

SWD ~~8711700~~

12/21/00  
793

**PERMIAN RESOURCES**  
INCORPORATED

JUL 27 2000

#12490

July 21, 2000

State of New Mexico  
Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, NM 87501

RE: Application for Authorization to Inject  
Langlie-Mattix (Queen) Field  
Permian Resources, Inc. #2 Harrison  
T25S, R37E, Section 22

30-025-11690

Ladies and Gentlemen:

Permian Resources, Inc. is making application to inject water into a zone productive of oil and gas at the location captioned above in Lea County.

Please find attached the appropriate documents which support this application

- II. Well Data
- V. Well Area of Review Map
- VI. Schematics of wells within the Area of Review
- VII. Data on the Proposed Operation
- VIII. Geological Data
- IX. Proposed stimulation Program
- X. Log Sections
- XI. Fresh Water Wells
- XII. Examination of Hydrologic Data
- XIV. Proof of Notice

We appreciate your timely approval of this matter and if you have any questions please feel free to call.

Sincerely,

  
Dave Kvasnicka

*Case 12490*

APPLICATION FOR AUTHORIZATION TO INJECT

- ✓ I. Purpose:  Secondary Recovery  Pressure Maintenance  Disposal  Storage  
Application qualifies for administrative approval?  yes  no
- ✓ II. Operator: Permian Resources, Inc. dba Permian Partners, Inc.  
Address: P. O. Box 590, Midland, TX 79702  
Contact party: Robert H. Marshall Phone: 915/685-0113
- ✓ 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: David E. Kvasnicka Title Geologist

Signature: *David E. Kvasnicka* Date: 7-21-00

\* 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.

N/A

## 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 footage 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.

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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.

III. WELL DATA

A. (1) Well Name: Harrison No. 2-22  
Section 22, Township 25 South, Range 37 East  
Lea County, New Mexico

(2) Casing Data:

Casing Size	Hole Size	Depth	Sacks Cement (Class)	Top of Cement
9-5/8"	11"	1087'	500(2%Aquagel)	Circ. to Surface
7"	8-7/8"	3218'	300	~ 1692' <i>CALC.</i>

(3) Injection Tubing and Packer

Tubing String: 3220 feet 2-3/8" internally plastic coated, 8rd EUE

Packer: 7" set of 3200'

B. (1) Injection Formation: Queen  
Field Name: Langlie-Mattix 7RQ-GR

(2) Injection Interval:  
Open Hole 3218' - 3366'

(3) Original Purpose of Well:  
Oil production from Langlie-Mattix Queen

(4) Other Perforated Intervals:  
None

(5) Depth of Higher/Lower Oil or Gas Zone in Area:  
Higher: Jalmat Yates - Seven Rivers gas zone @  
2500 - 3000'  
Lower: None in immediate area

Submit 3 Copies To Appropriate District Office  
 District I  
 1625 N. French Dr., Hobbs, NM 87240  
 District II  
 811 South First, Artesia, NM 87210  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
 Energy, Minerals and Natural Resources  
 OIL CONSERVATION DIVISION  
 2040 South Pacheco  
 Santa Fe, NM 87505

Form C-103  
 Revised March 25, 1999

WELL API NO. 30-025-11690
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. NM 12383 (LC-032579-A)
7. Lease Name or Unit Agreement Name: Harrison

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.) 1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		8. Well No. 2
2. Name of Operator Permian Resources, Inc. dba Permian Partners, Inc.	9. Pool name or Wildcat Langlie-Mattix Queen	
3. Address of Operator P. O. Box 590, Midland, Texas 79702	4. Well Location Unit Letter <u>I</u> : <u>2310</u> feet from the <u>South</u> line and <u>990</u> feet from the <u>East</u> line Section <u>22</u> Township <u>25A</u> Range <u>37E</u> NMPM County <u>Lea</u>	
10. Elevation (Show whether DR, RKB, RT, GR, etc.) 3066 DF		

11. 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"/>	MULTIPLE COMPLETION <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: convert to injection <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation.

Well is currently shut-in with open hole below 7" steel casing set at 3218' down to total depth of 3366'. Operator is proposing to use 3220' of 2-3/8" IPC tubing with 7" Baker AD-1 packer set at 3200'. Injected fluid will be produced water. Maximum rate will be 500 barrels daily at 1450 psig.

