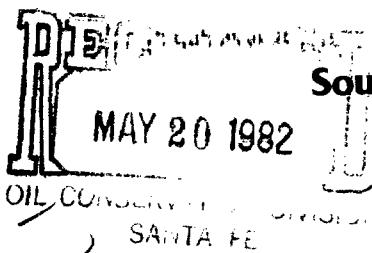


W7X-500



Southland Royalty Company



May 6, 1982

OK

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Attn: Mr. Dan Nutter

Dear Mr. Nutter:

Southland Royalty respectfully submits a revised procedure to convert the Dexter Federal "15" No. 1 from an inactive oil well to an active water injection well. The subject well is located 1650' FSL and 1650' FEL of Section 15, T-17-S, R-30-E, Eddy County, New Mexico.

Recently Southland Royalty applied for authority to convert the subject well to an injection well. Mr. Roy Johnson, of your office, requested that we take steps to insure that the Yates and Seven Rivers zones are protected from possible future communication during our waterflood operations in this well. As you will notice, our revised procedure includes steps to circulate cement behind the section of 4 1/2" casing which is presently unprotected by a cement sheath.

Please include the attached Form 9-331 in your review of our previous application to convert the subject well to an active water injection well. Should you require further information please do not hesitate to let us know.

Sincerely,

K. W. Harbin

K. W. Harbin
District Production Manager

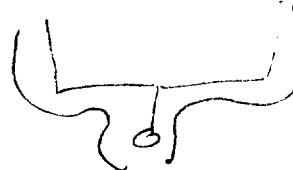
DDR/slh

Attachment

cc: Mr. W. A. Gressett
NMOCD, Artesia

Mr. James A. Gillham
Minerals Management Service, Roswell

Hobbs
D.S.



Southland Royalty Company

7-26-82

Parting pressure @ 1700 PSI
↳ will write letter stating
Facts.

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Attn: Mr. Joe Ramey

+
J. Sexton
C.A.

called on 6-25-82, call again
on July 6th will run step rate
7-12-82 - will run step rate

June 14, 1982
test, witness by O.C.D.,
Test will dictate psi.
order to be written w/
J. Sexton's approval.
P. J.

Gentlemen:

Southland Royalty Company respectfully requests authority to convert the Malmar Unit Well, Tr 1, #1 (13-1) from a producing oil well to an active water injection well. The subject well is located 660' FNL and 660' FEL of Section 13, A- T-17-S, R-32-E, Lea County, New Mexico. Conversion of this well will be a first step in our plans to develop the Malmar Unit on 20 acre spacing.

The proposed average daily injection rate into this closed system well is 275 barrels of fresh water per day. Proposed average injection pressure is 2,500 psi surface pressure, with a maximum of 2800 psi. Injection will be confined to the Grayburg and San Andres producing zones.

Yucca water company in Artesia operates 8 Ogallala aquifer fresh water supply wells in the area. A table is attached giving the location of those wells. Southland Royalty purchases fresh water for this waterflood from Yucca and a chemical analysis of this water is attached. There are two inactive fresh water wells (shown on area of review map) believed to be completed in the Ogallala, however, samples could not be obtained from these wells.

During recompletion, we plan to acidize with 500 gallons of 15% Hydrochloric acid and overflush before placing the well on injection. This application is consistent with operations being conducted on the Malmar Unit and administrative approval is requested.

W.M. Harbin
JUN 24 1982
SANTA FE

Sincerely,

K. W. Harbin

K. W. Harbin
District Production Manager

DMD/mc

Attachment

YUCCA WATER COMPANY
LEA COUNTY NEW MEXICO
WATER WELLS

<u>WELL NO.</u>	<u>STATUS</u>	<u>FILE NO.</u>	<u>LOCATION</u>
1	Inactive	L-3599	NW NW NW 28-16S-33E
3	Inactive	L-3598-X	NE NE NE 5-17S-33E
5	Active	L-3406	SE SW 30-16S-33E
6	Inactive	L-3405	NW NW NE 25-16S-32E
7	Active	L-3598	NW NW NW 6-17S-33E
8	Inactive	L-3599-X2	NW NW NW 34-16S-33E
9	Inactive	L-3599-X	SE SE SE 33-16S-33E
10	Inactive	L-3599-X3	NE NE NE 27-16S-33E

ERICKSON
JUN 24 1982
SANTA FE

- David Dale
Southland Royalty Company
11-81

APPLICATION FOR AUTHORIZATION TO INJECT

RECEIVED JUN 24 1982
DISP'D BY [Signature] Storage
OIL CONSERVATION DIVISION
SANTA FE

- I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes no
- II. Operator: Southland Royalty Company
Address: 1100 Wall Towers West Midland, Texas 79701
Contact party: Ken W. Harbin Phone: (915) 682-8641
- 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 R 2155.
- 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: Ken W. Harbin Title District Production Manager

Signature: [Signature] Date: _____

* 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.

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
- (1) Lease name; Well No.; location by Section, Township, and Range; and footings location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.



