



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

GOVERNOR

1/29/97

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

SWD - 653

1/29/97

RE: Proposed:

MC _____
DHC _____
NSL _____
NSP _____
SWD X
WFX _____
PMX _____

Gentlemen:

I have examined the application for the:

SDX Resources Inc Meyers A #
Operator Lease & Well No. Unit S-T-R 5-B 22-245-36e

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes no
- II. Operator: SDX Resources, Inc.
- Address: PO Box 5061, Midland, TX 79704
- Contact party: Chuck Morgan Phone: 915/685-1761
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? yes no
If yes, give the Division order number authorizing the project _____.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- * VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Chuck Morgan Title Engineer
Signature: Chuck Morgan Date: 1-2-97

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

Application for Authorization to Inject

SDX Resources, Inc. - Meyers Federal A #5
Unit Letter B, Sec 22, T24S, R36E
660' FNL 1980' FEL, API #30-025-09603
Lea Co., New Mexico

- I. PURPOSE: Disposal
Administrative Approval? Yes
- II. OPERATOR: SDX Resources, Inc.
PO Box 5061
Midland, Texas 79704

Contact: Chuck Morgan 915/685-1761

- III. Meyers A #5
Sec 22, T24S, R36E
660' FNL 1980' FEL

Original Hole Condition:

13-3/8" 54.5# at 240'. Cmt w/150 sx. Assumed 17-1/4" hole site. TOC @ surface. Calculated (.75 eff.)
9-5/8" 40# at 3100'. Cmt w/775 sx. Assumed 12" hole site. TOC 361'. Calculated (.75 eff.)
7" 20# @ 3527'. Cmt w/150 sx. Assumed 8-5/8" hole site. TOC 2200'. Calculated (.75 eff.)

Well is currently Plugged & Abandoned. No P&A on file at OCD or BLM.

SDX proposes to re-enter hole with 6-1/4" bit and drill open hole to 3800'. If 7" is at surface will test. If it is okay will set a packer at approximately 3450' and inject into open hole interval 3527-3800'. If not will run 5-1/2" liner from surface to approximately 3500' and circulate cement to surface. Will inject with packer at approximately 3400' into open hole interval 3527-3800'.

- IV. This is not an expansion of an existing project.
- V. Attachment "A".
- VI. Attachment "B".
- VII. 1. Proposed average injection rate will be 500 BWPD.
Maximum 1500 BWPD.
2. Closed system.
3. Average injection pressure = 350#
Maximum injection pressure = 705#
4. Produced water sample analysis attached
(attachment "C").
5. Chemical analysis attached (attachment "C").

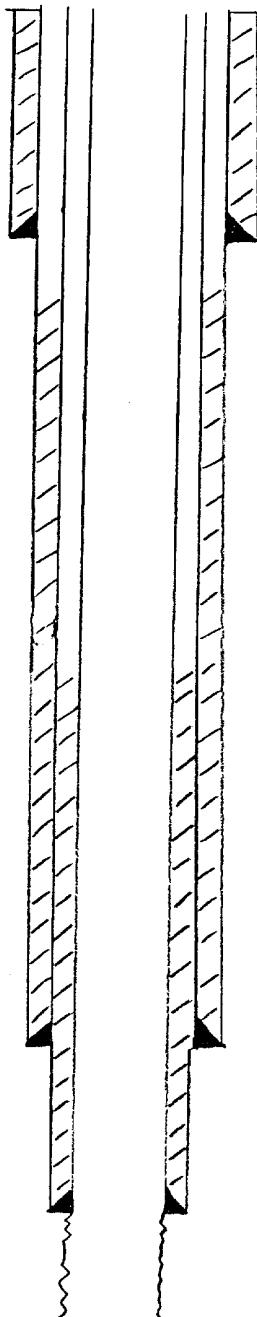
**Application for Authorization to Inject
Meyers Federal A #5
Page 2**

- VIII. 1. The proposed injection interval is the portion of the 7-Rivers consisting of porous and fractured dolomite and sand.
2. Fresh water zones overlie the proposed injection zone at approximately 150-300'.
- IX. The proposed injection interval may be acidized with 15% HCL acid.
- X. No electric logs are available for this well.
- XI. Fresh water analysis from fresh water well (Unit H, Sec 22, T24S, R36E) attached (attachment "D").
- XII. Geological and engineering data have been examined and no evidence of open faults or any other hydrological connection between the injection zone and any fresh water aquifer has been found.
- XIII. Certified letters to offset operators and surface owners (attachment "E").
- Legal advertisement is attached (attachment "F").

