

Results of Directional Survey

API number:	30-025-40451		
OGRID:		Operator:	CAZA OPERATING, LLC
		Property:	LENNOX 32 STATE # 2H

surface	ULSTR:	A	32	T	22S	R	35E
				330	FNL	660	FEL

BH Loc	ULSTR:	P	32	T	22S	R	35E
15914	MD	11479.3	TVD	324	FSL	714	FEL
				4956	FNL	714	FEL

Top Perf/OH	ULSTR:	A	32	T	22S	R	35E
10545	MD	10542.6	TVD	230	FNL	678	FEL

Bot Perf/OH	ULSTR:	P	32	T	22S	R	35E
15806	MD	11477.7	TVD	432	FSL	603	FEL
				4848	FNL	603	FEL

	MD	N/S	E/W	VD
	10500	99.58	-17.85	10497.56
TOP PERFS/OH	10545	100.01	-17.76	10542.56
	10600	100.53	-17.64	10597.56
	15768	-4480.00	58.40	11476.70
BOT PERFS/OH	15806	-4517.96	57.36	11477.66
	15863	-4574.90	55.80	11479.10

NEXT TO LAST	15863	-4574.90	55.80	11479.10
LAST READING	15914	-4625.90	-53.70	11479.30
TD	15914	-4625.90	-53.70	11479.30

Surface Location	330	FN	660	FE
Projected BHL	4956	FN	714	FE
Location of				
Top Perfs/OH	230	FN	678	FE
Bottom Perfs/OH	4848	FN	603	FE

SUMMARY of Subsurface Locations

Surface Location	A-32-22S-35E	330	FN	660	FE	Vert. Depth
Top Perfs/OH	A-32-22S-35E	230	FN	678	FE	10542.56
Bottom Perfs/OH	P-32-22S-35E	4848	FN	603	FE	11477.66
Projected TD	P-32-22S-35E	4956	FN	714	FE	11479.30

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30-025-40451

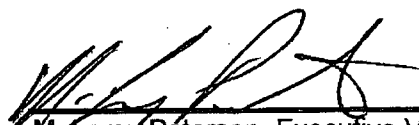
OPERATOR: Caza Oil & Gas, Inc
WELL/LEASE: Lennox 32 State # 2H
COUNTY: Lea Co., New Mexico
Sec. 32, T22S, R35E

**STATE OF NEW MEXICO
DEVIATION REPORT**

<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
2,795	3/4	7,306	1
2,890	1/4	7,687	1 1/4
2,985	3/4	8,159	1 1/4
3,080	3/4	8,633	1
3,175	3/4	9,155	1 3/4
3,270	1	9,251	1 1/2
3,365	3/4	9,345	2
3,461	1	9,505	2 1/2
3,555	1 1/4	9,535	2 1/2
3,650	1	9,629	1 3/4
3,754	1	9,724	1 1/2
4,029	1 1/4	9,882	1 1/2
4,313	1 1/4	9,913	1 1/2
4,408	1 1/4	10,102	1 1/4
4,508	1 1/2	10,196	1
5,260	3 1/2	10,290	3/4
5,355	3	10,479	1/4
5,450	2 3/4	10,573	1/4
5,544	2 1/4	10,667	1
5,639	1 3/4	10,761	1 1/2
5,829	1	10,953	3/4
6,113	1 1/4	11,046	1/2
6,454	1 1/4	11,140	1/4
6,737	3/4	11,234	1/2
7,021	1/2	11,328	3/4

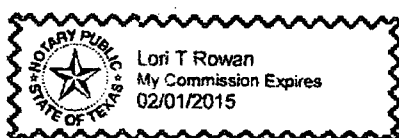
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MAY 28 2013
BY:

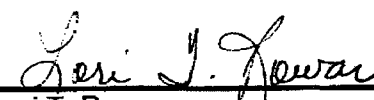
Patriot Drilling, LLC


M. Leroy Peterson, Executive Vice-
President

The foregoing instrument was acknowledged before me on this 9th day of April, 2013 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 02/01/2015




Lori T. Rowan
Notary Public for Ector Co., Texas



Company: Gaza Operating
Lease/Well: Lennox Unit 32 State /2 H
Location: Sec.32 T22S R35E
Rig Name: Patriot Rig #5
State/County: New Mexico /Eddy
Latitude: 32.35, Longitude: -103.38
GRID North is 0.51 Degrees East of True North
VS-Azi: 0.00 Degrees

30-025-40451



FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : RKB=25'

HOBBS OCD

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: final survey .ut
Minimum Curvature Method
Report Date/Time: 3/10/2013 / 14:52

