

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on page 2****HOBBS OCD
MAY 23 2018
RECEIVED**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM0245247
2. Name of Operator MCELVAIN OIL & GAS PROP INC		6. If Indian, Allottee or Tribe Name
Contact: TONY G COOPER E-Mail: tony.cooper@mcelvain.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 1050 17TH STREET SUITE 1800 DENVER, CO 80265-1801	3b. Phone No. (include area code) Ph: 303-893-0933 Ext: 331	8. Well Name and No. EK 30 BS2 FEDERAL COM 4H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 30 T18S R34E Lot 4 75FSL 1101FWL		9. API Well No. 30-025-43151-00-X1
		10. Field and Pool or Exploratory Area EK-BONE SPRING
		11. County or Parish, State LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

McElvain Energy Inc. is respectfully requesting to make the following changes to the approved APD for this well:

Extend the lateral portion of the well from 1 mile to 1.5 miles.
New Surface & Bottom Hole Locations: (Amended C-102 attached)

SHL: M 30 18S 34E 80'FSL 1050'FWL
BHL: L 19 18S 34E 2440'FSL, 660'FWL

Revised Production Casing Depth & Cement Volumes:(New Directional Plan attached)

Eng OK 5/21/18 CRW

14. I hereby certify that the foregoing is true and correct. Electronic Submission #412251 verified by the BLM Well Information System For MCELVAIN OIL & GAS PROP INC, sent to the Hobbs Committed to AFMSS for processing by CHRISTOPHER WALLS on 04/25/2018 (18CRW0030SE)	
Name (Printed/Typed) CAPLIS CHRIS	Title VP DRILLING & COMPLETION
Signature (Electronic Submission)	Date 04/24/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <i>Carolyn Kuster</i>	Title <i>AFM</i>	Date <i>5/21/2018</i>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office <i>CFO</i>

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED *****LB*

Additional data for EC transaction #412251 that would not fit on the form

32. Additional remarks, continued

New TD 17,303', 5.5 Prod Csg, (csg specs are the same as stated in the APD).
Prod Csg Cement Spec's: Lead 650 sx (11ppg 2.9yld 17.9 gal/sx), Tail 2600 sx (14.5ppg, 1.225 yld, 5.59 gal/sx).

Revised Projected Mud Properties for Production Casing Interval:

For the final production casing interval from 9,330 - 17,433' McElvain is requesting the use of oil based mud (OBM). (See attached mud specs)

Recommended Drilling Fluids Program

McElvain Oil & Gas Properties, Inc. * EK 30 BS2 Federal Com 4H, * Sec. 30, T-18-S, R-34-E,
Lea County, NM

Projected Mud Properties

INTERVAL: 0 - 1,820'		17.5" hole		1,820' TVD		13.375" csg		1 drill bits		3 days	
Depth	Mud Type	M W - ppg	Vis	Fil	pH	Cl - ppm	Sol %				
0-1,000'	FR/NA	8.4-9.2	32-34	N/C	10.0	3-10K	3-8				
1,000-1,820'	FR/NA/ST	9.0-9.6	32-36	30-10cc	10.0	3-10K	5-9				
INTERVAL: 1,820 - 4,936'		12.25" hole		4,936' TVD		9.625" csg		1 drill bits		5 days	
Depth	Mud Type	M W - ppg	Vis	Fil	pH	Cl - ppm	Sol %				
1,820-4,936'	BRINE	10.0	28	N/C	10.0	186K	.5-.75				
INTERVAL: 4,936 - 9,330'		8.75" hole		9,330' TVD				1 drill bits		5 days	
Depth	Mud Type	M W - ppg	Vis	Fil	pH	Cl - ppm	Sol %				
4,936-9,330'	CB	8.8-9.2	28-30	N/C	10.0	40-120K	.75-1.5				
INTERVAL: 9,330 - 17,500'		8.75" hole		9,900' TVD		5.5" csg		2 drill bits		14 days	
Depth	Mud Type	M W - ppg	Vis	HTHP	OWR	Cl - ppm	Sol %	E.S.			
9,330-17,500'	OBM	8.6-9.0	50-70	15cc	75/25	250K	.5-1.5	600			



DISTRICT I

1625 N. French Dr., Hobbs, NM 88240
Phone (505) 393-6181 Fax: (505) 393-0720

DISTRICT II

811 S. First St., Artesia, NM 88210
Phone (505) 748-1283 Fax: (505) 748-0720

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3480 Fax: (505) 476-3482State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-43151	Pool Code 21650	Pool Name EK Bone Spring
Property Code	Property Name EK 30 BS2 FEDERAL COM	Well Number 4H
OGRID No. 220414	Operator Name McELVAIN ENERGY, INC	Elevation 3863'

