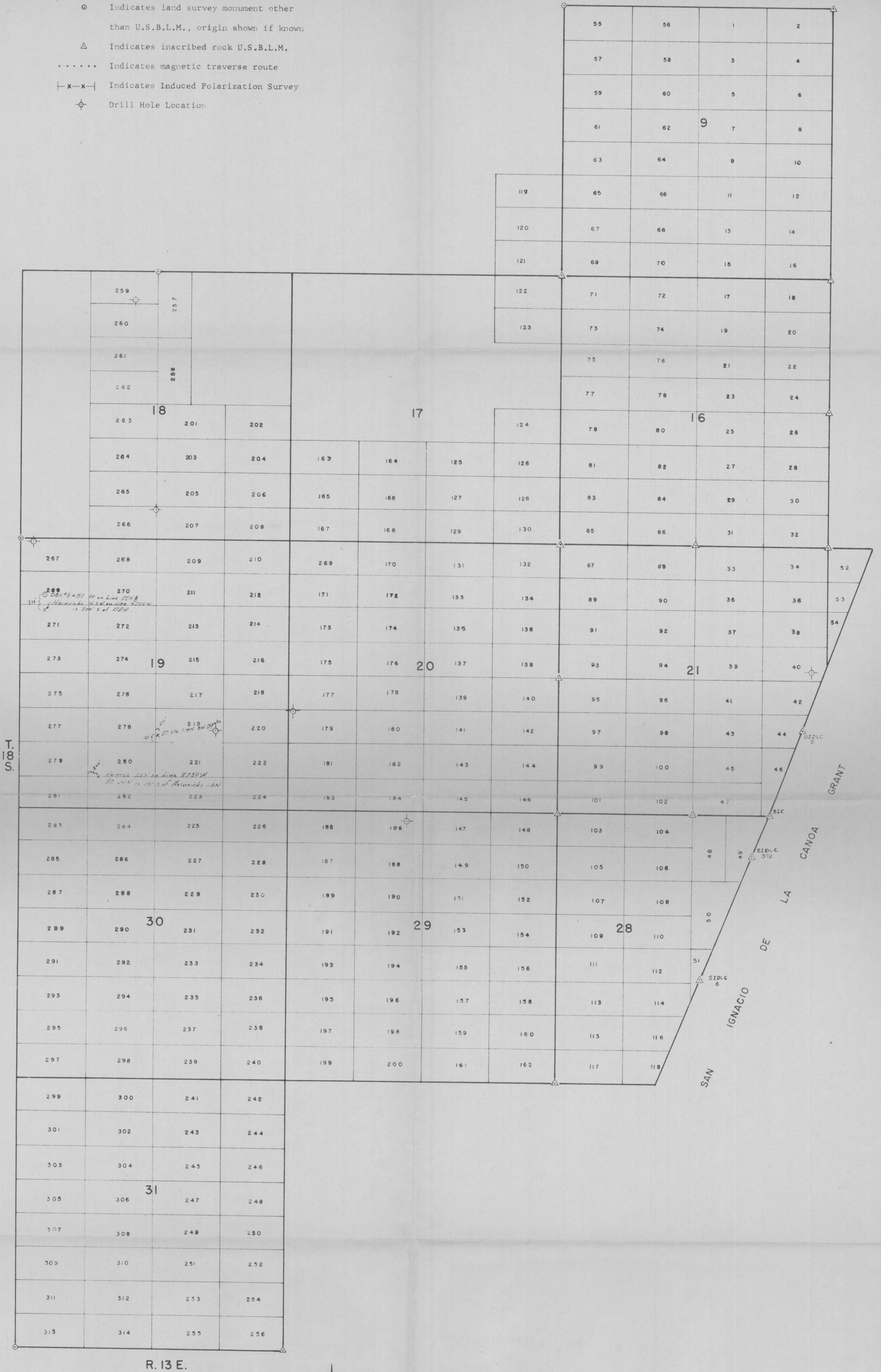
G. W. IRVIN

BY

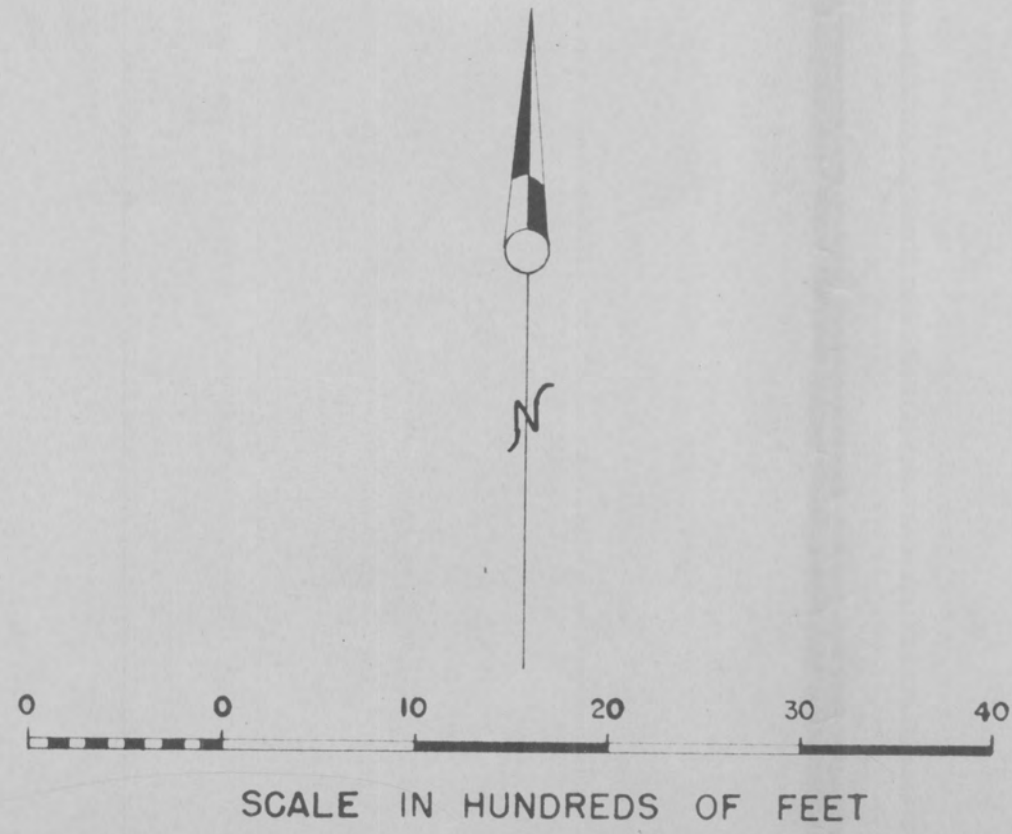
HEINRICHS GEOEXPLORATION COMPANY
P.O. BOX 5671 TUCSON, ARIZONA
NOVEMBER, 1960

EXPLANATION

- Indicates land survey monument other than U.S.B.L.M., origin shown if known
- △ Indicates inscribed rock U.S.B.L.M.
- Indicates magnetic traverse route
- x—x— Indicates Induced Polarization Survey
- ⊕ Drill Hole Location



R. 13 E.



TRANSIT - STADIA SURVEY
TROY CLAIM GROUP

DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA
FOR

G. W. IRVIN

BY
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P.O. BOX 5671 TUCSON, ARIZONA
NOVEMBER, 1960

INDUCED POLARIZATION - RECEIVER NOTES

PAGE

Project: _____ Line: _____ Int. Cal _____ Date: _____

[illegible]

New T.E. Receiver

Reprint - Check

Project Demetrix Line 1 4 1 4 1 4 1 4 1 4 1 2 4 1 2

HEINRICH'S GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page

Field date 9/12/62 Data page Comp. date 9/14/62 Comp by C.S.L.

(A) Send	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4	2-3
(B) Receive	15-105	→	10-155	→	15-205	→	10-155	→	15-205	→	10-155	→	15-205	→	10-155	→
(C) n separation	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
(D) I	1500															
(E) Vdc (avg)	50.6	13.3	41.8	10.9	4.84	42.3	8.39	4.41	2.53	9.04	4.17	2.79				
(F) DCal	1920															
(G) Kn x 10 ⁻³	1.5	6.0	1.5	6.0	1.5	6.0	1.5	6.0	1.5	6.0	1.5	6.0	1.5	6.0	1.5	6.0
(H) $\rho_{dc} = \frac{E \times F \times G \times 10^3}{D}$	49.0	47.7	40.6	42.3	46.9	41.0	32.5	42.7	49.1	35.0	40.5	59.1				
(I) Vac																
(J) AC noise x 2																
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	48.7	11.3	40.8	10.2	4.33	41.4	8.01	4.03	2.29	8.79	3.91	2.56				
(L) AC-DC cal.																
(M) $\rho_{dc} / \rho_{ac} = \frac{E \times L}{K}$																
(N) PFE = (M-1) (102)	4.0	8.1	2.5	6.9	11.8	2.1	4.8	9.3	10.8	3.9	6.8	9.0				
(O) MCF = (M-1) (105) / H	82	169	62	163	252	51	148	218	220	83	168	166				

Project	Line	Field date	Data page	Comp. date	Comp by
(A) Send	1-2	4-5	3-4	2-3	1-2
(B) Receive	→	25-30	→	→	→
(C) n separation	✓	3	2	5	6
(D) I	→	1200	→	→	→
(E) Vdc (avg)	1.78	4.48	2.78	2.04	
(F) DCal					900 93.2 920
(G) Kn x 10 ⁻³	52.5	15	30	52.5	84
(H) $\rho_{dc} = \frac{E \times F \times G \times 10^3}{D}$	60.4	38.3	47.6	61.1	
(I) Vac	2				
(J) AC noise x 2					
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	1.60	4.32	2.67	1.91	
(L) AC-DC cal.					
(M) $\rho_{dc} / \rho_{ac} = \frac{E \times L}{K}$					
(N) PFE = (M-1) (10 ²)	11.0	3.9	4.0	6.5	
(O) MCF = (M-1) (105) / H	182	102	84	106	

New Method, receive + actual

INDUCED POLARIZATION - RECEIVER NOTES

PAGE

Project: Dominic Creek Line: NEW J.P. Rec.

Int. Cal

Date: 9/11/62

Send	1-2	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3
Rec.	1a	1.5-10 ^M	→	1-1.5 ^M	→	→	1.5-2 ^M	→	→	→	2-2.5 ^M	→
Time												
DC-1	+0%	2.6	8.5	2.6 2.2	9.6 9.7	12.5 11	3.6 3.6	11.5 11.0	20.7 19.5	18.5 18	17.5 14.0	21.0 19.0
DC-2	-1.5%	2.8	7.5	2.4 2.6	8.5 8.5	10 12.5	5.0 5.0	13.0 13.5	11.7 14.0	16 15	14.0 17.0	22.0 21.0
Σ		2.7	8.5									
DC-3		2.6	8.5	2.6 2.4	10.0 9.8	13 11	3.5	10.5 11	21.0 21.0	15 18	15.0 17.5	16.0 16.0
Dc-4		2.8	7.5	2.3 2.7	8.2 8.0	11 12	5.0	13.0 13	13.0 14.0	19 15	18.0 18.5	23.0 23.0
Σ												
DC AV	100R	2.7%	80%	2.48	9.1	11.6	4.3	12.1	16.9	16.8	15.9	20.4
AC-1	100R	100R	10R	100R	10R	10R	30R	10R	3R	3R	10R	3R
AC-2	47	20.0	5878	40.0 40.0	5643 5643	12.1 12.1	552.0	293	583 583	175.5	247.1	638.2
Σ		21.0										
S. P.	→	25.6		-1.7				-2.4				
AC-N												
2000 ad.	190.5	95.0	95-99	99		101.5	102.5			109		

INDUCED POLARIZATION - RECEIVER NOTES

PAGE

Project: _____ Line: _____ Int. Cal _____ Date: _____

Send	2-3	1-2	4-5	3-4	2-3	1-2
Rec.	2-2.5 ^s	→				
Time						
DC-1	8 16	12 14	6 2.4 5.0			
DC-2	10	10 2	16 3.0 6.0			
Σ						
DC-3	14	6 10	3.0			
Dc-4	4	18 16	4.0			
Σ	9.0	11.0	3.9			
-AV	3R	3R	3R	3R	3R	
AC-1	310	38	809	341	12515	
AC-2						
Σ						
S. P.		-1.8				
AC-N						
		+136				

INDUCED POLARIZATION

SENDER NOTES

project: DEMETERIE Line: N Date: _____

Send	1-2	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3
Receive	CAL	0.5-1.0N. →	1.0-1.5N. →	1.5-2.0N. →	2.0-2.5N. →							
Time												
Range $\times 2$		750										
Current		1500										
Send	3-4	4-5	1-2	2-3	3-4	4-5	1-2					
Receive		→ 2.5-3.0N. →					CAL					
Time												
Range $\times 2$							250					
Current							500					

INDUCED POLARIZATION

SENDER NOTES

project: DIMITRIE Line: 5. Date: 12 SEP 62

Send		2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	4-5	3-4
Receive		15-1.0	5. →	10-1.5	5. →	1.5-2.0	5. →				2.0-2.5	5. →
Time												
Range \times_2		750										
Current		1500										
Send	2-3	1-2	4-5	3-4	2-3	1-2	4-5					
Receive	→	→	2.5-3.0	5. →			CAL					
Time												
Range \times_2	→	→	850				450					
Current	→	→	1700				900					

New I. H. receiver

HEINRICH'S GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page

Project Beaumont Line 1 Field date 9/11/62 Data page 1 Comp. date 9/11/62 Comp by C.S.L.

(A) Send	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4
(B) Receive	1.5-1.0N	→	1.0-1.5N	→	1.5-2.0N	→	2.0-2.5N	→	2.5-3.0N	→	3.0-3.5N	→
(C) n separation	1	2	1	2	3	1	2	3	4	2	3	4
(D) I	1500	→	→	→	→	→	→	→	→	→	→	→
(E) Vdc (avg)	11.3	12.6	52.3	12.4	51.46	3.53	9.15	4.11	2.45	8.86	4.52	2.59
(F) Dccal	.980	→	→	→	→	→	→	→	→	→	→	→
(G) Kn x 10 ⁻³	1.5	6	1.5	6	1.5	6	1.5	6	30	6	15	30
(H) dc=ExFxGx10 ³ /D	50.2	49.4	51.2	48.6	53.5	34.6	35.9	40.5	48.0	34.8	44.3	50.8
(I) Vac	→	→	→	→	→	→	→	→	→	→	→	→
(J) AC noise x 2	→	→	→	→	→	→	→	→	→	→	→	→
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	50.0	11.7	51.0	11.4	4.9	3.38	8.15	3.52	2.10	7.65	3.75	2.15
(L) AC-DC cal.	→	→	→	→	→	→	→	→	→	→	→	→
(M) dc/Eac=ExL/K	→	→	→	→	→	→	→	→	→	→	→	→
(N) PFE=(M-1) (10 ²)	2.70	6.00	2.48	9.10	11.6	4.30	12.1	16.9	16.8	15.9	20.4	20.2
(O) MCF=(M-1) (10 ⁵)/H	54	162	48	187	217	124	337	417	350	457	460	408

Project	Line	Field date	Data page	Comp. date	Comp by
(A) Send	4-5	1-2	2-3	3-4	4-5
(B) Receive	→	→	→	→	→
(C) n separation	→	→	→	→	→
(D) I	→	→	→	→	→
(E) dc (avg)	1.72	→	→	→	→
(F) Dccal	→	→	→	→	→
(G) Kn x 10 ⁻³	52.5	→	→	→	→
(H) dc=ExFxGx10 ³ /D	59.1	→	→	→	→
(I) Vac	→	→	→	→	→
(J) AC noise x 2	→	→	→	→	→
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	1.45	→	→	→	→
(L) AC-DC cal.	→	→	→	→	→
(M) dc/Eac=ExL/K	→	→	→	→	→
(N) PFE=(M-1) (10 ²)	18.8	→	→	→	→
(O) MCF=(M-1) (10 ⁵)/H	318	→	→	→	→

New Waldo. Receiver set May 62

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ARIZONA
(PIMA COUNTY)
TWIN BUTTES QUADRANGLE
15-MINUTE SERIES



Topography by J. L. Lewis, F. H. Rudy,
J. J. Hayes, S. M. Borrell, K. A. Bunker,
P. J. Frampton, and G. B. Woolley
Surveyed in 1938-1939

ROAD CLASSIFICATION

HARD-SURFACE ALL WEATHER ROADS DRY WEATHER ROADS
Heavy-duty ———— 4 LANE LANE Improved dirt ————
Medium-duty ———— 4 LANE LANE Unimproved dirt ————
Loose-surface, graded, or narrow hard-surface ————
U. S. Route State Route

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN
DECLINATION, 1939



Contour interval 50 feet
Datum is mean sea level

Polycyclic projection. 1927 North American datum
5000 yard grid based on U. S. zone system, F
10000 foot grid based on Arizona (Central)
rectangular coordinate system

TWIN BUTTES, ARIZ.
Edition of 1948

N3145-W11100/15

THE TOPOGRAPHIC MAPS OF THE UNITED STATES

The United States Geological Survey is making a series of standard topographic maps to cover the United States. This work has been in progress since 1882, and the published maps cover more than 47 percent of the country, exclusive of outlying possessions.

The maps are published on sheets that measure about 16½ by 20 inches. Under the general plan adopted the country is divided into quadrangles bounded by parallels of latitude and meridians of longitude. These quadrangles are mapped on different scales, the scale selected for each map being that which is best adapted to general use in the development of the country, and consequently, though the standard maps are of nearly uniform size, the areas that they represent are of different sizes. On the lower margin of each map are printed graphic scales showing distances in feet, meters, miles, and kilometers. In addition, the scale of the map is shown by a fraction expressing a fixed ratio between linear measurements on the map and corresponding distances on the ground. For example, the scale $\frac{1}{62,500}$ means that 1 unit on the map (such as 1 inch, 1 foot, or 1 meter) represents 62,500 of the same units on the earth's surface.

Although some areas are surveyed and some maps are compiled and published on special scales for special purposes, the standard topographic surveys and the resulting maps have for many years been of three types, differentiated as follows:

1. Surveys of areas in which there are problems of great public importance—relating, for example, to mineral development, irrigation, or reclamation of swamp areas—are made with sufficient detail to be used in the publication of maps on a scale of $\frac{1}{31,680}$ (1 inch=one-half mile) or $\frac{1}{24,000}$ (1 inch=2,000 feet), with a contour interval of 1 to 100 feet, according to the relief of the particular area mapped.

2. Surveys of areas in which there are problems of average public importance, such as most of the basin of the Mississippi and its tributaries, are made with sufficient detail to be used in the publication of maps on a scale of $\frac{1}{62,500}$ (1 inch=nearly 1 mile), with a contour interval of 10 to 100 feet.

3. Surveys of areas in which the problems are of minor public importance, such as much of the mountain or desert region of Arizona or New Mexico, and the high mountain area of the northwest, are made with sufficient detail to be used in the publication of maps on a scale of $\frac{1}{125,000}$ (1 inch=nearly 2 miles) or $\frac{1}{250,000}$ (1 inch=nearly 4 miles), with a contour interval of 20 to 250 feet.

The aerial camera is now being used in mapping. From the information recorded on the photograph, the topographic features are plotted on the map.

The regular topographic maps, which show relief as well as drainage and culture.

A topographic survey of Alaska has been in progress since 1898, and nearly 44 percent of its area has now been mapped. About 15 percent of the Territory has been covered by maps on a scale of $\frac{1}{500,000}$ (1 inch=nearly 8 miles). For most of the remainder of the area surveyed the maps published are on a scale of $\frac{1}{250,000}$ (1 inch=nearly 4 miles). For some areas of particular economic importance, covering about 4,300 square miles, the maps published are on a scale of $\frac{1}{62,500}$ (1 inch=nearly 1 mile) or larger. In addition to the area covered by topographic maps, about 11,300 square miles of southeastern Alaska has been covered by planimetric maps on scales of $\frac{1}{125,000}$ and $\frac{1}{250,000}$.

The Hawaiian Islands have been surveyed, and the resulting maps are published on a scale of $\frac{1}{62,500}$.

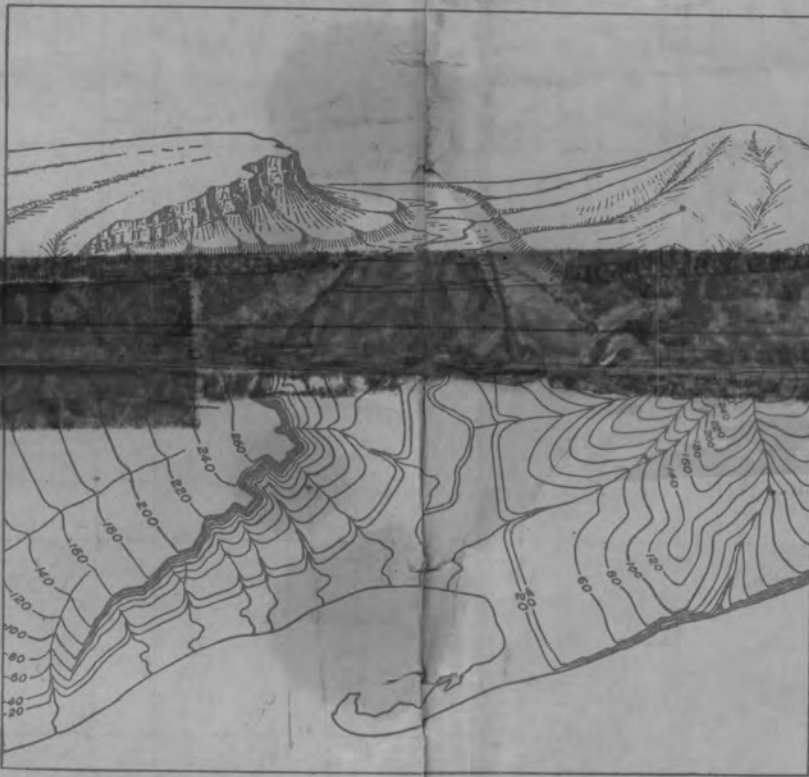
A survey of Puerto Rico is now in progress. The scale of the published maps is $\frac{1}{62,500}$.

The features shown on topographic maps may be arranged in three groups—(1) water, including seas, lakes, rivers, canals, swamps, and other bodies of water; (2) relief, including mountains, hills, valleys, and other features of the land surface; (3) culture (works of man), such as towns, cities, roads, railroads, and boundaries. The symbols used to represent these features are shown and explained below. Variations appear on some earlier maps, and additional features are represented on some special maps.

All the water features are represented in blue, the smaller streams and canals by single blue lines and the larger streams by double lines. The larger streams, lakes, and the sea are accentuated by blue water lining or blue tint. Intermittent streams—those whose beds are dry for a large part of the year—are shown by lines of blue dots and dashes.

Relief is shown by contour lines in brown, which on a few maps are supplemented by shading showing the effect of light thrown from the northwest across the area represented, for the purpose of giving the appearance of relief and thus aiding in the interpretation of the contour lines. A contour line represents an imaginary line on the ground (a contour) every part of which is at the same altitude above sea level. Such a line could be drawn at any altitude, but in practice only the contours at certain regular intervals of altitude are shown. The datum or zero of altitude of the Geological Survey maps is mean sea level. The 20-foot contour would be the shore line if the sea should rise 20 feet above mean sea level. Contour lines show the shape of the hills, mountains, and valleys, as well as their altitude. Successive contour lines that are far apart on the map indicate a gentle slope; lines that are close together indicate a steep slope, and lines that run together indicate a cliff.

The manner in which contour lines express altitude, form, and grade is shown in the figure below.



The sketch represents a river valley that lies between two hills. In the foreground is the sea, with a bay that is partly enclosed by a hooked sand bar. On each side of the valley is a terrace into which small streams have cut narrow gullies. The hill on the right has a rounded summit and gently sloping

ing spurs separated by ravines. The spurs are truncated at their lower ends by a sea cliff. The hill at the left terminates abruptly at the valley in a steep scarp, from which it slopes gradually away and forms an inclined tableland that is traversed by a few shallow gullies. On the map each of these features is represented, directly beneath its position in the sketch, by contour lines.

The contour interval, or the vertical distance in feet between one contour and the next, is stated at the bottom of each map. This interval differs according to the topography of the area mapped: in a flat country it may be as small as 1 foot; in a mountainous region it may be as great as 250 feet. In order that the contours may be read more easily certain contour lines, every fourth or fifth, are made heavier than the others and are accompanied by figures showing altitude. The heights of many points—such as road intersections, summits, surfaces of lakes, and benchmarks—are also given on the map in figures, which show altitudes to the nearest foot only. More precise figures for the altitudes of benchmarks are given in the Geological Survey's bulletins on spirit leveling. The geodetic coordinates of triangulation and transit-traverse stations are also published in bulletins.

Lettering and the works of man are shown in black. Boundaries, such as those of a State, county, city, land grant, township, or reservation, are shown by continuous or broken lines of different kinds and weights. Public roads suitable for motor travel the greater part of the year are shown by solid double lines; poor public roads and private roads by dashed double lines; trails by dashed single lines. Additional public road classification if available is shown by red overprint.

Each quadrangle is designated by the name of a city, town, or prominent natural feature within it, and on the margins of the map are printed the names of adjoining quadrangles of which maps have been published. More than 4,100 quadrangles in the United States have been surveyed, and maps of them similar to the one on the other side of this sheet have been published.

Geologic maps of some of the areas shown on the topographic maps have been published in the form of folios. Each folio includes maps showing the topography, geology, underground structure, and mineral deposits of the area mapped, and several pages of descriptive text. The text explains the maps and describes the topographic and geologic features of the country and its mineral resources. Two hundred twenty-five folios have been published.

Copies of the standard topographic maps may be obtained free. Copies of the standard topographic maps may be obtained for 10 cents each; some special maps are sold at different prices. A discount of 40 percent is allowed on an order amounting to \$5 or more at the retail price. The discount is allowed on an order for maps alone, either of one kind or in any assortment, or for maps together with geologic folios. The geologic folios are sold for 25 cents or more each, the price depending on the size of the folio. A circular describing the folios will be sent on request.

Applications for maps or folios should be accompanied by cash, draft, or money order (not postage stamps) and should be addressed to

THE DIRECTOR,

United States Geological Survey,

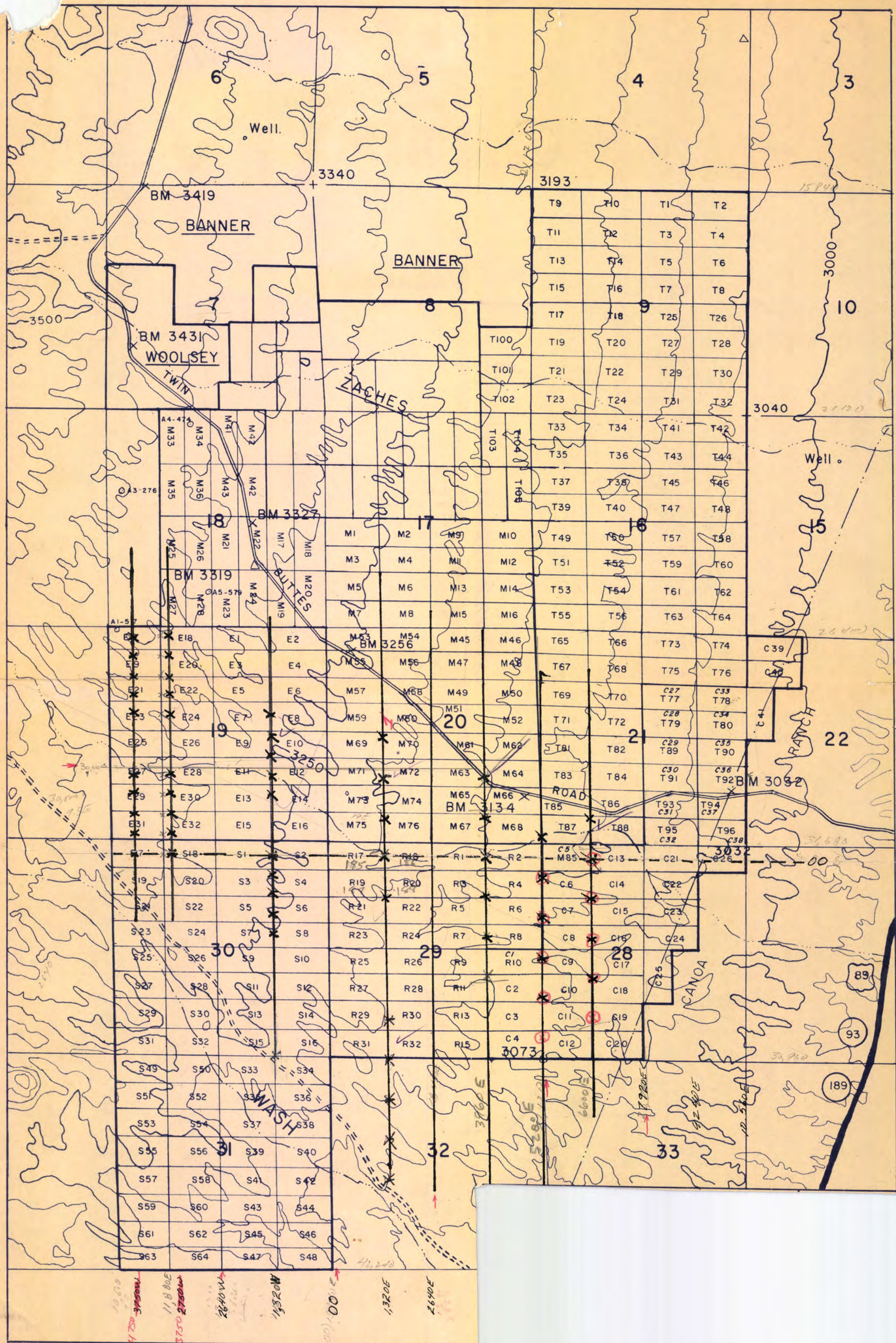
Washington, D. C.

November 1937.

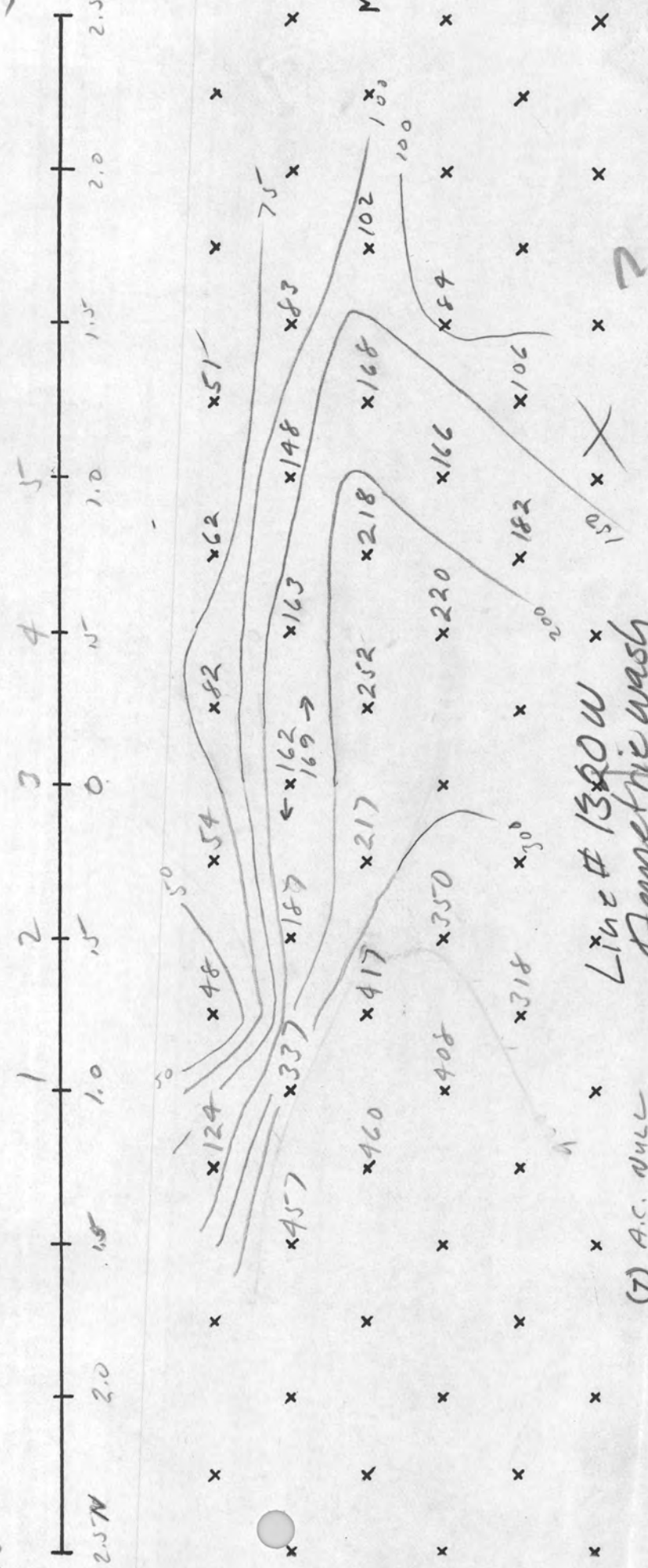
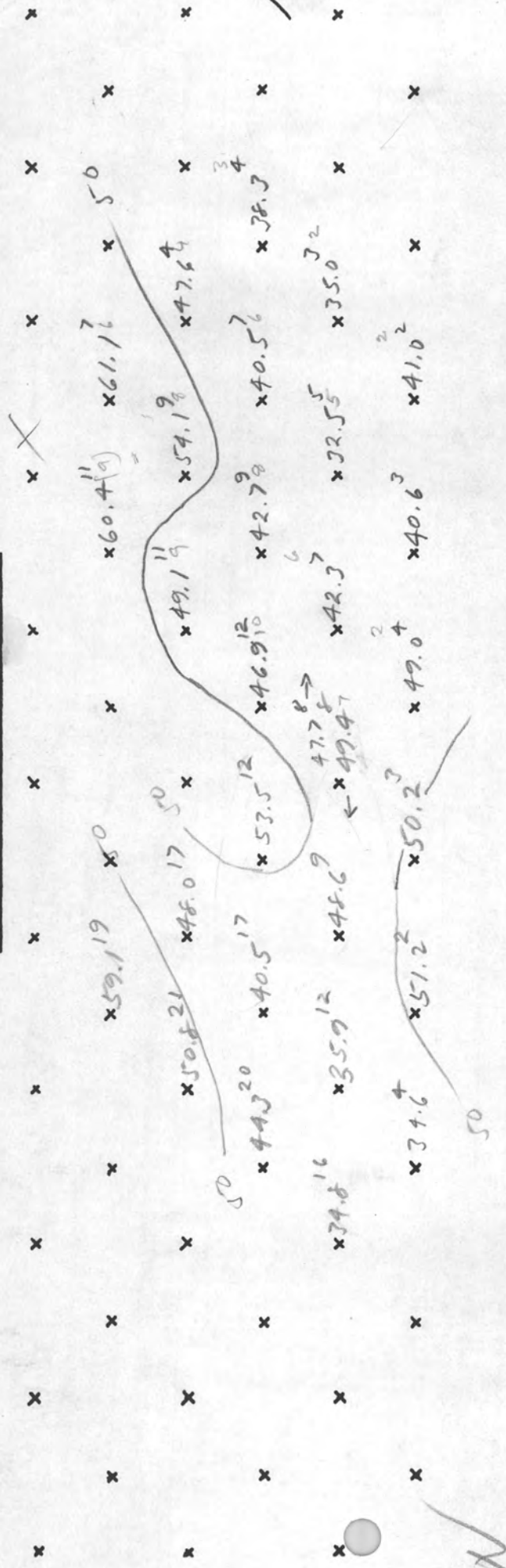
STANDARD SYMBOLS

NOTE:—Effective on and after October 1, 1946, the price of standard topographic quadrangle maps will be 20 cents each, with a discount of 20 percent on orders amounting to \$10 or more at the retail rate.

CULTURE (printed in black)															
RELIEF (printed in brown)															
WATER (printed in blue)															
WOODS (when shown, printed in green)															

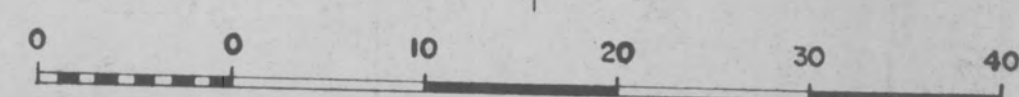


INDUCED POLARIZATION WORK SHEET



Area _____ Date _____
 (7) A.C. NULL _____
 D.C. NULL _____
 Line # 1300W
 Demetrix wash
 Scale _____
 New Material Recorder Oct. Nov 62

- Indicates land survey monument other than U.S.B.L.M., origin shown if known
- △ Indicates inscribed rock U.S.B.L.M.
- Indicates magnetic traverse route
- |——| Indicates Induced Polarization Survey
- ⊖ Drill Hole Location

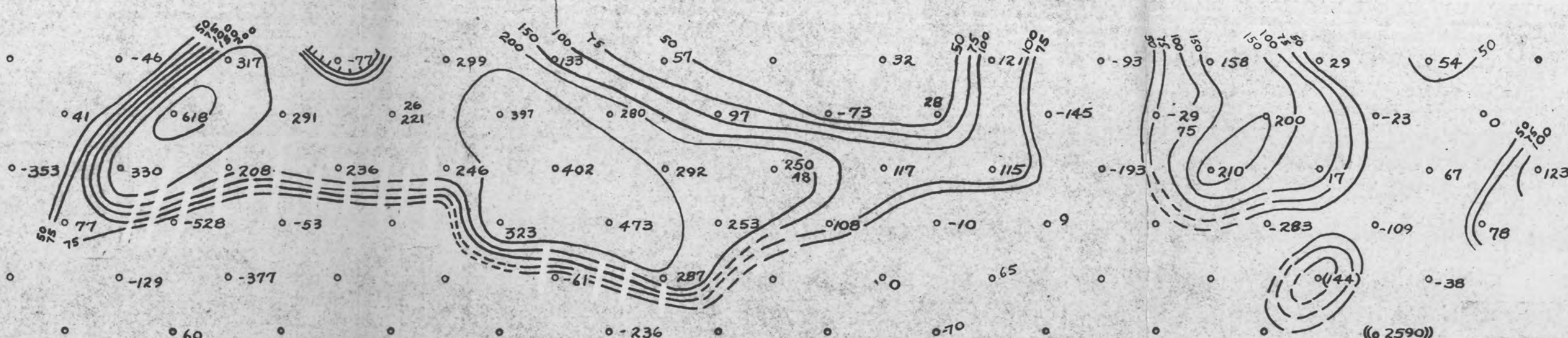
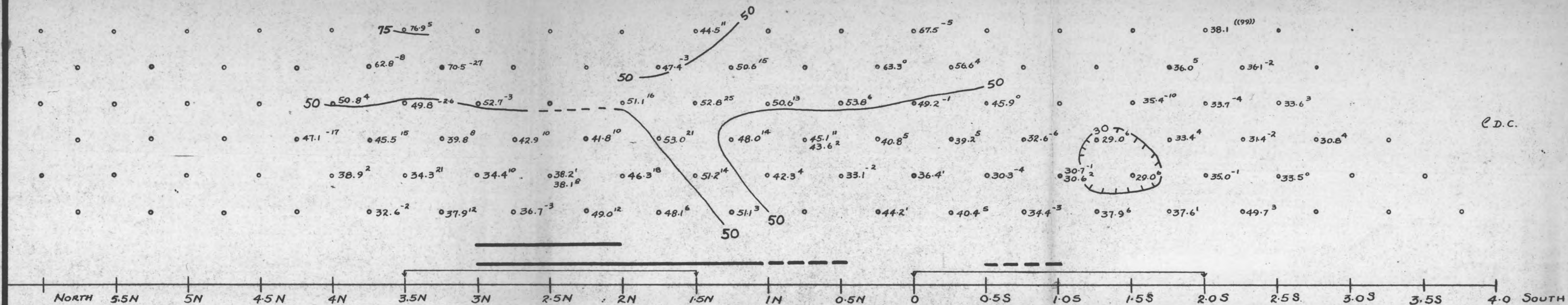


MAGNETIC SURVEY
TROY CLAIM GROUP

DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA
FOR

G. W. IRVIN

BY
HEINRICHS GEOEXPLORATION COMPANY
P.O. BOX 5671 TUCSON, ARIZONA
NOVEMBER, 1960



INFORMATION:

Contour Interval Logarithmic

Indicates Electrode Configuration, electrodes numbered 1 - 5 North to South

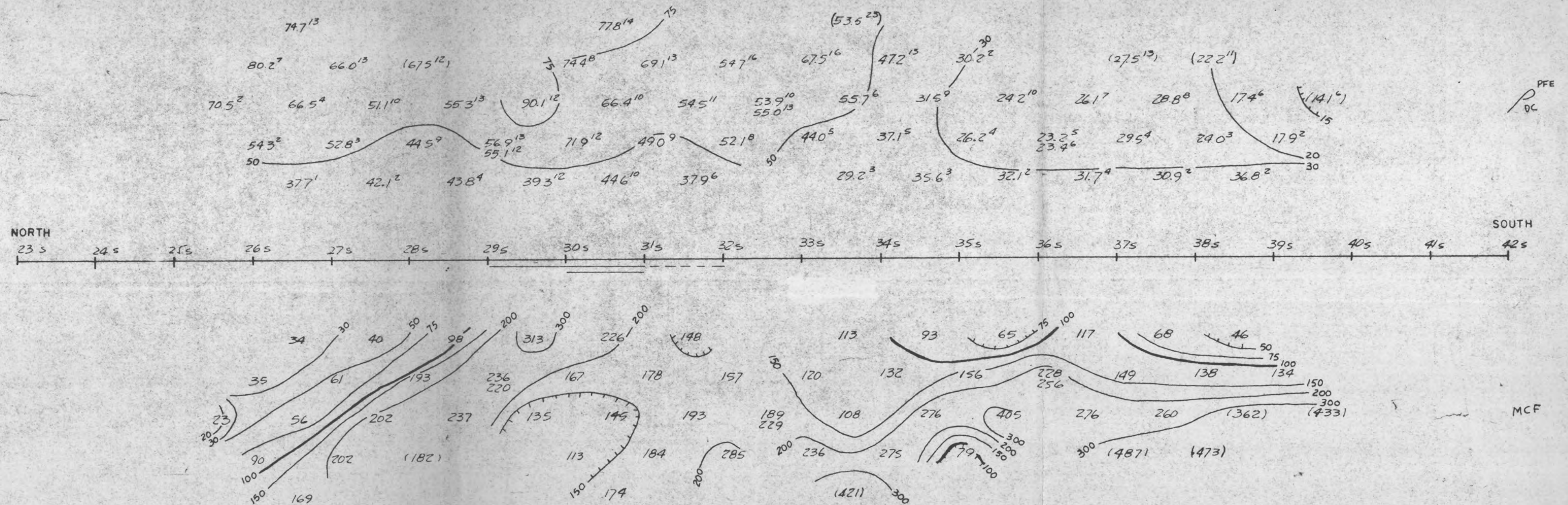
Indicates questionable data.

Indicates data corrected for AC noise.

G. W. Irvin
DEMETRIE WASH PROJECT, PIMA COUNTY, ARIZONA

LINE No. **1320W**
INDUCED POLARIZATION SURVEY
HEINRICHS GEOEXPLORATION COMPANY

SCALE 1" = 500'
DATE Oct., 1960



000

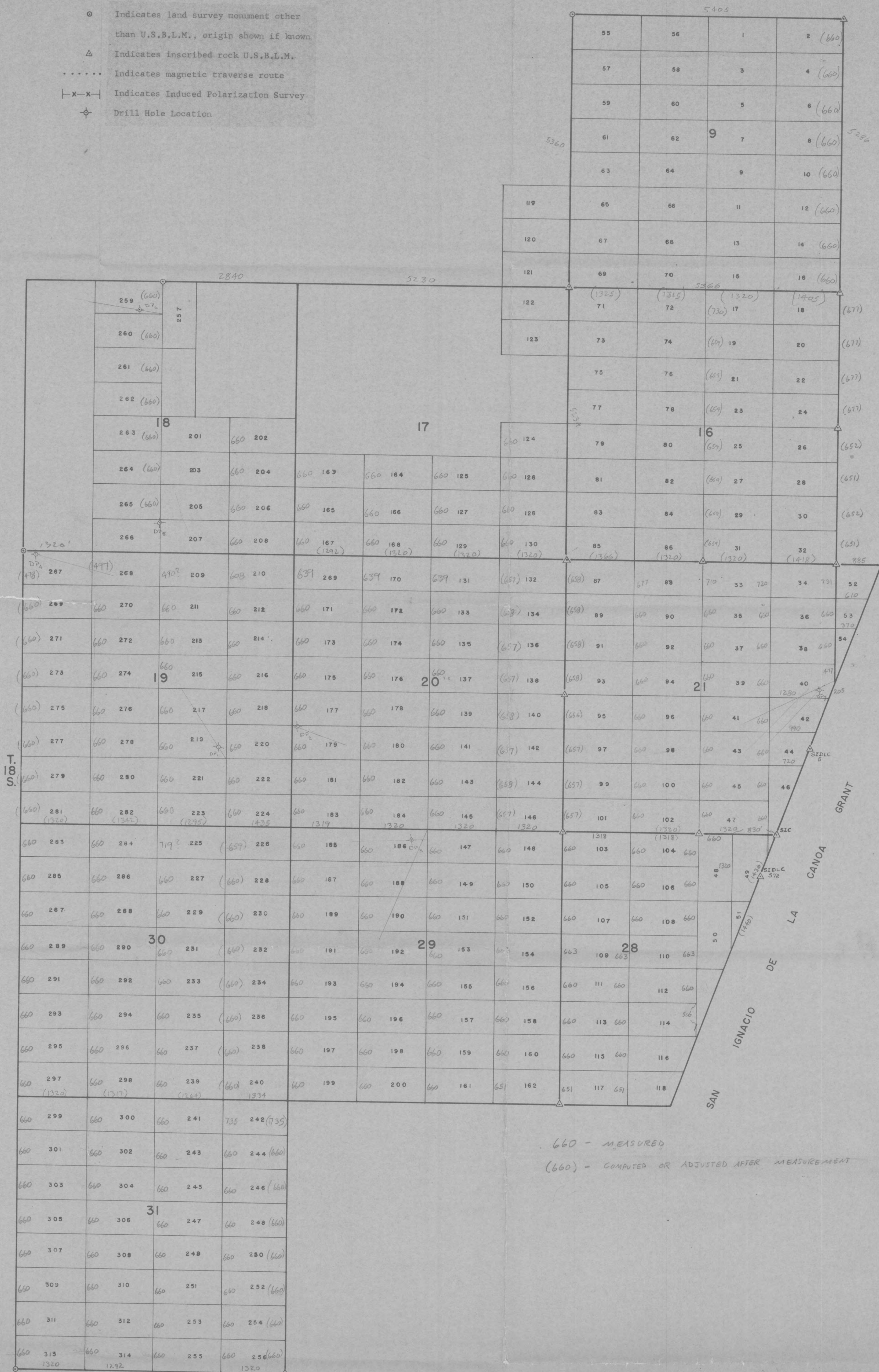


HEINRICHS GEOEXPLORATION CO. FOR G.W. IRVIN		
INDUCED POLARIZATION SURVEY		
DEMETRIE WASH AREA		
SCALE: 1" = 1000'	CONTOUR INTERVAL: LOGARITHMIC	REVISIONS
DATE: 10-6-60	DATA BY: F.A.S.	
DRAWN BY: E.G.H.	SHEET 1 OF 3	
	DRAWING NO.:	FILE:

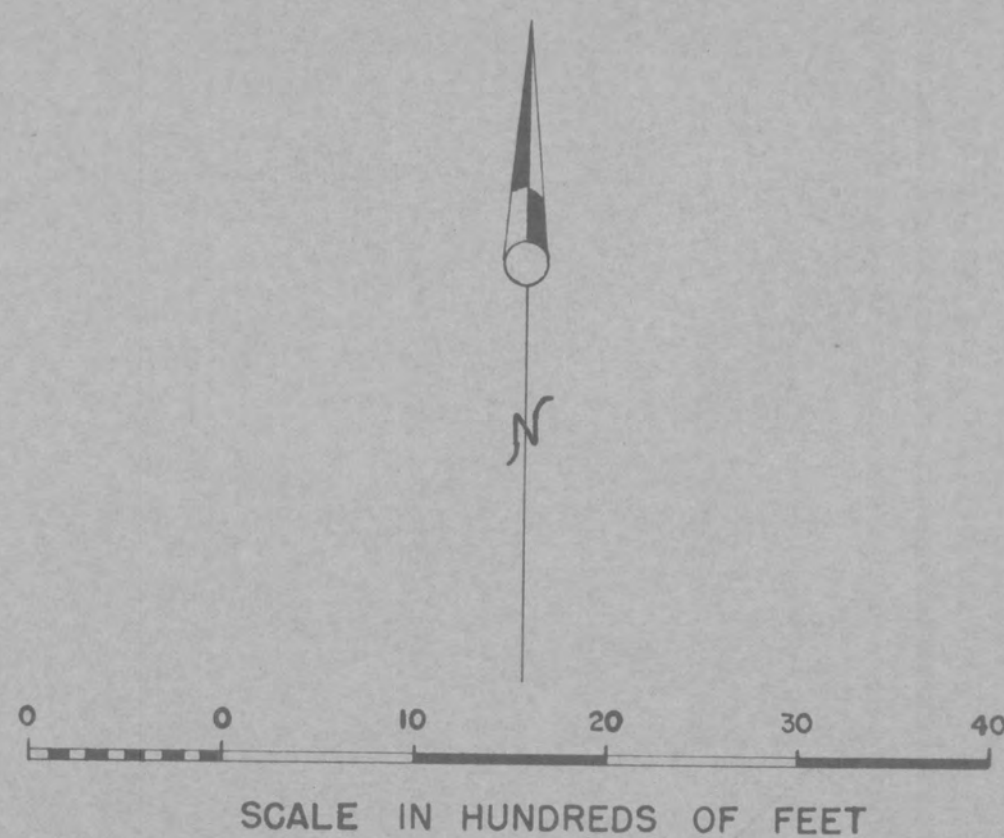
CON. 10-10-60

EXPLANATION

- Indicates land survey monument other than U.S.B.L.M., origin shown if known
- △ Indicates inscribed rock U.S.B.L.M.
- Indicates magnetic traverse route
- x-x- Indicates Induced Polarization Survey
- ⊕ Drill Hole Location



R. 13 E.



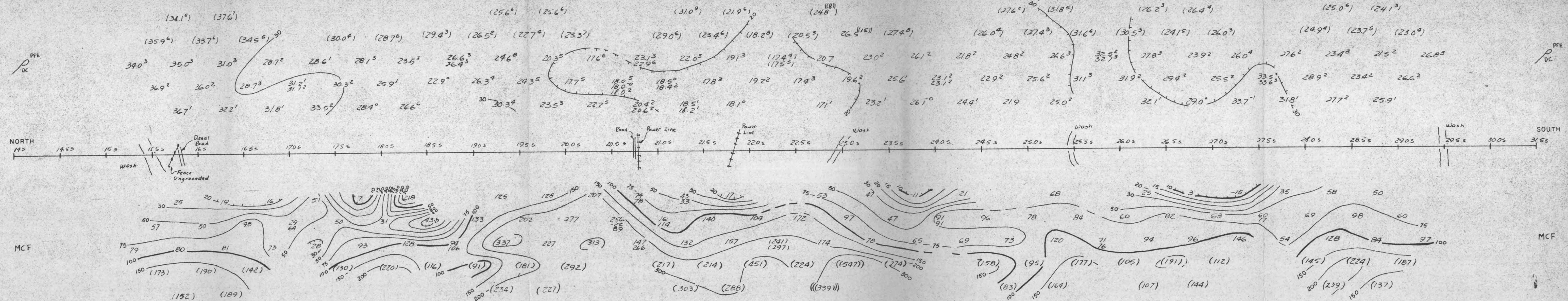
APPROX. CLAIM DIMENSIONS
&
DRILL HOLE LOCATIONS

TRANSIT - STADIA SURVEY
TROY CLAIM GROUP

DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA
FOR

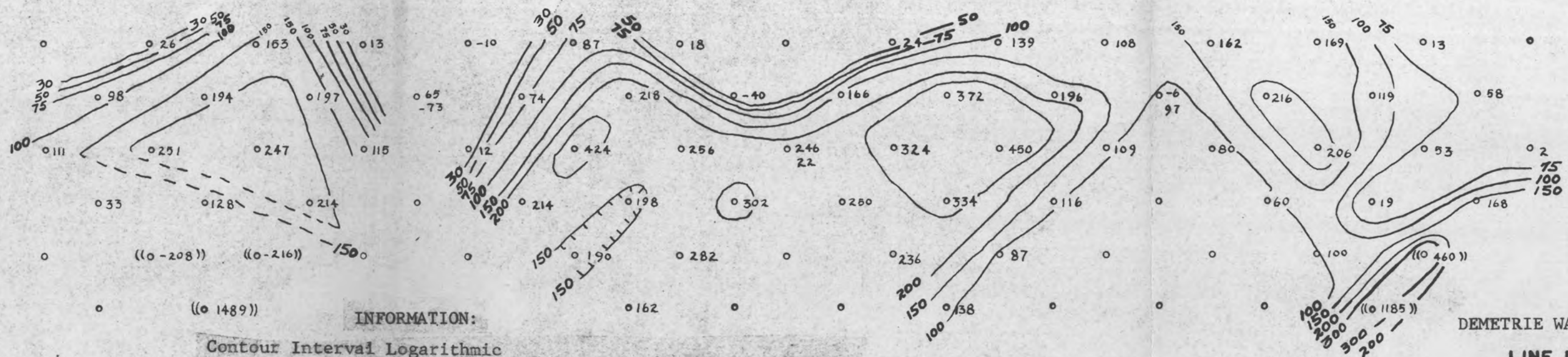
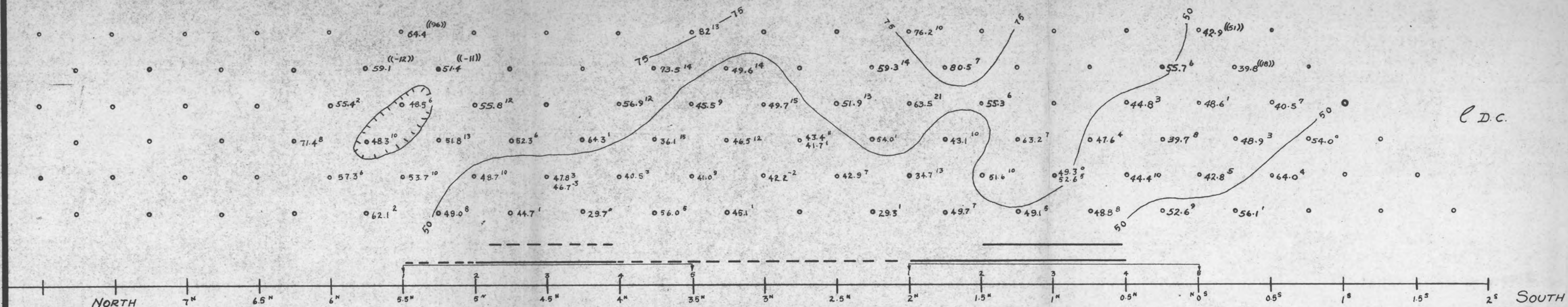
G. W. IRVIN
BY

HEINRICHS GEOEXPLORATION COMPANY
P.O. BOX 5671 TUCSON, ARIZONA
NOVEMBER, 1960



HEINRICHS GEOEXPLORATION CO. FOR G. W. IRVIN		
INDUCED POLARIZATION SURVEY		
DEMETRIE WASH AREA		
SCALE: 1" = 500'	CONTOUR INTERVAL LOGARITHMIC	REVISIONS
DATE: 10-6-50	DATA BY: F. A. S.	
DRAWN BY: E. G. H.	SHEET 1 OF 4	
	DRAWING NO.:	FILE:

7920 E



INFORMATION:

Contour Interval Logarithmic

Indicates Electrode Configuration, electrodes numbered 1 - 5
North to South

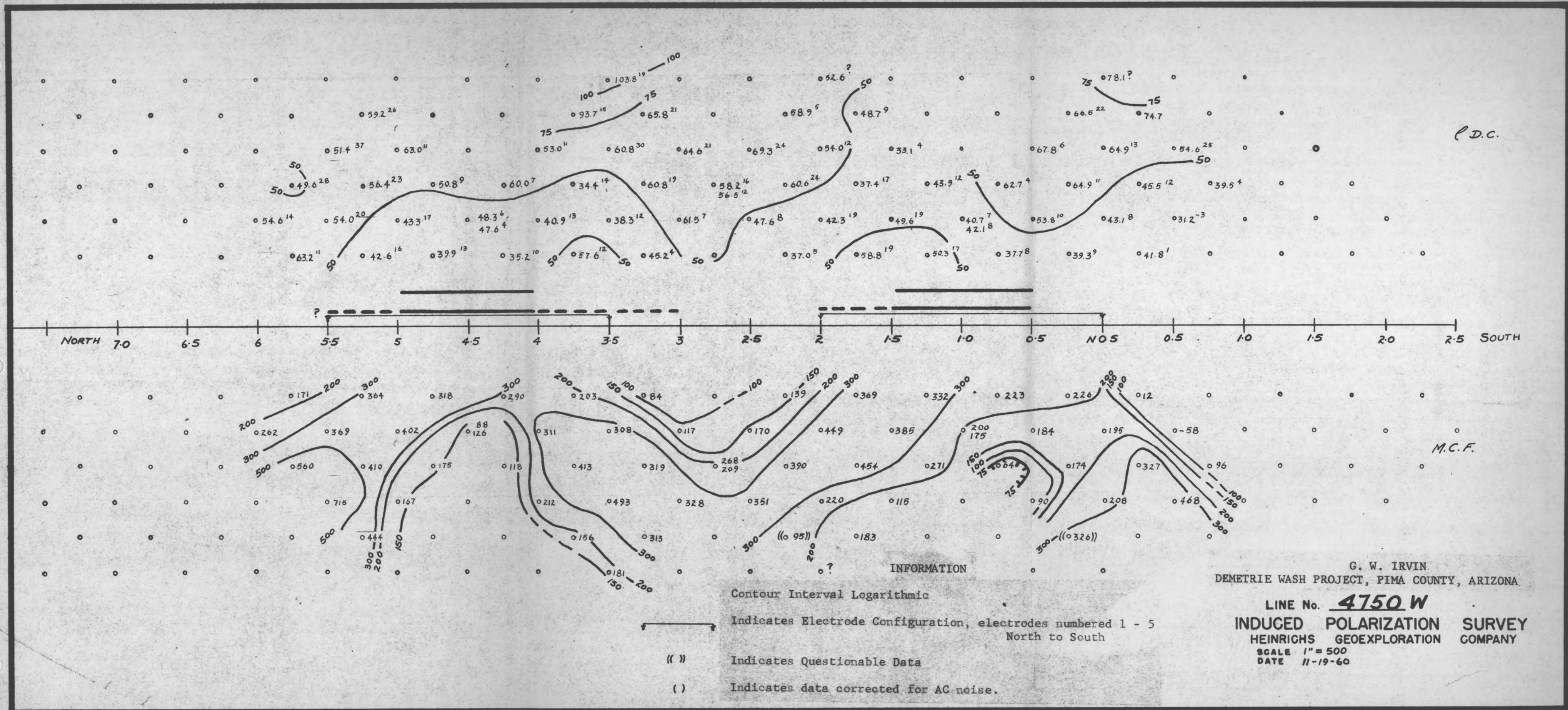
(()) Indicates Questionable Data

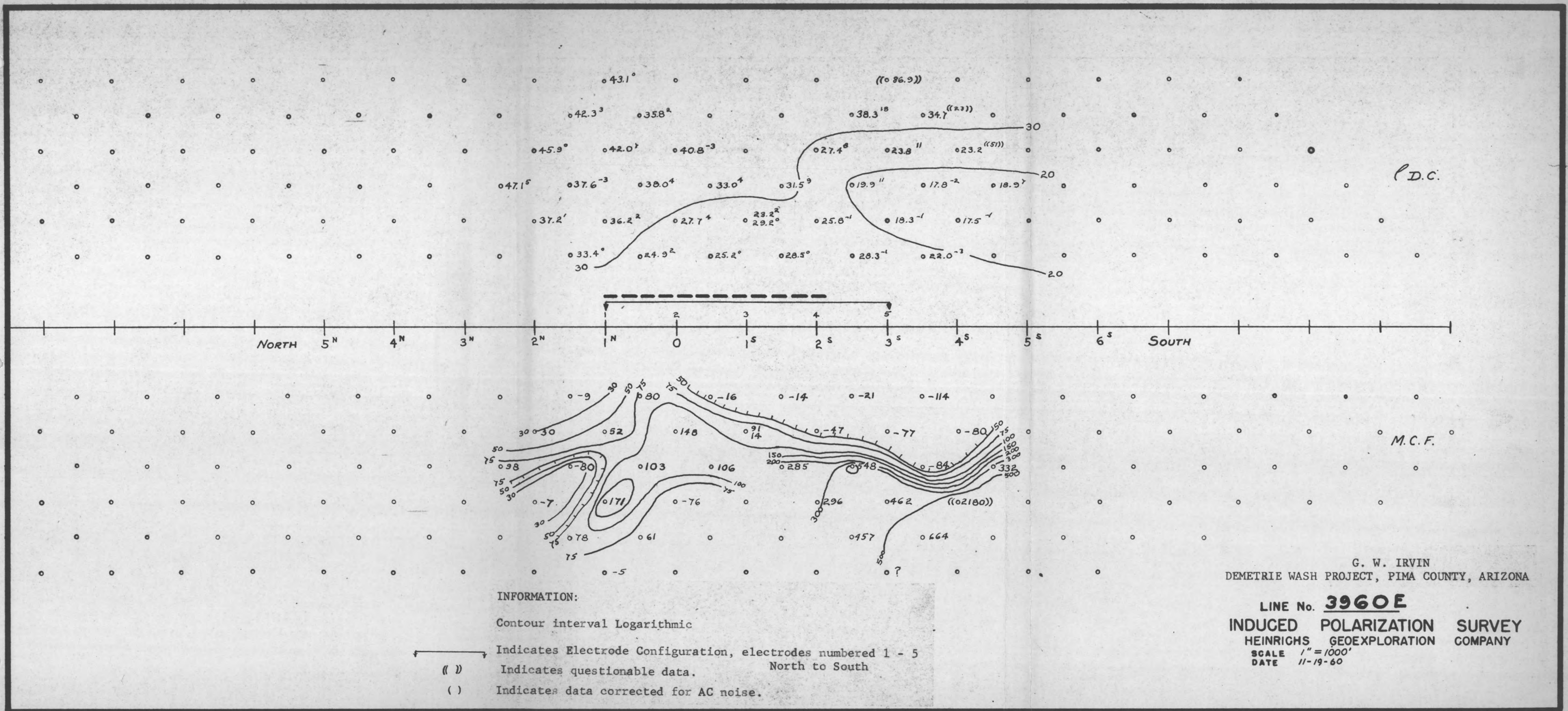
() Indicates data corrected for AG noise.