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

SIGNATURE \_\_\_\_\_ TITLE Geologist DATE 06/15/00

Type or print name Dave Kvasnicka Telephone No. 915/685-0113  
 (This space for State use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 Conditions of approval, if any:

Harrison Federal 2-22

Completion Schematic

2310' FSL & 990 FEL  
Sec. 22 T25S R37E  
Lea County, NM

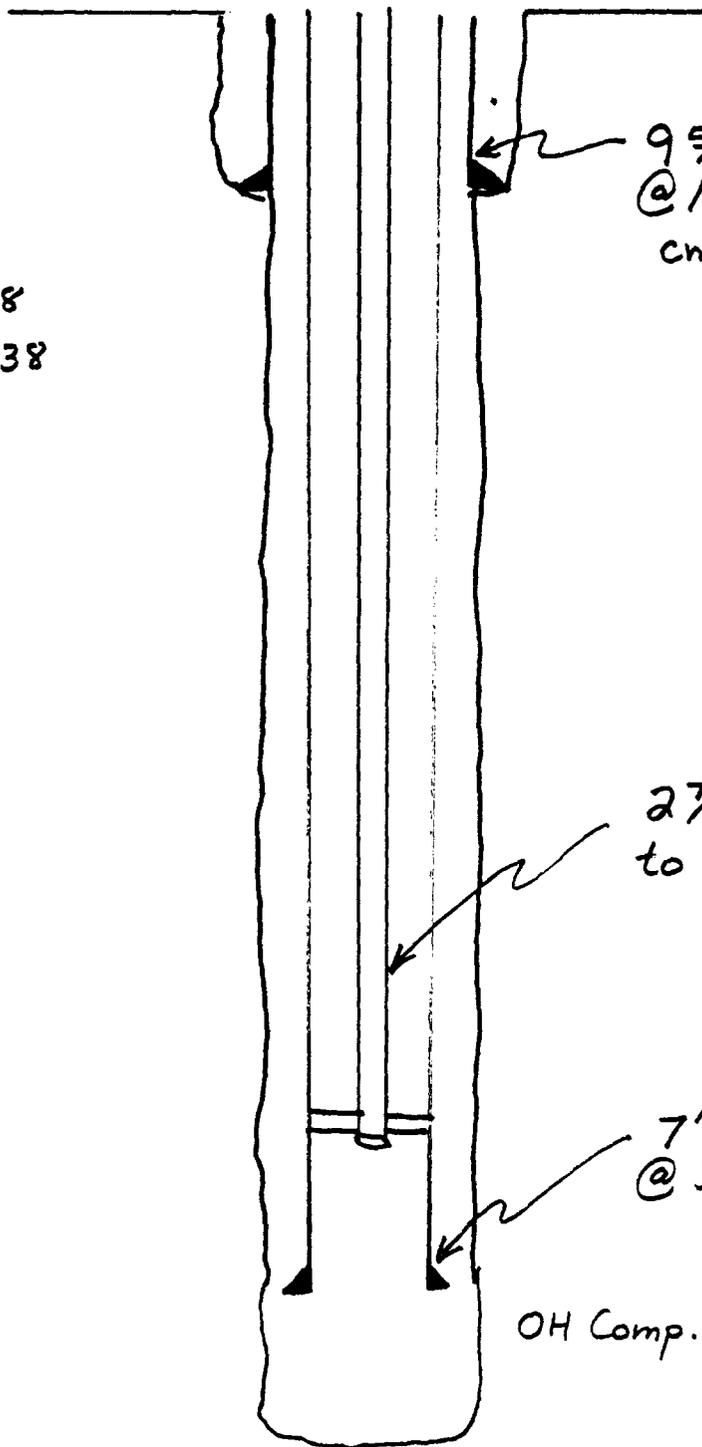
NM# NMLC032579A

Spud date: 7-10-38

Completion date: 8-1-38

G.L. Elev: 3066'

API # 30-25-11690



9 5/8" (33.75#) Csg  
@ 1100' w/ 500 sx  
cmt to surface

2 7/8" tbg (105 jts)  
to 2625'

7" (22#) Csg  
@ 3218' w/ 250 sx

OH Comp. 3218-3366'

