FINAL REPORT
Geothermal Well Site Restoration
and Plug and Abandonment of Wells

DOE Pleasant Bayou Test Site
Brazoria County, Texas

Prepared by
Ben N. Rinehart, INEL
and
Ben H. Seigel, ECO Solutions, Inc.

March 13, 1994

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FINAL REPORT

FOR

CONTRACT C93-160681 (Plesant Bayou)

GEOHERMAL SITE REMEDIATION AND CLOSE-OUT

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Section 1.0
General Information

1.0 General background

For a variety of reasons, thousands of oil and gas wells have been abandoned in the Gulf Coast Region of the United States. Many of these wells penetrated geopressed zones whose resource potential for power generation was undervalued or ignored. The U.S. Department of Energy (DOE) Geopressed-Geothermal Research Program was chartered to improve geothermal technology to the point where electricity could be commercially produced from a substantial number of geopressed resource sites. This research program focused on relatively narrow technical issues that are unique to geopressed resources such as the ability to predict reservoir production capacity based on preliminary flow tests. Three well sites were selected for the research program. These are the Willis Hulin and Gladys McCall sites in Louisiana, and the Pleasant Bayou site in Texas. The final phase of this research project consists of plug and abandonment (P&A) of the wells and site restoration.

1.1 Well Site Location

The Pleasant Bayou well site is located in Brazoria County, Texas (Figure 1-1) and consists of a fenced-in area approximately 13 acres in size. It is completely surrounded by Occidental Chemical Corporation (OxyChem) property with access roads across OxyChem land.

1.2 Production Operations

Operations on the well site consisted primarily of high pressured brine production with some natural gas production, although at the time of closure the production and injection wells and all associated activity had been shut-down for several years. Figure 1-2 shows the general layout of the site with production and injection well locations.

1.3 Restoration

ECO Solutions, Inc. was awarded the contract #C93-160681 (See Appendix A) for the restoration and close-out of the Pleasant Bayou site on December 3, 1993. The original understanding was for restoration activities to begin when the P&A contractor had plugged both wells and had removed all the site surface equipment and pipe from location. Because of the delay in plugging the production well, ECO Solutions, Inc. was directed to begin restoration operations that could be performed around the plugging operations. Work began on December 3, 1993 and due to this delay restoration of the site was not completed until February 28, 1994. Photos of the restored site are included in this section.

1.4. Subcontractors

The following is a table of third party contractors utilized by ECO Solutions, Inc.. on the project.

TABLE 1.0 *Third Party Contractors*

NAME	ADDRESS	PHONE
O'Day Drilling Company Inc.	14405 Garden Road Pearland, TX 77581	(713)485-1330
Joe Shibi Services General Contractor	205 Jane St. Alvin, TX 77511	(713)331-5309
Core Laboratories (Western Atlas International)	P.O. Box 34766 Houston, TX 77234	(713)943-9776

FIGURE 1-1

EOC/DOE Pleasant Bayou Test Site Brazoria County, Texas

• From EATON OFFICE:

Take Interstate Highway (IH) 10 east to Loop 610. Turn right (SOUTH) on Loop 610 and follow around (EAST) to State Highway (SH) 288. Turn right (SOUTH) on SH-288 and follow to SH-6. Turn left (SOUTHEAST) on SH-6 and follow to SH-35. Turn right (SOUTH) on SH-35 and follow to Farm-to-Market road (FM) 2403. Turn left (SOUTH) on FM-2403 and follow to FM-2917. Turn left (SOUTHEAST) on FM 2917 and follow road 3.2 miles past the railroad tracks to gravel road on right. (NOTE: The gravel road is immediately preceded by a culvert bridge). Two location identification signs are posted at the entrance to the gravel road and are labeled: "U.S. DOE/EATON GEOPRESSURED-GEOTHERMAL TEST SITE". The gravel road extends approximately 3 miles, terminating at well location.

Map Inset

FIGURE 1-2

PLEASANT BAYOU WELL SITE

Brazoria County, Texas

Note: Measurements from the Pleasant Bayou No. 2 to the existing production equipment are approximate at best and should be recognized as such.

Well Location Map

EATON - KPP

Production Equipment Treating Area (Looking south)

Brine Flowline to Injection Well (Back of property looking west)

Test Well Pad Area (Looking West)

Front Of Test Well Area (Looking East)

Injection Well Pad Area (Looking West)

Firewater Pond Area

Access Road to Pleasant Bayou Wellsite

Section 2.0

Restoration Plan and Schedule

2.0 Restoration Plan and Schedule

2.1 Scope

Due to the relatively "clean" operations; that of brine and gas production, and because there had been no activity for a number of years at the Pleasant Bayou well site, clean-up operations and the restoration plan was in fact the scope of work outlined by the original contract. Contamination concern was centered around the well pad areas originating from location boards.