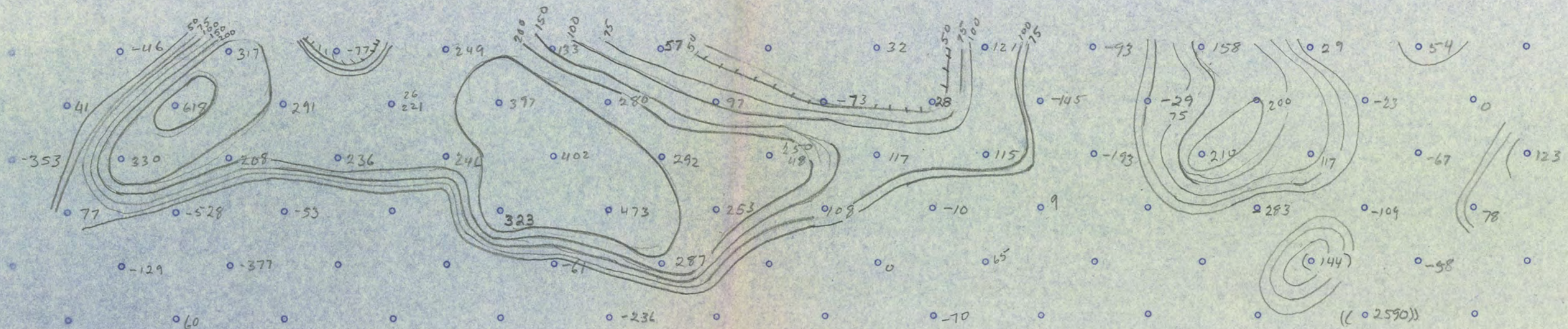
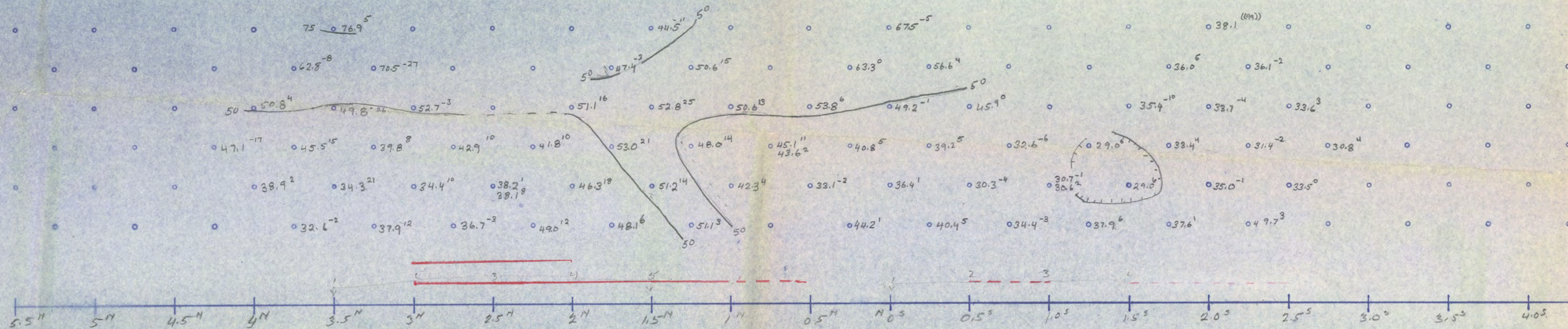
G. W. IRVIN
DEMETRIE WASH PROJECT, PIMA COUNTY, ARIZONA

LINE No. **3750W**
INDUCED POLARIZATION SURVEY
HEINRICHS GEOEXPLORATION COMPANY

SCALE: 1" = 500'
DATE: 11/19/60





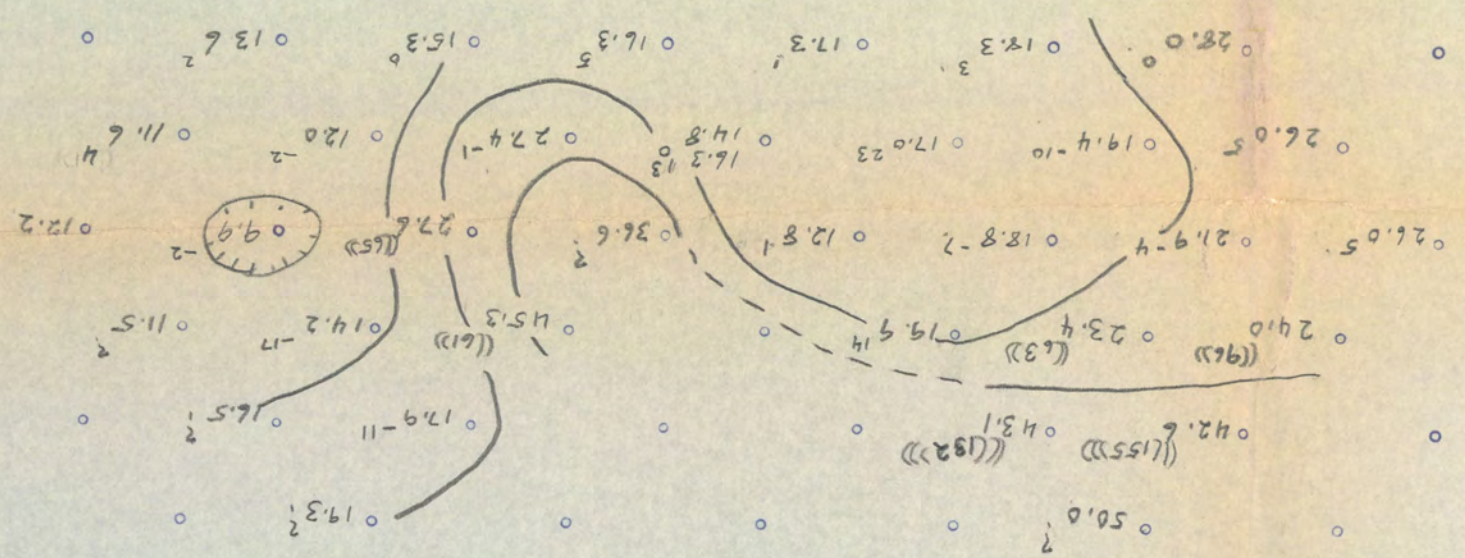
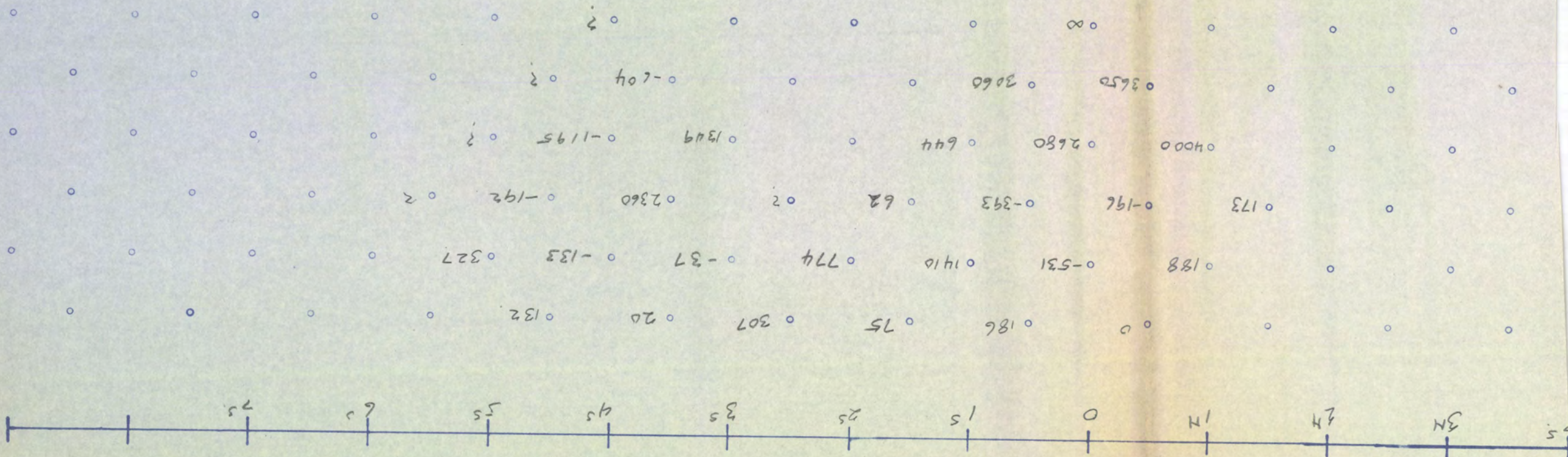


Line 1320 W
Scale 1" = 500'

BEAR CREEK MINING COMPANY
CERILLOS HILLS, NEW MEXICO

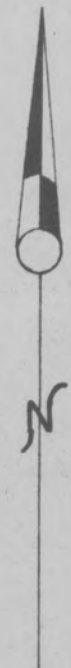
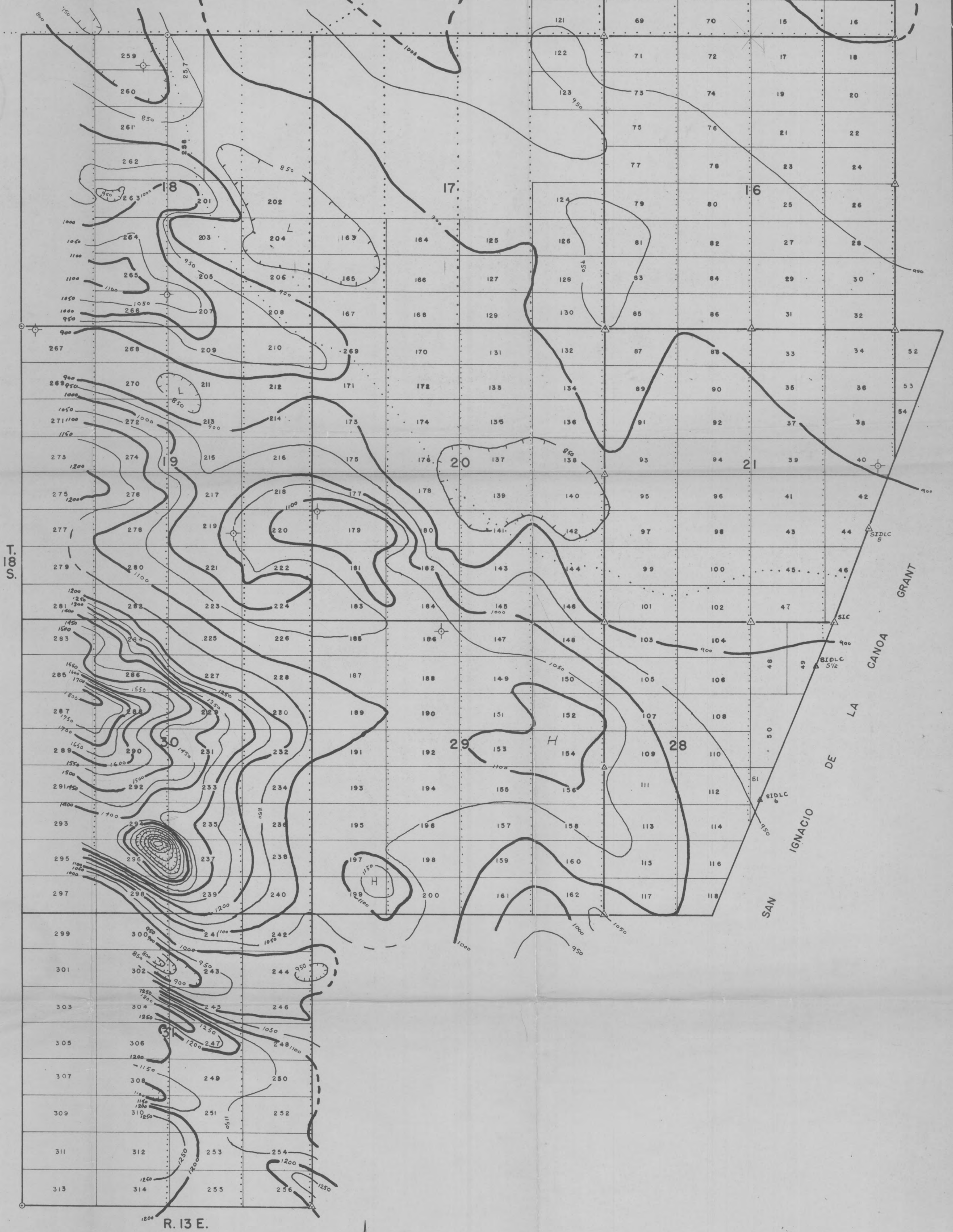
Line # _____ Scale: 1" = _____
Date: _____

Line 6600 E
Scale 1" = 1000'



EXPLANATION

- Indicates land survey monument other than U.S.B.L.M., origin shown if known
- △ Indicates inscribed rock U.S.B.L.M.
- Indicates magnetic traverse route
- |— Indicates Induced Polarization Survey
- ⊕ Drill Hole Location



0 10 20 30 40

SCALE IN HUNDREDS OF FEET
CONTOUR INTERVAL 50 ft
TOTAL INTENSITY BY MOBILE MAGNETOMETER

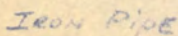
MAGNETIC SURVEY
TROY CLAIM GROUP

DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA
FOR

G. W. IRVIN
BY

HEINRICHS GEOEXPLORATION COMPANY
P.O. BOX 5671 TUCSON, ARIZONA
NOVEMBER, 1960

% EST Completed 50%



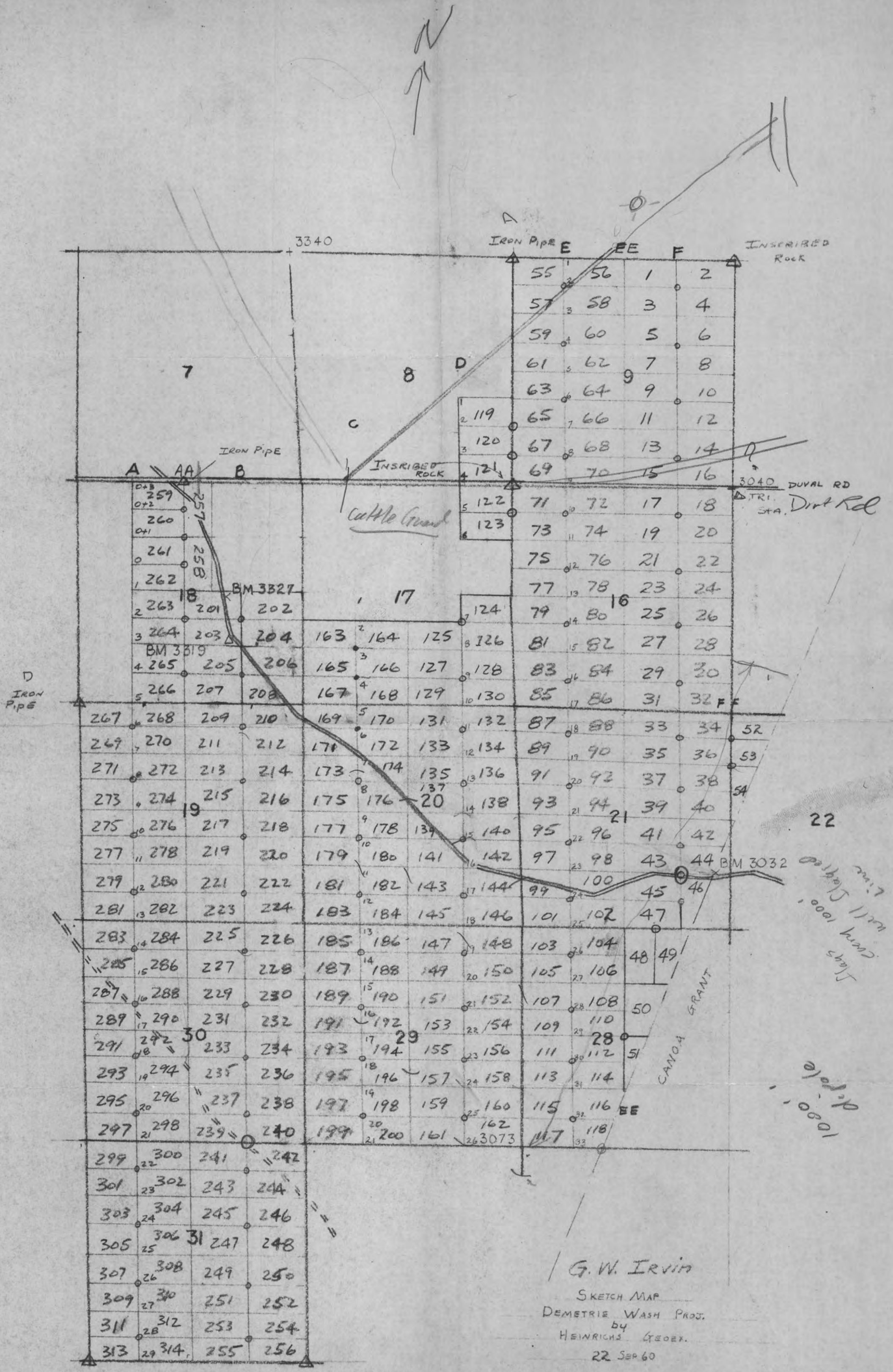
In 318, 850 Rock

Oct. 7, 1960

J. H. Lewis

22 Jan 60
1 Oct. 60

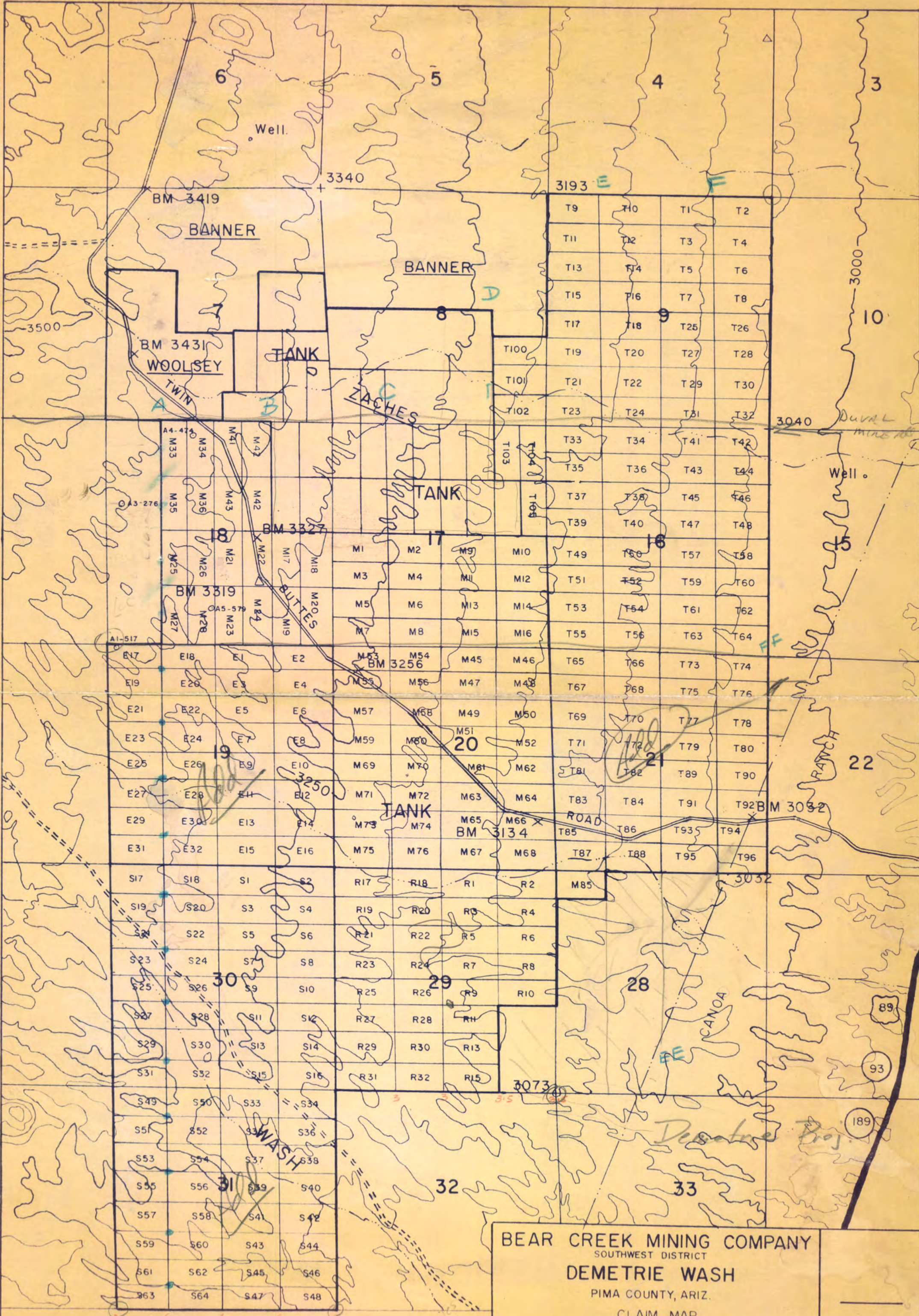
CREW NE



Iron Pipe

Inscribed Rock

CREW No



BEAR CREEK MINING COMPANY
SOUTHWEST DISTRICT
DEMETRIE WASH
PIMA COUNTY, ARIZ.
CLAIM MAP
SCALE: 1" = 2000'

GEOLOGIST: J.L.C.
DATE: 8-17-60.

DRAFTSMAN: E.F.T.
DATE: 8-18-60

CHECKED BY:

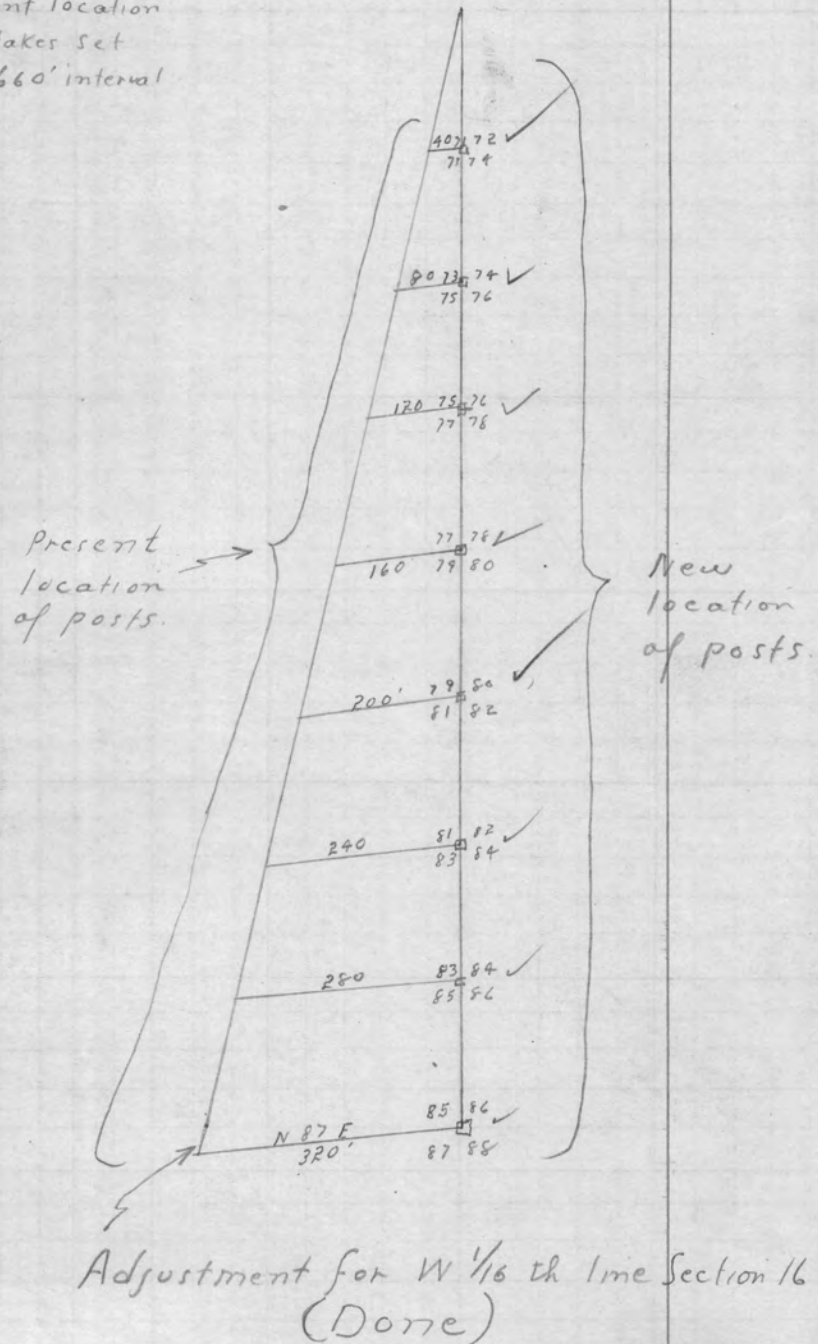
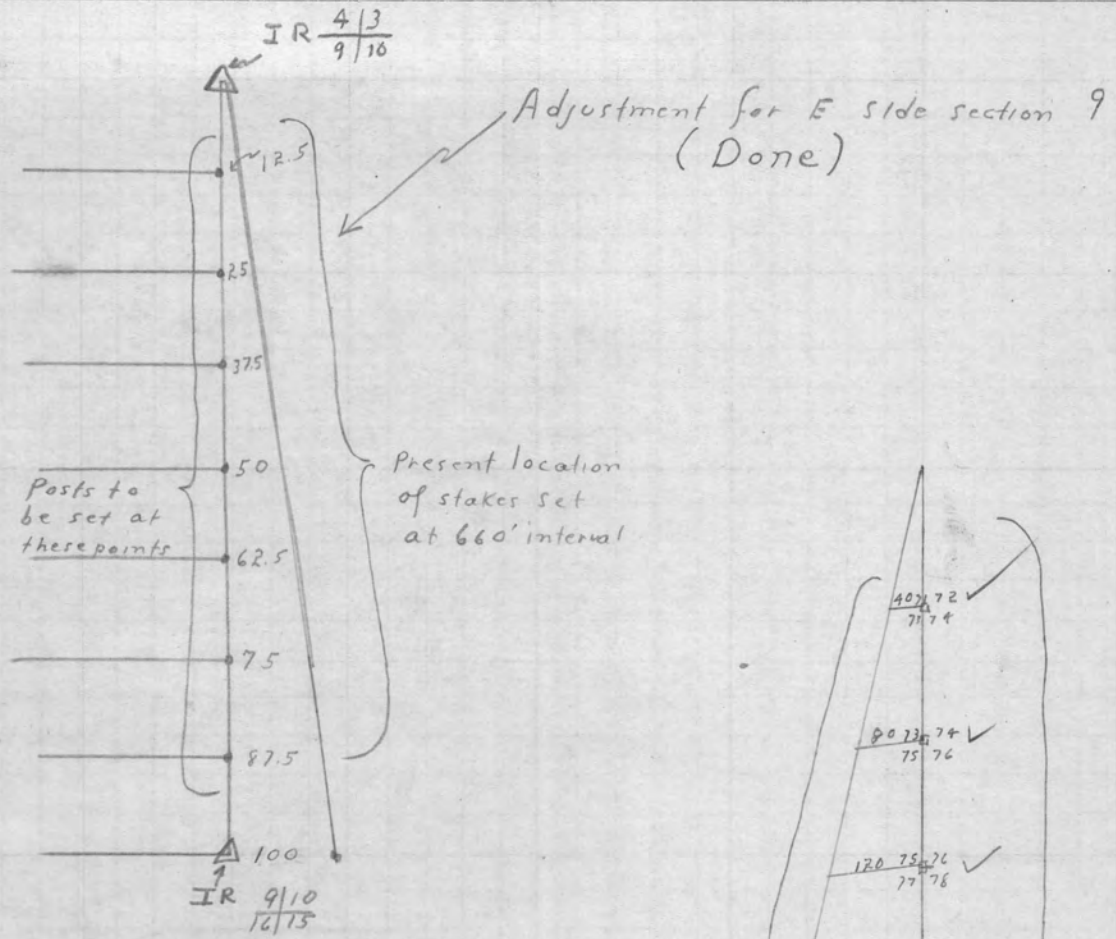
MAP NO.

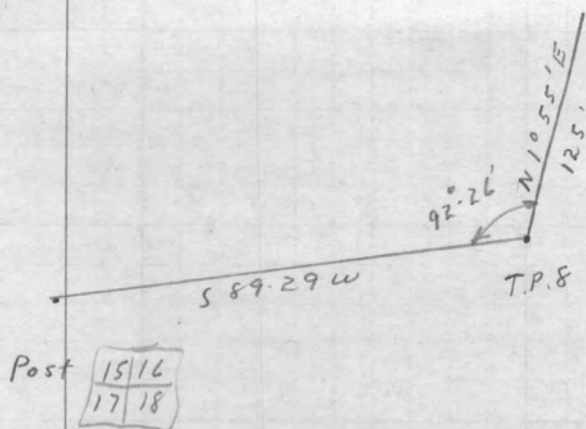
9/27/60 Deadline

660 x 1320

17.25 miles

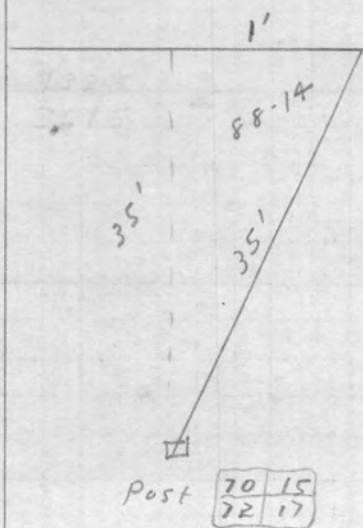
Demettrie





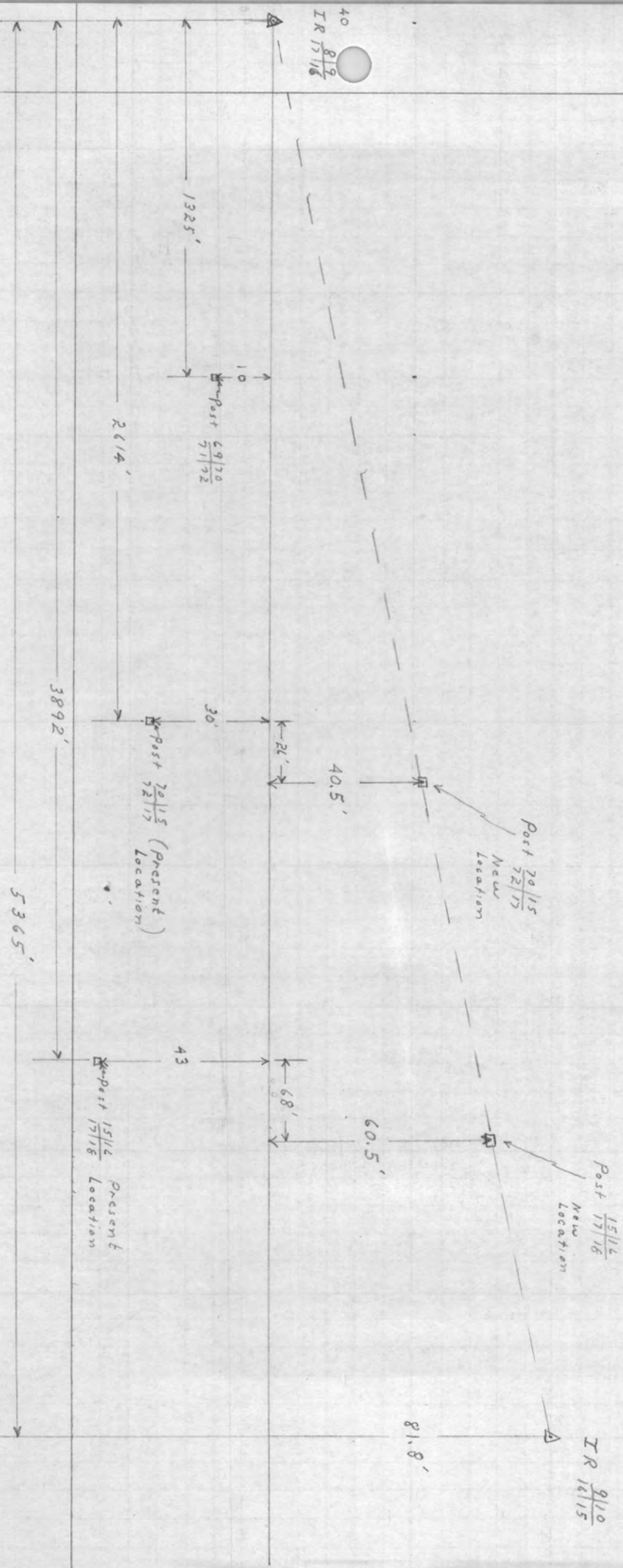
Log Cos 1° 55' 9.9997570
 Log 125 2.0969100
 12.0966670 - 124.9

Log Sin 1° 55' 8.5243430
 Log 125 2.0969100
 10.6212530 + 4.2



Log Sin 88-14 9.9997935
 Log 35 1.5440680
 11.5438615 37.9 - 35

Log Cos 88-14 8.4889632
 Log 35 1.5440680
 10.0330312 1.0



E. SIDE SEC 16 (NORTH HALF)

BEARING & DIST FROM X-STAKES TO COR

X-17 83° 321'

X-18 " 282'

X-19 " 244'

X-20 SET POST AT SEC. COR.

MADE IN U.S.A.

DU VAL FENCE

"AA" LINE
PAGE 14-22

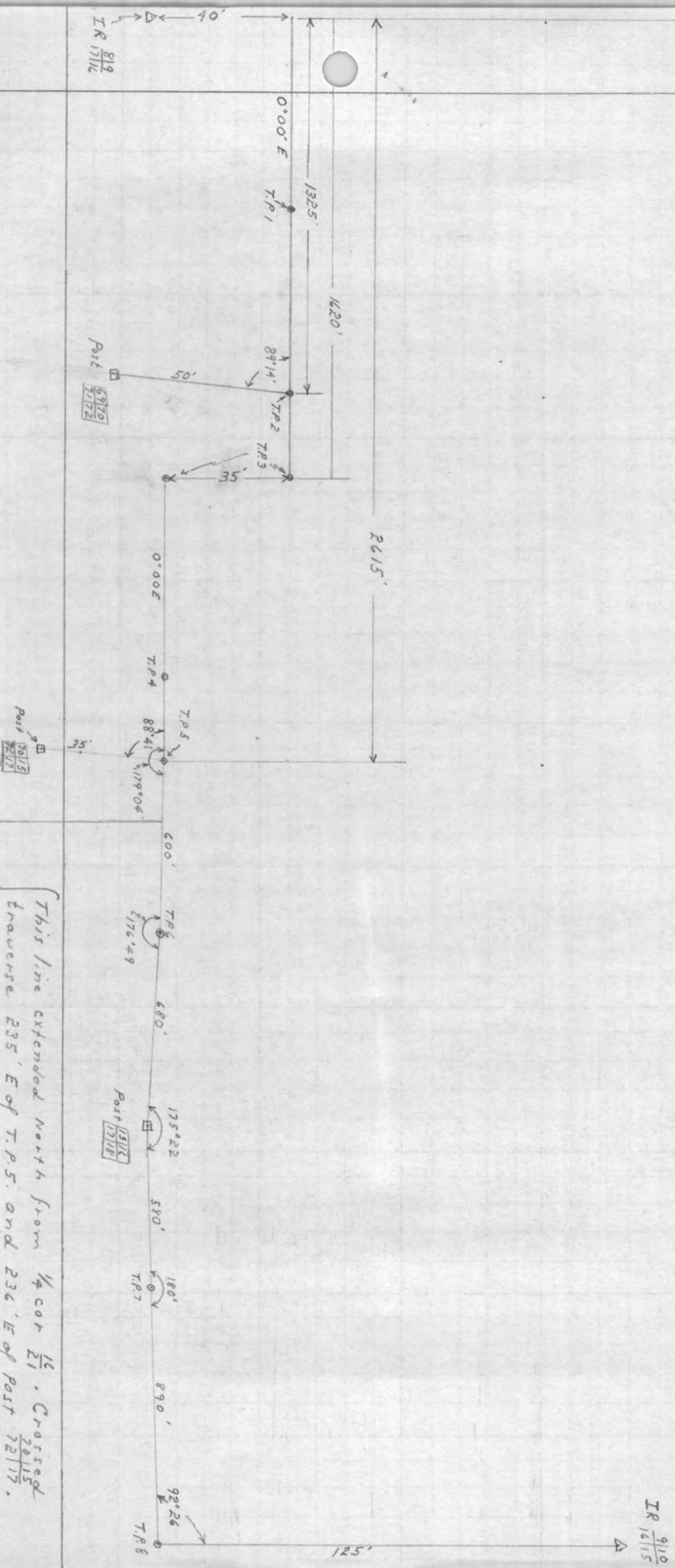
1/4 COR 1/18

TA 59
(AA5)

LINE POSTED

MOVE TO FENCE & ADJUST FOR
ONE MILE SOUTH

Demetrie
 Traverse from IR $\frac{819}{1716}$ to IR $\frac{9110}{16115}$
 Line started on 40' North offset at IR $\frac{819}{1716}$. Moved to 5' North offset T.P.3 (Station 16+20)
 Horizontal Scale 1" = 50'
 Vertical Scale 1" = 40'
 Angles not to scale.



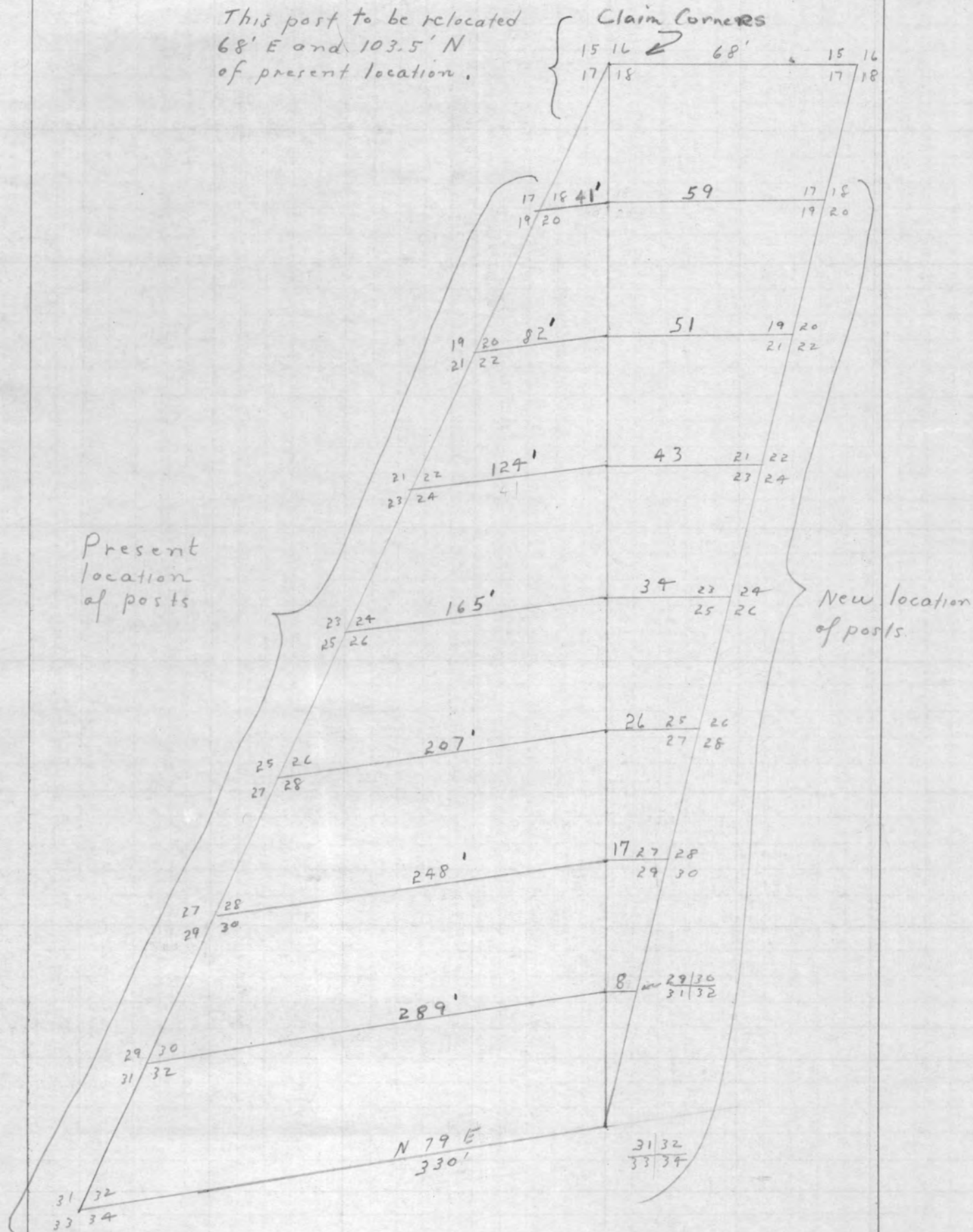
This line extended North from $\frac{1}{4}$ cor $\frac{16}{21}$. Crossed traverse 235' E of T.P.5. and 236' E of Post $\frac{9110}{16115}$. New location of post is 26' E of old location or 210' W of this line. This correction to be proportioned 1 mile South.

Demetrie.

Adjustment for East $\frac{1}{16}$ th line Section 16.

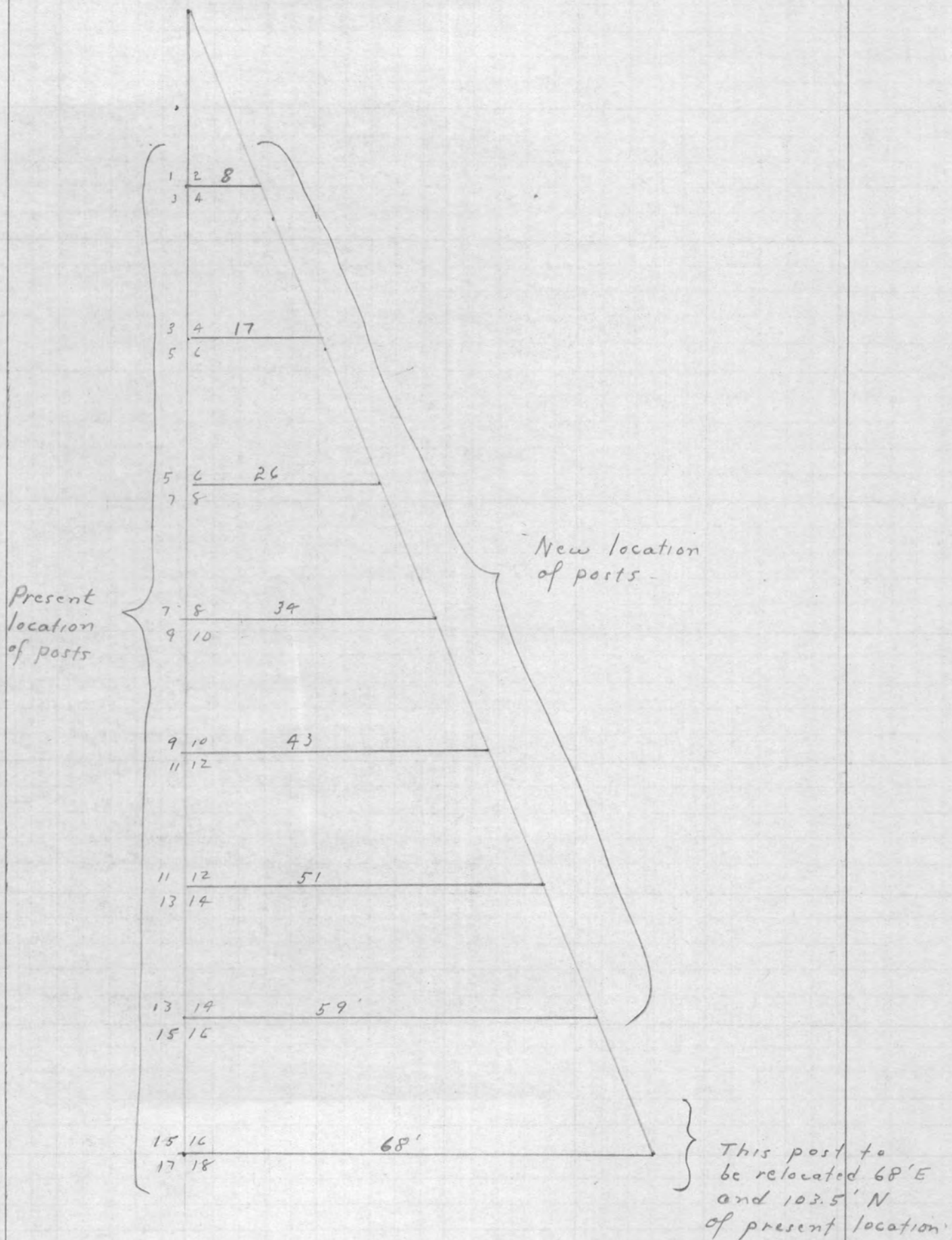
This post to be relocated
68' E and 103.5' N
of present location.

Claim Corners



Demetrio

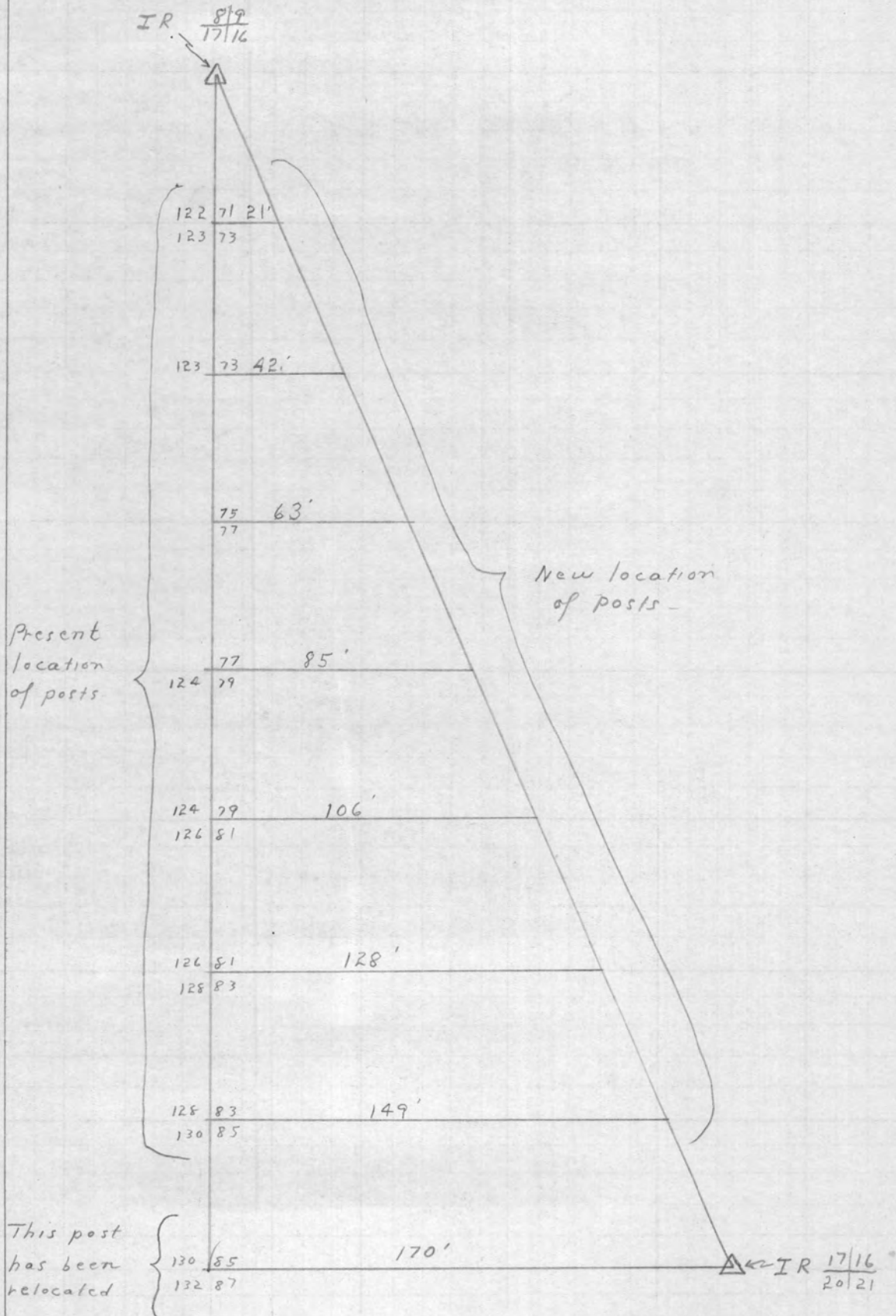
Adjustment for E $\frac{1}{16}$ th line of Section 9



Date	Job	Section No.
Sept 28, 1960	Demetrie	9
29, "	"	9
30, "	"	16-21
Oct 3, "	"	20-29
4, "	"	20-29-30
5, "	"	31
6, "	Off	-
7, "	Off	-
10, "	Sinaloa + Western	
11, "	" " "	
12, "	Demetrie	21
13, "	"	21
14, "	"	21
17, "	"	21
18, "	"	21-29
19, "	"	29
20, "	"	29
21, "	"	29-31
24, "	"	
25, "	"	
26, "	"	
27, "	"	
28, "	"	

Demetrie.

Adjustment for West side section 16.



