

Archer

Archer Directional Drilling Services.
911 Regional Park Drive
Houston, Texas 77060
Tel: 281-934-9600
Fax: 281-951-2101

Sanchez Oil & Gas Corporation
1920 Sandman Street
Laredo, Texas 78041

September 19, 2012

Re: Renick #5-1H
Rig: Kenai 55
Gray County, Kansas

Enclosed please find the original of the survey performed on the referenced well by Archer Directional Drilling Services. Other information required by your office is as follows:

<u>Name & Title Of Surveyor</u>	<u>Wellhole Number</u>	<u>Survey Depths</u>	<u>Dates Performed</u>	<u>Type Survey</u>
Chris Anderson Field Engineer	Original Hole	1540-10549	08/21/12-09/10/12	MWD

If additional information is required, please contact the undersigned at the letterhead address and phone number.



Martin Campbell
MWD Coordinator

Archer

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MWD Survey Certification

State of Kansas
County of Gray

I, Martin Campbell, certify that; I am employed by Archer Directional Drilling Services; that I did on the day(s) of 08/21/12 through 09/10/12, conduct or supervise the taking of MWD surveys from a depth of 1540 feet to a depth of 10549 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Archer Directional Drilling Services; that I am authorized and qualified to make this report; that these surveys were conducted at the request for the Renick #5-1H well located in Grey County, Kansas; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Archer Directional Drilling Services.



Martin Campbell
MWD Coordinator



Company: Sanchez Oil & Gas Corporation Job Number: HL 12242
 Well: Renick #5-1H Mag Deel: 7.36
 Location: Gray County, Kansas Dir Driller: Jimbo Swan
 Fig: Kenai 55 MWD Eng: C Anderson, D Trevino
 Job Date: 08/21/12 - 09/10/12
 Calculation Method Proposed Azimuth Minimum Curvature
 Depth Reference KBG
 Tie Into: Gyro Survey

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	N/S (ft)	Coordinates E/W (ft)	Distance (ft)	Closure Direction Azimuth	Dogleg Severity (d/100)	Build Rate (d/100')	Walk Rate (d/100')
Tie In	1504.00	1.96	10.81	0	1503.52	28.71	28.71	-9.68					
1	1540.00	1.6	344.5	36	1539.50	29.64	29.80 N	9.70 W	31.34	341.97	2.45	-1.00	926.92
2	1635.00	1.1	341.6	95	1634.48	31.78	31.94 N	10.34 W	33.57	342.06	0.53	-0.53	-3.05
3	1730.00	0.6	332.9	95	1729.47	33.08	33.25 N	10.86 W	34.98	341.92	0.54	-0.53	-9.16
4	1824.00	0.7	357.3	94	1823.46	34.09	34.26 N	11.11 W	36.02	342.04	0.31	0.11	25.96
