

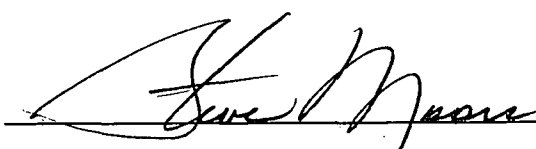
OPERATOR MEWBOURNE OIL COMPANY
WELL/LEASE TAMANO 15 AD FED COM 1H
COUNTY EDDY

047-0101

STATE OF NEW MEXICO
DEVIATION REPORT

30-015-40868

267	0.97	6,651	3.00
767	1.50	6,746	2.90
811	1.10	6,873	2.70
968	0.80	7,032	2.60
1,259	0.20	7,431	2.50
1,385	0.50		
1,703	1.00		
1,862	1.50		
1,926	1.90		
2,019	2.40		
2,083	2.50		
2,180	2.30		
2,445	1.40		
2,541	1.10		
2,902	1.90		
3,030	1.80		
3,156	1.80		
3,285	1.50		
3,411	1.40		
3,538	1.40		
3,715	1.40		
4,223	2.20		
4,713	2.00		
4,840	2.10		
4,935	2.10		
5,063	2.10		
5,190	2.00		
5,318	2.30		
5,444	2.20		
5,825	1.80		
5,571	2.30		
5,952	2.10		
6,333	2.60		
6,461	3.10		
6,556	2.90		

BY: 

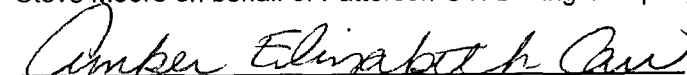
STATE OF TEXAS

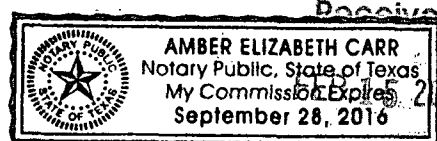
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on
Steve Moore on behalf of Patterson-UTi Drilling Company LLC.

2/11/13

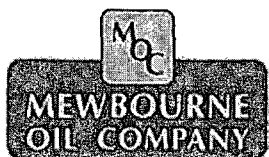
by


Notary Public for Midland County, Texas
My Commission Expires:

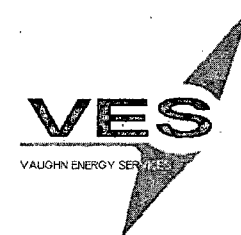


Received

Mewbourne Oil Company
Hobbs



Company: Mewbourne Oil Company
Lease/Well: Tamano 15 AD Federal Com/No 001H



Rig Name: Patterson 47
State/County: New Mexico/Eddy
Latitude: 32.75, Longitude: -103.85
GRID North is 0.26 Degrees East of True North
VS-Azi: 0.00 Degrees

Depth Reference : RKB=19 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: tamano 15 ad fed com 1h_ed.ut

Minimum Curvature Method

Report Date/Time: 2/5/2013 / 16:44

Vaughn Energy Services

Fort Worth, Texas

817-741-3610

Surveyor: Robert Hooper

Tamano 15 AD Federal Com No 001H / API 30-015-40868

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N-S FT	+E-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.64	254.41	100.00	-0.15	-0.54	-0.15	0.56	254.41	0.64
200.00	0.60	211.91	199.99	-0.74	-1.35	-0.74	1.54	241.11	0.45
300.00	0.80	209.76	299.99	-1.79	-1.97	-1.79	2.67	227.71	0.20
400.00	0.64	204.37	399.98	-2.91	-2.55	-2.91	3.87	221.23	0.17
500.00	0.54	195.03	499.97	-3.88	-2.90	-3.88	4.85	216.82	0.14
600.00	0.77	205.45	599.97	-4.95	-3.32	-4.95	5.96	213.85	0.26
700.00	0.98	208.22	699.95	-6.31	-4.01	-6.31	7.48	212.45	0.21
800.00	1.04	200.06	799.94	-7.92	-4.73	-7.92	9.22	210.84	0.16
900.00	0.87	207.34	899.92	-9.45	-5.39	-9.45	10.88	209.70	0.21
1000.00	0.54	190.69	999.92	-10.58	-5.82	-10.58	12.08	208.83	0.38
1100.00	0.63	189.82	1099.91	-11.58	-6.00	-11.58	13.05	207.41	0.09
1200.00	0.57	165.95	1199.91	-12.60	-5.98	-12.60	13.95	205.37	0.25
1300.00	0.54	155.06	1299.90	-13.52	-5.65	-13.52	14.66	202.69	0.11
1400.00	0.04	128.32	1399.90	-13.97	-5.43	-13.97	14.99	201.22	0.51
1500.00	0.29	103.04	1499.90	-14.05	-5.15	-14.05	14.97	200.13	0.26
1600.00	1.15	97.18	1599.89	-14.24	-3.90	-14.24	14.76	195.33	0.86
1700.00	1.20	74.23	1699.87	-14.08	-1.89	-14.08	14.20	187.66	0.47
1800.00	1.72	53.98	1799.84	-12.91	0.33	-12.91	12.91	178.53	0.73
1900.00	1.92	48.82	1899.79	-10.92	2.81	-10.92	11.27	165.56	0.26
2000.00	2.25	54.00	1999.72	-8.66	5.66	-8.66	10.35	146.82	0.37