Southland Royalty Company

SOUTHWESTERN DISTRICT

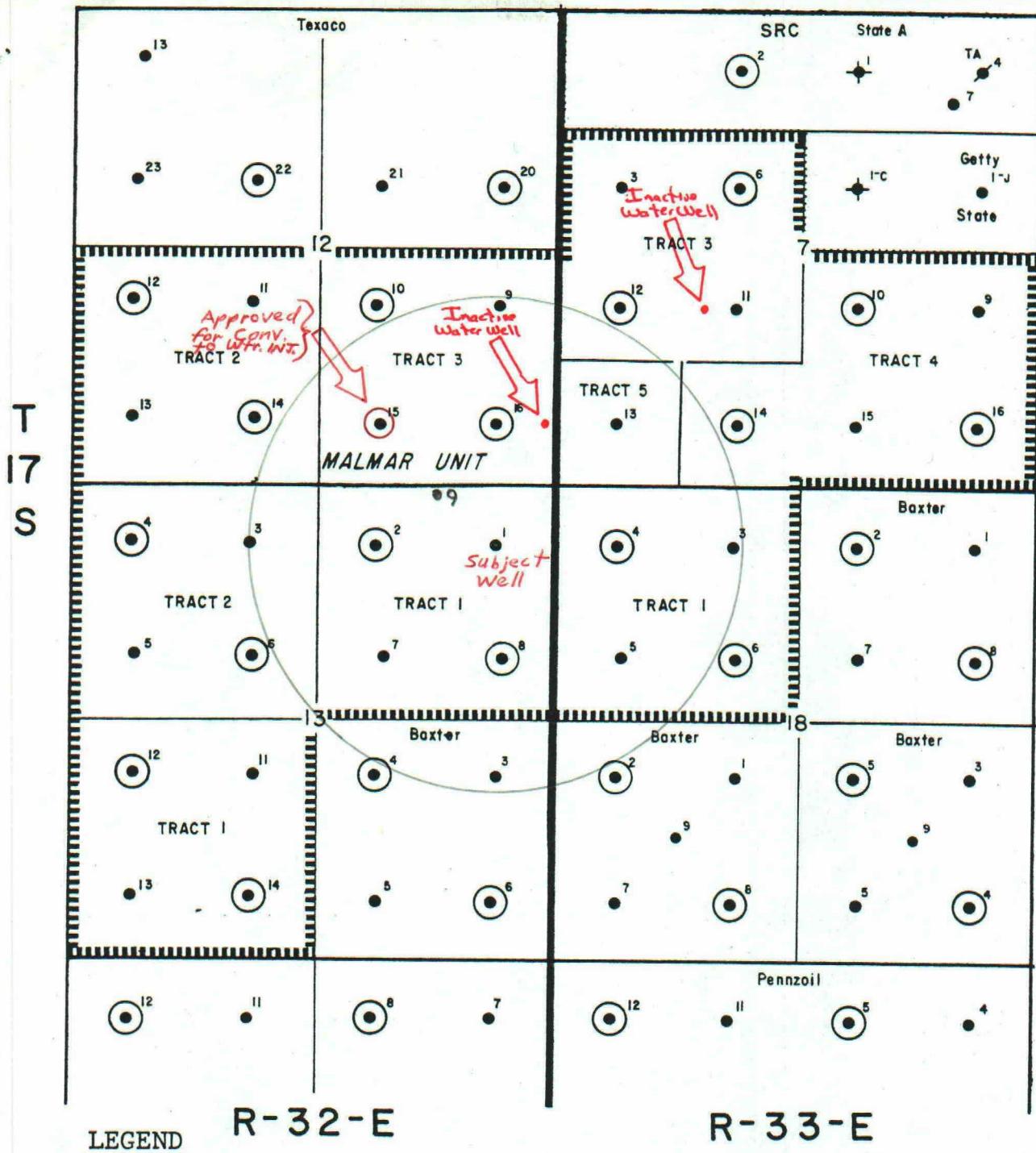
MIDLAND, TEXAS

MALMAR UNIT TR. 1 #1 (13-1)

LEA COUNTY, NEW MEXICO

AREA OF REVIEW

DMD 11-81



NOTE:

Waterflood was unitized under Commission order no. R-2155. All wells in the unit area are producing from the Maljamar Grayburg-San Andres Pool.



Southland Royalty Company

MIDLAND, TEXAS

**NORTHEAST MALJAMAR
LEA COUNTY, NEW MEXICO**

11/81
DMD

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPPLICATE
(Other instructions on reverse side)

MAY 20 1982

Form approved.
Budget Bureau No. 42-R1424.

LEASE DESIGNATION AND SERIAL NO.

LC-029020L

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Dexter Federal "15"

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Grayburg Jackson (SR-Q-GB-SA)

11. SEC., T., E., M., OR BLK. AND
SURVEY OR AREA

Sec. 15, T-17-S, R-30-E

12. COUNTY OR PARISH 13. STATE

Eddy

N.M.

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR

Southland Royalty Company

3. ADDRESS OF OPERATOR

1100 Wall Towers West, Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)

At surface

1650' FSL & 1650' FEL, Sec. 15, T-17-S, R-30-E

14. PERMIT NO.

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

3697' DF

16.

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREAT

MULTIPLE COMPLETE

FRACTURE TREATMENT

ALTERING CASING

SHOOT OR ACIDIZE

ABANDON*

SHOOTING OR ACIDIZING

ABANDONMENT*

REPAIR WELL

CHANGE PLANS

(Other) _____

(Other) Revised procedure to Convert to Injection (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

- MIRU CU, install BOP, RIH w/3 7/8" bit & csg scraper on 2 3/8" WS to PBTD (\pm 3511) circulate hole clean. POOH.
- RIH w/COBP on wireline and set @ 1665', test csg to 2000 psi.
- If no csg leak exists, perf w/4 way SQZ gun @ 1650'
- RIH w/cement retainer on WL and set @ 1630'.
- RIH w/WS and sting into retainer. Attempt to break circulation with brine water. Circulate cement (Use lite cmt w/18# salt per sk followed by Cl "C" neat w/2% CaCl₂). We must displace cement up to a minimum of 1125' (base of salt). Sting out of retainer and reverse out.
- RIH w/bit & DC on work string and drill out to PBTD, POOH. Run temp survey.
- Perf Premier 2860'-78' & Metex 2747-52', 1 JSPF, 25 holes, w/ 3 5/8" csg guns per Welex Radioactivity Log dated 4/8/60.
- RIH w/RBP & pkr on 2 3/8 WS. Set RBP @ \pm 2950', pkr @ \pm 2650'. Pressure up backside to 500 psi.
- B. J. Hughes acdz perfs @ 2747'-2878' w/2500 gal 15% NEHCl dropping 6 RCNB every 10 bbl of acid pumped. Flush w/18 bbl lease water. Swab back load. Retrieve RBP and POOH.
- RIH w/plastic coated Baker Mod A-2 Loc-Set pkr on 2 3/8" plastic coated tbg to + 2700'. Load backside w/30 bbls treated fresh water. Set pkr.
- RD CU. Place well on injection.

18. I hereby certify that the foregoing is true and correct

SIGNED



TITLE District Operations Engineer DATE 5/7/82

(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

DATE _____

WELLS IN AREA OF REVIEW - MALMAR UNIT TR. 1 #1 (13-1)

WELL NAME & NO.	TYPE	G-SA INTERVAL		CASING SIZE DEPTH		CEMENT SACKS TOC		DATE DRILLED	LOCATION	LEA COUNTY	TD/PBD
Malmar Unit Tr. 1 #2 (13-2)	WI	4161-4436'	8 5/8" 5 1/2"	307 4439	250 300	CIRC NA	11-12-59	1980'FEL,	660'FNL	13-17S-32E	4439
Malmar Unit Tr. 1 #3 (18-3)	OIL	4178-4535'	8 5/8" 5 1/2"	310 4581	250 300	NA NA	10-25-59	1980'FWL,	660'FNL	18-17S-33E	4581
Malmar Unit Tr. 1 #4 (18-4)	WI	4191-4367'	8 5/8" 5 1/2"	301 4466	250 300	NA NA	11-02-59	660'FNL,	660'FWL	18-17S-33E	4466
Malmar Unit Tr. 1 #5 (18-5)	OIL	4218-4376	8 5/8" 5 1/2"	313 4520	250 300	NA NA	11-12-59	1980'FNL,	660'FWL	18-17S-33E	4520
Malmar Unit Tr. 1 #7 (13-7)	OIL	4117-4371	8 5/8" 5 1/2"	325 4433	250 300	NA NA	9-09-59	1980'FEL,	1980'FNL	13-17S-32E	4433
Malmar Unit Tr. 1 #8 (13-8)	WI	4138-4172'	8 5/8" 5 1/2"	325 4454	250 300	NA NA	9-23-59	1980'FNL,	660'FEL	13-17S-32E	4454
Malmar Unit Tr. 1 #9 (13-9)	OIL	4243-4472'	8 5/8" 5 1/2"	978 4550	550 2615	CIRC CIRC	2-23-81	1340'FEL,	20'FNL	13-17S-32E	4550
Malmar Unit Tr. 2 #3 (13-3)	OIL	4110-4276'	8 5/8" 5 1/2"	302 4445	250 300	CIRC CIRC	12-18-59	1980'FWL,	660'FNL	13-17S-32E	4450/4423
Malmar Unit Tr. 3 #9 (12-9)	OIL	4167-4271	8 5/8" 5 1/2"	305 4496	250 300	CIRC CIRC	12-28-59	660'FEL,	1980'FSL	12-17S-32E	4520/4496
Malmar Unit Tr. 3 #15 (12-15)	OIL	4189-4488'	8 5/8" 5 1/2"	309 4755	250 300	NA NA	7-14-59	1980'FEL,	660'FSL	12-17-32	4776/4755

WELLS IN AREA OF REVIEW - MALMAR UNIT TR. 1 #1 (13-1) (cont.)

