

30 - 015 - 38464

**SURFACE USE AND OPERATIONS PLAN FOR  
DRILLING, COMPLETION, AND PRODUCING**

**Murchison Oil & Gas, Inc.**  
**Pequeno Mike BLU Federal #4H**  
**SL: 3530' FNL & 200' FWL, Lot 12, Sec. 2, T16S, R29E**  
**BHL: 3613' FNL & 330' FWL, Lot 12, Sec. 3, T16S, R29E**  
**Eddy County, New Mexico**

**LOCATED**

Approximately 24 miles NE of Artesia, New Mexico.

**OIL & GAS LEASE**

SHL: LS# V-4949

BHL: LS# NM NM 105211

**BOND COVERAGE**

NM 2163

**POOL**

County Line Tank; Abo

**OIL & GAS RECORD LESSEE**

Lessee: Murchison Oil & Gas, Inc., 1100 Mira Vista Blvd., Plano, TX 75093

Operating Rights: Murchison Oil & Gas, Inc., 1100 Mira Vista Blvd., Plano, TX 75093

**SURFACE OWNER**

State of New Mexico

**MINERAL OWNER**

Bureau of Land Management

**GRAZING TENANT**

Bogle Ltd Co. LLC, P.O. Box 460, Dexter, NM 88230 (575) 433-3500

**EXHIBITS**

- A (form C-102) Well Location & Acreage Dedication Plat
- B Topographic & Location Verification Map
- C Area Road Map
- C-1 & C-2 Vicinity Oil & Gas Map
- D Proposed Lease Road
- E Drilling Rig Layout
- F BOPE Schematic
- G Choke Manifold Schematic

This well will be drilled to a BHL of approximately 7,147' TVD, and approximately 12,085' MD.

**EXISTING ROADS**

Exhibit A (Form C-102) is a portion of a section map showing the location of the proposed well as staked.

Exhibit C is a map showing existing roads in the vicinity of the proposed well site.

Directions to well location: From the intersection of U.S. Hwy. 82 and Co. Rd. #214 (Barnaval Draw Rd.), go north on Co. Rd. #214 approximately 7.0 miles. Go northeast approximately 3.5 miles. The location stake is approximately 1,000 feet northwest (Exhibit D).

**ACCESS ROADS**

**Length and Width**

Proposed new access road is approximately 447' long by 30' wide (Exhibit D). Murchison Oil & Gas, Inc. has agreements with the surface owners for right-of-way for the lease road to the proposed well.

**Surface Material**

Six inches of caliche and water, compacted and graded.

**Maximum Grade**

Less than three percent

**Turnouts**

None needed

**Drainage Design**

N/A

**Culverts**

None needed

**Gates and Cattle Guards**

None required

**LOCATION OF EXISTING WELLS**

The locations of existing wells in Section 2 are shown on Exhibit C-1 and C-2.

**LOCATION OF EXISTING AND/OR PROPOSED FACILITIES**

Necessary production facilities for this well will be located on the well pad.

**LOCATION AND TYPE OF WATER SUPPLY**

It is planned to drill the proposed well with a cut-brine water system or with produced water. The water will be obtained from either a private water well owner or a commercial source and will either be piped to location from a nearby water well or will be hauled to location by truck over existing and proposed lease roads as shown on Exhibit D.

**SOURCE OF CONSTRUCTION MATERIALS**

Caliche required for the construction of the location pad and access road will be obtained from caliche on the location or from the nearest BLM-approved pit.

**METHODS OF HANDLING WASTE DISPOSAL**

All drilling fluid will be circulated over shaker(s) with cuttings discharged into roll off container.

Fluid and fines below shaker(s) will be circulated with transfer pump through centrifuge(s) or solids separator with cuttings and fines discharged into roll off container.

Fluid will be continuously re-circulated through equipment with polymer added to aid separation of cutting fines.

Roll-off containers will be lined and de-watered with fluids re-circulated into system.

Additional tank will be used to capture unused drilling fluid or cement returns from casing jobs.

This equipment will be maintained by solids control personnel and/or rig crews on location.

Cuttings will be hauled to one of the following, depending on which rig is available to drill well:

CRI (permit number R9166)  
or  
GMI (permit number 711-019-001)

**ANCILLARY FACILITIES**

None required.

**WELL SITE LAYOUT**

Exhibit E shows the relative location and dimensions of the well pad, mud pits, cuttings containers and trash pit, and the location of major rig components. Operator requests V-door be positioned to the East, and the steel pits located to the North.

The ground surface at the drilling location is essentially flat.

A Closed-Loop System will be used.

The pad area has been staked and flagged.

**PLANS FOR RESTORATION OF THE SURFACE**

After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleared of all trash and junk to leave the site in an as aesthetically pleasing condition as possible.

Any unguarded pits containing fluids will be fenced until they are filled.

