

Results of Directional Survey

API number:	30-025-38603		
OGRID:		Operator:	CIMAREX ENERGY CO
		Property:	HUMBOLDT 6 STATE COM # 1

surface	ULSTR:	M	6	T	15S	R	38E
			430	FSL	430	FWL	

BH Loc	ULSTR:	L	6	T	15S	R	38E
			2306	FSL	424	FWL	

	MD	N/S	E/W	VD
	9745	514.46	75.32	9409.83
TOP PERFS/OH	9772	541.37	73.08	9409.75
	9777	546.35	72.67	9409.74
	10848	1615.03	10.21	9396.92
BOT PERFS/OH	10850	1617.02	10.06	9396.92
	10879	1645.94	7.88	9396.94

NEXT TO LAST	11037	1803.57	-2.33	9394.64
LAST READING	11068	1834.52	-4.09	9394.15
TD	11110	1876.45	-6.47	9393.49

Surface Location	430	FSL	430	FWL
Projected BHL	2306	FSL	424	FWL
Location of				
Top Perfs/OH	971	FSL	503	FWL
Bottom Perfs/OH	2047	FSL	440	FWL

SUMMARY of Subsurface Locations

Surface Location	M-06-15S-38E	430	FSL	430	FWL	Vert. Depth
Top Perfs/OH	M-06-15S-38E	971	FSL	503	FWL	9409.75
Bottom Perfs/OH	L-06-15S-38E	2047	FSL	440	FWL	9396.92
Projected TD	L-06-15S-38E	2306	FSL	424	FWL	9393.49

OPERATOR: Cimarex Energy Co.
WELL/LEASE: Humboldt 6 State Com. # 1
COUNTY: Lea, NM
Sec. ~~46~~⁶ T15S R38E

SUR: M-6-15s-38e, 430/S & 430/W
BHL: L-6-15s-38e, 2306/S & 424/W
API #30-025-38603

STATE OF NEW MEXICO
DEVIATION REPORT

<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
198	1/4	7,121	1 1/4
1,016	1/4	7,564	1 7/9
1,417	3/4	8,005	2
1,888	1/2	8,447	2 3/4
2,289	3/4	8,858	4 3/4
2,731	3/4	9,294	3 3/4
3,174	1/2	9,669	3 1/2
3,617	1/4		
4,060	1/2		
4,440	1/2		
4,873	0		
5,317	3/4		
5,760	1/4		
6,265	0		
6,709	1 1/7		

Patriot Drilling, LLC



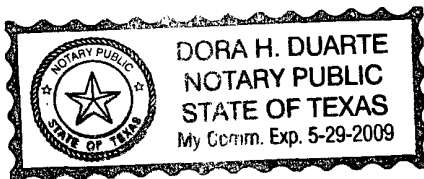
M. Leroy Peterson, Executive Vice-
President

The foregoing instrument was acknowledged before me on this 7th day of January, 2008 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 5/29/2009



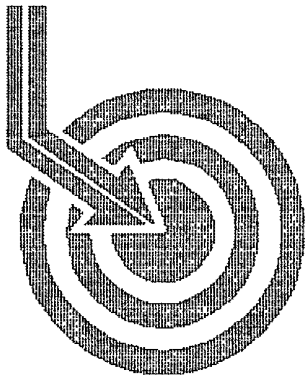
Dora H. Duarte
Notary Public for Midland Co., Texas



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JUL 18 2009

HOBBS OCD



Scientific Drilling

SUR: M-6-15s-38e, 430/S & 430/W
BHL: L-6-15s-38e, 2306/S & 424/W
API #30-025-38603

CIMAREX ENERGY

Field: Humboldt
Site: Lea County, NM
Well: Humboldt 6 State Com #1
Wellpath: VH - Job #32K0208128
Survey: 02/23/08

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This survey is correct to the best of my knowledge
and is supported by actual field data.

.....Richard.....Company Representative

Notorized this date 10th of March, 2007.

Carrie Reed

Notary Signature
County of Midland
State of Texas





Scientific Drilling International

Survey Report

RECEIVED

Company: CIMAREX ENERGY
Field: Humboldt
Site: Lea County, NM
Well: Humboldt 6 State Com #1
Wellpath: VH - Job #32K0208128

Date: 03/09/2008
Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,62.73Azi)
Survey Calculation Method: Minimum Curvature

Time: 11:37:24
Page: 1
Db: Sybase

JUL 18 2008

HOBBS OCD

Survey: 02/23/08
Start Date: 02/23/2008
Company: Scientific Drilling International
Engineer: Melendez w/Halliburton
Tool: Keeper;Keeper Gyro
Tied-to: From Surface

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClSD ft	ClSA deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.33	142.50	100.00	0.05	-0.23	0.18	0.33	0.29	142.50
200.00	0.28	154.54	200.00	0.09	-0.68	0.46	0.08	0.82	146.08
300.00	0.49	197.88	300.00	-0.22	-1.31	0.43	0.34	1.37	161.79
400.00	0.52	214.54	399.99	-0.92	-2.09	0.04	0.15	2.09	178.88
500.00	0.68	194.58	499.99	-1.72	-3.03	-0.37	0.26	3.06	186.88
600.00	0.69	192.94	599.98	-2.50	-4.20	-0.65	0.02	4.25	188.81
700.00	0.84	202.57	699.97	-3.45	-5.46	-1.07	0.20	5.56	191.05
800.00	0.65	192.68	799.96	-4.37	-6.69	-1.47	0.23	6.85	192.41
900.00	0.54	186.96	899.96	-5.00	-7.71	-1.65	0.12	7.89	192.11
1000.00	0.35	186.63	999.95	-5.44	-8.48	-1.75	0.19	8.66	191.63
1100.00	0.33	205.92	1099.95	-5.84	-9.04	-1.91	0.12	9.24	191.91
1200.00	0.39	200.54	1199.95	-6.32	-9.62	-2.15	0.07	9.86	192.61
1300.00	0.45	203.34	1299.95	-6.88	-10.30	-2.43	0.06	10.58	193.26
1400.00	0.31	186.52	1399.95	-7.33	-10.93	-2.61	0.18	11.24	193.45
1500.00	0.26	202.19	1499.94	-7.65	-11.41	-2.73	0.09	11.73	193.46
1600.00	0.27	230.95	1599.94	-8.06	-11.77	-3.00	0.13	12.14	194.30
1700.00	0.08	286.76	1699.94	-8.34	-11.90	-3.25	0.23	12.33	195.27
1800.00	0.15	207.36	1799.94	-8.50	-11.99	-3.38	0.16	12.46	195.72
1900.00	0.05	338.55	1899.94	-8.60	-12.07	-3.45	0.19	12.55	195.96
2000.00	0.53	333.78	1999.94	-8.58	-11.61	-3.67	0.48	12.18	197.55
2100.00	0.81	324.86	2099.93	-8.67	-10.62	-4.28	0.30	11.45	201.97
2200.00	0.84	335.72	2199.92	-8.73	-9.37	-4.99	0.16	10.62	208.04
2300.00	0.80	329.81	2299.91	-8.73	-8.10	-5.64	0.09	9.87	214.86
2400.00	0.65	327.94	2399.91	-8.81	-7.02	-6.30	0.15	9.43	221.90
2500.00	0.82	329.41	2499.90	-8.90	-5.92	-6.96	0.17	9.14	229.62
2600.00	0.67	327.69	2599.89	-8.99	-4.81	-7.64	0.15	9.03	237.80
2700.00	0.79	325.54	2699.88	-9.13	-3.75	-8.34	0.12	9.14	245.80
2800.00	0.56	336.00	2799.87	-9.19	-2.73	-8.93	0.26	9.34	252.98
2900.00	0.51	10.10	2899.87	-8.89	-1.85	-9.05	0.32	9.24	258.46
3000.00	0.43	5.40	2999.87	-8.42	-1.04	-8.94	0.09	9.00	263.38
3100.00	0.36	6.54	3099.86	-8.04	-0.35	-8.87	0.07	8.87	267.73
3200.00	0.37	19.34	3199.86	-7.63	0.27	-8.72	0.08	8.73	271.75
3300.00	0.29	358.07	3299.86	-7.29	0.82	-8.62	0.14	8.66	275.45
3400.00	0.40	349.98	3399.86	-7.08	1.42	-8.69	0.12	8.81	279.28
3500.00	0.24	332.79	3499.86	-6.97	1.95	-8.85	0.18	9.06	282.43
3600.00	0.34	316.91	3599.86	-7.05	2.35	-9.15	0.13	9.45	284.42
3700.00	0.29	323.14	3699.85	-7.18	2.77	-9.50	0.06	9.90	286.26
3800.00	0.47	285.70	3799.85	-7.52	3.09	-10.05	0.30	10.51	287.07
3900.00	0.50	283.51	3899.85	-8.15	3.30	-10.87	0.04	11.36	286.88
4000.00	0.50	285.06	3999.84	-8.80	3.51	-11.71	0.01	12.23	286.70
4100.00	0.50	333.55	4099.84	-9.12	4.02	-12.33	0.41	12.97	288.05
4200.00	0.38	341.49	4199.84	-9.06	4.72	-12.63	0.13	13.48	290.50
4300.00	0.41	349.20	4299.84	-8.91	5.39	-12.80	0.06	13.89	292.83
4400.00	0.41	347.99	4399.83	-8.71	6.09	-12.94	0.01	14.31	295.20
4500.00	0.35	327.39	4499.83	-8.65	6.70	-13.18	0.15	14.79	296.93
4600.00	0.35	316.07	4599.83	-8.76	7.17	-13.56	0.07	15.34	297.89
4700.00	0.47	322.27	4699.83	-8.93	7.72	-14.02	0.13	16.01	298.83
4800.00	0.53	331.89	4799.82	-9.01	8.45	-14.49	0.10	16.78	300.25



Scientific Drilling International Survey Report

Company: CIMAREX ENERGY

Field: Humboldt

Site: Lea County, NM

Well: Humboldt 6 State Com #1

Wellpath: VH - Job #32K0208128

Date: 03/09/2008

Co-ordinate(NE) Reference:

Vertical (TVD) Reference:

Section (VS) Reference:

Survey Calculation Method:

Time: 11:37:24

Site: Lea County, NM, Grid North

SITE 0.0

Well (0.00N,0.00E,62.73Azi)

Minimum Curvature

Page: 2

Db: Sybase

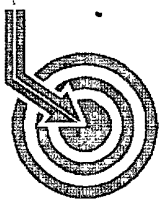
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.00	0.53	327.15	4899.82	-9.06	9.25	-14.96	0.04	17.59	301.72
5000.00	0.62	325.85	4999.81	-9.17	10.08	-15.51	0.09	18.50	303.02
5100.00	0.55	347.25	5099.81	-9.11	11.00	-15.92	0.23	19.35	304.64
5200.00	0.45	341.46	5199.80	-8.93	11.84	-16.15	0.11	20.03	306.24
5300.00	0.47	347.70	5299.80	-8.77	12.61	-16.37	0.05	20.66	307.62
5400.00	0.27	340.90	5399.80	-8.63	13.24	-16.53	0.20	21.18	308.68
5500.00	0.27	327.37	5499.80	-8.62	13.66	-16.74	0.06	21.60	309.22
5600.00	0.18	341.18	5599.80	-8.62	14.01	-16.91	0.10	21.96	309.63
5700.00	0.28	348.95	5699.80	-8.52	14.39	-17.01	0.10	22.28	310.24
5800.00	0.34	65.84	5799.80	-8.16	14.76	-16.79	0.39	22.35	311.31
5900.00	0.69	33.34	5899.79	-7.34	15.38	-16.19	0.44	22.33	313.54
6000.00	0.80	19.38	5999.78	-6.31	16.54	-15.62	0.21	22.75	316.64
6100.00	0.84	359.92	6099.77	-5.46	17.93	-15.39	0.28	23.63	319.36
6200.00	1.02	29.29	6199.76	-4.39	19.44	-14.96	0.50	24.53	322.43
6300.00	0.82	53.57	6299.75	-2.94	20.64	-13.95	0.43	24.91	325.96
6400.00	0.99	47.56	6399.73	-1.40	21.65	-12.73	0.19	25.12	329.54
6500.00	0.97	58.37	6499.72	0.28	22.68	-11.38	0.19	25.37	333.36
6600.00	0.88	55.38	6599.71	1.89	23.56	-10.02	0.10	25.60	336.95
6700.00	0.92	56.50	6699.69	3.45	24.44	-8.72	0.04	25.95	340.36
6800.00	0.85	60.32	6799.68	4.99	25.25	-7.41	0.09	26.31	343.65
6900.00	0.75	56.72	6899.67	6.38	25.97	-6.22	0.11	26.71	346.54
7000.00	0.93	55.14	6999.66	7.83	26.80	-5.00	0.18	27.26	349.43
7100.00	1.01	56.16	7099.65	9.51	27.75	-3.60	0.08	27.99	352.60
7200.00	1.03	57.60	7199.63	11.28	28.72	-2.11	0.03	28.80	355.79
7300.00	1.03	58.26	7299.62	13.07	29.68	-0.59	0.01	29.68	358.86
7400.00	1.17	55.19	7399.60	14.98	30.73	1.01	0.15	30.75	1.89
7500.00	1.48	63.35	7499.57	17.29	31.90	3.00	0.36	32.04	5.38
7600.00	1.38	65.70	7599.54	19.78	32.97	5.26	0.12	33.39	9.06
7700.00	1.55	67.81	7699.51	22.33	33.98	7.61	0.18	34.82	12.62
7800.00	1.46	68.21	7799.47	24.94	34.96	10.04	0.09	36.37	16.02
7900.00	1.66	64.28	7899.44	27.66	36.06	12.53	0.23	38.18	19.16
8000.00	1.80	65.74	7999.39	30.68	37.34	15.27	0.15	40.34	22.24
8100.00	1.85	73.18	8099.34	33.83	38.45	18.24	0.24	42.56	25.38
8200.00	2.06	76.51	8199.28	37.17	39.34	21.54	0.24	44.84	28.70
8300.00	2.23	77.71	8299.21	40.79	40.17	25.18	0.18	47.41	32.09
8400.00	2.57	75.71	8399.12	44.85	41.14	29.26	0.35	50.48	35.42
8500.00	3.23	80.17	8498.99	49.73	42.17	34.21	0.70	54.30	39.05
8600.00	3.94	84.15	8598.80	55.61	43.00	40.40	0.75	59.00	43.21
8700.00	4.17	85.29	8698.55	62.17	43.65	47.44	0.24	64.47	47.38
8800.00	4.39	86.51	8798.27	69.03	44.18	54.89	0.24	70.46	51.17
8900.00	4.65	86.14	8897.96	76.25	44.69	62.75	0.26	77.04	54.54
9000.00	4.19	86.36	8997.66	83.32	45.19	70.44	0.46	83.69	57.32
9100.00	3.59	90.48	9097.43	89.44	45.40	77.22	0.66	89.57	59.55
9200.00	3.76	95.02	9197.22	94.98	45.09	83.61	0.34	94.99	61.67
9250.00	3.57	97.39	9247.12	97.64	44.74	86.79	0.49	97.64	62.73

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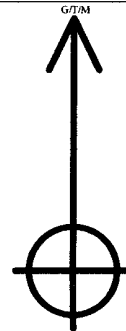
JUL 18 2008

HOBBS OCD

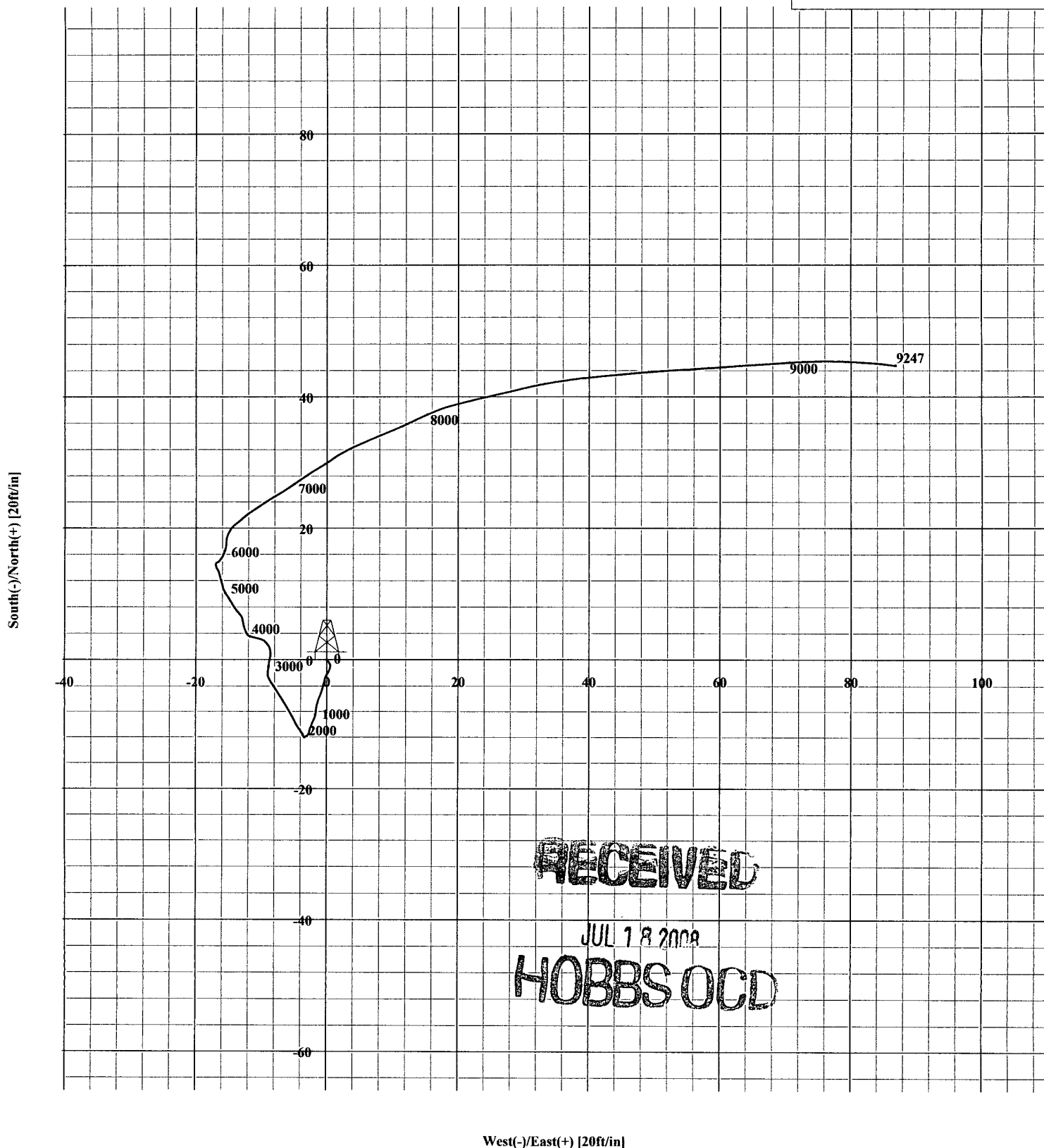


Scientific
Drilling

Field: Humboldt
Site: Lea County, NM
Well: Humboldt 6 State Com #1
Wellpath: VH - Job #32K0208128
Survey: 02/23/08



Azimuths to Grid North
True North 0 00°
Magnetic North 0 00°
Magnetic Field
Strength 0uT
Dip Angle 0 00°
Date 03/09/2008
Model igr2000



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Weatherford

JUL 18 2008

HOBBS OCD

Client : CIMAREX
Well : Humboldt 6 State Com #1
Location : Lea County, NM
License :

UWI #:

Page: 1
Date : 3/5/2008
File : 4013839 S

Vertical Section Calculated Along Azimuth 359.99°
KB Elevation = 3803.00ft GR. Elevation = 3782.00ft

	MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg %/100	Build %/100	Turn %/100
0	9155.87	3.68	93.07	9153.19	45.29	80.76	45.28	0.00	0.00	0.00
1	9211.00	16.40	15.60	9207.49	52.74	84.64	52.72	29.02	23.07	-140.52
2	9243.00	27.40	6.70	9237.15	64.44	86.73	64.43	35.81	34.38	-27.81
3	9272.00	38.50	6.20	9261.45	80.09	88.48	80.08	38.29	38.28	-1.72
4	9304.00	48.00	4.80	9284.73	101.89	90.56	101.88	29.84	29.69	-4.38
5	9335.00	56.20	3.30	9303.75	126.27	92.27	126.26	26.72	26.45	-4.84
6	9366.00	63.90	2.50	9319.22	153.08	93.62	153.06	24.94	24.84	-2.58
7	9398.00	66.50	1.90	9332.64	182.10	94.73	182.09	8.30	8.13	-1.88
8	9430.00	66.70	1.90	9345.35	211.46	95.71	211.44	0.62	0.62	0.00
9	9461.00	68.20	1.80	9357.24	240.07	96.63	240.05	4.85	4.84	-0.32
10	9492.00	69.60	0.90	9368.40	268.98	97.31	268.97	5.27	4.52	-2.90
11	9524.00	69.40	356.80	9379.61	298.94	96.71	298.93	12.02	-0.62	-12.81
12	9555.00	70.20	353.90	9390.31	327.94	94.35	327.92	9.15	2.58	-9.35
13	9587.00	74.90	352.50	9399.91	358.24	90.73	358.22	15.27	14.69	-4.37
14	9619.00	80.50	353.10	9406.72	389.24	86.82	389.23	17.60	17.50	1.88
15	9650.00	86.30	354.40	9410.28	419.84	83.47	419.83	19.17	18.71	4.19
INT	9677.00	90.10	354.99	9411.13	446.71	80.97	446.69	14.23	14.06	2.19
17	9682.00	90.80	355.10	9411.09	451.69	80.54	451.68	14.23	14.06	2.19
18	9714.00	91.20	355.30	9410.53	483.57	77.86	483.56	1.40	1.25	0.62
19	9745.00	91.40	355.30	9409.83	514.46	75.32	514.45	0.65	0.65	0.00
20	9777.00	88.90	355.20	9409.75	546.35	72.67	546.34	7.82	-7.81	-0.31
21	9809.00	88.60	355.60	9410.45	578.24	70.11	578.23	1.56	-0.94	1.25
22	9840.00	88.40	354.90	9411.26	609.12	67.54	609.11	2.35	-0.65	-2.26
23	9873.00	89.60	356.20	9411.83	642.01	64.98	642.00	5.36	3.64	3.94
24	9904.00	89.60	356.00	9412.05	672.94	62.87	672.93	0.65	0.00	-0.65
25	9936.00	90.00	355.20	9412.16	704.85	60.42	704.84	2.80	1.25	-2.50
26	9968.00	90.40	355.90	9412.05	736.75	57.94	736.74	2.52	1.25	2.19
27	9999.00	89.30	354.80	9412.13	767.65	55.42	767.64	5.02	-3.55	-3.55
28	10031.00	89.40	354.70	9412.49	799.51	52.50	799.50	0.44	0.31	-0.31
29	10062.00	89.40	354.40	9412.82	830.37	49.55	830.36	0.97	0.00	-0.97
30	10093.00	89.20	356.00	9413.20	861.26	46.96	861.25	5.20	-0.65	5.16
31	10124.00	89.40	355.90	9413.58	892.18	44.77	892.17	0.72	0.65	-0.32
32	10156.00	90.20	356.90	9413.69	924.11	42.76	924.11	4.00	2.50	3.12
33	10188.00	90.90	357.10	9413.38	956.07	41.08	956.06	2.28	2.19	0.63
34	10219.00	91.30	356.80	9412.79	987.02	39.44	987.01	1.61	1.29	-0.97
35	10250.00	91.80	355.80	9411.95	1017.94	37.44	1017.93	3.61	1.61	-3.23



Weatherford

Client : CIMAREX
Well : Humboldt 6 State Com #1
Location : Lea County, NM
License :

Page: 2
Date : 3/5/2008
File : 4013839 S

UWI #:

Vertical Section Calculated Along Azimuth 359.99°
KB Elevation = 3803.00ft GR. Elevation = 3782.00ft

	MD ft	Inc deg	Azi deg	TVD ft	North ft	East ft	V'Sect ft	D'Leg %/100	Build %/100	Turn %/100
36	10280.00	90.10	356.70	9411.45	1047.87	35.47	1047.87	6.41	-5.67	3.00
37	10311.00	90.60	356.50	9411.26	1078.82	33.64	1078.81	1.74	1.61	-0.65
EXT	10353.00	91.60	357.80	9410.45	1120.76	31.55	1120.75	3.91	2.39	3.10

Bottom Hole Closure 1121.20ft Along Azimuth 1.61°

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Survey.txt

Survey Date: 3/6/2008
Customer: Cimarex Energy Co
Job: Humboldt 6 State Com # 1 H
Well: Humboldt 6 State Com # 1 H
Ticket #: 4013839
Field: New Mexico
Rig: Key 115
Location: New Mexico

Depth (ft) Inc (deg) Azm (deg) TVD (ft) NS (ft) EW (ft) Dogleg (deg/100ft) Vsect (ft)

9211.00	16.40	15.60	9207.49	52.74	84.64	29.02	47.75
9243.00	27.40	6.70	9237.15	64.44	86.73	35.81	59.31
9272.00	38.50	6.20	9261.45	80.09	88.48	38.29	74.83
9304.00	48.00	4.80	9284.73	101.89	90.56	29.84	96.48
9335.00	56.20	3.30	9303.75	126.27	92.27	26.72	120.72
9366.00	63.90	2.50	9319.22	153.08	93.62	24.94	147.40
9398.00	66.50	1.90	9332.64	182.10	94.73	8.30	176.31
9430.00	66.70	1.90	9345.35	211.46	95.71	0.62	205.56
9461.00	68.20	1.80	9357.24	240.07	96.63	4.85	234.07
9492.00	69.60	0.90	9368.40	268.98	97.31	5.27	262.90
9524.00	69.40	356.80	9379.61	298.94	96.71	12.02	292.84
9555.00	70.20	353.90	9390.31	327.94	94.35	9.15	321.92
9587.00	74.90	352.50	9399.91	358.24	90.73	15.27	352.38
9619.00	80.50	353.10	9406.72	389.24	86.82	17.60	383.56
9650.00	86.30	354.40	9410.28	419.84	83.47	19.17	414.30
9677.00	90.10	354.99	9411.13	446.71	80.97	14.24	441.27
9682.00	90.80	355.10	9411.09	451.69	80.54	14.17	446.27
9714.00	91.20	355.30	9410.53	483.57	77.86	1.40	478.25
9745.00	91.40	355.30	9409.83	514.46	75.32	0.65	509.23
9777.00	88.90	355.20	9409.75	546.35	72.67	7.82	541.22
9809.00	88.60	355.60	9410.44	578.24	70.11	1.56	573.21
9840.00	88.40	354.90	9411.26	609.12	67.54	2.35	604.19
9873.00	89.60	356.20	9411.83	642.01	64.98	5.36	637.17
9904.00	89.60	356.00	9412.05	672.94	62.87	0.65	668.17
9936.00	90.00	355.60	9412.16	704.86	60.53	1.77	700.17
9968.00	90.40	355.90	9412.05	736.77	58.16	1.56	732.16
9999.00	89.30	354.80	9412.13	767.66	55.65	5.02	763.15
10031.00	89.40	354.70	9412.49	799.53	52.72	0.44	795.13
10062.00	89.40	354.40	9412.82	830.39	49.77	0.97	826.11
10093.00	89.20	356.00	9413.20	861.27	47.18	5.20	857.10
10124.00	89.40	355.90	9413.58	892.19	44.99	0.72	888.09
10156.00	90.20	356.90	9413.69	924.13	42.98	4.00	920.09
10188.00	90.90	357.10	9413.38	956.08	41.31	2.28	952.09
10219.00	91.30	356.80	9412.78	987.03	39.66	1.61	983.08
10250.00	91.80	355.80	9411.95	1017.96	37.66	3.61	1014.07
10280.00	90.10	356.70	9411.45	1047.89	35.70	6.41	1044.06
10311.00	90.60	356.50	9411.26	1078.83	33.86	1.74	1075.06
10342.00	91.20	357.10	9410.77	1109.78	32.13	2.74	1106.06
10374.00	91.70	357.00	9409.96	1141.73	30.48	1.59	1138.05
10406.00	92.10	357.60	9408.90	1173.67	28.98	2.25	1170.03
10437.00	91.00	358.10	9408.06	1204.64	27.81	3.90	1201.01
10469.00	91.70	358.40	9407.31	1236.62	26.84	2.38	1232.99
10501.00	91.90	358.10	9406.30	1268.59	25.86	1.13	1264.96
10532.00	91.50	358.40	9405.38	1299.56	24.91	1.61	1295.93
10563.00	91.10	358.80	9404.68	1330.54	24.16	1.82	1326.91
10594.00	91.40	358.40	9404.00	1361.52	23.40	1.61	1357.88
10626.00	92.10	358.50	9403.03	1393.50	22.53	2.21	1389.85
10657.00	92.80	358.20	9401.70	1424.46	21.64	2.46	1420.81

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Survey.txt
10689.00 90.70 357.60 9400.73 1456.42 20.47 6.82 1452.79
10721.00 91.00 356.80 9400.25 1488.38 18.91 2.67 1484.78
10752.00 91.30 356.40 9399.63 1519.31 17.07 1.61 1515.78
10784.00 91.70 356.30 9398.79 1551.24 15.03 1.29 1547.76

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**DRILLING SERVICES
END OF WELL REPORT
FOR
Jim Evans
CIMAREX
Humboldt 6 State Com #1
Lea County, NM**

Weatherford Drilling Services job start date : 02-27-2008

Weatherford Drilling Services job end date : 03-07-2008

Presented By:

Steve Boyd
Account Manager

Eric Malcore
Directional Drilling Coordinator

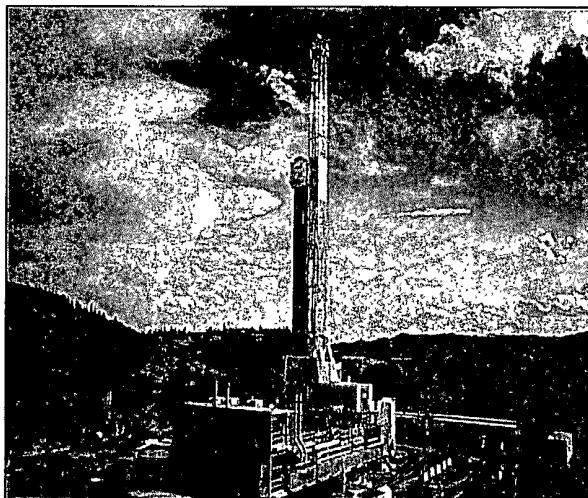
Luke Schnell
MWD Coordinator

Key 115

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10000 West County Road 116
P.O. Box 61028
Midland, Texas 79711
Phone (432) 561-8892

March 7, 2008

Jim Evans
5215 N. O'Connor Blvd., Ste. 1500
Irving, TX 75039

Reference Well Name : Humboldt 6 State Com #1
Location : Lea County, NM
Wft Job # : 4013839
Rig : Key 115

Dear Mr. Evans:

Thank you for allowing us the opportunity to provide our services on your Humboldt 6 State Com #1 in Lea County, NM.

Please find the final End Of Well (EOW) report enclosed behind this coverletter.

The EOW report contains the following information :

Section 1 - Weatherford (Wft) Final Definitive Survey & 8.5" x 11".

* Note: This survey contains the Directional Survey's obtained by Weatherford Drilling Services via Weatherford MWD Services, and any gyro survey needed for Tie On (if required).

Section 2 - Final customer approved Wellplan Survey & 8.5" x 11" Plot.

Section 3 - Wft Final BHA reports (BHA Graphic Reports, BHA Detail Reports, Motor Evaluation Reports, and BHA Slide Reports).

Section 4 - Wft Final Daily Drilling reports.

Section 5 - Wft Personnel list with contact numbers.

We at *Weatherford Drilling Services'* understand the importance of this project to you and hope that you were satisfied with our Directional Drilling and MWD services provided.

Please feel free to contact me if you have any questions.

Sincerely,

Eric Malcore
Directional Drilling Coordinator
Weatherford Drilling Services

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Weatherford

CIMAREX
Humboldt 6 State Com #1
Lea County, NM

Section 1

Weatherford (Wft) Final Definitive

Plot & Survey

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HUMBOLDT 6 STATE COM #1 LEA COUNTY, NEW MEXICO



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	9155.87	3.68	93.07	9153.19	45.29	80.76	0.00	0.00	45.27	
2	9163.42	5.68	93.07	9160.71	45.25	81.37	26.49	0.00	45.24	
3	9168.42	5.68	93.07	9165.69	45.23	81.87	0.00	0.00	45.21	
4	9555.67	90.00	356.68	9412.00	291.02	91.99	23.40	-96.36	291.01	
5	11147.32	90.00	356.68	9412.00	1880.00	-0.30	0.00	0.00	1880.00	P5

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#1	0.00	0.00	744249.70	905919.40	33°02'24.937N	103°08'37.068W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
P5	9412.00	1880.00	-0.30	746129.58	905897.82	33°02'43.537N	103°08'37.072W	Point

FIELD DETAILS

Lea Co., NM (NAD 83)

Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: bggm2007

System Datum: Mean Sea Level
Local North: True North

SITE DETAILS

HUMBOLDT 6 STATE COM
430' FSL 430' FWL of SEC 6, T-15-S, R-38-E

Site Centre Northing: 744249.70
Easting: 905919.40

Ground Level: 3782.00
Positional Uncertainty: 0.00
Convergence: 0.65

FORMATION TOP DETAILS

No	TVDPath	MDPath	Formation
1	9376.00	9513.74	WOLFCAMP



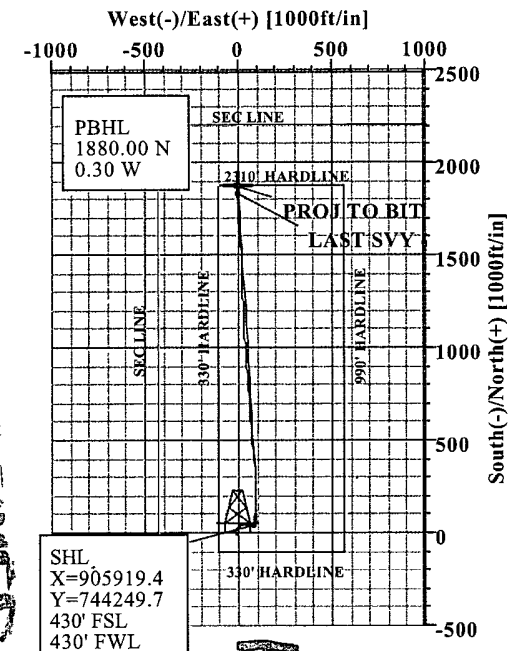
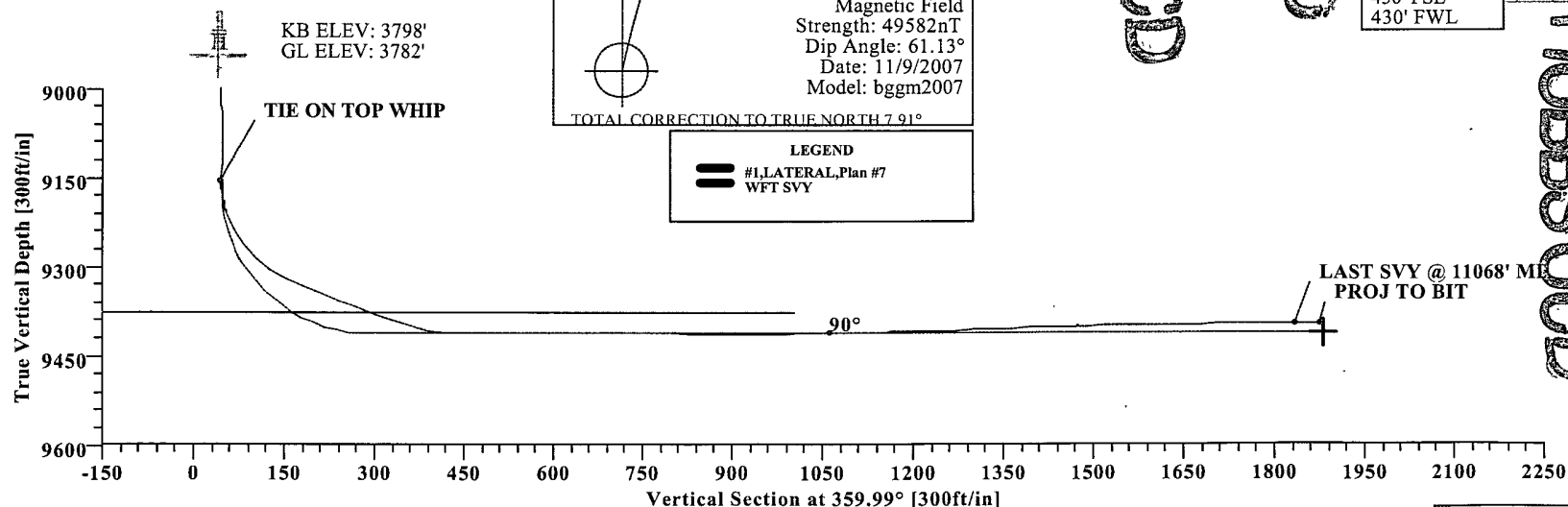
Azimuths to True North
Magnetic North: 7.91°

Magnetic Field
Strength: 49582nT
Dip Angle: 61.13°
Date: 11/9/2007
Model: bggm2007

TOTAL CORRECTION TO TRUE NORTH 7.91°

LEGEND

== #1 LATERAL, Plan #7
WFT SVY



HOBBS OGD

JUL 18 2008

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Survey: WFT SVY (#1/LATERAL)

Created By: Lindsey Maddux

Date: 3/7/2008



Weatherford International, Inc.

Survey Report



Weatherford

Company: Cimarex	Date: 3/7/2008	Time: 10:43:03	Page: 1
Field: Lea Co., NM (NAD 83)	Co-ordinate(NE) Reference:	Site: HUMBOLDT 6 STATE COM, True North	
Site: HUMBOLDT 6 STATE COM	Vertical (TVD) Reference:	SITE: 3798.0	
Well: #1	Section (VS) Reference:	Well: (0.00N;0.00E;359.99Azi)	
Wellpath: LATERAL	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Field: Lea Co., NM (NAD 83)

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Site Centre
Geomagnetic Model: bggm2007

Site: HUMBOLDT 6 STATE COM

430' FSL 430' FWL of SEC 6, T-15-S, R-38-E

Site Position:	Northing: 744249.70 ft	Latitude: 33 2 24.937 N
From: Map	Easting: 905919.40 ft	Longitude: 103 8 37.068 W
Position Uncertainty: 0.00 ft		North Reference: True
Ground Level: 3782.00 ft		Grid Convergence: 0.65 deg

Well: #1

Slot Name:

Well Position:	+N/-S 0.00 ft	Northing: 744249.70 ft	Latitude: 33 2 24.937 N
	+E/-W 0.00 ft	Easting: 905919.40 ft	Longitude: 103 8 37.068 W
Position Uncertainty: 0.00 ft			

Wellpath: LATERAL

Drilled From: GYRO
Tie-on Depth: 9155.87 ft
Above System Datum: Mean Sea Level
Declination: 7.91 deg
Mag Dip Angle: 61.13 deg
+E/-W Direction deg

Current Datum: SITE
Magnetic Data: 11/9/2007
Field Strength: 49582 nT
Vertical Section: Depth From (TVD) ft
+N/-S ft
+E/-W ft
Height 3798.00 ft

0.00	0.00	0.00	359.99
------	------	------	--------

Survey: WFT SVY

Start Date: 3/1/2008

Company: Weatherford International, Inc
Tool: MWD;MWD - Standard

Engineer: Lindsey Maddux
Tied-to: From: Definitive Path

Survey: WFT SVY

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
9155.87	3.68	93.07	9153.19	45.29	80.76	45.27	0.00	0.00	0.00	TIE ON TOP WHIP
9211.00	16.40	15.60	9207.49	52.74	84.64	52.72	29.02	23.07	-140.52	MWD
9243.00	27.40	6.70	9237.15	64.44	86.72	64.43	35.81	34.37	-27.81	MWD
9272.00	38.50	6.20	9261.44	80.09	88.48	80.08	38.29	38.28	-1.72	MWD
9304.00	48.00	4.80	9284.72	101.89	90.56	101.88	29.84	29.69	-4.37	MWD
9335.00	56.20	3.30	9303.75	126.27	92.27	126.26	26.72	26.45	-4.84	MWD
9366.00	63.90	2.50	9319.22	153.08	93.62	153.06	24.94	24.84	-2.58	MWD
9398.00	66.50	1.90	9332.64	182.10	94.73	182.09	8.30	8.12	-1.87	MWD
9430.00	66.70	1.90	9345.35	211.45	95.70	211.44	0.62	0.62	0.00	MWD
9461.00	68.20	1.80	9357.23	240.07	96.63	240.05	4.85	4.84	-0.32	MWD
9492.00	69.60	0.90	9368.39	268.98	97.31	268.96	5.27	4.52	-2.90	MWD
9524.00	69.40	356.80	9379.61	298.94	96.71	298.92	12.02	-0.62	-12.81	MWD
9555.00	70.20	353.90	9390.31	327.93	94.35	327.92	9.15	2.58	-9.35	MWD
9587.00	74.90	352.50	9399.91	358.24	90.73	358.22	15.27	14.69	-4.37	MWD
9619.00	80.50	353.10	9406.72	389.24	86.81	389.23	17.60	17.50	1.87	MWD
9650.00	86.30	354.40	9410.28	419.84	83.47	419.83	19.17	18.71	4.19	MWD
9677.00	90.10	354.99	9411.13	446.71	80.97	446.69	14.24	14.07	2.19	MWD
9682.00	90.80	355.10	9411.09	451.69	80.54	451.67	14.17	14.00	2.20	MWD
9714.00	91.20	355.30	9410.53	483.57	77.86	483.56	1.40	1.25	0.62	MWD
9745.00	91.40	355.30	9409.83	514.46	75.32	514.45	0.65	0.65	0.00	MWD
9777.00	88.90	355.20	9409.74	546.35	72.67	546.33	7.82	-7.81	-0.31	MWD
9809.00	88.60	355.60	9410.44	578.24	70.11	578.22	1.56	-0.94	1.25	MWD
9840.00	88.40	354.90	9411.25	609.12	67.54	609.11	2.35	-0.65	-2.26	MWD
9873.00	89.60	356.20	9411.83	642.01	64.98	642.00	5.36	3.64	3.94	MWD



Weatherford International, Inc.

