

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

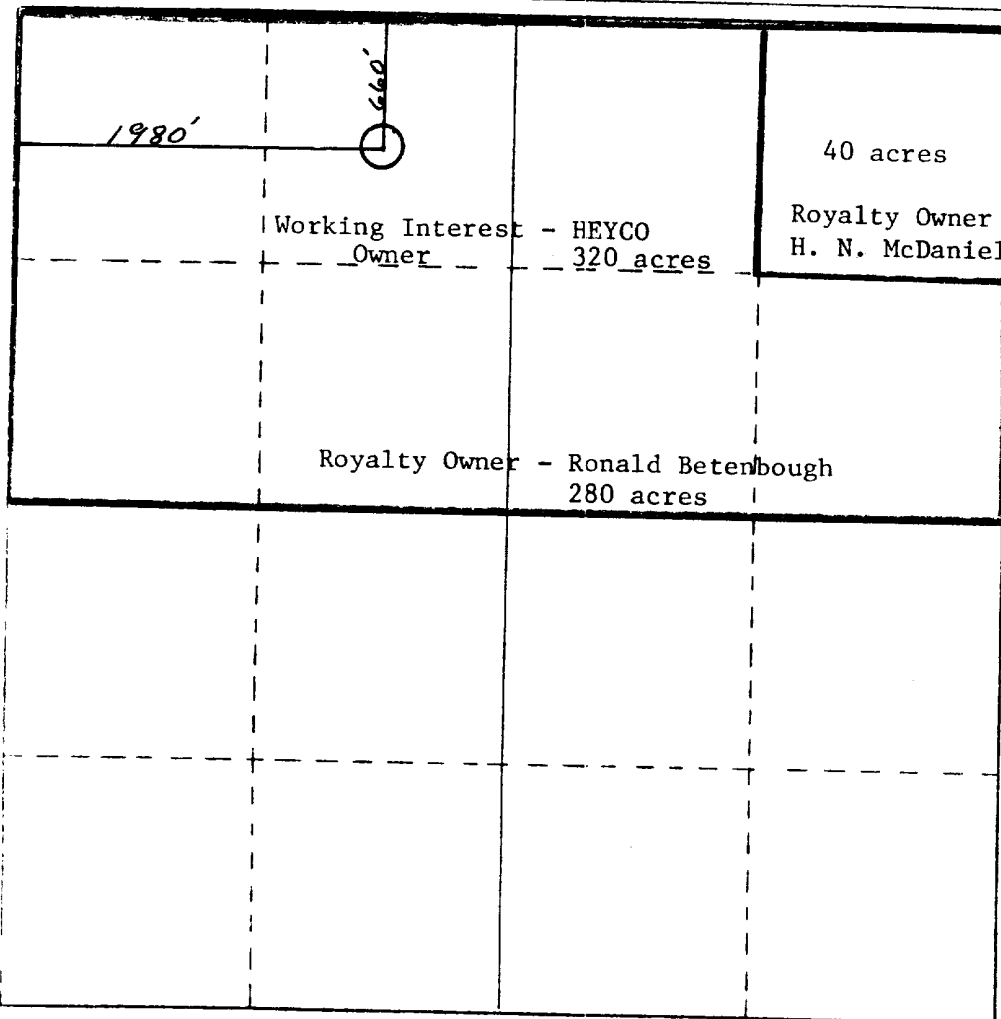
Harvey E. Yates Company			Heyco Betenbough			Well No. 1
Section C	Section 32	Township 13S	Range 36E	County Lea		
Location of Well:						
660 feet from the North line and		1980 feet from the West line				
3975'		Atoka		Wildcat		Dedicated Acreage: 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Unitized

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

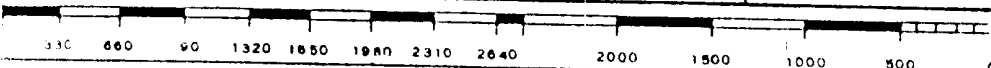
Name: Harvey E. Yates  
Position: Vice President  
Company: Harvey E. Yates Company  
Date: August 13, 1980

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.





