СНЕСК	LIST for ADM	MINISTRATIVE INJECTION APPLICATIONS
Operator: Mecho	IAN CALL	10. Well: TPISTE DRAW '36 STATE NO. 1
Contact:	Williams	Title: Regurance (on 1P Phone: 915-688 (743
		LEASE DATE 10-24-95 DATE OUT 10 31-95
Proposed Injection	Application is f	for: WATERFLOOD Expansion Initia
Original Order: R-		Secondary Recovery Pressure Maintenance
SENSITIVE	AREAS	X SALT WATER DISPOSAL Commercial We
<i>t WP</i> S <u>F</u> WIPPC	apitan Reef	
Data is complete f	or proposed we	ell(s)? <u>445</u> Additional Data Req'd
AREA of REVIEW	WELLS	
<u>(</u> T	otal # of AOR	/ # of Plugged Wells
		plete <u>(15</u> Schematics of P & A's
<u>116</u> C	ement Tops Ad	dequate AOR Repair Required
INJECTION FORM		
Iniection Fo	rmation(s)	Stic Carrow Compatible Analysis
		te DELAWARE / BONE SPRING
PROOF of NOTICE		
	- Copy of Legal No	lation is (Information Printed Correctly
<u>''</u> U C	Correct Operator	rs <u><u>y</u><u>e</u>SCopies of Certified Mail Receipts</u>
C	bjection Receiv	ved Set to Hearing Date
NOTES:		
APPL	CATION QUALI	IFIES FOR ADMINISTRATIVE APPROVAL? 445
COMMUNICATION WITH CON		
1st Contact:		Letter Date Nature of Discussion
2nd Contact:	Telephoned	Letter Date Nature of Discussion
3rd Contact:	Telephoned	Letter Date Nature of Discussion

ENERGY	STATE OF NEW MEXICO AND MIMERALS DEPARTMENT OIL CONSERVATION DIVISION BAND MIMERALS DEPARTMENT OIL CONSERVATION DIVISION BAND ALL DEPARTMENT POST OFFICE BURGING BANDA FE NEW MEXICO BOSON BANDA FE NEW MEXICO BOSON
APPLICAT	VION FOR AUTHORIZATION TO INJECT
Ι.	Purpose: Secondary Recovery Pressure Maintenance XX Dicesal Storage Application qualifies for administrative approval? yes no
II.	Operator: Meridian Oil Inc.
	Address: P.O. Box 51810 Midland, Tx 79710-1810
	Contact party: Donna Williams Phone: 915-688-6943
111.	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 I yes I yes I yes I yes
۷.	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:
	 Proposed overage and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and If injection is for discosal 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.).
* V1II.	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 ocologic 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:	Donn	a Wi	lliams			Title	
Signature:				<u>ili</u>)	Date:	10/4/95

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* 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:
 - 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

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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.

MERIDIAN OIL

October 6, 1995,

Mr. David Catanach Oil Conservation Division 2040 S. Pacheco Street Santa Fe, New Mexico 87505

RE:

Application for Authorization to Dispose Triste Draw 36 State No. 1 Ut. E, Sec 36, T23S, R32E 1980' FNL & 510' FWL Lea County, New Mexico State Lease No: V-3925

Mr. Catanach:

Meridian Oil Incorporated (MOI) is applying for authorization to convert the above referenced well for the purpose of water disposal. Attached is an injection well data sheet showing the current and proposed mechanical configuration of this well. A map is also attached showing the one-half mile area of review around the well. The required information from Form C-108 follows:

The proposed injection well will dispose of water produced from Meridian Oil leases from the Bone Spring & Delaware formation in the South Sand Dunes Bone Spring & Triste Draw Delaware fields. Our estimated initial injection rate will be 1000 BPD. The estimated maximum rate is 4000 BPD. We anticipate initial injection pressure to be \pm /- 600 psi, and request an operating maximum pressure of 1200 psi. The closed injection facilities will be equipped with high and low level head switches and will not operate continuously. No deeper aquifers containing usable quality water are known in this area.

III. Well Data

Α.	1.	The proposed converted Triste Draw 36 State No 1980' FNL & 510' FWI Sec. 36, T23S, R32E Lea County, New Mexic	5. 1
	2.	Surface Casing:	13 3/8" 48# H-40 csg set @ 652'. Cmted w/700 sxs. TOC @ Surface.
		Intermediate Casing:	8 5/8" 28#/32# K-55 csg set @ 4867'. Cmted w/2965 sxs. TOC @ Surface.
		Long String:	5 1/2" 17# K-55 csg set @ 9150'. Cmtd w/860 sxs. TOC is Unknown. Lost Circ. w/98 bbl displacement
	3.	Injection Tubing:	2 7/8" 6.5# J-55 IPC tubing @ +/- 5,300'
	4.	Injection Packer:	Baker Lokset (coated) set @ 5,300'

- B. 1. Injection Formation: Middle & Lower Bell Canyon
 - 2. Injection Interval: 5364'-6138'
 - 3. The well will be converted to be a disposal well
 - 4. There will be no other open intervals in this injection well.
 - 5. The next possible lower oil or gas zone is the <u>Canyon Delaware</u> located at approximately 7000'. Higher horizons (Ramsey Delaware) produce within the area of review.
- IV. This is not an expansion of an existing Meridian Oil project.
- V. Area of Review: See Exhibit 'A' which identifies the well's area of review.
- VI. Tabulation of data: Well within area of review
 - 1.) Well Name: Federal WL26 # 3 Location: 330' FSL & 660' FEL Sec. 26, T23S, R32E Lea County, New Mexico

Operator:	Gene A. Snow		
Well Type:	Oil	Total Depth:	5144'
Date Drilled:	Spud - 3/26/62	Completed -	4/9/62
Completion Data: Perforated		5071'-5073'	

Well is Currently Inactive.