Meyers Fed A 5
Standlind

160' FNL + 1980' FEL
Sec 22, 24S - 36E

"Current"



13" @ 238'
150' TOC surf
17 1/4" hole (assumed)
(calc 1.32 ft³/sq
.75 eff)

95/8" @ 3086'
775' to 12" hole
(assumed) TOC 361'
(calc 1.32 ft³/sq
.75 eff)

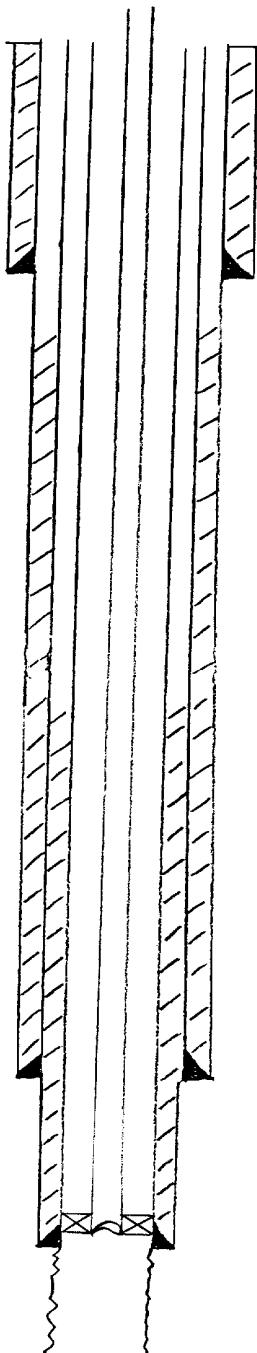
7" @ 3527'
150' to 8 5/8" hole
(assumed) TOC 2200'
(calc 1.32 ft³/sq
.75 eff)

TD 3575'

Meyers fed F "5
Standlind

360' FNL + 1980' FEL
Sec 22, 243 - 36E

"Proposed"



13" @ 238'
150 s/s TOC surf
17 1/4" hole (assumed)
(calc 1.32 ft³/s/s
.75 eff.)

95/8" @ 3086'
775 s/s 12" hole
(assumed) TOC 361'
(calc 1.32 ft³/s/s
.75 eff.)

7" @ 3527'
150 s/s 8 5/8" hole
(assumed) TOC 2200'
(calc 1.32 ft³/s/s
.75 eff.)

TD 3800'

Propose to set
7" AD-1 pkr
@ 3450' on 2 7/8" PC
thg. OH interval
3427' - 3800'

