



Archer Directional Drilling Services.  
12101 Cutten Road  
Houston, Texas 77066  
Tel: 281-301-2600  
Fax: 281-301-2795

Railroad Commission of Texas  
Oil & Gas Division  
P.O. Box 15767  
Austin, TX 78711

Attn: Pam Johns

March 10, 2014

Re: Pioneer Natural Resources USA,  
Inc.  
University 3-33 #4H  
Rig: Nabors M58  
Field: Spraberry (Trend Area)  
Upton County, Texas  
Permit 750276  
API Well No. 42-461-38427

Enclosed please find the original of the surveys performed on the referenced well by Archer Directional Drilling Services. (P-5 No. 028877). Other information required by your office is as follows:

<u>Name &amp; Title Of Surveyor</u>	<u>Wellhole Number</u>	<u>Survey Depths</u>	<u>Dates Performed</u>	<u>Type Survey</u>
Gibran Lapham Field Engineer	Original Hole	157-18988	12/25/13-03/07/14	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit line in case of pooling) is attached to the survey report. If additional information is required, please contact the undersigned at the letterhead address and phone number.



Dustin Trevino  
MWD Coordinator

Cc: Pioneer Natural Resources USA, Inc.



Company: Pioneer Natural Res. USA, Inc.

Well: University 3-33H 4H

Location: Upton County, TX

Rig: Nabors M58

Job Date: 12/25/13 - 03/07/14

Job Number:

Mag Decl.:

Dir Driller:

MWD Eng:

04554-433-22

7.15

R. Salazar / D. Wells

G. Lapham / C. Bundick

Calculation Method

Proposed Azimuth

Depth Reference

Tie Into:

Minimum Curvature

1.18

KBG

Assumed Vertical

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth			
Tie In	0.00	0	0		0	0	0.00	0.00					
1	157	1.0	129.2	157	156.99	-0.84	0.87 S	1.06 E	1.37	129.20	0.64	0.64	82.29
2	188	1.1	167.4	31	187.99	-1.30	1.33 S	1.34 E	1.88	134.81	2.24	0.32	123.23
3	249	0.7	205.0	61	248.98	-2.21	2.24 S	1.31 E	2.59	149.71	1.14	-0.66	61.64
4	311	1.3	150.9	62	310.97	-3.16	3.19 S	1.49 E	3.52	155.01	1.70	0.97	-87.26
5	401	1.2	140.6	90	400.95	-4.76	4.81 S	2.58 E	5.46	151.78	0.27	-0.11	-11.44
6	494	1.1	150.2	93	493.93	-6.27	6.34 S	3.64 E	7.31	150.11	0.23	-0.11	10.32
7	676	1.0	156.4	182	675.90	-9.20	9.31 S	5.15 E	10.64	151.06	0.08	-0.05	3.41
8	859	0.8	195.5	183	858.88	-11.89	12.01 S	5.45 E	13.19	155.60	0.34	-0.11	21.37
9	1041	0.9	160.7	182	1040.86	-14.46	14.58 S	5.58 E	15.61	159.06	0.28	0.05	-19.12
10	1163	1.2	185.1	122	1162.84	-16.63	16.76 S	5.78 E	17.73	160.96	0.44	0.25	20.00
11	1257	1.3	200.3	94	1256.82	-18.62	18.74 S	5.33 E	19.48	164.13	0.37	0.11	16.17
12	1351	1.2	197.3	94	1350.80	-20.58	20.68 S	4.66 E	21.20	167.29	0.13	-0.11	-3.19
13	1445	1.2	180.0	94	1444.78	-22.51	22.60 S	4.37 E	23.02	169.06	0.38	0.00	-18.40
14	1635	1.3	185.3	190	1634.73	-26.65	26.74 S	4.17 E	27.06	171.13	0.08	0.05	2.79
15	1823	0.9	206.0	188	1822.70	-30.11	30.19 S	3.33 E	30.37	173.71	0.30	-0.21	11.01
16	2012	0.5	53.8	189	2011.69	-30.96	31.04 S	3.34 E	31.21	173.85	0.72	-0.21	-80.53
17	2201	1.4	49.8	189	2200.66	-28.93	29.06 S	5.77 E	29.63	168.77	0.48	0.48	-2.12
18	2390	1.5	52.2	189	2389.60	-25.85	26.05 S	9.49 E	27.73	159.99	0.06	0.05	1.27
19	2580	2.4	49.2	190	2579.49	-21.63	21.93 S	14.47 E	26.27	146.59	0.48	0.47	-1.58
20	2769	1.5	21.5	189	2768.38	-16.66	17.04 S	18.37 E	25.05	132.85	0.68	-0.48	-14.66
21	2958	1.2	20.4	189	2957.33	-12.47	12.88 S	19.96 E	23.76	122.84	0.16	-0.16	-0.58
22	3146	1.6	25.2	188	3145.27	-8.21	8.66 S	21.77 E	23.43	111.70	0.22	0.21	2.55
23	3335	1.4	27.2	189	3334.21	-3.73	4.22 S	23.95 E	24.32	100.00	0.11	-0.11	1.06
24	3525	1.1	10.8	190	3524.16	0.16	0.37 S	25.35 E	25.35	90.83	0.24	-0.16	-8.63
25	3714	1.2	318.1	189	3713.13	3.39	2.89 N	24.37 E	24.54	83.24	0.54	0.05	162.59
26	3903	1.0	317.8	189	3902.09	6.03	5.58 N	21.94 E	22.64	75.72	0.11	-0.11	-0.16
27	4092	1.0	324.0	189	4091.07	8.55	8.14 N	19.86 E	21.46	67.72	0.06	0.00	3.28
28	4280	1.1	341.1	188	4279.03	11.55	11.17 N	18.31 E	21.45	58.61	0.17	0.05	9.10
29	4469	1.1	12.2	189	4468.00	15.03	14.66 N	18.11 E	23.30	51.00	0.31	0.00	-174.02
30	4658	0.8	237.6	189	4656.99	16.08	15.73 N	17.38 E	23.44	47.85	0.93	-0.16	119.26
31	4847	0.6	235.0	189	4845.98	14.77	14.45 N	15.45 E	21.16	46.91	0.11	-0.11	-1.38
32	5036	0.5	167.6	189	5034.97	13.38	13.08 N	14.82 E	19.77	48.56	0.33	-0.05	-35.66
33	5215	0.6	172.4	179	5213.96	11.70	11.39 N	15.11 E	18.92	52.99	0.06	0.06	2.68
34	5404	0.6	74.3	189	5402.95	11.01	10.68 N	16.19 E	19.40	56.60	0.48	0.00	-51.90



