

## PADILLA & SNYDER

ATTORNEYS AT LAW
200 W. MARCY, SUITE 212
P.O. BOX 2523
SANTA FE, NEW MEXICO 87504-2523
(505) 988-7577

July 10, 1987

William Lemay
Director, New Mexico Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87504

9/89

Dear Mr. Lemay:

Enclosed for filing please find the Objection to Salt Water Disposal of Corinne Grace.

Thank you for your assistance.

Very truly yours

Frnest L. Padilla

ELP/ng

c: Corinne Grace
David R. Vandiver

# OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION:
OF RAY WESTALL FOR A SALT WATER:
DISPOSAL WELL, EDDY COUNTY, NEW:
MEXICO:

case no. 9/89

## OBJECTION TO SALT WATER DISPOSAL

Corinne Grace, by her attorneys, in opposition to the Application of Ray Westall for the Salt Water Disposal Well, Eddy County New Mexico states:

- (1). That she is a working interest owner in the Grace Atlantic Well No. 1 located 1980' FSL and 1980'FEL of Section 24, Township 22 South, Range 26E, Eddy County New Mexico.
- (2) That she is unable to determine the condition of the casing or cement in said Grace Atlantic well because she does not have a bond log or temperature survey; that she believes that the condition of the cement and casing may have deteriorated since the well's completion in 1973 such that the proposed injection operation could cause salt water migration through the casing/wellbore annulus and ultimately impair the producing interval; that a considerable portion of the 7" casing is not set in cement so as to preclude

downhole migration of injected water; that the proposed injection operations may cause corrosion to the well's casing and therefore cause a casing failure.

(3) That fresh water acquifers underlying the proposed injection area may come in horizonatal and vertical communication with the injected materials in that formations or zones separating the fresh water acquifers are not impermeable and may be pressure sensitive.

Respectfully submitted,

Padilla & Snyder

Ernest L. Padilla Post Office Box 2523 Santa Fe, New Mexico 87504 (505) 988-7577

## CERTIFICATE OF SERVICE

I hereby certify that I caused a copy of the foregoing Objection to Salt Water Disposal to be mailed first class, postage prepaid to David R. Vandiver, Esquire, Seventh and Mahone, Suite E, Artesia, New Mexico 88210 this //day of July 1987.

## BEFORE THE OIL CONSERVATION DIVISION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION: OF RAY WESTALL FOR A SALT WATER

CASE NO. 9189

DISPOSAL WELL, EDDY COUNTY, NEW

MEXICO

## AMENDED OBJECTION TO SALT WATER DISPOSAL

Corinne Grace, by her attorneys, in opposition to the Application of Ray Westall for the Salt Water Disposal Well, Eddy County New Mexico states:

- (1). That she is a working interest owner in the Grace Atlantic Well No. 1 located 1980' FSL and 1980'FEL of Section 24, Township 22 South, Range 26E, Eddy County New Mexico and that she owns other oil and gas interest in the area of the proposed disposal well.
- That she is unable to determine the condition of (2) the casing or cement in said Grace Atlantic well because she does not have a bond log or temperature survey; that she believes that the condition of the cement and casing may have deteriorated since the well's completion in 1973 such that the proposed injection operation could cause salt water migration through the casing/wellbore annulus and ultimately impair the producing interval; that a considerable portion

of the 7" casing is not set in cement so as to preclude downhole migration of injected water; that the proposed injection operations may cause corrosion to the well's casing and therefore cause a casing failure.

(3) That fresh water acquifers underlying the proposed injection area may come in horizonatal and vertical communication with the injected materials in that formations or zones separating the fresh water acquifers are not impermeable and may be pressure sensitive.

Respectfully submitted,

Padirla & Snyder

Ernest L. Padilla Post Office Box 2523

Santa Fe, New Mexico 87504

(505) 988-7577

### CERTIFICATE OF SERVICE

I hereby certify that I caused a copy of the foregoing Amended Objection to Salt Water Disposal to be hand delivered to opposing counsel of record this 12th day of August 1987.

LAW OFFICES

## LOSEE & CARSON, P. A.

A. J. LOSEE

JOEL M. CARSON

\_\_\_\_

JAMES E. HAAS

ERNEST L. CARROLL

300 AMERICAN HOME BUILDING
P. O. DRAWER 239

ARTESIA, NEW MEXICO 88211-0239

AREA CODE 505 746-3508

> TELECOPY 746-6316



State of New Mexico New Mexico Division
Energy and Mineral's Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Case 9/89

Re: In the Matter of the Application of Ray Westall
For a Salt Water Disposal Well, Eddy County/Merland #1

#### Gentlemen:

I am enclosing for filing in the above-captioned matter the Response and Objection of Merland, Inc. to said application. Please return the enclosed copy to me reflecting the filing information for my files.

Thank you for your assistance.

Very truly yours,

LOSEE & CARSON, P. A.

Ernest I. Carroll

ELC:ktl Enclosures

cc: David Vandiver (w/encl.)

### BEFORE THE OIL CONSERVATION DIVISION

### OF THE STATE OF NEW MEXICO

OF RAY WESTALL FOR A SALT WATER DISPOSAL WELL, EDDY COUNTY, NEW

case no. 9/89

RECEIVED

MEXICO :

JUL 15 15

he Emil J. Canall

OIL CONSERVATION DIVISION

## RESPONSE AND OBJECTION OF MERLAND INC.

COMES NOW Merland, Inc. and objects to the granting of the application of Ray Westall and states upon information and belief:

- 1. That the applicant does not have the permission of the owners of the mineral rights of the formation into which he proposes to dispose salt water.
- 2. That applicant does not have permission from the owner of the surface of the land on which the disposal well is to be located.
- 3. That oil and gas is being produced from the formation into which applicant proposes to dispose salt water.
- 4. That the injection of water as requested by the application may damage the formation, preventing further production of oil and gas from the formation.
- 5. That the granting of the application will cause waste and impair correlative rights.

I certify that I mailed a true copy of the foregoing pleading to opposing counsel of record on this \_\_\_\_3\_ day or

Au.

19.67

Lanne 2/ta

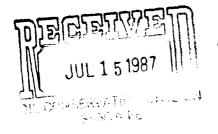
LOSEE & CARSON, P. A.

P. O. Drawer 239

Amenda at the co

Respectfully submitted,

Brnest L. Carroll



July 13, 1987

Energy and Minerals Department Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

Case 9/89

Re:

Application of Ray Westall

Merland No. 1 Well

Township 22 South, Range 26 East, NMPM

Section 24: SW/4 SE/4 Eddy County, New Mexico

### Gentlemen:

Please continue the hearing set on the Application of Ray Westall for a Salt Water Disposal Well, Eddy County, New Mexico, sent to your office for filing on June 29, 1987, until the Examiner Hearing of August 12, 1987.

Thank you.

Very truly yours,

DICKERSON, FISK & VANDIVER

David R. Vandiver

DRV:pv

cc: Mr. Ray Westall

Mr. Randy Harris

DICKERSON, FISK & VANDIVER

# OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION:
OF RAY WESTALL FOR A SALT WATER:
DISPOSAL WELL, EDDY COUNTY, NEW:
MEXICO
CASE NO.

## AFFIDAVIT

STATE OF NEW MEXICO )
: ss.
COUNTY OF EDDY )

PATTI VERMILLION, being first duly sworn, upon oath, states that the notice provisions of Rule 1207 of the New Mexico Oil Conservation Division have been complied with, that Applicant has caused to be conducted a good-faith diligent effort to find the correct addresses of all interested persons entitled to receive notice, and that pursuant to Rule 1207, notice has been given at the correct addresses as provided by such rule.

In support hereof, affiant states that true copies of the Application of Ray Westall for a Salt Water Disposal Well, Eddy County, New Mexico, together with true copies of the Form C-108, Application for Authorization to Inject, for the purpose of salt water disposal at a location 990 feet from the south line and 1,870 feet from the east line of Section 24, Township 22 South, Range 26 East, N.M.P.M., have been mailed to the following named owner of the surface on which the well is to be located and

leasehold operators within one-half mile of the well location, in accordance with Rule 1207, in securely sealed, certified mail, return receipt requested, postage prepaid envelopes, addressed to the following named parties:

Surface Owner: Mary F. Merchant

P. O. Box 548

Carlsbad, New Mexico 88220

Offset Operators: Pennzoil Company

P. O. Drawer 1828 Midland, Texas 79701

Grace Energy Company

P. O. Box 207

Carlsbad, New Mexico 88220

Corinne Grace P. O. Box 1418

Carlsbad, New Mexico 88220

Arco Oil and Gas Company

P. O. Box 1610

Midland, Texas 79702

JFG Enterprises P. O. Box 100

Artesia, New Mexico 88210

Cities Service Oil and Gas Corporation

P. O. Box 1919

Midland, Texas 79702

as reflected by the copies of the letters transmitting such copies attached hereto.

Patti Vermillion

SUBSCRIBED AND SWORN TO before me this 29th day of June, 1987, by PATTI VERMILLION.

My commission expires:

Notary Public

June 29, 1987

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Mary F. Merchant P. O. Box 548 Carlsbad, New Mexico 88220

Re: Merland No. 1 Well

Township 22 South, Range 26 East, NMPM

Section 24: SW/4 SE/4

Eddy County, New Mexico

Dear Ms. Merchant:

Enclosed, please find a copy of the Application of Ray Westall for a Salt Water Disposal Well, Eddy County, New Mexico, together with a copy of the Form C-108 filed therewith.

The name, address, phone number and contact party for the applicant is:

Ray Westall
P. O. Box 4
Loco Hills, New Mexico 88255
(505) 677-3113

The intended purpose of the injection well, located 990 feet from the south line and 1,870 feet from the east line of Section 24, Township 22 South, Range 26 East, N.M.P.M., is for the disposal of salt water in the Cherry Canyon formation, with a planned injection interval of 3,670 feet to 3,720 feet. The expected maximum injection rate is 1,000 barrels per day, with the maximum injection pressure to be 650 PSIG.

Ms. Mary F. Merchant -2-

Box 2088, Santa Fe, New Mexico, 87501, within 15 days from the date hereof.

Please contact the undersigned or Mr. Westall at the above address if you have any questions regarding this application.

Very truly yours,

DICKERSON, FISK & VANDIVER

David R. Vandiver

DRV:pv Enclosures

## CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pennzoil Company P. O. Drawer 1828 Midland, Texas 79701

Re: Merland No. 1 Well

Township 22 South, Range 26 East, NMPM

Section 24: SW/4 SE/4

Eddy County, New Mexico

### Gentlemen:

Enclosed, please find a copy of the Application of Ray Westall for a Salt Water Disposal Well, Eddy County, New Mexico, together with a copy of the Form C-108 filed therewith.

The name, address, phone number and contact party for the applicant is:

Ray Westall
P. O. Box 4
Loco Hills, New Mexico 88255
(505) 677-3113

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Box 2088, Santa Fe, New Mexico, 87501, within 15 days from the date hereof.

Please contact the undersigned or Mr. Westall at the above address if you have any questions regarding this application.

Very truly yours,

DICKERSON, FISK & VANDIVER

David R. Vandiver
David R. Vandiver

DRV:pv Enclosures

## CERTIFIED MAIL RETURN RECEIPT REQUESTED

Grace Energy Company
P. O. Box 207
Carlsbad, New Mexico 88220

Re: Merland No. 1 Well

Township 22 South, Range 26 East, NMPM

Section 24: SW/4 SE/4

Eddy County, New Mexico

#### Gentlemen:

Enclosed, please find a copy of the Application of Ray Westall for a Salt Water Disposal Well, Eddy County, New Mexico, together with a copy of the Form C-108 filed therewith.

The name, address, phone number and contact party for the applicant is:

Ray Westall
P. O. Box 4
Loco Hills, New Mexico 88255
(505) 677-3113

The intended purpose of the injection well, located 990 feet from the south line and 1,870 feet from the east line of Section 24, Township 22 South, Range 26 East, N.M.P.M., is for the disposal of salt water in the Cherry Canyon formation, with a planned injection interval of 3,670 feet to 3,720 feet. The expected maximum injection rate is 1,000 barrels per day, with the maximum injection pressure to be 650 PSIG.

Box 2088, Santa Fe, New Mexico, 87501, within 15 days from the date hereof.

Please contact the undersigned or Mr. Westall at the above address if you have any questions regarding this application.

Very truly yours,

DICKERSON, FISK & VANDIVER

## David R. Vandiver

David R. Vandiver

DRV:pv Enclosures

## June 29, 1987

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Corinne Grace
P. O. Box 1418
Carlsbad, New Mexico 88220

Re: Merland No. 1 Well

Township 22 South, Range 26 East, NMPM

Section 24: SW/4 SE/4

Eddy County, New Mexico

Dear Ms. Grace:

Enclosed, please find a copy of the Application of Ray Westall for a Salt Water Disposal Well, Eddy County, New Mexico, together with a copy of the Form C-108 filed therewith.

The name, address, phone number and contact party for the applicant is:

Ray Westall
P. O. Box 4
Loco Hills, New Mexico 88255
(505) 677-3113

The intended purpose of the injection well, located 990 feet from the south line and 1,870 feet from the east line of Section 24, Township 22 South, Range 26 East, N.M.P.M., is for the disposal of salt water in the Cherry Canyon formation, with a planned injection interval of 3,670 feet to 3,720 feet. The expected maximum injection rate is 1,000 barrels per day, with the maximum injection pressure to be 650 PSIG.

Box 2088, Santa Fe, New Mexico, 87501, within 15 days from the date hereof.

Please contact the undersigned or Mr. Westall at the above address if you have any questions regarding this application.

Very truly yours,

DICKERSON, FISK & VANDIVER

## David R. Vandiver

David R. Vandiver

DRV:pv Enclosures

## June 29, 1987

## CERTIFIED MAIL RETURN RECEIPT REQUESTED

Arco Oil and Gas Company P. O. Box 1610 Midland, Texas 79702

Re: Merland No. 1 Well

Township 22 South, Range 26 East, NMPM

Section 24: SW/4 SE/4

Eddy County, New Mexico

## Gentlemen:

Enclosed, please find a copy of the Application of Ray Westall for a Salt Water Disposal Well, Eddy County, New Mexico, together with a copy of the Form C-108 filed therewith.

The name, address, phone number and contact party for the applicant is:

Ray Westall
P. O. Box 4
Loco Hills, New Mexico 88255
(505) 677-3113

The intended purpose of the injection well, located 990 feet from the south line and 1,870 feet from the east line of Section 24, Township 22 South, Range 26 East, N.M.P.M., is for the disposal of salt water in the Cherry Canyon formation, with a planned injection interval of 3,670 feet to 3,720 feet. The expected maximum injection rate is 1,000 barrels per day, with the maximum injection pressure to be 650 PSIG.

Box 2088, Santa Fe, New Mexico, 87501, within 15 days from the date hereof.

Please contact the undersigned or Mr. Westall at the above address if you have any questions regarding this application.

Very truly yours,

DICKERSON, FISK & VANDIVER

## David R. Vandiver

David R. Vandiver

DRV:pv Enclosures

## June 29, 1987

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

JFG Enterprises
P. O. Box 100
Artesia, New Mexico 88210

Re: Merland No. 1 Well

Township 22 South, Range 26 East, NMPM

Section 24: SW/4 SE/4

Eddy County, New Mexico

#### Gentlemen:

Enclosed, please find a copy of the Application of Ray Westall for a Salt Water Disposal Well, Eddy County, New Mexico, together with a copy of the Form C-108 filed therewith.

The name, address, phone number and contact party for the applicant is:

Ray Westall
P. O. Box 4
Loco Hills, New Mexico 88255
(505) 677-3113

The intended purpose of the injection well, located 990 feet from the south line and 1,870 feet from the east line of Section 24, Township 22 South, Range 26 East, N.M.P.M., is for the disposal of salt water in the Cherry Canyon formation, with a planned injection interval of 3,670 feet to 3,720 feet. The expected maximum injection rate is 1,000 barrels per day, with the maximum injection pressure to be 650 PSIG.

Box 2088, Santa Fe, New Mexico, 87501, within 15 days from the date hereof.

Please contact the undersigned or Mr. Westall at the above address if you have any questions regarding this application.

Very truly yours,

DICKERSON, FISK & VANDIVER

David R. Vandiver
David R. Vandiver

DRV:pv Enclosures

## June 29, 1987

## CERTIFIED MAIL RETURN RECEIPT REQUESTED

Cities Service Oil and Gas Corporation P. O. Box 1919 Midland, Texas 79702

Re: Merland No. 1 Well

Township 22 South, Range 26 East, NMPM

Section 24: SW/4 SE/4 Eddy County, New Mexico

### Gentlemen:

Enclosed, please find a copy of the Application of Ray Westall for a Salt Water Disposal Well, Eddy County, New Mexico, together with a copy of the Form C-108 filed therewith.

The name, address, phone number and contact party for the applicant is:

Ray Westall
P. O. Box 4
Loco Hills, New Mexico 88255
(505) 677-3113

The intended purpose of the injection well, located 990 feet from the south line and 1,870 feet from the east line of Section 24, Township 22 South, Range 26 East, N.M.P.M., is for the disposal of salt water in the Cherry Canyon formation, with a planned injection interval of 3,670 feet to 3,720 feet. The expected maximum injection rate is 1,000 barrels per day, with the maximum injection pressure to be 650 PSIG.

Box 2088, Santa Fe, New Mexico, 87501, within 15 days from the date hereof.

Please contact the undersigned or Mr. Westall at the above address if you have any questions regarding this application.

Very truly yours,

DICKERSON, FISK & VANDIVER

## David R. Vandiver

David R. Vandiver

DRV:pv Enclosures

## P-580 490 489

RECEIPT FOR CENTRAL

Ms. Mary F. Merchant
P.O. Box 548
Carlsbad, NM 88220

P-580 490 179

Ms. Corinne Grace P.O. Box 1418

Carlsbad, NM 88220

P-580 490 49D

RECEIPT FOR CENTIFIED MAIL
REAL PROPERTY AND ADMINISTRATION OF THE PROPERTY AND ADMINI

5. 1 Fr. 1 C.