Section 18

100

100

100

100

100

100

100

Section 19

100

100

100

100

100

1335

87.5'

75'

62.5'

Section 30

50'

37.5'

25'

12.5'

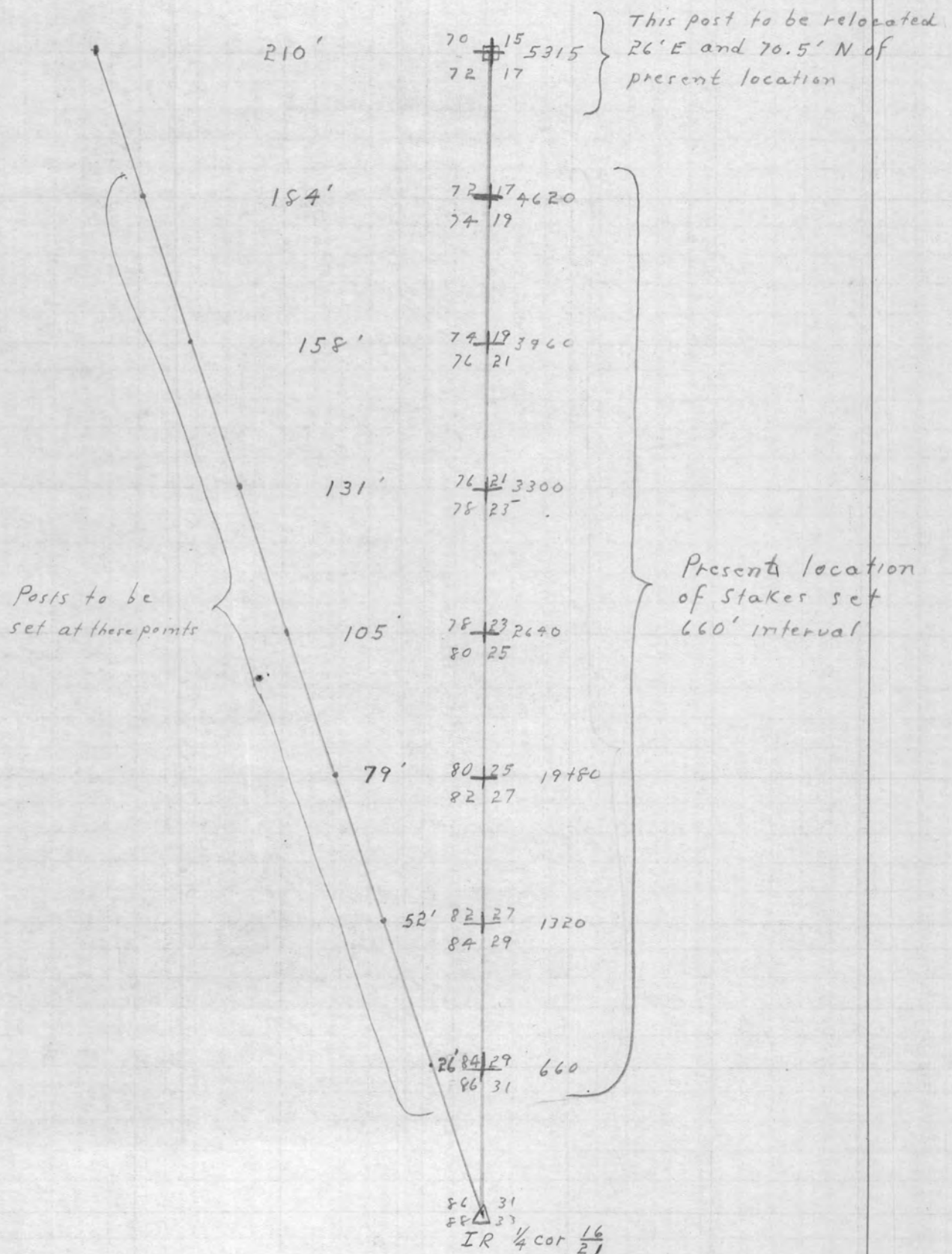
1334

Section 30

1320

Demetrie

Adjustment for line extending 1 mile North from $\frac{1}{4}$ cor $\frac{16}{21}$



Demetrie Wash Project

Ties from "Lucero" claim posts to public land corners

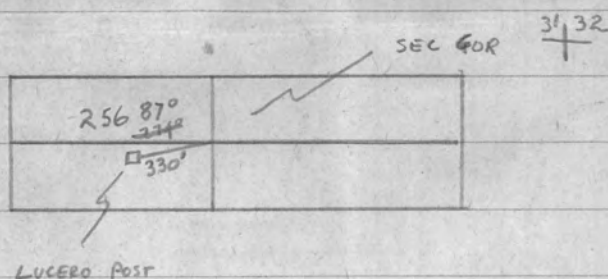
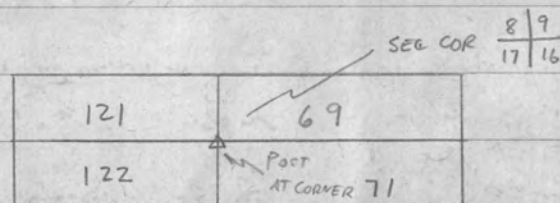
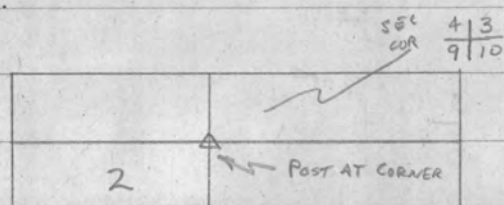
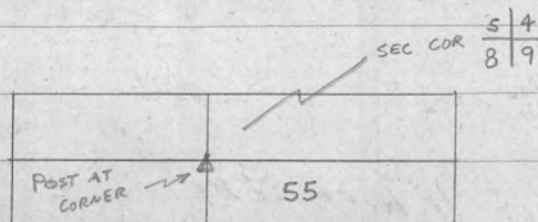
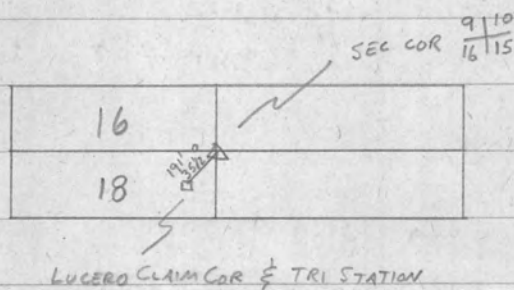
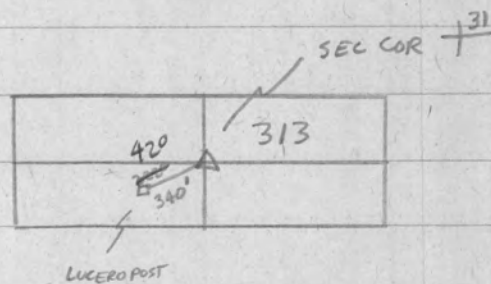
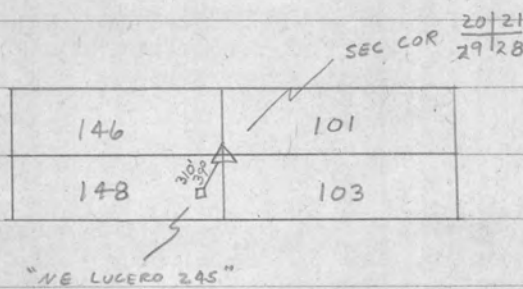
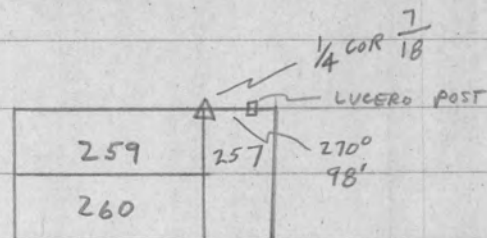
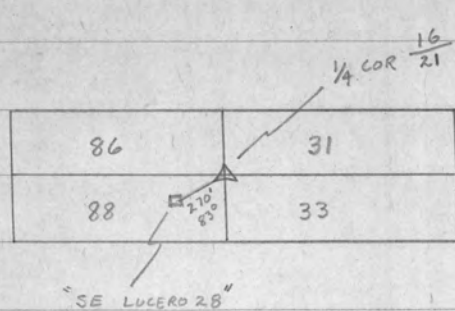
Lucero post number	Azimuth to corner	Distance to corner	Corner
Lucero SE 28	83°	270'	$\frac{1}{4}$ cor 16 & 21
Lucero NE 245	39°	310'	Sec cor 20, 21, 29, 28
Lucero & Tri Sta	36°	191'	Sec cor 9,10,16, 15
Lucero	Post located at corner		Sec cor 5,4,8,9
Lucero	Post located at corner		Sec cor 4,3,9,10
Lucero	Post located at corner		Sec cor 8,9,17,16
Lucero	87°	330'	Sec cor 31, 32 & 5,6 T 19 S
Lucero SE 135	270°	98'	$\frac{1}{4}$ cor 7 & 18
Lucero	42°	340'	SW cor 31 (Twp. cor.)

Demetrie Wash Project

Ties from "Lucero" claim posts to public land corners

Lucero post number	Azimuth to corner	Distance to corner	Corner
Lucero SE 28	83°	270'	1/4 cor 16 & 21 ✓
Lucero NE 245	39°	310'	Sec cor 20, 21, 29, 28 ✓
Lucero & Tri Sta	36°	191'	Sec cor 9, 10, 16, 15 ✓
Lucero	Post located at corner		Sec cor 5, 4, 8, 9 ✓
Lucero	Post located at corner		Sec cor 4, 3, 9, 10 ✓
Lucero	Post located at corner		Sec cor 8, 9, 17, 16 ✓
Lucero	87°	330'	Sec cor 31, 32 & 5, 6 T 19 S ✓
Lucero SE 135	270°	98'	1/4 cor 7 & 18 ✓
Lucero	42°	340'	SW cor 31 (Twp. cor.)

TIES - LUCERO CLAIM POSTS TO PUBLIC LAND CORNERS

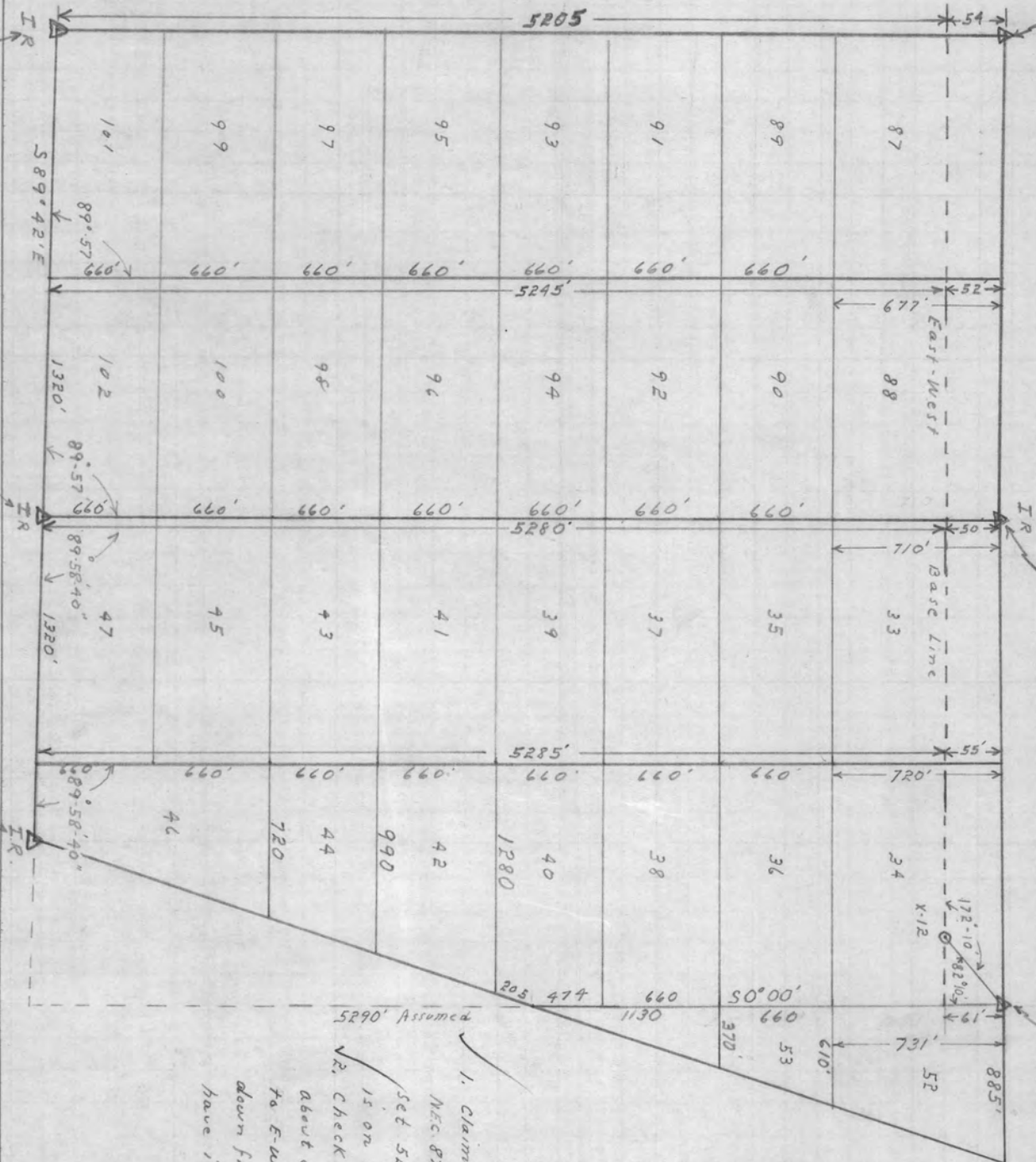


(D-18-13) 21 Demetrie

Sec Cor 20/21

N 1/4 Cor Sec 21

Sec Cor 21/22



Remarks.

1. Claim post is needed at Nec. 87, Nec 88. Should be set 52' N of T.P. 22. T.P. 22 is on E-W. base line.
2. Check with George Reeves about distance from I.R. 20/21 to E-W base line. I put this down from memory and may have it wrong.

Sec Cor 20/21

S 1/4 Cor Sec 21

S.1.C. Land Grant Cor.

November 28, 1960

A total of 13.1 miles of surface profile were traversed, yielding some 8.7 profile miles of subsurface data. The total cost, including vehicles, mileage and miscellaneous expenses was \$4433.80, or \$338.46 per surface profile mile covered or \$509.63 per data profile mile obtained. Some of the "unusual" problems encountered in this survey included the presence of cattle which repeatedly broke the sender wires and as a result, it was necessary to remove the wires from the field each evening and the replacing of them each morning, involving probably 2 to 3 hours additional time required for each electrode set up or possibly a total of one to one and a half days for the entire survey.

Extremely low surface resistivities to the east and the excessive AC "noise" particularly to the west contributed to the somewhat more than usual erraticism of the data requiring the re-run of several of the set-ups. The dense undergrowth made laying and reeling of wire somewhat difficult and contributed to excessive wire breakage.



Respectfully submitted,

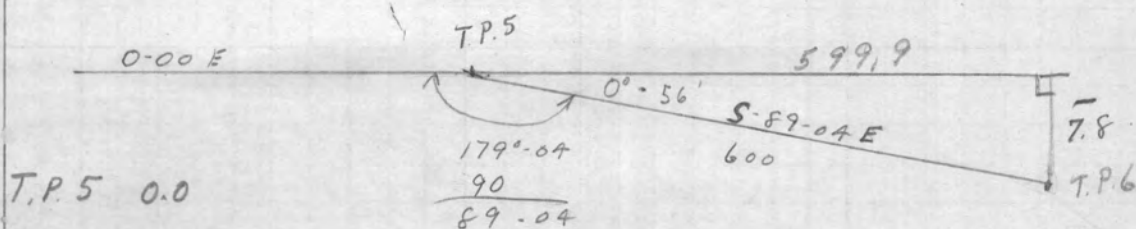
HEINRICHS GEOEXPLORATION COMPANY

Franklin A. Seward, Jr.
Geophysicist

FAS:jh
Enclosures

Demetrio

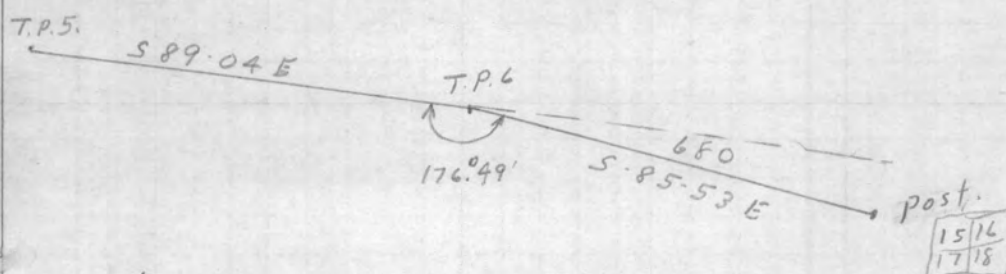
Latitude & Departure Computations for traverse.
from IR $\frac{819}{1716}$ IR $\frac{9119}{12115}$



$$\sin x = \frac{x}{600} \quad x = (\sin 0^{\circ}56') (600)$$

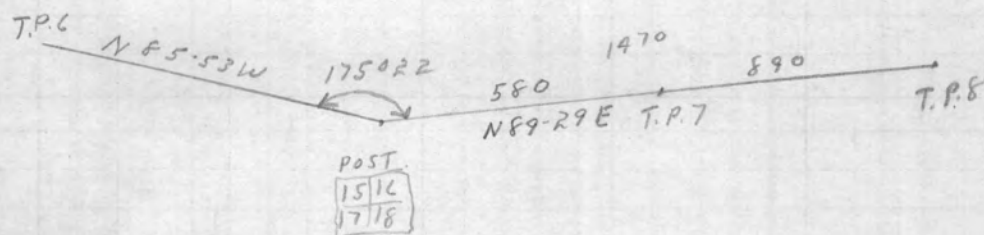
$$\begin{array}{r} \log \sin 0^{\circ}56' \quad 8.2118949 \\ \log 600 \quad 2.7781513 \\ \hline 10.9900462 = -7.8 \end{array}$$

$$\begin{array}{r} \log \cos 0^{\circ}56' \quad 9.9999424 \\ \log 600 \quad 2.7781513 \\ \hline 12.7780937 = +599.9 \end{array}$$



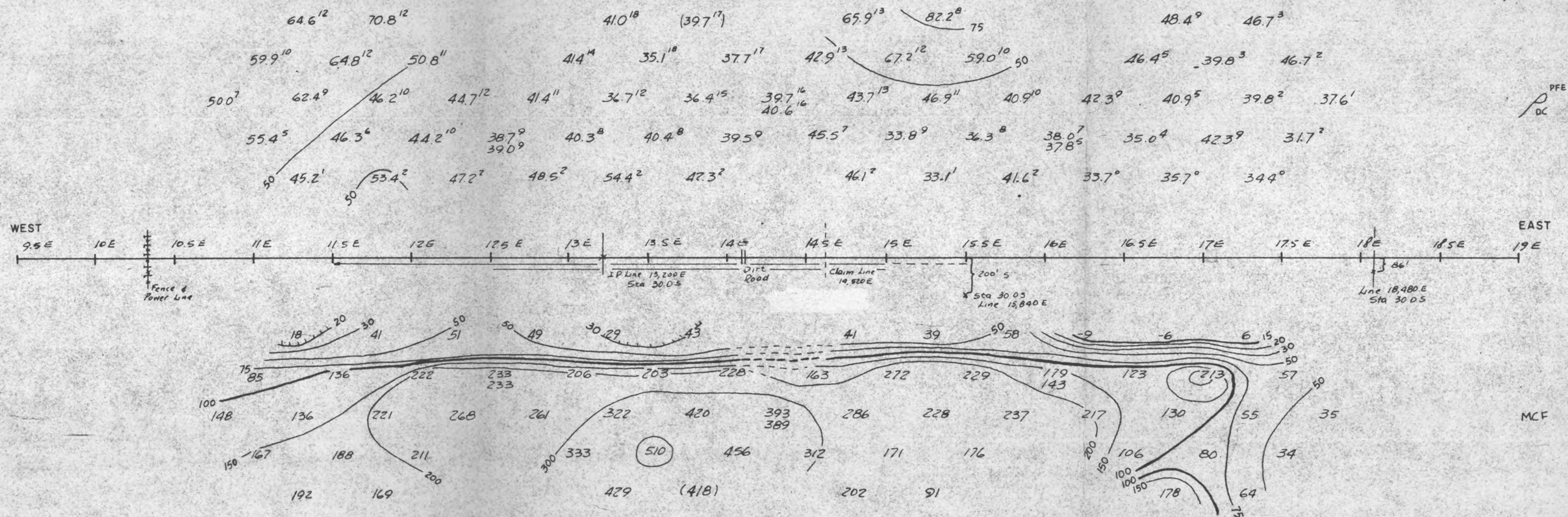
$$\begin{array}{r} \log \cos 85-53 \quad 8.8560493 \\ \log 680 \quad 2.8325098 \\ \hline 11.6885591 = -48.1 \end{array}$$

$$\begin{array}{r} \log \sin 85-53 \quad 9.9988780 \\ \log 600 \quad 2.8325098 \\ \hline 12.8313878 = +678.2 \end{array}$$



$$\begin{array}{r} \log \cos 89-29 \quad 7.9550819 \\ \log 1470 \quad 3.1673173 \\ \hline 11.1223992 = +13.2 \end{array}$$

$$\begin{array}{r} \log \sin 89-29 \quad 9.9999823 \\ \log 1470 \quad 3.1673173 \\ \hline 13.1672996 = +1469 \end{array}$$



2000 N



HEINRICHS GEOEXPLORATION CO. FOR G. W. IRVIN			
INDUCED POLARIZATION SURVEY			
DEMETRIE WASH AREA,			
SCALE: 1" = 500'	CONTOUR INTERVAL: LOGARITHMIC	REVISIONS	
DATE: 10-6-80	DATA BY: F. A. S.		
DRAWN BY: E. G. H.	SHEET 4 OF 4		
	DRAWING NO.:	FILE:	

- Indicates land survey monument other than U.S.B.L.M., origin shown if known
- △ Indicates inscribed rock U.S.B.L.M.
- Indicates magnetic traverse route
- |-----| Indicates Induced Polarization Survey
- ⊕ Drill Hole Location



0 0 10 20 30 40

SCALE IN HUNDREDS OF FEET

TRANSIT - STADIA SURVEY
TROY CLAIM GROUP

DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA
FOR

G. W. IRVIN

HEINRICH'S GEOEXPLORATION COMPANY
P.O. BOX 5671 TUCSON, ARIZONA
NOVEMBER, 1960

FORD P/4

- [illegible]

CREW NO

Demetrie

PROPERTY OF

~~Copper Basin Prop.~~

GEORGE E. REEVES

HEINRICHS' GEO EXPLORATION

TUSCON, ARIZ.

1960

LEFAX

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15 SEP 60
CLEAR, WARM

REEVES
LEWIS ETTANAGESHIK
HANLY



PLACED SIGNAL S.E. COR. SEC 31

31



16 SEP 60

REEVES

ESTAWGESHIK

HANLY

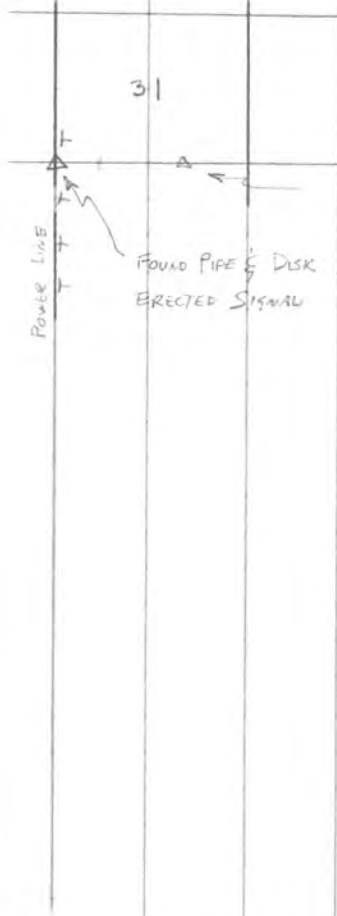
CLEAR & WARM

31

PLACED SIGNAL ON
LINE

FOUND PIPE & DISK
ERECTED SIGNAL

POWER LINE



DEMETRIE
PATE R

TR. MK. REG. U.S. PAT. OFF.

Sta F.S. H.I. B.S. + +

36 | 31
1 | 0

2
4.65
7.32

VOID

3°04'

36 | 31
1 | 0

8.50
10.15
11.80
2.50
3.50
4.49
5.33
10.65

Int.

3.30

Online

-13

TP #1

1.99

28'

TP #2

4.65

2°00'

TP #3

9
9.87
10.74

1.74

2°30'

TP #4

3
3.86
4.54

(4-29)

~~A-2~~

DEMETRIE
PAGE 3
TR. MK. REG. U.S. PAT. OFF.
Remarks

<u>Bearing</u>	<u>Dist.</u>	<u>Acc.</u> <u>Dist</u>
EASTERLY		
EASTERLY	3129	3129
"	199	528
"	464	992
"	174	1166
	154	1320

.9967
3.3
29901
29901
328711

.9993
1.99
89937
89937
9993
988607

.9988
4.65
49940
59928
39952
4644420

9981
174
39924
69867
9981
1738694

320
1273

1320
1166
154

STA	TOP	MIDDLE	BOTTOM	BS POINT ON LINE	FS	H X 90°
A-29	10	10.27	10.55		FENCE	
	8.50	9.71	10.42			
	8.50	9.72	10.94	"	TP#5	
TP#5	11.00	11.48	11.96	A-29	TRIAL	
	11.00	11.44	11.88	"	E/C	0
	4.00	6.10	8.20	"	TP#6 A-28	0

A-28

DEMESTRIE

PAGE 4

TR. MK. REG. U.S. PAT. OFF.

	BEARING	DIST	Acc DIST	REM
✓ 4				
2°59'	N			
3°42'		241		
3°42'		243	243	
3°50'		96		
4°04'		88		
4°32'		417	660	

~~242~~~~9.9~~~~925.9~~~~242~~~~19918~~~~39836~~~~19718~~~~2410078~~

* SET STAKE ON LINE



A-28

417'

EC

87'

TP415

243'

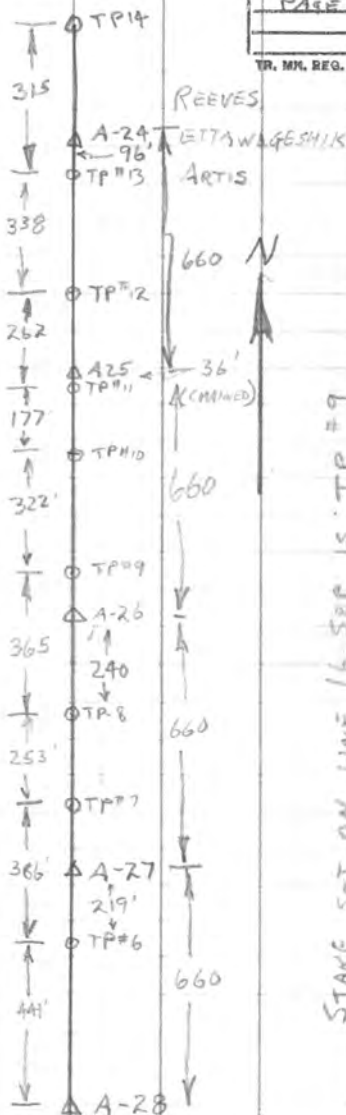
55'

A-29

53'

31

17 SEP 60
WARM
PARTLY CLOUDY



STAKE SET ON LINE 16 SEP 15 TP #9

STA	B.S.	F.S.	H &	TOP	MIDDLE	BOTTOM
A-28	POINT ON LINE FORWARD	TP6	Φ	7.00	9.25	11.50
TP6	"	TRIAL	Φ	9.00	10.00	11.00
	"	TP7	Φ	3.00	4.94	6.87
TP7	"	TP8	Φ	7.00	8.27	9.54
TP8	"	TRIAL	Φ	3.00	4.18	5.36
TP8	"	TP9	Φ	6.00	7.84	9.68
TP9	POINT ON LINE (BACK)	TP10	Φ	4.00	5.61	7.22
SET POINT ON LINE						
TP10	"	TP11	Φ	4.00	4.89	5.78
		SET	A-25	36'		
TP11	"	TP12	Φ	8.00	9.31	10.62
TP12	POINT ON LINE (BACK)	TP13	Φ		8.70	10.40
TP13	POINT ON LINE (BACK)	TRIAL		1.50	2.00	2.49
	"	TP14	Φ	7.50	9.10	10.69
TP14	"	TP15	Φ	6.00	8.67	11.34
		SET	A-23			
TP15	"	TP16	Φ	8.50	10.32	12.14
TP16	"	TRIAL	Φ	6	7.10	8.19

INT.	V A.	CORR	DIST	Acc Dist	BEARING	REM.
450	-7°58'	-8.64	441	1101	N	
221	+2°36'	-.46	221	(1322)	N	A-27 SET BACK 2'
3.87	+2°35'	-.8	386	1487	N	
254	+3°50'	-1.1	253	1740	N	
2.36	+4°56'	-1.7	234	(1974)	N	A-26 SET FORWARD 6'
3.68	+5°04'	-3.1	365	2105	N	
3.22	0°53'	-0.06	322	2427	N	
FORWARD						
1.78	+4°00'	-.87	177	2604	N	
FORWARD TP 11 BY CHAIN						
263	-2°50'	-.63	262	2866	N	
3.40	+4°09'	+1.77	338	3204	N	
99	+4°56'	-.7	98	(3302)	N	SET A-24 2' BACK
319	+6°47'	-4.46	315	3519	N	
534	-3°9'	-1.76	532	4051	N	
91' BACK						
364	+0°33'		364	4415	N	
219	8°22'	-4.6	214	(4629)	N	SET A-24 91' BACK



151'



305



409



364



532



3519

Δ A-21

○ TP18

○ TP17

Δ A-22

205

○ TP16

○ TP15

Δ A-23

○ TP14



660



660



3961



660



660



660



660

DEMETRIE
PAGE 7

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LEFAX, PHILADELPHIA 7, PA.

STA	BS	FS	H $\frac{1}{2}$	TOT	MIDDLE	BOTTOM
TP16	POINT ON LINE (BLACK)	TP17	ϕ	5.00	7.05	9.09
TP17	"	TP18	ϕ	4.00	5.53	7.05
TP18	"	A-21	ϕ			

DEMOTRIF

PAGE 8

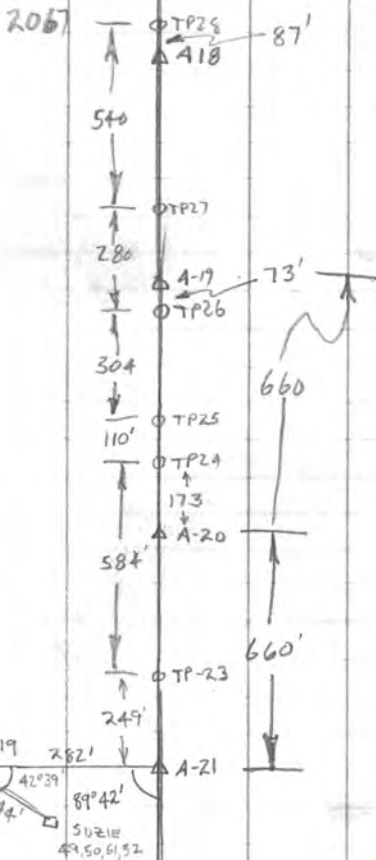
TR. MK. REG. U.S. PAT. OFF.

INT	V A	CORR	DIST	Acc DIST	BEAR.	REM
409	+1058	-.49	409	4824	N	
305	+1025'	-.18	305	5129	N	
TAPED →			151	5280	N	1 MIDE

45' 14" TP22 522' TP21 325' TP20

19 Sep 60
PARTY CLAY
WARM

REEVES
ETTAWAGESHIK
PARDUHN



STA	BS	FS	H &	TOP	MIDDLE	BOTTOM
A-21	POINT ON LINE (BACK)	TP-19	89°42'R	9.00	10.42	11.84
TP19	A-21	5027 49,50,51,52	42°39'R	6.50	6.72	6.94
"	"	TP20	φ	7.00	8.06	9.12
TP20	A-21	TP21	φ	8.00	9.13	11.25
TP21	A-21 TP-2	TP22	φ	3.00	5.61 5.62	8.22
PACED 145' TO POWER LINE SEARCHED FOR SECTION						
A-21	POINT ON LINE (BACK)	TP23	φ	9.00	10.25	11.49
TP-23	A-21	TP-24	φ	4.00	6.98	9.85
TP-23	A-21	TP-24	φ			
TP24		TRIAL	φ	2.00	2.80	3.60
		TRIAL	φ	1.00	1.89	2.78
TP-24	TP23	TP25	φ	10.00	10.55	11.10
TP25	POINT ON ON LINE	TP26	φ	9.00	10.52	12.04
TP26	"	TRIAL	φ	3.00	3.36	3.73
TP26	"	TP27	φ	7.00	8.40	9.80
TP28	POINT ON LINE (BACK)	TP27	φ	5.00	7.72	10.43
TP28		TRIAL	φ	7.00	7.44	7.88

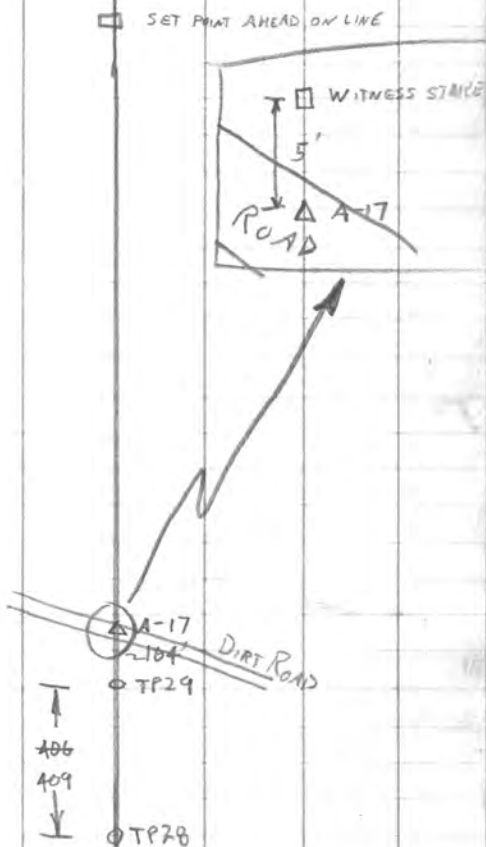
INT	V	+	CORR	DIST	Acc DIST	BEAR	Rem
284	4°12'		-1.5	282	282	W	
44	-0°54'		-	44	-	SE	RICHARD WEATHER
212	+2°29'		-	212	496	W	
325	+2°04'		-	325	821	W	
522	+1°08'		-	522	1343	W	

CORNER - NEGATIVE RESULT

					1 MILE +		
249	+0°52'		-	249	249	N	
585	-2°17'		-1	584	833		
160	-6°46'		-2.2	158		S	
178	-6°34'		-2	176		S	SET A-20 3' N OF LAST TRAIL
110	+2°46'		-	110	943	N	
304	-0°17'		-	304	1247	N	
73	-0°47'		-	73	(1320)	N	SET A-19
280	+1°35'		-	280	1527	N	
543	-4°22'		-3	540	2067	S	
88	-9°59'		-3	85	(1982)	S	A-18 SET BACK 2'

DEMETRIE
PAGE 11

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STA	BS	FS	H &	Top	Middle	Bottom
TP28	Point on Main Beam	TP29	φ	8.00	10.05	12.11
TP29	"	A-17		4.00	4.92	5.64

INT-	V	4	CORR	DIST	AccDist	BEAR	REM
411	+3°42'	1.68	409	2476	N		
164	+0°16'	-	164	(2840)	N		MIDDLE OF ROAD
				(2640)			

SET POINT AHEAD ON LINE

20 SEP 60

REEVES

ETAWAGESHAK

PARDUN

5205

A-13
75'
TP35



489



130'



524'



533'



365'



514'



A-17

TP34
A-14
TP33

44'

660'

TP32
A-15
92'

92'

660'

TP31

A-16
146'
TP30

660'

STA	B.S.	F.S.	H.I.	TOP	RED	NOTATION
A-17	POINT ON LINE (Back)	TP30	+	5.00	7.57	10.14
					PACED	150
TP30	PONTON LINE FORWARD	A16	φ	4.00	4.23	5.46
TP30	"	TP31	φ	8.00	9.82	11.65
TP31	"	TP32	φ	6.00	8.66	11.33
TP32	"	A-15	φ	11.00	—	11.92
TP32	"	TP33	φ	6.00	8.63	11.25
TP33	POINT ON LINE (BACK)	TP34	φ	5.00	5.65	6.30
TP34	"	A14	φ	5.00	—	5.44
TP34	"	TP35	φ	7.00	9.49	11.99
TP35	TP34 TP35	TP36	φ	1.00 1.00	1.40 1.34	1.80 1.77
TP35	TP34	TP36	φ	8.00	9.12	10.24
TP36	TP34	TP37	90°16' R	7.00	8.49	9.96
TP37	TP36		52°19' R	4	—	5.27
TP37	TP36	TP38	φ	5	6.75	8.50
TP38	TP36	TP39	φ	9	10.05	11.40
TP39	TP36	TP40	φ	5	7.00	9.01
TP40	TP36	TP41	φ	4	—	4.63
TP41	TP36	TP42	89°44' R	5	—	6.49

INT	V A	CORR	DIST	ACC DIST	BEAR	REM.
514	-0°23'	-	514	3154	N	
1.46	-0°08'	-	146	(3300)	N	
365	+0°44'	-	365	3519	N	
533	+0°14'	-	533	4052	N	
92	+10°08'	-	92	(3960)	S	
525	+2°44'	-1'	524	4576	N	
130	+0°47'	-	130	4706	N	
44	-	-	44	(4620)	N	
499	-1°23'	-	499	5205	N	
80	-8°48'	1.9	78	(5283)	N	
77	-9°02'	1.9	75	(5280)	N	
224	+1°46'	-	224	5429	= 2 ^m + 149	
296	+1°32'	-	296	296	W	
127	+1°22'	-	127		SW	
350	+1°40'	-	350	646	W	
210	+2°40'	-	210	856	W	
401	+1°16'	-	401	1257	W	
63	+1°02'	-	63	1320	W	
149	-	-	149		S	



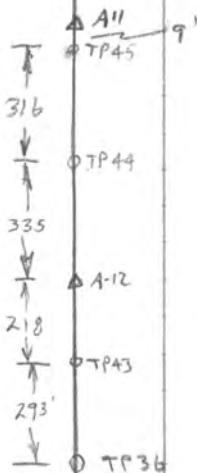
TP42
A



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STA	BS	FS	H Δ	TOP	MIDDLE	Bottom
TP36	TP34	TP3 TP43	φ	3.00	4.46	5.73
TP43	TP34	A-12	φ	5.00	6.09	7.18
A-12	TP34	TP44	φ	6.00	7.67	9.35
TP44	TP34	TP45	φ	4.00	5.58	7.16
TP45	TP34	TP4L	φ	4.00	6.90	9.80
TP45	TP34	TP47	φ	7.00	8.35	

DEMETRIE

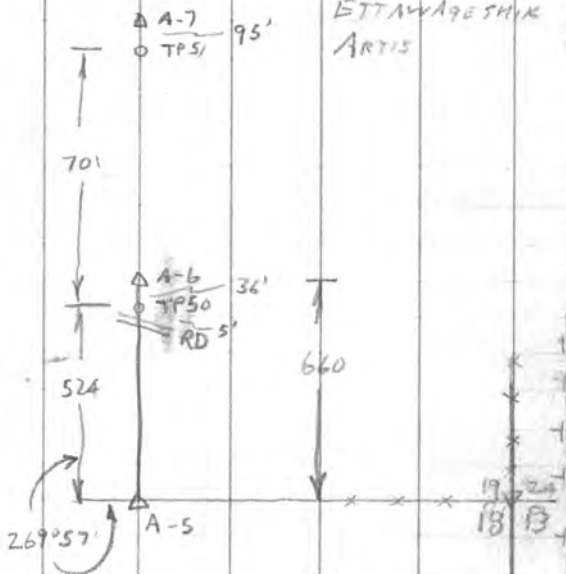
P 16

TR. MK. REG. U.S. PAT. OFF.

INT	V A	CORR	DIST	Acc DIST	BEAR	REM
293	+0°46'	-	293	442	N	
218	+0°45'	-	218	660	N	
335	+0°51'	-	335	995	N	
316	+1°54'	-	316	1311	N	3874-11 9' N
580	-2°00'	-1	579	1890	N	
36			870	2760	N	

21 SEP 60

F. HEINRICHS
REEVES
ETTAWAGESHIN
ARTIS



STA	BS	FS	Ht	Top	Middle	Bottom
12/18 24/17	ALUM. FENCE	TP47	3 -	3.00	6.18	9.35
TP47		TP48	-	5.00	8.45	7.89
TP48		TP49	-	4.00	5.72	7.44
AS		TP49		6.00	3.30	6.60
AS	FENCE	TP50	269°57' R	5.00	7.62	10.25
TP50	AS	A6	Ø	7.00	-	8.32
TP50	AP	TP51	Ø	4.00	7.51	11.02
TP51	TP50	A7	Ø	-	-	11.45
TP51	TP50	TP52	Ø	3.00	6.62	10.24
TP52	TP51	A8	Ø	6.00	-	6.32
TP52	TP51	TP53	Ø	2.00	6.34	10.64
TP53	TP52	A9	Ø	6.00	-	7.65
TP53	TP52	A9	Ø	6.00	-	7.66
TP53	TP52	TP54 A10	Ø	9.00	10.27	11.65
TP54	TP53	TP55 A10		9.00	10.10	11.21
TP54	A10		90°03' R CROSS BASE LINE			
TP54	A10	TP55	Ø	5.00	8.48	11.96
TP55	-P54	TP56 A11	Ø	3.00	-	4.83
TP55	TP54	TP56	90°03' R	3.00	4.88	6.66

DEMETER E

P-18

TR. MK. REG. U.S. PAT. OFF.

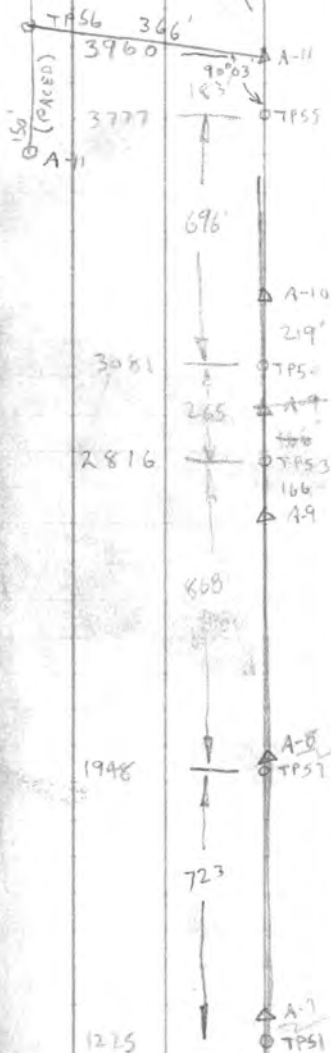
INT	V &	CORR	DIST	Acc D.	BEAR	REM
635	-0°40'	-	635	635	E	
289	-1°16'	-	289	924	E	
344	-6°46'	-4.78	339	1263	E	
				1323		
60	-0°02'	-	60	1363	E	
525	+2°58'	-1	524	524	S	
36	-	-	36	(660)		
702	-2°18'	-1	701	1225	S	
95	-	-		(1320)		
724	+1°34'	-1	723	1948	S	
-	-	-	32	(1980)		
868	-0°32'	-	868	2816	S	
65	-	-1	64		N	
66	-	-	166	(2640)	N	
265	-0°20'	-	265	3081	N S	
221	-4°52'	-2	219	3300	N S	
				4777		
696	-0°38'	-	696	047	S	
				3777		
183	-0°20'	-	183	3960	S	
366	-1°06'	-	366	366	E	

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SIGNAL CORP. 1919 J. O. PARKER

LEFAX, PHILADELPHIA 7, PA.

NOTE: STAKE A-9 IS
10' TOO FAR SOUTH 9/8R



3157

AAO
243'
OTP63

DEMATION

P. 19

TR. MK. REG. U.S. PAT. OFF.

660'

892

AA1

↑

375

↓

OTP62

↑

285'

↓

AA2

945'

660

1320

AA3

140'

1180

OTP61

657'

660'

AA4

137'

OTP60

10'

ROAD

523'

660'

222'

323'

775'

TP57

TP58

TP59 (AA5)

STA	BS	FS	Hz	TP	RAID	BOTM
A-5	Fence	TP57	0	9.00	10.57	1225
TP57	"	TP58	0	7.00		
TP58	"	TP59	0			
TP59	TP58	TP60	TP57 R			
TP60	TP59	TP61	0			
TP60	TP59	AA4	0			
TP61	TP	AA3	0			
AA3	TP61	TP62	0			
TP62	AA3	AA2	0			
TP62	AA3	AA1	0			
TP62	AA3	TP63	0			
TP63	TP62	AA0	0			

DEMERY RIE
P. 20

TR. MK. REG. U.S. PAT. OFF.

INT	V #	CORR	DIST	Acc Dist	BEAR	Rem
325	+4024'	-2	323	323	E	
775	0024	—	775	1098	E	
222	—	—	222	1320	E	
523 533 657 656	—30'	—	523	523	N	
137	—	—	657	1180	N	
	—	—	137	(660)	N	
	—	—	140	1320	N	
	—	—	945	2265	N	
	—	—	285	(1980)	S	
	—	—	375	(2640)	N	
892			892	3157		
			143	(3300)		

2640

2265

375

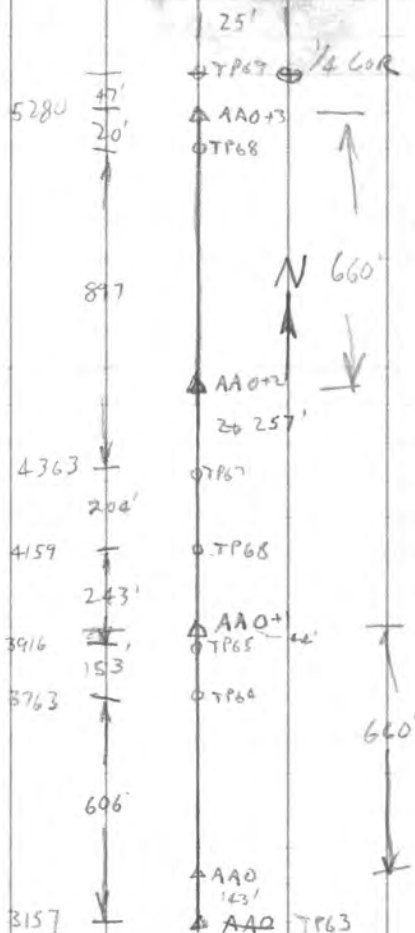
DEMETER

P. 21

TM. MK. REG. U.S. PAT. OFF.

22 SEP 60
REEVES
ETTA WAFESHIRE
PAROUM

CLEAR
WARM



STA	B.S.	F.S.	H.A.	Top	Middle	Bottom
TP63		TP64				
TP64	AA1	TP70	0			
TP65	TP63	TP65	1			
TP65	TP63	AA0+1	0			
TP65	TP63	TP66	1			
TP66	TP65	TP67	1			
TP67	TP66	AA0+2	1			
TP67	TP66	TWIN BLVD ROAD	1			
TP67	TP66	TP68	1			
TP68	TP67	AA0+3	1			
TP68	TP67	TP69	1			

CHAINED 25'

MARKED LINE C

DEMIST/18

P. 22

TR. MK. REG. U.S. PAT. OFF.

INT	V Δ	CORR	DIST	Acc. Dist	Bere	REM.
607	-1°40'	-1	606	3763	N	
153	+2°38'	-	153	3916	N	
			44	(3960)	N	SE 1/4
244	+3°04'	-1	243	4159	N	
204	+2°18'	-	204	4363	N	
257		-	257	(4620)	N	SE 1/4
706	+2°40'	-2	704	(5067)	N	
895	+2°22'	-2	897	5260	N	
20	-	-	20	(5280)	N	
67			67	5327	N	

EAST TO 1/4 CORNER

DEMOTRIE

R. 23

TR. MK. REG. U.S. PAT. OFF.

23 SEP 60

REEVES

ETNA LERSTUK

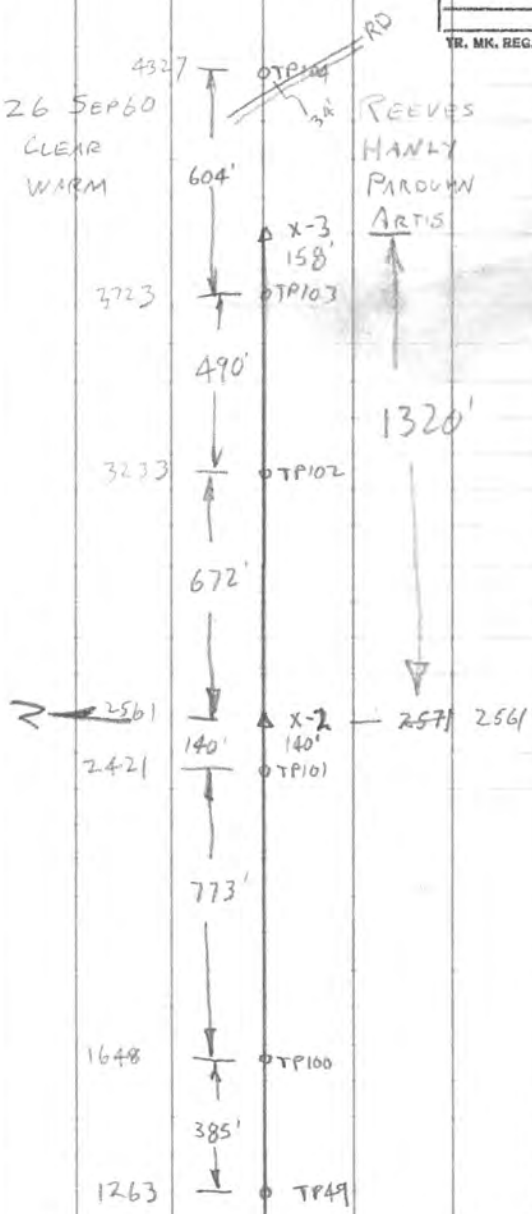
PARDHAN

MARKED LINE DD
 MARKED LINE D

STA	BRG	DIST
A-11 (OLD)	248°	415' ✓
A-11 (NEW)		
A-12		392 ✓
13		
14		346 ✓
15		
16		300 ✓
17		
18		254 ✓
19		
20		208 ✓
21		
22	161	161 ✓
23		
24	115	115 ✓
25		
26	69	69 ✓
27		
28	23	23 ✓
29		

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 MADE IN U.S.A.
 LEFAX, PHILADELPHIA 7, PA.
 42

26 SEP 60
 CLEAR
 WARM



STA	B.S.	I.S.	H	TOP	MIDDLE	12-510
	13.18 24.19	TP101	φ	5.50		10.41
TP100	Fence	TP102	φ	5.50		10.36
TP101	"	TP103	φ	4.00		11.73

CHAINED

X2		TP102	
TP103	TP101	TP102	

CHAINED

TP103	TP101	TP104	φ
TP104	TP103	TP105	φ
TP105	TP104	TP106	φ
TP106	TP105	TP107	φ
TP107	TP106	TP108	φ
TP108	TP107	TP109	φ

X-24	TP107	TP109	180° 00' R
TP109	TP108	TP110	

X-24	TP107	TP109	179° 52' R
TP109	X-24	TP-110	φ
TP110	TP109	TP-111	φ
TP111	TP110	TP112	φ

SET X-5

TP112	TP111	TP113	φ
TP113	TP112	TP114	φ
TP114	TP113	TP115	φ

3531

DEMETRIE
P-23

TR. MK. REG. U.S. PAT. OFF.

INT	V A	CORR	DIST	Acc DIST	BEAR	REM
391	2040'	-1	390	1653	E	
386 391	2040	-1	385	1648	E	
773	-0°24'	-	773	2421	E	CHECKS W/TPS8
140'	TO X-2					
674	-3°26'	-2	672	3232 3093	E	
490	-1°34'	-	490	3723	E	
158'	TO X-3					
604	-1°34'	-	604	4327	E	
309	-1°28'	-	309	4636	E	
91	-1°34'	-	91	4727	E	
160	-2°52'	-	160	4887	E	
285	-0°16'	-	285	5172	E	
217	-0°10'	-	217	5389	= 5001 + 188	
SET X-4	29' EAST		5201			
188				5389		
188			—	188	E	
193	+0°50'		193	381	E	
460	0°24'		460	841	E	
334	-0°44'		334	1175	E	
147' E	BY	STADIA				1322'
511	-1°08'		511	1686	E	
279	+0°50'		279	1965	E	
	-1°10'		294	2259	E	

2259



TP-115

274

1965



TP-114

9

1686



TP-113

511'



X-5
147'

1175



TP-112

334'

841'



TP-111

460'



381

TP-110

193'

188'



TP-109

188'

5201 29'
5172



X-4
TP-108

285'

4887



TP-107

160'

4727



TP-106

4636



TP-105

91'



309'

4329



TP-104



1322'



1320'

REEVES
HANLEY
PARDOHN
PHILLIPS

↓
↑

533'

↓
—
A

472'

↓

↑

OTPIZO

256'
↓
— 0TP119

185' | TP118

214
↓
—
A

234'
↓
ΦTP116

346' ϕ TP 115

156

$$\frac{N}{T}$$

STA	B.S.	F.S.	Ht	Top	Middle	Bottom
TP115	TP114	TP116	φ			
TP116	TP115	TP117	φ			
TP117	TP116	TP118	φ			
TP118	TP117	TP119	φ			
TP119	TP118	TP120	φ			
TP120	TP119	TP121	φ			
TP121	TP120	TP122	φ			
TP122	TP121	TP123	φ			
TP123	TP122	TP124	φ			
X-8	TP123	TP125	180° 05' R φ			
TP125	X8	TP126	φ			
TP126	TP125	TP127	φ			
TP127						

DEMETRIE
P. 27

TR. MK. REG. U.S. PAT. OFF.

ORIGINAL COFR. 1910 J. O. PARKER

MADE IN U.S.A.

LEFAX, PHILADELPHIA 7, PA.

INT	V 4	CORR	DIST	ACC. DIST	BEAR	REM.
346	-1°12'	-	346	2605	E	
39' E						2644'
234 834	-0°44'	-	234	2839	E	
214	-0°12'	-	214	3053	E	
185	+1°10'	-	185	3238	E	
256	-	-	256	3494	E	
472	-	-	472	3966	E	(X-7)
533	+1°06'	-	533	4499	E	
465	-0°42'	-	465	4964	E	
351	-0°42'	-	351	5315	E	
SET X-8		BACK (WEST)	27'			5288'
585	+1°16'	-	585	585	E	
422	0°36'	-	422	1007	E	
349	-0°56'	-	349	1356	E	
82						

1356' — . dTP-127

349'

(007) — dTP-125

422'

dTP-125

585'

— dTP-124
27'
308'

351'

— dTP-123

DEMETRIE

P. 28

TR. MK. REG. U.S. PAT. OFF.

28 SEP 60

CLEAR

WARM

REEVES

HANLY

PHILLIPS

~~Q~~ STA 143

~~W10'~~

ROAD & POWER LINE

STA	BS.	F.S.	HT	Δ	Total	M.P.M.	2nd
127	126	127	1	0			

SL 1.7 41'

128	127	128	1	0			
-----	-----	-----	---	---	--	--	--

129	128	130	2	0			
-----	-----	-----	---	---	--	--	--

130	129	131	2	0			
-----	-----	-----	---	---	--	--	--

SL 1.7 152 E

131	130	132	2	0			
-----	-----	-----	---	---	--	--	--

132	131	133	2	0			
-----	-----	-----	---	---	--	--	--

133	132	134	2	0			
-----	-----	-----	---	---	--	--	--

134	133	135	2	0			
-----	-----	-----	---	---	--	--	--

135	134	136	2	0			
-----	-----	-----	---	---	--	--	--

TP136	135	137	2	0			
-------	-----	-----	---	---	--	--	--

K-12	TP136	TP138	W.C.R
------	-------	-------	-------

TP138	POL	140	0
-------	-----	-----	---

140	138	141	0
-----	-----	-----	---

141	140	142	0
-----	-----	-----	---

142	141	143	0
-----	-----	-----	---

143	142	144	0
-----	-----	-----	---

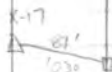
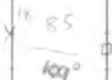
144	143	145	0
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DEMETER
P-29

TR. MK. REG. U.S. PAT. OFF.

INT	V &	CORR	Dist	Acc Dist	BLAR	REM.
490	-1022'	-	490	1846	E	(885)
W OF 127'			490		E	1315
314	+0'22'	-	314	2160	E	(2160)
316	-0'58"		316	2476	E	(2476)
413	-0'02'		413	2889	E	(2889)
OF 130						
440	-0'33'		440	3329	E	(3329)
332	-0'22'		332	3661	E	(3661)
270	-1050'		270	3930		(3930)
SET X-11		23' E OF TP	134			3953
405	-0'53'		405	4335		(4335)
358	-1002		358	4693		(4693)
530	-1008'		530	5223		(5223)
SET X-12		50' East of TP	137			
148	+3010'		148	148		(148)
538	+1014'		538	686		(704)
454	+0'50'		454	1140		(1158)
SET X-13		44' S OF TP	140			(660)
860	+0'18'		860	2000		(2018)
SET X-14		162' N of TP	141			(1320)
245	+1016		245	2245		(2263)
SET X-15		38 S. OF TP	142			(1980)
525	+0'36'		525	2770		(2788)
442	+0'10'		442	3212		(3230)
SET X-16		148' S OF	144			(2640)

29 SEP 60

REEVES
HARRY
ANDRESDEMETER
P. 30
TR. MK. REG. U.S. PAT. OFF.

146

X-17

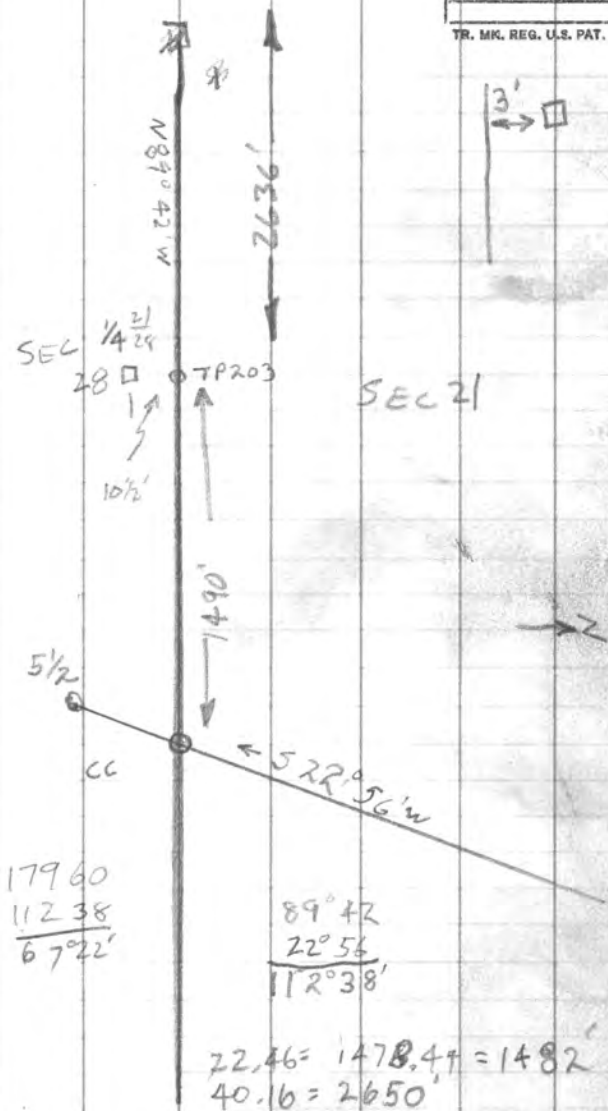
145

STA	BS	IS	2	3	4	5	6
145	144	146	1	2	3	4	5
146	145	147	1	2	3	4	5
147	146	148	1	2	3	4	5
148	147	149	1	2	3	4	5
149	148	150	1	2	3	4	5
150	149	X-20	1	2	3	4	5

DEMETERIZ
P 3

TR. MK. REG. U.S. PAT. OFF.

INT	VA	COR	DIST	Dist	BEAR	REM
350	+0'42'	—	350	3562	N	(3580)
SET	X-17	70' N	145			(3300)
587	+0'04'	—	587	4149		(4167)
398	+1'10'		398	4547		(4565)
SET	X-18	207' S	147	4783		
236			236	4883		(4801)
259	+0'05'	—	259	5042		(5060)
220			220	5262		(5280)



STA	BS	IS	H A	TOP	Mid	Bottom
C.C. 28 1/2 21	5 1/2 M	200	67° 22' R			
200	C.C. 28 1/2 21	201	Ø			
201	200	202	Ø			
202	201	203	Ø	A		
203	1/4 CORNER	204	AS PER SECTION	RESET		
204	203	204	Ø			
204	1/4 28	205	Ø			
206	204	205	Ø	6.70	9.60	2.50
206	204	207	Ø			
207	206	208	Ø			

LOCKED SECTION COR.

SECTOR	1/4 COR	209	179° 55' R
209	SECTOR	210	

DEMETER

P-33

TR. MK. REG. U.S. PAT. OFF.

