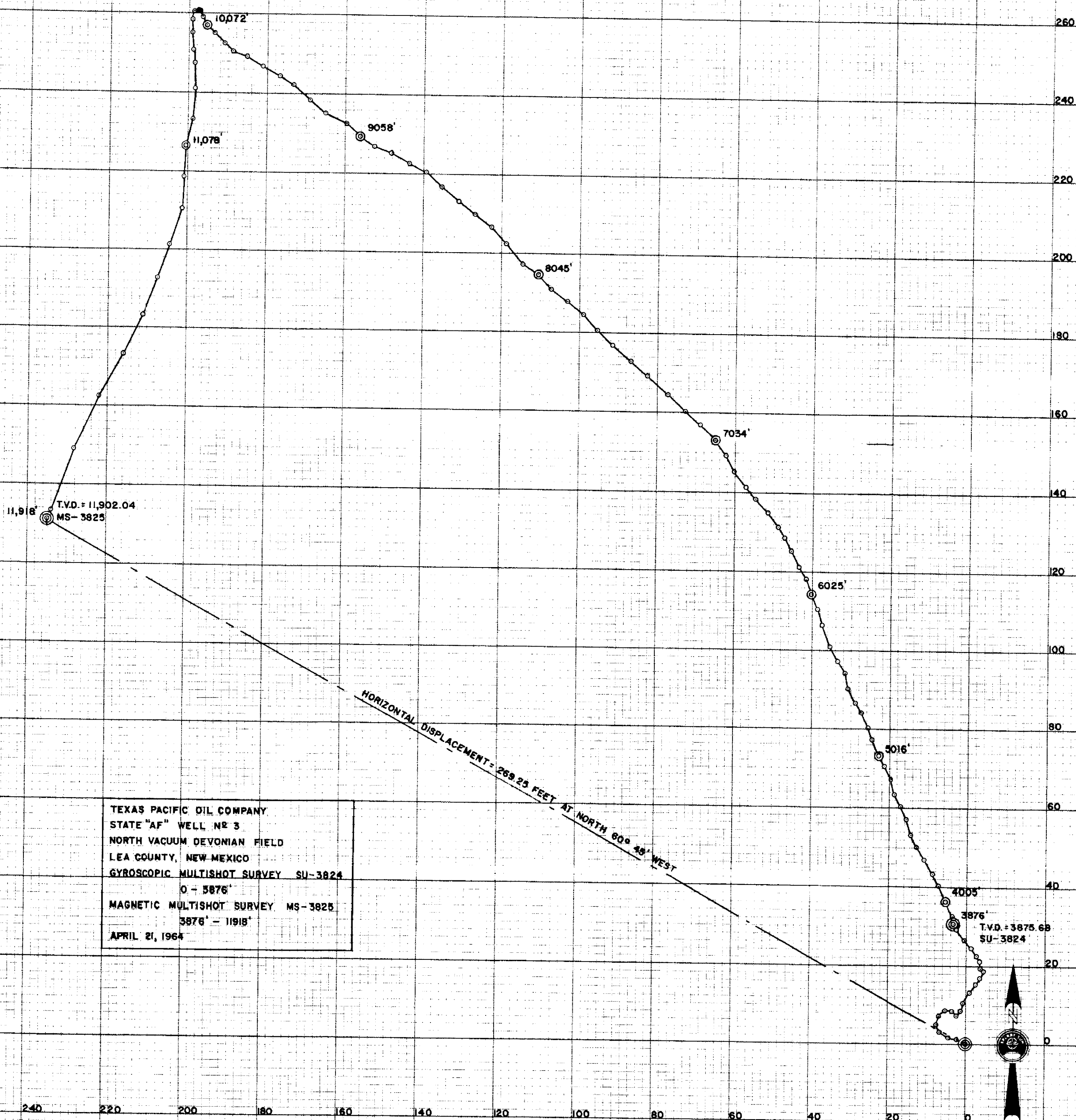


SPERRY-SUN WELL SURVEYING COMPANY
HORIZONTAL PROJECTION
SCALE 1" = 20'



