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GEOPHYSICAL INVESTIGATIONS

FOUR BUTTES CLAIM GROUP

Section 36 T.19N., R.19W.  
Section 1~~32~~ T.18N., R.18W.  
Section 6 T.18N., R.18W.  
Mohave County, Arizona  
and

BADGER CLAIM GROUP

Section 7, 18 T.18N., R.18W.  
Mohave County, Arizona

November-December 1964

for

Arkla Exploration Company

By

Heinrichs Geoexploration Company  
P. O. Box 5671 Tucson, Arizona

## INTRODUCTION

At the request of Mr. M. L. Pugh, chief geophysicist of Arkla Exploration Compnay, Heinrichs Geoexploration Company, during November through December 1964, conducted magnetic, gravity, and induced polarization surveys ~~in the area~~ as follows:

### Four Buttes Area

Three I.P. lines were run consisting of four spreads on 500' dipole separation giving a total surface coverage of 21,500' of which 14,000' is subsurface plotted data. 14.3 miles of magnetic data were observed on stations 100' apart. No gravity stations were observed in this area.

### Badger Area

One I.P. line on 500' dipole separation extending to 6000' of surface coverage and 3500' of subsurface ~~XXXXXXXXXX~~ plotted data. 94 gravity stations were observed on a grid totalling 6.1 line miles over the claim area, followed by 237 mangetic stations totalling 4.5 line miles of data.

Geoex personnel working on the Four Buttes and Badger projects were Marcel LeDuc, party chief later replaced by Dan Anderson, Ron Palmer was magnetic and gravity observer assisted by George Miguel. John Beeler and Gene Juarez assisted on the I.P. crew.

## INTERPRETATION, CONCLUSIONS AND RECOMMENDATIONS

### Four Buttes Area

The magnetic survey was complicated by surface and near surface basalt boulders containing magnetite. Moving only a few feet frequently resulted in several hundred gammas variation. This caused sporadic data and frequent miss ties. Val~~l~~ue may be realized *from* *the data* by "smooth lining" (averaging) of the data.

We have presented the data in sketch form, a rough contour plan



on 500~~8~~ contour interval only.

A minor weak sulfide indication located on I.P. Line 9 between electrodes three and four was observed. This anomalism may indicate a narrow mineralized structure but because of the extremely low resistivities, data was considered sporadic. A minor magnetic contrasting feature is in the general area. This somewhat upgrades the possibilities of this zone but only slightly.

The most significant magnetic feature in the area (2000~~8~~ high) located in the NE 1/4 of Section 2, T.18N., R.19W. had no associated sulfide indications and is likely a <sup>magnetically</sup> highly polarized basaltic flow, and therefore, of no further interest. This magnetic feature was originally discovered by the Mobile Magnetometer on a single reconnaissance profile through the area.

Unless new evidence or reasons are found to continue, nor further work is recommended in this area.

#### Badger Claim Group Area

A gravity high to the southwest of <sup>claim</sup> ~~claim~~ six along with closer spaced magnetic contours here indicates shallower alluvium or more dense rock type. No visible mineralization was present. A very weak slight sulfide indication from electrode 3 Northeast 3000' on I.P. Line 12 is of very minor interest. The magnetics was presented in contour and profile form. Contour interval on the contour plan was 300~~8~~ and because of the wide variation between magnetic readings, taken just a few feet apart only a generalized averaging of the data is useful. Magnetite in the basalt boulders scattered out over the area caused these erratic magnetic results.

Unless further evidence is found, to continue exploration, no further work is recommended in this area.



## PROCEDURES

### I.P. (Induced Polarization)

Selections of 500' dipole separation was made to maximize ground coverage per unit time, data resolution and probability of locating economically sized sulfide bodies within about 500' ~~1200'~~ of the surface.

The induced polarization measurements were made with the dual frequency technique on a dipole-dipole electrode configuration. The two frequencies used were .05 and 3.0 cycles per second at a power level of 2 amps at 400 volts. ~~xxxxxx~~



or tidal correcti~~ons~~ns were made. If gravity proves to be a useful tool in the Don-Matilda Area more elaborate gravity <sup>computation & vertical control</sup> techniques might be justified. ~~such as precise vertical control and terrain and tidal corrections.~~ No gravity readings were taken in the NorthSide-Paycheck Area.

Respectfully submitted,  
HEINRICHS GEOEXPLORATION COMPANY

E. Grover Heinrichs  
Vice President

APPROVED: Walter E. Heinrichs, Jr.



# Geox Stock

- ① CASH Flow & Projection 66-67
- ② Proforma income statement 66
- ③ " balance sheet 66
- ④ 1) 175,000 CASH from <sup>Geox</sup> source ←  
175,000 MATCH from COAST
- 2) 600,000 gross rev / yr. 10% profit margin

return 2nd stage financing  
(public offering?) ←

Convertible note to J. in  
common stock when & if stock  
issue.

E. F. Hutton — G. BLAKE

MOON

(1)

## Geophysical Investigations

Four Buttes Elain Group  
~~Badger Elain Groups~~

Sec. 36 T. 19N., R. 19W.

" 1 & 2 T. 18N. "

" 6 T. 18N. R. 18W.

Mohave County, ARIZONA

±

Badger Claim Group

Sec. 7, 18 T. 18N., R. 18W.

Mohave County, ARIZONA

Nov - Dec, 1964

for

ARKLA Exploration Co.

by

Heinrich Geoservices Co.

Don - Matilda - Paycheck - North Side Area  
 MOHAVE COUNTY, ARIZONA

METHOD	Line	#Spr	Type of Spread	STATIONS OBS	Feet	Miles
I.P Pay Check	1	1	STAND		6,000	
	2	2	CONT		6,000	
	3	2	"		6,000	
	4	2	"		6,500	
DON-MATILDA	5	2	"		6,500	-52,000
	6	2	"		6,500	
	7	2	3N		8,500	
	8	1	STAND		6,000	
WEST END	13	1	STAND		6,000	
	14	1	↓		6,000	-24,000
	15	1	↓		6,000	
	16	1	↓		6,000	
SCOOTER	17	2	3N		24,000	-36,000
	18	1	STAND		12,000	
TOTALS	14	21			112,000	21.2

VERTICAL MAG 974 97,400 18.4  
 (DON-MATILDA-SCOOTER-FINGER & CALIENTE AREA)

	12	6	7,500	
	12	5	7,500	
	14	6	2,500	
GRAVITY	1	13	3,500	17.2
	2	3	1,500	
	3	12	3,300	
	4	3	1,000	
WEST-END AREA	5	12	3,300	
	6	12	3,300	
	7	6	2,500	
	8	2	500	
	9	5	2,000	
	10	2	500	
	11	7	2,500	



METHOD	LINE	# Spr	Type SPACED	STA OBS	Feet	Mi
GRAVITY WEST END AREA	12			6	2500	
	13			5	2500	
	14			6	2500	
				<u>94</u>	<u>31,400</u>	5.9
GRAVITY SCOOTER + CLINT AREA	25			11	3000	
	26			11	3000	
	27			11	3000	
	28			11	3000	
	29			11	3000	
	30			11	3000	
	31			11	3000	
				<u>77</u>	<u>21,000</u>	4.0
TOTAL GRAV. STATIONS				266 ✓		9.9

**MOMAG SACRAMENTO VALLEY AREA  
MOHAVE COUNTY, ARIZONA (excluding Santa Claus)**

MAP#	Miles
2	59.75 + 13.5 cross Mt. tie
3	158.75
4	57.25
5	11.75
6	11.50
7	17.00
8	65.50
9	12.00
10	60.50

467.5 Miles CONTINUOUS Coverage  
TOTAL INTENSITY

+ 70.5 Santa Claus  
538.0 TOTAL MOMAG MILAGE

Jan 10, 1966

BADGER AREA T18N, R18W, Sec 7, 18 Mohave County, Arizona

Gravity, magnetic and Induced Polarization surveys were run in this area. One line of I.P. with 6000 feet of surface coverage giving 3500' of subsurface plotted data showed only slight sulfide indications ~~in the vicinity of electrodes one and two~~ <sup>from electrode 3 3000' to the NE</sup> on line 12.

<sup>Geox</sup> Heinrichs personnel included Marcel LeDuc, party chief, and <sup>John Baer</sup> Gene Juarez, technical assistant.

94 gravity stations were surveyed on a grid over the claim area ~~and~~ by Ron Palmer. <sup>Assisted by George Miguel,</sup> A gravity high to the southwest of claim six along with more closely spaced magnetic contours <sup>here</sup> indicates shallower alluvium. <sup>or more dense rock type</sup> using 100 foot intervals.

A magnetic grid of approximately 200 stations was employed in this area by Dan Anderson, party chief, and Ron Palmer, technical assistant.

<sup>insert map</sup> Unless new evidence or reasons are found, continuing exploration in the Badger Area is not recommended. } -

<sup>insert</sup> Weak <sup>I.P.</sup> sulfide indication <sup>was</sup> noted at depth between electrode 3 and 3000 feet North east and <sup>is</sup> possibly due to one or more narrow features of less than a 1% sulfide by volume. ~~There is~~

