

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

SUBMIT IN TRIPlicate  
(Other instructions on  
reverse side)

FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995

**APPLICATION FOR PERMIT TO DRILL OR DEEPEN**

## 1a. TYPE OF WORK

**DRILL** ☒**DEEPEN** ☐

## b. TYPE OF WELL

OIL  
WELL ☒GAS  
WELL ☐

OTHER

SINGLE  
ZONE ☐MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

SDX Resources, Inc.

## 3. ADDRESS AND TELEPHONE NO.

PO Box 5061, Midland, TX 79704 432/685-1761

## 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface 690' FSL, 530' FWL, Unit M

At proposed prod. zone

Same

## 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

10 miles East of Artesia, NM

15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drg. unit line, if any)530'  
(530')

## 16. NO. OF ACRES IN LEASE

200

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

502'

## 19. PROPOSED DEPTH

3500'

## 20. ROTARY OR CABLE TOOLS

Rotary

## 21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3640' GR

## 22. APPROX. DATE WORK WILL START\*

02/15/04

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" J-55	24#	450'	WITNESS 325 sx
7-7/8"	4-1/2 - 5-1/2" J-55	9.5# - 17#	3500'	700 sx

Plan to drill a 12-1/4" hole to 450'. Set 24# 8-5/8" csg & cmt to surf. Drill 7-7/8" hole 3500'. Run LDT-CNL-GR & DLL-GR OH logs. Run 5-1/2" J-55 14# csg & cmt to surf. Will perf & stimulate the San Andres as necessary for optimum production.

Surface Use & Operations Plan  
Drilling Program  
H2S Plan

ROSWELL CONTROLLED WATER BASIN

## EXHIBITS:

- 1: BOP Diagram
- 2: Survey Plat
- 3: Access Maps
- 4: One Mile Radius Map
- 5: Rig Orientation Diagram
- 6: Letter of Responsibility

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED

IN ABOVE SPACE DESCRIBE PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Bonnie Ottwater TITLE Regulatory Tech DATE 12/30/03

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_

APPROVAL DATE \_\_\_\_\_

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:

APPROVED BY /s/ Joe G. Lara TITLE FIELD MANAGER DATE 3 FEB 2004

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

APPROVAL FOR 1 YEAR

SURFACE USE AND OPERATIONS PLAN  
SDX RESOURCES, INC.  
**Williams A Federal # 5**  
690' FSL, 530' FWL  
Unit M, Sec. 29, 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 Dan Reddy, Carlsbad, New Mexico.
- B. All roads to the location are shown in Exhibits #3A-C. The existing roads 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. Just E. of MP119, turn left and go .1 M 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:

Exhibits #3A-C shows the existing road.

~125' of new road is needed. Existing & proposed roads are shown in exhibits 3A-C.

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 exist a 2 or 3" SDR-11 poly flowline will be laid (shown in exhibit 3A&B) to a battery located at the Williams A Fed. # 1.
  - 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 6' deep, fenced, and plastic-lined (5-7 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 operations.
- 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 (5-7 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 has been 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.

C. An archaeological survey is being performed and will be forwarded.

13. Lessee's and Operator's Representative:

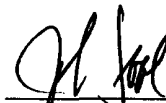
The SDX Resources Inc. representative for assuring compliance with the surface use plan is as follows:

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.



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John Pool  
Vice-President

DRILLING PROGRAM  
SDX Resources Inc.  
**Williams A Federal # 5**  
690' FSL, 530' FWL  
Unit M, Sec. 29, 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 450' 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:

<u>Hole Size</u>	<u>Interval</u>	<u>OC Csg</u>	<u>Weight Grade Jt Cond Type</u>
12-1/4"	0 - 450	8-5/8"	24#, J55, New
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 1/4#/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 1/4#/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 nipped 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:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (sec)</u>	<u>Waterloss (cc)</u>
0 – 450	Fresh Water (spud)	8.5	40 – 45	N/C
450 – 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 1000' 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 March 1, 2004. 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.

**Williams A Federal # 5**

690' FSL, 530' FWL

Sec. 29, T17S, R28E, Unit M

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 (H<sub>2</sub>S).
2. The proper use and maintenance of personal protective equipment and life support system.
3. The proper use of H<sub>2</sub>S 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 H<sub>2</sub>S 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 H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

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 H<sub>2</sub>S Drilling Operations Plan and the Public Protection 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. H<sub>2</sub>S SAFETY EQUIPEMNT AND SYSTEMS

Note: All H<sub>2</sub>S 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.