10F 2
SU-3824

STATE AF WELL NO. 3

FIELD

Gyroscopic Nutrients



SHEET NO

SURVEY

SURVEY
DATE

EWING

Gyroscopic Multisets

April 21, 1964

[illegible]

1002

FD-302a

April 21, 1964

NORTH VACUUM REVENIAN
LEA COUNTY, NEW MEXICO

Gyroscopic Multisets

MEASURED DEPTH		VERTICAL DEPTH	ANGLE OF INCLINATION	COURSE	TOTAL	CORRECTED TIME	DIRECTION OF INCLINATION		MEASURED COURSE DISPLACEMENT				TOTAL DISPLACEMENT			
CORRECTED	TOTAL						OBSERVED	CORRECTED	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
5-55-40	68		1/2			5-55-40	W	47	141					141		144
56-20	92		1/2			56-20	E	22	174			36		115		144
5-58-00	91		1/4			5-58-00	E	15	38			10		153		104
6-00-20	12		1/4			6-00-20	W	37	32					185		123
6-02-00	92		1/4			6-02-00	W	83	32					180		168
8-38-15	92		1/2			8-38-15	E	65	107					146		141
6-05-30	91		1/2			6-05-30	W	85	107					153		220
11-40	91		1/2			11-40	W	86	106					159		209
13-40	92		1/2			13-40	W	86	106					165		379
15-00	92		1/2			15-00	W	83	110					175		459
16-40	91		1/2			16-40	W	71	131					206		532
18-20	92		1/2			18-20	W	76	125					231		608
20-00	92		1/2			20-00	W	39	173					260		641
21-40	11		1/2			21-40	W	39	167					271		684
23-00	92		1/2			23-00	W	38	168					287		727
24-20	92		1/2			24-20	W	32	172					311		762
26-00	92		1/4			26-00	W	06	140					351		762
25-00	92		1/4			25-00	E	15	39			10		390		752
26-40	91		1/2			26-40	E	30	69			40		429		712
28-00	91		1/2			28-00	E	20	71			35		460		677
39-40	91		1/2			39-40	E	22	70			37		500		640
41-00	91		1/2			41-00	E	43	52			60		552		580
42-20	92		1/2			42-20	E	58	43			68		595		516
44-20	91		1/2			44-20	E	70	119			77		614		435
46-00	92		1/2			46-00	E	59	119			64		666		371
47-40	92		1/2			47-40	E	38	107			30		742		341
49-00	92		1/2			49-00	E	32	107			22		795		319
50-40	91		1/4			50-40	E	69	107			37		829		282
56-40	91		1/2			56-40	E	34	102			44		895		238
58-20	92		3/4			58-20	E	32	102			64		917		174
DONE BY	DS	DS	DS	DS	DS		DS	DS	DS	DS	DS	DS	DS	DS	DS	DS
CK BY	IPS	IPS	IPS	IPS	IPS		IPS	IPS	IPS	IPS	IPS	IPS	IPS	IPS	IPS	IPS

