CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: BARBARA FASKEN Well: WINGERD No. 2

Contact: CARL BROWN Title: ENGINEER Phone: _____

DATE IN 8-30 RELEASE DATE 9-14 DATE OUT 9-17-93

Proposed Injection Application is for: ___ WATERFLOOD ___ Expansion ___ Initial

Original Order: R- _____ ___ Secondary Recovery ___ Pressure Maintenance

SENSITIVE AREAS X SALT WATER DISPOSAL

___WIPP ___ Capitan Reef ___ Commercial Operation

Data is complete for proposed well(s)? X Additional Data N/A

AREA of REVIEW WELLS

28 Total # of AOR 18 # of Plugged Wells

X Tabulation Complete X Schematics of P & A's

X Cement Tops Adequate ___ AOR Repair Required

INJECTION INFORMATION

Injection Formation(s) DEVONIAN 11,777' TO 11,855'

Source of Water GRAYBURG - DEVONIAN Compatible X

PROOF OF NOTICE

___ Copy of Legal Notice ___ Information Printed Correctly

___ Correct Operators ___ Copies of Certified Mail Receipts

X Objection Received ___ Set to Hearing _____ Date

NOTES: DEVON WITHDREW OBJ. AFTER DISCUSSION W/ FASKEN

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL ___

COMMUNICATION WITH CONTACT PERSON:

1st Contact: X Telephoned ___ Letter 9-10 Date Nature of Discussion DEVON ENERGY OBJECTION

2nd Contact: X Telephoned X Letter 9-13 Date Nature of Discussion " WITHDREW

3rd Contact: X Telephoned ___ Letter 9-17 Date Nature of Discussion ADDITIONAL 55' - SAME FORMATION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

RELEASE

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no

II. Operator: Barbara Fasken

Address: 303 W. Wall, Suite 1900, Midland, TX 79701

Contact party: Carl W. Brown Phone: (915) 687-1777

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: Carl W. Brown Title Petroleum Engineer

Signature: Carl W. Brown Date: 8-25-93

* 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. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

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.

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.

devon
ENERGY CORPORATION

20 North Broadway, Suite 1500
Oklahoma City, Oklahoma 73102-8260

Telephone:405/235-3611
FAX 405/552-4550

September 7, 1993

New Mexico Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501

Re: Application for Authorization
to Inject
Wingerd No. 2
1,980' FNL & 660' FEL
Section 24-12S-37E
Gladiola Field
Lea County, New Mexico

Gentlemen:

Devon Energy Corporation (Nevada) ("Devon") is in receipt of Barbara Fasken's referenced Application for Authorization to Inject into the Devonian and Mississippian formations. Fasken's proposed injection site is within one-half mile of the Devon operated Shults #1 located 330' FSL and 1,650' FEL of Section 13-12S-37E. The Shults #1 currently produces from an equivalent Devonian section and is downdip to the Wingerd #2 by approximately 59 feet.

Approval of Fasken's application as to the Devonian formation could run the risk of "watering out" the Shults #1 by the injected water. In that regard, Devon must necessarily object to Fasken's application as it pertains to the Devonian formation, but we would not oppose approval of the application allowing injection into the Mississippian formation.

Please feel free to contact the undersigned at 405-552-4633 if there are any questions.

Yours very truly,

DEVON ENERGY CORPORATION (NEVADA)

Ken Gray
District Landman

KG:mb\WINGERD

cc: Barbara Fasken
303 W. Wall, Suite 1900
Midland, TX 79701
Attn: Carl W. Brown

VI. Table of wells within area of review and schematics of P&A wells is attached.

VII. 1. Average Daily Rate: 2500 BWPD
Maximum Daily Rate: 5000 BWPD

2. Closed System

Average Pressure: Vacuum initially
3. Maximum Pressure: 500 PSI

4. Water Sources: Gladiola-Devonian produced water.

5. Chemical analysis of Mississippian formation water attached.

VIII. The proposed injection zone is the Mississippian age limestone at a depth of approximately 11,100' with a gross thickness of +/-700, and the Devonian age dolomite at a depth of approximately 11,775' with a gross thickness of +/- 250'.

Fresh water aquifer at this site is the Ogalalla found from near surface to a depth of 300'.

IX. Propose to stimulate the existing perforations 11142-11800 overall with 8,000 gallons 15% HCL acid.

X. Logs have been filed with OCD.

XI. Chemical analysis of fresh water wells is attached.

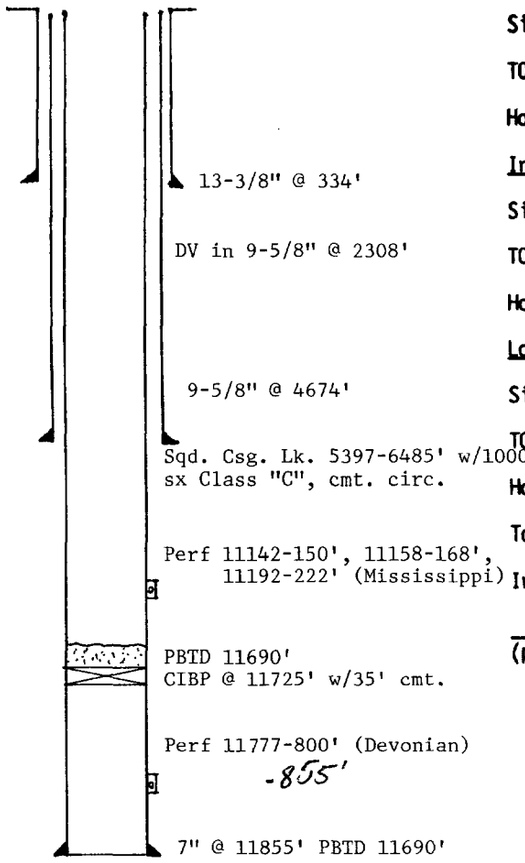
XII. Applicant attests that a thorough examination has been made of all available geologic, engineering, and well data and that no hydorlogic connection exists between the proposed injection interval and the overlying fresh water aquifer.

XIII. Proof of Notice in area newspaper will be forwarded under separate cover.

INJECTION WELL DATA SHEET

Barbara Fasken	Wingerd			
OPERATOR	LEASE			
2	1980' FNL, 660' FEL	24	T21S	R37E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tubular Data

Surface Casing

Size 13-3/8" Cemented with 500 sx.

TOC Surface feet determined by Circulation

Hole size 17½"

Intermediate Casing

Size 9-5/8" Cemented with 475 sx 1st stg. 150 sx. 2nd stg.

TOC 1760 feet determined by Temp. Survey

Hole size 12¼"

Long string

Size 7" Cemented with 935 sx.

TOC 7090 feet determined by Temp. Survey

Hole size 8-3/4"

Total depth 11855'

Injection interval (Proposed)

11142 feet to 11800 feet Perforated
(perforated or open-hole, indicate which)

NOTE: CIBP @ 11725' to be drilled out.

Proposed
Tubing size 3½" lined with internal plastic coating set in a
(material)

Otis Permalatch packer at ± 11050 feet
(brand and model)
(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Mississippian and Devonian

2. Name of Field or Pool (if applicable) Gladiola

3. Is this a new well drilled for injection? ___ Yes _X_ No

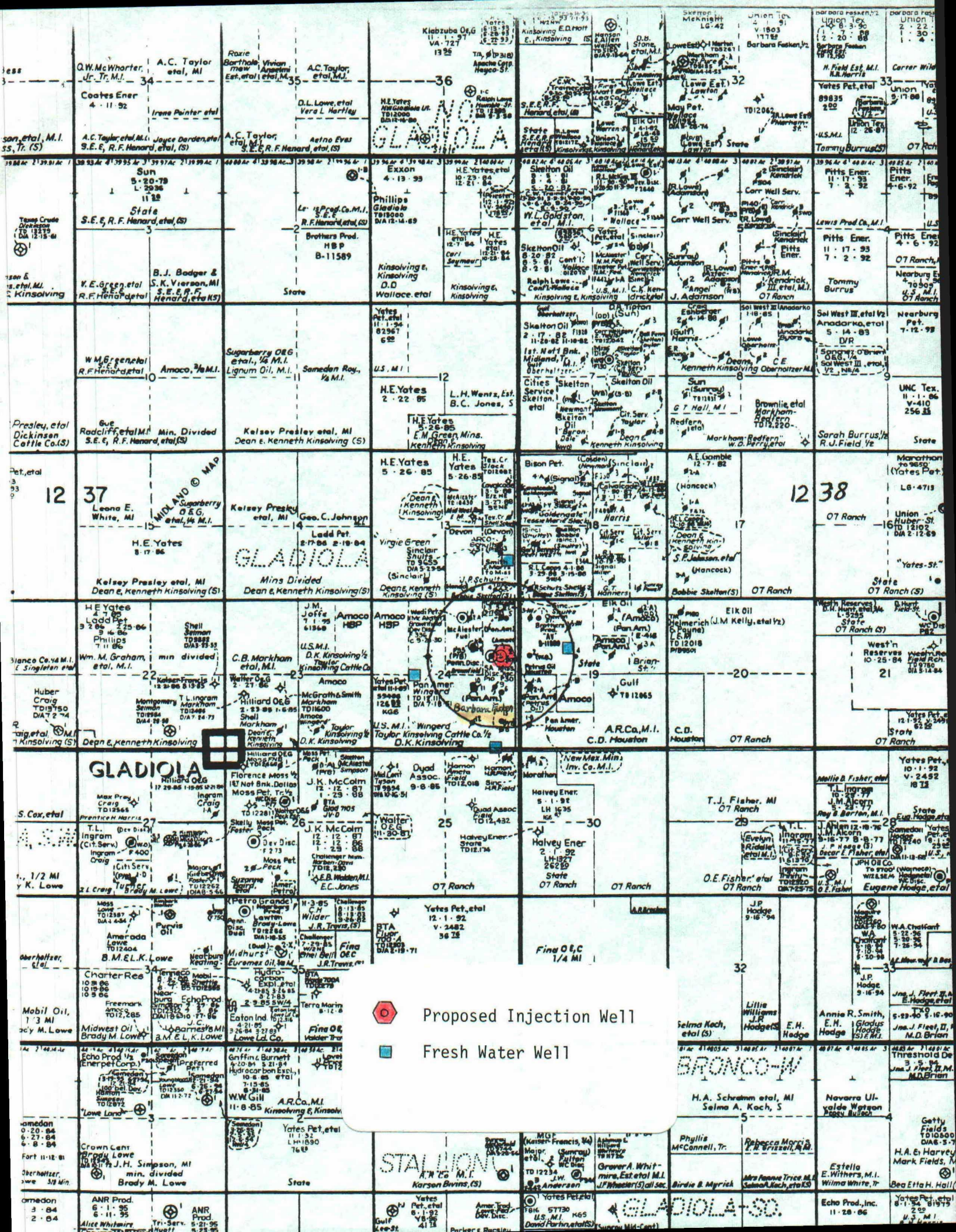
   If no, for what purpose was the well originally drilled? Completed as Devonian oil producer 12/10/51. Recompleted as Wolfcamp oil producer 3/8/83. Well TA'd 2/91.

