Form 3160-3
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Div. Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

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

CIST

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
DEVON SFS OPERATING, INC. 20305
Wally Frank
Senior Ops Engr.
405/552-4595

3. ADDRESS AND TELEPHONE NO.
20 N. BROADWAY, SUITE 1500, OKC, OK 73102 (405) 235-3611

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 660' FNL & 2110' FWL, Unit C, Section 23-T21S-R23E, Eddy Cnty, NM

At top proposed prod. zone Per NSL - 4833

5. LEASE DESIGNATION AND SERIAL NO.
NM-NM0384628

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
30760

8. FARM OR LEASE NAME, WELL NO.
BAD AXE "23" FEDERAL COM. #1

9. API WELL NO.
30-015- 32601

10. FIELD AND POOL, OR WILDCAT
Indian Basin (Morrow) Upper Penn

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
Section 23-T21S-R23E

12. COUNTY OR PARISH
Eddy

13. STATE
New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
17 1/2 miles west of Carlsbad, NM

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
660'	640.00	320.00
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS***
	9500'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
GL 3817'

Roswell Controlled Water Basin

22. APPROX. DATE WORK WILL START*
11-2002

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	H-40 9 5/8"	36#	1250'	490 sx; TOC to surf
8 3/4"	L-80, J-55, HCL-80 7"	23#	8500'	300 sx; TOC at 6500'
6 1/8"	N-80 4 1/2"	11.6#	8200-9500'	230 sx; TOC at 8200'

We plan to circulate cement to surface on the 9 5/8" casing strings. The cement top will be brought to approximately 6,500' on the 7" casing string. We will cement top to bottom on the 4 1/2" liner.
Devon Energy proposes to drill to a depth sufficient to test the Morrow for commercial quantities of oil and gas. All depths assumed MD unless otherwise qualified. If the well is deemed noncommercial, the well bore will be plugged and abandoned per Federal regulations. Programs to adhere to onshore oil and gas regulations are outlined in the following exhibits and attachments.

Drilling Program
Exhibit A = Operations Plan
Exhibit B = BOP and Choke Manifold
Exhibit C = Drilling Fluid Program
Exhibits D = Auxiliary Equipment
Exhibit E = Topo Map at Location
Exhibits F = Map showing existing Wells
Exhibit G = Well Site Layout
Surface Use and Operations Plan
H_2S Operating Plan
Archeological clearance report

Devon-SFS Operating, Inc. accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or: portions thereof, as described below
Lease #: NM-NM0384628
Legal Description: Section 15- SE, Section 23- NW, Section 24- N/2

Bond Coverage: Nationwide
BLM Bond #: UT-1195

NSL - 4833

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED 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 Candace R. Graham
Candace R. Graham 405/552-4520
TITLE Engineering Technician DATE October 4, 2002

*(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
ACTING TITLE FIELD MANAGER DATE NOV 13 2002

See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

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

DISTRICT I
P. O. Box 1980
Hobbs, NM 88241-1980

DISTRICT II
P. O. Drawer DD
Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

DISTRICT IV
P. O. Box 2088
Santa Fe, NM 87507-2088

State of New Mexico
Energy, Minerals, and Natural Resources Department

Form C-102
Revised 02-10-94

Instructions on back

Submit to the Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

[*] AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
		Indian Basin (Morrow) ~~Dagger Draw South (Upper Penn)~~

4 Property Code	5 Property Name	6 Well Number
	BAD AXE '23' FEDERAL COM	1

7 OGRID No.	8 Operator Name	9 Elevation
20305	DEVON-SFS OPERATING, INC. ~~SANTA FE SNYDER CORPORATION~~	3817'

10 SURFACE LOCATION

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
C	23	21 SOUTH	23 EAST, N.M.P.M.		660'	NORTH	2110'	WEST	EDDY

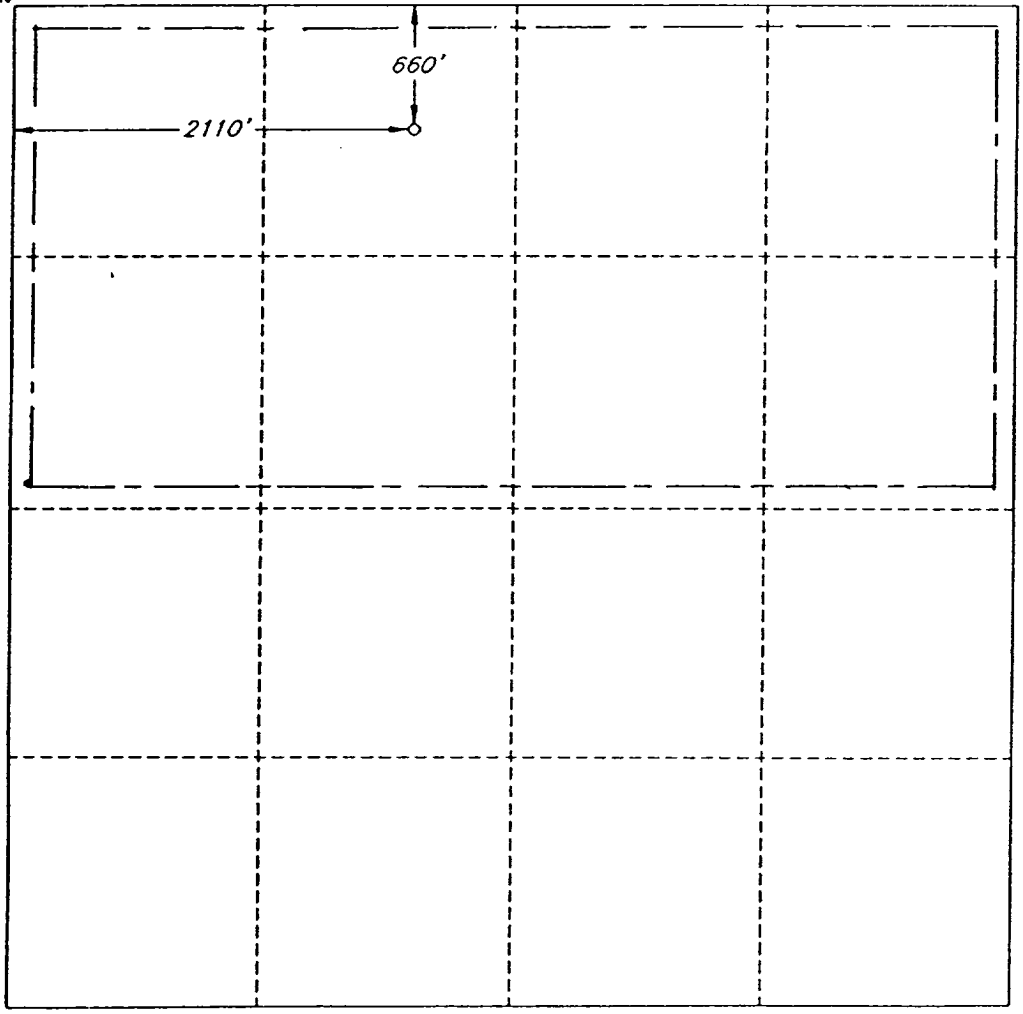
11 BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE

UL or lot no.	Section	Township	Range	Lot Ida	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			

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



OPERATOR CERTIFICATION

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

Signature: James P. "Phil" Stinson

Printed Name: James P. "Phil" Stinson

Title: Agent for Santa Fe Snyder

Date: 6-29-2000

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.

Date of Survey: JUNE 15, 2000

Signature and Seal of Professional Surveyor

NEW MEXICO V. LYNN BEZNER NO. 7920 REGISTERED PROFESSIONAL SURVEYOR

Certificate No. V. L. BEZNER R.P.S. #7920

JOB #68941 / 51 NE / J.C.P.

