McELVAIN OIL & GAS PROPERTIES

Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

30-025-40108

This well and it's anticipated facility are not expected to have Hydrogen Sulfide releases. However, there may be Hydrogen Sulfide production in the nearby area. There are no private residences in the area but a contingency plan has been orchestrated. McELVAIN OIL & GAS PROPERTIES will have a company representative available to the rig personnel through out the drilling of this well. If Hydrogen Sulfide is detected or suspected, monitoring equipment will be employed to assure the safety of all personnel.

McELVAIN OIL & GAS PROPERTIES
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

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McELVAIN OIL & GAS PROPERTIES
Hydrogen Sulfide Contingency Plan
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General H2S Emergency Actions:

1. All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area".
2. If for any reason a person must enter the hazardous area, they must wear a SCBA (Self Contained Breathing Apparatus).
3. Always use the "buddy system"
4. Isolate the well/problem if possible
5. Account for all personnel
6. Display the proper colors warning all unsuspecting personnel of the danger at hand.
7. Contact the Company personnel as soon as possible if not at the location (use the enclosed call list as instructed)

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of the emergency response agencies and nearby residents.

EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H2S

1. All personnel will don the self contained breathing apparatus
2. Remove all personnel to the "safe area" (always use the buddy system)
3. Contact company personnel if not on location]
4. Set in motion the steps to protect and or remove the general public to and upwind "safe area" Maintain strict security & safety procedures while dealing with the source.
5. No entry to any unauthorized personnel
6. Notify the appropriate agencies: City Police – City Street(s)
   State Police – State Rd.
   County Sheriff – County Rd.
7. Call the NMOCD

Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

If at this time the supervising person determines the release of H2S cannot be contained to the site location and the general public is in harms way he will take the necessary steps to protect the workers and the public.

EMERGENCY CALL LIST: (Start and continue until ONE of these people has been contacted)

	OFFICE	MOBILE	HOME
REED FISCHER	303-893-0933 ext. 330	303-981-2921	----------
MARK WOLF	---------	505-320-8470	----------
JOE McMANES		575-390-4780	

EMERGENCY RESPONSE NUMBERS:

State Police	Eddy County		575 -748-9718
State Police	Lea County		575-392-5588
Sheriff	Eddy County		575--746-2701
Sheriff	Lea County		
Emergency Medical Service (Ambulance)	Eddy County		911 or 505-746-2701
	Lea County	Eunice	911 or 505-394-3258
Emergency Response	Eddy County SERC		575--476-9620
	Lea County		
Artesia Police Dept			575--746-5001
Artesia Fire Dept			575--746-5001
Carlsbad Police Dept			575-885-2111
Carlsbad Fire Dept			575--885-3125

EMERGENCY CALL LIST (CONT.)

Loco Hills Police Dept		575-677-2349
Jal Police Dept		575-395-2501
Jal Fire Dept		575-395-2221
Jal Ambulance		575-395-2221
Eunice Police Dept		575-394-0112
Eunice Fire Dept		575-394-3258
Eunice Ambulance		575-394-3258
Hobbs Police Dept		575-397-3365
Hobbs Fire Dept		575-397-9308
NMOCD	District 1 (Lea, Roosevelt, Curry)	575-393-6161
	District 2 (Eddy, Chavez)	575-748-1283
Lea County Information		575-393-8203
Callaway Safety	Eddy/Lea Counties	575-392-2973
BJ Services	Artesia	575-746-3140
	Hobbs	575-392-5556
Halliburton	Artesia	1-800-523-2482
	Hobbs	1-800-523-2482
Wild Well Control	Midland	432-550-6202
	Mobile	432-553-1166

McELVAIN OIL & GAS PROPERTIES
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

PROTECTION OF THE GENERAL PUBLIC (ROE)

- 100 ppm at any public area (any place not associated with this site)
- 500 ppm at any public road (any road with the general public may travel)
- 100 ppm radius of ¼ mile in New Mexico will be assumed if there is insufficient data to do the calculations, and there is a reasonable expectation that H2S could be present in concentrations greater than 100 ppm in the gas mixture

CALCULATIONS FOR THE 100 PPM (ROE) "PASQUILL-GIFFORD EQUATION"

X = [(1.589) (mole fraction) (Q-volume in std cu ft)] to the power of (0.6258)

CALCULATION FOR THE 500 PPM ROE:

X = [(.4546) (mole fraction) (Q – volume in std cu ft)] to the power of (0.6258)

Example:

If a well/facility has been determined to have 150 / 500 ppm H2S in the gas mixture and the well/facility is producing at a gas rate of 100 MCFPD then:

150 ppm X = [(1.589) (.00015) (100,000 cfd)] to the power of (.6258)
X = 7 ft.

500 ppm X = [(.4546) (.0005) (100,000 cfd)] to the power of (.6258)
X = 3.3 ft.

(These calculations will be forwarded to the appropriate District NMOCD office when Applicable)

PUBLIC EVACUATION PLAN:

- Notification of the emergency response agencies of the hazardous condition and implement evacuation procedures.
- A trained person in H2S safety shall monitor with detection equipment the H2S concentration, wind and area exposure (ROE). This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. (All monitoring equipment shall be UL approved, for use in class 1 groups A, B, C & D, Division 1, hazardous locations. All monitor will have a minimum capability of measuring H2S, oxygen and flammable values.)

McELVAIN OIL & GAS PROPERTIES
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

- Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.

- The company supervising personnel shall stay in communication with all agencies through out the duration of the situation and inform such agencies when the situation has been contained and the effected area(s) is safe to enter.

