

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone (575) 391-6161 Fax (575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone (575) 748-1283 Fax (575) 748-9720

**District III**  
1000 Rio Bruzard Road, Aztec, NM 87410  
Phone (505) 334-6178 Fax (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone (505) 476-3460 Fax (505) 476-3462

**State of New Mexico**  
**Energy Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 South St. Francis Dr.**  
**Santa Fe, NM 87505**

Form C-101  
Revised August 1, 2011

Permit

RCVD DEC 14 '11

OIL CONS. DIV.

DIST. 3

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address McElvain Energy, Inc 1050 17 <sup>th</sup> St., Suite 2500 Denver, CO 80265-2080		<sup>2</sup> OGRID Number 22044
		<sup>3</sup> API Number <b>30-045-35331</b>
<sup>4</sup> Property Code 38390	<sup>5</sup> Property Name Pepper	<sup>6</sup> Well No. 1

**<sup>7</sup> Surface Location**

UL - Lot B	Section 32	Township 31N	Range 13W	Lot Idn	Feet from 660	N/S Line N	Feet From 1445	E/W Line E	County San Juan
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**<sup>8</sup> Pool Information**

Basin Fruitland Coal	71629
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**Additional Well Information**

<sup>9</sup> Work Type N	<sup>10</sup> Well Type G	<sup>11</sup> Cable/Rotary R	<sup>12</sup> Lease Type E S	<sup>13</sup> Ground Level Elevation 5547
<sup>14</sup> Multiple N	<sup>15</sup> Proposed Depth 1660'	<sup>16</sup> Formation Pictured Cliffs	<sup>17</sup> Contractor D & D Services	<sup>18</sup> Spud Date December 27, 2011
Depth to Ground water 19.3 ft		Distance from nearest fresh water well 2000 ft east		Distance to nearest surface water 4300 ft

**<sup>19</sup> Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	12.250"	9.625"	36 #	522'	250	Surface
Production	8.750"	7.000"	20 #	1660'	200	surface

**Casing/Cement Program: Additional Comments**

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**Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram hydraulic	2000	2000	Cameron or Shaffer

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines X, a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		<b>OIL CONSERVATION DIVISION</b>	
Printed name: Robert E. Fielder <i>Robert E. Fielder</i>		Approved By: <i>Charles Kern</i> 12-16-2011	
Title: Agent		Title: SUPERVISOR DISTRICT # 3	
E-mail Address: pmci@advantas.net		Approved DEC 20 2011	Expiration Date DEC 20 2013
Date 12/13/2011	Phone (505) 320-1435	Conditions of Approval Attached	

AV

CO

DEC 20 2011

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## State of New Mexico

Energy, Minerals &amp; Natural Resources Department

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-045-35331</b>	<sup>2</sup> Pool Code <b>71629</b>	<sup>3</sup> Pool Name <b>Basin Fruitland Coal</b>
<sup>4</sup> Property Code <b>38390</b>	<sup>5</sup> Property Name <b>PEPPER</b>	<sup>6</sup> Well Number <b>1</b>
<sup>7</sup> OGRID No <b>22044</b>	<sup>8</sup> Operator Name <b>McELVAIN ENERGY, INC.</b>	<sup>9</sup> Elevation <b>5547</b>

<sup>10</sup> Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>B</b>	<b>32</b>	<b>31 N</b>	<b>13 W</b>		<b>660</b>	<b>North</b>	<b>1445</b>	<b>East</b>	<b>San Juan</b>

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres <b>320 N/2</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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.

<sup>16</sup>	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <i>Robert E. Fielder</i> Date: <b>12/17/2011</b> Printed Name: <b>Robert E. Fielder</b> E-mail Address: <b>pmci@advantas.net</b>
	<sup>18</sup> 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. Date of Survey: <b>Sep 2011</b> Signature and Seal of Professional Surveyor: <i>William E. Mahnke II</i> Certificate Number: <b>6466</b>

Bearings from GLO Plat

McElvain Oil & Gas Properties, Inc.