Pennzoil Company
P.O. Drawer 1828
Midland, TX 79701

P-580 490 178

Grace Energy Company
P.O. Box 207
Carlsbad, NM 88220

## P-580 490 181

RECEIPT FOR CERTIFIED MALL

JFG Enterprises

P.O. Box 100

Artesia, NM 88210

P-580 490 180

Fig. 1. Fig. 18 CF CF CF in the fig. 1. Sec. 18 Sec. 1

Arco Oil and Gas Company P.O. Box 1610

Midland, TX 79702

P-580 490 182

Cities Service Oil & Gas Corp.
P.O. Box 1919
Midland, TX 79702

## September 24, 1987

Mr. Michael Stogner Energy and Minerals Department Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

> Case No. 9189 Re:

Merland No. 1 Well

Township 22 South, Range 26 East, NMPM

Section 24: SW/4 SE/4

Eddy County, New Mexico

Dear Mr. Stogner:

As requested at the hearing on September 9, 1987, enclosed is the additional information you requested, consisting of bond logs, temperature surveys, C-103's, water analyses, cross-section and plat of surface facilities of the subject well. Also enclosed is a narrative description of these submittals by Randall L. Harris. A copy of all the foregoing is enclosed to Mr. Padilla.

On behalf of the applicant, we are content to have the Oil Conservation Division issue its decision in this case on this record, as we have no additional information to present on October 7, 1987, the date to which the hearing was continued.

Please advise if you need any additional information.

Sincerely yours,

CD:pv Enclosures

cc w/enclosures: Mr. Ernie Padilla

Mr. Ray Westall CC:

Mr. Randall L. Harris

DICKERSON, FISK & VANDIVER ATTORNEYS AT LAW

# Harris Petroleum Consultants

September 15, 1987

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

Attention: Mr. Michael Stogner

Re: Case No. 9189

9/09/87 Examiner Hearing

Dear Mr. Stogner:

Enclosed is the additional information you requested for clarification of the above captioned case. This information is submitted as Exhibits 5, 6, 7, 8, 9 and 10. I discuss each briefly.

Exhibit No. 5:

Cement Bond logs of Ray Westall's Baseball Park Nos. 1, 2, 3 and 4, Ray Westall's Merland No. 1 (subject well) and JFG's Kuklah Baby. These logs not only show the top of cement, but in all cases the excellent bonding above and below the proposed zone of injection.

Exhibit No. 6:

Temperature surveys on Ray Westall's Baseball Park Nos. 2 and 3. This is provided as additional support for cement tops.

Exhibit No. 7:

C-103's on all wells within the 1/2 mile area of review. These show the cement programs and cement tops and whether the cement was circulated.

Exhibit No. 8:

Water analysis of the Ray Westall Baseball Park No. 2 by two separate laboratories. Both analyses confirm that a mistake was made on the original analysis in the C-108 application.

Oil Conservation Division -2-

### Exhibit No. 9:

Cross section of three wells, Grace's Salty Bill disposal well, Ray Westall's Merland (subject well) and Ray Westall's Baseball Park No. 2. This exhibit is of approximately the same scale as Exhibit No. 5 of Corinne Grace. Wells 4 and 5 correspond to Wells 4 and 5 on their exhibit. This cross section is presented for two reasons: (1) to show the correct log tops, being Lamar Ls. and Bell Canyon, and not the Capitan Reef as their testimony stated, and (2) to show that the Grace Well is actively injecting into this zone. Darrell Moore, geologist of the NMOCD Artesia District Office, and myself agree it is Lamar Ls.

### Exhibit No. 10:

Plat of current surface facilities of the subject well.

In my opinion, there is no hydrologic connection between the Lamar Ls. and the equivalent Capitan reef.

Respectfully submitted,

Randall L. Harris

RLH:pv Enclosures



# CEMENT BOND LOG

FILING NO.	FILING NO.  COMPANY RAY WESTALL  WELL BASCHALL PARK #1								
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	FIELD Wilder T								
	COUNTY Eddy STATE D. 11).								
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Log Measured from		R. K.B.	.10	Ft.	Above Pr	ermenent (	Detum		F
Drilling Measured fo	m	K.B.						G,	13/67
Date	1-	16-8	5	Тур	e Fluid i	n Hole	B	9/11	e .
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Depth-Driller	4	950			. Rec. To		,		
Depth-Logger	1 43	288			Coment		9	20	
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Top Log Interval		00			orded By		Lewi		DANE
Open Hole Size	3		لـــــــا		reced D		MR. L		
CASING REC.	Size	Wt/Ft	Grac	•	Type	<b>Joint</b>	Top	<u> </u>	Bottom
Surface String		<u> </u>							
Prot. String		<del></del>		4.4	1				<del>                                     </del>
Prod.String Liner		<del></del>	<del></del>	-44			<del> </del>		<b></b>
Liner			86	1144	DV PEL	ENTING	DATA		<u> </u>
STRING	9.	face		tect			uction	_	Liner
Vol. of Cement				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	)	1100	40000	+	Cale
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Water Loss						<del>                                     </del>		+	<del></del> -
Drill. Mud Type						<b></b>		+	
Drilling Mark 186						<del></del>		+	

Ort	sser Atlas

## **Acoustic Cement Bond Log**

- VDL

Gamma Ray



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FILE NO.	CO	MPANY R	رازار رازار	المها				
API NO.			y we	١٦/١٠				
	WE	DMPANY <u>Ray Westall</u> ELL Baseball Park No. 2						
	FIEL	TELD S. CANSBAD Delaware						
	COI	COUNTY FODY STATE					NM	
	LOCA	ATION:	-				Othe	r Services
		9	90F56	+ 6	60 F	EL		
							EG	LIN
		741			- A			
	SEC.	24_ <sub>TWP</sub>	223	RGE	260			
<del></del>	<del></del>		211	<u></u>			Elev.	
Permanent Datum	<u>6L</u>	Ele	v 316	<u>. E</u>		i		7/2B
Log Measured from			<u> 10</u> F	t. Above F	Permanent	Datum		<u> </u>
Drilling Measured from	KB_						GL 34	68
Date	4-26-85	CSG. RECORD	Surfac		otection		uction	Liner
Run No.	ONC	Size	95/	B		7	1/2	
Service Order No.	08720	Wt./Ft.						
Depth - Driller	4600	Grade						
Depth - Logger	4584	Type Joint						
Bottom Logged Int.	4579	Тор					0	
Top Logged Interval	0	Bottom	400				<u>. D</u>	
Ft. Measured	4579			ARY CEM	ENTING DA	ATA		
Type Fluid in Csg.	wire	Type Cement	44			NV	A	···
Fluid Level	0	Vol of Cement	NA			N	A	
Max. Temp. Deg. F.		Additive						
Tool Series No.	14/15	% Additive						· · · · · · · · · · · · · · · · · · ·
Tool Diam	3/2	Retarder						
Standoff Size	Cent.	% Retarder						
Logging Speed	Rec.	Slurry Wt				L		
R/A Log Type	<u>6</u>	Water Loss						
T.C.	2	Drig. Mud Type				<b></b>		
Sens. Setting	400	Drig. Mud Wt.						
API Units/Div.	10		PRIMARY HR	CEMENT	ING PROC			
Truck or Unit No.	6205	Started Pumping			Precedir	ng Fluid		
Location	Roswell	Plug on Bottom			Vol		Bbis	
Opr. Rig Time	34rs.	Pres. Released		4, 31	Returns		Partial	
Recorded by	Pollock	Started Bond Log	1500		·			g Yes No Yes No
Witnessed by	West 41	Finished Bond Log	1/600	4-26	L Libe Hot	. Arter F	-เกลิดอพูม	TES NO

Dress	<b>2</b>	At	as
	<u> </u>	2	

# ACOUSTIC CEMENT BOND LOG VDI GAMMA RAY

		· · · · · · · · · · · · · · · · · · ·	UL		/ H 11 I			
FILE NO.	COMF	PANY	ray Westall					
	WELL	WELL BASEBALL PARK NO. 3						
API NO.								
	FIEL	FIELD <u>S. CARLSBAD DELAWARE</u>						
	COUN	ITY	EDIDY		_ si	ATE NEW	MEXICO	
	LOC	FIT I ON :			OTHER SERV	ICES		
FIELD PRINT	21041	FSL & 22	19' FHL					
FIELD FRINI								
	SEC	24 1	TWP 22-5	RGE	26-Е			
PERMANENT DATUM	GROUND	LEVEL	EL	EV.		ELEVAT I	ONS	
LOGGING MERSURED FR	ROM K	.B. 12	2 FT.	PBOVE !	P.D.	KB 318 DF 318		
DRILLING MEASURED F						DF 318 GL 317		
DATE		APRIL 28	3. 1986	-		GF 311		
RUN		1						
SERVICE ORDER		130080						
DEPTH-DRILLER		4520						
DEPTH-LOGGER		4495						
BOTTOM LOGGED INTE		4489						
TOP LOGGED INTERVE		2500				······		
TYPE FLUID IN HOLE		WATER						
SALINITY PPM CL.								
DENSITY LB/GAL.		L					<del></del>	
LEVEL MAX. REC. TEMP. DE	r c	FULL				<del></del>	<del></del>	
OPR. RIG TIME	.U. F	1.5 HRS.						
EQUIP. NO. / LOC.	<del></del>	HP-4395	H088S			<del></del>		
RECORDED BY		BREHER	1 1 1000			<del></del>		
WITNESSED BY		RAY WES	TRLL					
BOREHOLE RECORD						<del></del>		
NO. BIT		FROM			TO			
		<u> </u>	<del> </del>					
					I			

Dresser	At	as

# ACOUSTIC CEMENT BOND LOG VDL GAMMA RAY

		76					
FILE NO.	COMF	PANY R	RY WESTALL				
	WELL	_ 8	PSEBPLL PARK	NO. 4			
API NO.							
	F IEL	S. CARLSBAD DELAWARE					
	COUN	1TYE	DDY	S1	rate <u>NEW MEXIC</u>		
		ATION:			OTHER SERVICES		
FIELD PRINT	23161	FNL & 668	FEL.		4" E-GUN		
, ,				`			
	SEC	<u>24</u> TI					
PERMINENT DATUM	G.L.		ELEV.	3156′	ELEVATIONS		
LOGGING MERSURED FR	DM <u>K.</u> E	3. 10	FT. ABI	OVE P.D.	KB 3160°		
DRILLING MEASURED FI	ROH _	K.B			DF GL 31507		
DATE		5/7/86			7.00		
RUN		1					
SERVICE ORDER		115440					
DEPTH-DRILLER		4600					
DEPTH-LOCCER		4572					
BOTTOM LOGGED INTER TOP LOGGED INTERVAL		4565' SURFACE	<del></del>				
TYPE FLUID IN HOLE		HATER					
SPLINITY PPH Q.	-	†					
DENSITY LB/CR							
LEVEL		FULL					
MAX. REC. TEMP. DEC	3. F						
OPR. RIG TIME		P.M.	-				
EQUIP. NO. / LOC.		MP 4083	H0885				
RECORDED BY		BOGGS	<del></del>				
MI INCOSEU DI			OLE RECORD				
NO. BIT		FROM		TO	· · · · · · · · · · · · · · · · · · ·		
		<u> </u>	<del></del>	<u> </u>			
		<b> </b>					
<b></b> _		<b>}</b> -		<del></del>			
. I		•					

CONDITIONS OF APPROVAL, IF ANY: Supervisor District !!	
Original Signed By  Les A. Clements TITLE	SEP 30 1985
Reg. Opr. Mgr Prod.	
$\mathcal{O}_{\mathcal{O}}$	· 9-26-85
16. I hereby certify that the information above is true and complete to the best of my knowledge and belief.	
•	
HENCED BING CITY OF PAILISPEE INCESSION HOLD WITHESS CASING JOD.	
NMOCD and City of Carlsbad notified but did not witness casing job.	
	•
PU BOP, set slips and CO casing. ND BOP.	
and cemented w/650 sacks of Class C + $3\%$ A3 + $6\%$ salt + $0.25\%$ Celloflak Class C + $0.3\%$ of $1\%$ FL19 + $5\%$ salt/sack cement. PD @ 1309 MDT on 9-25	ke/sack + 250 sacks of
T.D. 4554' Sand & Shale. Waiting on a completion unit. Drilled a 7-7/T.D. of 4554' in Sand & Shale. Ran and set 113 jts.(4557.83') of 5-1/2	2" OD 14# casing @ 4553'
	· · · · · · · · · · · · · · · · · · ·
17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including work) SEE RULE 1103.	estimated date of starting any proposed
OTHER	ction casing [X]
PULL OR ALTER CASING CHANGE PLANS CASING TEST AND CEMENT JOS	PLUG AND ABANDONMENT
PERFORM REMEDIAL WORK	ALTERING CASING
NOTICE OF INTENTION TO: SUBSEQUENT	
Check Appropriate Box To Indicate Nature of Notice, Report or Oth	Eddy ()
15. Elevation (Show whether DF, RT, GR, etc.)	12. County
THE West LINE, SECTION 19 TOWNSHIP 22S RANGE 27E HMPM.	
UNIT LETTER L 1980 FEET FROM THE South LINE AND 660 FEET FROM	Carlsbad-Delaware, South
P.O. Box 1919 - Midland, Texas 79702	2 10 Field and Pool, or Wildcat
Cities Service Oil and Gas Corporation /	Merland C
. Nume of Operator	8. from or Lease Name
OIL X GAS OTHER.	7. Unit Agreement frame
SUNDRY NOTICES AND REPORTS ON WELLS	
OPERATOR V. O. C. D.  ARTESIA, D. L.	5. State Cir & Gas Lease No.
U.S.G.S. SEP 3 0 1985	State Fee X
FILE	Effective 1-1-65
SANTA FE RECEIVED BYL CONSERVATION COMMISSION	Supersedes Old C-102 and C-103
	rorm C-103

110	Gran 8	OIL AND G	AS INSPECTOR	AUG 9 1972
nerety cortain that the inf	ormation above is true	TITLE Agent	•	DATE 7/31/72
Spanjage / Jacob Comment	Ormation shows !-	and complete to the best of the	adva and ballet	
	•V•O• ZII II	ours, see ood castile & 2	Social of manie & 66	
		ours, tested casing 62	★ 7	
	PLUG NOWN @	6:45 p.m. 7/27/72 CU	T OFF CSG. & SET	SLIPS ON 9 5/8"
	400 SX CLAS	S "C"		ED LIN DIL
	STARTED CHA	ENTING @ 4:50 p.m. GO 1500 SX TRINITY LITE W	OD RETURN OF CEME	ENT @ 6:32 AL PER SK.
	9' CUT OFF		.1	
	1318.49 40#	BOTTOM	), <b>::</b>	
	774.78' 40# 3249.76' 36#			
7/27/72 RAN I		J-55 R-3 AND 93 JTS.	OF 36# R-3 CASIN	NG AS FOLLOWS:
DETITED TROUB	),,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	. Ran D.S.T. and logg	ed on 1/20/12.	
work) SEE RULE 1103.				•
Unscribe Proposed or Com	pleted Operations (Clea	urly state all pertinent details, and gi	ve pertinent dates, including	g estimated date of starting any proposed
OTHER		OTHER	110B10D Hopo	
LL OR ALTER CASING		CHANGE PLANS CASING TO	Progress Rono	
MPORARILY ABANDON		PLUG AND ABANDON REMEDIAL	WORK E DRILLING OPNS.	ALTERING CASING PLUG AND ABANDONMENT
			(m	
	Check Appropriate E OF INTENTION	Box To Indicate Nature of	<del>-</del>	her Data T REPORT OF:
		3162 GR	<del></del>	Eddy
	15.	Elevation (Show whether DF, RT, G	R, etc.)	12. County
East LIN	E, SECTION 24	22 S	26E	
UNIT LETTER	1980	North LINE AN	1980	Undes. S. Carlsbad Morr
Location of Well			7.000	10. Field and Pool, or Wildcat
Address of Operator	D. Box 1418	Carlsbad, New Mexico		9. Well No. # 2
	inne Grace		•	6. Form of Lease Name Go Po Go
OIL GAS WELL Mare of Operator	X OTHER-	·	·	
THIS FORM	APPLICATION FOR PERMI	LL OR TO DEEPEN OR PLUG BACK TO A D T " (FORM C-101) FOR SUCH PROPOSAL	FFERENT RESERVOIR. S.)	7. Unit Agreement Name
(CO NCT USE THIS FORM	SUNDRY NOTICES	S AND REPORTS ON WELLS		
PERATOR	2)	ARTES	IA, OFFICE	5. State Oil & Gris Lease No.
AND OFFICE		0.	C. C.	State Fee XX
.s.g.s.	<del>/                                    </del>	Aug	~	5a. Indicate Type of Lease
ANTA FE	/ N	EW MEXICO OIL CONSERVATION AUG	N COMMISSION	Effective 1-1-65
DISTRIBUTION		· · · · · · · · · · · · · · · · · · ·	The second secon	C-102 and C-103

