



30-039-30161

OPERATOR: BLACKHILLS GAS RESOURCES START: 6/5/07
WELL: San Juan 29-04-25 #123 FINISH: 6/21/07
LOCATION: RIO ARRIBA CO., NM

PROPOSED DIRECTION: 265.37

MIN. CURVATURE CALCULATIONS

SUR NUM	MD ft	INCL. °	AZM. °	TVD ft	N-S ft	E-W 17.6	SECT. ft	DLS %/100 ft	BR %/100 ft
85	5133.0	90.5	264.6	3713.9	-151.6	-1798.0	1804.4	1.6	1.3
86	5164.0	90.4	264.6	3713.7	-154.5	-1828.9	1835.4	0.3	0.3
87	5195.0	90.6	264.8	3713.4	-157.3	-1859.7	1866.4	0.9	0.6
88	5227.0	90.2	264.0	3713.2	-160.5	-1891.6	1898.3	2.8	1.3
89	5259.0	90.7	264.2	3713.0	-163.7	-1923.4	1930.3	1.7	1.6
90	5290.0	90.8	264.0	3712.6	-166.9	-1954.2	1961.3	0.7	0.3
91	5322.0	90.2	263.1	3712.3	-170.5	-1986.0	1993.3	3.4	1.9
92	5354.0	90.1	263.2	3712.2	-174.3	-2017.8	2025.3	0.4	0.3
93	5385.0	89.9	262.9	3712.2	-178.1	-2048.6	2056.3	1.2	0.6
95	5417.0	89.4	262.2	3712.4	-182.2	-2080.3	2088.2	2.7	1.6
96	5449.0	89.7	262.2	3712.6	-186.6	-2112.0	2120.2	0.9	0.9
97	5480.0	89.6	261.8	3712.8	-190.9	-2142.7	2151.1	1.3	0.3
98	5512.0	89.7	261.7	3713.0	-195.5	-2174.4	2183.0	0.4	0.3
99	5544.0	89.4	261.1	3713.3	-200.3	-2206.0	2215.0	2.1	0.9
100	5575.0	89.9	261.2	3713.5	-205.0	-2236.6	2245.9	1.6	1.6
101	5606.0	89.6	260.8	3713.6	-209.9	-2267.3	2276.8	1.6	1.0
102	5638.0	89.3	260.4	3713.9	-215.1	-2298.8	2308.7	1.6	0.9
103	5670.0	89.7	260.8	3714.2	-220.3	-2330.4	2340.6	1.8	1.3
104	5702.0	89.3	260.0	3714.5	-225.7	-2361.9	2372.5	2.8	1.3
105	5733.0	89.0	259.6	3714.9	-231.2	-2392.4	2403.3	1.6	1.0
106	5765.0	89.2	259.8	3715.4	-236.9	-2423.9	2435.1	0.9	0.6
107	5797.0	89.4	260.0	3715.8	-242.5	-2455.4	2467.0	0.9	0.6
108	5828.0	89.3	260.0	3716.2	-247.9	-2486.0	2497.9	0.3	0.3
109	5859.0	89.4	259.7	3716.5	-253.4	-2516.5	2528.7	1.0	0.3
110	5890.0	89.6	259.8	3716.8	-258.9	-2547.0	2559.6	0.7	0.6
111	5921.0	89.7	259.8	3717.0	-264.4	-2577.5	2590.4	0.3	0.3
112	5953.0	89.3	259.0	3717.3	-270.2	-2608.9	2622.2	2.8	1.3
113	5984.0	89.6	258.8	3717.6	-276.2	-2639.4	2653.0	1.2	1.0
114	6016.0	89.8	258.6	3717.7	-282.5	-2670.7	2684.8	0.9	0.6
115	6047.0	89.8	258.6	3717.8	-288.6	-2701.1	2715.6	0.0	0.0
116	6101.0	89.4	257.8	3718.2	-299.6	-2754.0	2769.2	1.7	0.7
bit	6147.0	89.8	257.5	3718.5	-309.5	-2798.9	2814.8	1.1	0.9

