ADB 08/10/06

490A

OCD-ARTESIA

K-06-01

Form 3160-3
(April 2004)

1200

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
SEP - 2006
OCD - ARTESIA

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. **NMNM-048344**

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. **Pure Federal #1** 35988

2. Name of Operator **SDX Resources. Inc.** 20451

9. API Well No. 30-015-35132

3a. Address **PO Box 5061, Midland, TX 79704**

3b. Phone No. *(include area code)* **432-685-1761**

10. Field and Pool, or Exploratory Artesia; Glorieta-Yeso

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **2310' FNL 330' FEL**
At proposed prod. zone **Same**

11. Sec., T. R. M. or Blk. and Survey or Area **21, T17S, R28E, H**

14. Distance in miles and direction from nearest town or post office* **12 miles East of Artesia, NM**

12. County or Parish **Eddy**

13. State **NM**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
330' (330')	160	40
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on file**
NA	3500'	NM2307
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
3588' GL	10/01/2006	10 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name *(Printed/Typed)*	Date
Bonnie Atwater	Bonnie Atwater	7-31-06

Title: **Regulatory Tech**

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Tony J. Herrell	Tony J. Herrell	SEP 05 2006

Title: FIELD MANAGER

Office: CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached. APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

acs 8/10/06

(Instructions on page 2)

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

ROSWELL CONTROLLED WATER BASIN
Witness Surface Casing

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
	96830	Artesia; Glorieta-Yeso

Property Code	Property Name	Well Number
	PURE FEDERAL	1

OGRID No.	Operator Name	Elevation
020451	SDX RESOURCES, INC.	3588'

Surface Location

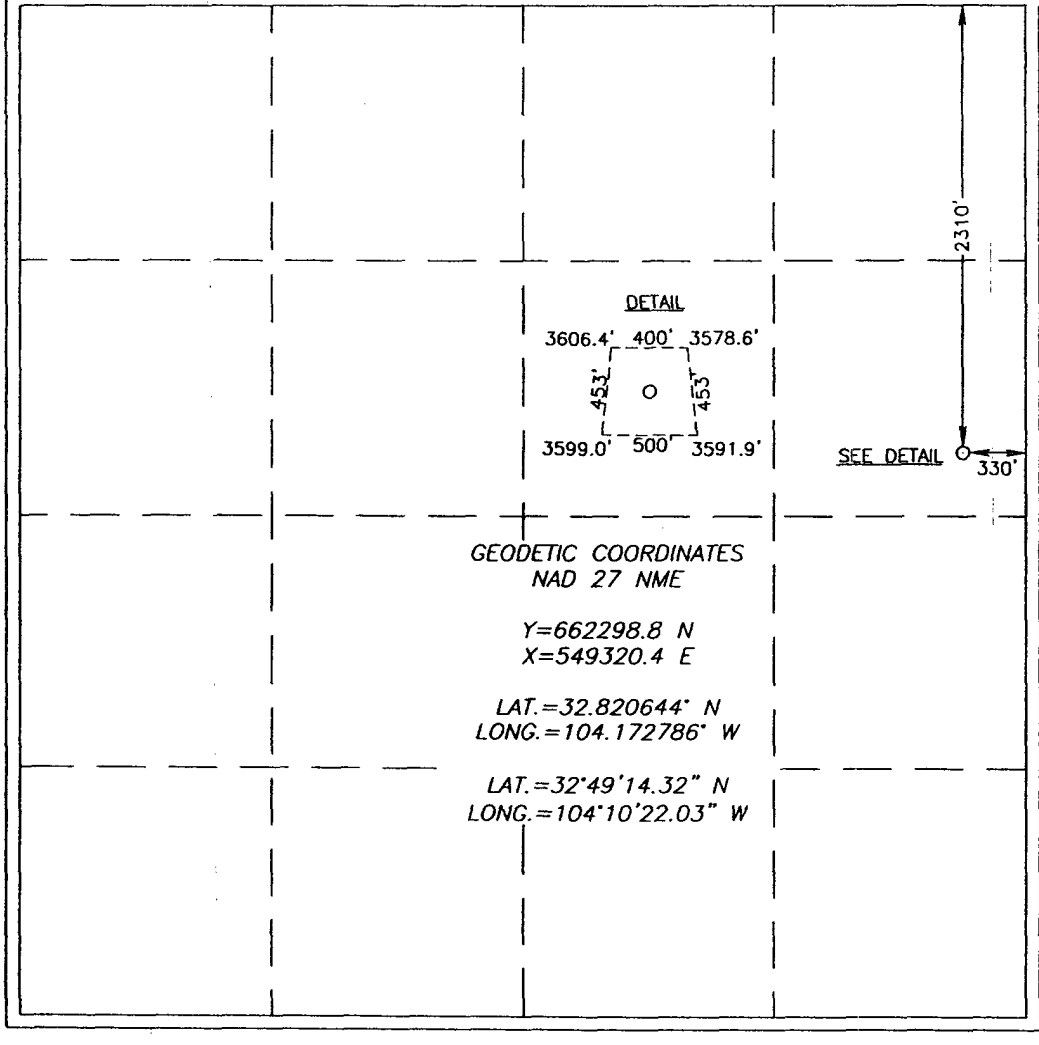
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	21	17-S	28-E		2310	NORTH	330	EAST	EDDY