5	1919.00	0.5	142.9	95	1918.46	34.34	34.51 N	10.88 W	36.19	342.50	1.21	-0.21	-225.68
6	2012.00	0.6	154.6	93	2011.45	33.58	33.75 N	10.43 W	35.32	342.83	0.16	0.11	12.58
7	2105.00	0.4	148.0	93	2104.45	32.87	33.03 N	10.05 W	34.53	343.08	0.22	-0.22	-7.10
8	2200.00	0.2	149.7	95	2199.45	32.45	32.61 N	9.79 W	34.05	343.29	0.21	-0.21	1.79
9	2294.00	0.3	142.4	94	2293.45	32.12	32.27 N	9.56 W	33.66	343.50	0.11	0.11	-7.77
10	2390.00	0.3	134.2	96	2389.45	31.75	31.90 N	9.22 W	33.20	343.87	0.04	0.00	-8.54
11	2483.00	0.1	104.0	93	2482.45	31.56	31.71 N	8.97 W	32.95	344.20	0.24	-0.22	-32.47
12	2579.00	0.1	106.9	96	2578.45	31.52	31.66 N	8.81 W	32.87	344.45	0.01	0.00	3.02
13	2673.00	0.1	79.7	94	2672.45	31.52	31.65 N	8.65 W	32.81	344.72	0.05	0.00	-28.94
14	2767.00	0.2	70.1	94	2766.44	31.59	31.72 N	8.41 W	32.82	345.14	0.11	0.11	-10.21
15	2861.00	0.1	345.3	94	2860.44	31.73	31.86 N	8.28 W	32.92	345.43	0.23	-0.11	292.77
16	2956.00	0.1	323.7	95	2955.44	31.87	32.01 N	8.35 W	33.08	345.38	0.04	0.00	-22.74
17	3050.00	0.2	93.8	94	3049.44	31.93	32.06 N	8.24 W	33.10	345.59	0.29	0.11	-244.57
18	3145.00	0.2	138.1	95	3144.44	31.80	31.93 N	7.96 W	32.90	346.00	0.16	0.00	46.63
19	3239.00	0.4	103.2	94	3238.44	31.61	31.73 N	7.53 W	32.61	346.65	0.28	0.21	-37.13
20	3333.00	0.4	117.7	94	3332.44	31.39	31.50 N	6.92 W	32.25	347.61	0.11	0.00	15.43
21	3427.00	0.3	134.4	94	3426.44	31.07	31.18 N	6.45 W	31.84	348.30	0.15	-0.11	17.77
22	3522.00	0.2	122.7	95	3521.44	30.82	30.91 N	6.14 W	31.52	348.77	0.12	-0.11	-12.32
23	3617.00	0.2	197.1	95	3616.44	30.57	30.67 N	6.05 W	31.26	348.85	0.25	0.00	78.32
24	3711.00	0.2	184.8	94	3710.44	30.25	30.35 N	6.11 W	30.96	348.62	0.05	0.00	-13.09
25	3806.00	0.2	207.9	95	3805.44	29.93	30.03 N	6.20 W	30.67	348.34	0.08	0.00	24.32
26	3900.00	0.2	240.1	94	3899.43	29.70	29.81 N	6.42 W	30.49	347.85	0.12	0.00	34.26
27	3995.00	0.1	218.1	95	3994.43	29.55	29.66 N	6.61 W	30.39	347.43	0.12	-0.11	-23.16
28	4089.00	0.2	33.8	94	4088.43	29.63	29.73 N	6.57 W	30.45	347.53	0.32	0.11	-196.06
29	4121.00	0.9	12.0	32	4120.43	29.92	30.02 N	6.49 W	30.72	347.80	2.24	2.19	-68.13
30	4153.00	2.4	10.7	32	4152.42	30.83	30.93 N	6.31 W	31.57	348.46	4.69	4.69	-4.06
31	4184.00	4.0	10.1	31	4183.37	32.53	32.63 N	6.00 W	33.18	349.58	5.16	5.16	-1.94
32	4216.00	5.7	9.6	32	4215.25	35.21	35.30 N	5.54 W	35.73	351.08	5.31	5.31	-1.56
33	4248.00	7.8	6.1	32	4247.03	38.94	39.02 N	5.05 W	39.35	352.63	6.68	6.56	-10.94
34	4279.00	10.4	3.1	31	4277.64	43.83	43.91 N	4.67 W	44.16	353.93	8.52	8.39	-9.68