2.) Well Name: James Federal # 1 Location: 660' FNL & 660' FEL Sec. 35, T23S, R32E Lea County, New Mexico

Operator:	P-M Drilling Con	mpany	
Well Type:	Oil	Total Depth:	5200'
Date Drilled:	Spud - 1/26/61	Completed -	2/14/61
Completion Data: Perforated		5062'-5066'	

Well is Currently Inactive.

3.)	Well Name: Location:	James Federal # 2 660' FNL & 1980' FEL Sec. 35, T23S, R32E Lea County, New Mexico		
	Operator: Well Type: Date Drilled: Completion Data	P-M Drilling Company Oil Spud - 3/2/61 :Perforated 5031' -	Total Depth: Completed - 5036'	5143' 4/7/61
	Well is Currently	Inactive		
4.)	Well Name: location: 1980' F	James Federal # 3 SL & 1980' FEL Sec. 35, T23S, R32E Lea County, New Mexico		
	Operator: Well Type: Date Drilled: Completion Date See Exhibit 'B'	Palmer and McCarver Oil Spud - 6/10/61 Well was drilled and aban	Total Depth: Completed - doned	5110' 6/23/61
5.)	Well Name: Location:	Federal WL35 # 1 1650' FNL & 2310' FEL Sec. 35, T23S, R32E Lea County, New Mexico		
	Operator: Well Type: Date Drilled: Completion Data	Gene A. Snow Oil Spud - 3/7/62 :Perforated	Total Depth: Completed - 5030'-5034'	5110' 3/29/62
	Well is Currently	Inactive		
6.)	Well Name: Location:	Federal WL35 # 2 1650' FNL & 900' FEL Sec. 35, T23S, R32E Lea County, New Mexico		
	Operator: Well Type: Date Drilled: Completion Data	Gene A. Snow Oil Spud - 3/16/62 Perforated	Total Depth: Completed - 5049'-5053'	5105' 3/29/62
	Well is Currently	Inactive		

VII. Proposed Operation:

- 1.) Estimated average initial injection rate is 600 BWPD. Estimated maximum daily rate is 1500 BWPD.
- 2.) This will be a closed system
- 3.) Estimated average injection pressure is 600 psi. Maximum estimated operating pressure is 1200 psi.
- 4.) Produced water from the Delaware and the First Bone Spring sand will be disposed of into the Middle & Lower Bell Canyon. Water analysis of produced water from the Delaware is included. See Exhibit 'C'.
- 5.) The injection interval is not productive of oil or gas within one (1) mile of the proposed well. For the injection zone water analysis, the data source is from the Dagger Lake '5' State No. 1 located in Sec. 5, T22S, R33E, Lea County, New Mexico. See Attached Water analysis. Exhibit 'D '.

VIII. Geological Data:

A.. Injection Zone -Lithological Description: Sandstone, light gray fine to very fine grained, poorly consolidated, silty, poor calc. cement

Geological Name:	Middle & Lower Bell Canyon
Zone of Thickness:	775'
Base of Zone Act:	6138'

B. Fresh Water Source -Geological Name: Quarternary

Depth at Bottom of Zone +/-500'

Since there are no known water wells within a one half mile radius. We are submitting water analysis from two water wells located in Sec. 14, T22S, R32E, Lea County, New Mexico as representative of fresh water samples. See Exhibit 'E'.

IX. Proposed Stimulation:

The proposed stimulation program is +/- 15,000 gls 7.5% NEFE HCl.

- X. Log Data The logs from the Triste Draw 36 State No. 1 are included with the disposal interval marked. See Exhibit 'F'.
- XI.. Fresh Water Analysis: There are no fresh water wells within a one mile radius of the proposed SWD well.
- XII. Hydrologic Communication: There is no known evidence of faulting or other hydrologic communication between potential fresh water aquifers and the desired injection zone.
- XIII. Proof of Notice: Proof of Notice is attached. Exhibit 'G'.