**REPORT  
of  
SUB-SURFACE  
DIRECTIONAL  
SURVEY**

HEYCO  
COMPANY

BETENBOUGH WELL NO.1  
WELL NAME

C 32-13-36

LEA COUNTY, NEW MEXICO  
LOCATION

JOB NUMBER

WT-480 G-1643  
WT-480 S-1644  
WT-580 S-1857

TYPE OF SURVEY

Gyroscopic Multiple Shot  
Magnetic Multiple Shot  
Magnetic Multiple Shot

DATE

4-16-80  
4-17-80  
5-18-80

SURVEY BY  
Richard Shimshack  
Richard Shimshack  
Tim Stephens

OFFICE  
West Texas

HEYCO

BETENBOUGH WELL NO. 1  
LEA COUNTY, NEW MEXICO

EASTMAN WHIPSTOCK INC.

GYROSCOPIC MULTIPLE SHOT SURVEY

SURVEYOR RICHARD SHIMSHACK

MAGNETIC MULTIPLE SHOT SURVEY

SURVEYOR RICHARD SHIMSHACK

MAGNETIC MULTIPLE SHOT SURVEY

SURVEYOR TIM STEPHENS

WT480-G1643

(0-4600)

WT480-S1644

(4600-11235)

WT580-S1857

(11,235-13,645)

RECORD OF SURVEY

RADIUS OF CURVATURE METHOD

HEYCO

BETENBOUGH WELL NO. 1  
SEA COUNTY, NEW MEXICO

PAGE NO.

COMPUTATION

TIME DATE  
01:28:39 00--00

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	TRUE VERTICAL DEPTH FEET	R E C T A N G U L A R C O O R D I N A T E S FEET	D G G L E G S E V E R I T Y D G / 1 0 0 F T
0.	0 0	0	0.00	0.00	0.00
100.	0 15	N 9 E	100.00	0.21 N	0.25
200.	0 30	N 17 E	200.00	0.85 N	0.25
300.	0 0	0	300.00	1.27 N	0.50
400.	0 15	S 17 E	400.00	1.06 N	0.25
500.	0 30	S 3 E	499.99	0.42 N	0.26
600.	0 0	0	599.99	0.02 S	0.50
700.	0 30	S 29 E	699.99	0.40 S	0.50
800.	0 30	S 31 E	799.99	1.15 S	0.02
900.	0 15	S 41 E	899.99	1.68 S	0.26
1000.	0 0	0	999.98	1.85 S	0.25
1100.	0 15	N 21 W	1099.98	1.65 S	0.25
1200.	0 0	0	1199.98	1.44 S	0.25
1300.	0 30	S 35 E	1299.98	1.80 S	0.50
1400.	0 45	S 89 E	1399.98	2.29 S	0.61
1500.	0 45	N 41 E	1499.97	1.78 S	0.63
1600.	1 0	N 60 E	1599.96	0.81 S	0.38
1700.	1 0	N 53 E	1699.94	0.15 N	0.12
1800.	1 0	N 58 E	1799.93	1.14 N	0.09
1900.	1 0	N 37 E	1899.91	2.31 N	0.36
2000.	0 45	N 46 E	1999.90	3.45 N	0.28
2100.	0 30	N 54 E	2099.89	4.15 N	0.26
2200.	0 0	0	2199.89	4.41 N	0.50
2300.	0 0	0	2299.89	4.41 N	0.00
2400.	0 0	0	2399.89	4.41 N	0.00
2500.	0 0	0	2499.89	4.41 N	0.00
2600.	0 0	0	2599.89	4.41 N	0.00
2700.	0 0	0	2699.89	4.41 N	0.00
2800.	0 0	0	2799.89	4.41 N	0.00
2900.	0 30	N 24 W	2899.89	4.81 N	0.50

