

12-8-85
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AUG 29 1985

O. C. D.

ARTESIA, OFFICE



**REPORT
of
SUB-SURFACE
DIRECTIONAL
SURVEY**

YOUNG DRILLING COMPANY
COMPANY

MIKE FEDERAL COM. #1
WELL NAME

CHAVES COUNTY, NEW MEXICO BD2-108
LOCATION

JOB NUMBER

WT0984-G0034
WT1084-S0042

TYPE OF SURVEY

GYROSCOPIC MULTI SHOT SURVEY
MAGNETIC MULTI SHOT SURVEY

DATE

29-SEP-84
12-OCT-84

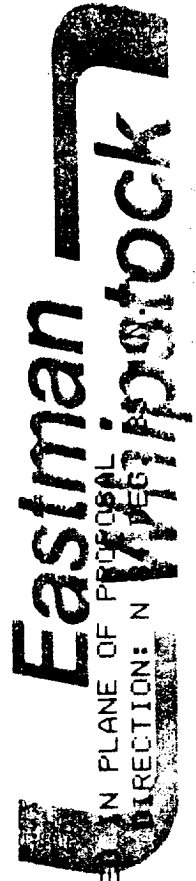
SURVEY BY
STEVE COVINGTON
GARY DESPAIN

OFFICE
west texas

YOUNG DRILLING COMPANY
MIKE FEDERAL COM. #1
CHAVES COUNTY, NEW MEXICO RD2-108

EASTMAN WHIPSTOCK INC.
GYROSCOPIC MULTIPLE SHOT SURVEY WT0984-G0034
SURVEYOR: STEVE COVINGTON (0' - 750')
MAGNETIC MULTI SHOT SURVEY WT1084-S0042
SURVEYOR: GARY DESPAIN (750' - 4382')

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VERTICAL SECTION CALCULATED IN PLANE OF PROPOSED
DIRECTION: N

RECORD OF SURVEY

RADIUS OF CURVATURE METHOD

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	R E C T A N G U L A R C O O R D I N A T E S FEET	DOGLEG SEVERITY DG/100FT
0.	0 0	0	0.	0.00	0.00	0.00	0.00
100.	0 30	N 77 W	100.	100.00	0.43	0.43 W	0.50
200.	1 0	N 70 W	100.	199.99	1.72	1.68 W	0.51
300.	0 45	N 66 W	100.	299.98	3.18	3.09 W	0.26
400.	0 45	N 67 W	100.	399.97	4.42	4.29 W	0.01
500.	0 30	N 70 W	100.	499.96	5.47	5.31 W	0.25
600.	0 45	N 40 W	100.	599.96	6.41	6.19 W	0.40
700.	0 30	N 41 W	100.	699.95	7.19	6.90 W	0.25
750.	0 45	N 1 W	50.	749.95	7.43	7.09 W	0.98
878.	1 0	N 11 W	122.	877.93	7.81	7.29 W	0.23
950.	1 0	N 14 W	62.	1111.92	7.07	7.57 W	0.07
1012.	0 45	N 15 W	62.	1111.92	8.52	7.80 W	0.40
1075.	0 45	N 25 W	63.	1137.90	8.83	8.08 W	0.21
1138.	1 0	N 28 W	63.	1137.90	9.58	8.51 W	0.40
1200.	1 0	N 55 W	62.	1199.89	10.17	9.22 W	0.75
1263.	4 30	N 73 W	63.	1262.81	12.98	11.93 W	5.65
1325.	6 45	S 86 W	62.	1324.51	19.03	12.43 N	4.86
1388.	7 30	S 86 W	63.	1387.02	26.73	11.89 N	1.19
1451.	8 30	S 89 W	63.	1449.41	35.42	11.50 N	1.72
1513.	9 30	S 84 W	62.	1510.64	45.00	10.91 N	2.05
1576.	10 15	S 78 W	63.	1572.71	55.46	9.22 N	2.02
1638.	11 0	S 76 W	62.	1633.65	66.30	6.65 N	1.35
1701.	11 30	S 74 W	63.	1695.44	77.82	3.47 N	1.01
1764.	12 15	S 73 W	63.	1757.09	89.85	0.21 S	1.23
1826.	13 15	S 72 W	62.	1817.56	102.45	4.33 S	1.65
1889.	14 45	S 69 W	63.	1878.68	116.27	9.41 S	2.64
1951.	16 0	S 71 W	62.	1938.46	131.12	15.04 S	2.19
2014.	17 15	S 70 W	63.	1998.83	147.46	21.05 S	2.04
2076.	16 45	S 71 W	62.	2058.12	163.90	27.10 S	0.93
2139.	15 45	S 86 W	63.	2118.60	180.72	30.61 S	6.83