Surface Location

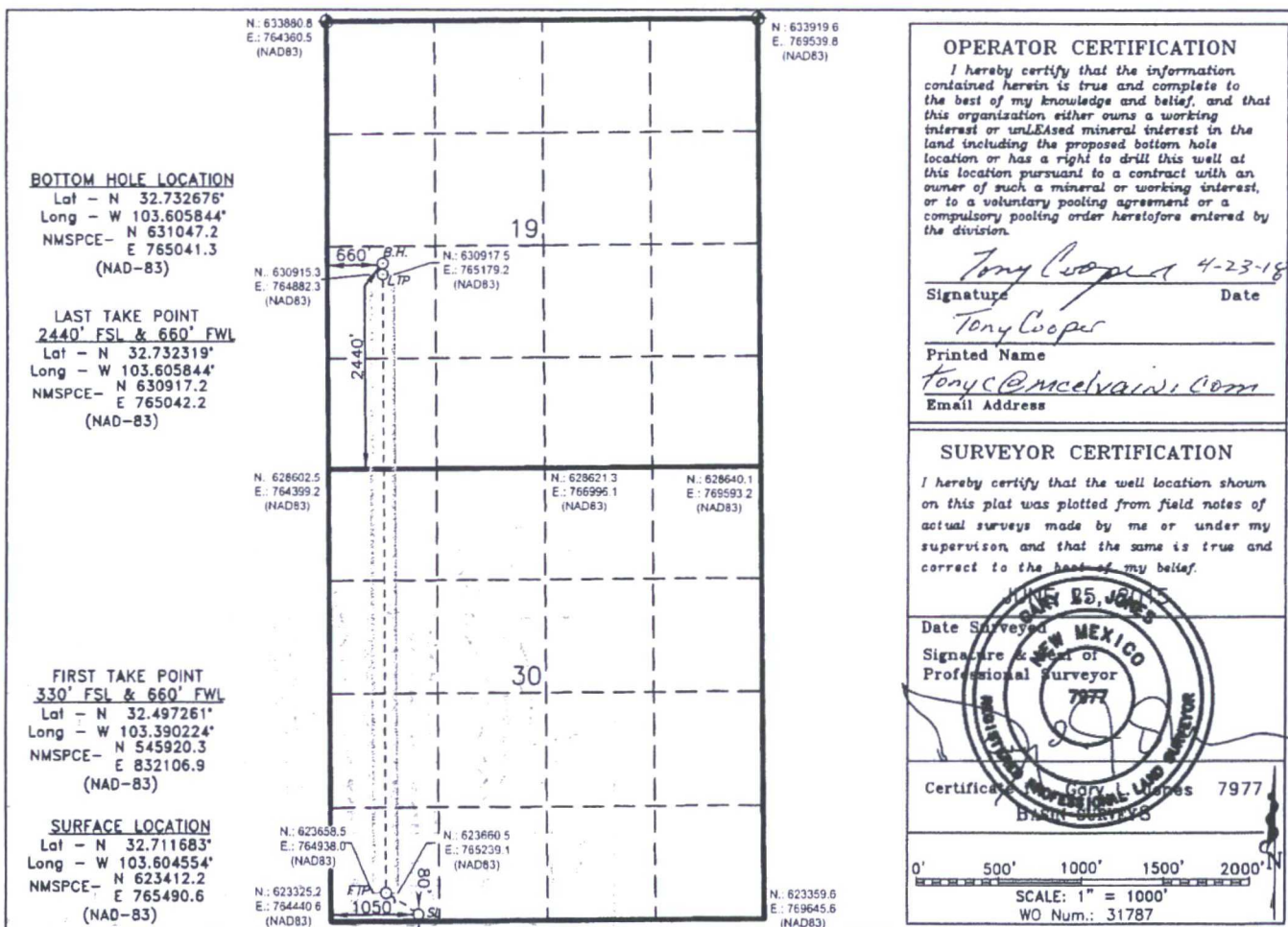
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	30	18 S	34 E		80	SOUTH	1050	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	19	18 S	34 E		2440	SOUTH	660	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
226.41			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION





McElvain Energy, Inc.

Sec. 30 T18S R34E

EK 30 WCD Federal Com

EK 30 BS2 Federal Com 4H

Wellbore #1

Plan: Plan #5 23Apr18 kjs

Standard Planning Report - Geographic

23 April, 2018



Planning Report - Geographic

Database: EDM 5000.15 Single User Db
Company: McElvain Energy, Inc.
Project: Sec. 30 T18S R34E
Site: EK 30 WCD Federal Com
Well: EK 30 BS2 Federal Com 4H
Wellbore: Wellbore #1
Design: Plan #5 23Apr18 kjs

Local Co-ordinate Reference: Well EK 30 BS2 Federal Com 4H
TVD Reference: KB2 @ 3883.00usft
MD Reference: KB2 @ 3883.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Sec. 30 T18S R34E, Lea County, NM		
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 30 WCD Federal Com			
Site Position:		Northing:	626,476.83 usft	Latitude: 32.720115
From: Map		Easting:	765,038.76 usft	Longitude: -103.605955
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.39 °

Well	EK 30 BS2 Federal Com 4H			
Well Position	+N/-S	0.00 usft	Northing:	623,412.20 usft
	+E/-W	0.00 usft	Easting:	765,490.60 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:		Ground Level: 3,863.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/29/2015	7.13	60.53	48,489.40062449