			A CONTRACTOR OF THE PARTY OF TH	man .	
NO. OF COPIES RECEIVED	3		RECEIVE		Form C-103
DISTRIBUTION		1	RECEIVE		Supersedes Old
SANTA FE	1		NEW MEXICO OIL CONS	ERVATION COMMISSION	C-102 and C-103 Ellective 1-1-65
FILE	,		FEB 1 9 1973	-	
U.S.G.S.			• -		5a. Indicate Type of Lease
LAND OFFICE			a c C.		State Fee X
OPERATOR	T		O. C. C. ARTEBIA, OFFICE		5. State Oil & Gas Lease No.
	·		ARTEBIA		
· · · · · · · · · · · · · · · · · · ·	SUI	NDRY NOTICE	ES AND REPORTS ON	WELLS	
(DO NOT USE THIS FO USE	APPL	PROPOSALS TO DE	RILL OR TO DEEPEN OR PLUG B	ACK TO A DIFFFRENT RESERVOIR.	
1.					7. Unit Agreement Name
OIL GAS	L X	OTHER.			
2. Name of Operator			- /		8. Form or Lease Hame
Mich	ael	P. Grace I	.1 ✓		Grace-Atlantic
3. Address of Operator		-1 - 0		•	9. Well No.
P. 0	. Bo	x 1418	Carlsbad, New Mex	100	1
4. Location of Well				7.000	10. Field and Pool, on Wildcat
J		1980	South	1980	U. Alildeat
UNIT LETTER	•	F		-	T FROM
East		24	22S	26E	
THE	LINE, S	ECTION	TOWNSHIP	RANGE	. HMPM. (
mmmm	TTT	, emmo	15. Elevation (Show whether	DE RT CR etc.)	12. County
					\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
16.	7777	<u>mmn</u>	3162GI		Eddy
	Che	ck Appropria	te Box To Indicate N	ature of Notice, Report	or Other Data
NOTI	CE O	F INTENTION	N TO:	SUBSEQ	UENT REPORT OF:
	_			_	
PERFORM REMEDIAL WORK			PLUG AND ABANDON	REMEDIAL WORK	ALTERING CASING
TEMPORARILY ABANDON	]			COMMENCE DRILLING OPNS.	PLUG AND ABANDONMENT
PULL OR ALTER CASING	]		CHANGE PLANS	CASING TEST AND CEMENT JOB	ā
				OTHER	\\\_\\\\\\\\\\\\\\\\\\\\\\\
OTHER		<del></del>		Progress Rep	nort
<ol> <li>Describe Proposed or Co work) SEE RULE 1103.</li> </ol>	omplet	ed Operations (Cl	learly state all pertinent deta	ils, and give pertinent dates, inc	cluding estimated date of starting any proposed
,					
0 /21	/02		1.0# 8° ++	a of 36# and 3 ite	of 1:0# 9 5/8"
2/11	1/ (3	Ran 50 J	ts. or 40#, of ju	s. of $36\#$ and $3$ jts.	, 01 40// / // 0 16!
		1-25 0 K	i. esg. to a dept	h of 5406' set @ 539 Halliburton Lt. Wt.	cement followed
		cemented	with 1250 Sx. or	marifourton bo. wo	, Cement Tollowca
		W/400 SK		r sack gilsonite.	
			Plug down.	D O D += 2000# (	ר ע
		W. O. C.	202 nours. Test	B.O.P. to 2000#	J • ft •
			,		
			*		
			•		
			•		
		•			
18. I hereby certify that the	ipform	ation above is tri	ue and complete to the best	of my knowledge and belief.	
		در ده	<i>á</i> )	A	
1/2.	,		16	Agent.	2/16/73
SIGNED	sw	w 11.	Jane HILE	и Реши	DATE
		1	<i>y</i>		
1.11	7	4	**	LAND GAS INSPEC <b>TOR</b>	ern 1 o 1072
APPROVED BY COCC	/	x use	CV TITLE OIL	L HAD GNO INGLESION	DATE FEB 1 9 1973

CONDITIONS OF APPROVAL, IF ANY:

. O' COPIES RECEIVED	5	,		
DISTRIBUTION		<u> </u>		Superaedes Old
S NTA FE	1	<u> </u>	NEW MEXICO OIL CONSEN (本) (日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日	C-102 and C-103 Effective 1-1-85
FILE	1	_		
U.S.G.5.		<del> </del>	FEB 2 8 1974	5a. Indicate Type of Lease
LAND OFFICE	12	<del> </del> -	1 LD 2 0 1974 .	State Fee Fee
OPERATOR	3	Ц_		5, State Oil & Gas Lease No.
ON EINT JEU TON OU!	SU	NDR	Y NOTICES AND REPORTS ON WECESIA, DEFICE POSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. ION FOR PERMIT - " (FORM C-101) FOR SUCH PROPOSALE.)	
1.			OTHER-	7, Unit Agreement Name
	in	and	Joe Don Cook	.8. Form or Lease Name Merland
	R	osv	ell, New Mexico 88201	9. Well No. One
4. Location of Well  UNIT LETTER			South LINE AND 1846 PEET PROM	10. Field and Pool, or Wildcat Wildcat
East	.INE,	<b>3</b> E C T I	24 22 E 26 S NMPM.	
	III	III	15. Elevation (Show whether DF, RT, GR, etc.)	12. County
			3174 Gr	Eddy
16.	Che	eck	Appropriate Box To Indicate Nature of Notice, Report or Oth	ner Data
NOTIC				REPORT OF:
	_			
PERFORM REMEDIAL WORK	]		PLUS AND ABANDON REMEDIAL WORK	ALTERING CASING
TEMPORARILY ABANDON	Ţ		COMMENCE DRILLING OPNS.	PLUG AND ABANDONMENT
PULL OR ALTER CASING	١		CHANGE PLANS CASING TEST AND CEMENT JOB X	
			OTHER	
OTHER			L	
17, Describe Proposed or Co	mple	ted O	perations (Clearly state all pertinent details, and give pertinent dates, including	estimated date of starting any proposed
work) SEE MULE 1103.				
Spud - 1-24-	L97	4		•
85/8" casing		20	1b per ft @375 ft with 250 sks	
			ement 2% calcium cloride	
W.O.C.	ti	me	was approximately 89 hrs. Pressured ca	sing to 685 PSI.
			min. test ok	
5½" casing -	15	.5	1bs per ft @4518 ft - see attached shee	
	-1		ft W.O.C. time was approxim	
			easing. Pressured Casing to 740 PSI. H	eld for 40 Min.
Test O			c. / 'nc	
			s per ft - / 4454-56, and 4458 - 64	
Washed 500 ga	3 T T	ons	mud acid.	
				•
			:	
18. I hereby certify that the	infor	metio	above is true and complete to the best of my knowledge and belief.	
				/
SIGNED WA	4	an	man TITLE (5- Operator	DATE 2-28-72/
		^		
41/	P	G	esset TITLE OIL AND GAS INSPECTOR	FEB 28 1974
APPROVED BY		4	TITLE UIL AND GAG INGILLION	DATE NO IJIT
CONDITIONS OF APPROVA	AL, 10	FAN	rs	•

CONDITIONS OF APPROVAL, IF ANY:

				Form C-103 Supersades ()(d
FEANTA FE	77	7	NEW MEXICO OIL CONSERVATION COMMISSION	C-102 and C-103
FILE	17	1	<b>~</b> .	Effective 1-1-85
U.S.G.S.			AUG 7 1975	5a. Indicate Type of Lease
LAND OFFICE				State Fee
OPERATOR	11	<u> </u>	O. C. C. Artesia. Office	5. State Oil & Gas Lease No.
(DO NOT USE THIS FO	SU	NDF	Y NOTICES AND REPORTS ON WELLS POSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. ON FOR PERMIT	
1.		1	OTHER-	7. Unit Agreement Name
2. Name of Operator			VINER	8. Form or Lease Hame
Cominne Gra	ice	<u> </u>	en de la companya de	Zuklah Baby
	413	, c	arlabad, New Mexico	9. Well No.
4. Location of Well  UNIT LETTER  G			2310 FEET FROM THE North LINE AND 1650 FEET FROM	Indes. So. Carlbbad Delawa
			N 24 TOWNSHIP 225 · RANGE 26E NMPM	
142		~~~		
			15. Elevation (Show whether DF, RT, GR, etc.)	12. County Eddy
16.			Appropriate Box To Indicate Nature of Notice, Report or O	ther Data
NOTI	CE	OF I	TENTION TO: SUBSEQUEN	T REPORT OF:
PERFORM REMEDIAL WORK	]		PLUG AND ABANDON REMEDIAL WORK	ALTERING CASING
TEMPORARILY ABANDON			COMMENCE DRILLING OPHS.	PLUG AND ABANDONMENT
PULL OR ALTER CASING	┙.		CHANGE PLANS CASING TEST AND CEMENT JOB [III]	c
OTHER			OTHER	<u>B</u>
17. Describe Proposed or Co work) SEE RULE 1703.	elqmo	ted C	erations (Clearly state all pertinent details, and give pertinent dates, includin	g estimated date of starting any proposed
Drilled to	ā,	dép	h of 4561'. Ran 135 jts. of 5 1/2" casing total	il (3 jts of 17# 5 1/2 on
bottom and	1.	jt.	of 17% on top, 131 jts of 15.5% in middle) and	set at a depthof
4561'. Hai	111	bur	on cemented with 163 sacks Class C cement, 162	sks Pormix A and
2/ Jel, w/	16	ತ್ತಾತ	salt. Plug down 7 s.m. $7/4/75$ . Pressured to 1	1000# o.lz.
			botton at 4510' and found	
Pan 1, 1,07	יהד	o ₹	2 3/8 05 hydrill 4.70% tubing hole. Perforated	1 1.1.76 to 1.1.91, and
			spf. Noved Nowsco on and purped hole dry. Hal	
			A acid. Mowsco pumped 50,000GCF Mg with inject	
			g salt water with slight show oil and gas.	,
			s • •	
18. I heleby certify that the	infor	matic	above is true and complete to the best of my knowledge and belief.	
\ //	L	/	1 km	
ALGNED ALAMI	111	$\triangle$	10 yes Title	DATE
τι)ln./.	$\mathbf{Q}_{\mathbf{J}}$	2	· · · · · · · · · · · · · · · · · · ·	Nito
APPPOVED BY THE	بخرر	N	SUPERVISOR, DISTRICT II	DATE AIL TITE
CONDITIONS OF APPROV	AL, I	FAN	:	

UNDITIONS OF APPROVAL, IF ANYI

DISTRIBUTION SANTAPE	RECEIVED BYO. BO	X 2088 / MEXICO 87501	Form C-103 Revised 10-1-7
V.S.G.S.	APR 18 1985		Sa. Indicate Type of Leuse  State Fee X
OPERATOR .	Ø. C. D. Artesia on he	• •	S. State OII & Gas Leuse No.
SUNDRY A	NOTICES AND REPORTS ON	WELLS BAGA TO A DIFFERENT RESERVOIR.	
Site X San C	OTHER-		7. Unit Agreement Hanse
Ray Westall			8. Form of Lease transe  Baseball Park
P.O. Box 4	Loco Hills, New Mexico	o 88255	9. Well No. 2
UNIT LETTER P , 99	O PEET FROM THE South	LINE AND 660	10. Field and Pool, or Wildcut
THE East LINE, SECTION_	24 TOWNSHIP 225	S 14462 26E	
	15. Elevation (Show whether 3168.	· · · · · · · · · · · · · · · · · · ·	12. County Eddy
Check App NOTICE OF INTE		Nature of Notice, Report or	<del></del>
IFORM REMEDIAL WORK  APPRARILY ABANDON  L OR ALTER CABING	PLUG AND ABANDON		ALTERING CASING  PLUG AND ABAPOONMENT
Describe Proposed or Completed Operat	ions (Clearly state all pertinent det	ails, and give pertinent dates, includ	ing estimated date of starting any proposed
4-2-85 Spud 12 <sup>1</sup> / <sub>4</sub> hole	@ 10:45 P.M.		
	sxs to surface. WOC	2' w/250 sxs Class "C" 18 hrs. Pressured up 8	
2% AF-S + 5# s		t, 900 sxs Class "C" w/	
•			
		•	
hereby certify that the information above	ve is true and complete to the best		
. Tay Westal	TITLE	Operator	DATE 4-17-85
•	riginal Signed By Les A. Clements		MAY 1 1985
DY ( P   0 Y	pervisor District II	<del></del>	

DISTRIBUTION	1917	UFFEIAEM BI	2088	Fern C-103 Revised 19-1-78
FILE U.S.O.S.		"SANTA FE, NEW <b>NAY 02 1</b> 986	MEXICO 87501	So. Indicate Type of Lease
LAND OFFICE		_		State Oti 6 Gas Lease No.
		O. C. D. ARTESIA, OFFICE		
לי בואד שבע דסא פסן. זכע	SUNDRY NOTICES	S AND REPURTS ON TEN TO DEEPER OF PLUE OF TEN TOPM (-101) FOR SUC	ACT TO A DIFFERENT NESERVOIR.	
1. OIL X CAS				7. Unit Agreement frame
2. Name of Operator	ОТНЕЯ-		<del>,</del>	8. Farm or Lease Hame
	y Westall 🗸	· · · · · · · · · · · · · · · · · · ·		Baseball Park
3. Address of Operator	O. Box 4 Loco	Hills, New Mexic	co 88255	9. Well No.
4. Location of Well		•		10. Field and Pool, or Wildcat
UNIT LETTERA		ET FROM THE South	LINE AND 2218 FEET !	Und. S. Carlsbad Delaware
West .	INE, SECTION 24	TOWNSHIP	RANGE 26E N	MPM.
	111111111111111111111111111111111111111	. Elevation (Show whether	DF, RT, GR, etc.)	12. County
		3177. GI		Eddy
	Check Appropriate CE OF INTENTION		lature of Notice, Report or SUBSEQU	Other Data ENT REPORT OF:
PERFORM REMEDIAL WORK	<u>]</u>	PLUG AND ABANDON	REMEDIAL WORK	ALTERING CANING
PULL OR ALTER CABING		CHANGE PLANS	COMMENCE DRILLING OPNS.	PLUG AND ABANDONHENT
The on Acted Chains	J		Spud, 8 5/8,	TD, 5½"
OTHER				
17, Describe Proposed or Co work) see RULE 1103.	mpleted Operations (Clea	arly state all pertinent dete	nils, and give pertinent dates, inclu	iding estimated date of starting any proposed
4-14-86 Spud 1	2½" hole € 8:00	P.M.		
2% CaC	l, ¼# Cello-sea	al-did not circul	Late. Redi-mix w/2 yd	5' w/250 sxs Class "C" s. cement. Plug down for 30 min., held AK-
sxs P.	S. Lite "C", 8#	ts. 4538.53' 17# f salt + 4# sx Hi lug down @ 2:55 H	# 5½" casing. Set & c iseal, 2% AFS, 335 sxs 2.M. 4-24-86	emented @ 4520' w/590 50-50 Poz C + 5# salt
	•			
	•		•	
18. I hereby certify that the i	information above is true	and complete to the best of	of my knowledge and belief.	
GIGHED Ray L	) estall	TITLE	Operator	BAYE 4-30-86
	Original	Signed By		MAV 0 1000
CONDITIONS OF APPROVA	Oil & G	Williams Titte		BATE MAY 9 1986
CONDITIONS OF APPROVA	E, IF PATE			

RECEIVED ABYTA FE. NEW MEXICO 87501  FILE U.S.O.S.  MAY 12 1986  OFERATOR  O. C. D.  SUN DRY NOTICES: AND REPORTS ON WELLS  (ECO NET USE THIS FORM TO PROPORTION OF THE SERVOIR.)  OTHER.  Ray Westall  From of Ciperator  P.O. Box 4 Loco Hills, New Mexico 88255  OTHER H. 2310 FEET FROM THE NOrth LINE AND 660 FEET FROM THE East  LINE, SECTION 24 TOWNSHIP 228 RANCE 26E NM	
MAY 12 1986  OPERATOR  O. C. D.  SUNDRY NOTICES:AND REPORTS ON WELLS  (CO NOT USE THIS FOLLOWING PROPORTION OF THE PROPO	5. State Off & Gas Lease No.  7. Unit Agreement Home  8. Form of Lease Home  Easeball Park  9. Well No.  4  10. Field and Pool, or Wildent  Und. S. Carlsbad Delawa
SUNDRY NOTICES: AND REPORTS ON WELLS  (CO MET USE THIS FORM FLOUR PROPOSALS.)  OTHERS.  Ray Westall  P.O. Box 4 Loco Hills, New Mexico 88255  Gallon of Well  HIT LETTER H. 2310 FEET FROM THE NOTTH LINE AND 660 FEET FROM THE EAST OWNSHIP 228 RANGE 26E NM	7. Unit Agreement Home  8. Form or Louse Name  Baseball Park  9. Well No.  4  10. Field and Pool, or Wildon  Und. S. Carlsbad Delawa
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Ray Westall  P.O. Box 4 Loco Hills, New Mexico 88255  GILON OF WORLD  HIT LETTER H. 2310 FEET FROM THE NOrth LINE AND 660 FEET FROM THE East LINE, SECTION 24 TOWNSHIP 225 RANCE 26E NM	Easeball Park  9. Well No.  10. Field and Pool, or Wildent  10. Carlsbad Delawa
P.O. Box 4 Loco Hills, New Mexico 88255  attor of Well  H. 2310 FEET FROM THE North LINE AND 660 FEET FROM THE East LINE, SECTION 24 TOWNSHIP 225 RANGE 26E NM	9. Well No. 4  10. Field and Pool, or Wildent  Und. S. Carlsbad Delawa
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HIT LETTER H, 2310 FEET FROM THE NORTH LINE AND 660 FEET FROM THE EAST LINE, SECTION 24 TOWNSHIP 228 RANGE 26E NM	10. Field and Pool, or Wildent Und. S. Carlsbad Delawa
HIT LETTER H 2310 FEET FROM THE NORTH LINE AND 660 FEET FROM THE EAST LINE, SECTION 24 TOWNSHIP 22S RANGE 26E NM	Und. S. Carlsbad Delawa
HE East LINE, SECTION 24 TOWNSHIP 22S RANGE 26E NM	
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	12. County
3150. GR	Eddy
Check Appropriate Box To Indicate Nature of Notice, Report or	▼
	INT REPORT OF:
	-
PLUG AND ABANDON REMEDIAL WORK	ALTERING CASING
DRANILY ABANDON COMMENCE DRILLING OPHS.	PLUG AND ABANGONMENT
OR ALTER CABING CASING TEST AND CEMENT JQE OTHER OTHER Spind 8 5/8"	m n =1.11
other_Spud_6 5/0_,	Talla, 7°5
	·
-25-86 Spud 124" hole @ 4:15 P.M.  -26-86 Ran 14 jts. 422.31' of @ 5/8" 24# J-55 casing. Cemented @ 2% CaCl. Circulated 25 sxs cement. Plug down @ 5:15 A.M.	
up 800# for 30 min. Held04-86 T.D. 4600'.	
,	
Nal. Lite 노# Floseal, 300 sxs 50/50 Poz "C" 6# salt, 노# Flo 750 gal. Flocheck 21. Plug down @ 4:00 P.M. 5-5-86.	€ 4600' w/350 sxs seal, 3/10% Nalad 4,
ereby certify that the information above is true and complete to the best of my knowledge and belief.	
Kay Westall Operator	DATE 5 O RE
4	
Original Signed By	14AV 00 100°
Mike Williams	MAY 22 1986
TIONS OF APPROVAL, IF ANYI OIL & Gas Inspector	