TIME DATE  
01:28:39 00--00

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	TRUE VERTICAL DEPTH FEET	R E C T A N G U L A R C O O R D I N A T E S FEET	DOG LEG SEVERITY DG/100FT
3000.	1 0	N 17 W	2999.88	6.03 N 10.77 E	0.51
3100.	1 15	N 13 W	3099.86	7.93 N 10.27 E	0.26
3200.	1 15	N 9 W	3199.84	10.07 N 9.85 E	0.09
3300.	1 30	N 1 W	3299.81	12.46 N 9.64 E	0.31
3400.	2 0	N 6 E	3399.76	15.51 N 9.77 E	0.54
3500.	1 30	N 4 E	3499.72	18.55 N 10.04 E	0.50
3600.	2 0	N 11 E	3599.67	21.58 N 10.44 E	0.54
3700.	2 15	N 17 E	3699.60	25.17 N 11.34 E	0.33
3800.	2 15	N 10 E	3799.52	28.99 N 12.25 E	0.27
3900.	2 15	N 10 E	3899.45	32.85 N 12.93 E	0.00
4000.	2 15	N 17 E	3999.37	36.67 N 13.85 E	0.27
4100.	1 45	N 28 E	4099.31	39.89 N 15.18 E	0.63
4200.	1 30	N 36 E	4199.27	42.29 N 16.68 E	0.34
4300.	1 30	N 41 E	4299.23	44.34 N 18.31 E	0.13
4400.	1 30	N 46 E	4399.20	46.24 N 20.11 E	0.13
4500.	1 15	N 13 E	4499.17	48.30 N 21.23 E	0.82
4600.	1 45	N 48 E	4599.14	50.52 N 22.59 E	1.02
4757.	1 15	N 35 E	4756.08	53.59 N 25.30 E	0.38
4851.	1 30	N 26 E	4850.05	55.53 N 26.45 E	0.35
4945.	1 15	N 29 E	4944.03	57.53 N 27.49 E	0.28
5039.	1 30	N 20 E	5038.00	59.58 N 28.42 E	0.35
5133.	1 45	N 48 E	5131.96	61.77 N 29.90 E	0.88
5227.	1 15	N 38 E	5225.93	63.56 N 31.57 E	0.60
5321.	1 15	N 34 E	5319.91	65.22 N 32.73 E	0.09
5415.	1 30	N 54 E	5413.88	66.84 N 34.34 E	0.57
5508.	1 45	N 45 E	5506.84	68.55 N 36.34 E	0.38
5602.	1 15	N 60 E	5600.81	70.04 N 38.29 E	0.67
5696.	2 0	N 51 E	5694.77	71.55 N 40.48 E	0.84
5790.	1 45	N 39 E	5788.72	73.72 N 42.65 E	0.49
5884.	1 15	N 62 E	5882.69	75.27 N 44.54 E	0.82

