

### Results of Directional Survey

API number:	<b>30-025-41073</b>		
OGRID:		Operator:	<b>NEARBURG PRODUCING CO</b>
		Property:	<b>SAPIENT 17</b> # 1D

surface	ULSTR:	H	17	T	17S	R	37E
					1641	FNL	1225
							FEL

BH Loc	ULSTR:	H	17	T	17S	R	37E
	11359	MD	11357.4	TVD	1700	FNL	1234
							FEL

Top Perf/OH	ULSTR:	H	17	T	17S	R	37E
	10902	MD	10900.6	TVD	1689	FNL	1232
							FEL

Bot Perf/OH	ULSTR:	H	17	T	17S	R	37E
	10924	MD	10922.6	TVD	1689	FNL	1232
							FEL

	MD	N/S	E/W	VD
	10896	-48.20	-6.58	10894.61
TOP PERFS/OH	<b>10902</b>	-48.21	-6.66	10900.61
	10990	-48.42	-7.79	10988.60
	10896	-48.20	-6.58	10894.61
BOT PERFS/OH	<b>10924</b>	-48.27	-6.94	10922.61
	10990	-48.42	-7.79	10988.60

NEXT TO LAST	11274	-56.76	-8.46	11272.47
LAST READING	11307	-57.61	-8.60	11305.46
TD	<b>11359</b>	-58.95	-8.82	11357.44

Surface Location	1641	FN	1225	FE
Projected BHL	1700	FN	1234	FE
Location of				
Top Perfs/OH	1689	FN	1232	FE
Bottom Perfs/OH	1689	FN	1232	FE

#### SUMMARY of Subsurface Locations

Surface Location	H-17-17S-37E	1641	FN	1225	FE	Vert. Depth
Top Perfs/OH	H-17-17S-37E	1689	FN	1232	FE	10900.61
Bottom Perfs/OH	H-17-17S-37E	1689	FN	1232	FE	10922.61
Projected TD	H-17-17S-37E	1700	FN	1234	FE	11357.44

SEP 08 2014

# **Nearburg Producing Co.**

**Lea County, NM (NAD27 NME)**

**Sapient 17 #1**

**Sapient 17 #1**

**Wellbore #1**

**Survey: M3P MWD Survey**

## **Standard Survey Report**

**23 June, 2014**



# M3P Directional Services

## Survey Report



<b>Company:</b>	Nearburg Producing Co.	<b>Local Co-ordinate Reference:</b>	Well Sapient 17 #1
<b>Project:</b>	Lea County, NM (NAD27 NME)	<b>TVD Reference:</b>	KB @ 3800.00usft (Silver Oak 11)
<b>Site:</b>	Sapient 17 #1	<b>MD Reference:</b>	KB @ 3800.00usft (Silver Oak 11)
<b>Well:</b>	Sapient 17 #1	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys (Silver Oak 11)	<b>Database:</b>	EDM 5000.1 Single User Db

<b>Project</b>	Lea County, NM (NAD27 NME)		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site</b>	Sapient 17 #1		
<b>Site Position:</b>		<b>Northing:</b>	670,055.80 usft
<b>From:</b>	Map	<b>Easting:</b>	827,023.80 usft
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	32° 50' 15.142 N
		<b>Longitude:</b>	103° 16' 7.081 W
		<b>Grid Convergence:</b>	0.58 °

<b>Well</b>	Sapient 17 #1		
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b> 670,055.80 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b> 827,023.80 usft
<b>Position Uncertainty</b>	0.00 usft	<b>Wellhead Elevation:</b>	usft
		<b>Latitude:</b>	32° 50' 15.142 N
		<b>Longitude:</b>	103° 16' 7.081 W
		<b>Ground Level:</b>	3,783.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	5/14/2014	7.12	60.76	48,767

<b>Design</b>	Surveys (Silver Oak 11)			
<b>Audit Notes:</b>				
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b> 0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	179.32