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
2100.00	2.10	61.97	2099.65	-6.65	8.86	-6.65	11.08	126.86	0.34
2200.00	1.88	60.18	2199.59	-4.97	11.90	-4.97	12.90	112.66	0.23
2300.00	1.44	56.61	2299.55	-3.47	14.37	-3.47	14.78	103.56	0.46
2400.00	1.43	58.31	2399.51	-2.12	16.48	-2.12	16.61	97.33	0.04
2500.00	1.28	55.45	2499.49	-0.83	18.46	-0.83	18.48	92.59	0.17
2600.00	1.37	56.29	2599.46	0.46	20.37	0.46	20.37	88.71	0.09
2700.00	1.59	53.16	2699.43	1.95	22.47	1.95	22.55	85.03	0.24
2800.00	1.35	59.09	2799.39	3.39	24.59	3.39	24.83	82.15	0.28
2900.00	1.57	56.99	2899.36	4.74	26.75	4.74	27.17	79.95	0.22
3000.00	1.73	54.09	2999.32	6.37	29.12	6.37	29.81	77.65	0.18
3100.00	1.60	58.38	3099.28	7.99	31.53	7.99	32.53	75.78	0.18
3200.00	1.19	56.79	3199.25	9.29	33.59	9.29	34.85	74.54	0.41
3300.00	1.20	54.77	3299.23	10.46	35.31	10.46	36.83	73.50	0.04
3400.00	1.47	57.34	3399.20	11.76	37.24	11.76	39.05	72.48	0.27
3500.00	1.42	56.03	3499.17	13.14	39.35	13.14	41.48	71.53	0.06
3600.00	1.20	48.34	3599.14	14.52	41.15	14.52	43.64	70.56	0.28
3700.00	1.58	63.76	3699.11	15.83	43.17	15.83	45.98	69.87	0.53
3800.00	1.09	51.62	3799.09	17.03	45.15	17.03	48.25	69.34	0.56
3900.00	1.71	60.90	3899.06	18.34	47.20	18.34	50.64	68.76	0.66
4000.00	1.50	51.13	3999.02	19.89	49.53	19.89	53.37	68.12	0.35
4100.00	1.50	57.33	4098.98	21.42	51.64	21.42	55.91	67.47	0.16
4200.00	1.65	52.66	4198.94	23.00	53.89	23.00	58.59	66.89	0.20
4300.00	1.28	56.43	4298.91	24.49	55.97	24.49	61.09	66.37	0.39
4400.00	1.90	57.57	4398.87	26.00	58.29	26.00	63.83	65.97	0.62
4500.00	2.03	51.43	4498.81	27.99	61.08	27.99	67.18	65.38	0.25
4600.00	1.79	54.80	4598.76	30.00	63.74	30.00	70.45	64.80	0.27
4700.00	2.11	54.32	4698.70	31.97	66.52	31.97	73.80	64.33	0.32
4800.00	2.08	57.50	4798.63	34.02	69.54	34.02	77.42	63.93	0.12
4900.00	1.64	60.48	4898.58	35.70	72.31	35.70	80.65	63.73	0.45
5000.00	1.61	64.33	4998.54	37.01	74.82	37.01	83.47	63.68	0.11
5100.00	1.91	63.15	5098.49	38.37	77.57	38.37	86.54	63.68	0.30
5200.00	2.34	63.99	5198.42	40.02	80.89	40.02	90.24	63.68	0.43
5300.00	1.80	65.98	5298.36	41.55	84.15	41.55	93.85	63.72	0.54
5400.00	2.22	66.13	5398.30	42.97	87.36	42.97	97.36	63.81	0.42
5500.00	2.24	67.28	5498.22	44.51	90.93	44.51	101.24	63.92	0.05
5600.00	1.68	62.97	5598.16	45.93	94.04	45.93	104.65	63.97	0.57
5700.00	2.13	42.23	5698.11	47.97	96.59	47.97	107.85	63.59	0.82
5800.00	1.77	41.04	5798.05	50.51	98.85	50.51	111.01	62.93	0.37
5900.00	1.86	24.65	5898.00	53.15	100.55	53.15	113.73	62.14	0.53
6000.00	1.54	26.86	5997.96	55.83	101.83	55.83	116.13	61.26	0.33
6100.00	1.95	26.37	6097.91	58.56	103.20	58.56	118.65	60.43	0.41
6200.00	1.81	10.77	6197.86	61.63	104.25	61.63	121.10	59.41	0.53

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
6300.00	2.33	6.39	6297.79	65.21	104.77	65.21	123.40	58.10	0.55
6400.00	2.65	9.59	6397.70	69.51	105.38	69.51	126.24	56.59	0.34
6500.00	2.49	7.68	6497.60	73.93	106.05	73.93	129.28	55.12	0.18
6600.00	2.66	4.98	6597.50	78.39	106.54	78.39	132.28	53.66	0.21
6700.00	2.70	353.86	6697.39	83.04	106.49	83.04	135.04	52.05	0.52
6800.00	2.50	354.29	6797.28	87.55	106.03	87.55	137.50	50.45	0.20
6900.00	2.86	353.85	6897.17	92.20	105.54	92.20	140.14	48.86	0.36
7000.00	2.36	357.66	6997.07	96.73	105.19	96.73	142.91	47.40	0.52
7100.00	2.42	354.94	7096.98	100.89	104.92	100.89	145.56	46.12	0.13
7200.00	2.80	1.16	7196.88	105.44	104.78	105.44	148.65	44.82	0.48
7300.00	2.60	14.01	7296.77	110.09	105.38	110.09	152.40	43.75	0.64
7400.00	2.10	14.78	7396.69	114.06	106.40	114.06	155.98	43.01	0.50
7500.00	2.26	14.07	7496.61	117.74	107.34	117.74	159.33	42.36	0.16
7600.00	2.63	23.68	7596.52	121.75	108.74	121.75	163.25	41.77	0.55
7700.00	2.04	35.16	7696.44	125.30	110.69	125.30	167.19	41.46	0.75
7800.00	2.12	50.93	7796.37	127.92	113.15	127.92	170.78	41.49	0.58
7895.00	1.63	46.31	7891.32	129.96	115.48	129.96	173.86	41.62	0.54