INT	V 4	CORR	Dist	Acc Dist	BEAR	REM
482	+1028'		482	482	W	
354	+1012'	-	354	836	W	
606	+1054'	-	606	1442	W	
			48	1490	W	
ON 1/4	COR, B.S. ON		C.C.			
190	-	-	190	1680	W	
745		+036'	745	2425	W	
5.80	+1016'	-	580	1300.5	W	
507		+048'	507	3512	W	
416	+2052'	- 2	614	4126		

RESET ON COR, B.S. ON 1/4 C

278	CURVED	98	98	W
578	-1026	278	368	W

CLAIM COR

310' 2190

FROM SEC COR

SE 201
SW 160
NW 181
NE 245

4126
1490
2636

1490
1318
2808

STA	BS	FS	IX	TOP	M10	Foot
SEC COR 79	440R	211	89042R			
211	POL	212	φ			
212	POL	R-1	φ			
212	POL	213	φ			
213	SEC COR	214	φ			
214	SEC COR	215	φ			
215	214	216	φ			
215	215	R-3	φ			
216	215	R-4	φ			
216	215	Yellow	φ			
217	216	218	φ		466	
218	216	219	φ	440	873	106
219	216	R-5	φ			
219	216	220	φ			
220	219	221	φ			
221	220	222	φ			

DEMETER

P-34

TR. MN. REG. U.S. PAT. OFF.

INT	V	CORR	DIST	ACC DIST	BEAR	REM
117			117	117	S	
404	4°16'	-2	402	519	S	
141	-		141			(660)
210	+3°08'	-2	608	1127	S	
477	1040	-	377	1604 1504	S	
84		-	184	1792		(1320)
389	-1°20'	-1	388	1872	S	
526	+0°58'	-1	526	2518 2418	S	
88	-	-	88			(1970)
222	-	-	222			(2640)
125	-3°10'	-	125	2643 2543		

LINE IS 4 1/2' E OF 1/4 COR

217 = + 97

397 +0°16' - 397 494 S

2 SET R-3 12' N 215

466 +1°36' - 466 960 S

166 - - 166

419 +0°52' - 419 1379 S

785 -0°08' - 785 2164 S

SET R-6 59' N 220

SET R-7 187' S 221

222 +0°40' - 222 2386 S

161 -8°02' -3 158 2544 S

Slope chain
12'

-18°10' 87 2631 S

LINE IS 8' E OF SEC COR

SET R-3 N 100 TO CORNER EARR

57A	BS	FS	PA	TOP	112	107
1/4 28	NW CR	29	PL 11400			
	29	225	89° 47' R			

225	1/4 CR	226	Ø			
-----	--------	-----	---	--	--	--

225						
-----	--	--	--	--	--	--

				4.5	8.5	
--	--	--	--	-----	-----	--

--	--	--	--	--	--	--

227	225	226		6.00	10.05	—
-----	-----	-----	--	------	-------	---

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227	225	228		6.00	8.92	166
-----	-----	-----	--	------	------	-----

--	--	--	--	--	--	--

228	227	229		4.00		214
-----	-----	-----	--	------	--	-----

--	--	--	--	--	--	--

229	227	230				
-----	-----	-----	--	--	--	--

230	227	231				
-----	-----	-----	--	--	--	--

--	--	--	--	--	--	--

Post	CC	235	89° 47' R			
235						

235	Post	236				
-----	------	-----	--	--	--	--

236	235	237				
-----	-----	-----	--	--	--	--

DEMETER

P-36

TR. MK. REG. U.S. PAT. OFF.

WT	V Δ	CORR	DIST	Acc DIST	BEAR	REM
153	-1°00'	-	153	153	S	
458	-1°28'	-	458	641	S	
SET	Post	51 49'	S 226		S	(660)
810	-1°36'	-1	809	1420	S	
SET	Post	100' N	227			(132)
586	-3°46'	-3	583	2003	S	
SET	STAKE	23' N	OF 228			
693	+2°58'	-2	691	2694	S	
SET	POST	51' S	229			
205	-	-	205	2899	S	
495	-2°34'	-1	494	3393		
SET	POST	(WC)	391' S			
196	+1°36'	-	196	196	S	
384	-2°00'	-	384	580	S	
323	70°10'	-	323	903	S	
417	-	-	417	1320	S	

3393
 391
 3794
 12
 3806
 3302
 496

D. B. MOYRE

P. 36

TR. MY. REG. U.S. PAT. OFF.

50060

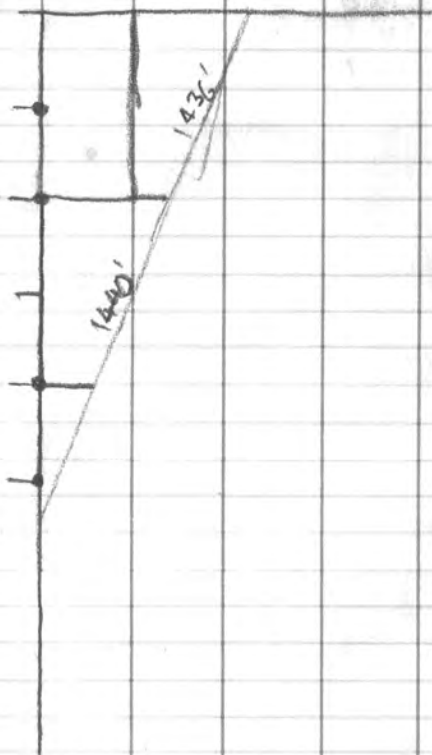
REEVES
 HARRY
 PARNUM
 ANDRES

MILE MARKER

10' E 246

10' N 246

$$246 = 3594$$



527
251

STA	BS	FS	H A	TOP	MD	BOT
C.C.	5 1/2 M	240	φ			
5 1/2 M	CC	240	φ			
5 1/2 M	CC	241	φ			
				6.40	9.38	7.36
241	5 1/2 M	242		6.40	9.38	12.36
242	5 1/2 M	243	φ	4.50		12.04
244	242	243				
244	242	245	φ			
245	244	246	φ			
245						
246	244	247	φ			
				4.50		9.70

3594

1236

5030

1782

5030

DEMOTRIE

640

4762

4212

718

P. 37

596

248

470

5748

TR. NY. REG. U.S. PAT. OFF.

INT	V 4	CORR	DIST	ACC DIST	BEAR	REM
-----	-----	------	------	-------------	------	-----

505	-0°56'	-	505	505	SSW	
-----	--------	---	-----	-----	-----	--

350	+1°22'	-	350	855	"	
-----	--------	---	-----	-----	---	--

410	-0°02'	-	410	1265	"	2'
-----	--------	---	-----	------	---	----

SET STAKE 169' SSW 241

(1434)

596	+2°02'	-1	595	1860	SSW	
-----	--------	----	-----	------	-----	--

754	-0°18'	-	754	2614	SSW	
-----	--------	---	-----	------	-----	--

185	-4°36'	-1	184	2798	SSW	7'
-----	--------	----	-----	------	-----	----

78 (STAKE FOR POST)

(2876)

422	+0°30'	-	422	3220	SSW	
-----	--------	---	-----	------	-----	--

825	+0°16'	-	825	4045	SSW	10'
-----	--------	---	-----	------	-----	-----

565 TO STAKE FOR POST

(3785)

738	+1°50'	-1	737	4782	SSW	12'
-----	--------	----	-----	------	-----	-----

SET STAKE 470' N 247

(4312)

SET STAKE 248' ~~SW~~ S 247

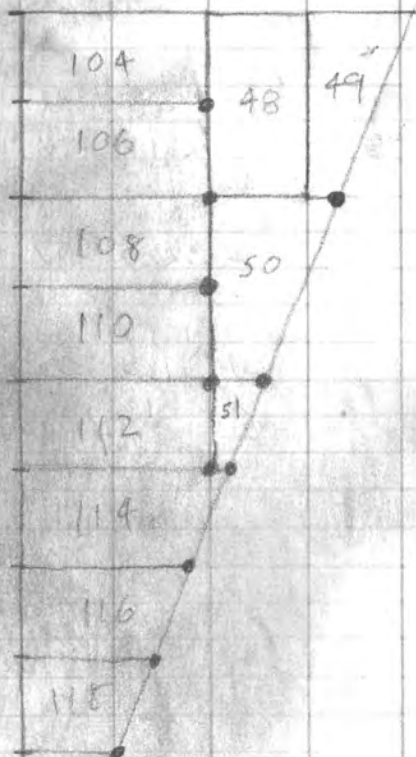
(5030)

520	-0°48'	-	520	5302		
-----	--------	---	-----	------	--	--

431

5733

18'

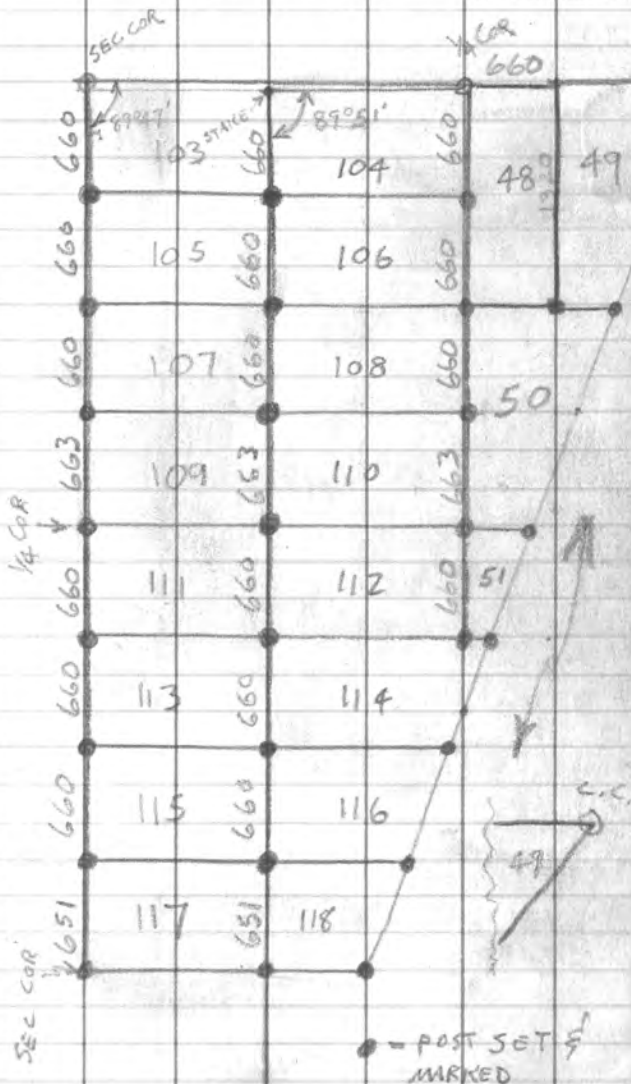


SEC 28

DEMETER

P-38

TR. MX. REG. U.S. PAT. OFF



STA	BS	FS	H Z	TAP	MIP	BOT
206	1/4 COR	250				
250	1/4 COR	251	89°51'	SLOPE	CHAIN	
251	POL	252	φ			

252	251	253	φ
-----	-----	-----	---

253	251	254	φ
-----	-----	-----	---

254	253	255	φ
-----	-----	-----	---

255	253	256	φ
-----	-----	-----	---

256	255	257	φ
-----	-----	-----	---

257	254	258	φ	730	962	1194
-----	-----	-----	---	-----	-----	------

258	257	259	φ
-----	-----	-----	---

259	258		
-----	-----	--	--

$$\begin{array}{r} 206 = 3005 \\ 2808 \\ \hline 197 \end{array}$$

$$\begin{array}{r} 1980 \\ 663 \\ \hline 2643 \\ 2591 \\ \hline 52 \end{array}$$

DEMETER
P. 39
TR. MX. REG. U.S. PAT. OFF.

INT	V.4	CORR	DIST	ACC DIST	BEAR	REM
197	+1040'	-	197	2808		W. OP C.C.
40.6	+15°33'		39	42	S	
574	-0°48'	-	574	616	S	
	SET STAKE		44' S	252		(660)
749	+10°52'	-	749	1365	S	
	SET STAKE		45' N	253		(1320)
667	-2°34'	-1	666	2031	S	
	SET STAKE		51' N	254		(180)
561	+20°16'	-1	560	2590 2591		
397	+10°16'	-	397	2988		
	SET STAKE		52' S	255		(2643)
734	-10°18'	-	734	3722		
	SET STAKE		315' S	256		(3303)
	SET STAKE		241' S	257		(3963)
464	-0°18'	-	464	4186		
605	+0°00'	-	605	4791		
	SET STAKE		168' N	259		(4623)
483	+1°18'	-	483	5274		

4791	3963	3303	2643
4623	660	3963	660
168	4623	3722	3303
	651	241	2988
	5274		315
	4791		
	483		

$$\begin{array}{r}
 (90^{\circ}07') \quad 89^{\circ}52' \\
 (90^{\circ}) \quad \times \\
 \hline
 (89^{\circ}53') \quad 89^{\circ}42' \\
 (90^{\circ})
 \end{array}$$

$$\begin{array}{r}
 90^{\circ}06' \quad 89^{\circ}47' \\
 179^{\circ}53' \\
 89^{\circ}47' \\
 \hline
 90.06
 \end{array}$$

$$\begin{array}{r}
 89^{\circ}54'
 \end{array}$$

DEMOTRIE

P. 40

TR. MK. REG. U.S. PAT. OFF.

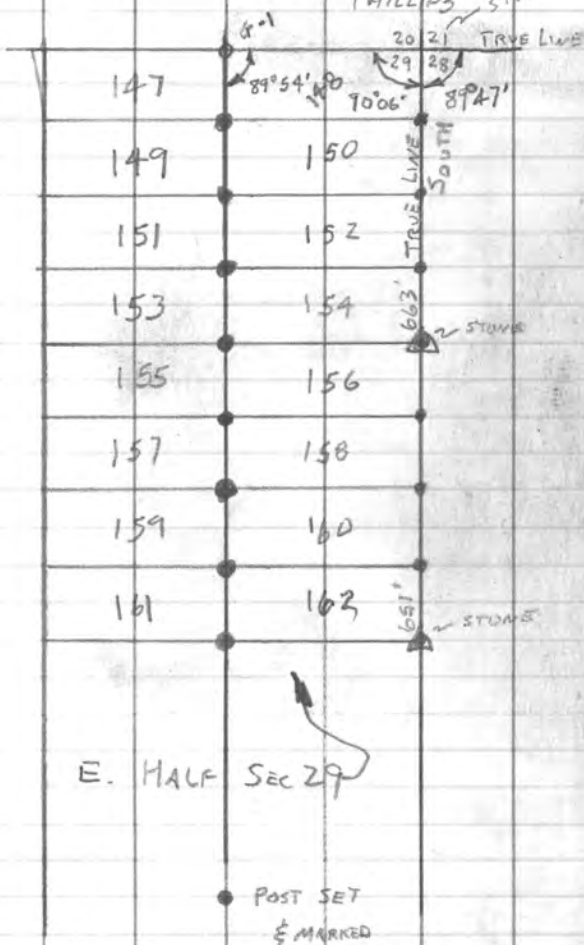
7 OCT 60

REEVES

HANEY

PARDUNN

PHILLIPS STONE



4623
4336
287

3963
3696
267

2643
2335
308

3303
3077
226

STA	B.S.	F.S.	H A	Top	Mid	Bot
91	210		89°54'R			
91	297.8	270	89°54'R			
270	9-1	271		6.50	926	12.02
271	270	272				
272	271	273				
272	271	273				
273	272	274				
273	271	274				
274	271	276				
277	274	276				
277	274	278		530	840	11.50
278	274	279		350	666	986
279	278	280				
280	279	281				
281	280	282				

4423
4673
610

1320
953
367
6
3953
660
293401
330
715330
511
2191980
1893
87

5274

NEW YORK

163

P. 41

TR. MX. REG. U.S. PAT. OFF.

INT	V	COR	DIST	Acc DIST	BEAR	REM
940						
402	+2028'	-1	401	401	S	
SET	IP	STA 0+00	71'	N	270	(330)
	-026'	-	552	953	S	
SEP	POST	293'	N	271		(660)
445	-3052'	-2	443	1396 1393		
SET	POST	367'	S	271		(1320)
SET	IP	STA 10+00	377'	S	271	(1330)
497	-028'	-	497	1893	S	
SET	POST	57'	S	273		(1980)
443	+3008'	-1	442	2335		
489	-2036'	-1	488	2823		
SET	IP	STA 20+00	51'	N	274	(2330)
SET	POST	308'	S	274		(2643)
254	-022'	-	254	3077		
SET	POST	226'	S	277		(3303)
SET	IP	STA 223'	S	277		(3300)
620	+1048'	-1	619	3696		
SET	POST	267'	S	278		(3465)
636	-0004'	636		4332		
SET	IP	STA 40+00	371'	N	279	(4300)
SET	IP	STA 40+00	21'	N	279	4330
603	-3000'	-2	601	4933		
SET	POST	310'	N	280		(4623)
179	+5000'	-1	178	5111 5111		
163	-	-	163	(5274)	Post	5274
SET	IP	STA 4	50+00	219'		(5330)
				5281		
TP 275	Not Used				RESET IP	30+00
					AT	3330'

DEMETRIUS

P. 42

TR. MM. RES. U.S. PAT. OFF.

8 OCT 60

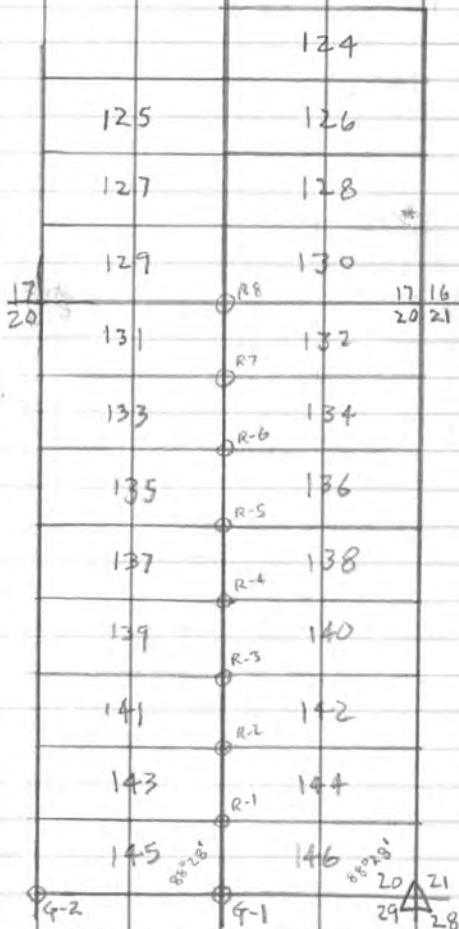
WARM

WINDY

REEVES

HAWK

PARDOHN



4814
4670
144

4814
4620
194

3744
3670
74

STA	BS	FS	H 4	TOP	M.D	W.D
2021	POL	819				
29128	W, 522 COR	17116	88°28'R			
4-1	"	290	PLUGGED 88°28'R			
290	41	291	Φ			
291	290	292	Φ	650	917	185
292	291	293	Φ			
293	292	294	Φ			
294	293	295	Φ			
295	294	296	Φ			
296	294	297	Φ			
297	296	298	Φ	710	124	1-39
298	297	299	Φ			
299	298	300	185°49'R			
300	299	301	174°11'R			
01	300	301 302	90°00'R			
302	POL	303	Φ			
R-8	303	X-7	65°32'			

$$\begin{array}{r} 5280 \\ 5191 \\ \hline 89 \end{array}$$

$$\begin{array}{r} 600 \\ 513 \\ \hline 135 \end{array}$$

$$\begin{array}{r} 1980 \\ 1785 \\ \hline 195 \end{array}$$

$$\begin{array}{r} 2753 \\ 2640 \\ \hline 93 \\ 3960 \\ 3917 \\ \hline 43 \end{array}$$

$$\begin{array}{r} 2132 \\ 2670 \\ \hline 65 \end{array}$$

DEMETER

P. 43

TR. MK. REG. U.S. PAT. OFF

INT	V	CORR	DIST	ACC. DIST	BEAR	REM
266	-0°38'	—	266	266	N	
259	+0°38'	—	259	525	N	
535	+0°40'	—	535	1060	N	
290	+0°32'	—	290	1350	N	
435	+0°58'	—	435	1785	N	
529	+1°00'	—	529	2314	N	
409	+0°46'	—	409	2733	N	
582	+0°52'	—	582	3315	N	
429	+1°26'	—	429	3744	N	
273	+0°20'	—	273	3917	N	
481	+0°22'	—	429 429	4396	N	SEE
418	-1°00'	—	418	4814	N	SKETCH
—	—	—	—	4814		
377	+1°20'			5191		

175'

SW

$$\begin{array}{r} 174^{\circ}11' \\ 90 \\ \hline 84^{\circ}11' \end{array}$$

IP STA	OFFSET		TP		DIST
	N +	S -	DIST,	No.	
10+00N	145		525	" 291	670
20+00N		115	1785	" 294	1670
30+00N		63	2733	" 296	2670
40+00N		74	3744	" 298	3670
50+00N		194	4814	" 302	4670
60+00N					
70+00N					
Post / STAKE					
S ^{E1}	135		525	" 291	660
S ^{R-2}	3	30	1350	" 292	1320
S ^{R-3}	195		1785	" 294	1980 1785
S ^{R-4}		43	2733	" 296	2640
S ^{R-5}		15	3315	" 297	3300
S ^{R-6}	43		3917	" 299	3960
S ^{R-7}		194	4814	" 302	4620
S ^{R-8}	89		5191	" 303	5280 ⁰

Twin Buttes Rd E 85' ± N TP 293

TP302 ○ ○ TP301



174° 11'

48.75

TP300

Log 481

2.68215

Log Cos 50° 49'

7.99776

2.67991

479

481

Log 481

2.68215

Log Sin 50° 49'

7.00581

1.68796

185° 49'

TP299

16



LUCERO SE 28

21

16



7P 31

21

DEMETER

P. 45

TR. MX. REG. U.S. PAT. OFF.

10 OCT 60

REEVES

HAWLEY

PARDUN

● = POSTS SET &
MARKED

124

125

126

81

127

128

83

129

130

85

17 16
20 21

131

132

87

133

134

89

135

136

91

137

138

93

139

140

95

141

142

97

R-12

143

144

99

R-11

145

146

101

20 21
29 28

G-1

STA	BS	FS	H. A.	TOP	MID	BAT
$\frac{20121}{29128}$	POL W Sec COR	$\frac{17116}{10121} \pm$	88° 09' 1/2"			

POL	X-20					
POL	$\frac{9110}{16115}$					
X-20	POL SOUTH	$\frac{9110}{16115}$	24° 35' R			
X-20		$\frac{9110}{16115}$				

DEMETRIE

P. 26

TR. MM. REG. U.S. PAT. OFF

INT	V	θ	CORR	DIST	ACC DIST	BEAR	REM
84	-			84			
142	-4052'	-		141			
-	-						

BRUNTON
61 1/2°

IP STA

TP

TP

N +

S -

IP

DIST

10+00

20+00

30+00

40+00

50+00

$$\frac{830}{359} = 2.31$$

$$\frac{830}{359} = 2.31$$

DEMETRIE

P. 47

TR. MN. REG. U.S. PAT. OFF

N	S	E	W
18		441	
<u>61</u>		441	
79			

5.5857

79

502713

390999

441.3703

.99067

445

495335

396268

396268

4408481 5

2.64444

1.89763

0.74681

79°51'

64444

.99315

65129

Log Sin

13629

445

68245

54516

54516

60.6500 5



$$\begin{array}{r} 441 \\ 354 \\ \hline 87 \\ 2 \\ \hline 890 \end{array}$$

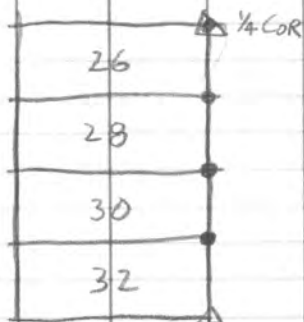
$$\begin{array}{r} 448 \\ 359 \\ \hline 807 \\ 22 \\ \hline 829 \end{array}$$

X-12	61 1/2	441	448
X-13		402 421	425
X-14		400	403
X-15		380	381
X-16		359	359
X-17	830		321
X-18	"		282
X-19	"		244
X-20	"		

DEMETRIE

P. 98

TM. MM. REG. U.S. PAT. OFF



DEMETERIS

P. 201

TR. MH. REG. U.S. PAT. OFF

11 OCT 60

REEVES
HAWLY
PARDOHN

SEE SKETCH PAGE 45

3415 $\frac{20121}{29126}$	2621 661 581	3351 3181 70	3281 660 $\frac{3741}{91}$	1571 727 71	2011 600 2107 $\frac{2141}{21}$	
574 $\frac{20121}{29126}$	65 176 310	85 310	42 8328R	TAF 650	ALC 908	$\frac{1156}{1155}$
310	17	311	ϕ	290	8	673
311	310	312	ϕ			
312	311	313	ϕ	17		736
313	312	314	ϕ			
314	313	315	ϕ			
315	314	316	ϕ	690	915	1140

R-14 316 $\frac{17116}{20121}$ 230120R

316	315	317				
317	316	318	550	827	1158	
318	317	319	450	567	724	
319	318	320	810		1169	
320	319	321				
321	320	322				
321		R18				

R-18 321 $\frac{17116}{20121}$ 279006R

R-18 321 X-8 63026R

X-8 R-18 X-8 63026R

R-18 $\frac{17116}{20121}$

$$\begin{array}{r} 1610 \\ 1608 \\ \hline 62 \end{array}$$

$$\begin{array}{r} 1320 \\ 1283 \\ \hline 37 \end{array}$$

$$\begin{array}{r} 670 \\ 516 \\ 154 \\ 4670 \\ +548 \\ \hline 122 \end{array}$$

$$\begin{array}{r} 660 \\ 516 \\ 144 \\ 5280 \\ 4918 \\ \hline 362 \end{array}$$

DEAD END

P. 50

TR. MN. REG. U.S. PAT. OFF

INT	V.A.	CORR	DIST	Acc DIST	BEIR	REM
4516 465	-1014'	-	516	516	N	
383	+0036'	-	383	899	N	
384	+0014'	-	384	1283	N	
325	+0038'	-	325	1608	N	
466	-0016'	-	466	2074	N	
525	-0016'	-	525	2599	N	
450	+244'	-1	449	3048	N	

79.5 -10014' 78

309	+0026'	-	309	3357	N	
558	+0036'	-	558	3915	N	
274	+0040'	-	274	4189	N	
359	+0050'	-	359	4548	N	
371	+2010'	-1	370	4918	N	
279	-0022'	-	279	5197	N	
362	+0002'	-	362	5280		

14.8 -0012' 148
161 +1000' 161

BRUNTON
98 1/2
278 1/2

IP 51A	TP	TP	N	IP	IP
10+00N	310	516	144	622	9+90N
20+00N	313	1808	62	670	
30+00N	315	2599	71	2670	
40+00N	318	3915		245 3670	
50+00N	320	4548	122	4670	

R-11	310	516	144	660
R-12	312	2813	37	1420
R-13	314	2074		74 79
R-14	315	509	41	2055
R-15	317	3357		76 3281
R-16	318	3915	26	394
R-17	320	4548	53	460
R-18				5280

9:25 AM

V

51032 2-11-12

LAT 14. DEP 76.7

$$\begin{array}{r}
 .17937 \\
 78 \\
 \hline
 143496 \\
 125559 \\
 \hline
 1399086
 \end{array}$$

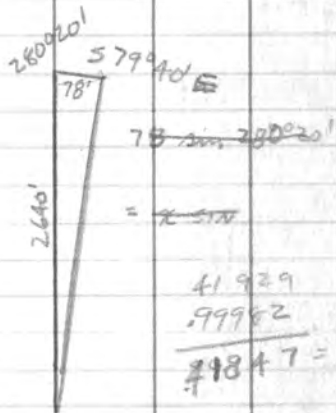
$$\begin{array}{r}
 .78378 \\
 78 \\
 \hline
 787024 \\
 688646 \\
 \hline
 7673484
 \end{array}$$

$$\begin{array}{r}
 76.7 \\
 \hline
 2626
 \end{array}$$

26

$$\begin{array}{r}
 1.88480 \\
 3.41929 \\
 \hline
 5.46551
 \end{array}$$

1040' 30" ±



$$\begin{array}{r}
 45930 \\
 46366 \\
 216 \\
 \hline
 46572
 \end{array}$$

$$\begin{array}{r}
 41929 \\
 .99982 \\
 \hline
 41847 =
 \end{array}$$

2621'

19
4 78

148
78
70

78
95
113 ✓
130 ✓
148 ✓

20
39
59 ✓
78 ✓

70
2640

84510
42160
42350

20.52 / 1000

7456

26.52

77.31

0
10
20
30
40
50
19.0
50 ✓
79 ✓
105 ✓
132

29.5 / 1000

89209
42160
47049

295
660
1250
700
17700
1770
94700

DEMETRIE

P. 52

TR. MW. REG. U.S. PAT. OFF.

12 OCT 60

REEVES

PARDON

HANLY

STA	BS	IS	H A	Top	Mid	Bot
4-4	4-LINE	330	270°07'12"			
330	4-4	331	φ	069	234	400
331	330	332	φ	64	982	90
332	331	333	φ			
333	332	334	φ			
334	333	335	φ			
335	334	336	φ			
336	334	337	φ			
337	336	338	φ			
338	337	339	φ	770	141	1112
339	338	340	φ			
340	339	TP110	160°23'30" L			
TP110	340	TP109	285°12'30" R			

~~R-8 R-LINE RR-8 279°06'~~

~~RR-8 R-8 34~~

$$\begin{array}{r} 2041 \\ 1760 \\ \hline 61 \end{array}$$

$$\begin{array}{r} 3300 \\ 3141 \\ \hline 159 \end{array}$$

$$\begin{array}{r} 3960 \\ 3676 \\ \hline 284 \end{array}$$

$$\begin{array}{r} 4620 \\ 4489 \\ \hline 131 \end{array}$$

 DEMETRIE
P. 53

TR. MM. REG. U.S. PAT. OFF

					Acc DIST	BEAR	REM
127	V 4	COR	DIST				
342	-0°20'	-	342	342	N		
331	+0°02'	-	331	673	N		
336	+2°006'	-	336	1009	N		
304	-0°16'	-	304	1313	N		
729	+2°26'	-1	728	2041	N		
760	-2°02'	-1	759	2800	N		
344	+5°42'	-3	341	3141	N	} ERROR SHOULD BE 444	
535✓	-0°34'	-	535	3676	N		
813✓	+0°024'	-	813	4489	N		
342✓	+2°0141	-1	341	4830	N		
433✓	+1°006'	-	433	5263	N		5363
221	+1°032'	-	221				
813	+1°006'	-					

~~148 ————— 148~~

Set	R-21	13'	S	331	(2560)
	R-22	7'	N	333	(1310)
	R-23	61	S	334	(1980)
	R-24	150'	S	335	(2640)
	R-25	154'	N	336	3300
	R-26	224'	N	337	(3150)
	R-27	131'	N	338	(4620)
	R-28	16'	N	340	(3280)

13 OCT 60

REEVES

HAWLEY

PARDUN

DAMON

P. 54

TR. MARK. REG. U.S. PAT. OFF.

2858 2640 218	2858 2670 5388 5259 124	4620 4374 246 1980 3.0	3670 3516 1530 1014 281	2960 2689 271		
57A	B5	ES	114	TOP	M10	Bar
9-2	4-LINE EAST	350	272°03'R			
350	9-2	351		127	489	450
351	350	352				
352	351	353		640	887	1135
353	352	354				
354	353	355				
355	354	356				
356	355	357				
357	356	358				
358	357	359				
359	358	360				
360	359	361				
361	360	362				
R-8	R-LINE	RR-8	279°06'			
RR-8	R-8	370	82029'			
370	RR-8	371	280 41'			
371	370	372	φ			
372	371	373	φ			
373	372	374	φ			
374	373	375	φ			

$$\begin{array}{r} 5259 \\ +852 \\ \hline 376 \end{array}$$

$$\begin{array}{r} 1610 \\ 1550 \\ \hline 120 \\ 4883 \\ 4670 \\ \hline 213 \end{array}$$

$$\begin{array}{r} 1320 \\ 772 \\ \hline 543 \end{array}$$

$$\begin{array}{r} 1550 \\ 1310 \\ \hline 230 \\ 660 \\ 485 \\ \hline 155 \end{array}$$

$$\begin{array}{r} 1900 \\ 1550 \\ \hline 490 \end{array}$$

811 DEMOSTRIZ

660

151 P. 55

TR. MX. REG. U.S. PAT. OFF

INT	V4	Supr	Dist	Acc Dist	Per	Rem
454	—	—	454	454	N	
323	—	—	323	777	N	
773	+1004'	—	773	1550	N	
495	—	—	495	2045	N	
813	+1006'	—	813	2858	N	
297	+2026'	-1	296	3154	N	
535	-1040'	—	535	3689	N	
685	—	68	685	4374 4177	N	
509	—	—	509	4883	N	
440	—	—	440	5323	N	+ 64
401	+1010'	—	401			465
574	—	—	574			1039
627	—	—	627			1666

148'			148'			
394	—	—	394	394	N	
417	—	—	417	811	N	
297	—	—	297	1108	N	
469	—	—	469	1577	N	
477	-1046'	—	477	2054	N	
485	+2050'	-1	484	2538	N	

$$\begin{array}{r} 1320 \\ 1108 \\ \hline 212 \end{array}$$

$$\begin{array}{r} 1577 \\ 1320 \\ \hline 257 \end{array}$$

SET	R-31	117'	S	351	660'
	R-32	543'	N	351	1320
	R-33	430'	N	352	1980
	R-34	218'	S	354	2640
	R-35	146'	N	355	3300
	R-36	271'	N	356	3160
	R-37	246'	N	357	4520
	R-38	376'	N	358	5259
	R-39	195'	N	360	660
	R-40	281'	N	361	1320
	R-41	314'	N	362	1980
	10+00	107	S	351	670'
	20+00	120	N	352	1670'
	30+00	188	S	354	2670'
	40+00	516	N	355	3670'
	R-42	151'	S	371	660'
	R-43	212'	N	372	1320
	R-43	257	S	373	320'
	R-44	74'	S	374	1980
	R-45	107±	N	315	

DIRT RD 15' N 353

~~3081~~

CORRECTIONS FROM INCORRECT LINE.

Az

247°43'

A-11	396	
A-12	374	✓
A-13	352	
A-14	330	✓
A-15	308	
A-16	286	✓
A-17	264	
A-18	242	✓
A-19	220	
A-20	198	✓
A-21	176	
A-22	154	✓
A-23	132	
A-24	110	✓
A-25	88	
A-26	66	✓
A-27	44	
A-28	22	✓
A-29	0	

4620
 5259
 561

348' 08' 45"

332

18' 52'

99255

359

893294

297765

870944

99255

359

893294

496275

297765

35632544

.984

795

4920

8856

6888

78.2280

279'06

142

10072

284

994

10224

87882

225

439410

175764

175764

19773450

3026'

1050'

198

356

441

441

356

85

106

15800

15842

2640)

2640)

1032

8500

7920

5800



14 OCT 60

REEVES
HARLEY
FARDMAN

DEMETRIE

P. 56

TR. MK. REG. U.S. PAT. OFF.

	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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1620
275
40

1920
100
100

2215
240
170

2690
1463
170

4879
+230
5179

DI-METRIE

P.57

TR. MK. REG. U.S. PAT. OFF.

		CORR	DIST	Acc DIST	BEAR	REM
240	V 4	—	240	240	N	
420	—	—	420	660	N	
415	—	—	415	—		17' W 455
418	—	—	418	1078	N	
189	+0°20'	—	189	1267	N	
556	-0°51'	—	556	1823	N	
641	+3°46'	-2	641	2464	N	69' E 2634
170	—	—	170	—		
756	-1°10'	—	756	3220	N	
386	—	—	386	3606	N	
609	+2°28'	-1	609	4215	N	
684	—	—	684	4899	N	
640	—	—	640	5539		+280
326	+1°30'	—	326	5865		606
556	—	—	556			1162
382	+1°46'	—	382			1544

190 1401 -1 189 SE

ORIGINAL COPY. 1916 J. D. PARKER

MADE IN U.S.A.

LEFAX, PHILADELPHIA 7, PA.

567	R-51	—		57 381	360
	R-52	57	N	572	372
	R-53	59	N	581	382
	R-54	5	N	582	383
	R-55	5	N	583	384
	R-56	243	N	584	385
	R-57	243	N	585	386
	R-58	²⁴³ 380	N	586	387
	R-59	54	N	587	388
	R-60	54	N	588	389
	R-61	54	N	589	390

MADE IN U.S.A.

ORIGINAL COPY. 1915 J. O. PARKER

17 06760

DEMETRIE

P. 58

TR. MK. REG. U.S. PAT. OFF.

REEVES
HAWK
PARDON

574	400	400	400	400	400	But
404	401	402	403	404	405	
405	402	403	404	405	406	
406	403	404	405	406	407	
407	404	405	406	407	408	
408	405	406	407	408	409	
409	406	407	408	409	410	
410	407	408	409	410	411	
411	408	409	410	411	412	

DEMUTRIE

P. 59

TR. MK. REG. U.S. PAT. OFF.

				Acc Dist	10-12	REM.
502	1204	—	502	502	W	
470	91030	—	470	972	W	
455	1030	—	455	1427	W	
588	—	—	588	2015	W	
482	—	—	482	2497	W	
763	1010	—	763	3260	W	
201	—	—	201	3461	W	
194	—	—	160	3621	W	107' N
515	1018	—	515	4136	W	107' N
544	10143	—	544	4680	W	107' N
491	—	—	491	5171	W	107' N
500	—	—	300	5471	W	107' N
51	—	—	107	5471	W	—

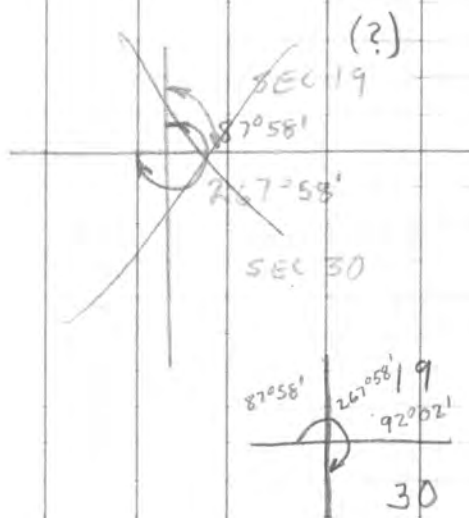
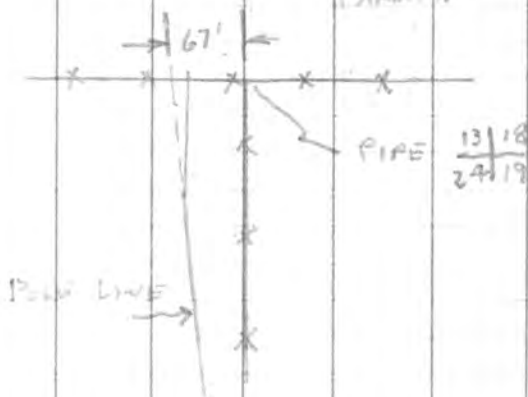
$$\begin{array}{r}
 1.1250 \\
 2.2050 \\
 \hline
 2.2050 \\
 100.6
 \end{array}$$

$$\begin{array}{r}
 2.70999 \\
 2.0250 \\
 \hline
 2.0250 \\
 106.6
 \end{array}$$

$$\begin{array}{r}
 359.0 \\
 214.3 \\
 \hline
 145.7
 \end{array}$$

18 OCT 50

REEVES
HAY
PARKIN



WEST SITE

SECTION 19

2-5 PS 10 2
TRAD POL $\frac{11}{150} =$

411 Pol
E21

NORTH ACROSS W. SIDE SEC 19

420	POL	421	
421	420	422	250
422	421	423	250
423	422	424	
424	423	425	
425	424	426	
426	425	427	

$\frac{11}{150} =$ SOUTH ACROSS W. SIDE SEC 19
R-70 430
430 R-70 431

4620
4103
417

7203
3960
293

9810
427
581

3300
2986
314

De MATHIE

P. 61

TR. MK. REG. U.S. PAT. OFF.

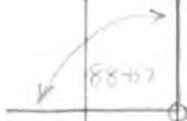
INT	V4	CURR	Dist	920 6122	Bar	Ray
437	—	—	437	437	S	
			105'		E	
			105'		E	
670	—	—	670	1107	N	
532	—	—	532	1639	N	
904	12°38'	-2	902	2541	N	
448	-4°24'	-3	445	2986	N	
552	+2°50'	-1	551	3537	N	
666	-1°32'	—	666	4203	N	
840	—	—	840	5043	N	
434	-1°40'	—	434			
504	-1°10'	—	504	938	S	

a.k.

SET	R-71	227	12	772	200
	R-72	-	14	771	200
	R-73	218	15	770	200
	R-74	-	16	769	200
	R-75	-	17	768	200
	R-76	-	18	767	200

248
200
488

19 OCT 60



POLE LINE

N

REEVES
HANLY
PARSONS

DEMETRIE

P.62

TR. MK. REG. U.S. PAT. OFF.

W. Along S. Sec 31

441	200	447	100
442	7-02	448	100
443	2-02	449	100
444	2-02	450	100
445	2-02 POL	451	100
446	POL	452	100
447	POL	453	100

S. Along N. Sec 31 To 1st 2nd Pole

448	POL	449	100
-----	-----	-----	-----

N. Along S. Sec 31 To

361 31	N. Along	460	100
116	Point		

460	361 31	461	100
	116		

1234	4032	5252	5214	52	DEMETRIE	
431	387	410	230	870	311	475
771	42'	3990				
TR. MK. REG. U.S. PAT. OFF.						
Acc	Dist	Dist	Dist	Dist	Dist	Dist
431'	431'	431'	431'	431'	431'	431'
818	818	818	818	818	818	818
1228	1228	1228	1228	1228	1228	1228
1628	1628	1628	1628	1628	1628	1628
2497	2497	2497	2497	2497	2497	2497
2806	2806	2806	2806	2806	2806	2806
3261	3261	3261	3261	3261	3261	3261
4032	4032	4032	4032	4032	4032	4032
3990	3990	3990	3990	3990	3990	3990

POLE LINE 48 1/2 W 448

LINE
747 — — 747 747 S

S.W. COR SEC 18

430 — — 430 430 N
460 (660')
867 — — 867 1297 N

1220 = TP 2

4032

5252 = TP 448

5214

38 = SEC COR 1

DE METRE

P. 64

TR. MK. REG. U.S. PAT. OFF.

~~19~~
20 OCT 60

REEVES

HANLY

PARDWIN

SW COR

~~SBC 18~~

5280

5360

10640

 $\theta = 20'$ $\text{Log Sin } \theta =$ $\text{Log } 62' = 1.79239$ $\text{Log } 10,640' = 4.02694$ $\text{Log Sin } \theta = 3.76545$ $\theta = 20'$

5280

5360

SE COR

SEC 31

62'

2101
2102
211

3300
3019
281

N. Along W. Sec 31 $\frac{1}{2}$ 2A 30

Sta	B.S.	I.S.	M. &	Top	Min	Bot
461	460	462	ϕ			
462	461	463	ϕ			
463	462	464	ϕ			
464	463	465	ϕ			
465	464	466	ϕ			
466	465	467	ϕ			
466	465	467				
467	466	468				
468	467	469				
469	468	470				
470	469	471				
471	470	472		8.70	1032	194
472	470	473	ϕ			

$$\begin{array}{r} 5352 \\ 5280 \\ \hline 72 \end{array}$$

$$\begin{array}{r} 5352 \\ 5280 \\ \hline 72 \end{array}$$

$$\begin{array}{r} 4035 \\ 3560 \\ \hline 75 \\ 1320 \\ 1052 \\ \hline 238 \end{array}$$

$$\begin{array}{r} 1980 \\ 581 \\ \hline 1980 \end{array}$$

$$\begin{array}{r} 1980 \\ 581 \\ \hline 1980 \end{array}$$

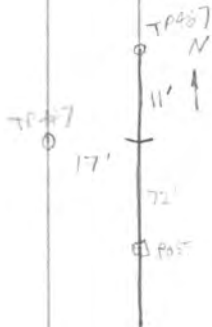
DEMETER

P. 65

TR. MM. REG. U.S. PAT. OFF.

INT	V A	CORR	DIST	Acc DIST	BEAR	REM.
687	-4016'	-4	683	1980'	N	
654	—	—	654	2634'	N	
817	+4012'	-4	813	3447'	N	
590	+3900'	-2	588	4035'	N	
597	—	—	597	4632'	N	
706	—	—	706	5338'	N	
720	—	—	720	5352'	N	72'
553	-4052'	-4	549	621'	N	
465'	+5018'	-4	461	1082	N	
435'	+2002'	-1	434	1516	N	
777'	-3900'	-2	775	2291	N	
324	+698'	-5	319	2610	N	
413	-5030'	-4	409	3019	N	

ET	Post	23	N	461	(1310)
	Post	AT		462	(1920)
	Post	6 N	N	463	(2640)
	Post	147	S	464	(3300)
	Post	85 75	S	465	(3960)
	Post	12	S	466	4670
	Post	72	S	467	5-87
	Post	39	N	468	603
	Post	238	N	469	1320
	Post	311	S	471	1980
	Post	30	N	472	2625



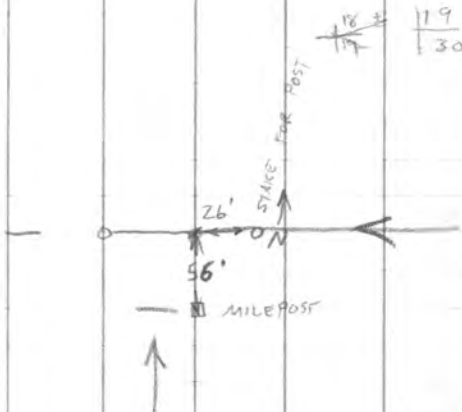
21 OCT 21

REEVES
HANLY
PARDOHN

DEMETRIE

P. 66

TR. MK. REG. U.S. PAT. OFF.



N. Along W. Side Sd L 30 19

Sta	B.S.	F.S.	M. Z.	Tor	M. 10	S. 11
473		474	φ		829	
475	POL	474	φ	430	797	197
475	POL	476	φ			1167
476	475	477	φ	590	880	1167

$$\begin{array}{r} 5495 \\ 5280 \\ \hline 215 \end{array}$$

$$\begin{array}{r} 4898 \\ 4320 \\ \hline 578 \end{array}$$

$$\begin{array}{r} 3619 \\ 334 \\ \hline 1153 \end{array}$$

$$\begin{array}{r} 4087 \\ 3960 \\ \hline 127 \end{array}$$

$$\begin{array}{r} 4280 \\ 4698 \\ \hline 382 \end{array}$$

DEMETER

P. 67

TR. MK. REG. U.S. PAT. OFF.

Int

V4

CORR

DIST

Acc
Dist

BEAR

REM

737

-3°54'

-3

734

4087

N

CHAIN

812

11°32'

-1

811

4898

N

597

—

—

597

5495

N

Set	Pos	181	N	473	(330)
	Posy	177	S	475	(340)
	Posx	176	S	476	(400)
	Posy	177	S	477	(410)

$$\begin{array}{r} 4258 \\ 3960 \\ \hline 298 \end{array}$$

$$\begin{array}{r} 4620 \\ 4258 \\ \hline 362 \end{array}$$

TR. MK. REG. U.S. PAT. OFF.

ADJUSTED VALUES W. SIDE SEC 19

"POST"	55
420	492
421	5162
422	1694
423	2596
424	3041
425	3592
426	4258
$\frac{118}{119}$	5098

$$\begin{array}{r} 67 \\ 42 \\ \hline 25 \end{array}$$

$$\left(\frac{25}{5098} \right) 660 =$$

FROM
PROB.

25	42
22	45
19	48
15	52
12	55
9	58
6	
1	
0	

$$\begin{array}{r} 1.39794 \\ 2.81248 \\ \hline 4.21042 \\ 3.70780 \\ \hline 1.51262 \end{array}$$

$$\begin{array}{r} 3.237 \\ 3.237 \\ \hline 6.474 \\ 1.711 \end{array}$$

$$250$$

$$\begin{array}{r} 3.387 \\ 10.528 \\ \hline 13.915 \end{array}$$

$$\begin{array}{r} 5.187 \\ 1.237 \\ \hline 6.424 \end{array}$$

$$\begin{array}{r} 3.237 \\ 9.815 \\ \hline 13.052 \\ 4.578 \end{array}$$

DEMETER

TR. MK. REG. U.S. PAT. OFF.

24 OCT 60

REEVES
HAWLEY
PAROVAN

+31 TO LUCERO POST

222° (BRUNSON) 340'



MADE IN U.S.A.

LEFAX, PHILADELPHIA 7, PA.

1320
1170
150

136
1170
150

1320
1170
150

1320
1170
150

1320
1170
150

DeMure

TR. MK. REG. U.S. PAT. OFF.

10T

20

0.5

Acc
Dist

BEAR

REM

995

-045

-

995

995

E

115

-

-

115

1170

E

151

-0010

-1

150

1320

E

658

-1020

-

658

658

N

835

-3412

-3

832

1490

N

620

5438

-4

616

2106

N

534

-

-

534

2640

N

478

42016

-2

976

3616

N

3516

530

-2008

-1

529

4145

N

4045

360

-

-

360

4505

N

4405

590

-

590

590

5095

N

4995

518

42038

-1

517

5612

N

5512

718

-

-

718

6230

N

(750)

20
ST

END

4

4-29-58

2-1

- -

62-12

5 -

871

78

AT

5 -

1-12

50-5

50

11-15

550

30

4

9

320

2-1

508

460

25 Oct 60

DE METRIE

TR. MK. REG. U.S. PAT. OFF.

REEVES
HAWLEY
PARDON

STA	B.S.	I.S.	14	TOP	100	150
564	563					
565	564	563				
566	565	564				
567	566	565				
568	567	566				
569	568	567				
570	569	568				
571	570	569				
572	571	570				
573	572	571				

515
1780
1635
345

1m
636
519

875

147

484

346

516

343

496

560

567

616

274

670

770

172
220
392

V 3

-1241

+4241

—

—

—

—

2000

—

—

+10241

—

—

—

6230
5280
950
660
290

CORR

-1

-5

—

—

—

—

—

—

—

—

—

—

—

1320
950
370
270
810
220

Dist

685

869

147

489

346

516

343

496

560

367

616

274

670

770

1986
1378
662

Acc
Dist

1635

2504

2651

3140

3486

4002

4345

4841

5401

8488

1104

1378

2048

2148

TR. MK. REG. U.S. PAT. OFF.

BEAR REM

N

N

N

N

N

N

N

N

N

N

N

N

N

N

=121

260-CT60

DEMETRIE

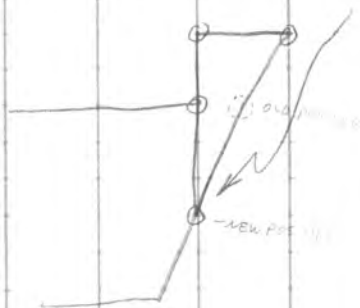
TR. MK. REG. U.S. PAT. OFF.

REEVES
HAWLEY
PAROVAN

5763
F. 57
18

Sta	B.S.	I.S.	H. 4	Trk	Mic	Elev
574	573	575	φ	550	593	816
575	574	576	φ			
576	575	577	φ			
577	576	578	φ			
578	577	579	φ			
578	577	LINE OF SIGHT	φ			
		W Side	5 17			
340	339	341	φ			
341	340	342	φ			
342	341	343	φ			
343	342	344	φ			
344	343	345	φ	330		
345	344	346	φ			

RESET POST on CLIM 51



$$\begin{array}{r} 2048 \\ 266 \\ \hline 2314 \end{array}$$

$$\begin{array}{r} 2640 \\ 2314 \\ \hline 326 \\ 8209 \\ 111 \\ \hline 3191 \end{array}$$

$$\begin{array}{r} 3300 \\ 2170 \\ \hline 1130 \\ 768 \\ 1088 \\ \hline 108 \end{array}$$

$$\begin{array}{r} 760 \\ 3889 \\ \hline 71 \\ 2640 \\ 2379 \\ \hline 261 \end{array}$$

$$\begin{array}{r} 4620 \\ 4572 \\ \hline 28 \end{array}$$

TR. MK. REG. U.S. PAT. OFF.

INT	V ₂	CORE	DIST	ACC DIST	BER	REM
266	+1030'	-	266	2314	N	
856	-	-	856	3170	N	
720	+1028'	-1	719	3889	N	
704	+2034'	-1	703	4592	N	
894	-	-	894	5486	N	
512	+2043	-1	511+14			5117 5103
664	-	-	664	768	N 768	
320	+2000'	-	320	1088	N	
275	+1034'	-	275	1363	N	
300	-	-	300	1663	N	
716	-	-	716	2379	N	
115	-	-	115	2494	N	

$$\begin{array}{r} 2640 \\ 2494 \\ \hline 146 \end{array}$$

510

1001

1

N

575

2821

2

N

576

2800

71

N

577

2802

22

N

578

2810

DEMETER 5

TR. MK. REG. U.S. PAT. OFF.

ORIGINAL COPY, 1916, J. C. PARKER

MADE IN U.S.A.

LEFAX, PHILADELPHIA 7, PA.