Survey Report

**Weatherford**

Company: Cimarex Date: 3/7/2008 Time: 10:43:03 Page: 2
Field: Lea Co. NM (NAD:83) Co-ordinate (NE) Reference: Site: HUMBOLDT-6 STATE.COM True North
Site: HUMBOLDT-6 STATE.COM Vertical (TVD) Reference: SITE: 3798.0
Well: #1 Section (VS) Reference: Well: (0.00N 0.00E 359.99Azi)
Wellpath: LATERAL Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: WFT SVY

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
9904.00	89.60	356.00	9412.05	672.94	62.87	672.93	0.65	0.00	-0.65	MWD
9936.00	90.00	355.20	9412.16	704.84	60.42	704.83	2.80	1.25	-2.50	MWD
9968.00	90.40	355.90	9412.05	736.75	57.93	736.74	2.52	1.25	2.19	MWD
9999.00	89.30	354.80	9412.13	767.64	55.42	767.63	5.02	-3.55	-3.55	MWD
10031.00	89.40	354.70	9412.49	799.51	52.49	799.50	0.44	0.31	-0.31	MWD
10062.00	89.40	354.40	9412.81	830.37	49.55	830.36	0.97	0.00	-0.97	MWD
10093.00	89.20	356.00	9413.19	861.25	46.96	861.25	5.20	-0.65	5.16	MWD
10124.00	89.40	355.90	9413.57	892.17	44.77	892.17	0.72	0.65	-0.32	MWD
10156.00	90.20	356.90	9413.68	924.11	42.76	924.10	4.00	2.50	3.12	MWD
10188.00	90.90	357.10	9413.38	956.07	41.08	956.06	2.28	2.19	0.62	MWD
10219.00	91.30	356.80	9412.78	987.02	39.43	987.01	1.61	1.29	-0.97	MWD
10250.00	91.80	355.80	9411.94	1017.94	37.43	1017.93	3.61	1.61	-3.23	MWD
10280.00	90.10	356.70	9411.45	1047.87	35.47	1047.86	6.41	-5.67	3.00	MWD
10311.00	90.60	356.50	9411.26	1078.81	33.63	1078.81	1.74	1.61	-0.65	MWD
10342.00	91.20	357.10	9410.77	1109.76	31.90	1109.76	2.74	1.94	1.94	MWD
10374.00	91.70	357.00	9409.96	1141.71	30.26	1141.70	1.59	1.56	-0.31	MWD
10406.00	92.10	357.60	9408.90	1173.66	28.75	1173.65	2.25	1.25	1.87	MWD
10437.00	91.00	358.10	9408.06	1204.62	27.59	1204.62	3.90	-3.55	1.61	MWD
10469.00	91.70	358.40	9407.31	1236.60	26.61	1236.59	2.38	2.19	0.94	MWD
10501.00	91.90	358.10	9406.30	1268.57	25.63	1268.56	1.13	0.62	-0.94	MWD
10532.00	91.50	358.40	9405.38	1299.54	24.69	1299.53	1.61	-1.29	0.97	MWD
10563.00	91.10	358.80	9404.68	1330.52	23.93	1330.52	1.82	-1.29	1.29	MWD
10594.00	91.40	358.40	9404.00	1361.50	23.17	1361.50	1.61	0.97	-1.29	MWD
10626.00	92.10	358.20	9403.02	1393.48	22.22	1393.47	2.27	2.19	-0.62	MWD
10657.00	92.80	358.20	9401.70	1424.43	21.25	1424.43	2.26	2.26	0.00	MWD
10689.00	90.70	357.60	9400.72	1456.39	20.08	1456.39	6.82	-6.56	-1.87	MWD
10721.00	91.00	356.80	9400.25	1488.35	18.52	1488.35	2.67	0.94	-2.50	MWD
10752.00	91.30	356.40	9399.63	1519.29	16.68	1519.29	1.61	0.97	-1.29	MWD
10784.00	91.70	356.30	9398.79	1551.21	14.64	1551.21	1.29	1.25	-0.31	MWD
10816.00	92.40	355.80	9397.64	1583.12	12.44	1583.12	2.69	2.19	-1.56	MWD
10848.00	90.20	356.20	9396.92	1615.03	10.21	1615.03	6.99	-6.87	1.25	MWD
10879.00	89.70	355.20	9396.94	1645.94	7.88	1645.94	3.61	-1.61	-3.23	MWD
10911.00	90.10	354.80	9397.00	1677.82	5.09	1677.82	1.77	1.25	-1.25	MWD
10943.00	91.00	356.80	9396.69	1709.73	2.75	1709.73	6.85	2.81	6.25	MWD
10973.00	91.10	357.20	9396.14	1739.68	1.18	1739.68	1.37	0.33	1.33	MWD
11005.00	91.50	356.70	9395.42	1771.63	-0.52	1771.63	2.00	1.25	-1.56	MWD
11037.00	91.30	356.80	9394.64	1803.57	-2.33	1803.57	0.70	-0.62	0.31	MWD
11068.00	90.50	356.70	9394.15	1834.52	-4.09	1834.52	2.60	-2.58	-0.32	MWD
11110.00	90.50	356.70	9393.78	1876.44	-6.51	1876.45	0.00	0.00	0.00	LAST SVY @ 11068' MD PROJ TO BIT

Annotation

MD ft	TVD ft	
9155.87	9153.19	TIE ON TOP WHIP
11068.00	9394.15	LAST SVY @ 11068' MD
11110.00	9393.78	PROJ TO BIT

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Humboldt 6 State Com #1
Lea County, NM

Section 2

Customer approved Wellplan/Plot

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Drilling Services

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Proposal



HUMBOLDT 6 STATE COM #1

LEA COUNTY, NEW MEXICO

WELL FILE: **PLAN 7**

FEBRUARY 28, 2008

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P.O. Box 61028
Midland, TX 79711 USA
+1.432.561.8892 Main
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www.weatherford.com

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HUMBOLDT 6 STATE COM #1 LEA COUNTY, NEW MEXICO



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	9155.87	3.68	93.07	9153.19	45.29	80.76	0.00	0.00	45.28	
2	9163.42	5.68	93.07	9160.71	45.25	81.37	26.49	0.00	45.24	
3	9168.42	5.68	93.07	9165.69	45.23	81.87	0.00	0.00	45.22	
4	9555.67	90.00	356.68	9412.00	291.02	91.99	23.40	-96.36	291.01	
5	11147.32	90.00	356.68	9412.00	1880.00	-0.30	0.00	0.00	1880.00	P5

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#1	0.00	0.00	744249.70	905919.40	33°02'24.937N	103°08'37.068W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
P5	9412.00	1880.00	-0.30	746129.58	905897.82	33°02'43.537N	103°08'37.072W	Point

FIELD DETAILS

Lea Co., NM (NAD 83)

Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: bggm2007

System Datum: Mean Sea Level
Local North: True North

SITE DETAILS

HUMBOLDT 6 STATE COM
430' FSL 430' FWL of SEC 6, T-15-S, R-38-E

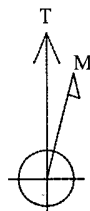
Site Centre Northing: 744249.70
Easting: 905919.40

Ground Level: 3782.00
Positional Uncertainty: 0.00
Convergence: 0.65

FORMATION TOP DETAILS

No	TVDPath	MDPath	Formation
1	9376.00	9420.89	WOLFCAMP

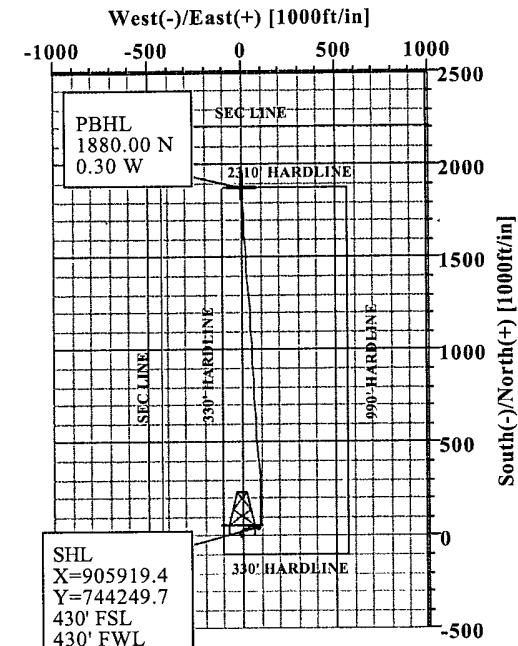
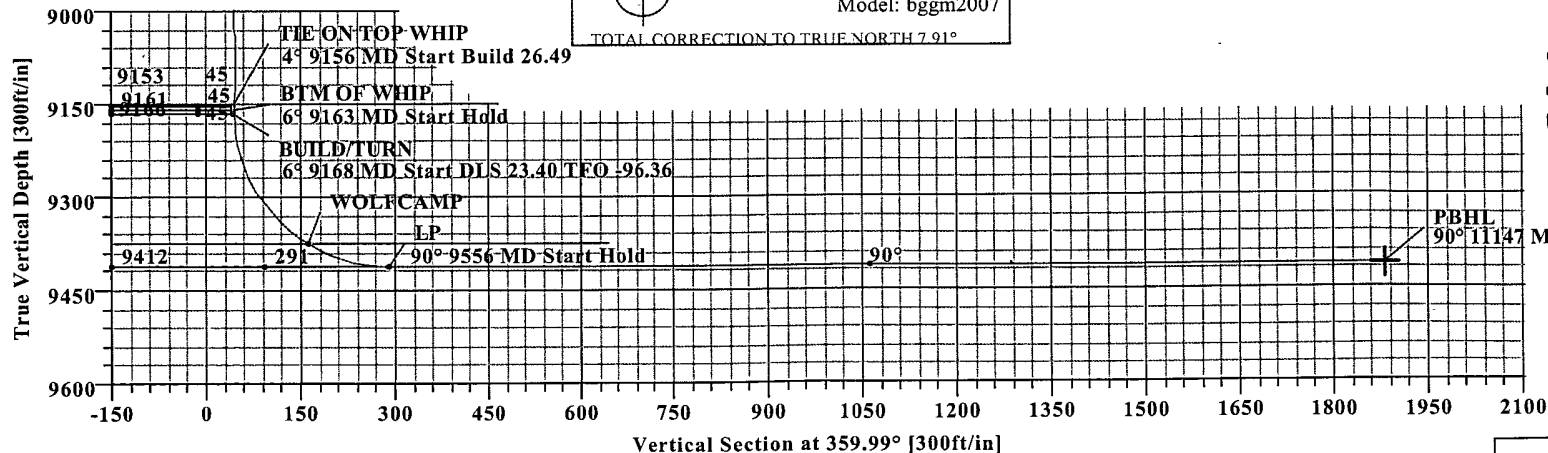
KB ELEV: 3798'
GL ELEV: 3782'



Azimuths to True North
Magnetic North: 7.91°

Magnetic Field
Strength: 49582nT
Dip Angle: 61.13°
Date: 11/9/2007
Model: bggm2007

TOTAL CORRECTION TO TRUE NORTH 7.91°



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Plan: Plan #7 (#1/LATERAL)

Created By: Lindsey Maddux

Date: 2/28/2008



Weatherford International, Inc.

Proposal Plan Report

**Weatherford**

Company:	Cimarex	Date:	2/28/2008	Time:	13:36:22	Page:	1
Field:	Lea Co., NM (NAD 83)	Co-ordinate(NE) Reference:	Site: HUMBOLDT 6 STATE COM	True North			
Site:	HUMBOLDT 6 STATE COM	Vertical (TVD) Reference:	SITE 3798.0				
Well:	#1	Section (VS) Reference:	Well (0.00N,0.00E,359.99Azi)				
Wellpath:	LATERAL	Survey Calculation Method:	Minimum Curvature	Db:	Sybase		

Plan:	Plan #7	Date Composed:	2/26/2008
Principal:	Yes	Version:	1
		Tied-to:	From: Definitive Path

Field:	Lea Co., NM (NAD 83)		
Map System:	US State Plane Coordinate System 1983	Map Zone:	New Mexico, Eastern Zone
Geo Datum:	GRS 1980	Coordinate System:	Site Centre
Sys Datum:	Mean Sea Level	Geomagnetic Model:	bggm2007

Site: HUMBOLDT 6 STATE COM

430' FSL 430' FWL of SEC 6, T-15-S, R-38-E

Site Position:	Northings:	744249.70 ft	Latitude:	33	2	24.937 N
From: Map	Easting:	905919.40 ft	Longitude:	103	8	37.068 W
Position Uncertainty:	0.00 ft		North Reference:			True
Ground Level:	3782.00 ft		Grid Convergence:			0.65 deg



A surveyor's stamp is visible, partially overlapping the table. It contains the text "HUMBOLDT COUNTY" and "REGISTERED SURVEYOR". To the right of the stamp, the number "1000" is handwritten vertically.

Well:	#1	Slot Name:						
Well Position:	+N-S	0.00 ft	Northings:	744249.70 ft	Latitude:	33	2	24.937
	+E/-W	0.00 ft	Easting :	905919.40 ft	Longitude:	103	8	37.068
Position Uncertainty:		0.00 ft						

Wellpath: LATERAL			Drilled From:	GYRO
Current Datum:	SITE	Height 3798.00 ft	Tie-on Depth:	9155.87 ft
Magnetic Data:	11/9/2007		Above System Datum:	Mean Sea Level
Field Strength:	49582 nT		Declination:	7.91 deg
Vertical Section:	Depth From (TVD)	+N/-S	Mag Dip Angle:	61.13 deg
	ft	ft	+E/-W	Direction
		ft		deg
	0.00	0.00	0.00	359.99

Plan Section Information										
MD	Incl	Azim	TVD	+N/-S	+E/-W	DLS	Build	Turn	TFO	Target
ft	deg	deg	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
9155.87	3.68	93.07	9153.19	45.29	80.76	0.00	0.00	0.00	0.00	
9163.42	5.68	93.07	9160.71	45.25	81.37	26.49	26.49	0.00	0.00	
9168.42	5.68	93.07	9165.69	45.23	81.87	0.00	0.00	0.00	0.00	
9555.67	90.00	356.68	9412.00	291.02	91.99	23.40	21.77	-24.89	-96.36	
11147.32	90.00	356.68	9412.00	1880.00	-0.30	0.00	0.00	0.00	0.00	P5

Survey											
MD	Incl	Azim	TVD	N/S	E/W	VS	Build	Turn	DLS	TFO	Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
9155.87	3.68	93.07	9153.19	45.29	80.76	45.28	0.00	0.00	0.00	0.00	TIE ON TOP WHIP
9160.00	4.78	93.07	9157.31	45.27	81.06	45.26	26.49	0.00	26.49	0.00	
9163.43	5.68	93.07	9160.72	45.25	81.37	45.24	26.41	0.00	26.41	0.00	BTM OF WHIP
9163.42	5.68	93.07	9160.71	45.25	81.37	45.24	0.00	0.00	0.00	0.00	
9168.43	5.68	93.07	9165.70	45.23	81.87	45.22	0.00	0.00	0.00	180.00	BUILD/TURN
9168.42	5.68	93.07	9165.69	45.23	81.87	45.22	0.00	0.00	0.00	0.00	
9180.00	6.02	66.43	9177.21	45.44	83.00	45.43	2.89	-230.04	23.40	263.64	
9200.00	8.80	36.38	9197.05	47.09	84.86	47.08	13.92	-150.27	23.40	290.14	
9220.00	12.74	22.61	9216.69	50.36	86.62	50.35	19.71	-68.84	23.40	319.97	
9240.00	17.06	15.48	9236.02	55.23	88.25	55.21	21.58	-35.65	23.40	333.50	
9260.00	21.52	11.20	9254.89	61.66	89.75	61.64	22.33	-21.40	23.40	340.40	
9280.00	26.06	8.34	9273.19	69.61	91.10	69.59	22.69	-14.28	23.40	344.44	
9300.00	30.64	6.29	9290.79	79.02	92.29	79.01	22.89	-10.28	23.40	347.06	
9320.00	35.24	4.72	9307.57	89.85	93.33	89.83	23.02	-7.82	23.40	348.87	
9340.00	39.86	3.48	9323.42	102.00	94.19	101.99	23.10	-6.22	23.40	350.18	
9360.00	44.49	2.45	9338.24	115.41	94.88	115.39	23.15	-5.12	23.40	351.17	



Weatherford International, Inc.