<b>Survey Program</b>	Date 6/23/2014			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
200.00	4,580.00	MS Gyro Survey (Wellbore #1)	NS-GYRO-MS	North sensing gyrocompassing m/s
4,580.00	11,307.00	M3P MWD Survey (Wellbore #1)	MWD	MWD - Standard

<b>Survey</b>									
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>
4,580.00	1.01	356.65	4,579.82	28.55	-2.87	-28.58	0.00	0.00	0.00
<b>Tie On to MS Gyro Survey</b>									
4,690.00	1.10	344.80	4,689.80	30.54	-3.20	-30.57	0.21	0.08	-10.77
<b>First MWD Survey</b>									
4,753.00	0.60	317.20	4,752.79	31.36	-3.58	-31.40	1.00	-0.79	-43.81
4,848.00	0.60	168.90	4,847.79	31.24	-3.83	-31.28	1.22	0.00	-156.11
4,942.00	0.70	192.20	4,941.79	30.20	-3.85	-30.24	0.30	0.11	24.79
5,036.00	1.70	188.30	5,035.76	28.25	-4.17	-28.30	1.07	1.06	-4.15
5,130.00	1.50	184.70	5,129.73	25.65	-4.48	-25.70	0.24	-0.21	-3.83

**M3P Directional Services**  
Survey Report



<b>Company:</b>	Nearburg Producing Co.	<b>Local Co-ordinate Reference:</b>	Well Sapient 17 #1
<b>Project:</b>	Lea County, NM (NAD27 NME)	<b>TVD Reference:</b>	KB @ 3800.00usft (Silver Oak 11)
<b>Site:</b>	Sapient 17 #1	<b>MD Reference:</b>	KB @ 3800.00usft (Silver Oak 11)
<b>Well:</b>	Sapient 17 #1	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys (Silver Oak 11)	<b>Database:</b>	EDM 5000.1 Single User Db