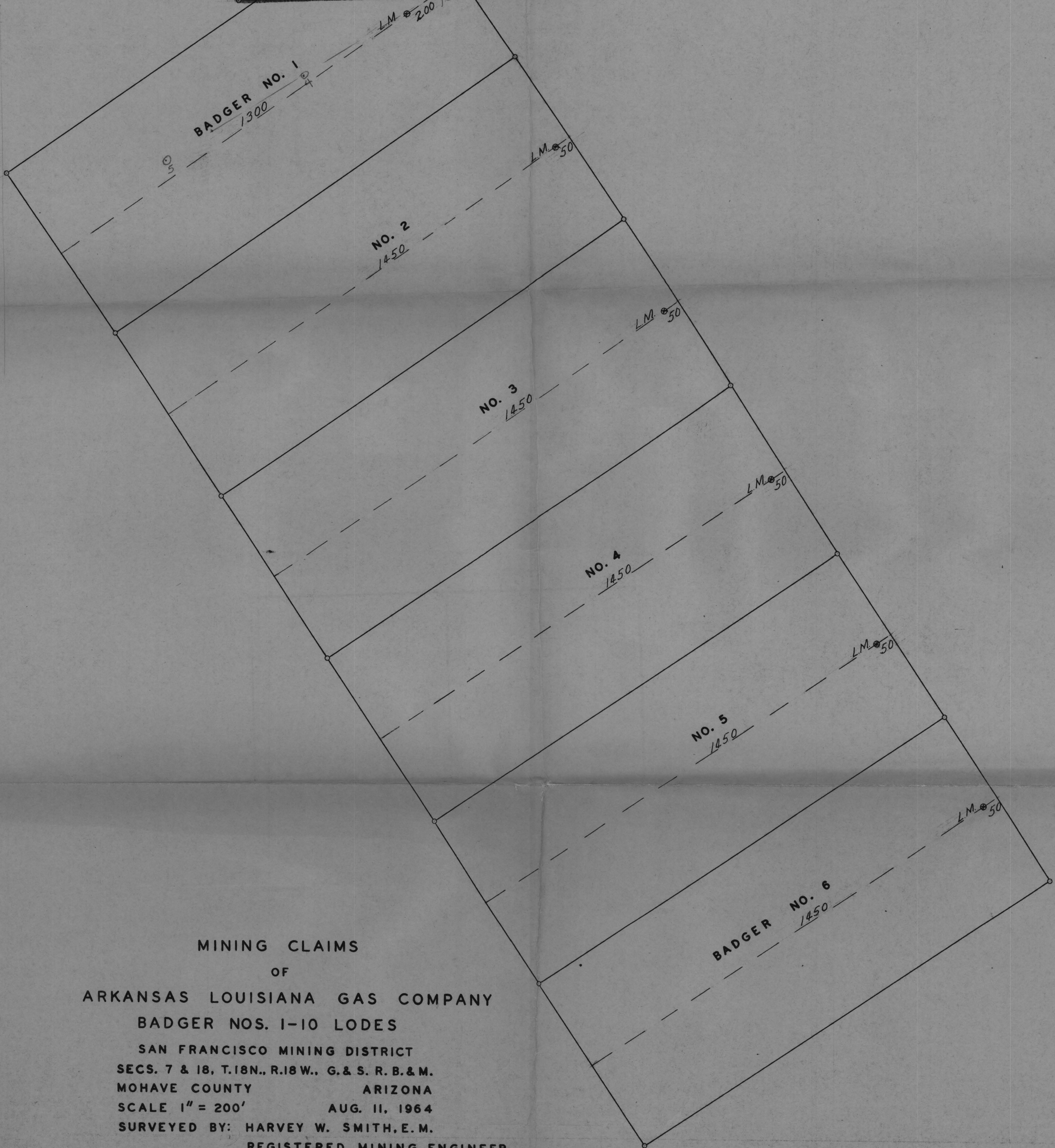
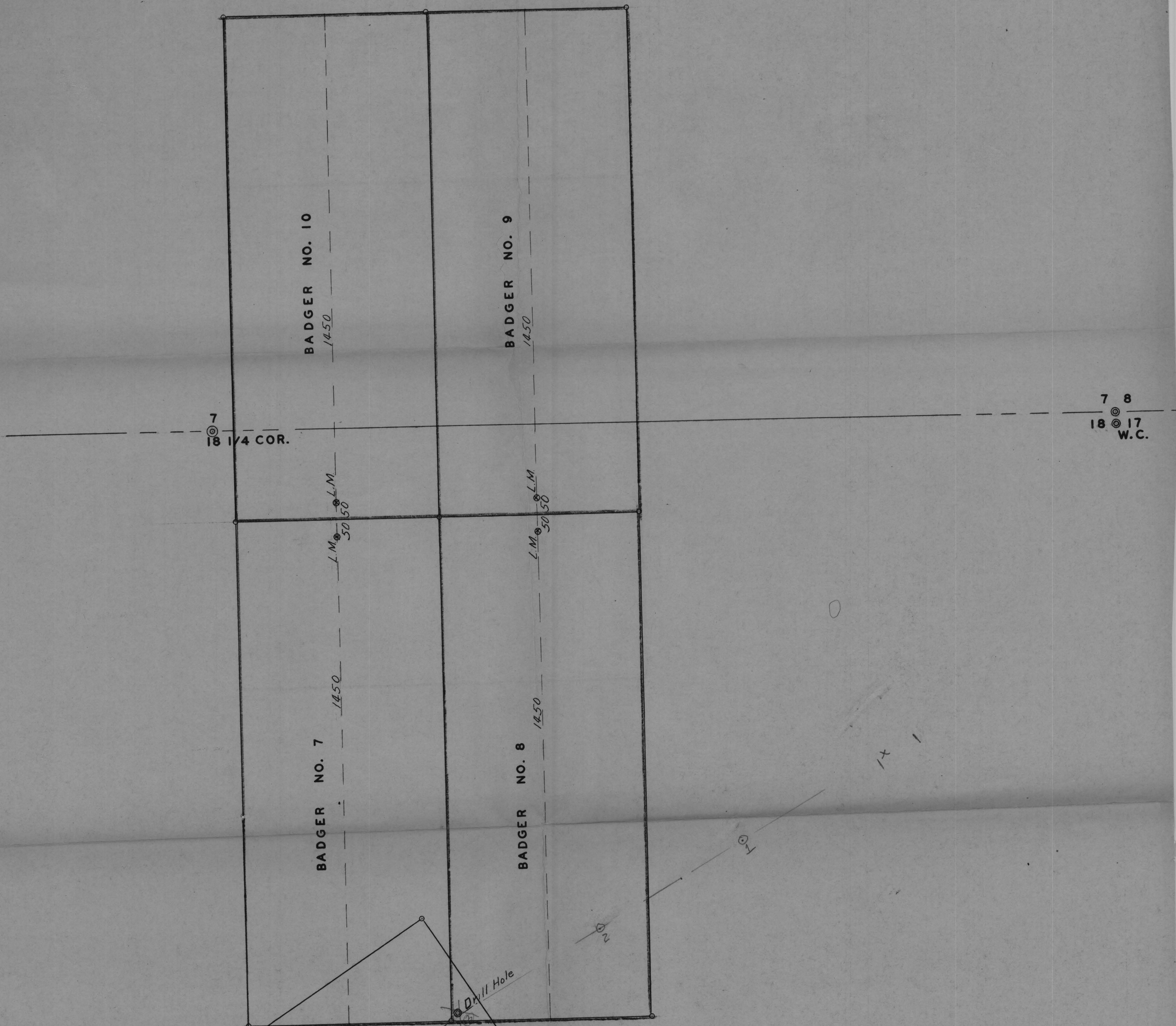
~~Conclusions Recommendations~~

~~It is no further geological or geophysical evidence~~

Badger Area Maps

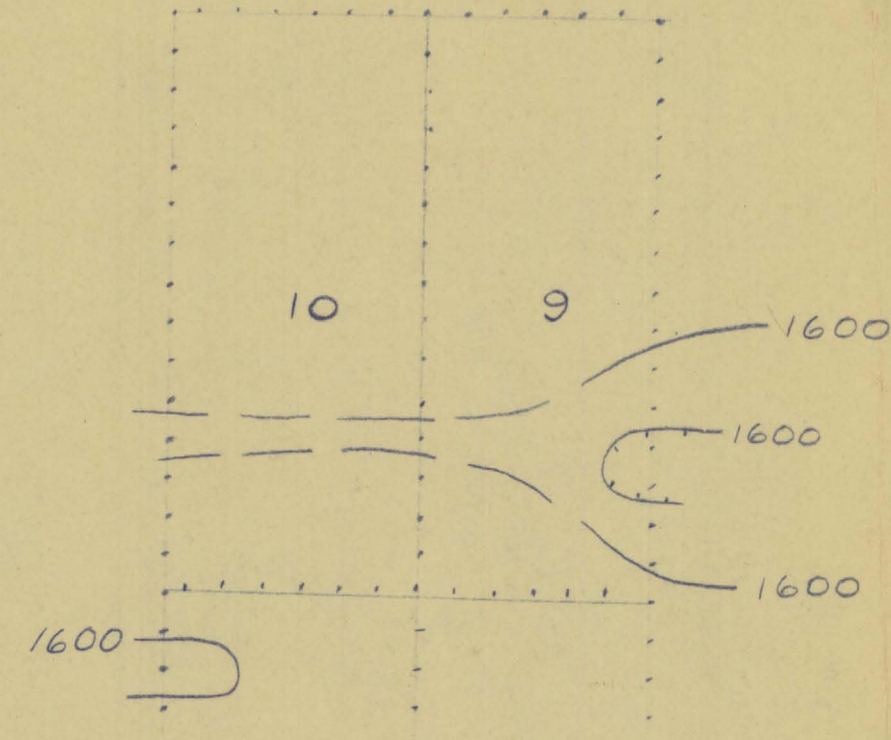
- 1.) Location I.P. Survey & Interpretation for Badger and 4 Butte area.
- 2.) Location Map for Badger Claims & I.P. Survey. Survey line 12 no.
- 3.) Gravity Profile Map.
- 4.) Gravity Plan Map.
- 5.) Gravity Elevation Survey (Altimeter) (contour)
- 6.) Magnetic Contour
- 7.) Magnetic Profile (2 maps)
- 8.) sectional Data Sheet Line #12



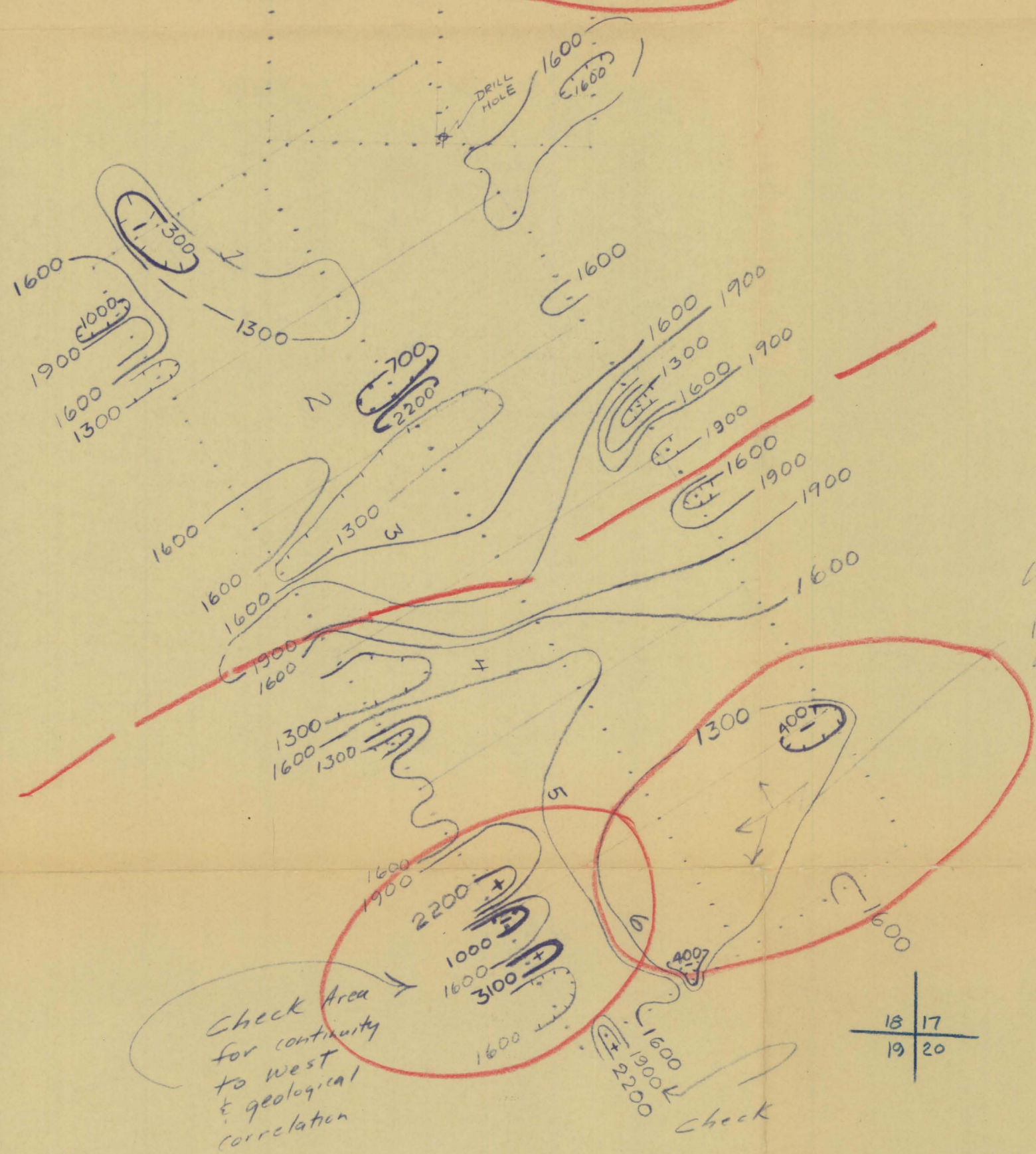


MINING CLAIMS  
 OF  
 ARKANSAS LOUISIANA GAS COMPANY  
 BADGER NOS. 1-10 LODES  
 SAN FRANCISCO MINING DISTRICT  
 SECS. 7 & 18, T.18N., R.18W., G. & S. R. B. & M.  
 MOHAVE COUNTY ARIZONA  
 SCALE 1" = 200' AUG. II, 1964  
 SURVEYED BY: HARVEY W. SMITH, E. M.  
 REGISTERED MINING ENGINEER  
 U. S. MINERAL SURVEYOR





Significant  
anomaly  
check for continuity to EAST  
& if any geological correlation

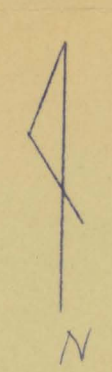
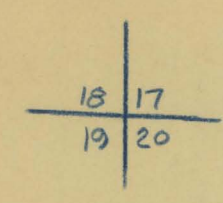


check for  
possible  
alteration zone

check Area  
for continuity  
to west  
& geological  
correlation

check

Preliminary



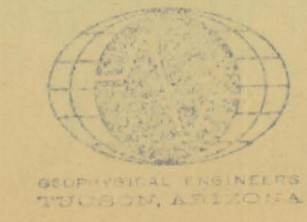
T.18N.  
R.18W.  
MOJAVE CO. ARIZ.