SINDRY MOTICES AND REPORTS ON WELLS  STORE OF ARTESIAL OFFINE  SUMDRY MOTICES AND REPORTS ON WELLS  Free X  STORE OF A CONTROL OF A CON		GEP41-1979	
SPENSY HOTICES AND CIFCOSTS ON WELLS  SUBJECT HOME SAME CITY FROM THE SOUTH STATE OF THE SAME AND STATE OF THE	office	<b>75</b>	State State Fee X
SINDLY NOTHER AND CEPTORS ON WELLS	TOR	O. C. C. ARTERIA, OFFICE	
The following of the state of t	SUNDRY HOTICES AND RE	POUTS ON WELLS	
JOE DON COOK  JOE DON COOK  P.O. BOX 159, ROSWELL, NEW MEXICO 88201  THE CONTROL OF THE CONTROL		CHOTICE STORES CONTROL (SALS.)	
P. O. BOX 159, ROSWELL, NEW MEXICO 88201  ##1  10, 10d on 1 look, or hidden and seed the second seed to be booked by knowledge and belief.  P. O. BOX 159, ROSWELL, NEW MEXICO 88201  ##1  10, 10d on 1 look, or hidden and seed to be booked by knowledge and belief.  ##1  10, 10d on 1 look, or hidden and seed to be booked by knowledge and belief.  ##1  10, 10d on 1 look, or hidden and seed to be booked by knowledge and belief.  ##1  10, 10d on 1 look, or hidden and seed to be booked by knowledge and belief.  ##1  10, 10d on 1 look, or hidden and seed to be booked by the seed and seed to be booked by the seed and seed to be booked by the seed by the seed of t	or Cy erator		1
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EAST LIME, SECTION 24 TOWNSHIP 22-S NAMES 26-E NAMES  CHECK Appropriate Box To Indicate Nature of Notice, Report of Other Data  Notice of Intention to:  SUBSEQUENT REPORT OF:  FUND AND FAMOUR OF INTENTION TO:  CHARGE PLANS CHARGE OF ALIES CHARGE PLANS CHARGE OF ALIES AND GENERAL 200 CHARGE OF ALIES CH		MEXICO 88201	• •
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Check Appropriate Box To Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO:  SUBSEQUENT REPORT OF:  SUBSEQUENT REPOR			
NOTICE OF INTENTION TO:  SUBSEQUENT REPORT OF:  RECEPTIAL WORK  CHARGE PLANS  CHARGE P	3181		EDDY
RIGGING DOWN, RAN 4527 ft. 5½ CASING-SET AT 4527 ft. CEMENTED WITH 500  SACKS-HALLIBURTON LITE AND 200 SACKS 50-50 POZ. PLUG DOWN AT 8:30 a.m.  8-26-79. Toce /420 Bond 409  The Dan Case  100 SACKS Absorbed to the intermetation chare is time and complete to the best of my knowledge and better.  101 Supervisor District II.  102 NOV 9 1979			
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SACKS-HALLIBURTON LITE AND 200 SACKS 50-50 POZ. PLUG DOWN AT 8:30 a.m.  8-26-79. Foce 1420 Bond Log  Veresty that the information above is true and complete to the best of my knowledge and belief.  Language Coll 1420 PERATOR 0.11 8-31-79  W. M. A. Aussett 1111 Supervisor District 11 100 9 1979			•
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y certify that the information above is true and complete to the best of my knowledge and belief.  Supervisor district 11 base NOV 9 1979	SACKS-HALLIBURTON LITE AND	200 SACKS 50-50 POZ.	PLUG DOWN AT 8:30 a.m.
Je Dan Col VIII OPERATOR BATE 8-31-79  W. G. Guessett VIIIE SUPERVISOR DISTRICT II DATE NOV 9 1979	8-26-79. TOCC 1420 Box	d Log	
Je Dan Col VIII OPERATOR BATE 8-31-79  W. G. Guessett VIIIE SUPERVISOR DISTRICT II DATE NOV 9 1979			
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Je Dan Col VIII OPERATOR BATE 8-31-79  W. G. Guessett VIIIE SUPERVISOR DISTRICT II DATE NOV 9 1979			
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V SUPERVISOR DISTRICT II DATE	y certify that the information above is true and complete	to the best of my knowledge and belief.	ayangan yakayana dagamanna atmar manan galaman atmar manan atmar atmar atmar atmar atmar atmar atmar atmar atm
V SUPERVISOR DISTRICT II DATE	Joe Van Cool	OPERATOR	B-31-79
V SUPERVISOR DISTRICT II DATE	Commence of the second	and and the state of the same and the state of the state	NOV 0 4070
	W. a. Dressett	SUPERVISOR DISTRICT	NUV 9 1979



## DOWELL DIVISION OF DOW CHEMICAL U.S.A.

An Operating Unit of The Dow Chemical Company

LABORATORY LOCATION

#### API WATER ANALYSIS REPORT FORM

DATE

LAB NO.

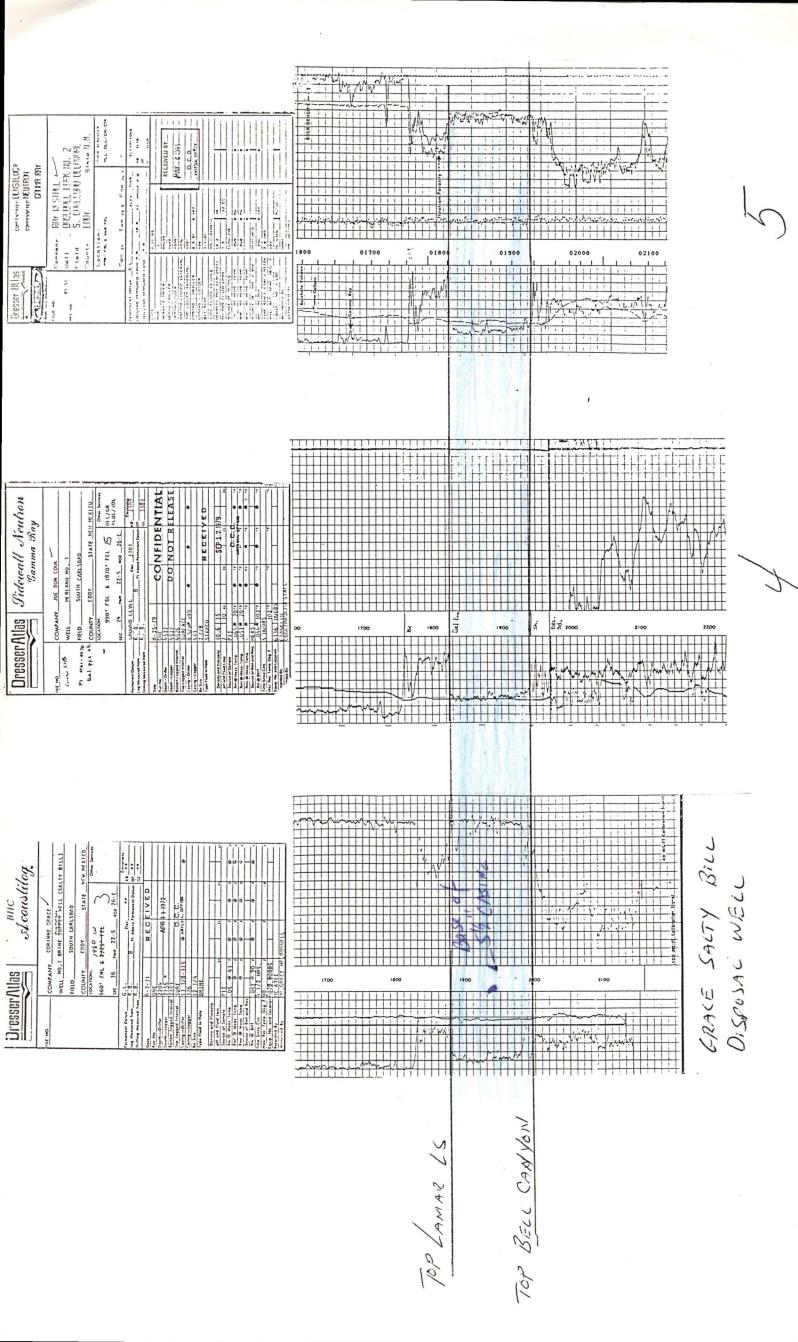
Company	Sample No. Date Sampled
Kan Westall	9-15-87
Field Legal Description	County or Parish State
S. Caushad Delanger P-24-225-	
Lease or Unit Well	Depth Formation Water, B/D
BASERALL PARK Z	Birusly Cher
Type of Water (Produced, Supply, etc.) Sampling	oint Sampled By
Produced WELL	Head GK
DISSOLVED SOLIDS	OTHER PROPERTIES
CATIONS mg/L me/L	pH _6.75
Sodium, Na (calc.) 78,974	Specific Gravity, 60/60 F.
Calcium, Ca Z/000	Resistivity (ohm-meters) 72 F
Magnesium, Mg /3500	
Barium, Ba	
ANIONS	WATER PATTERNS — me/L
Chloride, Cl /98,650	STANDARD
Sulfate, SO <sub>4</sub> Z50	20 10 0 10 20 Nathtillittillittillittillittillittillittillittillittillittillittillittillittillittillittillittillittillittill
Carbonate, CO <sub>3</sub>	
Bicarbonate, HCO <sub>3</sub> / 500	Со <del>  1111   1111   1111   1111   1111   1111   1111   1111   1111   1</del> 111   11
	Mg ++++++++++++++++++++++++++++++++++++
	ե∙րուդուդուդուդուդուդուդուդուդուդու
Matal Dissaluad Salida (sala)	LOGARITHMIC Notmanti-hanti-Limiti-Limiti-Limiti-Limiti-Limiti-Limiti-Limiti-Limiti-Limiti-Limiti-Limiti-Limiti-Limiti-Limit
Total Dissolved Solids (calc.)	
	c օվ <del>ուվու է խովու է խովու է իուվու է է ուխով է</del>
Iron, Fe (total) + 1 C	Mg  <del>1111 11 +  1111 11 +  111 11 +  111 111   +  11 111  +  11 111    +  11 11    + </del>
Sulfide, as H <sub>2</sub> S	Felimin I min I mi
	00 0 1 0 00
REMARKS & RECOMMENDATIONS:	

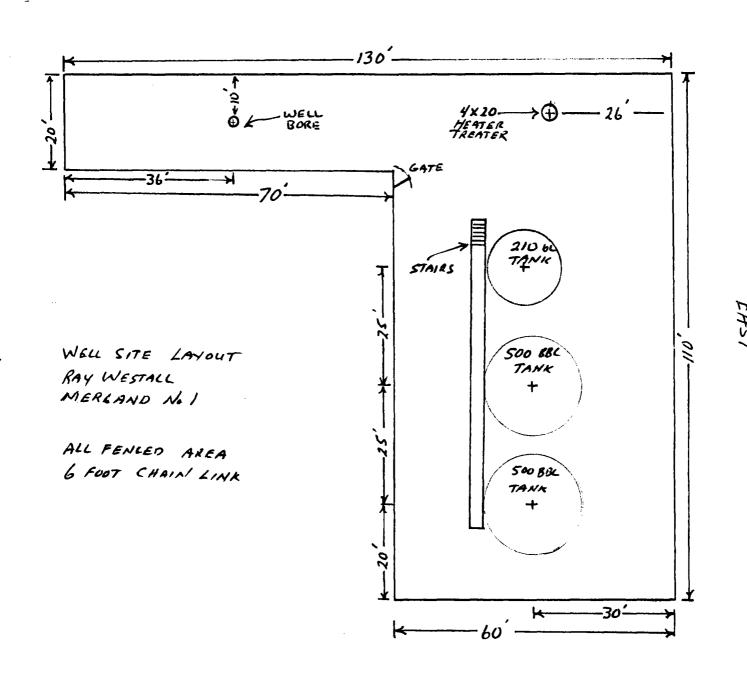
#### HALLIBURTON DIVISION LABORATORY

## HALLIBURTON SERVICES

## ARTESIA, NEW MEXICO 88210

n		ATER ANALYSIS	lo
TO RANDALL B		Date	9/15/87
439 W. Funk		it nor any part thereof	y of Halliburton Company and neither nor a copy thereof is to be published
Lulla ARTHA	i NN	of laboratory management of regular busines	securing the express written approve ent; it may however, be used in the s operations by any person or concern
	<del></del>	Company.	receiving such report from Halliburtor
Submitted by RANDA	a HARRIS	Date Rec.	9/15/87
Well No BasieBACL PA	TALL Depth 4230	) Formation	BRUSHY Conjon-
	Field 5 Cov/se		UELL HEAD
		**************************************	
Resistivity	.053060		
Specific Gravity	1.166 660		
pH	4.8		
Calcium (Co:			*MPI
Magnesium (Mg)			
Chlorides (CI)	153,000		·
Sulfates (SO <sub>4</sub> )	Lite		
Bicarbonates (HCO <sub>3</sub> )	150 .		
Soluble Iron (Fe)	Lite	-	
*******************************		-	
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Remarks:			*Milligrams per liter
		•	,
	01:-		
•	M		· ·
•	Respectfo	ully submitted,	•
· Analyst:		. HALLIBURTO	ON COMPANY