If the proposed well is non productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States Geological Survey will be complied with and will be accomplished as expeditiously as possible.

**OTHER INFORMATION**

**Topography**

The land surface at the well site is small, rolling hills.

**Soil**

Loamy soil shallow to caliche and raw Gypsum.

**Flora and Fauna**

The vegetation consists of creosote, mesquite, yucca, prickly pear, Mormon tea, cane cholla, pencil cholla, horse creeper and various grasses. Faunal species include pronghorn antelope, mule deer, coyote, badger, rabbits, and various snakes, small mammals, birds and reptiles.

**Ponds and Streams**

There are no rivers, lakes, ponds, or streams in the area.

**Residences and Other Structures**

There are no residences within one mile of the proposed well site.

**Archaeological, Historical, and Cultural sites**

An Archaeological Survey has been sent to the BLM Office.

**Land Use**

Grazing

**OPERATOR'S REPRESENTATIVES**

Arnold Nall  
1100 Mira Vista Blvd.  
Plano, TX 75093-4698  
Office Phone: (972) 931-0700  
Cell Phone: (214) 415-3010

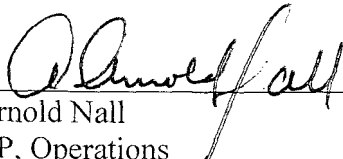
Randy Ford  
415 W. Wall Street, Suite 1700  
Midland, TX 79701  
Office Phone: (432) 682-0440  
Cell Phone: (432) 559-2222

**Murchison Oil & Gas, Inc.**  
**Pequeno Mike BLU Federal #4H**  
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**Eddy County, New Mexico**

**CERTIFICATION**

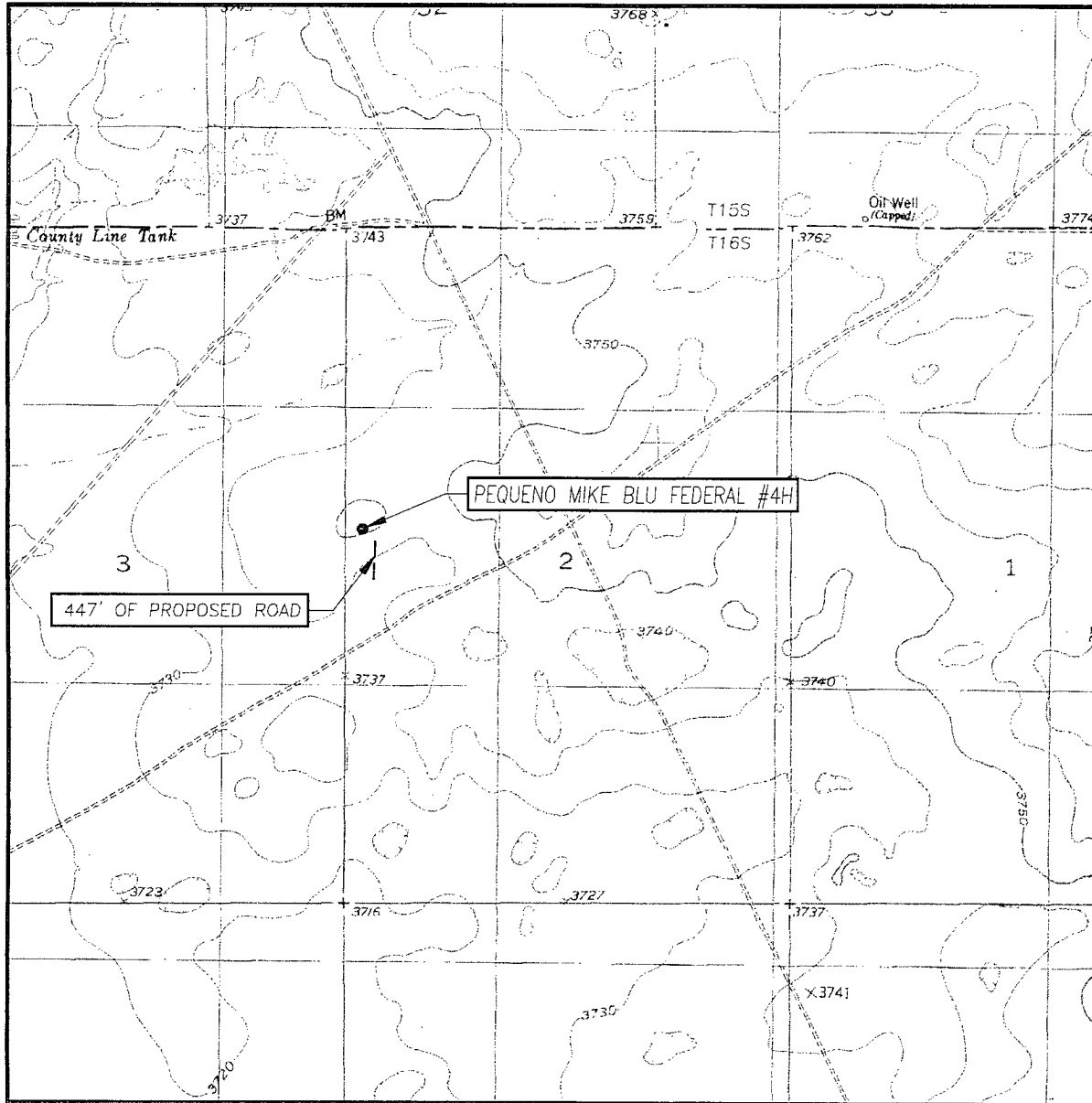
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Murchison Oil & Gas, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