JUL 10 2013

RECEIVED

Vaughn Energy Services
Fort Worth, Texas
817-741-3610
Tim Kaczor

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	0.10	301.53	100.00	0.04	-0.07	0.04	0.08	301.53	0.10
200.00	0.48	182.29	200.00	-0.33	-0.16	-0.33	0.37	205.43	0.54
300.00	0.27	208.07	300.00	-0.97	-0.29	-0.97	1.01	196.60	0.27
400.00	0.37	222.20	400.00	-1.42	-0.62	-1.42	1.54	203.55	0.12
500.00	0.23	225.94	499.99	-1.79	-0.98	-1.79	2.04	208.57	0.14
600.00	0.17	250.40	599.99	-1.98	-1.25	-1.98	2.34	212.38	0.10
700.00	0.27	299.10	699.99	-1.91	-1.60	-1.91	2.49	219.88	0.20
800.00	1.14	271.76	799.98	-1.77	-2.79	-1.77	3.31	237.70	0.90
900.00	1.58	267.69	899.96	-1.79	-5.17	-1.79	5.47	250.87	0.46
1000.00	1.58	263.95	999.92	-1.99	-7.91	-1.99	8.16	255.87	0.10
1100.00	1.43	260.41	1099.88	-2.35	-10.52	-2.35	10.78	257.43	0.17
1200.00	0.93	253.46	1199.86	-2.79	-12.53	-2.79	12.84	257.47	0.53
1300.00	0.93	250.33	1299.85	-3.29	-14.07	-3.29	14.45	256.84	0.05
1400.00	0.84	226.49	1399.84	-4.06	-15.36	-4.06	15.89	255.18	0.37
1500.00	0.78	199.84	1499.83	-5.21	-16.12	-5.21	16.94	252.09	0.38
1600.00	0.58	168.15	1599.82	-6.35	-16.25	-6.35	17.45	248.65	0.42
1700.00	0.53	166.36	1699.82	-7.30	-16.04	-7.30	17.62	245.54	0.05
1800.00	0.76	172.09	1799.81	-8.40	-15.84	-8.40	17.93	242.07	0.23
1900.00	0.76	178.21	1899.80	-9.71	-15.73	-9.71	18.48	238.30	0.08
2000.00	0.48	223.25	1999.80	-10.68	-15.99	-10.68	19.23	236.26	0.54
2100.00	0.18	45.97	2099.79	-10.88	-16.17	-10.88	19.49	236.06	0.66
2200.00	0.60	47.04	2199.79	-10.41	-15.67	-10.41	18.82	236.40	0.42
2300.00	0.92	49.16	2299.78	-9.53	-14.68	-9.53	17.50	237.01	0.33
2400.00	0.95	64.93	2399.77	-8.65	-13.32	-8.65	15.89	236.99	0.26
2500.00	0.88	50.72	2499.76	-7.82	-11.98	-7.82	14.31	236.87	0.23
2600.00	0.97	44.57	2599.74	-6.72	-10.79	-6.72	12.71	238.06	0.14
2700.00	0.75	37.23	2699.73	-5.60	-9.80	-5.60	11.28	240.25	0.25
2800.00	0.68	8.55	2799.73	-4.50	-9.31	-4.50	10.34	244.23	0.36
2900.00	0.65	19.12	2899.72	-3.37	-9.04	-3.37	9.65	249.54	0.12
3000.00	0.55	22.71	2999.71	-2.39	-8.67	-2.39	8.99	254.58	0.11
3100.00	0.78	18.37	3099.71	-1.30	-8.27	-1.30	8.37	261.08	0.24
3200.00	0.89	11.48	3199.70	0.11	-7.90	0.11	7.90	270.81	0.14
3300.00	1.08	10.83	3299.68	1.80	-7.56	1.80	7.78	283.38	0.19
3400.00	1.06	8.47	3399.66	3.64	-7.25	3.64	8.11	296.69	0.05