Pepper No. 1

660' FNL & 1445' FEL

Section 32, T31N, R13W, NMPM

San Juan County, New Mexico

TEN POINT DRILLING PROGRAM

1. Surface Formation: Ojo Alamo

2. Surface Elevation: 5547' GL.

3. Estimated Formation Tops:

<u>Formation</u>	<u>Top - feet</u>	<u>Expected Production</u>
Ojo Alamo	surface	
Kirtland	555	
Fruitland	910	GAS
Pictured Cliffs	1510	GAS
TOTAL DEPTH	1660	

4. Surface Hole Program:

**Bit:** Drill an 12 $\frac{1}{4}$ " hole to 522' 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 - 522	8.6 or less	9.0-9.5	40 - 50	No Control

**Casing and Cementing:** A string of 9 $\frac{5}{8}$ " 36 ppf J-55 or K-55 ST&C casing will be set and cemented to the surface in a single stage with 250 sacks (350.0 cf) of Type III cement (yield = 1.40 cf/sk) containing 3% CaCl<sub>2</sub> and 0.25 pps 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 $\frac{1}{4}$ " by 9 $\frac{5}{8}$ " 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.

WOC 12 HOURS. Nipple up 11" 2000# BOPE. Pressure test BOPE to full working pressure using a test plug. Drill out cement to within five feet of surface casing shoe. Test surface casing and BOPE to a minimum of 600 psig for 15 minutes.

**Centralizers:** Run four (4) 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 on bottom and self fill insert float valve run one joint above shoe. Thread lock shoe and connection between first and second joint run.

**Drilling Program**  
**McElvain Oil & Gas Properties, Inc.**  
**Pepper No. 1**  
Page Two

**5. Production Hole Program:**

**Bit:** Drill an 8 $\frac{3}{4}$ " hole to 1660' using a TCI, IADC Class 447 bit. WOB: 30-35K. RPM: 60 - 75. Hold RPM at 55 - 65 through Ojo Alamo.

**Mud:** Use a fresh water base polymer and water system to drill this section. If hole conditions dictate, mud up with 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>
522 - 1660	8.6 - 8.8	9.0-9.5	28 - 35	10 - 12

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 surface pit will be visually monitored and recorded on a routine basis.

Note: If mud up is required, 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.

Lost Circulation can occur in the Fruitland Coal and Pictured Cliffs formation. Mud weights should be controlled as low as possible 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 full working pressure. Surface casing and BOPE will be 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 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:** Dual Induction with GR, caliper and Epithermal Neutron/Formation Density logs (triple combo configuration) will be run from TD to the surface casing shoe. GR and Neutron will be pulled to surface.

**Casing and Cementing Program:** Run 7" 20 ppg J-55 production casing from surface to TD and cement in a single stage with 80 sacks (204.0 cf) of Type III containing 3% sodium metasilicate extender, 5 pps Gilsonite and 1/4 pps celloflake. Lead slurry mixed at 11.8 PPG to yield 2.55 cf/sk. Tail in with 120 sacks (174.0 cf) of Type III with 0.25 pps celloflake, 0.3% FLA, 0.2% dispersant and 5 pps gilsonite mixed at 14.3 PPG to yield 1.45 cf/sk.

**Drilling Program**  
**McElvain Oil & Gas Properties, Inc.**  
**Pepper No. 1**  
**Page Three**

**5. Production Hole Program: -continued**

Slurry volumes assume a 50% excess over gauge hole volume to circulate to surface. 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.

**Centralizers:** 5 - 7" X 8 $\frac{3}{4}$ " bowspring centralizers will be run across all prospective pays and 3 - 7" X 8 $\frac{3}{4}$ " turbolizers will be spaced such that one (1) is just below the base of the Fruitland coal, one just below the base of the Ojo Alamo and one (1) in the Ojo Alamo.

**Float Equipment:** Cement nose guide shoe, 1 joint 7" casing, and float collar.

**6. Auxiliary Equipment:**

An upper kelly cock will be utilized. The handle will be available on rig floor at all times.

