



30-025-43687

McElvain Energy

Lea County, NM (NAD 83)
EK 29 BS2 Federal Com
#1H

OH

HOBBS OCD

JAN 08 2017

RECEIVED

Design: OH Surveys 125'-14877' PTB 14918'

Standard Survey Report

08 August, 2017





Pro Directional Survey Report



Company:	McElvain Energy	Local Co-ordinate Reference:	Well #1H
Project:	Lea County, NM (NAD 83)	TVD Reference:	KB = 25' @ 4075.00usft (H&P 262)
Site:	EK 29 BS2 Federal Com	MD Reference:	KB = 25' @ 4075.00usft (H&P 262)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH Surveys 125'-14877' PTB 14918'	Database:	WellPlanner1

Project	Lea County, NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	EK 29 BS2 Federal Com			
Site Position:		Northing:	628,432.50 usft	Latitude: 32.725328°N
From:	Map	Easting:	773,460.90 usft	Longitude: 103.578526°W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.41 °

Well	#1H			
Well Position	+N/-S	0.00 usft	Northing:	628,432.50 usft
	+E/-W	0.00 usft	Easting:	773,460.90 usft
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft
			Ground Level:	4,050.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/21/2017	6.72	60.78	48,359.90

Design	OH Surveys 125'-14877' PTB 14918'			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	180.00

Survey Program	Date 8/8/2017			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
125.00	1,811.00	Gyro (OH)	GYRO-NS-CT	OWSG XYZ Accel with XY Static and Continuous
1,924.00	14,918.00	ProMWD Survey #1 (OH)	MWD+HDGM	OWSG MWD + HRGM

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
125.00	0.12	339.24	125.00	0.12	-0.05	-0.12	0.10	0.10	0.00	
225.00	0.04	145.81	225.00	0.19	-0.06	-0.19	0.16	-0.08	166.57	
325.00	0.16	52.09	325.00	0.25	0.07	-0.25	0.17	0.12	-93.72	
425.00	0.45	70.49	425.00	0.47	0.55	-0.47	0.30	0.29	18.40	
525.00	0.46	110.12	525.00	0.46	1.29	-0.46	0.31	0.01	39.63	
625.00	0.49	168.54	624.99	-0.10	1.76	0.10	0.46	0.03	58.42	
725.00	0.44	144.27	724.99	-0.83	2.06	0.83	0.20	-0.05	-24.27	
825.00	0.56	101.81	824.99	-1.24	2.77	1.24	0.38	0.12	-42.46	
925.00	0.64	75.91	924.98	-1.21	3.79	1.21	0.28	0.08	-25.90	