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

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



OPERATOR CERTIFICATION

I hereby certify that the information 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.

Bonnie Atwater 7/31/06
Signature Date

Bonnie Atwater
Printed Name

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.

JULY 25, 2006
Date Surveyed LA

Signature & Seal of Professional Surveyor

RONALD J. EIDSON
NEW MEXICO
3239
REGISTERED PROFESSIONAL SURVEYOR

Ronald J. Eidson 7/27/06
06.11.1239

Certificate No. GARY L. EIDSON 12641
RONALD J. EIDSON 3239

SURFACE USE AND OPERATIONS PLAN
SDX RESOURCES, INC.
Pure Federal # 1
2310' FNL, 330' FEL
Unit H, Sec. 21, T17S, R28E
Eddy Co., NM

1. Existing Roads:

   A. The well site and elevation plat for the proposed well is shown in Exhibit #2. It was staked by John West of Hobbs, New Mexico.

   B. All roads to the location are shown in Exhibit #3A. The existing rods are labeled and upgrading of the road prior to drilling will be done where necessary as determined during the onsite inspection.

   C. Directions to location: E. of Artesia on Hwy. 82 ~ 12 miles . Turn left on CR 208 and go 1.6 M and turn left to location.

   D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. Proposed Access Road:

   Exhibit #3A&B shows the existing road.

   ~450' of new road will be needed. Roads are shown on Exhibit #3 &B.

3. Location of Existing Wells:

   Exhibit #4 shows all existing wells within a one-mile radius of this well.

4. Location of Existing and/or Proposed Facilities and ROW's:

   A. If the well is productive:
      1. The well will be tested and if commercial production is established a battery consisting of 2-300bbl. steel stock tanks, a 300 bbl fiberglass brine tank, and a 4x20 steel heater treater will be constructed on the existing pad.

      2. A Power line will be built to location and will be permitted by Central Valley Electric Company.

   B. If the well is productive, rehabilitation plans are as follows:

      1. The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after the well is complete).

      2. Topsoil removed from the drill site will be used to raconteur the pit area to the original natural level, as nearly as possible, and reseeded as per BLM specifications.

5. Location and Type of Water Supply:

The well will be drilled with a combination brine and fresh water mud systems as outlined in the drilling program. The brine and fresh water will be obtained from commercial water stations in the area and hauled to roads shown in Exhibit #3. No water well will be drilled on the location.

6. Source of Construction Materials:

All caliche required for construction of the drill pad and any new access road will be obtained from the drilling pits and/or on site when possible. Any additional caliche will be obtained from approved caliche pits. All roads and pads will be constructed of 6" rolled and compacted caliche.

7. Methods of Handling Water Disposal:

A. Drill cuttings not retained for evaluation purposes will be disposed into the reserve pit.

B. Drilling fluids will be contained in plastic lined pits. The reserve pit will contain any excess drilling fluid or flow from the well during drilling, cementing and completion operations. The reserve pit will be an earthen pit, approximately 80' x 55' x 8' deep, fenced, and plastic-lined (12 mil thickness).

C. Water produced from the well during completion may be disposed into the reserve pit. After the well is permanently placed on production, produced water will be trucked to an approved disposal site.

D. Garbage and trash produced during drilling or completion operations will be collected in a trash trailer by a contractor. All water and fluids will be disposed of into the reserve pit. Salts and other chemicals produced during drilling or testing will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be produced by this operation.

E. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned-up within 90 days. No adverse materials will be left on the location. The reserve pit will be completely fenced and kept closed until it has dried. When the reserve pit is dry enough to breakout and fill and as weather permits the unused portion of the well site will be leveled and reseeded as per BLM specifications. Only that part of the pad required for production facilities will be kept in use.

8. Ancillary Facilities:

None

9. Well Site Layout:

A. The drill pad layout is shown in Exhibit #5. Dimensions of the pad and pits and location of major rig components are shown. Top soil, if available, will be stockpiled per BLM specifications as determined at the on-site inspection. Because the pad is almost level no major cuts will be required.

B. Exhibit #5 shows the planned orientation for the rig and associated drilling equipment, reserve pit, trash pit, pipe racks, turn-around, parking areas and access road. No permanent living facilities are planned but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.

C. The reserve pit will be lined with high-quality plastic sheeting (12 mil thickness).

10. Plan for Restoration of the Surface:

A. Upon completion of the proposed operation, if the well is to be abandoned, the pit area, after allowing to dry, will be broken out and leveled. The original top soil will be returned to the entire location which will be leveled and contoured to as-nearly the original topography as possible.

All trash and garbage will be hauled away in order to leave the location in an anesthetically pleasing condition. All pits will be filled and the location leveled within 120 days after abandonment.

B. The disturbed area will be revegetated by reseeding during the proper growing season with a seed mixture of native grasses as recommended by the BLM.

C. The reserve pit will be fenced prior to and during drilling operations. The fencing will remain in place until the pit area is cleaned-up and leveled. No oil will be left on the surface of the fluid in the pit.

D. Upon completion of the proposed operations, if the well is completed, the reserve pit area will be treated as outlined above within the same prescribed time. The caliche from any area of the original drill site not needed for production operations or facilities will be removed and used for construction of thicker pads. Any additional caliche required for facilities will be obtained from an approved caliche pit. Topsoil removed from the drill site will be used to raconteur the pit area and any unused portions of the drill pad to the original natural level and reseeded as per BLM specifications.

11. Surface Ownership:

BLM
Grazing Leased to Bogle , LTD

Surface leasee will be notified.

12. Other Information:

A. The area around the well site is grassland. The vegetation is native scrub grasses with abundant catclaw and mesquite.

B. There is no permanent or live water in the immediate area.

B. An archaeological survey has been requested and will be forwarded to the appropriate BLM office.

13. Lessee's and Operator's Representative:

The SDX Resources Inc. representative for assuring compliance with the surface use plan is as follows:

Chuck Morgan
SDX Resources Inc.
PO Box 5061
Midland, TX 79704
432/685-1761 Office
432/685-0533 Fax

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 currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by SDX Resources Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions which it is approved.

SDX Resources Inc.

John Pool
Vice-President

DRILLING PROGRAM
SDX Resources Inc.
Pure Federal # 1
2310' FNL, 330' FEL
Unit H Sec. 21, T17S, R28E
Eddy Co., NM

1. Geologic Name of Surface Formation:

   Permian

2. Estimated Tops of Important Geologic Markers:

Yates	600
7- Rivers	900'
Queen	1200'
Grayburg	1600'
San Andres	1950'

3. Estimated Depth of Anticipated Fresh Water, Oil or Gas:

Water Sand	150' – 200'	Fresh Water
Yates	650	Oil & Gas
7-Rivers	950	Oil & Gas
Queen	1400'	Oil & Gas
Grayburg	1880'	Oil & Gas
San Andres	2800'	Oil & Gas

Fresh water sands will be protected by running 8-5/8" casing to a minimum depth of 400' and circulating cement. All other zones will be isolated by running 4-1/2" or 5-1/2" production casing and circulating cement.

4. Casing Program:

Hole Size	Interval	OC Csg	Weight Grade Jt Cond Type
12-1/4"	0 – 400	8-5/8"	24#, J55, Used
7-7/8"	0 – TD	4-1/2" – 5-1/2"	9.5# - 17#, J55, Used

Cement Program:

8-5/8" Surface Casing:	Cemented to surface with 325 sx of Class C with 2% CaCl and ¼#/sx Flocele.
5-1/2" Production Casing:	Cemented with 300 sx of Class C and 400 sx of Lite C with 6# salt/sx and ¼#/sx Flocele. This should circulate cement to the surface.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of an annular bag type preventer (1000 psi WP). Unit will be hydraulically operated. BOP will be nippled up on the 8-5/8" surface csg and used continuously until TD is reached. BOP and accessory equipment will be tested to 1000 psi before drilling out of surface casing. A 2" kill line and a 2" choke line will be included in the drilling spool. Other accessories to the BOP equipment will include a kelly cock.