5/11/2011  
Date

  
Arnold Nall  
VP, Operations  
Murchison Oil & Gas, Inc.

# EXHIBIT B

## LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
BASIN WELL, N.M. - 10'

SEC. 2 TWP. 16-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

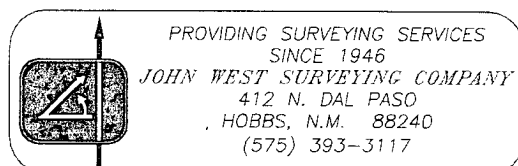
DESCRIPTION 3530' FNL & 200' FWL

ELEVATION 3753'

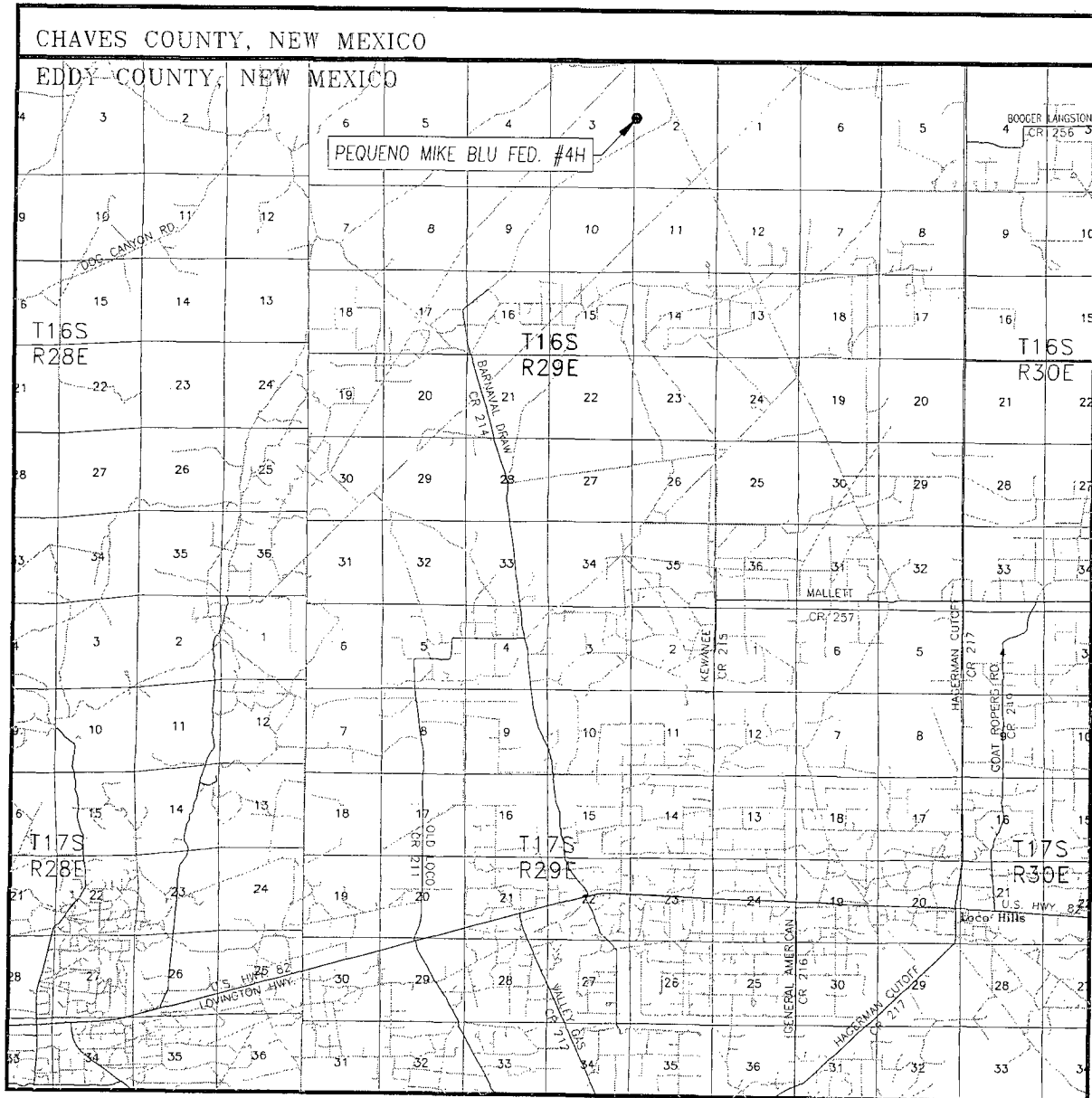
OPERATOR MURCHISON OIL & GAS, INC.