Notification of Offset Operators within a 1/2 mile radius: Notification of Surface Owner Proof of Publication

XIV. Certification: Certification is on Form C-108

INJECTION WELL DATA SHEET

Page 1

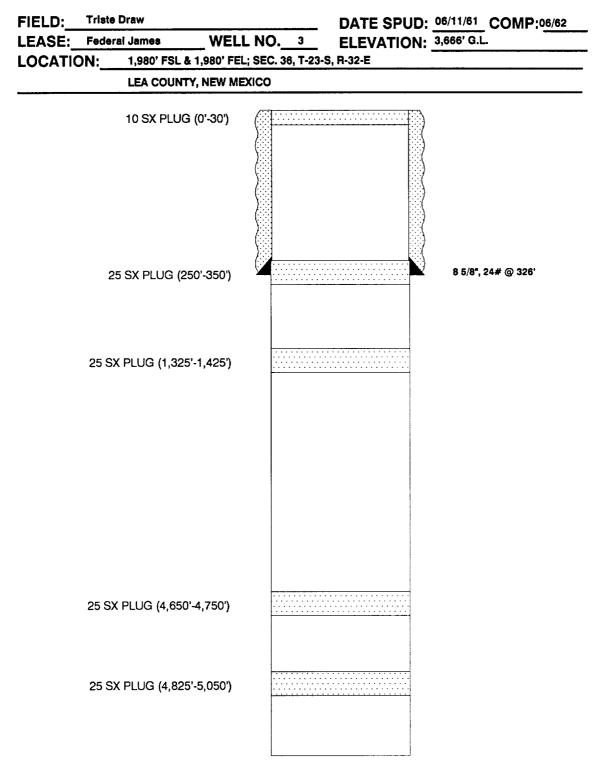
Meridian Oil I	nc		aw '36' State	
OPERATOR		LEASE	7000	5445
1 WELL NO. Lea County, N	1980' FNL & 510' FWL FOOTAGE LOCATION NM	36 SECTION	T23S TOWNSHIP	R32E RANGE
	Schematic		<u>Tubular Data</u>	
		Surface Casing	9	
		Size 13 3/8"	Cemented	with 700
		TOC surface	feet deter	nined circulatio
		Hole size 17	1/2" by	~ n
		Intermediate C	asing	
		Size 8 5/8"	Cemented	with 2965
		TOC surface	feet deter	nined circulatio
		Hole size 12	1⁄4" by	- <u>n</u> -
		Long String		
		Size 5½"	Cemented	with 860
		TOC Unknow	wn feet deteri	nined Lost Circ.
		Hole size 77	7/8" by	
		Total Depth	9150'	
		Injection Interv	/al	
		5364'	feet to 613	8' feet
			Perforated with 2	JSPF

INJECTION WELL DATA SHEET

Page 2

Tub	ing size 2 7/8"	lined with	plastic coated	set in a
Baker Lokset (brand and model) (or describe any other casing-tubing		_ packer at g seal).	(material) 5300' +/-	feet
<u>oti</u>	HER DATA Non-prod	uctive of hydr	ocarbons	
1.	Name of the injection Mid	die & Lower B	ell Canyon	
2.	Name of Field or Pool (if applicable)	for I.D. pur	ooses - Triste Draw Delaw	are
3.	Is this a new well drilled for injection?	Y	ES X NO	
	If no, for what purpose was the well drilled?	originally	To be an oil producer	
4.	Has the well ever been perforated in and give plugging detail (sacks of c Well was perfed as follows: 8528'	ement or bridg	je plug(s) used).	
	Perfed 7522'-7588' (Brushy Canyon	Delaware), set	: CIBP @ 7490' w/35' cmt o	on top, perfed 7389'-
5.	7399' (Brushy Canyon Delaware), se Give the depth to and name of any of A Higher productive intervals (Ra	overlying and/	or gas zones (pools) in th	is area.
	possible oil and gas zone is the 7000'.	Canyon Delawaı	re sandstone located at a	oproximately

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MERIDIAN OL

CURRENT CONFIGURATION

EXHIBIT 'B' WELLBORE SCHEMATIC D/A WELL

TD: 5,110'

Martin Water Laboratories, Inc.