PROCEDURE FOR IGNITING AN UNCONTROLABLE CONDITION:

1. Human life and/or property are in danger.

2. There is no hope of bringing the situation under control with the prevailing conditions at the site.

INSTRUCTION FOR IGNITION:

1. Two people are required. They must be equipped with positive pressure, self contained breathing apparatus and a "D" ring style full body, OSHA approved safety harness. Non flammable rope will be attached.

2. One of the people will be qualified safety person who will test the atmosphere for H2S, oxygen and LFL. The other person will be the company supervisor; he is responsible for igniting the well.

3. Ignite up wind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25 mm flare gun shall be used, with a ± 500 ft. range to ignite the gas.

4. Prior to ignition, make a final check with combustible gases.

5. Following ignition, continue with the emergency actions & procedures as before.

McELVAIN OIL & GAS PROPERTIES
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

REQUIRED EMERGENCY EQUIPMENT:

1. Breathing apparatus:
   - Rescue packs (SCBA) – 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
   - Work/Escape packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity
   - Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.

2. Signage & Flagging:
   - One color code condition sign will be placed at the entrance to the site reflection the possible conditions at the site.
   - A colored conditioned flag will be on display, reflecting the condition at the site at the time.

3. Briefing Area:
   - Two perpendicular areas will be designated by signs and readily accessible.

4. Wind Socks:
   - Two windsocks will be placed in strategic locations, visible from all angles.

5. H2S Detectors & Alarms:
   - The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible at 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: (Gas sample tubes will be stored in the safety trailer)
     - Rig Floor
     - Bell Nipple
     - End of flow line or where well bore fluid are being discharged.

6. Auxiliary Rescue Equipment:
   - Stretcher
   - Two OSHA full body harness
   - 100 ft. 5/8 inch OSHA approved rope.
   - 1 – 20# class ABC fire extinguisher
   - Communication via cell phones on location and vehicles on location.

McELVAIN OIL & GAS PROPERTIES
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

USING SELF CONTAINED BREATHING AIR EQUIPMENT (SCBA):

- (SCBA) SHOULD BE WORN WHEN ANY OF THE FOLLOWING ARE PERFORMED:
    - Working near the top or on the top of a tank
    - Disconnecting any line where H2S can reasonably be expected
    - Sampling air in the area to determine if toxic concentration of H2S can exist.
    - Working in areas where over 10 ppm on H2S has been detected.
    - At any time there is a doubt as the level of H2S in the area.
- All personnel shall be trained in the use of SCBA prior to working in a potentially hazardous location.
- Facial hair and standard eyeglasses are not allowed with SCBA.
- Contact lenses are never allowed with SCBA.
- Air quality shall be continuously checked during the entire operation.
- After each use, the SCBA unit shall be cleaned, disinfected, serviced and inspected.
- All SCBA shall be inspected monthly.

RESCUE AND FIRST AID FOR VICTIMS OF HYDROGEN SULFIDE (H2S) POISONING:

- Do not panic
- Remain calm and think
- Get on the breathing apparatus

McELVAIN OIL & GAS PROPERTIES
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

- Remove the victim to the safe breathing area as quickly as possible. Up wind and uphill from source or cross wind to achieve upwind.
- Notify emergency response personnel.
- Provide artificial respiration and or CPR, as necessary.
- Remove all contaminated clothing to avoid further exposure.
- A minimum of two personnel on location shall be trained in CPR and First Aid.

McELVAIN OIL & GAS PROPERTIES
Hydrogen Sulfide Contingency Plan
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H2S is extremely toxic. The acceptable ceiling for eight hours of exposure is 10 ppm, which is .001% by volume. H2S is approximately 20% heavier than air (Sp. Gr = 1.19) (Air = 1) and colorless. It forms an explosive mixture with air between 4.3% and 46%. By volume hydrogen sulfide is almost as toxic as hydrogen cyanide and is 5-6 times more toxic than carbon monoxide.

COMMON NAME	CHEMICAL ABBREV.	SPECIFIC GRVTY.	THRESHOLD LIMITS	HAZARDOUS LIMITS	LETHAL CONCENTRATIONS
Hydrogen Sulfide	H2S	1.19	10 ppm 15 ppm	100 ppm/hr	600ppm
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Sulfur Dioxide	SO2	2.21	2 ppm	N/A	1000 ppm
Chlorine	CL2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	CO2	1.52	5000 ppm	5%	10%
Methane	CH4	0.55	90,000	Combustible @ 5%	N/A

Threshold Limit: Concentrations at which it is believed that all workers may be repeatedly exposed, day after day without adverse effects.

Hazardous Limit: Concentrations that may cause death.

Concentrations: Concentrations that will cause death with short term exposure.

Threshold Limit: NIOSH guide to chemical hazards
(10 ppm)

PHYSICAL EFFECTS OF HYDROGEN SULFIDE:

CONCENTRATION		*PHYSICAL EFFECTS*
.001%	10 ppm	Obvious and unpleasant odor. Safe for 8 hr. exposure
.005%	50 ppm	Can cause some flu like symptoms and can cause pneumonia.
.01%	100 ppm	Kills the sense of smell in 3-15 minutes. May irritate the eyes and throat.
.02%	200 ppm	Kills the sense of smell rapidly. Severely irritates the eyes and throat. Severe flu-like symptoms after 4 or more hours. May cause lung damage and or death.
.06%	600 ppm	Loss of consciousness quickly, death will result if not rescued promptly.

SURFACE USE PLAN

McELVAIN OIL & GAS PROPERTIES, INC.
McELVAIN #11
UNIT "D" SECTION 31
T18S-R34E LEA CO. NM

1. EXISTING AND PROPOSED ROADS:

A. Exhibit "B" is a reporduction of a County General Hi-way map showing existing roads. Exhibit "C" is a reproduction of a USGS topographic map showing existing roads and and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. All new roads will be constructed to BLM specifications.