Proposal Plan Report

**Weatherford**

Company:	Cimarex	Date:	2/28/2008	Time:	13:36:22	Page:	2
Field:	Lea Co. NM (NAD 83)	Co-ordinate(NE) Reference:	Site: HUMBOLDT 6 STATE COM	True North			
Site:	HUMBOLDT 6 STATE COM	Vertical (TVD) Reference:	SITE 3798.0				
Well:	#1	Section (VS) Reference:	Well: (0.00N 0.00E 359.99Azi)				
Wellpath:	LATERAL	Survey Calculation Method:	Minimum Curvature	Db:	Sybase		

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	Build deg/100ft	Turn deg/100ft	DLS deg/100ft	TFO deg	Comment
9380.00	49.13	1.58	9351.92	129.98	95.39	129.96	23.19	-4.34	23.40	351.93	
9400.00	53.77	0.83	9364.38	145.61	95.72	145.59	23.22	-3.77	23.40	352.52	
9420.00	58.42	0.16	9375.53	162.20	95.86	162.19	23.24	-3.35	23.40	352.99	
9420.89	58.63	0.13	9376.00	162.96	95.86	162.95	23.25	-3.17	23.40	353.37	WOLFCAMP
9440.00	63.07	359.56	9385.31	179.65	95.81	179.63	23.25	-3.02	23.40	353.38	
9460.00	67.72	359.00	9393.63	197.83	95.58	197.81	23.27	-2.79	23.40	353.66	
9480.00	72.38	358.48	9400.45	216.62	95.17	216.60	23.28	-2.61	23.40	353.90	
9500.00	77.04	357.98	9405.72	235.89	94.57	235.88	23.28	-2.48	23.40	354.07	
9520.00	81.69	357.50	9409.41	255.53	93.79	255.51	23.29	-2.39	23.40	354.20	
9540.00	86.35	357.04	9411.50	275.39	92.85	275.38	23.29	-2.33	23.40	354.29	
9555.67	90.00	356.68	9412.00	291.02	91.99	291.01	23.29	-2.31	23.40	354.34	LP
9600.00	90.00	356.68	9412.00	335.28	89.42	335.27	0.00	0.00	0.00	0.00	
9700.00	90.00	356.68	9412.00	435.12	83.62	435.10	0.00	0.00	0.00	0.00	
9800.00	90.00	356.68	9412.00	534.95	77.82	534.93	0.00	0.00	0.00	0.00	
9900.00	90.00	356.68	9412.00	634.78	72.02	634.77	0.00	0.00	0.00	0.00	
10000.00	90.00	356.68	9412.00	734.61	66.23	734.60	0.00	0.00	0.00	0.00	
10100.00	90.00	356.68	9412.00	834.44	60.43	834.43	0.00	0.00	0.00	0.00	
10200.00	90.00	356.68	9412.00	934.27	54.63	934.27	0.00	0.00	0.00	0.00	
10300.00	90.00	356.68	9412.00	1034.11	48.83	1034.10	0.00	0.00	0.00	0.00	
10400.00	90.00	356.68	9412.00	1133.94	43.03	1133.93	0.00	0.00	0.00	0.00	
10500.00	90.00	356.68	9412.00	1233.77	37.24	1233.76	0.00	0.00	0.00	0.00	
10600.00	90.00	356.68	9412.00	1333.60	31.44	1333.60	0.00	0.00	0.00	0.00	
10700.00	90.00	356.68	9412.00	1433.43	25.64	1433.43	0.00	0.00	0.00	0.00	
10800.00	90.00	356.68	9412.00	1533.26	19.84	1533.26	0.00	0.00	0.00	0.00	
10900.00	90.00	356.68	9412.00	1633.10	14.04	1633.09	0.00	0.00	0.00	0.00	
11000.00	90.00	356.68	9412.00	1732.93	8.25	1732.93	0.00	0.00	0.00	0.00	
11100.00	90.00	356.68	9412.00	1832.76	2.45	1832.76	0.00	0.00	0.00	0.00	
11147.32	90.00	356.68	9412.00	1880.00	-0.30	1880.00	0.00	0.00	0.00	0.00	P5

Targets

Name	Description	TVD	+N/-S	+E/-W	Map Northing	Map Easting	Latitude Deg Min Sec	Longitude Deg Min Sec
P5		9412.00	1880.00	-0.30	746129.58	905897.82	33 2 43.537 N	103 8 37.072 W

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
	0.00	RUSTLER		0.00	0.00
	0.00	YATES		0.00	0.00
	0.00	SEVEN RIVERS		0.00	0.00
	0.00	QUEEN		0.00	0.00
	0.00	GRAYBURG		0.00	0.00
	0.00	SAN ANDRES		0.00	0.00
	0.00	GLORIETA		0.00	0.00
	0.00	BLINEBRY		0.00	0.00
	0.00	TUBB		0.00	0.00
	0.00	DRINKARD		0.00	0.00
	0.00	ABO		0.00	0.00
9420.89	9376.00	WOLFCAMP		0.00	0.00

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Proposal Plan Report



Weatherford

Company: Cimarex	Date: 2/28/2008	Time: 13:36:22	Page: 3
Field: Lea Co., NM (NAD:83)	Co-ordinate(NE) Reference:	Site: HUMBOLDT 6 STATE COM: True North	
Site: HUMBOLDT 6 STATE COM	Vertical (TVD) Reference:	SITE 3798.0	
Well: #1	Section (VS) Reference:	Well (0:00N,0:00E,359:99Azi)	
Wellpath: LATERAL	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Annotation

MD ft	TVD ft	
9155.87	9153.19	TIE ON TOP WHIP
9163.43	9160.72	BTM OF WHIP
9168.43	9165.70	BUILD/TURN
9555.67	9412.00	LP
11147.31	9412.00	PBHL

Casing Points

MD	TVD	Diameter	Hole Size	Name

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CIMAREX
Humboldt 6 State Com #1
Lea County, NM

Section 3

Weatherford Final BHA Reports

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BHA Report

Drilling & Evaluation Services
v4.2.2384

BHA 1 - Curve Section

FILE #: 4013839

JOB TYPE: Horizontal

RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1

COMPANY: Cimarex Energy Company

SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Guy Embry

DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright

MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

BHA SURVEY TYPE: Positive Pulse MWD

HOLE SIZE: 4.75 in

QTY	COMPONENT	MANFCT.	SERIAL #	MODEL	O.D.	I.D.	F.N.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	Tri-Cone Bit	Hughes	5141654	STX - 30C	4.75	0	0		2 7/8" REG Pin	0.50 ft	0.50 ft
1	Drilling Motor	WFT-PES	375-2666	LN7823	3.75	0	0.67	2 7/8" REG Box	2 7/8" REG Box	17.40 ft	17.90 ft
1	X/O Float Sub	WFT	259660		3.75	1	0	2 7/8" REG Pin	2 7/8" PH6 Box	2.60 ft	20.50 ft
1	Tensor UBHO Sub	WFT	350015	Tensor UBHO	3.6875	2.25	0	2 7/8" PH6 Pin	2 7/8" PH6 Box	2.40 ft	22.90 ft
1	Flex NMDC	WFT-PES	375-10002		3.75	2.125	3	2 7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	42.92 ft
1	Flex NMDC	WFT	375-10003		3.75	2.125	3	2 7/8" PH6 Pin	2 7/8" PH6 Box	19.86 ft	62.78 ft
1	Flex NMDC	WFT	375-10006		3.75	2.125	3	2 7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	82.80 ft
1	Gyro UBHO Sub	WFT	NN #1	Gyro UBHO	3.6875	2.375	0	2 7/8" PH6 Pin	2 7/8" PH6 Box	2.13 ft	84.93 ft
1	X/O Sub	WFT	350-004		3.75	2.125	0	2 7/8" PH6 Pin	2 7/8" AOH Box	2.91 ft	87.84 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

GENERAL INFORMATION

DATES RUN: 2008/02/29 TO 2008/03/01
DEPTH IN: 9173.00 ft ANGLE IN: 3.68 °
DEPTH OUT: 9282.00 ft ANGLE OUT: 27.40 °
DRILL HRS: 12.42 BUILD: 23.72 °
ORIENTING HRS: 12.42 HOLE MADE: 109.00 ft
ROTATING HRS: 0.00 AVG R.O.P.: 8.78 ft/hr

MOTOR INFORMATION

MANFCT. WFT-PES SETTING: 2.77 °
SERIAL #: 375-2666 KICK PAD: No
MODEL: LN7823 STABILIZER: No
LOBE CFG: 7/8 MOTOR HRS: 12.92
BIT TO BEND: 3.66

PUMP INFORMATION

PUMPS	PUMP 1	PUMP 2	PUMP 3
EFFICIENCY:	95.0%	95.0%	100.0%
S.P.M.:	0	80	0
STROKE VOLUME:	0.0 gal/stk	1.3759 gal/stk	0.0 gal/stk
TOTAL FLOW RATE:	104.56979 gal/min		
PUMP PRESSURE:	OFF BTM: 1050 psi	ON BTM: 1150 psi	

MUD INFORMATION

MUD TYPE: Brine or Salt LIQUID BASE: Water
DENSITY: 8.5 lb/gal TEMP: 0 °F
VISCOSITY: 28 sec/qt pH: 12
WTR LOSS: 0 cc/30min SAND: 0 LIQUID RATE: 0 gal/min
PLAST VISC: 1 cP SOLIDS: 0 GAS TYPE:
YIELD PT: 1 lb/100 ft² OIL: 0 GAS RATE: 0 cu ft/min

BIT INFORMATION

MANFCT: Hughes TYPE: STX - 30C IADC BIT GRADE: 8 / 8 / BT / M / E / I / BT / DTF
NOZZLES: 16, 16, 16, n/a: 0.589 in² TFA

REASON FOR BHA CHANGE

TOH to reprogram MWD to send gamma to surface. MWD tool was programmed wrong before being sent downhole.

FORMATION CHARACTERISTICS

This formation here produced alot more build than the last well we did out here just about a mile away did going in the same direction. We went in on this run with a 2.77 that was suppose to produce 25° and got 36° to 38° BR's.

MWD COMMENTS

MWD tool worked fine but the MWD hands programed the tool wrong. They programed it for direction only with no gamma. So when we got on bottom we were receiving no gamma counts.

BHA Report

BHA 1 - Curve Section

SIDETRACKING PROCEDURE COMMENTS

RUN SUMMARY

We had no problems on this run other than the MWD tool not being programed to send gamma counts. But this BHA produced 36 to 38 degree build rates on a motor setting that was projected to produce 25's. So the MWD guys actually did us a favor because we would have had to come out of the hole to dial this motor down anyway.

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BHA Report

BHA 2 - Curve Section

Drilling & Evaluation Services
v4 2 2384

FILE #: 4013839

JOB TYPE: Horizontal

RIG & NO: Key 115

WELL NAME: Humboldt 6 State Corn #1

COMPANY: Cimarex Energy Company

SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Lee Mermis, Guy Embry
DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright
MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

BHA SURVEY TYPE: Positive Pulse MWD

HOLE SIZE: 4.75 in

QTY	COMPONENT	MANFCT.	SERIAL #	MODEL	O.D.	I.D.	F.N.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	Tri-Cone Bit	Hughes	5141653	STX-30C	4.75	0	0		2 7/8" REG Pin	0.50 ft	0.50 ft
1	Drilling Motor	WFT-PES	375-2666	LN7823	3.75	0	0.67	2 7/8" REG Box	2 7/8" REG Box	17.40 ft	17.90 ft
1	X/O Float Sub	WFT	259660		3.75	1	0	2 7/8" REG Pin	2 7/8" PH6 Box	2.60 ft	20.50 ft
1	Tensor UBHO Sub	WFT	350015	Tensor UBHO	3.6875	2.25	0	2 7/8" PH6 Pin	2 7/8" PH6 Box	2.40 ft	22.90 ft
1	Flex NMDC	WFT-PES	375-10002		3.75	2.125	3	2 7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	42.92 ft
1	Flex NMDC	WFT	375-10003		3.75	2.125	3	2 7/8" PH6 Pin	2 7/8" PH6 Box	19.86 ft	62.78 ft
1	Flex NMDC	WFT	375-10006		3.75	2.125	3	2 7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	82.80 ft
1	X/O Sub	WFT	350-004		3.75	2.125	0	2 7/8" PH6 Pin	2 7/8" AOH Box	2.91 ft	85.71 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

GENERAL INFORMATION

DATES RUN: 2008/03/01 TO 2008/03/02
DEPTH IN: 9282.00 ft ANGLE IN: 27.40 °
DEPTH OUT: 9381.00 ft ANGLE OUT: 56.20 °
DRILL HRS: 9.25 BUILD: 28.80 °
ORIENTING HRS: 9.25 HOLE MADE: 99.00 ft
ROTATING HRS: 0.00 AVG R.O.P.: 10.70 ft/hr

MOTOR INFORMATION

MANFCT. WFT-PES SETTING: 2.12 °
SERIAL #: 375-2666 KICK PAD: No
MODEL: LN7823 STABILIZER: No
LOBE CFG: 7/8 MOTOR HRS: 13.25
BIT TO BEND: 3.66

PUMP INFORMATION

PUMPS	PUMP 1	PUMP 2	PUMP 3
EFFICIENCY:	95.0%	95.0%	100.0%
S.P.M.:	0	90	0
STROKE VOLUME:	0.0 gal/stk	1.3759 gal/stk	0.0 gal/stk
TOTAL FLOW RATE:	117.64101 gal/min		
PUMP PRESSURE:	OFF BTM: 1150 psi	ON BTM: 1350 psi	

MUD INFORMATION

MUD TYPE: Brine or Salt LIQUID BASE: Water
DENSITY: 8.5 lb/gal TEMP: 0 °F
VISCOSITY: 28 sec/qt pH: 12
WTR LOSS: 0 cc/30min SAND: 0 LIQUID RATE: 0 gal/min
PLAST VISC: 1 cP SOLIDS: 0 GAS TYPE:
YIELD PT: 1 lb/100 ft² OIL: 0 GAS RATE: 0 cu ft/min

BIT INFORMATION

MANFCT: Hughes TYPE: STX-30C IADC BIT GRADE: 8 / 4 / BT / A / E / I / BT / BHA
NOZZLES: 16, 16, 16, n/a: 0.589 in² TFA

REASON FOR BHA CHANGE

Getting to far ahead in our build rates need to dial mtr. down to a 1.83 setting that is rotatable. This 2.12 setting projected build rates were 18 and we are getting 25 to 26 BR's. Company man does not want to sign off to rotate 2.12 bend.

FORMATION CHARACTERISTICS

Dolomite real hard here, very little shale if any. We have been getting alot more build than the motor handbooks projected build rates.

MWD COMMENTS

MWD performed great with no issues or problems!! Great job by hands on location and all the tools and surface equipment. Great job guys!!

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HOBBS OCD

BHA Report

BHA 2 - Curve Section

SIDETRACKING PROCEDURE COMMENTS

RUN SUMMARY

A good run except the mtr was giving us almost double the build rate that motor handbook projected? We only need 6's to land curve from where we are now. So have to POOH to dial mtr down to a 1.83 setting that is rotatable.

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BHA Report

BHA 3 - Curve Section

Drilling & Evaluation Services
v4.2.2384

FILE #: 4013839

JOB TYPE: Horizontal

RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1

COMPANY: Cimarex Energy Company

SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Lee Mermis

DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright

MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

BHA SURVEY TYPE: Positive Pulse MWD

HOLE SIZE: 4.75 in

QTY	COMPONENT	MANFCT.	SERIAL #	MODEL	O.D.	I.D.	F.N.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	Tri-Cone Bit	Hughes	5139298	STX-30C	4.75	0	0		2 7/8" REG Pin	0.50 ft	0.50 ft
1	Drilling Motor	WFT-PES	375-2666	LN7823	3.75	0	0.67	2 7/8" REG Box	2 7/8" REG Box	17.40 ft	17.90 ft
1	X/O Float Sub	WFT	259660		3.75	1	0	2 7/8" REG Pin	2 7/8" PH6 Box	2.60 ft	20.50 ft
1	Tensor UBHO Sub	WFT	350015	Tensor UBHO3.6875	2.25	0	0	2 7/8" PH6 Pin	2 7/8" PH6 Box	2.40 ft	22.90 ft
1	Flex NMDC	WFT-PES	375-10002		3.75	2.125	3	2 7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	42.92 ft
1	Flex NMDC	WFT	375-10003		3.75	2.125	3	2 7/8" PH6 Pin	2 7/8" PH6 Box	19.86 ft	62.78 ft
1	Flex NMDC	WFT	375-10006		3.75	2.125	3	2 7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	82.80 ft
1	X/O Sub	WFT	350-004		3.75	2.125	0	2 7/8" PH6 Pin	2 7/8" AOH Box	2.91 ft	85.71 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

— GENERAL INFORMATION —

DATES RUN: 2008/03/02 TO 2008/03/04
DEPTH IN: 9381.00 ft ANGLE IN: 66.50 °
DEPTH OUT: 9879.00 ft ANGLE OUT: 88.40 °
DRILL HRS: 37.75 BUILD: 21.90 °
ORIENTING HRS: 17.00 HOLE MADE: 498.00 ft
ROTATING HRS: 20.75 AVG R.O.P.: 13.19 ft/hr

— MOTOR INFORMATION —

MANFCT. WFT-PES SETTING: 1.83 °
SERIAL #: 375-2666 KICK PAD: No
MODEL: LN7823 STABILIZER: No
LOBE CFG: 7/8 MOTOR HRS: 44.00
BIT TO BEND: 3.66

— PUMP INFORMATION —

PUMPS	PUMP 1	PUMP 2	PUMP 3
EFFICIENCY:	95.0%	95.0%	100.0%
S.P.M.:	0	90	0
STROKE VOLUME:	0.0 gal/stk	1.3759 gal/stk	0.0 gal/stk
TOTAL FLOW RATE:	117.64101 gal/min		
PUMP PRESSURE:	OFF BTM: 1250 psi	ON BTM: 1450 psi	

— MUD INFORMATION —

MUD TYPE: Brine or Salt LIQUID BASE: Water
DENSITY: 8.5 lb/gal TEMP: 0 °F
VISCOSITY: 28 sec/qt pH: 11
WTR LOSS: 0 cc/30min SAND: 0.01 LIQUID RATE: 0 gal/min
PLAST VISC: 1 cP SOLIDS: 0 GAS TYPE:
YIELD PT: 1 lb/100 ft² OIL: 0 GAS RATE: 0 cu ft/min

— BIT INFORMATION —

MANFCT: Hughes TYPE: STX-30C IADC BIT GRADE: 2 / 2 / NO / A / E / 1 / NO / BHA
NOZZLES: 16, 16, 16, n/a: 0.589 in² TFA

— REASON FOR BHA CHANGE —

Close to 40 hours on bit and we have landed the curve section so need to pick up lateral BHA with a PDC bit. So we can turn and burn and make up for time we spent tripping out of hole to dial motors down in our curve section!!

— FORMATION CHARACTERISTICS —

This formation has been 100% dolomite and has produced anywhere from 20 to 40% more build rates than the motor handbooks projected build rates.

— MWD COMMENTS —

MWD has performed flawlessly since being programed right. Great job by the hands on location and all the tools and surface equipment. Job well done guys!!

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BHA Report

BHA 3 - Curve Section

SIDETRACKING PROCEDURE COMMENTS

RUN SUMMARY

This BHA performed great producing more than projected build rates. This motor has performed without a single stall in three separate BHA's. We landed the curve after getting so far ahead in our build rates @ MD 9677 - Inc-90.10 / Az-354.99 @TVD 9411.13. We were within 10" of the plans landing TVD of 9412.00 but since we had gotten so far ahead in our BR's we lost approx. 100 ft. of section.

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BHA Report

BHA 4 - Lateral Section

Drilling & Evaluation Services
v4 2 2384

FILE #: 4013839

JOB TYPE: Horizontal

RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1

COMPANY: Cimarex Energy Company

SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Lee Mermis

DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright

MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

BHA SURVEY TYPE: Positive Pulse MWD

HOLE SIZE: 4.75 in

QTY	COMPONENT	MANFCT.	SERIAL #	MODEL	O.D.	I.D.	F.N.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	PDC Bit	Hughes	7009672	HC306Z	4.75	0	0		2 7/8" REG Pin	0.75 ft	0.75 ft
1	Drilling Motor	WFT-PES	375-723	LE7867	3.75	0	0.63	2 7/8" REG Box	2 7/8" REG Box	20.58 ft	21.33 ft
1	X/O Float Sub	WFT	259660		3.75	1	0	2 7/8" REG Pin	2 7/8" PH6 Box	2.60 ft	23.93 ft
1	Tensor UBHO Sub	WFT	350015	Tensor UBHO3.6875	2.25	0		2 7/8" PH6 Pin	2 7/8" PH6 Box	2.40 ft	26.33 ft
1	Flex NMDC	WFT-PES	375-10002		3.75	2.125	3	2 7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	46.35 ft
1	Flex NMDC	WFT	375-10003		3.75	2.125	3	2 7/8" PH6 Pin	2 7/8" PH6 Box	19.86 ft	66.21 ft
1	Flex NMDC	WFT	375-10006		3.75	2.125	3	2 7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	86.23 ft
1	X/O Sub	WFT	350-004		3.75	2.125	0	2 7/8" PH6 Pin	2 7/8" AOH Box	2.91 ft	89.14 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

GENERAL INFORMATION

DATES RUN: 2008/03/04 TO 2008/03/07
DEPTH IN: 9879.00 ft ANGLE IN: 89.60 °
DEPTH OUT: 11110.00 ft ANGLE OUT: 90.50 °
DRILL HRS: 38.75 BUILD: 0.90 °
ORIENTING HRS: 10.50 HOLE MADE: 1263.00 ft
ROTATING HRS: 28.25 AVG R.O.P.: 32.59 ft/hr

MOTOR INFORMATION

MANFCT. WFT-PES SETTING: 1.83 °
SERIAL #: 375-723 KICK PAD: No
MODEL: LE7867 STABILIZER: No
LOBE CFG: 7/8 MOTOR HRS: 55.50
BIT TO BEND: 3.65

PUMP INFORMATION

PUMPS	PUMP 1	PUMP 2	PUMP 3
EFFICIENCY:	95.0%	95.0%	100.0%
S.P.M.:	0	90	0
STROKE VOLUME:	0.0 gal/stk	1.3759 gal/stk	0.0 gal/stk
TOTAL FLOW RATE:	117.64101 gal/min		
PUMP PRESSURE:	OFF BTM: 1550 psi	ON BTM: 1900 psi	

MUD INFORMATION

MUD TYPE: Brine or Salt LIQUID BASE: Water
DENSITY: 8.7 lb/gal TEMP: 0 °F
VISCOSITY: 29 sec/qt pH: 9
WTR LOSS: 0 cc/30min SAND: 0.1 LIQUID RATE: 0 gal/min
PLAST VISC: 1 cP SOLIDS: 0 GAS TYPE:
YIELD PT: 0 lb/100 ft² OIL: 98.7 GAS RATE: 0 cu ft/min

BIT INFORMATION

MANFCT: Hughes TYPE: HC306Z IADC BIT GRADE: 1 / 1 / NO / A / 1 / 1 / NO / TD
NOZZLES: 16, 16, 13, 13: 0.652 in² TFA

REASON FOR BHA CHANGE

TD'ed Well @ MD 11110.00

FORMATION CHARACTERISTICS

We received more than expected build rates continuously on this entire job.

MWD COMMENTS

MWD worked well but we had a few times where tool didn't want to sych up and took on a couple of occasions up to 30-45 minutes to get an entire survey on one try.

