



Directional Survey Certification

Survey Company: Native Navigation Survey Company Job #: 12030512

Well Name: McCOY 14-33 A.P.I.#: 05-123-35226 Operator: MAK-J ENERGY

Latitude: 40.266710° 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 1597' FSL 219' FWL

Final Report 4/2/2012 Date of First Survey: 4/21/2012 Date of Last Survey: 4/26/2012

Datum: NAD 83 Survey MD From: 106 FT. To: 7652 FT. Tool Type: MWD

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

Ground Elevation: 5066 FT. Northings: 1340371.14 FT. Eastings: 3134809.43 FT.

Surveyor: Baca Depth of Final Projection: 7708 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 W. Smith
Signature

Well Planner
Title

Native Navigation
Company

6/6/12
Date

Well Name:	McCOY 14-33
Operator:	MAK-J ENERGY COLORADO
A.P.I.#:	05-123-35226
Rig (Company & Number):	Fort Drilling # 5
Directional Company:	Native Navigation
Directional Company Job #:	12030512
Survey Company:	Native Navigation
Survey Company Job #:	12030512

Ground Elevation:	5066 FT.
RKB Height:	12 FT.
Latitude:	40,266710" N
Longitude:	105.016910" W
Northings(ft):	1340371.14 FT.
Eastings(ft):	3134809.43 FT.
Datum (S,Ts,R):	NAD 83

Final Report Date:	4/2/2012
Date of First Survey:	4/21/2012
Date of Last Survey:	4/26/2012
MD of First Survey:	106 FT.
MD of Last Survey:	7652 FT.
Depth of Final Projection:	7708 FT.
Survey Tool Used:	MWD
Bit to Sensor Distance(ft):	56 FT.