B. Exhibit "A" shows the proposed well site as staked.

C. Directions to location: From Hobbs New Mexico take U. S. Hiway 62-180 West 17 miles to the junction with State Hiway 529 bear Right on State Hi-way 529 go 14.5± miles , turn Left follow lease road South 3.1± miles, turn Left East follow lease road 1± mile, turn Right (South) go .5 miles and location is on the East side of the road.

D. Exhibit "C" shows a topographic map indicating existing roads, proposed power line. Tank Battery will be constructed on location.

2. PLANNED ACCESS ROADS: No new roads will be require on this location.

A. The access roads will be crowned and sitched to a 14' wide travel surface, within a 30' R-O-W.

B. Gradient of all roads will be less than 5%.

C. Turn-outs will be constructed where necessary.

D. If require new access roads will be surface with a minimum of 4-6" of caliche. this material will be obtained from a local source.

E. Center line for new roads will be flagged, road construction will be done as field conditions require.

F. Culverts will be placed in the access road as drainage conditions require. Roads will be constructed to use low water crossings for drainage as required by the topographic conditions.

3. LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS: EXHIBIT "A-1"

A. Water wells - No water wells are near this location

B. Disposal wells - None known

C. Drilling wells - None known

D. Producing wells - As shown on Exhibit "A-1"

E. Abandoned wells - As shown on Exhibit "A-1"

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Exhibit "C" shows proposed roads , flowlines and powerlines.

5. LOCATION & TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the location access roads or piped to location in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the excavation of the drill site, if additional material is required it will be obtained from a local source and transported over the location access roads as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE:

A. All trash, junk and other waste material will be contained in trash cages or trash bins in order to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary land fill.

B. Sewage from living quatersw will be drained into holding tanks and will be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of well.

C. Where a closed loop mud system is used to drill a well the drilling fluid that remains after the drilling and casing is run or the well is Plugged and abandoned will be removed from the location and in some cases may be used on another well or transported to a State approve disposal site. The drilling cuttings that result from drilling the well will likewise be transported to a State approved disposal site.

D. All water produced while completing this well and completion fluids will be treated in the same procedure as the drilling fluids.

E. Any remaining salts or mud additive that was not used will be removed by the supplier, this includes all broken sacks and containers.

8. ANCILLARY FACILITIES:

A. No camps or air strips will be constructed on this location.

9. WELL SITE LAYOUT:

A. Exhibit "D" shows a generic well site for a well drilled using a closed mud system.

10. PLANS FOR RESTORATION OF SURFACE:

Rehabilition of the surface will start after the well has been completed, if the well is completed as a producer production facilities will be consturcted on the location. What area is not required for the operation of this project will be reclaimed and restored as near as possible to the original grade and vegetation.

If in case this well is unsuccessful and is a dry hole the drilling pad and the access roads will be reclaimed according to specifications provided by The Bureau of Land Management. Caliche or other road material will be removed for the possible use in another location or deposited in an approved reclaimation site.

Drill cuttings and mud used to drill this well will be removed and disposed of at an approved disposal site. All trash and any other debree will be collected disposed of as the above.

11. ADDITIONAL INFORMATION:

A. The topography consists of low lying semi-stabilized sand dunes to the South and West. Soils consists of silty clay loams and clay loams overlying older sands and caliche zones.

B. Vegetation consists of mesquite, sand sage, shinnery oak, yucca, prickley pear, and native grasses.

C. The surface and the minerals are owned by The U. S. Department of Interior and is administered by The Bureau of Land Management. The surface is used for grazing of livestock and the production of Oil & Gas.

D. An archaeological survey has been requested and when complete it will be filed with The Bureau of Land Management Carlsbad Field Office.

E. There are no dwellings located in the near vicinity of this location.

CERTIFICATION

I HREBY CERTIFY THAT I OR PERSONS UNDER MY DIRECT SUPERVISION HAVE INSPECTED THE PROPOSED DRILL SITE AND THE ACCESS ROAD ROUTES, THAT I AM FIMILIAR WITH THE CONDITIONS THAT CURRENTLY EXIST , AND THAT THE STATEMENTS MADE IN THIS PLAN ARE TO THE BEST OF MY KNOWLEDGE ARE TRUE AND CORRECT , AND THAT THE WORK ASSOCIATED WITH THE OPERATIONS PROPOSED HERE IN WILL BE PERFORMED BY McELVAIN OIL & GAS PROPERTIES ITS CONTRACTORS AND/OR IT'S SUB-CONTRACTORS AND IS IN CONFORMANCE WITH THIS PLAN AND THE TERMS AND THE CONDITIONS UNDER WHICH IT IS APPROVED. THIS STATEMENT IS SUBJECT TO THE PROVISIONS OF U.S.C. 1001 FOR FILING OF A FALSE REPORT.