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BHA Report

BHA 4 - Lateral Section

SIDETRACKING PROCEDURE COMMENTS

RUN SUMMARY

Good run with no issues with motor. Drilled this run with an avg ROP of 50 to 60 fph.

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Humboldt 6 State Com #1

BHA NO.: 1

ITEM#	QTY	COMPONENT	SERIAL #	DETAIL	BOT OD	TOP OD	I.D.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	1	Tri-Cone Bit	5141654		0	4.75	0		2 7/8" REG Pin	0.50 ft	0.50 ft
2	1	Drilling Motor	375-2666	3.75	0	3.75	0	2 7/8" REG Box	2 7/8" REG Box	17.40 ft	17.90 ft
3	1	X/O Float Sub	259660	3.75	3.75	3.75	1	2 7/8" REG Pin	2 7/8" PH6 Box	2.60 ft	20.50 ft
4	1	Tensor UBHO Sub	350015	3.6875	3.6875	3.687	2.25	2 7/8" PH6 Pin	2 7/8" PH6 Box	2.40 ft	22.90 ft
5	1	Flex NMDC	375-10002	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	42.92 ft
6	1	Flex NMDC	375-10003	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" PH6 Box	19.86 ft	62.78 ft
7	1	Flex NMDC	375-10006	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	82.80 ft
8	1	Gyro UBHO Sub	NN #1	3.6875	3.6875	3.687	2.3752	7/8" PH6 Pin	2 7/8" PH6 Box	2.13 ft	84.93 ft
9	1	X/O Sub	350-004	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" AOH Box	2.91 ft	87.84 ft

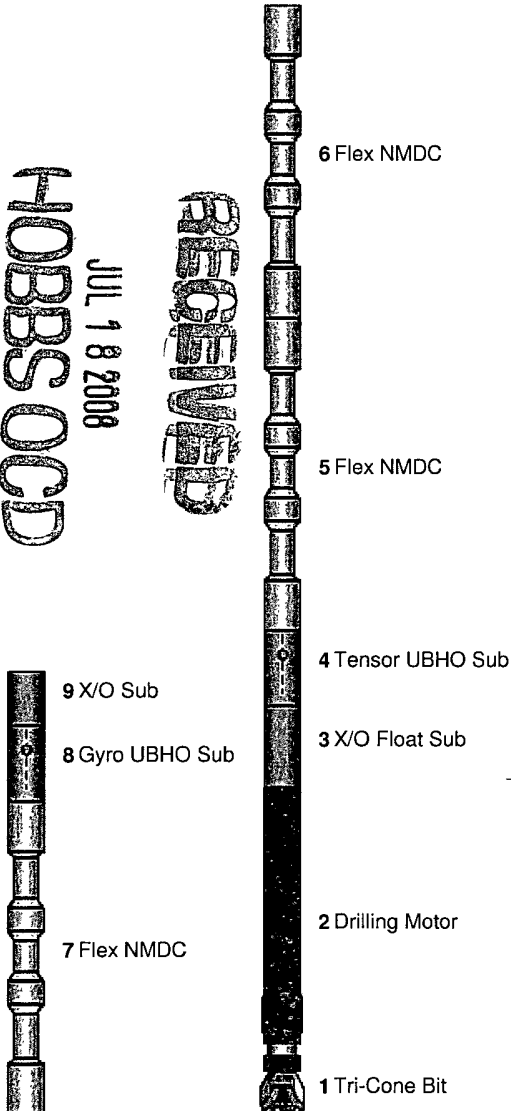
(O.D. units are in; I.D. units are in; FNeck units are,ft)

TOTAL:

87.84 ft

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JUL 18 2008

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COMMENTS

Humboldt 6 State Com #1

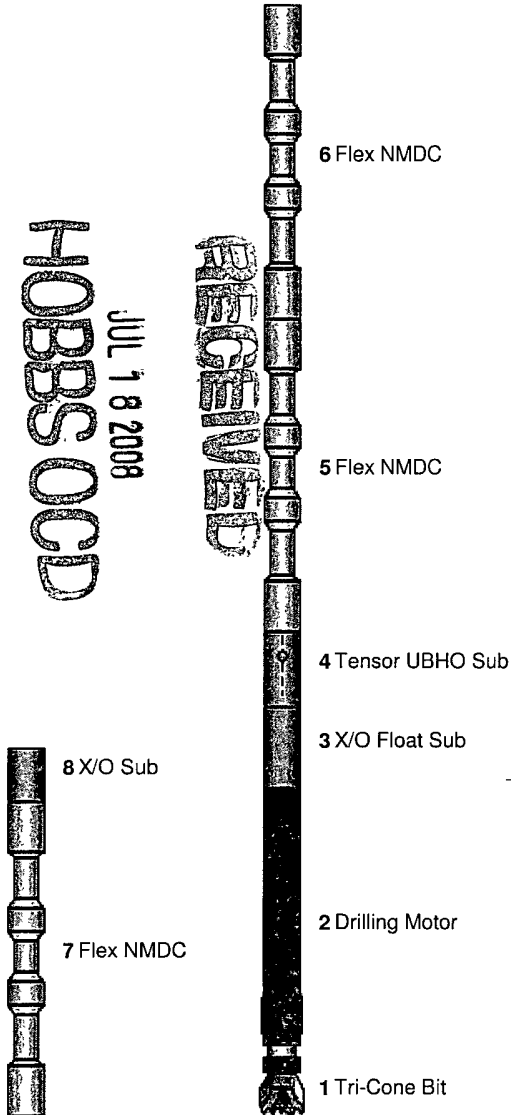
BHA NO.: 2

ITEM#	QTY	COMPONENT	SERIAL #	DETAIL	BOT OD	TOP OD	I.D.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	1	Tri-Cone Bit	5141653		0	4.75	0		2 7/8" REG Pin	0.50 ft	0.50 ft
2	1	Drilling Motor	375-2666	3.75	0	3.75	0	2 7/8" REG Box	2 7/8" REG Box	17.40 ft	17.90 ft
3	1	X/O Float Sub	259660	3.75	3.75	3.75	1	2 7/8" REG Pin	2 7/8" PH6 Box	2.60 ft	20.50 ft
4	1	Tensor UBHO Sub	350015	3.6875	3.6875	3.687	2.25	2 7/8" PH6 Pin	2 7/8" PH6 Box	2.40 ft	22.90 ft
5	1	Flex NMDC	375-10002	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	42.92 ft
6	1	Flex NMDC	375-10003	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" PH6 Box	19.86 ft	62.78 ft
7	1	Flex NMDC	375-10006	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	82.80 ft
8	1	X/O Sub	350-004	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" AOH Box	2.91 ft	85.71 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

TOTAL:

85.71 ft



COMMENTS

Humboldt 6 State Com #1

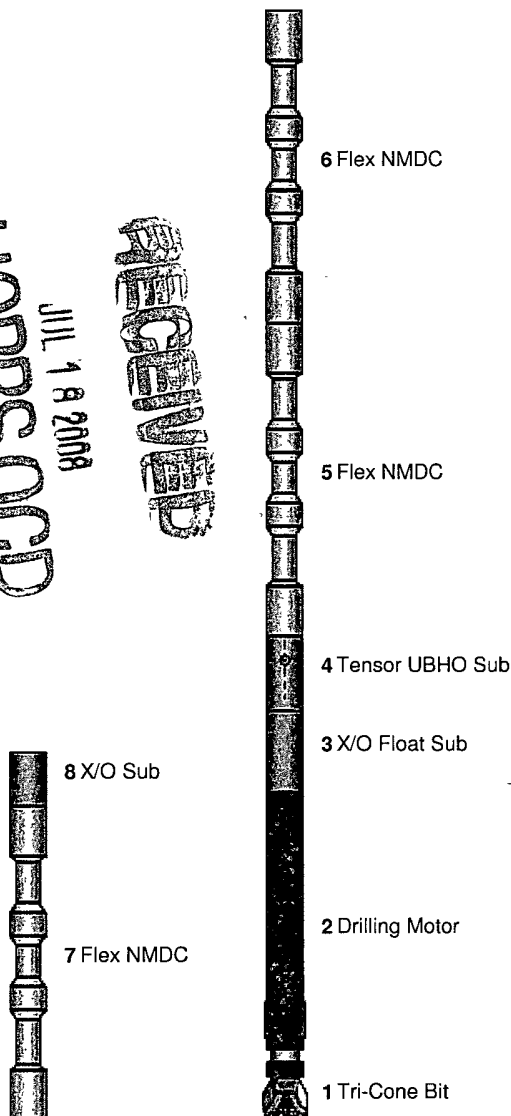
BHA NO.: 3

ITEM#	QTY	COMPONENT	SERIAL #	DETAIL	BOT OD	TOP OD	I.D.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	1	Tri-Cone Bit	5139298		0	4.75	0		2 7/8" REG Pin	0.50 ft	0.50 ft
2	1	Drilling Motor	375-2666	3.75	0	3.75	0	2 7/8" REG Box	2 7/8" REG Box	17.40 ft	17.90 ft
3	1	X/O Float Sub	259660	3.75	3.75	3.75	1	2 7/8" REG Pin	2 7/8" PH6 Box	2.60 ft	20.50 ft
4	1	Tensor UBHO Sub	350015	3.6875	3.6875	3.687	2.25	2 7/8" PH6 Pin	2 7/8" PH6 Box	2.40 ft	22.90 ft
5	1	Flex NMDC	375-10002	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	42.92 ft
6	1	Flex NMDC	375-10003	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" PH6 Box	19.86 ft	62.78 ft
7	1	Flex NMDC	375-10006	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	82.80 ft
8	1	X/O Sub	350-004	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" AOH Box	2.91 ft	85.71 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

TOTAL: 85.71 ft

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 JUL 18 2008



COMMENTS

Humboldt 6 State Com #1

BHA NO.: 4

ITEM#	QTY	COMPONENT	SERIAL #	DETAIL	BOT OD	TOP OD	I.D.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	1	PDC Bit	7009672		0	4.75	0		2 7/8" REG Pin	0.75 ft	0.75 ft
2	1	Drilling Motor	375-723	3.75	0	3.75	0	2 7/8" REG Box	2 7/8" REG Box	20.58 ft	21.33 ft
3	1	X/O Float Sub	259660	3.75	3.75	3.75	1	2 7/8" REG Pin	2 7/8" PH6 Box	2.60 ft	23.93 ft
4	1	Tensor UBHO Sub	350015	3.6875	3.6875	3.687	2.25	2 7/8" PH6 Pin	2 7/8" PH6 Box	2.40 ft	26.33 ft
5	1	Flex NMDC	375-10002	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	46.35 ft
6	1	Flex NMDC	375-10003	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" PH6 Box	19.86 ft	66.21 ft
7	1	Flex NMDC	375-10006	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" PH6 Box	20.02 ft	86.23 ft
8	1	X/O Sub	350-004	3.75	3.75	3.75	2.1252	7/8" PH6 Pin	2 7/8" AOH Box	2.91 ft	89.14 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

TOTAL: 89.14 ft

HOBBS OGD

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6 Flex NMDC

5 Flex NMDC

4 Tensor UBHO Sub

3 X/O Float Sub

8 X/O Sub

7 Flex NMDC

2 Drilling Motor

1 PDC Bit

— COMMENTS —



Motor / RSS Evaluation Report Drilling & Evaluation Services

v4 2.2384

BHA 1 - Curve Section, Motor #375-2666

FILE #: 4013839
JOB TYPE: Horizontal
RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1
COMPANY: Cimarex Energy Company
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services
SURVEY TYPE: Positive Pulse MWD
FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Guy Embry
DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright
MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

BHA SURVEY TYPE: Positive Pulse MWD

HOLE SIZE: 4.75 in

GENERAL INFORMATION:

BHA #: 1
DATE IN: 2008/02/29
DATE OUT: 2008/03/01
ANGLE IN: 3.68 °
ANGLE OUT: 27.40 °
ORIENTING HRS: 12.42
START DEPTH: 9173.00 ft
END DEPTH: 9282.00 ft
HOLE MADE: 109.00 ft
AVG ROP: 8.78 ft/hr
ROTATING HRS: 0.00

MOTOR INFORMATION:

MANFCT: WFT-PES
SERIAL #: 375-2666
MODEL: LN7823
LOBE: 7/8
SETTING: 2.77 °
BIT TO BEND: 3.66 ft
KICKPAD: No
STABILIZER: No

DRILLING INFORMATION:

BIT TYPE: STX - 30C
BIT PRESS DROP: 0.00 psi
MTR PRESS DROP: 0.00 psi
IADC BIT GRADE: 8 / 8 / BT / M / E / I / BT / DTF
TOTAL FLOW RATE: 104.57 gal/min
NOZZLES: 16, 16, 16, n/a: 0.589 in² TFA
PUMP PRESS: (OFF) 1050.00 psi
(ON) 1150.00 psi

MUD INFORMATION:

MUD TYPE: Brine or Salt
DENSITY: 9 lb/gal
SAND: 0.000
SOLIDS: 0.000
OIL: 0.000
TEMP: 0 °F
LIQUID BASE: Water
VISCOSITY: 28 sec/qt
WATER LOSS: 0.00 cc/30min
PLASTIC VISC: 1.0 cP
YIELD POINT: 1.0 lb/100 ft²
pH: 12.0
LIQUID RATE: 0.00 gal/min
GAS TYPE:
GAS RATE: 0.00 cu ft/min
(All units are imperial.)

TIME INFORMATION:

CIRCULATING HOURS: 0.50
REAMING HOURS: 0.00
TIME DRILL HOURS: 0.00
MOTOR DRILL HOURS: 12.42
MOTOR HOURS THIS RUN: 12.92
PREVIOUS HOURS: 0.00
TOTAL MOTOR HOURS: 12.92
TOTAL BRT HOURS: 12.92

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MOTOR EVALUATION COMMENTS:

Motor performed with out any issues. Will rerun this motor in the next BHA.

REASON FOR BHA CHANGE:

TOH to reprogram MWD to send gamma to surface. MWD tool was programmed wrong before being sent downhole.

COMMENTS FROM LAST DAY RAN:

Presently drilling ahead in the curve section.

We will be coming out of the hole later today so that the MWD field hands can reprogram their tool to send gamma readings to surface. Tool was not programmed right before being sent downhole.

BHA 1 - Curve Section, Motor #375-2666

Dialed mtr dn to a 2.12 - We're getting ahead of the curve, we need between 14 and 15 BR's from here to land curve. The 2.12 mtr setting is projected to produce 18's and this setting should give us the build rate needed to land @ 9412 TVD.

After TOH and inspecting the bit we found the bit to be missing all the teeth except for on the gauge row. So we picked up another bit and before tagging bottom to resume drilling ahead we pumped a 5 gallon sweep and surged hole to try and clean any debri that might be on btm causing this unnormal wear on the bit.

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HOBBS OCD

BHA 2 - Curve Section, Motor #375-2666

FILE #: 4013839	WELL NAME: Humboldt 6 State Com #1	SERVICE CO.: Weatherford Directional Services
JOB TYPE: Horizontal	COMPANY: Cimarex Energy Company	SURVEY TYPE: Positive Pulse MWD
RIG & NO: Key 115	SURFACE LOCATION:	FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Lee Mermis, Guy Embry
DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright
MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

BHA SURVEY TYPE: Positive Pulse MWD

HOLE SIZE: 4.75 in

GENERAL INFORMATION:

BHA #: 2	START DEPTH: 9282.00 ft
DATE IN: 2008/03/01	END DEPTH: 9381.00 ft
DATE OUT: 2008/03/02	HOLE MADE: 99.00 ft
ANGLE IN: 27.40 °	AVG ROP: 10.70 ft/hr
ANGLE OUT: 56.20 °	
ORIENTING HRS: 9.25	ROTATING HRS: 0.00

MOTOR INFORMATION:

MANFCT: WFT-PES	
SERIAL #: 375-2666	
MODEL: LN7823	
LOBE: 7/8	BIT TO BEND: 3.66 ft
SETTING: 2.12 °	KICKPAD: No
	STABILIZER: No

DRILLING INFORMATION:

BIT TYPE: STX-30C	IADC BIT GRADE: 8 / 4 / BT / A / E / I / BT / BHA	
BIT PRESS DROP: 0.00 psi	TOTAL FLOW RATE: 117.64 gal/min	PUMP PRESS: (OFF) 1150.00 psi
MTR PRESS DROP: 0.00 psi	NOZZLES: 16, 16, 16, n/a: 0.589 in ² TFA	(ON) 1350.00 psi

MUD INFORMATION:

MUD TYPE: Brine or Salt	LIQUID BASE: Water	(All units are imperial.)
DENSITY: 9 lb/gal	VISCOSITY: 28 sec/qt	
SAND: 0.000	WATER LOSS: 0.00 cc/30min	LIQUID RATE: 0.00 gal/min
SOLIDS: 0.000	PLASTIC VISC: 1.0 cP	GAS TYPE:
OIL: 0.000	YIELD POINT: 1.0 lb/100 ft ²	GAS RATE: 0.00 cu ft/min
TEMP: 0 °F	pH: 12.0	

TIME INFORMATION:

CIRCULATING HOURS:	4.00
REAMING HOURS:	0.00
TIME DRILL HOURS:	0.00
MOTOR DRILL HOURS:	9.25
MOTOR HOURS THIS RUN:	13.25
PREVIOUS HOURS:	12.92
TOTAL MOTOR HOURS:	26.17
TOTAL BRT HOURS:	13.25


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MOTOR EVALUATION COMMENTS:

Mtr still strong - never stalled not once since we have been using it!! This is a Precision made motor I can tell!! We will re-run this motor in BHA #3.

REASON FOR BHA CHANGE:

Getting to far ahead in our build rates need to dial mtr. down to a 1.83 setting that is rotatable. This 2.12 setting projected build rates were 18 and we are getting 25 to 26 BR's. Company man does not want to sign off to rotate 2.12 bend.

COMMENTS FROM LAST DAY RAN:

After just drilling far enough ahead to see all new motor with the 2.12 setting were still getting way to much build. This motor setting that was projected to produce 18 BR's is giving us 26's. So we stopped drilling and discussed with the company man our situation to determine our best course of action. It was decided to TOH to dial mtr down to a 1.83 setting that is rotatable and to go back in

BHA 2 - Curve Section, Motor #375-2666

and try to rotate and still land at the target TVD of 9412 with as little section loss as possible.

Upon inspection on surface the bit ran on BHA #2 had to be changed out for BHA #3 because it was also missing teeth.

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BHA 3 - Curve Section, Motor #375-2666

FILE #: 4013839
JOB TYPE: Horizontal
RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1
COMPANY: Cimarex Energy Company
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services
SURVEY TYPE: Positive Pulse MWD
FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Lee Mermis
DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright
MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

BHA SURVEY TYPE: Positive Pulse MWD

HOLE SIZE: 4.75 in

GENERAL INFORMATION:

BHA #: 3
DATE IN: 2008/03/02
DATE OUT: 2008/03/04
ANGLE IN: 66.50 °
ANGLE OUT: 88.40 °
ORIENTING HRS: 17.00
START DEPTH: 9381.00 ft
END DEPTH: 9879.00 ft
HOLE MADE: 498.00 ft
AVG ROP: 13.19 ft/hr
ROTATING HRS: 20.75

MOTOR INFORMATION:

MANFCT: WFT-PES
SERIAL #: 375-2666
MODEL: LN7823
LOBE: 7/8
SETTING: 1.83 °
BIT TO BEND: 3.66 ft
KICKPAD: No
STABILIZER: No

DRILLING INFORMATION:

BIT TYPE: STX-30C
BIT PRESS DROP: 0.00 psi
MTR PRESS DROP: 0.00 psi
IADC BIT GRADE: 2 / 2 / NO / A / E / I / NO / BHA
TOTAL FLOW RATE: 117.64 gal/min
NOZZLES: 16, 16, 16, n/a: 0.589 in² TFA
PUMP PRESS: (OFF) 1250.00 psi
(ON) 1450.00 psi

MUD INFORMATION:

MUD TYPE: Brine or Salt
DENSITY: 9 lb/gal
SAND: 0.010
SOLIDS: 0.000
OIL: 0.000
TEMP: 0 °F
LIQUID BASE: Water
VISCOSITY: 28 sec/qt
WATER LOSS: 0.00 cc/30min
PLASTIC VISC: 1.0 cP
YIELD POINT: 1.0 lb/100 ft²
pH: 11.0
LIQUID RATE: 0.00 gal/min
GAS TYPE:
GAS RATE: 0.00 cu ft/min
(All units are imperial.)