Vertical Intensity  
Magnetic Survey  
ARKANSAS-LOUISIANA GAS CO

BADGER AREA  
WORK SHEET  
SCALE 1" = 500'  
CONTOUR INTERVAL 300'  
DEC. 4, 1964

by

HEINRICHS  
GEOEX

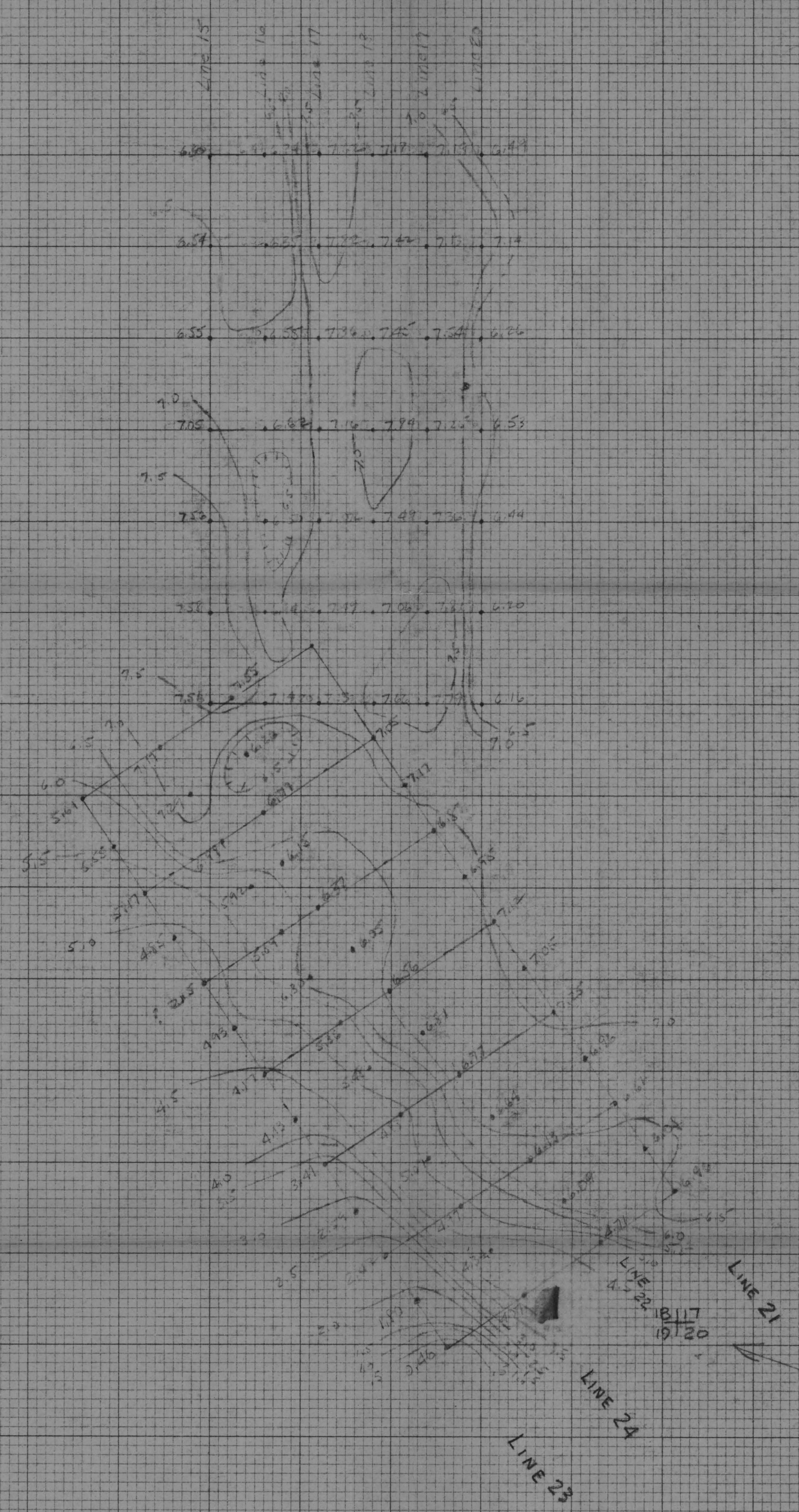


(1)

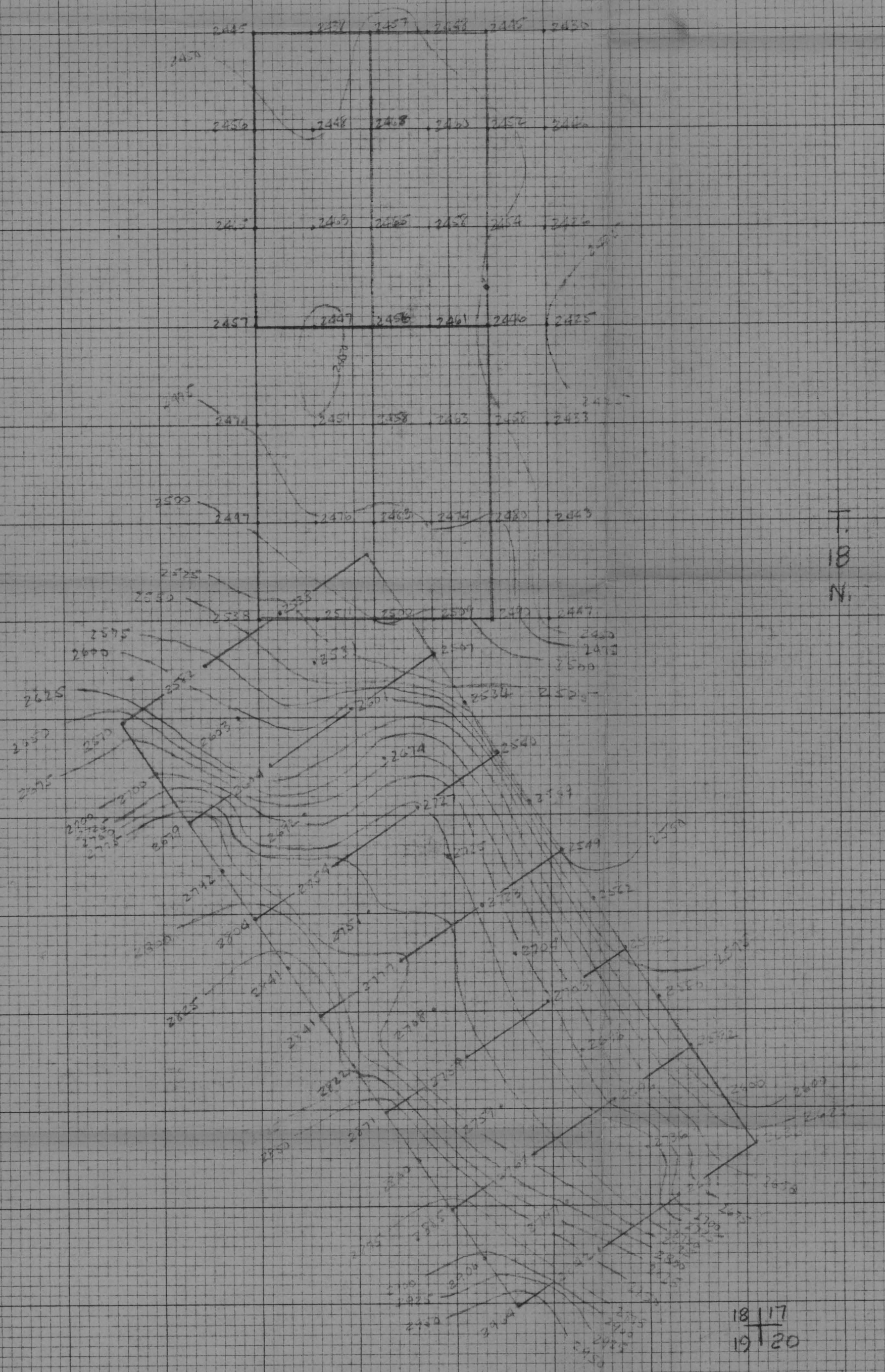
~~Geo~~ Copy  
KINGMAN



GRAVITY SURVEY  
 FOR  
 ARKLA EXPLORATION CO.  
 MOHAVE CO., ARIZONA  
 DEC. 1964  
 SCALE 1" = 500'  
 CONTOUR INT. .5 MGL.  
 BADGER CLAIM GROUP







ELEVATION SURVEY  
 FOR  
 ARKLA EXPLORATION CO.  
 MOHAVE CO., ARIZ.  
 BADGER CLAIM GROUP  
 SCALE 1" = 500'  
 CONTOUR INT. 25'