No.	MD	CL	Inc.	Azi.	TVD	VS	+N/S	+EW-	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	106.00	106.00	0.40	198.65	106.00	0.27	-0.35	-0.12	0.38	187.41	0.38	Native Navigation EM
3	194.00	88.00	0.53	251.82	194.00	0.43	-0.77	-0.60	0.15	60.42	0.49	Native Navigation EM
4	286.00	92.00	1.01	321.69	285.99	-0.41	-0.27	-1.51	0.52	75.95	1.05	Native Navigation EM
5	379.00	93.00	0.66	278.89	378.98	-1.51	0.46	-2.55	-0.38	-46.02	0.74	Native Navigation EM
6	470.00	91.00	1.01	258.85	469.97	-2.01	0.39	-3.85	0.38	-22.02	0.50	Native Navigation EM
7	562.00	92.00	1.31	270.80	561.95	-2.68	0.24	-5.70	0.33	12.99	0.42	Native Navigation EM
8	642.00	80.00	0.83	263.42	641.94	-3.27	0.19	-7.19	-0.60	-9.23	0.62	TD Surface
9	726.00	84.00	1.10	261.14	725.93	-3.70	0.00	-8.59	0.32	-2.71	0.32	Native Navigation EM
10	820.00	94.00	2.90	212.62	819.87	-2.70	-2.14	-10.76	1.91	-51.62	2.47	Native Navigation EM
11	914.00	94.00	3.43	173.07	913.74	1.22	-6.94	-11.71	0.56	-42.07	2.34	Native Navigation EM
12	1009.00	95.00	5.23	151.18	1008.47	8.23	-13.56	-9.28	1.89	-23.04	2.54	Native Navigation EM
13	1104.00	95.00	7.60	159.53	1102.87	18.82	-23.24	-4.99	2.49	8.79	2.67	Native Navigation EM
14	1198.00	94.00	8.96	154.09	1195.89	32.33	-35.64	0.38	1.45	-5.79	1.67	BUR Drop Off
15	1292.00	94.00	8.66	158.66	1288.78	46.71	-48.82	6.16	-0.32	4.86	0.81	Native Navigation EM
16	1386.00	94.00	11.87	165.77	1381.27	63.25	-64.79	11.11	3.41	7.56	3.66	Native Navigation EM
17	1480.00	94.00	13.84	167.80	1472.91	83.67	-85.15	15.86	2.10	2.16	2.15	Native Navigation EM
18	1575.00	95.00	15.38	162.79	1564.84	107.20	-108.29	21.99	1.62	-5.27	2.10	Native Navigation EM
19	1669.00	94.00	17.09	162.35	1655.08	133.21	-133.36	29.87	1.82	-0.47	1.82	Native Navigation EM
20	1763.00	94.00	17.84	156.90	1744.76	161.28	-159.77	39.70	0.80	-5.80	1.91	Native Navigation EM
21	1858.00	95.00	19.86	155.05	1834.66	191.96	-187.79	52.22	2.13	-1.95	2.22	100 - 150 ft. Hold Spot
22	1952.00	94.00	19.12	155.84	1923.27	223.32	-216.32	65.26	-0.79	0.84	0.84	Native Navigation EM
23	2046.00	94.00	18.85	154.09	2012.16	253.90	-244.02	78.20	-0.29	-1.86	0.67	Native Navigation EM
24	2139.00	93.00	18.76	156.55	2100.20	283.86	-271.25	90.71	-0.10	2.65	0.86	Native Navigation EM
25	2234.00	95.00	18.63	154.79	2190.18	314.40	-299.00	103.25	-0.14	-1.85	0.61	Native Navigation EM
26	2329.00	95.00	18.41	150.13	2280.27	344.44	-325.74	117.19	-0.23	-4.91	1.57	Native Navigation EM
27	2424.00	95.00	20.74	148.81	2369.77	376.14	-353.14	133.37	2.45	-1.39	2.50	Parkman Hold: BUR 5.5
28	2517.00	93.00	21.75	149.43	2456.45	409.69	-382.06	150.67	1.09	0.67	1.11	Hold 5.5 BUR
29	2611.00	94.00	20.87	150.75	2544.02	443.75	-411.67	167.71	-0.94	1.40	1.07	Native Navigation EM
30	2707.00	96.00	20.00	151.36	2633.98	477.21	-441.00	183.93	-0.91	0.64	0.93	Native Navigation EM
31	2800.00	93.00	18.72	152.42	2721.72	508.00	-468.18	198.46	-1.38	1.14	1.43	Native Navigation EM
32	2894.00	94.00	18.63	154.00	2810.77	538.09	-495.05	212.03	-0.10	1.68	0.55	Native Navigation EM
33	2988.00	94.00	18.41	150.31	2899.91	567.91	-521.44	225.96	-0.23	-3.93	1.27	Native Navigation EM
34	3082.00	94.00	16.66	151.62	2989.54	596.18	-546.19	239.72	-1.86	1.39	1.91	Native Navigation EM
35	3178.00	96.00	16.57	145.65	3081.54	623.45	-569.60	253.99	-0.09	-6.22	1.78	Native Navigation EM
36	3271.00	93.00	17.45	149.87	3170.47	650.46	-592.61	268.47	0.95	4.54	1.63	Native Navigation EM
37	3367.00	96.00	18.24	146.35	3261.85	679.68	-617.57	284.02	0.82	-3.67	1.39	Native Navigation EM
38	3461.00	94.00	18.11	152.42	3351.17	708.84	-642.77	298.94	-0.14	6.46	2.02	Native Navigation EM
39	3556.00	95.00	18.24	156.37	3441.43	738.46	-669.48	311.73	0.14	4.16	1.30	Native Navigation EM
40	3651.00	95.00	18.24	156.81	3531.66	768.17	-696.76	323.55	0.00	0.46	0.14	Native Navigation EM
41	3745.00	94.00	18.72	163.14	3620.82	797.79	-724.72	333.72	0.51	6.73	2.19	Native Navigation EM
42	3841.00	96.00	21.01	164.02	3711.10	829.99	-756.02	342.92	2.39	0.92	2.41	BUR Picked Up
43	3935.00	94.00	21.27	165.25	3798.78	863.36	-788.70	351.90	0.28	1.31	0.55	Native Navigation EM