Mewbourne Oil Company

EDDY COUNTY, NM

SECTION 15

TAMANO 15 AD FEDERAL COM #1H

Wellbore #1

Survey: Final Plan v. Actual

Standard Survey Report

18 February, 2013





Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well TAMANO 15 AD FEDERAL COM #1H
Project:	EDDY COUNTY, NM	TVD Reference:	WELL @ 3727.0usft (Original Well Elev)
Site:	SECTION 15	MD Reference:	WELL @ 3727.0usft (Original Well Elev)
Well:	TAMANO 15 AD FEDERAL COM #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	As-Drilled Survey	Database:	EDM 5000.1 Single User Db

Project	EDDY COUNTY, NM, NM-EAST		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	SECTION 15		
Site Position:		Northing:	637,920.39 usft
From:	Map	Easting:	648,947.81 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 45' 10.081 N
		Longitude:	103° 50' 55.863 W
		Grid Convergence:	0.26 °

Well	TAMANO 15 AD FEDERAL COM #1H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 45' 10.081 N
		Longitude:	103° 50' 55.863 W
		Ground Level:	3,707.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	1/23/2013	7.56
			Dip Angle
			(°)
			Field Strength
			(nT)
			60.59
			48,741

Design	As-Drilled Survey		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			267.57

Survey Program	Date 2/18/2013		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		Description
100.0	7,895.0	Gyro Survey (Wellbore #1)	
7,992.0	13,200.0	Final Plan v. Actual (Wellbore #1)	

Survey										
Measured	Inclination	Azimuth	Vertical	+N-S	+E-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)	
7,895.0	1.63	46.31	7,891.3	130.0	115.5	-120.9	0.00	0.00	0.00	
TI @ 7895 MD, 1.63°										
7,992.0	1.90	56.60	7,988.3	131.9	117.9	-123.3	0.43	0.28	10.61	
8,024.0	0.20	36.70	8,020.3	132.2	118.3	-123.8	5.35	-5.31	-62.19	
8,056.0	4.10	249.90	8,052.2	131.9	117.3	-122.8	13.34	12.19	-458.75	
8,088.0	7.70	264.20	8,084.1	131.2	114.1	-119.5	12.07	11.25	44.69	
8,120.0	12.10	268.60	8,115.6	130.9	108.6	-114.0	13.94	13.75	13.75	
8,151.0	16.30	270.10	8,145.6	130.9	101.0	-106.5	13.60	13.55	4.84	
8,183.0	20.00	270.50	8,176.0	130.9	91.0	-96.5	11.57	11.56	1.25	
8,215.0	23.00	267.70	8,205.8	130.7	79.3	-84.8	9.91	9.38	-8.75	



Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well TAMANO 15 AD FEDERAL COM #1H
Project:	EDDY COUNTY, NM	TVD Reference:	WELL @ 3727.0usft (Original Well Elev)
Site:	SECTION 15	MD Reference:	WELL @ 3727.0usft (Original Well Elev)
Well:	TAMANO 15 AD FEDERAL COM #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	AS-Drilled Survey	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,247.0	26.00	268.70	8,234.9	130.3	66.1	-71.5	9.46	9.38	3.13
8,278.0	29.90	264.70	8,262.3	129.4	51.6	-57.0	13.95	12.58	-12.90
8,310.0	33.60	262.40	8,289.5	127.5	34.8	-40.2	12.16	11.56	-7.19
8,342.0	36.80	261.50	8,315.7	125.0	16.6	-21.8	10.13	10.00	-2.81
8,375.0	39.30	262.20	8,341.6	122.1	-3.6	-1.6	7.69	7.58	2.12
8,406.0	42.90	263.50	8,365.0	119.5	-23.8	18.7	11.94	11.61	4.19
8,438.0	47.70	264.70	8,387.5	117.2	-46.4	41.4	15.23	15.00	3.75
8,470.0	52.30	266.50	8,408.1	115.3	-70.8	65.9	15.01	14.38	5.63
8,502.0	56.30	267.60	8,426.7	114.0	-96.8	91.9	12.81	12.50	3.44
8,533.0	58.40	268.40	8,443.5	113.1	-122.9	118.0	7.11	6.77	2.58
8,565.0	60.90	268.00	8,459.6	112.2	-150.5	145.6	7.89	7.81	-1.25
8,597.0	64.70	267.30	8,474.2	111.1	-178.9	174.0	12.03	11.88	-2.19
8,629.0	68.90	267.30	8,486.9	109.7	-208.3	203.4	13.13	13.13	0.00
8,661.0	71.40	267.30	8,497.7	108.3	-238.3	233.5	7.81	7.81	0.00
8,693.0	74.50	266.10	8,507.1	106.5	-268.9	264.1	10.33	9.69	-3.75
8,724.0	79.20	266.30	8,514.2	104.5	-299.0	294.3	15.17	15.16	0.65
8,756.0	83.00	267.70	8,519.1	102.9	-330.5	325.9	12.64	11.88	4.38
8,781.0	85.30	268.00	8,521.6	101.9	-355.4	350.8	9.28	9.20	1.20
8,855.0	90.50	263.10	8,524.4	96.2	-429.1	424.6	9.65	7.03	-6.62
8,887.0	90.10	263.10	8,524.2	92.3	-460.8	456.5	1.25	-1.25	0.00
8,918.0	89.80	264.00	8,524.2	88.9	-491.6	487.4	3.06	-0.97	2.90
8,950.0	89.10	262.60	8,524.5	85.1	-523.4	519.3	4.89	-2.19	-4.38
9,013.0	88.50	264.00	8,525.8	77.8	-586.0	582.2	2.42	-0.95	2.22
9,076.0	89.20	264.70	8,527.1	71.6	-648.7	645.0	1.57	1.11	1.11
9,140.0	90.40	266.60	8,527.3	66.7	-712.5	709.0	3.51	1.88	2.97
9,203.0	89.80	266.60	8,527.2	63.0	-775.4	772.0	0.95	-0.95	0.00
9,266.0	90.00	265.90	8,527.3	58.9	-838.2	835.0	1.16	0.32	-1.11
9,329.0	90.10	266.50	8,527.3	54.7	-901.1	898.0	0.97	0.16	0.95
9,392.0	89.10	267.20	8,527.7	51.2	-964.0	961.0	1.94	-1.59	1.11
9,455.0	89.70	266.30	8,528.4	47.7	-1,026.9	1,023.9	1.72	0.95	-1.43
9,519.0	89.90	266.80	8,528.6	43.8	-1,090.8	1,087.9	0.84	0.31	0.78
9,614.0	88.70	267.00	8,529.8	38.7	-1,185.6	1,182.9	1.28	-1.26	0.21
9,677.0	88.80	266.60	8,531.1	35.1	-1,248.5	1,245.9	0.65	0.16	-0.63
9,740.0	90.40	265.60	8,531.6	30.9	-1,311.4	1,308.9	2.99	2.54	-1.59
9,803.0	91.10	266.50	8,530.8	26.5	-1,374.2	1,371.8	1.81	1.11	1.43
9,866.0	90.40	265.60	8,529.9	22.2	-1,437.0	1,434.8	1.81	-1.11	-1.43
9,929.0	91.00	265.90	8,529.2	17.5	-1,499.9	1,497.8	1.06	0.95	0.48
9,992.0	92.20	265.40	8,527.4	12.7	-1,562.7	1,560.7	2.06	1.90	-0.79
10,056.0	91.70	265.00	8,525.2	7.4	-1,626.4	1,624.6	1.00	-0.78	-0.63
10,119.0	91.60	264.90	8,523.4	1.8	-1,689.1	1,687.5	0.22	-0.16	-0.16
10,183.0	91.80	265.70	8,521.5	-3.4	-1,752.9	1,751.4	1.29	0.31	1.25
10,246.0	90.60	265.90	8,520.2	-8.0	-1,815.7	1,814.4	1.93	-1.90	0.32
10,309.0	88.80	267.70	8,520.5	-11.5	-1,878.6	1,877.4	4.04	-2.86	2.86



Stryker Directional Survey Report



Company: Mewbourne Oil Company
Project: EDDY COUNTY, NM
Site: SECTION 15
Well: TAMANO 15 AD FEDERAL COM #1H
Wellbore: Wellbore #1
Design: As-Drilled Survey