KEYCO

 WESTENBOUGH WELL NO. 1  
 JEA COUNTY, NEW MEXICO

PAGE NO. 3

COMPUTATION

TIME DATE

01:28:39 00--00

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	TRUE VERTICAL DEPTH FEET	R E C T A N G U L A R C O O R D I N A T E S FEET	DOG LEG SEVERITY DG/100FT
5978.	1 0	N 53 E	5976.67	76.24 N	46.11 E
6072.	1 30	N 49 E	6070.65	77.50 N	47.73 E
6166.	1 15	N 70 E	6164.62	78.64 N	49.66 E
6260.	1 30	N 68 E	6258.59	79.45 N	51.76 E
6353.	1 15	N 65 E	6351.56	80.34 N	53.81 E
6447.	1 0	N 47 E	6445.55	81.36 N	55.33 E
6541.	1 30	N 47 E	6539.52	82.76 N	56.83 E
6635.	1 45	N 78 E	6633.49	83.98 N	59.17 E
6729.	1 15	N 58 E	6727.45	84.90 N	61.44 E
6823.	1 15	N 83 E	6821.43	85.57 N	63.36 E
6917.	1 30	N 59 E	6915.40	86.30 N	65.47 E
7011.	1 0	N 50 E	7009.38	87.49 N	67.14 E
7104.	0 45	S 85 E	7102.37	87.91 N	68.46 E
7198.	0 45	N 81 E	7196.36	87.95 N	69.69 E
7292.	1 15	N 56 E	7290.35	88.55 N	71.20 E
7386.	1 0	N 48 E	7384.33	89.68 N	72.65 E
7480.	1 0	N 82 E	7478.32	90.37 N	74.12 E
7574.	1 0	N 34 E	7572.30	91.21 N	75.47 E
7668.	1 0	N 80 E	7666.29	92.09 N	76.81 E
7762.	1 15	N 49 E	7760.27	92.87 N	78.46 E
7855.	1 15	N 56 E	7853.25	94.10 N	80.06 E
7949.	1 30	N 53 E	7947.22	95.41 N	81.90 E
8043.	1 15	N 40 E	8041.19	96.96 N	83.53 E
8137.	1 15	N 38 E	8135.17	98.55 N	84.82 E
8231.	1 15	N 53 E	8229.15	99.98 N	86.28 E
8325.	0 45	N 83 E	8323.13	100.59 N	87.78 E
8419.	1 30	N 76 E	8417.12	100.93 N	89.60 E
8513.	1 0	N 52 E	8511.09	101.82 N	91.43 E
8606.	1 15	N 54 E	8604.08	102.92 N	92.89 E
8700.	1 30	N 56 E	8698.05	104.21 N	94.73 E

KEYCO

STENBOUGH WELL NO. 1  
SEA COUNTY, NEW MEXICO

PAGE NO. 4

COMPUTATION

TIME DATE  
01:28:39 00--00

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	TRUE VERTICAL DEPTH FEET	R E C T A N G U L A R C O O R D I N A T E S FEET	D O G L E G S E V E R I T Y D G / 1 0 0 F T
8794.	1 15	N 70 E	8792.02	105.23 N 96.74 E	0.44
8888.	1 0	N 89 E	8886.00	105.57 N 98.54 E	0.47
8982.	1 15	N 77 E	8979.98	105.79 N 100.37 E	0.36
9076.	1 15	N 89 E	9073.96	106.04 N 102.41 E	0.28
9170.	1 15	N 60 E	9167.94	106.59 N 104.36 E	0.67
9264.	1 0	N 71 E	9261.92	107.35 N 106.04 E	0.35
9358.	1 0	N 67 E	9355.91	107.94 N 107.57 E	0.07
9451.	1 0	N 74 E	9448.89	108.48 N 109.10 E	0.13
9545.	1 0	N 80 E	9542.88	108.85 N 110.70 E	0.11
9639.	1 15	N 84 E	9636.86	109.11 N 112.52 E	0.28
9733.	1 30	S 86 E	9730.83	109.14 N 114.78 E	0.37
9827.	1 0	S 59 E	9824.81	108.53 N 116.71 E	0.81
9921.	1 0	S 78 E	9918.79	107.94 N 118.23 E	0.35
10015.	1 15	S 89 E	10012.78	107.73 N 120.06 E	0.35
10109.	1 15	S 65 E	10106.75	107.27 N 122.05 E	0.55
10202.	1 15	S 86 E	10199.73	106.76 N 124.00 E	0.49
10296.	1 0	N 87 E	10293.71	106.75 N 125.85 E	0.30
10390.	1 0	S 57 E	10387.70	106.33 N 127.41 E	0.66
10484.	0 45	N 72 E	10481.69	106.15 N 128.78 E	0.84
10578.	1 0	S 66 E	10575.68	106.08 N 130.18 E	0.71
10672.	1 0	S 70 E	10669.66	105.46 N 131.70 E	0.07
10766.	0 45	S 61 E	10763.65	104.87 N 133.01 E	0.30
10860.	0 45	S 38 E	10857.64	104.07 N 133.94 E	0.32
10953.	0 30	N 1 E	10950.64	104.32 N 134.67 E	1.27
11047.	0 15	N 53 W	11044.63	104.85 N 134.41 E	0.43
11141.	1 0	N 44 W	11138.63	105.53 N 133.65 E	0.80
11235.	0 45	N 37 W	11232.62	106.62 N 132.71 E	0.29
11289.	2 0	S 9 W	11286.60	106.38 N 131.73 E	4.77
11383.	3 45	S 19 E	11380.48	101.73 N 132.13 E	2.33
11477.	3 45	S 40 E	11474.28	96.40 N 135.14 E	1.45

