



### Directional Survey Certification

Survey Company: Native Navigation Survey Company Job #: 12030516

Well Name: McCOY 2-6-33 A.P.I.#: 05-123-35229 Operator: MAK-J

Latitude: 40.266790° N Longitude: 105.016910° W County, State: Weld Co, CO

Legal Description (S,TS,R): NW 1/4 SW 1/4 SEC 33 T4N R68W 1629' FSL 219' FWL

Final Report 4/12/2012 Date of First Survey: 4/9/2012 Date of Last Survey: 4/14/2012

Datum: NAD 83 Survey MD From: 127 FT. To: 7905 FT. Tool Type: MWD

Bit to Sensor: 56 FT. Rig (Company & Number): Fort Drilling # 5 RKB Height: 12 FT.

Ground Elevation: 5054 FT. Northings: 1340400.28 FT. Eastings: 3134809.27 FT.

Surveyor: Baca Depth of Final Projection: 7961 FT.

The data and calculations for this survey have been checked by me and conform to the calibration standards and operational procedures set forth by Native Navigation. I am authorized and qualified to review the data, calculations and this report, and that the report represents a true and correct Directional Survey of this well, based on the original data corrected to True North and obtained at the well site. Wellbore coordinates are calculated using the minimum curvature method.

Frank Westcott  
Signature

Well Planner  
Title

Native Navigation  
Company

6/6/12  
Date

Well Name:	McCOY 2-6-33
Operator:	MAK-J
A.P.I.#:	05-123-35229
Rig (Company & Number):	Fort Drilling #5
Directional Company:	Native Navigation
Directional Company Job #:	12030516
Survey Company:	Native Navigation
Survey Company Job #:	12030516

Ground Elevation:	5054 FT.
RKB Height:	12 FT.
Latitude:	40.266790° N
Longitude:	105.016910° W
Northings(ft):	1340400.28 FT.
Eastings(ft):	3134809.27 FT.
Datum (S,TS,R):	NAD 83

Final Report Date:	4/12/2012
Date of First Survey:	4/9/2012
Date of Last Survey:	4/14/2012
MD of First Survey:	127 FT.
MD of Last Survey:	7905 FT.
Depth of Final Projection:	7961 FT.
Survey Tool Used:	MWD
Bit to Sensor Distance(ft):	56 FT.