Meyers Fed F #5
Stanolind

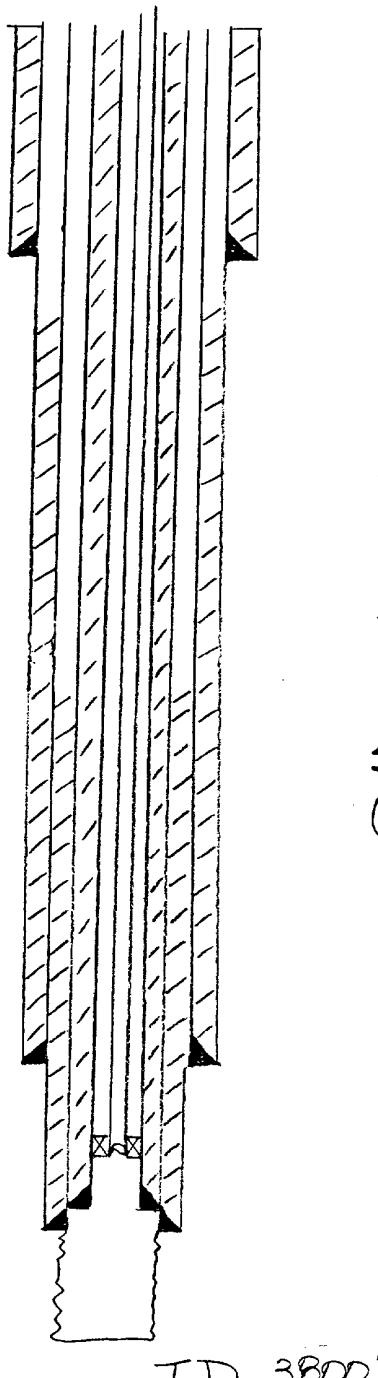
360' FNL + 1980' FEL
Sec 22, 24S - 36E

"Proposed Alternative"

13" @ 238'
150' TOC surf
17 1/4" hole (assumed)
(calc 1.32 ft³/sec
.75 eff.)

95/8" @ 3086'
775' to 12" hole
(assumed) TOC 361'
(calc 1.32 ft³/sec
.75 eff.)

7" @ 3527'
150' to 8 5/8" hole
(assumed) TOC 2200'
(calc 1.32 ft³/sec
.75 eff.)



Propose to set a
5 1/2" liner from surf
to 3500' w/cmt, circ
to surf.

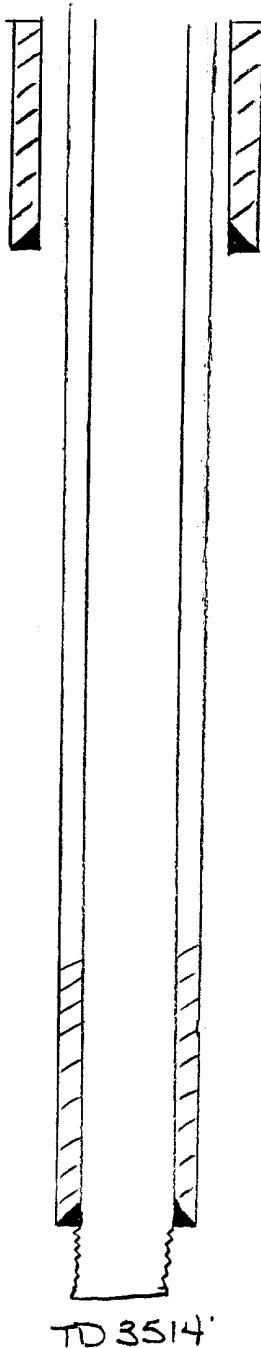
5 1/2" AD-1 pkr set
@ 3400' on 2 7/8"
PC plug.
OH interval
3527' - 3800'.