Design	Plan #5 23Apr18 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	358.67

Plan Survey Tool Program Date 4/23/2018

Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1 0.00	17,433.14	Plan #5 23Apr18 kjs (Wellbore #1)	MWD	
			MWD - Standard	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,121.58	3.32	262.19	2,121.46	-0.87	-6.37	1.50	1.50	0.00	262.19	
9,460.61	3.32	262.19	9,448.14	-58.67	-427.92	0.00	0.00	0.00	0.00	
10,073.11	73.02	0.00	9,908.20	279.52	-448.40	12.00	11.38	15.97	98.80	
10,227.95	91.60	0.00	9,928.83	432.30	-448.40	12.00	12.00	0.00	0.00	
17,303.41	91.60	0.00	9,731.18	7,505.00	-448.40	0.00	0.00	0.00	0.00	TD / PBHL 30 BS2 4H
17,433.41	91.60	0.00	9,727.55	7,634.95	-448.40	0.00	0.00	0.00	0.00	



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Local Co-ordinate Reference: Well EK 30 BS2 Federal Com 4H
TVD Reference: KB2 @ 3883.00usft
MD Reference: KB2 @ 3883.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
100.00	0.00	0.00	100.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
200.00	0.00	0.00	200.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
300.00	0.00	0.00	300.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
400.00	0.00	0.00	400.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
500.00	0.00	0.00	500.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
600.00	0.00	0.00	600.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
700.00	0.00	0.00	700.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
800.00	0.00	0.00	800.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
900.00	0.00	0.00	900.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
1,000.00	0.00	0.00	1,000.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
1,100.00	0.00	0.00	1,100.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
1,200.00	0.00	0.00	1,200.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
1,300.00	0.00	0.00	1,300.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
1,400.00	0.00	0.00	1,400.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
1,500.00	0.00	0.00	1,500.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
1,600.00	0.00	0.00	1,600.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
1,681.00	0.00	0.00	1,681.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
Rustler									
1,700.00	0.00	0.00	1,700.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
1,741.00	0.00	0.00	1,741.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
Salt									
1,800.00	0.00	0.00	1,800.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
13 3/8"									
1,900.00	0.00	0.00	1,900.00	0.00	0.00	623,412.20	765,490.60	32.711683	-103.604554
Start Build 1.50									
2,000.00	1.50	262.19	1,999.99	-0.18	-1.30	623,412.03	765,489.30	32.711683	-103.604558
2,100.00	3.00	262.19	2,099.91	-0.71	-5.19	623,411.49	765,485.41	32.711682	-103.604571
2,121.58	3.32	262.19	2,121.46	-0.87	-6.37	623,411.33	765,484.23	32.711681	-103.604575
Hold 3.32 Inc, 262.19 Az									
2,200.00	3.32	262.19	2,199.74	-1.49	-10.87	623,410.71	765,479.73	32.711679	-103.604589
2,300.00	3.32	262.19	2,299.58	-2.28	-16.61	623,409.93	765,473.98	32.711677	-103.604608
2,400.00	3.32	262.19	2,399.41	-3.07	-22.36	623,409.14	765,468.24	32.711675	-103.604627
2,500.00	3.32	262.19	2,499.24	-3.85	-28.10	623,408.35	765,462.50	32.711673	-103.604646
2,600.00	3.32	262.19	2,599.07	-4.64	-33.85	623,407.56	765,456.75	32.711671	-103.604664
2,700.00	3.32	262.19	2,698.90	-5.43	-39.59	623,406.78	765,451.01	32.711669	-103.604683
2,800.00	3.32	262.19	2,798.73	-6.22	-45.33	623,405.99	765,445.26	32.711667	-103.604702
2,900.00	3.32	262.19	2,898.57	-7.00	-51.08	623,405.20	765,439.52	32.711665	-103.604720
3,000.00	3.32	262.19	2,998.40	-7.79	-56.82	623,404.41	765,433.78	32.711663	-103.604739
3,100.00	3.32	262.19	3,098.23	-8.58	-62.57	623,403.63	765,428.03	32.711661	-103.604758
3,200.00	3.32	262.19	3,198.06	-9.37	-68.31	623,402.84	765,422.29	32.711659	-103.604776
3,258.31	3.32	262.19	3,256.27	-9.83	-71.66	623,402.38	765,418.94	32.711658	-103.604787
Yates									
3,300.00	3.32	262.19	3,297.89	-10.15	-74.05	623,402.05	765,416.54	32.711657	-103.604795
3,400.00	3.32	262.19	3,397.73	-10.94	-79.80	623,401.26	765,410.80	32.711655	-103.604814
3,402.28	3.32	262.19	3,400.00	-10.96	-79.93	623,401.25	765,410.67	32.711655	-103.604814
9 5/8"									
3,500.00	3.32	262.19	3,497.56	-11.73	-85.54	623,400.48	765,405.05	32.711653	-103.604832
3,600.00	3.32	262.19	3,597.39	-12.52	-91.29	623,399.69	765,399.31	32.711651	-103.604851
3,700.00	3.32	262.19	3,697.22	-13.30	-97.03	623,398.90	765,393.57	32.711649	-103.604870
3,734.22	3.32	262.19	3,731.38	-13.57	-99.00	623,398.63	765,391.60	32.711648	-103.604876
Seven Rivers									
3,800.00	3.32	262.19	3,797.05	-14.09	-102.77	623,398.11	765,387.82	32.711647	-103.604888
3,900.00	3.32	262.19	3,896.88	-14.88	-108.52	623,397.33	765,382.08	32.711645	-103.604907