T.  
18  
N.



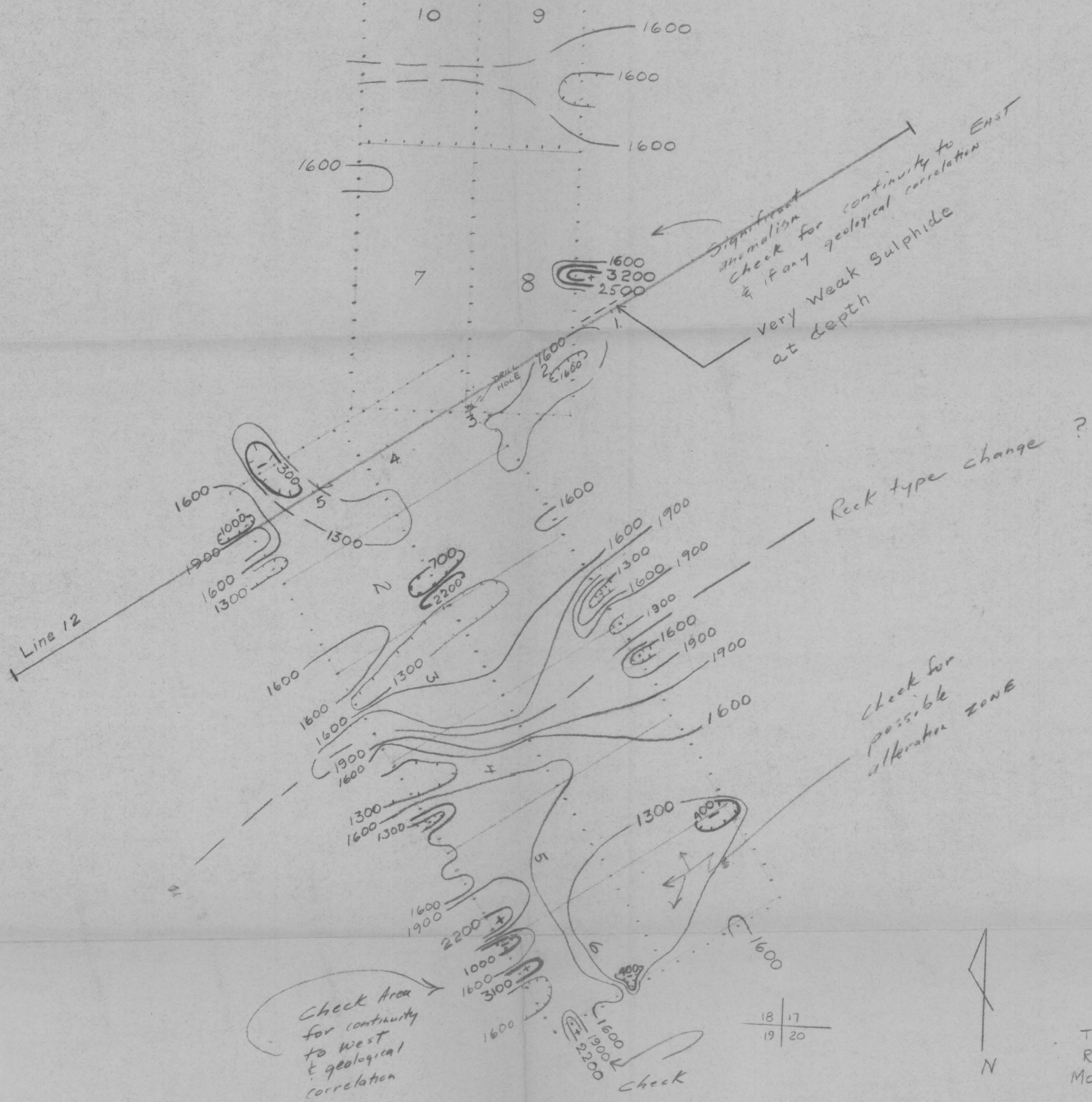
NOTE: DISTANCE APPX.  
 ELEVATIONS BY  
 ALTIMETER



R. 18 W.

18 | 17  
 19 | 20





T.18N.  
R.18W.  
MOHAVE Co. ARIZ.

VERTICAL INTENSITY  
MAGNETIC SURVEY  
ARKANSAS-LOUISIANA GAS CO

BADGER AREA  
WORK SHEET  
SCALE 1" = 500'  
CONTOUR INTERVAL 300  
DEC. 4, 1964

by

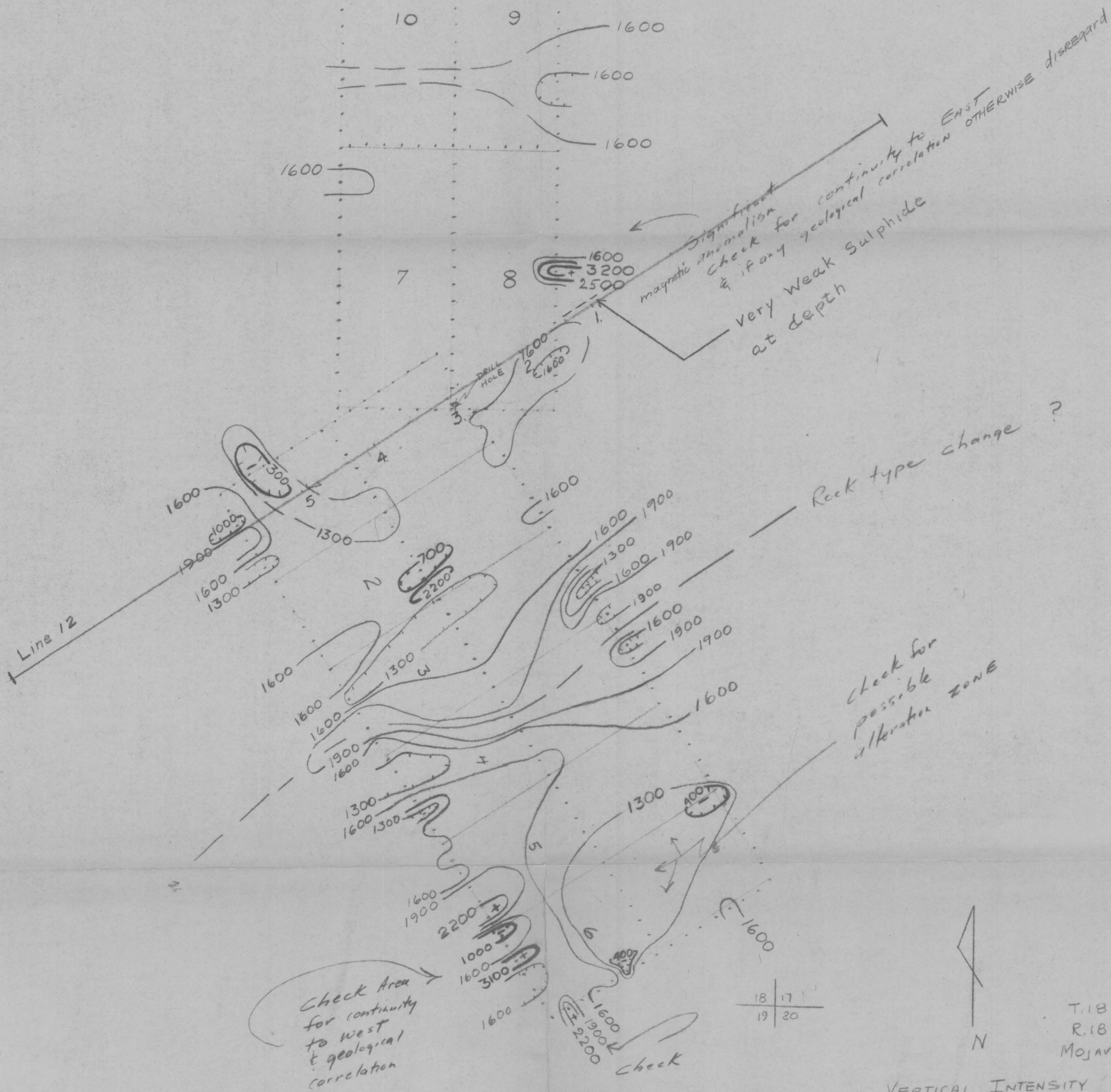
HEINRICHS  
GEOEX



GEOPHYSICAL ENGINEERS  
TUCSON, ARIZONA

3





T.18N.  
R.18W.  
MOJAVE Co. ARIZ.