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

RESULT OF WATER ANALYSES

709 W. INDIANA

MIDLAND, TEXAS 79701 PHONE 683-4521

C Mr. Pete Harrington SAMPLE Receives 5-217-94 P. O. Box 51810. Midland, TX 79710 RESULTS REPORTED 5-23-94 COMPANY Meridian 011 Company LEASE As listed FRED OR POOL SECTION BLOCK SURVEY COUNTY LEASE As listed SOURCE OF SAMPLE AND DATE TAKEN: SOURCE OF SAMPLE AND DATE TAKEN: NO.1 Produced water - taken from Little Jack 30 #1 (heater-treater). 5-11-94 NO.2 Produced water - taken from Jack Tank 8 #2 (heater-treater). 5-11-94 NO.3 NO.4 NO.2 NO.3 NO.4 CHEMICAL ND PHYSICAL PROPERTIES NO.4 Winds Sampled 5.56 5.45 • Winds Sampled 1.12020 1.1363 • Winds Meetend 5.56 5.45 • Subcartonic as CoO. 100.00 20,400 Magesturation a CoO. 29,500 93,000 Magesturation as CoO. 294.463 63 Conductors as CoO. 494 63 Conductors as CoO. 494 63 Magesturation as table 0 147 Statter as SO. 494 63 Conductors as P 120,700 181,760 Statter as P 10,014				50/1		
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SOURCE OF SAMPLE AND DATE TAKEN: NO.1 Produced water - taken from Little Jack 30 #1 (heater-treater). 5-11-94 NO.2 Produced water - taken from Jack Tank & #2 (heater-treater). 5-11-94 NO.3		ТТ	~~~	NTM		
N0.1 Produced water - taken from Little Jack 30 #1 (heater-treater). 5-11-94 N0.2 Produced water - taken from Jack Tank 8 #2 (heater-treater). 5-11-94 N0.4			STA"	TE		
NO.2 Produced water - taken from Jack Tank 8 #2 (heater-treater). 5-11-94 NO.3			20 #1 (heater		5 11 0/	
NO.3	NO.1 Produced water - taken from	m Little Jack	1 30 #1 (neate:	r-treater).	5-11-94	
NO.4 Delaware Delaware CHEMICAL AND PHYSICAL PROPERTIES NO.1 NO.3 NO.4 Specific Grivity at 60° F. 1.1290 1.1290 I.1290 II.1290 II.1290 II.1290 II.1290 II.1290 II.1290 II.1290 II.1290 II.1290 III.1290 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	NO.2 Produced water - taken from	m Jack Tank 8	#2 (heater-t	reater). 5-1	1-94	
Delaware CHEMCAL AND PHYSICAL PROPERTIES Specific Gravity at 60° F. 1.1290 1.1963 NO. 3 NO. 4 Specific Gravity at 60° F. 1.1290 1.1963	NO.3					
CHEMICAL AND PHYSICAL PROPERTIES NO.1 NO.2 NO.3 NO.4 Specific Gravity at 60° F. 1.1290 1.1963	NO. 4					
CHEMICAL AND PHYSICAL PROPERTIES NO.1 NO.2 NO.3 NO.4 Specific Gravity at 60° F. 1.1290 1.1963	REMARKS.	Dela	ware			
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Barlum as Ba ' 0 147 Turbidity, Electric	iron as Fe					
Turbidity. Electric Color as P1 Total Solids. Calculated Dissolved Oxygen. Hydrogen Sulfide O.0 Pemperature 'F. Carbon Dioxide, Calculated Dissolved Oxygen. Hydrogen Sulfide O.0 Resistivity. ohme/m at 77 'F. O.058 O.058 Mydrogen Sulfide Filtrable Solids as mg/l Volume Filtered.mi Total Dissolved Solids @ 180°F. 193.004 Besults Reported As Milligrams Per Liter Additional Determinations And Remarks We are not familiar with what field these wells are located in. In comparing with our records in this county, we note that the water from Jack Tank 8 #2 has characteristics very similar to what we would expect from natural Delaware except for the barium content. It is further noted that this water is significantly Supersaturated with barium sulfate and therefore has potential for scaling and preci- pitation from this source. The water from Jack 30 #1 has ratios of salts comparable to what we would expect from natural Delaware to what we would expect from natural Delaware in this county, but the Devels of salts are lower and therefore indicated to be dilut	Barium as Ba					
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Hydrogen Sulfide 0.0 0.0 Resistivity, ohme/m at 77°F. 0.058 0.047 Suspended Oli	Carbon Dioxide, Calculated					
Resistivity, ohms/m at 77° F. 0.058 0.047 Suspended Oli	Dissolved Oxygen,					
Resistivity, ohms/m at 77°F. 0.058 0.047 Suspended Oil Filtrable Solids as mg/l	Hydrogen Sulfide	0.0	0.0			
Suspended Oll Filtrable Solids as mg/l Volume Filtrable Solids @ 180°F. 193.004 310.376 Results Reported As Milligrams Per Liter Additional Determinations And Remarks We are not familiar with what field these wells are located in. In comparing with our records in this county, we note that the water from Jack Tank 8 #2 has characteristics very similar to what we would expect from natural Delaware except for the barium content. It is further noted that this water is significantly supersaturated with barium sulfate and therefore has potential for scaling and preci- pitation from this source. The water from Jack 30 #1 has ratios of salts comparable to what we would expect from natural Delaware in this county, but the Devels of salts are lower and therefore indicated to be diluted as compared to natural Delaware. Contact us for any additional assistance in this matter.	Resistivity, ohms/m at 77° F.	0,058				
Volume Filtered. mt Total Dissolved Solids @ 180°F. 193.004 310.376 Results Reported As Milligrams Per Liter Additional Determinations And Remarks We are not familiar with what field these wells are located in. In comparing with our records in this county, we note that the water from Jack Tank 8 #2 has characteristics very similar to what we would expect from natural Delaware except for the barium content. It is further noted that this water is significantly supersaturated with barium sulfate and therefore has potential for scaling and preci- pitation from this source. The water from Jack 30 #1 has ratios of salts comparable to what we would expect from natural Delaware in this county, but the Devels of salts are lower and therefore indicated to be diluted as compared to natural Delaware. Contact us for any additional assistance in this matter.	Suspended Oil					
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Additional Determinations And Remarks We are not familiar with what field these wells are located in. In comparing with our records in this county, we note that the water from Jack Tank 8 #2 has characteristics very similar to what we would expect from natural Delaware except for the barium content. It is further noted that this water is significantly supersaturated with barium sulfate and therefore has potential for scaling and preci- pitation from this source. The water from Jack 30 #1 has ratios of salts comparable to what we would expect from natural Delaware in this county, but the Devels of salts are lower and therefore indicated to be diluted as compared to natural Delaware. Contact us for any additional assistance in this matter.	·					
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are lower and therefore indicated to be diluted as compared to natural Delaware. Contact us for any additional assistance in this matter.						
Contact us for any additional assistance in this matter.						
				to natyral]	Delaware.	
		istance in th			<u>/</u>	

EXHIBIT 'C' WATER ANALYSIS - PRODUCED WATER By Waylan C. Martin, M.A.