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							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth			
35	5594	0.3	150.9	190	5592.95	10.87	10.51 N	17.39 E	20.32	58.85	0.32	-0.16	40.32
36	5782	0.7	126.1	188	5780.94	9.79	9.40 N	18.56 E	20.81	63.13	0.24	0.21	-13.19
37	5970	1.3	136.6	188	5968.91	7.61	7.18 N	20.95 E	22.15	71.09	0.33	0.32	5.59
38	6159	1.4	205.2	189	6157.87	3.97	3.53 N	21.44 E	21.73	80.65	0.81	0.05	36.30
39	6348	0.9	104.9	189	6346.85	1.51	1.06 N	21.90 E	21.92	87.23	0.95	-0.26	-53.07
40	6536	1.5	98.9	188	6534.80	0.83	0.30 N	25.75 E	25.76	89.33	0.33	0.32	-3.19
41	6725	1.5	125.5	189	6723.74	-0.90	1.52 S	30.21 E	30.25	92.88	0.37	0.00	14.07
42	6914	1.8	118.2	189	6912.66	-3.64	4.36 S	34.84 E	35.11	97.13	0.19	0.16	-3.86
43	7112	0.9	104.3	198	7110.61	-5.41	6.21 S	39.09 E	39.58	99.03	0.48	-0.45	-7.02
44	7301	0.4	265.3	189	7299.60	-5.81	6.63 S	39.87 E	40.42	99.44	0.68	-0.26	85.19
45	7490	0.4	224.4	189	7488.60	-6.36	7.16 S	38.75 E	39.41	100.47	0.15	0.00	-21.64
46	7679	0.7	176.5	189	7677.59	-7.99	8.78 S	38.36 E	39.35	102.89	0.28	0.16	-25.34
47	7867	0.5	199.2	188	7865.58	-9.91	10.70 S	38.16 E	39.63	105.67	0.16	-0.11	12.07
48	7961	0.6	194.5	94	7959.57	-10.78	11.57 S	37.90 E	39.63	106.97	0.12	0.11	-5.00
49	8076	0.7	185.0	115	8074.57	-12.07	12.85 S	37.69 E	39.82	108.83	0.13	0.09	-8.26
50	8108	3.3	343.7	32	8106.55	-11.39	12.16 S	37.41 E	39.34	108.00	12.38	8.13	495.94
51	8139	7.7	351.0	31	8137.40	-8.49	9.25 S	36.84 E	37.98	104.10	14.34	14.19	23.55
52	8171	11.9	354.5	32	8168.93	-3.10	3.85 S	36.19 E	36.39	96.07	13.25	13.13	10.94
53	8202	14.9	357.5	31	8199.08	4.05	3.32 N	35.71 E	35.86	84.69	9.93	9.68	9.68
54	8234	16.1	357.7	32	8229.92	12.59	11.86 N	35.35 E	37.29	71.45	3.75	3.75	0.62
55	8265	19.6	358.4	31	8259.42	22.07	21.36 N	35.03 E	41.03	58.63	11.31	11.29	2.26
56	8297	22.8	358.0	32	8289.25	33.63	32.92 N	34.66 E	47.81	46.48	10.01	10.00	-1.25
57	8329	25.8	358.3	32	8318.41	46.78	46.08 N	34.24 E	57.41	36.61	9.38	9.38	0.94
58	8360	27.7	358.2	31	8346.09	60.71	60.03 N	33.82 E	68.90	29.39	6.13	6.13	-0.32
59	8392	28.6	358.0	32	8374.31	75.79	75.12 N	33.31 E	82.17	23.92	2.83	2.81	-0.62
60	8423	28.1	358.1	31	8401.59	90.49	89.83 N	32.81 E	95.63	20.07	1.62	-1.61	0.32
61	8454	27.5	358.0	31	8429.01	104.92	104.28 N	32.32 E	109.17	17.22	1.94	-1.94	-0.32
62	8486	29.1	356.9	32	8457.19	120.06	119.43 N	31.64 E	123.55	14.84	5.26	5.00	-3.44
63	8517	32.2	356.7	31	8483.85	135.81	135.21 N	30.76 E	138.66	12.82	10.01	10.00	-0.65
64	8549	36.0	356.5	32	8510.35	153.69	153.12 N	29.69 E	155.97	10.98	11.88	11.88	-0.62
65	8581	39.4	357.1	32	8535.66	173.20	172.65 N	28.61 E	175.00	9.41	10.69	10.63	1.88
66	8612	42.5	358.4	31	8559.07	193.48	192.95 N	27.82 E	194.94	8.20	10.37	10.00	4.19
67	8644	46.4	359.9	32	8581.91	215.87	215.35 N	27.49 E	217.10	7.28	12.62	12.19	4.69
68	8675	49.9	0.1	31	8602.59	238.95	238.44 N	27.49 E	240.02	6.58	11.30	11.29	-1160.65
69	8707	53.1	359.8	32	8622.51	263.99	263.48 N	27.47 E	264.91	5.95	10.03	10.00	1124.06
70	8738	56.3	0.5	31	8640.42	289.28	288.78 N	27.54 E	290.09	5.45	10.49	10.32	-1159.03
71	8770	59.6	0.6	32	8657.40	316.40	315.89 N	27.80 E	317.11	5.03	10.32	10.31	0.31
72	8801	62.4	0.9	31	8672.43	343.51	343.00 N	28.16 E	344.16	4.69	9.07	9.03	0.97
73	8833	65.7	1.2	32	8686.43	372.28	371.77 N	28.69 E	372.87	4.41	10.35	10.31	0.94