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)

   CIBP @ 11725' w/35 feet cement for PBTD 11690'.

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

   Wolfcamp ±9400'


GLADIOLA
MIDLAND © MAP
Proposed Injection Well
Fresh Water Well

Barbara Fasken
Wingerd No. 2
Application for Authorization to Inject
Gladiola Field
Lea County, New Mexico

Wells Within Area of Review

Devon Energy Corp. #1 John Schults — Oil
Unit O, 330' FSL 1650' FEL S13 T12S R37E
Compl. 7-30-51 TD 9917'
Perfs: 9555'-9605' Wolfcamp
Deepened 6-17-57 TD 12090' (9555'-9605' Squeezed) Set 4-1/2" Liner
Perfs: 11848-888' Devonian

Hole	Csg.	Depth	Cmt.
12-1/4"	13-3/8"	342'	375 sx
11"	8-5/8"	4421'	1700 sx
7-3/4"	5-1/2"	9917'	800 sx
4-3/4"	4-1/2" liner	12090'	700 sx (Top liner 9582')

Atlantic Richfield Company #4 John Shults — Oil
Unit P, 330' FSL 880' FEL S13 T12S R37E
Compl. 10-31-53 TD 11954'
Perfs: 11890'-11935' Devonian

Hole	Csg.	Depth	Cmt.
17-1/2"	13-3/8"	338'	350 sx
13-3/8"	9-5/8"	4449'	1200 sx
8-3/4"	5-1/2"	11954'	800 sx

P & A 6-19-71 Schematic attached.

Smith and Marrs, Inc. #2 John Shults — Oil
Unit P, 330 FEL 660' FSL S13 T12S R37E
Compl. 12-19-51 TD 9698'
Perfs: 9600'-9620' Wolfcamp
OWWO: 1-15-69 CIBP @ 9080' Perf 8975'-9020' L. Abo TA'd unsuccessful
OWWO: 4-23-73 Sqz. L. Abo perfs. DO & set CIBP 9570' Perf 9492'-9530' Wolfcamp

Hole	Csg.	Depth	Cmt.
17"	12-3/4"	316'	325 sx
11"	8-5/8"	4422'	1500 sx
8-3/4"	5-1/2"	9698'	800 sx

Filed Notice of Intent to Plug 5-8-91, work not yet performed.

Pan American #3 Wingerd — Oil
Unit A, 660' FNL 660' FEL S24 T12S R37E
Compl. 3-13-52 TD 9820'
Perf: 9607'-9618' Wolfcamp

Hole	Csg.	Depth	Cmt.
17-1/4"	13-3/8"	314'	500 sx
12-1/4"	9-5/8"	4481'	600 sx
8-3/4"	7"	9797'	300 sx

P & A 1-26-68 Schematic Attached.

Barbara Fasken #5 Wingerd — Oil
Unit A, 660' FNL 460' FEL S24 T12S R37E
Compl. 9-30-52 TD 11905'
Open Hole 11845'-11905' Devonian
OWWO: 9-6-67 Perf. 11814-822'
OWWO: 1-24-74 CIBP @ 11770' Perf. 9412'-9560' Wolfcamp
OWWO: 2-18-80 Sqz. 9412'-9560', DO to 11905', CIBP @ 11835'

Hole	Csg.	Depth	Cmt.
17-1/2"	13-3/8"	346'	500 sx
12-1/2"	9-5/8"	4504'	660 sx DV @ 2214'
8-3/4"	7"	11845'	600 sx

Wadi Petroleum #1 Brownfield "A" — Oil
Unit B, 660' FNL 1980' FEL S24 T12S R37E
Compl. 9-20-50 TD 12035'
Perf. 12004-1/2'-12034' Devonian
OWWO: 10-1-50 CIBP @ 11901' Perf. 11785-840' Devonian

Hole	Csg.	Depth	Cmt.
17-1/2"	13-3/8"	351'	400 sx
12-1/4"	9-5/8"	4606'	1200 sx
8-3/4"	5-1/2"	12035'	1270 sx

McAlester Fuel Co. #2 Brownfield "A" — Oil
Unit B, 660' FNL 1780' FEL S24 T12S R37E
Compl. 4-4-51 TD 10330'
Perf. 9565'-9600' Wolfcamp
OWWO: 11-2-60 CIBP @ 9525' Perf. 9361'-9513', Well TA'd
OWWO: 5-14-61 DO to 10160' Perf. 9513'-10048', Well TA'd

Hole	Csg.	Depth	Cmt.
17-1/2"	13-3/8"	335'	400 sx
12-1/4"	9-5/8"	4436'	1400 sx
7-7/8"	5-1/2"	10312'	820 sx

P & A 3-27-63 Schematic Attached.

Stanolind Oil and Gas Co. #1 Lois Wingerd — D&A
Unit F, 1980' FNL 330' FEL S24 T24S R37E
Compl. 6-4-51 TD 12111'
Perf. 9560'-10340' Sqzd.
Perf. 9415'-9540'

Hole	Csg.	Depth	Cmt.
17-1/4"	13-3/8"	341'	300 sx
12-1/4"	9-5/8"	4673'	550 sx
8-3/4"	7"	10412'	375 sx

P & A 8-6-51 Schematic Attached.

McAlester Fuel Co. #1 Brownfield "B" Oil
Unit G, 1650' FNL 1650' FEL S24 T12S R37E
Compl. 5-23-52 TD 11985'
Perf. 11815'-11845' Devonian
OWWO: 9-21-69 CIBP 10330' Perf 10282-298' Penn.
OWWO: 1-20-70 CIBP 10000' Perf 9310'-9584' TA'd w/18' cmt. on pkr. @ 9270'

Hole	Csg.	Depth	Cmt.
18-1/2"	13-3/8"	365'	400 sx
12-1/4"	9-5/8"	4473'	1968 sx
8-3/4"	5-1/2"	11980'	1235 sx

P & A 7-26-71 Schematic Attached.

McAlester Fuel Co. #2 Brownfield "B" D&A
Unit G, 1750' FNL 1650' FEL S24 T12S R37E
Compl. 7-31-52 TD 10345'
Perf. 9572-93' Wolfcamp
OWWO: 4-5-60 Sqz. perfs 9572-93' DO to 10323'. Perf. 10295'-10310' No Show. CIBP @ 9510', Perf. 9457-79' No show. Pkr. @ 9445' w/50 sx cmt. PBTD 8840'

Hole	Csg.	Depth	Cmt.
17-1/2"	13-3/8"	367'	400 sx
12-1/4"	9-5/8"	4474'	1657 sx
8-3/4"	5-1/2"	10345'	674 sx

P & A 4-1-63 Schematic Attached.

Pan American Petroleum Corp. #7 Wingerd Oil
Unit H, 1980' FNL 990' FEL S24 T12S R37E
Compl. 7-24-53 TD 9820'
Perf. 9580-94' Wolfcamp
OWWO: 10-14-63 Spot 25 sx across perfs 9580-94'. Perf. 5220-30', 5538-78'. CIBP @ 5250', sqz. 5220-30' w/100 sx. Cmt. ret. @ 5195'. Perf. 5104-12' cmtd. behind csg. w/72 sx. DO and perf. 5170'-5204' San Andres.

Hole	Csg.	Depth	Cmt.
18"	13-3/8"	312'	360 sx
12-1/4"	9-5/8"	4479'	690 sx
7-7/8"	5-1/2"	9820'	372 sx

P & A 1-11-68 Schematic Attached.