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
3500.00	0.94	5.07	3499.65	5.38	-7.04	5.38	8.86	307.38	0.13
3600.00	1.04	3.58	3599.63	7.10	-6.91	7.10	9.91	315.78	0.10
3700.00	1.20	10.42	3699.61	9.03	-6.67	9.03	11.23	323.58	0.21
3800.00	1.32	20.23	3799.59	11.14	-6.08	11.14	12.69	331.37	0.25
3900.00	1.35	21.11	3899.56	13.32	-5.26	13.32	14.32	338.46	0.04
4000.00	1.33	23.63	3999.54	15.48	-4.37	15.48	16.09	344.25	0.06
4100.00	1.56	26.39	4099.50	17.77	-3.30	17.77	18.07	349.49	0.24
4200.00	1.23	4.68	4199.47	20.06	-2.60	20.06	20.22	352.60	0.62
4300.00	1.36	5.23	4299.45	22.31	-2.41	22.31	22.44	353.84	0.14
4400.00	1.15	5.87	4399.42	24.50	-2.20	24.50	24.60	354.88	0.21
4500.00	1.33	1.03	4499.40	26.66	-2.07	26.66	26.74	355.55	0.21
4600.00	1.33	359.55	4599.37	28.98	-2.06	28.98	29.05	355.93	0.04
4700.00	1.60	6.92	4699.34	31.53	-1.90	31.53	31.58	356.55	0.34
4800.00	1.87	21.92	4799.30	34.43	-1.12	34.43	34.44	358.13	0.52
4900.00	2.20	356.11	4899.24	37.85	-0.65	37.85	37.86	359.02	0.97
5000.00	2.81	354.67	4999.14	42.22	-1.01	42.22	42.23	358.64	0.61
5100.00	2.68	347.65	5099.02	46.94	-1.73	46.94	46.97	357.89	0.36
5200.00	2.77	346.35	5198.91	51.57	-2.80	51.57	51.65	356.89	0.11
5300.00	3.07	342.22	5298.78	56.47	-4.19	56.47	56.63	355.76	0.36
5400.00	2.60	335.94	5398.66	61.09	-5.93	61.09	61.38	354.45	0.56
5500.00	2.20	329.97	5498.57	64.83	-7.82	64.83	65.30	353.12	0.47
5600.00	2.15	324.02	5598.50	68.01	-9.88	68.01	68.72	351.73	0.23
5700.00	1.79	319.61	5698.44	70.72	-12.00	70.72	71.73	350.37	0.39
5800.00	1.44	304.05	5798.40	72.62	-14.06	72.62	73.97	349.04	0.56
5900.00	1.16	298.84	5898.37	73.82	-15.99	73.82	75.53	347.77	0.30
6000.00	1.34	295.62	5998.35	74.81	-17.94	74.81	76.93	346.51	0.19
6100.00	1.19	293.26	6098.33	75.73	-19.95	75.73	78.31	345.24	0.17
6200.00	1.09	290.42	6198.31	76.47	-21.79	76.47	79.51	344.10	0.11
6300.00	1.04	291.33	6298.29	77.13	-23.53	77.13	80.64	343.04	0.05
6400.00	1.06	289.62	6398.27	77.77	-25.24	77.77	81.77	342.02	0.04
6500.00	1.16	285.11	6498.25	78.35	-27.09	78.35	82.90	340.92	0.13
6600.00	1.30	280.05	6598.23	78.81	-29.19	78.81	84.04	339.68	0.18
6700.00	0.97	277.55	6698.21	79.12	-31.14	79.12	85.03	338.51	0.34
6800.00	1.11	262.07	6798.19	79.09	-32.94	79.09	85.68	337.39	0.31
6900.00	1.11	263.41	6898.18	78.85	-34.85	78.85	86.21	336.15	0.03
7000.00	0.94	266.76	6998.16	78.69	-36.63	78.69	86.80	335.04	0.17
7100.00	1.13	272.74	7098.14	78.69	-38.44	78.69	87.58	333.96	0.22
7200.00	0.87	258.14	7198.13	78.59	-40.18	78.59	88.26	332.92	0.36
7300.00	0.72	258.00	7298.12	78.30	-41.54	78.30	88.63	332.06	0.15
7400.00	0.52	255.71	7398.11	78.06	-42.59	78.06	88.92	331.38	0.20
7500.00	0.45	251.80	7498.11	77.82	-43.40	77.82	89.11	330.85	0.07
7600.00	0.31	258.88	7598.11	77.64	-44.04	77.64	89.27	330.44	0.15
7700.00	0.68	269.92	7698.10	77.59	-44.90	77.59	89.65	329.94	0.38
7800.00	0.25	272.45	7798.10	77.60	-45.72	77.60	90.07	329.49	0.43
7900.00	0.60	284.22	7898.10	77.74	-46.45	77.74	90.56	329.14	0.36
8000.00	0.54	282.27	7998.09	77.97	-47.42	77.97	91.26	328.69	0.07
8100.00	0.13	273.36	8098.09	78.07	-47.99	78.07	91.65	328.42	0.41
8200.00	0.45	268.68	8198.09	78.07	-48.50	78.07	91.91	328.15	0.32
8300.00	0.05	243.06	8298.09	78.05	-48.92	78.05	92.11	327.92	0.41
8400.00	0.25	302.74	8398.09	78.15	-49.14	78.15	92.31	327.84	0.23
8500.00	0.11	18.12	8498.09	78.35	-49.29	78.35	92.57	327.83	0.25
8600.00	0.24	59.98	8598.09	78.55	-49.08	78.55	92.62	328.00	0.17
8700.00	0.25	79.72	8698.08	78.69	-48.69	78.69	92.54	328.25	0.08
8800.00	0.45	66.75	8798.08	78.88	-48.12	78.88	92.40	328.62	0.22
8900.00	1.15	59.54	8898.07	79.55	-46.90	79.55	92.34	329.48	0.70