LEASE PEQUENO MIKE BLU FED.

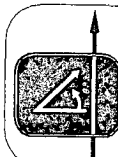
U.S.G.S. TOPOGRAPHIC MAP  
BASIN WELL, N.M.



## VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 2 TWP. 16-S RGE. 29-ESURVEY N.M.P.M.COUNTY EDDY STATE NEW MEXICODESCRIPTION 3530' FNL & 200' FWLELEVATION 3753'OPERATOR MURCHISON OIL & GAS, INC.LEASE PEQUENO MIKE BLU FED.

PROVIDING SURVEYING SERVICES  
SINCE 1946  
JOHN WEST SURVEYING COMPANY  
412 N. DAL PASO  
HOBBS, N.M. 88240  
(575) 393-3117

EXHIBIT C-1

5-10-2008



PEQUENO MIKE BLU FEDERAL #5H



PEQUENO MIKE BLU FEDERAL #4H



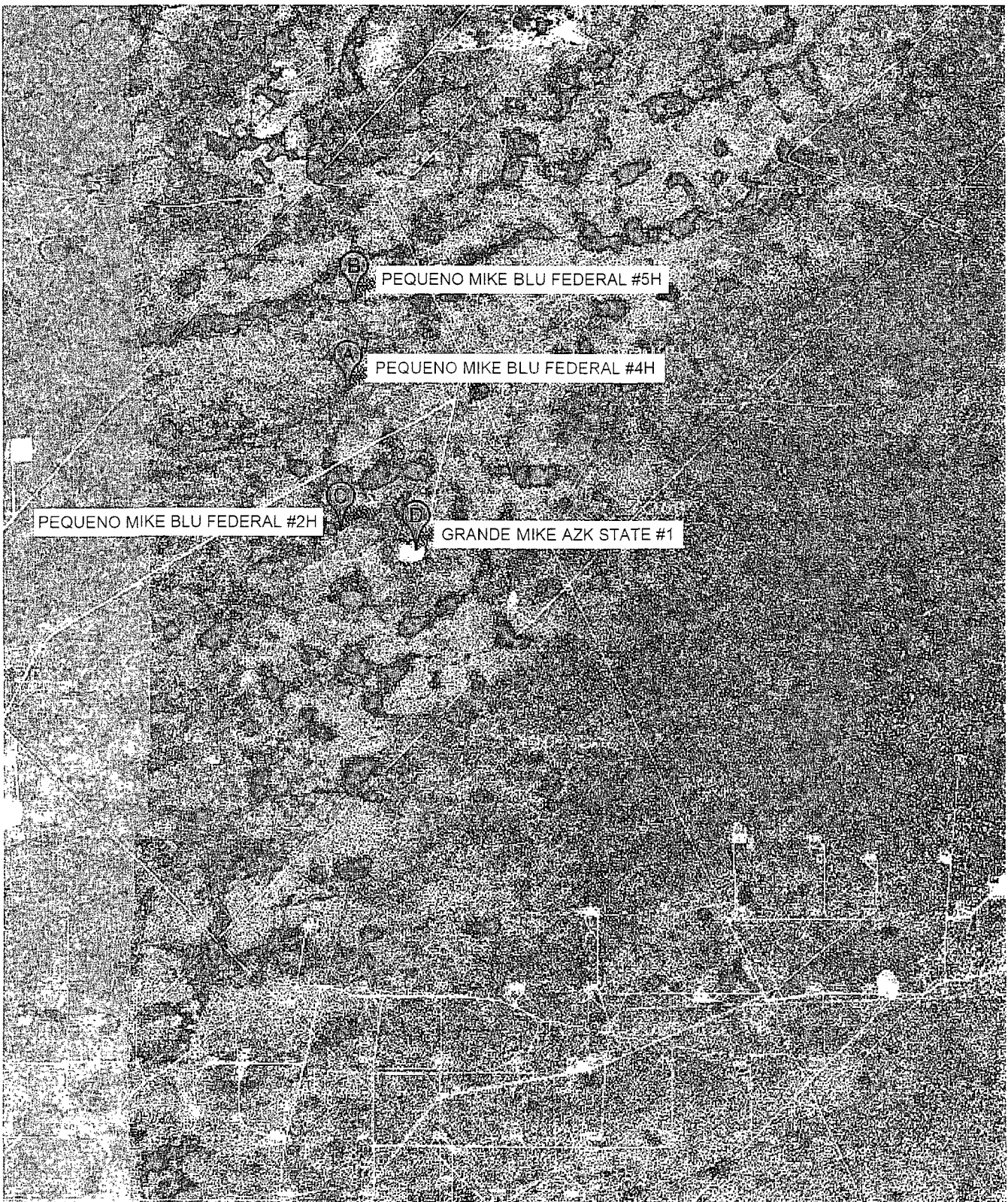
PEQUENO MIKE BLU FEDERAL #2H



GRANDE MIKE AZK STATE #1

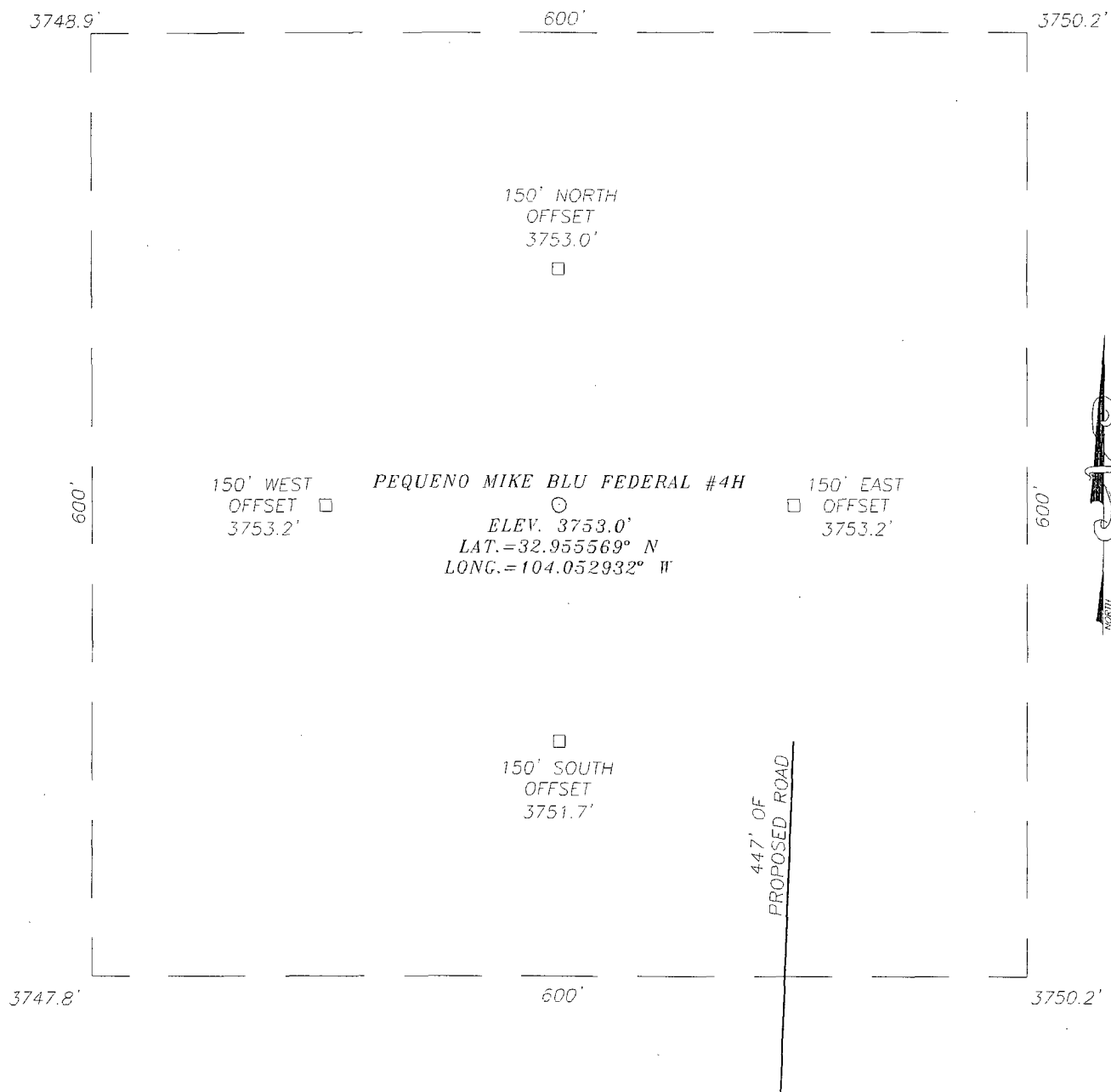


EXHIBIT C-2



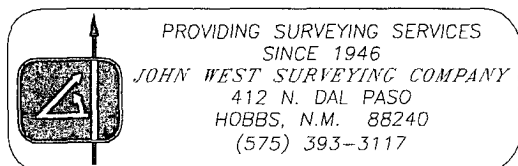
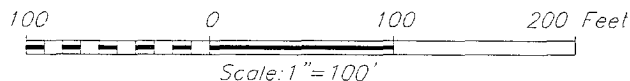
# EXHIBIT D

## SECTION 2, TOWNSHIP 16 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO



### DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HIGHWAY 82 AND CO. RD. #214 (BARNAVAL DRAW RD.), GO NORTH ON CO. RD. #214 FOR APPROX. 7.0 MILES. GO NORTHEAST APPROX. 3.5 MILES. THE LOCATION STAKE IS APPROX. 1000 FEET NORTHWEST.