Barbara Fasken #6 Wingerd Oil
Unit I, 660' FEL 1980' FSL S24 T12S R37E
Compl. 7-13-53 TD 12035'
Perf. 11900-940' Devonian
OWWO: 12-2-58 Set cmt. ret. @ 11880' sqz. 11900-940'. Perf. 11835-860' Devonian
OWWO: 4-3-63 PB to 11850' sqz. 11835-60' w/100 sx. Perf. 11830-840' Devonian

Hole	Csg.	Depth	Cmt.	
17-1/2"	13-3/8"	321'	355 sx	
12-1/4"	9-5/8"	4500'	540 sx	DV @ 2280' w/150 sx
8-3/4"	7"	12034'	630 sx	

Pan American Petroleum Corp. #9 Wingerd — Oil
Unit I, 2210' FSL 890' FEL S24 T12S R37E
Compl. 11-4-53 TD 9820'
Perf. 9589'-9603' Wolfcamp
OWWO: 8-16-55 Cmt. Ret. @ 9585'. Perf. 9386'-9568' Wolfcamp

Hole	Csg.	Depth	Cmt.	
17-1/2"	13-3/8"	293'	325 sx	
12-1/4"	9-5/8"	4488'	690 sx	
8-3/4"	7"	9873'	300 sx	

P & A 12-29-67 Schematic Attached.

Pan American Petroleum #11 Wingerd — Oil
Unit J, 2110' FSL 1650' FEL S24 T12S R37E
Compl. 5-23-54 TD 9823'
Perf. 9575-97' Wolfcamp

Hole	Csg.	Depth	Cmt.	
17-1/2"	13-3/8"	326'	325 sx	
12-1/4"	9-5/8"	4515'	690 sx	
8-3/4"	7"	9812'	300 sx	

P & A 1-10-68 Schematic Attached.

Barbara Fasken #10 Wingerd — Oil
Unit J, 2310' FSL 1650' FEL S24 T12S R37E
Compl. 4-17-54 TD 12016'
Perf. 11641'-11872' Devonian
OWWO: 2-3-58 add Perfs. 11904-53'
OWWO: 6-24-60 Cmt. ret. @ 11890' Att. sqz. 11904-53' communicated w/hole
OWWO: 5-1-73 Cmt. ret. @ 11792' Sqz. below w/50 sx left 62' cmt. on ret. PBTD 11730'

Hole	Csg.	Depth	Cmt.	
17-1/2"	13-3/8"	315'	325 sx	
12-1/4"	9-5/8"	4493'	540 sx	DV @ 2275' w/150 sx
7-7/8"	5-1/2"	12015'	640 sx	

Fina Oil and Chemical Co. #12 Wingerd — Oil
Unit O, 990' FSL 1650' FEL S24 T12S R37E
Compl. 9-1-55 TD 11987'
Perf. 11865'-11900' Devonian
OWWO: 3-16-91 CIBP 10710'. Perf. 10662-702' Cisco swab wtr. Perf. 9517'-9820' Wolfcamp. Set cmt. ret. @ 10630', attempt sqz. w/100 sx, tbg. stuck, left fish in hole, TOF 10189'. TA'd well.

Hole	Csg.	Depth	Cmt.	
17-1/2"	13-3/8"	300'	325 sx	
12-1/4"	8-5/8"	4500'	690 sx	DV @ 2312' w/100 sx
7-7/8"	5-1/2"	11986'	600 sx	

P & A 5-4-93 Schematic Attached.

Barbara Fasken #13 Wingerd — Oil
Unit P, 990' FSL 660' FEL S24 T12S R37E
Compl. 10-24-56 TD 12945' PBTD 11975'
Attempt Ellenburger Compl. Perf. 12721-736', cmt. ret. 12529' w/100 sx, perf. 12450-70', cmt. ret. 12210' w/150 sx, perf. 12318-32', cmt. ret. 12240' w/100 sx, perf. 12200-18', cmt. ret. 12148' w/100 sx, perf. 12006-020', CIBP @ 11990' w/2 sx cmt.
Perf. 11862-898' Devonian
OWWO: 4-26-84 CIBP @ 11791'. Perf. Miss. 11192-232' tstd. wtr.
OWWO: 6-7-84 Sqz. 11192-232' w/250 sx (165 in fm.) DO cmt. & CIBP @ 11791'. Return well to Devonian production.

Hole	Csg.	Depth	Cmt.
17-1/2"	13-3/8"	318'	380 sx
12-1/4"	9-5/8"	4600'	1500 sx
8-3/4"	5-1/2"	12945'	1100 sx

Amoco Production Corp. #8 Wingerd — Oil & SWD
Unit P, 660' FSL 660' FEL S24 T12S R37E
Compl. 9-20-53 TD 9818'
Perf. 9610-36' Wolfcamp
OWWO: 10-61 Converted well to SWD thru perfs. 9610-36' by Commission order R-2019 7-13-61.

Hole	Csg.	Depth	Cmt.
17-1/2"	13-3/8"	323'	225 sx
12-1/4"	9-5/8"	4495'	590 sx
8-3/4"	7"	9818'	300 sx

P & A 6-14-71 Schematic Attached.

Atlantic Richfield Co. #1 Rosa Shults — Oil
Unit M, 330' FSL 330' FWL S18 T12S R38E
Compl. 4-28-53 TD 12217'
Perf. 9480'-9530' Wolfcamp
OWWO: 11-1-57 Sqz. 9480'-9530'. DO to 12010'. Perf. 11970-88' Devonian.
OWWO: 4-1-62 Cmt. ret. @ 10280' Sqzd. 11970-88' w/90 sx. Cut and pulled 8825' 5-1/2" csg. Spot 85 sx cmt. 8575'-8830'. DO to 8647'. Set Whipstock and drld. to TD 12006' (TVD 11956'). Ran and cmtd. 5-1/2" csg. @ 12006' w/250 sx, TOC 10980'. Perf. 11994-998' Devonian PBTD 12000'.

Hole	Csg.	Depth	Cmt.
17-1/2"	13-3/8"	315'	300 sx
12-1/4"	9-5/8"	4443'	1500 sx
8-3/4"	5-1/2"	12006'	250 sx

P & A 5-2-69 Schematic Attached.

Gulf Oil Corp. #5 Lea "AV" State — Oil
Unit C, 990' FNL 1650' FWL S19 T12S R38E
Compl. 8-26-57 TD 11954'
Perf. 11902-952' Devonian

Hole	Csg.	Depth	Cmt.
17-1/4"	13-3/8"	265'	450 sx
12-1/4"	8-5/8"	4550'	1840 sx
7-7/8"	5-1/2"	11954'	1710 sx

P & A 4-18-77 Schematic Attached.

Brothers Production Co. #1 Lea "AV" State — Oil
Unit D, 660' FNL 660' FWL S19 T12S R38E
Compl. 8-5-52 TD 11974'
Perf. 11933-971' Devonian
OWWO: 9-25-71 PB to 9702' Perf. 9414'-9588' Wolfcamp

Hole	Csg.	Depth	Cmt.
17-1/4"	13-3/8"	368'	500 sx
12-1/4"	9-5/8"	4500'	1825 sx
8-3/4"	7"	11974'	1350 sx

Gulf Oil Corp. #3 Lea "AV" State — Oil
Unit D, 660' FNL 330' FWL S19 T12S R38E
Compl. 5-20-53
Perf. 9385'-9590' Wolfcamp
OWWO: 4-28-55 Repaired csg. lk. 6771'-6802'. Sqzd. w/130 sx, DO, return to prod.

Hole	Csg.	Depth	Cmt.
17-1/2"	13-3/8"	353'	450 sx
12-1/4"	9-5/8"	4503'	3280 sx
8-3/4"	7"	9597'	275 sx

P & A 6-30-61 Schematic Attached.

Brothers Production Co. #2 Lea "AV" State — Oil
Unit E, 330' FWL 1980' FNL S19 T12S R38E
Compl. 5-2-53 TD 11955'
Open hole 11885'-11955' Devonian
OWWO: 10-22-62 CIBP @ 11800' w/2 sx cmt. Perf. 11758'-11770' (Miss.) No show oil or gas. CIBP @ 9645' w/2 sx cmt. PBTD 9635'. Perf 9400'-9588' Wolfcamp.

Hole	Csg.	Depth	Cmt.
17-1/4"	13-3/8"	376'	500 sx
12-1/4"	9-5/8"	4520'	2282 sx
8-3/4"	7"	11885'	610 sx

Brothers Production Co. #4 Lea "AV" State — Oil
Unit F, 1980' FNL 1980' FWL S19 T12S R38E
Compl. 9-12-57 TD 12,000'
Perf. 11960-997' Devonian
OWWO: 11-7-71 CIBP @ 11700' w/14' cmt. CIBP 9636'. Perf. 9442'-9576' Wolfcamp

Hole	Csg.	Depth	Cmt.
17-1/4"	13-3/8"	267'	400 sx
11"	8-5/8"	4533'	1940 sx
7-7/8"	5-1/2"	12000'	1600 sx

Amoco Production Co. #1 State B-19 — Oil
Unit K, 2310' FSL 1650' FWL S19 T12S R38E
Compl. 5-27-57 TD 11982'
Perf. 11958-968' Devonian

Hole	Csg.	Depth	Cmt.
17-1/4"	13-3/8"	342'	350 sx
11"	8-5/8"	4633'	650 sx
7-7/8"	5-1/2"	11982'	1200 sx

P & A 9-13-71 Schematic Attached.

Pan American Petroleum Corp. #2 Houston "A" — Oil
Unit L, 2110' FSL 330' FWL S19 T12S R38E
Compl. 4-27-54 TD 9816'
Perf. 9470'-9536' Wolfcamp

Hole	Csg.	Depth	Cmt.
17-1/2"	13-3/8"	303'	325 sx
12-1/4"	9-5/8"	4490'	590 sx
8-3/4"	5-1/2"	9806'	370 sx

P & A 12-1-67 Schematic Attached.