Local Co-ordinate Reference: Well TAMANO 15 AD FEDERAL COM #1H
TVD Reference: WELL @ 3727.0usft (Original Well Elev)
MD Reference: WELL @ 3727.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,372.0	88.90	267.20	8,521.8	-14.3	-1,941.5	1,940.4	0.81	0.16	-0.79
10,436.0	88.70	267.50	8,523.1	-17.3	-2,005.4	2,004.4	0.56	-0.31	0.47
10,499.0	88.10	267.20	8,524.9	-20.2	-2,068.3	2,067.3	1.06	-0.95	-0.48
10,562.0	88.10	267.00	8,527.0	-23.4	-2,131.2	2,130.3	0.32	0.00	-0.32
10,625.0	88.90	266.60	8,528.6	-26.9	-2,194.1	2,193.3	1.42	1.27	-0.63
10,689.0	91.40	268.00	8,528.5	-29.9	-2,258.0	2,257.3	4.48	3.91	2.19
10,752.0	92.60	268.00	8,526.3	-32.1	-2,320.9	2,320.2	1.90	1.90	0.00
10,815.0	91.50	268.00	8,524.0	-34.3	-2,383.9	2,383.2	1.75	-1.75	0.00
10,879.0	90.30	267.90	8,523.0	-36.6	-2,447.8	2,447.2	1.88	-1.88	-0.16
10,942.0	89.10	267.70	8,523.3	-39.0	-2,510.8	2,510.2	1.93	-1.90	-0.32
11,005.0	87.80	267.30	8,525.0	-41.8	-2,573.7	2,573.1	2.16	-2.06	-0.63
11,068.0	88.00	267.00	8,527.3	-44.9	-2,636.6	2,636.1	0.57	0.32	-0.48
11,132.0	88.30	266.30	8,529.4	-48.6	-2,700.4	2,700.1	1.19	0.47	-1.09
11,195.0	89.40	266.60	8,530.7	-52.5	-2,763.3	2,763.0	1.81	1.75	0.48
11,258.0	91.00	266.10	8,530.4	-56.5	-2,826.2	2,826.0	2.66	2.54	-0.79
11,321.0	90.90	265.90	8,529.4	-60.9	-2,889.0	2,889.0	0.35	-0.16	-0.32
11,385.0	89.60	265.60	8,529.1	-65.7	-2,952.8	2,952.9	2.08	-2.03	-0.47
11,448.0	90.50	265.00	8,529.1	-70.8	-3,015.6	3,015.9	1.72	1.43	-0.95
11,511.0	90.20	264.30	8,528.7	-76.7	-3,078.3	3,078.8	1.21	-0.48	-1.11
11,575.0	89.50	263.50	8,528.9	-83.5	-3,142.0	3,142.7	1.66	-1.09	-1.25
11,638.0	91.00	263.60	8,528.6	-90.6	-3,204.6	3,205.5	2.39	2.38	0.16
11,701.0	90.90	263.50	8,527.5	-97.7	-3,267.2	3,268.4	0.22	-0.16	-0.16
11,765.0	90.60	262.60	8,526.7	-105.4	-3,330.7	3,332.2	1.48	-0.47	-1.41
11,828.0	89.30	261.90	8,526.8	-113.9	-3,393.1	3,394.9	2.34	-2.06	-1.11
11,891.0	89.10	262.40	8,527.6	-122.5	-3,455.5	3,457.6	0.85	-0.32	0.79
11,954.0	89.30	263.60	8,528.5	-130.2	-3,518.0	3,520.4	1.93	0.32	1.90
12,017.0	89.00	263.80	8,529.4	-137.1	-3,580.6	3,583.2	0.57	-0.48	0.32
12,080.0	89.10	266.30	8,530.5	-142.5	-3,643.4	3,646.2	3.97	0.16	3.97
12,143.0	90.20	266.80	8,530.9	-146.3	-3,706.3	3,709.1	1.92	1.75	0.79
12,206.0	89.70	267.00	8,530.9	-149.7	-3,769.2	3,772.1	0.85	-0.79	0.32
12,270.0	89.40	266.10	8,531.4	-153.6	-3,833.1	3,836.1	1.48	-0.47	-1.41
12,302.0	91.20	265.60	8,531.3	-155.9	-3,865.0	3,868.1	5.84	5.63	-1.56
12,333.0	91.30	264.90	8,530.6	-158.5	-3,895.9	3,899.1	2.28	0.32	-2.26
12,397.0	91.10	264.90	8,529.2	-164.2	-3,959.6	3,963.0	0.31	-0.31	0.00
12,460.0	90.10	264.70	8,528.6	-169.9	-4,022.3	4,025.9	1.62	-1.59	-0.32
12,523.0	91.60	265.70	8,527.7	-175.1	-4,085.1	4,088.9	2.86	2.38	1.59
12,587.0	92.10	265.00	8,525.6	-180.3	-4,148.9	4,152.8	1.34	0.78	-1.09
12,650.0	91.60	264.90	8,523.6	-185.9	-4,211.6	4,215.7	0.81	-0.79	-0.16
12,713.0	91.70	264.70	8,521.7	-191.6	-4,274.3	4,278.6	0.35	0.16	-0.32
12,777.0	90.90	265.00	8,520.3	-197.3	-4,338.0	4,342.5	1.33	-1.25	0.47
12,840.0	88.80	264.30	8,520.5	-203.2	-4,400.7	4,405.4	3.51	-3.33	-1.11
12,903.0	88.40	264.00	8,522.0	-209.6	-4,463.4	4,468.3	0.79	-0.63	-0.48
12,967.0	88.50	264.70	8,523.7	-215.9	-4,527.1	4,532.1	1.10	0.16	1.09



Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well TAMANO 15 AD FEDERAL COM #1H
Project:	EDDY COUNTY, NM	TVD Reference:	WELL @ 3727.0usft (Original Well Elev)
Site:	SECTION 15	MD Reference:	WELL @ 3727.0usft (Original Well Elev)
Well:	TAMANO 15 AD FEDERAL COM #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	As-Drilled Survey	Database:	EDM 5000.1 Single User.Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,030.0	89.10	265.60	8,525.0	-221.2	-4,589.8	4,595.1	1.72	0.95	1.43
13,093.0	90.70	266.50	8,525.2	-225.6	-4,652.7	4,658.0	2.91	2.54	1.43
13,137.0	89.90	266.50	8,524.9	-228.3	-4,696.6	4,702.0	1.82	-1.82	0.00
13,200.0	89.90	266.50	8,525.0	-232.1	-4,759.5	4,765.0	0.00	0.00	0.00
BHL Proj @ 13200 MD, 89.90°									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,895.0				TI @ 7895 MD, 1.63°
13,200.0	8,525.0	-232.1	-4,759.5	BHL Proj @ 13200 MD, 89.90°

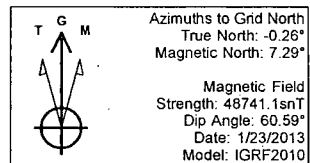
Checked By: _____ Approved By: _____ Date: _____



COMPANY: Mewbourne Oil Company
 WELL: TAMANO 15 AD FEDERAL COM #1H
 COUNTY: EDDY COUNTY, NM
 DATUM: NAD 1927 (NADCON CONUS)
 RIG: PATTERSON 47
 GRID CORRECTION: 7.29° E