WELL NAME	OPERATOR	TYPE	SPUD	COMP.	TD	DIAGRAM	ZONE	PERFS	CASING	COMPLETION	TOC/METHOD
Meyers 1-C 1980' FNL & FWL 22-24S-36E	Melrose (SDX)	P&A	6/15/48	7/21/48	3514'	Need	7 Rivers	OH 3402-3514	13-3/8" @ 300' w/300' ss	Natural	13-3/8" @ surf/calc. 7" @ 2156' calc. 75 eff Asurm 10" hole (1.32)
Meyers 2-C 660' FNL 1980' FWL 22-24S-36E	Burlington (Meridian)	SWD	9/5/60	9/27/60	3510'	Need	7 Rivers	OH 3476-3510	9-5/8" 36# @ 305' w/350' ssC 7" 20'-23# @ 3476' w/350' ssC	A: 2500 gal.	9-5/8" @ Surf/Calc. Asurm 12-1/4" hole 7" @ 1370'/reported
Meyer Federal #3 1980' FSL & FEL 22-24S-36E	Magnolia (SDX)	P&A	10/28/34	11/22/34	3515'	Need	Yates/7 Rivers	OH 3473-3515	15" @ 282' w/225' ss 9-5/8" @ 1394' w/275' ss 7" @ 3470'. Pulled 1324'.	Cmt plug @ 3300-3500' 25' cr plug @ 1324' 40' cr surf/plug	15" @ surf/calc. 9-5/8" @ 525 calc. 7" 175' ss @ 1167' calc. 7' 350' ss? @ 2320' calc.
Meyer B Federal #1 2310' FSL 1250' FFL 22-24S-36E	SDX	Oil	10/10/95	12/5/95	3724'	No	Yates	3440-3552	8-5/8" 24# @ 466' w/350' ss 5-1/2" 14# @ 3700' w/1300' ss	A: 3500 gal SWF: 1700 gal w/ 7700# 1220' ssd	40' ss to 3050', 7' cut @ 20' pulled?
AH Meyer Federal A #1 2310' FNL 330' FFL 22-24S-36E	Standolid (SDX)	P&A	6/7/34	8/14/34	3514'	Ok	7 Rivers	OH 3465-3514	20' 90# @ 180' w/0' ss 16" 70# @ 240' w/175' ss 9-5/8" 40# @ 2985' w/225' ss 7" 24# @ 3472' w/150' ss	2040', 10' ss @ 2040', 9-5/8" cut @ 450', 10' ss @ 450', 10' ss @ surface	16" surf/calc 9-5/8" @ 2233' calc w/12-1/4" hole 7' 2040' /asum. 75 eff
AH Meyer Federal A #2 660' FNL 660' FFL 22-24S-36E	Standolid (SDX)	P&A	10/3/34	11/16/34	3515'	Ok	Yates/7 Rivers	OH 3484-3515	12-1/2" @ 244' w/210' ss 9-5/8" @ 1527' w/450' ss 7" @ 3484' w/175' ss	25' ss plug 3436-3336 7' cut @ 2394' w/20' ss in top. 20' ss @ 1527'. 9-5/8" cut @ 397'. Surf plug in 12-1/4".	12-1/2" @ surf/calc 9-5/8" @ 397' /assumed 7" @ 2394' /assumed
AH Meyer Federal A #3 1980' FNL & FFL 22-24S-36E	Standolid (SDX)	P&A	11/13/34	12/27/34	3558'	Ok	Yates/7 Rivers	OH 3491-3558	13-3/8" @ 239' w/145' ss 9-5/8" @ 3096' w/778' ss 7" @ 3491' w/150' ss	25' ss @ 3474-3430'. Cut 7" @ 2465'. 20' ss @ 2465' @ 255', 10' surf plug.	13-3/8" @ surf/calc 9-5/8" @ 2357' /assumed 7" @ 2465' /assumed
AH Meyer Federal A #5 660' FNL 1980' FFL 22-24S-36E	Standolid (SDX)	P&A	12/17/34	1/18/35	3575'	Ok	Yates/7 Rivers	OH 3527-3575	13-3/8" 50# @ 240' w/150' ss 9-5/8" 40# @ 3100' w/775' ss 7" 24# @ 3527' w/150' ss	NOT REPORTED	13-3/8" @ surf/calc 9-5/8" @ 3617' calc 7" @ 2200' calc
Meyer Federal #6 330' FNL 330' FFL 22-24S-36E	SDX	Oil	9/13/96	10/22/96	3515	No	7 Rivers	OH 3470-3515	8-5/8" @ 393' w/250' ss 5-1/2" @ 3470' w/400' ss/Lite + 250' ss C	A: 500 gal 15%	8-5/8" surf/calc 5-1/2" surf/calc
Meyer Federal #7 1400' FNL 1650' FFL 22-24S-36E	SDX	Oil	6/14/96	8/11/96	3500'	No	Yates	3234-3418	8-5/8" @ 430' w/325' ssC 5-1/2" @ 3516' w/250' ss/Lite + 250' ss C	A: 3000 gal 15 MSH F: 40000 gal Bonate + 92940# 12720' ssd	8-5/8" surf/calc 5-1/2" @ 2597' calc
Meyer #1 1650' FNL 330' FFL 22-24S-36E	SDX (Standolid/ Thompson Cone)	Gas	11/13/53	3/1/54	3504'	No	Yates	3250-3360	8-5/8" @ 286' w/200' ss 5-1/2" @ 3454' w/150' ss	A: 1000 gal P: 5000 gal	8-5/8" surf/calc 5-1/2" @ 2597' calc
Vaugh A 15 #1 660' FSL 1980' FFL 15-24S-36E	Tension	Oil	5/13/36	7/10/36	3609'	No	7 Rivers	OH 3490-3609	10-3/4" 40-1/2# @ 252' w/200' ss 5-1/2" 17# @ 3490' w/200' ss	A: @ 3552' w/2000 gal A: @ 3609' w/1500 gal	10-3/4" @ surf/calc 7-5/8" @ surf/calc 5-1/2" @ surf/calc
Vaugh A 15 #2 1980' FSL & FFL 15-24S-36E	Tension	Oil	7/23/36	8/31/36	3610'	No	7 Rivers	OH 3591-3610	13" 50# @ 263' w/400' ss 8-5/8" 22# @ 1645' w/650' ss 5-1/2" 17# @ 3591' w/400' ss	Natural	13" @ surf/calc 8-5/8" @ 86' /assume 12-1/4" hole 5-1/2" @ 1305' calc
Vaugh A #1 660' FSL & FFL 15-24S-36E	Tension	P&A	1/2/35	2/26/35	3565'	Need	Yates/7 Rivers	OH 3488-3520	10-3/4" 40# @ 257' w/150' ss 7-5/8" 26# @ 1686' w/500' ss 5-1/2" 17# @ 3488' w/400' ss	cmt @ 3450' ssd 50' ss, cmt plug 3175-3450, cmt 5-1/2" @ 2292', cmt in top of 5-1/2", cmt plug @ 7' shoe 1681', cmt @ top of 7-5/8'. Filled annulus of 7-5/8' & 10-3/4' w/cmtd	10-3/4" @ surf/calc 7-5/8" @ 1442' calc. 5-1/2" @ surf/calc
Gates #1	Tension	Gas	Re-enter 6/1/64	Re-comp'l 6/5/64	3514'	No	Yates	3055-3264	10-3/4" @ 250' w/300' ss 7-5/8" @ 1846' w/93' ss 5-1/2" @ 3450' w/400' ss	A: 500 gal P: 37000 gal + 40000# ssd	10-3/4" @ surf/calc 7-5/8" @ 1442' calc. 5-1/2" @ surf/calc