<u>WELL NAME & NO.</u>	<u>TYPE</u>	<u>G-SA INTERVAL</u>	<u>CASING SIZE</u>	<u>CEMENT DEPTH</u>	<u>SACKS TOC</u>	<u>DATE DRILLED</u>	<u>LOCATION</u>
Malmar Unit Tr. 3 #16 (12-16)	WI	4129-4433'	8 5/8" 5 1/2"	NA 4693	NA NA	6-59	660'FSL, 660'
Malmar Unit Tr. 5 #13 (7-13)	OIL	4139-4488'	8 5/8" 5 1/2"	306 4527	275 200	CIRC NA	12-03-59
Murphy H. Baxter State 13 #3	OIL	4068-4429'	8 5/8" 5 1/2"	171 4415	150 150	NA NA	5-05-59

SRC
11-81
DMD

SHEET OF DRILL-STEM AND SPECIAL TEST

Malmer Unit
Tr 1 #1 (13-1)

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto

TOOLS USED

Rotary tools were used from.....feet to.....feet, and from.....feet to.....feet.
 Cable tools were used from.....feet to.....feet, and from.....feet to.....feet.

PRODUCTION

Put to Producing.....19.....

10-26-59

OIL WELL: The production during the first 24 hours was.....50.....barrels of liquid of which.....100.....% was
 was oil;0.....% was emulsion;0.....% water; and.....0.....% was sediment. A.P.I.
 Gravity.....55.....

GAS WELL: The production during the first 24 hours was.....M.C.F. plus.....barrels of
 liquid Hydrocarbon. Shut in Pressure.....lbs.

none

Length of Time Shut in.....

PLEASE INDICATE BELOW FORMATION TOPS (IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE):

	Southeastern New Mexico	Northwestern New Mexico
T. Anhy.	1,159	T. Devonian.....
T. Salt	1,243	T. Kirtland-Fruitland.....
B. Salt	2,427	T. Farmington.....
T. Yates	3,453	T. Pictured Cliffs.....
T. 7 Rivers	not picked	T. Menefee.....
T. Queen	3,499	T. Point Lookout.....
T. Grayburg	3,998	T. Mancos.....
T. San Andres	4,161	T. Dakota.....
T. Glorieta		T. Morrison.....
T. Drinkard		T. Penn.....
T. Tubbs		T.
T. Abo		T.
T. Penn		T.
T. Miss		T.

FORMATION RECORD

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	248	248	Sand & caliche				
248	1159	=911	Red Bed				
1159	1243	84	Anhydrite				
1243	2427	1148	Salt				
2427	3453	1026	Sand & anhydrite				
3453	3998	544	Sand				
3998	4455	457	Dolomite				

ATTACH SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

October 27, 1959

Company or Operator.....
Santiago Oil & Gas Company(Date)
Address.....
P. O. Box 1663, Midland, Texas

Name.....

Position or Title.....
Secretary-Treasurer

SIMULTANEOUS

Radiation Log

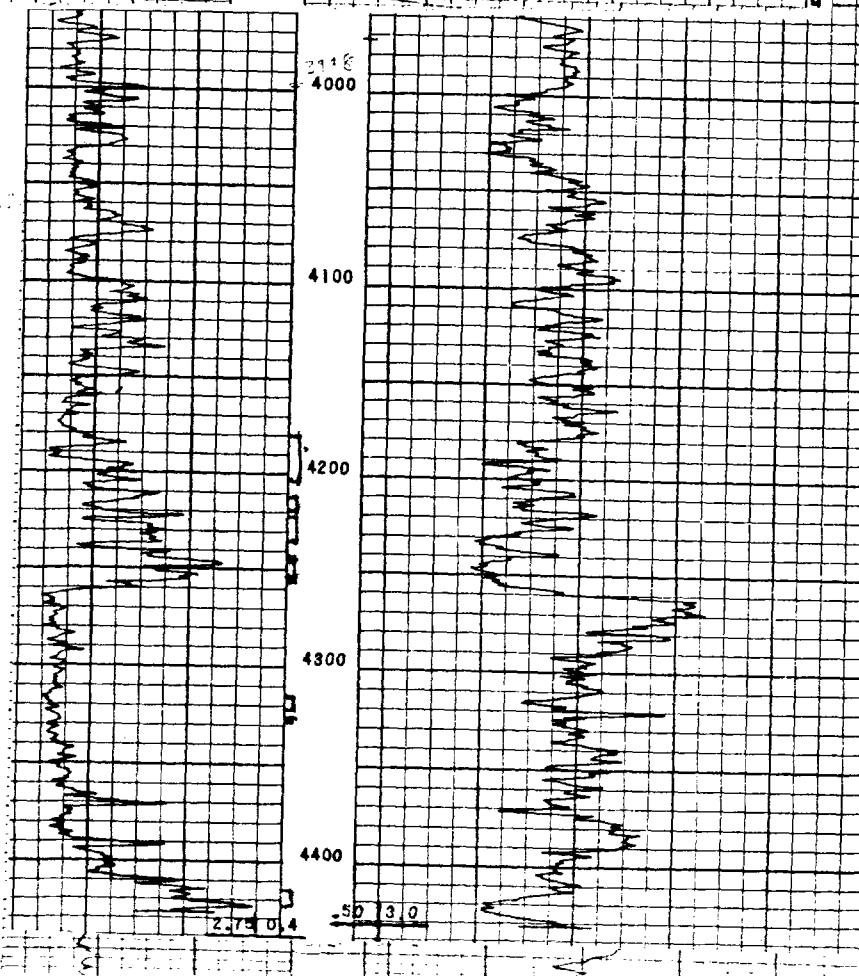
Malmer

Unit

Tr 1 #1

(13-1)

WELL	COMPANY	SANTIAGO OIL & GAS COMPANY		
H08BS	WELL	FIELDER TRUST # 11		
GR-34	FIELD	ROBERTS		
	COUNTY	LEA NEW MEXICO		
	STATE	660' FML & 660' FEL. SEC. 13. TWP. 17-S, RANGE 32-E		
	LOG MEAS. FROM	9' AAV.G.I. ELEV. 4160.4		
	WELL. MEAS. FROM	" " " ELEV.		
	PERMANENT DATUM GROUND LEVEL			ELEV. 4160.4
CASING RECORD			BORE HOLE RECORD	
WELL	FIELD	COUNTY	STATE	BIT SIZE -"
	ROBERTS	LEA	NEW MEXICO	FROM TO
				5 1/2" 7 7/8"
OF LOG				
GAMMA RAY-NEUTRON				
ONE				
10-21-59				
DEPTH - DRILLER				
4431				
DEPTH - P.G.C.				
4432				
IN HOLE				
OIL				
LEVEL				
TEMPERATURE °F.				
CURRENT O.D. AND NO.				
3 5/8" #249				
CURRENT TYPE				
TA-PH. 125				
ION SOURCE TYPE				
RB-600				
FOR CALIB. STD. - GR				
3.0				
- K				
200				
200				
100 SWU				
200				
READ BY				
A. FUQUA				
CALC. BY				
CALC. INTERVAL RECORD				
GAMMA-RAY NEUTRON				
FROM	TO	SPEED	SENSITIVITY	T.C.
PT.	PT.	'/MIN.	REC'D/R SCALE'/100MU	SEC.
4430	SLIDE 50	10	0.4	2
4431	4000	15	"	4
"	"	"	"	"
SENSITIVITY SCALE'/100MU				
REC'D/R SCALE'/100MU				
REMARKS INSTRUMENT RUN FREE				