District I  
1825 N. French Dr. Hobbs, NM 88240

District II  
811 South First, Artesia, NM 88210

District III  
1000 Rio Brazos Rd., Aztec NM 87410

District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, N M 87505

Revised March 17, 1999  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 51300	Pool Name Red Lake, QN-GB-SA
Property Code 26370	Property Name <b>WILLIAMS FEDERAL</b>	Well Number 5
OGRID No. 020451	Operation Name <b>SDX RESOURCES, INC.</b>	Elevation 3640

Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
<b>M</b>	<b>29</b>	<b>17-S</b>	<b>28-E</b>		<b>690</b>	<b>SOUTH</b>	<b>530</b>	<b>WEST</b>	<b>EDDY</b>

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

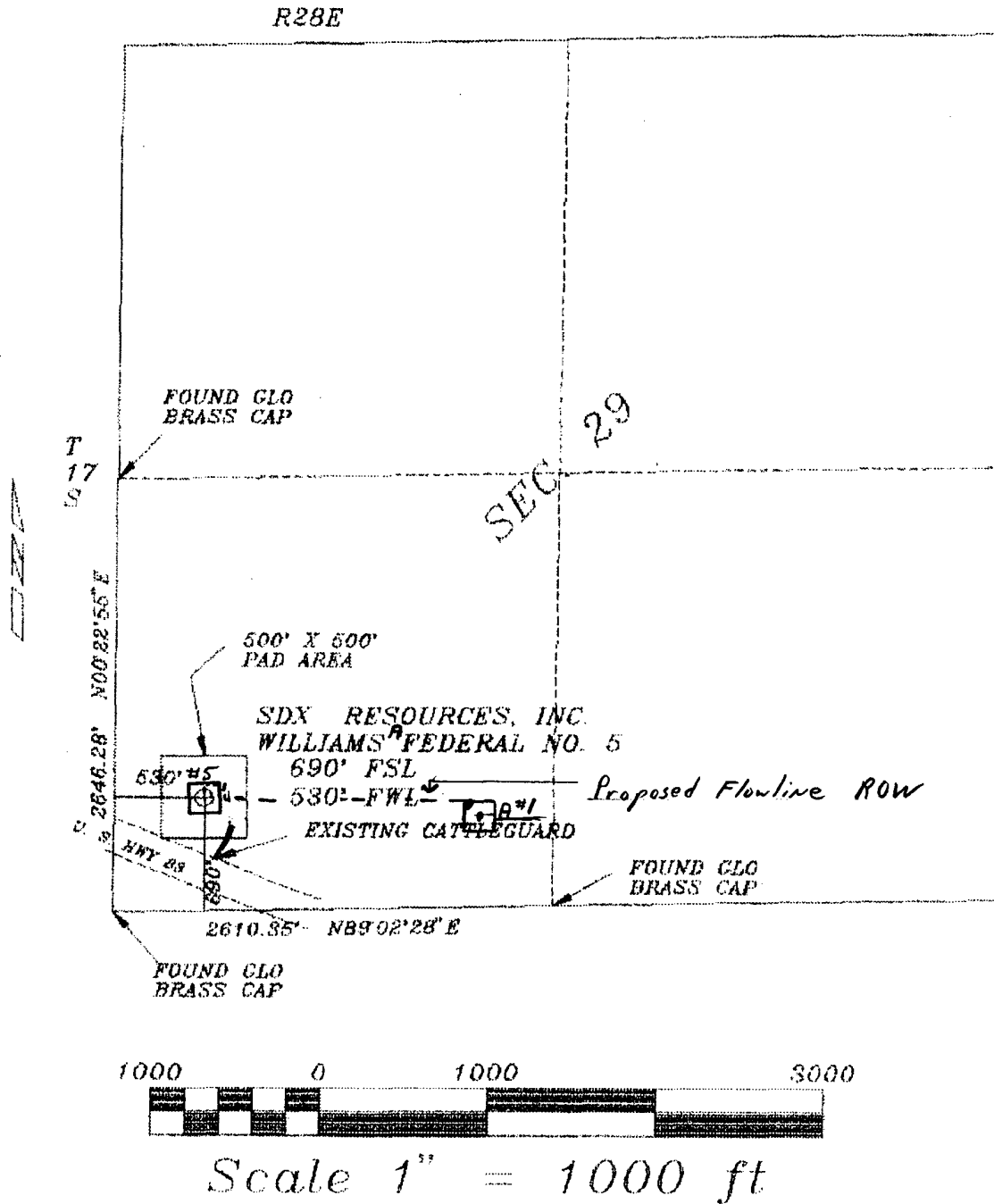