Petro Oil Company, L.P. #1 Houston "A" — Oil
Unit L, 2310' FSL 330' FWL S19 T12S R38E
Compl. 11-17-53 TD 11960'
Open hole 11921-960' Devonian
OWWO: 10-14-58 Perf. 11874-890' Devonian
OWWO: 1-6-59 CIBP @ 11905'
OWWO: 7-27-59 Cmt. ret. 11850' sqz. 11874-890' w/200 sx. DO to 11900'.
Reperf. 11875-885' Devonian

Hole	Csg.	Depth	Cmt.
17-1/2"	13-3/8"	324'	255 sx
12-3/4"	9-5/8"	4514'	440 sx
8-3/4"	7"	11921'	1260 sx

P & A 9-6-87 Schematic Attached.

Pan American Petroleum Corp. #1 Houston "B" Oil
Unit M, 990' FSL 330' FWL S19 T12S R38E
Compl. 2-10-54 TD 9820' PBTD 9575'
Perf. 9498'-9556' Wolfcamp
OWDO: 1-29-57 Drilled to new TD 11971'. Set 5" liner 9140'-11971'. Perf 11908-953' Devonian
OWWO: 8-1-69 CIBP @ 11700'. Perf. Penn 10004-176'. No shows.

Hole	Csg.	Depth	Cmt.
17-1/2"	13-3/8"	301'	325 sx
12-1/4"	9-5/8"	4461'	690 sx
8-3/4"	7"	9808'	300 sx
NR	5" liner	9140'-11971'	200 sx

P & A 8-15-69 Schematic Attached.

Barbara Fasken
Wingerd No. 2
Gladiola Field
Lea County, New Mexico
Application for Authorization to Inject

MAIL LIST

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

Oil Conservation Division
P.O. Box 1980
Hobbs, NM 88240

Surface Owner

Dean Kinsolving — Cert. # P 684 781 923
P.O. Box 325
Tatum, NM 88267

Leasehold Operators Within One-Half Mile

W/2 of NE/4 Sec. 24 T12S R37E
Wadi Petroleum, Inc. — Cert. # P 684 781 924
1440 S. Walters Road, Suite 400
Houston, TX 77014

E/2 of W/2 Sec. 24 T12S R37E
Amoco Production Co. — Cert. # P 684 781 925
501 Westlake Park Blvd.
Houston, TX 77079

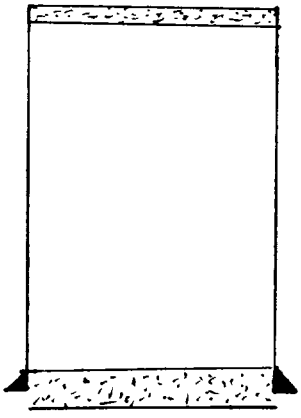
SE/4 Sec. 13 T12S R37E
and S/2 of SW/4 Sec. 18 T12S R38E
Devon Energy Corporation — Cert. # P 684 781 926
20 North Broadway, Suite 1500
Oklahoma City, OK 73102

NW/4 Sec. 19 T12S R38E
Brothers Production Co., Inc. — Cert. # P 684 781 927
407 N. Big Spring, Suite 103
Midland, TX 79701

NE/4 of SW/4 Sec. 18 T12S R38E
Yates Petroleum Corporation — Cert. # P 684 781 928
105 S. Fourth St.
Artesia, NM 88210

NW/4 of SW/4 and S/2 of SW/4 Sec. 19 T12S R38E
Unleased

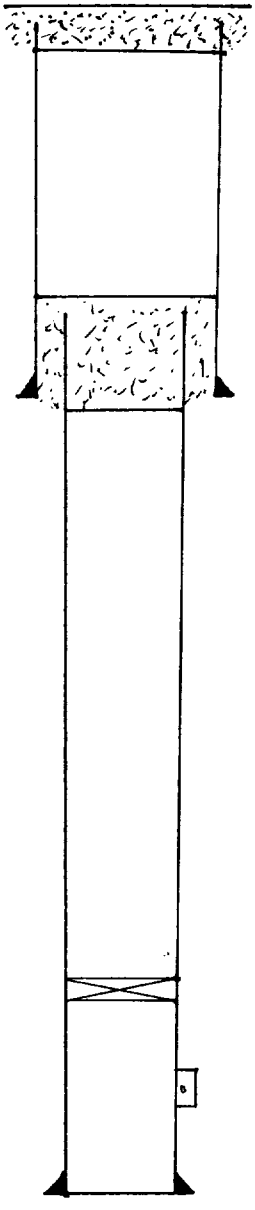
OPERATOR			DATE P&A
ATLANTIC RICHFIELD CO.			6/19/71
LEASE	WELL NO.	LOCATION	
JOHN SHULTS	4	UNIT P SEC 13 T12S R37E	



SPOT 10 SX PLUG AT SURFACE

9#/GAL SALT GEL MUD LEFT BETWEEN ALL PLUGS

13 3/8" CSG AT 338 WITH 350 SX



SPOT 30 SX 358-318

CUT 9 5/8" AND PULLED 1030'
SPOT 40 SX 1066-994

9 5/8" CSG AT 4449 WITH 1200 SX

CUT 5 1/2" AND PULLED 4443'
SPOT 40 SX 4522-4352

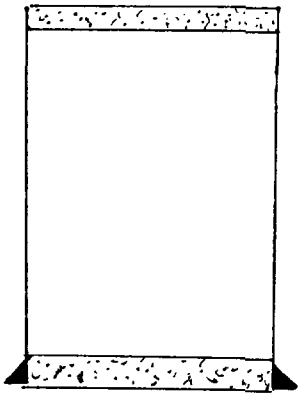
CIBP @ 10508 W/ 5 SX

PF 11890-11935

5 1/2" CSG AT 11954 WITH 800 SX

TOT DEPTH 11954

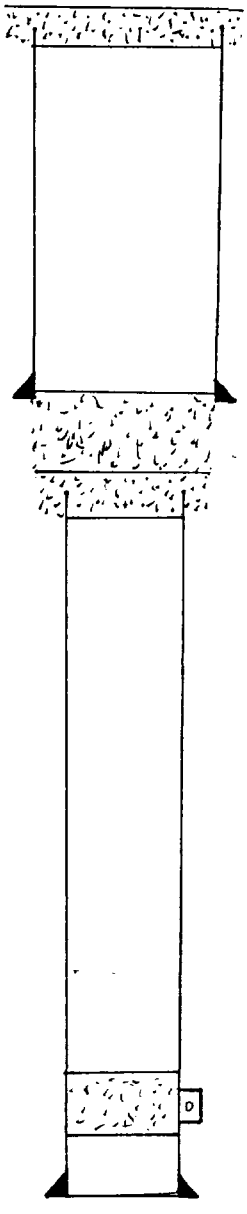
OPERATOR			DATE P&A
PAN AMERICAN PETROLEUM CORP.			1/26/68
LEASE	WELL NO.	LOCATION	
WINGERD	3	UNIT A SEC 24 T12S R37E	



SPOT 10 SX PLUG AT SURFACE

13 3/8" CSG AT 314 WITH 500 SX

SPOT 25 SX IN & OUT OF 13 3/8" @ 314'



CUT 9 5/8" AND PULLED 900'
SPOT 25 SX IN & OUT OF 9 5/8" STUB

9 5/8" CSG AT 4481 WITH 600 SX

CUT 7" AND PULLED 4500'
SPOT 25 SX IN & OUT OF 7" STUB

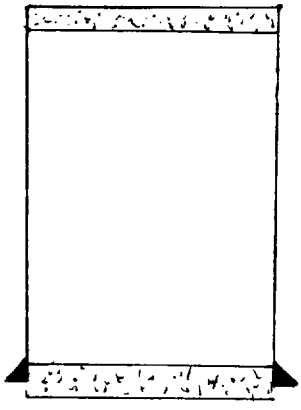
SPOT 30 SX 9700-9600

PF 9607-9618

7" CSG AT 9797 WITH 300 SX

TOT DEPTH 9820

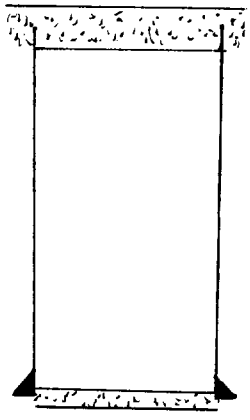
OPERATOR			DATE P&A
McALESTER FUELS CO.			3/27/63
LEASE	WELL NO.	LOCATION	
BROWNFIELD "A"	2	UNIT B SEC 24 T12S R37E	



SPOT 10 SX 0-12'

13 3/8" CSG AT 335 WITH 400 SX

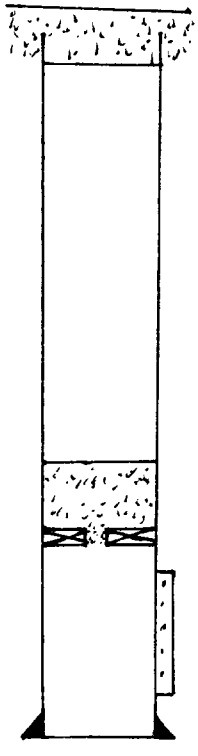
SPOT 25 SX 355-328'



CUT 9 5/8" AND PULLED 1179'
SPOT 25 SX 1190-1155'

SPOT 25 SX 4500-4435'

9 5/8" CSG AT 4436 WITH 1400 SX



CUT 5 1/2" AND PULLED 5990'
SPOT 50 SX 6020-5870'