OPERATOR'S REPRESENTATIVES

BEFORE CONSTRUCTION

TIERRA EXPLORATION, INC.
P.O. BOX 2188
HOBBS, NEW MEXICO 88241
OFFICE PH. 575-391-8503
CELL 575-390-1598

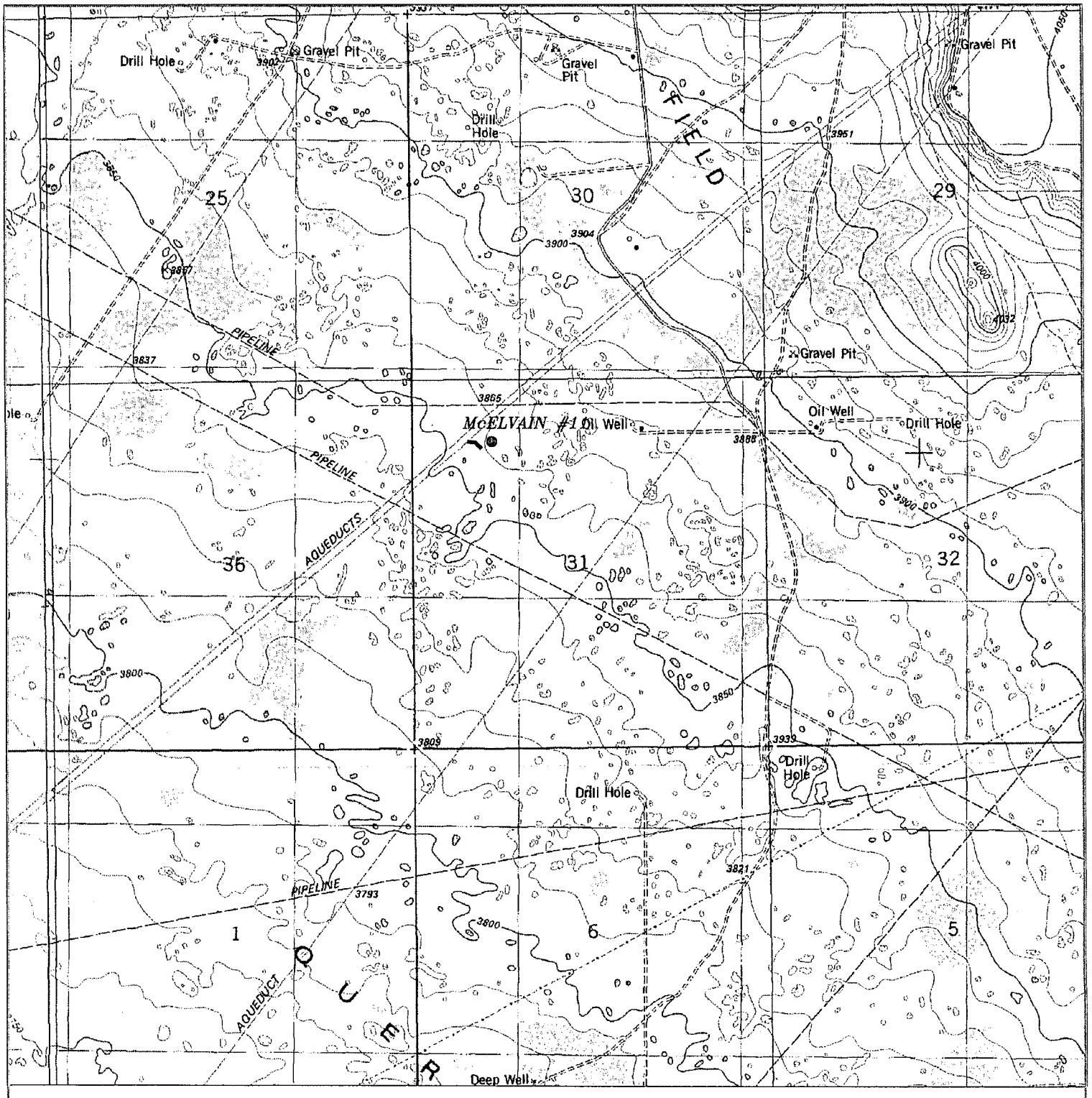
DURING & AFTER CONSTRUCTION

McELVAIN OIL & GAS PROPERTIES
1050 17th STREET
SUITE 1800
DENVER COLORADO 80265,
OFFICE 303-893-0933
CELL 303-981-2921

NAME Jose T Garcia

TITLE Permit Eng.

DATE 05/04/10



McELVAIN #11
Located 900' FNL and 1170' FWL
Section 31, Township 18 South, Range 34 East,
N.M.P.M., Lea County, New Mexico.

