

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

CONFIDENTIAL

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		7. UNIT AGREEMENT NAME 30849	
2. NAME OF OPERATOR McElvain Oil & Gas Properties, Inc.		8. FARM OR LEASE NAME, WELL NO. Brown No. 2	
3. ADDRESS AND TELEPHONE NO. 1050 17th Street, Suite 1800, Denver, CO 80265 (303) 863-0933x3024		9. API WELL NO. 30-045-30875	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 2100' FSL - 830' FWL, Section 9, T32N, R10W, NMPM At proposed prod. zone Same		10. FIELD AND POOL, OR WILDCAT Basin Dakota	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 12.5 miles northeast of Aztec, NM		11. SEC., T., R., M., OR BLK AND SURVEY OR AREA Section 9, T32N, R10W, NMPM	
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest ddg. unit line, if any) 807'		12. COUNTY San Juan	
16. NO. OF ACRES IN LEASE 174.06		13. STATE NM	
17. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2800'		18. NO. OF ACRES ASSIGNED TO THIS WELL 334.06	
19. PROPOSED DEPTH 8302'		20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6745' GL		22. APPROX. DATE WORK WILL START December 1, 2001	

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12.250	9.625", J-55	36	500'	312.7 cf- circulate to surface
8.750"	7.000", J-55	20	4257'	966.4 cf - circulate to surface, two stage
6.250	4.500", J-55	10.5/11.6	8302	722.25 cf - Circulate to 4150'

This well will spud in the San Jose formation. Drill surface hole to 500' using fresh water mud. Run and cement surface casing with adequate volume to circulate to surface. WOC 12 hours. Install BOPE and test to a minimum of 600 psi for 15 minutes. Drill 8 3/4" hole to 4257' using fresh water based mud. No abnormal pressure or poisonous gas is anticipated. Run intermediate casing with a mechanical DV tool set approximately 30 feet into Kirtland formation and cement in two stages with adequate volume to circulate to surface. WOC 12 hours. Test BOPE to 1500 psi for 15 minutes. Drill 6 1/4" hole to TD using air. Run open hole logs to intermediate shoe. Run production casing as long string and cement with adequate volume to circulate to intermediate casing. Rig down drilling equipment. Move in completion rig. Run cased hole correlation logs. Pressure test casing to 3500 psi for 15 minutes. Perforate select Dakota intervals and frac with a 2% KCl based gel fluid. Flow well to clean up. If long string cement circulated into intermediate casing, run RBP to seal off flow and cut off and pull 4 1/2" casing inside intermediate casing. If the Dakota is non productive the Mesa Verde will be completed as an 80 acre infill well. Install surface production equipment and gas sales line.

Surface is Federal-BLM

McElvain proposes to use the expedited right of way process for this well. The gas sales line will be run parallel to the access road inside a 50 foot corridor. Gas purchaser will be EPFS. They will provide the survey of the road/pipeline corridor.

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured true vertical depths. Give blowout preventer program, if any.

24. SIGNED *Robert E. Fildes* TITLE Agent DATE October 10, 2001
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval 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.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY *DM* TITLE _____ DATE 10-21-03

HOLD C104 FOR NSL

NM003

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 300-45-30-875		*Pool Code 71599	*Pool Name BASIN DAKOTA
*Property Code 20960 30849	*Property Name BROWN		*Well Number 2
*OGRID No. 22044	*Operator Name McELVAIN OIL & GAS PROPERTIES		*Elevation 6745'

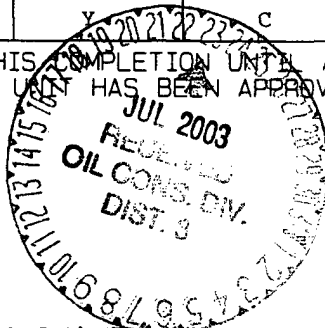
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	9	32N	10W		2285	SOUTH	855	WEST	SAN JUAN