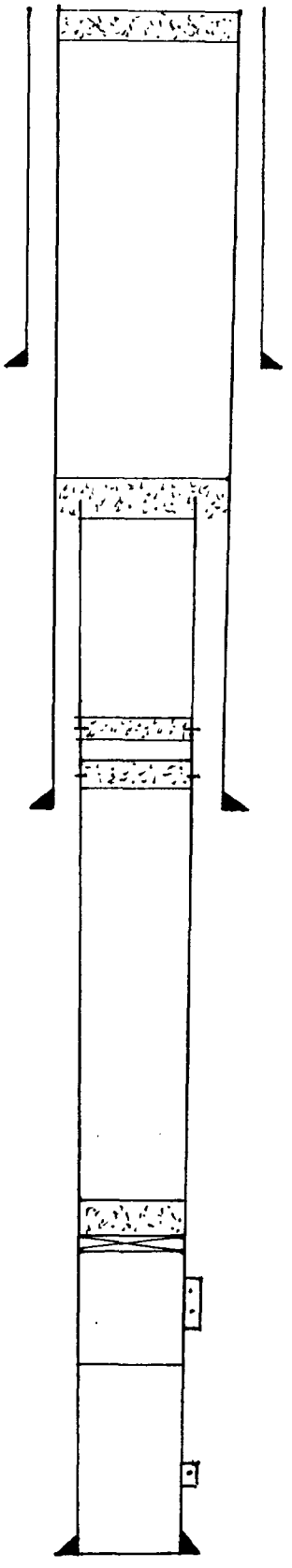
BAKER PKR @ 9496 W/25 SX 9496-9295'

PF 9361-10048'

5 1/2" CSG AT 10312 WITH 820 SX

TOT DEPTH 10330

OPERATOR			DATE P&A
GULF OIL CO.			4/18/77
LEASE	WELL NO.	LOCATION	
LEA "AV" STATE	5	UNIT C SEC 19 T12S R38E	



SPOT 20 SX @ 61'-SURFACE

13 3/8" CSG AT 265 WITH 450 SX

CUT 5 1/2" AND PULLED 2486'

SPOT 75 SX ACROSS 5 1/2" STUB TO 2300'

SPOT 12 SX (109') ACROSS 5 1/2" CSG CUT @ 4295'

SPOT 12 SX (109') ACROSS 5 1/2" CSG CUT @ 4489'

8 5/8" CSG AT 4550 WITH 1840 SX

CIBP @ 9205' W/ 135' CMT ON TOP

PF +/- 9400-9600'

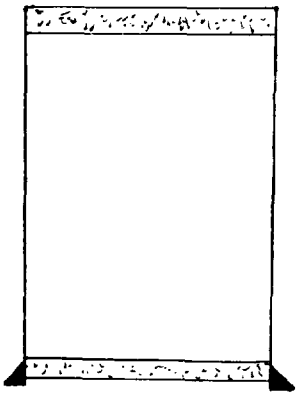
PB @ 9722'

PF 11902-11952'

5 1/2" CSG AT 11954 WITH 1710 SX

TOT DEPTH 11954

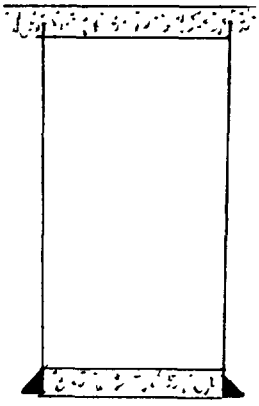
OPERATOR			DATE P&A
STANOLIND OIL AND GAS CO.			8/6/51
LEASE	WELL NO.	LOCATION	
LOIS WINGERD	1	UNIT F SEC 24 T12S R37E	



SPOT 15 SX @ SURFACE

13 3/8" CSG AT 341 WITH 300 SX

SPOT 20 SX @ 320'

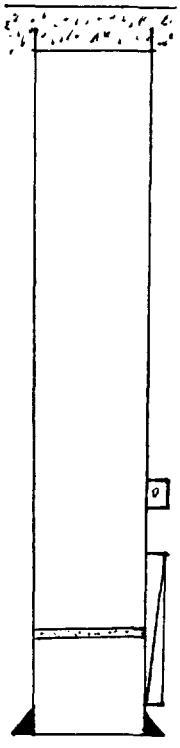


CUT 9 5/8" AND PULLED 1265'
SPOT 20 SX 1265'

SPOT 15 SX @ 4673'

9 5/8" CSG AT 4673 WITH 550 SX

CUT 7" AND PULLED 5157'
SPOT 20 SX @ 5157'



PF 9415-9540'

SPOT 20 SX 9940-9934' (BY NMOCD RECORDS)

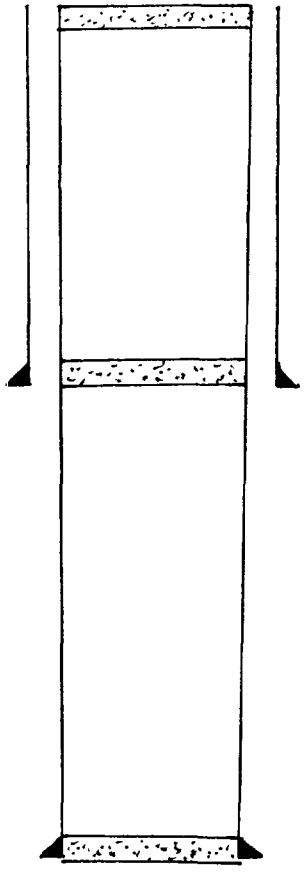
PF 9530-10340' SQZD

PBTD 10358'

7" CSG AT 10412 WITH 325 SX

TOT DEPTH 12111

OPERATOR			DATE P&A
McALESTER FUELS CO.			7/26/71
LEASE	WELL NO.	LOCATION	
BROWNFIELD	1	UNIT G SEC 24 T12S R37E	



SPOT 10 SX @ SURFACE

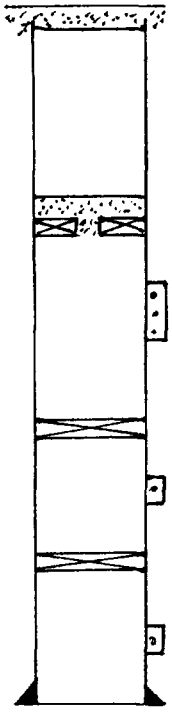
SPOT 25 SX @ 365'

13 3/8" CSG AT 365 WITH 400 SX

SPOT 35 SX @ 4473'

9 5/8" CSG AT 4473 WITH 1968 SX

CUT 5 1/2" AND PULLED 5155'
SPOT 25 SX @ 5155'



PACKER @ 9270' W/18' CMT ON TOP

PF 9310-9584'

CIBP @ 10000'

PF 10282-10298'

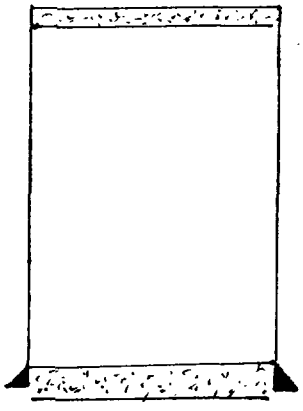
CIBP @ 10330'

PF 11815-11845

5 1/2" CSG AT 11980 WITH 1235 SX

TOT DEPTH 11985

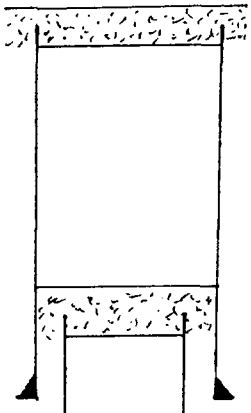
OPERATOR			DATE P&A
McALESTER FUELS CO.			4/1/63
LEASE	WELL NO.	LOCATION	
BROWNFIELD	2	UNIT G SEC 24 T12S R37E	



SPOT 10 SX @ SURFACE

SPOT 25 SX @ 370-338'

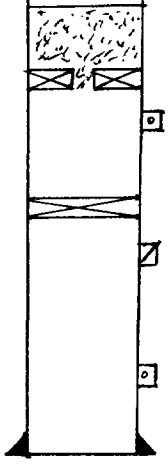
13 3/8" CSG AT 367 WITH 400 SX



CUT 9 5/8" AND PULLED 684'
SPOT 25 SX @ 700-660'

CUT 5 1/2" AND PULLED 4026'
SPOT 25 SX @ 4050-3968'

9 5/8" CSG AT 4474 WITH 1657 SX



PACKER @ 9445' W/50 SX CMT ON TOP, PBTD 8990

PF 9457-9479'

CIBP @ 9510'

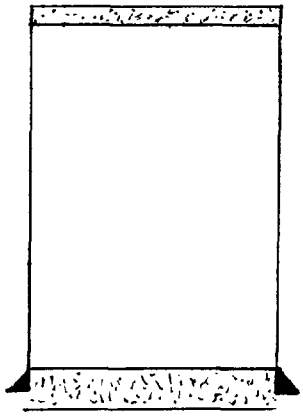
PF 9572-9593, SQZD

PF 10295-10310'

5 1/2" CSG AT 10345 WITH 674 SX

TOT DEPTH 10345

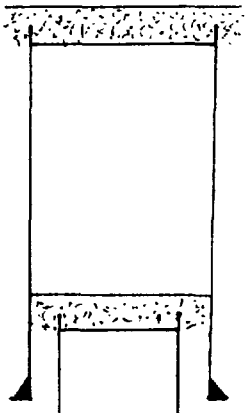
OPERATOR			DATE P&A
P'AN AMERICAN PETROLEUM CORP.			1/11/68
LEASE	WELL NO.	LOCATION	
WINGERD	7	UNIT H SEC 24 T12S R37E	



