

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 10772

APPLICATION OF BARBER OIL INC.
FOR SALT WATER DISPOSAL,
EDDY COUNTY, NEW MEXICO

PRE-HEARING STATEMENT

This pre-hearing statement is submitted by SNYDER
RANCHES INC. as required by the Oil Conservation Division.

APPEARANCE OF PARTIES

APPLICANT

Barber Oil Inc.

APPLICANT ATTORNEY

William F. Carr, Esq.
P. O. Box 2208
Santa Fe, New Mexico 87501
(505) 988-4421

OPPOSITION PARTY

Snyder Ranches Inc.
P. O. Box 2158
Hobbs, New Mexico 88241
Attn: Larry C. Squires
(505) 393-7544

ATTORNEY

W. Thomas Kellahin
KELLAHIN AND KELLAHIN
P.O. Box 2265
Santa Fe, NM 87504
(505) 982-4285

Pre-Hearing Statement
Case No. 10772
Page 2

STATEMENT OF CASE

OPPOSITION PARTY:

Snyder Ranches Inc. is the owner of the "Woods Ranch" and has a domestic water well immediately adjacent to the Barber Oil Company's Stovall-Wood Well No 5 which is a shallow salt water disposal well and the subject of this application.

The subject salt water disposal well has contaminated the Woods Ranch domestic water well to such an extent that it can no longer be used for domestic or stock watering purposes.

The Division should deny the application of Barber Oil Company in order to prevent further contamination of the shallow ground water in this area.

Pre-Hearing Statement
Case No. 10772
Page 3

PROPOSED EVIDENCE

OPPOSITION PARTY

WITNESSES	EST. TIME	EXHIBITS
Tim E. Kelly (hydrogeologist)	60 min.	8-10 exhibits

PROCEDURAL MATTERS

None applicable at this time.

KELLAHIN AND KELLAHIN

By: 
W. Thomas Kellahin
P.O. Box 2265
Santa Fe, New Mexico 87504
(505) 982-4285

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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SANTA FE, NEW M

BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
EXHIBIT NO. 1
CASE NO. 10772
SUBMITTED BY: SNYDER RANCHES
HEARING DATE: NOVEMBER 4, 1993

Form C-10
Revised 1/

Type of Lease
State Fee
3. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

RECEIVED

JUL 3 '90

C. O. O. OFFICE
ARTESIAN OFFICE

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- Disposal Well	7. Unit Agreement Name Barber
2. Name of Operator Barber Oil, Inc.	8. Farm or Lease Name Stovall-Wood Fee
3. Address of Operator P. O. Box 1658 Carlsbad, NM 88221-1658	9. Well No. Barber Disposal
4. Location of Well UNIT LETTER <u>C</u> <u>880</u> FEET FROM THE <u>North</u> LINE AND <u>1580</u> FEET FROM THE <u>West</u> LINE, SECTION <u>20</u> TOWNSHIP <u>20S</u> RANGE <u>30E</u> NMPM.	10. Field and Pool, or WHdcat Barber
15. Elevation (Show whether DF, RT, GR, etc.)	12. County Eddy

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any pro. work) SEE RULE 1103.

JUNE, 1990 - This disposal well drilled in approximately 1943 to a depth of 227' to a "cut out section" of the Upper Rustler formation. The bottom of the this formation is approximately 415'. Ran 195' of 8-5/8" casing and set with 25 sax cement. The injection interval was from 195' - 207' or 12' total open hole. Surface water is at approx. 50' and the top of the nearest oil or gas zone is 1420'. In June of 1990 we began experiencing trouble with the well back flowing ver y slight amounts of water (less than 10 bbls) and the wells rate of intake began to decline. We ran a special hand made tool down the well bore and casing and cleaned out what appeared to be a combination of asphaltines, iron sulfide and parafin. We then pumped in 1,000 gallons of acid and flushed with 250 bbls of fresh water. The well improved for a few days and then the problem reappeared. We then cleaned the well bore out to a depth of 115' and ran 128' of plastic schedule 80 6" pipe down the well until we were inside good casing. The last 13' of pipe had to be forced into the casing as the existing pipe was coated with "gunk". We then ran our tool back down the new casing and into the old casing and cleaned out the hole leaving a seal of gunk between the two pipes. The well has been working perfectly since this procedure. We believe the procedure accoplished two things. First, we successfully shut off all surface water that was previously dumping into the rustler formation. Secondly, we replaced what was probably several joints of badley corroded pipe at the top of the well with new pipe that should last longer than steel pipe.