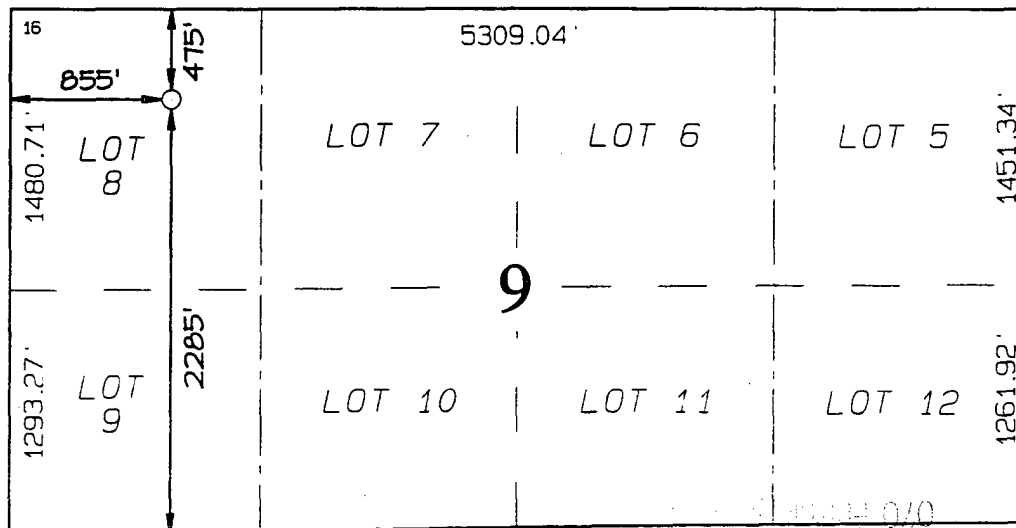
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres 334.06					13 Joint or Infill	14 Consolidation Code	15 Order No.		

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



COLORADO / NEW MEXICO STATE LINE



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature

Charles Neeley

Printed Name

Agent

Title

12/03/01

Date

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Survey Date: NOVEMBER 29, 2001

Signature and Seal of Professional Surveyor



JASON C. EDWARDS

Certificate Number

15269

2001 DEC 4 AM 9:14

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

2001 DEC -4 AM 8:18

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT--" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other
2. Name of Operator
McElvain Oil & Gas Properties, Inc.

3. Address and Telephone No.
1050 17th Street, Suite 1800 Denver, CO 80265 303-893-0933 ext 302

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
**2285' FSL & 855' FWL
Section 9, T32N, R10W**

5. Lease Designation and Serial No.

NM015545

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Brown No. 2

9. API Well No.

300-45-30-875

10. Field and Pool, or Exploratory Area

Basin Dakota

11. County or Parish, State

San Juan, New Mexico

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

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Moved & restaked location
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

This well location was moved and restaked non-standard 11/29/01 at BLM's recommendation to minimize surface and wildlife habitat disturbance.

The new location has not been totally arched at this time due to 1 1/2" snow cover.

**THIS APD HAS BEEN APPROVED BY BLM, HOWEVER, NMOCD
UNORTHODOX LOCATION APPROVAL IS NEEDED PRIOR TO FIRST
PRODUCTION**

14. I hereby certify the foregoing is true and correct

Signed *David J. Markiewicz*

Title Agent

Date 12/03/01

(This space for Federal or State office use)

Approved by *David J. Markiewicz*

Title _____

Date JUL 21 2003

Conditions of approval, if any: _____

NMOCD

McElvain Oil & Gas Properties, Inc.

Brown No. 2

2100' FSL & 830' FWL

Section 9, T32N, R10W, NMPM

San Juan County, New Mexico

TEN POINT DRILLING PROGRAM

1. Surface Formation: San Jose

2. Surface Elevation: 6755' GL.

3. Estimated Formation Tops:

<u>Formation</u>	<u>Top - feet</u>	<u>Expected Production</u>
Nacimiento	775	
Ojo Alamo	2387	
Kirtland	2678	
Fruitland	3137	
Fruitland Coal	3280	
Pictured Cliffs	3537	GAS
Lewis	4217	
Intermediate TD	4257	
Huerfanito	4667	
Mesa Verde	4967	
Cliff House	5392	GAS
Menefee	5467	GAS
Pt. Lookout	5787	GAS
Upper Mancos	5967	
Gallup	6952	GAS
Lower Mancos	7397	
Greenhorn	7887	
Graneros	7952	GAS
Dakota	8052	GAS
TOTAL DEPTH	8302	

4. Surface Hole Program:

Bit: Drill an 8 3/4" or 9 7/8" pilot hole to 60' to insure no boulders are present. Use a retip mill tooth, IADC Class 115 or 116 bit. Drill a 12 1/4" hole to 500' using a retip mill tooth, IADC Class 115 or 116, bit.
WOB: all. **RPM:** 70 - 100.