6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination of fresh water and brine water mud system. The applicable depth and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity (sec)	Waterloss (cc)
0 – 400	Fresh Water (spud)	8.5	40 – 45	N/C
400 – TD	Brine water, SWG, Starch	10.0	30	24

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary Well Control and Monitoring Equipment:

A. A kelly cock will be kept in the drill string at all times.

B. A mud logging unit complete with H2S detector will be continuously monitoring drilling penetration rate and hydrocarbon shows from 500' to TD.

8. Logging, Testing and Coring Program:

A. Drillstem tests will be run on the basis of drilling shows.

B. The electric logging program will consist of GR-Dual Laterolog and GR-Compensated Neutron-Density from TD to surface casing.

C. Conventional coring may be performed in select intervals if deemed necessary.

D. Further testing procedures will be determined after the production casing has been cemented at TD based on drill shows and log evaluation.

9. Abnormal Conditions, Pressures, Temperatures, & Potential Hazards:

No abnormal pressure or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is 94° and estimated maximum bottom-hole pressure (BHP) is 800 psig. No abnormal concentrations of hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. All H2S operation precautions will be followed (see attached H2S drilling operations plans). No major loss circulation zones have been reported in offsetting wells.

10. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is Oct. 30, 2006. Once commenced, the drilling operation should be finished in approximately 10 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN
SDX Resources Inc.
Pure Federal # 1
2310' FNL, 330' FEL
Sec. 21, T17S, R28E, Unit H
Eddy Co., NM

I. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H2S).

2. The proper use and maintenance of personal protective equipment and life support system.

3. The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.

4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.

2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.

3. The contents and requirements of the H2S Drilling Operations Plan.

4. Anticipated H2S concentrations are below levels that would require a H2S Contincency Plan as required by the NMOCD.

There will be an initial safety session just prior to commencing operations on the well. The initial session shall include a review of the site's specific H2S Drilling Operations Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H2S SAFETY EQUIPEMNT AND SYSTEMS

Note: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500'.

1. Well Control Equipment:

   A. Annular Preventer to accommodate all pipe sizes with properly sized closing unit.

2. Protective Equipment for Essential Personnel:

   A. Mark II Surviveair 30-minute units located in the dog house.

3. H2S Detection and Monitoring Equipment:

   A. 1 – portable H2S monitor positioned on location for best coverage and response.

   B. Mud logging trailer shall have H2S monitoring equipment.

4. Visual Warning Systems:

   A. Guy lines will be flagged and a wind sock will be positioned on location.

   B. Caution/Danger signs shall be posted on roads providing direct access to location.

5. Mud Program:

   The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices, will minimize hazards when penetrating H2S bearing zones.

6. Metallurgy:

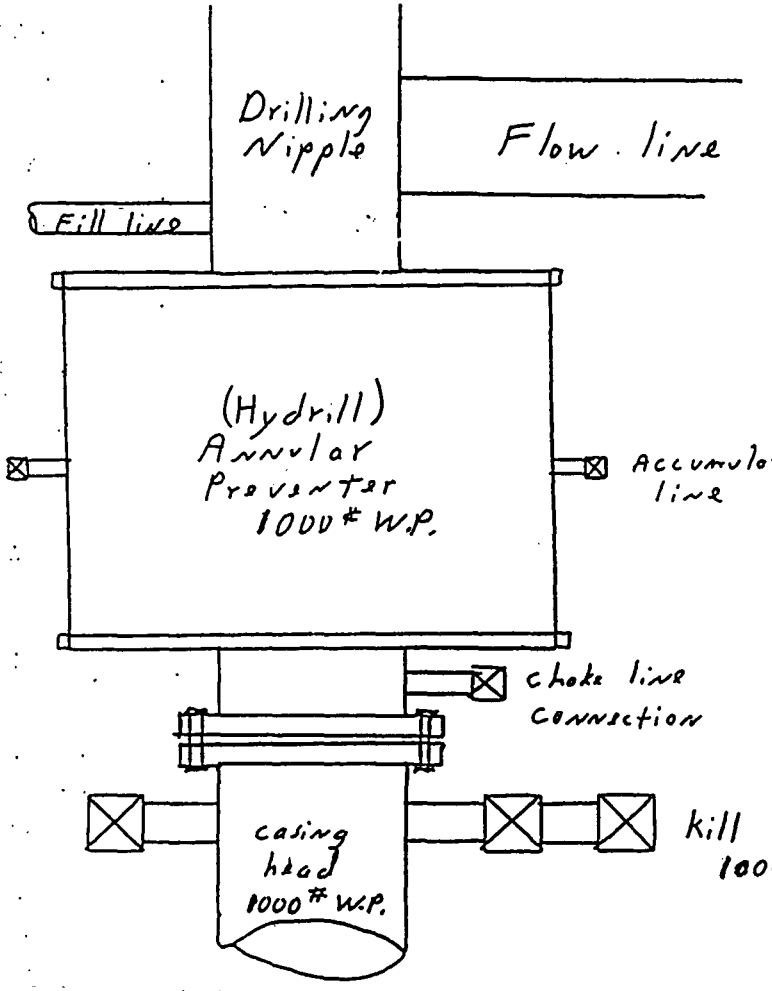
   All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service as necessary.