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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH Surveys 125'-14877' PTB 14918'	Database:	WellPlanner1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,025.00	0.70	77.50	1,024.97	-0.94	4.92	0.94	0.06	0.06	1.59
1,125.00	0.58	80.76	1,124.97	-0.72	6.02	0.72	0.13	-0.12	3.26
1,225.00	0.58	82.04	1,224.96	-0.57	7.02	0.57	0.01	0.00	1.28
1,325.00	0.75	84.11	1,324.96	-0.44	8.17	0.44	0.17	0.17	2.07
1,425.00	0.66	86.30	1,424.95	-0.33	9.40	0.33	0.09	-0.09	2.19
1,525.00	0.73	92.72	1,524.94	-0.32	10.61	0.32	0.10	0.07	6.42
1,625.00	0.73	96.63	1,624.93	-0.43	11.88	0.43	0.05	0.00	3.91
1,725.00	0.40	91.43	1,724.93	-0.51	12.86	0.51	0.33	-0.33	-5.20
1,811.00	0.42	89.30	1,810.93	-0.51	13.48	0.51	0.03	0.02	-2.48
1,924.00	0.70	108.70	1,923.92	-0.73	14.54	0.73	0.30	0.25	17.17
2,009.00	1.20	81.50	2,008.91	-0.76	15.92	0.76	0.78	0.59	-32.00
2,104.00	2.70	45.40	2,103.85	0.95	18.49	-0.95	1.97	1.58	-38.00
2,198.00	4.10	40.80	2,197.69	5.05	22.27	-5.05	1.52	1.49	-4.89
2,293.00	5.30	39.30	2,292.36	11.02	27.26	-11.02	1.27	1.26	-1.58
2,388.00	6.80	38.90	2,386.83	18.79	33.58	-18.79	1.58	1.58	-0.42
2,482.00	7.40	38.00	2,480.11	27.89	40.80	-27.89	0.65	0.64	-0.96
2,577.00	8.40	40.30	2,574.21	38.01	49.05	-38.01	1.10	1.05	2.42
2,672.00	8.50	47.60	2,668.18	48.03	58.73	-48.03	1.13	0.11	7.68
2,766.00	8.20	59.50	2,761.19	56.12	69.63	-56.12	1.86	-0.32	12.66
2,861.00	8.20	64.80	2,855.22	62.44	81.60	-62.44	0.80	0.00	5.58
2,955.00	7.10	73.30	2,948.39	66.97	93.23	-66.97	1.68	-1.17	9.04
3,050.00	7.60	76.10	3,042.61	70.16	104.95	-70.16	0.65	0.53	2.95
3,145.00	8.30	78.00	3,136.69	73.10	117.76	-73.10	0.79	0.74	2.00
3,240.00	6.80	78.20	3,230.87	75.67	129.97	-75.67	1.58	-1.58	0.21
3,334.00	6.70	78.50	3,324.21	77.91	140.79	-77.91	0.11	-0.11	0.32
3,429.00	6.80	81.00	3,418.56	79.89	151.78	-79.89	0.33	0.11	2.63
3,523.00	6.40	77.80	3,511.93	81.87	162.39	-81.87	0.58	-0.43	-3.40
3,618.00	6.40	82.00	3,606.34	83.72	172.81	-83.72	0.49	0.00	4.42
3,712.00	6.80	80.50	3,699.72	85.37	183.49	-85.37	0.46	0.43	-1.60
3,807.00	6.90	79.40	3,794.04	87.35	194.65	-87.35	0.17	0.11	-1.16
3,901.00	7.30	81.80	3,887.32	89.24	206.11	-89.24	0.53	0.43	2.55
3,996.00	7.70	81.90	3,981.51	91.00	218.38	-91.00	0.42	0.42	0.11
4,090.00	7.70	74.70	4,074.66	93.55	230.69	-93.55	1.03	0.00	-7.66
4,185.00	8.30	73.10	4,168.74	97.22	243.39	-97.22	0.67	0.63	-1.68
4,280.00	7.90	79.70	4,262.79	100.38	256.38	-100.38	1.06	-0.42	6.95
4,374.00	8.10	81.70	4,355.88	102.49	269.28	-102.49	0.36	0.21	2.13
4,469.00	8.70	80.00	4,449.86	104.70	282.98	-104.70	0.68	0.63	-1.79
4,563.00	9.00	80.60	4,542.74	107.14	297.24	-107.14	0.33	0.32	0.64
4,658.00	8.00	78.90	4,636.69	109.63	311.06	-109.63	1.09	-1.05	-1.79
4,752.00	7.90	81.20	4,729.79	111.87	323.86	-111.87	0.35	-0.11	2.45
4,847.00	8.70	81.30	4,823.79	113.96	337.41	-113.96	0.84	0.84	0.11
4,924.00	9.30	82.20	4,899.85	115.68	349.33	-115.68	0.80	0.78	1.17
5,020.00	9.80	82.20	4,994.51	117.85	365.11	-117.85	0.52	0.52	0.00