42

270000

18 2688
19

91 36 20
12 27
91° 23' 53"

278° 36' 07"

91° 36' 20"

1320' 1292'
2612

5600
5600
5117
15677
5280
47
21,004

REEVES
HAWY
PARDUN

76

21,004

1.880814
4.322219
3.558595

12' 27"

544205
544205
215686
577673
542409
234764

157 25
710 1292
1957 31
5415 70
6543 21

45
5
290

2688
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699							
700							

$$\begin{array}{r} 2612 \\ 1320 \\ \hline 1292 \end{array}$$

Set

Post

216

582

Post

216

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Post

216

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Post

216

582

Post

216

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$$\begin{array}{r}
 504 \\
 1320 \\
 \hline
 184 \\
 344 \\
 .0082 \\
 \hline
 688 \\
 2752 \\
 \hline
 28308648 \\
 4126
 \end{array}$$

$$\begin{array}{r}
 333 \\
 169 \\
 \hline
 4132 \\
 4126 \\
 \hline
 \text{6}
 \end{array}$$

$$\begin{array}{r}
 3560 \\
 7128 \\
 \hline
 33076 \\
 3398
 \end{array}$$

$$\begin{array}{r}
 2868 \\
 2798 \\
 \hline
 70 \\
 1490 \\
 2636
 \end{array}$$

$$\begin{array}{r}
 8928 \\
 35 \\
 \hline
 9003
 \end{array}$$

$$\begin{array}{r}
 54 \\
 66 \\
 \hline
 324 \\
 324 \\
 \hline
 3564
 \end{array}$$

589053'W

$$\begin{array}{r}
 5201 \\
 381 \\
 \hline
 5582 \\
 59 \\
 \hline
 2643 \\
 2600 \\
 2416 \\
 \hline
 223523
 \end{array}$$

$$\begin{array}{r}
 660 \\
 3303
 \end{array}$$

$$\begin{array}{r}
 175 \\
 .91 \\
 \hline
 175 \\
 1575 \\
 \hline
 259.25
 \end{array}$$

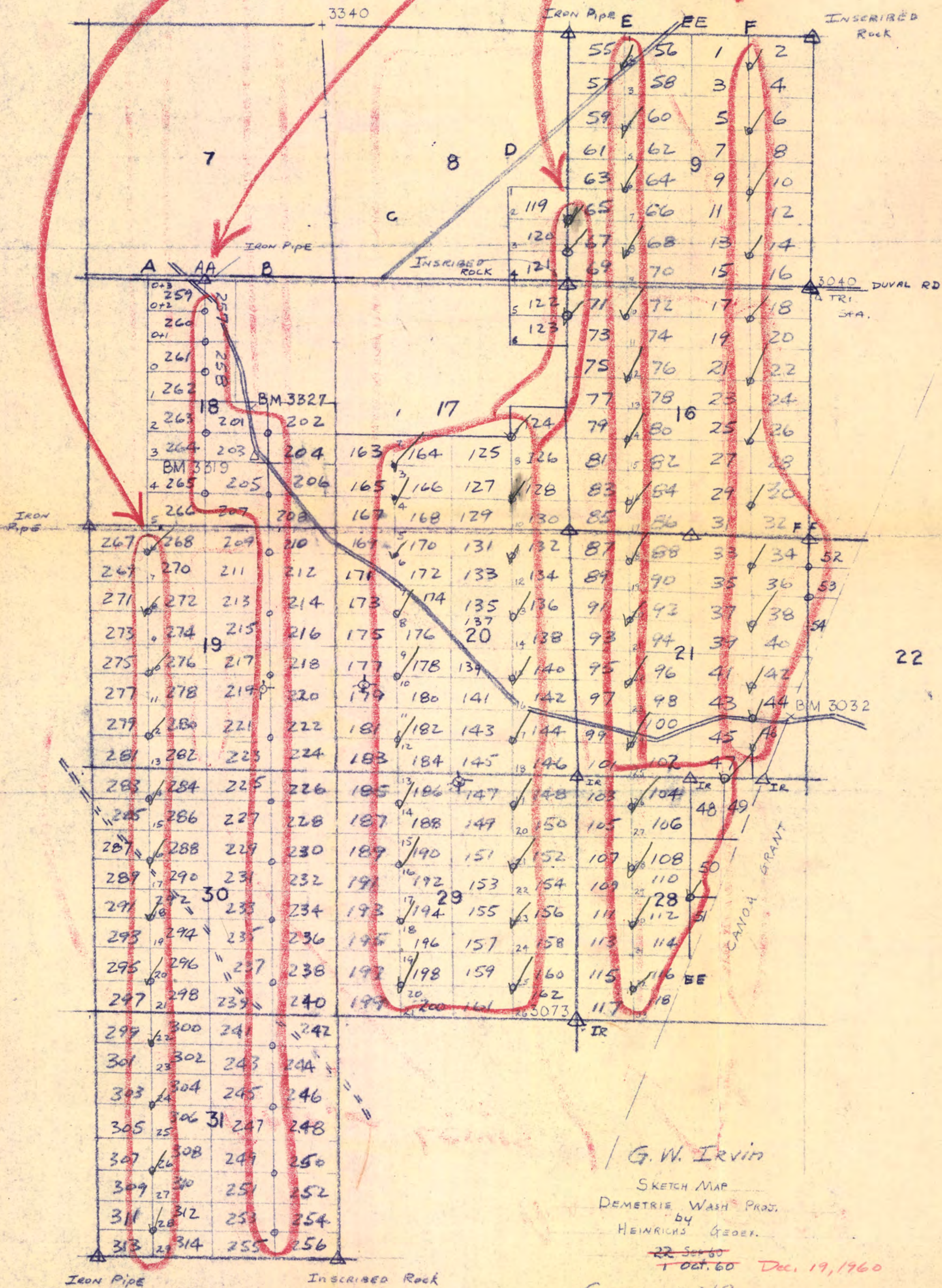
67 613 59

$$\begin{array}{r}
 836 \\
 654
 \end{array}$$

$$\begin{array}{r}
 3303 \\
 2899 \\
 \hline
 404
 \end{array}$$

5520

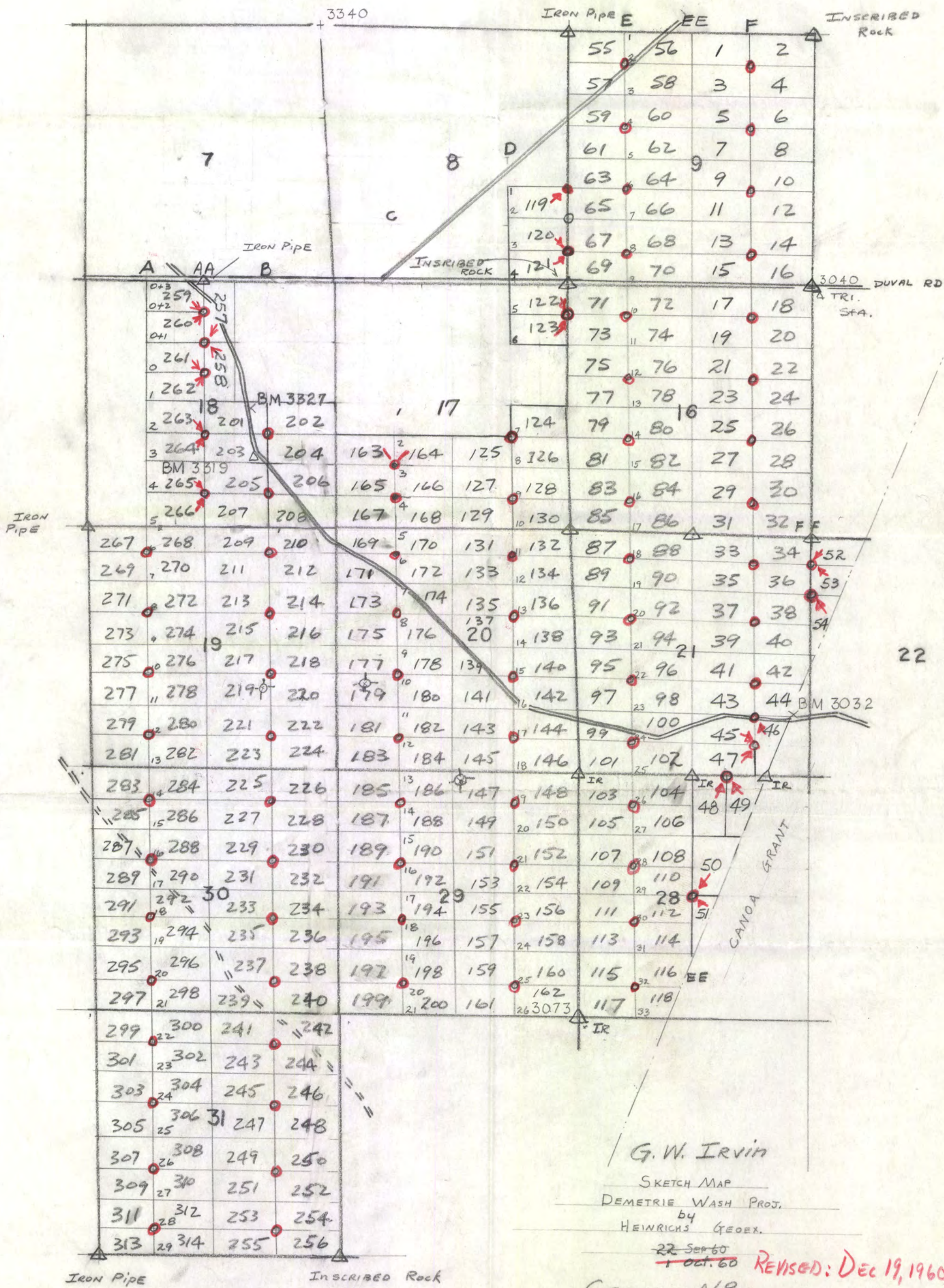
George Lewis
Reeves "E"

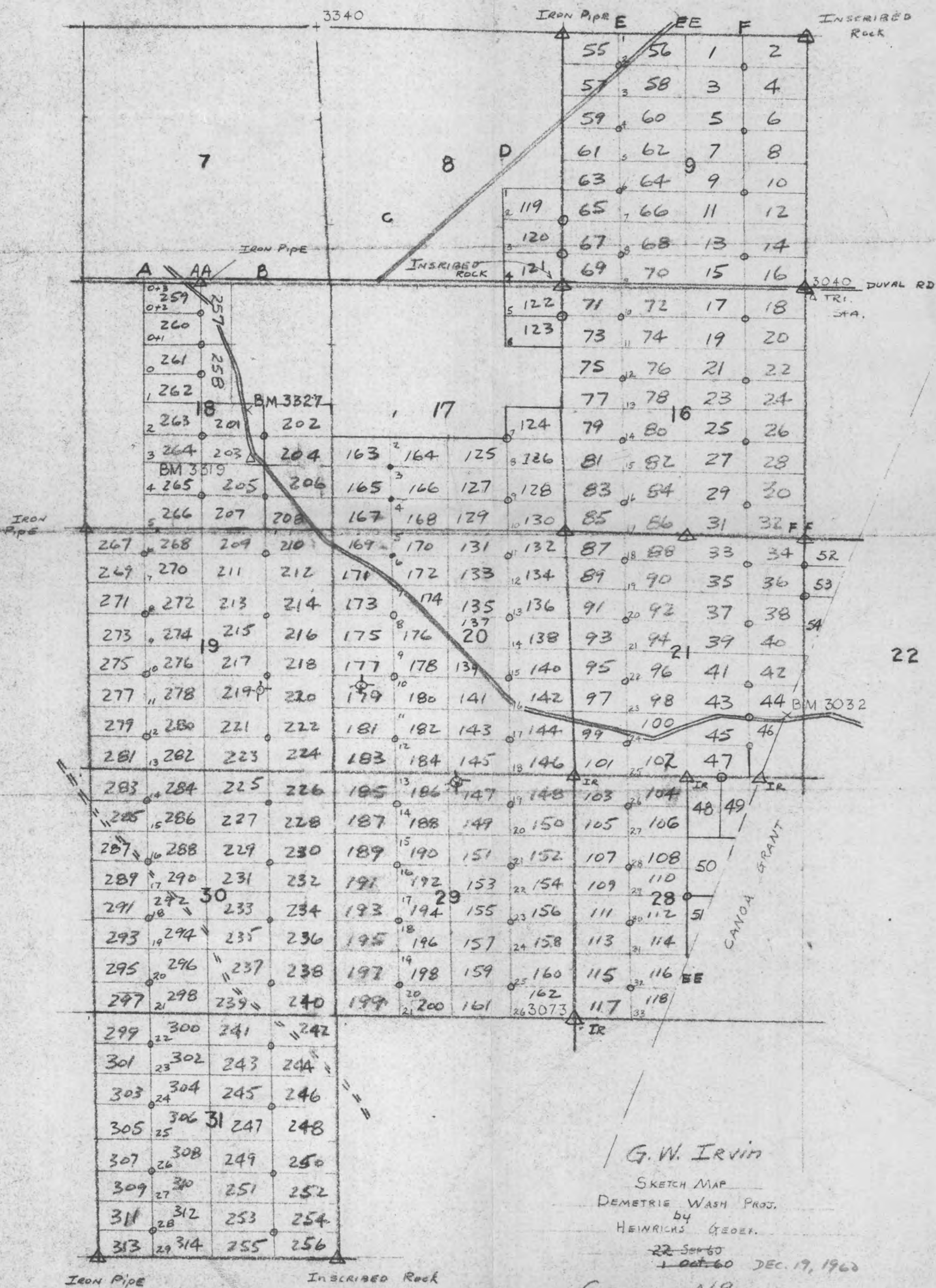


SKETCH MAP
DEMETRIE WASH PROJ.
by
HEINRICHS GEORGE.

~~22 Sep 60~~
~~1 Oct. 60~~ Dec. 19, 1960

CREW No





G. W. Irvin

SKETCH MAP

DEMETRIE WASH PROJ.

by
HEINRICH GEORGE

~~22-Sep-60~~

~~1 Oct. 60~~ DEC. 19, 1960

CREW No

OCT 29 8 fails
Nov 1 8
Nov 5 ?

PROPERTY OF
Demetrie
~~COPPER BASIN~~
1960

LEFAX

LEAF + FACTS

A pocket-size system of loose-leaf data sheets and
blank forms for keeping facts
at your finger tips

PUBLISHED BY
LEFAX
PHILADELPHIA 7, PA.



In case of loss, the owner will be indebted for the return of this book either to the address above or in care of Lefax, Sheridan Bldg., Phila. 7, Pa. Finder will please wrap book carefully; mark package "First-Class Mail" and seal it. Attach only one four-cent stamp; owner will pay all additional postage due when book reaches destination. Give name and address of sender on outside of package even when letter is enclosed.

Sec 29 NW cor to SE cor.

Demetrius

Oct 8, 1960

LE

DL

DKG

TR. MK. REG. U.S. PAT. OFF.

Instrument on G-2

Backsight I.R. ^{22.2} 27.29

L 89° 51' Double L 179° 48'

Traverse South

T.P. 1	5.90	Sta	5 + 90
	0.70		6 + 60 Set

Lath marked 147, 149, 156, 158

T.P. 2	2.45	Sta	8 + 35
--------	------	-----	--------

T.P. 3	4.75	Sta	13 + 10
	0.10		13 + 20 Set

I.R. marked 149, 151, 155, 190

T.P. 4	4.05	Sta	17 + 15
--------	------	-----	---------

	2.65		19 + 8.0 Set
--	------	--	--------------

I.R. marked 151, 153, 190, 192

T.P. 5	7.30	Sta	24 + 45
--------	------	-----	---------

OCT 19, 1960

LE

DL

DKG

1.95

26 + 40 Set ✓

I.R. marked 153, 155, 192, 194

T.P. 6	5.00	Sta	29 + 45
--------	------	-----	---------

T.P. 7	2.90	Sta	32 + 35
--------	------	-----	---------

	0.65		33 + 00 Set ✓
--	------	--	---------------

I.R. marked 155, 157, 194, 196

T.P. 8	5.70	Sta	38 + 05
--------	------	-----	---------

	1.55		39 + 60 Set
--	------	--	-------------

I.R. marked 157, 159, 196, 198

T.P. 9	6.85		44 + 90
--------	------	--	---------

806

594

670

54

120

120

120

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120

N $\frac{1}{4}$ cor to S $\frac{1}{4}$ cor
Demetrio Sec 29

1.30

IX2 Marked 159, 161, 198, 200

T.P. 10 4.30

46120 Set

99 + 20

T.P. 11 3.60

52 + 20 Set

IX2 Marked 209, 161

WEST $\frac{1}{4}$ 6th Line Sec 29

Instrument on G-3

Backsight IR $\frac{20121}{2928}$

L 89-54 Double L 179° 48'

T.P. 1 8.00

Sta 8100

Oct 20, 1960

LE

DL

DKG

- 1.40

6160 Set

IX2 Marked 85, 18 = 127, 188

T.P. 2 5.95

Sta 13 + 95

- 0.75

13 + 20 Set

IX2 Marked 187, 189, 188, 190

T.P. 3 6.70

Sta 20 + 65

- 0.85

19 + 80 Set

IX2 Marked 187, 190, 191, 192

T.P. 4 1.85

Sta 22 + 50

3.90

24 + 40 Set

IX2 Marked 191, 192, 193, 194

T.P. 5 6.30

28 + 80

4.20

33 + 00 Set

IX2 Marked 193, 194, 195, 196

T.P. 6 10.40

Sta 39 + 20

BS T.P. 6 to 193, 194, 195, 92 + 620; 620 + 426 = 1040

0.40

39 + 60 Set

IX2 Marked 195, 196, 197, 198

14

25

1

842

145

200

100

100

100

100

100

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Oct 20, 1960

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West $\frac{1}{4}$ Line Sec 29

Demetria

T.P. 7	6.00	Sta	45 + 20
	1.00		46 + 20 Set

1XR marked 197, 198, 199, 200

T.P. 8	4.45	Sta	49 + 65
	3.15		52 + 80 Set

1XR marked 199, 200

West Side Sec 29

G-4 - South. Check and setting

1XR for ports

T.P. 1 to G-4	6.35	Sta	61 + 35
	0.25		61 + 60

Set 1XR 224, 225, 185, 187

T.P. 1 to T.P. 2	2.65	Sta	9 + 00
------------------	------	-----	--------

T.P. 2 was pulled up. Reset

T.P. 3 to T.P. 2	2.15	Sta	16 + 15
	2.95		13 + 20 Set

1XR 228, 270, 187, 189

Oct 21, 1960

LF, DL DK6

T.P. 4 to T.P. 3	6.60	Sta	22 + 75
	2.95		19 + 80 Set

1XR 230, 232, 189, 191

T.P. 4 was pulled up. Reset

T.P. 4 to T.P. 5	4.85	Sta	27 + 60
T.P. 5 - 1.20			26 + 40 Set

1XR 232, 234, 191, 193

T.P. 6 - T.P. 5	2.95		37 + 55
-----------------	------	--	---------

T.P. 6 - 4.55

33 + 00 Set

1XR 234, 236, 193, 195

T.P. 6 to 2.05

39 + 60 Set

1XR 236, 238, 195, 197

120
985
215

175
175

1475

1475
1475
1475
1475
1475

175
175

175
175

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175
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175

West Side Sec 29

Demetrio

T.P. 6 to T.P. 7 8.60 Sta 46+15
 T.P. 7 to 0.5 46+20 Set
 1X2 238, 240, 197, 199
 T.P. 8 to T.P. 7 6.65 52+80

East Side Sec 31

Instrument on T.P. 9 48+90 South
 of T.P. 8 above. Checking distance
 back to T.P. 8 and setting 660'

T.P. 9 to T.P. 10 4.70 Sta 4+70
 T.P. 9 to T.P. 8 1.85 Sta 6+55
 Set post 5' N T.P. 6 58.2' E
 SEC T.P. 10 254, NEC T.P. 256
 T.P. 7 to T.P. 6 3.30 Sta 9+85
 T.P. 7 to T.P. 5 13+20
 Set post 375' N T.P. 7, 54.3' E
 SEC T.P. 250, NEC T.P. 254
 T.P. 7 to T.P. 6 5.10 Sta 14+95
 T.P. 5 to T.P. 6 2.85 Sta 17+80
 T.P. 5 to 200 19+80
 Set post 200' N T.P. 5 50.4' E.
 NEC T.P. 250 SEC T.P. 254
 T.P. 5 to T.P. 4 8.65 Sta 26+45
 Set post 5' S T.P. 4 46.5' E.
 NEC 250, SEC 248
 T.P. 3 to T.P. 4 8.80 Sta 35+25
 Set post 225' S of T.P. 3 42.6' E
 NEC 248, SEC 246.
 T.P. 3 to T.P. 2 3.80 39+05
 T.P. 3 to 4.35 39+60
 Set post 135' E. NEC 246 SEC 244

Oct 21, 1966

LE

DL

DKC.

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5 40
8 45
4 50 5

2 10
2 30
2 40

1 10
1 20
1 30

East Side Sec 31

Demetria

Oct 21, 1960

LE

DL

DKC

TR. MK. REG. U.S. PAT. OFF.

TPI to TP2 6.10 Sta 45+15

TPI was pulled up. Resc1

Set post 105' S of TPI, 348' E.

NRC 244 SEC 242

TPI to TPE 8.40 53+55

260

124
100

179
25

758
586
313

179

978
680
298

516
616
1215

Oct 24 1960
 LE
 DL
 DRG.
 TR. MK. REG. U.S. PAT. OFF.

Instrument on inscribed rock

Backsight Section line $\frac{31}{6}$

\angle to claim post location $3^{\circ}33'20''$ Counterclockwise

Distance 330'

Instrument Same location

Traverse West on section line $\frac{31}{6}$

T.P. 1 5.55 Sta 5+55

Adjusted T.P. 10 4' N to put on
 Section line $\frac{31}{6}$

Instrument on adjusted T.P. 10

Backsight T.P. 9

Foresight Section line $\frac{31}{6}$ West

\angle $89^{\circ}48'$ Double \angle $179^{\circ}36'$

Instrument on T.P. 1 Traverse West

T.P. 2 6.95 Sta 12+50

To old T.P. on side of hill 775' with

Vert \angle of $12^{\circ} = 758'$ Meas 7' horiz W

from this point for 13+20.

Instrument on Sta 13+20

Backsight IR $\frac{31}{32}$

\angle $90^{\circ}32'$ Double \angle $181^{\circ}04'$

Traverse North

T.P. 3 6.30 Vert \angle 12° Sta 6+15

0.45

6+60

Set 1 x 2 353.259, 255, 256

T.P. 4 6.60

12+75

675
18
900

26

2425
320
4245

4295
760
325

960
235
4205

171

615
660
625
800
185
3425
1105

4295
38
4620

Oct 24, 1960
 LE
 DL
 DKL

TR. MK. REG. U.S. PAT. OFF.

0.45

13+20

Set 1X2 251, 253, 252, 254

T.P. 5 6.25

Sta 19+00

0.80

19+80

Set 1X2 249, 250, 251, 252

T.P. 6 8+00

Sta 27+00

- 0.60

26+40

Set 1X2 247, 249, 248, 250

T.P. 7 7.25

Sta 34+25

- 1.25

33+00

Set 1X2 245, 247, 246, 248

T.P. 8 8.70

Sta 42+95

- 3.35

39+60

Set 1ath 243, 245, 244, 246

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MADE IN U.S.A.

LEFAX, PHILADELPHIA 7, PA.

505

640

395

570

390

700

450

620

4470

Oct 25, 1960

L.E.

D.L.

D.K.G.

TR. MK. REG. U.S. PAT. OFF.

Instrument on T.P. 5

T.P. 9 3.35 Sta 46+30
- 0.10 46+20

Set 1x2 241, 243, 242, 244

T.P. 10 5.55 (center of trail) 51+85

T.P. 11 1.66 53+51

T.P. 11 is 4.3' S of line extended west from T.P. 8 at $\frac{30}{29}$ 31+32

Set 1x2 4.3' N of T.P. 11, 239, 240, 241 & 242. Line is 60' W of BM 4 line

T.P. 12 5.10 N of T.P. 11 or 5.06

N of 239, 240, 241, 242. Calling T.P. 12

Sta 5.05 on traverse N from 239, 240, 241, 242

1.55 61+60 Set

1x2 237, 239, 238, 240

T.P. 13 8.40 Sta 13+45

- 0.25 13+20

Set 1x2 235, 237, 236, 238

T.P. 14 3.95 Sta 17+40

2.40 19+80

Set 1x2 233, 235, 234, 236

T.P. 15 5.70 Sta 23+10

TP 16 3.90 Sta 27+00

- 0.60 26+40

Set 1x2 231, 233, 232, 234

T.P. 17 7.00 34+00

- 1.00 33+00

Set 1x2 229, 231, 230, 232

2000
1410
100

9970
490
300
200

3850
620
200
100
100
100

100
100
100
100

OCT 25 1960

LF

DL

PKG

TR. MM. REG. U.S. PAT. OFF.

Instrument on T.P. 17.

Backsight T.P. 16

Clockwise angle

L 24° 57'

Distance 185

T.P. 18 4.50 38+50

1.10 39+60

Set 1x2 227, 229, 228, 230

T.P. 19 6.20 Sta 44+70

1.50 46+20

Set 1x2 225, 227, 226, 228

T.P. 20 4.90 Sta 49+60

3.20 52+80

Set 1x2 223, 225, 224, 226

Inst on T.P. 400

BS G-4

TP 400 - G-4 505

TP 400 - TP 401 4.70

T.P. 401 - Intersection N-S line 3.60

13+35

1x2 for 223, 225, 224, 226 1' N of
 intersection of E-W line set by G.R.
 1335' W of G-4. Moved 1x2 to
 intersection of two lines at sta
 52+79

OCT 26 1960
 LE
 DL
 DVG
 TR. MK. REG. U.S. PAT. OFF.

Instrument on 1X2 223, 225, 224, 226.
 Traverse N.

T.P. 1 3.65 Sta 3+65

Set 1X2 221, 223, 222, 224

T.P. 2 4.55 Sta 8+20

T.P. 3 5.90 Sta 14+10

- 0.90 13+20

Set 1X2 219, 221, 220, 222

T.P. 4 4.05 Sta 18+15

1.65 19+80

Set 1X2 217, 219, 218, 226

T.P. 5 1.95 Sta 20+10

T.P. 6 6.80 Sta 26+90

- 0.50 26+40

Set 1ath 215, 217, 216, 218

T.P. 7 9.80 Sta 36+70

- 3.70 33+00

Set 1ath 213, 215, 214, 216

2.90 39+60

Set 1ath 211, 213, 212, 214

T.P. 8 8.80 Sta 45+50

0.70 46+20

Set 1X2 209, 211, 210, 212

5.90 Sta 51+40

Crossed E-W base-line 270' E of X-3

Set 1X2 88' N of Sta 51+40 at 52+28

207, 209, 208, 210.

OCT 26 1960

LE

DL

DKG

TR. MK. REG. U.S. PAT. OFF.

Inst on 1X2 at Sta 52+28

Traverse North

T.P. 6 6.60 Sta 6+60

Set 1X2 205, 207, 206, 205

4.00

10+60 Center

of Twin Buttes Road.

T.P. 9 4.60 Sta 11+20

2.00

13+20

Set 1ath 203, 205, 204, 206

T.P. 10 4.00

Sta 15+20

T.P. 11 4.55

Sta 19+75

+ 0.05

19+80

Set 1ath 201, 203, 202, 204

Inst on T.P. 11

BS T.P. 10

L Clockwise to Chain Post 89°44'

Dist 170

T.P. 12 1.90

21+65

4.75

26+40

Set 1ath 201, 202

10 5
10 10
10 10
10 10
10 10

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10 10

OCT 27 1960

LE

DL

DKG

TR. MK. REG. U.S. PAT. OFF.

Inst 40' due North of I.R.

8/9
17116(Moved 40'
due North 50'
EVA traverse
is on 40' offset.

B.S. Due North

L 90° Traverse East

T.P. 1

6.75

Instrument Same Loc

B.S. Same

L 90° Traverse West

T.P. 1

3.25

Sta

3125

T.P. 2

9.30

Sta

12155

T.P. 3

0.65

Sta

13120

Set Post 40' S of T.P. 3, S.W.C. 121, N.W.C. 122

Instrument on T.P. 3

B.S. T.P. 1

L 90° Traverse South

T.P. 1

5.70

Instrument on T.P. 3

B.S. T.P. 1

L 90° Traverse North

T.P. 1

4.90

Sta

4190

1.30

6120

Set Post. N.W.C. 121 S.W.C. 120

T.P. 2

5.50

Sta

10140

2.40

12180

Set Post N.W.C. 120, S.W.C. 119.

T.P. 3

6.85

17125

2.15

19140

Set Post N.W.C. 119.

Note: This line started on 40' offset
to the North

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1042

17

Instrument on T.P. 1 South, Sta 5+70
 1.30 7+00

Set post. New 123 Svc 122

T.P. 2 3.95 Sta 9+65
 3.95 13+60

Set post Svc 123

Note: This line started on 40' offset to the North.

Instrument on T.P. 1.675' East of Sta which is 40' N of I.R. ⁸¹⁹17+16

T.P. 2 6.50 Sta 13+25

Inst on T.P. 2.

B.S. T.P. 1

L Counter clockwise 89°14' To Post

Distance 50' To Post

T.P. 3 2.95 16+20

At T.P. 3 Moved due S 35'

Now on 5' offset to North

T.P. 4 2.00 23+20

T.P. 5 2.95 24+15

Instrument on T.P. 5

B.S. T.P. 4

L Counter clockwise 88°41' To Post.

Distance 35' to post.

OCT 27, 1960

LE

DL

DRG

TR. MM. REG. U.S. PAT. OFF.

Instrument on T.P. 5

B.S. T.P. 4

L Counter clockwise $179^{\circ}04'$ Double L $358^{\circ}08'$

T.P. 6 6.00

32 + 15

Instrument on T.P. 6

B.S. T.P. 5

Troy (15/16)
(17/18)L Counter clockwise $176^{\circ}44'$ To postDouble L $353^{\circ}38'$

Distance 680 to post 38 + 95

Nov 3, 1960

Instrument at claim post Troy (15/16)
(17/18)

B.S. T.P. 6

L Clockwise to T.P. 7 $175^{\circ}22'$ Double L $350^{\circ}44'$

Distance 580

Inst T.P. 7

B.S. Claim post Troy (15/16)
(17/18)

F.S. T.P. 8

L 180

Distance 890

Inst T.P. 8

B.S. T.P. 7

F.S. IR

L Clockwise $92^{\circ}26'$ Double L $184^{\circ}52'$

Distance 125

270

180
6

1245
2954

104

124
284

6

1204

1474

264

74
24
34

214
104

1484
614

504
534
90

514
54
504

514
114

220
82

514
234
314

524
6

294
244

394
594
155

OCT 28 1960
DL
RD
DKG
TR. MK. REG. U.S. PAT. OFF.

Instrument on T.P. 595 Set by G.R.

Traverse North.

T.P. 595. Sta 2174 21+74

T.P. 596 7.80 29+54

- 3.19 26+40

Set post 290, 292, 231, 233

T.P. 597 6.10 35+64

T.P. 596 + 3.46 33+00

Set post 288, 290, 229, 231

T.P. 598 9.20 44+84

T.P. 597 + 3.96 39+60

Set post 286, 288, 227, 229

T.P. 598 + 1.36 46+20

Set Post 289, 286, 225, 227.

T.P. 599 6.75 51+59

1.80 53+39

Crossed E-W line. Set Post.

282, 284, 223, 225.

T.P. 600 4.70 Sta 56+29.

or Sta 2+90 from intersection.

T.P. 601 5.40 Sta 8+30

- 1.70 6+60

Set lat. 280, 282, 221, 223.

T.P. 602 6.05 14+35

- 1.15 13+20

$$\begin{array}{r}
 590 \\
 975 \\
 925 \\
 \hline
 940 \\
 +5
 \end{array}$$

$$\begin{array}{r}
 290 \\
 570 \\
 625 \\
 690 \\
 \hline
 840 \\
 2715 \\
 \hline
 35
 \end{array}$$

$$\begin{array}{r}
 290 \\
 570 \\
 625 \\
 690 \\
 \hline
 840 \\
 2715 \\
 \hline
 35
 \end{array}$$

$$\begin{array}{r}
 290 \\
 570 \\
 625 \\
 690 \\
 \hline
 840 \\
 2715 \\
 \hline
 35
 \end{array}$$

$$\begin{array}{r}
 290 \\
 570 \\
 625 \\
 690 \\
 \hline
 840 \\
 2715 \\
 \hline
 35
 \end{array}$$

OCT 31, 1960

DL

RP

DKG

TR. MR. REG. U.S. PAT. OFF.

Instrument on T.P. 602 Sta 14+35

- 1.15

13+20

Set lath 278, 280, 219, 221

T.P. 603 5.90

Sta 20+25

- 0.45

19+80

Set lath 276, 278, 217, 219

T.P. 604 8.90

Sta 29+15

- 2.75

26+80

Set lath 274, 276, 215, 217

T.P. 605 5.10

Sta 34+25

- 1.25

33+00

Set lath 272, 274, 213, 215

T.P. 606 6.25

Sta 40+50

- 0.90

39+60

Set lath 270, 272, 211, 213

T.P. 607 8.00

48+50

- 2.30

46+20

Set lath 268, 270, 209, 211

T.P. 608 2.60

51+10

Crossed E-W Base line 64' E of X-2

17.5 W of T.P. 59. (T.P. 59 was

lying on the ground. Set post

at intersection of E-W line &

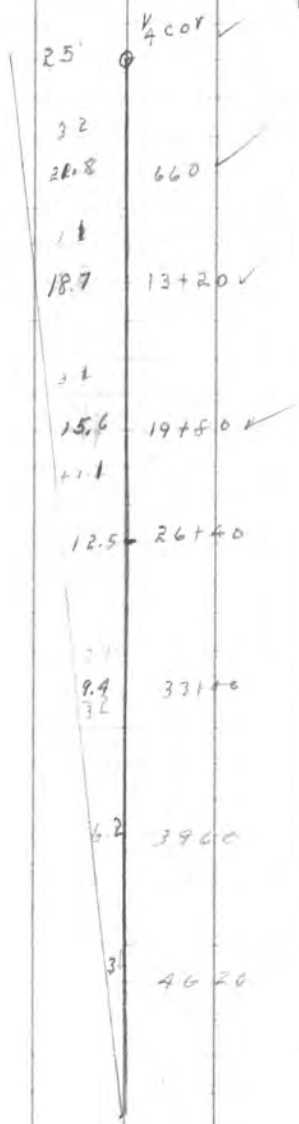
N-S line. T.P. 59 is on. About

4' S of where T.P. 59 was found

230
200
500
400

50

TR. MK. REG. U.S. PAT. OFF.



89.58

0.45

89.103

40.43

4

7

589.58 W

7

10

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

50° 45 E

Nov 2 1960
DL
RP
DRG

TR. MM. REG. U.S. PAT. OFF.

Instrument on IR $\frac{413}{910}$
Foresight $\frac{514}{89}$ Iron Pipe
Set T.P. 1 West Sta 6+90

Instrument Same Location
B.S. $\frac{514}{89}$ Iron pipe
L 90+43 Double L 181+26

T.P. 1 420 Sta 4+20
240 6+60

Set 1x2, 2, 4
T.P. 2 580 Sta 10+00
320 13+20

Set 1x2, 4, 6
T.P. 3 640 Sta 16+90
340 19+80

Set 1x2, 6, 8
T.P. 4 560 Sta 22+00
440 26+90

Set 1x2, 8, 10
T.P. 5 960 Sta 31+60
140 33+00

Set 1x2, 10, 12
T.P. 6 615 Sta 37+75
185 39+60

Set 1x2, 12, 14
T.P. 7 545 Sta 43+20
300 46+20

Set 1x2, 14, 16
T.P. 8 415 Sta 47+35
TP 9 545 Sta 52+80

TP 9 598.0 F of IR

87

2

27 5 5

50. 50

6 39

10

9020
9020

696
2
515
415
186
200
240

$\begin{array}{r} 1125 \\ \times 6 \\ \hline 6750 \\ 6750 \\ \hline 67500 \end{array}$

[illegible]

Nov 3 1966

RP

DL

PKG.

TR. MK. REG. U.S. PAT. OFF.

$$\sin \theta = \frac{98}{5280} = .01806$$

$$\theta = 64' = 1^{\circ} 04'$$

Angle of $90^{\circ} 43'$ turned on previous
page too large by $1^{\circ} 04'$

Instrument on T.P. 1 west. 690'
west of IR $\frac{4}{9} \frac{1}{10}$

T.P. 2 4.15 Sta 11+05

" 2.15 13+20

Set $\frac{1 \times 2}{12}$ 1.2 19+30

3.25

Clamp post. Approx 0.3' N of line

T.P. 3 5.75 Sta 16+80

T.P. 4 4.15 Sta 20+95

[T.P. 4 is a nail on line]

T.P. 5 7.80 Sta 28+75

- 2.35 26+40

Set 1×2 56, 1

- 1.20 27+55

Clamp post. on line

T.P. 6 6.40 Sta 35+15

T.P. 7 No good

T.P. 8 7.80 Sta 42+95

- 2.15 40+80

Clamp post on line

T.P. 9 6.45 Sta 49+40

IR $\frac{5 \times 4}{5 \times 4}$ 4.65 Sta 59+05

750

660

-15

540

75

39

70

73

240

240

30

72

72

690

5

46

5

77

77

66

66

77

77

77

77

77

77

77

77

77

77

77

77

77

77

77

77

30

7

70

70

70

8

72

72

72

72

72

72

72

72

74

74

74

74

74

74

74

IR ^{12.16} 20.15 IS 171 E and 46 N
of post set by extending the
west side of Section 9 5,280
ft South.

Line will have to be adjusted
North at least $\frac{1}{2}$ mile.

Instrument on $\frac{1}{4}$ cor $\frac{16}{21}$
B.S. South
Traverse North.

T.P. 1 7.50 Sta 7+50
- .90 6+60

Set 1X2 89,86,29,31

T.P. 2 6.60 Sta 14+10
- 0.90 13+20

Set 1X2 82,84,27,29

T.P. 3 7.25 Sta 21+35
- 1.55

T.P. 4 5.40 Sta 26+75
- .35 26+40

Set 1X2 78,80,23,25

T.P. 5 3.95 Sta 30+70
2.30 33+00

Set 1X2 76,78,21,23

T.P. 6 8.75 39+45
0.15 39+60

Set 1X2 74,76,19,21

T.P. 7 6.90 46+35
- 0.15 46+20

Set 1X2 72,74,17,19

T.P. 8 5.10

51+45

T.P. 9 1.00

52+45

T.P. 9 is on E-W line $\frac{9}{16}$ 265'
W of T.P. 6

N 10 E

26 -
29.5
31 9 5

26
27
28
29

Nov 5/1960

GH

DRG

TR. MK. REG. U.S. PAT. OFF.

Bearing from original location
of Claim Post Troy 31, 32, 33, 34
to new location N 79° E
Distance 329.5

Bearing from original location
of Claim Post Troy 85, 86, 87, 88
to new location N 87° E
Distance 320'

$$\frac{10640}{62} = 5280 \quad 5280$$

$$= (5280)(62)$$

$$10640$$

$$\begin{array}{r} 62 \\ 10560 \\ 31680 \\ 327360 \end{array}$$

$$30.7$$

$$10640 \overline{) 327360}$$

$$\begin{array}{r} 31920 \\ 81600 \\ 74480 \\ 71200 \end{array}$$

$$30.8$$

$$\begin{array}{r} 62 \\ 30.8 \\ 31.2 \end{array}$$

$$\begin{array}{r} 39 \quad 3.5 \\ 6 \quad 4 \\ 274 \quad 152 \\ 39 \quad 3.5 \\ 273 \quad 190 \\ 15.2 \quad 18.5 \\ 42.5 \quad 19.0 \end{array}$$

$$\begin{array}{r} 39.0 \\ 19.0 \\ 58.0 \\ 62.0 \end{array}$$

$$\begin{array}{ll} 660 & : 3.8 \\ \checkmark 1220 & : 7.7 \\ \checkmark 1980 & : 11.5 \\ \checkmark 2640 & : 15.4 \\ \checkmark 3300 & : 19.2 \\ \checkmark 3960 & : 23.1 \\ \checkmark 4620 & : 26.9 \end{array}$$

$$30.8 \quad 5280 \quad 30.8 \quad 4.0$$

$$\begin{array}{ll} \checkmark 4620 & - 14.8 \\ \checkmark 3960 & - 38.7 \\ \checkmark 3300 & - 42.6 \\ \checkmark 2640 & - 46.5 \\ \checkmark 1980 & - 50.4 \\ \checkmark 1320 & - 54.3 \\ \checkmark 660 & - 58.2 \\ \Delta & \rightarrow 62.0 \end{array}$$

$$62$$

Notes For Traverse From OCT 3, 1960.
 NEC Sec 29 west to NWC
 Sec 29, South to SEC Sec
 31
 Demetrie
 GP
 RP
 DRG 7

Instrument on TP set by George.
 368' S 89°53' W of inscribed rock

$\frac{20}{21}$
 $\frac{29}{28}$

Backsight inscribed rock $\frac{20}{21}$
 $\frac{29}{28}$

Traverse S. 89°53' W

T.P. 1 5.05 Sta 8+73

T.P. 2 2.67 Sta. 11+40

G-1 1.80 13+26

T.P. 3 3.80 Sta 15+20

T.P. 4 4.10 Sta 19+30

T.P. 5 3.55 Sta 22+85

T.P. 6 4.55 Sta. 27+40

G-2 -1.00 26+40

T.P. 7 3.75 Sta 31+15

T.P. 8 4.50 Sta 35+65

268

505

267

320

470

355

2285

455

375

450

3.5+6.5

3-1.5

4.40

335

46.55

1.65

350

109

5279

925

720

8

2320

39+60

17 20

52 80

38+80

4140

20

46 55
+ 65
20

48

8+95

7+20

10+15

T.P. 9 3.15

Sta 38+80

G. 3 0.80

39+60

T.P. 10 4.40

Sta 43+20

T.P. 11 3.35

Sta 46+55

OCT 4 1960

GP

RP

DKG T

T.P. 12 1.65

Sta 48+20

TP. 13 3.50

Sta 51+70

G. 4 1.09

Sta 52+79

Instrument on G-4

Back sight Brg N 89° 53' E

L 90° 07

Traverse South

T.P. 1 6.35

Sta 6+35

T.P. 2 2.60

Sta 8+95

$$\begin{array}{r}
 635 \\
 260 \\
 720 \\
 660 \\
 485 \\
 \hline
 2760 \\
 2670 \\
 \hline
 120
 \end{array}$$

$$\begin{array}{r}
 2760 \\
 995 \\
 860 \\
 665 \\
 \hline
 5280
 \end{array}$$

$$\begin{array}{r}
 2760 \\
 495 \\
 3755 \\
 864 \\
 615 \\
 665 \\
 \hline
 5280
 \end{array}$$

$$\begin{array}{r}
 1792A \\
 5952 \\
 1788 \\
 72
 \end{array}$$

TP. 3	7.20	16+15
TP. 4	6.60	22+75
TP. 5	4.85	27+60
TP. 6	9.95	37+55
TP. 7	8.60	46+15
TP. 8	6.65	52+80

Instrument on T.P. 8

B.S. T.P. 7 (D^{ue} North)

L 89°-42' Double L 179-24

Traverse N 89°-42' W

T.P. 1 4.95 Sta 4+95

T.P. 2 7.25 Sta 12+20

T.P. 3 0.24 Sta 12+44

T.P. 3 is on N-S Line and 77° N
of B-21

$$\begin{array}{r} 5360 \\ 3865 \\ \hline 1495 \end{array}$$

$$\begin{array}{r} 840 \\ 615 \\ 380 \\ \hline 1835 \\ 875 \\ \hline 2710 \end{array}$$

$$\begin{array}{r} 5280 \\ 5360 \\ \hline 10640 \end{array}$$

FA 64019

OCT 5 1960
LE
GP
DKGT

Instrument on T.P. 8 approx
at sec cor $\frac{30}{32} \mid \frac{28}{32}$

Traverse due South.

T.P. 1 8.40 Sta 8+40

T.P. 2 6.15¹⁰ Sta 14+55⁰

T.P. 3 3.80 Sta 18+38⁰

T.P. 4 8.80 Sta 27+18⁰

T.P. 5 8.65 Sta 35+80⁷⁵

T.P. 6 2.85 Sta 38+65⁶⁰

T.P. 7 5.10 Sta 43+75⁷⁰

T.P. 8 3.30 Sta 47+05⁰⁰

T.P. 9 1.85 Sta 48+90⁸⁵

T.P. 10 4+70 Sta 53+60⁵⁵

T.P. 10 62' W of Inscribed Rock

890

615

380

880

865

285

510

330

185

490

53760

2 15
4 15

27 15
8 65
3 5 80
2 85
8 65
3 8 10
5 30
3 05
4 7

Notes For Traverse Sept 28, 1960
From NWC Sec 9 South to LFE
E-W Base Line.

RP

DKG T

Demetrie

Inst on iron pipe $\frac{54}{89}$ T185 R13E

Backsight Inscribed Rock $\frac{43}{910}$

Clockwise L $89^{\circ}58'$ } wrong angle.
Double L $179^{\circ}56'$ } should have been
 $90^{\circ}02'$

Traverse South.

T.P. 1 $\frac{1}{2}$ 220 Sta 4+40

SWC Troy 55 NWC Troy 57 2.95 7+35

T.P. 2 5.05 Sta 9+45

T.P. 3 4.55 Sta 14+00

SWC Troy 57 NWC Troy 59 14+00

T.P. 4 3.05 Sta 17+05

$\frac{1}{2}$ Dura Road 2.40 19+45

T.P. 5 2.75 Sta 19+80

Iron Pipe

Inscribed

73

110

89°58

Wrong angle

Traverse Line

9.5

Inscribed
Rock

89

Sept 28, 1960

Sec 9

Demetrie

SWCTroy 59, NWCTroy 61 0.85 20+65

T.P. 6 2.25 Sta 22+05

T.P. 7 1.95 Sta 24+00

Sept 29, 1960

LFE

GP

DKG T

SWC.Troy 61, NWCTroy 63 3.20 ch. 27+20

T.P. 8 4.00 ch. Sta 28+00

T.P. 9 2.00 ch Sta 30+00

NEC Troy 119
SWCTroy 63, NWCTroy 65. 3.80 ch 33+80

T.P. 10 5.00 ch Sta 35+00

T.P. 11 2.00 ch Sta 37+00

SEC Troy 119, NECTroy 120
SWCTroy 65, NWCTroy 67, 3.45 40+45

T.P. 12 3.45 Sta 40+45

Sept 29, 1960

Sec 9
Demetria

LFE
GP
DKG T

T.P. 13 3.85 Sta. 44+30

SEC Troy 120 NEC Troy 121
SWC Troy 67, NW 1/4 Troy 67 2.55 46+85

T.P. 14 4.45 Sta 48+75
9 85

T.P. 15 4.85 Sta 53+60

T.P. 15 is 9.5' E of Inscribed Rock. $\frac{8}{9}$
17 16

and 13' E of SEC Troy 121, NE 1/4 Troy 122
SWC Troy 69, NW 1/4 Troy 71

Inscribed on Inscribed Rock $\frac{8}{9}$
17 16

Passage from pipe $\frac{5}{4}$
17 16

L 10' 00"

Trough South

See 16
Demetrie

Sept 30, 1960
LFE
GD
DKG T

Inst on inscribed rock $\frac{89}{1716}$

Backsight Iron Pipe $\frac{54}{89}$

$\angle 180^{\circ}00$
Traverse South

T.P. 1 5.55 sta 5+55

SEC Troy 122, NECTroy 123
SWC Troy 71, NWC Troy 73 1.10 6+65

T.P. 2 9.05 sta 14+60

SEC Troy 123
SWC Troy 73, NWC Troy 75 -1.50 T.P. 2 13+10

Post is 19' W of line

T.P. 3 3.95 sta 18+55

SWC Troy 75, NWC Troy 77 1.2 19+75

Post was 26' W of Line. Reset on line
at 19+75

T.P. 4 7.70 sta 26+25

NECTroy 124
SWC Troy 77, NWC Troy 79 7.70 26+25

Post was approx 30' W of Line. Reset on
line at 26+35

See 16-21
Demetrie

Sept 30, 1966
LFE
GP
DKC

T.P. 5 5.00 Sta 31+25

SEC Troy 124, NEC Troy 126
SWC Troy 79, NWC Troy 81 1.75 33+00

Post approx 40' W of line. Reset on line
at 33+00

T.P. 6 7.55 Sta 38+80

SEC Troy 126, NEC Troy 128
SWC Troy 81, NWC Troy 83 0.80 39+60

Post approx 45' W of line. Reset on line
at 39+60

T.P. 7 7.35 Sta 46+15

SEC Troy 128, NEC Troy 130
SWC Troy 83, NWC Troy 85 7.35 46+15

Post approx 60' W of line. Reset on line
at 46+20

T.P. 8 4.45 Sta 50+60

T.P. 9 2.25 Sta 52+85

T.P. 9 was set on E-W Base Line, 118' E
of X-8.

Inst on TP9, BS X-8, F.S T.P. 4

L 89°-37' Double L 179°-14'

$$5 \begin{array}{r} 280 \\ + 60 \\ \hline \end{array}$$

$$5 \begin{array}{r} 280 \\ + 60 \\ \hline \end{array}$$

$$55 \begin{array}{r} 170 \\ 3175 \\ 945 \\ \hline \end{array}$$

$$62 \begin{array}{r} 65 \\ 72 \\ 10 \\ \hline \end{array}$$

$$1 \begin{array}{r} 35 \\ 375 \\ \hline \end{array}$$

$$5 \begin{array}{r} 285 \\ 285 \\ \hline 5570 \end{array}$$

$$5 \begin{array}{r} 945 \\ 285 \\ 660 \\ \hline \end{array}$$

See 16-21

Sept 30, 1920

LFE

GP

DKC

Demetrie

SECTroy 130, NEC Troy 132

SWC Troy 85, NWG Troy 87

Post was approx 70' W of line. Reset

on line at 52+80.

T.P. 10

2.85

Sta 55+70

T.P. 11

3.75

Sta 59+45

SECTroy 132, NEC Troy 134

SWC Troy 87, NWG Troy 89

Post was approx 85' west of line. Reset

on line at 59+50.

T.P. 12

3.40

Sta 62+85

T.P. 13

2.75

Sta 65+60

$$\begin{array}{r} 8.73 \\ 2.67 \\ \hline 11.40 \end{array}$$

$$\begin{array}{r} 3+68 \\ 5+05 \\ 2+67 \\ 3+80 \\ 4+10 \\ 3+55 \\ 9+55 \\ \hline 1+4 \end{array}$$

$$\begin{array}{r} 11.40 \\ 3.60 \\ \hline 15.00 \end{array}$$

$$\begin{array}{r} 3+75 \\ 2+50 \\ 2+55 \\ 2+80 \\ \hline 2.75 \\ 2.375 \\ \hline 5.125 \end{array}$$

$$\begin{array}{r} 35.65 \\ 3.15 \\ \hline 38.80 \end{array}$$

Demetrie Sec 21

OCT 12 1960
LE
DL
DRG
TR. MK. REG. U.S. PAT. OFF.

Instrument on $\frac{1}{4}$ cor S. side Section 21.

Backsight Inscribed Rock

Foresight $\frac{1}{4}$ cor N. side Section 21L $89^{\circ}57'$ Double L $179^{\circ}55'$ Traverse North. Set post 2' N of S $\frac{1}{4}$ cor Sec 21.

SECT 21 X 102, SWCTRY 47, NWCTRY 48, NECTRY 104

T.P. 1	4.00	Sta	4 + 00
	2.60		6 + 60

Set Post. SEC TROY 100, SWCTRY 45, NWCTRY 47, NECTRY 102	
2.70	6 + 70

Set I.P. Lath. Flagged blue & white

T.P. 2	3.95	Sta	7 + 95
	2.85		10 + 80

Middle of Twin Buttes Road

5.25	13 + 20 Set
------	-------------

Post. SEC TROY 98, SWCTRY 43, NWCTRY 45, NECTRY 134

T.P. 3	6.10	Sta	14 + 05
	2.65		16 + 70

Set I.P. Lath. Flagged Blue & white

T.P. 4	4.05	Sta	18 + 10
	1.70		19 + 80 Set

Post. SEC TROY 96, SWCTRY 41, NWCTRY 43, NECTRY 98

T.P. 5	3.10		21 + 20
T.P. 6	6.15	Sta	27 + 35

-0.95	26 + 40 Set
-------	-------------

Post. SEC TROY 94, SWCTRY 39, NWCTRY 41, NECTRY 96

-0.65	26 + 70 Set
-------	-------------

I.P. Lath. Flagged Blue & white

T.P. 7	6.15	Sta	33 + 50
	-0.50		33 + 00 Set

Post. SEC TROY 92, SWCTRY 37, NWCTRY 39, NECTRY 94

Demetrie Sec 21

Oct 12, 1960
LE
DL
DIG T

TR. MK. REG. U.S. PAT. OFF.

3.20

2670 Set

I.P. Lath - Flagged blue & white

T.P. 8

6.30

Sta

39180

-0.20

39160 Set

Port. SEC Troy 90, SWC Troy 28, NWC Troy 33, NEC Troy 92

T.P. 9

2.95

Sta

42175

Oct 13, 1960

LE

DL

DIG T

2.45

46120 Set

Port SEC Troy 85, SWC Troy 23, NWC Troy 15, NEC Troy 90

2.95

46170 Set

I.P. Lath - Flagged blue & white

T.P. 10

4.20

Sta

47195

Nacot Sec 21

5.35

53130

Set Port 2.5' S of Nacot Sec 21. SEC Troy 84,
SWC Troy 21, NWC Troy 33, NEC Troy 88.

Crossed base line at 52180.

Instrument on S¹/₄ acot Section 21. ^{Inscribed} Rock

Foreign/inscribed rock

20/21
29/28

Traverse West

T.P. 10

1.95

Sta

1195

T.P. 11

5.15

Sta

7110

T.P. 12

3.85

Sta

10195

T.P. -

2.25

Sta

13120

Oct 13 1960
 LE
 DL
 PKC T
 TR. MK. REG. U.S. PAT. OFF.

Demetria Sec 21

Inst. on TP -

Paralight in SE corner rock

20121

2928

L 89° 57' Double L 119° 54'

Traverse North

T.P. 13 4.35 Sta 2135

2.25 6+60 Set

Post SECTroy 99, SWCTroy 100, NWCTroy 102, NECTroy 101

2.35 6+70 Set

I.P. Lath. Flagged blue & white

3.60 7+95

Middle of Twin Buttes Road:

T.P. 14 4.40 Sta 8175

T.P. 15 4.30 Sta 13105

0.15 13+20 Set

Post SECTroy 97, SWCTroy 98, NWCTroy 99, NECTroy 99

3.65 16+70 Set

I.P. Lath. Flagged blue & white

T.P. 16 5.45 Sta 18150

1.30 19+80 Set

Post SECTroy 95, SWCTroy 96, NWCTroy 96, NECTroy 97

T.P. 17 6.90 Sta 25+40

1.00 26+40 Set

Post SECTroy 93, SWCTroy 94, NWCTroy 96, NECTroy 95

1.30 26+70 Set

I.P. Lath. Flagged blue & white.

T.P. 18 6.65 Sta 32+05

0.95 33+00 Set

Post SECTroy 91, SWCTroy 92, NWCTroy 94, NECTroy 93

T.P. 19 7.00 39+05



Oct 14 1960
 LE
 DL
 DKG A
 TR. MK. REG. U.S. PAT. OFF.

Demetrie Sec 21

T.P. 19 Sta 39 + 05

- 2.35 36 + 70

Set I.P. latk Flaggd blue & white

0.55 39 + 60 Set

Post SEC Trwy 89, SWC Trwy 90, NWC Trwy 92, NRC Trwy 91

T.P. 20 Sta 44 + 10

2.10 46 + 20 Set

Post SEC Trwy 87, SWC Trwy 88, NWC Trwy 90, NRC Trwy 89

2.60 46 + 20 Set

I.P. latk. Flaggd blue & white

T.P. 21 Sta 50 + 20

T.P. 22 Sta 52 + 45

Crossed base line. Did not set post.

(Post should be set 52' N of TP 22)

Instrument on inscribed rock S¹/₄ cor Sec 21

Backright SIC Land grant Cor

Foreright Inscribed rock N¹/₄ cor Sec 21

L 89-58 40 Double L 179-57 40

Traverse East

T.P. 1 Sta 5 + 35

~~T.P.~~ 1.25 6 + 60 Set

1 x R. marked 47-49-49

T.P. 2 Sta 10 + 15

T.P. 3 Sta 13 + 20

Sec latk marked 47, 46, 41 13 + 20

Demetris Sec 21

OCT 17, 1960
LE
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DKG

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Inspection on Sta 15+20

Backsight SIC Langdon Corner

L 89-58-90 Double L 179-57-40

Thence North

T.P. 1 3.10 Sta 3+10

T.P. 2 2.90 Sta 6+00

0.60 6+60 Set

Post. SECTroy 45, NECTroy 47.

0.70 6+70 Set

I.P. Lath. Flagged blue & white

T.P. 3 4.25 Sta 10+25

2+95 Set

Post. SECTroy 47, SWCTroy 48, NWCTroy 49, NECTroy 45.

T.P. 4 4.85 Sta 15+10

1.60 16+70 Set

I.P. Lath. Flagged blue & white

T.P. 5 2.65 17+75

2.05 19+80 Set

Post. SECTroy 48, SWCTroy 49, NWCTroy 49, NECTroy 43.

T.P. 6 5.15 22+90

Oct 17, 1960

LE

DL

DKG TI

T.P. 7 3.10 Sta 26+00

0.40 26+40 Set

Post. SECTroy 49, SWCTroy 40, NWCTroy 42, NECTroy 41

0.70 26+70 Set

I.P. Lath. Flagged blue & white

Demetrie Sec 21

OCT 17, 1960
LE
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DKC TT

TR. MK. REG. U.S. PAT. OFF.

T.P. 8	4.45	Sta	30+45
T.P. 9	3.10	Sta	33+55
	- 0.55		33+60 Set

Post SEC TROY 37, SWC TROY 38, NWC TROY 40, NEC TROY 39

T.P. 10	4.75		38+30
	1.30		39+60 Set

Post SEC TROY 35, SWC TROY 36, NWC TROY 38, NEC TROY 37

	- 1.60		36+70
--	--------	--	-------

Set I.P. Lath. Flaggged blue & white

T.P. 11	6.05	Sta	44+35
	1.85		46+20 Set

Post SEC TROY 33, SWC TROY 34, NWC TROY 36, NEC TROY 35

	2.35		46+70 Set
--	------	--	-----------

I.P. Lath. Flaggged blue & white

	4.45	Sta	48+80
--	------	-----	-------

	4.05		52+85 Crossed
--	------	--	---------------

E-W Base Line

	4.60		53+40 Set
--	------	--	-----------

Post SEC TROY 31, SWC TROY 32, NWC TROY 34, NEC TROY 33

Instrument on inscribed rock $\frac{16}{21} \frac{15}{22}$

Backsight X-12 E-W Base Line

 $\angle 82^{\circ} 10'$ Double $\angle 164^{\circ} 20'$

Traverse South

T.P. 1	4.60	Sta	4+60
--------	------	-----	------

Set Post 3' S of IR. NEC TROY 34, NWC TROY 52, SEC TROY 32

 $\angle 172^{\circ} 10'$

Traverse East

T.P. 1	4.60	Sta	4+60
--------	------	-----	------

	4.25		8+85 Set
--	------	--	----------

Post 3' W of Fence. NEC TROY 52

5250

5285

5290

665

670

55

6

Demetrio Sec 21

OCT 17, 1960

LE

DL

DKG

TR. MK. REG. U.S. PAT. OFF.

Instrument on T.P. 1 on South Traverse 9+60

Backsight ^{14.15} 21.22

L 180°-00', Traverse South

T.P. 2 3.35 Sta 7+95

- 0.64 7+81 Set

Post. SEC Tray 34, SWC Tray 52, NWC Tray 53, NEC Tray 36

- 1.14 6+81 Set

I.P. Kath. Flagged blue & white

T.P. 3 2.25 Sta 10+20

Instrument at 7+31

L 90° Traverse East

T.P. 1 2.60 2+60

3.50 6+10 Set

Post. 3' w of fence. SEC Tray 52, NEC Tray 53

OCT 18, 1960

LE

DL

DKG T

Instrument on T.P. 3 sta 10+20

Traverse South.

3.71 13+91 Set

Post. SEC Tray 36, SWC Tray 53, NWC Tray 54, NEC Tray 38

T.P. 4 6.30 Sta 16+50

Instrument on 13+91, L 90°, Traverse East

3.70 Point fell 2.8' S of Post

which is 3' w of fence. Did not move

post. Marked it SEC Tray 53, NEC Tray 54

Oct 18 1960
LE
DL
DKG
TR. MK. REG. U.S. PAT. OFF.

Demetria Sec 21

Instrument on T.P. 4 Sta 16+50
0.31 16+81 Set

IP Lath Flogged blue & white
T.P. 5 5.15 Sta 21+65
- 1.14 20+51 Set

Post SEC Troy 38, NEC Troy 40
T.P. 6 3.60 25+25 Set

Post, S cor Troy 54, W cor Troy 40.
Instrument at cor of Troy 41, 42, 43, 44
L 90°

Traverse East
T.P. 1 4.70 Sta 4+70
5.20 Sta 9+90 Set

Post (~~6000~~) SEC Troy 42, NEC Troy 44.

Instrument at cor of Troy 43, 44, 45, 46
L 90°

Traverse East
7.20 Set

Post SEC Troy 44, NEC Troy 46

OCT 19 1960

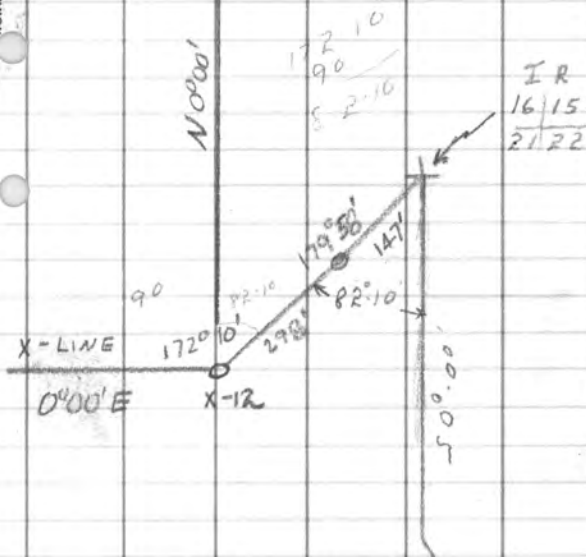
LE, DL, DKG

Instrument at cor of Troy 39, 40, 41, 42
L 90° Traverse East

T.P. 1 2.80 Sta 2+80
T.P. 2 2.95 Sta 5+75
T.P. 3 3.20 Sta 8+95
T.P. 4 3.85 Sta 12+80 to

Fence Set Post Marked SEC Troy 40, NEC Troy 42

Data from George Reeves.



61

5290

589.44 E

5285

5250

5245

589.42 E

55

50'

M.W.

Baseline

CLAIM SURVEY ✓

TOTAL MAGNETIC INTENSITY SURVEY ✓

INDUCED POLARIZATION SURVEY ✓

GEOCHEMICAL SURVEY OF CORES ✓

DEMETRIE WASH PROJECT ✓
Pima County, Arizona

September, October, November 1960 ✓

For

Mr. G. W. Irvin ✓
Sahuarita, Arizona

by
HEINRICHS GEOEXPLORATION COMPANY
P. O. BOX 5671 TUCSON, ARIZONA

CONTENTS

	Page
Claim Survey Report-----	1
Induced Polarization Report-----	3
Total Magnetic Intensity Report-----	5
Geochemical Analysis Report-----	7
13 Induced Polarization Maps attached & described as follows:	
Lines 4750 W, 3750W, 2640 W, 1320 W, Zero, 1320 E, 2640 E, 3960 E, 5280 E, 6600 E, 7920 E, Canoa 1000, 2000N.	