SURVEY TABULATION SHEET

CUSTOMER TEXAS PACIFIC OIL COMPANY

WELL NO STATE AF WELL NO. 2

FIELD NORTH VACUUM LEONIANI
LEA COUNTY, NEW MEXICON
W E

SHEET NO

SURVEY
JOB NOSURVEY
DATE

2 OF 2

SU-3824

APRIL 21, 1964

GYRSE-10 NUT-SHOT

CORRECTED TIME	MEASURED DEPTH		VERTICAL DEPTH		ANGLE OF INCLIN ATION	COURSE DIV	DIRECTION OF INCLINATION			MEASURED COURSE DISPLACEMENT				TOTAL DISPLACEMENT			
	COURSE	TOTAL	COURSE	TOTAL			OBSERVED	CORR	CORRECTED	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
6-59-40	92	2816	91.99	2815.18	1	1/4	N 25 E	6 E	N 31 E	1.38		.89		10.35			.11
7-01-20	91	2907	90.98	2906.16	1	1/4	N 31 E		N 27 E	1.77		.90		12.12			.01
8-49-57	93	3000	92.98	2999.14	1	1/4	N 30 E		N 23 E	1.70		1.10		13.82			
49-00	91	3091	90.98	3090.92	1	1/4	N 30 E		N 36 E	1.61		1.17		15.43			
47-35	92	3183	91.98	3182.90	1	1/4	N 26 E		N 32 E	1.70		.66		17.13			
8-46-15	92	3275	91.99	3274.81	1	3/4	N 25 E		N 31 E	1.38		.83		18.51			
7-08-40	92	3367	91.99	3366.88	1		N 28 W		N 12 W	1.18			.25	19.69			
7-10-00	90	3461	93.99	3460.87	1		N 22 W		N 23 W	1.51			.64	21.20			
8-42-15	92	3553	91.99	3552.86	1		N 22 W		N 16 W	1.55			.40	22.75			
7-18-00	92	3645	91.97	3644.83	1	1/2	N 43 W		N 37 W	1.12			1.45	24.67			
19-20	91	3736	90.97	3735.80	1	1/2	N 46 W		N 40 W	1.82			1.53	26.49			.16
21-00	92	3828	91.93	3827.73	2	1/4	N 48 W		N 34 W	2.99			2.02	29.48			2.18
7-23-40	48	3876	47.95	3875.68	2	1/2	N 38 W	6 E	N 32 W	1.78			1.11	31.26			3.29
DONE BY	DS	DS	DS		DS		DS	DS	DS	DS				DS	DS	DS	DS
CA BY	W	W	W		W		W	W	W	W				W	W	W	W

SURVEY TABULATION SHEET

CUSTOMER
TEXAS PACIFIC OIL COMPANY

WELL NO.
STATE AF WELL N° 3

FIELD
**NORTH VACUUM DEVONIAN
LEA COUNTY, NEW MEXICO**



SHEET NO.
1 OF 3

SURVEY
JOB NO.
MS-3825

SURVEY
DATE
APRIL 21, 1964

MAGNETIC MULTISHOT

CORRECTED TIME	MEASURED DEPTH		ANGLE OF INCLIN- ATION	COURSE DIV	DIRECTION OF INCLINATION		MEASURED COURSE DISPLACEMENT				TOTAL DISPLACEMENT					
	COURSE	TOTAL			OBSERVED	CORR	CORRECTED	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	
4-43-00	37	3876	2 1/2	TAKEN FROM	SU-3824	N 29 W	11 E	N 18 W	1.54				31.26			3.29
41-00	92	3913	2 1/2	36.96	3912.64	38 W		27 W	3.58			.50	32.80			3.79