KEYCO

PETENBOUGH WELL NO. 1  
SEA COUNTY, NEW MEXICO

PAGE NO. 5

COMPUTATION  
TIME DATE  
01:28:39 00--00

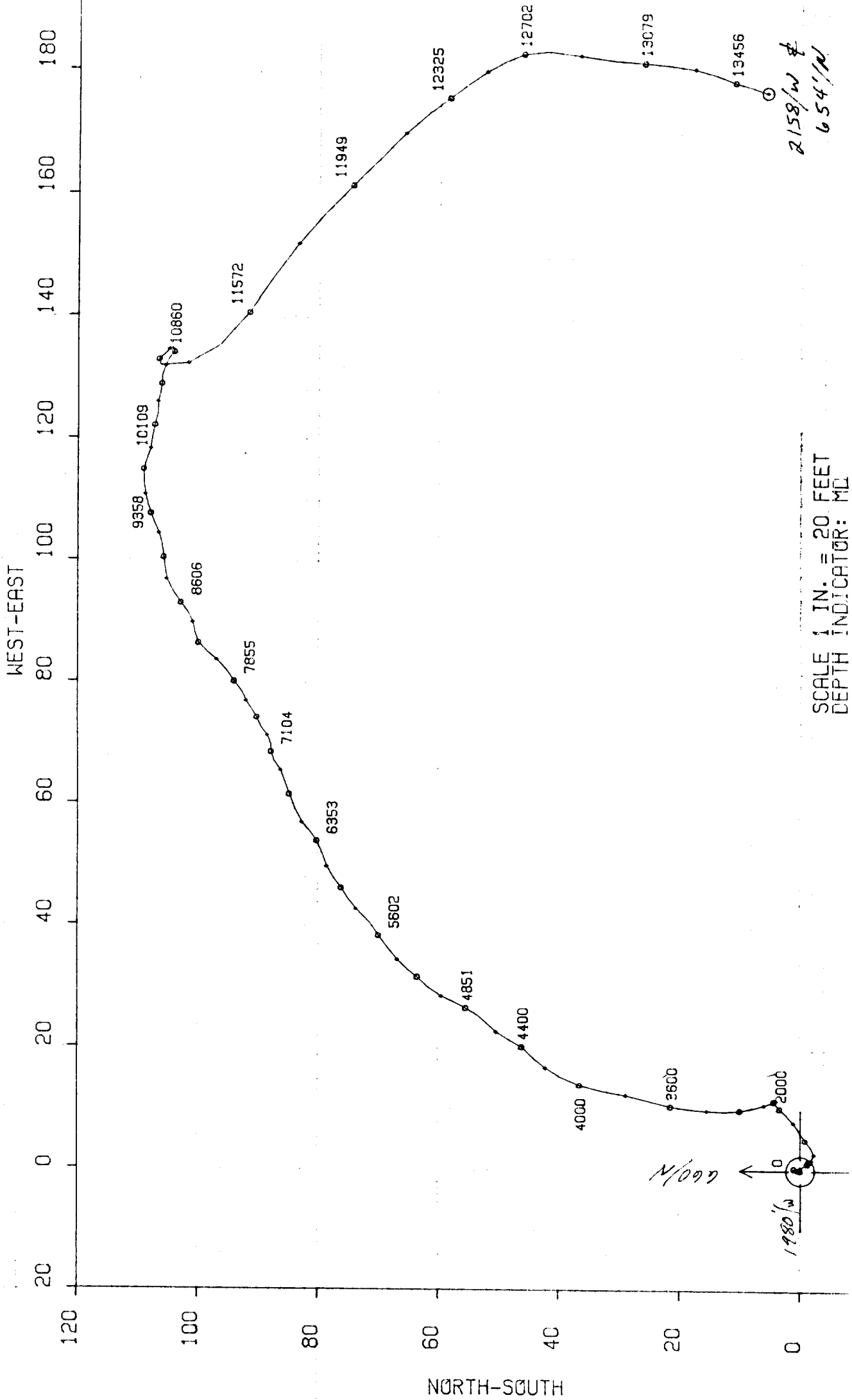
MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	TRUE VERTICAL DEPTH FEET	R E C T A N G U L A R C O O R D I N A T E S FEET	D O G L E G S E V E R I T Y D G / 100 FT
11572.	5 0	S 57 E	11569.00	91.62 N 140.55 E	1.88
11666.	4 0	S 54 E	11662.71	87.44 N 146.63 E	1.09
11760.	4 0	S 51 E	11756.48	83.45 N 151.83 E	0.22
11854.	4 0	S 47 E	11850.25	79.15 N 156.78 E	0.30
11949.	4 0	S 44 E	11945.02	74.51 N 161.50 E	0.22
12043.	4 0	S 45 E	12038.79	69.83 N 166.10 E	0.07
12137.	3 0	S 45 E	12132.62	65.77 N 170.16 E	1.06
12231.	3 0	S 36 E	12226.49	62.04 N 173.35 E	0.50