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	R E C T A N G U L A R C O O R D I N A T E S FEET	DOGLEG SEVERITY DG/100FT
2202.	17 15	N 83 W	63.	2179.01	198.54	30.14 S 202.29 W	5.49
2264.	18 45	N 81 W	62.	2237.97	217.68	27.47 S 221.26 W	2.62
2327.	22 0	N 81 W	63.	2297.02	239.57	24.04 S 242.92 W	5.16
2389.	22 0	N 81 W	62.	2354.51	262.75	20.41 S 265.86 W	0.00
2452.	21 45	N 81 W	63.	2412.97	286.18	16.74 S 289.05 W	0.40
2515.	22 15	N 80 W	63.	2471.33	309.72	12.84 S 312.32 W	0.99
2577.	20 45	N 80 W	62.	2529.07	332.36	8.90 S 334.70 W	2.42
2640.	20 30	N 80 W	63.	2588.03	354.49	5.04 S 356.55 W	0.40
2702.	20 30	N 78 W	62.	2646.10	376.10	0.90 S 377.87 W	1.13
2765.	19 45	N 76 W	63.	2705.26	397.58	3.98 N 398.99 W	1.62
2828.	18 15	N 75 W	62.	2763.91	436.28	2.11 N 418.84 W	2.44
2890.	17 0	N 73 W	63.	2822.94	458.33	2.28 N 436.89 W	2.24
2953.	17 0	N 73 W	63.	2881.64	480.38	2.67 N 454.50 W	0.00
3015.	15 45	N 72 W	62.	2940.44	511.22	24.93 N 471.17 W	2.07
3078.	15 15	N 73 W	63.	3004.35	487.88	29.99 N 487.23 W	0.90
3141.	15 15	N 71 W	63.	3065.13	504.06	35.11 N 502.99 W	0.83
3203.	15 45	N 66 W	62.	3124.88	519.97	41.18 N 518.40 W	2.30
3266.	16 15	N 66 W	63.	3185.44	536.43	48.24 N 534.26 W	0.79
3328.	16 45	N 65 W	62.	3244.88	553.07	55.54 N 550.29 W	0.93
3391.	17 0	N 64 W	63.	3305.17	570.25	63.42 N 566.79 W	0.61
3453.	17 0	N 64 W	62.	3364.46	587.22	71.36 N 583.09 W	0.00
3516.	16 30	N 74 W	63.	3424.79	604.69	77.86 N 600.01 W	4.64
3579.	16 30	N 78 W	63.	3485.19	622.37	82.19 N 617.37 W	1.80
3641.	17 45	N 77 W	62.	3544.44	640.49	86.14 N 635.19 W	2.07
3704.	17 30	N 75 W	63.	3604.49	659.35	90.76 N 653.70 W	1.04
3766.	16 15	N 75 W	62.	3663.81	677.10	95.41 N 671.09 W	2.02
3829.	15 30	N 70 W	63.	3724.41	693.94	100.60 N 687.52 W	2.47
3892.	16 45	N 68 W	63.	3784.93	710.80	106.87 N 703.85 W	2.17
3954.	17 0	N 70 W	62.	3844.26	728.13	113.31 N 720.65 W	1.02
4017.	17 30	N 74 W	63.	3904.43	746.36	119.09 N 738.42 W	2.04

Eastman
Whipstock

YOUNG DRILLING COMPANY
MIKE FEDERAL COM. #1
WAVES COUNTY, NEW MEXICO

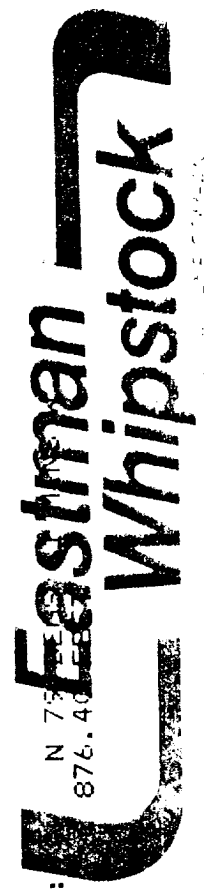
BD2-108

TIME DATE
10:50:15 23-OCT-84

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	R E C T A N G U L A R C O R D I N A T E S FEET	DOGLEG SEVERITY DG/100FT
4079.	18 15	N 72 W	62.	3963.43	765.00	124.65 N 756.61 W	1.56
4142.	19 30	N 74 W	63.	4023.05	784.97	130.61 N 776.10 W	2.23
4205.	20 45	N 72 W	63.	4082.20	806.20	136.95 N 796.83 W	2.26
4298.	23 0	N 71 W	93.	4168.50	839.95	147.94 N 829.69 W	2.45
4361.	24 30	N 70 W	63.	4226.16	864.56	156.41 N 853.60 W	2.47

