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

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

Form C-101
Revised June 10, 2003

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

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

[1] Operator Name and Address	[2] OGRID Number
McElvain Oil & Gas Properties, Inc. 1050 17th Street, Suite 1800 Denver, CO 80265	22044
	[3] API Number 30- 039- 27586

[3] Property Code	[5] Property Name	[6] Well No.
25520	Badger Com 10	1B

[7] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	10	25N	2W		1670	South	1705	East	Rio Arriba

[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

[9] Proposed Pool 1	[10] Proposed Pool 2
Blanco Mesa Verde	

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	G	R	P	7383'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
N	6042'	Mancos	not selected	February 1, 2004

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12.250"	9.625"	36	500'	265	Surface
8.750"	7.000"	20	3802'	Stage 1-245	1900'
			DV @ 1900'	Stage 2 -225	Surface
6.250"	4.500"	10.5	3682'-6042'	245	3682'

[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. Drill surface hole to 500' using fresh water mud. Run and cement surface casing with cement returns to surface. WOC 12 hours. Install 11" 3M BOPE. Test to 600 psi for 15 minutes. Drill to intermediate TD using fresh water mud. Run logs. Run and cement intermediate casing in two stages with cement returns to surface. WOC 12 hours. Test casing and BOPE to 1500 psi for 15 minutes. Drill to TD with air. Run logs. Run production liner with minimum of 120 foot overlap into intermediate casing. Cement in a single stage with cement returns to liner top. Move out drilling equipment. Rig up completion equipment. Run cased hole correlation logs. Test casing to 3500 psi. Perforate select Mesa Verde intervals and stimulate with 2% KCl base fluid. See attached drilling program for cement slurry details.

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: Robert E. Fielder

Printed name: Robert E. Fielder

Title: Agent

E-mail Address: pmci@acs-online.net

Date: January 23, 2004 | Phone: (505)632-3869

OIL CONSERVATION DIVISION

Approved by:

Title: DEPUTY OIL & GAS INSPECTOR, DIST. #3

Approval Date: JAN 28 2004 | Expiration Date: JAN 28 2005

Conditions of Approval:

Attached ☐

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

1 API Number	2 Pool Code	3 Pool Name
30-039-27586	72319	BLANCO MESAVERDE

4 Property Code	5 Property Name	6 Well Number
25520	BADGER COM 10	1B

7 OGRID No.	8 Operator Name	9 Elevation
22044	McELVAIN OIL & GAS PROPERTIES	7383'

10 Surface Location

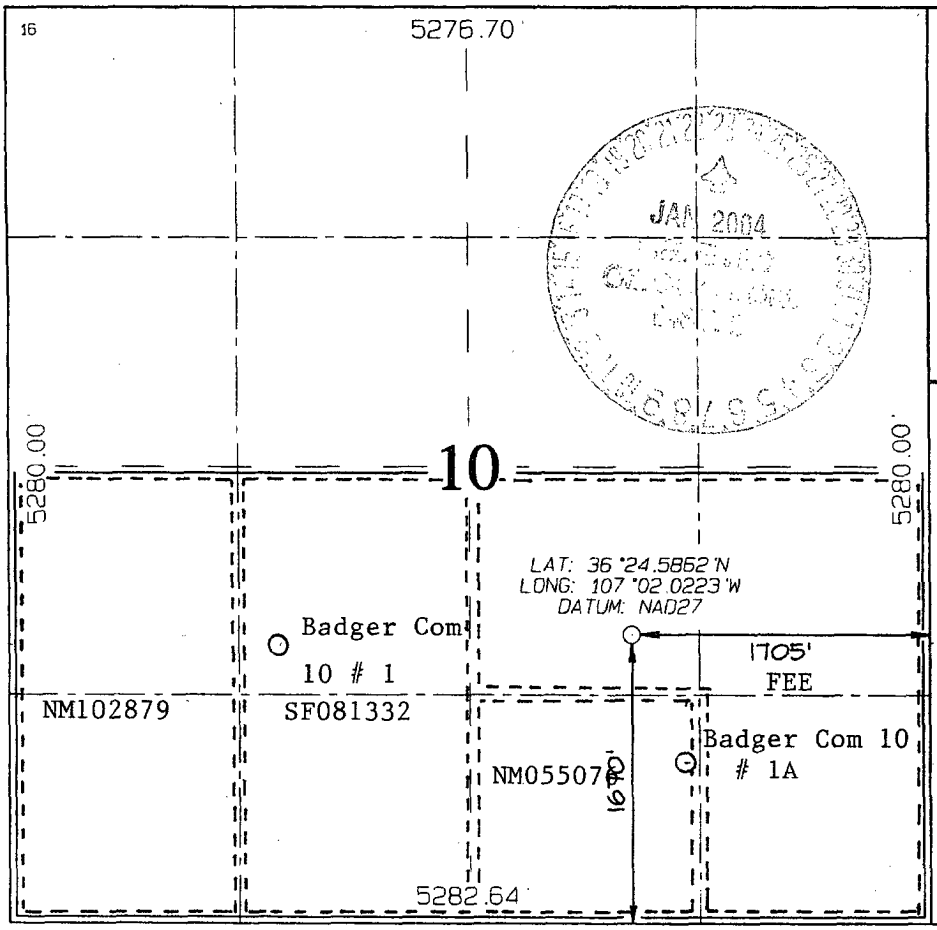
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	10	25N	2W		1670	SOUTH	1705	EAST	RIO ARRIBA