SPOT 10 SX @ SURFACE

SPOT 25 SX IN & OUT OF 13 3/8"

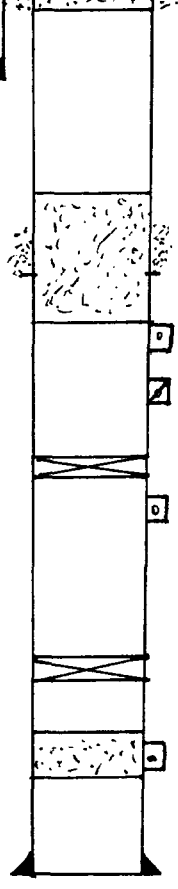
13 3/8" CSG AT 312 WITH 360 SX



CUT 9 5/8" AND PULLED 924'
SPOT 25 SX IN & OUT OF STUB

CUT 5 1/2" AND PULLED 4424'
SPOT 25 SX IN & OUT OF STUB

9 5/8" CSG AT 4479 WITH 690 SX



SPOT 20 SX 5175-5100

PF 5104-12 BLOCK SQZ CSG W/75 SX

PF 5170-5204'

PF 5220-5230', SQZD W/100 SX

CIBP @ 5250'

PF 5538-5578'

CIBP @ 9510'

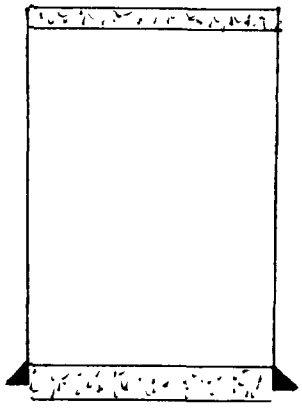
SPOT 25 SX CMT ACROSS PERFS 9580-94'

PF 9580-9594'

5 1/2" CSG AT 9820 WITH 372 SX

TOT DEPTH 9820

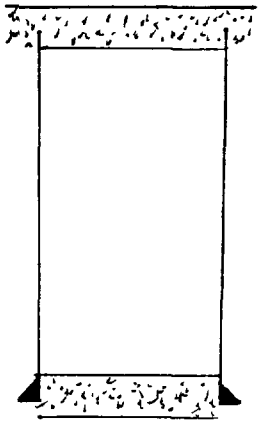
OPERATOR			DATE P&A
PAN AMERICAN PETROLEUM CORP.			12/29/67
LEASE	WELL NO.	LOCATION	
WINGERD	9	UNIT I SEC 24 T12S R37E	



SPOT 10 SX @ SURFACE

SPOT 25 SX IN & OUT OF 13 3/8" @ 300'

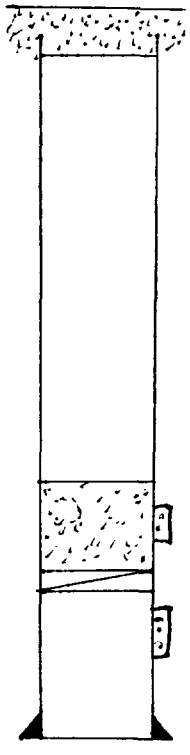
13 3/8" CSG AT 293 WITH 325 SX



CUT 9 5/8" AND PULLED 1000'
SPOT 25 SX IN & OUT OF 9 5/8" STUB

SPOT 25 SX IN & OUT OF 9 5/8" @ 4499'

9 5/8" CSG AT 4488 WITH 690 SX



CUT 7" AND PULLED 5450'
SPOT 25 SX IN & OUT OF 7" STUB

SPOT 50 SX 9585-9300'

PF 9386-9568'

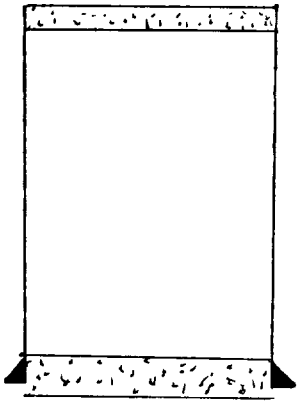
CMT RET @ 9585'

PF 9589-9603'

7" CSG AT 9873 WITH 300 SX

TOT DEPTH 9820

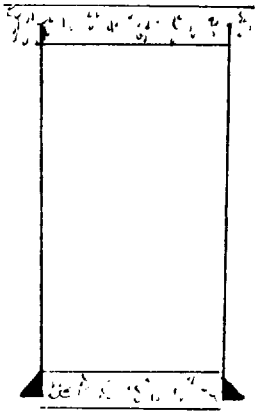
OPERATOR			DATE P&A
PAN AMERICAN PETROLEUM CORP.			1/10/68
LEASE	WELL NO.	LOCATION	
WINGERD	11	UNIT J SEC 24 T12S R37E	



SPOT 10 SX @ SURFACE

SPOT 25 SX IN & OUT OF 13 3/8"

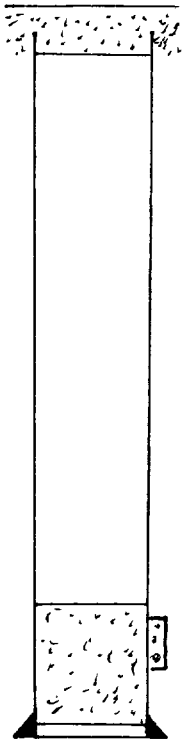
13 3/8" CSG AT 326 WITH 325 SX



CUT 9 5/8" AND PULLED 700'
SPOT 25 SX IN & OUT OF 9 5/8" STUB

SPOT 20 SX IN & OUT OF 9 5/8" @ 4529'

9 5/8" CSG AT 4515 WITH 690 SX



CUT 7" AND PULLED 4700'
SPOT 25 SX IN & OUT OF 7" STUB

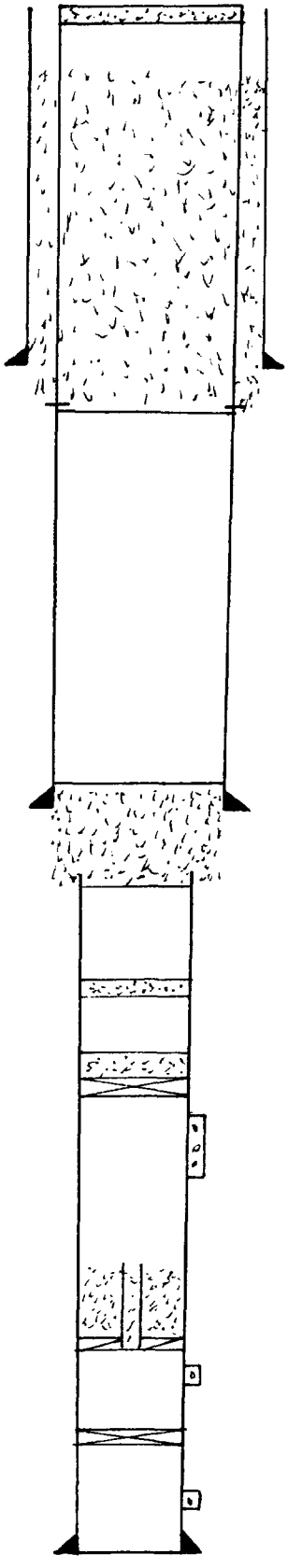
SPOT 40 SX 9785-9550'

PF 9575-9692'

7" CSG AT 9812 WITH 300 SX

TOT DEPTH 9823

OPERATOR		DATE P&A
FINA OIL & CHEMICAL CO.		5/4/93
LEASE	WELL NO.	LOCATION
WINGERD	12	UNIT O SEC 24 T12S R37E



SPOT 10 SX @ SURFACE

13 3/8" CSG AT 300 WITH 325 SX

SPOT 90 SX IN & OUT OF 13 3/8" @ 360-50' thru csg cut

8 5/8" CSG AT 4500 WITH 690 SX

CUT 5 1/2" AND PULLED 4860'
SPOT 220 SX @ 4909 ACROSS 5 1/2" AND INTO 8 5/8" CSG

SPOT 25 SX @ 6909'

CIBP @ 9440' W/ 40' CMT

PF 9517-9830'

CMT RET @ 10630' W/441' 2 7/8" TBG CMTD IN, TOF 10189'

PF 10662-10702'

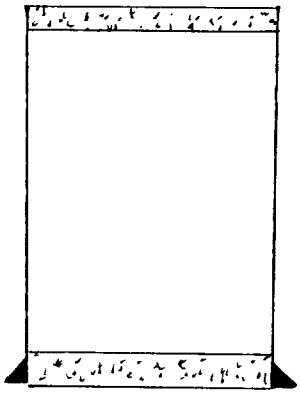
CIBP @ 10710'

PF 11865-11900'

5 1/2" CSG AT 11986 WITH 600 SX

TOT DEPTH 11987

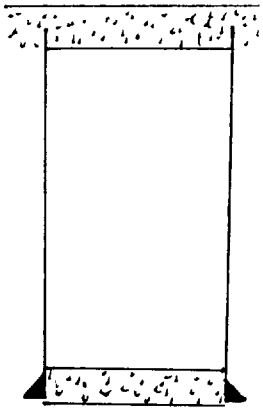
OPERATOR			DATE P&A
AMOCO PRODUCTION CORP.			6/14/71
LEASE	WELL NO.	LOCATION	
WINGERD	8	UNIT P SEC 24 T12S R37E	



SPOT 10 SX @ SURFACE

SPOT 50 SX IN & OUT OF 13 3/8" @ 323'

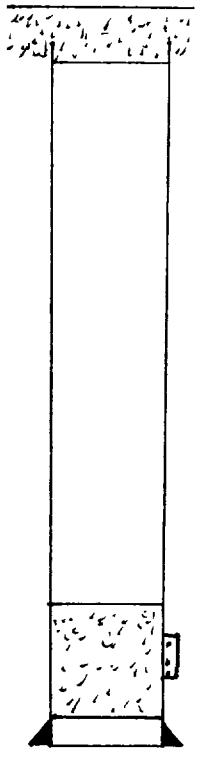
13 3/8" CSG AT 323 WITH 225 SX



CUT 9 5/8" AND PULLED 985'
SPOT 25 SX IN & OUT OF 9 5/8" STUB

SPOT 25 SX IN & OUT OF 9 5/8" @ 4495'

9 5/8" CSG AT 4495 WITH 590 SX



CUT 7" AND PULLED 5008'
SPOT 25 SX IN & OUT OF 7" STUB

SPOT 75 SX @ 9770-9400' (CALC.)