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)
5,225.00	1.40	180.70	5,224.70	23.25	-4.59	-23.30	0.15	-0.11	-4.21
5,319.00	1.50	187.50	5,318.67	20.88	-4.77	-20.94	0.21	0.11	7.23
5,414.00	1.50	181.50	5,413.63	18.41	-4.96	-18.46	0.17	0.00	-6.32
5,509.00	1.40	181.90	5,508.60	16.00	-5.03	-16.06	0.11	-0.11	0.42
5,603.00	1.60	181.70	5,602.57	13.54	-5.11	-13.60	0.21	0.21	-0.21
5,698.00	1.50	180.40	5,697.54	10.97	-5.16	-11.03	0.11	-0.11	-1.37
5,793.00	1.80	155.90	5,792.50	8.37	-4.56	-8.42	0.80	0.32	-25.79
5,887.00	1.80	159.90	5,886.45	5.63	-3.45	-5.67	0.13	0.00	4.26
5,982.00	1.80	157.50	5,981.40	2.85	-2.36	-2.88	0.08	0.00	-2.53
6,076.00	1.70	150.90	6,075.36	0.27	-1.12	-0.29	0.24	-0.11	-7.02
6,171.00	1.50	172.90	6,170.33	-2.19	-0.28	2.19	0.68	-0.21	23.16
6,265.00	1.50	170.70	6,264.29	-4.63	0.07	4.63	0.06	0.00	-2.34
6,360.00	1.40	171.30	6,359.26	-7.00	0.45	7.01	0.11	-0.11	0.63
6,454.00	1.50	164.70	6,453.23	-9.32	0.94	9.33	0.21	0.11	-7.02
6,549.00	1.40	175.30	6,548.20	-11.68	1.37	11.70	0.30	-0.11	11.16
6,643.00	0.80	186.10	6,642.18	-13.48	1.39	13.49	0.67	-0.64	11.49
6,737.00	0.70	216.50	6,736.18	-14.59	0.98	14.60	0.43	-0.11	32.34
6,832.00	0.70	243.80	6,831.17	-15.31	0.11	15.31	0.35	0.00	28.74
6,927.00	1.80	192.00	6,926.15	-17.03	-0.72	17.02	1.55	1.16	-54.53
7,021.00	1.90	194.50	7,020.10	-19.98	-1.41	19.96	0.14	0.11	2.66
7,116.00	2.10	194.80	7,115.04	-23.19	-2.25	23.16	0.21	0.21	0.32
7,210.00	2.10	195.00	7,208.98	-26.52	-3.14	26.48	0.01	0.00	0.21
7,305.00	1.90	183.50	7,303.92	-29.77	-3.69	29.73	0.47	-0.21	-12.11
7,399.00	1.90	185.20	7,397.87	-32.88	-3.92	32.83	0.06	0.00	1.81
7,494.00	1.50	182.10	7,492.83	-35.69	-4.11	35.64	0.43	-0.42	-3.26
7,588.00	1.40	179.10	7,586.80	-38.07	-4.14	38.02	0.13	-0.11	-3.19
7,682.00	1.10	177.50	7,680.77	-40.12	-4.08	40.07	0.32	-0.32	-1.70
7,776.00	0.40	159.10	7,774.77	-41.32	-3.92	41.28	0.78	-0.74	-19.57
7,871.00	0.30	30.70	7,869.76	-41.42	-3.68	41.37	0.66	-0.11	-135.16
7,965.00	0.60	175.50	7,963.76	-41.70	-3.51	41.66	0.92	0.32	154.04
8,060.00	0.50	170.60	8,058.76	-42.60	-3.41	42.56	0.12	-0.11	-5.16
8,155.00	0.60	230.70	8,153.76	-43.33	-3.72	43.28	0.59	0.11	63.26
8,249.00	0.90	239.70	8,247.75	-44.01	-4.74	43.95	0.34	0.32	9.57
8,344.00	1.20	175.10	8,342.73	-45.38	-5.30	45.31	1.21	0.32	-68.00
8,438.00	0.40	154.70	8,436.72	-46.66	-5.08	46.59	0.89	-0.85	-21.70
8,533.00	0.60	77.30	8,531.72	-46.85	-4.45	46.79	0.68	0.21	-81.47
8,627.00	0.30	146.50	8,625.72	-46.95	-3.83	46.90	0.60	-0.32	73.62
8,722.00	1.00	209.50	8,720.71	-47.87	-4.11	47.82	0.95	0.74	66.32
8,816.00	0.60	200.60	8,814.70	-49.05	-4.68	48.99	0.44	-0.43	-9.47
8,911.00	0.60	198.50	8,909.70	-49.99	-5.01	49.92	0.02	0.00	-2.21
9,006.00	0.60	207.10	9,004.69	-50.90	-5.40	50.83	0.09	0.00	9.05
9,100.00	0.80	195.10	9,098.69	-51.97	-5.79	51.90	0.26	0.21	-12.77
9,195.00	0.10	344.00	9,193.68	-52.53	-5.99	52.46	0.93	-0.74	156.74

# M3P Directional Services

## Survey Report



<b>Company:</b>	Nearburg Producing Co.	<b>Local Co-ordinate Reference:</b>	Well Sapient 17 #1
<b>Project:</b>	Lea County, NM (NAD27 NME)	<b>TVD Reference:</b>	KB @ 3800.00usft (Silver Oak 11)
<b>Site:</b>	Sapient 17 #1	<b>MD Reference:</b>	KB @ 3800.00usft (Silver Oak 11)
<b>Well:</b>	Sapient 17 #1	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys (Silver Oak 11)	<b>Database:</b>	EDM 5000.1 Single User Db