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 Job Date: 08/21/12 - 09/10/12

Job Number: HL 12242
 Mag Decl: 7.36
 Dir Driller: Jimbo Swan
 MWD Eng: C Anderson, D Trevino

Calculation Method: Minimum Curvature
 Proposed Azimuth: 0.9
 Depth Reference: KBG
 The Info: Gyro Survey

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	E/W	Distance (ft)	Direction Azimuth			
35	4311.00	13.4	2.3	32	4308.95	50.43	50.50 N	4.37 W	50.69	355.06	9.39	9.38	-2.50
36	4342.00	16.9	0.7	31	4338.86	58.53	58.60 N	4.17 W	58.75	355.93	11.37	11.29	-5.16
37	4373.00	20.1	359.9	31	4368.26	68.36	68.43 N	4.12 W	68.56	356.55	10.35	10.32	1158.71
38	4405.00	23.1	359.4	32	4398.01	80.14	80.21 N	4.20 W	80.32	357.00	9.39	9.38	-1.56
39	4436.00	25.9	360.0	31	4426.21	92.99	93.06 N	4.26 W	93.16	357.38	9.07	9.03	1.94
40	4468.00	28.7	1.0	32	4454.65	107.66	107.74 N	4.13 W	107.82	357.81	8.87	8.75	-1121.88
41	4499.00	31.2	1.5	31	4481.51	123.14	123.21 N	3.79 W	123.27	358.24	8.10	8.06	1.61
42	4531.00	33.3	1.5	32	4508.57	140.21	140.28 N	3.34 W	140.32	358.64	6.56	6.56	0.00
43	4562.00	35.6	1.6	31	4534.13	157.74	157.81 N	2.86 W	157.83	358.96	7.42	7.42	0.32
44	4594.00	38.0	1.4	32	4559.75	176.91	176.97 N	2.36 W	176.98	359.23	7.51	7.50	-0.63
45	4625.00	40.6	1.2	31	4583.74	196.54	196.60 N	1.92 W	196.61	359.44	8.40	8.39	-0.65
46	4656.00	43.2	1.0	31	4606.81	217.24	217.29 N	1.52 W	217.30	359.60	8.40	8.39	-0.65
47	4688.00	46.5	0.8	32	4629.49	239.81	239.86 N	1.17 W	239.86	359.72	10.32	10.31	-0.63
48	4719.00	48.6	1.0	31	4650.41	262.68	262.73 N	0.81 W	262.73	359.82	6.79	6.77	0.65
49	4749.00	48.7	0.7	30	4670.23	285.20	285.24 N	0.48 W	285.24	359.90	0.82	0.33	-1.00
50	4779.00	49.4	0.6	30	4689.90	307.86	307.90 N	0.22 W	307.90	359.96	2.35	2.33	-0.33
51	4811.00	49.7	0.3	32	4710.66	332.21	332.25 N	0.03 W	332.25	360.00	1.18	0.94	-0.94
52	4842.00	49.8	0.6	31	4730.69	355.87	355.91 N	0.16 E	355.91	0.03	0.81	0.32	0.97
53	4874.00	49.5	0.4	32	4751.41	380.26	380.30 N	0.37 E	380.30	0.06	1.05	-0.94	-0.63
54	4906.00	49.5	0.4	32	4772.19	404.59	404.63 N	0.54 E	404.63	0.08	0.00	0.00	0.00
55	4938.00	52.0	0.2	32	4792.43	429.37	429.41 N	0.67 E	429.41	0.09	7.83	7.81	-0.63
56	4969.00	54.2	0.8	31	4811.04	454.15	454.19 N	0.89 E	454.20	0.11	7.26	7.10	1.94
57	5001.00	57.4	0.9	32	4829.03	480.62	480.65 N	1.28 E	480.66	0.15	10.00	10.00	0.31
58	5032.00	60.6	1.0	31	4844.99	507.19	507.22 N	1.72 E	507.22	0.19	10.33	10.32	0.32
59	5063.00	63.6	1.4	31	4859.50	534.58	534.61 N	2.30 E	534.61	0.25	9.74	9.68	1.29
60	5095.00	66.0	1.6	32	4873.12	563.53	563.55 N	3.06 E	563.56	0.31	7.52	7.50	0.63
61	5126.00	68.1	1.4	31	4885.21	592.07	592.08 N	3.80 E	592.10	0.37	6.80	6.77	-0.65
62	5158.00	70.3	1.3	32	4896.57	621.98	621.99 N	4.51 E	622.01	0.42	6.88	6.88	-0.31
63	5190.00	72.2	1.4	32	4906.86	652.28	652.28 N	5.22 E	652.30	0.46	5.94	5.94	0.31
64	5222.00	74.5	1.1	32	4916.02	682.94	682.93 N	5.89 E	682.96	0.49	7.24	7.19	-0.94
65	5253.00	76.8	1.0	31	4923.71	712.97	712.96 N	6.44 E	712.98	0.52	7.43	7.42	-0.32
66	5285.00	79.0	0.7	32	4930.41	744.26	744.24 N	6.90 E	744.27	0.53	6.94	6.88	-0.94
67	5317.00	81.5	0.2	32	4935.83	775.79	775.77 N	7.15 E	775.81	0.53	7.96	7.81	-1.56
68	5348.00	83.8	359.7	31	4939.80	806.53	806.52 N	7.12 E	806.55	0.51	7.59	7.42	1159.68
69	5389.00	86.0	359.7	41	4943.44	847.36	847.35 N	6.91 E	847.38	0.47	5.37	5.37	0.00
70	5465.00	88.7	359.7	76	4946.96	923.25	923.26 N	6.51 E	923.28	0.40	3.55	3.55	0.00
71	5497.00	88.9	0.1	32	4947.63	955.24	955.25 N	6.46 E	955.28	0.39	1.40	0.63	-1123.75
72	5528.00	88.4	359.8	31	4948.36	986.23	986.25 N	6.43 E	986.27	0.37	1.88	-1.61	1160.32



Company: Sanchez Oil & Gas Corporation
 Well: Renick #5-1H
 Location: Gray County, Kansas
 Fig: Kenai 55
 Job Date: 08/21/12 - 09/10/12

Job Number: HL 12242
 Mag Deal: 7.36
 Dir Driller: Jimbo Swan
 MWD Eng: C Anderson, D Trevino

Calculation Method: Proposed Azimuth
 Depth Reference: Gyro Survey
 Tie Into: Gyro Survey
 Minimum Curvature: 0.9
 KBG