* Candace R. Graham

Candace R. Graham, Engr. Tech, Devon-SFS Operating, Inc.
resubmitting due to expiration of original APD 10/3/2002

DRILLING PROGRAM
DEVON-SFS OPERATING, INC.
~~SANTA FE SNYDER CORP.~~

Bad Axe "23" Fed Com #1

DEVON-SFS OPERATING, INC.

In conjunction with Form 3160-3, Application to Drill the subject well, ~~Santa Fe Snyder Corp.~~ submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No. 1.

1. **Geologic Name of Surface Formation:** Alluvium

2. **Estimated Tops of Significant Geologic Markers:**

San Andres	980'	Strawn	8604'
Glorieta	2100'	Atoka	8929'
Bone Spring	3600'	Morrow	9254'
Wolfcamp	6200'	Lower Morrow	9497'
Cisco	7400'	ETD	9500'
Canyon	7900'		

3. **The estimated depths at which water, oil or gas formations are expected:**

Water	None expected in area
Oil/Gas/Water	Cisco/Canyon 7400'-8000'
Gas	Morrow 9200-9500'

4. **Proposed Casing Program:** See Form 3160-3 and Exhibit A

5. **Pressure Control Equipment:** See Exhibit B

6. **Drilling Fluid Program:** See Exhibit C

7. **Auxiliary Equipment:** A mud logging unit will be utilized to monitor penetration rate and hydrocarbon shows while drilling below 2100'.

8. **Testing, Logging and Coring Program:**

Drill Stem Tests: (all DST's to be justified on the basis of valid show of oil or gas):

Logging:

	1st run	2nd run
Dual Laterolog W/MSFL and Gamma Ray	1200'-~~8100'~~ 8500'	to TD
Compensated Neutron/Litho-Density/Gamma Ray	1200'-~~8100'~~ 8500'	to TD
Compensated Neutron/Gamma Ray (thru csg)	Surface-1200'	

Coring: None Planned

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

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature is 130 degrees Fahrenheit and the estimated bottom hole pressure is 2500 psi. A Blow Out Preventer System as outlined in Exhibit B will be utilized should the need arise to shut the well in prior to running and cementing production casing. The Cisco/Canyon zones are out primary objective. The zone is hydrogen sulfide productive in the area. Our plan is to have everyone on location trained in H_2S safety procedures and install monitors and Scott Air Packs at strategic locations around the rig by 7000', prior to encountering the Cisco/Canyon. It is our understanding that H_2S is only detected in the area whenever the reservoir fluids are produced up the wellbore. Our drilling fluid hydrostatic head will prevent fluid entry due to the reservoir being overbalanced. We will have monitors operational during the drilling of the Cisco/Canyon zone. Due to the remote location of this drillsite, H_2S warning signs will be placed prior to entry of the drillsite, a public protection plan is not required for this location.

10. **Anticipated Starting Date and Duration of Operations:**

Road and location work will not begin until approval has been received from the B.L.M. The anticipated spud date is November 2002. Once spudded, the drilling operation should be completed in approximately 20 days. If the well is productive, an additional 30 days will be required for completion and testing before permanent facilities are installed.

OPERATIONS PLAN

DEVON-SFS OPERATING, INC.

~~SANTA FE SNYDER CORP.~~

Bad Axe "23" Fed Com #1

1. Drill a 12-1/4" hole to approximately 1200'.

2. Run 9-5/8" 36.0 ppf ~~K-55~~ H-40 ST&C casing. Cement with ~~575~~ 490 sx Class "C" Pozmix/ with 2% $CaCl_2$. Run guide shoe on bottom and float collar two joints of bottom. Centralize every other joint above the shoe. Thread lock bottom 2 joints.

3. Wait on cement for six hours prior to cutting off.

4. Nipple up and install a 3000 psi. Double Ram and Annular BOP system with choke manifold. WOC 18 hours prior to drilling out.

5. Test BOP system to 1500 psi with the rig pump. Test casing to 1500 psi.

6. Drill 8-3/4" hole to ~~8100'~~ 8500'. Run logs.

7. Either run and cement ~~8100'~~ 8500' of 7" ~~26~~ 23.0 PPF LT&C casing with ~~400~~ 300 sx 50/50 Pozmix with 6 pps salt. ~~or plug and abandon as per BLM requirements.~~

Exhibit "A"
~~Santa Fe Snyder Corp.~~
Bad Axe "23" Fed Com #1
Section 23, T-21-S,R-23-E
Eddy County, New Mexico

DEVON-SFS OPERATING, INC.

8. Drill 6-1/8" hole to total depth. Run logs.

9. Run and cement 4-1/2" 11.6# N-80 LT&C liner with 230 sx Class H or plug and abandon as per BLM requirements.

Please see the casing data sheets following.

Well name:	**Bad Axe 23-1**
Operator:	~~Devon Energy Production Company L.P.~~ DEVON-SFS OPERATING, INC.
String type:	Surface
Location:	Section 23, T21S, R23E

Design parameters:

Collapse

Mud weight: 8.500 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 714 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 714 psi

Annular backup: 8.50 ppg

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 1,093 ft

Environment:

H2S considered? No
Surface temperature: 80 °F
Bottom hole temperature: 90 °F
Temperature gradient: 0.80 °F/100ft
Minimum section length: 1,000 ft
Minimum Drift: 8.750 in

Non-directional string.

Re subsequent strings:

Next setting depth: 9,500 ft
Next mud weight: 9.500 ppg
Next setting BHP: 4,688 psi
Fracture mud wt: 11.000 ppg
Fracture depth: 1,250 ft
Injection pressure 714 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	1250	9.625	36.00	H-40	ST&C	1250	1250	8.765	11228

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	552	1720	3.12	714	2560	3.58	45	294	6.53 J

Prepared by: W.M. Frank
Devon Energy
Phone: (405) 522-4595
FAX: (405) 552-4621

Date: September 12,2002
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 1250 ft, a mud weight of 8.5 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	**Bad Axe 23-1**
Operator:	~~Devon Energy Production Company L.P.~~ DEVON-SFS OPERATING, INC.
String type:	Production
Location:	Section 23, T21S, R23E

Design parameters:

Collapse

Mud weight: 8.600 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 3,797 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 3,797 psi

Annular backup: 8.60 ppg

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 7,401 ft

Estimated cost: 59,476 ($)

Environment:

H2S considered? Yes
Surface temperature: 80 °F
Bottom hole temperature: 148 °F
Temperature gradient: 0.80 °F/100ft
Minimum section length: 1,000 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
3	1000	7	23.00	L-80	LT&C	1000	1000	6.25	8969
2	5000	7	23.00	J-55	LT&C	6000	6000	6.25	26235
1	2500	7	23.00	HCL-80	LT&C	8500	8500	6.25	24272

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
3	447	3315	7.42	3797	6340	1.67	195.5	435	2.23 J
2	2681	3099	1.16	3351	4360	1.30	172.5	313	1.81 J
1	3797	5650	1.49	1117	6340	5.68	57.5	485	8.43 J

Prepared by: W.M. Frank
Devon Energy
Phone: (405) 522-4595
FAX: (405) 552-4621
Date: September 12,2002
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 8500 ft, a mud weight of 8.6 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	**Bad Axe 23-1**
Operator:	~~Devon Energy Production Company L.P.~~ DEVON-SFS OPERATING, INC.
String type:	Liner: Production
Location:	Section 23, T21S, R23E

Design parameters:

Collapse

Mud weight: 8.100 ppg
Design is based on evacuated pipe.