Meyers C#1
Melrose (SDX)

1980' FNL + FWL
Sec 22, 245-36E

13 5/8" @ 300'
300 s/w TOC 3mb



Current condition
unknown. Well
is P&A. No
reports on file.

7" @ 3402'
350 s/w TOC 2156'

ATTACHMENT "B"

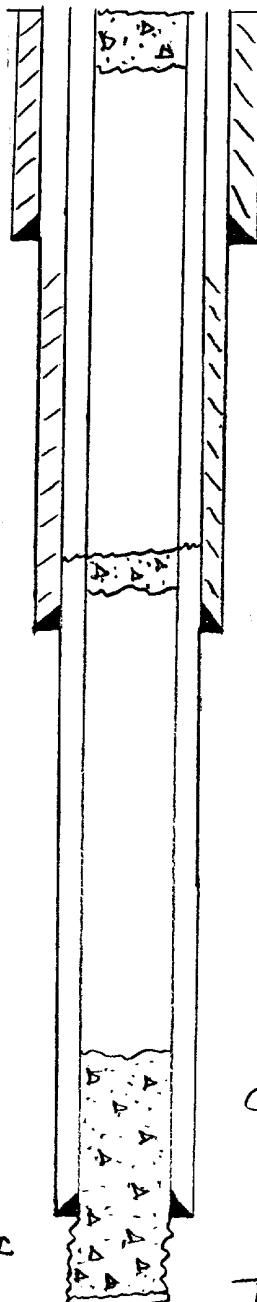
Meyers Federal #3
Magnolia (SDX)

1980' FSL + FEL
Sec 22, 243-36E

15" @ 282'
225 sx TOC surf
calc

95/8" @ 1394'
275 sx TOC 525'
calc

7" @ 3470'
175 sx TOC 1167 / calc
or
350 sx TOC 2320 / calc



40 sx cmt plug
@ 3mgs.