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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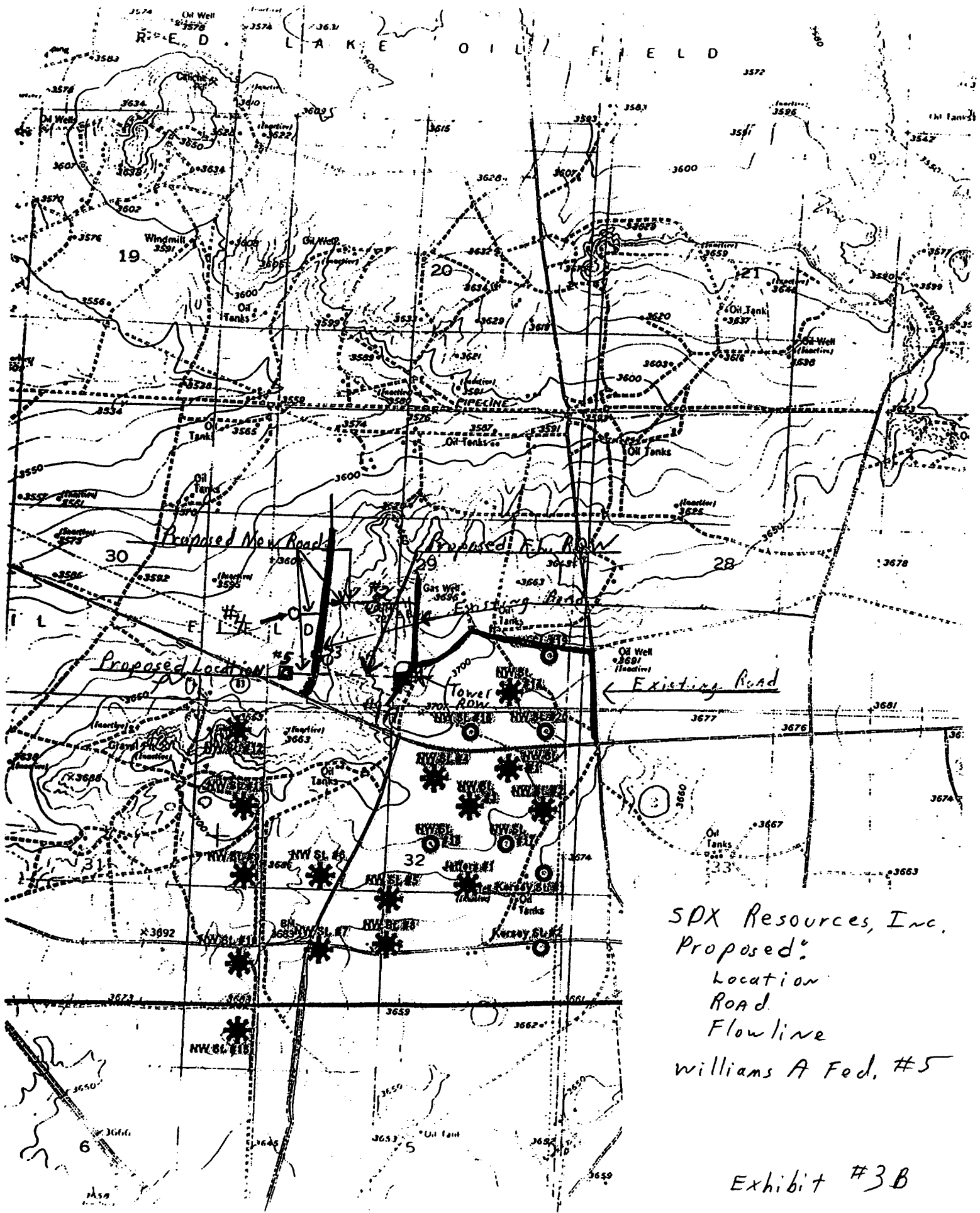
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTEREST HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p><b>OPERATOR CERTIFICATION</b> I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.</p>	
	<p>Signature <i>Bonnie Atwater</i></p>	
	<p>Printed Name <b>Bonnie Atwater</b></p>	
	<p>Title <b>Regulatory Tech</b></p>	
	<p>Date <b>12/30/03</b></p>	
	<p><b>SURVEYOR CERTIFICATION</b> 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 KNOWLEDGE AND BELIEF.</p>	
	<p><b>DECEMBER 22, 2003</b></p>	
	<p>Date of Survey</p>	
	<p>Signature and Seal of Professional Surveyor</p>	