2.2 Major Task Components

The restoration plan was made up of the following general tasks:

- Initial Soil and Water Sampling & Analysis
- Removal and Disposal of Concrete, Utility Poles and Trash
- Removal and Disposal of Well Pad & Road Rock
- Removal and Disposal of Well Pad Boards
- Removal and Disposal of Site Fences
- Plugging of Monitor and Freshwater Wells
- Site Leveling and General Dirt Work/Clean-up

2.3 Schedule

It was estimated that the completion of the restoration and clean-up of the site could be accomplished in approximately 30 days provided that all surface equipment, trailers and pipe was off the site. Figure 2-1 shows the original work schedule chart for the project.

Figure 2-1 ORIGINAL PROJECT WORK SCHEDULE

Section 3.0

Plugging of Water Wells

3.0 Plugging of Water Wells

3.1 Identification

The water wells associated with the Pleasant Bayou well site consists of three monitor wells and three freshwater wells. There had been some confusion concerning the number of wells on and around the location. On inspection it was found that one freshwater well had been plugged and two of the monitor wells were located outside the perimeter of the fenced area. It was also requested that one of the freshwater wells be left for future use and therefore was not plugged. For identification purposes the monitor wells were named as MWN, MWE, and MWS and the water well on location was the Firewater Well. Figure 3-1 shows the approximate location of the water wells plugged.

3.2 Description

The monitor wells are characterized as shallow (11 to 39 feet), small diameter (5") PVC lined wells. The freshwater well plugged was 158 feet in depth and was lined with 5" steel pipe. It also contained a downhole electric pump.

3.3 Texas Railroad Commission Reports

All three monitor and Firewater wells were plugged by a certified waterwell contractor (O'Day Drilling Company, Inc.) and notification was sent to the Texas Railroad Commission. These reports can be found in appendix B.

FIGURE 3-1

Waterwell Location Map

DOE Pleasant Bayou Site

Section 4.0

Soil and Water Sampling and Analysis

4.0 Soil and Water Sampling and Analysis

4.1 General

The sampling program consisted of retrieving a water sample from each of the water wells to be plugged and retrieving soil samples in and around the well pad areas. Chain of Custody documentation and printed results of the water and soil analysis can be found in appendix B.

4.2 Water Samples

4.2.1 Protocol

The method of sampling the water wells was to use a new bailer/sample tube for each well. A volume of twice the wellbore volume was bailed and then a single sample taken from each well. The sample was tagged and recorded on the chain of custody form.

4.2.2 Analysis

A total of four (4) water samples were obtained and analyzed. All water samples were tested for metals and chloride concentration using EPA methods EPA/200.7 and SM17 4500-Cl B. Analysis was performed by Core Laboratories and the results are included in this report. All readings were below regulatory limits (See appendix C).

4.3 Soil Samples

4.3.1 Protocol

In order to increase the area of investigation, composite samples were obtained by taking three separate soil portions on a grid pattern laid over the two well pad areas. A total of 10 complete soil samples were obtained; 5 from a depth of 6" and 5 from a depth of 18". Figures 4-1 and 4-2 show the grid sampling method.

FIGURE 4-1

SOIL SAMPLE GRID MAP (Production Well Pad)

FIGURE 4-2

SOIL SAMPLE GRID MAP (Injection Well Pad)

SCALE = None

ECO Solutions, Inc.

4.3.2 Analysis

All soil samples were tested for TCLP metals additionally soil sample #4 was also tested for PCP. This sample was retrieved from under the center of the test well pad which would best characterize any contamination from the location board mats. Test methods include Method 1311 & EPA test methods for evaluating waste.

Based on the parameters tested, the samples did not exceed the EPA regulatory threshold for RCRA characteristics and TCLP toxicity characteristics. Results can be found in appendix C.

Section 5.0
NORM Survey

5.0 NORM Survey

5.1 General

It was decided to complete the clean-up of the Pleasant Bayou a NORM survey be performed on the well pads. This was done on February 2, 1994.

5.1 Protocol

The method used to perform the NORM survey was to lay out a 20' by 20' grid over the well pad areas which covered an area of 180' x 240' for the test well pad and 90' x 110' for the injection well pad. Meter readings were taken at each point on the grids and recorded. A control point reading was also taken 20' outside the area of investigation. A Ludlum Model 19 Micro R Meter was used to perform the survey. Information and calibration documentation can be found in appendix D.

5.3 Results

Figures 5-1 and 5-2 show the grid maps of the test well and injection well pads with readings obtained from the survey. All readings taken were under regulatory threshold limits.

FIGURE 5-2

NORM SURVEY of INJECTION WELL PAD

LEGEND

- INJECTION WELL
- SAMPLE READING POINT
- 6 DATA VALUE IN MICRO R/hr (μ)
- 20' x 20' GRID TEMPLATE

ECO Solutions, Inc.