DMD

UNICHEM INTERNATIONAL

601 NORTH LEECH

P.O. BOX 1499

HOEBS, NEW MEXICO 88240

COMPANY : SOUTHLAND ROYALTY
 DATE : 10-30-81
 FIELD, LEASE&WELL : MAL MAR FRESH
 SAMPLING POINT:
 DATE SAMPLED : 10-26-81

Purchased Fresh Water
 Used for Injection on the Malmar Unit
 Produced from Yucca Water Wells

SPECIFIC GRAVITY = 1
 TOTAL DISSOLVED SOLIDS = 261
 PH = 7.7

	ME / L	MG / L
CATIONS		
CALCIUM	(CA) +2	2.8
MAGNESIUM	(MG) +2	.6
SODIUM	(NA), CALC.	.29

ANIONS

BICARBONATE	(HCO ₃) -1	2.1	131.
CARBONATE	(CO ₃) -2	0	0
HYDROXIDE	(OH) -1	0	0
SULFATE	(SO ₄) -2	.41	20
CHLORIDES	(CL) -1	1.1	39.9

DISSOLVED GASES

CARBON DIOXIDE	(CO ₂)	NOT RUN
HYDROGEN SULFIDE	(H ₂ S)	NOT RUN
OXYGEN	(O ₂)	NOT RUN

IRON(TOTAL)	(FE)	
BARIUM	(BA) +2	NOT RUN
STRONTIUM	(SR) +2	NOT RUN

SCALING INDEX	TEMP
CARBONATE INDEX	30C
CALCIUM CARBONATE SCALING	86F
SULFATE INDEX	2.86
CALCIUM SULFATE SCALING	LIKELY
	-44.
	UNLIKELY

UNICHEM INTERNATIONAL

601 NORTH LEECH

P.O. BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : SOUTHLAND ROYALTY
 DATE : 11-3-81
 FIELD, LEASE&WELL : MAL MAR PRODUCED
 SAMPLING POINT:
 DATE SAMPLED : 10-26-81

Reinjected Produced Water
 Malmar Unit

SPECIFIC GRAVITY = 1.038
 TOTAL DISSOLVED SOLIDS = 57303
 PH = 7.34

	ME/L	MG/L	
CATIONS			
CALCIUM	(CA)+2	220	4408.
MAGNESIUM	(MG)+2	130	1580.
SODIUM	(NA), CA+2	649.	14940.
ANIONS			
BICARBONATE	(HCO3)-1	4.2	256.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	65.0	3125
CHLORIDES	(CL)-1	930.	32992.
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		3.7
BARIUM	(BA)+2	NOT RUN	
STRONTIUM	(SR)+2	NOT RUN	

SCALING INDEX	TEMP
CARBONATE INDEX	30C
CALCIUM CARBONATE SCALING	86F
SULFATE INDEX	697
CALCIUM SULFATE SCALING	LIKELY
	353
	LIKELY

SOUTHLAND ROYALTY COMPANY

Well History Summary Sheet

Operator Southland Royalty Well Name & # Malmar Unit Tr. 1 #1 (13-1) Lease # 0-024295
 SRC District Midland Made By David Dale Date 2/17/81
 Location 660' FNL & FEL, Sec. 13, T-17-S, R-32-E, Lea Co., New Mexico
 Spud Date 9/26/59 Compl. Date 10/29/59 TD 4455' PBTD 4432'
 Type Well: Oil X Gas Other Field Maljamar (GB-SA)
 IP 50 BOPD 35° GR 18/64" chk GOR 357-1 Zone Grayburg-San Andres
 Perfs.: 4180-4203, 11-18, 31-34, 46-48, 52-55, 4315-21, 35-38, 4415- Total Holes 118
 23'. 2 JSFP Stimulation A/2700 F/41,000 Ref oil & 127,000# sd

Cumul. Oil _____ MCF _____ Water _____

Recent Test _____ Lift Equipment _____

Misc. _____

Drive or Conductor
 " @
 Surface: 8 5/8"
 24 # Gr. J-55
 @ 302 Cmt. w/
 250 Sx. TOC Surf
 Hole Size 12 1/4"
 Max Mud Wt. Unknown #/G

Intermediate:
 ", #
 Gr @
 Cmt w/ Sx.
 TOC @ Hole
 Size ", Max Mud
 Wt. #/G

Liner: "
 From ' To
 ", #
 Gr., Cmt. w/
 Sx. TOC @
 ' Hole Size
 ", Max Mud
 Wt. #/G

Production: 5 1/2"
 14 #, J-55 Gr.
 @ 4451' Cmt. w/
 300 Sx. TOC @
 2993' Hole Size
 7 7/8" Mx Mud Wt.
 Unknown #/G
 TD 4455'

WELL HISTORY

Tops	Anhy	1159'
Salt T		1243'
Salt B		2427'
Yates		2455'
7R		Not Picked
Queen		3449'
Grayburg		3998'
San Andres		4161'

Core 1 4108-81-73' lime & sandy shale. No shows.
 2 4181-4250-69' sandy shale & dolomite. shows
 throughout.
 3 4250-4322-72' anhy & dolo. Shows thruout.
 4 4322-94-72' dolo. Top 8' frac & show.
 5 4395-4440-45' dolo, show 4410-20.

10-27-59 A/2700 gal F/41000 gal Ref oil.
 127000 # sd MP 6800 MP 4700 AIR 16 BPM.

6-74 Set CIBP @ 4290'. Cmt to 4260'.
 Reperforate 4228-34, 4242-52, 4SPF, 64 holes.
 A/1000 F/40000 gal & 40000# sd MP 5750 MP 5000
 AIP 5400 AIR 13.5 ISIP 3300 10 min 2900.

Tubing . #. Gr. @
 Tubing . #. Gr. @
 Packer @

Crater
 4180
 4250
 4260
 4290
 4315
 4338
 4455
 4473
 4432
 4455

APPENDIX

1183

Southland Royalty Company Malmar Unit
WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE
Tr #1 (13-1) 660 FNL & FEL 13 17S 32E

Schematic

Tabular Data

Surface Casing

Size 8 5/8 " Cemented with 250 sx.

TOC Surface feet determined by NA

Hole size 12 1/4

Intermediate Casing

Size _____ " Cemented with _____ sx.

TOC _____ feet determined by

Hole size

Long string

Size 5½" Cemented with 300 sx.