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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH Surveys 125'-14877' PTB 14918'	Database:	WellPlanner1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,115.00	9.70	81.60	5,088.14	120.11	381.04	-120.11	0.15	-0.11	-0.63
5,210.00	7.60	83.30	5,182.06	122.01	395.20	-122.01	2.23	-2.21	1.79
5,304.00	7.50	84.90	5,275.24	123.29	407.48	-123.29	0.25	-0.11	1.70
5,398.00	7.50	84.10	5,368.44	124.46	419.70	-124.46	0.11	0.00	-0.85
5,493.00	7.60	82.30	5,462.61	125.94	432.09	-125.94	0.27	0.11	-1.89
5,587.00	6.20	80.10	5,555.93	127.65	443.25	-127.65	1.52	-1.49	-2.34
5,682.00	5.90	78.80	5,650.40	129.48	453.09	-129.48	0.35	-0.32	-1.37
5,777.00	5.90	79.30	5,744.90	131.33	462.68	-131.33	0.05	0.00	0.53
5,872.00	6.00	81.30	5,839.39	132.99	472.39	-132.99	0.24	0.11	2.11
5,966.00	5.80	80.00	5,932.89	134.56	481.92	-134.56	0.26	-0.21	-1.38
6,060.00	5.70	80.40	6,026.42	136.16	491.20	-136.16	0.11	-0.11	0.43
6,154.00	5.70	81.60	6,119.95	137.62	500.42	-137.62	0.13	0.00	1.28
6,249.00	5.60	80.80	6,214.49	139.05	509.66	-139.05	0.13	-0.11	-0.84
6,344.00	5.50	81.50	6,309.04	140.46	518.74	-140.46	0.13	-0.11	0.74
6,438.00	5.30	81.40	6,402.63	141.78	527.49	-141.78	0.21	-0.21	-0.11
6,533.00	5.00	78.20	6,497.24	143.28	535.88	-143.28	0.44	-0.32	-3.37
6,627.00	4.60	78.80	6,590.91	144.85	543.59	-144.85	0.43	-0.43	0.64
6,722.00	4.50	92.90	6,685.62	145.40	551.05	-145.40	1.18	-0.11	14.84
6,817.00	4.70	97.00	6,780.31	144.74	558.63	-144.74	0.40	0.21	4.32
6,911.00	4.50	92.60	6,874.01	144.10	566.14	-144.10	0.43	-0.21	-4.68
7,005.00	4.80	77.80	6,967.70	144.77	573.67	-144.77	1.31	0.32	-15.74
7,100.00	4.90	74.00	7,062.36	146.73	581.45	-146.73	0.35	0.11	-4.00
7,194.00	4.60	75.40	7,156.04	148.78	588.96	-148.78	0.34	-0.32	1.49
7,289.00	4.60	76.20	7,250.73	150.65	596.34	-150.65	0.07	0.00	0.84
7,383.00	5.30	70.70	7,344.38	152.99	604.10	-152.99	0.90	0.74	-5.85
7,477.00	6.60	78.30	7,437.88	155.52	613.49	-155.52	1.61	1.38	8.09
7,572.00	6.50	82.30	7,532.26	157.34	624.16	-157.34	0.49	-0.11	4.21
7,666.00	6.80	82.80	7,625.63	158.75	634.96	-158.75	0.33	0.32	0.53
7,760.00	7.10	76.40	7,718.94	160.82	646.13	-160.82	0.88	0.32	-6.81
7,855.00	6.40	71.50	7,813.28	163.88	656.85	-163.88	0.95	-0.74	-5.16
7,955.00	5.80	95.70	7,912.73	165.15	667.17	-165.15	2.62	-0.60	24.20
8,049.00	6.90	81.20	8,006.16	165.54	677.48	-165.54	2.06	1.17	-15.43
8,144.00	7.70	73.80	8,100.39	168.19	689.23	-168.19	1.30	0.84	-7.79
8,239.00	6.90	71.50	8,194.62	171.77	700.75	-171.77	0.90	-0.84	-2.42
8,333.00	7.20	77.70	8,287.91	174.82	711.86	-174.82	0.87	0.32	6.60
8,428.00	6.70	77.50	8,382.21	177.29	723.09	-177.29	0.53	-0.53	-0.21
8,522.00	7.30	85.50	8,475.51	178.94	734.40	-178.94	1.22	0.64	8.51
8,616.00	7.20	87.30	8,568.76	179.69	746.23	-179.69	0.26	-0.11	1.91
8,711.00	6.80	85.90	8,663.05	180.37	757.79	-180.37	0.46	-0.42	-1.47
8,803.00	7.60	70.60	8,754.33	182.78	768.96	-182.78	2.25	0.87	-16.63
8,898.00	7.50	63.70	8,848.51	187.62	780.45	-187.62	0.96	-0.11	-7.26
8,992.00	7.30	63.20	8,941.73	193.03	791.28	-193.03	0.22	-0.21	-0.53
9,087.00	5.60	59.10	9,036.12	198.13	800.64	-198.13	1.85	-1.79	-4.32