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)
9,289.00	0.70	342.40	9,287.68	-51.91	-6.19	51.83	0.64	0.64	-1.70
9,384.00	0.90	22.80	9,382.67	-50.67	-6.07	50.59	0.61	0.21	42.53
9,478.00	0.80	172.00	9,476.67	-50.64	-5.70	50.56	1.74	-0.11	158.72
9,572.00	0.10	152.40	9,570.67	-51.36	-5.57	51.29	0.75	-0.74	-20.85
9,667.00	0.50	39.80	9,665.66	-51.11	-5.26	51.05	0.58	0.42	-118.53
9,856.00	0.20	221.10	9,854.66	-50.73	-4.95	50.67	0.37	-0.16	-94.55
9,950.00	0.40	239.70	9,948.66	-51.02	-5.34	50.95	0.23	0.21	19.79
10,045.00	0.10	193.60	10,043.66	-51.26	-5.65	51.19	0.36	-0.32	-48.53
10,233.00	0.10	134.70	10,231.66	-51.54	-5.57	51.47	0.05	0.00	-31.33
10,328.00	0.20	59.20	10,326.66	-51.51	-5.37	51.45	0.21	0.11	-79.47
10,422.00	0.40	92.60	10,420.66	-51.44	-4.90	51.38	0.27	0.21	35.53
10,517.00	0.40	67.90	10,515.66	-51.33	-4.26	51.28	0.18	0.00	-26.00
10,612.00	0.30	42.50	10,610.65	-51.03	-3.79	50.98	0.19	-0.11	-26.74
10,706.00	0.60	353.10	10,704.65	-50.36	-3.68	50.31	0.49	0.32	-52.55
10,799.00	1.40	306.20	10,797.64	-49.20	-4.65	49.14	1.16	0.86	-50.43
10,896.00	1.20	287.00	10,894.61	-48.20	-6.58	48.12	0.49	-0.21	-19.79
10,990.00	0.70	208.10	10,988.60	-48.42	-7.79	48.33	1.35	-0.53	-83.94
11,085.00	2.10	182.10	11,083.57	-50.67	-8.13	50.57	1.58	1.47	-27.37
11,180.00	1.90	181.10	11,178.52	-53.99	-8.22	53.89	0.21	-0.21	-1.05
11,274.00	1.50	189.40	11,272.47	-56.76	-8.46	56.66	0.50	-0.43	8.83
11,307.00	1.50	189.80	11,305.46	-57.61	-8.60	57.51	0.03	0.00	1.21
TD at 11,307'									

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,580.00	4,579.82	28.55	-2.87	Tie On to MS Gyro Survey
4,690.00	4,689.80	30.54	-3.20	First MWD Survey
11,307.00	11,305.46	-57.61	-8.60	TD at 11,307'

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



PO Box 1370  
Artesia, NM 88211-1370  
(575) 748-1288

June 25, 2014

Nearburg Producing Company  
PO Box 823085  
Dallas, TX 75382-3085

RE: Sapiant 17 #1  
1641' FNL & 1225' FEL  
Sec. 17, T17S, R37E  
Lea County, New Mexico

Dear Sir,

The attached is the Deviation Survey for the above captioned well.

Very truly yours,

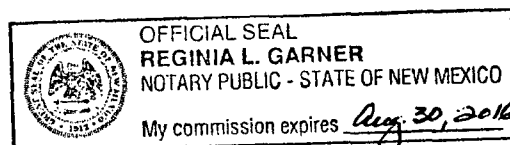
A handwritten signature in black ink, appearing to read "Eddie C. LaRue".

Eddie C. LaRue  
Operations Manager

State of New Mexico }  
County of Eddy }

*The foregoing was acknowledged before me this 25<sup>th</sup> day of June, 2014.*

A handwritten signature in black ink, appearing to read "Regina L. Garner".  
\_\_\_\_\_  
Notary Public