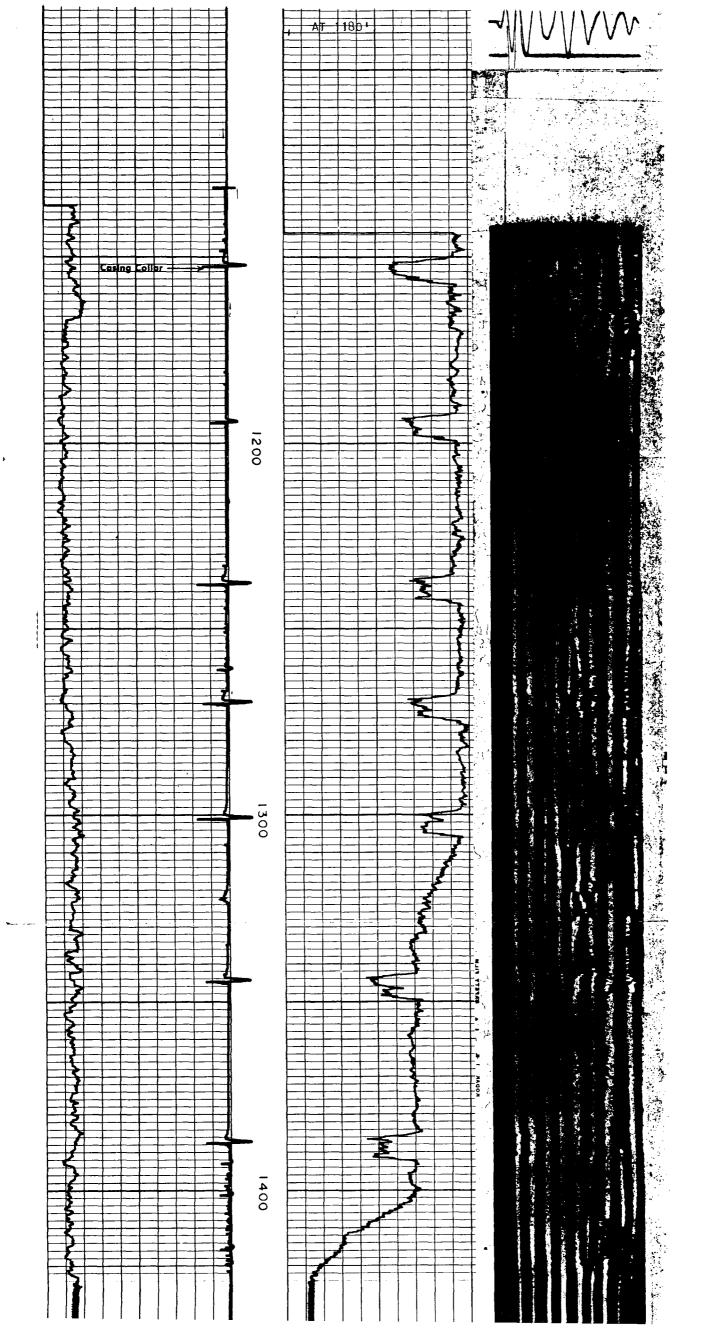


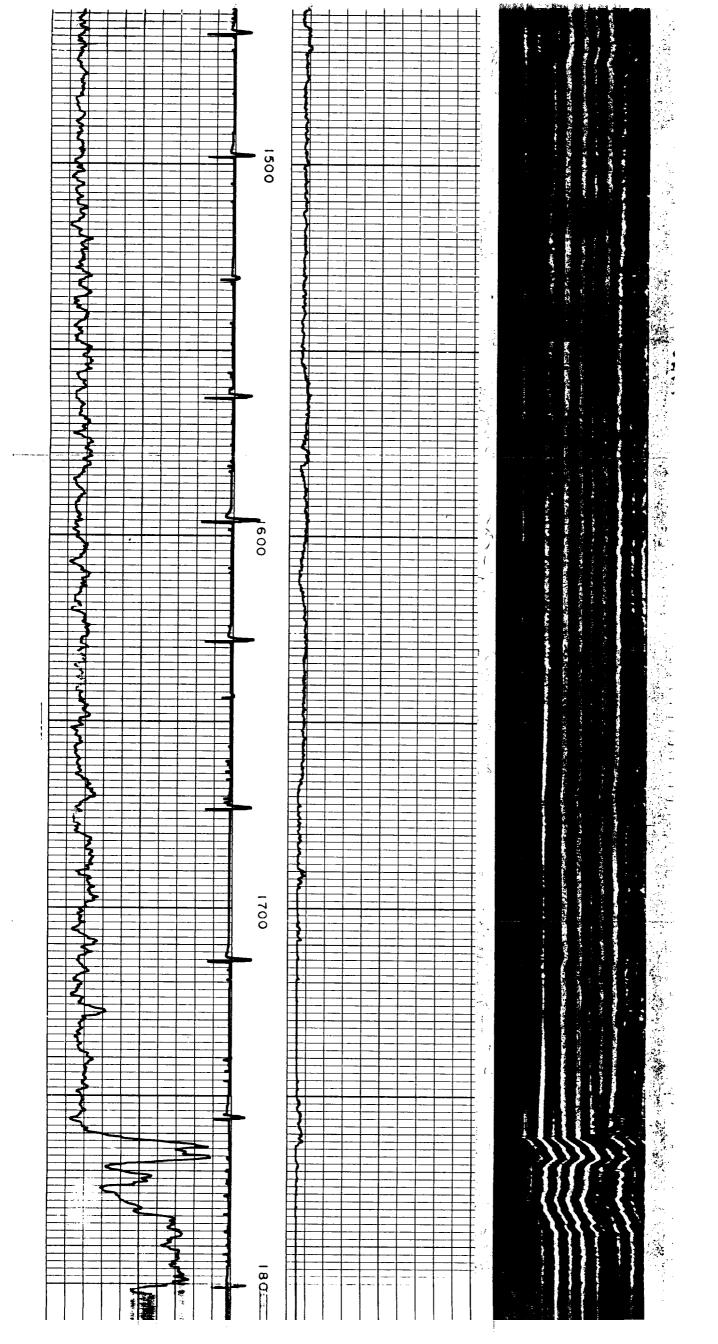


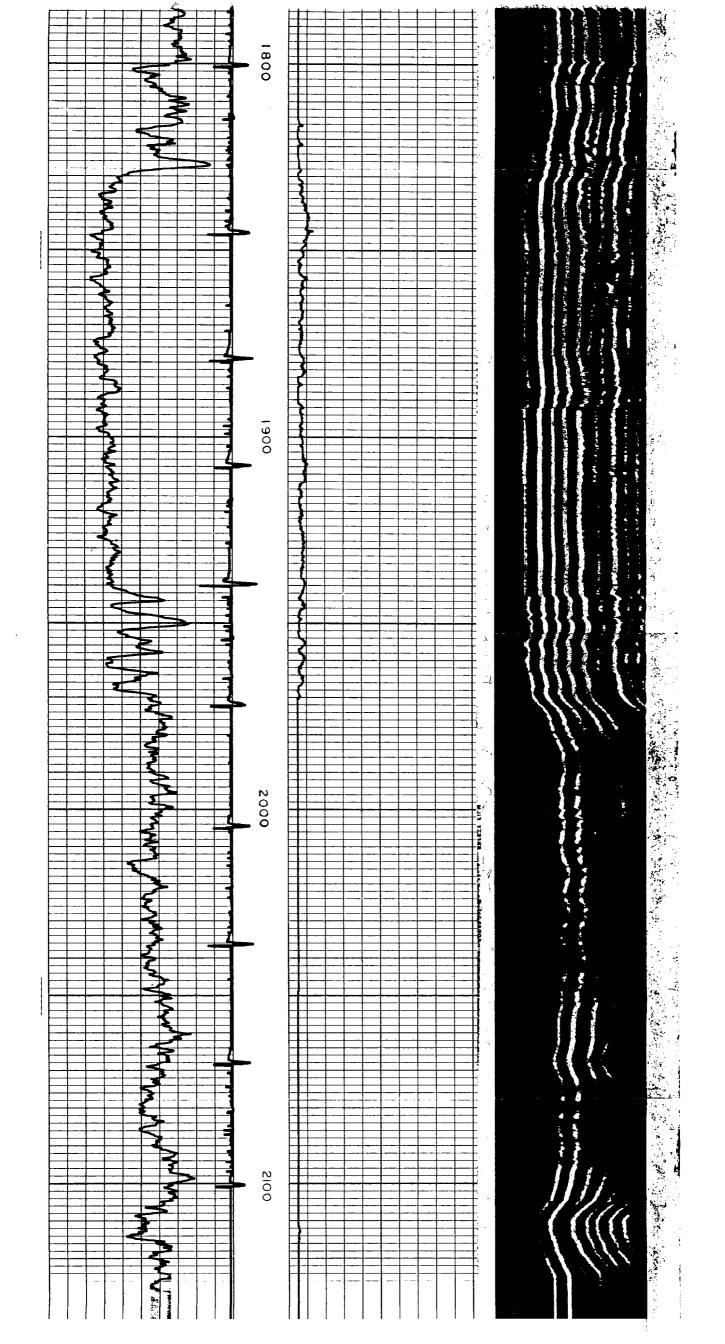
SOUTH

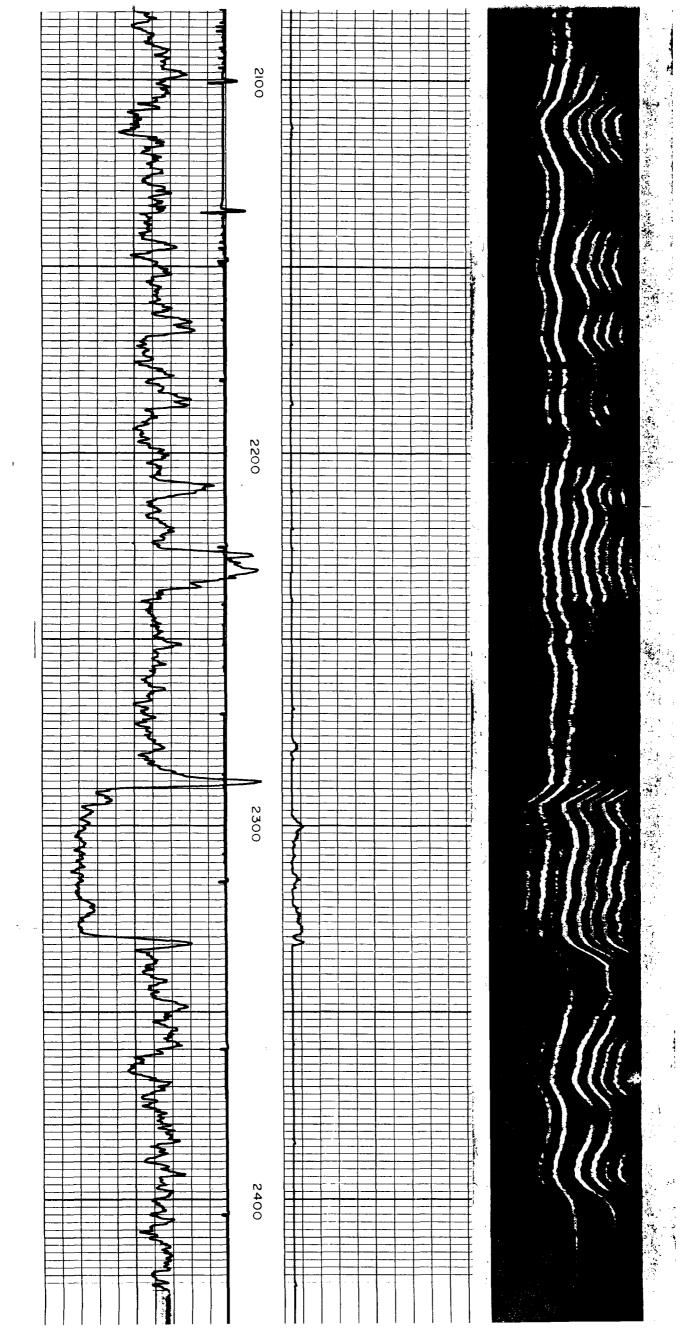
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inessed by	corded by	or. Rig Time	cation	uck or Unit No.	7 Units/Div.	ns. Setting	A Log Type	gging Speed	andoff Size	ol Diam.	ol Series No.	ix. Temp. Deg. F	id Level	nsity of Fluid	pe Fluid in Csg.	Measured	p Logged Int.	ttom Logged int.	pth-longer	NO.	ē	illing Measured from	g Measured from	rmanent Datum			<b>-</b>	Ā			ENO. 07/		
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Finish	Starte	Pres.	Plug	Starte		ם פ	Water Loss	Slurry Wt.	% Retarder	Retarder	% Additive	Additive	Vol. o	Туре		Bottom	Top	Type Joint	Crade .	SIZ8	ိုင္တ				24	990'	ž	₹			ÀΖ		
led Bo	Started Bond Log	Pres. Released	Plug on Bottom	Started Pumping		Drig. Mud Wt.	095	Š	arder	der	itive	ë	Vol. of Cement	Type Cement		3		Joint			CSG. RECORD			LEVEL	7	, ESL							
Finished Bond Log	200	2	ã			- 3							ž	-		1					ORD		]  c		TWP_	ઝ ગડ		EDDY	001	7	ÉRL	2	200
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Pip	Pip	₽	۷o.	3			Z		2						CEME			1			Prot		Perma	1	RGE	134		S	BAU		1 ' L	÷	13.8
Pipe Rot. After Plugdown; Yes No	Pipe Rot. During Pumping: Yes No	Returns: Fuil		Preceding Fluid	S PR		NC		ZTIEZ						NTING				-		Protection		ment C	3181	26-E			STATE			VAY WESTAL	C	Bond Log Signature
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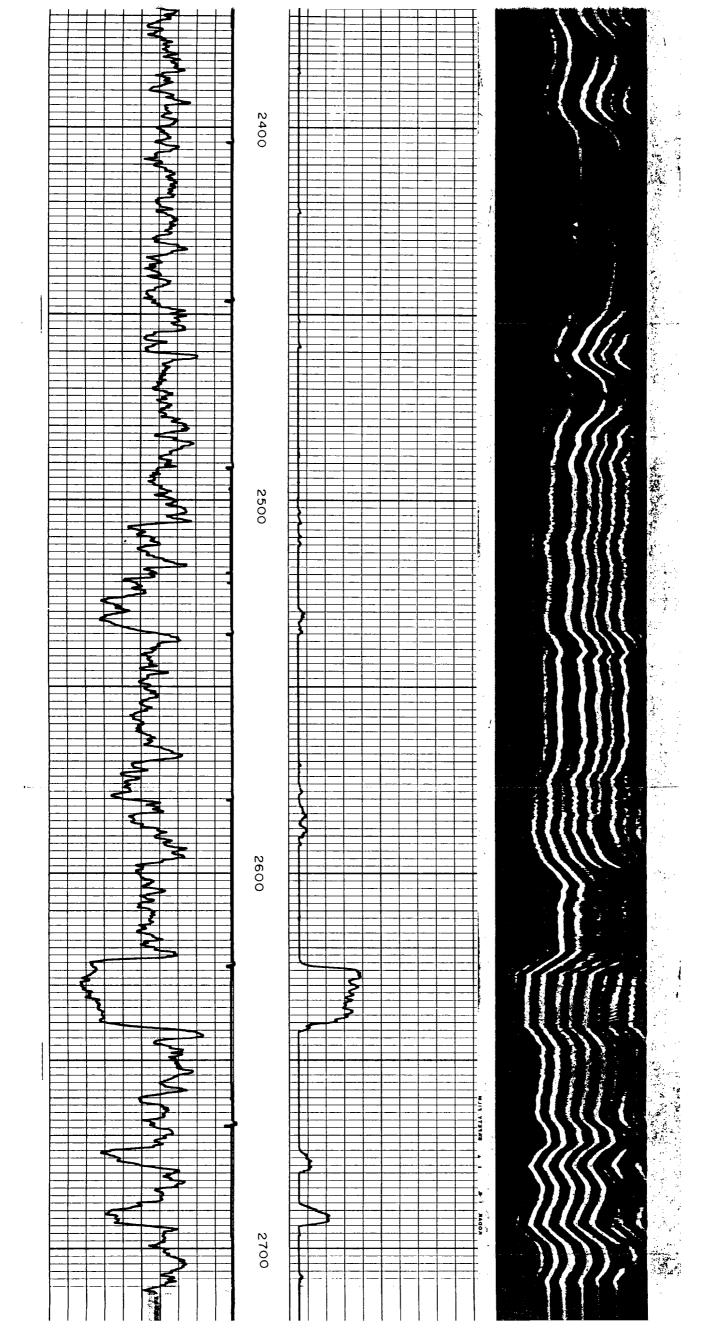
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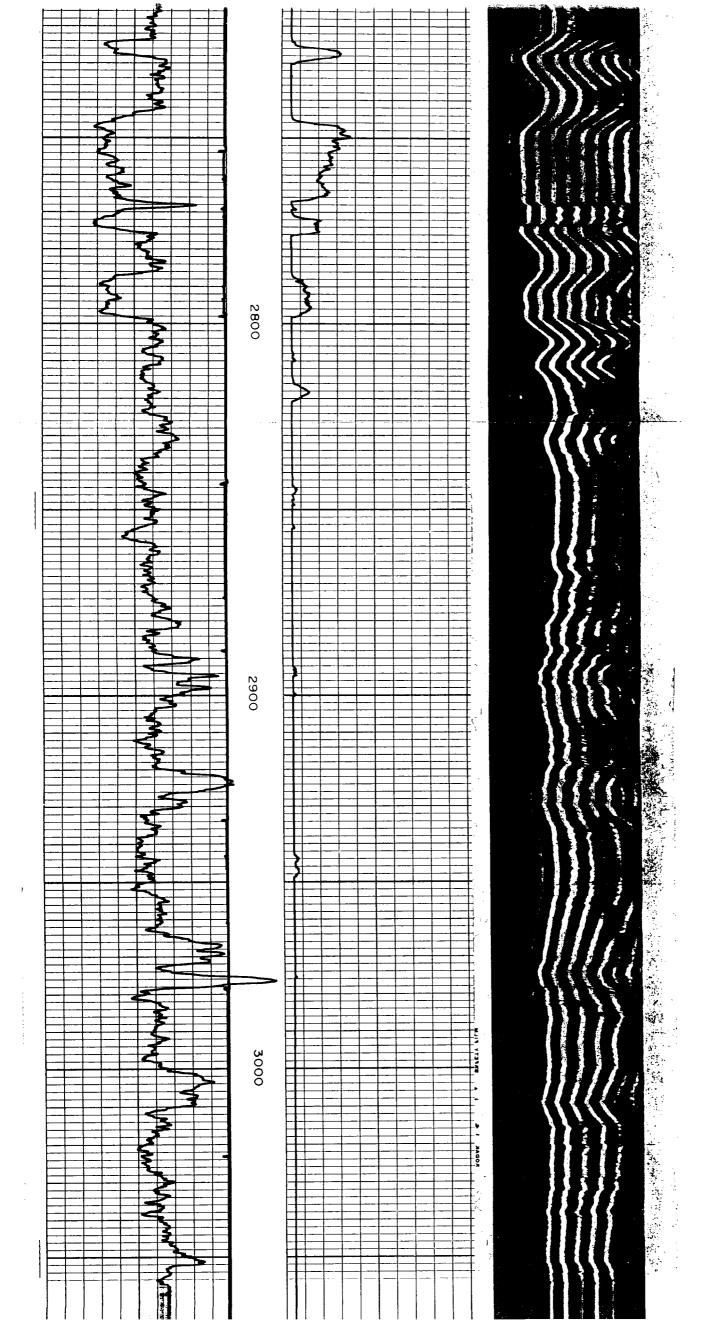