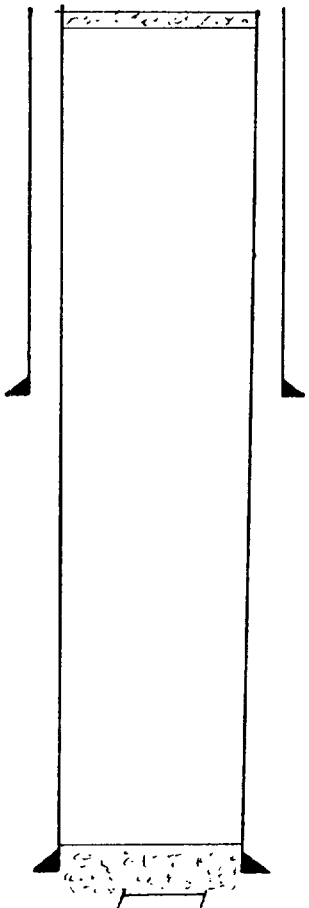
PF 9610-9636'

PBTD 9770'

7" CSG AT 9818 WITH 300 SX

TOT DEPTH 9818

OPERATOR			DATE P&A
ATLANTIC RICHFIELD CO.			5/2/69
LEASE	WELL NO.	LOCATION	
ROSA SHULTS	1	UNIT M SEC 18 T12S R38E	



SPOT 10 SX @ SURFACE

13 3/8" CSG AT 315 WITH 300 SX

CUT 5 1/2" AND PULLED 4600'
SPOT 85 SX 4600-4393'

9 5/8" CSG AT 4443 WITH 1500 SX

CMT RET @ 9350' SQZ 150 SX THRU PFS 9402-9403

CIBP @ 11900' W/ 20' CMT

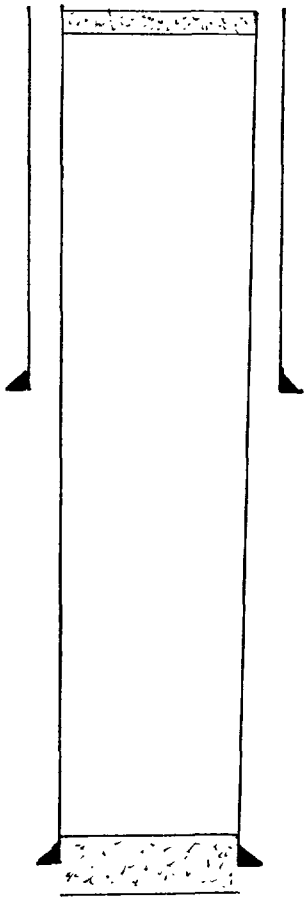
SIDETRACK COMPLETION:
CUT & PULLED 8825' 5 1/2" CSG SET WHIPSTOCK @ 8647'
SET 5 1/2" 12006' W/ 250 SX
PF 11994-11998

ORIGINAL COMPLETION:
PF 9480-9530' SQZD
CMT RET @ 10280
PF 11970-11988, SQZD W/ 90 SX
TD 12217 5 1/2" CSG @ 12045

5 1/2" CSG AT 12006 WITH 250 SX

TOT DEPTH 12006

OPERATOR			DATE P&A
GULF OIL CO.			6/30/61
LEASE	WELL NO.	LOCATION	
LEA "AV" STATE	3	UNIT D SEC 19 T12S R38E	



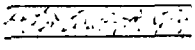
SPOT CMT PLUG @ 50'-SURFACE

13 3/8" CSG AT 353 WITH 450 SX

SPOT CMT PLUG 4550-4450'

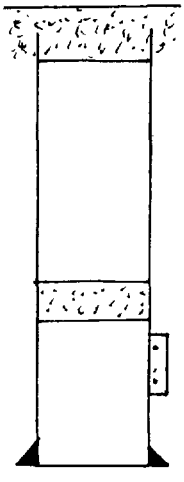
9 5/8" CSG AT 4503 WITH 3280 SX

SPOT CMT PLUG 4550-4450'



SPOT CMT PLUG 5950-5850'

SPOT CMT PLUG 6220-6120'



CUT 7" AND PULLED 6179'

CSG LK 6771-6802' SQZD

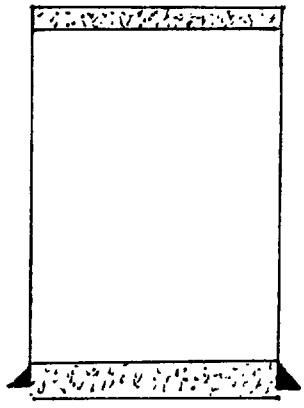
SPOT CMT 9350-9250'

PF 9385-9590'

7" CSG AT 9597 WITH 275 SX

TOT DEPTH 9597

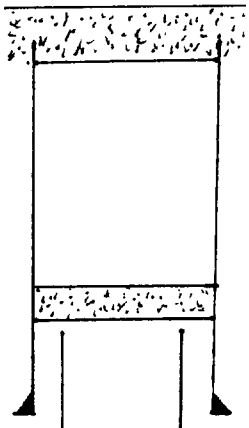
OPERATOR			DATE P&A
AMOCO PRODUCTION CO.			9/13/71
LEASE	WELL NO.	LOCATION	
STATE "B-19"	1	UNIT K SEC 19 T12S R38E	



SPOT 10 SX @ SURFACE

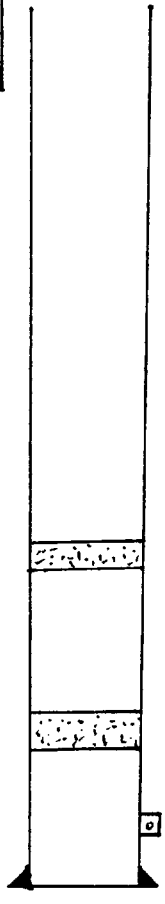
SPOT 50 SX 344-295'

13 3/8" CSG AT 342 WITH 350 SX



CUT 8 5/8" AND PULLED 980'
SPOT 50 SX 1010-920'

8 5/8" CSG AT 4633 WITH 650 SX



CUT 5 1/2" AND PULLED 4582'
SPOT 50 SX 4530-4450'

SPOT 30 SX 8050-8300'

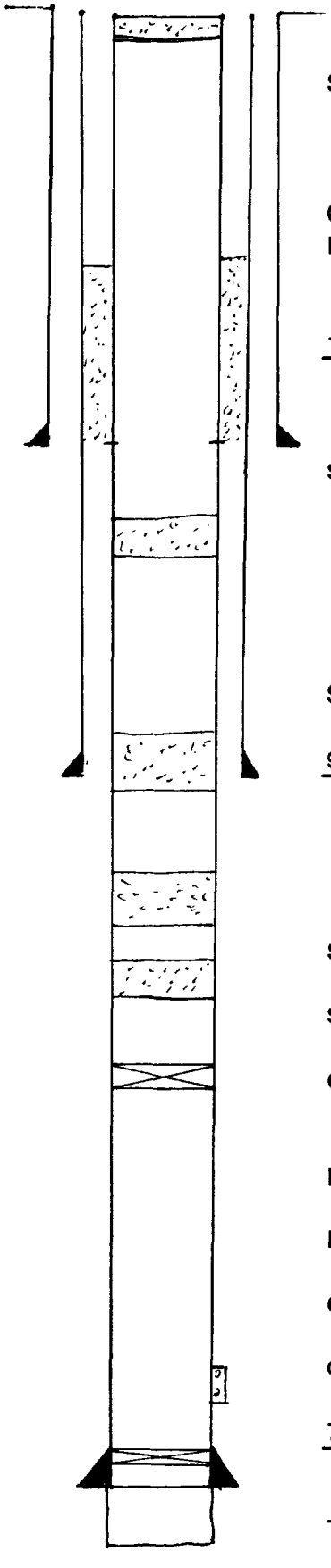
SPOT 50 SX 11598-11500'

PF 11958-11968'

5 1/2" CSG AT 9597 WITH 1200 SX

TOT DEPTH 11982

OPERATOR			DATE P&A
PETRUS OIL COMPANY, L.P.			9/6/87
LEASE	WELL NO.	LOCATION	
HOUSTON "A"	1	UNIT L SEC 19 T12S R38E	



SPOT 10 SX @ SURFACE

CIRC 100 SX THRU SQZ HOLES @ 324', TOC 272'
PF 7" @ 324' W/ 4SPF

13 3/8" CSG AT 324 WITH 255 SX

SPOT 25 SX @ 2225'