39-00	91	4005	2 1/2	91.91	4004.55	32 W		21 W	3.71			1.82	36.38			5.61
14-40	92	4188	2 1/4	90.91	4095.46	40 W		24 W	3.16			1.42	40.09			7.03
11-00	92	4280	2 3/4	91.93	4187.39	40 W		29 W	3.86			1.75	43.25			8.78
09-20	91	4371	2 1/2	91.89	4279.28	40 W		29 W	3.47			2.14	47.11			10.42
07-20	93	4464	2 1/4	90.91	4370.19	40 W		21 W	3.41			1.92	50.58			12.84
05-40	93	4557	2 1/4	92.93	4463.12	38 W		29 W	3.19			1.31	53.99			14.15
04-00	91	4648	2 1/2	92.93	4556.05	40 W		18 W	3.78			1.77	57.18			15.92
02-20	93	4741	2 1/4	90.91	4646.96	37 W		26 W	3.12			1.23	60.96			17.15
4-00-20	92	4833	2 1/4	92.94	4739.90	37 W		20 W	2.92			1.42	63.88			18.57
3-58-40	90	4923	2 1/4	91.93	4831.83	39 W		28 W	3.39			1.23	67.27			19.80
57-00	93	5016	2 1/4	89.93	4921.76	30 W		19 W	3.45			1.66	70.39			21.46
55-00	92	5108	2 1/2	92.93	5014.69	37 W		26 W	3.61			1.19	73.84			22.65
53-00	92	5200	2 1/2	91.91	5106.60	40 W		29 W	3.22			1.76	77.45			24.41
51-00	91	5291	2 3/4	91.94	5198.54	29 W		18 W	2.81			1.56	80.26			25.97
47-20	94	5385	2 1/4	90.91	5289.45	48 W		29 W	3.78			1.23	84.04			27.20
45-20	90	5475	2 1/2	93.93	5388.38	30 W		19 W	3.23			1.79	87.27			28.99
43-40	92	5567	2 1/4	89.91	5473.29	38 W		27 W	3.71			1.28	90.98			30.27
40-40	92	5659	2 1/2	91.93	5565.22	40 W		29 W	3.22			1.64	94.20			31.91
38-40	91	5750	2 3/4	91.91	5657.13	37 W		26 W	3.51			1.95	97.71			33.86
37-00	92	5842	3 1/4	90.90	5748.03	37 W		21 W	3.92			1.91	101.63			35.77
35-00	91	5933	2 3/4	91.85	5839.88	29 W		16 W	4.87			1.87	106.50			37.64
33-20	92	6025	2 1/2	90.90	5930.78	27 W		26 W	4.20			1.20	110.70			38.84
31-20	92	6117	2 1/2	91.91	6022.69	37 W		16 W	3.61			1.76	114.31			40.60
29-40	92	6209	2 1/4	91.91	6114.60	27 W		16 W	3.86			1.11	118.17			41.71
28-00	91	6300	2 3/4	91.93	6206.53	40 W		29 W	3.16			1.75	121.33			43.46
26-00	91	6391	2 1/2	90.90	6297.43	38 W		24 W	3.99			1.78	125.32			45.24
24-20	91	6483	2 1/2	90.91	6388.34	40 W		29 W	3.47			1.92	128.79			47.16
3-22-40	92	6575	2 1/2	91.94	6480.28	38 W	11 E	27 W	2.86			1.46	131.65			48.62
DONE BY	IRS	IRS	IRS	IRS	IRS	IRS		IRS	IRS			IRS	IRS			IRS
BY	DS	DS	DS	DS	DS	DS		DS	DS			DS	DS			DS