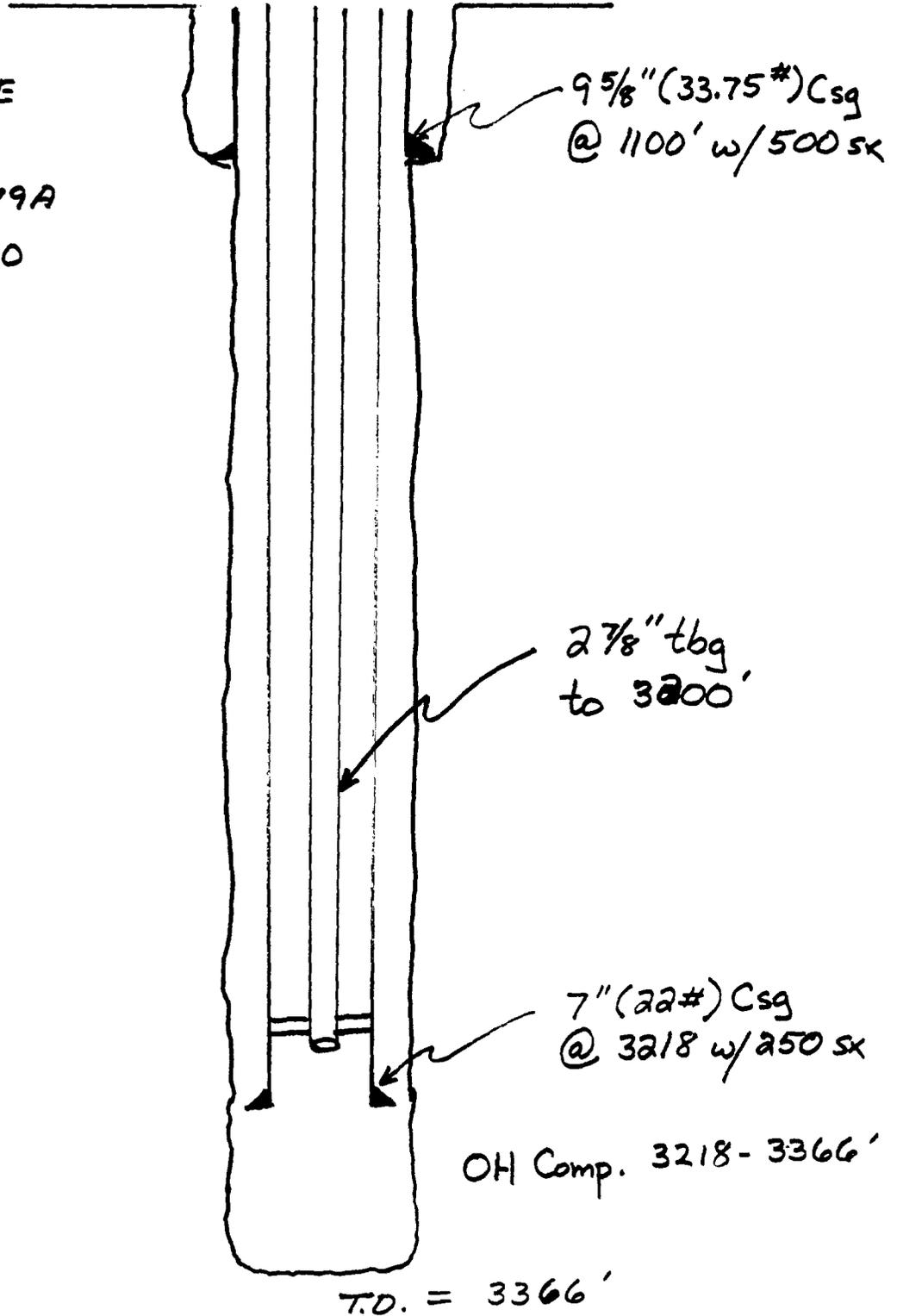
T.D. = 3366'

Harrison Federal 2-22

Completion Schematic

Proposed SW Injector

2310' FSL #990 FEL  
Sec 22 T25S R37E  
Lea County, NM  
NM# NMLCO32579A  
API# 30-025-11690  
Spud: 7-10-38  
Completed: 8-1-38  
G.L. Elev: 3066'