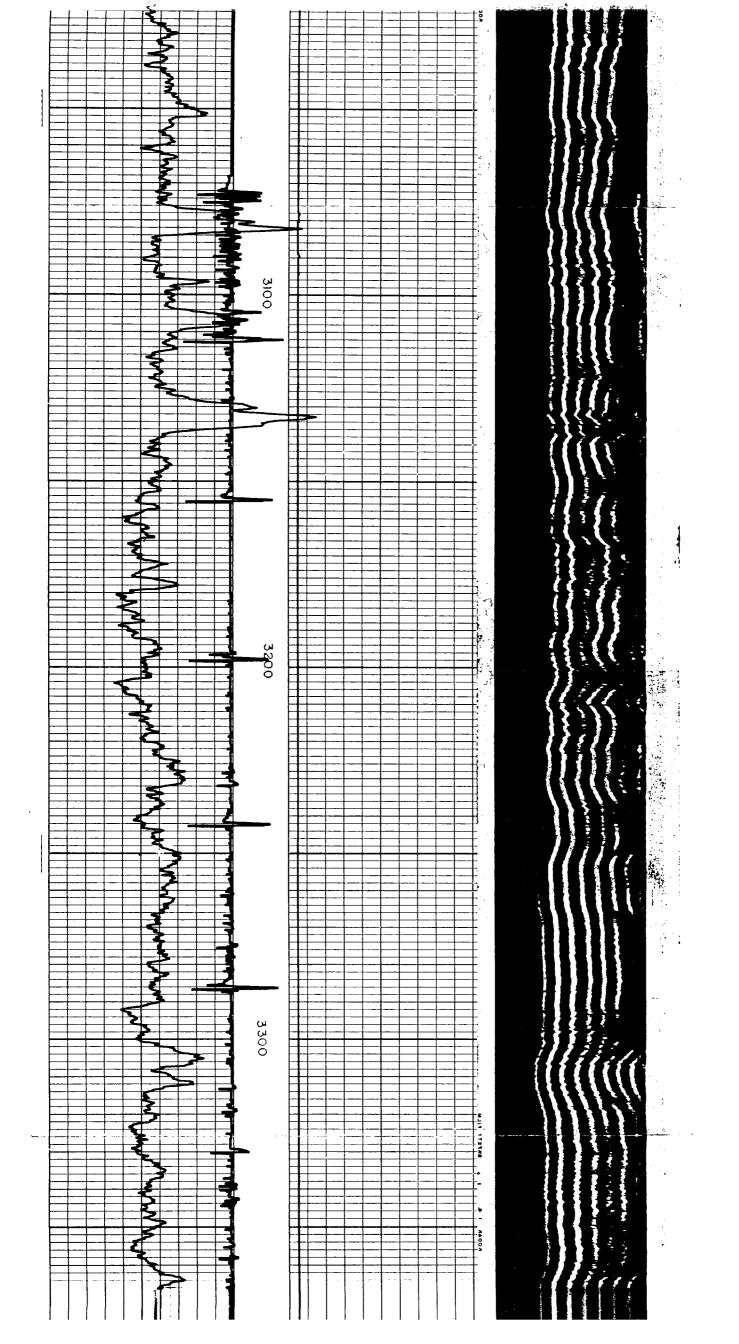


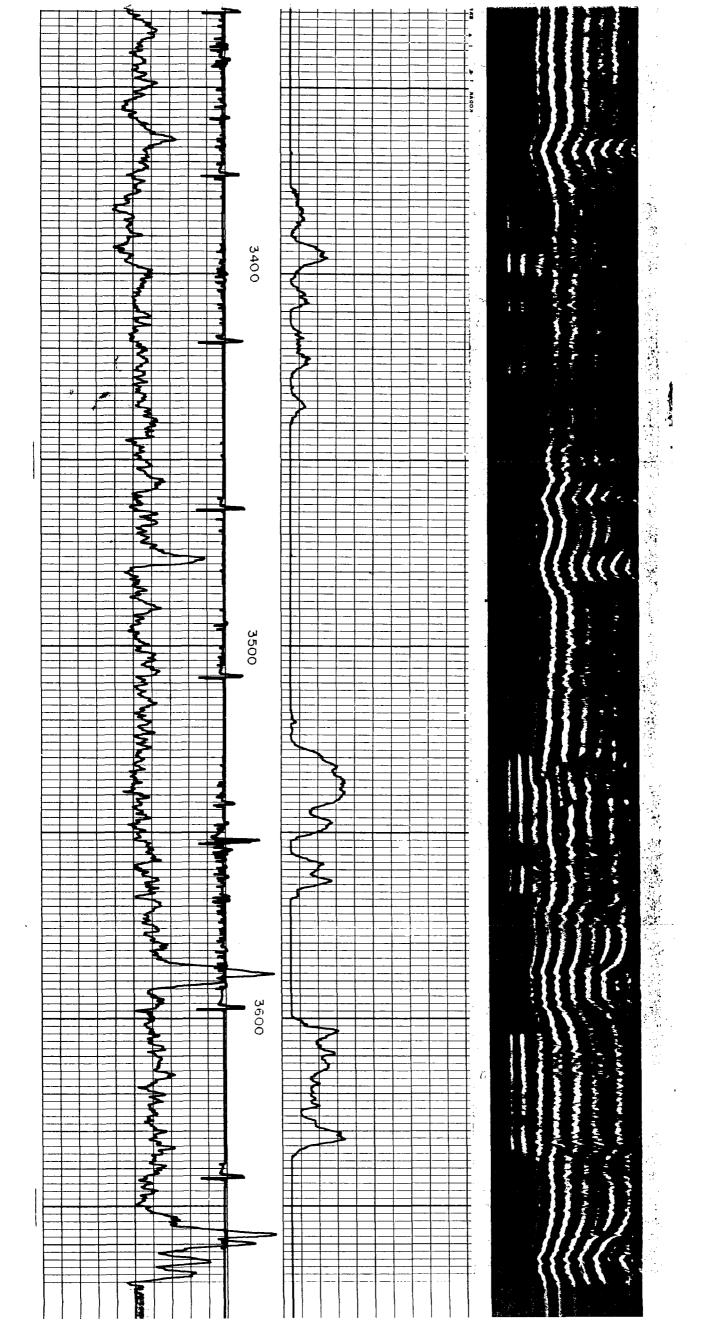


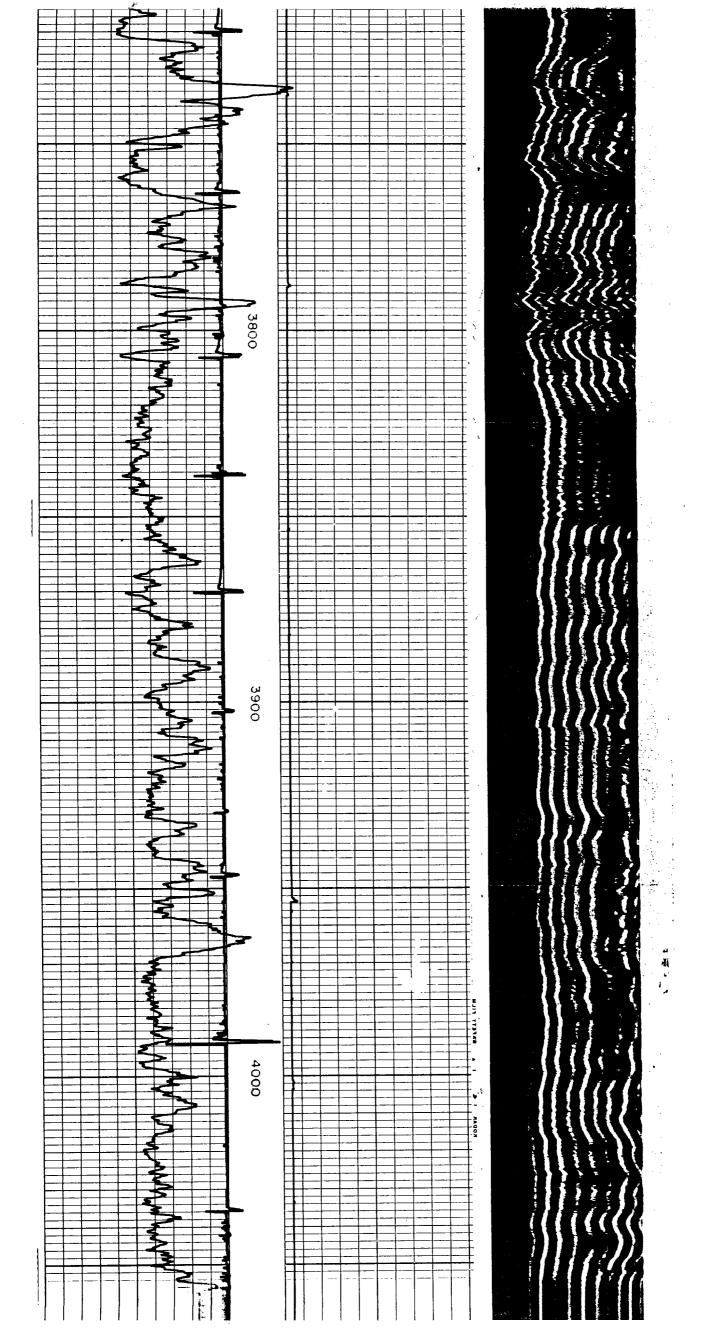


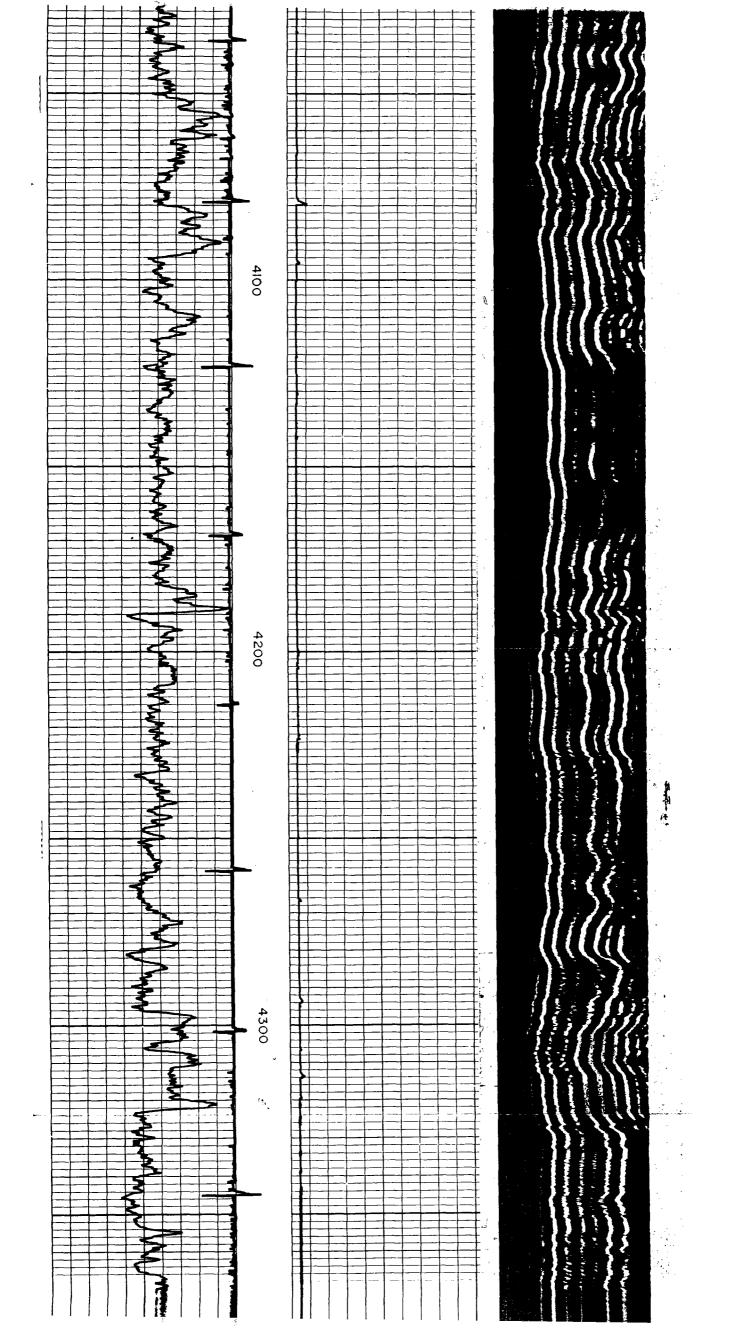


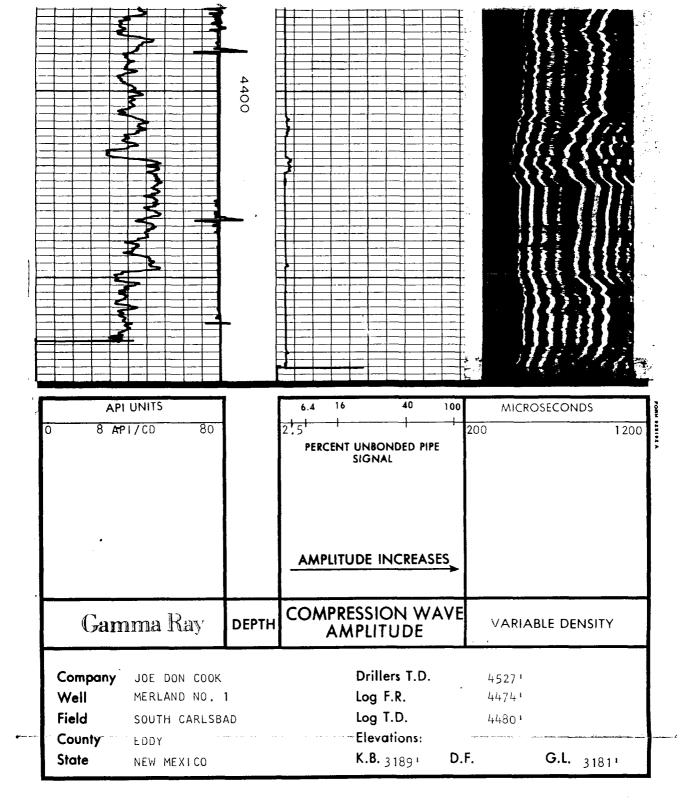




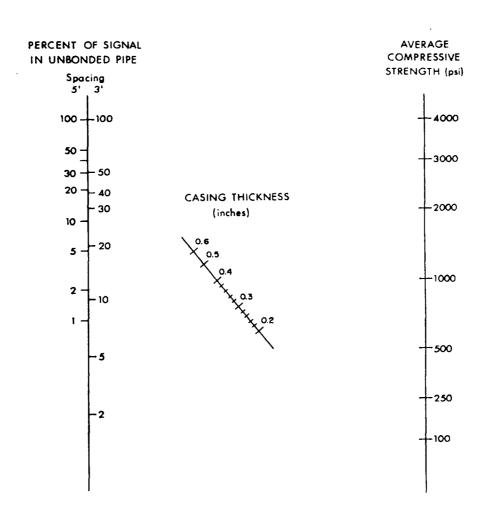








## CEMENT STRENGTH



Date

Date

Run No.

C Die

Run No.

Leth-Diller

Btm. Logare

Btm. Log Interval

Charles String

Prod. String

Prod. String

Surface String

Prod. String

Surface

Surface Permanent Datum
Log Measured from
Drilling Measured from STRING
Vol. of Cement
Type of Cement
Additive
Additive by %
Retarder
Retarder by % Wt. of Slurry FILING NO. Mud Type FIELD COMPANY LOCATION KA Kally 7 1650 FEL PRIMARY CEMENTING DATA
Protection Production Type Fluid in Hole

Dens. Visc.

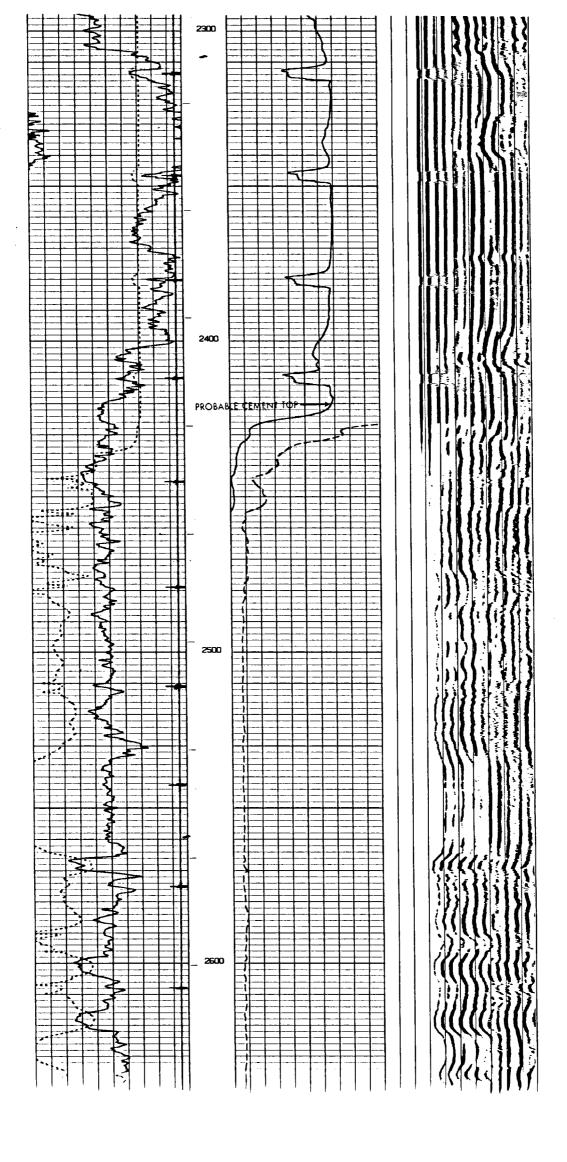
Max. Rec. Temp.