No.	MD	CL	Inc.	Azi.	TVD	VS	+N/S-	+E/W-	BR	WR	DLS	Comments
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				Start of surface
2	97.00	97.00	0.09	215.87	97.00	-0.03	-0.06	-0.04	0.09	222.55	0.09	Native Navigation EM
3	186.00	89.00	0.13	16.54	186.00	-0.05	-0.02	-0.06	0.04	-223.97	0.24	Native Navigation EM
4	279.00	93.00	0.75	322.04	279.00	-0.52	0.56	-0.40	0.67	-58.60	0.73	Native Navigation EM
5	371.00	92.00	1.05	303.06	370.99	-1.79	1.49	-1.48	0.33	-20.63	0.46	Native Navigation EM
6	462.00	91.00	1.49	289.44	461.96	-3.75	2.34	-3.29	0.48	-14.97	0.58	Native Navigation EM
7	555.00	93.00	1.32	306.40	554.94	-5.94	3.38	-5.30	-0.18	18.24	0.48	Native Navigation EM
8	646.00	91.00	1.14	278.89	645.92	-7.81	4.14	-7.03	-0.20	-30.23	0.67	Native Navigation EM
9	665.00	19.00	1.49	260.61	664.91	-8.23	4.13	-7.46	1.84	-96.21	2.85	Native Navigation EM
10	748.00	83.00	1.32	276.17	747.89	-10.17	4.06	-9.48	-0.20	18.75	0.50	Native Navigation EM
11	843.00	95.00	0.62	87.64	842.88	-10.76	4.20	-10.05	-0.74	180.49	2.04	Native Navigation EM
12	938.00	95.00	2.42	102.05	937.84	-8.26	3.80	-7.58	1.89	15.17	1.92	Native Navigation EM
13	1032.00	94.00	4.13	98.89	1031.69	-2.90	2.86	-2.29	1.82	-3.36	1.83	Native Navigation EM
14	1126.00	94.00	5.27	97.22	1125.37	4.76	1.80	5.33	1.21	-1.78	1.22	Native Navigation EM
15	1222.00	96.00	5.80	95.73	1220.92	13.94	0.76	14.54	0.55	-1.55	0.57	Native Navigation EM
16	1315.00	93.00	6.11	103.02	1313.42	23.55	-0.83	24.03	0.33	7.84	0.88	Native Navigation EM
17	1410.00	95.00	8.17	112.42	1407.68	35.28	-4.54	35.20	2.17	9.89	2.49	Native Navigation EM
18	1505.00	95.00	9.67	114.36	1501.53	49.79	-10.41	48.71	1.58	2.04	1.61	Native Navigation EM
19	1600.00	95.00	11.21	114.62	1594.95	66.70	-17.54	64.37	1.62	0.27	1.62	Native Navigation EM
20	1694.00	94.00	11.87	109.96	1687.06	85.28	-24.65	81.77	0.70	-4.96	1.21	Native Navigation EM
21	1788.00	94.00	13.80	105.66	1778.70	106.09	-30.98	101.65	2.05	-4.57	2.29	Native Navigation EM
22	1882.00	94.00	15.60	102.05	1869.63	129.93	-36.64	124.81	1.91	-3.84	2.15	Native Navigation EM
23	1976.00	94.00	16.52	102.76	1959.96	155.93	-42.23	150.21	0.98	0.76	1.00	Native Navigation EM
24	2070.00	94.00	16.83	107.68	2050.01	182.87	-49.32	176.21	0.33	5.23	1.54	Native Navigation EM
25	2163.00	93.00	18.76	110.40	2138.56	211.16	-58.62	203.05	2.08	2.92	2.26	Native Navigation EM
26	2258.00	95.00	19.56	108.65	2228.29	242.17	-69.03	232.44	0.84	-1.84	1.04	Native Navigation EM
27	2352.00	94.00	20.70	103.55	2316.56	274.46	-77.96	263.50	1.21	-5.43	2.23	Native Navigation EM
28	2448.00	96.00	22.36	101.00	2405.86	309.67	-85.42	297.93	1.73	-2.66	1.98	Native Navigation EM
29	2542.00	94.00	22.90	101.88	2492.62	345.82	-92.59	333.38	0.57	0.94	0.68	Native Navigation EM
30	2637.00	95.00	21.80	97.22	2580.49	381.82	-98.62	368.97	-1.16	-4.91	2.19	Native Navigation EM
31	2732.00	95.00	20.87	96.52	2668.98	416.14	-102.76	403.28	-0.98	-0.74	1.02	Native Navigation EM
32	2826.00	94.00	20.57	102.49	2756.91	449.27	-108.23	436.04	-0.32	6.35	2.27	Native Navigation EM
33	2922.00	96.00	20.43	109.96	2846.84	482.79	-117.60	468.26	-0.15	7.78	2.73	Native Navigation EM
34	3017.00	95.00	20.04	116.12	2935.99	515.17	-130.43	498.47	-0.41	6.48	2.28	Native Navigation EM
35	3111.00	94.00	20.52	116.56	3024.16	546.96	-144.88	527.66	0.51	0.47	0.54	Native Navigation EM
36	3205.00	94.00	19.42	116.20	3112.51	578.27	-159.15	556.42	-1.17	-0.38	1.18	Native Navigation EM
37	3300.00	95.00	19.29	112.95	3202.14	609.18	-172.24	585.04	-0.14	-3.42	1.14	Native Navigation EM
38	3394.00	94.00	20.30	111.81	3290.59	640.64	-184.35	614.48	1.07	-1.21	1.15	Native Navigation EM
39	3489.00	95.00	21.18	109.44	3379.43	674.03	-196.19	645.97	0.93	-2.49	1.28	Native Navigation EM
40	3584.00	95.00	20.61	105.48	3468.19	707.82	-206.36	678.26	-0.60	-4.17	1.60	Native Navigation EM
41	3678.00	94.00	21.18	102.67	3556.01	741.34	-214.50	710.78	0.61	-2.99	1.23	Native Navigation EM
42	3774.00	96.00	23.12	105.22	3644.92	777.52	-223.26	745.89	2.02	2.66	2.25	Native Navigation EM
43	3869.00	95.00	25.09	107.07	3731.63	816.28	-234.07	783.14	2.07	1.95	2.22	Native Navigation EM
44	3963.00	94.00	25.44	109.61	3816.64	856.25	-246.69	821.22	0.37	2.70	1.21	Native Navigation EM
45	4058.00	95.00	24.91	107.50	3902.62	896.51	-259.56	859.52	-0.56	-2.22	1.10	Native Navigation EM
46	4151.00	93.00	22.19	108.11	3987.87	933.57	-270.91	894.90	-2.92	0.66	2.94	Native Navigation EM
47	4246.00	95.00	20.30	108.38	4076.41	967.88	-281.68	927.59	-1.99	0.28	1.99	Native Navigation EM
48	4339.00	93.00	19.12	108.73	4163.96	999.13	-291.66	957.32	-1.27	0.38	1.28	Native Navigation EM
49	4434.00	95.00	18.02	107.85	4254.01	1029.29	-301.16	986.05	-1.16	-0.93	1.19	Native Navigation EM
50	4530.00	96.00	17.53	107.77	4345.43	1058.52	-310.13	1013.95	-0.51	-0.08	0.51	Native Navigation EM
51	4625.00	95.00	15.38	104.87	4436.53	1085.39	-317.73	1039.75	-2.26	-3.05	2.42	Native Navigation EM
52	4720.00	95.00	13.71	103.63	4528.49	1109.24	-323.61	1062.87	-1.76	-1.31	1.79	Native Navigation EM
53	4815.00	95.00	12.57	101.88	4621.00	1130.83	-328.39	1083.93	-1.20	-1.84	1.27	Native Navigation EM
54	4910.00	95.00	11.90	100.99	4713.84	1150.95	-332.39	1103.66	-0.71	-0.94	0.73	Native Navigation EM
55	5004.00	94.00	10.68	94.14	4806.02	1169.22	-334.87	1121.86	-1.30	-7.29	1.93	Native Navigation EM
56	5099.00	95.00	8.75	89.22	4899.66	1184.90	-335.40	1137.87	-2.03	-5.18	2.21	Native Navigation EM
57	5194.00	95.00	6.64	77.18	4993.80	1196.82	-334.09	1150.45	-2.22	-12.67	2.78	Native Navigation EM
58	5289.00	95.00	4.92	70.41	5088.32	1205.14	-331.50	1159.65	-1.81	-7.13	1.94	Native Navigation EM
59	5383.00	94.00	2.59	64.35	5182.11	1210.16	-329.23	1165.36	-2.48	-6.45	2.51	Native Navigation EM
60	5479.00	96.00	1.14	47.65	5278.06	1212.37	-327.65	1168.02	-1.51	-17.40	1.60	Native Navigation EM
61	5574.00	95.00	0.44	65.58	5373.05	1213.18	-326.86	1169.05	-0.74	18.87	0.77	Native Navigation EM
62	5669.00	95.00	0.48	27.61	5468.04	1213.57	-326.36	1169.57	0.04	-39.97	0.32	Native Navigation EM