**PERMIAN RESOURCES, INC.**

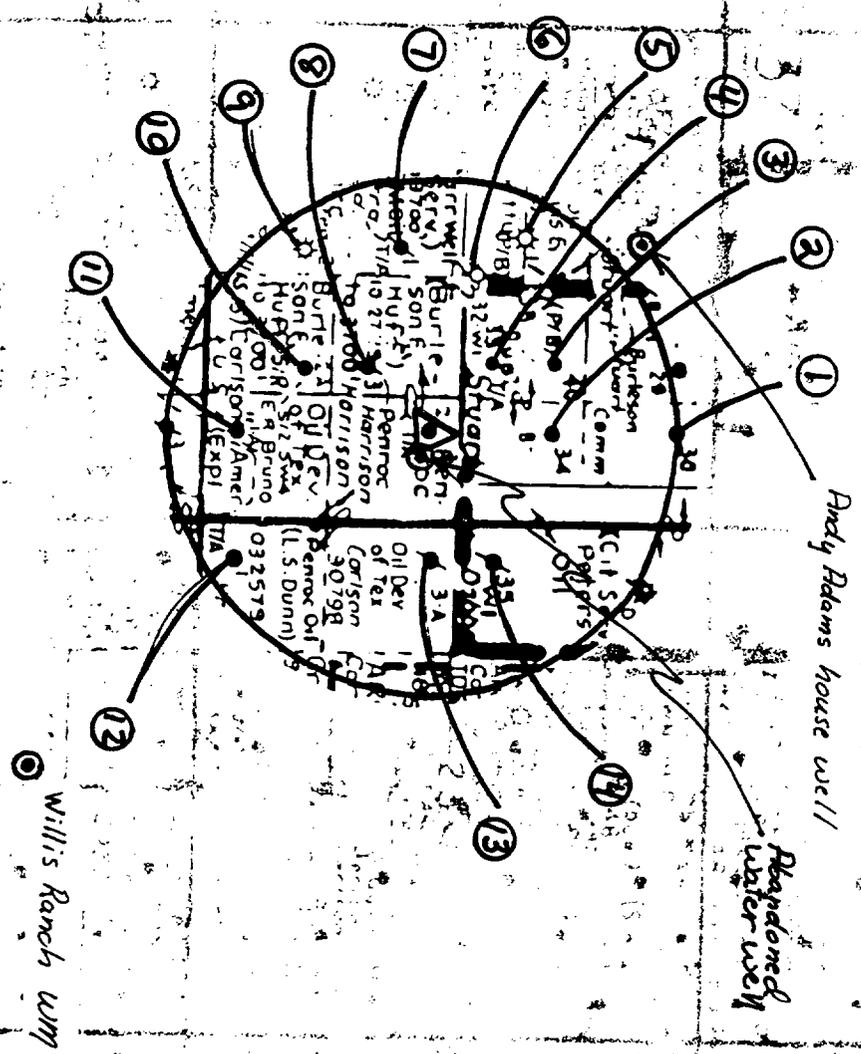
P.O. Box 590

Midland, Texas 79702

1/2 MILE RADIUS MAP

HARRISON NO. 2

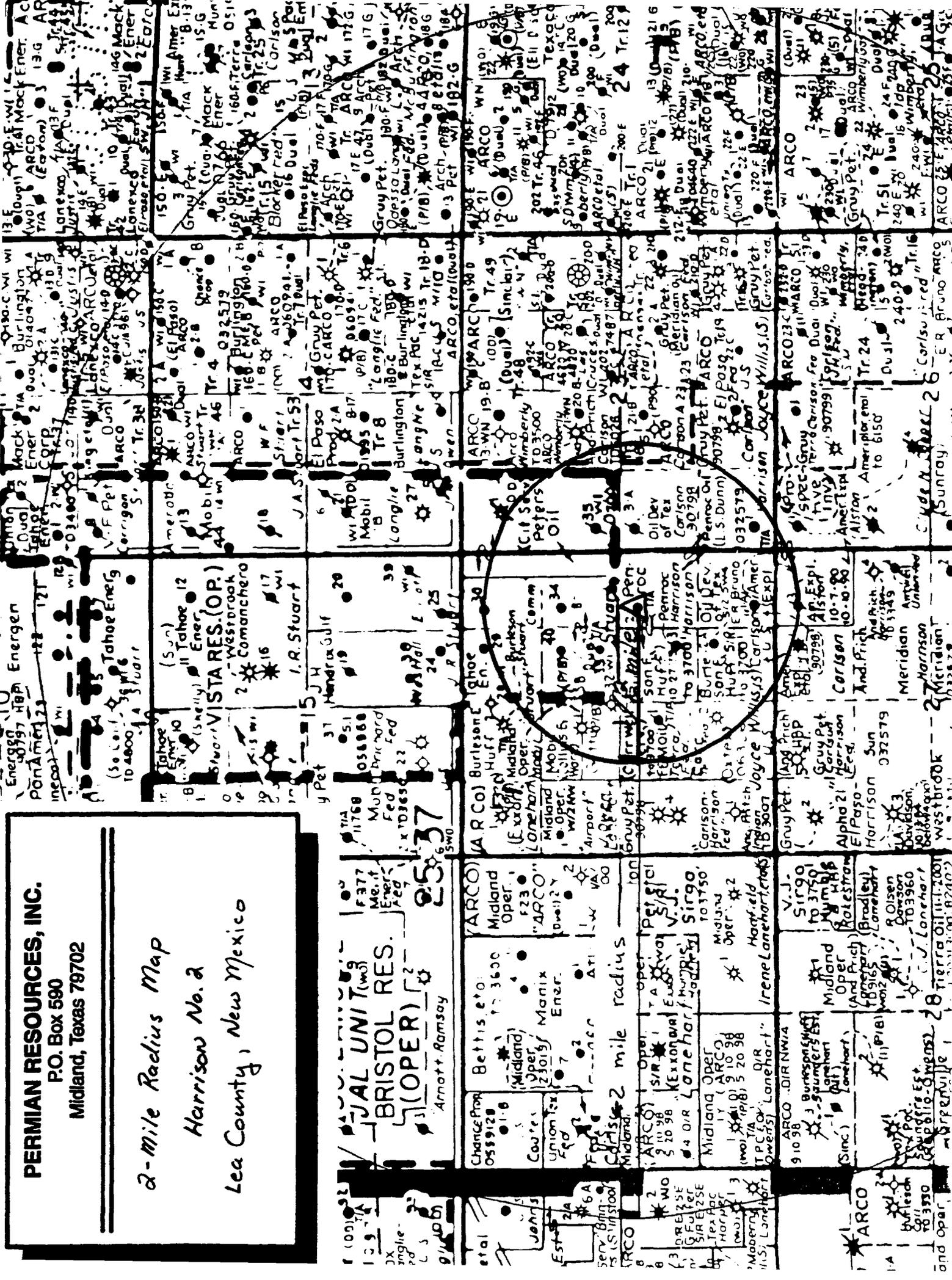
LEA COUNTY, NEW MEXICO



**PERMIAN RESOURCES, INC.**  
 P.O. Box 590  
 Midland, Texas 79702

*2-Mile Radius Map*  
*Harrison No. 2*  
*Lea County, New Mexico*

**JUAL UNIT**  
**BRISTOL RES.**  
**(OPER)**  
 Annot. Ramsay



## VI. TABULATION OF WELL DATA WITHIN THE AREA OF REVIEW

### Section 22:

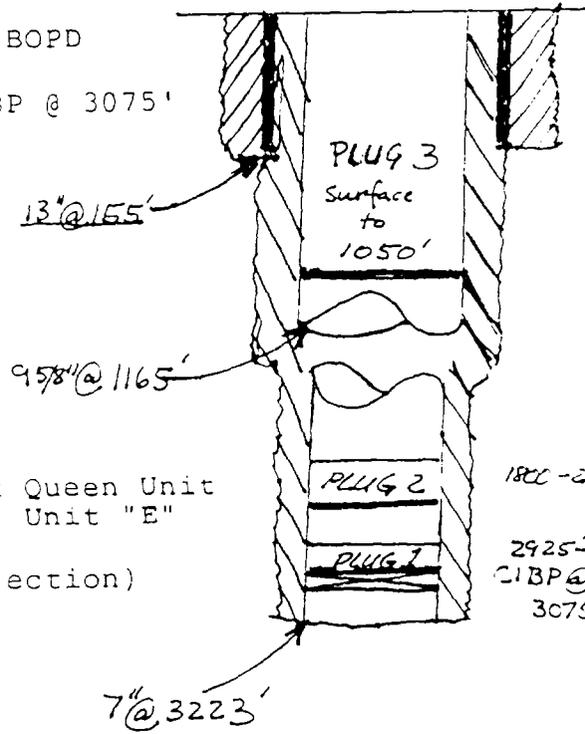
1. Mobil Oil Corp. #30 Langlie-Mattix Queen Unit  
(orig. Eppenauer Stuart Community #1)  
330' FNL 990' FEL Unit "A"  
OH Completion 2849 - 3373' (Queen) IP  
12-1/2" @ 225' w/200 sxs. *CRC. ACC.*  
8-5/8" @ 1235' w/250 sxs.  
7" @ 2849' w/250 sxs. *225' ACC.*  
OWDD (1948) 3366 to 3399'
2. Mobil Oil Corp. #34 Langlie-Mattix Queen Unit  
(orig. Amerada Pet. #1 Frances Stuart Unit B)  
1650' FNL 990' FEL Unit "H"  
OH Completion 3298 - 3380' (TD) (Queen) IP 36 BOPD  
7-5/8" @ 1115' 2/250 sxs *515'*  
5-1/2" @ 3298' w/200 sxs *325'*  