2 OF 3
MS-3825
APRIL 21, 1964

NORTH VACUUM DEVONIAN
LEA COUNTY, NEW MEXICO

MAGNETIC PLASTICS

CORRECTED TIME	MEASURED DEPTH		VERTICAL DEPTH		ANGLE OF INCLINATION	COURSE	DIRECTION		MEASURED COURSE DISPLACEMENT		TOTAL DISPLACEMENT		
	COURSE	TOTAL	COURSE	TOTAL			OBSERVED	CORRECTED	NORTH	EAST	NORTH	SOUTH	EAST
3-20-40	93	6576	92.81	6573.17	3/4		N 52 W	41	3.37	2.43	135.02	51.55	
18-40	92	6648	91.89	6665.06	3/4		N 52 W	41	3.33	2.41	138.35	54.45	
16-40	91	6759	90.40	6755.96	3/4		N 52 W	39	3.39	2.75	141.74	57.20	
14-40	92	6851	91.87	6847.83	3		N 47 W	36	3.90	2.83	145.64	60.63	
12-40	91	6942	90.88	6938.71	3		N 40 W	29	4.17	2.31	149.81	62.34	
10-20	92	7034	91.89	7030.60	3/4		N 50 W	39	3.43	2.78	153.24	65.12	
08-40	91	7125	90.85	7121.45	1/4		N 54 W	43	3.77	3.52	157.61	68.64	
06-20	91	7216	90.83	7212.28	1/2		N 54 W	48	3.72	4.13	161.72	72.77	
04-00	92	7308	91.78	7304.06	4		N 61 W	50	4.13	4.92	164.86	77.69	
3-02-00	93	7401	92.77	7396.83	4		N 55 W	44	4.67	4.51	169.53	82.20	
2-58-20	92	7493	91.80	7488.63	3/4		N 64 W	53	3.62	4.81	173.15	87.01	
54-20	93	7586	92.80	7581.43	3/4		N 63 W	52	3.74	4.74	176.89	91.80	
52-20	93	7679	93.85	7674.28	1/4		N 58 W	41	3.18	3.46	180.87	95.26	
50-00	92	7771	91.85	7766.13	1/4		N 55 W	44	3.75	3.62	184.62	98.88	
48-00	91	7862	90.83	7856.96	1/2		N 63 W	52	3.42	4.38	188.04	103.26	
45-40	92	7954	91.85	7948.81	1/4		N 64 W	53	3.14	4.17	191.18	107.43	
43-20	91	8045	90.88	8039.69	3		N 54 W	43	3.48	3.25	194.66	110.68	
41-20	93	8138	92.87	8132.56	3		N 62 W	51	3.06	3.78	197.72	114.46	
39-00	94	8232	93.77	8226.33	4		N 54 W	43	4.13	4.47	202.52	118.93	
36-40	91	8323	90.83	8317.16	1/2		N 53 W	42	4.13	3.72	206.65	122.65	
34-40	91	8414	90.85	8408.01	1/4		N 60 W	49	3.38	3.89	210.03	126.54	
32-20	92	8506	91.83	8499.84	1/2		N 65 W	54	3.36	4.54	213.33	131.08	
29-40	92	8598	91.80	8511.64	3/4		N 63 W	52	3.70	4.74	217.03	135.82	
10-20	92	8690	91.85	8683.49	1/4		N 61 W	50	3.35	4.00	220.38	139.82	
08-20	92	8782	91.87	8775.36	3		N 69 W	58	2.55	4.08	223.93	143.90	
06-00	92	8874	91.87	8867.23	3		N 72 W	61	2.33	4.21	225.26	148.11	
03-40	93	8967	92.89	8960.12	3/4		N 78 W	67	1.74	4.11	227.00	152.22	
2-01-20	91	9058	90.88	9051.00	3		N 68 W	54	2.80	3.85	229.80	156.07	
1-59-00	92	9150	91.87	9142.87	3		N 65 W	54	2.83	3.90	232.63	159.97	
1-56-40	91	9241	90.81	9233.68	3/4		N 70 W	59	3.07	5.10	235.70	165.07	
DONE BY	YPS	JES	JRS	JRS	JES		JRS	JRS	JRS	JRS	JRS	JRS	
CK BY	DS	DS	DS	DS	DS		DS	DS	DS	DS	DS	DS	