Pulled 7" cog @ 1324'
25 sx cmt plug

cmt plug 3300-3500'

TD 3515'

Neyers Field A #1
Standlind 0 & L

2310' FNL + 330' FEL
Sec 22, 245-36E

20" 90# @ 182'
no cmt.
mention of 20" cog
on P&G rpt.

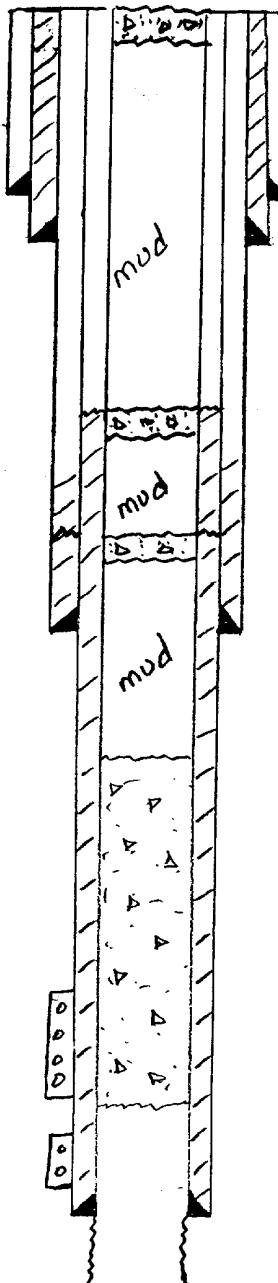
16" 70# @ 240'
175 sc TOC surf
calc

95/8" 40# @ 2985'
225 sc TOC 2535'
calc w/ 6 1/4" hole

Pf: 3366-3404'

Pf: 3436-55'(20)

7" 24# @ 3472'
150 sc TOC 2040'
assum. .75 eff.



10 sc cmt plug
@ surf.

7" cut off @ 2040'
10 sc plug @ 2040'
in 7" cog.

9 5/8" cut off @ 2535'
10 sc plug @ 2535'
in 9 5/8" cog.

40 sc cmt plug @ 3050'

TD 3514'
* PB TD 3409'
* No info on PB

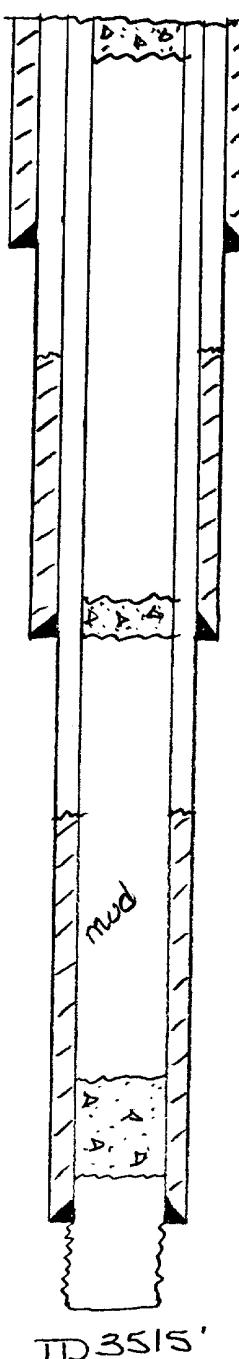
Meyers Fed A #2
Standlind

660' FNL + FEL
Sec 22, 245-36E

12 $\frac{1}{2}$ " @ 244'
210 sx TOC sub
calc

9 $\frac{5}{8}$ " @ 1527'
450 sx TOC 397'
assumed

7" @ 3484'
175 sx TOC 2294'
assumed



cont plug in top
of 12 $\frac{1}{2}$ " cog

9 $\frac{5}{8}$ " pulled @ 397'

20sx plug in bottom
of 9 $\frac{5}{8}$ " cog.

