

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
June 16, 2008

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

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

¹ Operator Name and Address McElvain Oil & Gas Properties, Inc. 1050 17 th St., Ste. 1800 Denver, CO 80265-1801		² OGRID Number 22044
³ Property Code 34986	⁵ Property Name Ruby	³ API Number 30-045-34986
⁹ Proposed Pool 1 Basin Fruitland Coal (71629)		⁶ Well No. 2
⁹ Proposed Pool 1		¹⁰ Proposed Pool 2

⁷ Surface Location									
UL or lot no. P	Section 3	Township 29N	Range 13W	Lot Idn	Feet from the 370	South line	Feet from the 881	West line	County San Juan

⁸ Proposed 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

¹¹ Work Type Code N					¹² Well Type Code G		¹³ Cable/Rotary R		¹⁴ Lease Type Code P		¹⁵ Ground Level Elevation 5434'	
¹⁶ Multiple No		¹⁷ Proposed Depth 1464			¹⁸ Formation Pictured Cliffs			¹⁹ Contractor D & D Services		²⁰ Spud Date September 1, 2009		

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12.250"	8.625"	24	200	140	Surface
7.875"	5.500"	15.5	1464'	195	Surface

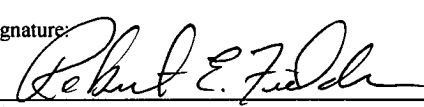
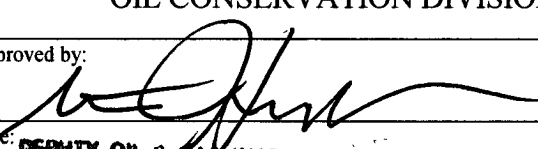
²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.
Well will drilled in accordance with the attached drilling program. Blowout prevention equipment and testing are also described in the attached drilling program. Schematic of well control equipment is attached.

RCVD JUN 4 '09

OIL CONS. DIV.

DIST. 3

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT
HOLD C104 FOR NSL

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: 		Approved by: 	
Printed name: Robert E. Fielder		Title: DEPUTY OIL & GAS INSPECTOR, DIST. 3	
Title: Agent		Approval Date: JUN 10 2009	Expiration Date: JUN 10 2011
E-mail Address: pmcr@advantas.net		Conditions of Approval Attached <input type="checkbox"/>	
Date: June 4, 2009	Phone: (505)320-1435		

B 6/10

JUN 10 2009

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-34980	² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 34980	⁵ Property Name RUBY	⁶ Well Number 2
⁷ OGRID No 22044	⁸ Operator Name McELVAIN OIL & GAS PROPERTIES, INC.	⁹ Elevation 5434

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
P	3	29 N	13 W		370	South	881	East	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 5/2 - 320.0	¹³ Joint or Infill	¹⁴ Consolidation Code C	¹⁵ 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.

¹⁶ 	¹⁷ 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. <i>Robert E. Fielder</i> 4/4/2009 Signature Date Robert E. Fielder Printed Name	
	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. Date of Survey: 23 Feb 2009 Signature and Seal of Professional Surveyor: William E. Mahnké II Certificate Number 8466	
	Bearings are based on Valley View Center Replat "D" Filed 11/12/2008	

McElvain Oil & Gas Properties, Inc.

Ruby No. 2

370' FSL & 881' FEL

Section 3, T29N, R13W, NMPM

San Juan County, New Mexico

TEN POINT DRILLING PROGRAM

1. **Surface Formation:** Ojo Alamo

2. **Surface Elevation:** 5434' GL.

3. **Estimated Formation Tops:**

<u>Formation</u>	<u>Top - feet</u>	<u>Expected Production</u>
Ojo Alamo	surface	
Kirtland	729	
Fruitland	1111	GAS
Pictured Cliffs	1314	GAS
TOTAL DEPTH	1464	

4. **Surface Hole Program:**

Bit: Drill an 12 $\frac{1}{4}$ " hole to 200' 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 - 200	8.6 or less	9.0-9.5	40 - 50	No Control

Casing and Cementing: A string of 8 $\frac{5}{8}$ " 24 ppf J-55 or K-55 ST&C casing will be set and cemented to the surface in a single stage with 140 sacks (165.2 cf) of Class "B" cement (yield = 1.18 cf/sk) containing 2% 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 $\frac{1}{4}$ " by 8 $\frac{5}{8}$ " annulus. Minimum clearance between couplings and hole is 1.3125". 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 two (2) 8 $\frac{5}{8}$ " 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. Thread lock connection between first and second joint run.