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	13 Joint or Infill	14 Consolidation Code	15 Order No.
320.0 Acres - S/2	Y		

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



17 OPERATOR CERTIFICATION

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

Signature

Robert E. Fielder
Printed Name

Agent
Title

January 23, 2004
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: OCTOBER 11, 2003

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

McElvain Oil & Gas Properties, Inc.
Badger Com 10 No. 1B
1670' FSL & 1705' FEL
Section 10, T25N, R2W, NMPM
Rio Arriba County, New Mexico

TEN POINT DRILLING PROGRAM

1. **Surface Formation:** San Jose

2. **Surface Elevation:** 7383'GL.

3. **Estimated Formation Tops:**

Formation	Top - feet	Expected Production
Nacimiento	1597	
Ojo Alamo	3162	
Fruitland	3442	
Pictured Cliffs	3542	GAS
Lewis	3742	
Intermediate TD	3802	
Huerfanito	4002	
Chacra	4502	
Mesa Verde	4752	
Cliff House	5272	GAS
Menefee	5387	GAS
Pt. Lookout	5717	GAS
Upper Mancos	5892	
TOTAL DEPTH	6042	

4. **Surface Hole Program:**

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:

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

Casing and Cementing: A string of 9⅝" 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% $CaCl_2$ 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 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) 9⅝" X 12 ¼" regular bowspring centralizers. Install first one on stop ring in middle of shoe joint.

4. **Surface Hole Program:** - continued

Float Equipment: Cement nose guide shoe thread locked. Also thread lock connection between first and second joint run. Run self fill insert float valve in top of shoe joint.

5. **Intermediate Hole Program:**

Bit: Drill an 8 ¾" hole to 3802' 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:

Interval (ft)	Weight (ppg)	Ph	Vis(sec/qt)	Water Loss
500 - 3250	8.6 - 8.8	9.0-9.5	28 - 35	10 - 12
3250 - 3802	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.

Lost Circulation can occur in the 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: Dual Induction and Epithermal Neutron / Formation Density logs will be run from Intermediate TD to the surface casing shoe.

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

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 @ ± 1900 feet. **Stage 1** (3802' - 1900') will be cemented with 145 sacks (307.4 cf) of 65/35 Class B POZ containing 5 pps Gilsonite and 0.25 pps celloflake mixed at 12.1 PPG to yield 2.12 cf/sk. Tail in with 100 sacks (126.0 cf) of Class B containing 2% $CaCl_2$, 5 pps gilsonite and 0.25 pps celloflake mixed at 15.2 ppg to yield 1.26 cf/sk. **Stage 2:** (1900' - surface) will be cemented with 175 sacks (371.0 cf) of 65/35 Class B Poz containing 5 pps Gilsonite and 0.25 pps celloflake mixed at 12.1 ppg to yield 2.12 cf/sk. Tail in with 50 sacks (63.0 cf) of Class B containing 2% $CaCl_2$, 5pps gilsonite and 0.25 pps celloflake mixed at 15.26 ppg to yield 1.26 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.

6. **Production Hole Program:**

Bits: Drill a 6 1/4" hole to 6042' 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.

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

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

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.

Casing and Cementing Program: Run 4 ½" 10.5# J-55 production liner casing from TD to a minimum of 120 feet of overlap into Intermediate casing. Cement in a single stage with 135 sacks (271.35 cf) of 65/35 Class H Poz containing 5 pps gilsonite and 2 pps celloflake mixed at 12.3 PPG to yield 2.01 cf/sk. Follow with 110 sacks (146.3 cf) of 50/50 Class H POZ with 2 % gel, 5 pps Gilsonite, 0.25 pps celloflake, 0.4% fluid loss additive and 0.2% friction reducer mixed at 13.7 PPG to yield 1.33 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.

Centralizers: 9 - 4 1/2" X 6 1/8" rigid centralizers will be run across prospective pays of the Mesa Verde.

Float Equipment: Float shoe, 1 joint 4 1/2" 10.5 # casing, and plug landing collar. TIW 7" X 4 ½" liner hanger.

7. **Auxiliary Equipment:**

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