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
9000.00	1.37	51.04	8998.05	80.81	-45.10	80.81	92.54	330.83	0.29
9100.00	1.33	46.22	9098.02	82.36	-43.34	82.36	93.07	332.25	0.12
9200.00	1.33	10.54	9198.00	84.30	-42.29	84.30	94.31	333.36	0.81
9300.00	1.47	7.59	9297.97	86.71	-41.91	86.71	96.30	334.20	0.16
9400.00	2.39	29.59	9397.91	89.80	-40.71	89.80	98.59	335.61	1.17
9500.00	2.06	48.75	9497.83	92.80	-38.32	92.80	100.40	337.56	0.81
9600.00	2.10	70.24	9597.77	94.60	-35.25	94.60	100.96	339.57	0.78
9700.00	1.44	76.85	9697.72	95.51	-32.30	95.51	100.82	341.31	0.69
9800.00	1.26	76.88	9797.69	96.04	-30.01	96.04	100.62	342.65	0.17
9900.00	1.57	69.81	9897.66	96.77	-27.65	96.77	100.64	344.05	0.35
10000.00	1.47	67.69	9997.63	97.73	-25.18	97.73	100.92	345.55	0.12
10100.00	1.16	79.96	10097.60	98.39	-22.99	98.39	101.04	346.85	0.41
10200.00	0.96	87.36	10197.59	98.60	-21.15	98.60	100.85	347.89	0.24
10300.00	0.77	74.39	10297.57	98.82	-19.67	98.82	100.76	348.74	0.28
10400.00	0.54	65.67	10397.57	99.20	-18.59	99.20	100.93	349.38	0.25
10500.00	0.42	59.17	10497.56	99.58	-17.85	99.58	101.17	349.84	0.14
10600.00	0.88	352.54	10597.56	100.53	-17.64	100.53	102.07	350.05	0.81
10700.00	1.29	310.81	10697.54	102.03	-18.58	102.03	103.71	349.68	0.86
10800.00	1.42	272.74	10797.52	102.82	-20.67	102.82	104.88	348.63	0.89
10900.00	1.01	263.56	10897.49	102.78	-22.78	102.78	105.28	347.50	0.46
11000.00	0.56	241.99	10997.48	102.45	-24.09	102.45	105.25	346.77	0.52
11100.00	0.51	230.57	11097.48	101.94	-24.87	101.94	104.93	346.29	0.12
11200.00	0.40	235.86	11197.48	101.46	-25.50	101.46	104.61	345.89	0.12
11300.00	0.61	245.59	11297.47	101.04	-26.28	101.04	104.40	345.42	0.23
11400.00	0.89	266.28	11397.46	100.77	-27.54	100.77	104.47	344.71	0.39
11500.00	0.57	268.10	11497.46	100.70	-28.82	100.70	104.75	344.03	0.32
11600.00	0.74	277.97	11597.45	100.78	-29.96	100.78	105.14	343.44	0.20
11700.00	0.87	280.79	11697.44	101.01	-31.35	101.01	105.76	342.76	0.13
11800.00	2.16	279.87	11797.40	101.47	-33.95	101.47	107.00	341.50	1.30

HORIZONTAL DISPLACEMENT IS
107.00 FEET AT 341.50 DEGREES



HOBBS OCD

JUL 10 2013

RECEIVED

Caza Petroleum

Lea County, NM
Sec 32, T22S, R35E
Lennox 32 St. #2H

Original Wellbore

Survey: MWD Surveys

Standard Survey Report

29 March, 2013



Caza
Petroleum

Company:	Caza Petroleum	Local Co-ordinate Reference:	Site Sec 32, T22S, R35E
Project:	Lea County, NM	TVD Reference:	Well @ 3561.0usft
Site:	Sec 32, T22S, R35E	MD Reference:	Well @ 3561.0usft
Well:	Lennox 32 St. #2H	North Reference:	Grid
Wellbore:	Original Wellbore	Survey Calculation Method:	Minimum Curvature
Design:	Original Wellbore	Database:	EDM 5000.1 Single User Db

Project	Lea County, NM		
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 : Sec 32, T22S, R35E					
Site Position:		Northing:	493,969.90 usft	Latitude:	32° 21' 16.043 N
From:	Map	Easting:	793,532.50 usft	Longitude:	103° 22' 58.015 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.51 °

Well	Lennox 32 St. #2H					
Well Position	+N/-S	0.0 usft	Northing:	493,969.90 usft	Latitude:	32° 21' 16.043 N
	+E/-W	0.0 usft	Easting:	793,532.50 usft	Longitude:	103° 22' 58.015 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,536.0 usft	

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/12/2012	7.32	60.33	48,606

Design	Original Wellbore			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.32

Survey Program		Date	3/29/2013		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	10,800.0	Gyro Data (Original Wellbore)	MWD	MWD - Standard	
10,842.0	15,914.0	MWD Surveys (Original Wellbore)	MWD	MWD - Standard	