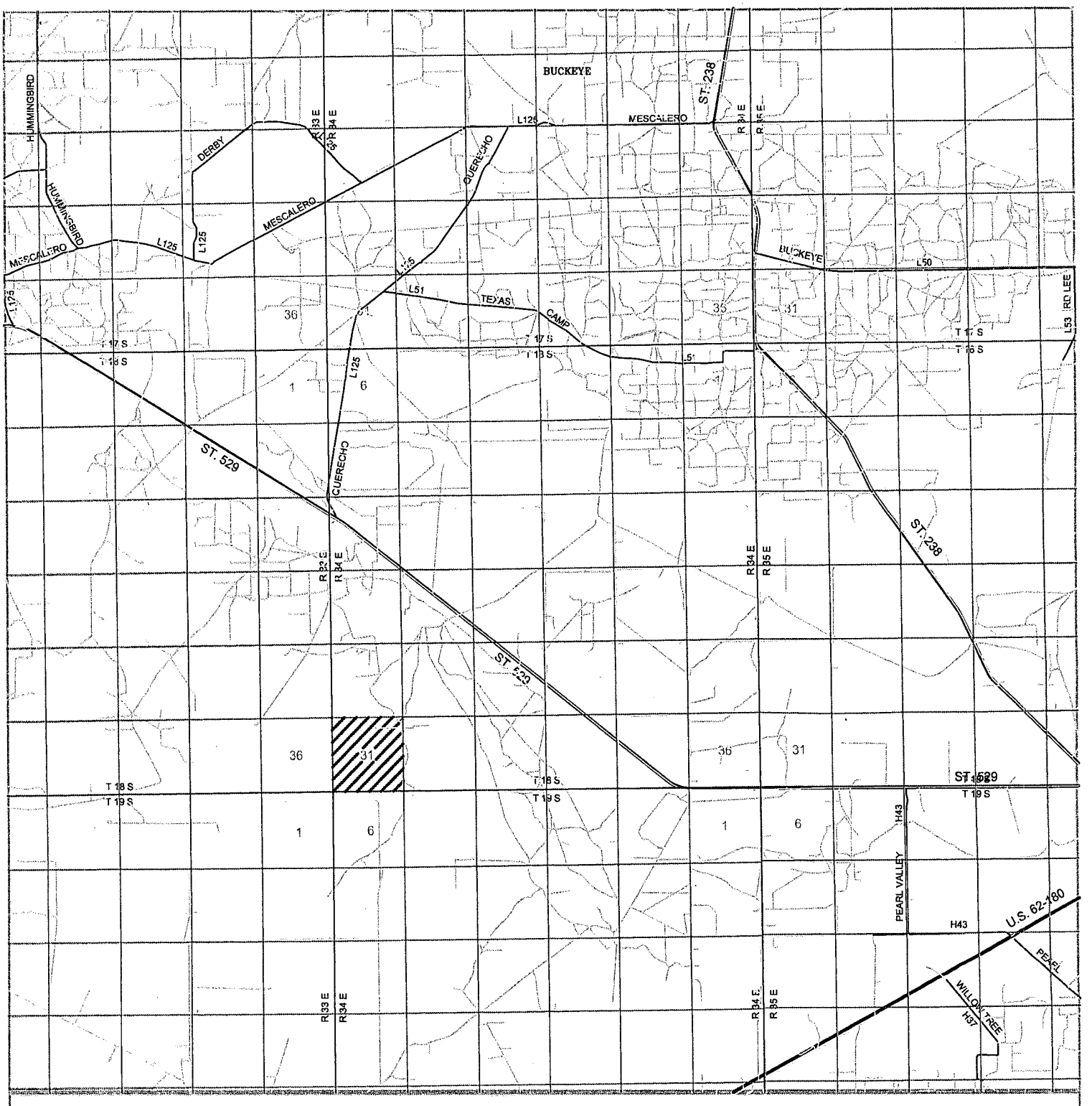
basin surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: JMS 22633
Survey Date: 04-07-2010
Scale: 1" = 2000'
Date: 04-08-2010

N

McELVAIN OIL & GAS PROPERTIES



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W.O. Number:	JMS 22633
Survey Date:	04-07-2010
Scale:	1" = 2 Miles
Date:	04-08-2010

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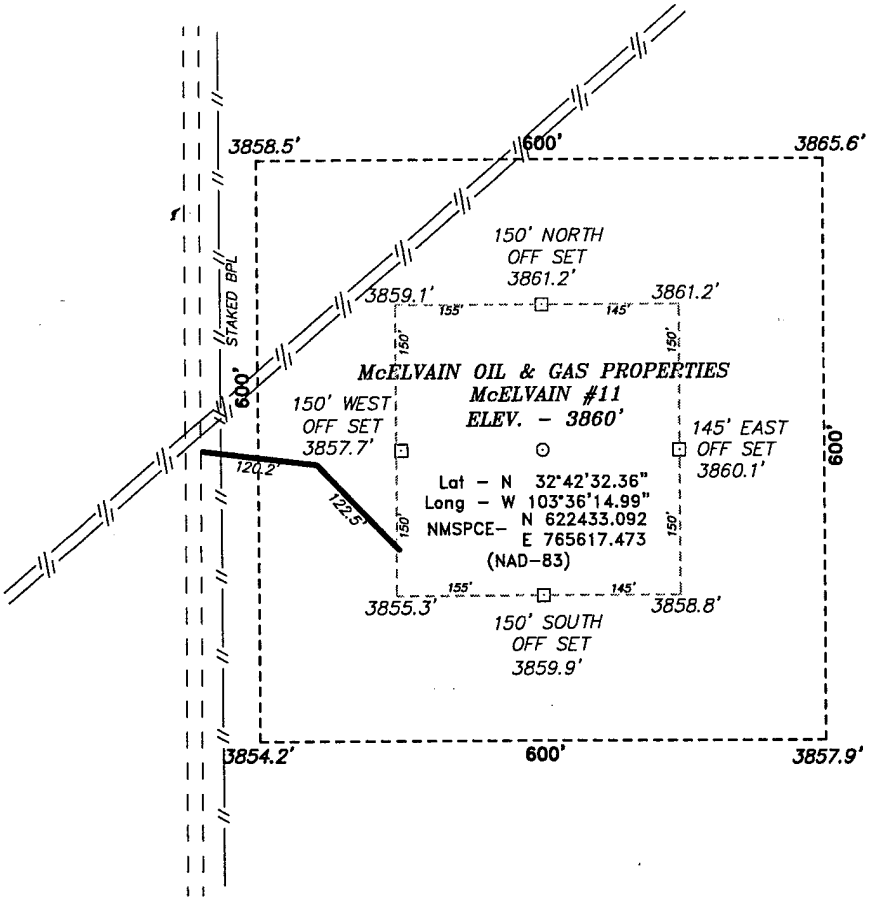
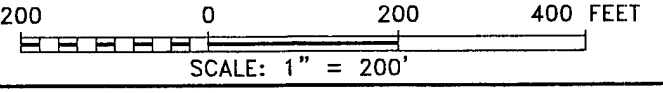
McELVAIN OIL & GAS PROPERTIES

SECTION 31, TOWNSHIP 18 SOUTH, RANGE 34 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO.