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

SIGNED Michael J. King TITLE President DATE 7/3/90
APPROVED BY _____ TITLE _____ DATE _____
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BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
EXHIBIT NO. 2
CASE NO. 10772
SUBMITTED BY: SNYDER RANCHES
HEARING DATE: NOVEMBER 4, 1993

VATION DIVISION
BOX 2088
NEW MEXICO 87501

APR 20 1992

Form C-10
Revised 1

O. C. D.
SPECIAL OFFICE

3a. Indicate Type of Lease
State Fee

5. State Oil & Gas Lease No.

COPY

SUNDRY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.
USE "APPLICATION FOR PERMIT -" (FORM C-1011) FOR SUCH PROPOSALS.

OIL WELL GAS WELL OTHER: Disposal Well

Name of Operator: Barber Oil, Inc.

Address of Operator: P. O. Box 1658 Carlsbad, NM 88221-1658

Location of Well:
UNIT LETTER C, 880 FEET FROM THE North LINE AND 1580 FEET FROM
THE West LINE, SECTION 20 TOWNSHIP 20S RANGE 30E NMPM.

7. Unit Agreement Name: Barber

8. Farm or Lease Name: Stovall-Wood Fee

9. Well No.: Barber Disposal

10. Field and Pool, or Withdrawal: Barber

15. Elevation (Show whether DF, RT, GR, etc.)

12. County: Eddy

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
CULL OR ALTER CASING <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	

1. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any production) SEE RULE 1103.

Began work on February 18, 1991. OCD requested removal of 6" PVC pipe. Removed pipe and well wall collapsed. Called Star Tool, T.R. Well Service, Bull Rogers, Halliburton and others. Rigged up drill collars and drilled to 244' with 7-5/8 bit and set cement plug. Next day tagged plug and pulled out. Pumped five cement plugs. Tagged cement at 57'. Set another plug and pulled out. Tagged cement at 40'. Pumped cement to surface. Rigged up Star Tool to drill plug. Reached 104'. Circulated hole. Tried to run 7" casing inside old 8-5/8 and cemented well bore. Casing stuck. Pulled out and circulated with 3" tubing and set another cement plug. Started drilling and lost circulation. Pumped 200 sax of class C cement, waited and drilled out. Lost circulation. Pumped another plug and waited. Started drilling and got circulation. Ran 7" casing inside old 8-5/8" and cemented well bore. 26# 7" set 114' and circulated cement to surface. Drilled to 255' and lost circulation, most likely now below old 8-5/8 and into the Rustler formation. Ran 114' of 5 1/2" 17# N-80 LT&C casing and set on 5 1/2" X 7" packer and filled annulus with packer fluid. Rigged up well head and injection lines. Put back on injection.