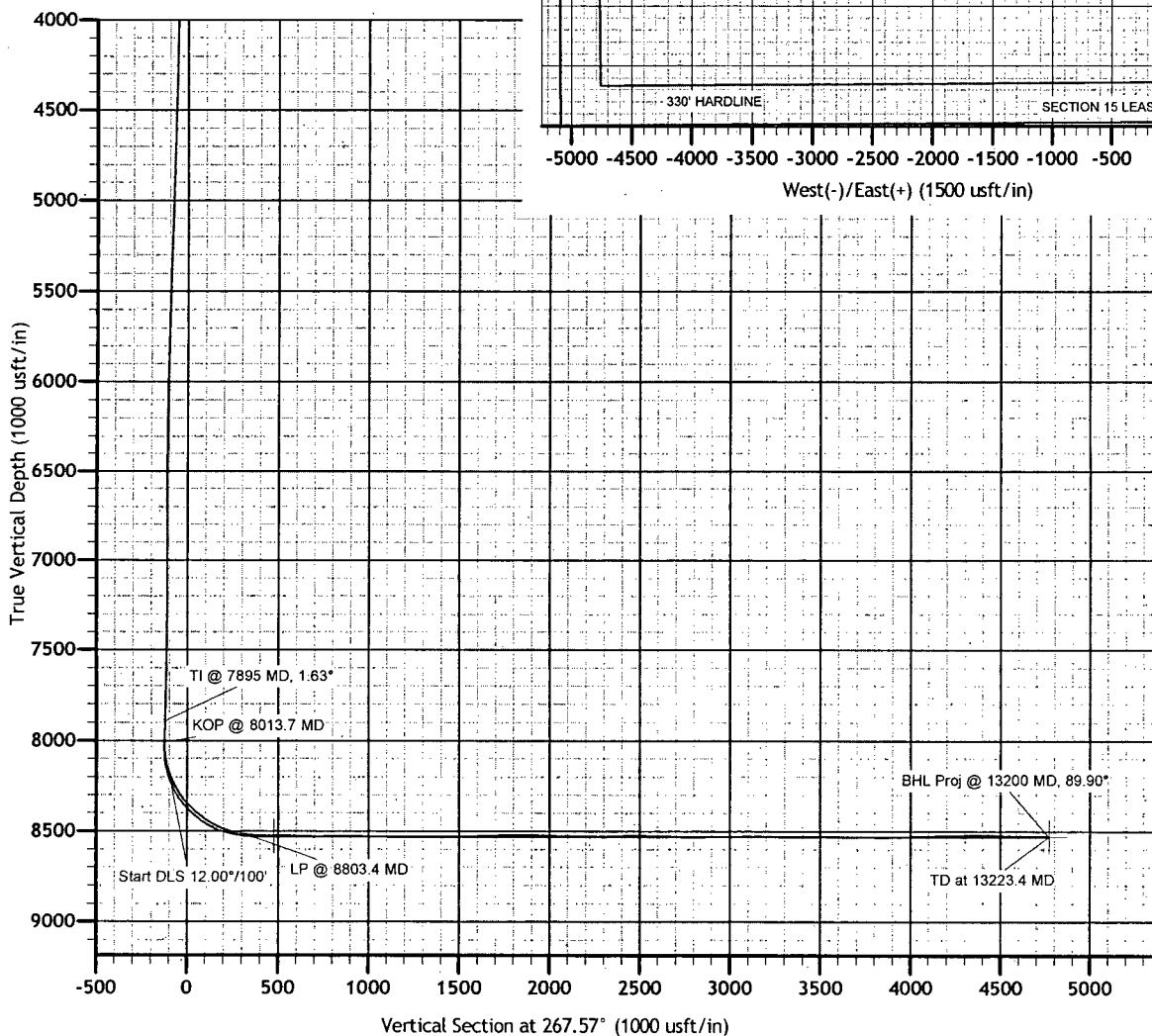
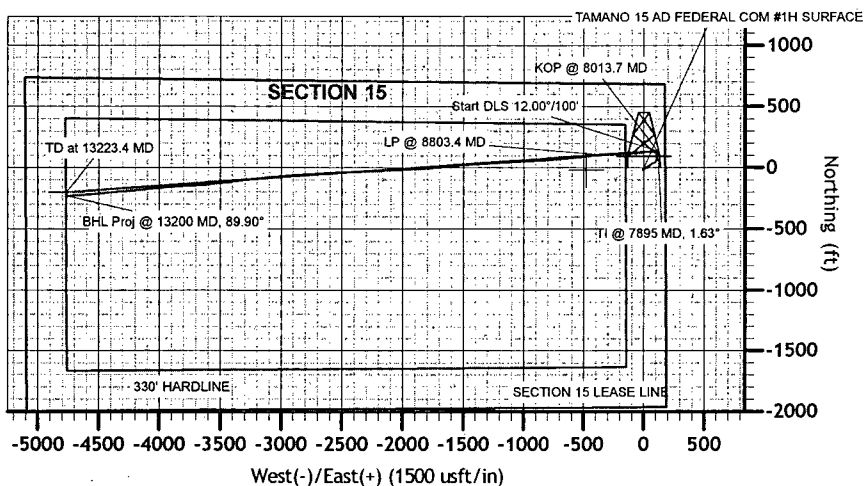
OFFICE: 936.582.7296 PLANNING: 214.784.3778



GEODETTIC ZONE: New Mexico East 3001					
WELL @ 3727.0usft (Original Well Elev)					
GROUND ELEVATION: 3707.0					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	637920.39	648947.81	32° 45' 10.081 N	103° 50' 55.863 W

CRITICAL POINTS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
8525.0	7895.0							TI @ 7895 MD, 1.63°	
	13200.0	89.90	266.50	-232.1	-4759.5	-3334.7	4896.9	BHL Proj @ 13200 MD, 89.90°	

CREATED BY: BRANDON ESTES
 DATE: 16:13, February 18 2013
 PLAN: As-Drilled Survey