Mud: Use a fresh water base spud mud with the following properties:

<u>Interval (ft)</u>	<u>Weight (ppg)</u>	<u>Ph</u>	<u>Vis(sec/qt)</u>	<u>Water Loss</u>
0 - 500	8.6 or less	9.0-9.5	40 - 50	No Control

Drilling Program
McElvain Oil & Gas Properties, Inc.
Brown No. 2
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4. Surface Hole Program: - continued

Casing and Cementing: A string of 9 $\frac{5}{8}$ " 36# J-55 or K-55 ST&C casing will be set and cemented to the surface in a single stage with 265 sacks of Class "B" cement (yield = 1.18 cf/sk) containing 3% CaCl₂ and 1/4 lb/sack celloflake. Slurry volume assumes 100% excess over calculated hole volume. If cement does not circulate to surface, cement will be topped off using 1" pipe down the 12 1/4" by 9 5/8" annulus. Minimum clearance between couplings and hole is 0.8125". Prior to drilling out the shoe, casing and BOPE will be tested to a minimum of 600 psig. Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb overpull, whichever is greater.

WOC 12 HOURS. Nipple up 11" 2000# BOPE. Pressure test surface casing and BOPE to 600 psi for 15 minutes.

Centralizers: Run three (3) 9 $\frac{5}{8}$ " X 12 $\frac{1}{4}$ " regular bowspring centralizers. Install first one on stop ring in middle of shoe joint.

Float Equipment: Cement nose guide shoe thread locked. Also thread lock connection between first and second joint run.

5. Intermediate Hole Program:

Bit: Drill an 8 $\frac{3}{4}$ " hole to 4257' using TCI, IADC Class 447 bit. WOB: 35-45K. RPM: 60 - 75. Reduce RPM to 55 - 65 through Ojo Alamo.

Mud: Use a fresh water base LSND mud with the following properties:

<u>Interval (ft)</u>	<u>Weight (ppg)</u>	<u>Ph</u>	<u>Vis(sec/qt)</u>	<u>Water Loss</u>
500 - 3150	8.6 - 8.8	9.0-9.5	28 - 35	10 - 12
3150 - 4257	8.9 - 9.2	9.0-9.5	35 - 50	8 - 10

Fresh water will be used for dilution and building volume. Sufficient materials will be on location at all times to maintain mud properties and to control any lost circulation problem or unforeseen abnormal pressures. The mud volume in the rig pits will be visually monitored and recorded on a routine basis.

Note: Raise **viscosity** to 55 - 60 for logging. Thin to 40 - 45 viscosity to run casing.

pH is to be maintained with lime or caustic soda at the recommended levels to assure drill pipe corrosion protection.

Drispac will be used for control of fluid loss.

Hole will be drilled to top of Fruitland using polymer and drispac additions to water. Mud up before drilling into Fruitland.

Drilling Program
McElvain Oil & Gas Properties, Inc.
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5. Intermediate Hole Program: - continued

Lost Circulation is expected and can occur in the Fruitland Coal and Pictured Cliffs formation. Mud weights should be controlled as low as possible with solids control equipment then as low as practical with water dilution.

Pressure Control: A 2M psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested to a minimum of 600 psig before drilling out from under surface casing. Mechanical operation of pipe rams will be checked daily and blind rams will be checked on each trip out of hole. 7" rams will be installed before running intermediate casing. A full opening internal blowout preventor or drill pipe safety valve will be on the drill floor at all times and will be capable of fitting all connections.

Logging Program: No logs will be run in intermediate hole.