P. 0. 60X 1498 MONAHANS, TEXAS 79756 PH. 943-3234 OR 563-1040	rtin Water Labo				709 W. INDIANA MIDLAND, TEXAS 7970 PHONE 683-4521
Finite States of 202 1040	RESULT OF WATER	ANALYSES			FICINE 003-4521
		LABORATORY	10	99293	
TO: <u>Mr. Joe Small</u>		SAMPLE RECEIV	/ED	9-16-	92
P. O. Box 51810, Midland, TX 79	9710	RESULTS REPO	RTED	9-18-	92
					·
COMPANY <u>Meridian Oil Company</u> FIELD OR POOL					
SECTION BLOCK SURVEY					
SOURCE OF SAMPLE AND DATE TAKEN:					
NO.1 <u>Recovered water - taken fro</u>	om Dagger Lak	e #1. 9-9-	.92		
					
NO.2 EXHIBIT 'F					
NO.3 WATER AN	IALYSIS - I	NIECTIO	N ZON	F	
				L	
REMARKS:	Delaware				
CHEN	AICAL AND PHYSIC	AL PROPERTIES	\$		
	NO. 1	NO. 2		NO. 3	NO. 4
Specific Gravity at 60 ° F.	1.1462				
pH When Sampled					
pH When Received	6.26				
Bicarbonate as HCO,	146				
Supersaturation as CaCO ₃					
Undersaturation as CaCO ₃					
Total Hardness as CaCO,	50,500				
Calcium as Ca	18,000				
Magnesium as Mg	1,336				
Sodium and/or Potassium	68,483				
Sulfate as SO,	947				
Chloride as Cl	140,618	·			
Iron as Fe	90.0				
Barium as Ba					
Turbidity, Electric				<u>.</u>	
Color as Pt					
Total Solids, Calculated	229,531				
Temperature *F.					
Carbon Dioxide, Calculated				· · · · · · · · · · · · · · · · · · ·	
Dissolved Oxygen,				· .	
Hydrogen Sulfide	0.0	. 		·······	
Resistivity, ohms/m at 77" F.	0.053	S			
Suspended Oll					
Filtrable Solids as mg/l Volume Filtered, mi		-			
	194 261				
Total Dissolved Solids @ 180°C.	184,361				
				<u>-</u>	-
	Results Reported As Mil	ligrams Per Liter		· · · · · · · · · · · · · · · · · · ·	
Additional Determinations And Remarks We see a Sti			charact	arieties	of water be
ing recovered from this well as					
laboratory #99210. Based on a c					
area of this well, the above wat					
mena viewa average tur avera wat		p	_ ~~~~		

Form No. 3

EXHIBIT 'D' WATER ANALYSIS - INJECTION ZONE Waylan C. Martin, M.A.

Ву ___

709 W. INDIANA MIDLAND, TEXAS 79701

PHONE 683-4521

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

RESULT OF WATER ANALYSES

194218 LABORATORY NO. _ Mr. Kevin Midkiff 1-29-94 TO: SAMPLE RECEIVED 3300 North "A", Bldg. 6, Midland, TX 79705 RESULTS REPORTED 2-2-94 COMPANY Meridian Oil Company LEASE Red Tank Federal FIELD OR POOL SECTION <u>14</u> BLOCK SURVEY T22&R32 COUNTY Lea STATE NM SOURCE OF SAMPLE AND DATE TAKEN: NO.1 Raw water - taken from west water well. 1-27-94 NO.2 Raw water - taken from east water well. 1-27-94 NO. 3 ____ NO.4 _____ Triasic 300' REMARKS: CHEMICAL AND PHYSICAL PROPERTIES NO. 1 NO. 2 NO. 3 NO. 4 Specific Gravity at 60 * F. 1.0015 1.0013 pH When Sampled pH When Received 7.09 7.10 Bicarbonate as HCO, 244 239 Supersaturation as CaCO, Undersaturation as CaCO₃ Total Hardness as CaCO, 192 188 Calcium as Ca 41 38 Magnesium as Mg 22 22 Sodium and/or Potassium 108 79 178 Sulfate as SO, 123 Chloride as Cl 30 26 fron as Fe 0.12 0.12 Barium as Ba Turbidity, Electric Color as Pt Total Solids, Calculated 623 528 Temperature *F. Carbon Dioxide, Calculated Dissolved Oxygen, Hydrogen Sulfide 0.0 0.0 Resistivity, ohms/m at 77* F. 13.25 16.02 Suspended Oil Filtrable Solids as mg/l Volume Filtered, ml Nitrate, as N 2.5 2.9 Total Dissolved Solids @ 180°C. 544 468 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 Вv

Martin, M.A.