VERTICAL INTENSITY  
MAGNETIC SURVEY  
ARKANSAS-LOUISIANA GAS CO

BADGER AREA  
WORK SHEET  
SCALE 1" = 500'  
CONTOUR INTERVAL 300'  
DEC. 4, 1964

by

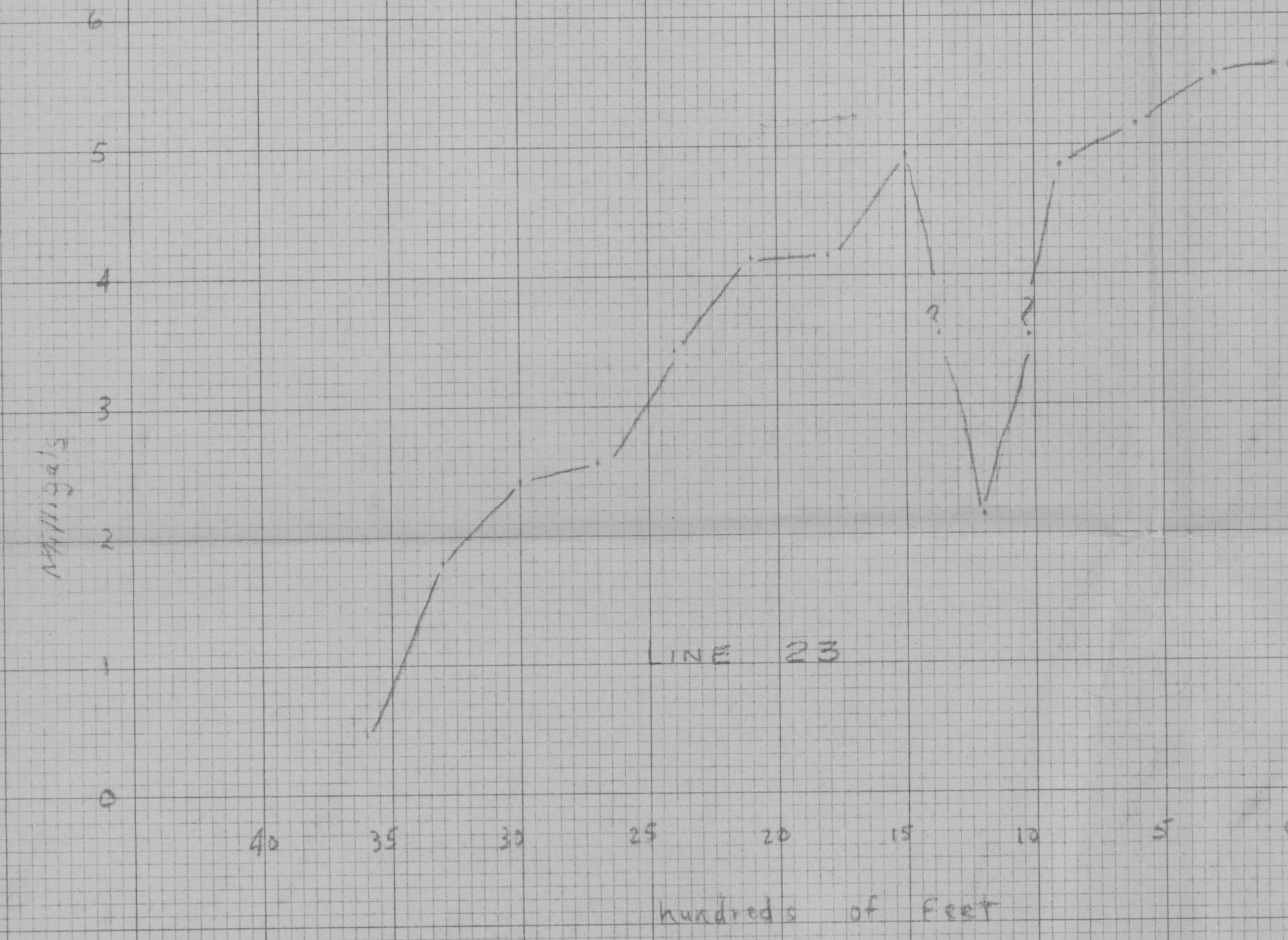
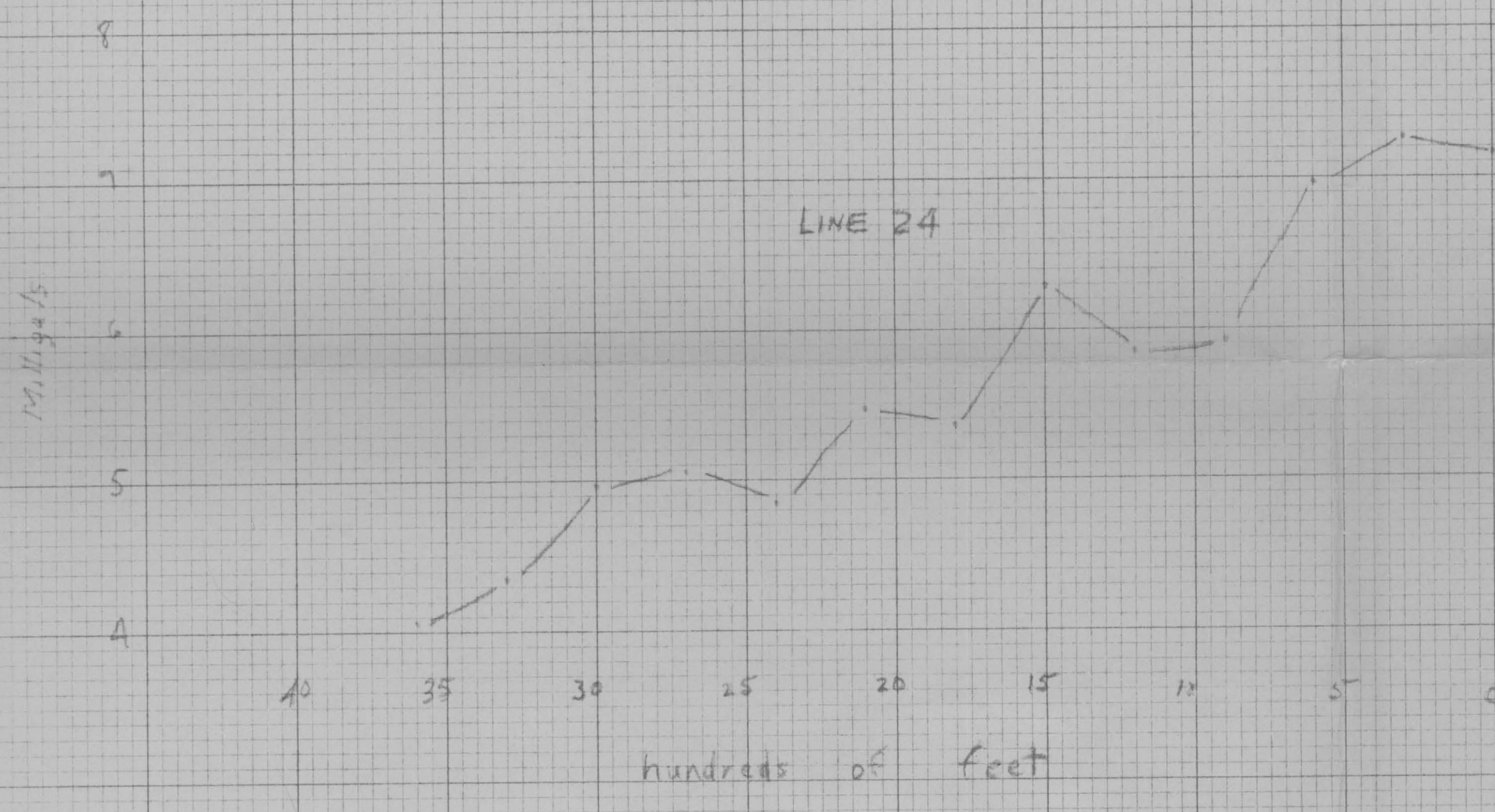
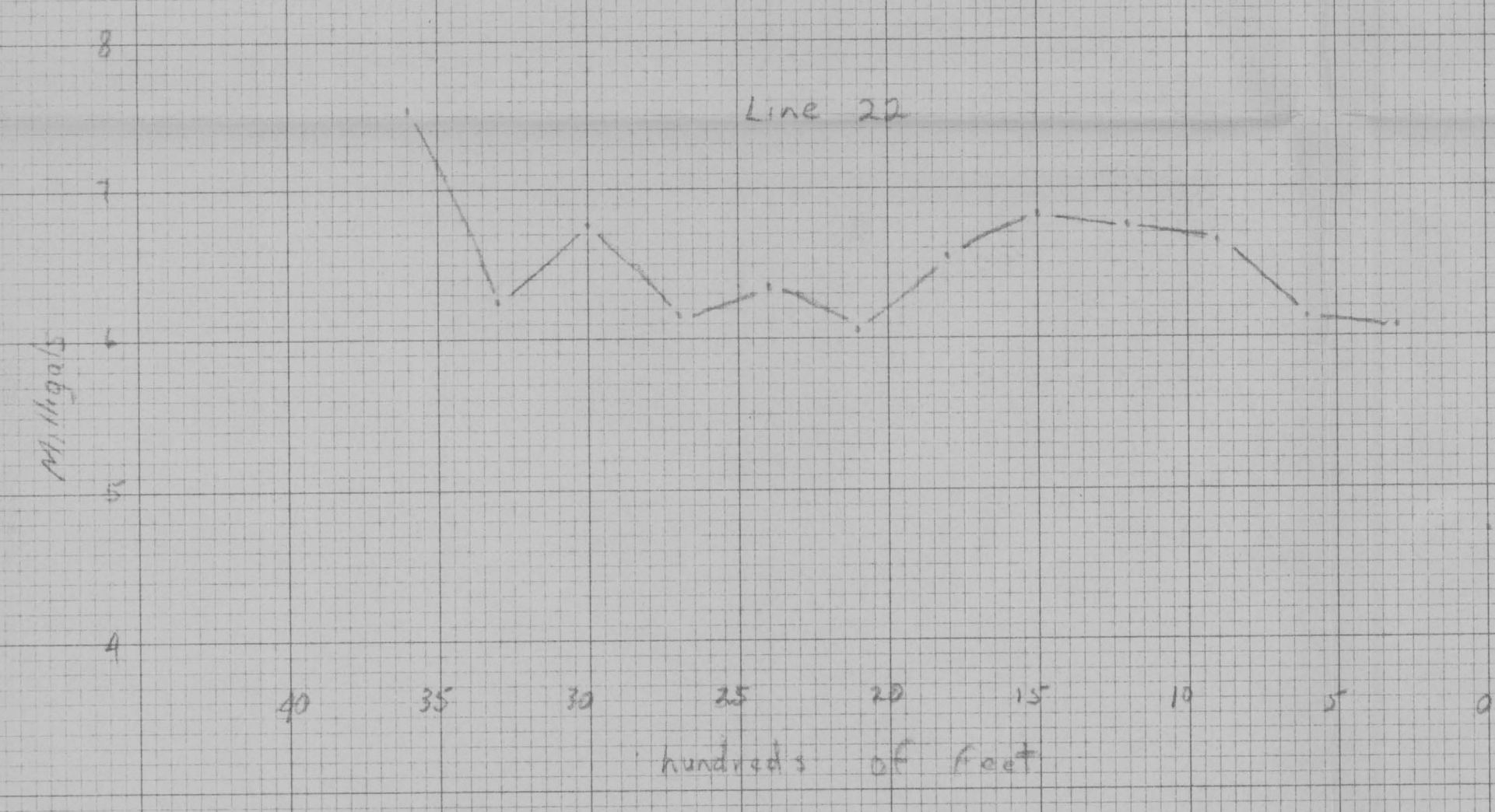
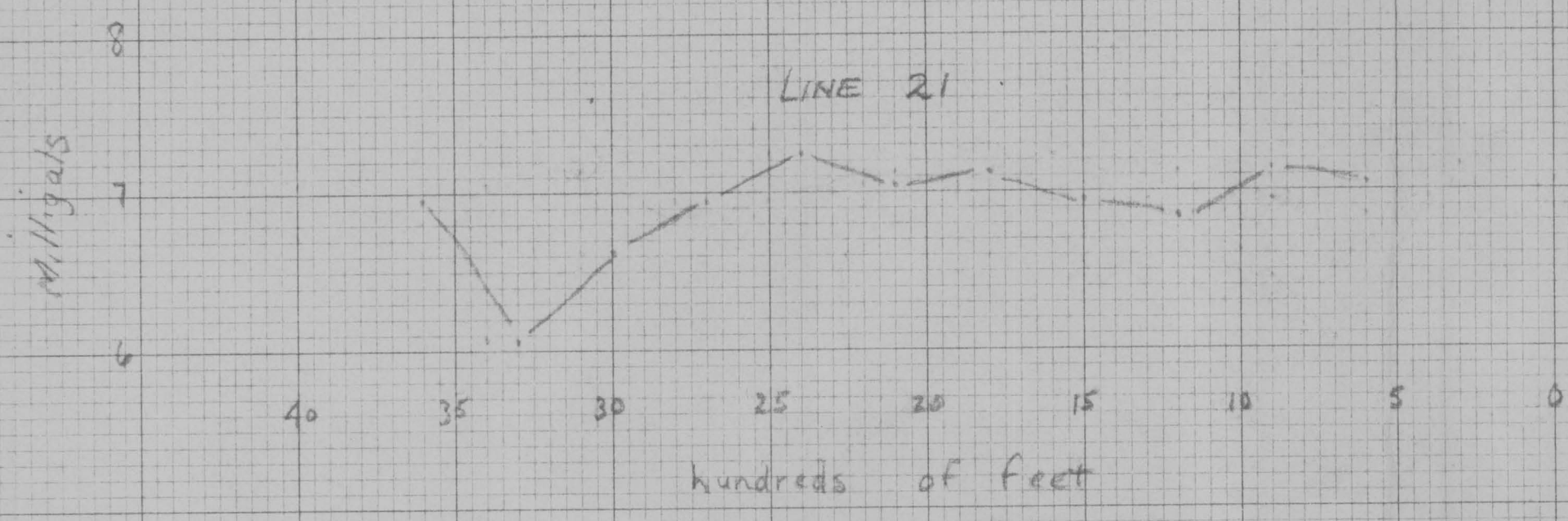
HEINRICH  
GEOEX



GEOPHYSICAL ENGINEERS  
TUCSON, ARIZONA

3





Badger Claim Group  
 Gravity Profiles  
 for  
 Arkla Exploration Co.  
 Dec. 1964



All lines looking westerly  
 H Scale 1" = 500'  
 V " 1" = 1 mgal.  
 MOHAVE Co., ARIZ.



BADGER AREA  
MOHAVE Co., ARIZ.

Magnetic Profiles  
for  
Arkla Exploration Co.  
Dec 1964

HEINRICHS  
GEOEX

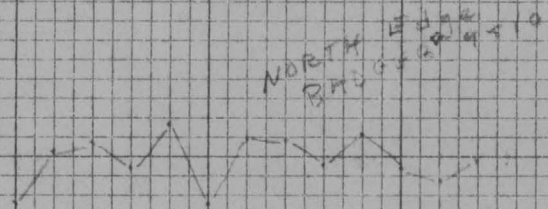


GEOPHYSICAL ENGINEERS  
TUCSON, ARIZONA

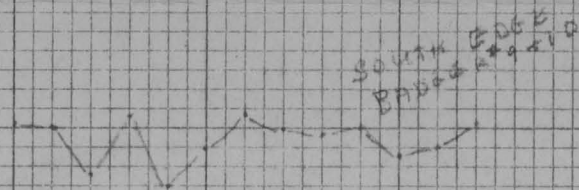
All lines looking north  
H Scale 1" = 500'  
V " 1" = 500γ