OWWO (1950) perfed csg. 3280 - 3295'  
New IP - 17.2 BO 4.3 BW
3. Mobil Oil Corp. #40 Langlie-Mattix Queen Unit  
1650' FNL & 1650' FEL Unit "G"  
(orig. Amerada Pet. #1 Frances Stuart)  
Perfs 3278 - 3345' IP 2 BO, 64 BW Queen  
10-3/4" @ 162' w/175 sxs. *CRC. ACC.*  
7-5/8" @ 1103' w/250 sxs.  
5-1/2" @ 3285' w/200 sxs. *1575' ACC.*  
(OWWO orig prod zone 3285 - 3345' & 2697 - 3098' (sqzd off  
w/200 sxs.)
4. Mobil Oil Corp. #33 Langlie-Mattix Queen Unit  
(George L. Buckles #2 Stuart Tract #6) Unit "G"  
2310' FNL, 1650' FEL  
Prod from OH 3217 - 3339' P 12.25 BOPD (Queen)  
8-5/8" 636'/450 sxs *CRC*  
4-1/2" 3217'/100 sxs. *2619'*
5. Burleson & Huff #1 Mobil  
1980' FNL & 2180' FWL Unit "F"  
Perfs 3150 - 3341' (Queen) IPF 231 MCFGPD  
8-5/8" @ 1016' w/550 sxs. *CRC*  
4-1/2" @ 3450' w/400 sxs. *CRC ACC*  
OWWO (1986) new perfs 2805 - 2965' (Yates)  
IPF 208 MCFGPD 1 BWPB PBTB @ 3080'
6. Mobil Oil Corp. #32 L-M Queen Unit  
2530' FNL & 2600' FEL Unit "F"  
Perfs 3230 - 3540 (Queen) Water Injection Well  
8-5/8" @ 1060' w/700 sxs *CRC*  