Drilling Program
McElvain Oil & Gas Properties, Inc.
Ruby No. 2
Page Two

5. Production Hole Program:

Bit: Drill a 7 $\frac{1}{8}$ " hole to 1464' 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>
200 - 1464	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. 5 $\frac{1}{2}$ " 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: Dual Induction and Epithermal Neutron/Formation Density logs will be run from TD to the surface casing shoe.

Casing and Cementing Program: Run 5 $\frac{1}{2}$ " 15.5 ppf J-55 production casing from surface to TD and cement in a single stage with 115 sacks (293.3 cf) of Class B 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 80 sacks (95.2 cf) of Class B with 0.25 pps celloflake, 0.3% FLA and 5 pps gilsonite mixed at 15.6 PPG to yield 1.19 cf/sk.

Drilling Program
McElvain Oil & Gas Properties, Inc.
Ruby No. 2
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 0.9125". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8.

Centralizers: 5 - 5½" X 7⅞" bowspring centralizers will be run across all prospective pays and 3 - 5½" X 7⅞" 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 5½" 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 and Epithermal Neutron / Formation Density will be run from TD to surface casing shoe. 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.

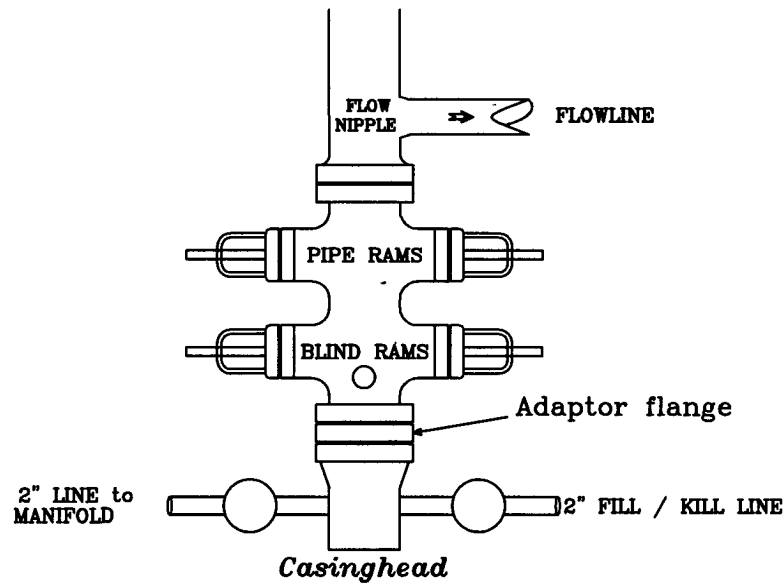
9. Anticipated Starting Date:

September 1, 2009

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

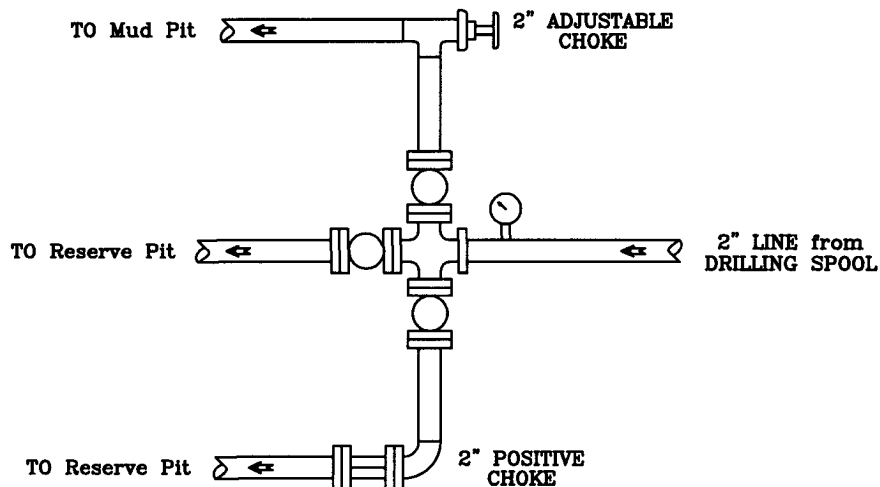
PRESSURE CONTROL

Wellhead Assembly



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

Choke Manifold



McElvain Oil & Gas Properties, Inc.

Ruby No. 2

370' FSL - 881' FWL

Section 3, T29N, R13W, NMPM
San Juan County, New Mexico