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	N/S (ft)	E/W (ft)	Distance (ft)	Closure Direction Azimuth	Dogleg Severity (d/100)	Build Rate (d/100)	Walk Rate (d/100)
73	5559.00	88.1	359.4	31	4949.30	1017.20	1017.23 N	6.21 E	1017.25	0.35	1.61	-0.97	-1.29
74	5652.00	88.1	358.7	93	4952.39	1110.10	1110.17 N	4.67 E	1110.18	0.24	0.75	0.00	-0.75
75	5745.00	89.4	358.8	93	4954.42	1203.02	1203.12 N	2.64 E	1203.12	0.13	1.40	1.40	0.11
76	5838.00	90.8	359.4	93	4954.25	1295.97	1296.11 N	1.18 E	1296.11	0.05	1.64	1.51	0.65
77	5932.00	91.2	359.1	94	4952.61	1389.91	1390.08 N	0.05 W	1390.08	360.00	0.53	0.43	-0.32
78	5964.00	90.6	359.0	32	4952.11	1421.89	1422.07 N	0.58 W	1422.07	359.98	1.90	-1.88	-0.31
79	5996.00	90.0	359.3	32	4951.94	1453.88	1454.07 N	1.05 W	1454.07	359.96	2.10	-1.87	0.94
80	6027.00	89.3	359.7	31	4952.13	1484.87	1485.07 N	1.32 W	1485.07	359.95	2.60	-2.26	1.29
81	6121.00	87.3	0.8	94	4954.92	1578.82	1579.02 N	0.91 W	1579.02	359.97	2.43	-2.13	-381.81
82	6214.00	87.6	0.6	93	4959.06	1671.72	1671.92 N	0.22 E	1671.92	0.01	0.39	0.32	-0.22
83	6307.00	88.0	0.9	93	4962.63	1764.65	1764.84 N	1.44 E	1764.84	0.05	0.54	0.43	0.32
84	6400.00	89.0	1.1	93	4965.06	1857.62	1857.80 N	3.06 E	1857.80	0.09	1.10	1.08	0.22
85	6493.00	89.7	1.1	93	4966.12	1950.61	1950.77 N	4.85 E	1950.78	0.14	0.75	0.75	0.00
86	6587.00	89.2	0.3	94	4967.02	2044.61	2044.76 N	5.99 E	2044.77	0.17	1.00	-0.53	-0.85
87	6680.00	89.4	0.6	93	4968.16	2137.60	2137.75 N	6.72 E	2137.76	0.18	0.39	0.22	0.32
88	6773.00	89.4	0.9	93	4969.13	2230.59	2230.74 N	7.94 E	2230.75	0.20	0.32	0.00	0.32
89	6866.00	89.6	1.5	93	4969.94	2323.59	2323.71 N	9.89 E	2323.73	0.24	0.68	0.22	0.65
90	6960.00	92.6	2.1	94	4968.14	2417.55	2417.64 N	12.84 E	2417.67	0.30	3.25	3.19	0.64
91	7052.00	92.0	2.3	92	4964.45	2509.45	2509.50 N	16.37 E	2509.55	0.37	0.69	-0.65	0.22
92	7145.00	92.1	2.8	93	4961.12	2602.35	2602.34 N	20.50 E	2602.42	0.45	0.55	0.11	0.54
93	7238.00	89.9	2.4	93	4959.50	2695.29	2695.23 N	24.72 E	2695.34	0.53	2.40	-2.37	-0.43
94	7331.00	90.7	2.4	93	4959.01	2788.25	2788.14 N	28.62 E	2788.29	0.59	0.86	0.86	0.00
95	7425.00	90.9	2.3	94	4957.70	2882.21	2882.06 N	32.47 E	2882.24	0.65	0.24	0.21	-0.11
96	7518.00	89.6	1.8	93	4957.29	2975.19	2974.99 N	35.80 E	2975.21	0.69	1.50	-1.40	-0.54
97	7611.00	89.7	1.4	93	4957.86	3068.18	3067.96 N	38.39 E	3068.20	0.72	0.44	0.11	-0.43
98	7704.00	89.5	0.9	93	4958.51	3161.18	3160.93 N	40.26 E	3161.19	0.73	0.58	-0.22	-0.54
99	7798.00	90.2	0.7	94	4958.75	3255.18	3254.92 N	41.57 E	3255.19	0.73	0.77	0.74	-0.21
100	7890.00	89.7	0.7	92	4958.84	3347.18	3346.92 N	42.70 E	3347.19	0.73	0.54	-0.54	0.00
101	7984.00	89.5	0.8	94	4959.49	3441.17	3440.91 N	43.93 E	3441.19	0.73	0.24	-0.21	0.11
102	8078.00	90.0	0.8	94	4959.90	3535.17	3534.90 N	45.24 E	3535.19	0.73	0.53	0.53	0.00
103	8171.00	91.1	0.7	93	4959.01	3628.17	3627.88 N	46.46 E	3628.18	0.73	1.19	1.18	-0.11
104	8265.00	92.4	0.3	94	4956.14	3722.12	3721.83 N	47.28 E	3722.13	0.73	1.45	1.38	-0.43
105	8359.00	91.9	1.2	94	4952.61	3816.05	3815.76 N	48.51 E	3816.07	0.73	1.09	-0.53	0.96
106	8452.00	91.5	1.7	93	4949.85	3909.00	3908.69 N	50.86 E	3909.02	0.75	0.69	-0.43	0.54
107	8545.00	90.5	2.0	93	4948.23	4001.98	4001.62 N	53.86 E	4001.98	0.77	1.12	-1.08	0.32
108	8664.00	91.2	1.6	119	4946.46	4120.95	4120.55 N	57.60 E	4120.95	0.80	0.68	0.59	-0.34
109	8759.00	91.8	2.1	95	4943.98	4215.90	4215.47 N	60.66 E	4215.90	0.82	0.82	0.63	0.53
110	8852.00	90.9	3.1	93	4941.79	4308.83	4308.34 N	64.88 E	4308.83	0.86	1.45	-0.97	1.08