5-1/2" @ 3620' w/700 sxs *CRC*

7. Morris Antweil #1 Terra Federal  
 1980' FSL & 2310' FWL Unit "K"  
 Perfs 3242 - 3366' (Queen) IPF 96 BOPD, 7 BWPD  
 8-5/8" @ 400' w/250 sxs.  
 5-1/2" @ 3470' w/860 sxs.  
 Well is presently temporary abandoned
8. Permian Resources #3-22 Harrison  
 1650' FEL & 1650' FSL Unit "J"  
 OH 3275 - 3377' (Queen) IP 18 BOPD  
 9-5/8" @ 965' w/500 sxs.  
 7" @ 3226' w/300 sxs.
9. Morris Antweil #2 Terra Federal  
 990' FSL & 2310' FWL Unit "N"  
 Perfs 2925 - 3001' (Yates) IPF 262 MCFGPD  
 8-5/8" @ 400' w/250 sxs.  
 4-1/2" @ 3470' w/425 sxs.
10. Permian Resources #2 A-22 Carlson  
 990' FSL & 1650' FEL Unit "O"  
 OH completion 3218 - 3348' (7 Rivers/Queen)  
 IPF 1245 MCFD  
 13" @ 150' w/100 sxs.  
 9-5/8" @ 1141' w/300 sxs.  
 7" @ 3218' w/300 sxs.
11. Permian Resources #1 A-22 Carlson  
 (orig. Italo Petroleum Corp. - 1938 comp)  
 990' FEL & 330' FSL Unit "P"  
 Perfs 3183 - 3208' (Queen) IP 960 BOPD, 350 MCF  
 OH 3227 - 3327'  
 13" @ 167' w/100 sxs.  
 9-5/8" @ 1147' w/300 sxs.  
 7" @ 3227' w/300 sxs.