SHEET NO
SURVEY
JOB NO.
SURVEY
DATE

2 OF 3
NIS-3825
APRIL 21, 1964



FIELD NORTH VACUUM DEVONIAN
LEA COUNTY, NEW MEXICO

MAGNETIC MULTISHOT

LEA COUNTY, NEW MEXICO										MAGNETIC MULTI-SHOT											
CORRECTED TIME		MEASURED DEPTH		VERTICAL DEPTH		ANGLE OF INCLINATION		COURSE DIV		DIRECTION OF INCLINATION				MEASURED COURSE DISPLACEMENT				TOTAL DISPLACEMENT			
		COURSE	TOTAL	COURSE	TOTAL					OBSERVED	CORR	CORRECTED	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	
1-53-00	91	9339	9387	932755		3	1/2			N 62 W	E	N 53 W	246			246	238.66			169.00	
50-40	92	9427	9183	941938		3	1/2			N 62 W		N 51 W	3.53			4.36	242.19			173.36	
44-20	92	9517	9191	951129		3	1/2			N 62 W		N 58 W	2.13			3.40	244.32			176.76	
45-40	93	9612	9285	960414		3	1/4			N 68 W		N 57 W	2.87			4.42	247.19			181.18	
43-20	93	9705	9287	969701		3	1/4			N 70 W		N 57 W	2.51			4.17	249.70			185.35	
36-20	94	9795	8913	978674		2	1/4			N 80 W		N 69 W	1.27			3.30	250.97			188.65	
34-00	93	9888	9246	987990		2	3/4			N 62 W		N 51 W	1.79			2.21	252.76			140.84	
31-40	93	9981	9293	997283		2	1/4			N 58 W		N 42 W	2.71			2.44	255.47			142.30	
29-20	91	10072	9016	1006379		1	3/4			N 45 W		N 47 W	1.10			2.03	257.37			115.23	
27-00	91	10163	9016	1015475		1	3/4			N 45 W		N 34 W	2.30			1.55	251.67			146.88	
25-00	91	10254	9019	1024574		1	3/4			N 42 W		N 11 W	1.17			1.23	260.84			147.11	
23-00	91	10345	9100	1033674		1	1/2			N 50 W		N 39 W	.62			1.50	261.46			147.61	
20-40	91	10436	9019	1042773		1	1/2			N 50 W		N 31 W				.82	260.11			148.43	
18-20	92	10528	9199	1051972		1	1/2			N 50 W		N 23 W				.63	258.62			149.06	
16-00	92	10620	9194	1061166		2	3/4			N 50 W		S 23 W					255.41			141.06	
13-40	91	10711	9041	1070256		2	3/4			N 50 W		S 04 E					251.65			148.76	
11-00	91	10802	9045	1079351		2	3/4			N 50 W		S 07 E					247.90			148.37	
05-00	92	10894	9175	1088526		4	1/4			N 50 W		S 02 E					241.04			148.13	
102-20	92	10986	9172	1097698		4	1/2			N 50 W		S 06 W				.75	238.92			148.23	
12-59-40	92	11078	9168	1106866		4	3/4			N 50 W		S 11 W				1.45	226.04			200.32	
56-40	93	11171	9268	1116134		4	3/4			N 50 W		S 05 W				.67	218.77			201.07	
53-40	92	11263	9165	1125297		5	2			N 50 W		S 05 W				.70	216.78			201.70	
51-00	92	11355	9150	1134449		6	2			N 50 W		S 16 W				2.65	201.54			204.25	
48-00	91	11446	9050	1143499		6	2			N 50 W		S 21 W				3.41	192.66			207.76	
45-00	91	11537	9050	1152549		6	2			N 50 W		S 21 W				2.41	183.78			211.17	
42-20	91	11628	9032	1161581		7	2			N 50 W		S 26 W				4.86	173.81			216.03	
39-20	92	11720	9110	1170691		8	1/4			N 50 W		S 28 W				6.01	162.50			222.04	
36-20	91	11811	8982	1171673		9	1/4			N 50 W		S 25 W				6.18	149.24			228.22	
33-20	92	11903	9053	1188726		10	1/4			N 50 W		S 21 W				5.87	133.96			234.69	
12-24-40	15	11918	1478	1190204		9	3/4			N 50 W	E	S 17 W				.83	131.56			234.92	
HORIZONTAL DISPLACEMENT = 269.25 FEET AT NORTH 60° 45' WEST																					
DONE BY		JES DS		JES DS		JES DS		JES DS		JES-DS		JES-DS		JES-DS		JES-DS		JES-DS		JES-DS	
CK BY		JES DS		JES DS		JES DS		JES DS		JES-DS		JES-DS		JES-DS		JES-DS		JES-DS		JES-DS	

COUNTY	LEA	FIELD	Vacuum, N.-Wolfcamp	STATE	NM	OWWO
OPR	TEXAS PACIFIC OIL COMPANY					MAP
3 State of New Mexico "AF"						
Sec. 8, T-18-S, R-35-E					CO-ORD	
1980' fr S Line & 990' fr W Line of Sec.						
Re-Spud 12-23-64				CLASS <i>own</i> EL <i>3963</i>		
Re-Comp 1-5-65		FORMATION	DATUM	FORMATION	DATUM	
CSG & SX - TUBING						
13 3/8" 360' 400						
9 5/8" 3876' 2300						
5 1/2" 10387' 2440						
LOGS EL GR RA IND HC A						
		TD 11956', PED 9940'				

Wolfcamp Perfs 9883-9927' - NO CHANGE

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CONT.	PROP DEPTH	TYPE
DATE		

F.R.C. 1-28-65; OWWO, OTD 11956'.
Orig comp from Wolfcamp perfs 9883-9927'
Elev. 3963' Df, Orig.
1-25-65 TD 11956', PED 9940', COMPLETED.
Perf (Abo) @ 8714', 8717', 8733', 8736',
8743', 8748', 8753', 8759', 8761', 8770'
W/1 SPI
Ac. 2500 gals.
Swbd dry.
Re-Ac. 6900 gals. 8714-8770'
Swbd acid wtr.
Squeezed perfs 8714-70' W/150 sx.
DO to 9940' & returned to Wolfcamp production.