Surface pressure: 750 psi

Burst

Max anticipated surface pressure: 3,997 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 3,997 psi

Annular backup: 9.60 ppg

Packer fluid details:
Fluid density: 8.600 ppg
Packer depth: 9,000 ft

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:

8 Round STC:	1.80 (J)
8 Round LTC:	1.80 (J)
Buttress:	1.60 (J)
Premium:	1.50 (J)
Body yield:	1.60 (B)

Tension is based on air weight.
Neutral point: 8,350 ft

Estimated cost:

Environment:

H2S considered?	No
Surface temperature:	80 °F
Bottom hole temperature:	156 °F
Temperature gradient:	0.80 °F/100ft
Minimum section length:	1,000 ft
Minimum Drift:	3.500 in

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	1300	4.5	11.60	N-80	LT&C	9500	9500	3.875	5354

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	4747	6350	1.34	3571	7780	2.18	15.1	223	14.79 J

Prepared by: W.M. Frank
Devon Energy
Phone: (405) 522-4595
FAX: (405) 552-4621
Date: September 12,2002
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 9500 ft, a mud weight of 8.1 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

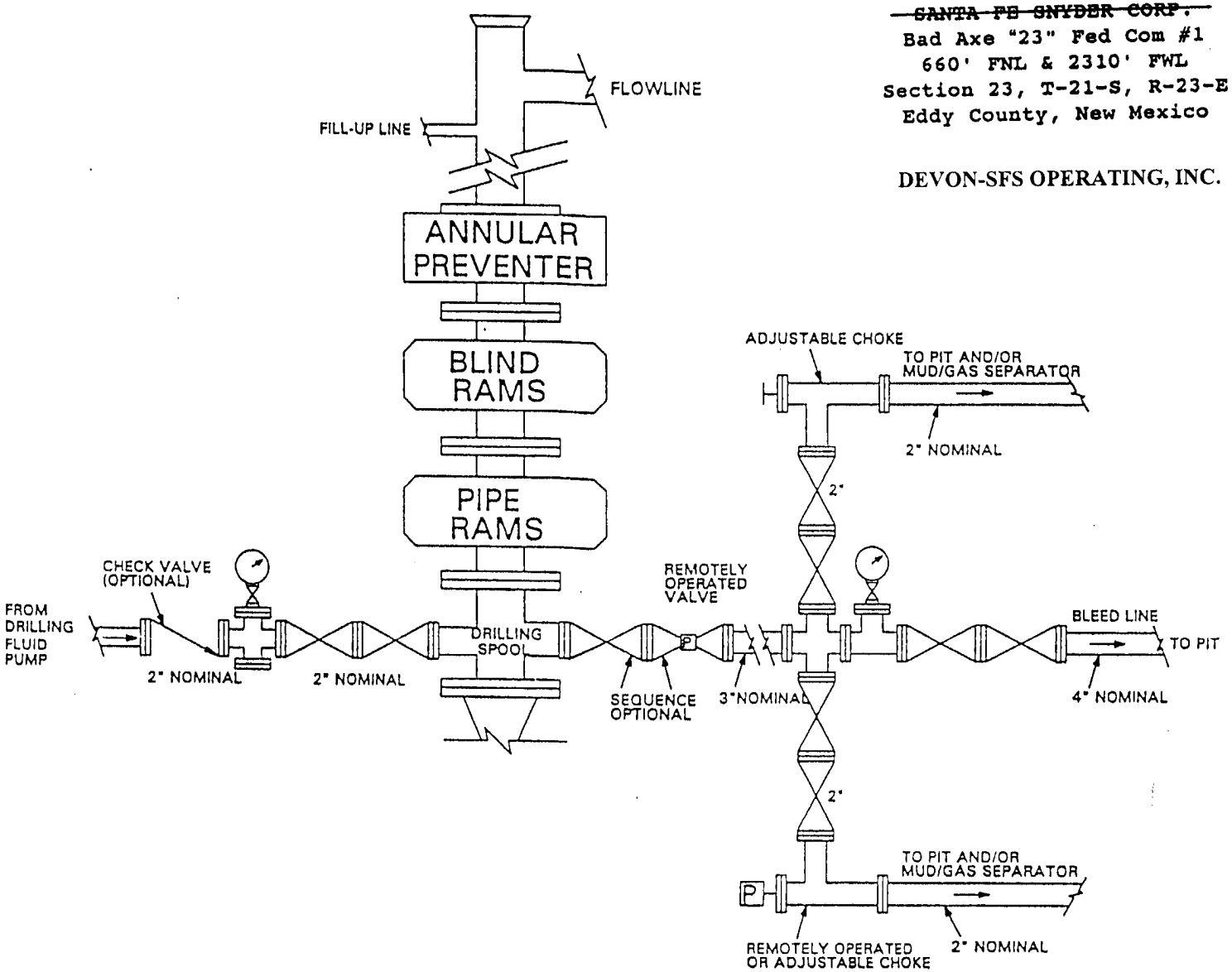
Burst strength is not adjusted for tension.

EXHIBIT B

~~SANTA FE SNYDER CORP.~~

Bad Axe "23" Fed Com #1
660' FNL & 2310' FWL
Section 23, T-21-S, R-23-E
Eddy County, New Mexico

DEVON-SFS OPERATING, INC.



PROPOSED DRILLING FLUID PROGRAM

0 - 1200'

Spud with air - air mist to 1200' if possible. If it becomes necessary to mud up due to hole conditions, utilize a fresh water gel system. Use ground paper for seepage control and to sweep the hole. MW-8.5 ppg and Vis-40.

1200 - 8100'

Drill out with fresh water circulating the reserve pit. Maintain pH at 8.5-9.5 with caustic and sweep the hole as necessary with ground paper. If it becomes necessary to mud up due to hole conditions, utilize a fresh water/Drispac system for 15-20 WL and a Vis of 30-32. MW-8.3/8.5 ppg.

8100' - total depth

Will continue with the fresh water Drispac system adding starch for 8-12 WL and a Vis of 28-38. MW 9.2-9.8 ppg.

Exhibit "C"
~~Santa Fe Snyder Corp.~~
Bad Axe "23" Fed Com #1
Section 23, T-21-S,R-23-E
Eddy County, New Mexico

DEVON-SFS OPERATING, INC.

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AUXILIARY EQUIPMENT

DRAWWORKS	BDW 650 HP, with Parmac Hydromatic brake
ENGINES	Two Caterpillar D-353 diesels rated at 425 HP each
ROTARY	Ideco 23", 300 ton capacity
MAST/SUB	Ideal 132', 550,000 lb. rated static hook load with 10 lines. Wagner 15' high substructure
TRAVELING EQUIPMENT	Gardner-Denver, 300 ton, 5 sheave w/BJ 250 ton hook Brewster Model 7 SX 300 ton swivel
PUMPS	Continental-EMSCO DC-700 and DB-550, 5-1/2 X 16" Duplex, Compound driven.
PIT SYSTEM	1-Shale Pit 6X7X35', 1-Setting Pit 6X7X38',1-Suction Pit 6X7X34' w/5 mud agitators, Two Centrifugal mud mixing pumps and a Double Screen Shale Shaker.
LIGHT PLANT	Two CAT 3306 diesel electric sets 18 KW prime power
BOP EQUIP.	13-5/8" 3000 psi WP double ram and 13-5/8" 3000 psi WP Shaffer Annular Preventer. Choke manifold rated at 5000 psi. Valvcon 5-station 80 gallon closing unit.

Exhibit "D"
~~Santa Fe Snyder Corp.~~
Bad Axe "23" Fed Com #1
Section 23, T-21-S,R-23-E
Eddy County, New Mexico

DEVON-SFS OPERATING, INC.