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)
10,800.0	1.42	272.74	10,797.5	102.8	-20.7	-103.0	0.00	0.00	0.00
10,842.0	3.30	211.70	10,839.5	101.8	-21.8	-102.0	6.89	4.48	-145.33
10,873.0	3.30	206.70	10,870.4	100.2	-22.7	-100.5	0.93	0.00	-16.13
10,905.0	4.50	209.80	10,902.4	98.3	-23.7	-98.6	3.81	3.75	9.69
10,937.0	6.90	211.90	10,934.2	95.6	-25.4	-95.9	7.53	7.50	6.56
10,968.0	9.50	211.10	10,964.9	91.8	-27.7	-92.1	8.39	8.39	-2.58
11,000.0	12.10	211.40	10,996.3	86.7	-30.8	-87.0	8.13	8.13	0.94
11,032.0	14.90	210.50	11,027.4	80.3	-34.6	-80.7	8.77	8.75	-2.81
11,063.0	18.20	205.60	11,057.1	72.5	-38.7	-72.9	11.55	10.65	-15.81
11,095.0	22.20	202.40	11,087.2	62.4	-43.2	-62.9	12.96	12.50	-10.00

Company:	Caza Petroleum	Local Co-ordinate Reference:	Site Sec 32, T22S, R35E
Project:	Lea County, NM	TVD Reference:	Well @ 3561.0usft
Site:	Sec 32, T22S, R35E	MD Reference:	Well @ 3561.0usft
Well:	Lennox 32 St. #2H	North Reference:	Grid
Wellbore:	Original Wellbore	Survey Calculation Method:	Minimum Curvature
Design:	Original Wellbore	Database:	EDM 5000.1 Single User Db

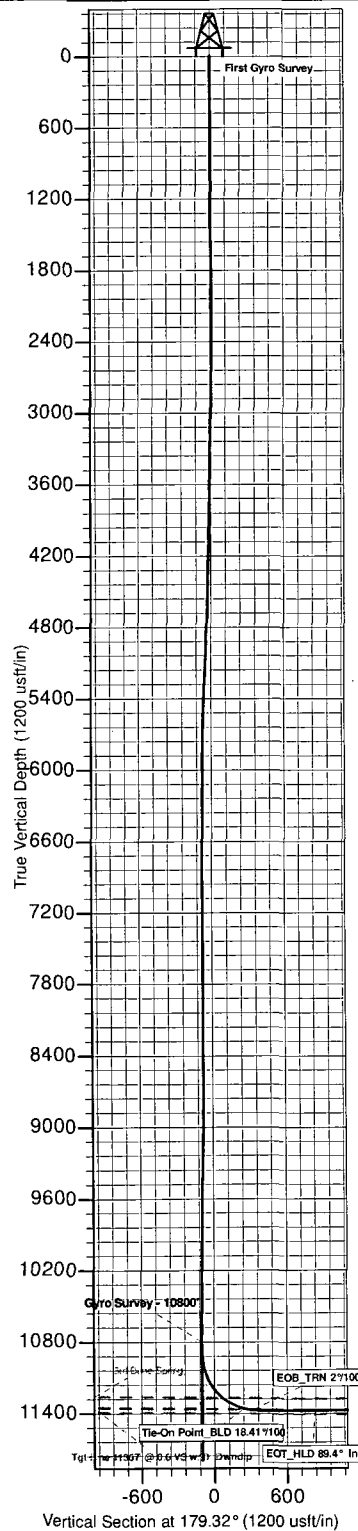
Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,126.0	26.10	198.40	11,115.4	50.5	-47.6	-51.0	13.64	12.58	-12.90
11,157.0	29.70	193.80	11,142.8	36.5	-51.6	-37.2	13.52	11.61	-14.84
11,189.0	33.00	190.70	11,170.2	20.3	-55.1	-20.9	11.48	10.31	-9.69
11,221.0	37.00	188.30	11,196.4	2.2	-58.1	-2.9	13.22	12.50	-7.50
11,252.0	40.50	183.80	11,220.6	-17.1	-60.1	16.4	14.49	11.29	-14.52
11,283.0	44.50	181.40	11,243.4	-38.0	-61.0	37.3	13.92	12.90	-7.74
11,315.0	48.90	179.40	11,265.3	-61.3	-61.2	60.6	14.48	13.75	-6.25
11,347.0	54.00	177.70	11,285.3	-86.3	-60.5	85.6	16.47	15.94	-5.31
11,378.0	58.40	176.70	11,302.5	-112.0	-59.3	111.3	14.44	14.19	-3.23
11,410.0	62.90	177.00	11,318.2	-139.9	-57.8	139.2	14.09	14.06	0.94
11,441.0	66.00	177.30	11,331.6	-167.8	-56.4	167.1	10.04	10.00	0.97
11,473.0	68.80	177.00	11,343.9	-197.3	-54.9	196.6	8.79	8.75	-0.94
11,525.0	74.00	175.30	11,360.5	-246.5	-51.6	245.8	10.47	10.00	-3.27