SPOT 50 SX 4533-4240'

9 5/8" CSG AT 4514 WITH 440 SX

SPOT 100 SX 5988-5709'

SPOT 25 SX 7002-6902'

CIBP @ 9270'

PF 11875-11885'

PF 11874-11890' SQZD

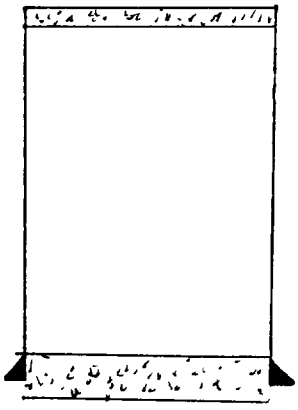
CIPB @ 11905'

OPEN HOLE 11921-11960'

7" CSG AT 11921 WITH 1260 SX

TOT DEPTH 11960

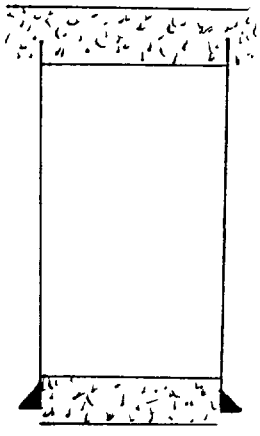
OPERATOR			DATE P&A
PAN AMERICAN PETROLEUM CORP.			12/1/67
LEASE	WELL NO.	LOCATION	
HOUSTON "A"	2	UNIT L SEC 19 T12S R38E	



SPOT 10 SX @ SURFACE

SPOT 25 SX IN & OUT OF 13 3/8" CSG

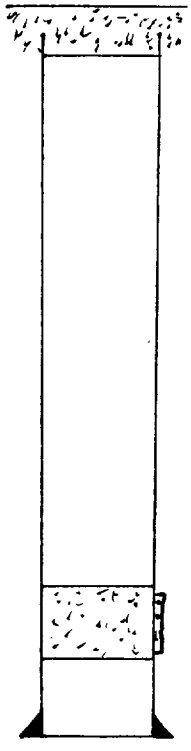
13 3/8" CSG AT 303 WITH 325 SX



CUT 9 5/8" AND PULLED 1220'
SPOT 25 SX IN & OUT OF 9 5/8" STUB

SPOT 20 SX IN & OUT OF 9 5/8" @ 4500'

9 5/8" CSG AT 4490 WITH 590 SX



CUT 5 1/2" AND PULLED 5020'
SPOT 25 SX IN & OUT OF 5 1/2" STUB

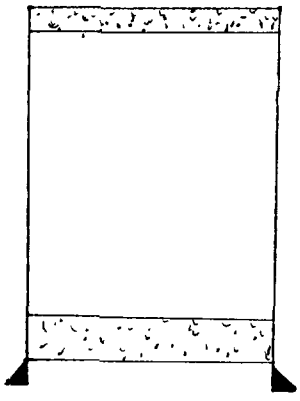
SPOT 15 SX 9550-9460'

PF 9470-9536'

5 1/2" CSG AT 9806 WITH 370 SX

TOT DEPTH 9816

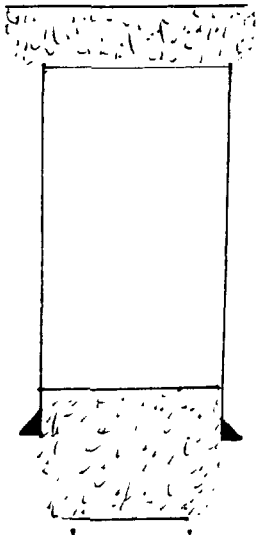
OPERATOR			DATE P&A
PAN AMERICAN PETROLEUM CORP.			8/15/69
LEASE	WELL NO.	LOCATION	
HOUSTON "B"	1	UNIT M SEC 19 T12S R38E	



SPOT 10 SX @ SURFACE

SPOT 50 SX 290-250'

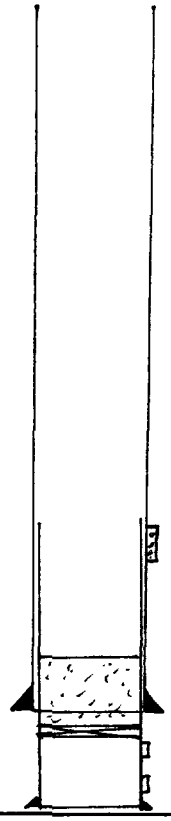
13 3/8" CSG AT 301 WITH 325 SX



CUT 9 5/8" AND PULL @ 710'
SPOT 25 SX 710-560'

9 5/8" CSG AT 4461 WITH 690 SX

CUT 7" AND PULL @ 4478'
SPOT 75 SX 4450-4200'



ORIGINAL COMPLETION:
TD 9820' PBTD 9575'
PF 9498-9556'

SPOT 50 SX 10200-9990'

OLD WELL DRILLED DEEPER:
DRILLED NEW HOLE 9820-11971'
SET 5" LINER 9140-11971' W/200 SX
PF 10004-10176'

CIBP @ 11700'
PF 11908-11953'

7" CSG AT 9808 WITH 300 SX
5" LINER @ WITH 200 SX
TOP LINER 9140
TOT DEPTH 11971

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O.BOX1499

HOBBS, NEW MEXICO 88240

COMPANY : AMOCO
DATE : 5-22-84
FIELD,LEASE&WELL : WINGERD #13 GLADIOLA-MISSISSIPPAN
SAMPLING POINT: WELLHEAD
DATE SAMPLED : 5-14-84

SPECIFIC GRAVITY = 1.063
TOTAL DISSOLVED SOLIDS = 93316
RESISTIVITY AT 76F IS .082 OHMS
PH = 5.94

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	220	4408.
MAGNESIUM	(MG)+2	90	1094.
SODIUM	(NA),CALC.	1305.	30018.
ANIONS			
BICARBONATE	(HCO3)-1	2.2	134.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	13.5	650
CHLORIDES	(CL)-1	1600	57000
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		60.2
BARIUM	(BA)+2	.16	11
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) =1.839

SCALING INDEX	TEMP
	30C 86F
CARBONATE INDEX	-.93
CALCIUM CARBONATE SCALING	UNLIKELY
CALCIUM SULFATE INDEX	-28.
CALCIUM SULFATE SCALING	UNLIKELY

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 893131
SAMPLE RECEIVED 8-23-93
RESULTS REPORTED 8-24-93

TO: Mr. Carl Brown
303 West Wall Street, Suite 1901
Midland, TX 79701

COMPANY Barbara Fasken LEASE
FIELD OR POOL Gladiola
SECTION 24 BLOCK SURVEY T-12S&R-37E COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Raw water - taken from Kinsoning fresh water well (windmill), 8-21-93
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0015			
pH When Sampled				
pH When Received	7.32			
Bicarbonate as HCO_3	307			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	100			
Calcium as Ca	27			
Magnesium as Mg	8			
Sodium and/or Potassium	162			
Sulfate as SO_4	103			
Chloride as Cl	67			
Iron as Fe	0.54			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	674			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F	12.42			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	0.0			

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By Waylan C. Martin, M.A.

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 893128
SAMPLE RECEIVED 8-23-93
RESULTS REPORTED 8-24-93

TO: Mr. Carl Brown
303 West Wall Street, Suite 1901
Midland, TX 79701

COMPANY Barbara Fasken LEASE
FIELD OR POOL Gladiola
SECTION 13 BLOCK SURVEY T-12S&R-37E COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken from Skelton Ranch House (garden hose). 8-21-93
NO. 2
NO. 3
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0011			
pH When Sampled				
pH When Received	7.40			
Bicarbonate as HCO_3	244			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	244			
Calcium as Ca	85			
Magnesium as Mg	8			
Sodium and/or Potassium	64			
Sulfate as SO_4	104			
Chloride as Cl	54			
Iron as Fe	0.05			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	559			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	15.22			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	0.0			

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By Waylan C. Martin, M.A.

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4621

RESULT OF WATER ANALYSES

LABORATORY NO. 893130
SAMPLE RECEIVED 8-23-93
RESULTS REPORTED 8-24-93

TO: Mr. Carl Brown
303 West Wall Street, Suite 1901
Midland, TX 79701

COMPANY Barbara Fasken LEASE
FIELD OR POOL Gladiola
SECTION 19 BLOCK SURVEY T-12S&R-38E COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Raw water - taken @ Houston Ranch House (kitchen faucet). 8-21-93
NO. 2
NO. 3
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0020			
pH When Sampled				
pH When Received	7.32			
Bicarbonate as HCO_3	220			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	512			
Calcium as Ca	170			
Magnesium as Mg	21			
Sodium and/or Potassium	91			
Sulfate as SO_4	132			
Chloride as Cl	278			
Iron as Fe	0.05			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	912			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	7.20			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	1.0			

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By Waylen C. Martin, M.A.

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

OIL CONSERVATION DIVISION
RECEIVED
'93 SEP 3 AM 8 41

BRUCE KING
GOVERNOR

8-31-93

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

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

RE: Proposed:
MC_____
DHC_____
NSL_____
NSP_____
SWD X
WFX_____
PMX_____

Gentlemen:

I have examined the application for the:

Barbara Fasken Wingerd #2-H-24-12-37
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

- /ed