First Take Point



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Well: University 3-33H 4H

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Assumed Vertical

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth			
74	8864	69.0	0.7	31	8698.36	400.88	400.37 N	29.16 E	401.43	4.17	10.75	10.65	-1.61
75	8895	71.6	0.4	31	8708.81	430.06	429.55 N	29.44 E	430.56	3.92	8.44	8.39	-0.97
76	8927	73.9	359.9	32	8718.30	460.62	460.11 N	29.52 E	461.05	3.67	7.34	7.19	1123.44
77	8958	76.7	0.1	31	8726.17	490.59	490.09 N	29.52 E	490.98	3.45	9.05	9.03	-1160.65
78	8990	80.0	1.3	32	8732.63	521.93	521.42 N	29.90 E	522.28	3.28	10.95	10.31	3.75
79	9021	81.7	1.6	31	8737.56	552.53	552.02 N	30.68 E	552.87	3.18	5.57	5.48	0.97
80	9053	85.5	2.1	32	8741.12	584.32	583.80 N	31.70 E	584.66	3.11	11.98	11.88	1.56
81	9116	90.5	2.8	63	8743.32	647.25	646.68 N	34.39 E	647.59	3.04	8.01	7.94	1.11
82	9211	92.2	4.1	95	8741.08	742.14	741.48 N	40.11 E	742.56	3.10	2.25	1.79	1.37
83	9305	88.3	2.1	94	8740.67	836.07	835.31 N	45.19 E	836.54	3.10	4.66	-4.15	-2.13
84	9398	87.7	1.1	93	8743.92	929.01	928.22 N	47.79 E	929.45	2.95	1.25	-0.65	-1.08
85	9493	86.3	0.6	95	8748.89	1023.87	1023.08 N	49.19 E	1024.26	2.75	1.56	-1.47	-0.53
86	9587	88.3	359.9	94	8753.32	1117.75	1116.97 N	49.60 E	1118.07	2.54	2.25	2.13	382.23
87	9681	87.7	359.8	94	8756.60	1211.67	1210.91 N	49.36 E	1211.91	2.33	0.65	-0.64	-0.11
88	9776	90.7	0.6	95	8757.93	1306.63	1305.89 N	49.69 E	1306.83	2.18	3.27	3.16	-378.11
89	9870	91.2	0.7	94	8756.37	1400.62	1399.87 N	50.75 E	1400.79	2.08	0.54	0.53	0.11
90	9966	90.4	0.4	96	8755.03	1496.60	1495.85 N	51.68 E	1496.74	1.98	0.89	-0.83	-0.31
91	10060	89.8	1.3	94	8754.86	1590.60	1589.84 N	53.07 E	1590.73	1.91	1.15	-0.64	0.96
92	10155	88.0	0.8	95	8756.69	1685.57	1684.80 N	54.81 E	1685.69	1.86	1.97	-1.89	-0.53
93	10248	91.0	0.4	93	8757.50	1778.56	1777.78 N	55.78 E	1778.66	1.80	3.25	3.23	-0.43
94	10343	90.8	0.5	95	8756.01	1873.54	1872.77 N	56.53 E	1873.62	1.73	0.24	-0.21	0.11
95	10438	89.8	0.3	95	8755.51	1968.52	1967.76 N	57.19 E	1968.59	1.66	1.07	-1.05	-0.21
96	10532	89.8	0.4	94	8755.84	2062.51	2061.76 N	57.77 E	2062.57	1.60	0.11	0.00	0.11
97	10627	92.7	359.4	95	8753.77	2157.46	2156.73 N	57.60 E	2157.50	1.53	3.23	3.05	377.89
98	10721	92.8	358.4	94	8749.26	2251.27	2250.60 N	55.80 E	2251.29	1.42	1.07	0.11	-1.06
99	10816	91.5	358.1	95	8745.69	2346.08	2345.49 N	52.90 E	2346.08	1.29	1.40	-1.37	-0.32
100	10910	91.4	359.9	94	8743.31	2439.98	2439.44 N	51.26 E	2439.98	1.20	1.92	-0.11	1.91
101	11004	92.7	1.1	94	8739.95	2533.91	2533.37 N	52.08 E	2533.91	1.18	1.88	1.38	-381.70
102	11099	89.8	0.0	95	8737.88	2628.87	2628.33 N	52.99 E	2628.87	1.16	3.26	-3.05	-1.16
103	11193	90.3	0.2	94	8737.80	2722.85	2722.33 N	53.16 E	2722.85	1.12	0.57	0.53	0.21
104	11287	88.4	0.8	94	8738.86	2816.83	2816.32 N	53.98 E	2816.84	1.10	2.12	-2.02	0.64
105	11381	88.1	1.4	94	8741.73	2910.79	2910.26 N	55.78 E	2910.79	1.10	0.71	-0.32	0.64
106	11475	86.9	0.6	94	8745.83	3004.70	3004.15 N	57.42 E	3004.70	1.09	1.53	-1.28	-0.85
107	11570	86.7	1.0	95	8751.14	3099.54	3098.99 N	58.74 E	3099.55	1.09	0.47	-0.21	0.42
108	11665	90.8	2.1	95	8753.21	3194.50	3193.91 N	61.31 E	3194.50	1.10	4.47	4.32	1.16
109	11759	90.4	2.1	94	8752.22	3288.48	3287.84 N	64.76 E	3288.48	1.13	0.43	-0.43	0.00
110	11853	92.4	2.1	94	8749.93	3382.44	3381.75 N	68.20 E	3382.44	1.16	2.13	2.13	0.00
111	11948	93.1	2.2	95	8745.37	3477.31	3476.57 N	71.76 E	3477.31	1.18	0.74	0.74	0.11
112	12042	93.1	2.8	94	8740.29	3571.15	3570.34 N	75.85 E	3571.15	1.22	0.64	0.00	0.64