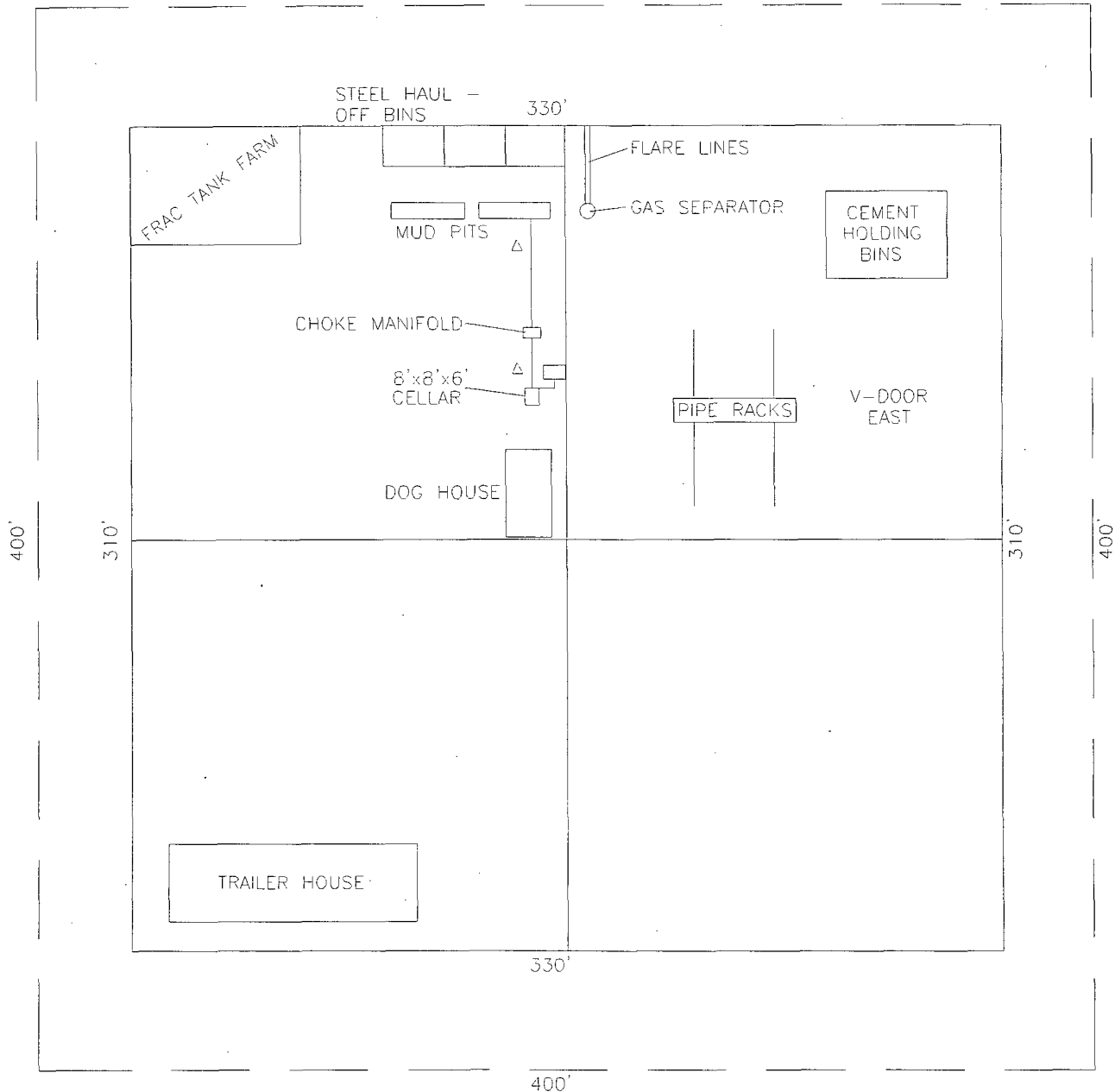
### MURCHISON OIL & GAS, INC.

PEQUENO MIKE BLU FEDERAL #4H WELL  
LOCATED 3530 FEET FROM THE NORTH LINE  
AND 200 FEET FROM THE WEST LINE OF SECTION 2,  
TOWNSHIP 16 SOUTH, RANGE 29 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.