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Planned Survey

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4,000.00	3.32	262.19	3,996.72	-15.67	-114.26	623,396.54	765,376.33	32.711642	-103.604926
4,100.00	3.32	262.19	4,096.55	-16.45	-120.01	623,395.75	765,370.59	32.711640	-103.604945
4,200.00	3.32	262.19	4,196.38	-17.24	-125.75	623,394.96	765,364.85	32.711638	-103.604963
4,300.00	3.32	262.19	4,296.21	-18.03	-131.49	623,394.18	765,359.10	32.711636	-103.604982
4,400.00	3.32	262.19	4,396.04	-18.82	-137.24	623,393.39	765,353.36	32.711634	-103.605001
4,435.55	3.32	262.19	4,431.53	-19.10	-139.28	623,393.11	765,351.32	32.711634	-103.605007
Queen									
4,500.00	3.32	262.19	4,495.88	-19.60	-142.98	623,392.60	765,347.61	32.711632	-103.605019
4,600.00	3.32	262.19	4,595.71	-20.39	-148.73	623,391.81	765,341.87	32.711630	-103.605038
4,700.00	3.32	262.19	4,695.54	-21.18	-154.47	623,391.02	765,336.13	32.711628	-103.605057
4,711.07	3.32	262.19	4,706.59	-21.27	-155.11	623,390.94	765,335.49	32.711628	-103.605059
Penrose									
4,800.00	3.32	262.19	4,795.37	-21.97	-160.21	623,390.24	765,330.38	32.711626	-103.605075
4,900.00	3.32	262.19	4,895.20	-22.75	-165.96	623,389.45	765,324.64	32.711624	-103.605094
5,000.00	3.32	262.19	4,995.03	-23.54	-171.70	623,388.66	765,318.89	32.711622	-103.605113
5,100.00	3.32	262.19	5,094.87	-24.33	-177.45	623,387.87	765,313.15	32.711620	-103.605131
5,200.00	3.32	262.19	5,194.70	-25.12	-183.19	623,387.09	765,307.41	32.711618	-103.605150
5,262.12	3.32	262.19	5,256.72	-25.61	-186.76	623,386.60	765,303.84	32.711617	-103.605162
San Andres									
5,300.00	3.32	262.19	5,294.53	-25.90	-188.93	623,386.30	765,301.66	32.711616	-103.605169
5,400.00	3.32	262.19	5,394.36	-26.69	-194.68	623,385.51	765,295.92	32.711614	-103.605188
5,412.41	3.32	262.19	5,406.75	-26.79	-195.39	623,385.41	765,295.21	32.711613	-103.605190
Delaware									
5,452.48	3.32	262.19	5,446.76	-27.11	-197.69	623,385.10	765,292.90	32.711613	-103.605197
1st Delaware Sand									
5,500.00	3.32	262.19	5,494.19	-27.48	-200.42	623,384.72	765,290.17	32.711612	-103.605206
5,600.00	3.32	262.19	5,594.02	-28.27	-206.17	623,383.94	765,284.43	32.711610	-103.605225
5,700.00	3.32	262.19	5,693.86	-29.05	-211.91	623,383.15	765,278.69	32.711608	-103.605244
5,738.03	3.32	262.19	5,731.82	-29.35	-214.09	623,382.85	765,276.50	32.711607	-103.605251
2nd Delaware Sand									
5,800.00	3.32	262.19	5,793.69	-29.84	-217.65	623,382.36	765,272.94	32.711605	-103.605262
5,900.00	3.32	262.19	5,893.52	-30.63	-223.40	623,381.57	765,267.20	32.711603	-103.605281
6,000.00	3.32	262.19	5,993.35	-31.42	-229.14	623,380.79	765,261.45	32.711601	-103.605300
6,100.00	3.32	262.19	6,093.18	-32.20	-234.89	623,380.00	765,255.71	32.711599	-103.605318
6,200.00	3.32	262.19	6,193.02	-32.99	-240.63	623,379.21	765,249.97	32.711597	-103.605337
6,300.00	3.32	262.19	6,292.85	-33.78	-246.37	623,378.42	765,244.22	32.711595	-103.605356
6,400.00	3.32	262.19	6,392.68	-34.57	-252.12	623,377.64	765,238.48	32.711593	-103.605374
6,500.00	3.32	262.19	6,492.51	-35.35	-257.86	623,376.85	765,232.73	32.711591	-103.605393
6,600.00	3.32	262.19	6,592.34	-36.14	-263.61	623,376.06	765,226.99	32.711589	-103.605412
6,700.00	3.32	262.19	6,692.17	-36.93	-269.35	623,375.27	765,221.25	32.711587	-103.605431
6,800.00	3.32	262.19	6,792.01	-37.72	-275.09	623,374.49	765,215.50	32.711585	-103.605449
6,900.00	3.32	262.19	6,891.84	-38.51	-280.84	623,373.70	765,209.76	32.711583	-103.605468
7,000.00	3.32	262.19	6,991.67	-39.29	-286.58	623,372.91	765,204.01	32.711581	-103.605487
7,100.00	3.32	262.19	7,091.50	-40.08	-292.33	623,372.12	765,198.27	32.711579	-103.605505
7,200.00	3.32	262.19	7,191.33	-40.87	-298.07	623,371.34	765,192.53	32.711577	-103.605524
7,300.00	3.32	262.19	7,291.17	-41.66	-303.81	623,370.55	765,186.78	32.711575	-103.605543
7,400.00	3.32	262.19	7,391.00	-42.44	-309.56	623,369.76	765,181.04	32.711573	-103.605561
7,500.00	3.32	262.19	7,490.83	-43.23	-315.30	623,368.97	765,175.29	32.711570	-103.605580
7,600.00	3.32	262.19	7,590.66	-44.02	-321.05	623,368.19	765,169.55	32.711568	-103.605599
7,631.63	3.32	262.19	7,622.24	-44.27	-322.86	623,367.94	765,167.73	32.711568	-103.605605
Bone Spring									
7,700.00	3.32	262.19	7,690.49	-44.81	-326.79	623,367.40	765,163.81	32.711566	-103.605617
7,800.00	3.32	262.19	7,790.32	-45.59	-332.53	623,366.61	765,158.06	32.711564	-103.605636
7,900.00	3.32	262.19	7,890.16	-46.38	-338.28	623,365.82	765,152.32	32.711562	-103.605655