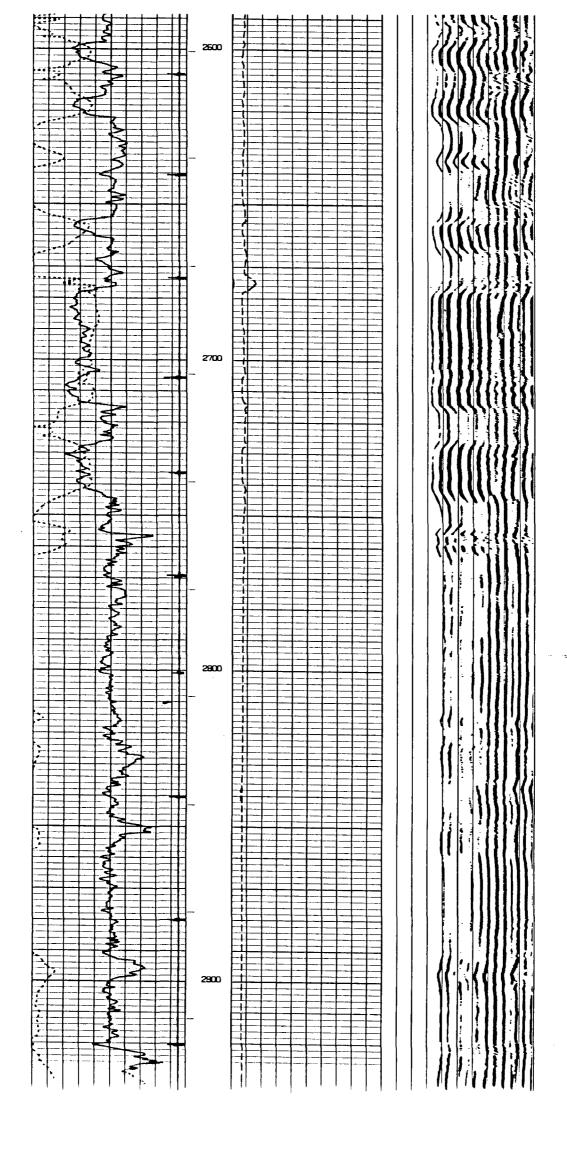
Equip. Location

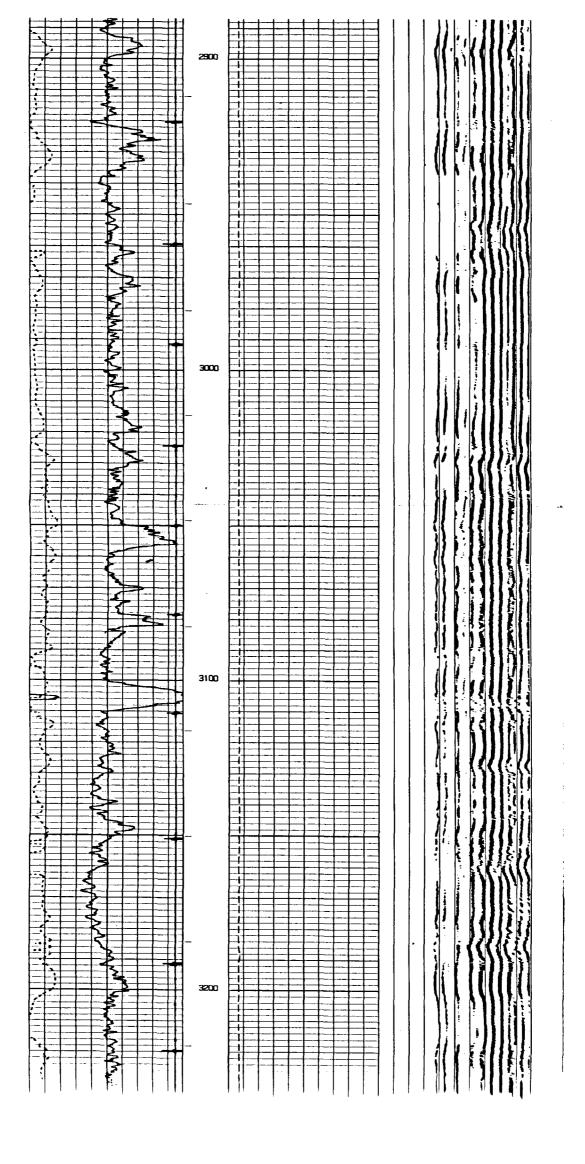
Recorded By

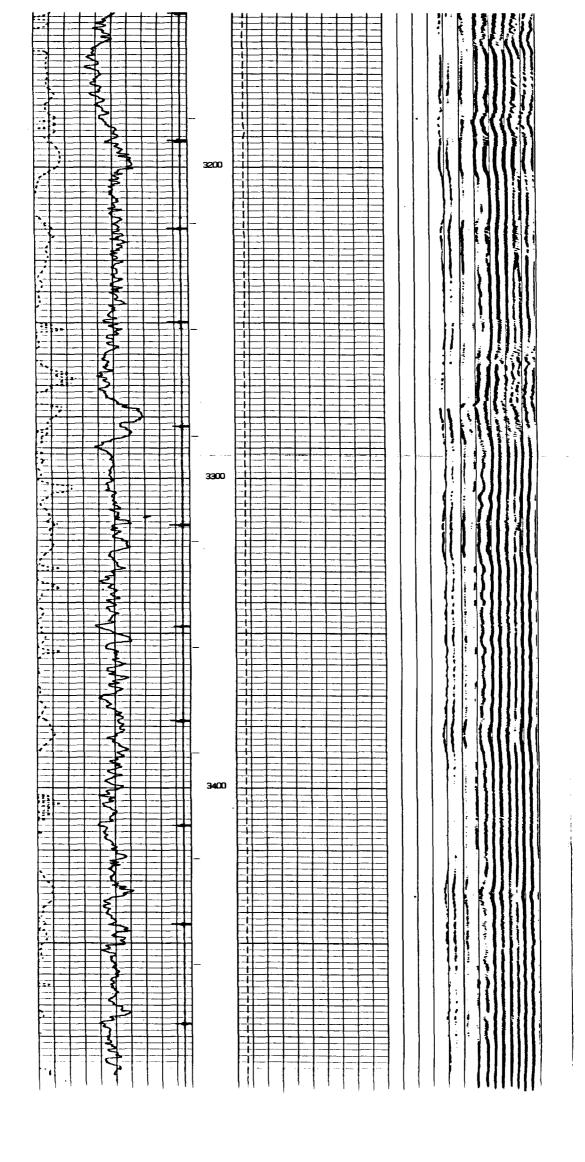
Witnessed By

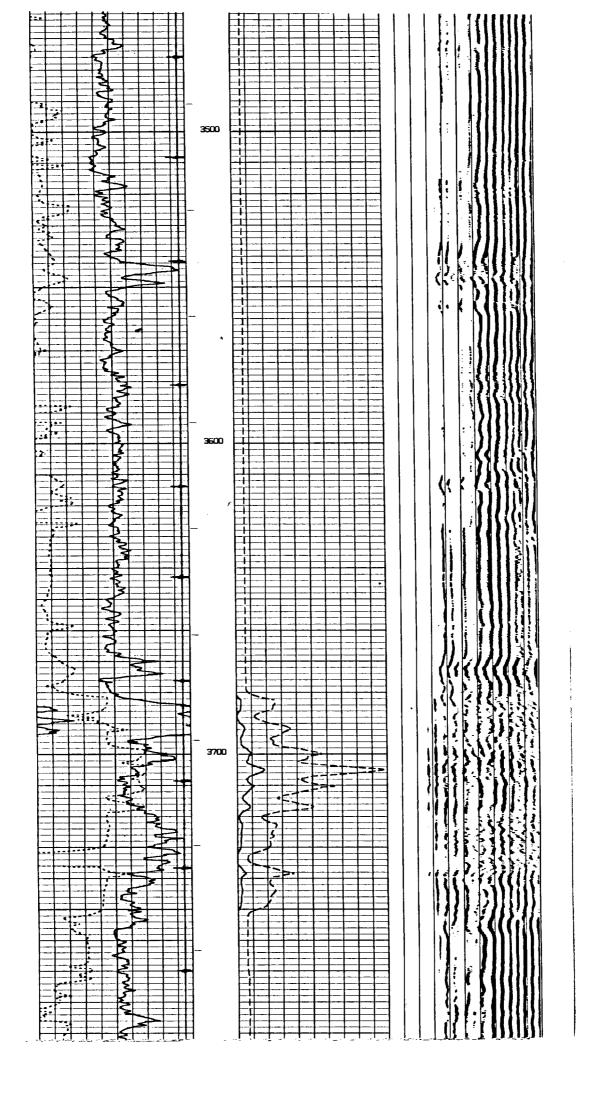
Grade Type Joint TWP 22 RGE 26 Bushing 2,4 Enterprises Elev Ba GAMMA RAY CCL 3185 STATE Jung # ν. 쥥 Elev 8. 3185 ž Other 956 wossong Liner Services PRIMARY CEMENTING PROCEDURE BOND EQUIPMENT DATA BTOIL Tool Size 3 3/p Date Tool No Hour Type No. Started Pumping Cement Plug on Bottom Release Pressure Finish Cementing Operation Start Cement Bond Log Finish Cement Bond Log Seismic Spectrum Travel Time GAMMA RAY EQUIPMENT & LOGGING DATA Tool No. Tool Model No. GRSC12 Speed FPM T. C. Sec. Bkg. Cps. Cal. Cps. Zero Div. L or R Api Per Log Div. Sens. From 31/2" L Diameter 4487 30 1.5 Detector Model No. Seint 6" Туре Length
Distance to N. Source REMARKS GEARHART INDUSTRIES, INC Şa DEPTH **AMPLITUDE** SEISMIC SPECTRUM **GAMMA-RAY** M20. H AMPLITUDE GAMMA RAY MILLIVOLTS SEISMIC SPECTRUM RECORDING Amplified Amplitude Mill: volts MICRO SECONDS 1000 Trasit Time 200 TRAINS I THE 2200 MPITTIDE CAMMA 3

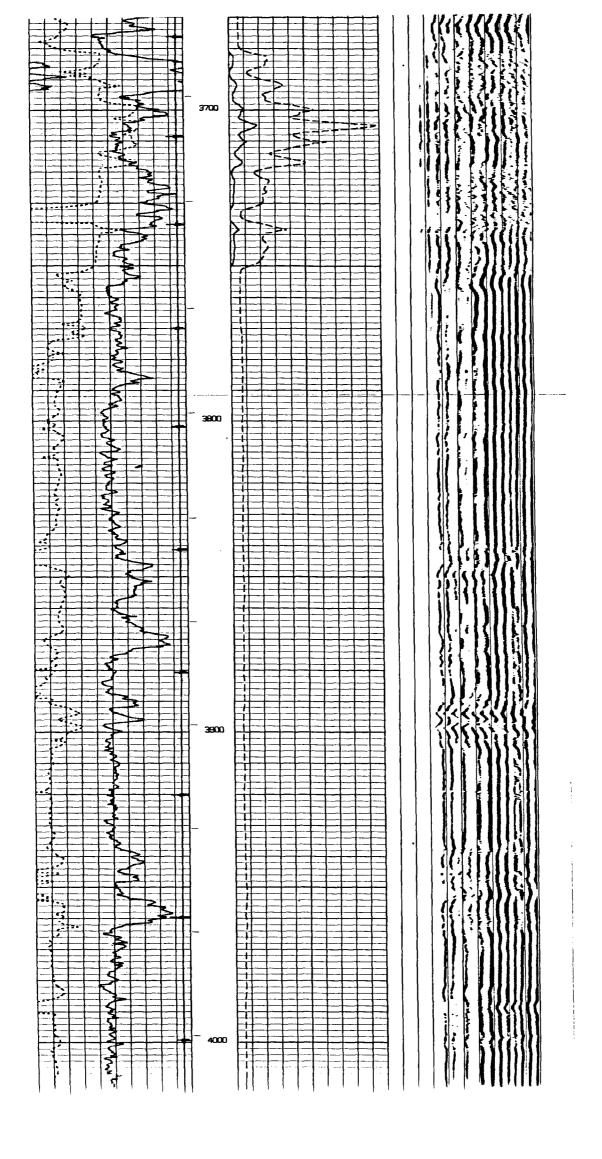


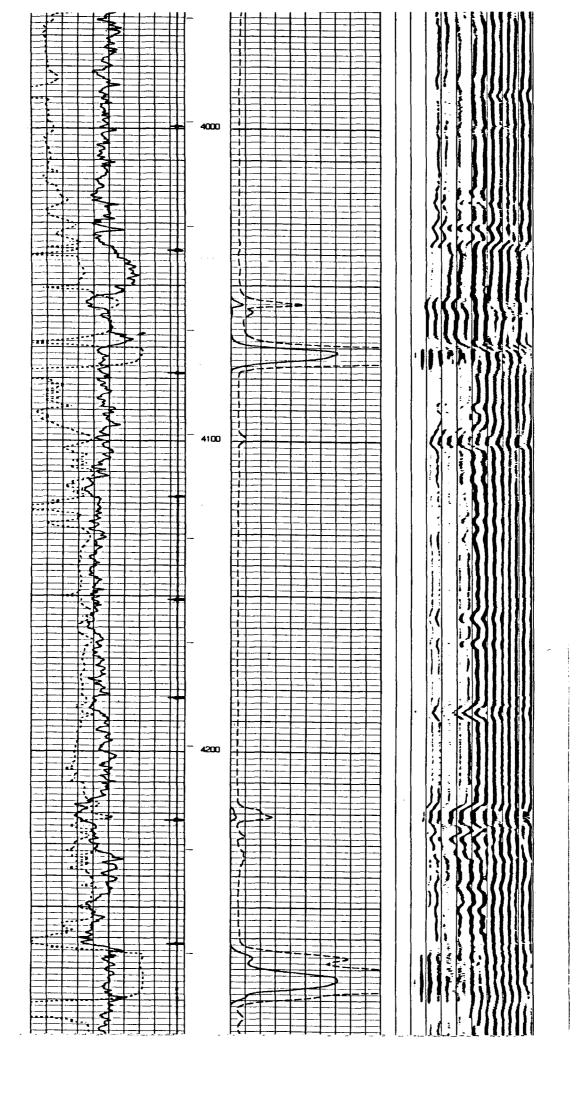












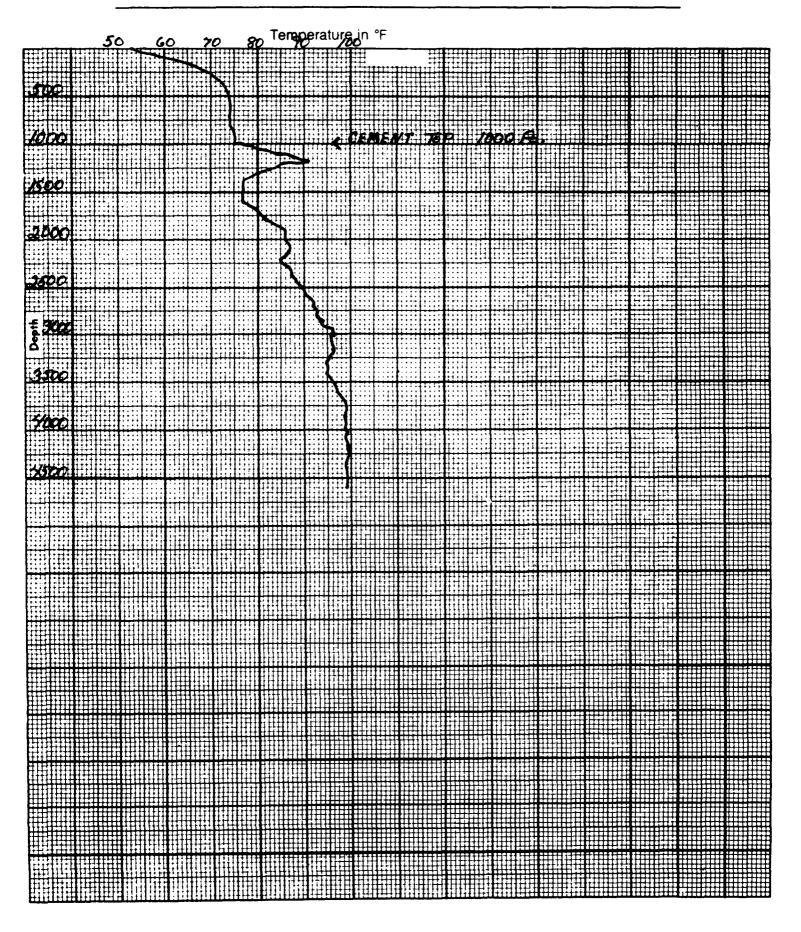
## BENNETT-CATHEY WIRE LINE SERVICE

P. O. BOX 787 / ARTESIA, NEW MEXICO 88210 / PHONE 746-3281

# **TEMPERATURE SURVEY**



OPERATOR	RAY WESTALL	
LEASE	BASEBALL PARK	
WELL NO	2	
	EPRESENTATIVE RAY WESTALL	
	E CEMENT JOB COMPLETED 1500 HRS 4-12-85	
DATE & TIME	E SURVEY MADE 0800 HRS 4-13-85	
SURVEY RUN	BY KELLY WILLIAMS	
WELL DATA	CEMENT TOP 1000 FT GL	
	TOTAL DEPTH 4591 FT GL	



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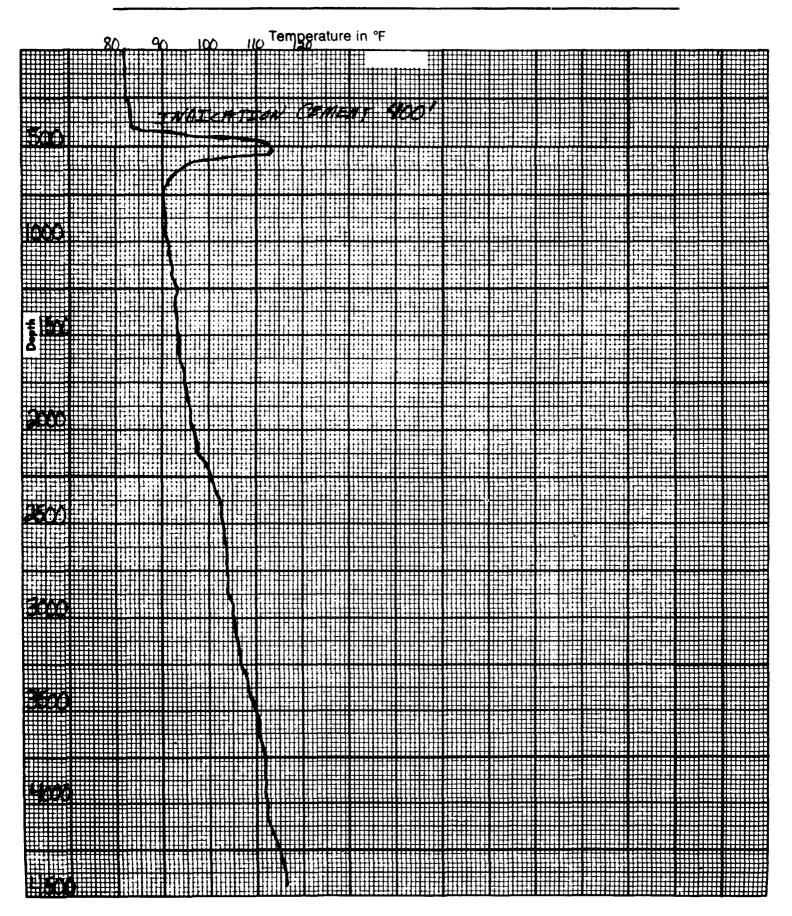
## BENNETT-CATHEY WIRE LINE SERVICE

P. O. BOX 787 / ARTESIA, NEW MEXICO 88210 / PHONE 746-3281

## **TEMPERATURE SURVEY**



LEASE	BASEBALL PARK
WELL NO.	
COMPANY REPRESENTA	TIVE DONNIE MATHEWS
	JOB COMPLETED 1500 HOURS 4-24-86
	MADE 1100 HOURS 4-25-86
SURVEY RUN BY	LARRY MOSSBARGER
	G.L., INDICATION OF CEMENT 400', TOTAL DEPTH 4485'



## PADILLA & SNYDER

ATTORNEYS AT LAW
200 W. MARCY, SUITE 212
P.O. BOX 2523
SANTA FE, NEW MEXICO 87504-2523
(505) 988-7577

October 2, 1987

Michael Stogner Hearing Examiner Oil Conservation Division Post Office Box 2088 Santa Fe, New Mexico 87501

Re: Case 9189; Ray Westall Salt Water Disposal Application

Dear Mr. Stogner:

This letter acknowledges our recent telephone conversation during which I requested a time extension of a few days beyond October 7, if necessary, for filing the information that you requested from Mr. Gillham, one of our expert witnesses, at the initial phase of the hearing on September 9, on this matter.

As I explained to you during our telephone conversation, Mr. Gillham suffered a stroke and I have been unable to communicate with Mr. Gillham. Consequently, my client has had to retain other experts to assist us in preparation of the requested information and of responses to the additional materials recently submitted by Mr. Dickerson to you.

I have called Mr. Dickerson and he has agreed to a time extension for our submittal. I have also agreed that we can dispense with further hearings unless the Division, itself, wants to hear further testimony on the matter.

mest L. Padilla

Very truly yours.

ELP:njp

cc: Corinne Grace

Chad Dickerson, Esquire

## PADILLA & SNYDER

ATTORNEYS AT LAW
200 W. MARCY, SUITE 212
P.O. BOX 2523
SANTA FE, NEW MEXICO 87504-2523
(505) 988-7577

October 26, 1987

#### HAND DELIVERED

Mr. Michael Stogner Hearing Examiner Oil Conservation Division State Land Office Building Santa Fe, New Mexico 87501

Re: Application of Ray Westall for Salt Water
Disposal, Eddy County, New Mexico, Case 9189

Dear Mr. Stogner:

At the hearing of the above-referenced case on September 9, 1987, you requested that Mr. Gillham, one of our expert witnesses, prepare cement calculations concerning the wells that surrounded the proposed disposal well. After the hearing and approximately at the same time that Mr. Dickerson submitted his additional information to you, we discovered that Mr. Gillham had been stricken by a stroke. Because of Mr. Gillham's incapacity, my client obtained the services of other engineers to assist in making the calculations in order to submit them to you. In this regard, we asked for an extension of time from both you and Mr. Dickerson which we appreciate from both of you.

After we had submitted materials to the new engineers, we learned that Mr. Gillham would be able to make the calculations. Because of Mr. Gillham's familiarity with the case we opted to wait a little longer for his calculations. Again, we appreciate your patience in this regard. Therefore, enclosed are Mr. Gillham's calculations regarding the wells that surround the proposed injection well. Included with these calculations is Mr. Gillham's cover letter to us, which is explanatory in nature.

Mr. Michael Stogner October 26, 1987 Page (2)

With respect to the earlier additional exhibits submitted by Mr. Dickerson, we submit that the schematic of the surface facilities of the salt water disposal well are incomplete because the pipeline facilities and the facilities necessary to connect the Westall wells are not shown on the schematic. We believe that the schematic should show all of the facilities that are going to be connected to the salt water disposal well. In this regard, the applicant has given testimony through his expert witness indicating that only the Westall operated oil and gas wells would be connected to the salt water disposal facility.