Section 23

12. Permian Resources #1 Harrison  
 330' FSL & FWL Unit "M"  
 OH completion 3268' to 3319' (7 Rivers/Queen)  
 IP 125 BOPD 300 MCF  
 9-5/8" @ 1204' w/500 sxs.  
 7" @ 3200' w/250 sxs.

13. Santa Fe Energy Co. #3 Carlson "A"  
 (orig. Italo Petroleum Corp. of America #1 A-23 Carlson -  
 1938)  
 2310' FSL & 330' FWL Unit "L"  
 Perfs 3242 - 3308' (Queen) IP 240 BOPD  
 13" @ 155' w/100 sxs.  
 9-5/8" @ 1165' w/300 sxs. Set CIBP @ 3075'  
 7" @ 3223' w/300 sxs.  
 Plugged and abandoned



14. Mobil Oil Corp. #35 Langlie-Mattix Queen Unit  
 (orig. Cities Service #2 Dobbs) Unit "E"  
 2310' FNL & 330' FWL  
 WIW Pfs. & OH 3108 - 3425' (Injection)  
 8-5/8" 1081' w/600 sxs.  
 5-1/2" 3240' w/200 sxs.

1800-20  
 2925-3  
 CIBP @  
 3075'

7" @ 3223'

## VII. DATA ON THE PROPOSED OPERATION

- (1) Average and maximum daily volume of fluids: 250 barrels water per day per well. Maximum: 500 barrels of water per day.
- (2) Closed System: On-lease water and water only from offset company lease.
- (3) Average and maximum injection pressure:  
Average: 1200 psi                      Maximum: 2000 psi
- (4) Sources of injection fluid: produced water

## VIII. GEOLOGICAL DATA

Formation Name: Queen  
Lithology: Sandstone and dolomitic sandstone  
Thickness: 500' thick  
Bottom of drinking water aquifers: 150' Ogallala, none below

## IX. PROPOSED STIMULATION

1500 Gallons HCL 15%, NeFe

## X. LOGGING DATA

None available for subject well. Copy of log for nearby offset well is attached.

## XI. FRESH WATER WELLS (located within one mile of proposed disposal well)

Three (3) fresh water wells have been found within one (1) mile of the proposed injection well.

- 1) Abandoned well (w/dry stock tank) Distance: ±40 yards ESE. Apparently equipped with submersible pump - no pump function. No well access. No sample collected.
- 2) Domestic well (Home of Andy Adams) Distance: 0.68 miles NNW. Water supply well for home. Sample collected: 7-6-00  
Submitted for analysis (Martin Water Labs): 7-10-00  
Lab Analysis Report attached.
- 3) Windmill (Willis Ranch) Distance: 0.99 miles SSE. Stock Well. Sample collected: 7-6-00  
Submitted for analysis (Martin Water Labs): 7-10-00  
Lab Analysis Report attached.

Surface locations for each of the existing water wells noted here were established with a hand-held GPS unit and are shown on the 1/2 mile radius map submitted with this application.



XII. Geological Statement

I have examined all geologic and engineering data available for the Harrison Lease area and find no evidence of open faults and other hydrologic connection between the disposal zone and any underground drinking water sources.

Dave Kvasnicka, Professional Geologist (Wyo) PG-1661

A handwritten signature in black ink that reads "Dave Kvasnicka". The signature is written in a cursive style with a large, looping initial "D" and a long horizontal stroke at the end.

**XIV. PROOF OF NOTICE**

(1) Surface Owner: Mr. George Willis  
P. O. Box 307  
Jal, NM 88252

(2) Offset Production Owners:

Lewis B. Burleson, Inc.  
P. O. Box 2479  
Midland, TX 79702

F&M Oil & Gas Company  
P. O. Box 891  
Midland, TX 79702

Vista Resources of Texas, Inc.  
550 W. Texas Avenue, Ste. 700  
Midland, TX 79701

(3) Legal Notices:

Hobbs Daily News-Sun  
Hobbs, New Mexico

AFFIDAVIT OF PUBLICATION

State of New Mexico,  
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs News-Sun, a 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 July 2 2000

and ending with the issue dated July 2 2000

Kathi Bearden  
Publisher

Sworn and subscribed to before me this 18th day of

July 2000

Jodi Wenson  
Notary Public.