12325.	2 15	S 36 E	12320.39	58.55 N 175.88 E	0.80
12420.	2 15	S 38 E	12415.31	55.57 N 178.12 E	0.08
12514.	2 15	S 29 E	12509.24	52.50 N 180.16 E	0.38
12608.	2 0	S 25 E	12603.18	49.40 N 181.74 E	0.31
12702.	2 0	S 17 E	12697.12	46.33 N 182.91 E	0.30
12797.	3 0	S 5 W	12792.03	42.24 N 183.35 E	1.44
12891.	3 30	S 8 W	12885.88	36.94 N 182.74 E	0.56
12985.	3 15	S 6 W	12979.71	31.45 N 182.07 E	0.29
13079.	3 0	S 1 W	13073.57	26.34 N 181.75 E	0.39
13173.	2 30	S 8 W	13167.46	21.85 N 181.40 E	0.64
13268.	2 15	S 5 W	13262.38	17.93 N 180.96 E	0.29
13362.	2 15	S 23 W	13356.31	14.37 N 180.07 E	0.75
13456.	1 45	S 13 W	13450.25	11.30 N 178.92 E	0.56
13550.	1 30	S 11 W	13544.21	8.72 N 178.25 E	0.34
13645.	2 0	S 25 W	13639.17	5.97 N 177.36 E	0.69