11,557.0	77.70	173.90	11,368.3	-277.3	-48.7	276.7	12.32	11.56	-4.38
11,588.0	81.30	172.80	11,373.9	-307.6	-45.1	307.1	12.13	11.61	-3.55
11,620.0	85.80	170.40	11,377.5	-339.1	-40.5	338.6	15.91	14.06	-7.50
11,652.0	88.60	171.60	11,379.1	-370.6	-35.5	370.2	9.52	8.75	3.75
11,684.0	90.20	172.30	11,379.4	-402.3	-31.0	401.9	5.46	5.00	2.19
11,716.0	89.80	172.30	11,379.4	-434.0	-26.7	433.7	1.25	-1.25	0.00
11,747.0	89.60	172.20	11,379.6	-464.7	-22.5	464.4	0.72	-0.65	-0.32
11,778.0	90.20	172.90	11,379.6	-495.5	-18.5	495.2	2.97	1.94	2.26
11,810.0	90.60	173.40	11,379.4	-527.2	-14.7	527.0	2.00	1.25	1.56
11,842.0	90.70	173.50	11,379.0	-559.0	-11.0	558.9	0.44	0.31	0.31
11,874.0	91.10	175.60	11,378.5	-590.9	-8.0	590.7	6.68	1.25	6.56
11,906.0	90.30	177.20	11,378.2	-622.8	-6.0	622.7	5.59	-2.50	5.00
11,937.0	89.50	176.80	11,378.2	-653.8	-4.4	653.7	2.89	-2.58	-1.29
11,969.0	88.90	176.20	11,378.7	-685.7	-2.4	685.6	2.65	-1.88	-1.88
12,001.0	88.40	176.20	11,379.4	-717.6	-0.3	717.6	1.56	-1.56	0.00
12,032.0	90.00	177.10	11,379.8	-748.6	1.5	748.5	5.92	5.16	2.90
12,064.0	91.70	177.70	11,379.4	-780.5	3.0	780.5	5.63	5.31	1.88
12,159.0	91.20	177.80	11,377.0	-875.4	6.7	875.4	0.54	-0.53	0.11
12,254.0	90.70	177.80	11,375.4	-970.3	10.3	970.4	0.53	-0.53	0.00
12,348.0	90.30	177.80	11,374.6	-1,064.3	13.9	1,064.4	0.43	-0.43	0.00
12,443.0	89.90	178.20	11,374.4	-1,159.2	17.3	1,159.3	0.60	-0.42	0.42
12,539.0	89.30	178.40	11,375.1	-1,255.2	20.1	1,255.3	0.66	-0.63	0.21
12,634.0	88.80	179.20	11,376.6	-1,350.1	22.1	1,350.3	0.99	-0.53	0.84
12,729.0	88.00	178.00	11,379.3	-1,445.1	24.4	1,445.3	1.52	-0.84	-1.26
12,824.0	90.10	178.40	11,380.9	-1,540.0	27.4	1,540.2	2.25	2.21	0.42
12,919.0	89.50	177.70	11,381.2	-1,634.9	30.6	1,635.2	0.97	-0.63	-0.74
13,014.0	89.10	178.80	11,382.4	-1,729.9	33.5	1,730.2	1.23	-0.42	1.16
13,109.0	92.70	180.10	11,380.9	-1,824.9	34.5	1,825.1	4.03	3.79	1.37
13,203.0	92.20	180.80	11,376.9	-1,918.8	33.7	1,919.0	0.91	-0.53	0.74
13,299.0	92.20	180.60	11,373.2	-2,014.7	32.5	2,014.9	0.21	0.00	-0.21