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9,181.00	4.90	65.60	9,129.73	202.14	808.23	-202.14	0.98	-0.74	6.91
9,276.00	5.30	85.50	9,224.36	204.16	816.30	-204.16	1.90	0.42	20.95
9,371.00	4.60	88.50	9,319.01	204.61	824.49	-204.61	0.79	-0.74	3.16
9,465.00	3.30	89.10	9,412.78	204.75	830.96	-204.75	1.38	-1.38	0.64
9,526.00	3.20	90.40	9,473.68	204.76	834.42	-204.76	0.20	-0.16	2.13
9,557.00	3.70	163.70	9,504.64	203.80	835.56	-203.80	13.34	1.61	236.45
9,589.00	6.50	156.80	9,536.51	201.14	836.57	-201.14	8.94	8.75	-21.56
9,620.00	10.40	170.10	9,567.17	196.77	837.74	-196.77	13.99	12.58	42.90
9,652.00	14.70	178.50	9,598.40	189.86	838.34	-189.86	14.56	13.44	26.25
9,683.00	18.20	181.90	9,628.13	181.09	838.29	-181.09	11.71	11.29	10.97
9,714.00	21.70	183.40	9,657.26	170.53	837.78	-170.53	11.41	11.29	4.84
9,746.00	24.10	183.70	9,686.74	158.10	837.01	-158.10	7.51	7.50	0.94
9,778.00	26.30	183.80	9,715.69	144.50	836.12	-144.50	6.88	6.88	0.31
9,809.00	29.20	183.10	9,743.12	130.10	835.26	-130.10	9.41	9.35	-2.26
9,841.00	32.40	181.10	9,770.61	113.73	834.67	-113.73	10.50	10.00	-6.25
9,872.00	35.00	179.00	9,796.40	96.53	834.67	-96.53	9.19	8.39	-6.77
9,903.00	37.90	177.90	9,821.33	78.12	835.17	-78.12	9.59	9.35	-3.55
9,935.00	40.40	177.30	9,846.14	57.94	836.02	-57.94	7.90	7.81	-1.88
9,966.00	43.30	176.80	9,869.23	37.29	837.09	-37.29	9.42	9.35	-1.61
9,998.00	46.30	176.90	9,891.94	14.77	838.32	-14.77	9.38	9.38	0.31
10,029.00	49.20	178.10	9,912.78	-8.15	839.32	8.15	9.78	9.35	3.87
10,061.00	51.70	179.50	9,933.15	-32.81	839.83	32.81	8.51	7.81	4.38
10,092.00	54.10	179.80	9,951.85	-57.54	839.98	57.54	7.78	7.74	0.97
10,124.00	56.60	179.50	9,970.04	-83.86	840.14	83.86	7.85	7.81	-0.94
10,155.00	59.90	178.90	9,986.35	-110.21	840.51	110.21	10.77	10.65	-1.94
10,187.00	63.70	178.40	10,001.47	-138.40	841.18	138.40	11.95	11.88	-1.56
10,218.00	66.70	178.40	10,014.47	-166.53	841.96	166.53	9.68	9.68	0.00
10,250.00	68.50	178.30	10,026.67	-196.10	842.82	196.10	5.63	5.63	-0.31
10,281.00	71.40	178.90	10,037.30	-225.21	843.53	225.21	9.53	9.35	1.94
10,313.00	74.30	179.40	10,046.73	-255.78	843.98	255.78	9.18	9.06	1.56
10,344.00	77.10	180.00	10,054.39	-285.82	844.14	285.82	9.22	9.03	1.94
10,376.00	80.40	180.70	10,060.63	-317.20	843.94	317.20	10.53	10.31	2.19
10,417.00	84.60	180.00	10,065.98	-357.84	843.70	357.84	10.38	10.24	-1.71
10,448.00	85.70	179.90	10,068.60	-388.72	843.72	388.72	3.56	3.55	-0.32
10,480.00	85.80	179.80	10,070.97	-420.64	843.81	420.64	0.44	0.31	-0.31
10,574.00	87.60	178.80	10,076.38	-514.47	844.95	514.47	2.19	1.91	-1.06
10,669.00	87.40	178.70	10,080.53	-609.35	847.02	609.35	0.24	-0.21	-0.11
10,700.00	88.90	178.30	10,081.53	-640.33	847.83	640.33	5.01	4.84	-1.29
10,763.00	90.40	178.10	10,081.91	-703.29	849.81	703.29	2.40	2.38	-0.32
10,858.00	91.00	177.70	10,080.75	-798.22	853.29	798.22	0.76	0.63	-0.42
10,952.00	90.10	177.70	10,079.85	-892.14	857.07	892.14	0.96	-0.96	0.00
11,047.00	90.60	177.60	10,079.27	-987.06	860.96	987.06	0.54	0.53	-0.11
11,141.00	88.20	177.00	10,080.25	-1,080.94	865.39	1,080.94	2.63	-2.55	-0.64
11,236.00	89.90	176.90	10,081.83	-1,175.79	870.44	1,175.79	1.79	1.79	-0.11



