

HOBBS OCD

JUL 13 2011

File



Job Number: 700002522 WT-WT
 Company: Armstrong Energy
 Lease/Well: Mustang Sally #1
 Location: Roosevelt Co.
 Rig Name: United #41
 RKB: 15
 G.L. or M.S.L.: GL

RECEIVED

Country: New Mexico/USA
 Declination: 7.13
 Grid:
 File name: C:\AJOB5~1\ARMSTR~1\MUSTAN~1\2522.SVY
 Date/Time: 30-May-11 / 17:03
 Curve Name: Mustang Sally #1

Pathfinder

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane .00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
Tie in to Gyrodata									
5950.00	2.87	38.42	5948.58	79.35	46.18	79.35	91.81	30.20	.00
The Following are Pathfinder Surveys									
5992.00	2.73	41.21	5990.53	80.93	47.49	80.93	93.83	30.41	.47
6087.00	1.32	79.34	6085.47	82.83	50.06	82.83	96.78	31.15	1.98
6182.00	1.85	67.22	6180.44	83.63	52.55	83.63	98.77	32.14	.66
6277.00	1.49	109.51	6275.40	83.81	55.13	83.81	100.31	33.34	1.32
6372.00	1.14	206.06	6370.38	82.55	55.87	82.55	99.68	34.09	2.08
6467.00	1.06	249.70	6465.37	81.39	54.64	81.39	98.03	33.87	.86
6562.00	.44	299.92	6560.36	81.27	53.50	81.27	97.30	33.35	.89
6657.00	.44	207.05	6655.36	81.13	53.01	81.13	96.91	33.16	.67
6752.00	.79	197.94	6750.35	80.18	52.65	80.18	95.92	33.29	.38
6847.00	.53	282.66	6845.35	79.65	52.02	79.65	95.13	33.15	.96
6930.00	.97	218.26	6928.34	79.18	51.21	79.18	94.30	32.89	1.06
7025.00	1.23	250.71	7023.32	78.22	49.75	78.22	92.70	32.46	.70
7120.00	1.41	240.33	7118.30	77.30	47.77	77.30	90.87	31.71	.31
7215.00	1.32	240.59	7213.27	76.19	45.80	76.19	88.89	31.01	.09
7310.00	1.23	240.30	7308.25	75.14	43.96	75.14	87.06	30.33	.09
7405.00	1.49	240.39	7403.22	74.03	42.00	74.03	85.11	29.57	.27
7501.00	1.49	262.19	7499.19	73.24	39.68	73.24	83.30	28.45	.59
7596.00	1.49	222.02	7594.16	72.16	37.63	72.16	81.38	27.54	1.08
7691.00	1.67	231.60	7689.12	70.38	35.72	70.38	78.92	26.91	.34
7786.00	1.58	249.36	7784.09	69.06	33.41	69.06	76.71	25.82	.54
7881.00	1.58	187.83	7879.06	67.30	32.00	67.30	74.52	25.43	1.70
7976.00	1.49	192.32	7974.02	64.79	31.56	64.79	72.07	25.97	.16
8071.00	1.14	213.41	8069.00	62.80	30.78	62.80	69.93	26.11	.62

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
8165.00	1.06	221.23	8162.98	61.36	29.69	61.36	68.17	25.82	.18
8202.00	1.06	233.54	8199.97	60.90	29.19	60.90	67.53	25.61	.61
Projection to TD									
8250.00	1.06	233.54	8247.97	60.37	28.47	60.37	66.75	25.25	.00