EXHIBIT 'E' WATER ANALYSIS - FRESH WATER

		•		CS	400				
COMI	PUTÀLO	0 G			LITHO	DENSITY			
AN DIL INC. Am "36" Dram State NM	FIELD <u>TRIST</u>	E DRAW "	36"	STATE #		<u> </u>			
COMPANY MERIDIAN Well Triste Dram Field Triste Dr. County Lea	LOCATION 1980' FNL &	DCATION L980' FNL & 510' FWL					TATE <u>N.MEXICO</u> OTHER SERVICES: DIL SONIC SED RSCT		
PERMANENT DATU Log measured f Drilling measu	ROM KB 18 FT.	ABOVE PERM	EV <u>3</u> 1ANEN		ELEV.	:K.B. <u>3700</u> D.F. <u>3699</u> G.L. <u>3682</u>			
DATE	06/01/93								
RUN NO.	ONE			<u> </u>					
DEPTH-DRILLER DEPTH-LOGGER	9150			• • • • • • •					
BTM. LOG INTER									
TOP LOG INTER.	SURF.			·		<u> </u>			
CASING-DRILLER		@		@		@	[
CASING-LOGGER	4858						{		
BIT SIZE				· · · · · · · · · · · · · · · · · ·			[
FLUID TYPE	FRESH								
	~								
DENS. VISC				<u> </u>		1			
PH FLUID LOS		<u> </u>	ML	I	ML		_ <u>MU</u>		
SOURCE OF SAMP			F			<u> </u>	[
RM @ MEAS_TEMP	P. 1.23@ 73 -		F	@ @	F	(ā) (ā)	F F		
RMC @ MEAS.TEM		· · _ · _ · · · · · · · · · · · · · · ·	F		F				
SOURCE: RMF/RM		·					'		
RM @ BHT			F	@	F	(ā)	F		
TIME SINCE CIR		(ja							
MAX. REC. TEMP		F@		F@		F@			
EQUIP. LOCATIO	N 343 ODES	1	-			1			
RECORDED BY	BROWNLOW								
	J, LONG								