Surface 1740/N 1650/E
BH1 1778/N 2302/E
MD 3974 TVD 3468
BH2 2050/N 919/W
MD 6147 TVD 3719

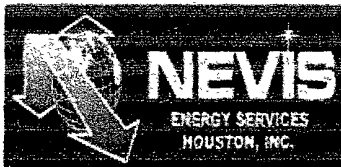
MC 29-4-25 #123

SURF: 1740' FN 1650' FE
G 310 2799
2050' FN 4449' FE
BH 5168'
719' FW

RCVD JUL 9'07
OIL CONS. DIV.
DIST. 3

Rhett / Dwayne

Bj



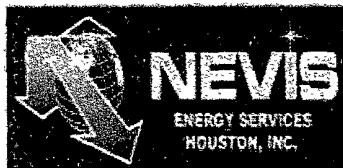
OPERATOR: BLACKHILLS GAS RESOURCES
WELL: San Juan 29-04-25 #123 123
LOCATION: RIO ARRIBA CO., NM

START: 6/5/07
FINISH: 6/21/07

PROPOSED DIRECTION: 265.37

MIN. CURVATURE CALCULATIONS

SUR	MD	INCL.	AZM.	TVD	N-S	E-W	SECT.	DLS	BR
NUM	ft	°	°	ft	ft	17.6	ft	%/100 ft	%/100 ft
tie in	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
1	432.0	0.5	55.0	432.0	1.1	1.5	-1.6	0.1	0.1
2	626.0	0.3	50.7	626.0	1.9	2.6	-2.8	0.1	0.1
3	815.0	0.5	353.0	815.0	3.0	2.9	-3.1	0.2	0.1
4	1004.0	0.1	21.7	1004.0	4.0	2.9	-3.2	0.2	0.2
5	1194.0	0.2	71.1	1194.0	4.3	3.2	-3.6	0.1	0.1
6	1380.0	0.5	67.8	1380.0	4.7	4.3	-4.7	0.2	0.2
7	1561.0	0.3	70.4	1561.0	5.1	5.5	-5.9	0.1	0.1
8	1740.0	0.6	11.6	1740.0	6.2	6.1	-6.6	0.3	0.2
9	1922.0	0.5	13.3	1922.0	7.9	6.5	-7.1	0.1	0.1
10	2101.0	0.6	337.0	2101.0	9.5	6.3	-7.1	0.2	0.1
11	2283.0	0.3	160.5	2283.0	10.0	6.1	-6.9	0.5	0.2
12	2464.0	0.4	219.1	2463.9	9.0	5.8	-6.6	0.2	0.1
13	2649.0	0.9	247.8	2648.9	8.0	4.1	-4.7	0.3	0.3
14	2811.0	0.6	264.0	2810.9	7.4	2.1	-2.7	0.2	0.2
15	2843.0	0.9	269.3	2842.9	7.4	1.7	-2.2	1.0	0.9
16	2875.0	2.7	263.0	2874.9	7.3	0.7	-1.2	5.7	5.6
17	2906.0	5.7	268.7	2905.8	7.2	-1.6	1.0	9.8	9.7
18	2937.0	8.2	267.7	2936.6	7.0	-5.4	4.8	8.1	8.1
19	2969.0	10.3	270.3	2968.2	7.0	-10.5	9.9	6.7	6.6
20	3001.0	12.4	274.6	2999.5	7.2	-16.8	16.1	7.1	6.6
21	3032.0	14.7	274.8	3029.7	7.8	-24.0	23.3	7.4	7.4
22	3064.0	16.9	270.0	3060.5	8.2	-32.7	32.0	8.0	6.9
23	3095.0	19.0	266.9	3090.0	7.9	-42.3	41.5	7.4	6.8
24	3126.0	21.4	265.6	3119.0	7.2	-52.9	52.2	7.9	7.7
25	3158.0	21.7	268.5	3148.8	6.6	-64.7	63.9	3.5	0.9
26	3189.0	23.0	270.4	3177.5	6.5	-76.5	75.7	4.8	4.2