Should you need anything else, please let us know.

Very truly yours

Ernest L. Padilla

ELP:crk

Enclosure as stated

cc: Corinne Grace

Chad Dickerson (W/Encls.)

James Gillham

## James A. Gillham

PETROLEUM ENGINEER - CONSULTANT

SUITE 3 201 N. WASHINGTON P.O. BOX 1181 ROSWELL, NM 88201

October 16, 1987

Padilla & Snyder 200 W Marcy Suite 212 Santa Fe, NM 87501

Attention: Ernest L. Padilla

Dear Mr. Padilla:

Enclosed are the casing and cementing records for the wells in the vicinity of Ray Westall's Merland No. 1 well which he proposes to use as a salt water disposal well. All data for figuring the cement tops is from the Halliburton Cementing Tables. In calculating fill between casing and hole you will note that I assumed 80% fill of total volume of cement. As you can see, the fill in most wells was a lot less than 80%.

The type of cements and addatives used in cementing the wells in this area is normally used in areas of low pressure zones or lost circulation zones. The Delaware formation, where most of the wells in this area are completed, and same formation intended to be used for disposal is a low pressure zone and tends to break down during cementing of the casing. With the volumes of cement that were used in cementing, chances are very good that the Delaware was broken down under the weight of the cement column. In any case, the returns on cement were poor, indicating they either broke down the formation or had lost circulation problems.

If breakdown of the Delaware formation has taken place, there could be some communication between wells. If this is the case, the type of water to be injected, PH of 4, would be like putting acid in the ground and it would only be a matter of time before casing in nearby wells would corrode.

If you need additional information, please let me know.

Sincerely yours,

James A. Gillham

James A. Gilliam

Enclosures

RECEIVED
OUT 20 1997.

GEVIELDE C

Operator: Pennzoil Company

Well: Moore Com. #1 I-Sec.23, T.22S., R. 26E.

Surface Csg: Set 13-13/8" in 17-1/2" hole @ 1.924 ft.

1800 sks Class "C"

Cu.Ft. = 1.32 cu.ft./sk x 1800 sks = 2,376 cu. ft. Volume betweencasing and hole = 1.4396 lin. ft./ cu. ft. Fill-up = 1.4396 lin. ft./cu. ft. x 2,376 cu. ft. x 0.80

= 2,731 ft.

TOC by temp. survey @ 360 ft.

1" w/350 sks circulated to surface

Set 9-5/8" in 12-1/4" hole @ 5,407 ft. Intermediate Csg:

1,190 sks Class "C" 50-50 Pozmix

Cu. Ft. = 1.22 cu.ft./sk x 1190 sks = 1451 cu. ft.

200 sks Class "C" w/¼# Floseal, 2% CaCl

Cu.Ft. = 1.32 cu.ft./sk x 200 sks = 264 cu. ft.

Total cement volume = 1,715 cu. ft.

Volume between casing and hole = 3.1930 lin. ft./cu. ft.

Fill-up = 3.1930 lin. ft./cu. ft. x 1715 cu.ft. x 0.80

= 4,380 ft.

TOC by temp. survey 2,090 ft.

Indicates circulation problems in both surface and Remarks:

intermediate casing. On surface approximately 45% fill of volume of cement and on intermediate approximately

62% fill of volume of cement

Operator: Cities Service Oil and Gas Corp.

Well: Merland A #2 L-Sec. 19, T. 22S., R. 27E.

Surface Csg: Set 8-5/8" csg. in 12-1/4" hole @ 597 ft.

500 sks Class "C" -(assume)

Cu. Ft. = 1.32 cu.ft./sk x 500 sks = 660 cu. ft.

Volume between casing and hole = 2.4229 lin.ft./cu.ft. Fill-up =  $2.4229 \, \text{lin.ft./cu.ft.} \times 660 \, \text{cu. ft.x} \, 0.80$ 

= 1,279 ft. circulated

Set 5-1/2" csg in 7-7/8" hole @ 4,553 ft. 900 sks Class "C" - (assume) Production Csg:

Cu. Ft. = 1.32 cu.ft./sk x 900 sks - 1,188 cu. ft. Volume between casing and hole - 5.7719 lin.ft./cu.ft. Fill-up = 5.7719 lin.ft./cu.ft. x 1188 cu.ft. x 0.80

= 5,485 ft. circulated

Remarks: Assumed Class "C" cement used on both strings of

casing. Records did not indicate type used.

Well: Baseball Park #4 H-Sec. 24, T. 22S., R. 26E.

Surface Csg: Set 8-5/8" csg in 12-1/4" hole @ 434 ft.

250 sks Class "C"

Cu. Ft. = 1.32 cu.ft./sk x 250 sks = 330 cu. ft.

Volume between casing and hole = 2.4229 lin.ft./cu.ft. Fill-up = 2.4229 lin.ft./cu.ft. x 330 cu. ft. x 0.80

= 640 ft. circulated

Production Csg: Set 5-1/2" csg in 7-7/8" hole @ 4,600 ft.

350 sks Lt. Wt.

Cu. Ft. - 1.84 cu.ft./sk x 350 sks = 644 cu. ft.

300 Sks Poz "C"

Cu. Ft. = 1.22 Cu.ft./sk x 300 sks - 366 cu.ft.

Total cement volume = 1,010 cu. ft.

Volume between casing and hole - 5.7719 lin.ft./cu.ft. Fill-up = 5.7719 lin.ft./cu.ft. x 1,010 cu. ft. x 0.80

= 4,663 ft.

TOC by bond log @ 485 ft.

Remarks: By bond log TOC is @ 485 ft. Got approximately 70%

fill of volume of cement.

Well: Baseball Park #3 K-Sec. 24, T. 22S., R. 26E.

Surface Csg: Set 8-5/8" csg in 12-1/4" hole @ 425 feet

250 sks Class "C" 2% CaCl 1# Cello-seal

Cu. Ft. = 1.32 cu.ft./sk x 250 sks = 330 cu. ft.

Volume between casing and hole = 2.4229 lin.ft./cu.ft. Fill-up = 2.4229 lin.ft./cu. ft. x 330 cu. ft. x 0.80

= 640 ft. - did not circulate using 80% fil

Redi-mix with 2 yds cement.

Production Csg: Set 5-1/2" csg in 7-7/8" hole @ 4,520 feet

590 sks Lt.Wt.

Cu. Ft. = 1.84 cu.ft./sk x 590 sks = 1,085 cu. ft.

335 sks 50-50 Poz C

Cu. Ft. = 1.22 cu.ft./sk x 335 sks = 408 cu. ft.

Total cement volume - 1,493 cu.ft.

Volume between casing and hole = 5.7719 lin.ft./cu.ft.

Fill-up =  $5.7719 \, \text{lin.ft./cu.ft.} \times 1,493 \, \text{cu.ft.} \times 0.80$ 

= 6,893 ft.

TOC by temp. survey 400 feet

Remarks:

Appears lost circulation problems on surface casing as evidenced by the type of cement addatives that were used. On production string temp. survey indicates the TOC @ 400 feet. This tells us that they only had approximately 53% fill between casing and hole which

indicates again bad circulation problems.

Well: Baseball Park #2 P-Sec. 24,T. 22S., R. 26E.

Surface Csg: Set 8-5/8" csg in 12-1/4" hole @ 400 feet

250 sks Class "C"

Cu. Ft. = 1.32 cu.ft./sk x 250 sks = 330 cu. ft.

Volume between casing and hole = 2.4229 lin.ft./cu.ft. Fill-up = 2.4229 lin. ft./cu. ft. x 330 cu. ft. x 0.80

= 640 ft. circulated

Production Csg: Set 5-1/2" csg in7-7/8" hole @ 4,600 feet

700sks Lt. Wt.

Cu.Ft. = 1.84 cu.ft./sk x 700 sks = 1.238 cu. ft.

900 sks Class"C"

Cu.Ft. = 1.32 cu.ft./sk x 900 sks = 1.188 cu. ft.

250 sks Lt. Ct. used to 1"

Cu.Ft. = 1.84 cu.ft./sk x 250 sks - 450 cu. ft.

Total cement volume = 2,926 cu. ft.

Volume between casing and hole = 5.7719 lin.ft./cu.ft.

Fill-up = 5.7719 lin. ft./cu. ft. x 2,926 cu. ft. x 0.80

= 13,510 ft. circulated by 1" w/250 sks.

Remarks:

As can be seen by the volume of cement used if it had gotten even 80% fill by volume, there was enough cement to fill hole approximately 13,510 feet. This tells us there were bad lost circulation problems or

, low pressure zones that were taking the cement.

Well: Baseball Park #1 I, Sec. 24, T. 22S., R. 26E.

Surface Csg: Set 8-5/8" csg. in 12-1/4" hole @ 421 ft.

250 sks Class "C"

Cu.Ft. = 1.32 cu.ft./sk x 250 sks = 330 cu. ft.

Volume between casing and hole = 2.4229 lin.ft./cu.ft. Fill-up = 2.4229 lin.ft./cu.ft. x 330 cu. ft. x 0.80

= 640 ft. circulated

Production Csg: Set 5-1/2" csg. in 7-7/8" hole @ 4,950 ft.

800 sks Lt. Wt.

Cu.Ft. = 1.84 cu.ft./sk x 800 sks = 1.472 cu. ft.

800 sks Class "C"

Cu.Ft. = 1.32 cu.ft./sk x 800 sks = 1.056 cu. ft.

Total cement volume = 2,528 cu. ft.

Volume between casing and hole = 5.7719 lin.ft./cu.ft.

Fill-up = 5.7719 lin.ft./cu.ft. x 2,528 cu. ft. x 0.80

= 11,673 ft.circulated

Remarks:

Completion reports indicate that production casing was cemented with 800 sks cement. Doubt if cement would have circulated with 800 sks. Sundry Notice indicates they used 1,600 sks cement. If 1,600 sks were used indicate they had problems with low pressure

zones or lost circulation.

Operator: JFG

Well: Merland #1 J-Sec. 24, T. 22S., R. 26E.

Set 8-5/8" csg in 12-1/4" hole @ 375 ft. 250 sks Class "C" Surface Csg:

Cu.Ft. = 1.32 cu.ft./sk x 250 sks = 330 cu. ft.

Volume between casing and hole = 2.4229 lin.ft./cu.ft. Fill-up = 2.4229 lin. ft./cu. ft. x 330 cu. ft. x 0.80

= 640 ft. circulated

Set 5-1/2" csg in 7-7/8" hole @ 4,518 ft. Production Csg:

225 sks Class "H"

Cu.Ft. = 1.06 cu.ft./sk x 225 sks = 238 cu. ft.

225 sks Poz A CaCl.kcl

Cu.Ft. = 1.26 cu.ft./sk x 225 sks = 284 cu. ft.

Total volume = 522 cu.ft.

Volume between casing and hole = 5.7719 lin.ft./cu.ft. Fill-up = 5.7719 lin. ft./cu. ft. x 522 cu.ft. x 0.80

= 2,410 ft.

TOC by calc. assuming 0.80 fill is 2,108 ft. Remarks:

Operator: Corinne Grace

Well: Kuklah Baby #1 G-Sec. 24, T. 22S., R. 26E.

Set 9-5/8" csg. in 12-1/4" hole @ 351 feet 150 sks Class "C" Surface Csg:

Cu.Ft. = 1.32 cu.ft./sk x 150 sks = 198 cu. ft.

Volume between casing and hole = 3.1930 lin.ft/cu.ft. Fill-up =  $3.1930 \, \text{lin.ft./cu.ft.} \times 198 \, \text{cu.ft.} \times 0.80$ 

= 505 ft. circulated

Set 5-1/2" csg in 7-7/8" hole@ 4,561 feet Production Csg:

163 sks Class "C"

Cu.Ft. = 1.32 cu.ft./sk x 163 sks = 215 cu. ft.

162 sks Poz A, 2% gel, 16 sks salt

Cu.Ft. = 1.28 cu.ft./sk x 162 sks = 207 cu. ft.

Total cement volume - 422 cu. ft.

Volume between casing and hole - 5.7719 lin.ft./cu.ft.

Fill-up =  $5.7719 \, \text{lin.ft./cu.ft.} \times 422 \, \text{cu.ft.} \times 0.80$ 

TOC by calc. 2,613 ft. = 1.948 ft.

TOC by Temp. survey 2,400 ft.

On this well the fill between casing and hole was Remarks: approximately 89% of total of volume cement used.

Operator: Grace Energy Co.

Well: GoPoGo #2 G- Sec. 24, T. 22S., R. 26E.

Surface Csg: Set 13-3/8" csg in 17-1/2" hole @ 319 feet

200 sk Lt. Wt.

Cu.Ft. = 1.84 cu.ft./sk x 200 sks = 368 cu. ft.

100 sk Class "C"

Cu.Ft. = 1.32 cu.ft./sk x 100 sks = 132 cu. ft.

Total cement volume - 500 cu.ft.

Volume between casing and hole = 1.4396 lin.ft./cu.ft. Fill-up = 1.4396 lin. ft./cu. ft.x 500 cu. ft. x 0.80

= 575 ft. circulated

Intermediate Csg: Set 9-5/8" csg in 12-1/4" hole @ 5,328 feet

1500 sks Lt. Wt.

Cu.Ft. = 1.84 cu.ft./sks x 1500 sks - 2,760 cu. ft.

400 sks Class "C"

Cu.Ft. - 1.32 cu.ft./sks x 400 sks - 528 cu. ft.

Total Cement volume = 3,288 cu. ft.

Volume between casing and hole = 3.1930 lin.ft./cu.ft.Fill-up =  $3.1930 \text{ lin. ft./cu. ft.} \times 3,288 \text{ cu.ft.} \times 0.80$ 

= 8,399 ft. circulated

Remarks: Assumed that with total cement volume there was 80%

fill between csg. and hole. In as much as cement was circulated do not know what the actual percent volume of cement was used before it circulated.

Operator: Grace Energy Co.

Well: Grace-Atlantic #1 J-Sec. 24, T. 22S., R. 26E.

Surface Csg: Set 13-3/8" csg. in 17-1/2" hole @ 356 feet

375 sks Class "C"

Cu.Ft. = 1.32 cu.ft./sks x 375 sks - 495 cu.ft.

Volume between casing and hole - 1.4396 Lin.Ft./cu.ft. Fillup = 1.4396 lin. ft./cu. ft. x 495 cu. ft. x 0.80

= 570 ft. circulated

Intermediate Csg: Set 9-5/8" csg. in 12-1/2" hole @ 5,402 feet

1,250 sks. Lt. Wt.

Cu.Ft. = 1.84 cu.ft./sks x 1,250 sks = 2,300 cu.ft.

400 sks Class "C"

Cu.Ft. = 1.32 cu.ft./sk x 400 sks - 528 cu.ft.

Total cement Volume = 2,828 cu. ft.

Volume between casing and hole - 3.1930 Lin.Ft./cu.ft. Fillup = 3.1930 lin. ft./cu. ft. x 2,828 cu. ft. x 0.80

= 7,223 ft. circulated

Remarks: Assumed that with total cement volume there was 80%

fill between csg. and hole. Inasmuch as cement was

circulated do not know what the actual percent volume of cement was used before it circulated.

## ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

December 23, 1987

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 (505) 827-5800

Mr. Chad Dickerson Dickerson, Fisk & Vandiver Attorneys at Law Seventh and Mahone, Suite E Artesia, New Mexico 88210	Re:	ORDER NO. 9189 ORDER NO. R=8569 Applicant: Ray Westall
Dear Sir:		
Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.		
Sincerely,		
FLORENE DAVIDSON OC Staff Specialist		
Copy of order also sent to:		
Hobbs OCD x Artesia OCD x Aztec OCD		
Other Ernest L. Padilla		

## PADILLA & SNYDER

ATTORNEYS AT LAW
200 W. MARCY, SUITE 212
P.O. BOX 2523
SANTA FE, NEW MEXICO 87504-2523
(505) 988-7577

February 29, 1988

**HAND-DELIVERED** 

FEB 2 9 1988

Mr. William J. LeMay Director Oil Conservation Division State Land Office Building 310 Old Santa Fe Trail Santa Fe, New Mexico 87501

OIL CONSERVATION

Re: Case No. 9189, Order No. R-8569

Dear Mr. Stogner:

Some time after the issuance of the above-referenced Order, a copy of which is enclosed for your reference, my client, Corinne Grace, requested that I seek a clarification from you as to whether the Order could be construed to authorize commercial salt water disposal, inasmuch as the Order does not strictly limit disposal of salt water to the wells operated by the applicant.

At the hearing of this case the applicant's expert witness testified that the salt water disposal application was intended only for disposal of water from wells operated by Mr. Westall, the applicant. In this regard, I enclose copies of portions of the transcript which indicate that the application was not intended for commercial disposal. Our reading of the transcript indicates that Mr. Westall intended to dispose of water from the Baseball Park Wells Nos. 1, 2, 3, 4 and from other wells which he might drill on the lease. At the time of the hearing it was contemplated that the applicant might drill another well on his lease, which would also be included in the disposal operation.

It is my understanding that the Division may distinguish between salt water disposal applications such as

Mr. William J. LeMay February 29, 1988 Page - 2

Mr. Westall's, and commercial salt water disposal wells by using the word "commercial" in the caption of Orders. Since the caption of the above-referenced Order does not contain the delineation of "commercial" we presume that the Order is not for commercial purposes.

After the Order was issued I did speak briefly with Mr. Stogner, the hearing examiner in the case, concerning this matter but I have neglected to follow up on it. Accordingly, we would request some clarification regarding the non-commercial/commercial distinction relative to this Order.

Thank you in advance for your expeditious response.

Very truly yours

Frnest I Padilla

ELP:njp

Enclosures as stated

cc: Chad Dickerson, Esquire

w/Enc.

Corinne Grace

DECEIWA D

FEB 2 9 1988

OIL CONSERVATION

Regarding your letter dated February 29, 1988, requesting a clarification of the above-referenced Order, we believe, based on the applicant's testimony at the hearing, that Ray Westall did not make a salt water disposal well for commercial disposal purposes and, accordingly, the resulting Order does not authorize commercial salt water disposal.

Should your client feel that the purpose of the Order is being exceeded through commercial salt water disposal, your client may file an appropriate Motion before the Division to address the matter.

FEB 2 9 1988
OIL CONSERVATION