Pro Directional Survey Report



Company: McElvain Energy
Project: Lea County, NM (NAD 83)
Site: EK 29 BS2 Federal Com
Well: #1H
Wellbore: OH
Design: OH Surveys 125'-14877' PTB 14918'

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 25' @ 4075.00usft (H&P 262)
MD Reference: KB = 25' @ 4075.00usft (H&P 262)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,331.00	90.50	176.10	10,081.50	-1,270.61	876.24	1,270.61	1.05	0.63	-0.84
11,425.00	90.20	175.10	10,080.92	-1,364.33	883.45	1,364.33	1.11	-0.32	-1.06
11,519.00	90.10	176.60	10,080.68	-1,458.08	890.26	1,458.08	1.60	-0.11	1.60
11,614.00	89.70	176.70	10,080.84	-1,552.92	895.81	1,552.92	0.43	-0.42	0.11
11,708.00	90.60	178.10	10,080.60	-1,646.82	900.07	1,646.82	1.77	0.96	1.49
11,771.00	89.70	178.60	10,080.43	-1,709.79	901.89	1,709.79	1.63	-1.43	0.79
11,835.00	89.40	179.90	10,080.93	-1,773.78	902.72	1,773.78	2.08	-0.47	2.03
11,898.00	87.80	180.80	10,082.47	-1,836.76	902.34	1,836.76	2.91	-2.54	1.43
11,992.00	87.60	180.90	10,086.25	-1,930.67	900.95	1,930.67	0.24	-0.21	0.11
12,087.00	88.80	181.00	10,089.23	-2,025.61	899.37	2,025.61	1.27	1.26	0.11
12,182.00	88.30	180.30	10,091.63	-2,120.58	898.29	2,120.58	0.91	-0.53	-0.74
12,276.00	90.40	180.00	10,092.70	-2,214.56	898.05	2,214.56	2.26	2.23	-0.32
12,371.00	90.20	181.20	10,092.20	-2,309.56	897.05	2,309.56	1.28	-0.21	1.26
12,465.00	87.90	181.10	10,093.76	-2,403.52	895.17	2,403.52	2.45	-2.45	-0.11
12,559.00	88.00	180.30	10,097.12	-2,497.45	894.02	2,497.45	0.86	0.11	-0.85
12,654.00	89.20	179.80	10,099.44	-2,592.42	893.94	2,592.42	1.37	1.26	-0.53
12,748.00	90.80	179.40	10,099.44	-2,686.41	894.59	2,686.41	1.75	1.70	-0.43
12,843.00	91.50	180.60	10,097.54	-2,781.39	894.59	2,781.39	1.46	0.74	1.26
12,937.00	87.90	180.60	10,098.03	-2,875.37	893.61	2,875.37	3.83	-3.83	0.00
13,031.00	87.00	181.20	10,102.21	-2,969.26	892.13	2,969.26	1.15	-0.96	0.64
13,125.00	87.90	181.70	10,106.39	-3,063.14	889.76	3,063.14	1.10	0.96	0.53
13,220.00	88.10	181.10	10,109.71	-3,158.05	887.44	3,158.05	0.67	0.21	-0.63