Directions to Location:

FROM MILE MARKER 17 OF HWY 529; GO NORTHWEST 0.1 MILES TO LEASE ROAD, ON LEASE ROAD GO SOUTHWEST THENCE SOUTH FOR 1.1 MILES TO A "Y", GO SOUTHWEST 1.7 MILES TO A BEND TURNING EAST AND CONTINUE FOR 1.1 MILES TO LEASE ROAD, ON LEASE ROAD GO SOUTH 0.2 MILE TO PROPOSED LEASE ROAD.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

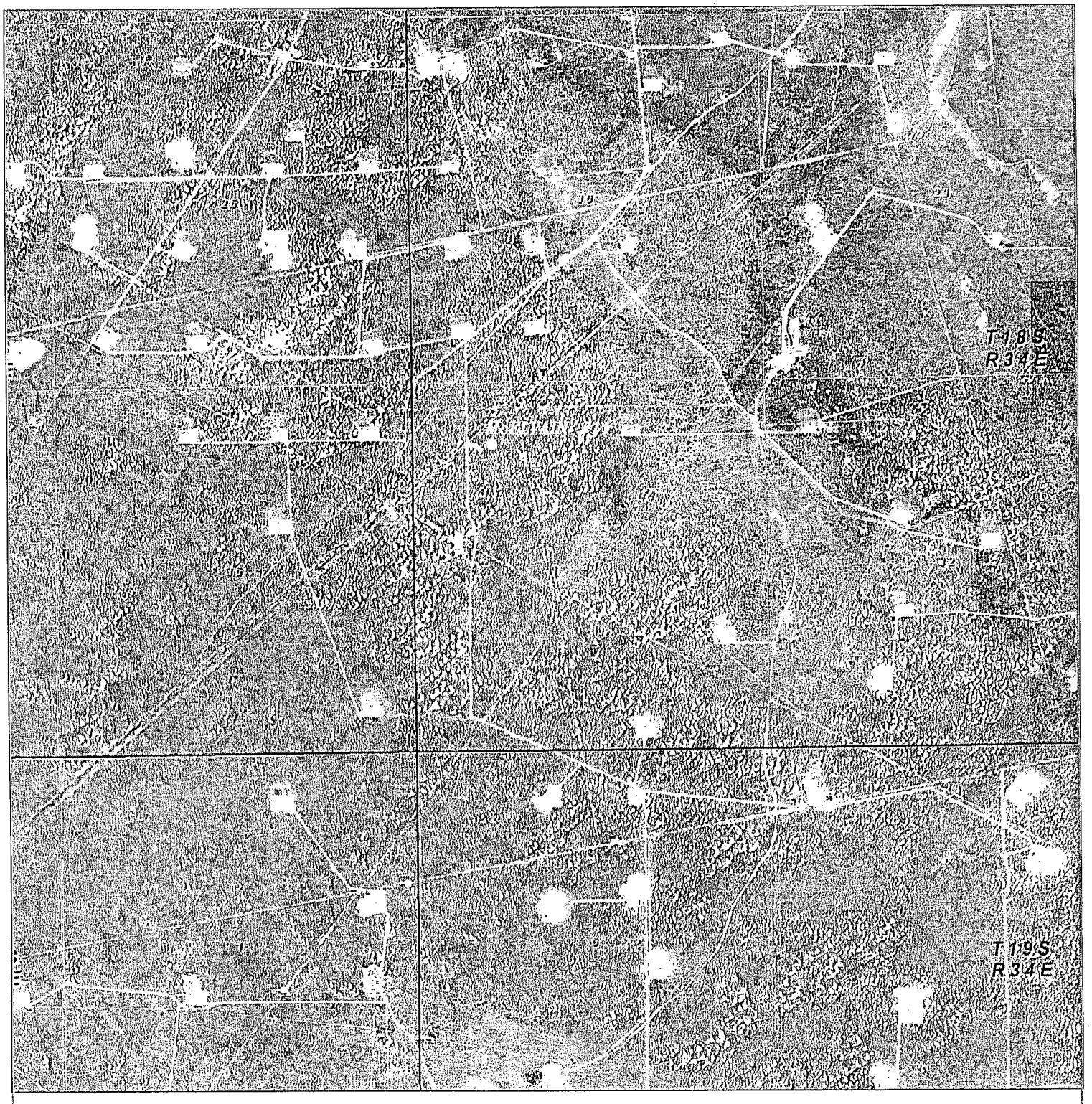
W.O. Number: 22633	Drawn By: J. SMALL
Date: 04-08-2010	Disk: JMS 22633

McELVAIN OIL & GAS PROPERTIES

REF: McELVAIN #11 / WELL PAD TOPO

THE McELVAIN #11 LOCATED 900' FROM THE NORTH LINE AND 1170' FROM THE WEST LINE OF SECTION 31, TOWNSHIP 18 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

Survey Date: 04-07-2010	Sheet 1 of 1 Sheets



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W.O. Number: JMS 22633

Scale: 1" = 2000'