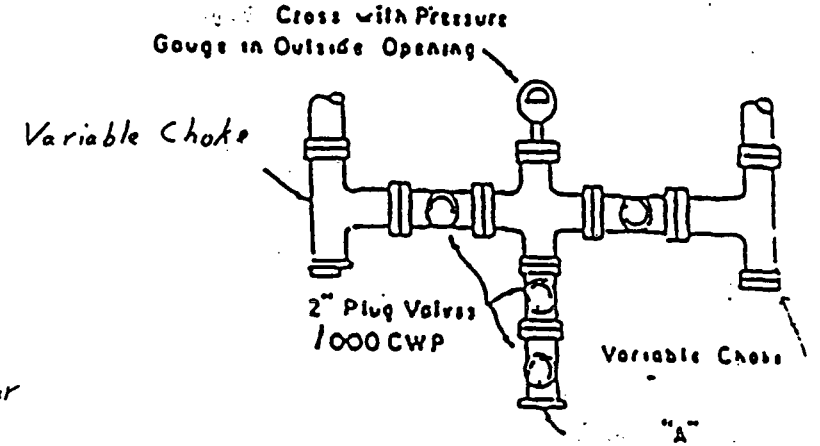
7. Communication:

   Radio communications in company vehicles including cellular telephone and 2-way radio.

8. Well Testing:

   No DST's are planned.