TIME INFORMATION:

CIRCULATING HOURS: 6.25
REAMING HOURS: 0.00
TIME DRILL HOURS: 0.00
MOTOR DRILL HOURS: 37.75
MOTOR HOURS THIS RUN: 44.00
PREVIOUS HOURS: 26.17
TOTAL MOTOR HOURS: 70.17
TOTAL BRT HOURS: 44.00

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MOTOR EVALUATION COMMENTS:

This motor performed like a champ. We ran this motor with three different bend settings on all of our first three BHA's. Motor never stalled not one time!!!

REASON FOR BHA CHANGE:

Close to 40 hours on bit and we have landed the curve section so need to pick up lateral BHA with a PDC bit. So we can turn and burn and make up for time we spent tripping out of hole to dial motors down in our curve section!!

COMMENTS FROM LAST DAY RAN:

We landed the curve section @MD 9677 with Inc-90.10/Az-354.99 at TVD-9411.13.

We are presently drilling ahead in the lateral section. We will be TOH today to pick up our lateral BHA with a pdc bit.

BHA 3 - Curve Section, Motor #375-2666

TOH to p/u lateral BHA and PDC bit @ MD 9879.

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BHA 4 - Lateral Section, Motor #375-723

FILE #: 4013839

JOB TYPE: Horizontal

RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1

COMPANY: Cimarex Energy Company

SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Lee Mermis

DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright

MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

BHA SURVEY TYPE: Positive Pulse MWD

HOLE SIZE: 4.75 in

GENERAL INFORMATION:

BHA #: 4
DATE IN: 2008/03/04
DATE OUT: 2008/03/07
ANGLE IN: 89.60 °
ANGLE OUT: 90.50 °
ORIENTING HRS: 10.50
START DEPTH: 9879.00 ft
END DEPTH: 11110.00 ft
HOLE MADE: 1263.00 ft
AVG ROP: 32.59 ft/hr
ROTATING HRS: 28.25

MOTOR INFORMATION:

MANFCT: WFT-PES
SERIAL #: 375-723
MODEL: LE7867
LOBE: 7/8
SETTING: 1.83 °
BIT TO BEND: 3.65 ft
KICKPAD: No
STABILIZER: No

DRILLING INFORMATION:

BIT TYPE: HC306Z
BIT PRESS DROP: 0.00 psi
MTR PRESS DROP: 0.00 psi
IADC BIT GRADE: 1 / 1 / NO / A / 1 / 1 / NO / TD
TOTAL FLOW RATE: 117.64 gal/min
NOZZLES: 16, 16, 13, 13: 0.652 in² TFA
PUMP PRESS: (OFF) 1550.00 psi
(ON) 1900.00 psi

MUD INFORMATION:

MUD TYPE: Brine or Salt
DENSITY: 9 lb/gal
SAND: 0.100
SOLIDS: 0.000
OIL: 98.700
TEMP: 0 °F
LIQUID BASE: Water
VISCOSITY: 29 sec/qt
WATER LOSS: 0.00 cc/30min
PLASTIC VISC: 1.0 cP
YIELD POINT: 0.0 lb/100 ft²
pH: 9.0
LIQUID RATE: 0.00 gal/min
GAS TYPE:
GAS RATE: 0.00 cu ft/min
(All units are imperial.)

TIME INFORMATION:

CIRCULATING HOURS: 16.75
REAMING HOURS: 0.00
TIME DRILL HOURS: 0.00
MOTOR DRILL HOURS: 38.75
MOTOR HOURS THIS RUN: 55.50
PREVIOUS HOURS: 0.00
TOTAL MOTOR HOURS: 55.50
TOTAL BRT HOURS: 55.50

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MOTOR EVALUATION COMMENTS:

MAY 18 2008
HOBBS OGD

REASON FOR BHA CHANGE:

TD'ed Well @ MD 11110.00

COMMENTS FROM LAST DAY RAN:

We have reached TD on this well @ MD 11110.

They are going to TOH laying down so we should see our tools late this afternoon. We will be shipping tools back to Midland later this evening depending on what time we get thru rigging down and cleaning up our living trailer whether or not we will be all traveling home tonite or early tomorrow morning.



Weatherford

CIMAREX
Humboldt 6 State Com #1
Lea County, NM

Section 4

Weatherford Final Daily Activity Reports

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Daily Activity Report

Drilling & Evaluation Services

v4.2 2384

Day 1 - 2008/02/27

FILE #: 4013839

JOB TYPE: Horizontal

RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1

COMPANY: Cimarex Energy Company

SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Guy Embry

DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright

MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

GROUND ELEV: 3782 ft

KB ELEV: 3803 ft

START DEPTH: 9173.0 ft

END DEPTH: 0.0 ft

PROGRESS: 0.0 ft

AVG. ROP.: 0.0 ft/hr

DAILY COST: USD\$11935.00

PREVIOUS COST: USD\$0.00

TOTAL COST: USD\$11935.00

WORK STATUS: Standby

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPH	BHA	TIME	DAILY ACTIVITY	HRS	DPH	BHA
00:00-08:00	Standby	8.00	0	n/a	10:00-18:45	Pick Up Drill Pipe - RIH tag btm&RigupMWD	8.75	0	n/a
08:00-09:00	Other - See Comments - arrived on location	1.00	0	n/a	18:45-21:30	Rig Service	2.75	0	n/a
09:00-10:00	Other - See Comments - unloaded tools	1.00	0	n/a	21:30-24:00	POOH - See Comments - TOH to p/u Whipstock	2.50	0	n/a

TIME SUMMARY (hrs):

MOTOR DRILL: 0.00	ORIENTING HRS: 0.00	ROTARY DRILL: 0.00
TIME DRILL: 0.00	ROTATING HRS: 0.00	MOTOR HRS: 0.00
MOTOR REAM: 0.00	TRIP: 2.50	
CIRC: 0.00	ROTARY DRILL: 0.00	OTHER: 21.50
MOTOR HRS: 0.00	DRILL HRS: 0.00	TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	STRING WEIGHT 0 lbs
WOB SLIDING (HI): 0 lbf	WOB ROTATE (HI): 0 lbf
WOB SLIDING (LO): 0 lbf	WOB ROTATE (LO): 0 lbf
RPM (ROTARY):	DRAG UP: 0 lbf
RPM (MOTOR):	DRAG DN: 0 lbf

BHA / MOTOR / BIT INFORMATION:

BHA:	HOLE SIZE:	SECTION TYPE:	SURVEY TYPE:
MANFCT.:	STABILIZER:	SERIAL#:	MODEL:
SETTING:	KICKPAD:	SIZE:	MTR HRS THIS DAY:
MANFCT:	BIT TYPE:	TYPE:	NOZZLES:
IADC BIT GRADE:			LOBE CFG.:
			MTR HRS TO DATE:

PUMP PARAMETERS

PRESSURE ON BTM: 0	PRESSURE OFF BTM: 0	TOTAL FLOW RATE: 0.00 gal/min
PUMP 1: TYPE: PZ-7	EFF.: 95.0% SPM: 0.00	LINER: 0.00 in
PUMP 2: TYPE: PZ-7	EFF.: 95.0% SPM: 0.00	LINER: 0.00 in
PUMP 3: TYPE:	EFF.: 100.0% SPM: 0.00	LINER: 0.00 in
		STROKE VOL.: 0.0000 gal/stk
		STROKE VOL.: 0.0000 gal/stk
		STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE:	VISC: 0 sec/qt	WTR LOSS: 0 cc/30min	PV: 0 cP	YP: 0 lb/100 ft ²	pH: 0
DENSITY: 0 lb/gal	GEL 0/10: 0.00 lb/100 ft ²	SAND: 0	SOLIDS: 0	OIL: 0	TEMP: 0 °F
LIQUID BASE:		LIQUID RATE: 0 gal/min	GAS TYPE:		GAS RATE: 0 cu ft/min

COMMENTS:

TIH tagged btm. TOH to p/u whipstock. Barring any unforeseen difficulties should be picking up Wft BHA #1 sometime tomorrow afternoon.

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Daily Activity Report

Drilling & Evaluation Services

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Day 2 - 2008/02/28

FILE #: 4013839

JOB TYPE: Horizontal

RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1

COMPANY: Cimarex Energy Company

SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Guy Embry

DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright

MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

GROUND ELEV: 3782 ft

START DEPTH: 0.0 ft

PROGRESS: 0.0 ft

DAILY COST: USD\$7575.00

KB ELEV: 3803 ft

END DEPTH: 0.0 ft

AVG. ROP.: 0.0 ft/hr

PREVIOUS COST: USD\$11935.00

TOTAL COST: USD\$19510.00

WORK STATUS: Standby

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:30	POOH - See Comments - p/u whipstock	0.50	0	n/a	09:00-10:00	POOH With Gyro	1.00	0	n/a
00:30-01:30	MU Whipstock	1.00	0	n/a	10:00-18:00	Mill Window	8.00	0	n/a
01:30-05:00	RIH With Whipstock	3.50	0	n/a	18:00-21:30	Circ & Condition Hole	3.50	0	n/a
05:00-09:00	Other - See Comments - SET WHIPSTOCK	4.00	0	n/a	21:30-24:00	POOH With Reamer	2.50	0	n/a

TIME SUMMARY (hrs):

MOTOR DRILL: 0.00
TIME DRILL: 0.00
MOTOR REAM: 0.00
CIRC: 0.00
MOTOR HRS: 0.00

ORIENTING HRS: 0.00
ROTATING HRS: 0.00
ROTARY DRILL: 0.00
ROTARY DRILL: 0.00
DRILL HRS: 0.00

ROTARY DRILL: 0.00
MOTOR HRS: 0.00
TRIP: 7.50
OTHER: 16.50
TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE:
WOB SLIDING (HI): 0 lbf
WOB SLIDING (LO): 0 lbf
RPM (ROTARY):
RPM (MOTOR):

STRING WEIGHT 0 lbs
WOB ROTATE (HI): 0 lbf
WOB ROTATE (LO): 0 lbf
DRAG UP: 0 lbf
DRAG DN: 0 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: MANFCT.: SETTING: MANFCT: IADC BIT GRADE:
HOLE SIZE: STABILIZER: KICKPAD: BIT TYPE:
SECTION TYPE: SERIAL#: SIZE: TYPE:
SURVEY TYPE: MODEL: MTR HRS THIS DAY: NOZZLES:
LOBE CFG.: MTR HRS TO DATE:

PUMP PARAMETERS

PRESSURE ON BTM: 0
PUMP 1: TYPE: PZ-7
PUMP 2: TYPE: PZ-7
PUMP 3: TYPE:
PRESSURE OFF BTM: 0
EFF.: 95.0%
EFF.: 95.0%
EFF.: 100.0%
SPM: 0.00
SPM: 0.00
SPM: 0.00
TOTAL FLOW RATE: 0.00 gal/min
LINER: 0.00 in
LINER: 0.00 in
LINER: 0.00 in
STROKE VOL.: 0.0000 gal/stk
STROKE VOL.: 0.0000 gal/stk
STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: VISC: 0 sec/qt
DENSITY: 0 lb/gal
LIQUID BASE:
WTR LOSS: 0 cc/30min
SAND: 0
LIQUID RATE: 0 gal/min
PV: 0 cP
SOLIDS: 0
GAS TYPE:
YP: 0 lb/100 ft²
OIL: 0
GAS RATE: 0 cu ft/min
pH: 0
TEMP: 0 °F

COMMENTS:

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CUSTOMER SIGNATURE:



Daily Activity Report

Drilling & Evaluation Services
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Day 3 - 2008/02/29

FILE #: 4013839

JOB TYPE: Horizontal

RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1

COMPANY: Cimarex Energy Company

SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Guy Embry

DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright

MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

GROUND ELEV: 3782 ft

START DEPTH: 0.0 ft

PROGRESS: 9217.0 ft

DAILY COST: USD\$13170.00

KB ELEV: 3803 ft

END DEPTH: 9217.0 ft

AVG. ROP.: 1625.6 ft/hr

PREVIOUS COST: USD\$19510.00

WORK STATUS: Operating

(All units are imperial.)

TOTAL COST: USD\$32680.00

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-02:00	POOH - See Comments - POOH W/ MILL	2.00	9173	n/a	14:30-16:00	RIH With Gyro - R/U W/L&RIH Gyro	1.50	9173	1
02:00-06:45	Rig Repair - W/O GEN SET	4.75	9173	n/a	16:00-18:10	Orienting With Motor - 9173 - 9186 5g TF	2.17	9186	1
06:45-09:15	Handle Directional Tools - P/U BHA #1	2.50	9173	1	18:10-20:15	POOH With Gyro - POOH/RIH w/gyro	2.08	9186	1
09:15-13:45	RIH With New BHA - TIH w/BHA #1	4.50	9173	1	20:15-23:45	Orienting With Motor - 9186 - 9217 5g TF	3.50	9217	1
13:45-14.15	Pick Up Drill Pipe - P/uSwvl&1jt TagBtm	0.50	9173	1	23:45-24:00	Other - See Comments - POOH GYRO	0.25	9217	1
14:15-14:30	Other - See Comments - Count pipe&Fix Tally	0.25	9173	1			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	5.67	ORIENTING HRS:	5.67	ROTARY DRILL:	0.00
TIME DRILL:	0.00	ROTATING HRS:	0.00	MOTOR HRS:	5.67
MOTOR REAM:	0.00			TRIP:	10.08
CIRC:	0.00	ROTARY DRILL:	0.00	OTHER:	8.25
MOTOR HRS:	5.67	DRILL HRS:	5.67	TOTAL HRS:	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:		STRING WEIGHT	96000 lbs
WOB SLIDING (HI):	13000 lbf	WOB ROTATE (HI):	0 lbf
WOB SLIDING (LO):	10000 lbf	WOB ROTATE (LO):	0 lbf
RPM (ROTARY):		DRAG UP:	4000 lbf
RPM (MOTOR):	50 rpm	DRAG DN:	2000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 1	HOLE SIZE: 4.75 in	SECTION TYPE: Curve	SURVEY TYPE: Positive Pulse MWD
MANFCT.: WFT-PES	STABILIZER: No	SERIAL#: 375-2666	MODEL: LN7823
SETTING: 2.77 °	KICKPAD: No	SIZE: 3.75	LOBE CFG.: 7/8
MANFCT: Hughes	BIT TYPE: Tri-Cone Bit	TYPE: STX - 30C	MTR HRS THIS DAY: 5.666666666666667
IADC BIT GRADE: 8 / 8 / BT / M / E / I / BT / DTF			NOZZLES: 16, 16, 16, n/a: 0.589 in ² TFA

PUMP PARAMETERS

PRESSURE ON BTM: 1350	PRESSURE OFF BTM: 1250	TOTAL FLOW RATE: 98.03 gal/min
PUMP 1: TYPE: PZ-7	EFF.: 95.0%	SPM: 0.00
PUMP 2: TYPE: PZ-7	EFF.: 95.0%	SPM: 75.00
PUMP 3: TYPE:	EFF.: 100.0%	SPM: 0.00
	LINER: 0.00 in	STROKE VOL.: 0.0000 gal/stk
	LINER: 4.50 in	STROKE VOL.: 1.3759 gal/stk
	LINER: 0.00 in	STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Brine or Salt	VISC: 28 sec/qt	WTR LOSS: 0 cc/30min	PV: 1 cP	YP: 1 lb/100 ft ²	pH: 11
DENSITY: 8.5 lb/gal	GEL 0/10: 0.00 lb/100 ft ²	SAND: 0	SOLIDS: 0	OIL: 0	TEMP: 0 °F
LIQUID BASE: Water		LIQUID RATE: 0 gal/min	GAS TYPE:		GAS RATE: 0 cu ft/min

COMMENTS:

02:00 Rig lost power water pump went out on generator. Wait on new generator until 06:45.

06:45 Picking up BHA #1 to begin drilling with gyro from MD 9173.4

Began drilling ahead @ 16:00 p.m. window seems to be at 5° drills best with the least vibration at this gyro TF. We are hanging up a little bit in window but no worse than any of the other wells we have done out here. Scientific gyro hand says he is getting very little vibration and we have been able to drill with the gyro seated in the BHA with no vibration issues.

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CUSTOMER SIGNATURE:

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Daily Activity Report

Drilling & Evaluation Services
v4 2 2384

Day 4 - 2008/03/01

FILE #: 4013839
JOB TYPE: Horizontal
RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1
COMPANY: Cimarex Energy Company
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services
SURVEY TYPE: Positive Pulse MWD
FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Lee Mermis, Guy Embry
DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright
MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

GROUND ELEV: 3782 ft
KB ELEV: 3803 ft

START DEPTH: 9217.0 ft
END DEPTH: 9307.0 ft
PROGRESS: 90.0 ft
AVG. ROP: 9.7 ft/hr

DAILY COST: USD\$11020.00
PREVIOUS COST: USD\$32680.00
TOTAL COST: USD\$43700.00

WORK STATUS: Operating (All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-01:15	Other - See Comments - CONNECTION W/ GYRO	1.25	9217	1	09:30-14:00	POOH For MWD - TOH to reprogram MWD	4.50	9282	1
01:15-04:15	Orienting With Motor - GTF 5	3.00	9250	1	14:00-16:00	Handle Directional Tools - test MWD & Mtr	2.00	9282	2
04:15-04:30	Circ & Accumulate Surveys - 9211' 10.8/25.5	0.25	9250	1	16:00-19:30	RIH With New BHA - TIH w/BHA #2	3.50	9282	2
04:30-05:30	POOH With Gyro - rig dn gyro	1.00	9250	1	19:30-21:00	Circ & Accumulate Surveys - Rewipe gamma	1.50	9282	2
05:30-09:15	Orienting With Motor - GTF=15L	3.75	9282	1	21:00-21:30	Circ & Condition Hole - sweep btm f/ junk	0.50	9282	2
09:15-09:30	Circ & Accumulate Surveys - 9243' 27.4/6.7	0.25	9282	1	21:30-24:00	Orienting With Motor - 350g	2.50	9307	2

TIME SUMMARY (hrs):

MOTOR DRILL: 9.25	ORIENTING HRS: 6.75	ROTARY DRILL: 0.00
TIME DRILL: 0.00	ROTATING HRS: 0.00	MOTOR HRS: 11.75
MOTOR REAM: 0.00		TRIP: 9.00
CIRC: 2.50	ROTARY DRILL: 0.00	OTHER: 3.25
MOTOR HRS: 11.75	DRILL HRS: 9.25	TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	STRING WEIGHT	96000 lbs
WOB SLIDING (HI): 13000 lbf	WOB ROTATE (HI):	0 lbf
WOB SLIDING (LO): 10000 lbf	WOB ROTATE (LO):	0 lbf
RPM (ROTARY):	DRAG UP:	4000 lbf
RPM (MOTOR): 55 rpm	DRAG DN:	2000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 1	HOLE SIZE: 4.75 in	SECTION TYPE: Curve	SURVEY TYPE: Positive Pulse MWD
MANFCT.: WFT-PES	STABILIZER: No	SERIAL#: 375-2666	MODEL: LN7823
SETTING: 2.77 °	KICKPAD: No	SIZE: 3.75	LOBE CFG.: 7/8
MANFCT: Hughes	BIT TYPE: Tri-Cone Bit	TYPE: STX - 30C	MTR HRS THIS DAY: 7.25
IADC BIT GRADE: 8 / 8 / BT / M / E / I / BT / DTF			MTR HRS TO DATE: 12.916666666
			NOZZLES: 16, 16, 16, n/a: 0.589 in ² TFA

BHA: 2	HOLE SIZE: 4.75 in	SECTION TYPE: Curve	SURVEY TYPE: Positive Pulse MWD
MANFCT.: WFT-PES	STABILIZER: No	SERIAL#: 375-2666	MODEL: LN7823
SETTING: 2.12 °	KICKPAD: No	SIZE: 3.75	LOBE CFG.: 7/8
MANFCT: Hughes	BIT TYPE: Tri-Cone Bit	TYPE: STX-30C	MTR HRS THIS DAY: 4.5
IADC BIT GRADE: 8 / 4 / BT / A / E / I / BT / BHA			MTR HRS TO DATE: 17.416666666
			NOZZLES: 16, 16, 16, n/a: 0.589 in ² TFA

PUMP PARAMETERS

PRESSURE ON BTM: 1150	PRESSURE OFF BTM: 1050	TOTAL FLOW RATE: 104.57 gal/min
PUMP 1: TYPE: PZ-7	EFF.: 95.0%	SPM: 0.00
PUMP 2: TYPE: PZ-7	EFF.: 95.0%	SPM: 80.00
PUMP 3: TYPE:	EFF.: 100.0%	SPM: 0.00
	LINER: 0.00 in	STROKE VOL.: 0.0000 gal/stk
	LINER: 4.50 in	STROKE VOL.: 1.3759 gal/stk
	LINER: 0.00 in	STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Brine or Salt	VISC: 28 sec/qt	WTR LOSS: 0 cc/30min	PV: 1 cP	YP: 1 lb/100 ft ²	pH: 12
DENSITY: 8.5 lb/gal	GEL 0/10: 0.00 lb/100 ft ²	SAND: 0	SOLIDS: 0	OIL: 0	TEMP: 0 °F
LIQUID BASE: Water		LIQUID RATE: 0 gal/min	GAS TYPE:		GAS RATE: 0 cu ft/min

COMMENTS:

Presently drilling ahead in the curve section.