Company:	Caza Petroleum	Local Co-ordinate Reference:	Site Sec 32, T22S, R35E
Project:	Lea County, NM	TVD Reference:	Well @ 3561.0usft
Site:	Sec 32, T22S, R35E	MD Reference:	Well @ 3561.0usft
Well:	Lennox 32 St. #2H	North Reference:	Grid
Wellbore:	Original Wellbore	Survey Calculation Method:	Minimum Curvature
Design:	Original Wellbore	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)
13,394.0	90.00	181.40	11,371.3	-2,109.6	30.9	2,109.9	2.46	-2.32	0.84
13,489.0	88.00	180.60	11,373.0	-2,204.6	29.2	2,204.8	2.27	-2.11	-0.84
13,585.0	88.00	180.10	11,376.4	-2,300.6	28.6	2,300.7	0.52	0.00	-0.52
13,679.0	88.00	179.30	11,379.6	-2,394.5	29.1	2,394.7	0.85	0.00	-0.85
13,774.0	87.70	178.40	11,383.2	-2,489.4	31.0	2,489.6	1.00	-0.32	-0.95
13,869.0	89.30	179.10	11,385.7	-2,584.3	33.1	2,584.6	1.84	1.68	0.74
13,964.0	89.60	178.30	11,386.6	-2,679.3	35.3	2,679.5	0.90	0.32	-0.84
14,060.0	89.50	177.60	11,387.4	-2,775.3	38.7	2,775.5	0.74	-0.10	-0.73
14,155.0	89.30	178.50	11,388.3	-2,870.2	41.9	2,870.5	0.97	-0.21	0.95
14,250.0	89.10	177.70	11,389.7	-2,965.1	45.1	2,965.5	0.87	-0.21	-0.84
14,344.0	89.10	177.10	11,391.1	-3,059.0	49.3	3,059.4	0.64	0.00	-0.64
14,439.0	88.70	179.30	11,393.0	-3,154.0	52.3	3,154.4	2.35	-0.42	2.32
14,534.0	88.20	178.80	11,395.5	-3,248.9	53.9	3,249.3	0.74	-0.53	-0.53
14,629.0	87.70	178.50	11,398.9	-3,343.8	56.1	3,344.2	0.61	-0.53	-0.32
14,724.0	86.20	180.40	11,404.0	-3,438.7	57.0	3,439.1	2.55	-1.58	2.00
14,818.0	85.60	180.10	11,410.7	-3,532.4	56.6	3,532.9	0.71	-0.64	-0.32
14,912.0	86.10	179.80	11,417.5	-3,626.2	56.7	3,626.6	0.62	0.53	-0.32
15,007.0	85.10	178.80	11,424.8	-3,720.9	57.9	3,721.3	1.49	-1.05	-1.05
15,102.0	85.20	179.10	11,432.8	-3,815.5	59.6	3,816.0	0.33	0.11	0.32
15,197.0	86.90	179.30	11,439.4	-3,910.3	60.9	3,910.7	1.80	1.79	0.21
15,292.0	86.20	180.30	11,445.1	-4,005.1	61.3	4,005.6	1.28	-0.74	1.05
15,387.0	85.40	180.00	11,452.1	-4,099.9	61.0	4,100.3	0.90	-0.84	-0.32
15,482.0	85.10	180.00	11,459.9	-4,194.5	61.0	4,195.0	0.32	-0.32	0.00
15,577.0	86.50	180.40	11,466.9	-4,289.3	60.7	4,289.7	1.53	1.47	0.42
15,673.0	87.20	180.70	11,472.2	-4,385.1	59.8	4,385.5	0.79	0.73	0.31
15,768.0	87.30	180.90	11,476.7	-4,480.0	58.4	4,480.4	0.24	0.11	0.21
15,863.0	89.80	182.30	11,479.1	-4,574.9	55.8	4,575.3	3.02	2.63	1.47
Last MWD Survey									
15,914.0	89.80	182.30	11,479.3	-4,625.9	53.7	4,626.2	0.00	0.00	0.00
PTB									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,542.0				First MWD Survey
15,863.0	11,479.1	-4,574.9	55.8	Last MWD Survey
15,914.0	11,479.3	-4,625.9	53.7	PTB