TOC 2993 feet determined by Temp Survey

Hole size 7 7/8

Total depth 4455

Injection interval

4180 feet to 4423
(perforated or open-hole, indicate which)

Tubing size 2 3/8 lined with Plastic Applicators PA-500 set in a
Baker Model AD-1 packer at + 4100 feet.
(brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Grayburg/ San Andres
 2. Name of Field or Pool (if applicable) Maljamar (GB-SA)
 3. Is this a new well drilled for injection? Yes No
If no, for what purpose was the well originally drilled? Oil
 4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) No
 5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Maljamar Wolfcamp 10,300

AFFIDAVIT OF PUBLICATION

State of New Mexico,

County of Lea.

1, _____

ROBERT L. SUMMERS

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 in a supplement thereof for a period

of _____

ONE weeks.

Beginning with the issue dated

DECEMBER 10, 1981

and ending with the issue dated

DECEMBER 10, 1981

Robert L. Summers

Publisher.

Sworn and subscribed to before

me this 10TH day of

DECEMBER, 1981

Lynette Negele

Notary Public.

My Commission expires _____

March 29, 1986

(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 10, 1981**

**CONVERT WELL TO
WATER INJECTION**

Southland Royalty Company, 1100 Wall Towers West, Midland, Texas, (915) 632-8641, Mr. Ken W. Harbin, District Production Manager, intends for the purpose of secondary recovery, to convert from producing oil well to water injection well its Malmar Unit Tract 1 #1 (13-1). Location is 660' FNL and 660' FEL of Section 13, T-17-S, R-32-E, Lea County, New Mexico. Total depth is 4455' in the Grayburg-San Andres Formation. Operator plans to inject fresh water at a rate of approximately 275 barrels per day with surface pressure of about 2500 psi. Any objections to this intent or requests for hearing must be filed with the New Mexico Oil Conservation Division, P.O. Box 2000, Santa Fe, New Mexico, ~~within 15 days of this publication~~.

MALMAR UNIT TR 1 #1 (13-1)

LANDOWNER

OFFSET OPERATOR

PS Form 3811, Jan. 1979

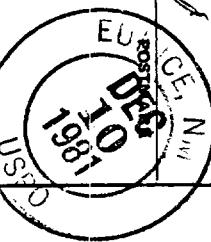
<input checked="" type="radio"/> SENDER: Complete items 1, 2, and 3. Add your address in the "RETURN TO" space on reverse.	
1. The following service is requested (check one.)	
<input checked="" type="checkbox"/> Show to whom and date delivered..... <input type="checkbox"/> Show to whom, date and address of delivery.... RESTRICED DELIVERY	
<input type="checkbox"/> Show to whom and date delivered..... <input type="checkbox"/> RESTRICTED DELIVERY. Show to whom, date, and address of delivery. \$	
(CONSULT POSTMASTER FOR FEES)	

PS Form 3811, Jan. 1979

2. ARTICLE ADDRESSED TO: Dallas McCaslin - Allotment P.O. Box 206	
3. ARTICLE DESCRIPTION: REGISTERED NO. CERTIFIED NO. INSURED NO.	
0544343	
(Always obtain signature of addressee or agent)	

I have received the article described above.
SIGNATURE Addressee Authorized agent

4. DATE OF DELIVERY
1/2-11-81



PS Form 3811, Jan. 1979

4. DATE OF DELIVERY 1/2-11-81	
5. ADDRESS (Complete only if requested)	
6. UNABLE TO DELIVER BECAUSE:	
CLERKS INITIALS <i>MR</i>	

★ GPO : 1978-288-848

PS Form 3811, Jan. 1979

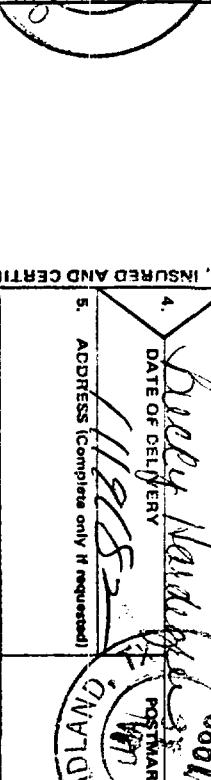
<input checked="" type="radio"/> SENDER: Complete items 1, 2, and 3. Add your address in the "RETURN TO" space on reverse.	
1. The following service is requested (check one.)	
<input checked="" type="checkbox"/> Show to whom and date delivered..... <input type="checkbox"/> Show to whom, date and address of delivery.... <input type="checkbox"/> RESTRICTED DELIVERY	
<input type="checkbox"/> Show to whom and date delivered..... <input type="checkbox"/> RESTRICTED DELIVERY. Show to whom, date, and address of delivery. \$	
(CONSULT POSTMASTER FOR FEES)	

PS Form 3811, Jan. 1979

2. ARTICLE ADDRESSED TO: Murphy H. Baxter Bldg. C THE SOUTHWEST	
3. ARTICLE DESCRIPTION: REGISTERED NO. CERTIFIED NO. INSURED NO.	
124-0544-340	
(Always obtain signature of addressee or agent)	

I have received the article described above.
SIGNATURE Addressee Authorized agent

4. DATE OF DELIVERY
1/2-11-81



PS Form 3811, Jan. 1979

4. DATE OF DELIVERY 1/2-11-81	
5. ADDRESS (Complete only if requested)	
6. UNABLE TO DELIVER BECAUSE:	
CLERKS INITIALS <i>MR</i>	

★ GPO : 1978-288-848

Southland Royalty Company
 Malmar Unit Tr.#3 Well No. 15
 Step-Rate Test
 Tabulation of Pressure & Time