We will be coming out of the hole later today so that the MWD field hands can reprogram their tool to send gamma readings to surface. Tool was not programmed right before being sent downhole.

Dialed mtr dn to a 2.12 - We're getting ahead of the curve, we need between 14 and 15 BR's from here to land curve. The 2.12 mtr setting is projected to produce 18's and this setting should give us the build rate needed to land @ 9412 TVD.

Day 4 - 2008/03/01

After TOH and inspecting the bit we found the bit to be missing all the teeth except for on the gauge row. So we picked up another bit and before tagging bottom to resume drilling ahead we pumped a 5 gallon sweep and surged hole to try and clean any debris that might be on btm causing this unnormal wear on the bit.

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Daily Activity Report

Drilling & Evaluation Services
v4.2.2384

Day 5 - 2008/03/02

FILE #: 4013839

JOB TYPE: Horizontal

RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #

COMPANY: Cimarex Energy Company

SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Lee Mermis

DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright

MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

GROUND ELEV: 3782 ft

KB ELEV: 3803 ft

START DEPTH: 9307.0 ft

END DEPTH: 9411.0 ft

PROGRESS: 104.0 ft

AVG. ROP.: 10.2 ft/hr

DAILY COST: USD\$11020.00

PREVIOUS COST: USD\$43700.00

TOTAL COST: USD\$54720.00

WORK STATUS: Operating

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:30	Orienting With Motor - 350g	0.50	9311	2	08:45-12:35	POOH To Change Mtr Set - TOH to dial mtr down	3.83	9381	2
00:30-00:45	Circ & Accumulate Surveys - 9272' - 38.5 - 6.2	0.25	9311	2	12:35-13:30	Other - See Comments - dial mtr to 1.83	0.92	9381	3
00:45-03:30	Orienting With Motor - 350g	2.75	9343	2	13:30-17:30	RIH With New Bit - TIH w/BHA#3 new bit	4.00	9381	3
03:30-03:45	Circ & Accumulate Surveys - 9304' 48.0/4.8	0.25	9343	2	17:30-20:00	Back Reaming - 69' to btm	2.50	9381	3
03:45-06:45	Orienting With Motor - GTF=10L	3.00	9374	2	20:00-20:30	Other - See Comments - Recycle gamma - mwd	0.50	9381	3
06:45-07:00	Circ & Accumulate Surveys - 9335' 56.2/3.3	0.25	9374	2	20:30-23:00	Rotating With Motor	2.50	9405	3
07:00-07:30	Orienting With Motor - GTF=25L	0.50	9381	2	23:00-24:00	Rotating With Motor	1.00	9411	3
07:30-08:45	Circ Bottoms Up - Circ. & discuss plan	1.25	9381	2			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL: 10.25	ORIENTING HRS: 6.75	ROTARY DRILL: 0.00
TIME DRILL: 0.00	ROTATING HRS: 0.00	MOTOR HRS: 14.75
MOTOR REAM: 0.00		TRIP: 7.83
CIRC: 4.50	ROTARY DRILL: 0.00	OTHER: 1.42
MOTOR HRS: 14.75	DRILL HRS: 10.25	TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	STRING WEIGHT	96000 lbs
WOB SLIDING (HI): 15000 lbf	WOB ROTATE (HI): 8000 lbf	
WOB SLIDING (LO): 10000 lbf	WOB ROTATE (LO): 6000 lbf	
RPM (ROTARY): 35 rpm	DRAG UP: 4000 lbf	
RPM (MOTOR): 70 rpm	DRAG DN: 2000 lbf	

BHA / MOTOR / BIT INFORMATION:

BHA: 2	HOLE SIZE: 4.75 in	SECTION TYPE: Curve	SURVEY TYPE: Positive Pulse MWD
MANFCT.: WFT-PES	STABILIZER: No	SERIAL#: 375-2666	MODEL: LN7823
SETTING: 2.12 °	KICKPAD: No	SIZE: 3.75	LOBE CFG.: 7/8
MANFCT: Hughes	BIT TYPE: Tri-Cone Bit	TYPE: STX-30C	MTR HRS THIS DAY: 8.75
IADC BIT GRADE: 8 / 4 / BT / A / E / I / BT / BHA			MTR HRS TO DATE: 26.166666666
			NOZZLES: 16, 16, 16, n/a: 0.589 in ² TFA

BHA: 3	HOLE SIZE: 4.75 in	SECTION TYPE: Curve	SURVEY TYPE: Positive Pulse MWD
MANFCT.: WFT-PES	STABILIZER: No	SERIAL#: 375-2666	MODEL: LN7823
SETTING: 1.83 °	KICKPAD: No	SIZE: 3.75	LOBE CFG.: 7/8
MANFCT: Hughes	BIT TYPE: Tri-Cone Bit	TYPE: STX-30C	MTR HRS THIS DAY: 6
IADC BIT GRADE: 2 / 2 / NO / A / E / I / NO / BHA			MTR HRS TO DATE: 32.166666666
			NOZZLES: 16, 16, 16, n/a: 0.589 in ² TFA

PUMP PARAMETERS

PRESSURE ON BTM: 1350	PRESSURE OFF BTM: 1150	TOTAL FLOW RATE: 117.64 gal/min
PUMP 1: TYPE: PZ-7	EFF.: 95.0% SPM: 0.00	LINER: 0.00 in
PUMP 2: TYPE: PZ-7	EFF.: 95.0% SPM: 90.00	LINER: 4.50 in
PUMP 3: TYPE:	EFF.: 100.0% SPM: 0.00	LINER: 0.00 in
		STROKE VOL.: 0.0000 gal/stk
		STROKE VOL.: 1.3759 gal/stk
		STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Brine or Salt	VISC: 28 sec/qt	WTR LOSS: 0 cc/30min	PV: 1 cP	YP: 1 lb/100 ft ²	pH: 12
DENSITY: 8.5 lb/gal	GEL 0/10: 0.00 lb/100 ft ²	SAND: 0	SOLIDS: 0	OIL: 0	TEMP: 0 °F
LIQUID BASE: Water		LIQUID RATE: 0 gal/min	GAS TYPE:		GAS RATE: 0 cu ft/min

COMMENTS:

After just drilling far enough ahead to see all new motor with the 2.12 setting were still getting way to much build. This motor setting that was projected to produce 18 BR's is giving us 26's. So we stopped drilling and discussed with the company man our situation to determine our best course of action. It was decided to TOH to dial mtr down to a 1.83 setting that is rotatable and to go back in and try to rotate and still land at the target TVD of 9412 with as little section loss as possible.

Daily Activity Report

Day 5 - 2008/03/02

Upon inspection on surface the bit ran on BHA #2 had to be changed out for BHA #3 because it was also missing teeth.

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Daily Activity Report

Drilling & Evaluation Services
v4 2 2384

Day 6 - 2008/03/03

FILE #: 4013839
JOB TYPE: Horizontal
RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1
COMPANY: Cimarex Energy Company
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services
SURVEY TYPE: Positive Pulse MWD
FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Lee Mermis
DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright
MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

GROUND ELEV: 3782 ft START DEPTH: 9411.0 ft PROGRESS: 254.0 ft DAILY COST: USD\$11020.00
KB ELEV: 3803 ft END DEPTH: 9665.0 ft AVG. ROP.: 12.1 ft/hr PREVIOUS COST: USD\$54720.00
TOTAL COST: USD\$65740.00

WORK STATUS: Operating (All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-02:15	Rotating With Motor	2.25	9437	3	13:30-13:45	Circ & Accumulate Surveys - 9492' 69.6/0.9	0.25	9531	3
02:15-02:30	Circ & Accumulate Surveys - 9398' - 66.5/1.90	0.25	9437	3	13:45-15:00	Orienting With Motor - GTF=70L	1.25	9546	3
02:30-03:45	Orienting With Motor - GTF=25L	1.25	9447	3	15:00-15:45	Rotating With Motor - WOB=7K RPM=35	0.75	9563	3
03:45-05:30	Rotating With Motor - WOB=9K RPM=35	1.75	9469	3	15:45-16:00	Circ & Accumulate Surveys - 9524'	0.25	9563	3
05:30-05:45	Circ & Accumulate Surveys - 9430' 66.7/1.9	0.25	9469	3	16:00-18:15	Orienting With Motor - 31' HS	2.25	9594	3
05:45-08:00	Orienting With Motor - GTF=30L	2.25	9479	3	18:15-18:30	Circ & Accumulate Surveys - 9555' - 70.2 / 353.9	0.25	9594	3
08:00-09:30	Rotating With Motor - WOB=6K RPM=35	1.50	9500	3	18:30-20:15	Orienting With Motor - 32' 15R	1.75	9626	3
09:30-09:45	Circ & Accumulate Surveys - 9461' 68.2/1.8	0.25	9500	3	20:15-20:30	Circ & Accumulate Surveys - 9587' - 74.9 / 352.5	0.25	9626	3
09:45-10:45	Rig Repair - Wk on swivel	1.00	9500	3	20:30-23:00	Orienting With Motor - 31' @ 20R	2.50	9658	3
10:45-12:30	Orienting With Motor - GTF=80L	1.75	9520	3	23:00-23:15	Circ & Accumulate Surveys - 9619' - 80.5 / 353.1	0.25	9658	3
12:30-13:30	Rotating With Motor - WOB=6K RPM=35	1.00	9531	3	23:15-24:00	Orienting With Motor - 7' @ 20R	0.75	9665	3

TIME SUMMARY (hrs):

MOTOR DRILL: 21.00
TIME DRILL: 0.00
MOTOR REAM: 0.00
CIRC: 2.00
MOTOR HRS: 23.00

ORIENTING HRS: 13.75
ROTATING HRS: 7.25
ROTARY DRILL: 0.00
MOTOR HRS: 23.00
TRIP: 0.00
OTHER: 1.00
DRILL HRS: 21.00
TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE:
WOB SLIDING (HI): 15000 lbf
WOB SLIDING (LO): 8000 lbf
RPM (ROTARY): 35 rpm
RPM (MOTOR): 72 rpm

STRING WEIGHT 96000 lbs
WOB ROTATE (HI): 8000 lbf
WOB ROTATE (LO): 6000 lbf
DRAG UP: 6000 lbf
DRAG DN: 2000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 3 HOLE SIZE: 4.75 in SECTION TYPE: Curve
MANFCT.: WFT-PES STABILIZER: No SERIAL#: 375-2666
SETTING: 1.83 ° KICKPAD: No SIZE: 3.75
MANFCT: Hughes BIT TYPE: Tri-Cone Bit TYPE: STX-30C
IADC BIT GRADE: 2 / 2 / NO / A / E / I / NO / BHA

SURVEY TYPE: Positive Pulse MWD

MODEL: LN7823 LOBE CFG: 7/8
MTR HRS THIS DAY: 23 MTR HRS TO DATE: 55.166666666
NOZZLES: 16, 16, 16, n/a: 0.589 in² TFA

PUMP PARAMETERS

PRESSURE ON BTM: 1400 PRESSURE OFF BTM: 1200 TOTAL FLOW RATE: 117.64 gal/min
PUMP 1: TYPE: PZ-7 EFF.: 95.0% SPM: 0.00 LINER: 0.00 in STROKE VOL.: 0.0000 gal/stk
PUMP 2: TYPE: PZ-7 EFF.: 95.0% SPM: 90.00 LINER: 4.50 in STROKE VOL.: 1.3759 gal/stk
PUMP 3: TYPE: EFF.: 100.0% SPM: 0.00 LINER: 0.00 in STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Brine or Salt VISC: 28 sec/qt WTR LOSS: 0 cc/30min PV: 1 cP YP: 1 lb/100 ft² pH: 11
DENSITY: 8.5 lb/gal GEL 0/10: 0.00 lb/100 ft² SAND: 0.01 SOLIDS: 0 OIL: 0 TEMP: 0 °F
LIQUID BASE: Water LIQUID RATE: 0 gal/min GAS TYPE: GAS RATE: 0 cu ft/min

COMMENTS:

After picking up BHA #3 we rotated 2 joints and are presently sliding 10-15 ft on the first of each joint to maintain our direction and to let our BRN to land the curve climb back up to an achievable 14 to 16 to minimize the amount of section loss.

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CUSTOMER SIGNATURE:

WILBROS OIL



Daily Activity Report

Drilling & Evaluation Services
v4.2.2384

Day 7 - 2008/03/04

FILE #: 4013839

JOB TYPE: Horizontal

RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1

COMPANY: Cimarex Energy Company

SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Lee Mermis

DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright

MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

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GROUND ELEV: 3782 ft

KB ELEV: 3803 ft

START DEPTH: 9665.0 ft

END DEPTH: 9879.0 ft

PROGRESS: 21400 ft

AVG. ROP: 16.2 ft/hr

DAILY COST: USD\$12670.00

PREVIOUS COST: USD\$65740.00

TOTAL COST: USD\$78410.00

WORK STATUS: Operating

(All units are imperial.)

HOBBS OCD

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-01:00	Orienting With Motor - 10' @ 20R	1.00	9675	3	10:00-10:15	Circ & Accumulate Surveys - 9777' 88.9/355.2	0.25	9816	3
01:00-01:45	Rotating With Motor - WOB=6K - RPM=35	0.75	9689	3	10:15-12:00	Rotating With Motor - WOB=8K RPM=35	1.75	9848	3
01:45-02:00	Circ & Accumulate Surveys - 9650' - 86.3 / 344.4	0.25	9689	3	12:00-12:15	Circ & Accumulate Surveys - 9809' 88.6/355.6	0.25	9848	3
02:00-04:00	Rotating With Motor - WOB=6K - RPM=35	2.00	9721	3	12:15-13:15	Orienting With Motor - GTF=30R	1.00	9858	3
04:00-04:15	Circ & Accumulate Surveys - 9632' 90.8 / 355.1	0.25	9721	3	13:15-14:45	Rotating With Motor - WOB=7K RPM=35	1.50	9879	3
04:15-05:45	Rotating With Motor - WOB=6 RPM=35	1.50	9753	3	14:45-15:00	Circ & Accumulate Surveys - 9840' 88.4/354.9	0.25	9879	3
05:45-06:00	Circ & Accumulate Surveys - 9714' 91.2/355.3	0.25	9753	3	15:00-19:00	POOH For Bit - TOH to p/u PDC bit	4.00	9879	3
06:00-07:15	Orienting With Motor - GTF=170R	1.25	9763	3	19:00-19:45	Handle Directional Tools - L/D mtr&P/U new mtr	0.75	9879	4
07:15-08:30	Rotating With Motor - WOB=7K RPM=35	1.25	9784	3	19:45-20:00	Shallow Test Tools - Test MWD & Mtr	0.25	9879	4
08:30-08:45	Circ & Accumulate Surveys - 9745' 91.4/355.3	0.25	9784	3	20:00-20:15	Change Bit - Put on new PDC bit	0.25	9879	4
08:45-10:00	Rotating With Motor - WOB=6K RPM=40	1.25	9816	3	20:15-24:00	RIH With New BHA - TIH w/BHA #4	3.75	9879	4

TIME SUMMARY (hrs):

DRILLING PARAMETERS:

MOTOR DRILL: 13.25	ORIENTING HRS: 3.25	ROTARY DRILL: 0.00	ROTARY TORQUE:	STRING WEIGHT	97000 lbs
TIME DRILL: 0.00	ROTATING HRS: 10.00	MOTOR HRS: 15.00	WOB SLIDING (HI): 15000 lbf	WOB ROTATE (HI): 8000 lbf	
MOTOR REAM: 0.00		TRIP: 7.75	WOB SLIDING (LO): 10000 lbf	WOB ROTATE (LO): 5000 lbf	
CIRC: 1.75	ROTARY DRILL: 0.00	OTHER: 1.25	RPM (ROTARY): 35 rpm	DRAG UP: 7000 lbf	
MOTOR HRS: 15.00	DRILL HRS: 13.25	TOTAL HRS: 24.00	RPM (MOTOR): 75 rpm	DRAG DN: 2000 lbf	

BHA / MOTOR / BIT INFORMATION:

BHA: 3	HOLE SIZE: 4.75 in	SECTION TYPE: Curve	SURVEY TYPE: Positive Pulse MWD
MANFCT.: WFT-PES	STABILIZER: No	SERIAL#: 375-2666	MODEL: LN7823
SETTING: 1.83 °	KICKPAD: No	SIZE: 3.75	LOBE CFG: 7/8
MANFCT: Hughes	BIT TYPE: Tri-Cone Bit	TYPE: STX-30C	MTR HRS THIS DAY: 15
IADC BIT GRADE: 2 / 2 / NO / A / E / I / NO / BHA			MTR HRS TO DATE: 70.166666666
			NOZZLES: 16, 16, 16, n/a: 0.589 in ² TFA

BHA: 4	HOLE SIZE: 4.75 in	SECTION TYPE: Lateral	SURVEY TYPE: Positive Pulse MWD
MANFCT.: WFT-PES	STABILIZER: No	SERIAL#: 375-723	MODEL: LE7867
SETTING: 1.83 °	KICKPAD: No	SIZE: 3.75	LOBE CFG: 7/8
MANFCT: Hughes	BIT TYPE: PDC Bit	TYPE: HC306Z	MTR HRS THIS DAY: 0
IADC BIT GRADE: 1 / 1 / NO / A / 1 / I / NO / TD			MTR HRS TO DATE: 0
			NOZZLES: 16, 16, 13, 13: 0.652 in ² TFA

PUMP PARAMETERS

PRESSURE ON BTM: 1450	PRESSURE OFF BTM: 1250	TOTAL FLOW RATE: 117.64 gal/min
PUMP 1: TYPE: PZ-7	EFF.: 95.0%	SPM: 0.00
PUMP 2: TYPE: PZ-7	EFF.: 95.0%	SPM: 90.00
PUMP 3: TYPE:	EFF.: 100.0%	SPM: 0.00
	LINER: 0.00 in	STROKE VOL.: 0.0000 gal/stk
	LINER: 4.50 in	STROKE VOL.: 1.3759 gal/stk
	LINER: 0.00 in	STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Brine or Salt	VISC: 28 sec/qt	WTR LOSS: 0 cc/30min	PV: 1 cP	YP: 1 lb/100 ft ²	pH: 11
DENSITY: 8.5 lb/gal	GEL 0/10: 0.00 lb/100 ft ²	SAND: 0.01	SOLIDS: 0	OIL: 0	TEMP: 0 °F
LIQUID BASE: Water		LIQUID RATE: 0 gal/min	GAS TYPE:		GAS RATE: 0 cu ft/min

Day 7 - 2008/03/04

COMMENTS:

We landed the curve section @MD 9677 with Inc-90.10/Az-354.99 at TVD-9411.13.

We are presently drilling ahead in the lateral section. We will be TOH today to pick up our lateral BHA with a pdc bit.

TOH to p/u lateral BHA and PDC bit @ MD 9879.