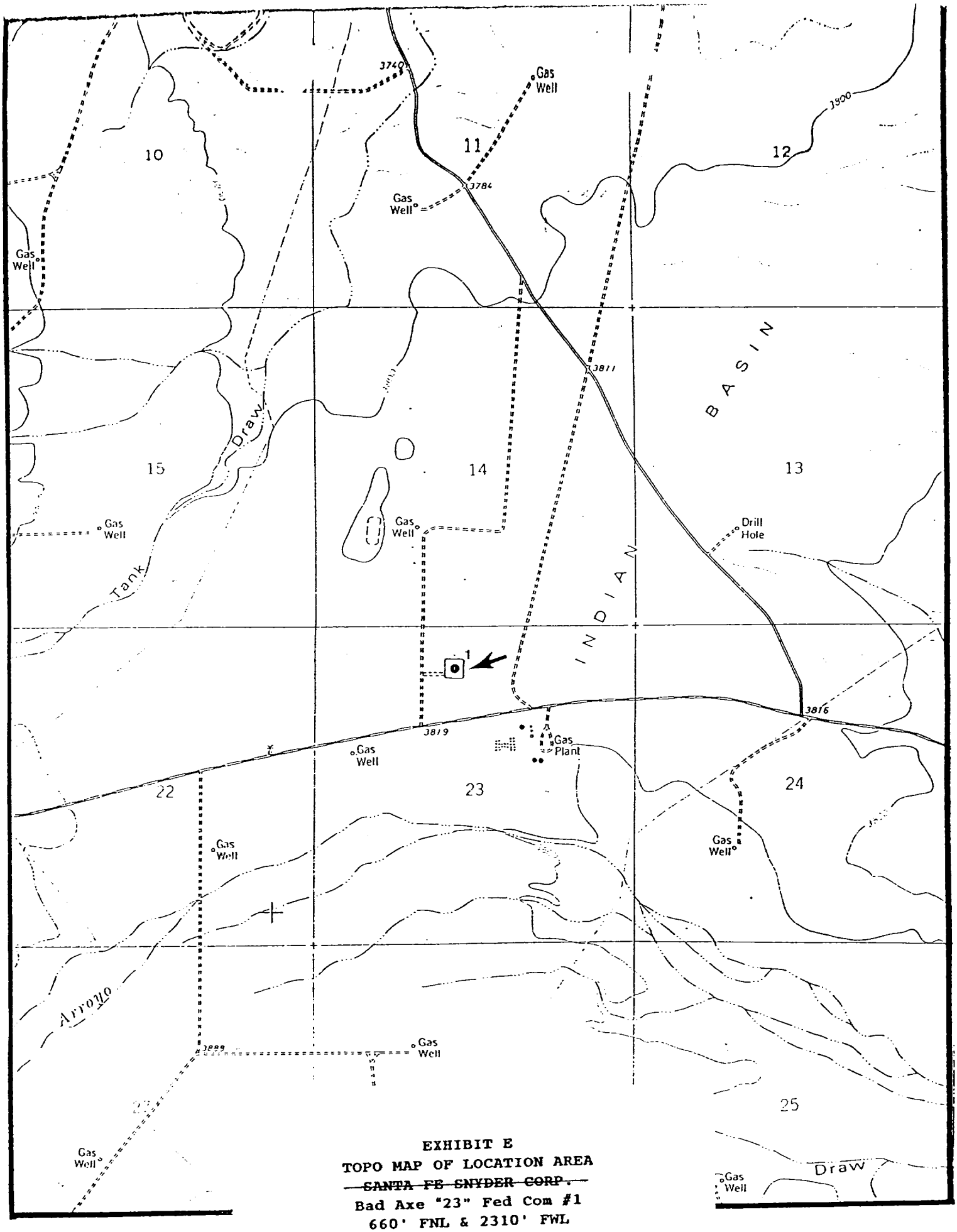
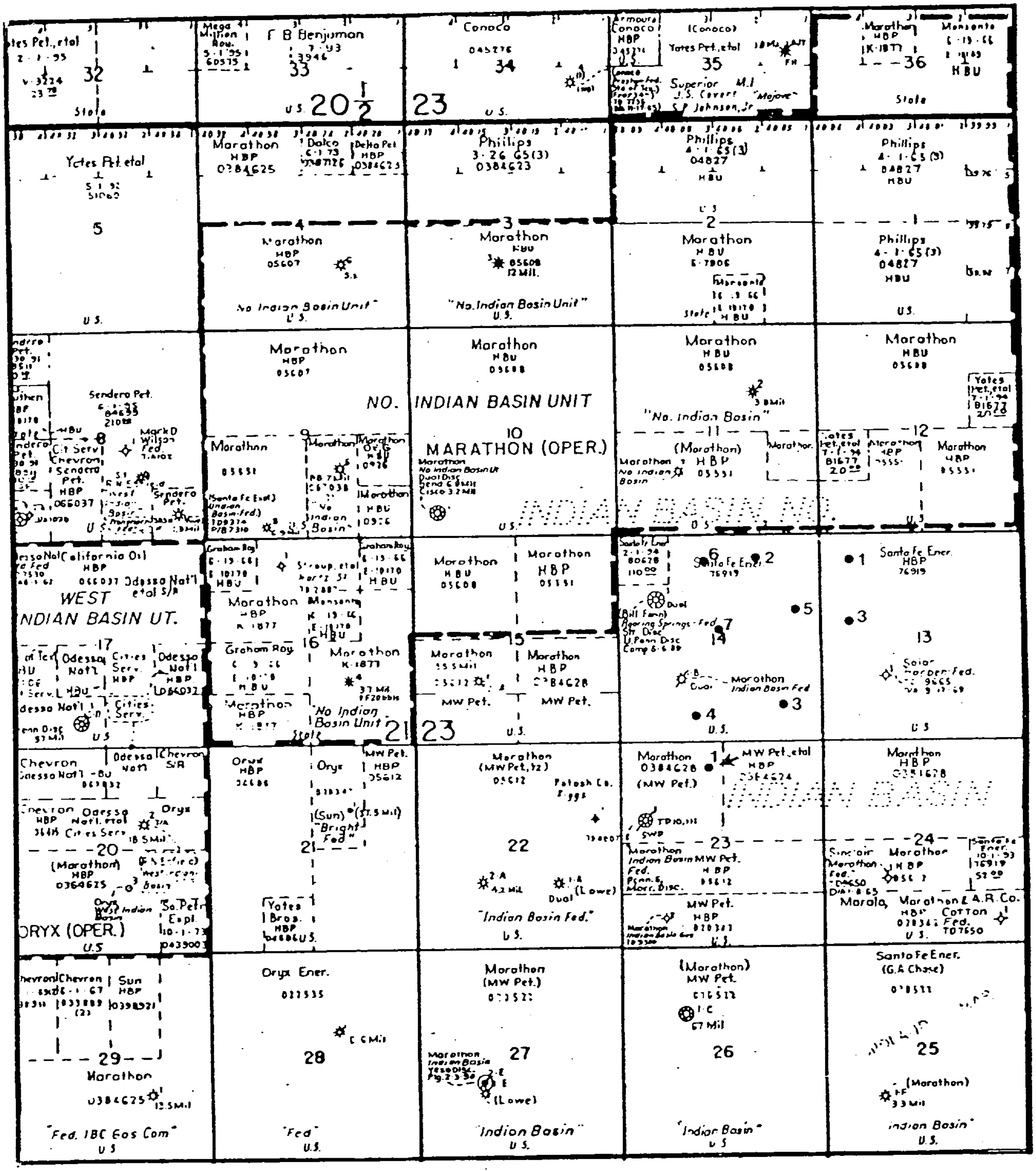


EXHIBIT E
TOPO MAP OF LOCATION AREA
~~**SANTA FE SNYDER CORP.**~~
Bad Axe "23" Fed Com #1
660' FNL & 2310' FWL
Section 23, T-21-S, R-23-E
Eddy County, New Mexico

DEVON-SFS OPERATING, INC.