In Map Pocket

Stadia Transit Survey Map

Induced Polarization Survey Map

Original Mobile Magnetometer Records (in original report
only and not included in 2nd & 3rd copies).

Total Magnetic Intensity Map

CLAIM SURVEY
DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA

Between the 15th of September 1960 and the 9th of November 1960, Heinrichs Geoexploration Co., at the request of G. W. Irvin, conducted land claim surveying in the area known as Demetrie Wash, all in Pima County, Arizona T18S, R13E and described as follows: Sections 19, 20, 30, 31, 29, 28 (part west of Canoa Grant only), 21 (part west of Canoa Grant only), 22, (part west of Canoa Grant only), 18 (excluding $W\frac{1}{2}W\frac{1}{2}$ and excluding $E\frac{1}{2}NE\frac{1}{4}$, & $E\frac{1}{2}NW\frac{1}{4}NW\frac{1}{4}$, $E\frac{1}{2}SW\frac{1}{4}NE\frac{1}{4}$,) 17 (excluding $NW\frac{1}{4}$, $W\frac{1}{2}NE\frac{1}{4}$, $N\frac{1}{2}N\frac{1}{2}SW\frac{1}{4}$, $N\frac{1}{2}NW\frac{1}{4}SW\frac{1}{4}$, $SE\frac{1}{4}NE\frac{1}{4}$, $W\frac{1}{2}NE\frac{1}{4}$) 16, 9, only the $SE\frac{1}{4}SE\frac{1}{4}$ & $S\frac{1}{2}NE\frac{1}{4}SE\frac{1}{4}$ of Section 8,

A total of 314 Arizona State land type "B" claims 1320' by 660' were surveyed, for the most part by two 3 man crews, although occasionally as many as six 2-man crews, and as few as one 2-man crew were used to complete the project. Personnel involved in the project were E. Grover Heinrichs, supervisor & compilation; George Reeves, Surveyor; Don Green, Surveyor. All corner posts were set to conform to the mining laws of the State of Arizona. A total of 47 crew days were spent to complete the project.

Considerable difficulty was experienced by the survey crews in finding the existing public land corners. However, a sufficient number of public land corners were found to adequately

Claim Survey

- 2 -

control the claims to the public land system.

Summarized below is cost data relating to this project:

Total cost-----\$10,664.13

Total cost pre claim--- \$33.96

Total miles traversed--57.25 miles

Total cost per mile
of traverse-----\$186.27

Total claims surveyed----314.

INDUCED POLARIZATION SURVEY
DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA

During the months of October and November 1960, Heinrichs Geoexploration Co., at the request of Mr. G. W. Irvin, conducted Induced Polarization surveys which shall be referred to as Phase II, as supplemental to Phase I initial investigations previously reported on.

A total of 13.1 surface profile miles were run. Personnel assigned to the survey were Frank A. Seward, Jr. geophysicist in charge; Nick P. Estrada, Harvey Andres & Arthur Apodaca.

Attached to this report are self explanatory interpretive maps of the combined Phase I, and Phase II surveys. Phase II surveys were made on lines 1320E, 3960E, and 6600E using a 1,000 ft. dipole spacing on lines 1320W, 3750W and 4750W using a 500 ft. dipole spacing.

In general it can be stated that the data becomes less definitive to the south and east as the alluvial gravels become thicker. In this light the only attempt made to interpret data from line 6600E was to consider that gravels in this area were so thick that the anomalous metallic conduction factors and percent frequency effects due to gravels would mask any anomalies due primarily to disseminated sulphide mineralization. Anomalism on lines 3960E is considered questionable. The anomalism shown on line 1320E is interpreted as being due to disseminated

Induced Polarization

- 2 -

sulphide mineralization as is that anomalism shown on lines 1320W, 3750W and 4750W.

Twenty-four crew days were spent in the field for which 16½ days were charged to your account. The other 7½ days were involved in repeat work in areas where original data obtained was questionable, equipment malfunction, etc. and were not charged for.

Summarized below is related cost data on this project:

Total cost-----	\$4208.80
Surface Profile miles-----	13.1 miles
Subsurface Profile miles-----	8.7 miles
Total depth points observed-----	329
Cost per surface mile-----	\$321.28
Cost per subsurface mile-----	\$483.77
Cost per depth point observed-----	\$12.79

TOTAL MAGNETIC INTENSITY SURVEY
DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA

On the 11th through the 14th of October 1960, a total magnetic intensity survey was conducted by Heinrichs Geoexploration Company at the request of Mr. G. W. Irvin in an area known as Demetrie Wash and all in T18S, R13E Pima County Arizona, described as follows: Sections 8 ($E\frac{1}{2}$ $E\frac{1}{2}$ only), 9, 16, 17, 18, (except for $W\frac{1}{2}$ $W\frac{1}{2}$), 19, 20, 21, 22 (part outside Canoa Land Grant only), 29, 30, & $E\frac{1}{2}$ 31.

A total of 50.75 profile miles were recorded. Personnel involved in the work were J. W. Marlatt and Nick P. Estrada in the field and Marlatt and E. G. Heinrichs in office compilation.

Included in this report is a map showing, in contour form, the total magnetic intensity distribution in the area. Claim posts were utilized for horizontal control and all traverses were run south only at a spacing of 1320' between lines except the road traverses which were run as indicated on the map.

In general, there exists a long broad low, trending NW-SE through Sections 18, 20, 21 and a less prominent low in the $N\frac{1}{2}$ of Section 19 which suggests either a thick alluvial section, a sedimentary zone or combination of each. A parallel trending zone to the south has a relatively higher magnetic content and could be caused by contact metamorphism in sediments, a more magnetic igneous mass, or a combination of both. The NW-SE

trending zone in Sections 30 and 31 appear to be caused, for the most part, by volcanics and the increased contrast, frequency and gradients between high and low readings on the records tend to substantiate this conclusion as does some volcanic outcrop in the area.

Some difficulty was encountered in crossing an occasional wash and for this reason no traverse was run on the extreme west of the claim group including the $W\frac{1}{2}$ of Section 31.

Summarized below is cost data relating to the mobile magnetic survey on this project:

Total cost-----	\$1120.00
Miles of Traverse-----	50.75 miles.
Cost per profile mile-----	\$22.07
Office compilation, 3 days-----	N. C.

GEOCHEMICAL SURVEYS
DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA

On 21st of November 1960, Heinrichs Geoexploration Company ran an analysis of some random core samples with the following results:

<u>SAMPLE#</u>	<u>ppm Mo</u>	<u>ppm Cu</u>
DW- 1-1	70	50
1-2	56	60
1-3	8	20
DW 2-1	21	90
2-2	0	25
2-3	0	40
2-4	3	110
2-5	0	140
DW 3-W	45	35

Mr. Franklin A. Seward, Jr. was the individual performing the determinations.

Total cost-----\$25.00

Demetrie Wash Project

Respectfully submitted,

HEINRICHS GEOEXPLORATION COMPANY

E. Grover Heinrichs

**E. Grover Heinrichs
Vice President**

John W. Marlatt

**J. W. Marlatt
Geologist**

Franklin A. Seward, Jr.

**F. A. Seward, Jr.
Geophysicist**

George E. Reeves
**George E. Reeves,
Surveyor**

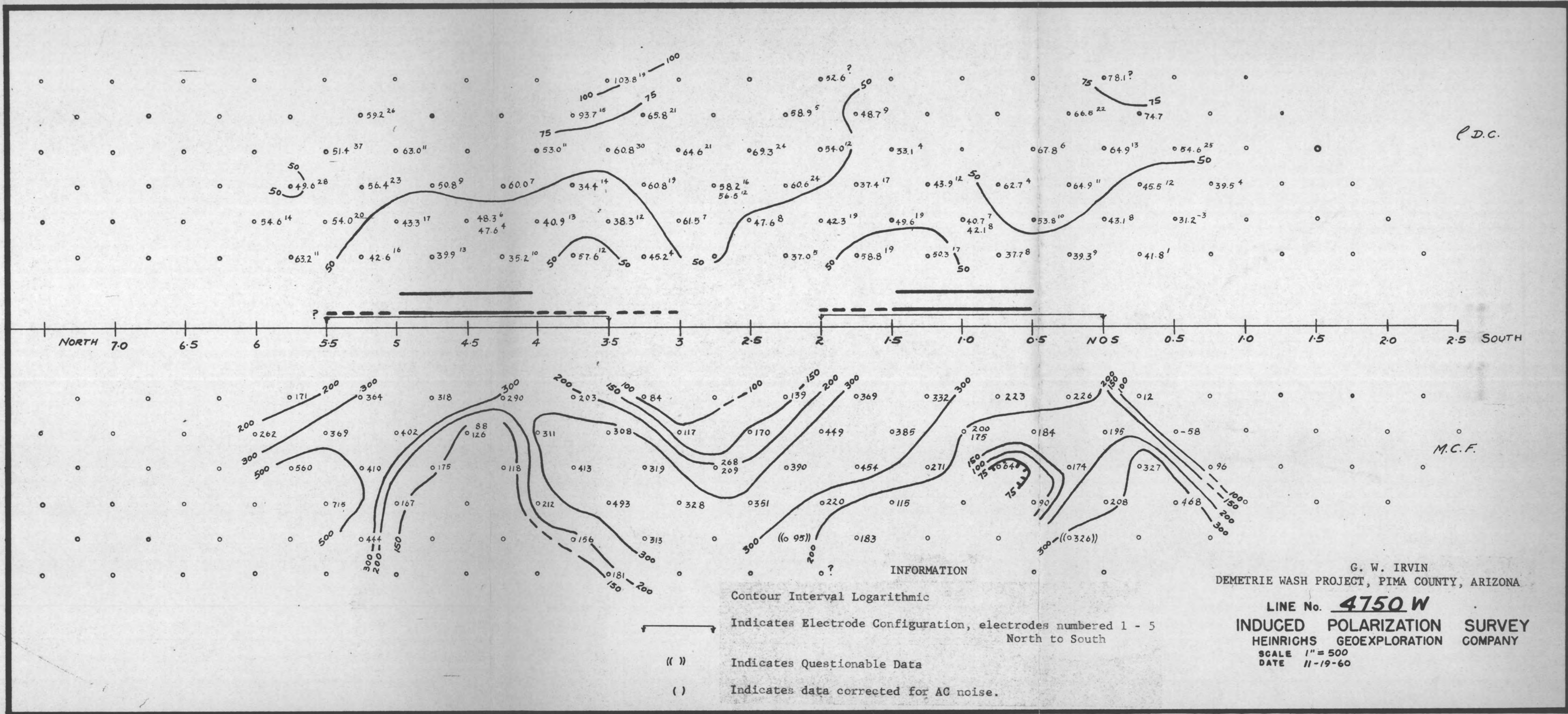
Approved by:

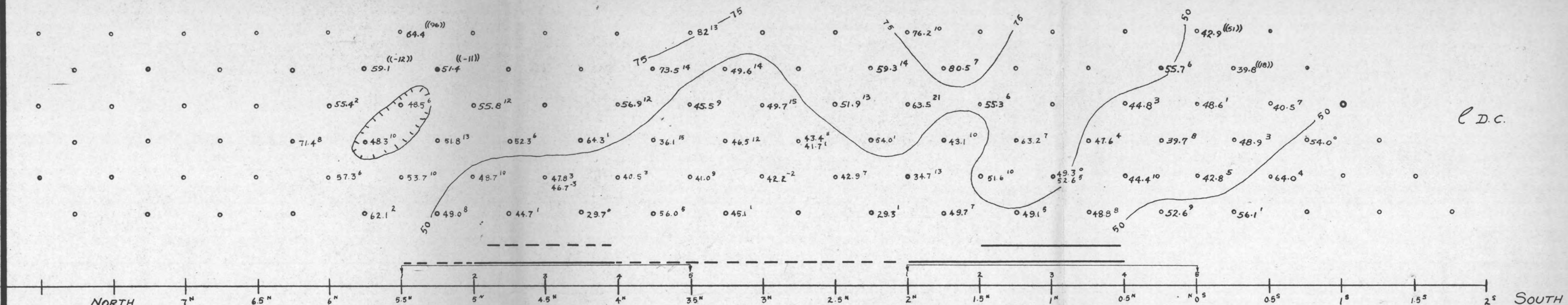
Walter E. Heinrichs, Jr.

**Walter E. Heinrichs, Jr.
President & General Manager**

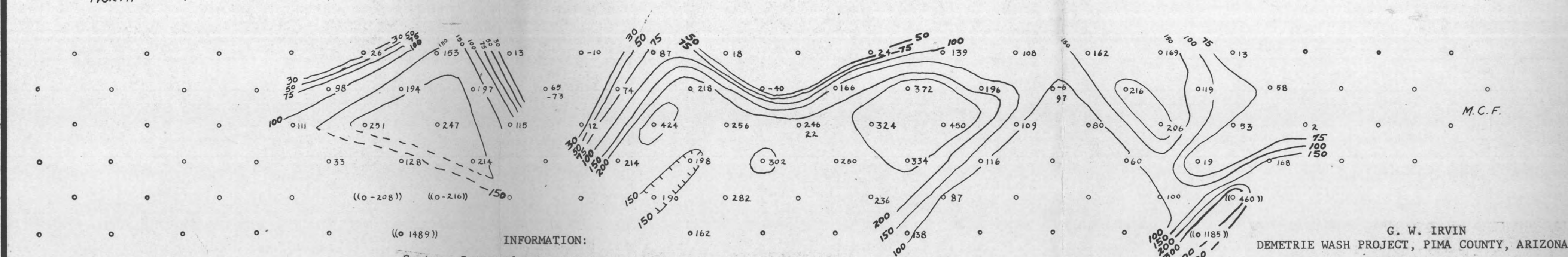
**December 1, 1960
P. O. Box 5671
Tucson, Arizona**







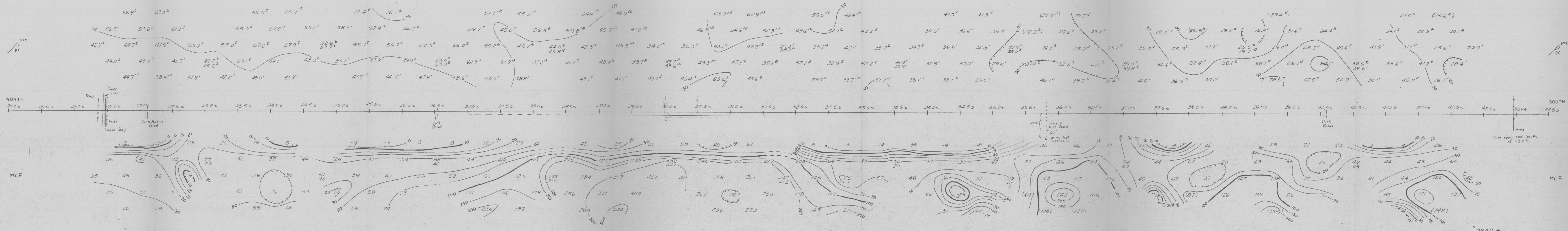
C.D.C.



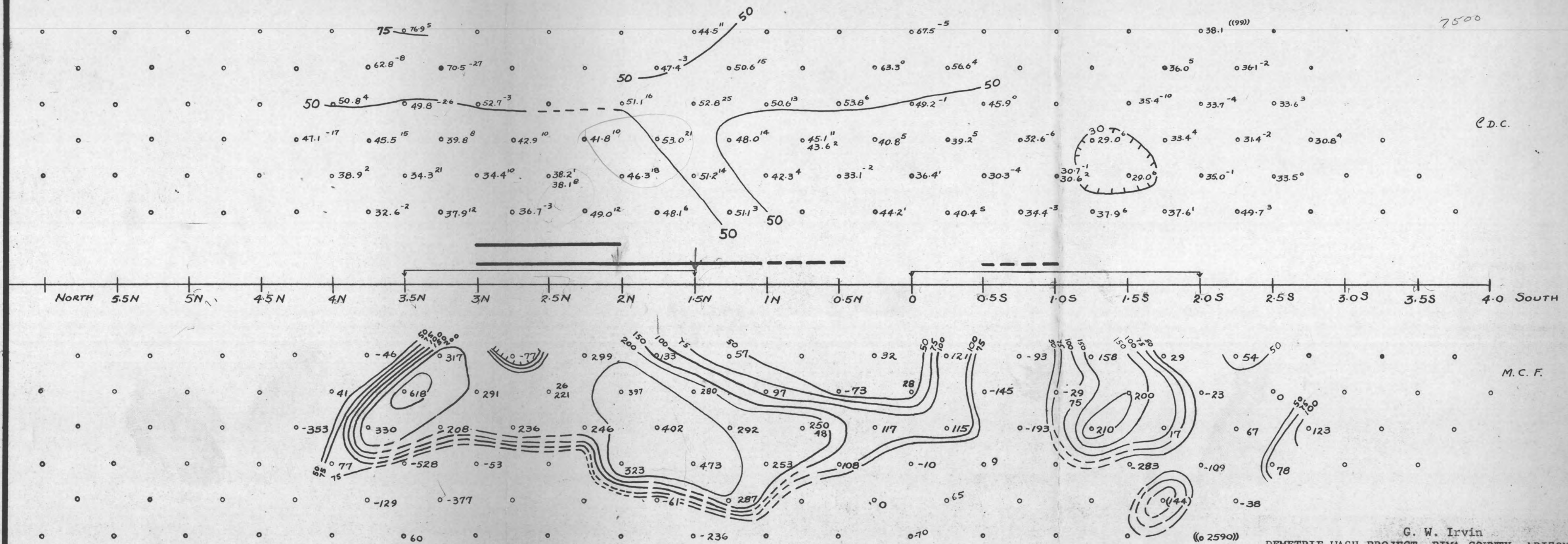
M.C.F.

INFORMATION:
 Contour Interval Logarithmic
 Indicates Electrode Configuration, electrodes numbered 1 - 5 North to South
 (()) Indicates Questionable Data
 () Indicates data corrected for AC noise.

G. W. IRVIN
 DEMETRIE WASH PROJECT, PIMA COUNTY, ARIZONA
 LINE No. **3750W**
 INDUCED POLARIZATION SURVEY
 HEINRICH'S GEOEXPLORATION COMPANY
 SCALE: 1" = 500'
 DATE: 11/19/60



HEINRICHS GEOEXPLORATION CO. FOR G.W. IRVIN			
INDUCED POLARIZATION SURVEY			
DEMETRIE WASH AREA			
SCALE: 1" = 500'	CONTOUR INTERVAL: LOGARITHMIC	REVISIONS	
DATE: 10-6-60	SHEET 3 OF 4		
DRAWN BY: E. G. H.	DRAWING NO.:	FILE:	



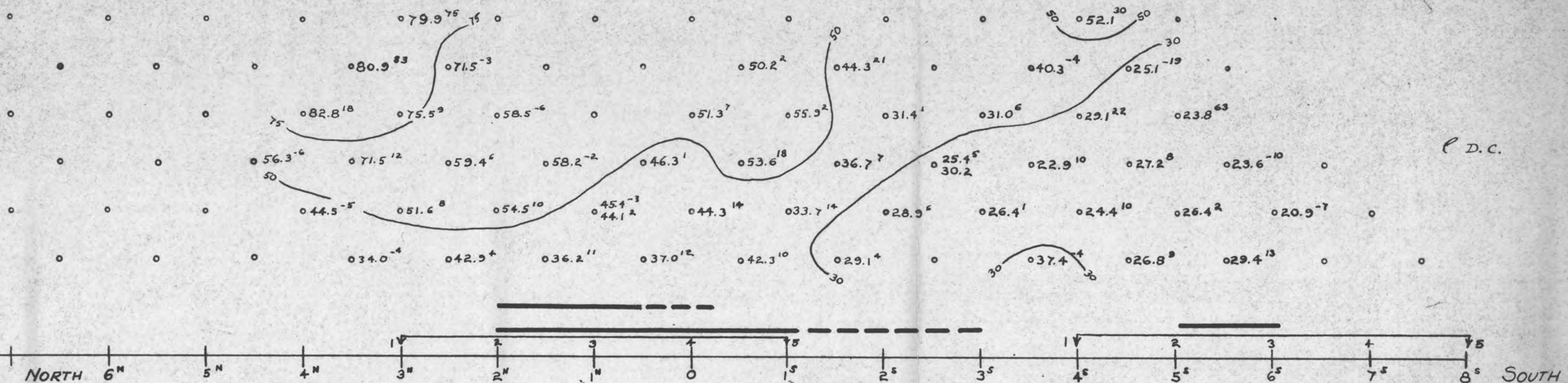
INFORMATION:

Contour Interval Logarithmic

- Indicates Electrode Configuration, electrodes numbered 1 - 5
 () Indicates questionable data.
 () Indicates data corrected for AC noise.

G. W. Irvin
DEMETRIE WASH PROJECT, PIMA COUNTY, ARIZONA

LINE No. **1320W**
INDUCED POLARIZATION SURVEY
 HEINRICHS GEOEXPLORATION COMPANY
 SCALE 1" = 500'
 DATE Oct., 1960



D. C.

M. C. F.

INFORMATION:

Contour Interval Logarithmic

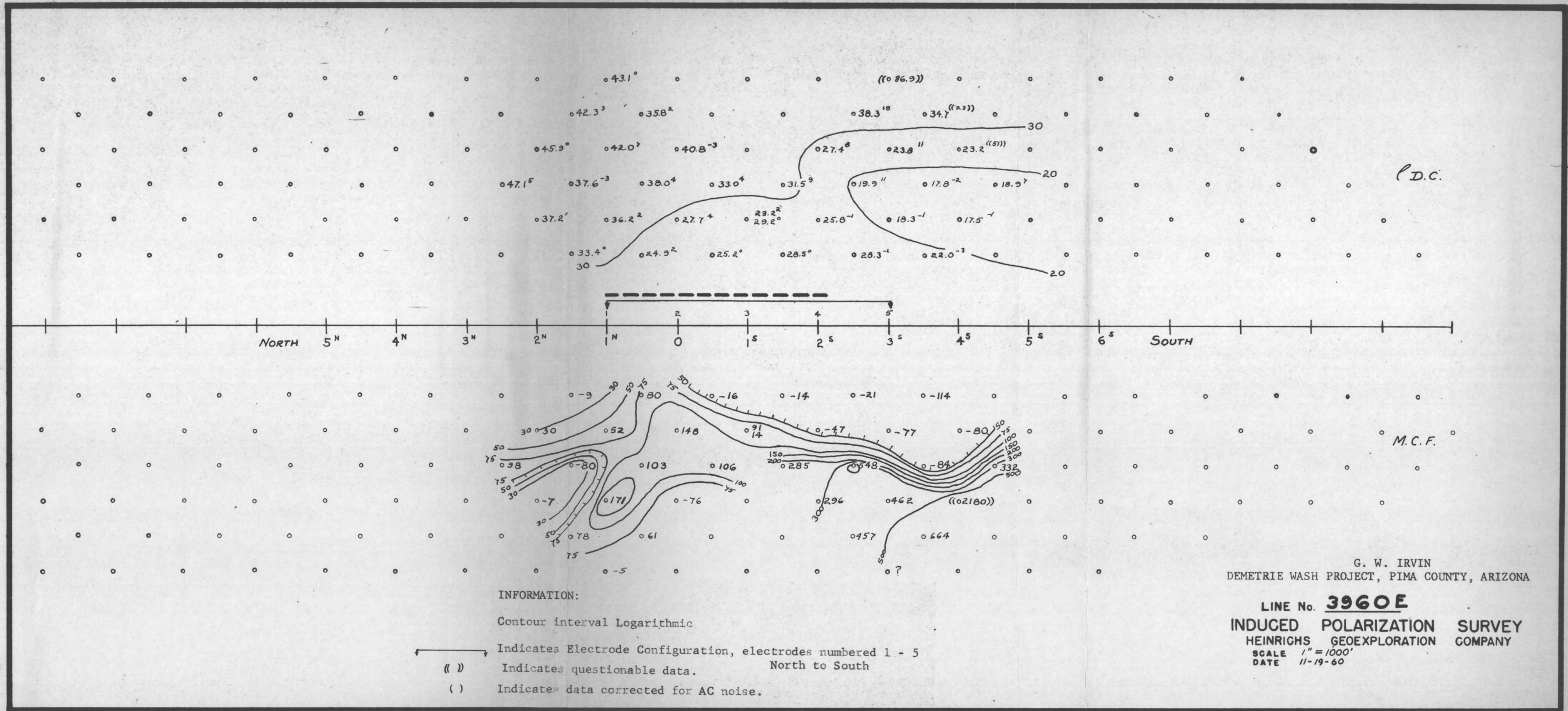
- Indicates Electrode Configuration, Electrodes numbered 1 - 5 North to South
- (()) Indicates questionable data.
- () Indicates data corrected for AC noise

G. W. IRVIN
DEMETRIE WASH PROJECT, PIMA COUNTY, ARIZONA

LINE No. **1320 E**

INDUCED POLARIZATION SURVEY
HEINRICHS GEOEXPLORATION COMPANY

SCALE: 1" = 1000'
DATE: 11/19/60



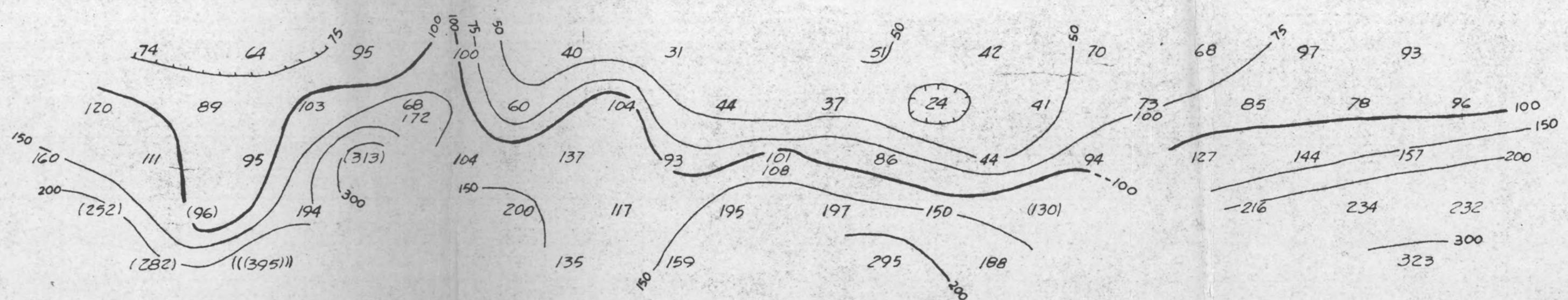
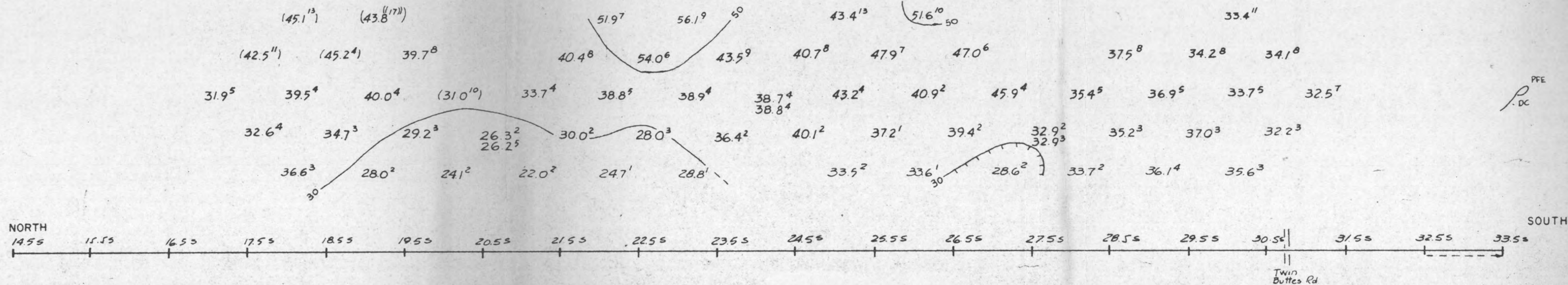
INFORMATION:

Contour interval Logarithmic

- Indicates Electrode Configuration, electrodes numbered 1 - 5 North to South
- () Indicates questionable data.
- () Indicates data corrected for AC noise.

G. W. IRVIN
DEMETRIE WASH PROJECT, PIMA COUNTY, ARIZONA

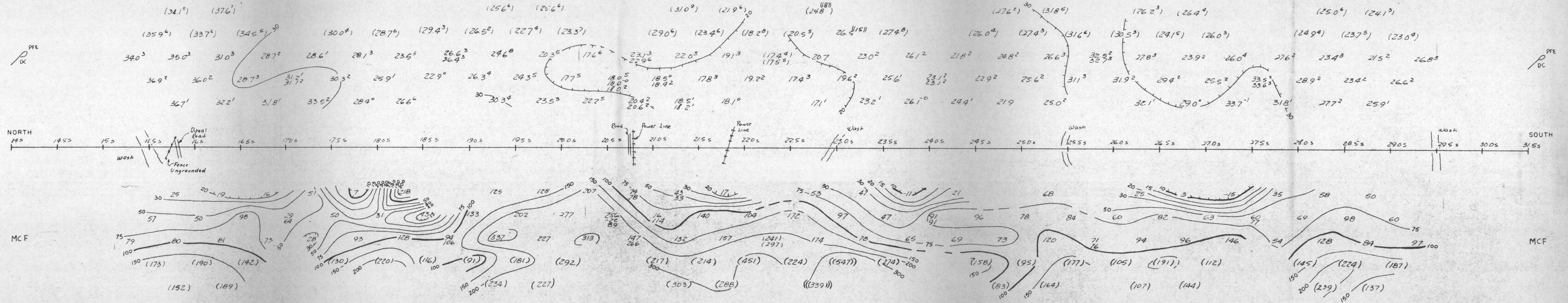
LINE No. **3960E**
INDUCED POLARIZATION SURVEY
HEINRICHS GEOEXPLORATION COMPANY
SCALE 1" = 1000'
DATE 11-19-60



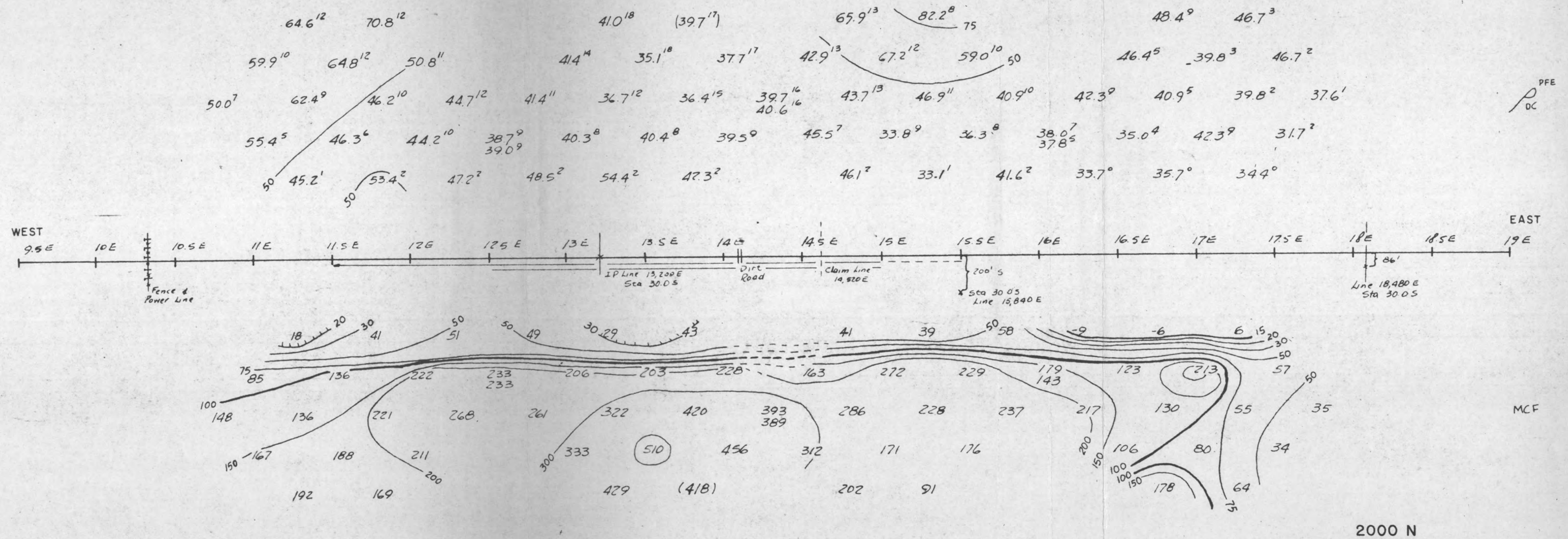
5280 E



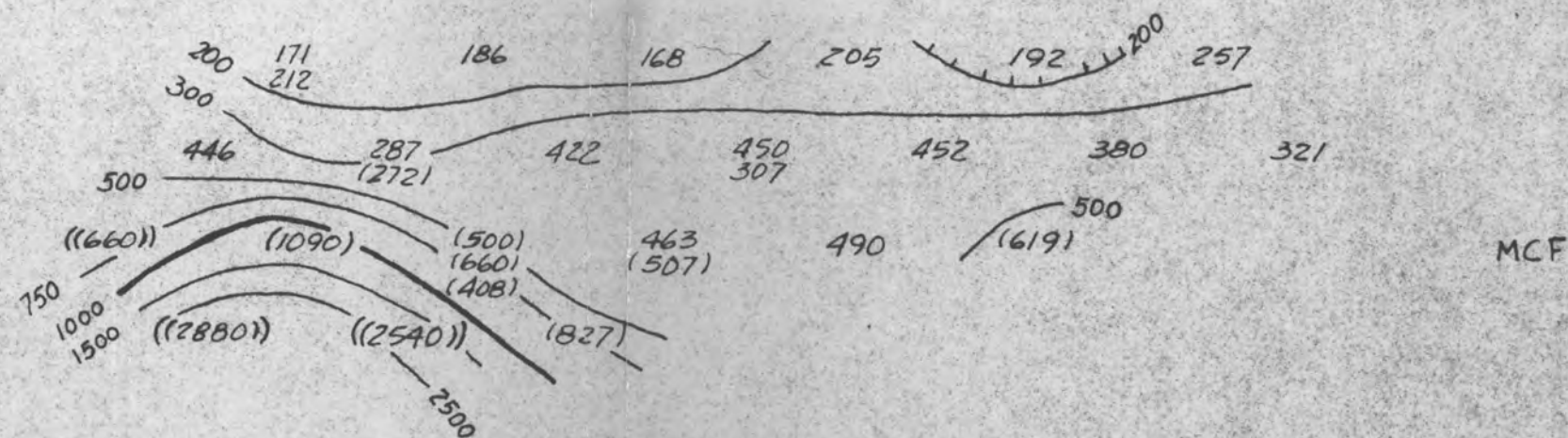
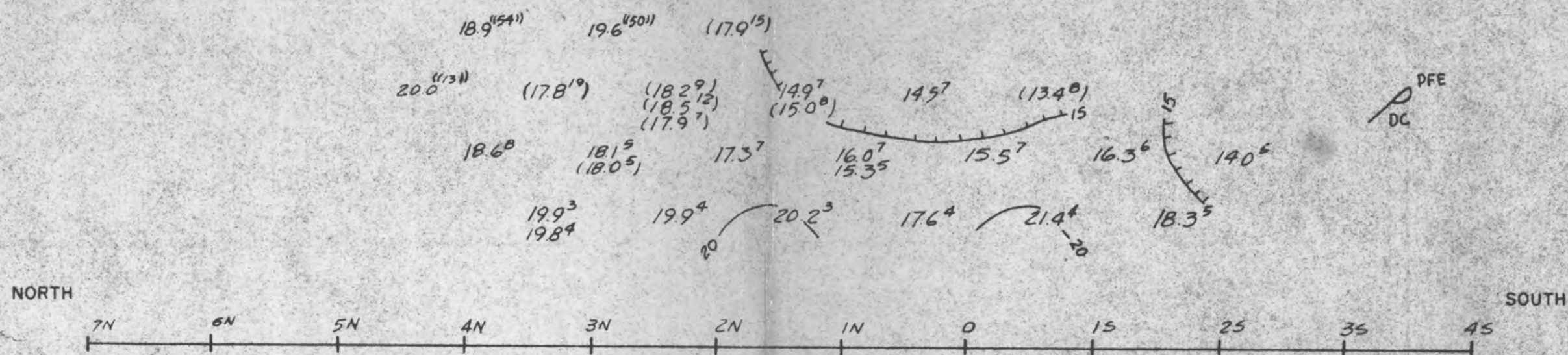
HEINRICHS GEOEXPLORATION CO. FOR G.W. IRVIN			
INDUCED POLARIZATION SURVEY DEMETRIE WASH AREA			
SCALE: 1"=1000'	CONTOUR INTERVAL: LOGARITHMIC		REVISIONS
DATE: 10-6-60	DATA BY: F.A.S.		
DRAWN BY: E.G.H.	SHEET 2 OF 3		
	DRAWING NO.:		FILE:



HEINRICHS GEOEXPLORATION CO. FOR G. W. IRVIN		
INDUCED POLARIZATION SURVEY		
DEMETRIE WASH AREA		
SCALE: 1" = 500'	CONTOUR INTERVAL LOGARITHMIC	REVISIONS
DATE: 10-8-50	DATA BY: F.A.S.	
DRAWN BY: E.G.H.	SHEET 1 OF 4	
	DRAWING NO.:	FILE:



HEINRICHS GEOEXPLORATION CO. FOR G. W. IRVIN		
INDUCED POLARIZATION SURVEY		
DEMETRIE WASH AREA,		
SCALE: 1" = 500'	CONTOUR INTERVAL: LOGARITHMIC	REVISIONS
DATE: 10-6-60	DATA BY: F. A. S.	
DRAWN BY: E. G. H.	SHEET 4 OF 4	
	DRAWING NO.:	FILE:



CANOA 1000



HEINRICH'S GEOEXPLORATION CO. FOR G.W. IRVIN			
INDUCED POLARIZATION SURVEY DEMETRIE WASH AREA			
SCALE: 1" = 1000'	CONTOUR INTERVAL: LOGARITHMIC REVISIONS		
DATE: 10-6-60	DATA BY: F.A.S.		
DRAWN BY: E.G.H.	SHEET 3 OF 3		
	DRAWING NO.:		FILE:

September 17, 1962

Mr. George R. Rogers
Bear Creek Mining Company
1498 S. Lipan Street
Denver 23, Colorado

Dear George:

Enclosed you will find a copy of sectional data sheet for Line 1320-W Demetrie Wash offset rerun with the new Madden receiver, and plan map showing relative locations. Unfortunately we don't have sepias of originals of the old maps so you will have to refer to your copy of our report (to G. W. Irvin) of September-November 1960.

The approximate 200 ft discrepancy in lateral location of the line on the plan map is due to the fact that the original line was run prior to resurvey and relocation of claim corners and legal subdivision monuments and your map shows location of the line with respect to the original survey.....confusing isn't it.

The data particularly in the deeper separations suffers from terrific D.C. noise and telluric burst effects that were present on both days--we would have had trouble with any gear on these days--otherwise seems to repeat the old data reasonably well.

Also enclosed (please keep confidential) blind carbon of my evaluation letter to Madden. Frankly, the damned thing isn't bad.

What have you found out about the possible availability of your old H.P. 404-A. Ours is currently in Phoenix for over-haul.

Fondest regards from Ollie--looking forward to your quick return to Tucson.

Sincerely,

Franklin A. Seward, Jr.

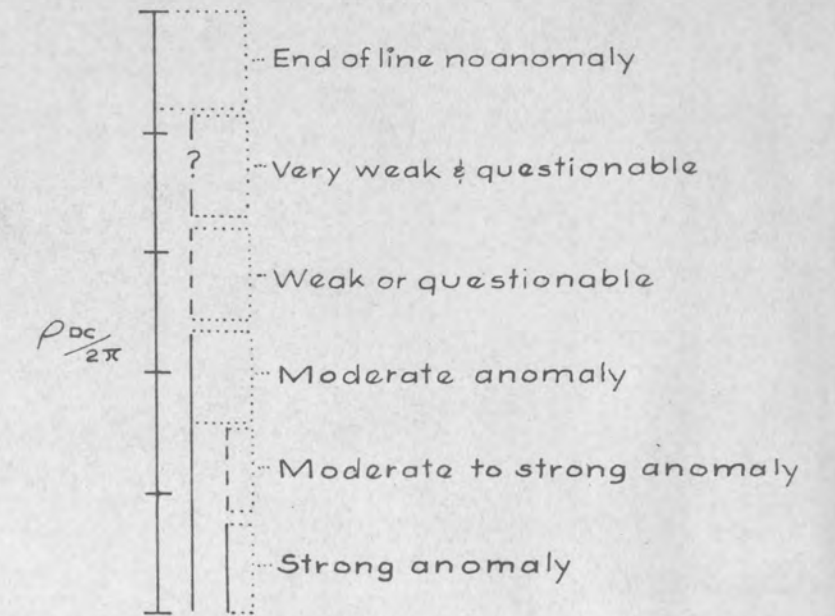
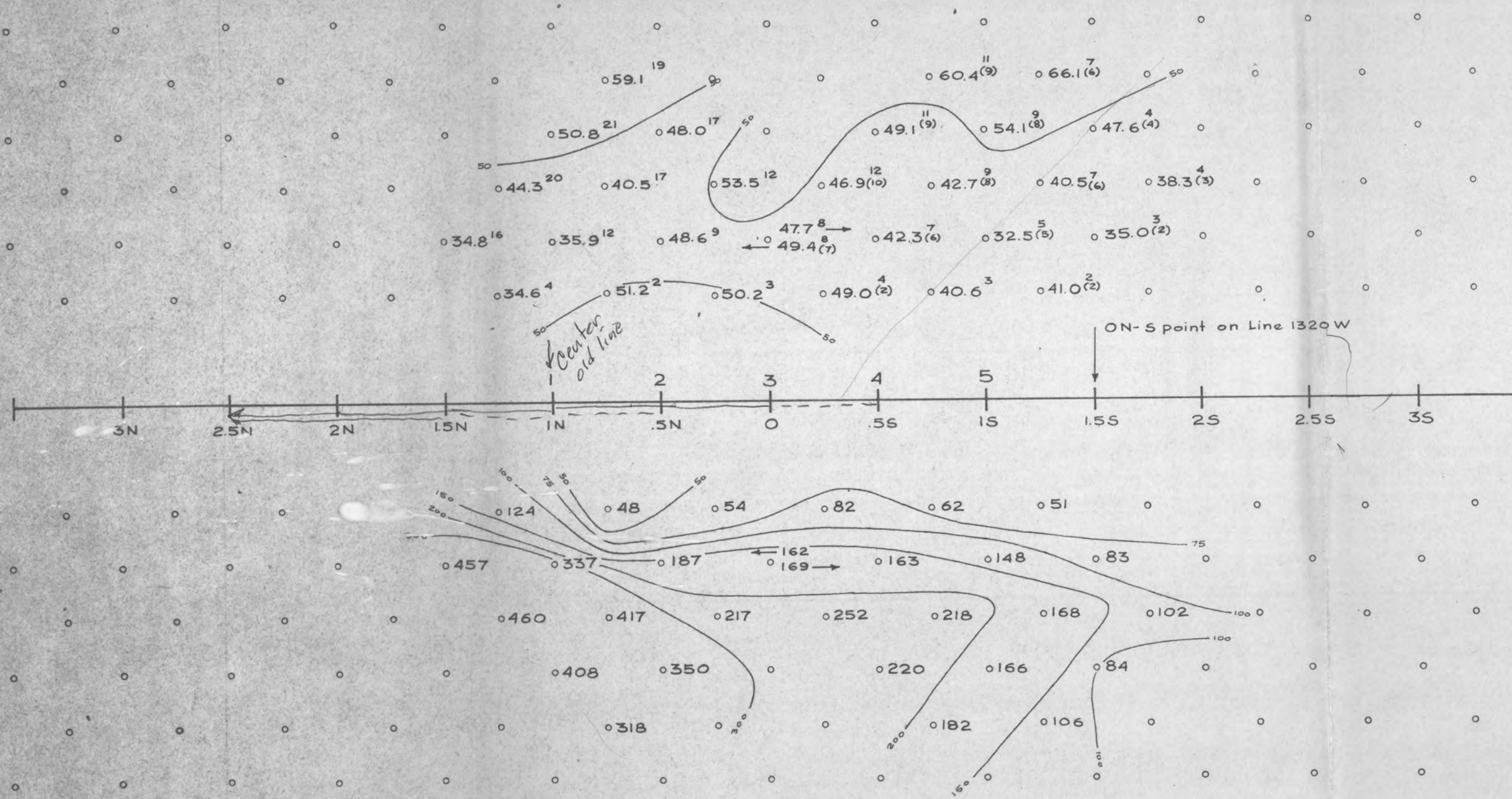
FAS:jh
encl: Muscho

Copy sent GRR-BOMC 17/Sept/62
INTERPRETATION LEGEND

Separation or Depth Point

Apparent Resistivity
(Ohm feet)
Superscript numbers
Indicate Percent Frequency Effect

Metallic Conduction Factor
(Apparent)



Contour interval: Logarithmic
() indicates questionable data
(7) data obtained by D.C. Null

Repeat using modified
Geoscience Null Receiver.

M.C.F.

Demetrie Wash Project
Pima County, Ariz.

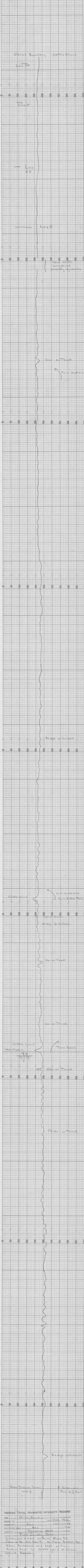
SECTIONAL DATA SHEET

Madden Gear Test

LINE No. 1320 W Repeat (approx. location only)

INDUCED POLARIZATION SURVEY
HEINRICHS GEOEXPLORATION CO.

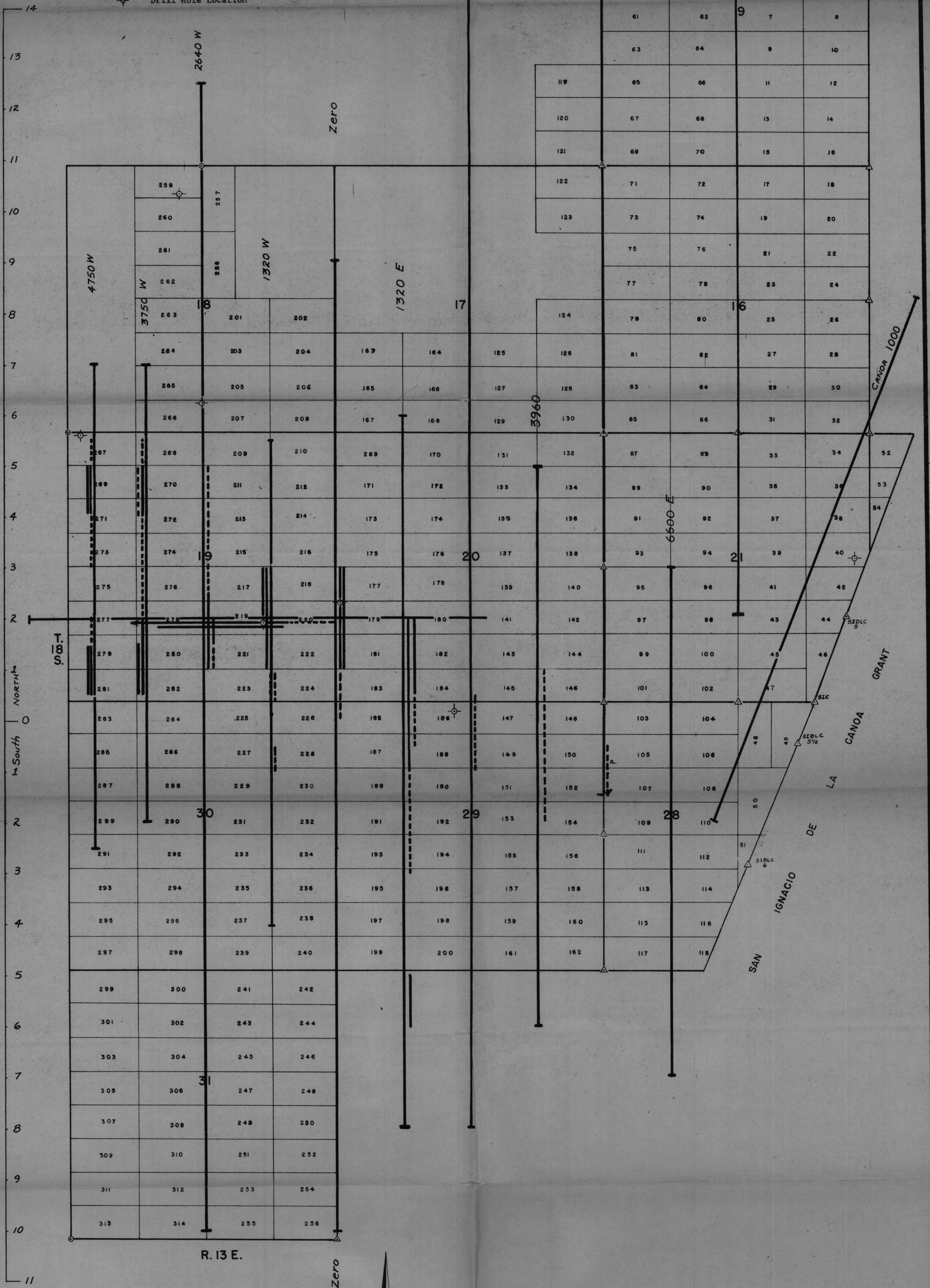
Scale 1"=500'
Date Sept. 1962



MOMAG TOTAL MAGNETIC INTENSITY RECORD
FOR: G. N. T. Inc.
RECORD NO. 2000 DATE Oct 1960
SENSITIVITY 2000 GAMMA/100 G.
HORIZONTAL SCALE 400 FT/MU
LOCATION Deming Wash
Southwest corner on Buval Mine Rd
from N 1/4 cor Sec 9 to Twin Butte Rd
then Southeast and East on Twin
Butte Road to Cattle Guard at Canada
Grand Boundary

EXPLANATION

- Indicates land survey monument other than U.S.B.L.M., origin shown if known
- △ Indicates inscribed rock U.S.B.L.M.
- Indicates magnetic traverse route
- Indicates Induced Polarization Survey
- ⊕ Drill Hole Location



INDUCED POLARIZATION INFORMATION

- End of line
No anomaly
I.P. Line
- Weak or questionable
Moderate
Anomaly
- Moderate to
Strong anomaly
- Strong anomaly
Anomaly continues
beyond last data
point

INDUCED POLARIZATION SURVEY TROY CLAIM GROUP

DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA
FOR

G. W. IRVIN

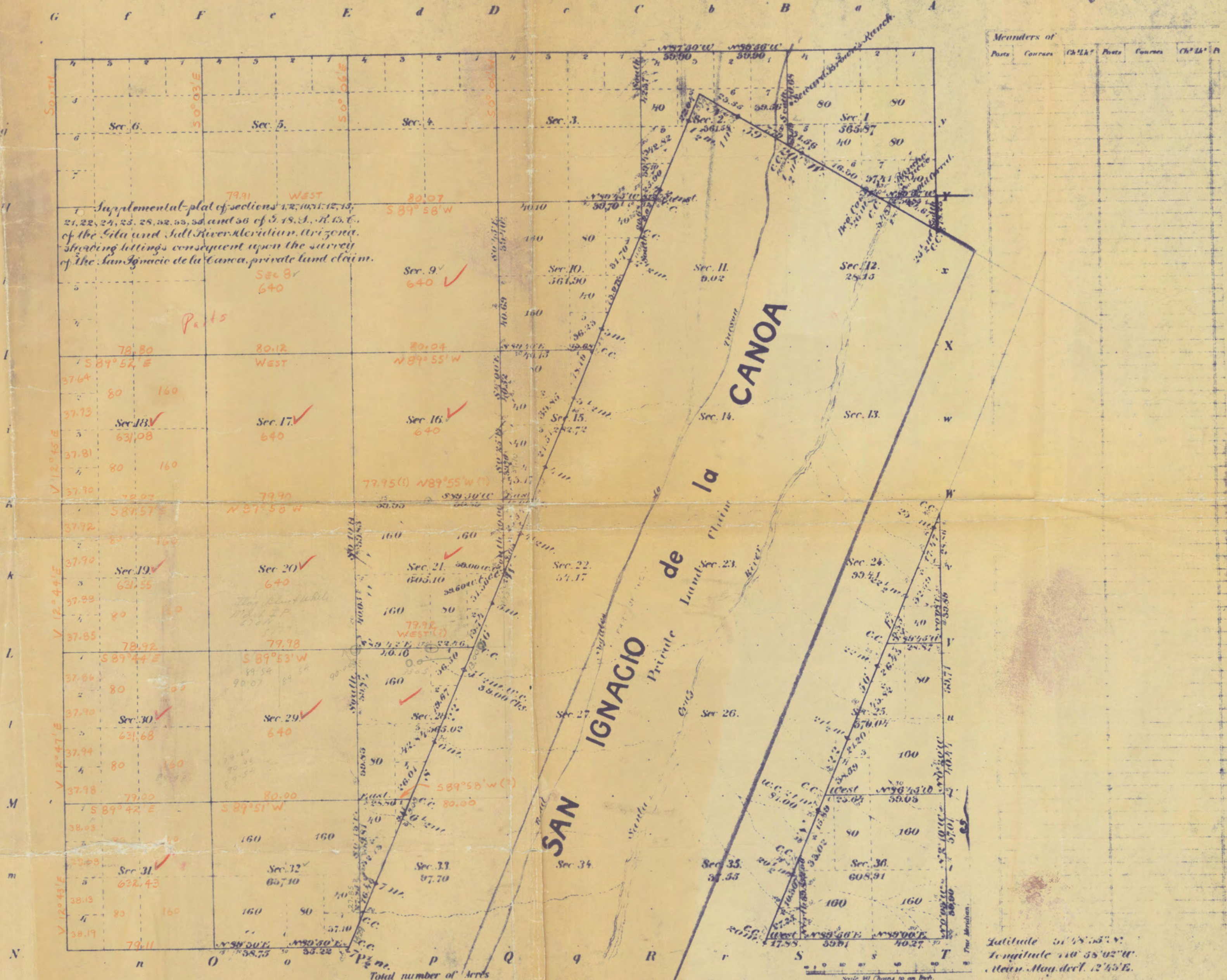
BY

HEINRICHS GEOEXPLORATION COMPANY
P.O. BOX 5671 TUCSON, ARIZONA
NOVEMBER, 1960

FIGURES IN ORANGE FROM SURVEY OF 1872
(S) INDICATES DISCREPANCIES

Approved by September 6, 1902, and ordered filed, Officially filed in Tucson and Office, March 16, 1902. 9-1-02

Township N° 18, South., Range N° 13, East, Gila and Salt River, Meridian, Arizona.



Survey Designated	By Whom Surveyed	Date of Contract	Amount of Survey	When Surveyed
Closing lines	Philip Centzen	October 23, 1901.	18 31 05	Jan. 6 to 17, 1902.
Connecting lines	" "	" " "	1 76 72	" " "
Great body.	" "	" 22, 1899.	11 06 61 1/2	June 18 to 30, 1900

The above supplemental plat of sections 1, 2, 10, 11, 12, 13, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, and 34 of Township N° 18, South., Range N° 13, East, Gila and Salt River, Meridian, Arizona is duly conformable to the field notes of the survey thereof on file in this Office, which have been examined and approved.

Surveyor General's Office.
Phoenix, Arizona, May 16, 1902.

King L. L. L.
Sur. Gen.



EXPLANATION

This map is a preliminary sketch map subject to final ground control surveying.

..... indicates magnetic traverse route

50' contour interval

Scale 1" = 1000'

OCTOBER, 1960

MAGNETIC SURVEY MAP (TOTAL INTENSITY)

DEMETRIE WASH AREA
T.18S., R.13E. Pima County
ARIZONA

for
G. W. IRVIN
by

HEINRICHS GEOEXPLORATION COMPANY
P. O. BOX 5671
TUCSON, ARIZONA

Traverse on Amex claim control

EXPLANATION

- Indicates lead-survey monument other than U.S.B.L.M., origin shown if known
- △ Indicates inscribed rock U.S.B.L.M.
- Indicates magnetic traverse route
- x-x- Indicates Induced Polarization Survey
- ⊕ Drill Hole Location

Copy of Map sent Geo Rodgers
17/Sept/62.

remains line 1320W (Along original claim line prior to resurvey)

142-016 Line # 1320W

5

4

3

2

1

0

1

2

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285

Duval Rd
Cattle guard
Near sec cor

7/8
18/17

Base #2

0 10 20 30 40 50 60 70 80 90 100

Bridge or Culvert

Section line 8/9

0 10 20 30 40 50 60 70 80 90 100

Bridge or Culvert

Bridge or Culvert

0 10 20 30 40 50 60 70 80 90 100

Line F

13/14
15/16

Base #1
9:30 AM

West

Base datum level
1000 X

MOMAG TOTAL MAGNETIC INTENSITY RECORD

FOR: G. W. Irwin

RECORD NO. DATE Oct 1960

SENSITIVITY 200 GAMMAS / 1/2 in B.D.