7" cog shot off + pulled
@ 2294; 20 sx plug in
top of cog @ 1527'

25 sx cont plug @
3336 - 3436

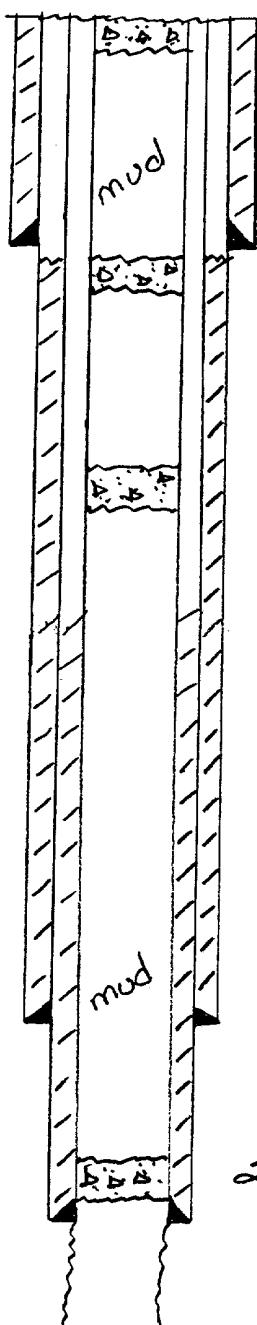
Meyers fed #3
Standland

1980 FNL & FEL
Sec 22, 245-36E

13³/₈" @ 239'
145 s/s TOC Surf
calc

9⁵/₈" @ 3096'
778 s/s TOC 255'
assumed

7" @ 3491'
150 s/s TOC 2465'
assumed



10 s/s cmt plug @ Surf
in 13³/₈" csg.

9⁵/₈" cut off @ 255'
20 s/s cmt plug @ 255'
in 9⁵/₈" csg.

20 s/s cmt plug @ 1026'
in 7" csg

25 s/s cmt plug
3430 - 3474'

ATTACHMENT "B"

Vaughn A #1
Jenison

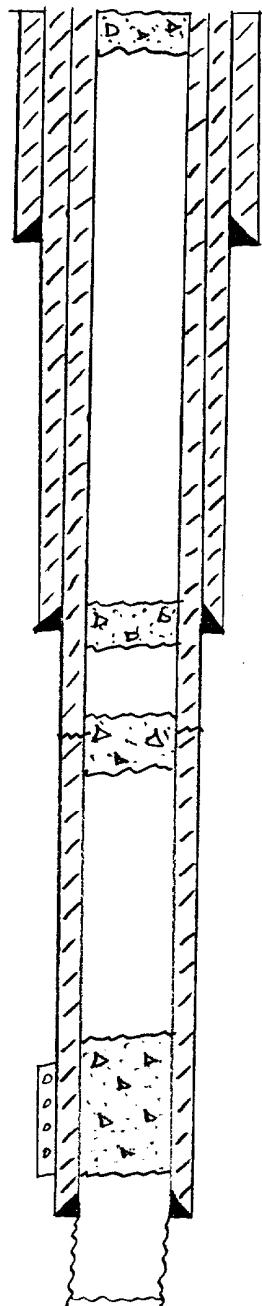
660' FSL + FEL
Sec 15, 245-36E

10^{3/4}" - 10# @ 257'
150^{3/4} TOC surf
calc

7^{5/8}" 26# @ 1686'
500^{3/4} TOC surf
calc

PF: 3180-3400'

5^{1/2}" 17# @ 3488'
400^{3/4} TOC 2292'
assumed



TD 3565
PBTD 3520'

Cnt plug @ 7' shoe
@ 1681'. Cnt on top
of 7^{5/8}".
filled annulus of
7^{5/8}" + 10^{3/4}" w/cnt.