**7. Logging Program:**

Dual Induction with GR and caliper and Epithermal Neutron / Formation Density (triple combo configuration) will be run from TD to surface casing shoe. GR and neutron will be pulled to surface. Bulk density will be presented on a 5 " scale through the coals. Deep induction curve will be merged onto the porosity log.

**Coring and Testing Program:**

No cores or drill stem tests are planned.

**8. Abnormal Pressure:**

Although not expected, abnormal pressures are possible in the Fruitland formation.

**Estimated Bottom Hole Pressure:**

250 - 300 psig.

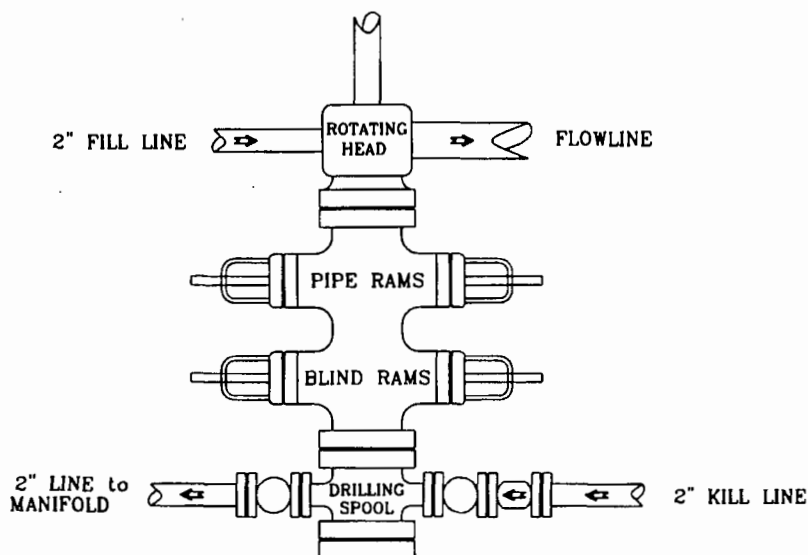
**9. Anticipated Starting Date:**

December 15, 2011

**Duration of Operations:** It is estimated a total of 6 days will be required for drilling operations and 5 days for the completion operation.

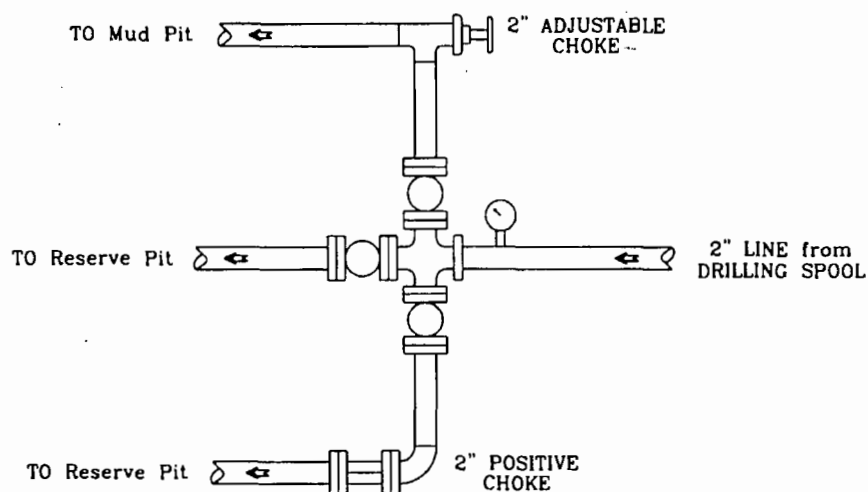
# PRESSURE CONTROL

## Wellhead Assembly



Preventer and Spools are to have a  
6" Bore or larger and a 2000 PSI  
or higher Pressure Rating-

## Choke Manifold



*McElvain Energy, Inc.*

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Section 32, T31N, R13W, NMPM

San Juan County, New Mexico