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113	12136	92.1	2.4	94	8736.02	3665.02	3664.15 N	80.11 E	3665.03	1.25	1.15	-1.06	-0.43
114	12231	88.5	2.1	95	8735.52	3759.99	3759.06 N	83.84 E	3759.99	1.28	3.80	-3.79	-0.32
115	12326	87.6	0.6	95	8738.76	3854.93	3853.97 N	86.08 E	3854.94	1.28	1.84	-0.95	-1.58
116	12421	86.5	1.3	95	8743.65	3949.80	3948.83 N	87.65 E	3949.81	1.27	1.37	-1.16	0.74
117	12515	89.1	3.2	94	8747.25	4043.70	4042.68 N	91.34 E	4043.71	1.29	3.42	2.77	2.02
118	12609	88.3	0.5	94	8749.39	4137.66	4136.60 N	94.38 E	4137.67	1.31	3.00	-0.85	-2.87
119	12704	91.2	1.5	95	8749.80	4232.65	4231.57 N	96.03 E	4232.66	1.30	3.23	3.05	1.05
120	12799	90.7	1.3	95	8748.23	4327.64	4326.53 N	98.35 E	4327.65	1.30	0.57	-0.53	-0.21
121	12893	90.3	1.9	94	8747.41	4421.63	4420.49 N	100.98 E	4421.64	1.31	0.77	-0.43	0.64
122	12987	91.4	4.3	94	8746.01	4515.56	4514.33 N	106.06 E	4515.58	1.35	2.81	1.17	2.55
123	13082	91.2	4.4	95	8743.86	4610.39	4609.03 N	113.26 E	4610.42	1.41	0.24	-0.21	0.11
124	13176	90.5	3.9	94	8742.46	4704.25	4702.78 N	120.07 E	4704.31	1.46	0.92	-0.74	-0.53
125	13271	89.8	3.8	95	8742.21	4799.15	4797.56 N	126.44 E	4799.23	1.51	0.74	-0.74	-0.11
126	13366	89.4	3.5	95	8742.88	4894.06	4892.36 N	132.49 E	4894.16	1.55	0.53	-0.42	-0.32
127	13460	91.0	1.9	94	8742.55	4988.02	4986.25 N	136.92 E	4988.13	1.57	2.41	1.70	-1.70
128	13555	90.5	2.8	95	8741.31	5082.99	5081.16 N	140.81 E	5083.12	1.59	1.08	-0.53	0.95
129	13649	92.2	358.3	94	8739.09	5176.93	5175.11 N	141.72 E	5177.05	1.57	5.12	1.81	378.19
130	13743	91.8	357.9	94	8735.81	5270.73	5269.00 N	138.60 E	5270.82	1.51	0.60	-0.43	-0.43
131	13838	91.1	358.8	95	8733.40	5365.59	5363.93 N	135.87 E	5365.65	1.45	1.20	-0.74	0.95
132	13932	90.4	358.4	94	8732.17	5459.48	5457.89 N	133.57 E	5459.52	1.40	0.86	-0.74	-0.43
133	14027	90.5	359.0	95	8731.43	5554.39	5552.86 N	131.42 E	5554.42	1.36	0.64	0.11	0.63
134	14121	88.6	356.2	94	8732.17	5648.19	5646.76 N	127.48 E	5648.20	1.29	3.60	-2.02	-2.98
135	14216	88.3	356.4	95	8734.74	5742.81	5741.53 N	121.35 E	5742.81	1.21	0.38	-0.32	0.21
136	14310	92.0	359.3	94	8734.49	5836.63	5835.44 N	117.83 E	5836.63	1.16	5.00	3.94	3.09
137	14405	92.0	0.9	95	8731.17	5931.55	5930.38 N	117.99 E	5931.55	1.14	1.68	0.00	-377.26
138	14499	91.6	359.5	94	8728.22	6025.48	6024.33 N	118.32 E	6025.49	1.13	1.55	-0.43	381.49
139	14594	90.4	359.4	95	8726.56	6120.43	6119.31 N	117.41 E	6120.43	1.10	1.27	-1.26	-0.11
140	14688	91.3	1.4	94	8725.17	6214.40	6213.29 N	118.07 E	6214.41	1.09	2.33	0.96	-380.85
141	14783	89.5	1.3	95	8724.51	6309.39	6308.25 N	120.30 E	6309.40	1.09	1.90	-1.89	-0.11
142	14877	92.0	0.3	94	8723.28	6403.38	6402.23 N	121.62 E	6403.38	1.09	2.86	2.66	-1.06
143	14971	92.0	1.1	94	8720.00	6497.31	6496.16 N	122.76 E	6497.32	1.08	0.85	0.00	0.85
144	15065	91.4	1.3	94	8717.21	6591.27	6590.10 N	124.73 E	6591.28	1.08	0.67	-0.64	0.21
145	15160	91.3	1.6	95	8714.97	6686.24	6685.04 N	127.13 E	6686.25	1.09	0.33	-0.11	0.32
146	15254	88.7	359.9	94	8714.97	6780.23	6779.02 N	128.37 E	6780.24	1.08	3.30	-2.77	381.17
147	15348	89.6	1.3	94	8716.36	6874.21	6873.01 N	129.35 E	6874.22	1.08	1.77	0.96	-381.49
148	15443	89.8	2.4	95	8716.86	6969.20	6967.95 N	132.42 E	6969.21	1.09	1.18	0.21	1.16
149	15537	89.2	3.1	94	8717.68	7063.16	7061.84 N	136.93 E	7063.17	1.11	0.98	-0.64	0.74
150	15631	88.8	3.3	94	8719.32	7157.09	7155.68 N	142.17 E	7157.09	1.14	0.48	-0.43	0.21
151	15725	87.6	2.5	94	8722.27	7251.00	7249.51 N	146.93 E	7251.00	1.16	1.53	-1.28	-0.85