DEVON-SFS OPERATING, INC.

EXHIBIT F

EXISTING WELLS

~~SANTA FE SNYDER CORP.~~

Bad Axe "23" Fed Com #1

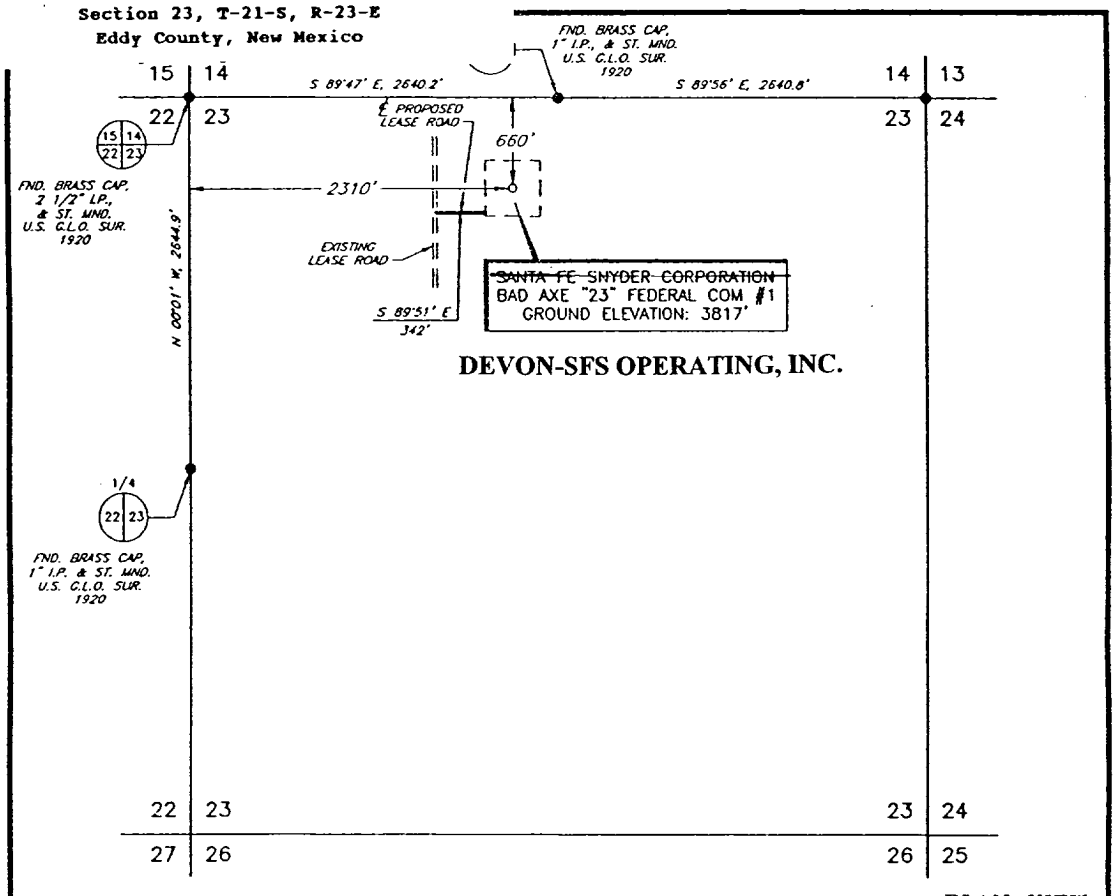
660' FNL & 2310' FWL

Section 23, T-21-S, R-23-E

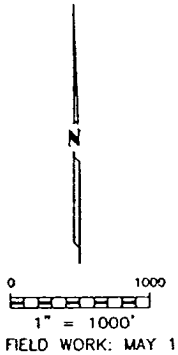
Eddy County, New Mexico

DEVON-SFS OPERATING, INC.

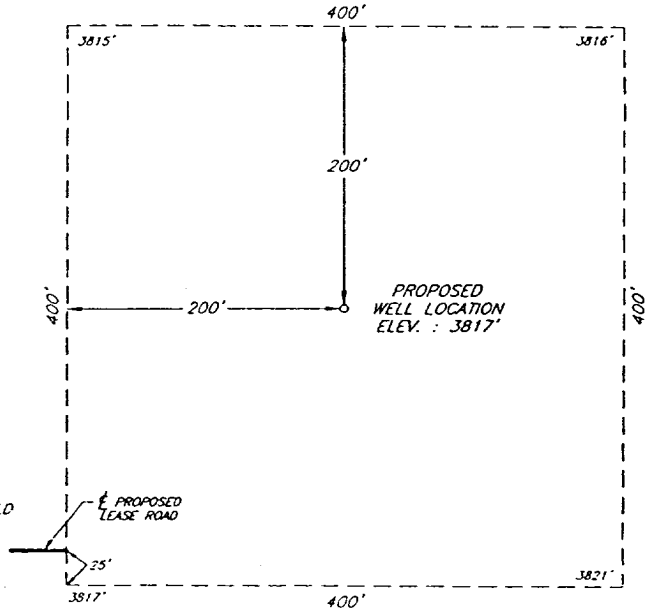
EXHIBIT F
PLAT OF LOCATION
~~SANTA FE SNYDER CORP.~~
Bad Axe "23" Fed Com 1
660' FNL & 2310' FWL
Section 23, T-21-S, R-23-E
Eddy County, New Mexico



PLAN VIEW
1" = 1000'



DATE OF FIELD WORK: MAY 18, 2000



DETAIL VIEW
1" = 100'

I, V. L. BEZNER, A PROFESSIONAL SURVEYOR IN THE STATE OF NEW MEXICO AND AUTHORIZED AGENT OF TOPOGRAPHIC LAND SURVEYORS, HEREBY CERTIFY THIS PLAT TO BE A TRUE REPRESENTATION OF A SURVEY PERFORMED IN THE FIELD UNDER MY SUPERVISION, THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THIS PLAT AND FIELD SURVEY UPON WHICH IT IS BASED MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO. (RULE 500.6 EASEMENT SURVEYING)