Survey Date: 12/7/10	Sheet 1 of 1 Sheets
W.O. Number: 10.11.1764	Dr By: LA
Date: 12/14/10	10111764
	Scale: 1"=100'

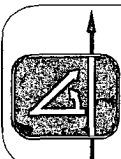
# EXHIBIT E

SECTION 2, TOWNSHIP 16 SOUTH, RANGE 29 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



MURCHISON OIL & GAS, INC.  
PEQUENO MIKE BLUE FEDERAL #4H  
ELEV. 3753.0'

GEODETIC COORDINATES  
NAD 27 NME  
Y=711462.8 N  
X=586009.7 E  
LAT.=32.955569° N  
LONG.=104.052932° W



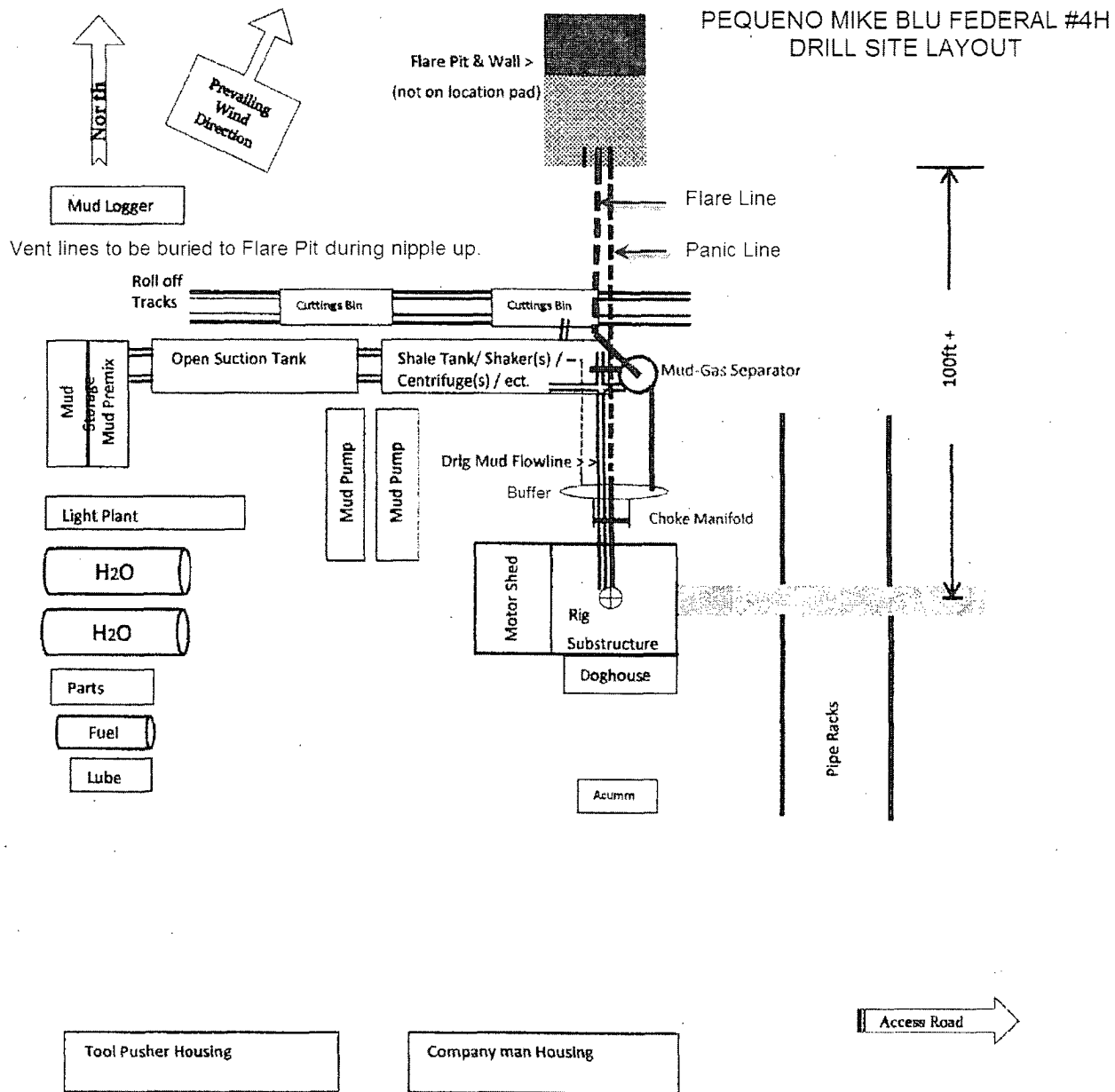
PROVIDING SURVEYING SERVICES  
SINCE 1946  
JOHN WEST SURVEYING COMPANY  
412 N. DAL PASO  
HOBBS, N.M. 88240  
(575) 393-3117

60 0 60 120 Feet  
Scale: 1"=60'