COUNTY	LEA	FIELD	Wildcat	STATE	NM
WC	PR	TEXAS PACIFIC OIL COMPANY			MAP
3 State of New Mexico "AF"					
Sec. 8, T-18-S, R-35-E				CO-ORD	
1980' fr S Line & 990' fr W Line of Sec.					
Spud 2-5-64		CLASS		EL. 39632	
Comp 5-6-64		FORMATION	DATUM	FORMATION	DATUM
LOGS & SX - TUBING		LOG:			
13 3/8" 360' 400		Anhy 1573			
9 5/8" 3876' 2300		Yates 3005			
5 1/2" 10387' 2440		Queen 4090			
		SA 4733			
		B Spg 6110			
LOGS EL GR RA IND HC A		B Spg Rf 8705			
TD 11956', PBD 9940'					

IP Wolfcamp Perfs 9883-9927' Flwd 384 BOPD + 10 BW. Pot. Based on 24 hr test thru 16/64" chk., TP 750#, gravity 42.2, GOR 1440.

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CONT. Loffland Bros. Drlg. Co. PROP DEPTH 12,000' TYPE
DATE

F.R. 1-16-64; Oper's Elev. 3963' Df
PD 12,000 '--Devonian
Contractor - Loffland Bros. Drlg. Co.
2-10-64 Drlg. 3421' anhy. & lm.
2-17-64 Drlg. 4673' anhy. & lm.
2-24-64 Drlg. 6750' lm. & sd.
3-2-64 Drlg. 7767' lm. & ch.
3-9-64 Drlg. 8655' lm. & ch.
3-16-64 Drlg. 9364' lm. & ch.
DST 8672-8831', open 2 hrs,
GTS in 1 hr 20 mins,
Rec 170' SGCM + 1 cup free oil,
1 hr ISIP 2566#, FP 127-181#,
1 hr FSIP 1954#.
3-23-64 Drlg. 10252' lm. & ch.
DST 8965-9070', open 2 hrs,
Rec 50' mud, 270' Wtr CM + 930' sul. wtr,
55 min ISIP 2600#, FP 94-641#,
55 min FSIP 2556#.

3-23-64 - cont. -
DST 9866-9931', open 2 hrs,
GTS in 6 mins @ 1270 MCFGPD,
MTS in 12 mins, OTS in 18 mins; mostly gas
1st hr, last hr flwd 84 BO thru 3/8" chk.,
SFP 900#, rev out 19 BO (gravity 41.),
2 hr 15 Min ISIP 3540#, FP 2959-3532#,
1 hr FSIP 3540#.
3-30-64 Drlg. 10776' lm., ch. & sh.
4-6-64 Drlg. 11097' lm. & sh.
4-13-64 Drlg. 11514' lm.
4-20-64 TD 11918', running logs.
4-27-64 TD 11956', WOC.
DST 11884-921', open 2 hrs,
Rec 2142' gas in DP + 90' SO&GCM,
1 hr ISIP 476#, FP 45-45#, 1 hr FSIP 112#.

5-4-64 DST 11923-956', open 4 hrs,
Rec 10,509' salty sul. wtr,
no ISIP, FP 339-4579#, 1 hr FSIP 4579#.
TD 11956', PBD 9940', prep to re-squeeze.
Perf @ 10239', 10241', 10276', 10278' &
10280'
Ac. 1500 gals.
Swbd 100% wtr.
Set BP @ 10200'
Perf @ 10120', 10124', 10128', & 10132'
Ac. 1500 gals.
swbd 100% wtr.
Set BP @ 10,000'
Perf @ 9946', 9951', 9957' & 9964'
Ac. 1500 gals.
Swbd 35 BO + 100 BW.
Set ret. @ 9940' & sq. perfs 9946-64' W/100 sx.

5-11-64 TD 11956', PBD 9940', COMPLETED
Re-Squeezed perfs 9946-64' W/100 sx.
Perf @ 9883', 9886', 9890', 9899', 9905', 9914',
9921' & 9927' W/1 SPI
Ac. 5000 gals. 9883-9927'
LOG TOPS: Abo 8950', Wolfcamp 9872', Strawn
10672', Mississippian 10971', Woodford
11746', Devonian 11880'.
SAMPLE TOPS: Reef 8705', Strawn 10665',
Mississippian lime 10970'.