HORIZONTAL SCALE 400 FT./in

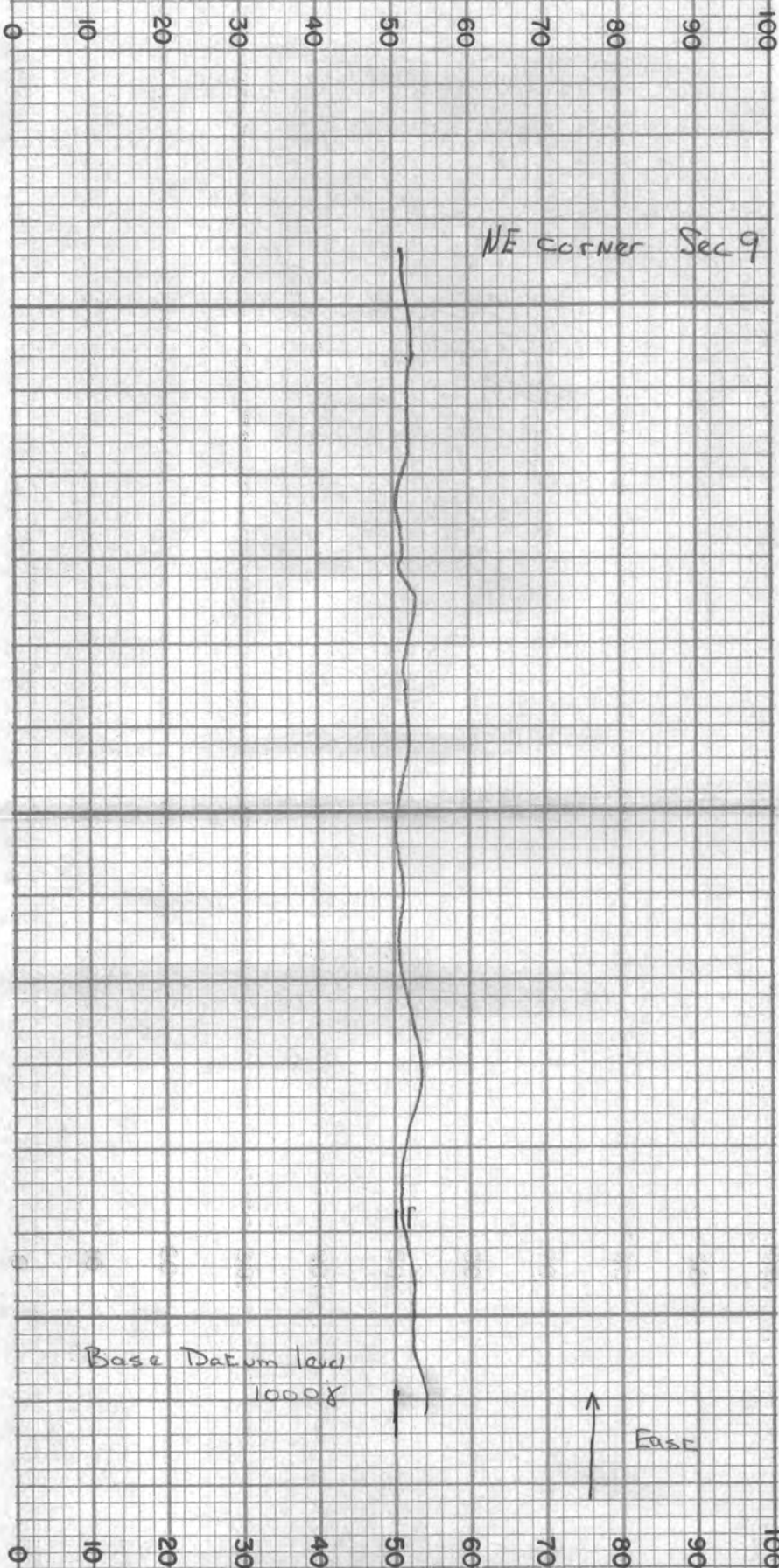
LOCATION Demetris Wash
Pima County Ariz

WEST end of Road from East section

Line of section 9, T18S, R13E. to

Cattle guard on Duval Road at about

section corner 7/8
18/17



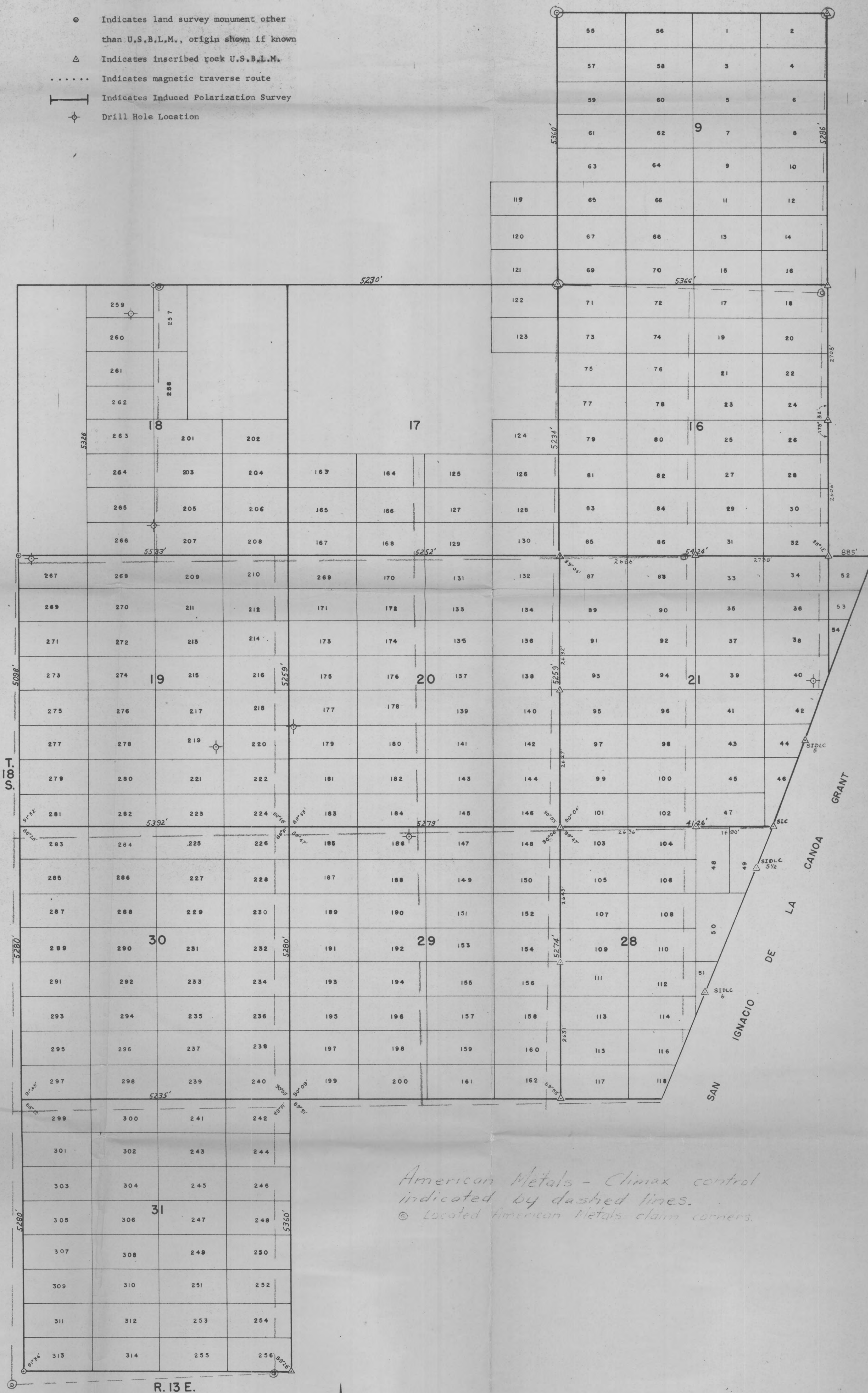
MOMAG TOTAL MAGNETIC INTENSITY RECORD

FOR: G W Irwin
 RECORD NO. 200 DATE Oct 1960
 SENSITIVITY 400 GAUSS / 1/2 in. S.D.
 HORIZONTAL SCALE 400 FT./IN.
 LOCATION Damascus Wash
Pima County Ariz

East along North Section line Section 9
 T185, R13E from Duval Road at about
 N 1/4 to Northeast corner of Sec 9

EXPLANATION

- Indicates land survey monument other than U.S.B.L.M., origin shown if known
- △ Indicates inscribed rock U.S.B.L.M.
- Indicates magnetic traverse route
- |— Indicates Induced Polarization Survey
- ⊕ Drill Hole Location



American Metals - Climax control indicated by dashed lines.
 © Located American Metals claim corners.

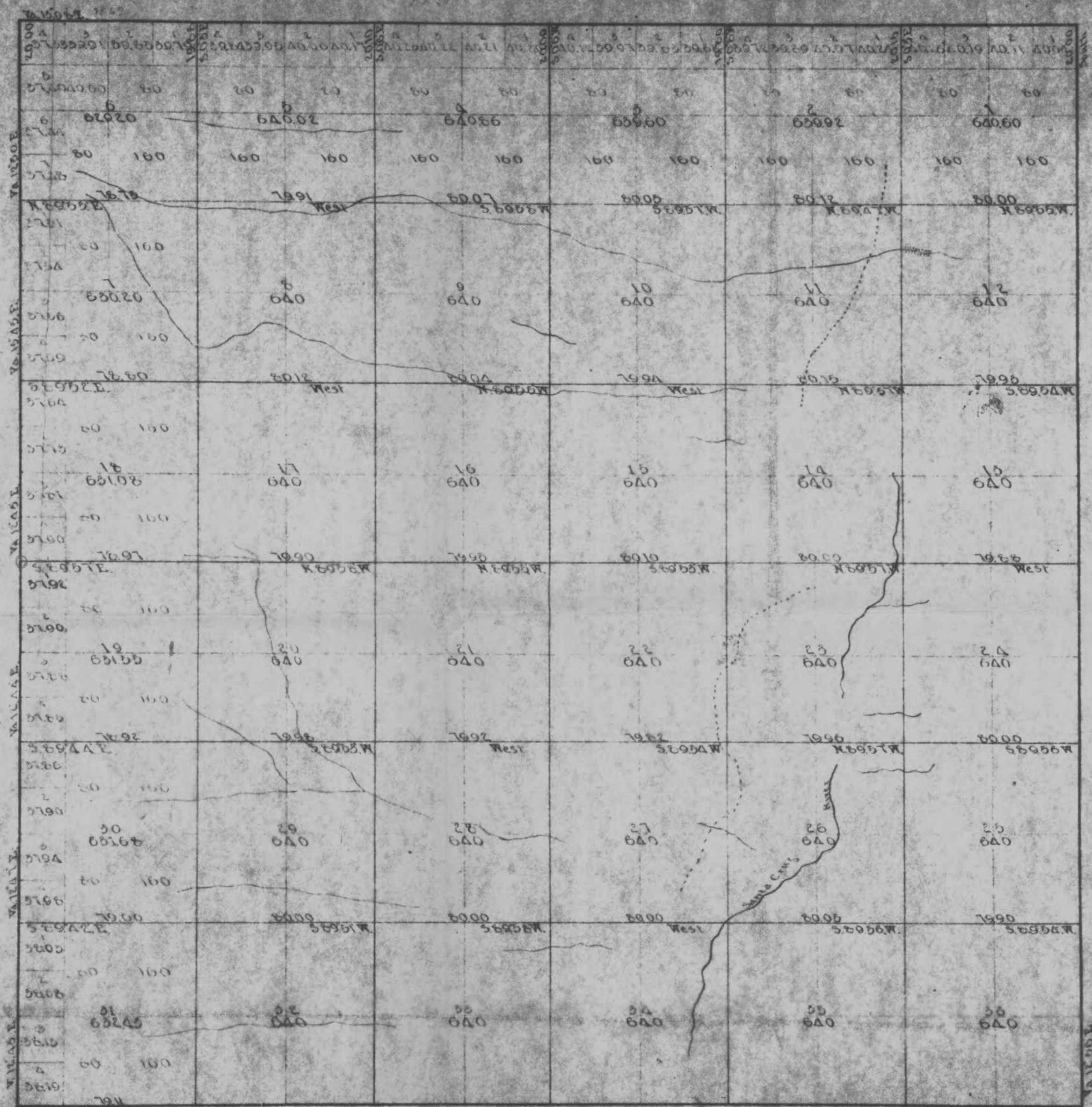
TRANSIT - STADIA SURVEY
 TROY CLAIM GROUP

DEMETRIE WASH PROJECT
 PIMA COUNTY, ARIZONA
 FOR

G. W. IRVIN
 BY

HEINRICHS GEOEXPLORATION COMPANY
 P.O. BOX 5671 TUCSON, ARIZONA
 NOVEMBER, 1960

TOWNSHIP N°. 18 SOUTH RANGE N°. 13 CILA AND SALT RIVER MERIDIAN



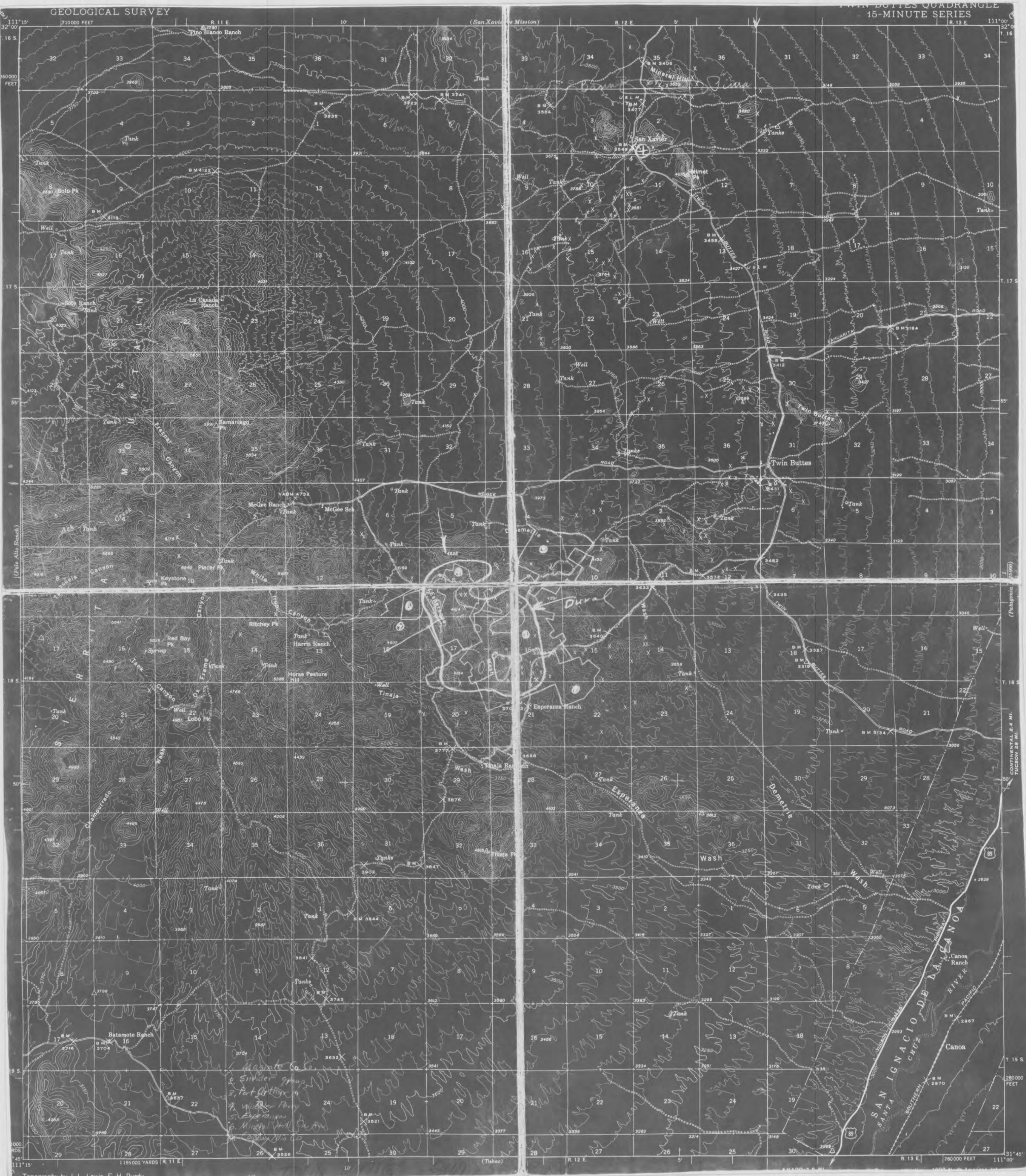
Sublines run at Va. 12.06 E.

Total number of Acres 22,957.14

Survey Designated	Date of Contract	Amount of Survey	When Surveyed	By Whom Surveyed
Township lines	Jan. 2, 1871	16. Chs. 00. 14.00	Jan. 20, 1871	W. H. Foxman
Subdivisions	Dec. 14, 1871	17. 77. 75	Dec. 18, 22, 1871	T. J. White
	Dec. 14, 1872	59. 74. 25	Feb. 14, 1873	T. J. White

The above Map of Township No. 18, South of Range and Salt River Meridian and Base line is strictly correct and the survey conducted on file in this Office which is approved.

Surveyor General's Office
Denver, August 10th, 1873



Sheel cliff - country very rough beyond
Post $\frac{295}{297} \frac{296}{298}$ outcrops here

Post + Fence $\frac{287}{289} \frac{288}{290}$

Post

Section line

Post

$\frac{279}{281} \frac{280}{282}$

Post

Post

Post

$\frac{267}{269} \frac{268}{270}$

Section Line + Fence corner

Base Datum level 1000 f

South from
Duvall Road

MOMAG TOTAL MAGNETIC INTENSITY RECORD

FOR: G W IRVIN

RECORD NO: Line A DATE: Oct 1960

SENSITIVITY: 200 G/100 S. I. S. D.

NO. OF READINGS: 400 FI./MI.

LOCATION: Demetria Wash

Pima County Arizona

South on line A from North
Section of section 18, 1320' East
of NW cor. of Sec 18 to south part
of section 30

This line poorly controlled

Section line fence

Sec. Sec 31

0 10 20 30 40 50 60 70 80 90 100

Post

gap for cliff

Large wash

Section line

31
30

0 10 20 30 40 50 60 70 80 90 100

outcrops
Volcanic rock

0 10 20 30 40 50 60 70 80 90 100

Fence

0 10 20 30 40 50 60 70 80 90 100

Section line

30
10

0 10 20 30 40 50 60 70 80 90 100

Section line

10
10

0 10 20 30 40 50 60 70 80 90 100

Post

0 10 20 30 40 50 60 70 80 90 100

Post

263 201
269 203

0 10 20 30 40 50 60 70 80 90 100

Post

0 10 20 30 40 50 60 70 80 90 100

Twin Buttes Road.

South

Base Datum
Level 1000 ft

MOMAG TOTAL MAGNETIC INTENSITY RECORD

FOR: G.W. Irvin

RECORD NO: Line 1A DATE October 1960

SENSITIVITY: 200 GAMMAS / 1/2 in S.D.

HORIZONTAL SCALE: 400 FT./in.

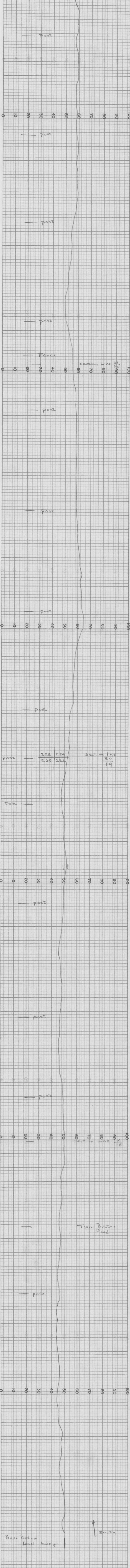
LOCATION: Bernieria Wash

Pinia County Ariz

South on Line 1A from North

cor of section 18 to the south

of section 31



MOMAG TOTAL MAGNETIC INTENSITY RECORD

FOR: G. W. Irwin

RECORD NO. Line B DATE _____

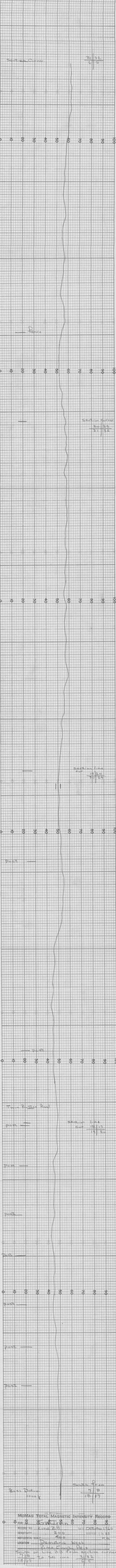
SENSITIVITY 200 GAMMAS $\frac{1}{3}$ in. S.D. _____

HORIZONTAL SCALE 400 FT./in. _____

LOCATION Demetria Wash

Pine County, Ariz

South on line B from north section line section 18, 1320' west of NE corner of section 18 to seven section line of section 3)



MOMAG TOTAL MAGNETIC INTENSITY RECORD

FOR: 200 400 600 800 1000

RECORD NO. Line 2B DATE October 1960

SENSITIVITY 200 GAMS/AS 1/2 in. S.D.

HORIZONTAL SCALE 400 FT./IN.

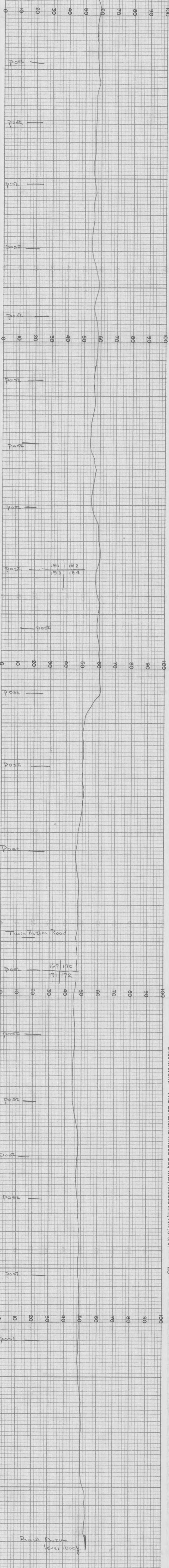
LOCATION Demetrie Wash

Prime County, Ark

South on Line 2B from section corner

7 1/2 18 17 31 32

18 17 6 5

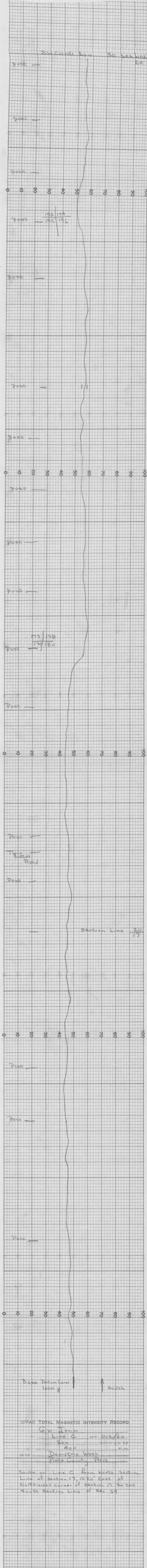


MEMAG TOTAL MAGNETIC INTENSITY RECORD

FOR: G.W. Irvin
RECORD NO. Line C DATE Oct/60
SENSITIVITY 200 GAUSS/IN. S.D.
HORIZONTAL SCALE 400 FT./IN.
LOCATION Demetrius Wash
Pima County Ariz

South on Line C from North section
Line of section 8 at 1320' East of
Northwest corner of sec 8 to the
South section Line of section 29.

This line also rerun the following
day as a validity check



OMAG TOTAL MAGNETIC INTENSITY RECORD

G.W. Irvin
Line C DATE Oct/62
200 CH 15/1 in S.D.
400 FI./In.
DAMEINE WASL
Pine County ARIZ

South on Line C from North Section
Line of section 17, 1320' East of
Northwest corner of section 17 to the
South Section Line of Sec 20

ES

No control coming down this
line South section line, section
29, 1300' west of Line D

0 10 20 30 40 50 60 70 80 90 100

0 10 20 30 40 50 60 70 80 90 100

THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A.

CHART NO. 17491X

0 10 20 30 40 50 60 70 80 90 100

Twin Buttes Rd.

0 10 20 30 40 50 60 70 80 90 100

MADE IN U.S.A.

THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A.

ES

0 10 20 30 40 50 60 70 80 90 100

Base datum level
1000 x

South from
N $\frac{1}{4}$ of sec 17

10MAG TOTAL MAGNETIC INTENSITY RECORD

FOR G.W. Irwin

RECORD NO. Line C DATE Oct 1960

SENSITIVITY 200 G/M. 10 H. 80

HORIZONTAL SCALE 400 F./M.

LOCATION Demetris Wash

Pima County, Ariz

South from N $\frac{1}{4}$ of section 17 to
the south $\frac{1}{4}$ of section 29

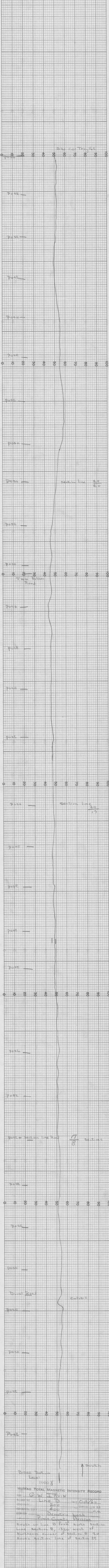
THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A. CHART NO. 17491X

MADE IN U.S.A. THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A.

ES

THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A. CHART NO. 17491X

MADE IN U.S.A. THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A.



MOMAG TOTAL MAGNETIC INTENSITY RECORD

FOR: G W TRIVIN

RECORD NO: Line D DATE: Oct/60

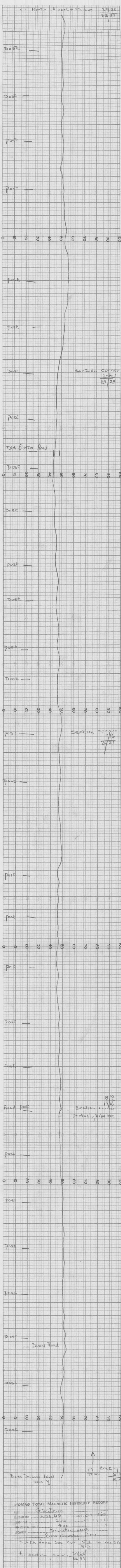
SENSITIVITY: 200 GAMES/IN S.D.

HORIZONTAL SCALE: 400 FT./IN.

LOCATION: Demetria Wash

Pima County Arizona

South on line D from North section line section 8, 1320' west of Northwest corner of section 8 to South section line of section 29



MOMAG TOTAL MAGNETIC INTENSITY RECORD

GW Irvin

END NO Line DD DATE Oct 1965
 ENS INVT 200 600.00
400 1.00

LOCATION: Demetris Wash
Pine County, Ariz

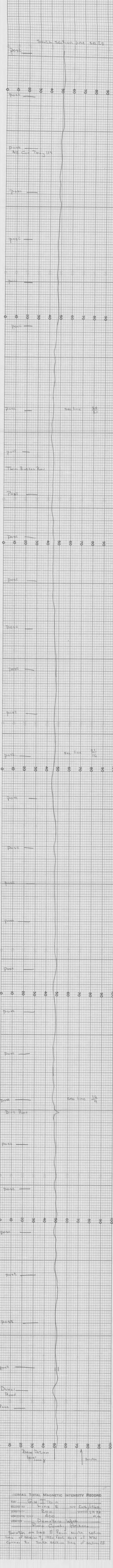
South from Sec cur $\frac{5/4}{8/9}$ on line

To Section Corner $\frac{29}{32} \frac{28}{33}$

MADE IN U. S. A. THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U. S. A.

CHART NO. 17491X

MADE IN U. S. A. THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U. S. A.



WOMAG TOTAL MAGNETIC INTENSITY RECORD

FOR: G.W. Frylin

RECORD NO.: Line E DATE: Oct. 1960

SENSITIVITY: 200 GAMMAS / IN. 1 IN. = 1 IN.

HORIZONTAL SCALE: 400 FT./IN.

LOCATION: Danville Wash

Pine County, Arizona

South on line E from North section line of section 9, 1320 feet east of NW corner to South section line of section 28

17491 X

MADE IN U.S.A. THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A.

MADE IN U.S.A.

THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A.

ES

MADE IN U.S.A.

THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A.

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THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A.

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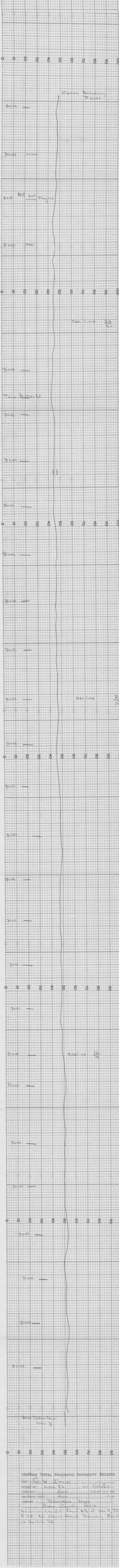
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THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A.

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MADE IN U.S.A.

THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A.



MOMAG TOTAL MAGNETIC INTENSITY RECORD

FOR C.W. Irwin
RECORD NO. Line Et DATE Oct/60
SENSITIVITY 200 GAMMAS 1/2 IN S.D.
HORIZONTAL SCALE 400 FT/M
LOCATION Demetria Wash
Pima County Ariz
South on line EE from NW 1/4 of sec 9, T18S
R 13E, to Canoe Grant Boundary Fence
in Section 28

Cameo Boundary Fence

ROSE

Ad-

so we

208

A blank grid for drawing a picture.

POSE

20

ITY RECO

FOR: G. W. Irvin
 REPORT NO. 1-1-E DATE Oct 1965

SENSITIVITY..... 200 CAM 1/25 in 1/25 in
HORIZONTAL SCALE..... 400 F₁ 1/25 in

Pima County Area

South on line F from north section
ie of section 9, 1320 ft west of NE

once in section 28

Fence in section 28

HEINRICHS GEOEXPLORATION COMPANY
MINERAL ENGINEERING CONSULTANTS AND CONTRACTORS
GEOPHYSICAL, GEOLOGICAL AND ECONOMIC APPRAISALS
TUCSON, ARIZONA

WALTER E. HEINRICHS, JR.
E. GROVER HEINRICHS

November 28, 1960

PHONE: MAIN 2-4202
806-808 WEST GRANT ROAD
MAIL: P. O. BOX 5671

Mr. G. W. Irvin
P. O. Box 595
Sahuarita, Arizona

Re: Demetrie Project, Pima County, Arizona
Phase II Induced Polarization Surveys

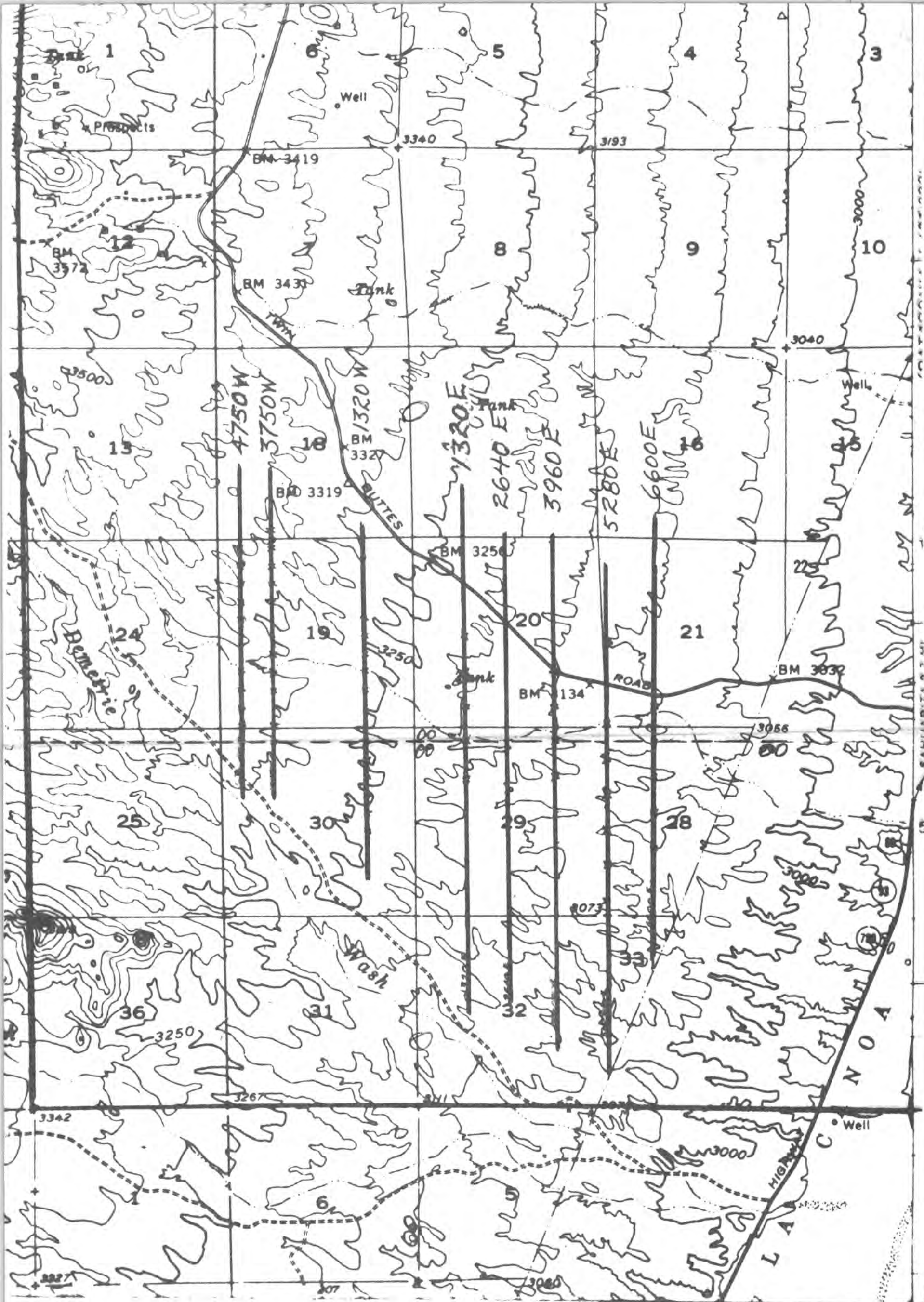
Gentlemen:

During the months of October and November 1960, Heinrichs Geoexploration Company, at your request, conducted Induced Polarization surveys which shall be referred to as Phase II, as supplemental to Phase I initial investigations previously reported upon. Phase II surveys were made on lines 1320E, 3960E, and 6600E using a 1000 ft. dipole spacing and on lines 1320W, 3750W and 4750W using a 500 ft. dipole spacing.

Attached to this letter are self explanatory interpretative maps of the combined Phase I and Phase II surveys. In general it can be stated that the data becomes less definitive to the south and east as the alluvial gravels become thicker. In this light the only attempt made to interpret data from line 6600E was to consider that gravels in this area were so thick that the anomalous metallic conduction factors and percent frequency effects due to gravels would mask any anomalies due primarily to disseminated sulfide mineralization. Anomalism on lines 3960E is considered questionable. The anomalism shown on line 1320E is interpreted as being due to disseminated sulfide mineralization as is that shown on lines 1320W, 3750W and 4750W.

In all, 24 crew days were spent in the field for which 16½ days were charged to your account. The other 7½ days were involved in repeat work in areas where original data obtained was questionable, equipment malfunctions etc. and were not charged for.

Summarized below is cost data relating to this project:



DEMETRIE WASH

PIMA COUNTY, ARIZ.

IP LINES

SCALE 2"=1 MI

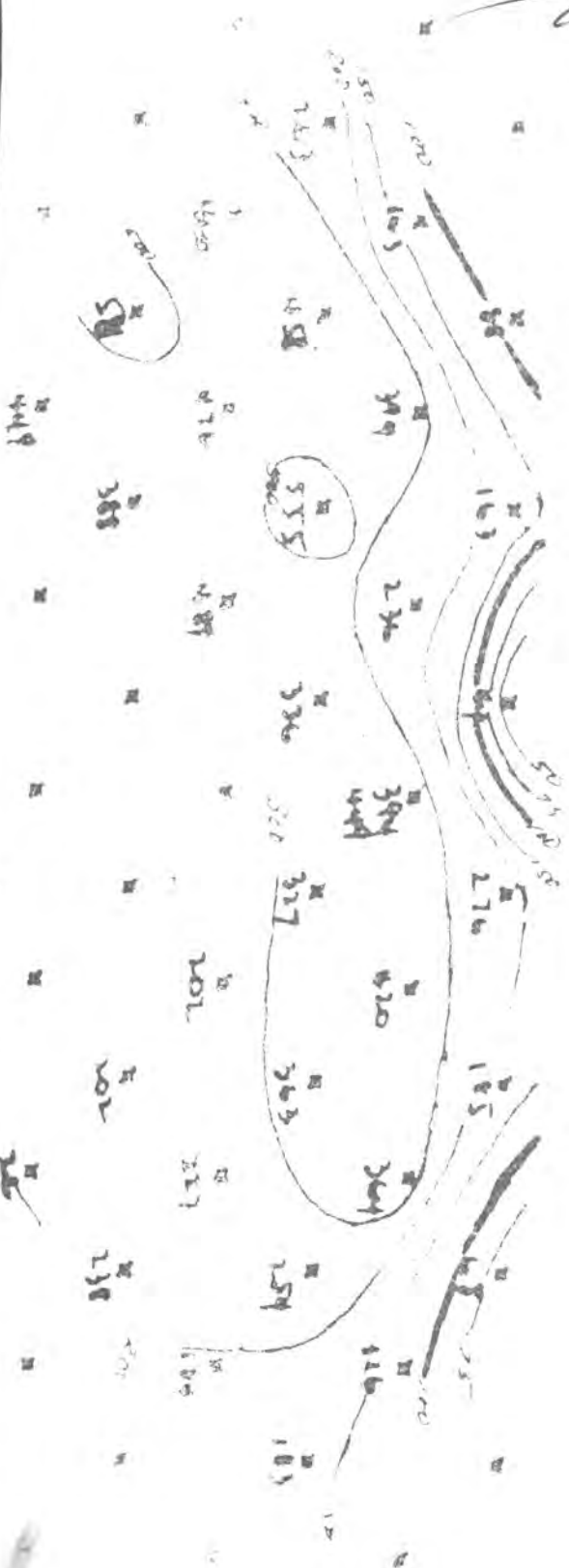
DRAWN BY TLM

DATE 10/4/85

Benford's Law



27 Total self Vol

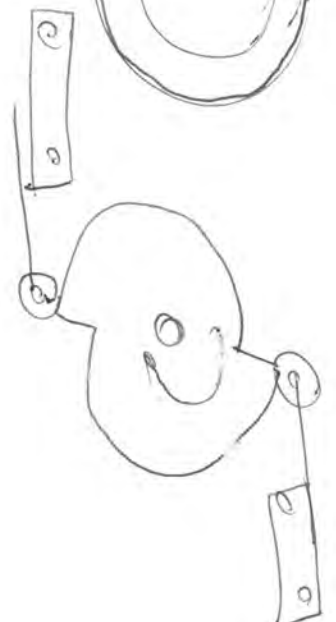
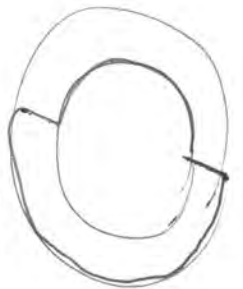
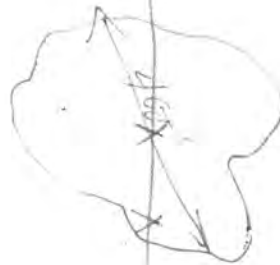
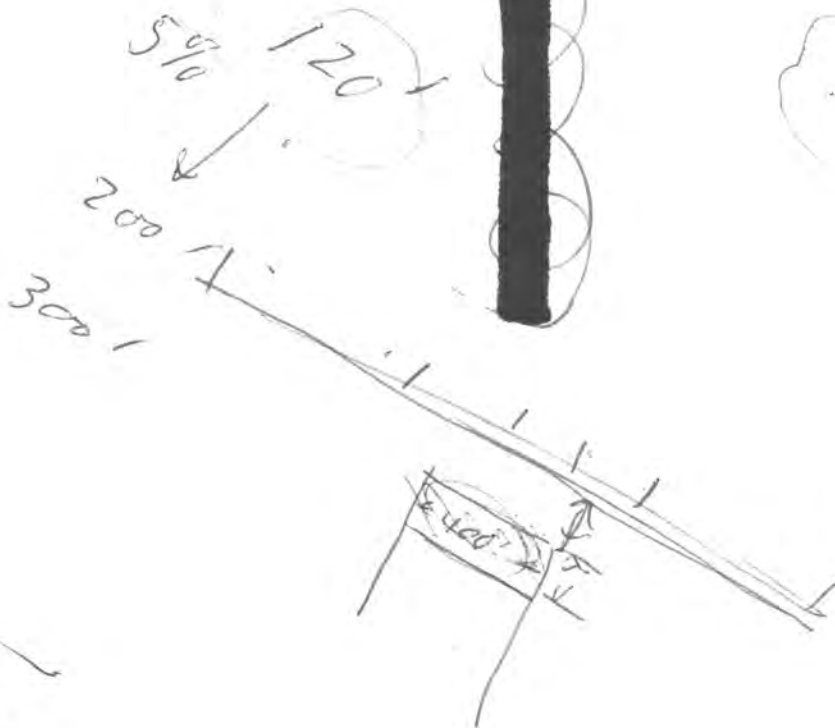
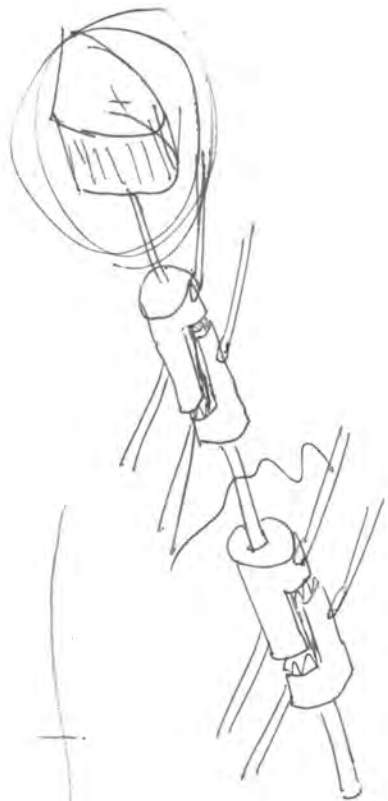


1917

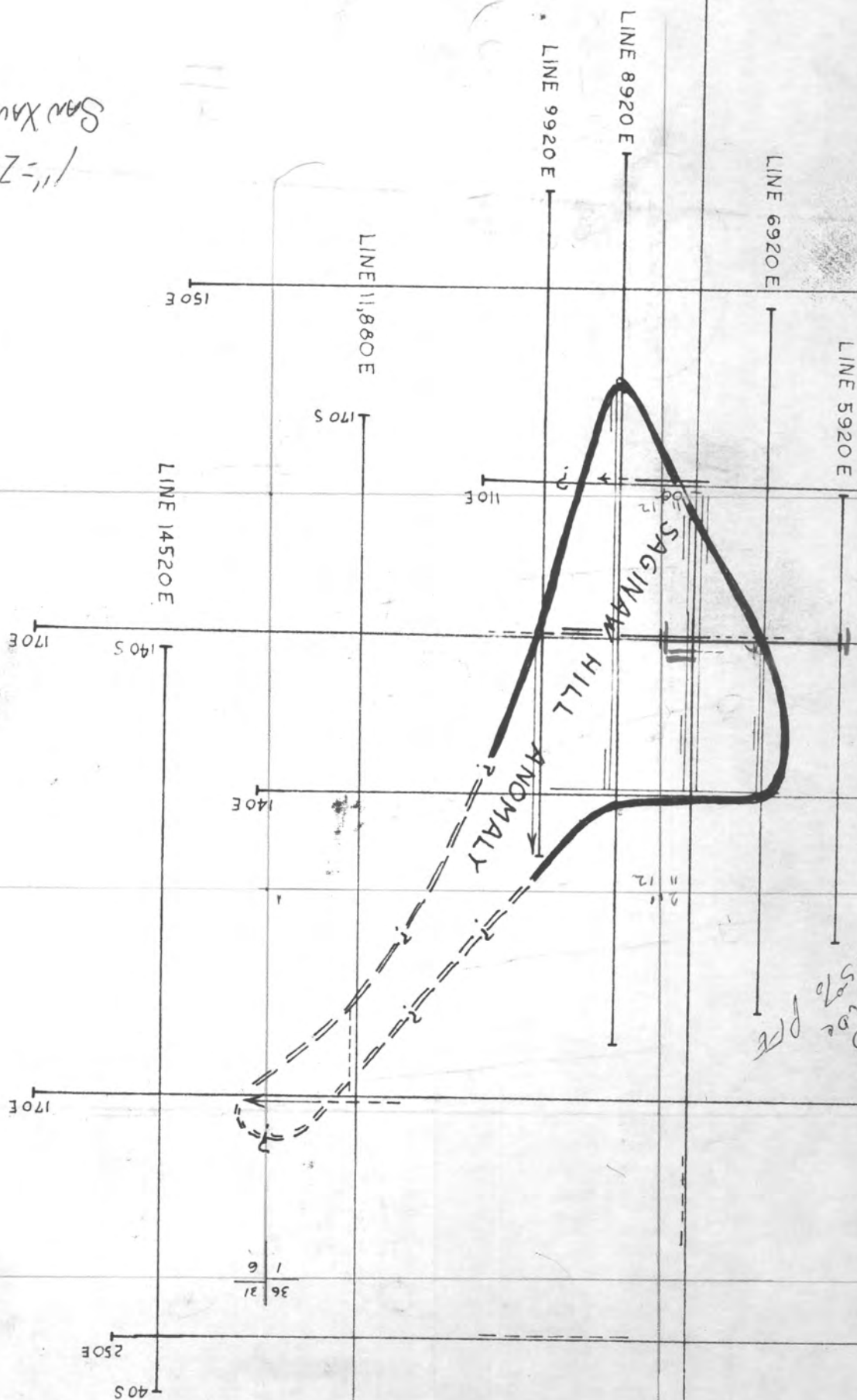
五、

$$\% \text{Salt} = \frac{MS - 10}{10}$$

10,000
2000



San Xavier (und)
1"=2000'



Linear

Res 0-8
Cap 0-8
Ind 0-8

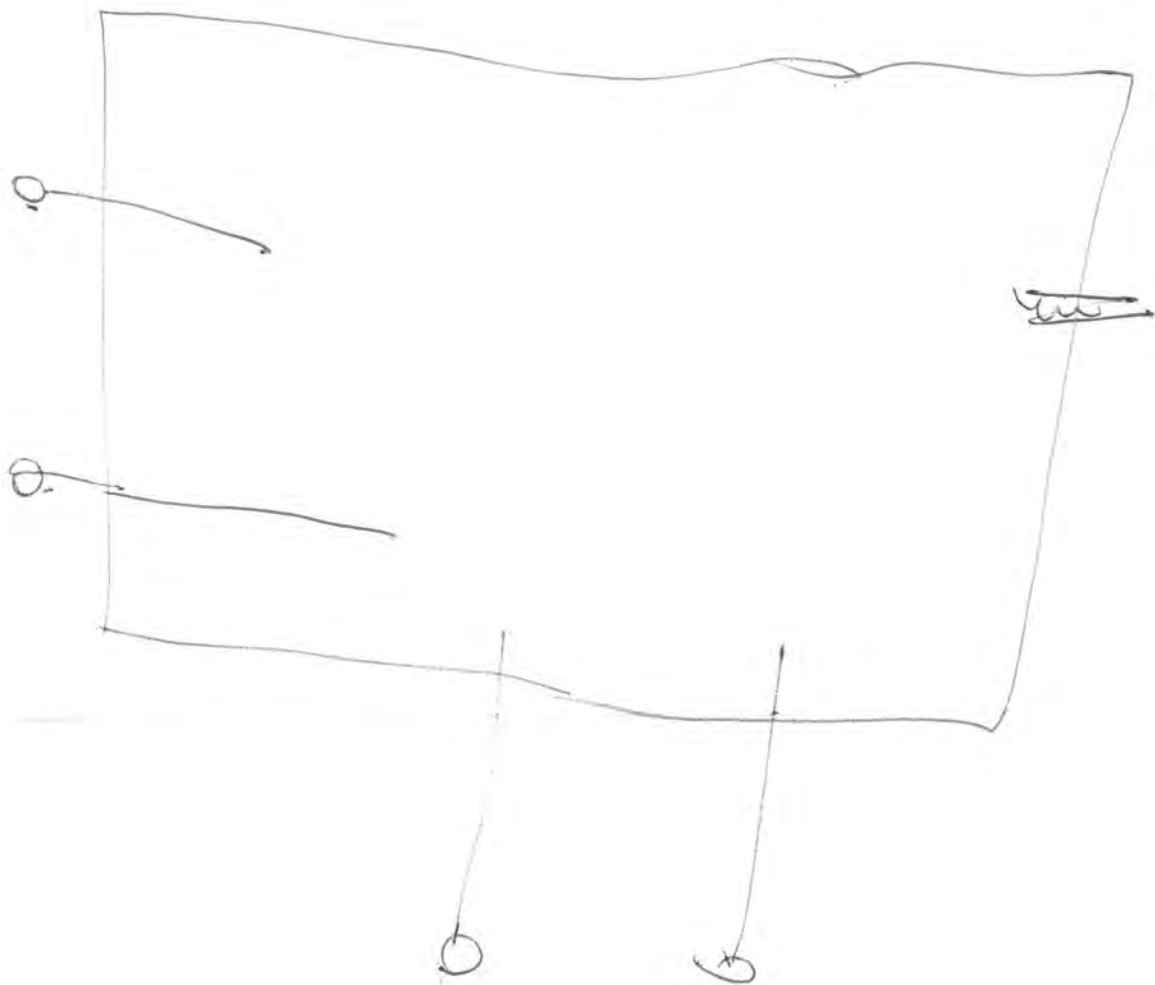
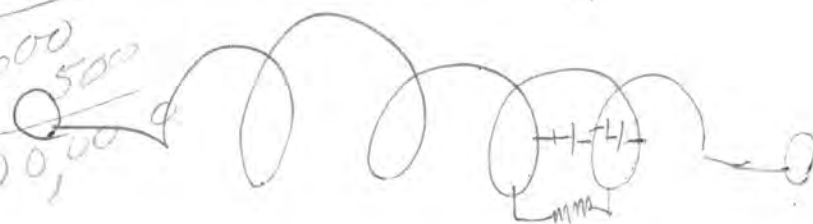
C_1
↓
||
||

C_2
↓

P_1
↓

P_2
↓

2000
13
\$6000
500
300,000



BEAR CREEK MINING COMPANY

SOUTHWEST DISTRICT

2601 NORTH FIRST AVENUE

TUCSON, ARIZONA

MAIN 4-5547

October 3, 1960

Mr. E. Grover Heinrichs
Heinrichs Geoexploration Company
808 West Grant Road
Tucson, Arizona

Dear Grover:

I have attempted to outline a guide as to where I think that I. P. work should be done. Much of the work will be dependent upon results obtained. Following is the order in which I think that work should be done.

1000 foot dipoles

Line 1320 E--as shown--another setup to the south if the first setup is anomalous and open to the south.

Line 3960 E--as 1320 E.

Line 6600 E--as 1320 E if 3960 E is anomalous.

Line 5280 E--as 6600 E.

Line 2040 E--as 1320 E if 1320 E is anomalous.

500 foot dipoles

Line 1320 W

Line 2750 W

Line 3750 W

You will note that I have picked a 00-00 point. This point is 32,000 feet south and 15,840 feet east of our origin but in using

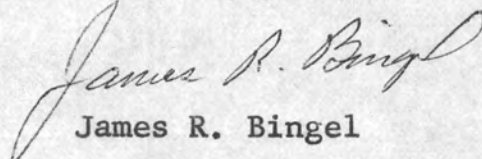
Mr. E. Grover Heinrichs
page two

October 3, 1960

it this way it will appear as an independent survey and still be easily incorporated with our survey.

This, of course, is meant only as a preliminary guide and will have to be revised as the incoming data dictates.

Sincerely,


James R. Bingel

cc: G. R. Rogers (with encls.)
J. L. Clark (with encls.)

September 16, 1960

Mr. Tom Walthier, Manager
Southwestern Division
Bear Creek Mining Company
2601 N. 1st Avenue
Tucson, Arizona

Re: Demetrie Wash Project
Pima County, Arizona

Dear Tom:

Pursuant to our conversations of last Friday afternoon, September 9, 1960 in the company of Jackson Clark, Al Haworth, Jim Bingle and Tom Nye, the following is proposed:

1. Magnetic Survey

Heinrichs Geoexploration Co. will furnish a total intensity continuous recording truck mounted magnetometer with one operator and one assistant. The project will include a complete total intensity magnetic map in contour form showing the traverse routes and relative magnetic variations obtained.

The area to be surveyed will consist of the following sections all in T 18 S, R 13 E, Pima County Arizona:

Sections 8 (E $\frac{1}{2}$ SE $\frac{1}{2}$ only), 9, 16, 17, 18 (except for W $\frac{1}{2}$ of W $\frac{1}{2}$), 19, 20, 21, 22 (Part outside Canoa Land Grant only), 28 (Part outside Canoa Land Grant only), 29, 30, 31.

The lines will be at approximate intervals of 1/4 mile spacings (1320') and it is estimated that a total of fifty (50) miles of traverse is involved to cover the area as outlined.

It is estimated that a minimum of five (5) field operating days will be required to complete the field work and five (5) office days, subsequent to the field work, to complete the entire magnetic survey.

GEOEX charges will be at the rate of \$280.00 per field operating day, including expenses, and office work subsequent to the field work. Any breakdowns will not be charged to Bear Creek.

Total estimate for Magnetic Survey: \$1400.00.

Currently our Momag unit may be available on one week's notice or at present, on or about September 26, 1960.

September 16, 1960

2. Induced Polarization Survey

Heinrichs Geoexploration Co. will furnish a four (4) man I. P. crew and necessary instruments and equipment to conduct an I.P. survey in the Demetrie Wash Project Area as outlined in the paragraph designated 1 above. The precise location and line spacing and dipole setting shall be as designated by a Bear Creek representative.

All transportation, materials and supplies will be furnished by GEOEX at rates as outlined below.

Upon completion of the field work, GEOEX will deliver to Bear Creek all field notes and contoured plots of resistivity and metallic conduction factors according to Bear Creek's standard practice.

GEOEX charges for the I.P. survey will be at the rate of \$225.00 per operating field day plus vehicular charges of \$7.50 per day and \$0.10 per mile plus expenses for materials and supplies. Office compilation and computation charges are \$80.00 per day.

Because it is unknown at present how many miles of traverse is contemplated at this time, no attempt will be made to estimate the total expenditure involved.

At present, it is expected that an I.P. crew will be available after September 22, 1960.

It is understood by GEOEX that this project is of a confidential nature and all care will be taken to fulfill this obligation.

If you have any further questions regarding the above, please let us know.

Very truly yours,

HEINRICHS GEOEXPLORATION CO.

E. Grover Heinrichs
Vice President & Field Manager

EGH: jh

September 9, 1960

Mr. Jackson Clark
Bear Creek Mining Company
2601 North 1st Avenue
Tucson, Arizona

Re: Demetrie Wash Project
Pima County, Arizona

Dear Jack:

Pursuant to our discussions of ~~6~~ September 1960, in your office, Heinrichs GEOEXploration Company will furnish to Bear Creek Mining Company, a survey team consisting of a qualified instrument man and two assistants and all the essential equipment and transportation necessary to complete the following assignment:

1) To survey the outside boundaries of the Demetrie Wash Claim Group which will consist of the following described Sections, all in T18S, R13E:

West, South & East Boundary Sec. 31

South Boundary Sec. 29

South Boundary to Canoa Land Grant boundary Sec. 28

East Boundary Sec. 28 parallel Canoa Land Grant Boundary.

East Boundary Sec. 21 " " " "

East Boundary Sec. 22 " " " "

North Boundary Sec. 22 West from " " " "

East Boundary Sec. 16

East & North Boundary Sec. 9

North 3300 ft. of East boundary; West 1320 ft.; South 1980 ft. to South boundary of Sec. 8. At point 1320 ft. West of NE corner Sec. 17; South 1320 ft.; East 660 ft.; South 1320 ft. West 4620 ft. to East line Sec. 18; West 1320 ft.; North 2640 ft.; to North line Sec. 18; West 2640 ft.; South 5280 ft. to North line Sec. 19; West 1320 ft. to NW corner Sec. 19; South 5280 ft. to NW corner Sec. 30; South 5280 Ft. to NW corner of Sec. 31.

2) Set corner and end center posts in the following sections all in T18S, R13E: Sec. 19, Sec. 21, Sec. 31, a part of Sec. 22 in NW $\frac{1}{4}$. Examine Sec. 21 & 28 to see if corner posts are in; if not in set corner & end center posts Section 21 & 28.

Mr. Jackson Clark

- 2 -

September 9, 1960

3) Resurvey Section 29 and set corner and end center posts.

This survey consists of approximately 32 linear miles and it is estimated that 32 working (field) days will be required to complete this survey.

The survey will be conducted with a transit and stadia rod to an accuracy of 10 ft. horizontal distance error per mile and all claims will conform to the lay out of Bear Creek's Demetrie Wash sketch map dated 18 August 1960 and will be 660 ft. wide by 1320 ft. long except where odd lots are involved, then the claim measurement will be as indicated on the final map.

All posts will be 4" x 4", marked with a white vertical stripe on all four sides.

The following rates will apply:

\$125.00 per day---3 man survey crew,

Vehicle expenses of \$0.10 per mile plus \$7.50 per day.

Plus materials and supplies necessary.

It is anticipated that our crew will be available on or about 14 September 1960.

If you have any questions regarding the above, please let me know.