Test Conducted By:
 D. & R. Well Testing Company

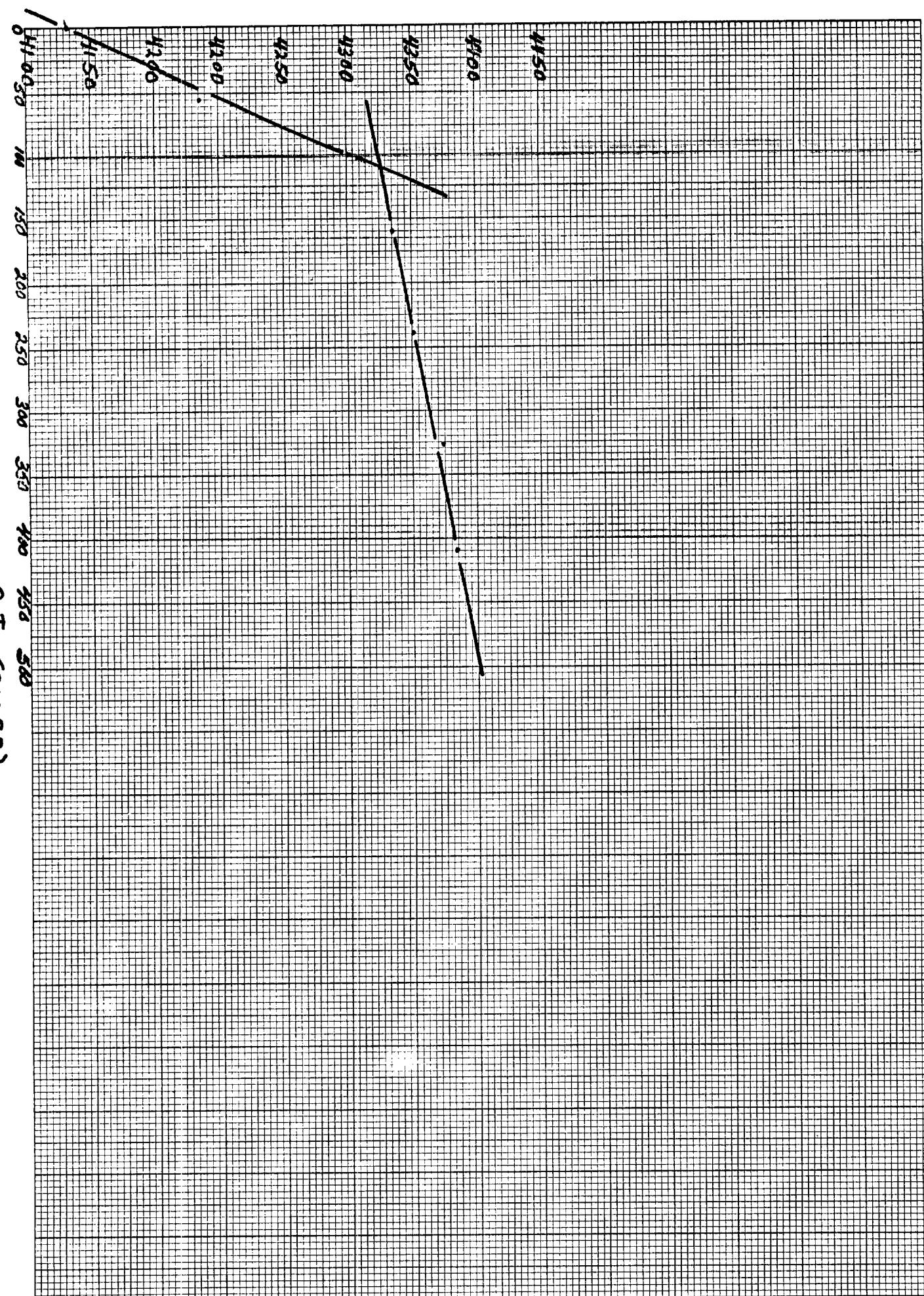
Test Date: July 15, 1982
 Test Depth: 4337 Feet
 Clock: 0-12 Hour
 Element: 0-6500 P.S.I.
 Operator: Don Tyson & Leroy Thompson

Gradient .454

<u>Cum. Hrs.& Min.</u>	<u>W.H.D.W. Pres.</u>	<u>Rate B.W.P.D.</u>	<u>P.S.I.G. Center Perfs.</u>
00 Hrs. 00 Min.	474	S.I.	2283 Guage @ 3937'
00 20	474	S.I.	2283 Start Pump
00 25	665	514	2472 Rate 1
00 30	735	512	2586
00 35	815	508	2671 End Rate 1
00 40	919	604	2788 Rate 2
00 45	999	608	2866
00 50	1077	609	2965 End Rate 2
00 55	1130	678	3016 Rate 3
01 00	1165	679	3081
01 05	1215	678	3146 End Rate 3
01 10	1318	760	3221 Rate 4
01 15	1365	759	3290
01 20	1433	760	3349 End Rate 4
01 25	1510	840	3421 Rate 5
01 30	1560	829	3476
01 35	1609	828	3522 End Rate 5
01 40	1665	909	3561 Rate 6
01 45	1723	924	3620
01 50	1760	926	3659 End Rate 6
01 55	1812	1011	3698 Rate 7
02 00	1847	1010	3747
02 05	1885	1012	3783 End Rate 7
02 10	1925	1096	3829 Rate 8
02 15	1944	1093	3862
02 20	1975	1095	3885 End Rate 8
02 25	2020	1179	3917 Rate 9
02 30	2050	1175	3947
02 35	2070	1180	3970 End Rate 9

End Test.

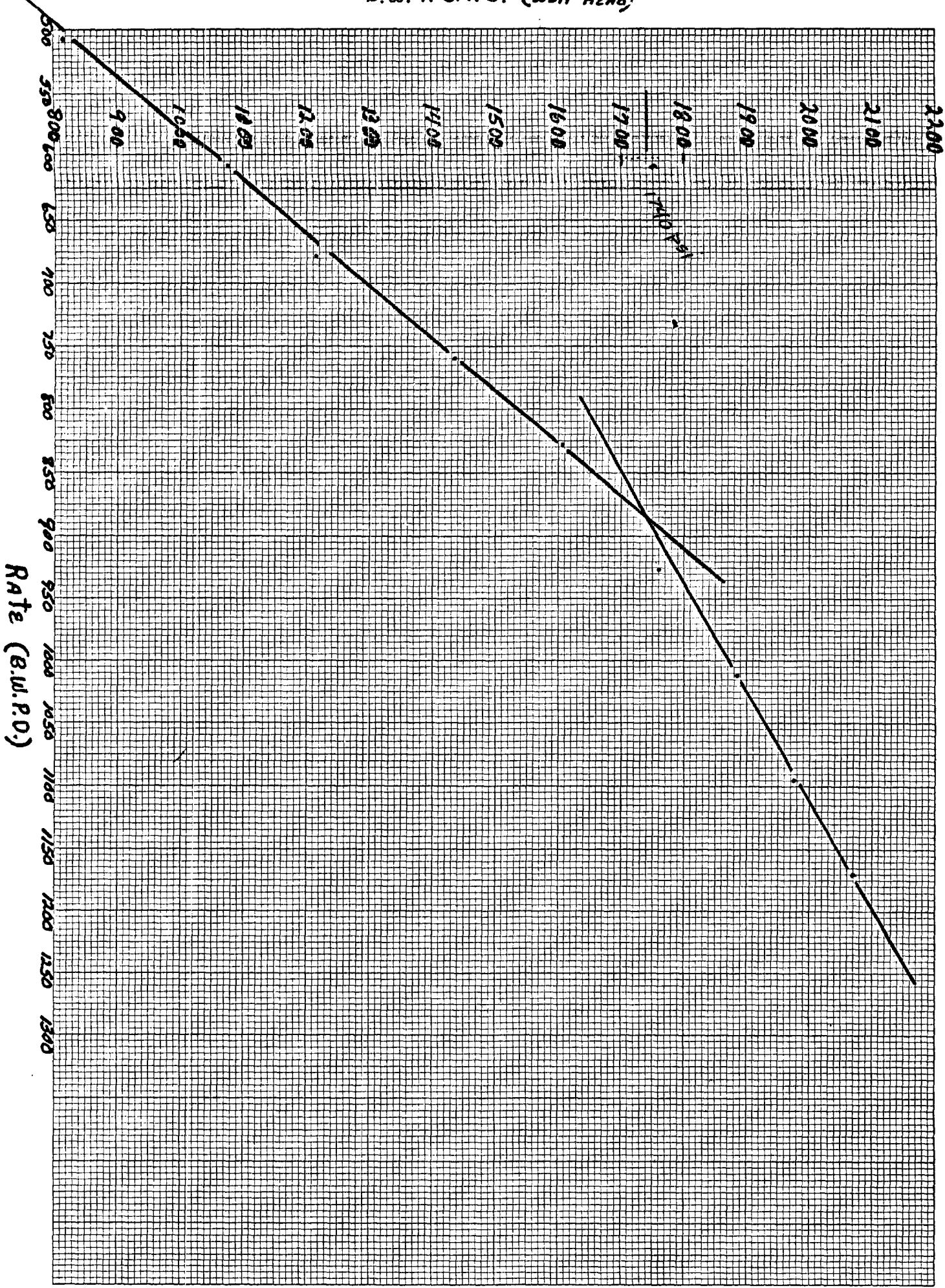
P.S.I.O. & PERIS.