LOOKING NORTH

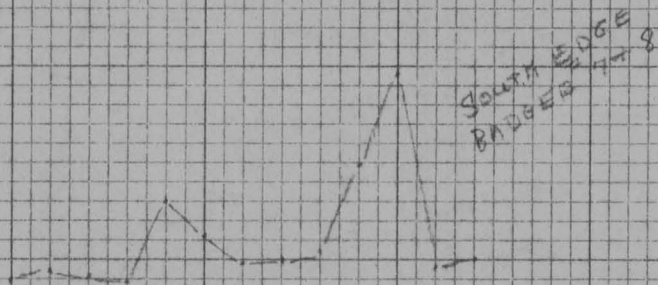
N-S SEC. LINE



1500 γ

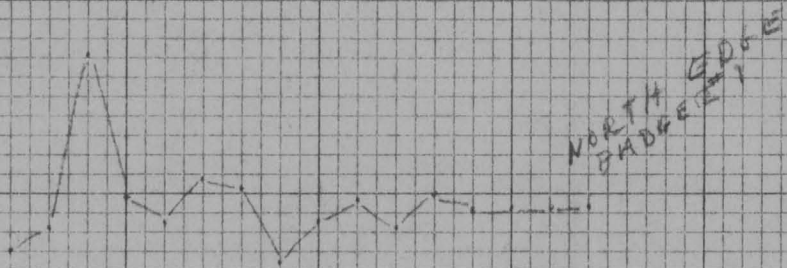


1500 γ

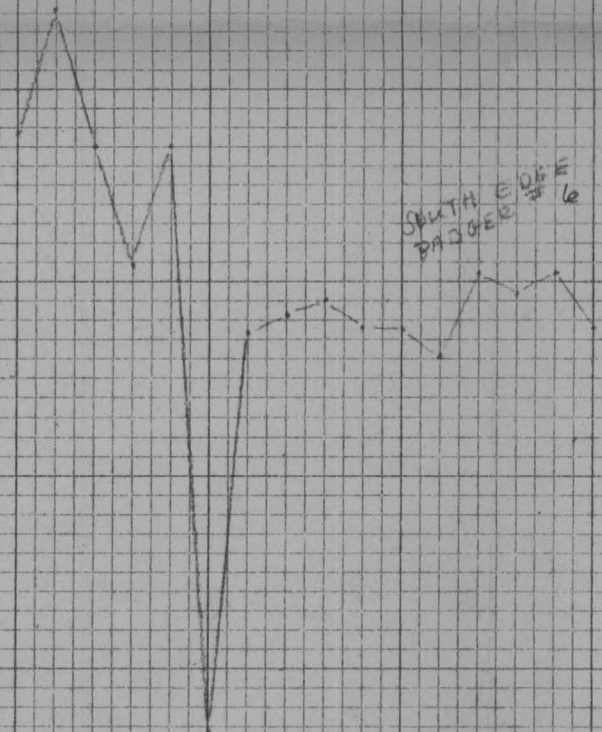


1500 γ

THE FOLLOWING LINES  
RUN IN A NORTHEAST DIRECTION



1500 γ



2000 γ

1500 γ

1000 γ

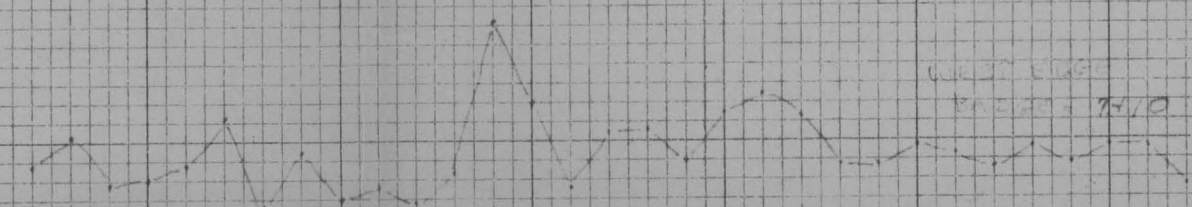
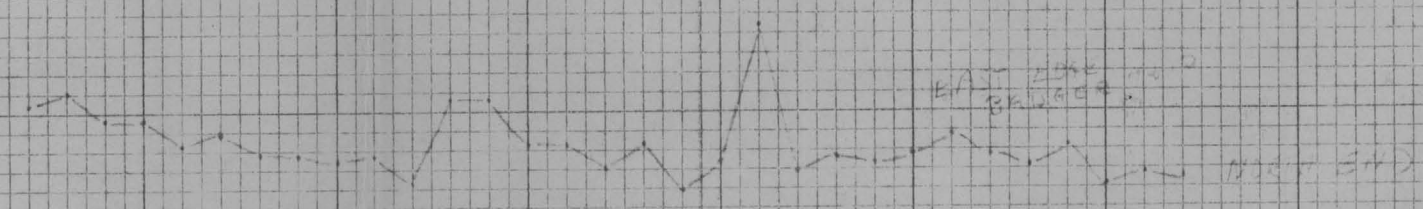
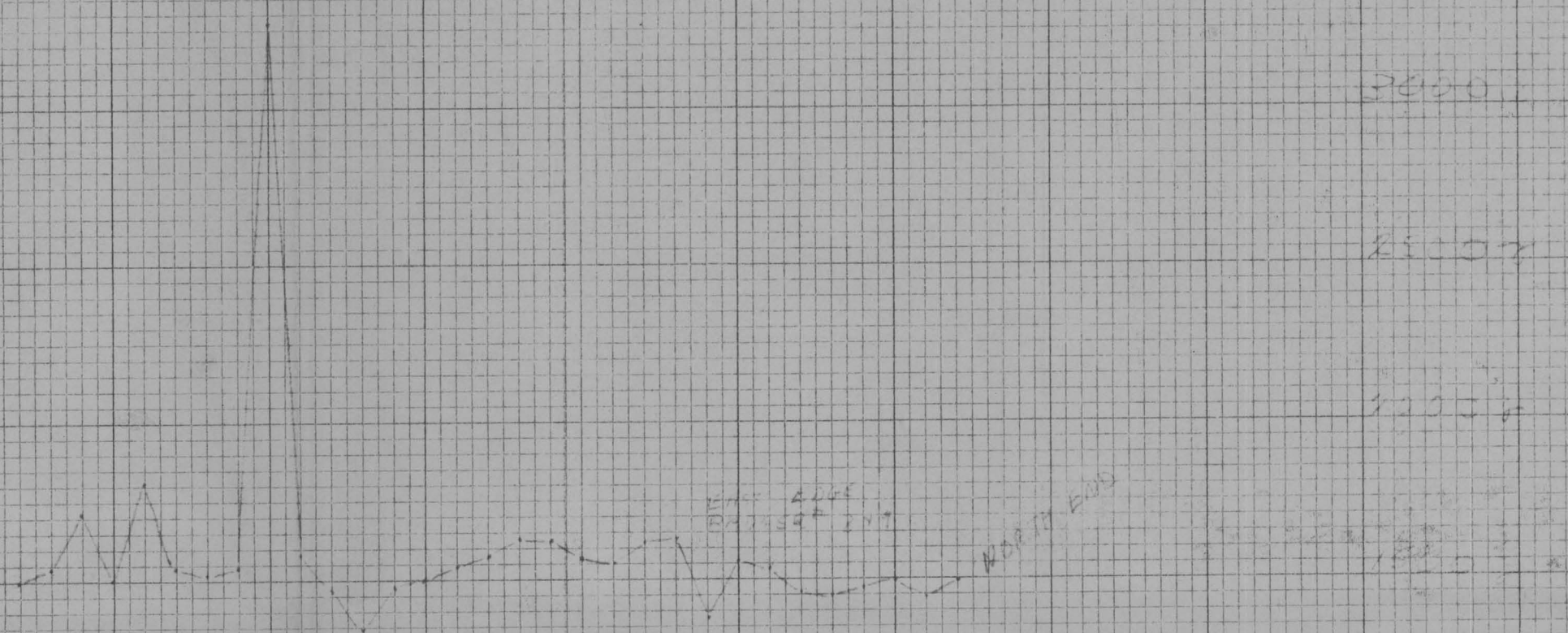
500 γ