OPERATOR: BLACKHILLS GAS RESOURCES
 WELL: San Juan 29-04-25 #13H 123
 LOCATION: RIO ARRIBA CO., NM

START: 6/5/07
 FINISH: 6/21/07

PROPOSED DIRECTION: 265.37

MIN. CURVATURE CALCULATIONS

SUR NUM	MD ft	INCL. °	AZM. °	TVD ft	N-S ft	E-W 17.6 ft	SECT. ft	DLS %100 ft	BR %100 ft
27	3221.0	24.5	269.1	3206.8	6.4	-89.4	88.5	5.0	4.7
28	3253.0	26.9	268.0	3235.6	6.1	-103.2	102.4	7.6	7.5
29	3284.0	29.1	268.8	3263.0	5.7	-117.8	116.9	7.2	7.1
30	3315.0	30.9	269.7	3289.8	5.5	-133.3	132.4	6.0	5.8
31	3346.0	33.1	269.7	3316.1	5.4	-149.7	148.8	7.1	7.1
32	3378.0	35.2	268.8	3342.6	5.2	-167.7	166.7	6.7	6.6
33	3410.0	37.4	267.9	3368.4	4.6	-186.6	185.6	7.1	6.9
34	3441.0	39.8	266.9	3392.6	3.7	-205.9	204.9	8.0	7.7
35	3473.0	41.3	266.1	3416.9	2.4	-226.7	225.7	5.0	4.7
36	3505.0	43.2	265.6	3440.6	0.9	-248.1	247.2	6.0	5.9
37	3536.0	45.5	264.4	3462.8	-1.0	-269.7	268.9	7.9	7.4
38	3567.0	47.4	264.8	3484.1	-3.1	-292.1	291.4	6.2	6.1
39	3599.0	49.5	265.9	3505.4	-5.1	-316.0	315.3	7.0	6.6
40	3631.0	51.7	266.9	3525.7	-6.6	-340.6	340.0	7.3	6.9
41	3662.0	53.9	267.2	3544.4	-7.9	-365.3	364.7	7.1	7.1
42	3694.0	56.6	266.7	3562.6	-9.3	-391.5	391.0	8.5	8.4
43	3726.0	58.7	266.0	3579.8	-11.0	-418.5	418.0	6.8	6.6
44	3757.0	61.2	265.0	3595.3	-13.1	-445.3	444.9	8.5	8.1
45	3789.0	63.8	263.6	3610.1	-15.9	-473.5	473.2	9.0	8.1
46	3821.0	65.1	261.2	3623.9	-19.7	-502.1	502.1	7.9	4.1
47	3852.0	67.2	262.5	3636.4	-23.8	-530.2	530.4	7.8	6.8
48	3884.0	70.8	262.9	3647.9	-27.6	-559.8	560.2	11.3	11.3
49	3916.0	75.4	262.0	3657.2	-31.3	-590.2	590.8	14.4	14.4
50	3947.0	80.0	263.4	3663.8	-35.0	-620.2	621.0	14.9	14.8
X 51	3979.0	83.2	264.4	3668.4	-38.4	-651.7	652.7	10.2	10.2
52	4059.0	85.3	264.7	3676.5	-46.2	-730.9	732.3	2.7	2.6
53	4080.0	85.0	264.1	3678.1	-48.2	-751.7	753.2	2.2	1.0
54	4121.0	85.3	264.4	3681.7	-52.3	-792.4	794.0	1.4	1.0
55	4150.0	85.1	263.0	3684.4	-55.5	-824.1	825.0	1.7	0.8
56	4184.0	84.8	264.1	3687.1	-58.8	-854.8	856.8	1.2	1.0
57	4216.0	84.7	264.2	3690.0	-62.0	-886.5	888.6	0.4	0.3