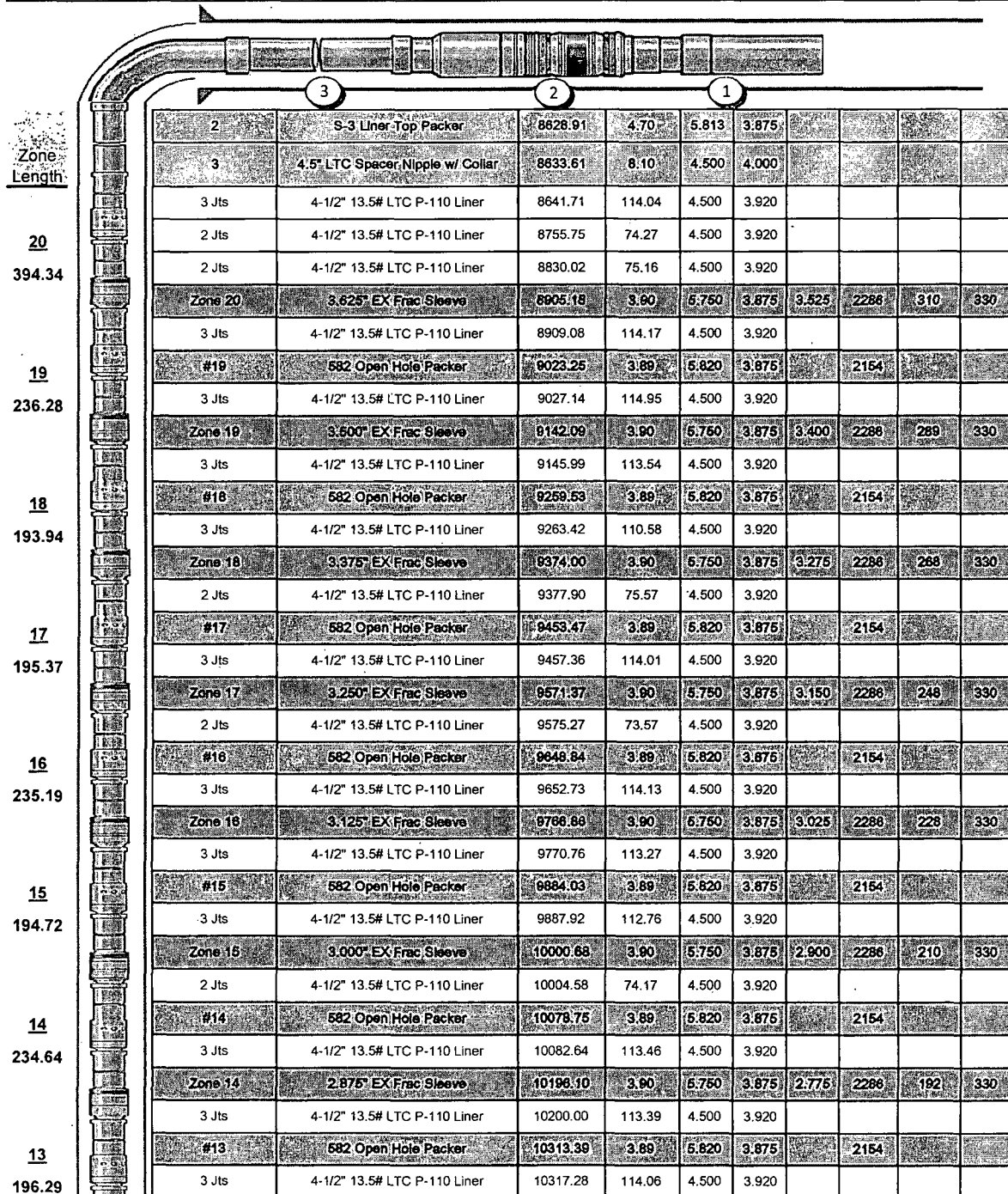


Company Rep	0
Field	Bone Spring
BOT Service Rep	0
District Location	Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse	
Casing	7.000	26.00	110000	6.276	6.151	LT&C	0.03826	8,844.00	9,960	6,230	
Top Liner	4.500	13.50	110000	3.920	3.795	LT&C	0.01493	4,555.09	12,410	10,690	
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-	
TVD			KOP			Open Hole		6.125	Casing Vol. (bbl)		330.0
Carry Fluid Weight (ppg)			8.4		Propan Content (ppa)				Max Drill Out Size		0

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ. (BBL)
Liner Top	1	JR Setting Sleeve w/ RH Profile	862.91	4.00	5.750	4.750				



Operating Company Mewbourne Oil Company
Well Name & Number Tamano 15 AD #1H
Sales Ticket Number 5281591
Date 2/20/2013

Company Rep 0
Field Bone Spring
BOT Service Rep 0
District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LT&C	0.03826	8,844.00	9,960	6,230
Top Liner	4.500	13.50	110000	3.920	3.795	LT&C	0.01493	4,555.09	12,410	10,690
Bot Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-
TVD		KOP		Open Hole		6.125		Casing Vol. (bbl)		330.0
Casing Fluid Weight (ppg)		8.4		Proppant Content (ppa)		Max Drill Out Size		0		