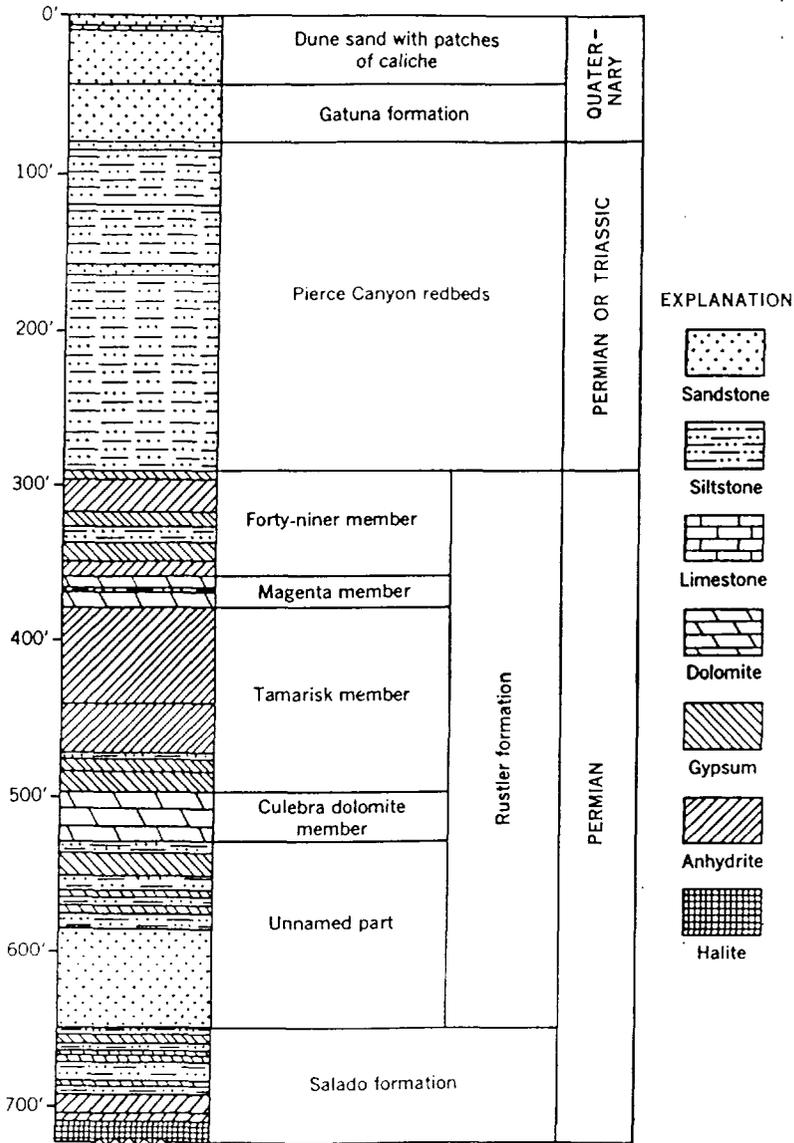
Work finished on about 3/7/91 at a cost of approximately \$90,000.

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

Signed: [Signature] TITLE President DATE 3/31/91

SURFACE GEOLOGY, NASH DRAW QUADRANGLE, N. MEX. B9

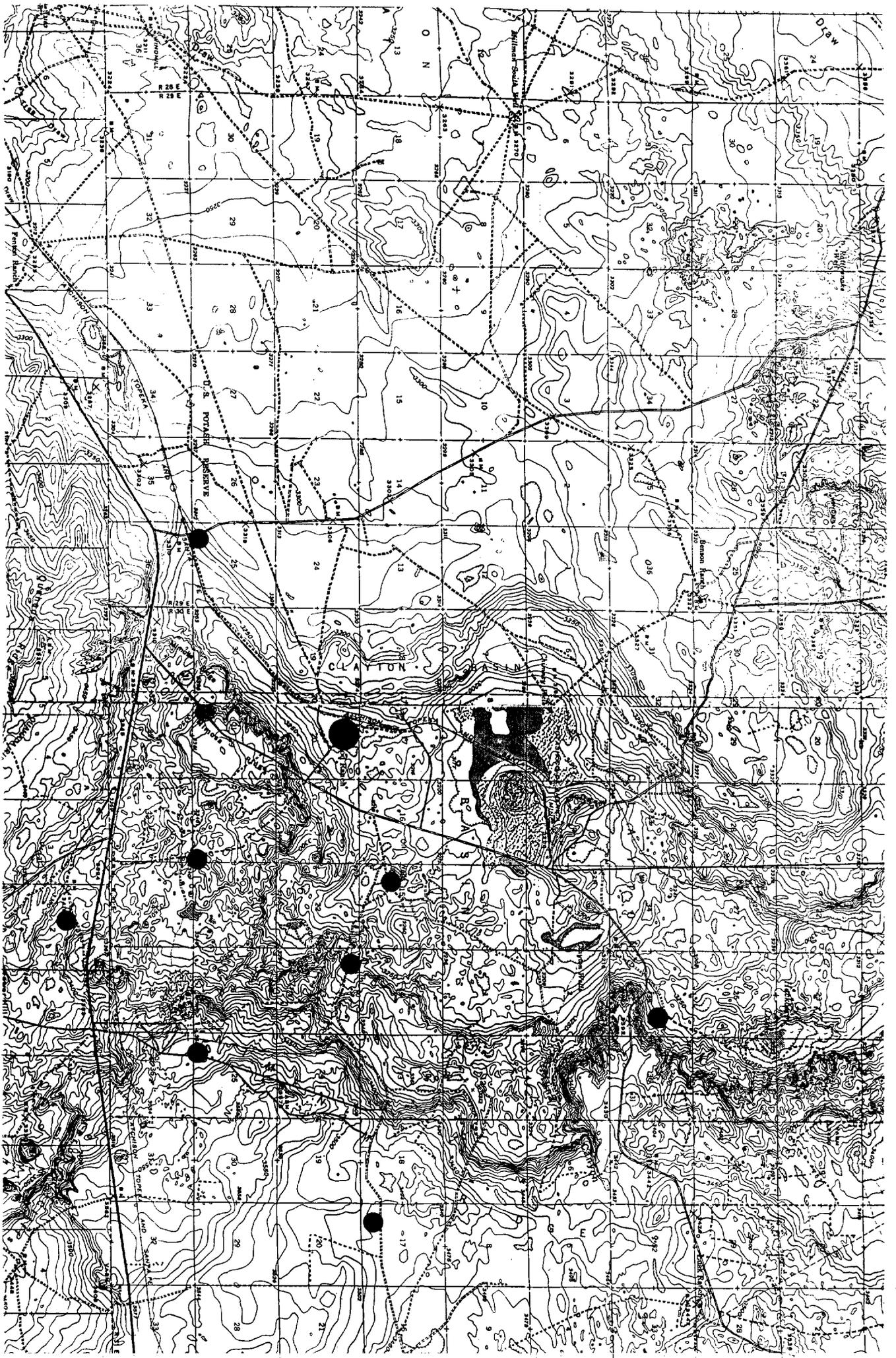
of the upper 725 feet of this core was used as a standard of reference for many of the stratigraphic units as they were mapped in the field. The core log is therefore reproduced below with minor modifications and shown graphically in figure 3.