SAPIENT 17 #1

Date	Depth	Deviation	Direction
5/24/2014	226	38.00	357.20
5/24/2014	403	0.10	53.20
5/24/2014	802	0.40	101.20
5/25/2014	896	0.20	68.20
5/25/2014	1021	0.10	105.20
5/25/2014	1218	0.60	357.20
5/25/2014	1396	0.60	60.20
5/26/2014	1625	0.10	322.00
5/26/2014	1814	0.40	9.00
5/27/2014	1940	0.20	341.20
5/27/2014	2021	0.30	289.20
5/29/2014	2265	0.20	338.00
5/30/2014	2410	0.60	0.00
5/30/2014	2599	0.50	0.00
5/30/2014	2787	0.50	0.00
5/30/2014	2974	0.60	0.00
5/30/2014	3226	0.90	0.00
5/31/2014	3414	0.60	0.00
5/31/2014	3823	0.40	0.00
5/31/2014	4042	0.40	0.00
5/31/2014	4231	0.60	0.00
6/1/2014	4358	1.00	0.00
6/3/2014	4690	1.10	344.80
6/3/2014	4753	0.60	337.60
6/3/2014	4848	0.60	168.90
6/3/2014	4942	0.70	192.20
6/4/2014	5036	1.70	188.30
6/4/2014	5130	1.50	184.70
6/4/2014	5225	1.40	180.70
6/4/2014	5319	1.50	187.50
6/4/2014	5414	1.50	181.50
6/4/2014	5509	1.40	181.90
6/4/2014	5603	1.60	181.70
6/4/2014	5698	1.50	180.40
6/4/2014	5793	1.80	155.90
6/5/2014	5887	1.80	159.90
6/5/2014	5982	1.80	157.50
6/5/2014	6076	1.70	150.90
6/5/2014	6171	1.50	172.90
6/5/2014	6265	1.50	170.70
6/5/2014	6359	1.40	171.30
6/5/2014	6454	1.50	164.70
6/5/2014	6549	1.40	175.30

Date	Depth	Deviation	Direction
6/6/2014	6643	0.80	186.10
6/6/2014	6736	0.70	216.50
6/6/2014	6832	0.70	243.80
6/6/2014	6927	1.80	192.00
6/6/2014	7021	1.90	194.50
6/6/2014	7116	2.10	194.80
6/6/2014	7210	2.10	195.00
6/7/2014	7305	1.90	183.50
6/7/2014	7399	1.90	185.20
6/7/2014	7494	1.50	182.20
6/7/2014	7588	1.40	179.10
6/7/2014	7682	1.40	0.00
6/7/2014	7777	0.40	159.10
6/7/2014	7871	0.30	30.70
6/7/2014	7965	0.60	175.50
6/8/2014	8060	0.50	170.60
6/8/2014	8155	0.60	230.70
6/8/2014	8248	0.90	239.70
6/9/2014	8344	1.20	175.10
6/9/2014	8438	0.40	154.70
6/9/2014	8533	0.60	77.30
6/9/2014	8627	0.30	146.50
6/9/2014	8722	1.00	209.50
6/10/2014	8816	0.60	200.60
6/10/2014	8911	0.60	198.50
6/10/2014	9006	0.60	207.10
6/10/2014	9100	0.80	195.10
6/10/2014	9195	0.10	344.00
6/10/2014	9289	0.70	342.40
6/11/2014	9384	0.90	22.80
6/11/2014	9478	0.80	172.00
6/11/2014	9603	0.10	152.40
6/12/2014	9667	0.50	39.80
6/12/2014	9698	0.60	43.40
6/13/2014	9761	0.30	224.60
6/13/2014	9856	0.20	222.10
6/13/2014	9950	0.40	239.70
6/13/2014	10045	0.10	193.60
6/13/2014	10139	0.70	226.80
6/14/2014	10232	0.10	134.70
6/14/2014	1328	0.20	59.20
6/14/2014	10422	0.40	92.60
6/14/2014	10517	0.40	67.90
6/15/2014	10612	0.30	42.50
6/15/2014	10706	0.60	353.10



Date	Depth	Deviation	Direction
6/18/2014	10799	1.40	306.20
6/18/2014	10896	1.20	287.00
6/20/2014	10990	0.70	208.10
6/21/2014	11085	2.10	182.00
6/21/2014	11180	1.90	181.10
6/21/2014	11274	1.50	189.40
6/22/2014	11307	1.50	189.80