K+E
10 X 10 TO $\frac{1}{4}$ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

46 1323

D.W. P. S. I. G. (Well Head)



Southland Royalty Company
 Dale H. Parke "C" Well No. 3-Y
 Step-Rate Test
 Tabulation of Pressure & Time

Test Conducted By:
 D. & R. Well Testing

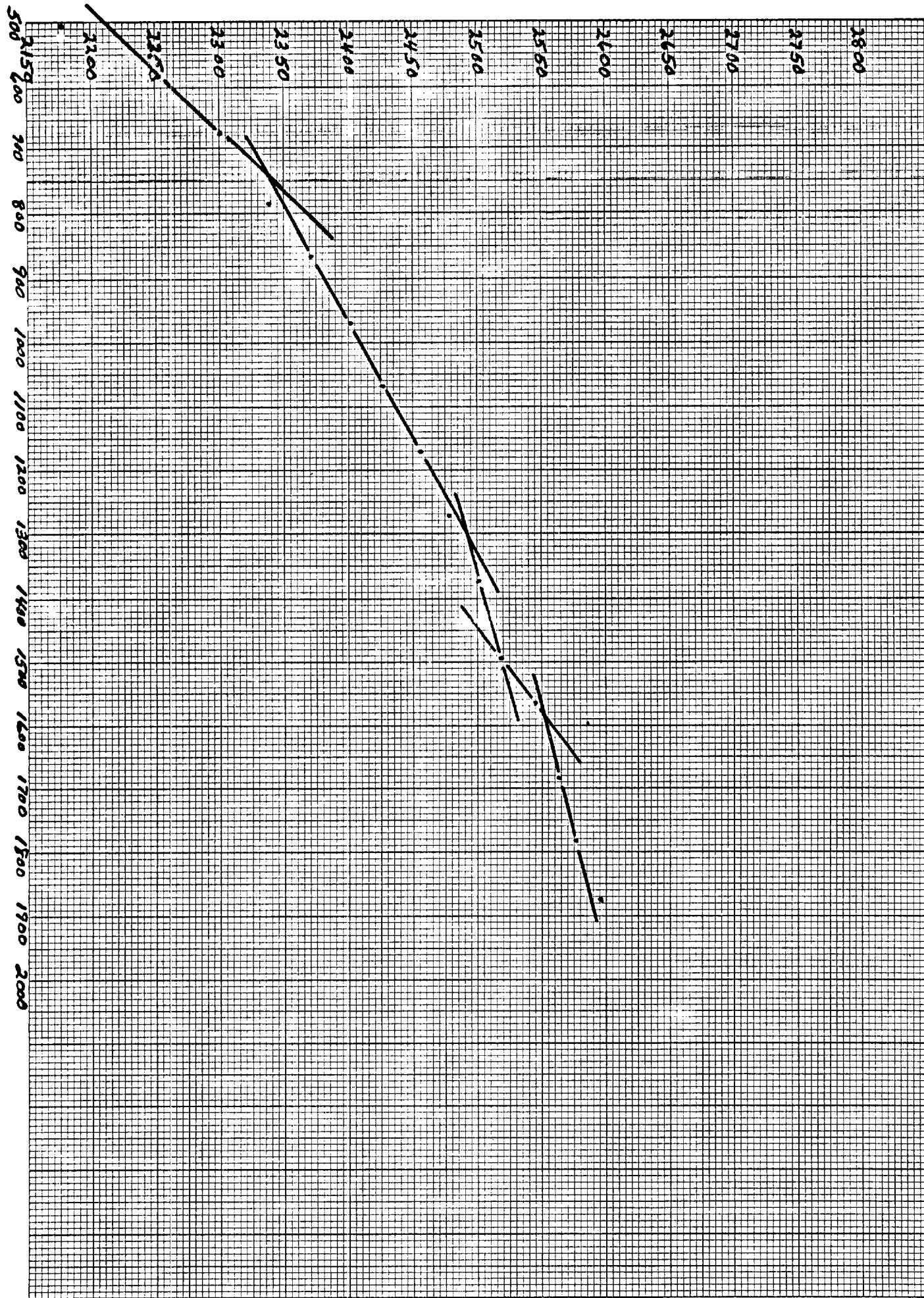
Test Date: July 14, 1982
 Test Depth: 3158
 Clock: 0-12 Hour
 Element: 0-6500 P.S.I.
 Operator: Don Tyson & Leroy Thompson

<u>Cum. Hrs. & Min.</u>	<u>W.H.D.W. Pres.</u>	<u>Rate B.W.P.D.</u>	<u>P.S.I.G. Center Perfs.</u>
00 Hrs. 00 Min.	455	S.I.	2008 Gauge @ 2758'
00 20	455	S.I.	2008 Start Pump
00 25	610	514	2067 Rate 1
00 30	672	509	2099
00 35	705	508	2138
00 40	705	508	2177 End Rate 1
00 45	757	598	2190 Rate 2
00 50	775	587	2225
00 55	800	586	2251 End Rate 2
01 00	825	656	2268 Rate 3
01 05	840	658	2284
01 10	860	672	2300 End Rate 3
01 15	885	780	2317 Rate 4
01 20	899	786	2330
01 25	905	787	2339 End Rate 4
01 30	930	878	2352 Rate 5
01 35	935	872	2359
01 40	942	865	2372 End Rate 5
01 45	965	970	2382 Rate 6
01 50	971	984	2388
01 55	980	970	2401 End Rate 6
02 00	990	1072	2418 Rate 7
02 05	1010	1071	2424
02 10	1015	1070	2427 End Rate 7
02 15	1015	1170	2434 Rate 8
02 20	1020	1172	2434
02 25	1030	1171	2457 End Rate 8
02 30	1060	1265	2463 Rate 9
02 35	1068	1268	2470
02 40	1069	1272	2479 End Rate 9

<u>Cum. Hrs. & Min.</u>	<u>W.H.D.W. Pres.</u>	<u>Rate B.W.P.D.</u>	<u>P.S.I.G. Center Perfs.</u>
02 Hrs. 45 Min.	1080	1377	2486 Rate 10
02 50	1090	1380	2489
02 55	1099	1372	2502 End Rate 10
03 00	1104	1472	2509 Rate 11
03 05	1109	1495	2512
03 10	1114	1495	2519 End Rate 11
03 15	1125	1565	2525 Rate 12
03 20	1135	1568	2532
03 25	1142	1568	2545 End Rate 12
03 30	1149	1669	2551 Rate 13
03 35	1162	1668	2558
03 40	1165	1685	2564 End Rate 13
03 45	1177	1766	2567 Rate 14
03 50	1187	1774	2571
03 55	1192	1782	2577 End Rate 14
04 00	1205	1866	2584 Rate 15
04 05	1209	1868	2590
04 10	1213	1873	2596 End Rate 15
			End Test.
04 20	1221	1882	2606 Gauge Out
			End Test.