Total depth drilled 1500 feet. Lowest formation found was the Salado formation.

FIGURE 3.—Lithologic log of core from AEC drill hole 1, sec. 34, T. 23 S., R. 30 E.

BEFORE EXAMINER CATANACH
 OIL CONSERVATION DIVISION
Smyler EXHIBIT NO. 3
 CASE NO. 10772



BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION

Snyder

CASE NO. _____

EXHIBIT NO. 4

TABLE 1. RECORDS OF WELLS IN EDDY COUNTY, NEW MEXICO. (Continued)

LOCATION NUMBER	OWNER OR NAME	DATE COMPLETED	TOPOGRAPHIC SITUATION	ALTITUDE ABOVE SEA LEVEL (feet)	DEPTH OF WELL (feet)	DIAMETER OF WELL (inches)	PRINCIPAL WATER-BEARING BED	
							CHARACTER OF MATERIAL	GEOLOGIC UNIT
20.28.36.140	Dinwitty	-	Scanlon draw	3,210	-	8	Redbeds, gypsum (?)	Rustler (?)
20.29.3.433	-	-	Shallow depression	3,300	-	6	do.	Dockum or Rustler
20.30.3.223	"Clayton Wells"	-	Clayton basin	3,175	-	-	Sand and silt	Quaternary
3.424	do.	-	do.	3,185	-	6 (?)	do.	do.
5.310	"Chimney Well"	-	do.	3,184	-	-	do.	do.
16.420	-	-	do.	3,220	-	6	Redbeds (?)	Dockum (?)
20.120	Wood Ranch	-	do.	3,210	90	6	do.	do.
20.130	do.	-	do.	3,210	60	7	do.	do.
33.440	-	-	Rolling Williams	3,380	240+	9	do.	do.
20.31.13.440	-	-	sink	3,450	-	-	do.	do.
15.130	-	-	do.	3,450	70 (?)	6	do.	do.
16.240	-	-	do.	3,460	110+	6	do.	do.
21.21.7.440	Armstrong	-	-	4,760	1,300	-	-	-
36.213	Frank McWilliams	1941	Draw	4,550	962	6	Limestone	San Andres (?)

See explanation at beginning of table.

WATER LEVEL

LOCATION NUMBER	WATER LEVEL		YIELD (g.p.m.)	METHOD OF LIFT	USE OF WATER	REMARKS
	BELOW LAND SURFACE (feet)	DATE OF MEASUREMENT				
20.28.36.140	19.1	Dec. 27, 1948	-	W	S	
20.29.3.433	91.9	Dec. 13, 1948	-	W	S	See analysis, Table 3.
20.30.3.223	6.0	Dec. 23, 1948	-	W	S	do.
3.424	8.5	do.	-	W	S	do.
5.310	3.5	do.	-	W	S	
16.420	29.9	May 1, 1950	-	W	S	See analysis, Table 3.
20.120	29.3	Dec. 22, 1948	5 E.	W	D	Depth to water measured while pumping.
20.130	45.3	do.	-	W	D	do. See analysis, Table 3.
33.440	203.8	Dec. 27, 1948	-	W	S	See analysis, Table 3.
20.31.13.440	45	Dec. 22, 1948	4 E.	W	S	do.
15.130	63.1	do.	-	W	S	
16.240	61.2	do.	1 E.	W	S	Depth to water measured while pumping. See analysis, Table 3.
21.21.7.440	1,100	-	-	W	D & S	
36.213	942	-	-	W	S	Driller: T. Hillyer.