V. L. BEZNER, P.S. NO. 7920

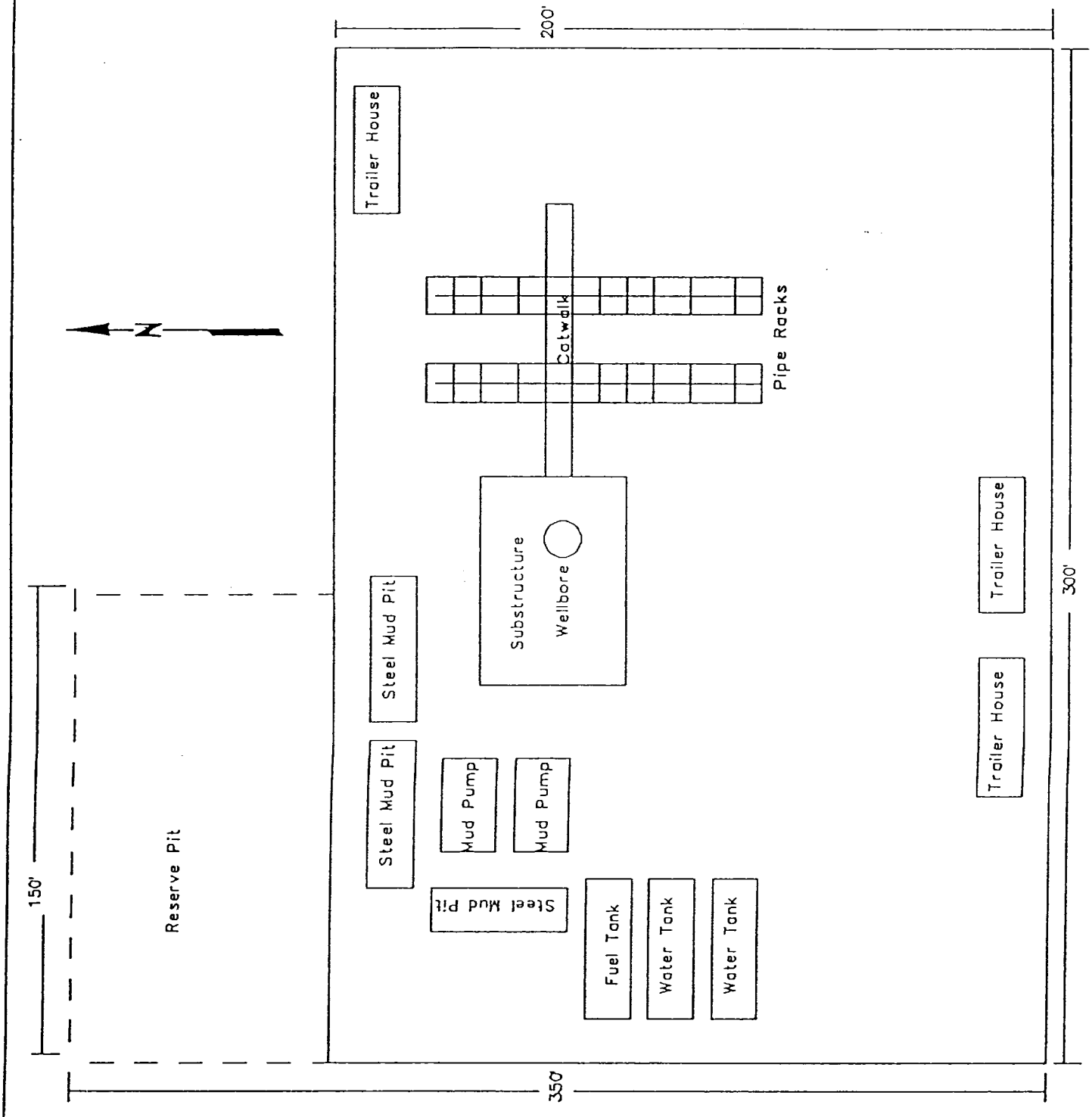
NO.	REVISION	DATE	BY

SURVEYED BY:	B.R.B.
DRAWN BY:	V.H.B.
APPROVED BY:	V.L.B.

DEVON-SFS OPERATING, INC.
~~SANTA FE SNYDER CORPORATION~~

SURVEYING AND MAPPING BY
TOPOGRAPHIC LAND SURVEYORS
MIDLAND, TEXAS

SCALE:	AS SHOWN
DATE:	MAY 18, 2000
JOB NO.:	69314-F
QUAD NO.:	51 NE
SHEET :	1 OF 1



DEVON-SFS OPERATING, INC.

EXHIBIT G
WELL SITE LAYOUT
~~**SANTA FE SNYDER CORP.**~~
Bad Axe "23" Fed Com #1
660' FNL & 2310' FWL
Section 23, T-21-S, R-23-E
Eddy County, New Mexico

DEVON-SFS OPERATING, INC.

~~Santa Fe Snyder Corp.~~

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
Bad Axe "23" Fed Com #1
Section 23, T-21-S,R-23-E
Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed by rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS.

   A. Exhibit E is a 15 minute topo map which shows the location of the proposed wellsite and roads in the vicinity. The proposed location is situated approximately 17-1/2 miles West of Carlsbad, New Mexico.

   DIRECTIONS

   1. From Carlsbad, go north 12 miles to intersection of Hwy. 285 and 137. Turn west onto Hwy 137, travel southwest for 8.8 miles and turn right on County Road 401 for 5.0 miles. Turn north on lease road .1 miles to location on right.

2. PLANNED ACCESS ROAD.

   A. ± 400' of new access road will be necessary.

3. LOCATION OF EXISTING WELLS.

   A. Location of existing wells is shown on Exhibit F.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

   A. In the event the well is productive, the necessary production equipment will be installed on the drilling pad.

5. LOCATION AND TYPE OF WATER SUPPLY.

   A. It is planned to drill the well with fresh water systems. The water will be hauled to the location by truck over existing roads. It will be obtained from commercial sources.

6. SOURCES OF CONSTRUCTION MATERIALS.

   A. Any caliche required for construction of the drilling pad will be obtained from a pit located off the wellsite.

7. METHODS OF HANDLING WASTE DISPOSAL.

   A. Drill cuttings will be disposed of in the reserve pits.

   B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.

   C. Water produced during operations will be either placed in the reserve pits and allowed to evaporate or collected in tanks until hauled to an approved disposal system or a separate disposal application will be submitted to the BLM for appropriate approval.

   D. Oil produced during operations will be stored in tanks until sold.

   E. Human waste will be disposed of per current standards.

   F. Trash, waste paper, garbage, and junk will be collected in trash trailers and disposed of in an approved waste facility such as a land fill. The trash trailers will contain all of the material to prevent scattering by the wind.

   G. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES

   A. None required at this time.

9. WELLSITE LAYOUT

   A. Exhibit G shows the dimensions of the well pad and reserve pits, and the location of major rig components.

   B. The ground surface of the location is situated on a relatively flat area. The location will be constructed by leveling the necessary area and covering the area with at least six inches of compacted caliche.

   C. The reserve pits will be plastic lined.

   D. A 400' X 400' work area which will contain the pad and pit area has been staked and flagged.

10. PLAN FOR RESTORATION OF THE SURFACE

A. 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 wellsite in as aesthetically pleasing a condition as possible.

B. Unguarded pits, if any, containing fluid will be fenced until they have been filled.

C. 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. All pits will be filled and leveled within 300 days after abandonment.

11. TOPOGRAPHY

A. The wellsite and access route are located on a relatively flat area and ±400' from an existing lease road.

B. The top soil at the wellsite is alluvium from the surrounding hills.

C. The vegetation cover at the wellsite is moderately sparse, with prairie grasses, some yucca and miscellaneous weeds.

D. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.

E. There are no ponds, lakes, streams or rivers within one mile of the wellsite.

F. There is no evidence of any archaeological, historical, or cultural sites in the vicinity of the location.

12. OPERATOR'S REPRESENTATIVES

A. The field representatives responsible for assuring compliance with the approved surface use plan are:

~~Michael R. Burton~~
~~Division Drilling Manager~~
~~Santa Fe Snyder Corp.~~
~~550 W. Texas, Suite 1330~~
~~Midland, Texas 79701~~
~~915-686-6616 - office~~
~~915-556-7063 - cellular~~

DEVON-SFS OPERATING, INC.
Mr. Cecil Thurmond
POB 250, Artesia, NM 88211-0250
(505) 748-3371 office
(505) 887-1479 home

13. 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 ~~Santa Fe Snyder Corp.~~ and its contractors and subcontractors in conformity with this plan and the terms and conditions under which is approved.

DEVON-SFS OPERATING, INC.

~~SIGNED~~ this 16th day of June 2000.

James P. (Phil) Stinson
Agent for Santa Fe Snyder Corp.

SIGNED THIS 4th DAY OF OCTOBER, 2002.

Candace R. Graham
Candace R. Graham
DEVON-SFS OPERATING, INC.
Engineering Tech.

DEVON-SFS OPERATING, INC.

~~Santa Fe Snyder Corp.~~

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN
Bad Axe "23" Fed Com #1
Section 23, T-21-S, R-23-E
Eddy County, New Mexico

In drilling the Cisco/Canyon formation there is very remote possibility that H_2S will be encountered. The zone is hydrogen sulfide productive in the area. It is our understanding that hydrogen sulfide is only detected in the area whenever the reservoir fluids are produced up the wellbore. Our drilling fluid hydrostatic head will prevent fluid entry due to the reservoir being overbalanced. The following is our plan for drilling the Cisco/Canyon formation.