13,314.00	88.30	181.30	10,112.66	-3,251.99	885.47	3,251.99	0.30	0.21	0.21
13,409.00	89.90	181.10	10,114.15	-3,346.95	883.48	3,346.95	1.70	1.68	-0.21
13,504.00	89.30	180.30	10,114.82	-3,441.94	882.32	3,441.94	1.05	-0.63	-0.84
13,598.00	86.80	179.90	10,118.02	-3,535.88	882.16	3,535.88	2.69	-2.66	-0.43
13,693.00	87.90	180.30	10,122.41	-3,630.77	881.99	3,630.77	1.23	1.16	0.42
13,787.00	89.10	180.60	10,124.87	-3,724.74	881.25	3,724.74	1.32	1.28	0.32
13,882.00	87.20	180.80	10,127.94	-3,819.68	880.09	3,819.68	2.01	-2.00	0.21
13,976.00	88.80	181.00	10,131.22	-3,913.60	878.62	3,913.60	1.72	1.70	0.21
14,071.00	90.00	180.80	10,132.21	-4,008.58	877.12	4,008.58	1.28	1.26	-0.21
14,165.00	88.00	179.40	10,133.85	-4,102.56	876.96	4,102.56	2.60	-2.13	-1.49
14,259.00	88.70	179.00	10,136.56	-4,196.51	878.27	4,196.51	0.86	0.74	-0.43
14,354.00	89.80	178.70	10,137.80	-4,291.49	880.18	4,291.49	1.20	1.16	-0.32
14,448.00	88.90	178.10	10,138.87	-4,385.44	882.80	4,385.44	1.15	-0.96	-0.64
14,543.00	86.70	177.60	10,142.51	-4,480.30	886.36	4,480.30	2.37	-2.32	-0.53
14,638.00	87.30	177.40	10,147.49	-4,575.08	890.50	4,575.08	0.67	0.63	-0.21
14,732.00	88.80	176.70	10,150.68	-4,668.90	895.34	4,668.90	1.76	1.60	-0.74
14,827.00	89.70	176.10	10,151.93	-4,763.70	901.30	4,763.70	1.14	0.95	-0.63
14,877.00	90.90	175.70	10,151.67	-4,813.57	904.88	4,813.57	2.53	2.40	-0.80

Last Survey: 14877.00' MD, 10151.67' TVD

14,918.00 90.90 175.70 10,151.02 -4,854.45 907.95 4,854.45 0.00 0.00 0.00

PTB: 14918.00' MD, 10151.02' TVD



Pro Directional Survey Report



Company: McElvain Energy
Project: Lea County, NM (NAD 83)
Site: EK 29 BS2 Federal Com
Well: #1H
Wellbore: OH
Design: OH Surveys 125'-14877' PTB 14918'

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 25' @ 4075.00usft (H&P 262)
MD Reference: KB = 25' @ 4075.00usft (H&P 262)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
14,877.00	10,151.67	-4,813.57	904.88	Last Survey: 14877.00' MD, 10151.67' TVD
14,918.00	10,151.02	-4,854.45	907.95	PTB: 14918.00' MD, 10151.02' TVD

Checked By: _____ Approved By: _____ Date: _____