See explanation at beginning of table.

BEFORE EXAMINER CATANACH

OIL CONSERVATION DIVISION

ryder EXHIBIT NO. 5

CASE NO. _____

TABLE 3. CHEMICAL ANALYSES OF WATER FROM WELLS IN EDDY COUNTY, NEW MEXICO
 LOCATION NUMBERS CORRESPOND TO THOSE IN TABLE 1
 Analyses by U. S. Geological Survey (Parts per million)

LOCATION NUMBER	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C.)	SILICA (SiO ₂)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM AND POTASSIUM (Na+K)	BICARBONATE (HCO ₃)	SULFATE (SO ₄)	CHLORIDE (Cl)	FLUORIDE (F)	NI-TRATE (NO ₃)	DISSOLVED SOLIDS	TOTAL HARDNESS AS CaCO ₃	PER-CENT SODIUM
16.21.38.200	1-11-50	948	19	109	56	17	190	336	24	-	5	656	502	7
16.31.2.122	12-9-48	818	-	78	53	38	158	139	82	-	30	478	330	-
17.24.24.210	1-11-50	571	24	75	27	6	277	59	5	-	19	351	298	4
17.27.11.110	12-21-48	2,880	-	616	118	25	185	1,780	32	-	31	2,690	2,020	-
17.28.14.220	12-6-48	6,130	-	660	181	398	150	1,810	815	-	8.2	3,920	2,310	-
17.31.84.000	do.	1,830	-	106	41	188	265	423	54	-	-	3,593	433	-
18.29.24.300	4-28-50	2,150	25	897	58	48	187	911	110	1.4	98.1	1,780	1,230	71
19.26.27.233	2-11-44	1,680	-	249	101	20	211	829	130	-	1.5	1,330	1,040	-
19.28.2.122	12-13-48	7,280	-	412	195	987	142	1,300	1,770	-	11	4,740	1,830	-
18.210	4-28-50	4,370	32	234	101	538	292	598	1,010	1.6	18	2,570	1,000	54
19.29.13.410a	1-20-50	501	32	84	15	7.1	219	278	8	-	18	850	271	6
20.220	12-21-48	3,540	-	628	104	171	111	1,820	240	-	11	3,050	1,990	-
19.31.28.330	do.	2,450	-	628	85	53	223	1,520	23	-	18	2,400	1,710	-
33.110b	5-1-50	1,190	23	189	56	56	219	398	56	9	21	855	569	18
20.26.17.380	do.	3,530	40	504	303	46	191	2,160	60	2.0	136	3,340	2,500	39
20.28.28.200	5-24-49	2,810	-	515	180	24	209	1,660	64	-	6.5	2,530	1,940	3
20.29.3.433	1-20-50	3,450	35	620	124	168	153	1,710	348	3.1	22	3,110	2,060	15
20.30.3.223	4-29-50	2,450	53	556	20	7.6	155	1,490	18	1.3	35	2,360	1,720	1
3.424	5-1-50	2,450	44	632	39	24	174	1,540	29	1.1	1.4	2,400	1,740	30
16.420	do.	3,290	71	648	105	90	160	1,670	255	2.9	10	2,930	2,050	9
20.130	do.	3,980	38	636	108	260	114	1,860	380	1.4	33	3,370	2,030	22
33.440	do.	3,560	36	680	68	177	165	1,590	388	1.1	24	3,050	1,980	16
20.31.13.440	do.	4,760	33	652	162	348	108	1,960	620	2.0	29	3,860	2,280	25
16.240	12-22-48	8,070	-	408	626	931	248	4,280	635	-	76	7,080	3,590	-
	do.	4,820	-	132	190	707	301	1,190	785	-	68	3,220	1,110	-

BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION

Snyder EXHIBIT NO. 6

CASE NO. _____