Casing and Cementing Program: Run 7" 20# J-55 production casing from surface to Intermediate TD and cement in 2 stages with a mechanical DV tool installed \pm thirty feet below the Kirtland top. **Stage 1** (4257' - 2700') will be cemented with 260 sacks (356.2 cf) of 50/50 Class B POZ containing 2% gel, 5 pps Gilsonite, 1/4 pps Flocele, 0.3% Halad 344 FLA, and 0.3% Versaset mixed at 13.5 PPG to yield 1.37 cf/sk. **Stage 2** (2700' - surface) will be cemented with 165 sacks (475.2 cf) of Class B with 3% Econolite, 0.5 pps flocele, 10 pps Gilsonite mixed at 11.4 PPG to yield 2.88 cf/sk. Followed with 100 sacks (135.0 cf) of Class B with 0.5 pps flocele and 10 pps gilsonite mixed at 15.6 PPG to yield 1.35 cf/sk.

Circulate and WOC between stages for four (4) hours.

Slurry volumes assume a 50% excess over gauge hole volume. Minimum clearance between couplings and hole is 0.5470". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb over pull, whichever is greater.

WOC 12 HOURS from plug down on first stage. Pressure test intermediate casing and BOPE to 1500 psi for 15 minutes.

Centralizers: 10 - 7" X 8 3/4" bowspring centralizers will be run across all prospective pays and 5 - 7" X 8 3/4" turbolizers will be spaced such that one (1) is just below the Basal Fruitland Coal, two (2) across base of Ojo Alamo, and two (2) across base of Nacimiento.

Float Equipment: Cement nose float shoe, 1 joint 7" casing, float collar, and 1 - mechanical DV tool with 2 cement baskets below the DV.

Drilling Program
McElvain Oil & Gas Properties, Inc.
Brown No. 2
Page Four

6. Production Hole Program:

Bits: Drill a 6 1/4" hole to 8302' feet using air hammer. WOB: 5 - 25K. RPM: to be determined by drilling conditions. If hole gets wet use TCI, IADC class 637 to finish hole.

Mud: Air from Intermediate casing shoe to TD. If hole gets wet use a fresh water based low solids non dispersed system with the following properties: **Note:** Pull into intermediate casing to mud up.

<u>Interval (ft)</u>	<u>Weight (ppg)</u>	<u>pH</u>	<u>Vis(sec/qt)</u>	<u>Water Loss</u>
? - TD	8.6 - 9.0	9.0-9.5	28 - 40	8 - 10 cc

Pressure Control: A 2M psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested to a minimum of 1500 psig before drilling out from under intermediate casing. Mechanical operation of pipe rams will be checked daily and blind rams will be checked on each trip out of hole. 4 1/2" rams will be installed before running production casing.

A full opening internal blowout preventor or drill pipe safety valve will be on the drill floor at all times and will be capable of fitting all connections.

Logging Program: Induction and Compensated density/Epithermal neutron logs from TD to intermediate casing shoe. Pull gamma ray to surface for correlation purposes.

Casing and Cementing Program: Run 4 1/2" 10.5# J-55 (0 - 6700') and 11.6# J-55 (6700' - TD) production casing. Cement in a single stage with 165 sacks (470.25 cf) of Class B containing 3 Econlite, 10 pps Gilsonite, and 2 pps Flocele mixed at 11.4 PPG to yield 2.85 cf/sk. Followed with 200 sacks (252.0 cf) of 50/50 Class B POZ with 2 % gel, 5 pps Gilsonite, 1/4 pps Flocele, .4% Halad 344 and .2% retarder mixed at 13.7 PPG to yield 1.26 cf/sk.

Slurry volumes assume a 70% excess over gauge hole volume to bring cement back into the intermediate casing. Cement volume is subject to change after review of open hole caliper log to caliper volume + 30%. Minimum clearance between couplings and hole is 0.625". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb over pull, whichever is greater. **NOTE:** If cement is circulated into the intermediate casing this casing will be cut off inside the intermediate casing and removed after the well is completed.

Centralizers: 11 - 4 1/2" X 6 1/8" rigid centralizers will be run across prospective pays of the Mesa Verde and Dakota.