Checked By: _____ Approved By: _____ Date: _____



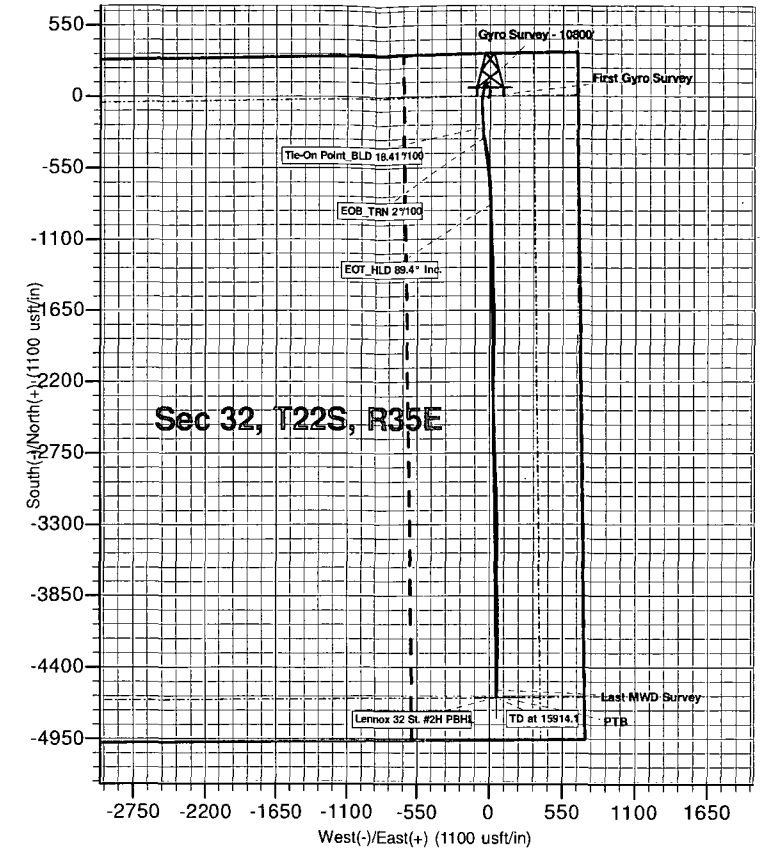
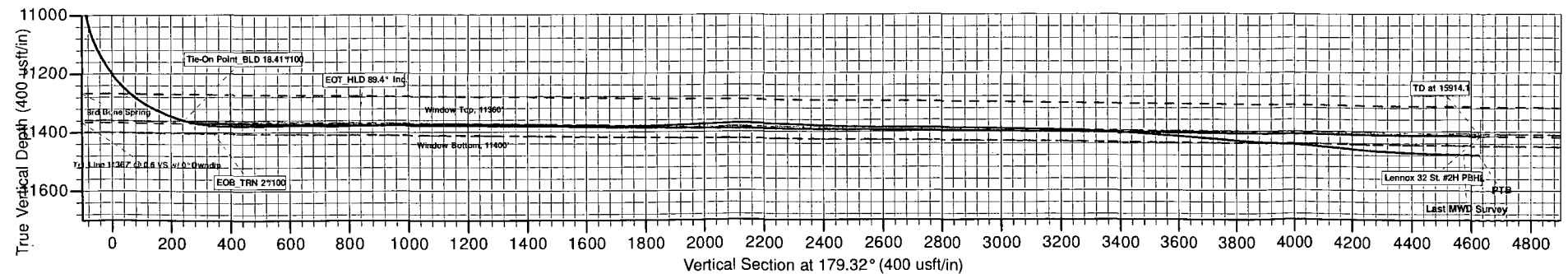
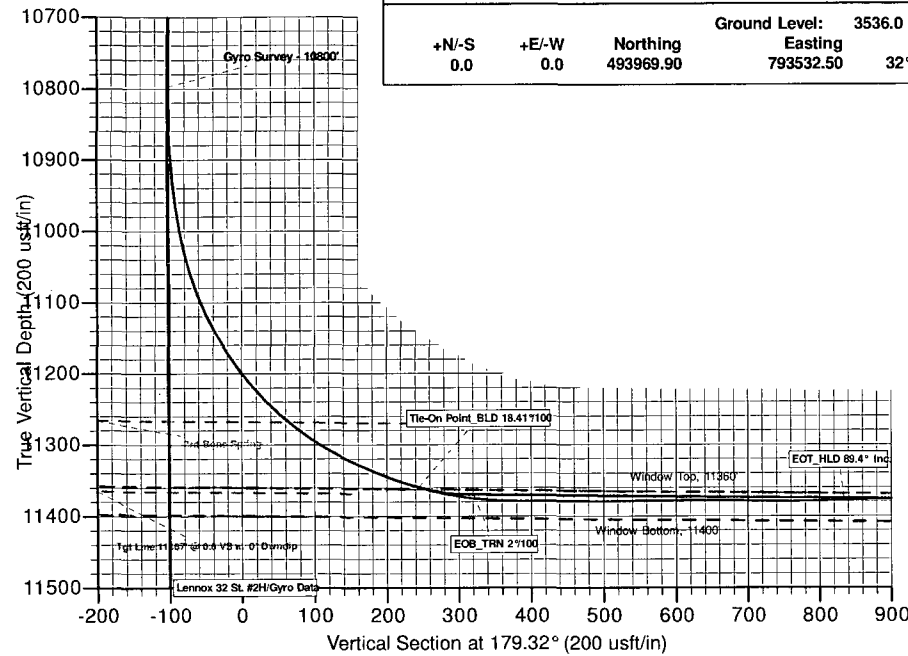
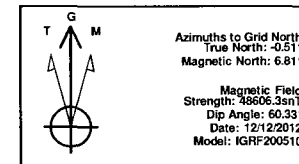
Caza Petroleum
 Project: Lea County, NM
 Site: Sec 32, T22S, R35E
 Well: Lennox 32 St. #2H
 Wellbore: Original Wellbore
 Design: Plan #3
 Lat: 32° 21' 16.043 N
 Long: 103° 22' 58.015 W
 Pad GL: 3536.0
 KB: Well @ 3561.0usft

SECTION DETAILS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
11359.9	11523.0	73.80	175.36	-244.5	-51.7	243.9	0.0	Tie-On Point BLD 18.41°/100
11370.1	11601.2	89.40	169.18	-321.0	-40.7	320.5	77.3	EOB_TRN 2°/100
11375.5	12117.2	89.40	179.33	-833.7	10.2	833.7	593.2	EOT_HLD 89.4° Inc.
11415.1	15914.1	89.40	179.33	-4630.1	54.6	4630.5	4389.9	TD at 15914.1

WELL DETAILS: Lennox 32 St. #2H

+N/-S	+E/-W	Northing	Ground Level:	Easting	Latitude	Longitude
0.0	0.0	493969.90	3536.0	793532.50	32° 21' 16.043 N	103° 22' 58.015 W



WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
Lennox 32 St. #2H PBHL	11415.0	-4630.4	54.6	32° 20' 30.222 N	103° 22' 57.858 W