LOOKING WEST

N-S SECTION LINE

107

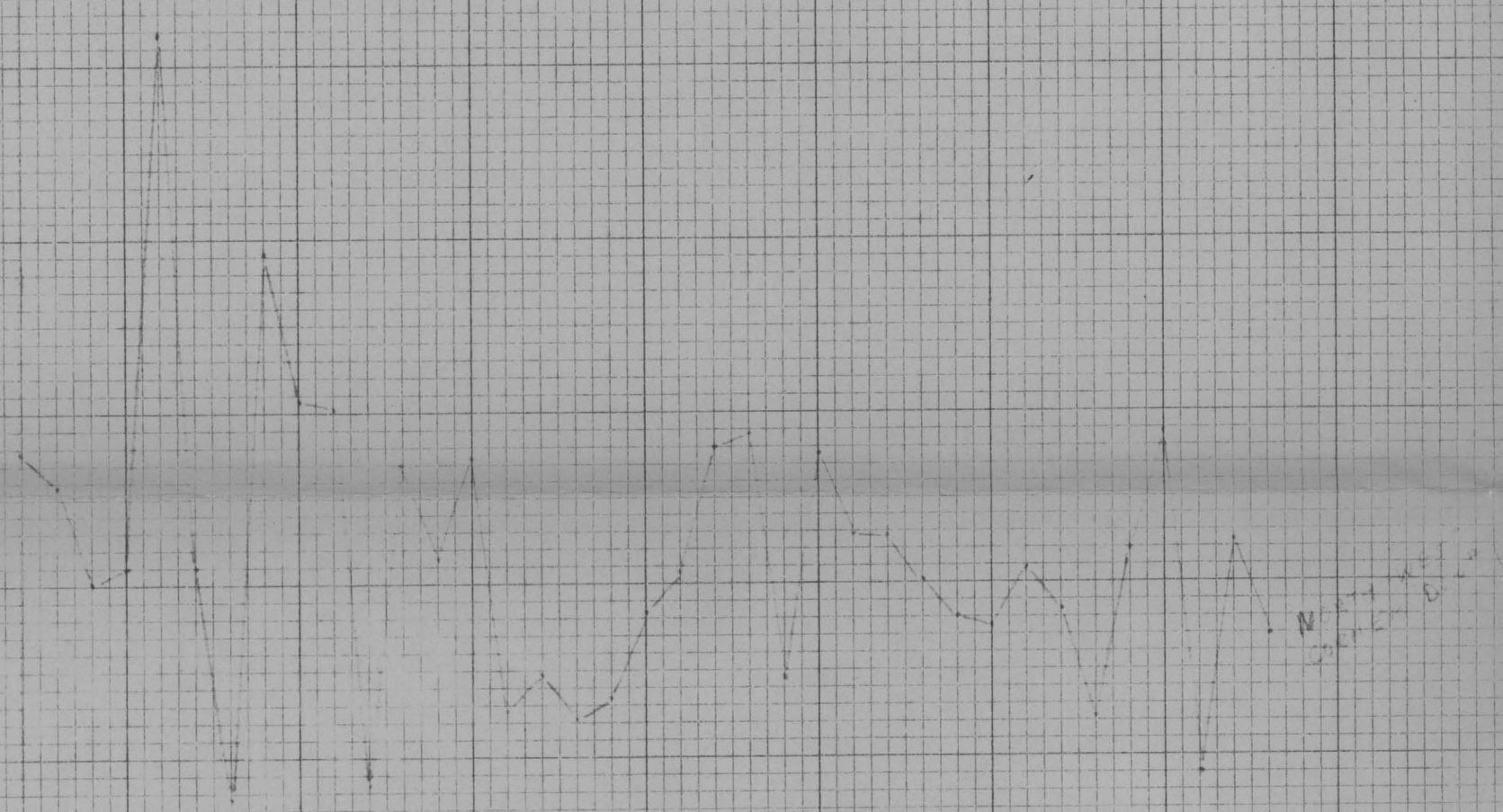
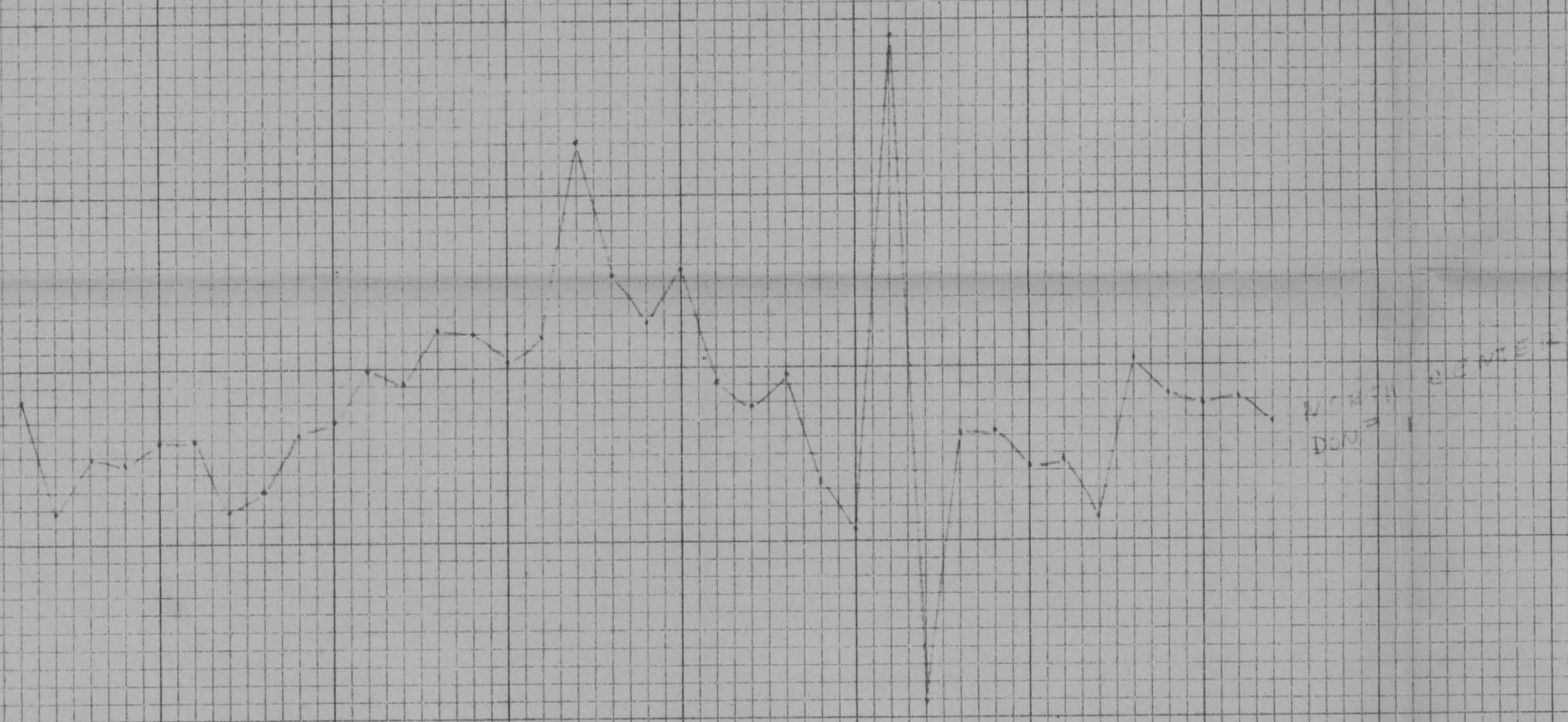
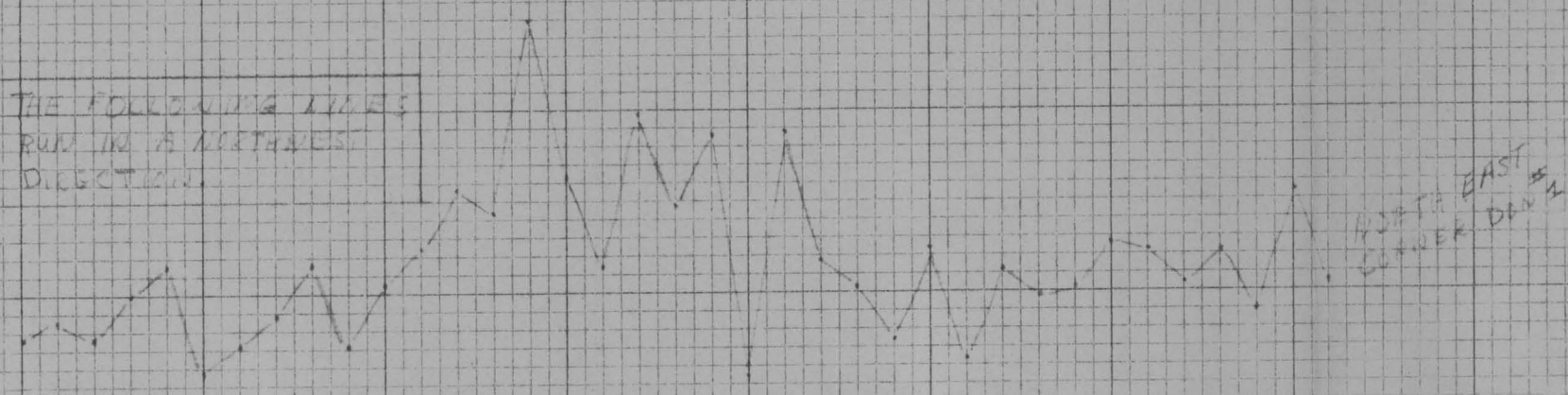


N-S SECTION LINE

112

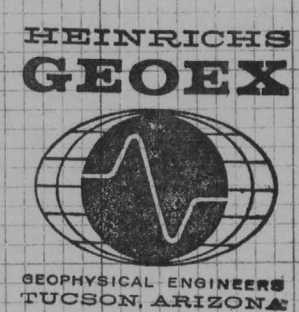
LOOKING SOUTHWEST

THE FOLLOWING LINE IS RUN IN A NORTHWEST DIRECTION



VERTICAL INTENSITY  
 MAGNETIC PROFILES  
 FOR  
 ARKLA EXPLORATION CO.  
 OCT-DEC  
 1964

BADGER AREA  
 MOHAVE CO, ARIZ.  
 ALL PROFILES LOOKING WEST  
 HORIZONTAL SCALE 1" = 500'  
 VERTICAL SCALE 1" = 500Y





January 23, 1965

Mr. M. L. Pugh, Chief Geophysicist  
Arkansas Louisiana Gas Company  
P. O. Box 1734  
Shreveport, Louisiana 71102

Re: Arkla Exploration Company  
Geophysical Investigations  
Mohave County, Arizona  
Mining Exploration

Dear Pete:

A review of all the areas and all the geophysical data observed by our crews during the months of October, November, and December 1964 reveal the following significant anomalous areas that merit further work as recommended below:

Matilda, Don, Scooter Area:

Magnetic lineation seems to relate to strong NE-SW structural features parallel to the Cretaceous volcanics as shown by the photo geology. The sulfide indications on Line 17 from electrode 2W are moderate in strength and continue at depth. It is possible for such indications to be caused by graphite, but no graphite is known in the area. Several other minor sulfide indications show up on Lines 5, 6 & 7 as indicated on Map 6. The better of these is located about 800 ft. south of electrode 1 on Line 6, extension set "C". The gravity results suggest that bedrock is nearer the surface to the west (see map #4), however, more coverage would be useful to be run in conjunction with I. P. for better interpretational purposes.

Recommendations:

1. Two 1,000 ft. dipole I. P. lines parallel <sup>to</sup> Line 17, one 1,500 ft. north and the other 1,500 ft. south.
2. Extend I. P. Line 6 to the south.



January 23, 1965

3. One NS I. P. line half way between I. P. lines 5 & 6 and in the vicinity of Set A and one I. P. line NW-SE in the same area because of the narrow weak indications a smaller dipole spacing is recommended.

Cost of the I. P. coverage is estimated to be around \$5,000.00. Magnetic and gravity should follow I. P. in this area to help pin point a drilling program. Gravity should be spaced approximately on lines 1,000 to 1,200 ft apart with stations 500 ft. apart, <sup>except for any</sup> Magnetics on lines 300 - 500 ft. apart on 100 ft. stations. <sup>of course</sup> would cost about an additional \$5,000.00. This <sup>of course</sup> would be fill in to the existing coverage. Ownership of mineral rights to the west should be investigated and the land controlled prior to any more geophysical activity. We would likely be in a position to undertake this land work in your behalf if you did not wish to do it yourself.

#### Area near Duval Ithica Peak Mine

A significant magnetic anomaly (600 gammas) was discovered in Sec. 34, T23N, R18W, Mohave County, Arizona in the vicinity of Duval Mine. (See Record #22). Estimated depth from the surface to the cause of the anomaly is 1,000 - 1,200 ft. Since the Duval Mine area has a certain amount of associated magnetic relief (see record #24) the economic importance of this feature should be investigated.

#### Recommendations

An integrated I. P. and magnetic and gravity program should follow land ownership investigation and successful land control acquisition.

A minimum coverage of five 1,000 ft. dipole lines one quarter mile apart followed by magnetics spaced 500 ft. apart and gravity lines 1,000 ft. apart in the section would adequately process the area and locate initial drill holes. Pending preliminary results, an expenditure of approximately \$7,000.00 would be required.

I trust this information will serve your present needs. We will look forward to your response.

Very truly yours,  
HEINRICHS GEOEXPLORATION COMPANY

*Walter E. Heinrichs, Jr.*  
Walter E. Heinrichs, Jr.

WEH:jh  
Enclosures: 6

Mr. M. L. Pugh

- 3 -

January 23, 1965

Inventory of enclosures:

MoMag records No. 22, & 24

Momag route map. ④

Photo geology (colored) T17N, R19W

Map #6, I. P. interpretation

Gravity contour map #7.

cc sent to  
Keayman  
Hullcrust  
11/10/64

November 9, 1964

Mr. M. L. Pugh, Chief Geophysicist  
Arkansas Louisiana Gas Company  
P. O. Box 1734  
Shreveport, Louisiana

Re: Geophysical Progress Report No. 2  
Mining Exploration, Mohave County, Arizona

Dear Pete:

The I.P. crew completed 11,000 feet of line (see enclosed map) on 500' dipole spacing. Weak anomalism was detected on Line 4 in the vicinity of Electrodes 7, 8, and 9. None was detected around Electrodes land 2 on Line 4 as hoped for. It is possible that an extension to the northeast of Line 4 would pick up some anomalies, but due to terrain (a cliff near northeast Electrode #1) this is difficult, and in order to map this area a set up on top of the cliff may be necessary.

I recommend that the reconnaissance approach proceed as originally planned and these weak I.P. shows be detailed later.

I believe gravity should not commence until the magnetics have been completed. Because magnetic coverage is much faster than gravity, we will get more information sooner on your areas of interest and will be able to select possible areas for the slower gravity evaluation. Please advise your wishes on this.

Half of Thursday and all of Friday were equipment malfunction days and no charge will be made for the day and one half involved.

Magnetics were all vertical intensity, hand magnetometer work on 100' stations, and a total of 48,800 feet was observed and plotted. The variations are considerable which presents a problem on contouring. We may need to go to a different

C  
O  
P  
Y



Mr. M. L. Pugh

November 9, 1964

Page - 2 -

C  
O  
P  
Y  
scale presentation or perhaps 200' to the inch in order to get proper detail.

Don McCarthy and I reviewed all the Mobile Magnetometer tapes and I made copies of the significant magnetic data for his use. He is investigating geologic significance on the ground.

You will note our maps are all labeled Arkansas Louisiana Gas Co. I have hesitated to change this until officially notified by you. As the contract is with Southwest Natural Production Co. we are unsure as to which name all references should be titled. Please advise.

To date we have not received a signed copy of the contract. If there are any problems we can assist with, please let us know.

Very truly yours,

HEINRICHS GEOEXPLORATION COMPANY

E. Grover Heinrichs, Vice President

October 31, 1964

Mr. M. L. Pugh  
Chief Geophysicist  
Arkansas Louisiana Gas Company  
P. O. Box 1734  
Shreveport, Louisiana

Re: Geophysical Progress Report - Mining Exploration  
Mohave County, Arizona

Dear Pete,

This letter will summarize progress through Friday, October 30, 1964 on geophysical exploration by Heinrichs Geoeexploration Company for Arkansas Louisiana Gas Company in Mohave County, Arizona.