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

N

McELVAIN OIL & GAS PROPERTIES

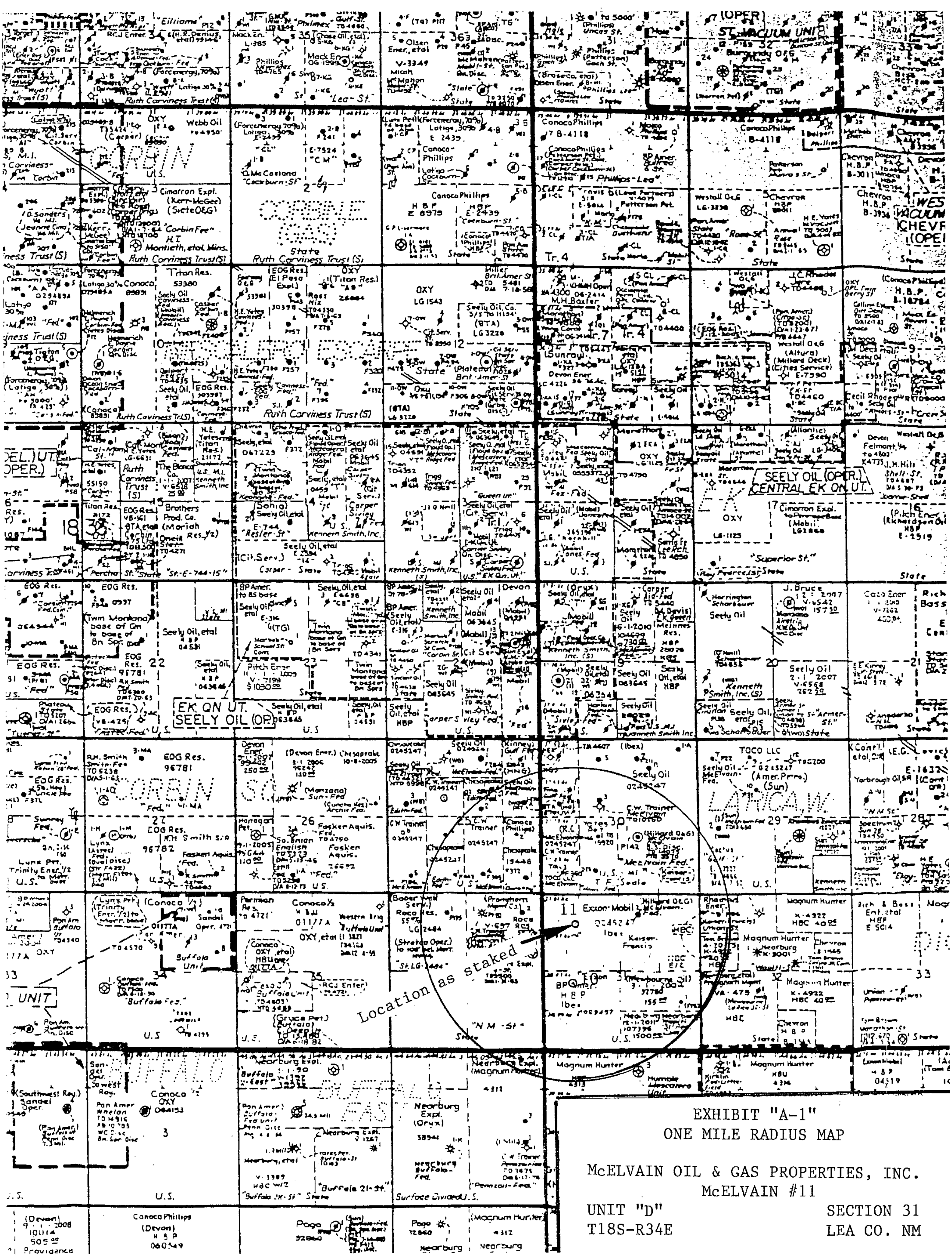

EXHIBIT "A-1"
ONE MILE RADIUS MAP

McELVAIN OIL & GAS PROPERTIES, INC.
McELVAIN #11

UNIT "D" SECTION 31
T18S-R34E LEA CO. NM

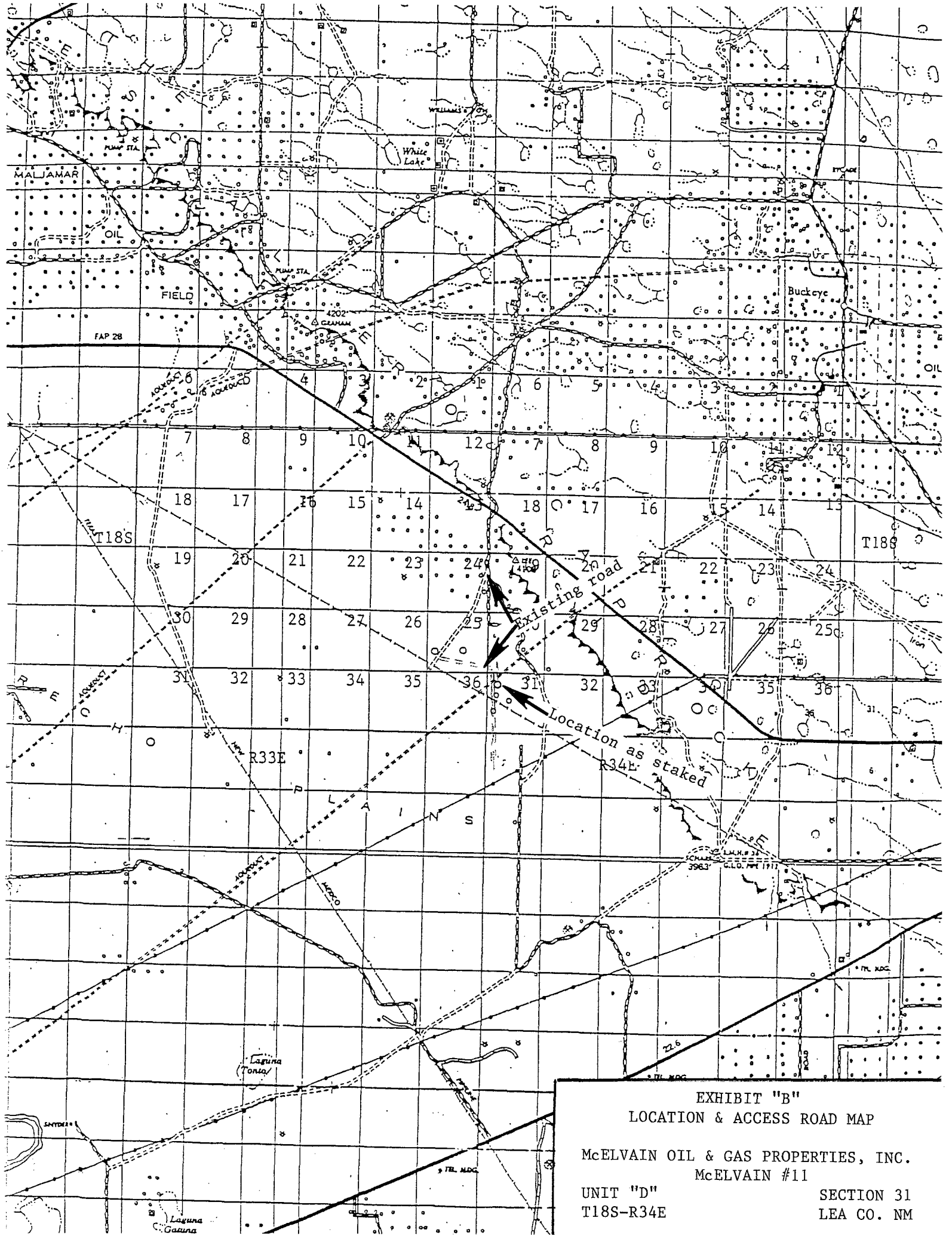

EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

McELVAIN OIL & GAS PROPERTIES, INC.
McELVAIN #11

UNIT "D" SECTION 31
T18S-R34E LEA CO. NM

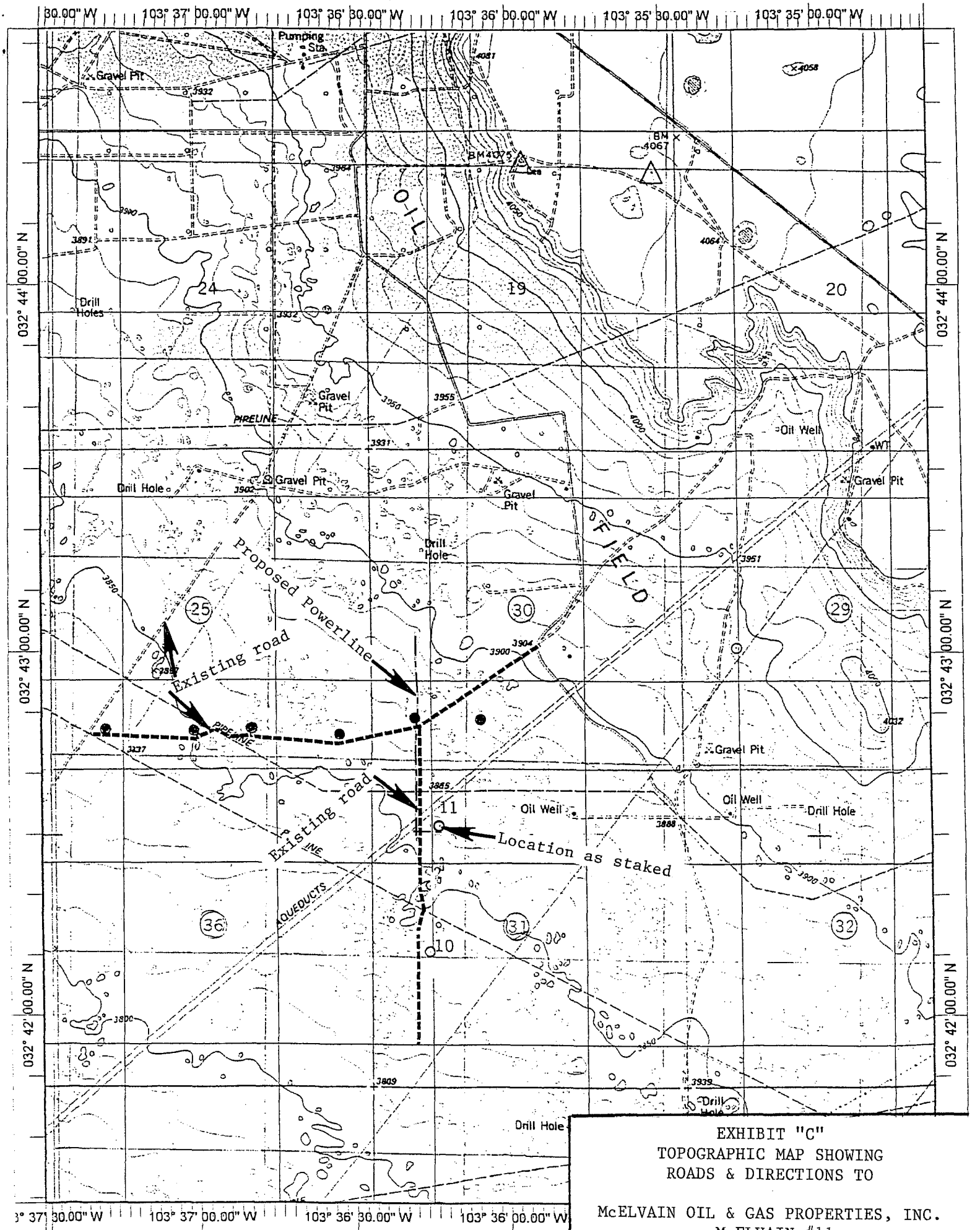

EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO

McELVAIN OIL & GAS PROPERTIES, INC.
McELVAIN #11

UNIT "D" SECTION 31
T18S-R34E LEA CO. NM