FINAL CLOSURE - DIRECTION: N 88 DEGS 4 MINS E  
DISTANCE: 177.46 FEET



HEYCO  
 BETENBOUGH WELL NO. 1  
 LER COUNTY, NEW MEXICO  
 EASTMAN WHIPSTOCK, INC.

FINAL STATION:  
 DEPTH 13645 MD. 13639.16 TVD  
 NORTH 5.96 EAST 177.35  
 CLOSURE 177.45 N 88 4 25 E



SCALE 1 IN. = 20 FEET  
 DEPTH INDICATOR: MD



P. O. Box 5577 / Midland, Texas 79701 / (915) 563-0511  
TWX 910-881-5066 / Cable: EASTCO

### SURVEY CERTIFICATION SHEET

STATE OF TEXAS  
COUNTY OF MIDLAND

I, Richard Shimshack, in the employ of Eastman Whipstock, Inc., did on the days of April 16, 19 80 thru April 16, 19 80 conduct or supervise the taking of a Gyroscopic Multiple Shot survey by the method of magnetic orientation from a depth of 0 feet to 4600 feet, with recordings of inclination and direction being obtained at approximate intervals of 100 feet.

This survey was conducted at the request of HEYCO for their Betenbough Well No. 1, Lea County, State of New Mexico, in the        field.

The data for this survey and the calculations were obtained and performed by me according to standards and procedures as set forth by Eastman Whipstock, Inc. and is true and correct to the best of my knowledge.

Richard Shimshack  
Directional Supervisor/Surveyor

The data for this survey has been examined by me and conforms to principles and procedures set forth by Eastman Whipstock, Inc.

Larry Massey

Before me, the undersigned authority, on this day personally appeared Richard Shimshack, known to me to be the person whose name is subscribed to this instrument, who after being by me duly sworn on oath, states that he has knowledge of all the facts stated above and that this instrument is a true statement of facts therein recited.

Subscribed and sworn to before me on this 19th day of May, 19 80.

Anna M. Smith  
Notary Public in and for the County of  
Midland, Texas  
My commission expires 5-24-80



P. O. Box 5577 / Midland, Texas 79701 / (915) 563-0511  
TWX 910-881-5066 / Cable: EASTCO

# SURVEY CERTIFICATION SHEET

STATE OF TEXAS  
COUNTY OF MIDLAND

I, Richard Shimshack, in the employ of Eastman Whipstock, Inc., did on the days of April 17, 1980 thru April 17, 1980 conduct or supervise the taking of a Magnetic Multiple Shot survey by the method of magnetic orientation from a depth of 4600 feet to 11235 feet, with recordings of inclination and direction being obtained at approximate intervals of 94 feet.

This survey was conducted at the request of HEYCO for their Betenbough Well No.1, Lea County, State of New Mexico, in the                      field.

The data for this survey and the calculations were obtained and performed by me according to standards and procedures as set forth by Eastman Whipstock, Inc. and is true and correct to the best of my knowledge.

Richard Shimshack  
Directional Supervisor/Surveyor

The data for this survey has been examined by me and conforms to principles and procedures set forth by Eastman Whipstock, Inc.

Larry Massey

Before me, the undersigned authority, on this day personally appeared Richard Shimshack, known to me to be the person whose name is subscribed to this instrument, who after being by me duly sworn on oath, states that he has knowledge of all the facts stated above and that this instrument is a true statement of facts therein recited.

Subscribed and sworn to before me on this 19th day of May, 1980.

Rene M. Smith  
Notary Public in and for the County of  
Midland, Texas  
My commission expires 5-24-80



P. O. Box 5577 / Midland, Texas 79701 / (915) 563-0511  
TWX 910-881-5066 / Cable: EASTCO

# SURVEY CERTIFICATION SHEET

STATE OF TEXAS  
COUNTY OF MIDLAND

I, Tim Stephens, in the employ of Eastman Whipstock, Inc., did on the days of May 18, 19 80 thru May 18, 19 80 conduct or supervise the taking of a Magnetic Multiple Shot survey by the method of magnetic orientation from a depth of 11235 feet to 13645 feet, with recordings of inclination and direction being obtained at approximate intervals of 94 feet.

This survey was conducted at the request of HEYCO for their Betenbough Well No.1, Lea County, State of New Mexico, in the        field.

The data for this survey and the calculations were obtained and performed by me according to standards and procedures as set forth by Eastman Whipstock, Inc. and is true and correct to the best of my knowledge.

Tim Stephens  
Directional/ Supervisor/ Surveyor

The data for this survey has been examined by me and conforms to principles and procedures set forth by Eastman Whipstock, Inc.

Larry Massey

Before me, the undersigned authority, on this day personally appeared Tim Stephens, known to me to be the person whose name is subscribed to this instrument, who after being by me duly sworn on oath, states that he has knowledge of all the facts stated above and that this instrument is a true statement of facts therein recited.

Subscribed and sworn to before me on this 19th day of May, 19 80.

Rene M. Smith  
Notary Public in and for the County of  
Midland, Texas  
My commission expires 5-24-80