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CUSTOMER SIGNATURE:



Daily Activity Report

Drilling & Evaluation Services

v4 2.2384

Day 8 - 2008/03/05

FILE #: 4013839

JOB TYPE: Horizontal

RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1

COMPANY: Cimarex Energy Company

SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Lee Mermis

DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright

MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

GROUND ELEV: 3782 ft

KB ELEV: 3803 ft

START DEPTH: 9879.0 ft

END DEPTH: 10511.0 ft

PROGRESS: 632.0 ft

AVG. ROP.: 37.2 ft/hr

DAILY COST: USD\$11020.00

PREVIOUS COST: USD\$78410.00

TOTAL COST: USD\$89430.00

WORK STATUS: Operating

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:00	Circulating - See Comments - Pump sweep f/ PDC	0.00	9879	4	11:15-11:30	Circ & Accumulate Surveys - 10156' 90.2/356.9	0.25	10198	4
00:00-00:45	Circ & Accumulate Surveys - 9841' 88.4 / 354.8	0.75	9879	4	11:30-12:00	Rotating With Motor - WOB=7.5K RPM=55	0.50	10230	4
00:45-01:30	Rotating With Motor	0.75	9915	4	12:00-12:15	Circ & Accumulate Surveys - 10188' 90.9/357.1	0.25	10230	4
01:30-01:45	Circ & Accumulate Surveys - 9873' 89.6 - 356.2	0.25	9915	4	12:15-12:30	Rotating With Motor - WOB=7.5K RPM=55	0.25	10261	4
01:45-02:15	Rotating With Motor - WOB=6 RPM=30	0.50	9946	4	12:30-12:45	Circ & Accumulate Surveys - 10219' 91.3/356.8	0.25	10261	4
02:15-02:30	Circ & Accumulate Surveys - 9904' 89.6 / 356.0	0.25	9946	4	12:45-13:45	Orienting With Motor - 12' @ 140R	1.00	10273	4
02:30-03:15	Rotating With Motor - WOB=6 RPM=35	0.75	9978	4	13:45-14:15	Rotating With Motor - WOB=7.5K RPM=60	0.50	10292	4
03:15-03:30	Circ & Accumulate Surveys - 9936' 90.0 / 355.2	0.25	9978	4	14:15-15:00	Circ & Accumulate Surveys - 10250' 91.8/355.8	0.75	10292	4
03:30-04:00	Orienting With Motor - 6' @ 115L	0.50	9984	4	15:00-15:45	Rotating With Motor - WOB=7K RPM=55	0.75	10322	4
04:00-04:45	Rotating With Motor - WOB=6 ROP=35	0.75	10010	4	15:45-16:00	Circ & Accumulate Surveys - 10280' 90.1/356.7	0.25	10322	4
04:45-05:00	Circ & Accumulate Surveys - 9968' 90.4 / 355.90	0.25	10010	4	16:00-16:45	Orienting With Motor - 10' @ 60R	0.75	10332	4
05:00-06:00	Rotating With Motor - WOB=6 RPM=35	1.00	10041	4	16:45-17:00	Rotating With Motor - same parameters	0.25	10353	4
06:00-06:15	Circ & Accumulate Surveys - 9999' 89.3 / 354.8	0.25	10041	4	17:00-17:15	Circ & Accumulate Surveys - 10311' 90.6/356.5	0.25	10353	4
06:15-07:00	Rotating With Motor - WOB=6 RPM=35	0.75	10073	4	17:15-18:00	Rotating With Motor - WOB=7K RPM=55	0.75	10384	4
07:00-07:15	Circ & Accumulate Surveys - 10031' 89.4/354.7	0.25	10073	4	18:00-18:20	Circ & Accumulate Surveys - 10342' 91.2/357.1	0.33	10384	4
07:15-07:45	Orienting With Motor - 8' @ 100R	0.50	10081	4	18:20-19:00	Rotating With Motor - WOB=7K RPM=55	0.67	10416	4
07:45-08:15	Rotating With Motor - WOB=7.5K RPM=50	0.50	10104	4	19:00-19:15	Circ & Accumulate Surveys - 10374' 91.7/357.0	0.25	10416	4
08:15-08:30	Circ & Accumulate Surveys - 10062' 89.4/354.4	0.25	10104	4	19:15-20:15	Orienting With Motor - 12' @ 140R	1.00	10428	4
08:30-09:00	Rotating With Motor - WOB=7.5K RPM=40	0.50	10135	4	20:15-21:00	Rotating With Motor - WOB=7K RPM=55	0.75	10428	4
09:00-09:15	Circ & Accumulate Surveys - 10093' 89.2/356.0	0.25	10135	4	21:00-21:45	Rotating With Motor - WOB=7.5 RPM=40	0.75	10479	4
09:15-10:00	Orienting With Motor - 7' @ 70R	0.75	10142	4	21:45-22:00	Circ & Accumulate Surveys - 10437' 91.0 / 358.1	0.25	10479	4
10:00-10:30	Rotating With Motor - WOB=7K RPM=55	0.50	10166	4	22:00-22:45	Rotating With Motor - WOB=7.5 RPM=40	0.75	10511	4
10:30-10:40	Circ & Accumulate Surveys - 10124' 89.4/355.9	0.17	10166	4	22:45-24:00	Work Stuck Pipe & Circ	1.25	10511	4
10:40-11:15	Rotating With Motor - WOB=7K RPM=55	0.58	10198	4			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL: 17.00	ORIENTING HRS: 4.50	ROTARY DRILL: 0.00
TIME DRILL: 0.00	ROTATING HRS: 12.50	MOTOR HRS: 24.00
MOTOR REAM: 0.00		TRIP: 0.00
CIRC: 7.00	ROTARY DRILL: 0.00	OTHER: 0.00
MOTOR HRS: 24.00	DRILL HRS: 17.00	TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	STRING WEIGHT	97000 lbs
WOB SLIDING (HI): 15000 lbf	WOB ROTATE (HI): 8000 lbf	
WOB SLIDING (LO): 12000 lbf	WOB ROTATE (LO): 5000 lbf	
RPM (ROTARY): 55 rpm	DRAG UP:	7000 lbf
RPM (MOTOR): 165 rpm	DRAG DN:	2000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 4	HOLE SIZE: 4.75 in	SECTION TYPE: Lateral	SURVEY TYPE: Positive Pulse MWD
MANFCT.: WFT-PES	STABILIZER: No	SERIAL#: 375-723	MODEL: LE7867
SETTING: 1.83 °	KICKPAD: No	SIZE: 3.75	LOBE CFG.: 7/8
MANFCT: Hughes	BIT TYPE: PDC Bit	TYPE: HC306Z	MTR HRS THIS DAY: 24
IADC BIT GRADE: 1 / 1 / NO / A / 1 / 1 / NO / TD			MTR HRS TO DATE: 24
			NOZZLES: 16, 16, 13, 13: 0.652 in ² TFA

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Daily Activity Report

Drilling & Evaluation Services
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Day 8 - 2008/03/05

PUMP PARAMETERS

PRESSURE ON BTM: 1950

PRESSURE OFF BTM: 1450

TOTAL FLOW RATE: 117.64 gal/min

PUMP 1: TYPE: PZ-7

EFF.: 95.0%

SPM: 0.00

LINER: 0.00 in

STROKE VOL.: 0.0000 gal/stk

PUMP 2: TYPE: PZ-7

EFF.: 95.0%

SPM: 90.00

LINER: 4.50 in

STROKE VOL.: 1.3759 gal/stk

PUMP 3: TYPE:

EFF.: 100.0%

SPM: 0.00

LINER: 0.00 in

STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Brine or Salt

VISC: 28 sec/qt

WTR LOSS: 0 cc/30min

PV: 1 cP

YP: 0 lb/100 ft²

pH: 9

DENSITY: 8.65 lb/gal

GEL 0/10: 0.00 lb/100 ft²

SAND: 0.01

SOLIDS: 1.3

OIL: 0

TEMP: 0 °F

LIQUID BASE: Water

LIQUID RATE: 0 gal/min

GAS TYPE:

GAS RATE: 0 cu ft/min

COMMENTS:

Drilling ahead in the lateral section of our proposed well plan.

Note: At 22:45 we got stuck @ MD 10511' - Worked stuck pipe 4 hrs to get free - Key nite crew had not swept hole since coming on tour at 6:00 pm. Need to sweep the hole at least every 2nd jt. as fast as we are drilling.

NOTE: Target Change Requested - 2008/03/05 15:45

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Daily Activity Report

Drilling & Evaluation Services

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Day 9 - 2008/03/06

FILE #: 4013839

JOB TYPE: Horizontal

RIG & NO: Key 115

WELL NAME: Humboldt 6 State Com #1

COMPANY: Cimarex Energy Company

SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Lee Mermis

DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright

MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

GROUND ELEV: 3782 ft

KB ELEV: 3803 ft

START DEPTH: 10511.0 ft

END DEPTH: 10921.0 ft

PROGRESS: 442.0 ft

AVERAGE: 28.5 ft/hr

DAILY COST: USD\$11020.00

PREVIOUS COST: USD\$89430.00

TOTAL COST: USD\$100450.00

WORK STATUS: Operating

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-03:00	Work Stuck Pipe & Circ	3.00	10511	4	11:30-11:45	Circ & Accumulate Surveys - 10689' 90.7/357.6	0.25	10731	4
03:00-03:15	Circ & Accumulate Surveys - 10469' 91.7 / 358.4	0.25	10511	4	11:45-12:30	Rotating With Motor - WOB=6K RPM=55	0.75	10763	4
03:15-03:45	Rotating With Motor - WOB=7.5 RPM=40	0.50	10526	4	12:30-13:10	Circ & Accumulate Surveys - 10721' 91.0/356.8	0.67	10763	4
03:45-04:30	Orienting With Motor - 10' @ 150R	0.75	10536	4	13:10-13:45	Rotating With Motor - WOB=7K RPM=55	0.58	10794	4
04:30-04:45	Rotating With Motor - WOB=7.5 RPM=40	0.25	10543	4	13:45-14:45	Safety Meeting - KEY Safety Mtg.	1.00	10794	4
04:45-05:00	Circ & Accumulate Surveys - 10501' 91.9 - 358.1	0.25	10543	4	14:45-15:00	Circ & Accumulate Surveys - 10752' 91.3/356.4	0.25	10794	4
05:00-06:00	Rotating With Motor - WOB=7.5 RPM=40	1.00	10574	4	15:00-15:50	Rotating With Motor - WOB=6.5K RPM=55	0.83	10826	4
06:00-06:15	Circ & Accumulate Surveys - 10532' 91.5 - 358.4	0.25	10574	4	15:50-16:00	Circ & Accumulate Surveys - 10784' 91.7 - 356.3	0.17	10826	4
06:15-06:45	Rotating With Motor - WOB=7.5 RPM=45	0.50	10605	4	16:00-17:15	Orienting With Motor - 15' @ 140R	1.25	10841	4
06:45-07:15	Circ & Accumulate Surveys - 10563' 91.1/358.8	0.50	10605	4	17:15-17:45	Rotating With Motor - WOB=6.5 RPM=40	0.50	10858	4
07:15-08:00	Rotating With Motor - WOB=7K RPM=55	0.75	10636	4	17:45-18:00	Circ & Accumulate Surveys - 10816' 92.4 - 355.8	0.25	10858	4
08:00-08:10	Circ & Accumulate Surveys - 10594' 91.4/358.4	0.17	10636	4	18:00-19:30	Rotating With Motor - WOB=6.5 RPM=55	1.50	10890	4
08:10-08:45	Rotating With Motor - same parameters	0.58	10668	4	19:30-19:45	Circ & Accumulate Surveys - 10848' 90.2 - 356.2	0.25	10890	4
08:45-09:15	Circ & Accumulate Surveys - 10626' 92.1/358.5	0.50	10668	4	19:45-21:10	Rotating With Motor - WOB=7.5 RPM=55	1.42	10921	4
09:15-10:15	Orienting With Motor - 16' @ 170L	1.00	10684	4	21:10-21:30	Circ & Accumulate Surveys - 10879' 89.7 - 355.2	0.33	10921	4
10:15-10:45	Rotating With Motor - WOB=7K RPM=55	0.50	10699	4	21:30-23:30	Orienting With Motor - 25' @ 45R	2.00	10946	4
10:45-10:55	Circ & Accumulate Surveys - 10657' 92.8/358.2	0.17	10699	4	23:30-23:45	Rotating With Motor - WOB=5.5 RPM=35	0.25	10953	4
10:55-11:30	Rotating With Motor - See Note in comments	0.58	10731	4	23:45-24:00	Circ & Accumulate Surveys - 10911' 90.1 - 354.8	0.25	10921	4

TIME SUMMARY (hrs):

MOTOR DRILL: 15.50	ORIENTING HRS: 5.00	ROTARY DRILL: 0.00
TIME DRILL: 0.00	ROTATING HRS: 10.50	MOTOR HRS: 23.00
MOTOR REAM: 0.00	TRIP: 0.00	
CIRC: 7.50	ROTARY DRILL: 0.00	OTHER: 1.00
MOTOR HRS: 23.00	DRILL HRS: 15.50	TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	STRING WEIGHT	98000 lbs
WOB SLIDING (HI): 15000 lbf	WOB ROTATE (HI): 8000 lbf	
WOB SLIDING (LO): 10000 lbf	WOB ROTATE (LO): 6000 lbf	
RPM (ROTARY): 40 rpm	DRAG UP:	6000 lbf
RPM (MOTOR): 165 rpm	DRAG DN:	3000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 4	HOLE SIZE: 4.75 in	SECTION TYPE: Lateral	SURVEY TYPE: Positive Pulse MWD
MANFCT.: WFT-PES	STABILIZER: No	SERIAL#: 375-723	MODEL: LE7867
SETTING: 1.83 °	KICKPAD: No	SIZE: 3.75	LOBE CFG.: 7/8
MANFCT: Hughes	BIT TYPE: PDC Bit	TYPE: HC306Z	MTR HRS THIS DAY: 23
IADC BIT GRADE: 1 / 1 / NO / A / 1 / I / NO / TD			MTR HRS TO DATE: 47
			NOZZLES: 16, 16, 13, 13: 0.652 in ² TFA

PUMP PARAMETERS

PRESSURE ON BTM: 1900	PRESSURE OFF BTM: 1400	TOTAL FLOW RATE: 121.56 gal/min
PUMP 1: TYPE: PZ-7	EFF.: 95.0%	SPM: 0.00
PUMP 2: TYPE: PZ-7	EFF.: 95.0%	SPM: 93.00
PUMP 3: TYPE:	EFF.: 100.0%	SPM: 0.00
		LINER: 0.00 in
		LINER: 4.50 in
		LINER: 0.00 in
		STROKE VOL.: 0.0000 gal/stk
		STROKE VOL.: 1.3759 gal/stk
		STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Brine or Salt	VISC: 29 sec/qt	WTR LOSS: 0 cc/30min	PV: 1 cP	YP: 0 lb/100 ft ²	pH: 9
DENSITY: 8.65 lb/gal	GEL 0/10: 0.00 lb/100 ft ²	SAND: 0.01	SOLIDS: 1.3	OIL: 0	TEMP: 0 °F
LIQUID BASE: Water		LIQUID RATE: 0 gal/min	GAS TYPE:		GAS RATE: 0 cu ft/min



Daily Activity Report

Drilling & Evaluation Services
v4 2 2384

Day 9 - 2008/03/06

COMMENTS:

Presently drilling ahead in the lateral section of our proposed well plan maintaining an inclination between 91° and 92° per Mel Klinger Cimarex Geologist.

Note: We need to sweep hole every other joint if not every joint along with washing and reaming no less than 3 times on every connection. Doing this should keep the hole clean as fast as we are drilling.

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Daily Activity Report

Drilling & Evaluation Services
v4.2.2384

Day 10 - 2008/03/07

FILE #: 4013839

JOB TYPE: Horizontal

RIG & NO: Key 115

WELL NAME: Humboldt 6 State Company

COMPANY: Cimarex Energy Company

SURFACE LOCATION:

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Lea County / New Mexico / USA

Company Man: Lee Mermis

DIR Supervisor: Jay Vinson, Bill "Zolwaz" Wright

MWD Supervisor: Syed "Borat" Shah, Jesse Aquilar

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GROUND ELEV: 3782 ft

START DEPTH: 10921.0 ft

PROGRESS: 189.0 ft

DAILY COST: USD\$14920.00

KB ELEV: 3803 ft

END DEPTH: 11110.0 ft

AVG. ROP.: 30.2 ft/hr

PREVIOUS COST: USD\$100450.00

WORK STATUS: Operating

(All units are imperial.)

TOTAL COST: USD\$115370.00

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-01:15	Rotating With Motor - WOB=6.5 RPM=35	1.25	10985	4	05:30-05:45	Circ & Accumulate Surveys - 11037' 91.3 - 356.8	0.25	11079	4
01:15-01:30	Circ & Accumulate Surveys - 10943' 91.0 - 356.8	0.25	10985	4	05:45-07:15	Rotating With Motor - TD'ed Well	1.50	11110	4
01:30-02:30	Rotating With Motor - WOB=6.5 RPM=35	1.00	11015	4	07:15-07:20	Circ & Accumulate Surveys - 11068' 90.5/356.7	0.08	11110	4
02:30-02:45	Circ & Accumulate Surveys - 10973' 91.1 - 357.2	0.25	11015	4	07:20-08:30	Circ Bottoms Up	1.17	11110	4
02:45-03:45	Rotating With Motor - WOB = 6.5 RPM = 35	1.00	11047	4	08:30-13:15	Trip Out Sideways - TOH & L/D 58 jts DP	4.75	11110	4
03:45-04:00	Circ & Accumulate Surveys - 11005' 91.5 - 356.7	0.25	11047	4	13:15-14:15	Lay Down Directional Tools - L/D BHA and MWD	1.00	11110	4
04:00-05:00	Orienting With Motor - 8' @ 150R	1.00	11055	4	14:15-15:00	Other - See Comments - R/D MWD & paperwork	0.75	11110	4
05:00-05:30	Rotating With Motor - WOB = 7.0 RPM = 35	0.50	11079	4	15:00-24:00	Travel Home	9.00	11110	4

TIME SUMMARY (hrs):

MOTOR DRILL: 6.25	ORIENTING HRS: 1.00	ROTARY DRILL: 0.00	ROTARY TORQUE:	STRING WEIGHT	99000 lbs
TIME DRILL: 0.00	ROTATING HRS: 5.25	MOTOR HRS: 8.50	WOB SLIDING (HI): 18000 lbf	WOB ROTATE (HI): 8000 lbf	
MOTOR REAM: 0.00		TRIP: 4.75	WOB SLIDING (LO): 12000 lbf	WOB ROTATE (LO): 5000 lbf	
CIRC: 2.25	ROTARY DRILL: 0.00	OTHER: 10.75	RPM (ROTARY): 35 rpm	DRAG UP: 6000 lbf	
MOTOR HRS: 8.50	DRILL HRS: 6.25	TOTAL HRS: 24.00	RPM (MOTOR): 165 rpm	DRAG DN: 3000 lbf	

BHA / MOTOR / BIT INFORMATION:

BHA: 4	HOLE SIZE: 4.75 in	SECTION TYPE: Lateral	SURVEY TYPE: Positive Pulse MWD
MANFACT.: WFT-PES	STABILIZER: No	SERIAL#: 375-723	MODEL: LE7867
SETTING: 1.83 °	KICKPAD: No	SIZE: 3.75	LOBE CFG.: 7/8
MANFCT: Hughes	BIT TYPE: PDC Bit	TYPE: HC306Z	MTR HRS THIS DAY: 8.5
IADC BIT GRADE: 1 / 1 / NO / A / 1 / 1 / NO / TD			MTR HRS TO DATE: 55.5
			NOZZLES: 16, 16, 13, 13: 0.652 in ² TFA

PUMP PARAMETERS

PRESSURE ON BTM: 1900	PRESSURE OFF BTM: 1550	TOTAL FLOW RATE: 117.64 gal/min
PUMP 1: TYPE: PZ-7	EFF.: 95.0%	SPM: 0.00
PUMP 2: TYPE: PZ-7	EFF.: 95.0%	SPM: 90.00
PUMP 3: TYPE:	EFF.: 100.0%	SPM: 0.00
	LINER: 0.00 in	STROKE VOL.: 0.0000 gal/stk
	LINER: 4.50 in	STROKE VOL.: 1.3759 gal/stk
	LINER: 0.00 in	STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Brine or Salt	VISC: 29 sec/qt	WTR LOSS: 0 cc/30min	PV: 1 cP	YP: 0 lb/100 ft ²	pH: 9
DENSITY: 8.7 lb/gal	GEL 0/10: 0.00 lb/100 ft ²	SAND: 0.1	SOLIDS: 0	OIL: 98.7	TEMP: 0 °F
LIQUID BASE: Water		LIQUID RATE: 0 gal/min	GAS TYPE:		GAS RATE: 0 cu ft/min

COMMENTS:

We have reached TD on this well @ MD 11110.

They are going to TOH laying down so we should see our tools late this afternoon. We will be shipping tools back to Midland later this evening depending on what time we get thru rigging down and cleaning up our living trailer whether or not we will be all traveling home tonite or early tomorrow morning.

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Weatherford

CIMAREX
Humboldt 6 State Com #1
Lea County, NM

Section 5

Weatherford Directional Services

Midland District Personnel

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Drilling Systems & MWD Personnel

Eric Malcore	Directional Drilling Coordinator	Office (432) 561-8892
Supervise Directional Drillers and daily rig operations.		Cell (432) 661-1097

Steve Boyd	Account Manager	Cell (713) 992-1532
Customer support at its best.		

Danette Cunningham	Administrative Assistant	Office (432) 561-8892
Customer billing/invoicing_Midland, TX		

Luke Schnell	MWD Coordinator	Office (432) 561-8892
Supervise MWD Personnel and daily rig operations.		Cell (713) 492-7120

Lindsey Maddux	Well Planning Coordinator	Office (432) 561-8892
		Cell (432) 349-6963

Responsible for well preplanning and provide technical support during job.

Sammy Dominguez	R&M Shop Services	Office (432) 561-8892
		(432) 661-5939

Responsible for monitoring downhole tool performance and evaluating field incidents.

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