Field operations commenced on crew arrival at crew headquarters in Kingman, Arizona, on October 21, 1964. Thursday, October 22, 1964 was spent in I.P. line layout and mobile magnetics. On Friday, October 23, 1964, a malfunction developed in the recording drive system on the mobile magnetometer. I.P. field observation commenced on Line 1 located in the Northside claim group area.

I.P. field work continued through the following week, and a total of 18,000 feet of line has been observed to date, consisting of three lines of 6000 feet each, as indicated on the accompanying map. The lines are all located in the Paycheck-Northside Area. Line 4 located normal to Lines 1, 2 and 3 has been prepared and observation will commence on Monday, November 2, 1964.

A minor amount of anomalism has been observed on Line 1 in the vicinity of Electrodes 1 and 2. To date this is the most significant I.P. indication. Mobile magnetics was held up until Thursday,

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Mr. M. L. Pugh

October 31, 1964

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October 29, 1964, awaiting a part to repair the recording drive system. A total of 89 miles of magnetic profiles has been taken through Friday, October 30th, including 402 miles of driving.

Several interesting magnetic anomalies have been observed mainly in the 4 Buttes Area, and are being evaluated in consultation with Mr. Don McCarthy. It is recommended that reproductions of our magnetic records be given to Mr. McCarthy to further check different areas of geophysical interest from a geological standpoint.

Respectfully submitted,

HEINRICHS GEOEXPLORATION COMPANY

E. Grover Heinrichs  
Vice President

EGH:vh

Enc. Maps (2)  
4 Buttes-Badger Area  
Matilda-Paycheck-Northside

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ANOMALY #	STATION #	LOCATION	CORRELATION WITH TOPOGRAPHY	REGIONAL CORRELATION WITH ROCK TYPE	DEPTH TO MAGNETIC BASEMENT	CORRELATION WITH MAGNETIC LINEAMENT	SIGNIFICANCE	RECOMMENDATION
1-A	Sta. 11-14	From Francosa north		Volc?	Outcrop	?	Volcanic expression from +500 - 1000 gammas from background	NONE
1-B	" 19-24	To Klaker-Doolin Mine		"	"	"	No significant anomolism, general drop in magnetic relief of 350 gammas at mine (calcium carbonate)	None
3-A	SHEET #4 Sta. 2-3	Klamer-Doolin Mine Road Jct. North		"	"	"	800 gamma magnetic relief, entire record varies erratically 200-400 gammas	NONE
3-B	Sta. 12	East end center Paycheck #3 East		"	"	"	Fault? Sharp 1500 gamma low, 170' wide	NONE
4							Slight magnetic increase of 100 gammas over mineralized trend	NONE
5-A	Sta. 5	East end Center Paycheck #3 West		"		"	300 gamma increase magnetic level	NONE
6-A	Sta. 3	Road Junction 600' from WCE P.C. 9		"		"	-1500 Gamma to + 700 gamma from background faulting	NONE
7-A	Sta. 17	Traverse in Don-Matilda area		"	Near surface feature	"	1000 gamma low on either side of isolated high in area of old mine workings. 1600' wide feature major faulting or dike	Area warrants further work, using magnetics and I. P.
8-A	SHEET #3 Sta. 12-15	Junction Highway 66 & Oatman Road, SW on Oatman Road		"	Outcrop	"	- 400 to + 500 gammas from background volcanic expression	NONE
81B A	Sta. 18-19	West on Oatman Road		"	Near surface	"	-700 gamma change in mag relief near area of known gold mineralization	More magnetics & geology worthwhile
81C	Sta. 368	Record shows considerable magnetic relief-correlation		"			with mineralization not known	NONE
81D A	Sheet #8 Sta. 6-7			"			Considerable relief may have some correlation with mineralization & 600 gammas above background narrow zones.	Some geology follow up may be warranted
81D B	Sta. 24-25			"	500'	?	-600 gammas from background, rock type change	XXXXXXXX Some follow up on ground may be warranted
81E A	SHEET #7 Sta. 3-4			"	Near surface	?	+600 Gamma, 1200' wide, mine in general area	Should be checked on ground for mineralization correlation.

REC. # Anomaly Number	STATION # Location	Correlation with Topography	Regional Correlation with Rock Type	Depth to Magnetic Basement	Correlation with Magnetic Lineament	Significance	Recommendation
8aA 8aB 8aC	SHEET #7 Sta. 3 Sta. 5 Sta. 7-8	Correlation with Topography	Vole? ?"	100' ?"	? "	+300 gammas above background Rock type change? small high within mag low. +1800 gammas above background, 1000' wide  -1400 gammas from background, 7200' wide zone  NONE "	Ground check recommended " Follow up with ground geology & more magnetics highly recommended. Ground check highly recommended NONE "
8aD 8 B 8 C	Sta. 14-20  SHEET 4 Sta. 1-3	Southwest to Topock  " " South to Four Buttes	" " Vole? ?	? " "	? " "	+600 to -1000 gammas from background 2600' wide -400 gamma rock type change, 2400' wide NONE NONE NONE NONE NONE NONE "	Some ground check may be worthwhile. NONE NONE NONE NONE NONE NONE "
9-A 9-B 10 11 12 13 14 15-A	Sta. 13-14  SHEET 8 Sta. 8-9	South to Four Buttes West uphill from S.E.C.B-7  Four Buttes, Badger Area " "	Vole.? "	? Shallow +300? Granite Shallow Vole. + 200? Contact ?"	? ?"	700 gamma relief above background, likely a fault contact, other anomalism on record to west indicative of volcanics  Near Head frame & past minor production  May be related to mineralization	Ground geology check & I.P. check to see if related to sulphides.  Ground & geology check  Ground check & more geology
16-A 16-B	SHEET 8 Sta. 8-9  Sta. 15-16	Gold Road  "	"	"	"	"	"
16-C 17 18-A 18-B	Sta. 20-22  Sta. 5-6  Sta. 13-16	Between Mileposts 5 & 4	Granite Rhyolite Granite	Shallow + 400' Deep w/some shallow features	"	NONE Possible rock type change & may be related mineralization Rock type change possible related mineralization	Ground check & geology  Ground geology check
18-C	Sta. 40-42	Between Mileposts 9 & 10 At Milepost 10	dikes plugs & granite	Shallow + 200'?	"	Rock type change evidence of past mineral production, 700 gamma relief	Ground geology check

REC. # & SHEET #	Location	Correlation	Regional Correlation with Rock Type	Depth to Magnetic Basement	Correlation with Magnetic Lineament	Significance	Recommendation
18-D	SHEET 8 Sta. 52	Between MP 12 and 13	dikes plugs, granite	Shallow to deep		Rock type change area of some mineralization 400 gamma relief	Ground geology check
18-E	SHEET 8-9 Sta. 55-56	Between MP 13 and 14	granite gneiss volcs.	Shallow + 200'		Rock type change possible 600 gamma relief	Ground geology check
18-F	SHEET 9 Sta. 61		"	"		600 gamma relief, 800' wide	Ground geology check
19-A	SHEET 9 Sta. 8-13		Basalt granite?	"		100 gamma relief rock type contact 4800' wide, probably volcanics but local cursory study on ground worthwhile	Ground geology check
20-A	SHEET 2 Sta. 10-14		Granite gneiss	Deep w/minor near surface flexures		800 gamma relief with minor flexures	Ground geology check
21			"			NONE	NONE
22-A	Sta. 23&27		"	Deep +1200'		600 gamma relief smooth record within 3 miles of large major copper production # (Duval Mine, Mineral Park)	Major geophysical program to determine if feature has any economic sign- ificance, follow up with drilling program to verify
23-A			"	"		"	This feature amplifies the importance of 22-A anomaly
24	Sta. 4-8		" dikes & plugs	?		4800' wide, 1600 gamma relief, major magnetic feature associated with Duval Mine	
25	Sta. 9-12		"	Shallow		Some minor mineral production associated with 800 gamma relief, record appears to be parallel zone.	
26	Sta. 1		"	"		Zone 1200' wide, 1000 gamma of relief some correlation with past mineral production.	
27-BA	Sta. 4-6		"	Deep		Broad deep zone, 600 gamma relief	Ground geology check may be extension of Duval mineralization or new mineralized zone. Geo- physics, (hand mag) could help line out zone May have some interest if mineralized zone trending in this direction

Anomaly Number	STATION # Location	Correlation with Topography	Regional Correlation with Rock Type	Depth to Magnetic Basement	Correlation with Magnetic Lineament	Significance	Recommendation
27-B	SHEET 2						
28-A	Sta. 1-2		Schist?	Shallow		SAME AS 22-A	Ground geology check
28-B	Sta. 27-28		"	"		SAME AS 22-A	Verify on ground
29-A	Sta. 7		gneiss?	+50'		600 gamma relief, zone 800' wide. See if mineral is related to anomalism May be artificial effect	
30-A						SAME AS 22-A	
31-A						"	
31-B						"	
32-A	SHEET 3					SAME AS 19-A	
33						NONE	NONE
34						NONE	NONE
35						NONE	NONE
36						NONE	NONE
37						NONE	NONE
38-A			Volc.			400 gamma relief volcanics	
39-A			"			"	
39-B			"			"	
39-C			"			"	
40-A			"	Shallow		+ -300 gamma relief - volcanics low	
41						NONE	
42						"	
42B-a			Volc ?			See records 40 & 18	Regional geology check
42B-b			"			Area of Arkla claims, 1000 gamma relief zone 3600' wide	"
43			"			NONE	NONE
44-A			Sediments?			2000 gamma relief area of Arkla claims	Regional geology check
45-A			Volcs?			NONE	NONE
46			"			Structural change, little significance	"
47			Volcs?			NONE	"
48			"	Deep		Rock type faulting? +600 gamma relief	"
49-A			Buried Volcs?	Shallow		Typical volcanic magnetic flexures	None - some field work may be useful to see if any mineralization in area.



Anomaly Number	Location	Correlation with Topography	Regional Correlation with Rock Type	Depth to Magnetic Basement	Correlation with Magnetic Lineament	Significance	Recommendation
50	SHEET 3		Buried Volcs?	Shallow		Increasing depth to bedroom	NONE
51-A			Volcs	"		First four miles - see points of deep alluvium volcanics? very small outcrop to north, see records 63, 64, 65, 66, 67, 68, 69 See record 8, Anomaly A large overlap on 8 opposite traverse direction	NONE
51-B							NONE
52-A	SHEET 4		Rhyo-lite?	600'		600 gamma relief, 1200' wide, area has been drilled by Duval. Perlite in area Drilling seems to have some correlation to the magnetic expression.	Further geophysics in area warranted. Observe activity of Duval, try & determine their reason for interest. Further geology indicated.
52-B			"	"		"	"
53			"	?		Much magnetic relief, 1000 gamma,. The dry washes seem to have + 800 gamma relief. Little magnetic relief for area	NONE
54			Basalt?			1000 gamma relief in area of Duval drill hole, many other lesser magnetic anomalies	Same as Record 52
55-A			"			NONE	"
56			"			NONE	"
57			Volcs.?			Slight increase in magnetic susceptibility at west end of record, indicating nearness of volcanics.	"
58			Volcs.?			800 gamma relief a prospect in area	May warrant ground check to see mineral relation.
59-A	SHEET 3		Volcs.? or granite?			NOT RUN	"
60			"			NONE	"
61			"			NONE	"
62	SHEETS 3-4		"			NONE	"
63-69	SHEET 3		Volcs.?			See 51-A, little economic significance	See 51-A