My Commission expires  
October 18, 2000  
(Seal)

LEGAL NOTICE  
July 2, 2000  
(AMENDED)

Permian Resources, Inc., at P.O. Box 590, Midland, Texas 79702, is applying to convert its Harrison #2 to salt water disposal in the Queen formation at a depth of 3218 to 3366 feet. The Harrison #2 is in the Langlie-Mattix (Queen) Field, located in Unit I, Section 22, Township 25 South, Range 37 East, Lea County, New Mexico. The expected maximum injection rate is 500 barrels of water daily at a maximum pressure of 1450 psi. 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. Parties requesting additional information may contact Robert Marshall at Permian Resources, Inc., at (915)685-0113 or at the address listed above. #17489

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.

01102680000      02539432  
Permian Resources  
P.O. Box 590  
MIDLAND, TX 79702

# LANE LOG WELLS COMPANY

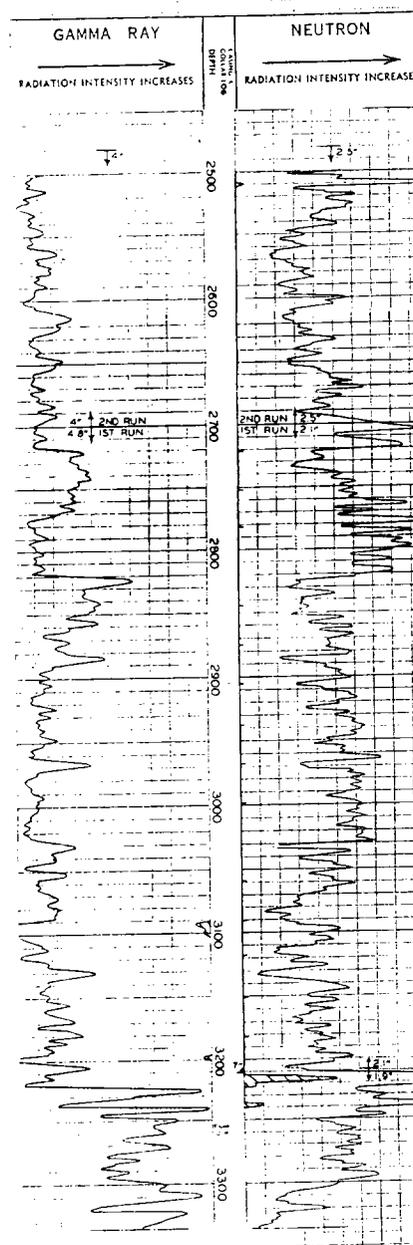
Location of Well: COMPANY: LANE WELLS CORP.  
 WELL: DANIELS #2, 52/4 OF 22  
 FIELD: LANGLIE-WATTIX  
 COUNTY: ISA STATE: N.M.  
 LOCATION: 52/4 OF 22/4 OF SEC 22-255-378  
 30741 OF

LOG MEASURED FROM GROUND LEVEL, ELEVATION 3066'  
 DRILLING MEASURED FROM 2L ELEVATION 3064'  
 PERMANENT DATUM 9 5/8" BRADLEY ELEVATION 3063'

LOG NUMBER	DATE	TYPE OF LOG	WELL NUMBER	WELL DEPTH	WELL FLUID	FLUID LEVEL	MAXIMUM TEMPERATURE	G.S. OF INSTRUMENT	SENSITIVITY REFERENCE	RECORDED BY	WITNESSED BY
1	MAY 13-48	RAY	3331	3331'	WATER	1900'	3 5/8"	275	275	BERTON	BERTON
2	MAY 21-48	NEUTRON	3331	3331'	OIL-WATER	1900'	3 5/8"	275	275	BERTON	BERTON

CASING RECORD			OPEN HOLE RECORD		
RUN NO.	SIZE-IN.	WT.-LB.	BY SIZE-IN.	WT.-LB.	INTERVAL TO T.D.
1	2	7	5 1/4	2015	TO T.D.
					TO

REMARKS OR OTHER DATA  
 \* DID NOT GO TO TOTAL DEPTH ON 2ND RUN.  
 THIS IS A COMPOSITE OF RUNS #1 AND RUNS #2.



P.O. 3336  
 L.S. 3338  
 WESTATES PET CORP  
 CARLSON, A-22, #2  
 LANGLIE-WATTIX