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press	Max Rate (BPM)	Displ (BBL)
12 233.29	Zone 13	2.750" EX Frac Sleeve	10431.34	3.90	5.750	3.875	2.650	2288	175	330
	2 Jts	4-1/2" 13.5# LTC P-110 Liner	10435.24	74.44	4.500	3.920				
	#12	582 Open Hole Packer	10509.68	3.89	5.820	3.875		2154		
11 234.11	3 Jts	4-1/2" 13.5# LTC P-110 Liner	10513.57	112.84	4.500	3.920				
	Zone 12	2.625" EX Frac Sleeve	10628.41	3.90	5.750	3.875	2.525	2288	159	330
	3 Jts	4-1/2" 13.5# LTC P-110 Liner	10630.31	112.66	4.500	3.920				
10 197.02	#11	582 Open Hole Packer	10742.97	3.89	5.820	3.875		2154		
	3 Jts	4-1/2" 13.5# LTC P-110 Liner	10746.86	112.62	4.500	3.920				
	Zone 11	2.500" EX Frac Sleeve	10859.48	3.90	5.750	3.875	2.400	2288	144	330
9 236.32	3 Jts	4-1/2" 13.5# LTC P-110 Liner	10863.38	113.70	4.500	3.920				
	#10	582 Open Hole Packer	10977.08	3.89	5.820	3.875		2154		
	3 Jts	4-1/2" 13.5# LTC P-110 Liner	10980.97	113.65	4.500	3.920				
8 197.87	Zone 10	2.375" EX Frac Sleeve	11094.62	3.90	5.750	3.875	2.275	2288	129	330
	2 Jts	4-1/2" 13.5# LTC P-110 Liner	11098.52	75.58	4.500	3.920				
	#9	582 Open Hole Packer	11174.10	3.89	5.820	3.875		2154		
7 195.78	3 Jts	4-1/2" 13.5# LTC P-110 Liner	11177.99	115.19	4.500	3.920				
	Zone 9	2.250" EX Frac Sleeve	11283.18	3.90	5.750	3.875	2.160	2288	116	330
	3 Jts	4-1/2" 13.5# LTC P-110 Liner	11297.08	113.34	4.500	3.920				
6 236.71	#8	582 Open Hole Packer	11410.42	3.89	5.820	3.875		2154		
	3 Jts	4-1/2" 13.5# LTC P-110 Liner	11414.31	114.64	4.500	3.920				
	Zone 8	2.125" EX Frac Sleeve	11528.95	3.90	5.750	3.875	2.025	2288	102	330
5 304.99	2 Jts	4-1/2" 13.5# LTC P-110 Liner	11532.85	75.44	4.500	3.920				
	#7	582 Open Hole Packer	11608.29	3.89	5.820	3.875		2154		
	3 Jts	4-1/2" 13.5# LTC P-110 Liner	11612.18	112.81	4.500	3.920				
4 309.60	Zone 7	2.000" EX Frac Sleeve	11724.99	3.90	5.750	3.875	1.900	2288	90	330
	2 Jts	4-1/2" 13.5# LTC P-110 Liner	11728.89	75.18	4.500	3.920				
	#6	582 Open Hole Packer	11804.07	3.89	5.820	3.875		2154		
	3 Jts	4-1/2" 13.5# LTC P-110 Liner	11807.96	115.36	4.500	3.920				
	Zone 6	1.875" EX Frac Sleeve	11823.32	3.90	5.750	3.875	1.775	2288	79	330
	3 Jts	4-1/2" 13.5# LTC P-110 Liner	11927.22	113.56	4.500	3.920				
	#5	582 Open Hole Packer	12040.78	3.89	5.820	3.875		2154		
	3 Jts	4-1/2" 13.5# LTC P-110 Liner	12044.67	110.44	4.500	3.920				
	Zone 5	1.750" EX Frac Sleeve	12155.11	3.90	5.750	3.875	1.650	2288	68	330
	5 Jts	4-1/2" 13.5# LTC P-110 Liner	12159.01	186.76	4.500	3.920				
	#4	582 Open Hole Packer	12345.77	3.89	5.820	3.875		2154		
	6 Jts	4-1/2" 13.5# LTC P-110 Liner	12349.66	226.20	4.500	3.920				
	Zone 4	1.625" EX Frac Sleeve	12575.88	3.90	5.750	3.875	1.525	2288	58	330
	2 Jts	4-1/2" 13.5# LTC P-110 Liner	12579.76	75.61	4.500	3.920				

Operating Company Mewbourne Oil Company
Well Name & Number Tamano 15 AD #1H
Sales Ticket Number 5281591
Date 2/20/2013

Company Rep 0
Field Bone Spring
BOT Service Rep 0
District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LT&C	0.03826	8,844.00	9,960	6,230
Top Liner	4.500	13.50	110000	3.920	3.795	LT&C	0.01493	4,555.09	12,410	10,690
Bot Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-

TVD	KOP	Open Hole	6.125	Casing Vol. (bbl)	330.0
Carry Fluid Weight (ppg)	8.4	Proppant Content (ppa)		Max Drill Out Size	0

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Disp. (BBL)
3 234.67	#3	582 Open Hole Packer	12655.37	3.89	5.820	3.875		2154		
	3 Jts	4-1/2" 13.5# LTC P-110 Liner	12659.26	113.02	4.500	3.920				
	Zone 3	1.500" DB EX Frac Sleeve	12772.28	3.90	5.750	3.875	1.400	2288	49	330
2 197.48	3 Jts	4-1/2" 13.5# LTC P-110 Liner	12776.18	113.86	4.500	3.920				
	#2	582 Open Hole Packer	12890.04	3.89	5.820	3.875		2154		
	3 Jts	4-1/2" 13.5# LTC P-110 Liner	12893.93	114.29	4.500	3.920				
1 112.48	Zone 2	1.375" DB EX Frac Sleeve	13008.22	3.90	5.750	3.875	1.275	2288	41	330
	2 Jts	4-1/2" 13.5# LTC P-110 Liner	13012.12	75.40	4.500	3.920				
	#1	582 Open Hole Packer	13087.52	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Liner	13091.41	76.29	4.500	3.920				
	Zone 1	1.250" Express Sleeve	13167.70	2.38			1.150	3048	38	330
		4-1/2" Pup Jt	13170.08	8.08						
		Double Valve Float Shoe	13178.16	1.84						
		Btm Depth of Shoe	13180.00							
		Well TD	13200.00							
		All Depths Given As Tops								
		Unless Otherwise Noted								