Planning Report - Geographic

Database: EDM 5000.15 Single User Db
Company: McElvain Energy, Inc.
Project: Sec. 30 T18S R34E
Site: EK 30 WCD Federal Com
Well: EK 30 BS2 Federal Com 4H
Wellbore: Wellbore #1
Design: Plan #5 23Apr18 kjs

Local Co-ordinate Reference: Well EK 30 BS2 Federal Com 4H
TVD Reference: KB2 @ 3883.00usft
MD Reference: KB2 @ 3883.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,000.00	3.32	262.19	7,989.99	-47.17	-344.02	623,365.04	765,146.57	32.711560	-103.605674
8,100.00	3.32	262.19	8,089.82	-47.96	-349.77	623,364.25	765,140.83	32.711558	-103.605692
8,200.00	3.32	262.19	8,189.65	-48.74	-355.51	623,363.46	765,135.09	32.711556	-103.605711
8,300.00	3.32	262.19	8,289.48	-49.53	-361.25	623,362.67	765,129.34	32.711554	-103.605730
8,400.00	3.32	262.19	8,389.31	-50.32	-367.00	623,361.89	765,123.60	32.711552	-103.605748
8,500.00	3.32	262.19	8,489.15	-51.11	-372.74	623,361.10	765,117.85	32.711550	-103.605767
8,600.00	3.32	262.19	8,588.98	-51.89	-378.49	623,360.31	765,112.11	32.711548	-103.605786
8,700.00	3.32	262.19	8,688.81	-52.68	-384.23	623,359.52	765,106.37	32.711546	-103.605804
8,800.00	3.32	262.19	8,788.64	-53.47	-389.97	623,358.74	765,100.62	32.711544	-103.605823
8,900.00	3.32	262.19	8,888.47	-54.26	-395.72	623,357.95	765,094.88	32.711542	-103.605842
8,969.17	3.32	262.19	8,957.53	-54.80	-399.69	623,357.40	765,090.90	32.711540	-103.605855
1st Bone Spring Sand									
9,000.00	3.32	262.19	8,988.31	-55.04	-401.46	623,357.16	765,089.13	32.711540	-103.605860
9,100.00	3.32	262.19	9,088.14	-55.83	-407.21	623,356.37	765,083.39	32.711538	-103.605879
9,200.00	3.32	262.19	9,187.97	-56.62	-412.95	623,355.59	765,077.65	32.711536	-103.605898
9,300.00	3.32	262.19	9,287.80	-57.41	-418.70	623,354.80	765,071.90	32.711533	-103.605917
9,400.00	3.32	262.19	9,387.63	-58.19	-424.44	623,354.01	765,066.16	32.711531	-103.605935
9,460.61	3.32	262.19	9,448.14	-58.67	-427.92	623,353.53	765,062.68	32.711530	-103.605947
KOP 12/100									
9,500.00	5.34	323.16	9,487.43	-57.36	-430.15	623,354.85	765,060.44	32.711534	-103.605954
9,520.24	7.41	334.82	9,507.55	-55.42	-431.27	623,356.78	765,059.32	32.711539	-103.605957
2nd Bone Spring Sand									
9,600.00	16.54	349.86	9,585.51	-39.55	-435.47	623,372.65	765,055.13	32.711583	-103.605971
9,700.00	28.39	354.91	9,677.76	-1.72	-440.10	623,410.48	765,050.49	32.711687	-103.605985
9,800.00	40.33	357.13	9,760.16	54.49	-443.85	623,466.69	765,046.75	32.711841	-103.605996
9,900.00	52.29	358.46	9,829.12	126.61	-446.54	623,538.81	765,044.06	32.712040	-103.606003