LOADING PROJECTED TO T.D.

4382.	24 30	N 70 W	21.	4245.27	872.99	159.39 N 861.79 W	0.00
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N 75 W
876.40

FINAL CLOSURE - DIRECTION:
DISTANCE:

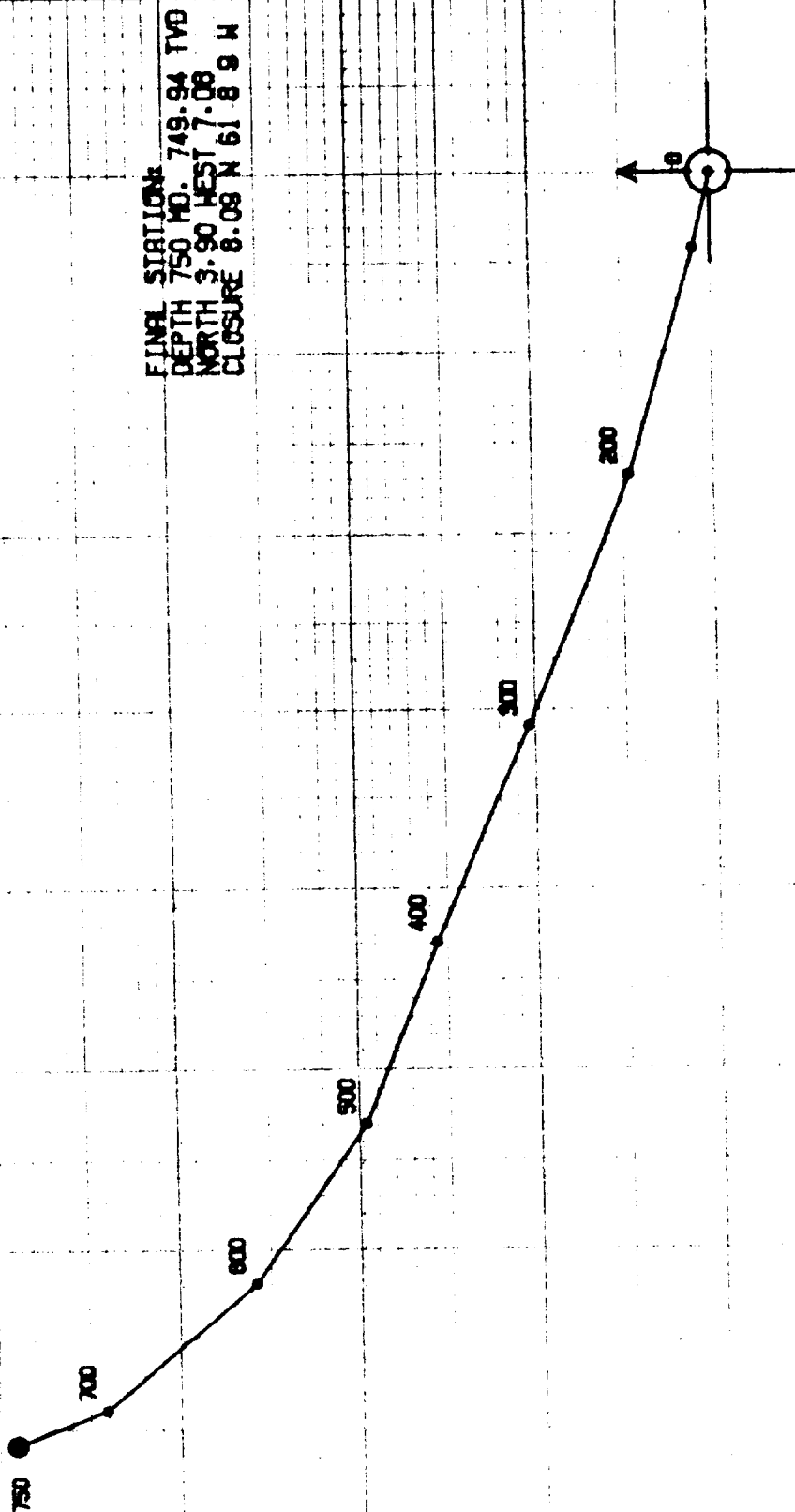
YOUNG DRILLING COMPANY
MIKE FEDERAL CO.
CHAVES COUNTY, NEW MEXICO

B02-108

EASTMAN WHIPSTOCK, INC.