63	5763.00	94.00	0.48	11.09	5562.04	1213.64	-325.62	1169.83	0.00	-17.57	0.15	Native Navigation EM
64	5858.00	95.00	0.66	29.98	5657.04	1213.78	-324.76	1170.18	0.19	19.88	0.27	Native Navigation EM
65	5951.00	93.00	0.79	5.64	5750.03	1213.84	-323.65	1170.51	0.14	-26.17	0.36	Native Navigation EM
66	6046.00	95.00	0.66	4.06	5845.02	1213.66	-322.46	1170.61	-0.14	-1.66	0.14	Native Navigation EM
67	6140.00	94.00	0.70	333.21	5939.01	1213.20	-321.40	1170.39	0.04	-32.82	0.39	Native Navigation EM
68	6234.00	94.00	0.79	340.76	6033.01	1212.47	-320.28	1169.92	0.10	8.03	0.14	Native Navigation EM
69	6328.00	94.00	0.70	315.28	6127.00	1211.63	-319.26	1169.30	-0.10	-27.11	0.36	Native Navigation EM
70	6422.00	94.00	0.83	328.11	6220.99	1210.65	-318.27	1168.54	0.14	13.65	0.23	Native Navigation EM
71	6515.00	93.00	0.79	318.09	6313.98	1209.64	-317.22	1167.75	-0.04	-10.77	0.16	Native Navigation EM
72	6610.00	95.00	1.01	327.32	6408.97	1208.50	-316.03	1166.86	0.23	9.72	0.28	Native Navigation EM
73	6704.00	94.00	0.83	324.59	6502.96	1207.38	-314.78	1166.02	-0.19	-2.90	0.20	Native Navigation EM
74	6798.00	94.00	0.88	322.52	6596.95	1206.31	-313.65	1165.19	0.05	-2.20	0.06	Native Navigation EM
75	6894.00	96.00	0.53	343.84	6692.94	1205.51	-312.64	1164.62	-0.36	22.21	0.45	Native Navigation EM
76	6989.00	95.00	0.44	293.48	6787.94	1204.93	-312.07	1164.16	-0.09	-53.01	0.44	Native Navigation EM
77	7084.00	95.00	0.26	278.89	6882.93	1204.36	-311.89	1163.61	-0.19	-15.36	0.21	Native Navigation EM
78	7179.00	95.00	0.53	345.42	6977.93	1203.94	-311.44	1163.29	0.28	70.03	0.51	Native Navigation EM
79	7272.00	93.00	0.57	258.63	7070.93	1203.32	-311.11	1162.73	0.04	-93.32	0.81	Native Navigation EM
80	7366.00	94.00	0.66	68.30	7164.93	1203.33	-311.00	1162.77	0.10	-202.48	1.30	Native Navigation EM
81	7461.00	95.00	0.92	51.96	7259.92	1204.25	-310.33	1163.88	0.27	-17.20	0.36	Native Navigation EM
82	7556.00	95.00	0.97	43.69	7354.91	1205.13	-309.28	1165.04	0.05	-8.71	0.15	Native Navigation EM
83	7650.00	94.00	0.83	28.82	7448.89	1205.70	-308.11	1165.91	-0.15	-15.82	0.29	Native Navigation EM
84	7712.00	62.00	0.88	66.11	7510.89	1206.20	-307.52	1166.57	0.08	60.15	0.89	Native Navigation EM
85	7768.00	56.00	0.88	66.11	7566.88	1206.88	-307.17	1167.35	0.00	0.00	0.00	Straight line to TD