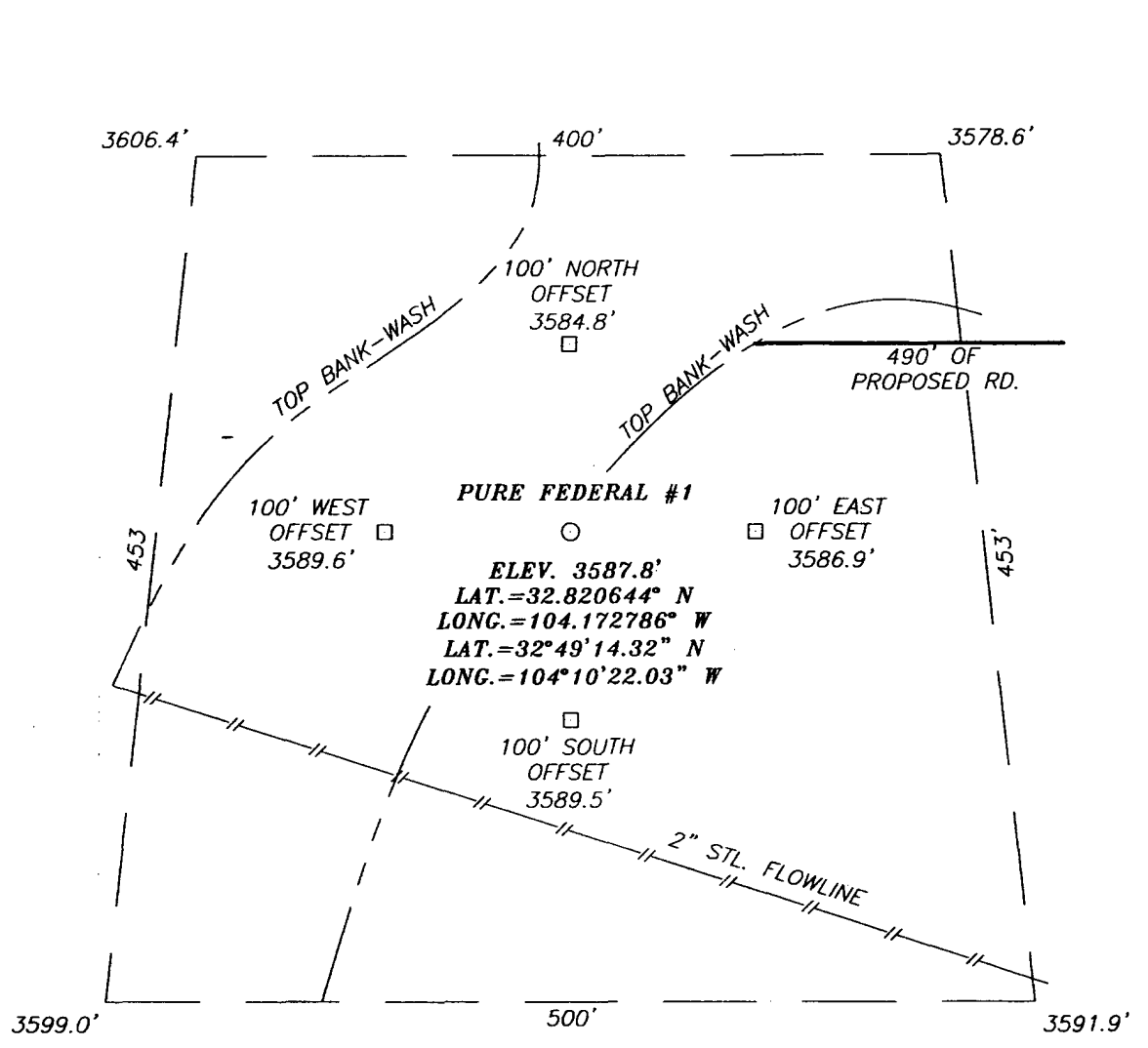


PLAN VIEW - CHOKE MANIFOLD

Exhibit #2

SECTION 21, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY. #82 AND CO. RD. #208 (RED LAKE RD) GO NORTH ON CO. RD. #208 FOR APPROX. 1.5 MILES. TURN LEFT AND GO NORTHWEST APPROX. 0.3 MILES TO A PROPOSED ROAD SURVEY ON THE LEFT. FOLLOW ROAD SURVEY WEST APPROX. 490 FEET TO THIS LOCATION.

100 0 100 200 Feet

Scale:1"=100'