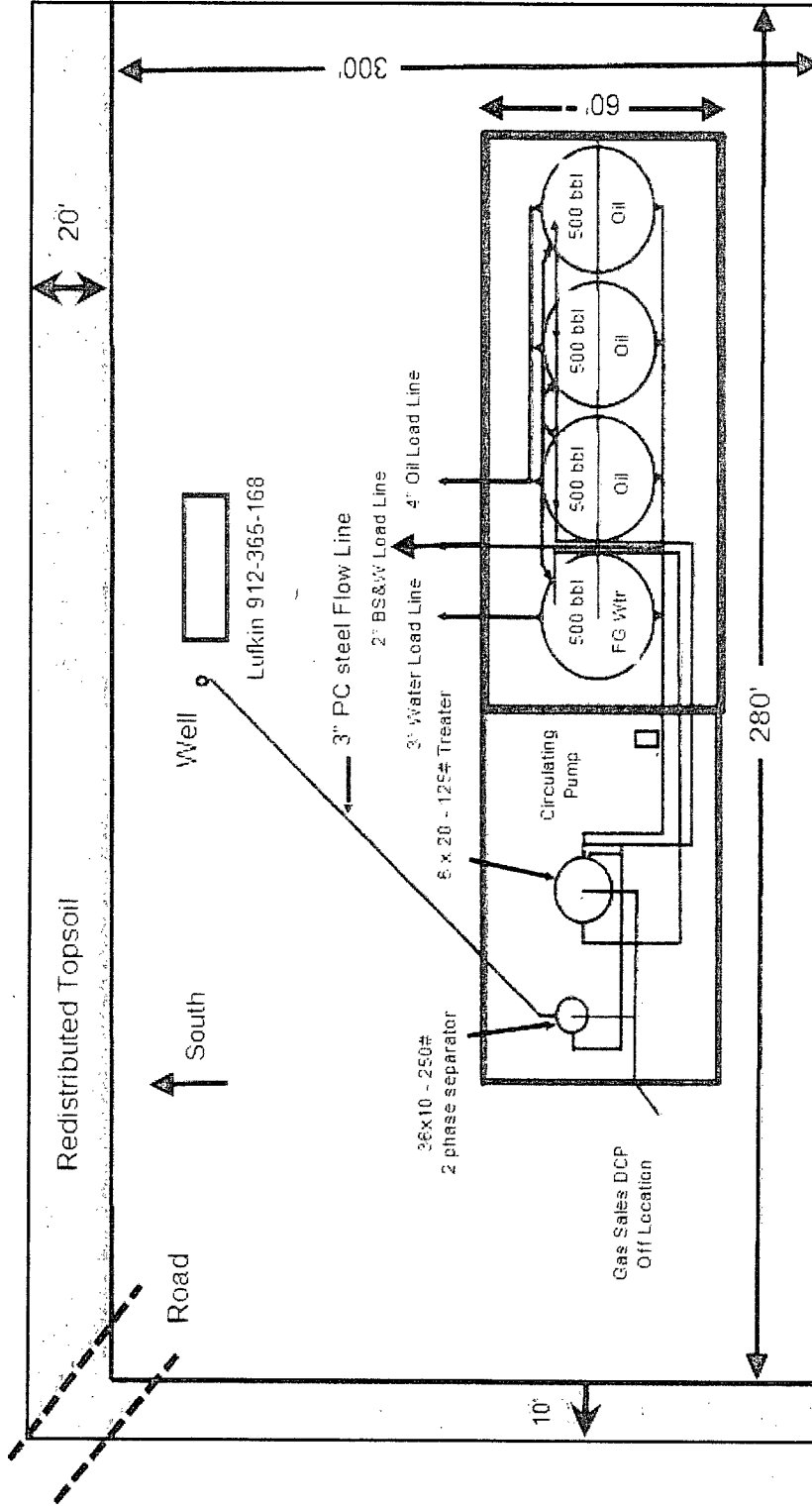
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EDDY COUNTY, NEW MEXICO.

Survey Date: 12/7/10	Sheet 1 of 1 Sheets
W.O. Number: 10.11.1764	Dr By: LA Rev 1:N/A
Date: 12/15/10	10111764 Scale: 1"=100'



Murchison Oil & Gas, Inc.  
 Pequeno Mike BLU Federal #4H  
 Sec.2, T16S, R29E  
 Eddy County, NM



Containment Area Volume around tanks  $40' \times 100' \times 2.89 = 2,064$  bbls

Tank Pad - caliche pad & padded w/top soil & lined w/20 mill liner; liner padded w/top soil & 3/8" crushed rock

Retaining Wall - caliche & padded w/top soil covered w/20 mill liner

Leak detection float w/alarm inside retaining wall, level control alarms on all tanks

Earth retaining wall around separator & treater

**Murchison Oil & Gas, Inc.  
Closed Loop Equipment Diagram**