Cut 5^{1/2}" @ 2292'.
Cnt in top of 5^{1/2}"

Cnt plug 3175-3450'.
50^{3/4}

Unichem International

707 North Leech P.O. Box 1499
 Hobbs, New Mexico 88240

Company : SDX
 Date : 12-13-1996
 Location: Meyer # Fed - Well #6 (on 12-12-96)

	Sample 1
Specific Gravity:	1.009
Total Dissolved Solids:	12809
pH:	6.65
IONIC STRENGTH:	0.254

CATIONS:	#6 #7 B-1	
	me/liter	mg/liter
Calcium (Ca+2)	28.8	576
Magnesium (Mg+2)	27.6	335
Sodium (Na+1)	153	3510
Iron (total) (Fe+2)	0.005	0.150

ANIONS:	#6 #7 B-1	
	me/liter	mg/liter
Bicarbonate (HCO3-1)	22.3	1360
Carbonate (CO3-2)	0	0
Hydroxide (OH-1)	0	0
Sulfate (SO4-2)	31.8	1530
Chloride (Cl-1)	155	5500 32000 9000

DISSOLVED GASES	#6 #7 B-1	
	me/liter	mg/liter
Carbon Dioxide (CO2)	70.0	
Hydrogen Sulfide (H2S)	340	

SCALING INDEX (positive value indicates scale)

Temperature	Scaling Index	
	Calcium Carbonate	Calcium Sulfate
86°F	30°C	0.30
104°F	40°C	0.94
122°F	50°C	1.2
140°F	60°C	1.6
168°F	76°C	2.1
176°F	80°C	2.3
		-17
		-17
		-17
		-17
		-5.8
		-5.8

Comments:

c: Isaac Huskey
 Joe Hay

OFFSET OPERATORS

Tenison Oil
8140 Walnut Ln, Ste 601
Dallas TX 75231

Sidney Lanier
PO Box 755
Hobbs NM 88241

Phillips Petroleum Corp.
4001 Penbrook St
Odessa TX 79760

MNA Enterprises LTD., Co.
PO Box 843
Hobbs NM 88241

Woolworth Trust (Surface Owner)
PO Box 178
Jal NM 88252

Meridian (Burlington Northern)
3300 North "A" St.
Midland TX 79705

SDX RESOURCES, INC.

P.O. BOX 5061

MIDLAND, TEXAS 79704

(915) 685-1761

December 30, 1996

Re: Application for Authority to Inject
Section 22, T24S, R36E
Lea Co., New Mexico

Gentlemen:

Enclosed is a copy of Form C-108 (Application for Authority to Inject) for the following well operated by SDX Resources, Inc.

Meyers Federal A #5
660' FNL 1980' FEL
Sec. 22, T24S, R36E

Should you have any questions, please contact us at the letterhead address or call 915/685-1761. Thank you for your consideration in this matter.

Sincerely,



Chuck Morgan
Engineer

bja

enclosures

ATTACHMENT "E"



AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of 1 weeks.

Beginning with the issue dated

December 15, 1996
and ending with the issue dated

December 15, 1996

Kathi Bearden
Publisher
Sworn and subscribed to before
me this 16th day of

December, 1996

Kathi Bearden

Notary Public.

My Commission expires
August 29, 1999
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE
December 15, 1996
NOTICE OF APPLICATION
FOR FLUID INJECTION
WELL PERMIT

SDX Resources, Inc. located at 511 W. Ohio, Ste 601, Midland TX 79701, mailing address PO Box 5061, Midland TX 79704. Contact: Chuck Morgan 915-685-1761 is seeking administrative approval from the New Mexico Oil Conservation Division to complete the following well located in Section 22, 124S, R36E, Lea Co., New Mexico as an injection well; Mayors federal A #5. The proposed injection zone is the 7-livare through an open hole from 3527-3575'. SDX Resources, Inc. intends to inject a maximum of 1500 barrels of produced formation water per day at a maximum injection pressure of 700 psi. Interested parties must file objections or request for hearing with the Oil Conservation Division, 2040 S. Pacheco, Santa Fe, NM 87505 within 15 days of this notice.
#14953

01101300000 01504688
SDX Resources
P.O. Box 5061
a/c 434005
Hobbs, NM 88240