10,000.00	64.26	359.42	9,881.60	211.50	-448.07	623,623.70	765,042.53	32.712273	-103.606006
10,073.08	73.02	360.00	9,908.19	279.50	-448.40	623,691.70	765,042.20	32.712460	-103.606006
TOP TARGET WINDOW									
10,073.11	73.02	0.00	9,908.20	279.52	-448.40	623,691.72	765,042.20	32.712460	-103.606006
POP									
10,100.00	76.25	0.00	9,915.33	305.45	-448.40	623,717.65	765,042.20	32.712531	-103.606005
10,200.00	88.25	0.00	9,928.79	404.35	-448.40	623,816.56	765,042.20	32.712803	-103.606003
10,227.95	91.60	0.00	9,928.83	432.30	-448.40	623,844.50	765,042.20	32.712880	-103.606002
LP 91.6 Inc, 0 Az									
10,300.00	91.60	0.00	9,926.82	504.32	-448.40	623,916.52	765,042.20	32.713078	-103.606001
10,400.00	91.60	0.00	9,924.02	604.28	-448.40	624,016.49	765,042.20	32.713353	-103.605998
10,500.00	91.60	0.00	9,921.23	704.24	-448.40	624,116.45	765,042.20	32.713627	-103.605996
10,600.00	91.60	0.00	9,918.43	804.20	-448.40	624,216.41	765,042.20	32.713902	-103.605994
10,700.00	91.60	0.00	9,915.64	904.16	-448.40	624,316.37	765,042.20	32.714177	-103.605992
10,800.00	91.60	0.00	9,912.85	1,004.13	-448.40	624,416.33	765,042.20	32.714452	-103.605989
10,900.00	91.60	0.00	9,910.05	1,104.09	-448.40	624,516.29	765,042.20	32.714726	-103.605987
11,000.00	91.60	0.00	9,907.26	1,204.05	-448.40	624,616.25	765,042.20	32.715001	-103.605985
11,100.00	91.60	0.00	9,904.47	1,304.01	-448.40	624,716.21	765,042.20	32.715276	-103.605983
11,200.00	91.60	0.00	9,901.67	1,403.97	-448.40	624,816.17	765,042.20	32.715551	-103.605980
11,300.00	91.60	0.00	9,898.88	1,503.93	-448.40	624,916.13	765,042.20	32.715825	-103.605978
11,400.00	91.60	0.00	9,896.08	1,603.89	-448.40	625,016.09	765,042.20	32.716100	-103.605976
11,500.00	91.60	0.00	9,893.29	1,703.85	-448.40	625,116.06	765,042.20	32.716375	-103.605974
11,600.00	91.60	0.00	9,890.50	1,803.81	-448.40	625,216.02	765,042.20	32.716650	-103.605972
11,700.00	91.60	0.00	9,887.70	1,903.77	-448.40	625,315.98	765,042.20	32.716924	-103.605969
11,800.00	91.60	0.00	9,884.91	2,003.73	-448.40	625,415.94	765,042.20	32.717199	-103.605967
11,900.00	91.60	0.00	9,882.12	2,103.70	-448.40	625,515.90	765,042.20	32.717474	-103.605965
12,000.00	91.60	0.00	9,879.32	2,203.66	-448.40	625,615.86	765,042.20	32.717749	-103.605963
12,100.00	91.60	0.00	9,876.53	2,303.62	-448.40	625,715.82	765,042.20	32.718023	-103.605960



Planning Report - Geographic

Database: EDM 5000.15 Single User Db
Company: McElvain Energy, Inc.
Project: Sec. 30 T18S R34E
Site: EK 30 WCD Federal Com
Well: EK 30 BS2 Federal Com 4H
Wellbore: Wellbore #1
Design: Plan #5 23Apr18 kjs