1. **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 the well:

1. The hazards and characteristics of hydrogen sulfide (H_2S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuations 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_2S 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 Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering the Cisco/Canyon (training will take place within 3 days or 500 feet) and will have weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific Hydrogen Sulfide 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.

2. H_2S Safety Equipment and Systems

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the Cisco/Canyon zone at 7700'.

1. Well Control Equipment:

A. An annular preventer capable of accommodating all pipe sizes with properly sized closing unit.

2. Protective Equipment for Personnel:

A. Scott Air-Pack Units located on the rig floor and at briefing areas, as indicated on well site diagram.

3. H_2S Detection and Monitoring Equipment:

A. 2-portable H_2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H_2S levels of 200 ppm are reached.

4. Visual Warning Systems:

A. Wind direction indicators as shown on well site diagram.

B. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. See Example Attached.

5. Mud Program:

A. The mud program is designed to minimize any H_2S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H_2S scavengers will be used to minimize hazards when penetrating H_2S bearing zones (Cisco/Canyon).

6. **Metallurgy:**

   A. All of the drill string, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H_2S service.

   B. All elastomers used for packing and seals shall be H_2S trim.

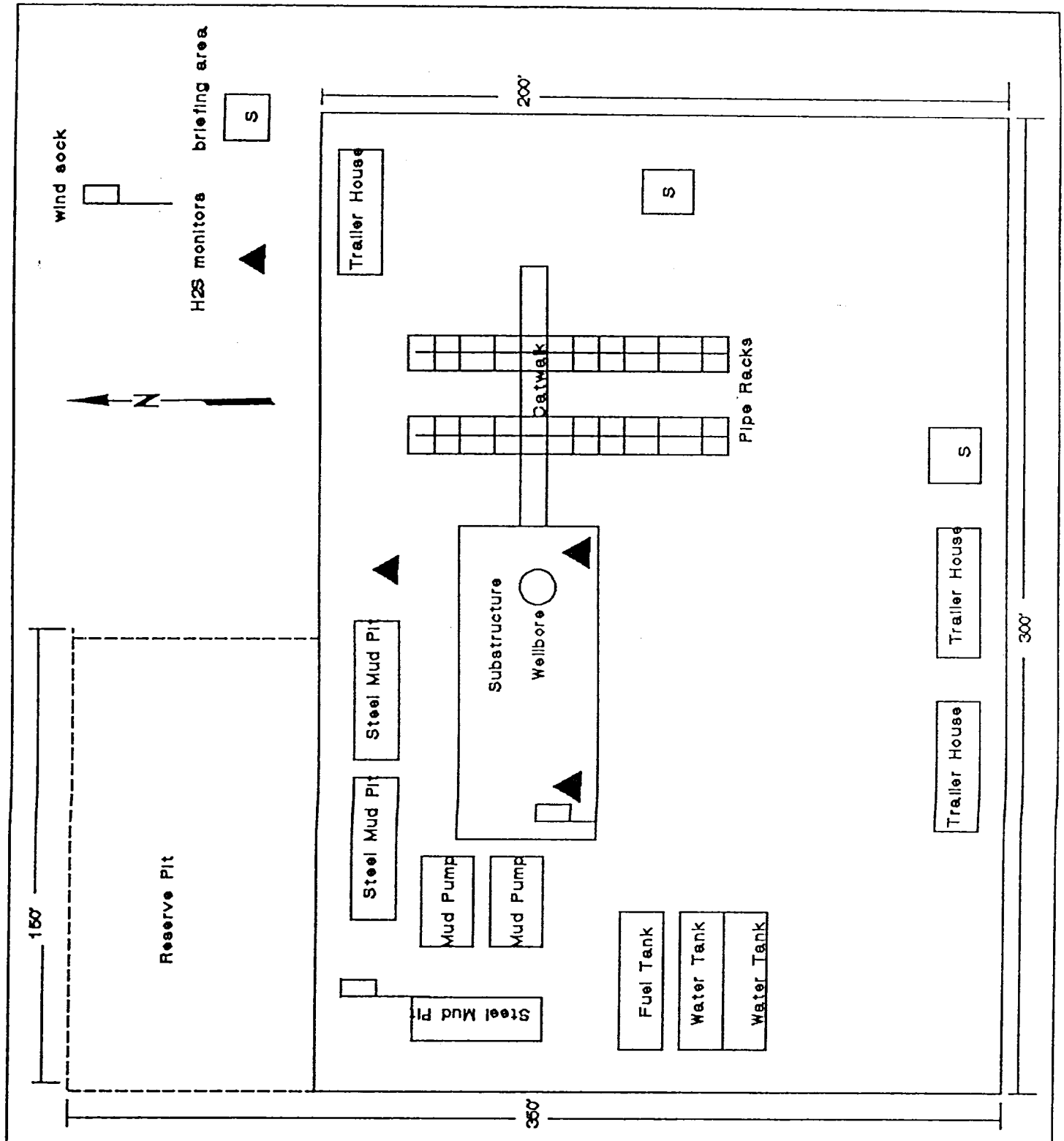
7. **Communication:**

   A. Cellular phone communications in company vehicles.

   B. Radio communications on the drilling rig.

8. **Well Testing:**

   A. All tests in the Cisco/Canyon formation will be conducted using the closed chamber method of drill stem testing.



H2S DRILLING PLAN
WELL SITE LAYOUT
Bad Axe "23" Fed Com #1
660' FNL & 2310' FWL
Section 23, T-21-S, R-23-E
Eddy County, New Mexico

Desert West

ARCHAEOLOGICAL SERVICES, INC.

Received 8/31/00 from OGE

9/1/00 cc: B. Daugherty - Devon

July 14, 2000

Mr. Phil Stinson
OGE DRILLING
550 West Texas, Suite 1140
Midland, TX 79702

Dear Mr. Stinson:

Enclosed please find your copy of Desert West Archaeological Services, Inc. (DWAS) archaeological survey report for SANTA FE SNYDER CORPORATION's proposed Bad Ax "23" Federal Com. Well No. 1 (660' FNL; 2110' FWL) and associated access road in Section 23, T21S, R23E, NMPM, Eddy County, New Mexico. This survey was conducted to evaluate any potential effect that SANTA FE SNYDER CORPORATION's proposed Bad Ax "23" Federal Com. Well No. 1 (660' FNL; 2110' FWL) and associated access road might have on the historic properties.

No cultural resources were encountered during this survey. Therefore, we are recommending that archaeological clearance be granted for this undertaking of SANTA FE SNYDER CORPORATION's proposed Bad Ax "23" Federal Com. Well No. 1 and associated access road as presently staked. No further archaeological work should be required.

An archaeologist at the Bureau of Land Management will review this report and decide whether or not SANTA FE SNYDER CORPORATION should proceed with this undertaking. Someone should advise you of that decision in that agency.

We appreciate this opportunity to serve you. If you have any questions, or feel that we might be of additional service, please call our office.

Sincerely,

Arita Slate

Enclosure

Xc: Bureau of Land Management, Carlsbad Field Office, Carlsbad, NM (2)

P.O. Box 645 · Carlsbad, NM 88221 · Phone (505) 887-7646 · Fax (505) 887-2264

APPENDIX B.