Very truly yours,

HEINRICHS GEOEXPLORATION COMPANY

E. Grover Heinrichs
Vice-President

EGH: jh

EXPLANATION

- Indicates land survey monument other than U.S.B.L.M., origin shown if known
- △ Indicates inscribed rock U.S.B.L.M.
- Indicates magnetic traverse route
- Indicates Induced Polarization Survey
- ⊕ Drill Hole Location

T. 18 S.

R. 13 E.



0 0 10 20 30 40

SCALE IN HUNDREDS OF FEET
CONTOUR INTERVAL 50 ft

TOTAL INTENSITY BY MOBILE MAGNETOMETER

MAGNETIC SURVEY
TROY CLAIM GROUP

DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA
FOR

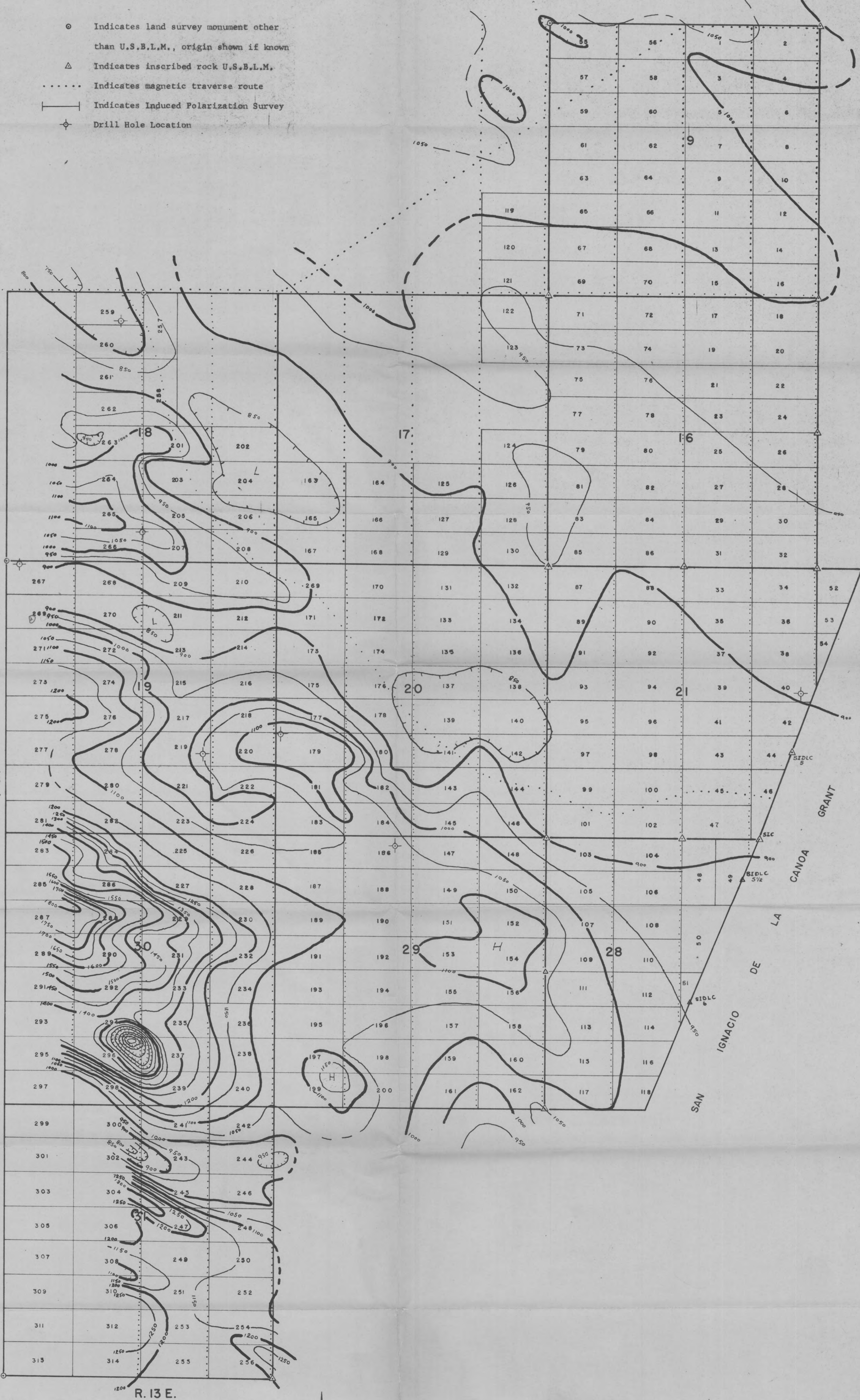
G. W. IRVIN

BY

HEINRICHS GEOEXPLORATION COMPANY

P.O. BOX 5671 TUCSON, ARIZONA

NOVEMBER, 1960



AGREEMENT

THIS AGREEMENT, made and entered into this 14th day of September, 1960, by and between G. W. Irvin, hereinafter referred to as "Owner", and Heinrichs Geoexploration Company, hereinafter referred to as "Contractor".

W I T N E S S E T H:

WHEREAS, Owner is the locator of certain mining claims in the Twin Buttes Area, Pima County, Arizona, and

WHEREAS, Owner desires certain work to be done thereon consisting of claim staking with limited survey control, and

WHEREAS, the parties hereto have by discussion of September 13, agreed upon the terms and conditions governing the performance of said work and payment therefor, and

WHEREAS, the parties desire to set forth in writing their understanding in regard thereto;

NOW, THEREFORE, for and in consideration of the work to be done and performed by Contractor and payment to be made by Owner, and the mutual promises and agreements of the parties as hereinafter set forth, it is agreed as follows:

A. Contractor will disclose no information whatsoever to anyone regarding this property or the work done hereunder without the prior written consent of Owner.

B. Contractor will supply all personnel including adequate and able survey and claim staking crews to do the work required with prescribed accuracy and greatest possible speed. Contractor agrees to begin work herein described as soon as possible and diligently execute the same.

C. Contractor will furnish all transportation facilities and all supplies whatever, at his expense, as required in this work.

It is agreed between Contractor and Owner that the majority of claim posts required are on the area described and will be properly positioned by the Contractor. Additional posts required for described work will be furnished by Contractor. Such additional posts will be marked with white vertical lines on each side.

D. Contractor and Owner agree that work described as ¹⁵ *SH* the fully staking of mining claims by legal subdivision over the entire area below described and progressing in the listed order beginning at the Land Office monument existing at the northwestern corner of Section 19, T18S, R13E, Twin Buttes Area, Pima County, Arizona, and all within T18S, R13E, GSR&MS.

- a. All of Section 19
- b. All of Section 30
- c. All of Section 31
- d. All of Section 20
- e. All of Section 29
- f. All of Section 28 lying west of the Canoa land grant
- g. All of Section 21 lying west of the Canoa land grant
- h. All of Section 22 lying west of the Canoa land grant
- i. All of Section 18 excluding the west $\frac{1}{2}$ of the west $\frac{1}{2}$ and excluding the east $\frac{1}{2}$ of the NE $\frac{1}{4}$
& The E $\frac{1}{2}$ of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ & E $\frac{1}{2}$ of the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$
- j. All of Section 17 east of or south of the following: *SH*

Beginning at the NE corner of Section 17, thence westerly on section line 1320 feet; thence southerly 1320 feet; thence easterly 1320 feet; thence southerly 1320 feet; thence westerly 1320 feet; thence southerly 660 feet; thence westerly 3960 feet to West line Section 17 at a point 1980 feet north of the SW corner Section 17

- k. All of Section 16
- l. All of Section 9
- m. That portion of the SE $\frac{1}{4}$ of Section 8 lying south of a line as follows: Beginning at northeast corner of Section 8, thence southerly 3300 feet on Section line between Section 8 and section 9; thence westerly 1320 feet; thence southerly approximately 1980 feet to the section boundary common to Section 8 and Section 17

E. Contractor will stake all claims by legal subdivision at as near the true described position as possible ^{is 15 284} by use of the limited existing land survey section corners and by use of available Land Survey map distances and bearings.

Contractor agrees that horizontal distance error in claim location should be less than ten (10) feet per mile by use of Land Survey map distances to check field taping.

Those portions of Sections 21, 22, and 28 wherein the eastern boundary will be the CANOA LAND GRANT or CANOA RANCH and wherein claims may be composed of lots shall be determined and covered as legal claims by contractor.

F. In addition to above described claim staking, Contractor agrees to furnish a twelve-man crew on above described land at 9:00 a.m. September 27, 1960, fully prepared to properly place claim location notices on all above described ground. Such posting starting with the northwest claims of Section 19, and proceeding in the same manner as described for claim staking will

be carried to completion as rapidly as possible. It is agreed that time involved for posting location notices will be about four hours.

G. Contractor on completion of above described work will supply Owner with a sketch map which may be a copy of the Demetrie Wash sketch map with all claims, claim fractions and claim names properly noted thereon.

H. The following charges are agreed to for the described work:

The claim survey and staking crew will be furnished by Contractor and will be as a charge to Owner at the rate of \$125.00 per three-man (3-man) crew for each eight-hour shift worked, or prorated if less than a three-man crew is involved. The number of men involved shall be at the discretion of Contractor.

Owner will pay Contractor vehicle expense of:

Repair expense of \$7.50 per day per field shift worked,

Service charge of \$0.10 per mile on the job.

Owner will reimburse Contractor for all posts and other materials required and used up in above described work, to the extent of Contractors cost.

Owner will pay one full eight-hour shift rate, as above defined to each crew member involved in claim posting work as described under Section F above.

I. Contractor will issue billing to G. W. Irvin for all work done by the twenty-fifth of the month in which work is performed. Contractor will be reimbursed by G. W. Irvin by the fifteenth day of month following billing.

Contractor agrees to indemnify and hold harmless Owner, G. W. Irvin, his successors and assigns from any claims, expenses, losses, damages, or liability by reason of, or arising

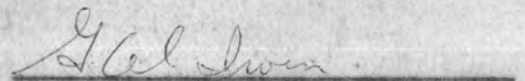
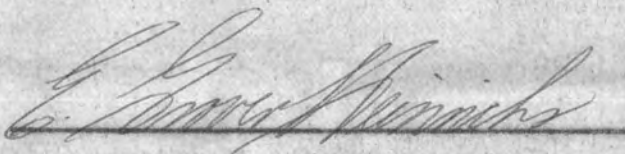
from, performance by Contractors or Contractors employees, agents, or sub-contractors, of the work described in said agreement.

Contractor agrees to the following:

1. Any taxes of any nature arising out of or in connection with the work, including sales and use taxes and contributions required under any Federal or State unemployment compensation law or social security law will be assumed and paid by Contractor.
2. Contractor represent that any insurance of any nature required in connection with the work to be done either is now in force or will be in force prior to the time the work is started and specifically that Contractor has complied and will continue to comply with the Workmen's Compensation and Occupational Disease disability laws of the State of Arizona.
3. Contractor agrees to submit with this contract evidence of the following insurance:
 - (a) Statutory Workmen's Compensation and/or Employers Liability insurance covering accidental injury or occupational disease (including death) sustained by employees during employment.
 - (b) Comprehensive automobile liability insurance with bodily injury limits of \$50,000.00 each person and \$100,000.00 each accident, and a property damage limit of \$100,000.00.
 - (c) Comprehensive public liability insurance including contractual liability coverage with bodily injury limits of \$50,000.00 each person, and \$100,000.00 each accident, and property damage limits of \$100,000.00 each accident.

HEINRICHS GEOEXPLORATION COMPANY

G. W. IRVIN



bodily injury limits of \$50,000 each person and \$100,000 each accident, and with a property damage limit of \$5,000.

(c) Comprehensive Public Liability Insurance, including Protective and Contractual Liability coverages, with bodily injury limits of \$50,000 each person and \$100,000 each accident, and property damage limits of \$25,000 each accident, and \$25,000 aggregate operations. Any exclusion of so-called (1) underground damage to pipes and (2) collapse of structures, and (3) damage resulting from explosion or blasting, shall be deleted.

Immediately after award of this Agreement and before

commencement of work hereunder, Contractor shall furnish Owner with certificates of insurance or certified copies of insurance policies, satisfactory to Owner, referring to the aforementioned insurance and setting forth, in substance, that if any policy is cancelled at Contractor's request, or at that of the insurance company, or changed in any manner during the period of coverage, 15 days prior written notice will be given by the insurance company to the Owner, G. W. Irvin, P. O. Box 595, Sahuarita, Arizona.

All such certificates of insurance or certified copies of insurance policies shall be endorsed to cover work defined in this Agreement.

In the furtherance of the provisions of this Agreement, Contractor shall fully comply with the Workmen's Compensation Laws of the State of Arizona and failure to comply with such laws and/or carry and maintain the foregoing insurance during the life of this Agreement shall constitute sufficient grounds for the immediate cancellation and/or suspension of the Agreement by Owner, pending the compliance by Contractor with the provisions of this Agreement.

The foregoing is agreed to this 3rd day of Oct.

1960.

E. J. H. H. H. H.
HEINRICH'S GEOEXPLORATION CO.

G. W. Irvin
G. W. IRVIN

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1 program shall follow the outline made a part hereof as Attachment
2 A, but Owner or his agent may, from time to time, designate the
3 precise location and scope of work to be done.

4 C. Contractor will furnish for above work; an able and
5 properly skilled four-man crew at all times, all supervision, all
6 materials supplies and equipment whatever to perform such work.

7 D. Contractor will furnish all transportation facilities
8 required for described work. This is understood to comprise one
9 jeep for regular field operations and one jeep used in occasional
10 supervisory trips to the area.

11 E. Contractor will commence work on or about October 6,
12 1960, and shall diligently execute the same until such time as
13 Owner shall notify Contractor to cease operations.

14 F. Contractor, upon completion of the work described
15 herein shall deliver to the Owner all of the field notes and shall
16 deliver to the Owner a report containing:

- 17 1. Profile sheets of the data obtained showing
18 the Metallic Conductor Factor, MCF, the
19 resistivity in ohm-feet divided by 2π , ρ_{dc} ,
20 and the Percent Frequency Effect, PFE. The
21 MCF and the ρ_{dc} values are to be logarithmi-
22 cally contoured.
- 23 2. A plan map showing the geographic location of
24 the lines and showing summarized interpretation
25 of the data.
- 26 3. A short written description of the method used,
27 its capabilities and the results obtained.

1 G. The following charges are agreed to for the de-
2 scribed work:

3 The four-man geophysical crew and supervision
4 shall be billed to Owner at a total charge of
5 \$225.00 per day for each eight hour field day
worked.

6 Owner will pay Contractor vehicle expense of:

7 Repair expense of \$7.50 per day per
8 vehicle for each field shift worked.

9 Service charge of \$0.10 per mile
10 traveled in the performance of
described work.

11 Owner will pay Contractor at his cost for
12 equipment and supplies, such as flagging stakes,
13 etc. necessary to perform the described work and
used up in said work.

14 Contractor will receive no compensation for any
15 day or portion of a day on which there has been
16 a failure to perform work because of (a) the
17 breakdown or malfunctioning of equipment or (b)
failure of any member of Contractor's crew to
work.

18
19 H. Heinrichs Geoexploration Company represents itself
20 as an independent contractor and has the equipment and materials
21 necessary to do the work set forth herein.

- 22 1. Contractor agrees to indemnify and hold harmless
23 G. W. Irvin, his successors and assigns from any
24 claims, expenses, losses, damages, or liability
25 by reason of, or arising from the performance by
us, our employees, agents or subcontractors, of
the work described in this agreement.
- 26 2. Any taxes of any nature arising out of or in
27 connection with the work, including sales and
28 use taxes and contributions required under any
29 Federal or State unemployment compensation law
or social security law will be assumed and paid
by Contractor.
- 30 3. Contractor represents that any insurance of any
31 nature required in connection with the work to
32 be done either is now in force or will be in
force prior to the time the work is started and

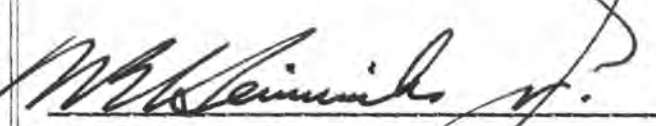
1 specifically that he has complied and will
2 continue to comply with the Workmen's Compens-
3 ation and Occupational Disease disability
4 laws of the State of Arizona.

4. Contractor agrees to submit with this contract
evidence of the following insurance:

- (a) Statutory Workmen's Compensation and/or
Employers Liability insurance covering
accidental injury or occupational disease
(including death) sustained by employees
during employment.
- (b) Comprehensive automobile liability insurance
with bodily injury limits of \$50,000.00 each
person and \$100,000.00 each accident and a
property damage limit of \$100,000.00.
- (c) Comprehensive public liability insurance
including contractual liability coverage
with bodily injury limits of \$50,000.00
each person, and \$100,000.00 each accident,
and property damage limits of \$100,000.00
each accident.

18 HEINRICHS GEOEXPLORATION COMPANY

G. W. IRVIN

20 
21 Walter E. Heinrichs, Jr.
22 President and General Manager

20 
21 G. W. Irvin

ATTACHMENT A

October 5, 1960

Mr. E. Grover Heinrichs
Heinrichs Geoexploration Company
808 West Grant Road
Tucson, Arizona

Dear Grover:

I have attempted to outline a guide as to where I think that I.P. work should be done. Much of the work will be dependent upon results obtained. Following is the order in which I think that work should be done.

1000 foot dipoles

Line 1320 E -- as shown -- another setup to the south if the first setup is anomalous and open to the south.

Line 3960 E -- as 1320 E.

Line 6600 E -- as 1320 E if 3960 E is anomalous.

Line 5280 E -- as 6600 E.

Line 2640 E -- as 1320 E if 1320 E is anomalous.

500 foot dipoles

Line 1320 W

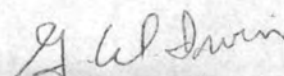
Line 3750 W

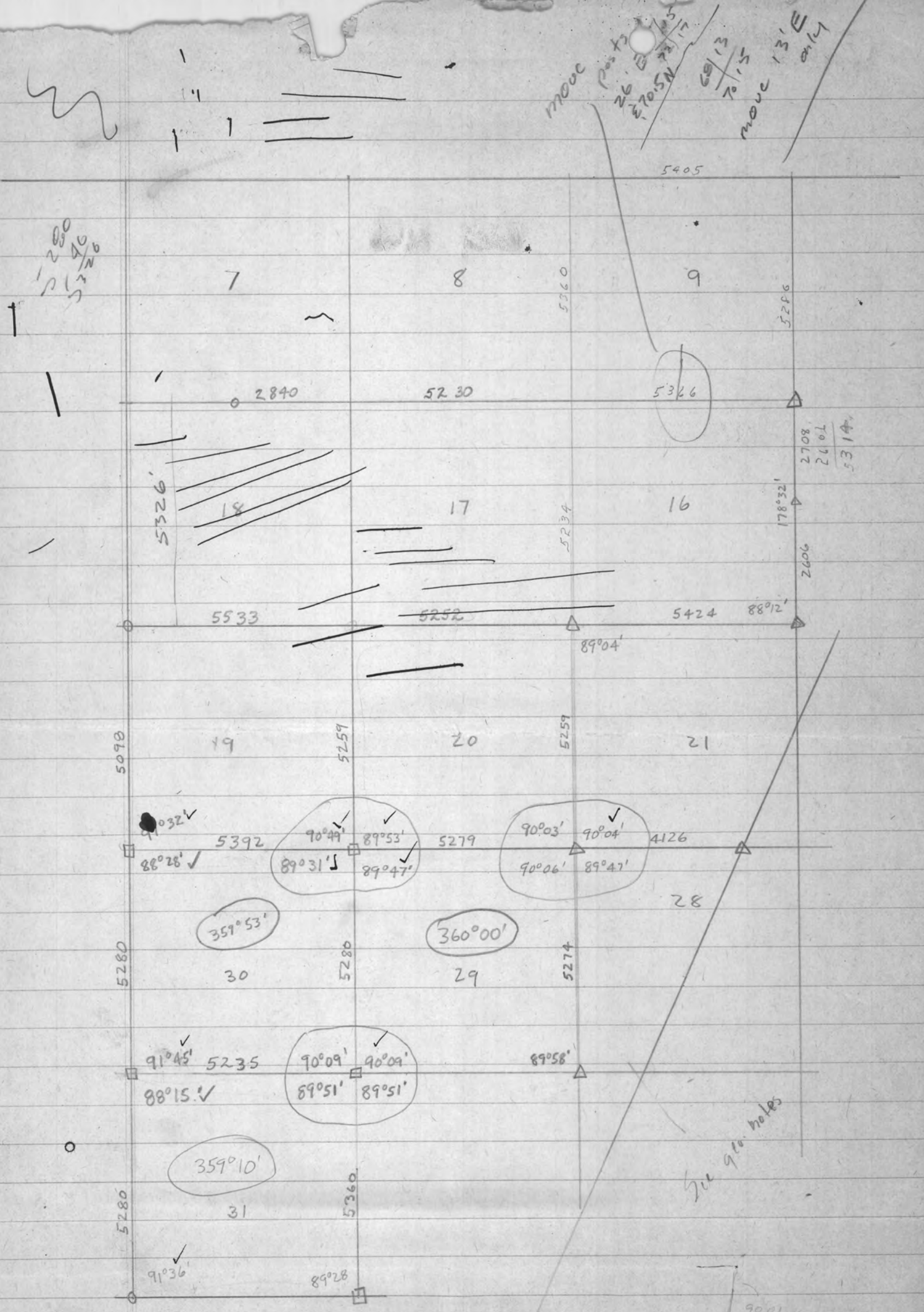
Line 4750 W

This, of course, is meant only as a preliminary guide and will have to be revised as the incoming data dictates.

Crosses shown on the accompanying work guide sketch indicate sender electrode locations.

Sincerely,

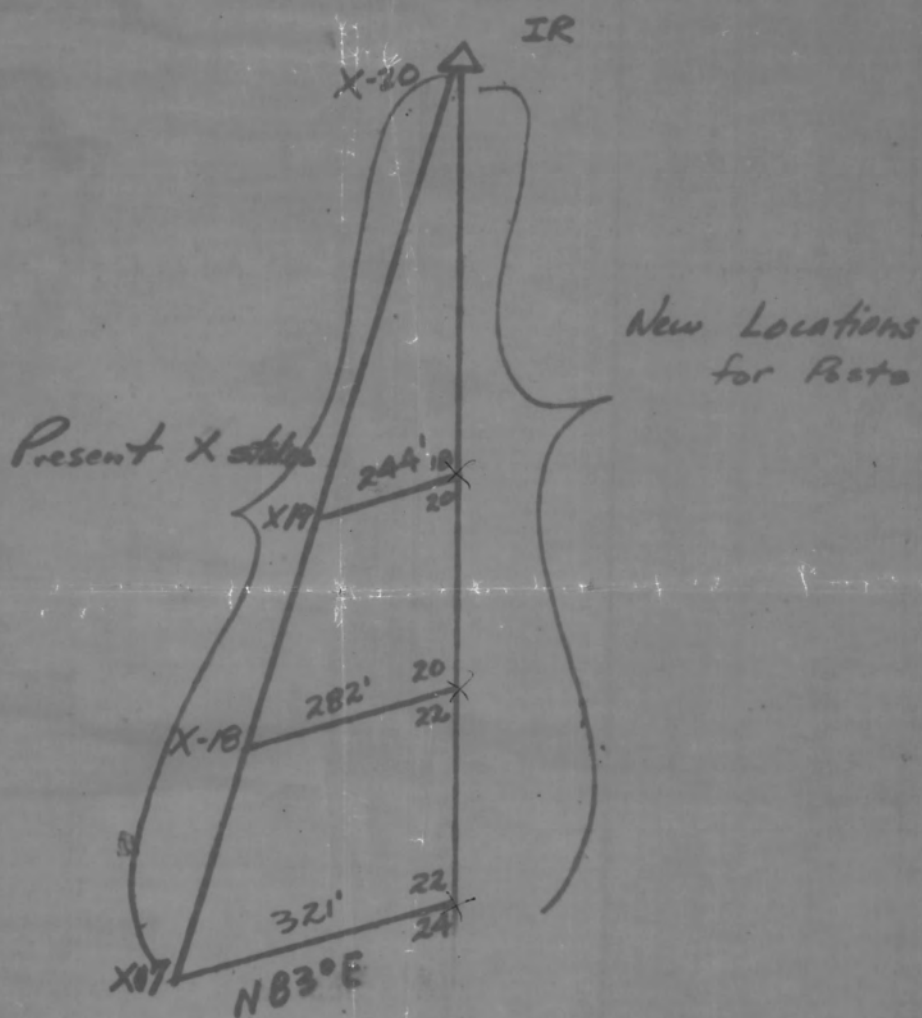

G. W. Irvin



5286
5280
5340

Denotric

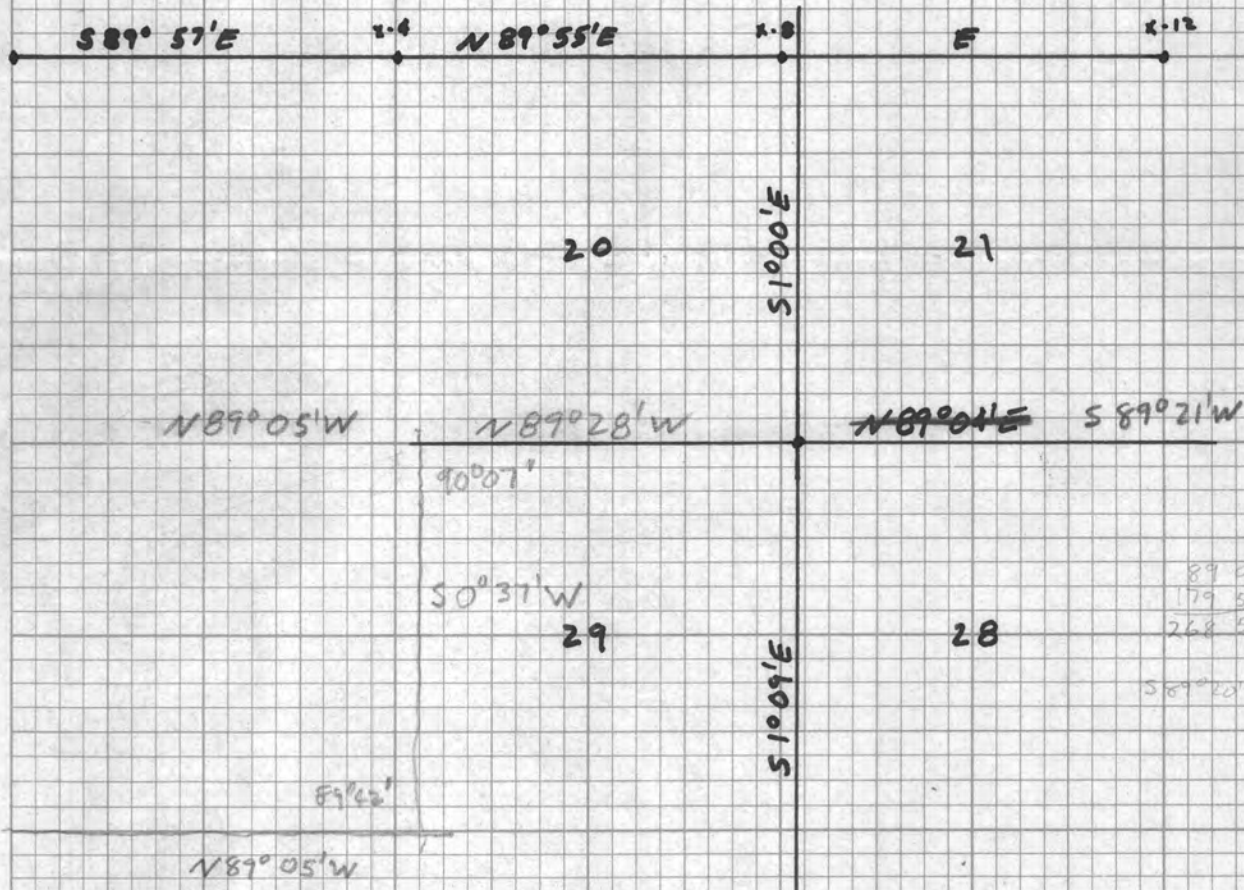
Adj. for N² of E side sec. 16



9032

5001

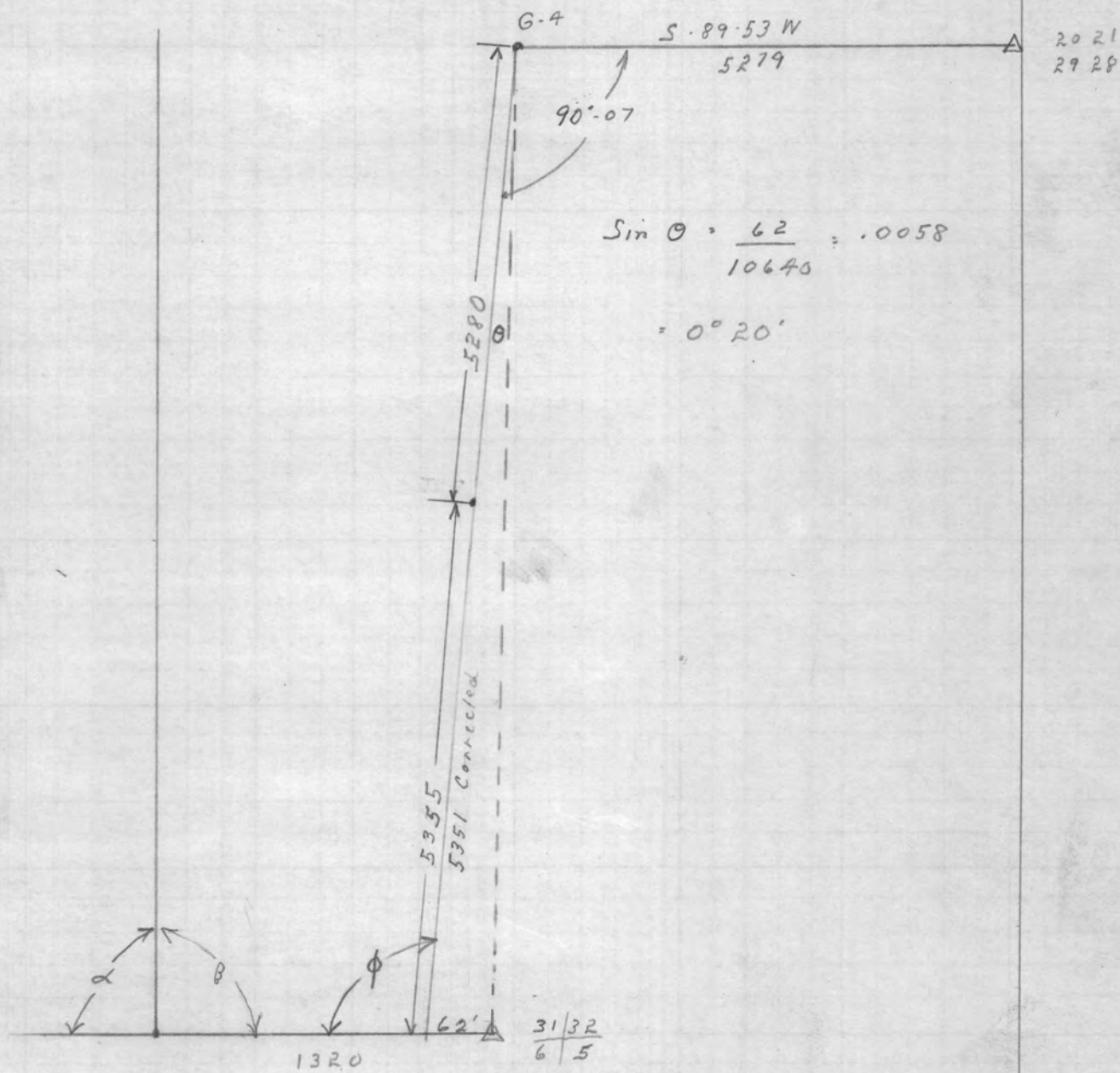
89°31'



89 04
179 53
268 57

S 89° 20' W

Demetrio

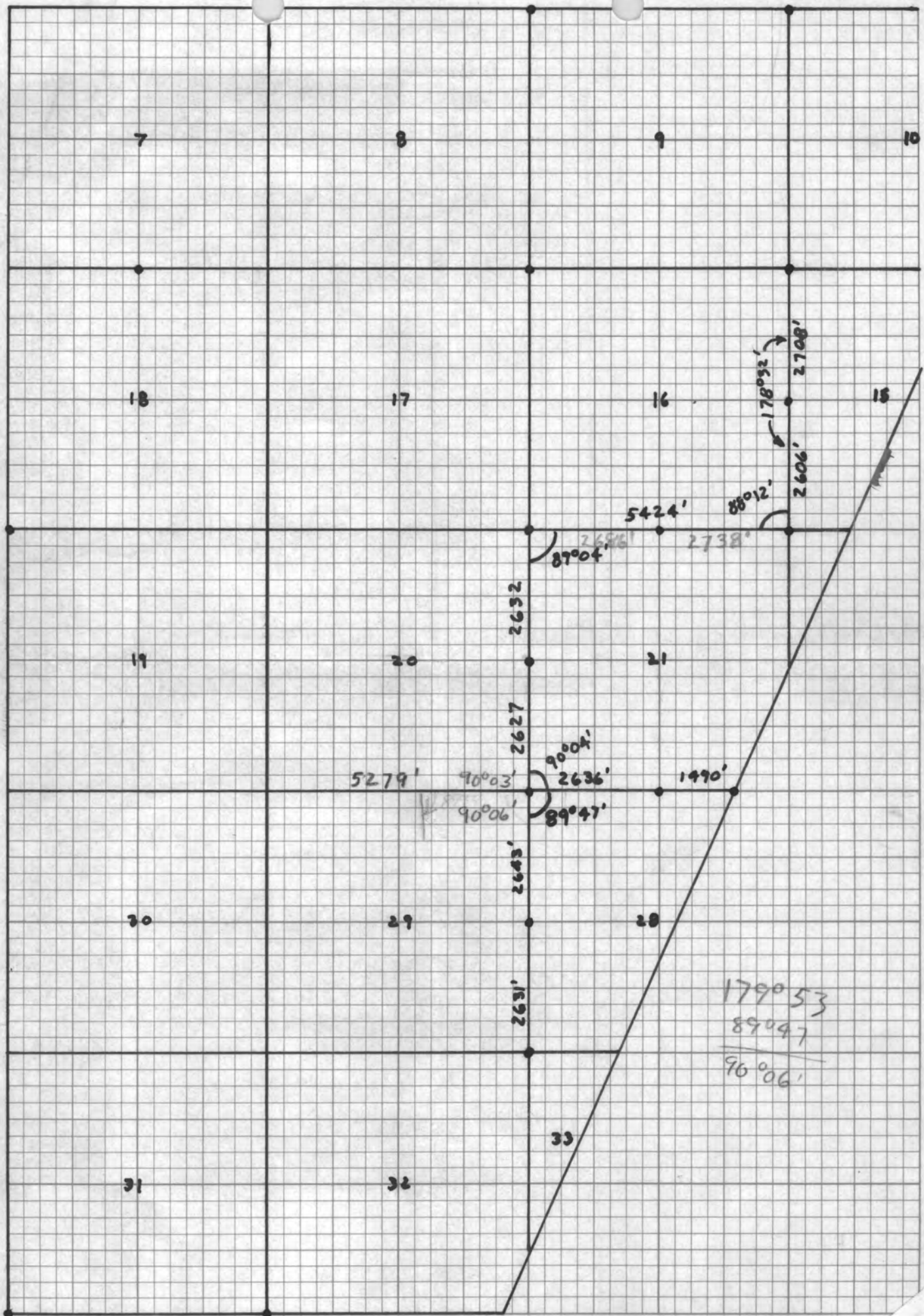


$$\alpha = \phi - \theta$$

$$\phi = 89^\circ 48'$$

$$\alpha = 89^\circ 48' - 0^\circ 20' = 89^\circ 28'$$

$$\beta = 179^\circ 60' - 89^\circ 28' = 90^\circ 32'$$



BEAR	DIST	LAT	DEP
579°51'W	448	- 78	- 441
N	2640	+ 2640	0
N 83°E	359	+ 44	³⁵² + 257
		<u>+ 2606</u>	<u>- 184</u> 85

$$\begin{array}{r} \log 85 = 1.92942 \\ \log 2606 = 3.41581 \\ \hline 2.51361 \end{array}$$

LOG TAN BEAR \nearrow BEAR = 1052'

$D_{IST} = 2606'$ (2620 - P.C.)

S 83°44'N	359	- 44	- 356
N	2640	+ 2640	0
N 61°35'W	225'	+ 107	+ 198
		+ 2703	- 158

$\log 185 = 2.26717$
 $\log 2703 = 3.43185$
 $\underline{3.85532}$

BEAR = $3055'$

DIST = 2709' (2674 - P.C.)

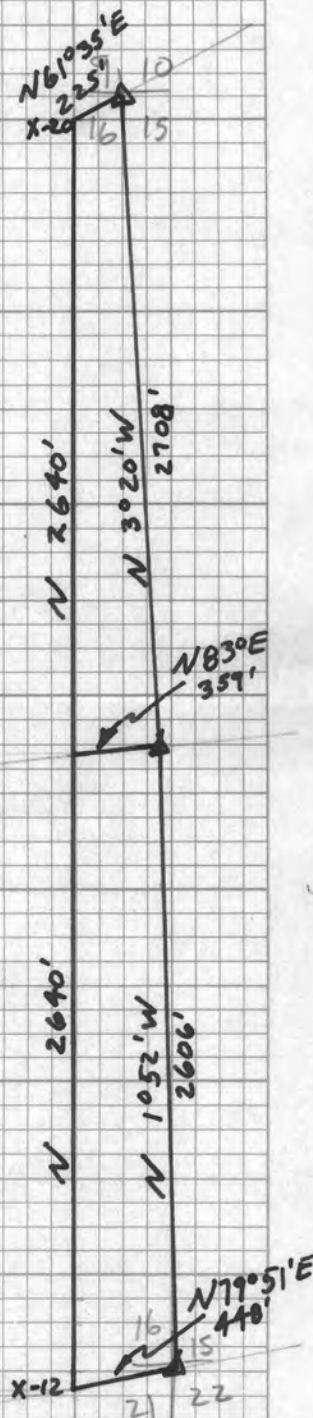
TOTAL	DIST	
2606	2620	(p.c.)
2708	2674	
<u>5314</u>	<u>5294</u>	

$\log 158$ 2.19866
 $\log 2703$ 3.43185

 $\log 276681$

BEAR 3°20'

$$DIST = 2708'$$





SEC COR
16.15
21.22

BEAR	DIST	LAT	DEP
N81°54'W	148	21	-147
S62°26'W	161	-75	-143
E	5273	0	5273
N82°10'E	445	61	441
		<u>7</u>	<u>5424</u>

T.14891
2.17026
1.31917

T.99565
2.17026
2.16591

BEAR = N89°56'E

DIST = 5424'

T.66537
2.20683
1.87220

T.74767
2.20683
2.15450

T.13447
2.64836
1.76283

T.99593
2.64836
2.64429

$\frac{1}{4}$ COR DIST

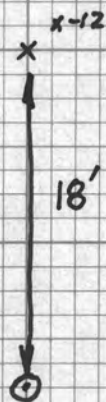
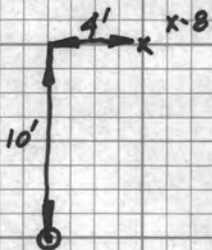
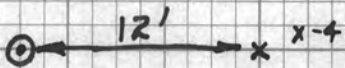
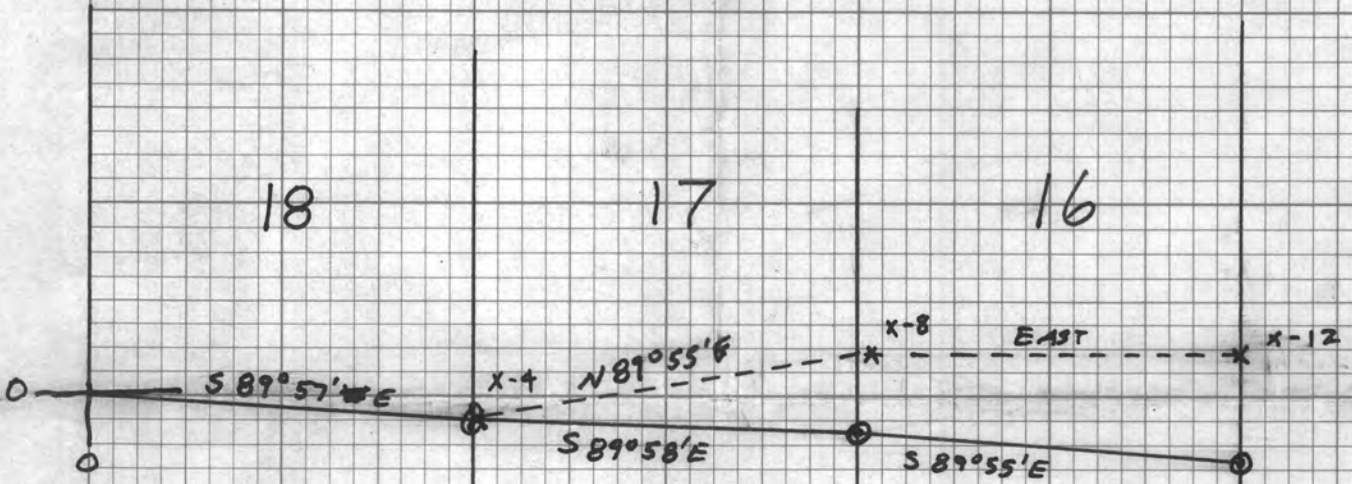
-147
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2889
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2976

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2686

5424
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2738

$$\begin{array}{r} 5364 \\ \times 213 \\ \hline 5151 \\ 10728 \\ 10728 \\ \hline 1151892 \end{array}$$



NOT TO SCALE

ASSUM. BEAR	DIST	LAT	DEP
N	2640	+2640	0
S 79°40'E	78	-14	77

Log 77 1.88649
 Log 2626 3.41929
 —————
 2.46720

BEAR = 1041' DIST = 2627' (P.C. 2643)

N 79°40'W	78	+14	-77
N	2640	2640	0
S 80°54'E		+23	+146
		2631	69

Log 69 1.83885
 Log 2631 3.42012
 —————
 2.41873

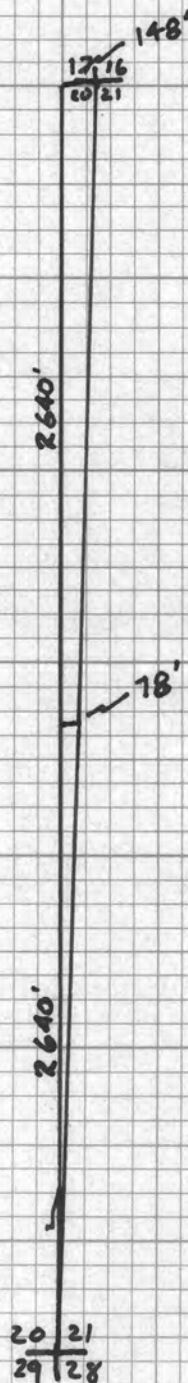
BEAR = 1030' DIST = 2632' (P.C. 2643)

TOTAL

Log 146 = 2.16435
 Log 5257 = 3.72074
 —————
 2.44361

BEAR 1035' 5259' (P.C. - 5276')

88°28'
 1035'
 —————
 90°03'



Fence Cor. 1348 E

1/2 Cor. 5327 N
2648 13

Fence Cor. 5508 B

Fence

18
19

Fence
2643

A-E
1323'

445 = 7154
2643

18
19

5588 E 17
20

December 2, 1960

Mr. Tom Walthier, District Geologist
Bear Creek Mining Company
2601 N. 1st Avenue
Tucson, Arizona

Dear Tom:

Enclosed in this envelope are an original and three copies of the Demetrie Project Report for your files. As requested by Mr. G. W. Irvin, two copies are being forwarded to him. Under separate cover we are mailing the original copies of all maps and the raw I.P. data.

You will notice that only the original copy of the report contains the mobile magnetic records; if you desire more copies of the magnetic records, please return the originals and we shall arrange to have them reproduced.

We have retained, as is our practice, a sepia copy base map.

It has been a pleasure to work on this project and we hope to be of further service to you in the near future.

Very truly yours,

HEINRICHS GEOEXPLORATION CO.

E. Grover Heinrichs
Vice President

EGH:jh

cc: J. Clark
J. Bingle
G. W. Irvin

CLAIM SURVEY
TOTAL MAGNETIC INTENSITY SURVEY
INDUCED POLARIZATION SURVEY
GEOCHEMICAL SURVEY OF CORES

DEMETRIE WASH PROJECT
Pima County, Arizona

September, -October, November 1960

For

Mr. G. W. Irvin
Sahuarita, Arizona

by
HEINRICHS GEOEXPLORATION COMPANY
P. O. BOX 5671 TUCSON, ARIZONA

CONTENTS

	Page
Claim Survey Report-----	1
Induced Polarization Report-----	3
Total Magnetic Intensity Report-----	5
Geochemical Analysis Report-----	7
13 Induced Polarization Maps attached & described as follows:	
Lines 4750 W, 3750W, 2640 W, 1320 W, Zero, 1320 E, 2640 E, 3960 E, 5280 E, 6600 E, 7920 E, Canoa 1000, 2000N.	

In Map Pocket

Stadia Transit Survey Map

Induced Polarization Survey Map

Original Mobile Magnetometer Records (in original report
only and not included in 2nd & 3rd copies).

Total Magnetic Intensity Map

CLAIM SURVEY
DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA

Between the 15th of September 1960 and the 9th of November 1960, Heinrichs Geoexploration Co., at the request of G. W. Irvin, conducted land claim surveying in the area known as Demetrie Wash, all in Pima County, Arizona T18S, R13E and described as follows: Sections 19, 20, 30, 31, 29, 28 (part west of Canoa Grant only), 21 (part west of Canoa Grant only), 22, (part west of Canoa Grant only), 18 (excluding $W\frac{1}{2}W\frac{1}{2}$ and excluding $E\frac{1}{2}NE\frac{1}{4}$, & $E\frac{1}{2}NW\frac{1}{4}NW\frac{1}{4}$, $E\frac{1}{2}SW\frac{1}{4}NE\frac{1}{4}$,) 17 (excluding $NW\frac{1}{4}$, $W\frac{1}{2}NE\frac{1}{4}$, $N\frac{1}{2}N\frac{1}{2}SW\frac{1}{4}$, $N\frac{1}{2}NW\frac{1}{4}SW\frac{1}{4}$, $SE\frac{1}{4}NE\frac{1}{4}$, $W\frac{1}{2}NE\frac{1}{4}$) 16, 9, only the $SE\frac{1}{4}SE\frac{1}{4}$ & $S\frac{1}{2}NE\frac{1}{4}SE\frac{1}{4}$ of Section 8,

A total of 314 Arizona State land type "B" claims 1320' by 660' were surveyed, for the most part by two 3 man crews, although occasionally as many as six 2-man crews, and as few as one 2-man crew were used to complete the project. Personnel involved in the project were E. Grover Heinrichs, supervisor & compilation; George Reeves, Surveyor; Don Green, Surveyor. All corner posts were set to conform to the mining laws of the State of Arizona. A total of 47 crew days were spent to complete the project.

Considerable difficulty was experienced by the survey crews in finding the existing public land corners. However, a sufficient number of public land corners were found to adequately

Claim Survey

control the claims to the public land system.

Summarized below is cost data relating to this project:

Total cost-----\$10,664.13

Total cost pre claim--- \$33.96

Total miles traversed--57.25 miles

Total cost per mile
of traverse-----\$186.27

Total claims surveyed----314.

INDUCED POLARIZATION SURVEY
DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA

During the months of October and November 1960, Heinrichs Geoexploration Co., at the request of Mr. G. W. Irvin, conducted Induced Polarization surveys which shall be referred to as Phase II, as supplemental to Phase I initial investigations previously reported on.

A total of 13.1 surface profile miles were run. Personnel assigned to the survey were Frank A. Seward, Jr. geophysicist in charge; Nick P. Estrada, Harvey Andres & Arthur Apodaca.

Attached to this report are self explanatory interpretive maps of the combined Phase I, and Phase II surveys. Phase II surveys were made on lines 1320E, 3960E, and 6600E using a 1,000 ft. dipole spacing on lines 1320W, 3750W and 4750W using a 500 ft. dipole spacing.

In general it can be stated that the data becomes less definitive to the south and east as the alluvial gravels become thicker. In this light the only attempt made to interpret data from line 6600E was to consider that gravels in this area were so thick that the anomalous metallic conduction factors and percent frequency effects due to gravels would mask any anomalies due primarily to disseminated sulphide mineralization. Anomalism on lines 3960E is considered questionable. The anomalism shown on line 1320E is interpreted as being due to disseminated

Induced Polarization

sulphide mineralization as is that anomalism shown on lines 1320W, 3750W and 4750W.

Twenty-four crew days were spent in the field for which 16½ days were charged to your account. The other 7½ days were involved in repeat work in areas where original data obtained was questionable, equipment malfunction, etc. and were not charged for.

Summarized below is related cost data on this project:

Total cost-----	\$4208.80
Surface Profile miles-----	13.1 miles
Subsurface Profile miles-----	8.7 miles
Total depth points observed-----	329
Cost per surface mile-----	\$321.28
Cost per subsurface mile-----	\$483.77
Cost per depth point observed-----	\$12.79

TOTAL MAGNETIC INTENSITY SURVEY
DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA

On the 11th through the 14th of October 1960, a total magnetic intensity survey was conducted by Heinrichs Geoexploration Company at the request of Mr. G. W. Irvin in an area known as Demetrie Wash and all in T18S, R13E Pima County Arizona, described as follows: Sections 8 ($E\frac{1}{2}$ $E\frac{1}{2}$ only), 9, 16, 17, 18, (except for $W\frac{1}{2}$ $W\frac{1}{2}$), 19, 20, 21, 22 (part outside Canoa Land Grant only), 29, 30, & $E\frac{1}{2}$ 31.

A total of 50.75 profile miles were recorded. Personnel involved in the work were J. W. Marlatt and Nick P. Estrada in the field and Marlatt and E. G. Heinrichs in office compilation.

Included in this report is a map showing, in contour form, the total magnetic intensity distribution in the area. Claim posts were utilized for horizontal control and all traverses were run south only at a spacing of 1320' between lines except the road traverses which were run as indicated on the map.

In general, there exists a long broad low, trending NW-SE through Sections 18, 20, 21 and a less prominent low in the $N\frac{1}{2}$ of Section 19 which suggests either a thick alluvial section, a sedimentary zone or combination of each. A parallel trending zone to the south has a relatively higher magnetic content and could be caused by contact metamorphism in sediments, a more magnetic igneous mass, or a combination of both. The NW-SE

trending zone in Sections 30 and 31 appear to be caused, for the most part, by volcanics and the increased contrast, frequency and gradients between high and low readings on the records tend to substantiate this conclusion as does some volcanic outcrop in the area.

Some difficulty was encountered in crossing an occasional wash and for this reason no traverse was run on the extreme west of the claim group including the W $\frac{1}{2}$ of Section 31.

Summarized below is cost data relating to the mobile magnetic survey on this project:

Total cost-----	\$1120.00
Miles of Traverse-----	50.75 miles.
Cost per profile mile-----	\$22.07
Office compilation, 3 days-----	N. C.

GEOCHEMICAL SURVEYS
DEMETRIE WASH PROJECT
PIMA COUNTY, ARIZONA

On 21st of November 1960, Heinrichs Geoexploration
Company ran an analysis of some random core samples with
the following results:

<u>SAMPLE#</u>	<u>ppm Mo</u>	<u>ppm Cu</u>
DW- 1-1	70	50
1-2	56	60
1-3	8	20
DW 2-1	21	90
2-2	0	25
2-3	0	40
2-4	3	110
2-5	0	140
DW 3-W	45	35

Mr. Franklin A. Seward, Jr. was the individual performing
the determinations.

Total cost-----\$25.00

HEINRICHS GEOEXPLORATION COMPANY
MINERAL ENGINEERING CONSULTANTS AND CONTRACTORS
GEOPHYSICAL, GEOLOGICAL AND ECONOMIC APPRAISALS
TUCSON, ARIZONA

WALTER E. HEINRICHS, JR.
E. GROVER HEINRICHS

PHONE: MAIN 2-4202
806-808 WEST GRANT ROAD
MAIL: P. O. BOX 5671

September 16, 1960

Mr. Tom Walthier, Manager
Southwestern Division
Bear Creek Mining Company
2601 N. 1st Avenue
Tucson, Arizona

Re: Demetrie Wash Project
Pima County, Arizona

Dear Tom:

Pursuant to our conversations of last Friday afternoon, September 9, 1960 in the company of Jackson Clark, Al Haworth, Jim Bingle and Tom Nye, the following is proposed:

1. Magnetic Survey

Heinrichs Geoexploration Co. will furnish a total intensity continuous recording truck mounted magnetometer with one operator and one assistant. The project will include a complete total intensity magnetic map in contour form showing the traverse routes and relative magnetic variations obtained.

The area to be surveyed will consist of the following sections all in T 18 S, R 13 E, Pima County Arizona:

Sections 8 ($E\frac{1}{2}$ SE $\frac{1}{4}$ only), 9, 16, 17, 18 (except for $W\frac{1}{2}$ of $W\frac{1}{2}$), 19, 20, 21, 22 (Part outside Canoa Land Grant only), 28 (Part outside Canoa Land Grant only), 29, 30, 31.

The lines will be at approximate intervals of 1/4 mile spacings (1320') and it is estimated that a total of fifty (50) miles of traverse is involved to cover the area as outlined.

It is estimated that a minimum of five (5) field operating days will be required to complete the field work and five (5) office days, subsequent to the field work, to complete the entire magnetic survey.

GEOEX charges will be at the rate of \$280.00 per field operating day, including expenses, and office work subsequent to the field work. Any breakdowns will not be charged to Bear Creek.

Total estimate for Magnetic Survey: \$1400.00.

Currently our Momag unit may be available on one week's notice or at present, on or about September 26, 1960.

2. Induced Polarization Survey

Heinrichs Geoexploration Co. will furnish a four (4) man I. P. crew and necessary instruments and equipment to conduct an I.P. survey in the Demetrie Wash Project Area as outlined in the paragraph designated 1 above. The precise location and line spacing and dipole setting shall be as designated by a Bear Creek representative.

All transportation, materials and supplies will be furnished by GEOEX at rates as outlined below.

Upon completion of the field work, GEOEX will deliver to Bear Creek all field notes and contoured plots of resistivity and metallic conduction factors according to Bear Creek's standard practice.

GEOEX charges for the I.P. survey will be at the rate of \$225.00 per operating field day plus vehicular charges of \$7.50 per day and \$0.10 per mile plus expenses for materials and supplies. Office compilation and computation charges are \$80.00 per day.

Because it is unknown at present how many miles of traverse is contemplated at this time, no attempt will be made to estimate the total expenditure involved.

At present, it is expected that an I.P. crew will be available after September 22, 1960.

It is understood by GEOEX that this project is of a confidential nature and all care will be taken to fulfill this obligation.

If you have any further questions regarding the above, please let us know.

Very truly yours,

HEINRICHS GEOEXPLORATION CO.

E. Grover Heinrichs
Vice President & Field Manager

EGH: jh

HEINRICHS GEOEXPLORATION COMPANY
MINERAL ENGINEERING CONSULTANTS AND CONTRACTORS
GEOPHYSICAL, GEOLOGICAL AND ECONOMIC APPRAISALS
TUCSON, ARIZONA

WALTER E. HEINRICHS, JR.
E. GROVER HEINRICHS

PHONE: MAIN 2-4202
806-808 WEST GRANT ROAD
MAIL: P. O. BOX 5671

September 9, 1960

Mr. Jackson Clark
Bear Creek Mining Company
2601 North 1st Avenue
Tucson, Arizona

Re: Demetrie Wash Project
Pima County, Arizona

Dear Jack:

Pursuant to our discussions of 6 September 1960, in your office, Heinrichs GEOEXploration Company will furnish to Bear Creek Mining Company, a survey team consisting of a qualified instrument man and two assistants and all the essential equipment and transportation necessary to complete the following assignment:

1) To survey the outside boundaries of the Demetrie Wash Claim Group which will consist of the following described Sections, all in T18S, R13E:

West, South & East Boundary Sec. 31

South Boundary Sec. 29

South Boundary to Canoa Land Grant boundary Sec. 28

East Boundary Sec. 28 parallel Canoa Land Grant Boundary.

East Boundary Sec. 21 " " " " "

East Boundary Sec. 22 " " " " "

North Boundary Sec. 22 West from " " " "

East Boundary Sec. 16

East & North Boundary Sec. 9

North 3300 ft. of East boundary; West 1320 ft.; South 1980 ft. to South boundary of Sec. 8. At point 1320 ft. West of NE corner Sec. 17; South 1320 ft.; East 660 ft.; South 1320 ft. West 4620 ft. to East line Sec. 18; West 1320 ft.; North 2640 ft.; to North line Sec. 18; West 2640 ft.; South 5280 ft. to North line Sec. 19; West 1320 ft. to NW corner Sec. 19; South 5280 ft. to NW corner Sec. 30; South 5280 Ft. to NW corner of Sec. 31.

2) Set corner and end center posts in the following sections all in T18S, R13E: Sec. 19, Sec. 21, Sec. 31, a part of Sec. 22 in NW $\frac{1}{4}$. Examine Sec. 21 & 28 to see if corner posts are in; if not in set corner & end center posts Section 21 & 28.

EGH:jh

E. Grover Heinrichs
Vice-President

HEINRICH'S GEOEXPLORATION COMPANY

Very truly yours,

If you have any questions regarding the above, please let me know.

It is anticipated that our crew will be available on or about 14 September 1960.

The following rates will apply:
\$125.00 per day---3 man survey crew,
Vehicle expenses of \$0.10 per mile plus \$7.50 per day.
Plus materials and supplies necessary.

All posts will be 4" x 4", marked with a white vertical stripe on all four sides.
The survey will be conducted with a transit and stadia rod to an accuracy of 10 ft. horizontal distance error per mile and all claims will conform to the lay out of Bear Creek's Demetrie Wash sketch map dated 18 August 1960 and will be 660 ft. wide by 1320 ft. Long except where odd lots are involved, then the claim measurement will be as indicated on the final map.

This survey consists of approximately 32 linear miles and it is estimated that 32 working (field) days will be required to complete this survey.

3) Resurvey Section 29 and set corner and end center posts.

Mr. Jackson Clark - 2 - September 9, 1960

10 664.13

Total Project ————— \$ ~~6588.40~~

Cost / Claim (314 Claims Total) \$ 33.96

" / profile mile ————— \$ ~~196.31~~

Total miles traversed ————— 54.25 miles ✓
57.25

47 working days = 227⁰⁰ 140.18/day

average 6 men = 37.90 23.38/man day

Av 10 hrs/day = 470 hrs = 3.79 2.34/man hr.

Av. 2 crews = 841.00/week

" " = 3360.00/month.

per crew = 420.50/crew week.

" = 70.09/ " day

" = 1680.00/ " month.

1
2
3

54.25
32.00

22.25

\$4.000
\$