44	4029.00	94.00	21.49	164.02	3886.31	897.09	-821.74	360.98	0.23	-1.31	0.53	Native Navigation EM
45	4123.00	94.00	19.42	162.52	3974.38	929.54	-853.21	370.42	-2.20	-1.60	2.27	Inc. Fell Out
46	4217.00	94.00	16.22	160.68	4063.86	958.08	-880.51	379.46	-3.40	-1.96	3.46	FRM. Hold
47	4313.00	96.00	16.30	163.58	4156.02	984.71	-906.08	387.70	0.08	3.02	0.85	FRM. Hold
48	4407.00	94.00	16.39	165.69	4246.22	1010.74	-931.59	394.71	0.10	2.24	0.64	FRM. Hold
49	4503.00	96.00	14.11	164.54	4338.84	1035.55	-955.99	401.18	-2.38	-1.20	2.40	FRM. Hold: BUR 5.8
50	4598.00	95.00	11.03	164.37	4431.55	1055.91	-975.91	406.72	-3.24	-0.18	3.24	Native Navigation EM
51	4693.00	95.00	8.53	162.26	4525.16	1071.85	-991.38	411.31	-2.63	-2.22	2.66	Native Navigation EM
52	4787.00	94.00	6.55	162.96	4618.34	1084.06	-1003.14	415.01	-2.11	0.74	2.11	Native Navigation EM
53	4883.00	96.00	4.22	160.33	4713.91	1092.99	-1011.71	417.80	-2.43	-2.74	2.44	Native Navigation EM
54	4977.00	94.00	2.46	178.61	4807.75	1098.27	-1016.98	419.01	-1.87	19.45	2.17	Native Navigation EM
55	5071.00	94.00	1.45	208.84	4901.70	1100.80	-1020.04	418.49	-1.07	32.16	1.50	Native Navigation EM
56	5165.00	94.00	0.75	248.57	4995.68	1101.45	-1021.31	417.34	-0.74	42.27	1.06	Native Navigation EM
57	5260.00	95.00	0.92	269.57	5090.67	1101.08	-1021.54	416.00	0.18	22.11	0.37	Native Navigation EM
58	5354.00	94.00	1.27	272.47	5184.65	1100.28	-1021.50	414.21	0.37	3.09	0.38	Native Navigation EM
59	5449.00	95.00	1.54	265.10	5279.62	1099.33	-1021.56	411.88	0.28	-7.76	0.34	Native Navigation EM
60	5544.00	95.00	1.45	271.95	5374.59	1098.33	-1021.63	409.41	-0.09	7.21	0.21	Native Navigation EM
61	5639.00	95.00	1.19	220.09	5469.57	1098.18	-1022.34	407.57	-0.27	-54.59	1.24	Native Navigation EM
62	5733.00	94.00	1.19	231.87	5563.55	1098.80	-1023.69	406.18	0.00	12.53	0.26	Native Navigation EM
63	5826.00	93.00	1.10	259.29	5656.53	1098.78	-1024.46	404.54	-0.10	29.48	0.59	Native Navigation EM
64	5920.00	94.00	0.97	278.89	5750.52	1098.10	-1024.50	402.87	-0.14	20.85	0.40	Native Navigation EM
65	6015.00	95.00	0.88	264.12	5845.51	1097.40	-1024.45	401.35	-0.09	-15.55	0.27	Native Navigation EM
66	6110.00	95.00	1.23	274.23	5940.49	1096.65	-1024.45	399.60	0.37	10.64	0.42	Native Navigation EM
67	6205.00	95.00	1.14	272.56	6035.47	1095.69	-1024.33	397.64	-0.09	-1.76	0.10	Native Navigation EM
68	6299.00	94.00	1.05	278.89	6129.45	1094.77	-1024.16	395.86	-0.10	6.73	0.16	Native Navigation EM
69	6395.00	96.00	0.92	264.65	6225.44	1094.00	-1024.09	394.22	-0.14	-14.83	0.29	Native Navigation EM
70	6489.00	94.00	0.97	281.79	6319.42	1093.26	-1024.00	392.69	0.05	18.23	0.30	Native Navigation EM
71	6584.00	95.00	1.27	273.62	6414.41	1092.26	-1023.77	390.85	0.32	-8.60	0.36	Native Navigation EM
72	6679.00	95.00	1.40	278.89	6509.38	1091.09	-1023.53	388.65	0.14	5.55	0.19	Native Navigation EM
73	6773.00	94.00	1.18	269.57	6603.36	1090.03	-1023.36	386.55	-0.23	-9.91	0.32	Native Navigation EM
74	6867.00	94.00	1.63	262.72	6697.33	1089.20	-1023.53	384.26	0.48	-7.29	0.51	Native Navigation EM
75	6962.00	95.00	1.67	277.13	6792.29	1088.03	-1023.53	381.54	0.04	15.17	0.44	Native Navigation EM
76	7057.00	95.00	1.76	260.61	6887.25	1086.88	-1023.60	378.73	0.09	-17.39	0.53	Native Navigation EM
77	7156.00	99.00	1.41	266.94	6986.21	1085.99	-1023.91	376.02	-0.35	6.39	0.39	Native Navigation EM
78	7246.00	90.00	1.62	255.16	7076.18	1085.33	-1024.30	373.68	0.23	-13.09	0.42	Native Navigation EM
79	7340.00	94.00	1.71	257.88	7170.14	1084.76	-1024.93	371.02	0.10	2.89	0.13	Native Navigation EM
80	7433.00	93.00	1.80	243.73	7263.10	1084.46	-1025.87	368.36	0.10	-15.22	0.47	Native Navigation EM
81	7528.00	95.00	1.58	239.34	7358.05	1084.59	-1027.20	365.89	-0.23	-4.62	0.27	Native Navigation EM
82	7623.00	95.00	1.41	226.85	7453.02	1085.07	-1028.66	363.91	-0.18	-13.15	0.39	Native Navigation EM
83	7652.00	29.00	1.10	233.98	7482.02	1085.22	-1029.07	363.43	-1.07	24.59	1.20	Native Navigation EM
84	7708.00	56.00	1.10	233.98	7538.00	1085.42	-1029.70	362.56	0.00	0.00	0.00	Projection to TD