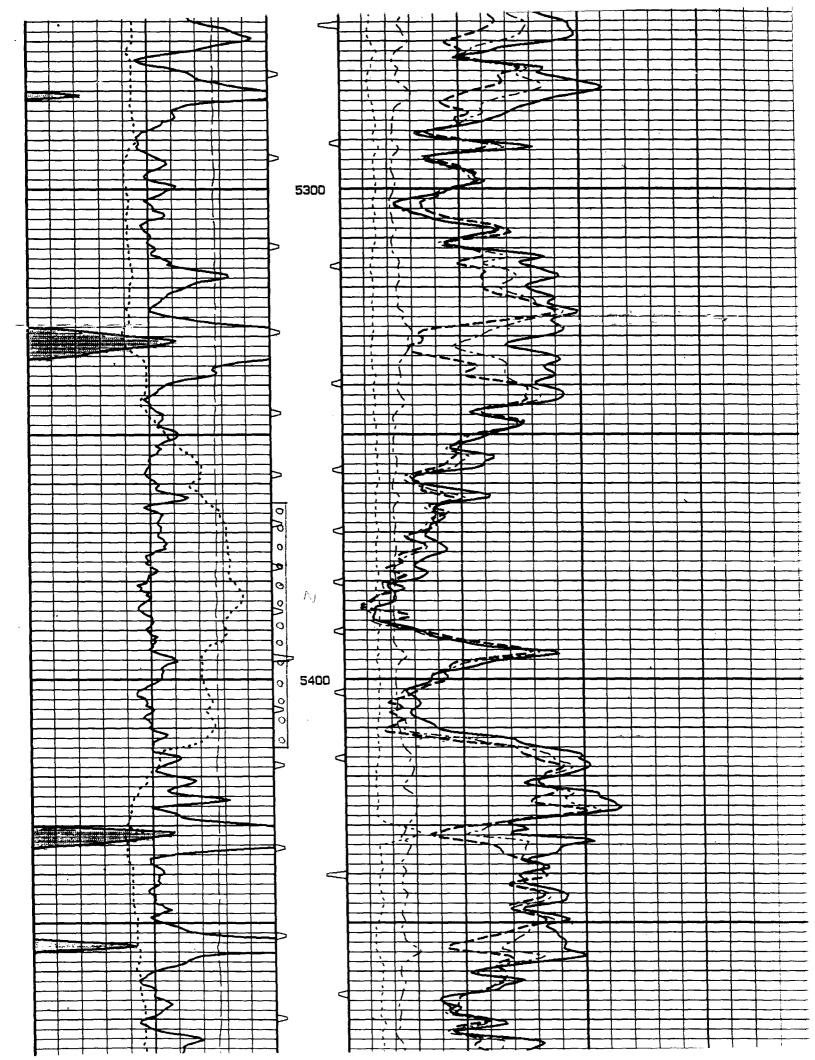
,

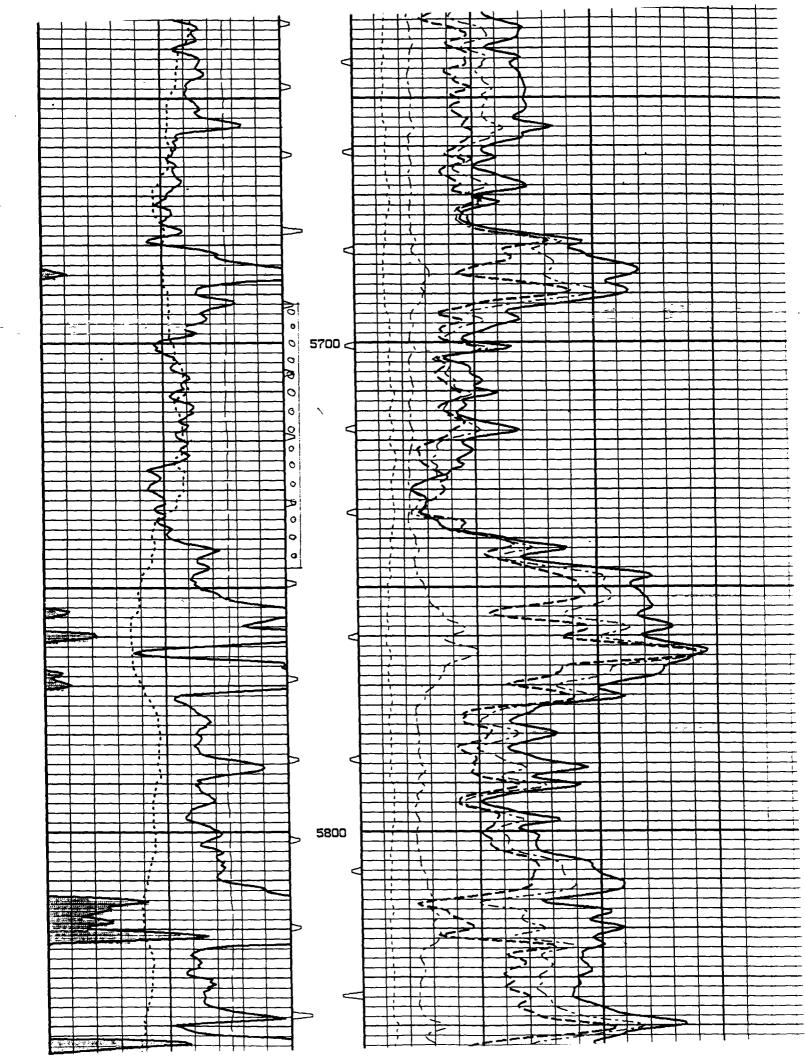
a state was

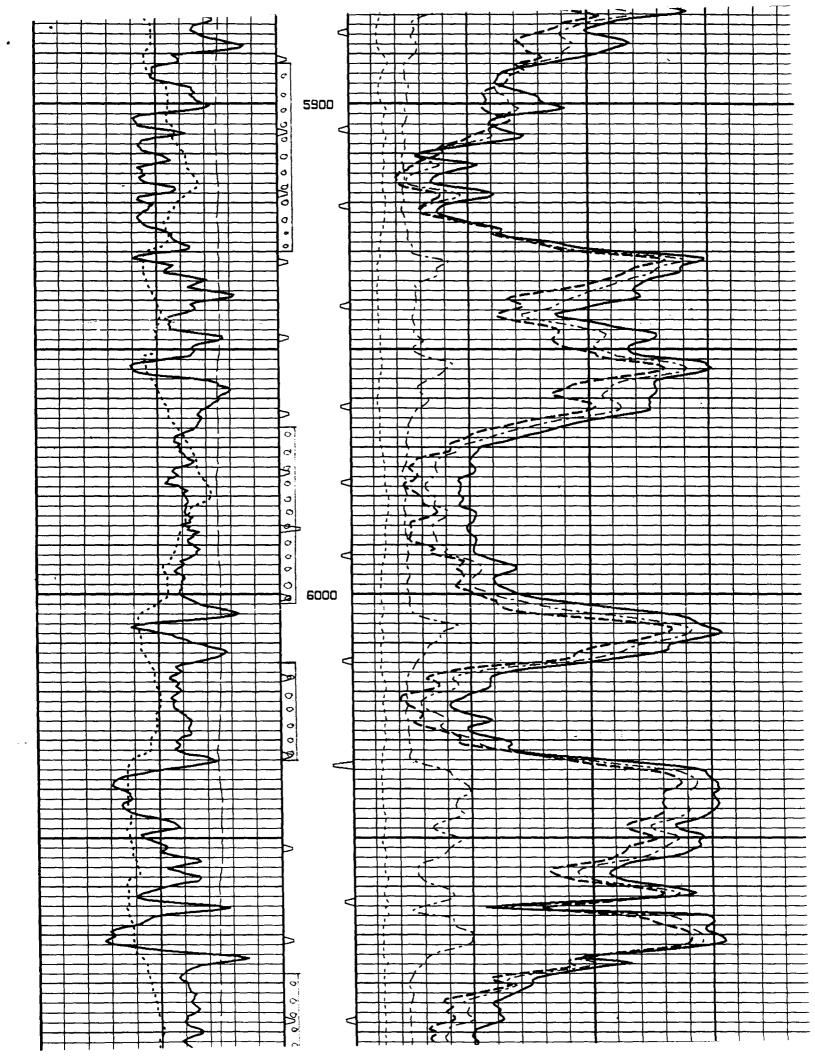
and the second

. !