Company: Pioneer Natural Res. USA, Inc.

Well: University 3-33H 4H

Location: Upton County, TX

Rig: Nabors M58

Job Date: 12/25/13 - 03/07/14

Job Number:

Mag Decl.:

Dir Driller:

MWD Eng:

04554-433-22

7.15

R. Salazar / D. Wells

G. Lapham / C. Bundick

Calculation Method

Proposed Azimuth

Depth Reference

Tie Into:

Minimum Curvature

1.18

KBG

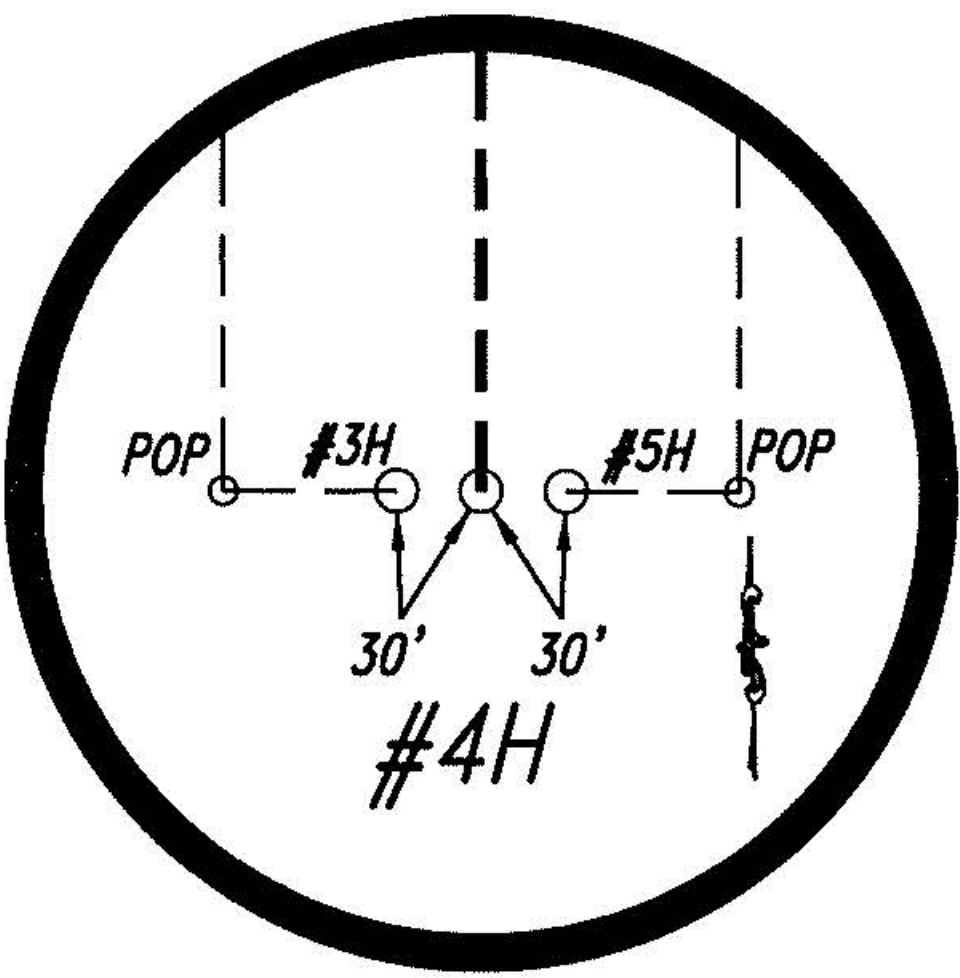
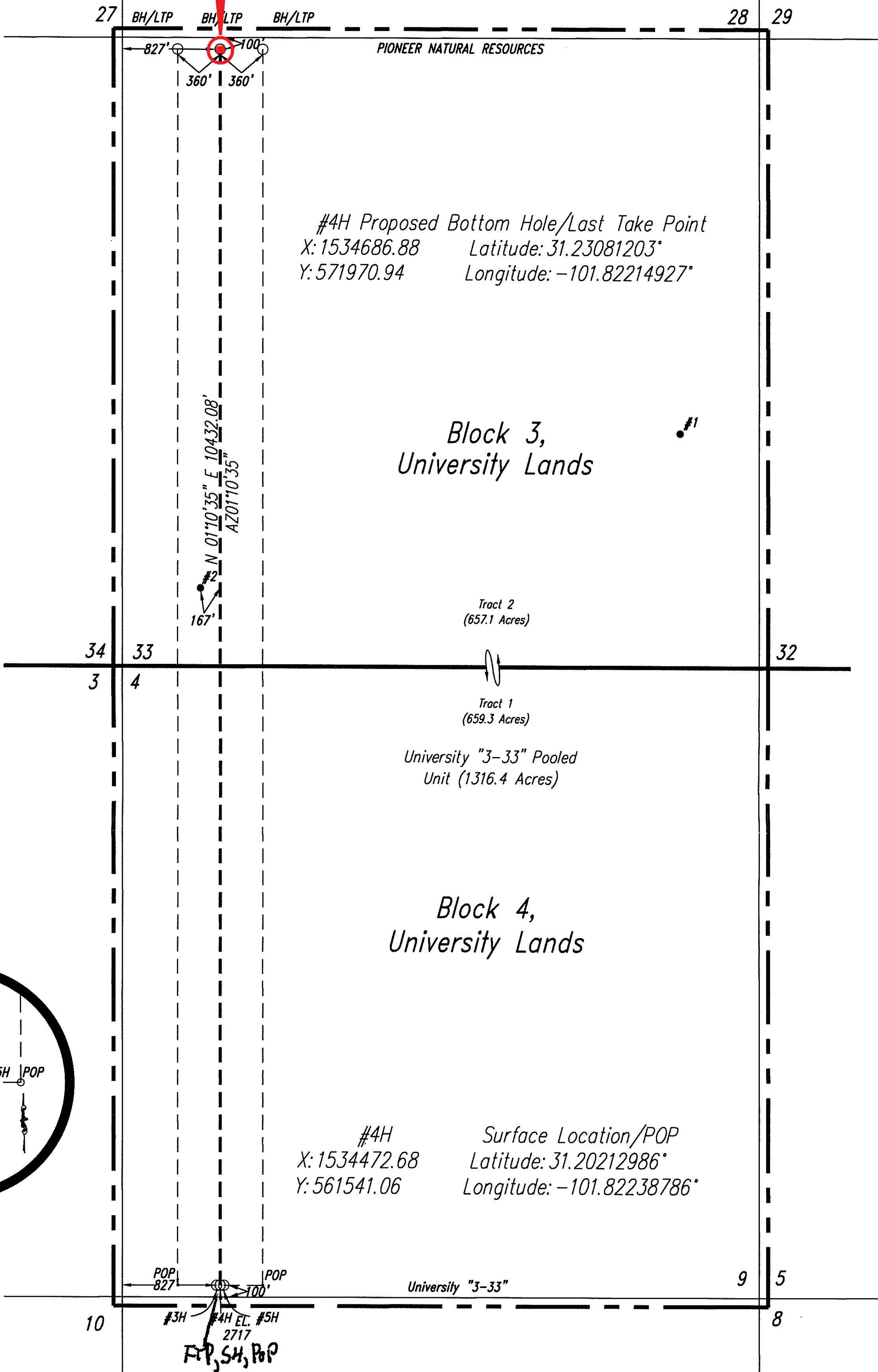
Assumed Vertical