TITLE PAGE/ABSTRACT/ NEGATIVE SITE REPORT CARLSBAD FIELD OFFICE

BLM/ RDO 1/95

1. BLM Report No.	2. (ACCEPTED) (REJECTED)	3. NMCRIS No. 71091
4. Title of Report (Project Title): Archaeological survey of Santa Fe Snyder Corporation's proposed Bad Axe "23" Federal Com. Well No. 1 and associated access road in Section 23, T21S, R23E, NMPM, Eddy, NM.		5. Project Date(s) 07-01-2000 6. Report Date - 07-03-2000
7. Consultant Name & Address: Direct Charge: David Wilcox Name: Desert West Archaeological Services Address: P.O. Box 645, Carlsbad, NM 88220 Authors Name: David Wilcox Field personnel names – David Wilcox Phone (505) 887-7646		8. Permit No. 123-2920-99-U NM99-077 9. Consultant Report No. DWAS 00-03JY
10. Sponsor Name and Address: Indiv. Responsible: Mr. Phil Stinson Name: Santa Fe Snyder Corporation Address: 550 West Texas, Suite 1140, Midland, TX 79702 Phone (915) 682-6373		11. For BLM Use only. 12 ACREAGE: Total No. of acres surveyed – 4.45 Per Surface - Ownership: Federal

13. Location & Area: (Maps Attached if negative survey)

a. State – NM
b. County – Eddy
c. BLM Field Office: Carlsbad
d. Nearest City or town: Seven Rivers, New Mexico
e. Location: Section 27, T23S, R32E (Access Road – sw/4, ne/4, nw/4)
Well Pad footages: 660' FNL; 2110' FWL (ne/4, nw/4)
f. 7.5 ' Map Name(s) and Code Numbers(s): Martha Creek, NM (1978 [32104-D5]).
g. Area: Block: Impact: within the staked area
Surveyed: 400' x 400'
Linear: Impact: 342' x 50'
Surveyed: 342' x 100'

14. a. Records Search:

Location: BLM and ARMS
Date: 07-03-2000
Conducted by: Arita Slate
List by LA# All sites within .25 miles of the project:
(Those sites within 500' are to be shown on the project map)

According to these records, there is one previous project in the area (89-95) that bisects this proposed project's area.

b. Description of undertaking:

Class III pedestrian survey of Santa Fe Snyder Corporation's proposed Bad Axe "23" Federal Com. Well No. 1 and associated access road in Section 23, T21S, R23E, NMPM, Eddy, NM. The proposed access road starts at an existing lease road to the west.

c. Environmental Setting (NRCS soil designation; vegetative community; etc.)

Vegetation – Assorted grasses, mesquite, yucca, snakeweed, tree cholla, sumac, littleleaf horsebrush, creosote, Mormon tea, eagle claw cactus, cat claw, rainbow cactus and prickly pear cactus.

Topography – The project lies on Indian Basin's Physiographic province, a flat fluvial loamy plain with a slight slope down to the west. Some limestone outcrops are present. Numerous bovine trails bisect the area. A buried pipeline and two two-tracks are crossed. Argus 1 – Lizards 0.

Soils – Reagan-Upon association: Loamy, deep soils and soils that are shallow to caliche; from old alluvium.

d. Field Methods:

Transect Intervals: straight and zigzag transects, spaced not greater than 15 meters apart
Crew Size: 1
Time in Field: 1 ¼ hours total
Collections: no

Cultural Resource Findings: n/a

16. Management Summary (Recommendations):

Archaeological clearance for Santa Fe Snyder Corporation's proposed Bad Axe "23" Federal Com. Well No. 1 and associated access road in Section 23, T21S, R23E, NMPM, Eddy, NM is recommended as staked.

I maintain that the information provided above is correct and accurate and meets all appreciable BLM standards.

Responsible Archaeologist _____ 7-3-2000
Signature Date

Figure 1. Topographic map of USGS 7.5' Series Martha Creek, NM (1978) showing the project area in Section 23, T21S, R23E.

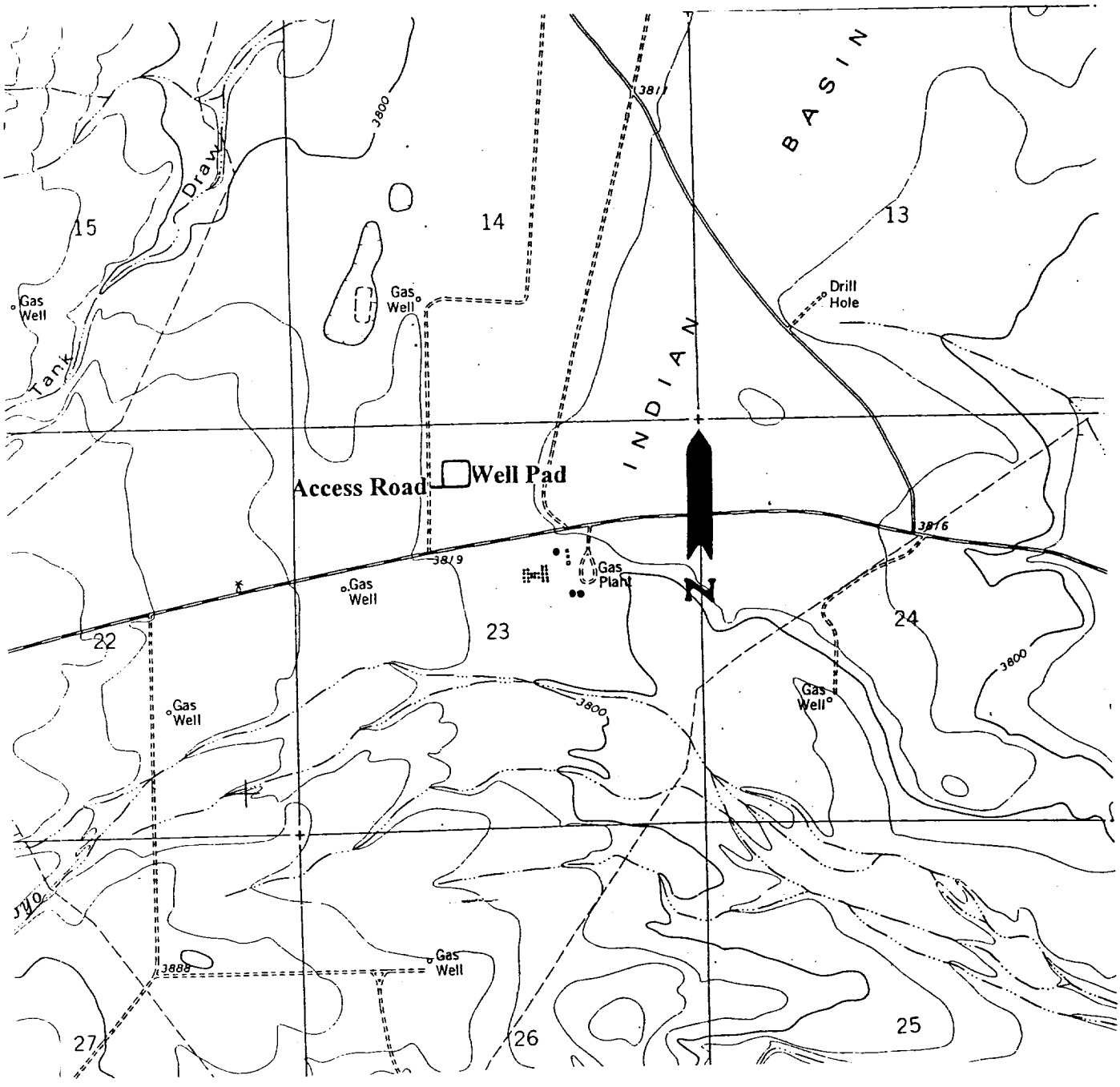


Figure 1. Showing SANTA FE SNYDER CORPORATION's proposed Bad Axe "23" Federal Com. Well No. 1 (660' FNL, 2110 FWL) and associated access road in Section 23, T21S, R23E, NMPM, Eddy County, NM. Map Reference: USGS 7.5' series Martha Creek, NM (1978)