EXHIBIT 'F' LOG DATA







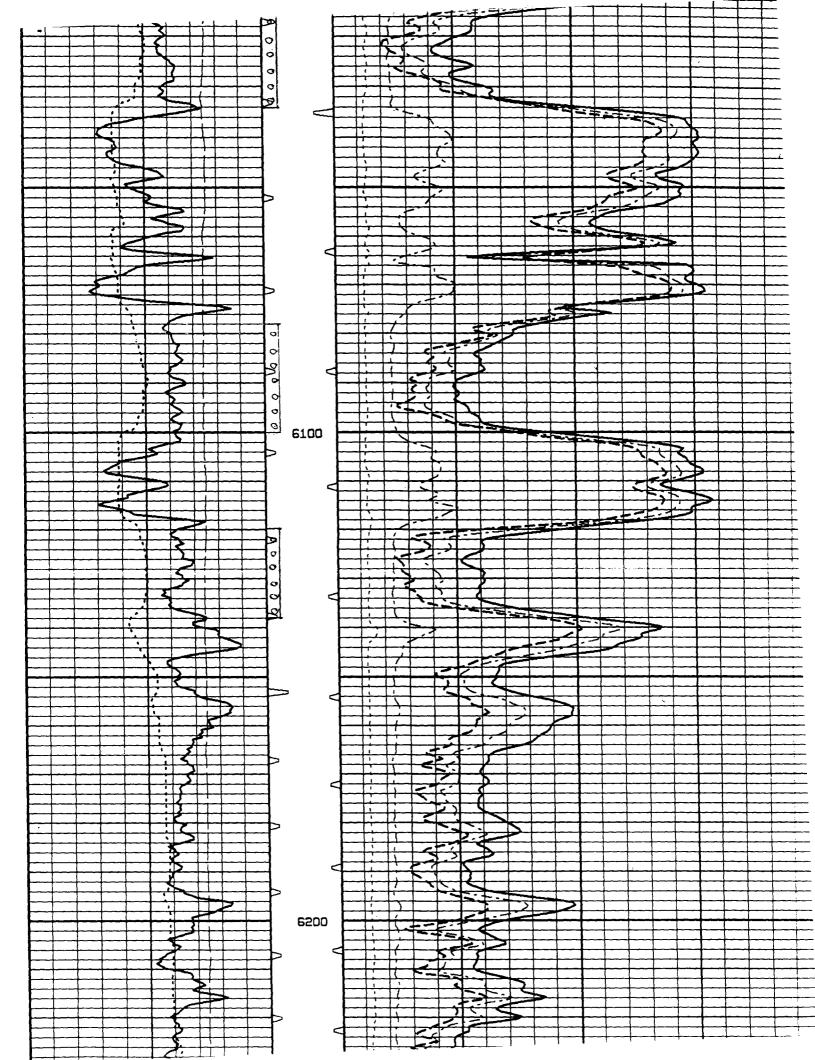


EXHIBIT 'G' PROOF OF NOTIFICATION

I CERTIFY THAT A COPY OF THE DISPOSAL APPLICATION WAS MAILED TO THE FOLLOWING:

OFFSET OPERATORS WITHIN 1/2 MILE:

Estacado, Inc. Box 5587 Hobbs, NM 88241 Yates Petroleum Corp. 105 S. 4th Artesia, NM 88210

SURFACE OWNER:

Bureau of Land Management P.O. Box 1778 Carlsbad, New Mexico 88221

NEWSPAPER:

Hobbs News Sun 201 N. Thorp Hobbs, New Mexico 88240

BY CERTIFIED/RETURN RECEIPT MAIL ON THIS DATE:

Donna Williams, Regulatory Compliance

10/11/95

Date

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State of New Mexico, County of Lea.

I, Kathi Bearden

General Manager

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

of
1 weeks.
Beginning with the issue dated
October 11
and ending with the issue dated
October 111995
General Manager Sworn and subscribed to before
me this/B cll day of
i i i i i

Notary Public. My Commission expires

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.

My Commission expire March 24, 1998 (Seal)

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LEGAL NOTICE October 11, 1995 Meridian Oil Inc., P.O. Box 51810 Midland, Tx 79710-1810 Contact Party: Donna Williams (915-688-6943) is making application with the Oil Conservation Division in Santa Fe, New Mexico for authority to dispose of water in the afore mentioned wellbore, Triste Draw '36' State No. 1, Sec.36, T23S, R32E, 1980' FNL & 510' FWL, Lea County, New Mexico. The proposed disposal well will dispose of water produced from Meridian Oil leases from the Bone Spring and Delaware formation in the South Sand Dunes Bone Spring and Triste Draw Delaware fields into the Middle and Lower Bell Canyon formation 5364'-6138' which is non-productive of hydrocarbons. Estimated inital injection rate will be 1000 BPD. The estimated maximum injection rate is 4000 BPD. Anticipated initial injection pressure to be +/-600 psi and request an operating maximum pressure of 1200 psi. Any interested parties must file objections or request for hearing with the Oil Conservation Division, 2040 South Pacheco Street, Santa Fe, New Mexico 87505, within fifteen (15) days.