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth			
152	15819	88.0	3.3	94	8725.88	7344.89	7343.32 N	151.68 E	7344.89	1.18	0.95	0.43	0.85
153	15914	88.0	3.7	95	8729.20	7439.75	7438.08 N	157.47 E	7439.75	1.21	0.42	0.00	0.42
154	16008	89.1	4.5	94	8731.58	7533.60	7531.81 N	164.19 E	7533.60	1.25	1.45	1.17	0.85
155	16103	90.0	5.1	95	8732.32	7628.40	7626.47 N	172.14 E	7628.42	1.29	1.14	0.95	0.63
156	16197	89.6	5.3	94	8732.65	7722.17	7720.09 N	180.66 E	7722.20	1.34	0.48	-0.43	0.21
157	16292	89.3	4.7	95	8733.56	7816.95	7814.72 N	188.94 E	7817.00	1.38	0.71	-0.32	-0.63
158	16386	90.3	5.3	94	8733.89	7910.74	7908.36 N	197.13 E	7910.82	1.43	1.24	1.06	0.64
159	16480	91.6	4.7	94	8732.33	8004.52	8001.99 N	205.32 E	8004.62	1.47	1.52	1.38	-0.64
160	16575	92.2	3.7	95	8729.18	8099.33	8096.68 N	212.28 E	8099.46	1.50	1.23	0.63	-1.05
161	16669	92.4	0.6	94	8725.41	8193.23	8190.52 N	215.80 E	8193.37	1.51	3.30	0.21	-3.30
162	16763	92.8	358.4	94	8721.14	8287.09	8284.42 N	214.98 E	8287.21	1.49	2.38	0.43	380.64
163	16858	90.9	356.7	95	8718.08	8381.84	8379.27 N	210.92 E	8381.93	1.44	2.68	-2.00	-1.79
164	16953	89.9	355.6	95	8717.41	8476.47	8474.05 N	204.54 E	8476.52	1.38	1.56	-1.05	-1.16
165	17047	90.5	358.4	94	8717.09	8570.21	8567.92 N	199.63 E	8570.24	1.33	3.05	0.64	2.98
166	17142	91.4	358.7	95	8715.51	8665.10	8662.87 N	197.22 E	8665.12	1.30	1.00	0.95	0.32
167	17236	90.5	0.7	94	8713.95	8759.05	8756.85 N	196.73 E	8759.06	1.29	2.33	-0.96	-380.85
168	17330	89.9	0.0	94	8713.62	8853.03	8850.85 N	197.30 E	8853.05	1.28	0.98	-0.64	-0.74
169	17425	90.2	0.2	95	8713.54	8948.02	8945.85 N	197.47 E	8948.03	1.26	0.38	0.32	0.21
170	17519	89.0	358.8	94	8714.20	9041.97	9039.84 N	196.65 E	9041.98	1.25	1.96	-1.28	381.49
171	17613	91.1	359.7	94	8714.12	9135.91	9133.82 N	195.42 E	9135.91	1.23	2.43	2.23	0.96
172	17708	91.8	0.9	95	8711.71	9230.87	9228.79 N	195.92 E	9230.87	1.22	1.46	0.74	-377.68
173	17803	91.8	1.3	95	8708.73	9325.82	9323.72 N	197.74 E	9325.82	1.21	0.42	0.00	0.42
174	17897	91.6	1.4	94	8705.94	9419.78	9417.66 N	199.95 E	9419.78	1.22	0.24	-0.21	0.11
175	17992	89.9	0.2	95	8704.70	9514.76	9512.63 N	201.28 E	9514.76	1.21	2.19	-1.79	-1.26
176	18086	88.5	359.4	94	8706.01	9608.72	9606.62 N	200.95 E	9608.72	1.20	1.72	-1.49	382.13
177	18181	88.4	359.6	95	8708.58	9703.65	9701.58 N	200.12 E	9703.65	1.18	0.24	-0.11	0.21
178	18274	87.6	359.2	93	8711.82	9796.54	9794.52 N	199.15 E	9796.54	1.16	0.96	-0.86	-0.43
179	18369	87.6	358.9	95	8715.80	9891.40	9889.42 N	197.58 E	9891.40	1.14	0.32	0.00	-0.32
180	18463	87.6	359.0	94	8719.74	9985.24	9983.33 N	195.85 E	9985.25	1.12	0.11	0.00	0.11
181	18557	87.6	359.6	94	8723.67	10079.11	10077.24 N	194.71 E	10079.12	1.11	0.64	0.00	0.64
182	18652	86.9	359.4	95	8728.23	10173.96	10172.12 N	193.88 E	10173.97	1.09	0.77	-0.74	-0.21
183	18745	87.7	0.0	93	8732.61	10266.82	10265.02 N	193.39 E	10266.84	1.08	1.07	0.86	-386.45
184	18840	86.5	359.6	95	8737.42	10361.67	10359.89 N	193.06 E	10361.69	1.07	1.33	-1.26	378.53
185	18939	87.3	359.9	99	8742.77	10460.49	10458.75 N	192.63 E	10460.52	1.06	0.86	0.81	0.30
Proj.	18988	87.3	359.9	49	8745.08	10509.43	10507.69 N	192.55 E	10509.46	1.05	0.00	0.00	0.00