Exhibit #2

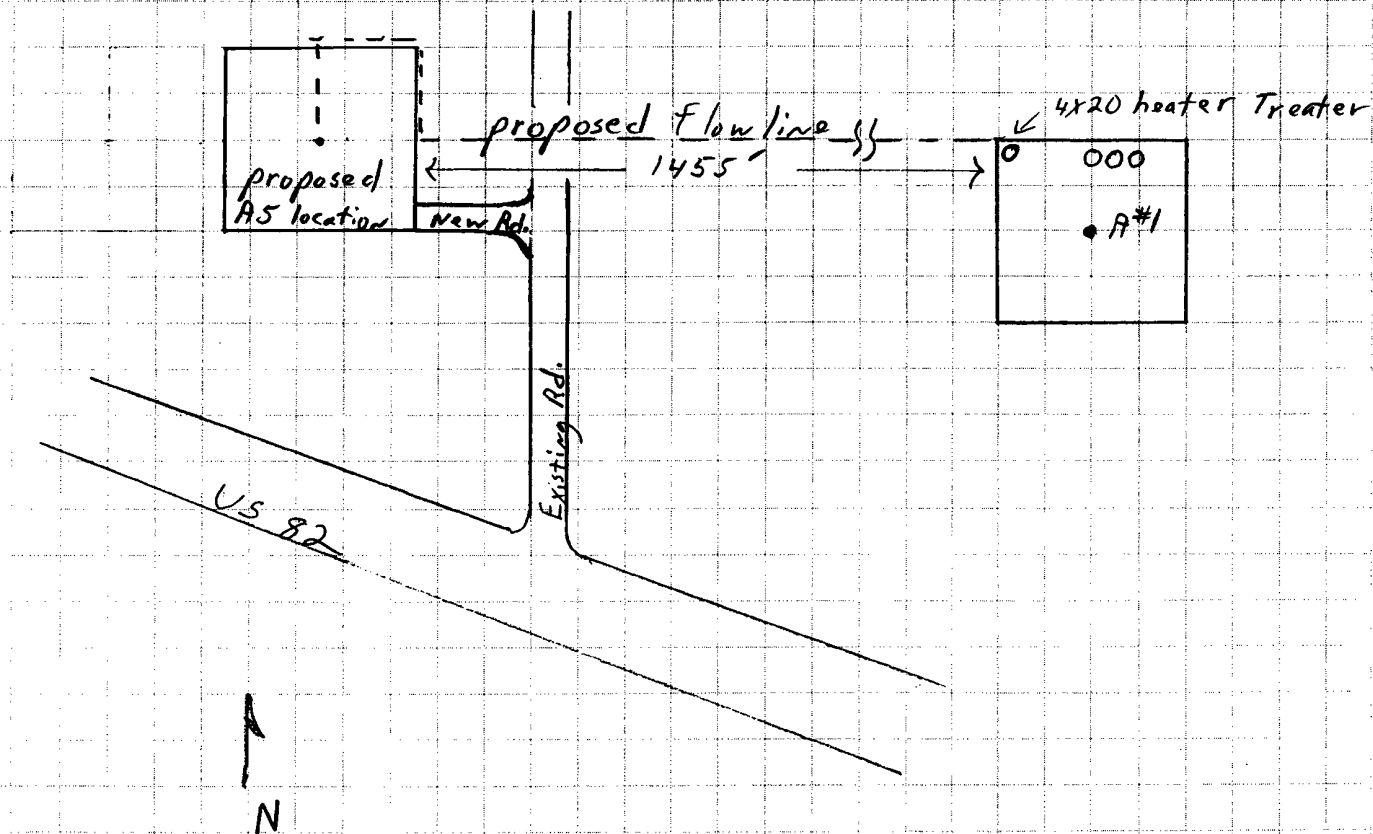
## SKETCH SHOWING PROPOSED ACCESS ROAD





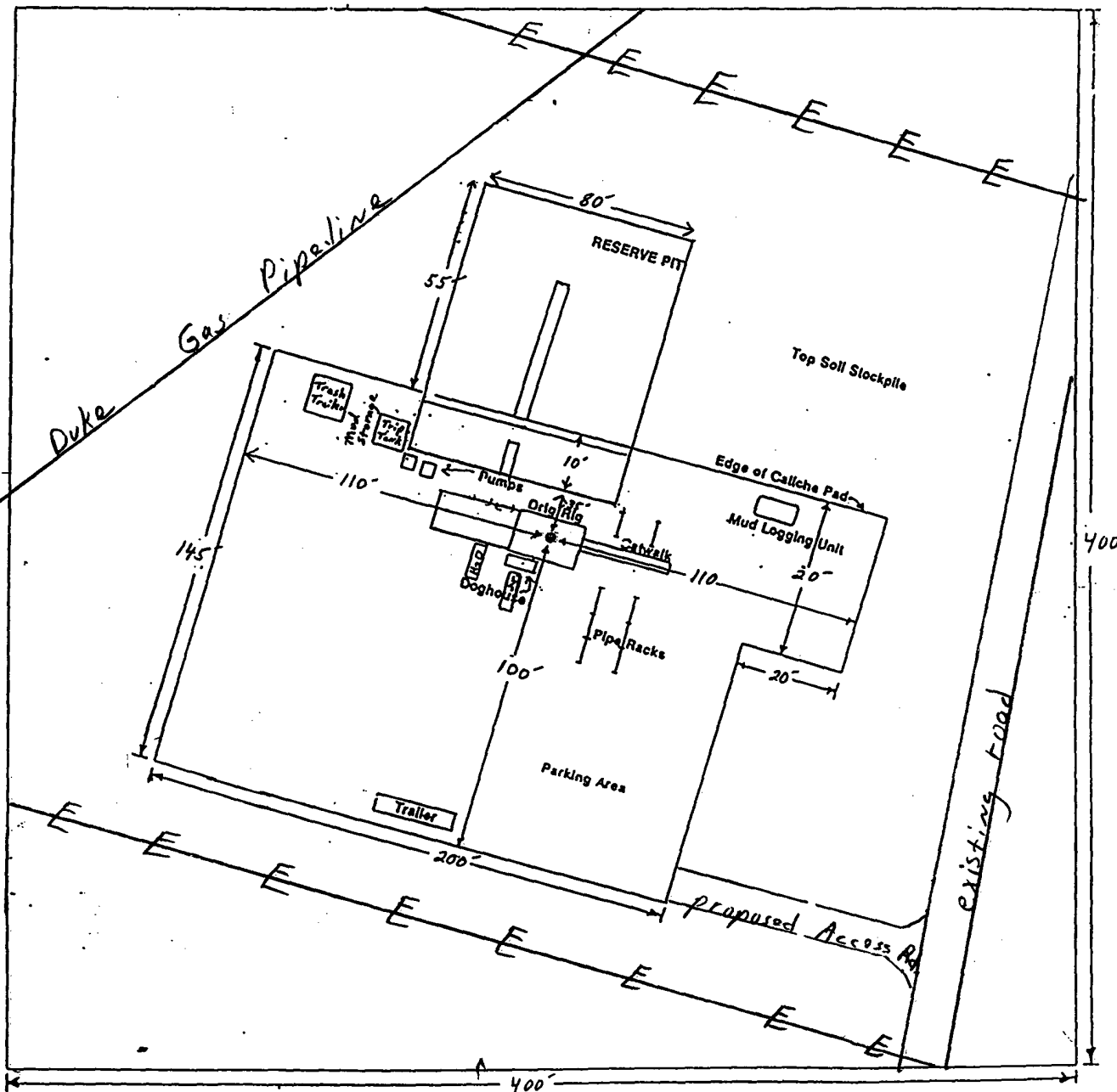
SPX Resources, Inc.  
Proposed:  
Location  
Road  
Flowline  
Williams A Fed. #5

Exhibit #3B



SDX Resources, Inc.  
Williams A Fed. #1  
Proposed Flowline





SDX RESOURCES, INC.

Drilling Rig Layout  
Williams A Fed. #5

Exhibit #5



**STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS**

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

December 30, 2003

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.:	NM-048344
Lease Name:	Williams A Federal #5
Legal Description of Land:	Unit M, 690' FSL 530' FWL Sec. 29, T17S, R28E Eddy Co., NM
Formation (s):	Re Lake, QN-GB-SA
Bond Coverage:	Statewide Bond – State of New Mexico
BLM Bond File No.:	NM2307

Authorized Signature:



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John Pool  
Vice-President