Rhett / Dwayne



OPERATOR: BLACKHILLS GAS RESOURCES
 WELL: San Juan 29-04-25 #15H 123
 LOCATION: RIO ARRIBA CO., NM

START: 6/5/07
 FINISH: 6/21/07

PROPOSED DIRECTION: 265.37

MIN. CURVATURE CALCULATIONS

SUR NUM	MD ft	INCL. °	AZM. °	TVD ft	N-S ft	E-W 17.6 ft	SECT. ft	DLS %/100 ft	BR %/100 ft
58	4248.0	84.7	263.8	3693.0	-65.3	-918.2	920.5	1.2	0.0
59	4279.0	84.5	263.5	3695.9	-68.7	-948.9	951.3	1.2	0.6
60	4311.0	85.8	263.9	3698.6	-72.2	-980.6	983.2	4.2	4.1
61	4343.0	85.5	263.8	3701.0	-75.7	-1012.3	1015.1	1.0	0.9
62	4375.0	85.3	263.8	3703.6	-79.1	-1044.0	1047.0	0.6	0.6
63	4406.0	84.9	263.5	3706.3	-82.5	-1074.7	1077.9	1.6	1.3
64	4470.0	85.0	263.8	3711.9	-89.6	-1138.1	1141.6	0.5	0.2
65	4501.0	86.3	264.3	3714.2	-92.8	-1168.8	1172.5	4.5	4.2
66	4533.0	88.5	265.0	3715.7	-95.8	-1200.6	1204.5	7.2	6.9
67	4566.0	89.8	265.5	3716.2	-98.5	-1233.5	1237.5	4.2	3.9
68	4596.0	90.1	265.6	3716.2	-100.8	-1263.4	1267.5	1.1	1.0
69	4628.0	90.1	265.4	3716.1	-103.3	-1295.3	1299.5	0.6	0.0
70	4660.0	90.3	265.4	3716.0	-105.9	-1327.2	1331.5	0.6	0.6
71	4691.0	90.1	265.2	3715.9	-108.4	-1358.1	1362.5	0.9	0.6
72	4723.0	90.3	265.3	3715.8	-111.1	-1390.0	1394.5	0.7	0.6
73	4755.0	90.5	265.5	3715.6	-113.7	-1421.9	1426.5	0.9	0.6
74	4786.0	90.3	265.0	3715.4	-116.2	-1452.8	1457.5	1.7	0.6
75	4818.0	90.4	264.6	3715.2	-119.1	-1484.7	1489.4	1.3	0.3
76	4849.0	90.4	264.3	3715.0	-122.1	-1515.5	1520.4	1.0	0.0
77	4881.0	90.5	264.3	3714.7	-125.3	-1547.4	1552.4	0.3	0.3
78	4913.0	90.3	264.1	3714.5	-128.5	-1579.2	1584.4	0.9	0.6
79	4944.0	90.7	264.5	3714.2	-131.6	-1610.1	1615.4	1.8	1.3
80	4975.0	90.3	264.0	3713.9	-134.7	-1640.9	1646.4	2.1	1.3
81	5007.0	90.1	263.8	3713.8	-138.1	-1672.7	1678.4	0.9	0.6
82	5038.0	89.9	263.7	3713.8	-141.5	-1703.5	1709.4	0.7	0.6
83	5070.0	89.5	263.3	3714.0	-145.1	-1735.3	1741.4	1.8	1.3
84	5101.0	90.1	264.3	3714.1	-148.5	-1766.1	1772.4	3.8	1.9

Rhett / Dwayne

6/22/2007

S.J. ~~MO~~ 29-04-25 #123

Well Bore Diagram

Post Drilling Wellbore Diagram

API # 30-039-30161

SW NW, Sec 25, T29N, R4W Rio Arriba, NM

RCVD JUL 907
OIL CONS. DIV.
DIST. 3

9 5/8" 36 # J-55 casing @ 318'
TOC surf.

ALL HOLES IN LINER WERE
RUN PLUGGED W/ALUMINUM
PLUGS

7", 23#, J-55 casing @ 4025'
Incl @ shoe = 85 deg Cmtd
w/400 sx 65/35/6 POZ. + 300 sx
50/50/2 POZ. TOC =surf. 6 1/8"
OH to 6147' MD.