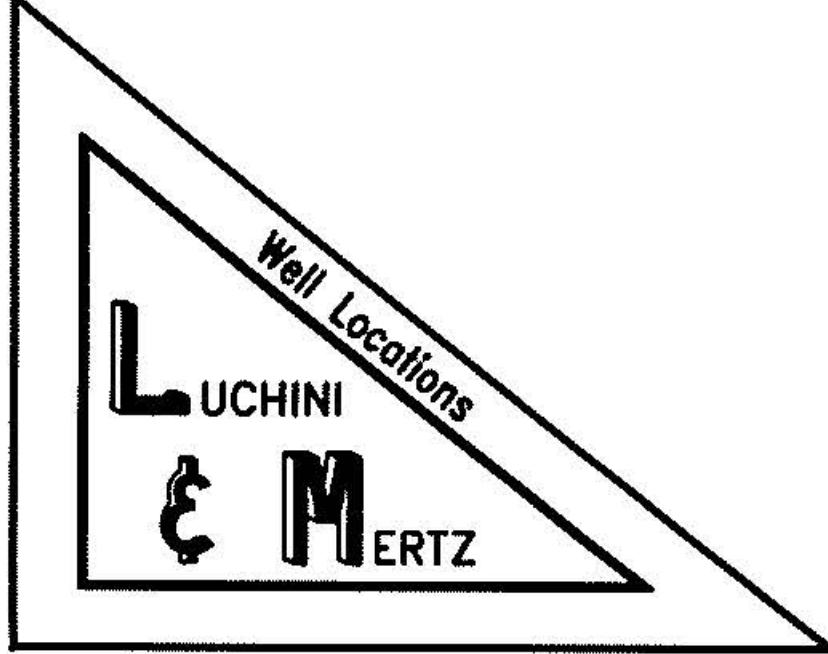
Last Take Point



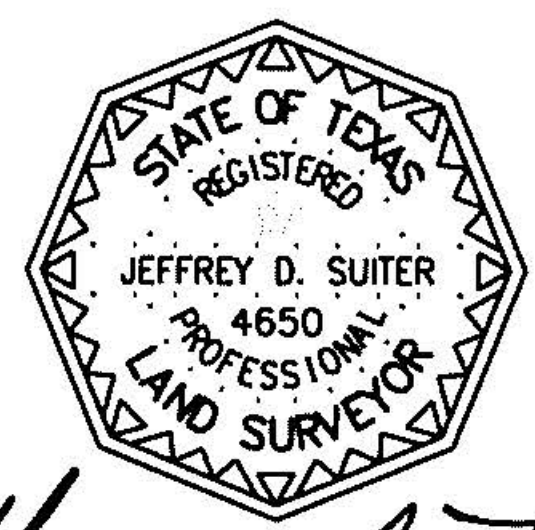
Pioneer Natural Res. USA, Inc.  
Bottom Hole Location  
Archer Directional Drilling Services  
Closure: 10509.46' @ 1.05 Deg. AZM  
API # 42-461-38427



Note: Survey Reconstruction filed in the Office of Luchini and Mertz Company.  
Note: All bearings and coordinates shown are based on the Texas Coordinate System of 1927, Central Zone.  
A combined grid factor of 0.999753821 must be divided into Section Line distances to obtain a true horizontal distance.  
Note: The above sketch represents the location as staked on the ground and is for permit purposes only.  
Note: NAD '27 Coordinates & Latitude/Longitude on well location in Sections 4 & 33.  
Note: Well location is approximately 7.4 miles east of Rankin, Texas.  
Note: This does not constitute a boundary survey.



Contracted & Supervised by  
(SUITER SURVEYING  
COMPANY)  
P.O. Box 4576, Midland,  
Texas 79704  
Phone: 432-262-3440



*Jeffrey D. Suiter*  
May 24, 2013  
130524M

Railroad Commission Drawing

PIONEER NATURAL RESOURCES USA, Inc.  
University "3-33" Pooled Unit  
(1316.4 Acres) being all of Section 4,  
Block 4, University Lands,  
& all of Section 33, Block 3,  
University Lands,  
Upton County, Texas

Scale: 1" = 1000'