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

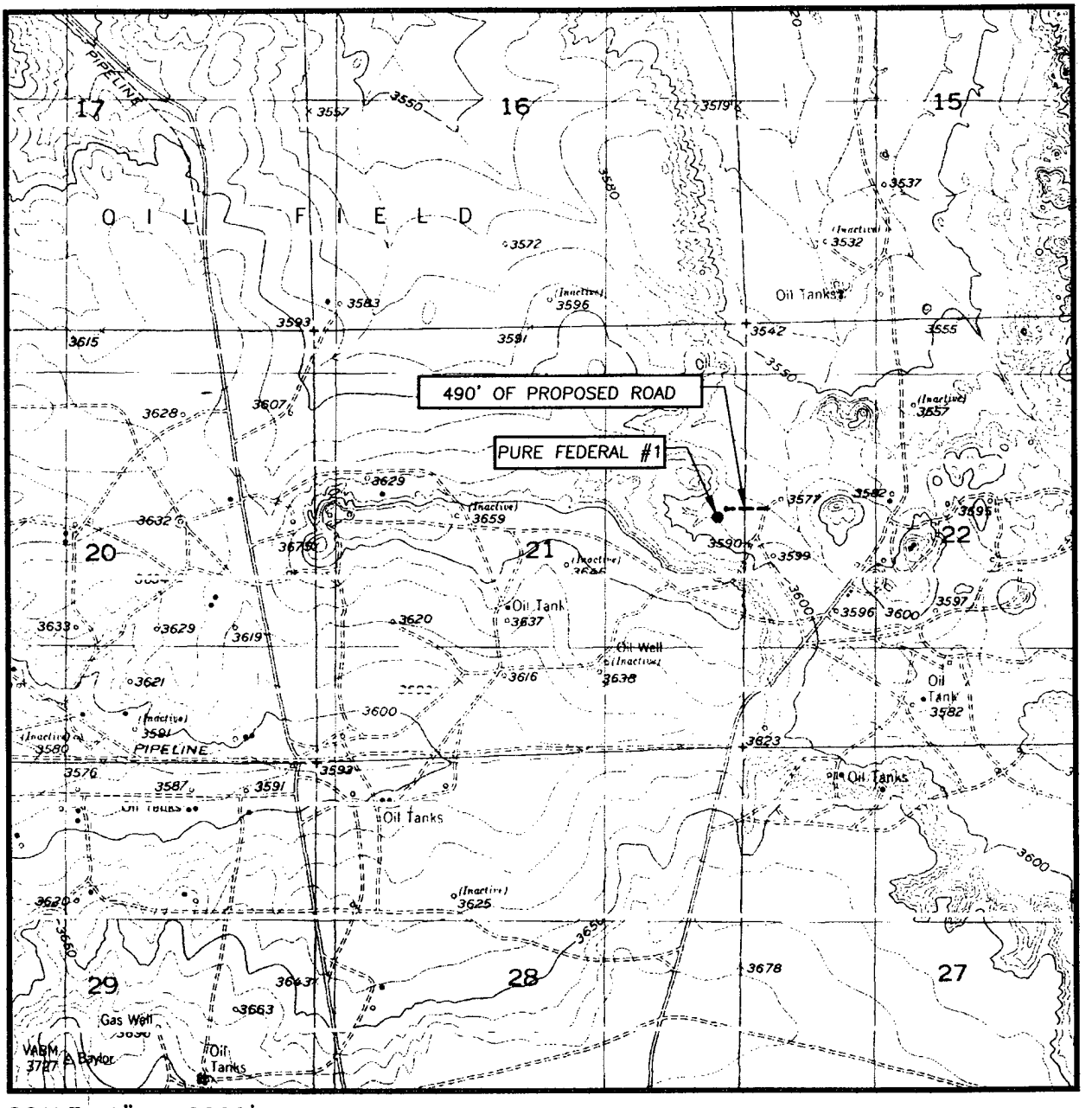
SDX RESOUCES, INC.

PURE FEDERAL #1 WELL
LOCATED 2310 FEET FROM THE NORTH LINE
AND 330 FEET FROM THE EAST LINE OF SECTION 21,
TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 7/25/06	Sheet 1 of 1 Sheets		
W.O. Number: 06.11.1239	Dr By: LA	Rev 1:N/A	
Date: 7/28/06	Disk: CD#5	06111239	Scale:1"=100'

Exhibit 3A

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
RED LAKE, N.M. – 10'

SEC. 21 TWP. 21-S RGE. 28-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2310' FNL & 330' FEL

ELEVATION 3588'

OPERATOR SDX RESOURCES, INC.

LEASE PURE FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
RED LAKE, N.M.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

Exhibit 3B

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

SDX Resources Inc.
PO Box 5061
Midland, TX 79704
432/685-1761

July 31, 2006

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No.:	NMNM-048344
Lease Name:	Pure Federal #1
Legal Description of Land:	Unit H, 2310' FNL 330' FEL Sec. 21, T17S, R28E Eddy Co., NM
Formation (s):	Red Lake, GL-YE
Bond Coverage:	Statewide Bond – State of New Mexico
BLM Bond File No.:	NM2307

Authorized Signature:

John Pool
Vice-President

Ltrresp

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: SDX Resources, Inc.
Well Name & No. Pure Federal #1
Location: 2310' FNL, 330' FEL, Section 21, T. 17 S., R. 28 E., Eddy County, New Mexico
Lease: NM-048344

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:

   A. Well spud

   B. Cementing casing: **8-5/8** inch **4-1/2 or 5-1/2** inch

   C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

I. CASING:

1. The **8-5/8** inch surface casing shall be set at **approximately 300 feet** and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the **5-1/2 or 4-1/2** inch production casing is **to be sufficient to reach at least 500 feet above the top of the uppermost hydrocarbon productive interval**.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the **8-5/8** inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **2000** psi.

A variance to use a 1000 psi annular preventer and test to 1000 psi with the rig pumps is granted.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

8/10/2006
acs