Local Co-ordinate Reference: Well EK 30 BS2 Federal Com 4H
TVD Reference: KB2 @ 3883.00usft
MD Reference: KB2 @ 3883.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
12,200.00	91.60	0.00	9,873.73	2,403.58	-448.40	625,815.78	765,042.20	32.718298	-103.605958
12,300.00	91.60	0.00	9,870.94	2,503.54	-448.40	625,915.74	765,042.20	32.718573	-103.605956
12,400.00	91.60	0.00	9,868.15	2,603.50	-448.40	626,015.70	765,042.20	32.718847	-103.605954
12,500.00	91.60	0.00	9,865.35	2,703.46	-448.40	626,115.67	765,042.20	32.719122	-103.605952
12,600.00	91.60	0.00	9,862.56	2,803.42	-448.40	626,215.63	765,042.20	32.719397	-103.605949
12,700.00	91.60	0.00	9,859.77	2,903.38	-448.40	626,315.59	765,042.20	32.719672	-103.605947
12,800.00	91.60	0.00	9,856.97	3,003.34	-448.40	626,415.55	765,042.20	32.719946	-103.605945
12,900.00	91.60	0.00	9,854.18	3,103.31	-448.40	626,515.51	765,042.20	32.720221	-103.605943
13,000.00	91.60	0.00	9,851.38	3,203.27	-448.40	626,615.47	765,042.20	32.720496	-103.605940
13,100.00	91.60	0.00	9,848.59	3,303.23	-448.40	626,715.43	765,042.20	32.720771	-103.605938
13,200.00	91.60	0.00	9,845.80	3,403.19	-448.40	626,815.39	765,042.20	32.721045	-103.605936
13,300.00	91.60	0.00	9,843.00	3,503.15	-448.40	626,915.35	765,042.20	32.721320	-103.605934
13,400.00	91.60	0.00	9,840.21	3,603.11	-448.40	627,015.31	765,042.20	32.721595	-103.605931
13,500.00	91.60	0.00	9,837.42	3,703.07	-448.40	627,115.28	765,042.20	32.721870	-103.605929
13,600.00	91.60	0.00	9,834.62	3,803.03	-448.40	627,215.24	765,042.20	32.722144	-103.605927
13,700.00	91.60	0.00	9,831.83	3,902.99	-448.40	627,315.20	765,042.20	32.722419	-103.605925
13,800.00	91.60	0.00	9,829.03	4,002.95	-448.40	627,415.16	765,042.20	32.722694	-103.605923
13,900.00	91.60	0.00	9,826.24	4,102.92	-448.40	627,515.12	765,042.20	32.722969	-103.605920
14,000.00	91.60	0.00	9,823.45	4,202.88	-448.40	627,615.08	765,042.20	32.723243	-103.605918
14,100.00	91.60	0.00	9,820.65	4,302.84	-448.40	627,715.04	765,042.20	32.723518	-103.605916
14,200.00	91.60	0.00	9,817.86	4,402.80	-448.40	627,815.00	765,042.20	32.723793	-103.605914
14,300.00	91.60	0.00	9,815.07	4,502.76	-448.40	627,914.96	765,042.20	32.724068	-103.605911
14,400.00	91.60	0.00	9,812.27	4,602.72	-448.40	628,014.92	765,042.20	32.724342	-103.605909
14,500.00	91.60	0.00	9,809.48	4,702.68	-448.40	628,114.89	765,042.20	32.724617	-103.605907
14,600.00	91.60	0.00	9,806.68	4,802.64	-448.40	628,214.85	765,042.20	32.724892	-103.605905
14,700.00	91.60	0.00	9,803.89	4,902.60	-448.40	628,314.81	765,042.20	32.725166	-103.605902
14,800.00	91.60	0.00	9,801.10	5,002.56	-448.40	628,414.77	765,042.20	32.725441	-103.605900
14,900.00	91.60	0.00	9,798.30	5,102.52	-448.40	628,514.73	765,042.20	32.725716	-103.605898
15,000.00	91.60	0.00	9,795.51	5,202.49	-448.40	628,614.69	765,042.20	32.725991	-103.605896
15,100.00	91.60	0.00	9,792.72	5,302.45	-448.40	628,714.65	765,042.20	32.726265	-103.605894
15,200.00	91.60	0.00	9,789.92	5,402.41	-448.40	628,814.61	765,042.20	32.726540	-103.605891
15,300.00	91.60	0.00	9,787.13	5,502.37	-448.40	628,914.57	765,042.20	32.726815	-103.605889
15,400.00	91.60	0.00	9,784.33	5,602.33	-448.40	629,014.53	765,042.20	32.727090	-103.605887
15,500.00	91.60	0.00	9,781.54	5,702.29	-448.40	629,114.49	765,042.20	32.727364	-103.605885
15,600.00	91.60	0.00	9,778.75	5,802.25	-448.40	629,214.46	765,042.20	32.727639	-103.605882
15,700.00	91.60	0.00	9,775.95	5,902.21	-448.40	629,314.42	765,042.20	32.727914	-103.605880
15,800.00	91.60	0.00	9,773.16	6,002.17	-448.40	629,414.38	765,042.20	32.728189	-103.605878
15,900.00	91.60	0.00	9,770.37	6,102.13	-448.40	629,514.34	765,042.20	32.728463	-103.605876
16,000.00	91.60	0.00	9,767.57	6,202.10	-448.40	629,614.30	765,042.20	32.728738	-103.605873
16,100.00	91.60	0.00	9,764.78	6,302.06	-448.40	629,714.26	765,042.20	32.729013	-103.605871
16,200.00	91.60	0.00	9,761.98	6,402.02	-448.40	629,814.22	765,042.20	32.729288	-103.605869
16,300.00	91.60	0.00	9,759.19	6,501.98	-448.40	629,914.18	765,042.20	32.729562	-103.605867
16,400.00	91.60	0.00	9,756.40	6,601.94	-448.40	630,014.14	765,042.20	32.729837	-103.605865
16,500.00	91.60	0.00	9,753.60	6,701.90	-448.40	630,114.10	765,042.20	32.730112	-103.605862
16,600.00	91.60	0.00	9,750.81	6,801.86	-448.40	630,214.07	765,042.20	32.730387	-103.605860
16,700.00	91.60	0.00	9,748.02	6,901.82	-448.40	630,314.03	765,042.20	32.730661	-103.605858
16,800.00	91.60	0.00	9,745.22	7,001.78	-448.40	630,413.99	765,042.20	32.730936	-103.605856
16,900.00	91.60	0.00	9,742.43	7,101.74	-448.40	630,513.95	765,042.20	32.731211	-103.605853
17,000.00	91.60	0.00	9,739.63	7,201.71	-448.40	630,613.91	765,042.20	32.731485	-103.605851
17,100.00	91.60	0.00	9,736.84	7,301.67	-448.40	630,713.87	765,042.20	32.731760	-103.605849
17,200.00	91.60	0.00	9,734.05	7,401.63	-448.40	630,813.83	765,042.20	32.732035	-103.605847
17,300.00	91.60	0.00	9,731.25	7,501.59	-448.40	630,913.79	765,042.20	32.732310	-103.605844
17,303.41	91.60	0.00	9,731.16	7,505.00	-448.40	630,917.20	765,042.20	32.732319	-103.605844