HORIZONTAL PROJECTION

SCALE 1 IN. = 1 FEET
DEPTH INDICATOR: MD





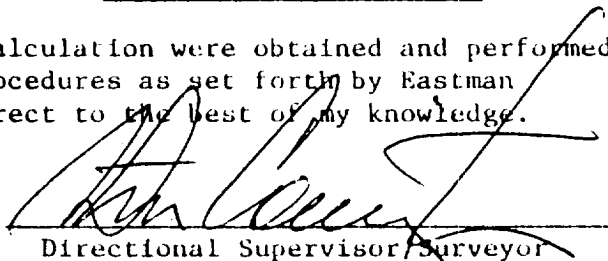
SURVEY CERTIFICATION SHEET

STATE OF TEXAS
COUNTY OF MIDLAND

I, STEVE COVINGTON, in the employ of Eastman Whipstock, Inc., did on the days of SEPT. 28, 1984 thru SEPT. 29, 1984 conduct or supervise the taking of a GYROSCOPIC MULTI SHOT survey by the method of magnetic orientation from a depth of 0' feet to 750' feet, with recordings of inclination and direction being obtained at approximate intervals of 100' feet.

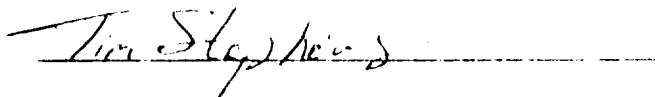
This survey was conducted at the request of YOUNG DRILLING COMPANY for their MIKE FEDERAL COM. #1, CHAVES County, State of NEW MEXICO, in the _____ field.

This data for this survey and the calculation 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.



Directional Supervisor/Surveyor

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



Tim Stephens

Before me, the undersigned authority, on this day personally appeared STEVE COVINGTON, 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 information is a true statement of facts therein recited.

Subscribed and sworn to before me on this 23RD day of OCT., 1984



Notary Public in and for the
County of Midland, Texas



ROY L. STEINKE
Notary Public, State of Texas
My Commission Expires July 8, 1985



P. O. Box 5577/Midland, Texas 79704/(915) 563-0511

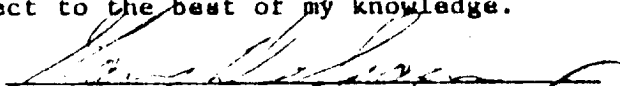
SURVEY CERTIFICATION SHEET

STATE OF TEXAS
COUNTY OF MIDLAND

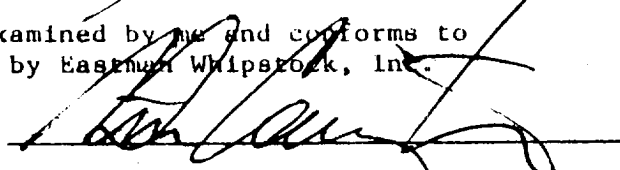
I, Gary DeSpain, in the employ of Eastman Whipstock, Inc., did on the days of Oct. 11, 19 84 thru Oct. 12, 19 84 conduct or supervise the taking of a Magnetic Multi Shot survey by the method of magnetic orientation from a depth of 750 feet to 4382 feet, with recordings of inclination and direction being obtained at approximate intervals of 63 feet.

This survey was conducted at the request of Young Drilling Company for their Mike Federal Com. Well # 1, Chevas County, State of New Mexico, in the _____ field.

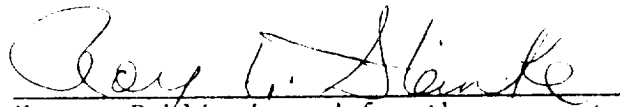
This data for this survey and the calculation were obtained and performed by me according to standards and procedures as set forth by Eastman Whipstock, Inc. and is true and correct to the best of my knowledge.


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.