P.D. I.S. C.I. Plot.

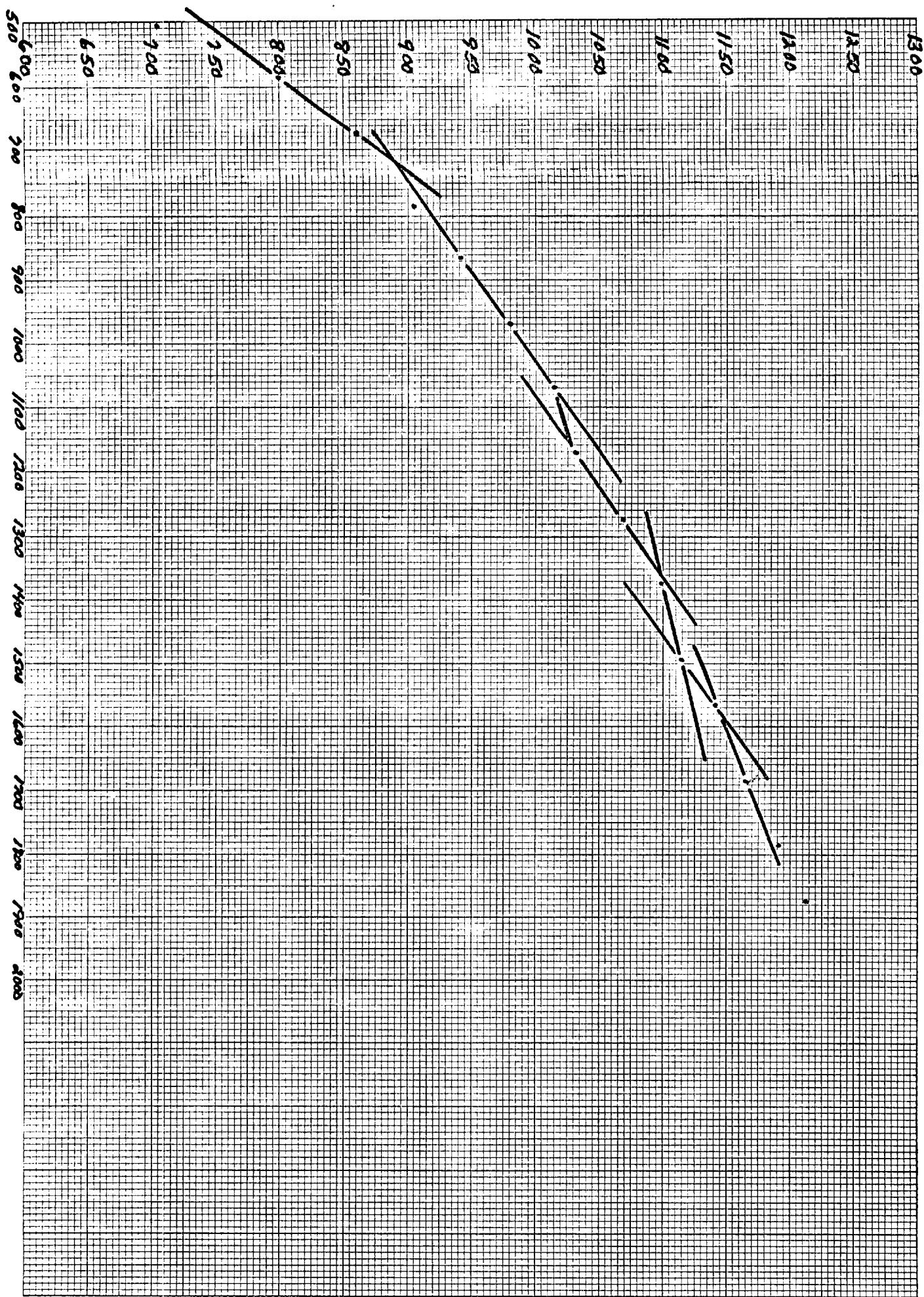
RATE (G.W.P.D.)



K&E 10 X 10 TO $\frac{1}{4}$ INCH 7 X 10 INCHES
KUFEL & ESSER CO. MADE IN U.S.A.

46 1323

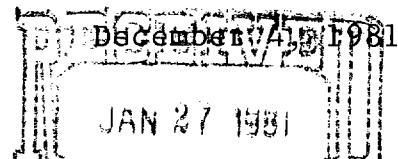
D.W. P.S.I.G. (WELL HEAD)



Grayburg - Jackson Well



Southland Royalty Company



OIL CONSERVATION DIVISION
SANTA FE

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Attn: Mr. Dan Nutter

Gentlemen:

Southland Royalty respectfully requests authority to convert the Dexter Federal Well #1 from an inactive oil well to an active water injection well. The subject well is located 1650'FSL and 1650'FEL of Section 15, T-17-S, R-30-E, Eddy County, New Mexico. Conversion of this well will aid in the development of our Parke Area Waterflood on 20 acre spacing.

The proposed average daily injection rate into this closed system well is 275 barrels of fresh water per day. Proposed average injection pressure is 1,900 psi surface pressure with a maximum of 2,100 psi. Injection will be confined to the Grayburg and San Andres producing zones. There are no known underground sources of drinking water in the area of this application.

During recompletion, we plan to perforate additional Grayburg pay from 2747 to 2878 feet. The new perforations will be acidized with 2,500 gallons of 15% hydrochloric acid before placing the well on injection.

This application is consistent with operations being conducted on our Parke Area Waterflood and administrative approval is requested.

Sincerely,

K. W. Harbin
District Production Manager

DMD/mc

Attachment

SOUTHLAND ROYALTY COMPANY

Well History Summary Sheet

Operator Southland Royalty Well Name & # Dexter Federal No. 1 Lease # 0-024276-09
 SPC District Midland Made By David Dale Date 2/9/81
 Location 1650' FEL & FSL, Sec. 15, T-17-S, R-30-E, Eddy Co., New Mexico
 Spud Date Unknown Compl. Date Unknown TD 3543' PBTD 3511'
 Type Well: Oil X Gas Other Field Grayburg Jackson (SR-Q-G-SA)
 IP Unknown Zone San Andres
 Perfs.: 3016-26, 3297-01, 3322-31, 3336-52, 3392-98, 3423-26, 3452-57, 3468-79 Total Holes 223
 Stimulation 3016-26 A/500 F/20Mgal & 35M# 3297-3479 Frac 25M#
 Cumul Oil Unknown MCF Vented Water Unknown
 Recent Test Temporarily Abandoned Lift Equipment None
 Misc. DF3697 Tbg Head - Hinderliter 4½ x 2

Drive or Conductor

 @

Surface: 8 1/4"

unk # Gr. unk

@ 541 Cmt. w/ 150

Hole Size unk Sx. TOC unk

541 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk

1650 Max Mud Wt. unk #/G

1650 Hole Size unk Sx. TOC unk