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Job Date: 08/21/12 - 09/10/12 **Calculation Method:** Proposed Azimuth
Depth Reference: KBG
Tie Info: Gyro Survey **Minimum Curvature:** 0.9

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111	8945.00	89.9	3.1	93	4941.14	4401.76	4401.20 N	69.91 E	4401.76		0.91	1.08	-1.08	0.00
112	9038.00	89.8	2.2	93	4941.38	4494.71	4494.10 N	74.21 E	4494.71		0.95	0.97	-0.11	-0.97
113	9131.00	90.4	1.3	93	4941.22	4587.70	4587.06 N	77.05 E	4587.70		0.96	1.16	0.65	-0.97
114	9224.00	91.0	359.5	93	4940.08	4680.69	4680.04 N	77.70 E	4680.69		0.95	2.04	0.65	385.16
115	9318.00	91.1	359.4	94	4938.36	4774.64	4774.02 N	76.80 E	4774.64		0.92	0.15	0.11	-0.11
116	9411.00	90.9	359.3	93	4936.74	4867.59	4867.00 N	75.74 E	4867.59		0.89	0.24	-0.22	-0.11
117	9505.00	91.3	358.9	94	4934.93	4961.53	4960.97 N	74.27 E	4961.53		0.86	0.60	0.43	-0.43
118	9599.00	91.5	359.0	94	4932.64	5055.45	5054.93 N	72.54 E	5055.45		0.82	0.24	0.21	0.11
119	9692.00	91.3	359.6	93	4930.36	5148.38	5147.89 N	71.41 E	5148.39		0.79	0.68	-0.22	0.65
120	9786.00	90.9	359.9	94	4928.56	5242.35	5241.88 N	71.00 E	5242.36		0.78	0.53	-0.43	0.32
121	9880.00	90.8	0.1	94	4927.16	5336.32	5335.87 N	71.00 E	5336.34		0.76	0.24	-0.11	-382.77
122	9973.00	91.1	359.9	93	4925.62	5429.30	5428.85 N	71.00 E	5429.32		0.75	0.39	0.32	386.88
123	10067.00	92.0	359.3	94	4923.08	5523.24	5522.81 N	70.34 E	5523.26		0.73	1.15	0.96	-0.64
124	10161.00	91.1	359.5	94	4920.54	5617.17	5616.77 N	69.36 E	5617.20		0.71	0.98	-0.96	0.21
125	10254.00	92.0	358.9	93	4918.02	5710.10	5709.73 N	68.06 E	5710.14		0.68	1.16	0.97	-0.65
126	10347.00	91.3	0.2	93	4915.34	5803.03	5802.69 N	67.33 E	5803.08		0.66	1.59	-0.75	-385.70
127	10441.00	92.0	0.1	94	4912.64	5896.98	5896.65 N	67.58 E	5897.03		0.66	0.75	0.74	-0.11
128	10498.00	92.4	359.5	57	4910.45	5953.93	5953.60 N	67.38 E	5953.98		0.65	1.26	0.70	630.53
Proj	10549.00	92.4	359.5	51	4908.31	6004.87	6004.56 N	66.93 E	6004.93		0.64	0.00	0.00	0.00