Before me, the undersigned authority, on this day personally appeared Gary DeSpain, 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 23RD day of OCT., 19 84


Notary Public in and for the
County of Midland, Texas
My commission expires 7/9/85



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

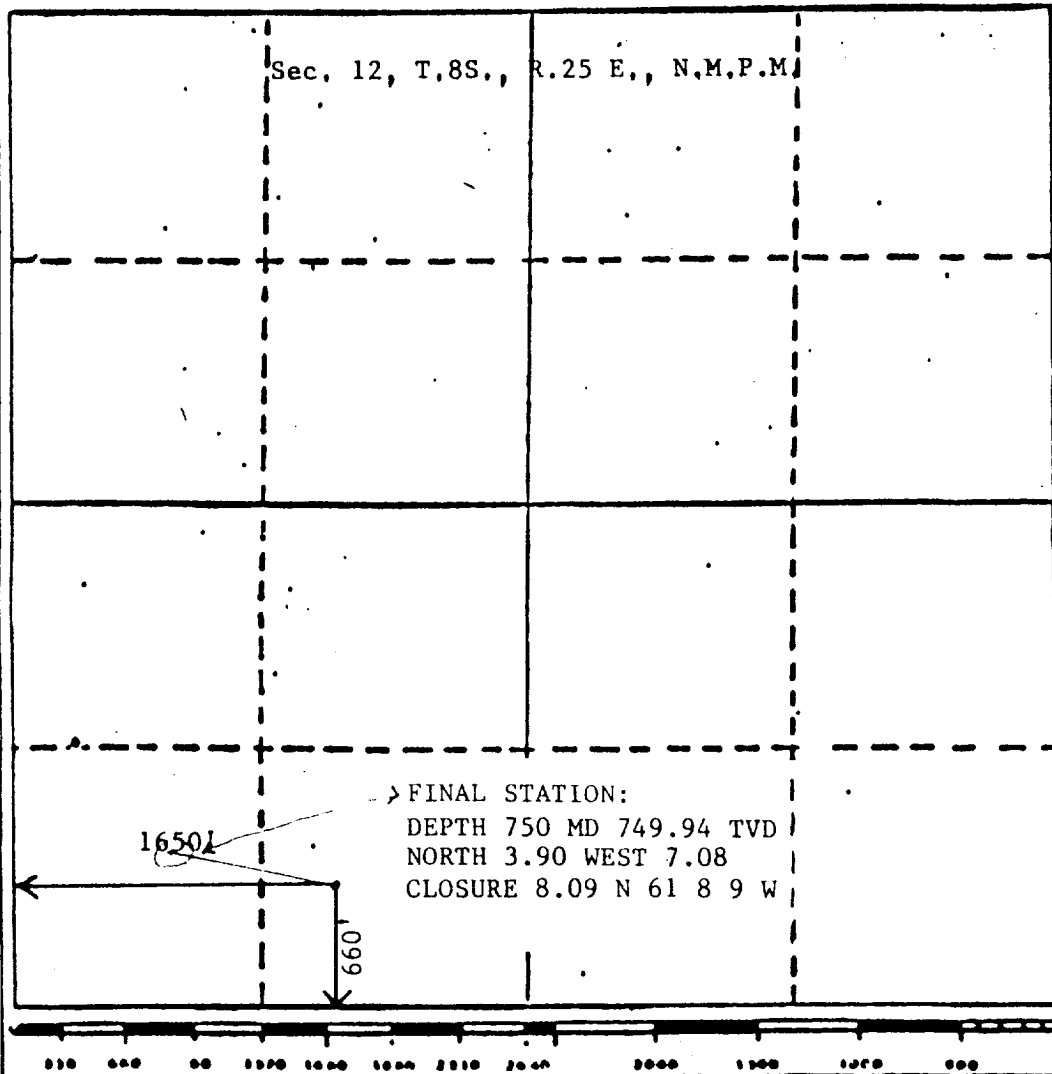
Operator Stevens Operating Corporation			Lease Mike Federal Com			Well No. 1		
Unit Letter N	Section 12	Township 8 South	Range 25 East	County Chaves				
Actual Footage Location of Well								
660 feet from the South		line and 1650		feet from the West		line		
Ground Level Elev. 3544	Producing Formation		Pool		Dedicated Acreage			

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 work 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 _____

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

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



CERTIFICATION

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

Name
Position
Company
Date

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.

Signature D. J. JACQUES
Date September 19, 1984
Registered Professional Engineer No. 8290
State of New Mexico P.E. & L.
Certificate No. 6290