TD at 17303.41 - TD / PBHL 30 BS2 4H



Planning Report - Geographic

Database: EDM 5000.15 Single User Db
Company: McElvain Energy, Inc.
Project: Sec. 30 T18S R34E
Site: EK 30 WCD Federal Com
Well: EK 30 BS2 Federal Com 4H
Wellbore: Wellbore #1
Design: Plan #5 23Apr18 kjs

Local Co-ordinate Reference: Well EK 30 BS2 Federal Com 4H
TVD Reference: KB2 @ 3883.00usft
MD Reference: KB2 @ 3883.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
17,400.00	91.60	0.00	9,728.48	7,601.55	-448.40	631,013.75	765,042.20	32.732584	-103.605842
17,433.41	91.60	0.00	9,727.55	7,634.95	-448.40	631,047.15	765,042.20	32.732676	-103.605841
End of 130' Rathole									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
TD / PBHL 30 BS2 4H	0.00	359.61	9,731.18	7,505.00	-448.40	630,917.20	765,042.20	32.732319	-103.605844
- plan misses target center by 0.02usft at 17303.41usft MD (9731.16 TVD, 7505.00 N, -448.40 E)									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,800.00	1,800.00	13 3/8"	13-3/8	17-1/2
3,402.28	3,400.00	9 5/8"	9-5/8	12-1/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,681.00	1,681.00	Rustler		-1.60	0.00
1,741.00	1,741.00	Salt		-1.00	0.00
3,258.31	3,256.27	Yates		-1.60	0.00
3,734.22	3,731.38	Seven Rivers		-1.60	0.00
4,435.55	4,431.53	Queen		-1.60	0.00
4,711.07	4,706.59	Penrose		-1.60	0.00
5,262.12	5,256.72	San Andres		-1.60	0.00
5,412.41	5,406.75	Delaware		-1.60	0.00
5,452.48	5,446.76	1st Delaware Sand		-1.60	0.00
5,738.03	5,731.82	2nd Delaware Sand		-1.60	0.00
7,631.63	7,622.24	Bone Spring		-1.60	0.00
8,969.17	8,957.53	1st Bone Spring Sand		-1.60	0.00
9,520.24	9,507.55	2nd Bone Spring Sand		-1.60	0.00
10,073.08	9,908.19	TOP TARGET WINDOW		-1.60	0.00



Planning Report - Geographic

Database: EDM 5000.15 Single User Db
Company: McElvain Energy, Inc.
Project: Sec. 30 T18S R34E
Site: EK 30 WCD Federal Com
Well: EK 30 BS2 Federal Com 4H
Wellbore: Wellbore #1
Design: Plan #5 23Apr18 kjs

Local Co-ordinate Reference: Well EK 30 BS2 Federal Com 4H
TVD Reference: KB2 @ 3883.00usft
MD Reference: KB2 @ 3883.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,900.00	1,900.00	0.00	0.00	Start Build 1.50
2,121.58	2,121.46	-0.87	-6.37	Hold 3.32 Inc, 262.19 Az
9,460.61	9,448.14	-58.67	-427.92	KOP 12/100
10,073.11	9,908.20	279.52	-448.40	POP
10,227.95	9,928.83	432.30	-448.40	LP 91.6 Inc, 0 Az
17,303.41	9,731.16	7,505.00	-448.40	TD at 17303.41
17,433.41	9,727.55	7,634.95	-448.40	End of 130' Rathole