Appendix A

Contract Agreement

Idaho National Engineering Laboratory

Contract

CONSTRUCTION

SUBCONTRACT NO. C94-160792

EG&G IDAHO, INC.

IDAHO NATIONAL ENGINEERING LABORATORY

IDAHO FALLS, IDAHO

CONSTRUCTION SUBCONTRACT
BETWEEN
EG&G IDAHO, INC.
AND
ECO SOLUTIONS, INC.

This subcontract is effective December 3, 1993, between EG&G Idaho, Inc. (hereinafter called the "Contractor"), an Idaho Corporation with an operating office in Idaho Falls, Idaho, acting under Contract DE-AC07-76ID01570 with the United States of America represented by the United States Department of Energy (DOE) and ECO Solutions, Inc., (hereinafter called the "Subcontractor"), a joint venture with its principal offices located at 10333 Richmond Avenue, Suite 250, Houston, Texas 77042.

PURPOSE OF SUBCONTRACT

This subcontract is entered into for the purpose of the Subcontractor performing site remediation and close-out of the Pleasant Bayou well site in Texas.

ARTICLE I - SCOPE OF WORK

1. The Subcontractor shall furnish all plant, labor, supervision, material, supplies, equipment, and services (except as otherwise provided) and perform all work and operations necessary to complete the items listed below in strict accordance with the provisions of this subcontract.

Accomplish site remediation and close-out of the Pleasant Bayou well site. Remediation shall include but not be limited to the following:

- Preparation of a Site Remediation Plan for the site
- Initial soil and water sampling/analysis for the site
- Post site close-out sampling/analysis for the site
- Removal and disposal of all concrete for the site
- Removal and disposal of all utility poles at the site
- Removal and re-spreading of all reef shell/limestone at the site
- Removal and disposal of locating boards and pilings at the site
- Removal and disposal of septic system at the site
- Removal and disposal of fences at the site
- Removal of water wells at the site
- Removal of fire-water well at the site

The Subcontractor shall assume that only non-hazardous oil field waste (NOW) exists at the site and that all such material can be treated and disposed of on location. However, off-site disposal may be required based on results of site sampling and analysis operations. In the event that site sampling analysis precludes on-site disposal, the Subcontractor shall define a plan for treatment or off-site disposal of the contaminated waste.

2. The following documents are incorporated by reference and are part of this subcontract:

- (a) EG&G Idaho, Inc., Construction Subcontract General Provisions, dated June 1991 with Addenda 1, 2, and 3.
- (b) Section I, General Conditions, dated January, 1990.
- (c) Statement of Work For Site Remediation dated August 9, 1993 (Pleasant Bayou No. 1 and No. 2 scope only).
- (d) Appendix A, Wage Rates TX930056 Modification No. 0 dated February 19, 1993.
- (e) Form EG&G-1471, Supplier Data Transmittal and Disposition.
- (f) Progress Payment Estimate for Construction Subcontractors, with continuation sheet.
- (g) Addendum No. 1 dated August 31, 1993, and Addendum No. 2 dated September 7, 1993 (Pleasant Bayou scope only).

ARTICLE II - SCHEDULE

The Subcontractor shall start the subcontract work within three (3) calendar days after receipt of written notice to proceed and shall complete all subcontract work by December 31, 1993.

ARTICLE III - PAYMENT

- 1. The price to be paid by the Contractor for the work accepted hereunder for the total firm fixed price amount as shown below:

PLEASANT BAYOU WELL SITE

PARAGRAPH NUMBER	ITEM DESCRIPTION	LUMP SUM AMOUNT IN DOLLARS
4.3.1	Project Management, Field Supervision, Administration, Site Remediation Plan, Etc.	7,000.00
4.3.2	Initial Sampling/Analysis	4,100.00
4.3.3	Post Site Close-Out Sampling/Analysis	4,100.00
4.3.4	Concrete Removal	15,820.00
4.3.5	Utility Pole Removal	350.00
4.3.6	Limestone Removal	7,500.00
4.3.7	Location Boards Removal	7,950.00
4.3.8	Septic System Removal	5,000.00
4.3.9	Fence Removal	1,750.00
4.3.10	Water Well Removal PBGW #1	250.00
4.3.10	Water Well Removal PBGW #2	250.00
4.3.10	Water Well Removal PBGW #3	250.00
4.3.10	Water Well Removal PBGW #4	650.00
4.3.10	Water Well Removal PBGW #5	884.00
4.3.11	Fire Water Well Removal	1,350.00
	TOTAL LUMP SUM PRICE	57,204.00

2. Upon submission to EG&G Idaho of the form "Progress Payment Estimate for Construction Subcontractors", payments to the Subcontractor will be made monthly in accordance with Clause 8, "Payments to Subcontractor, of the General Provisions. Progress payments will be allowed for in-place construction work only; payments for materials on-site not incorporated into the work will be allowed in accordance with General Conditions, Article 6(C).

3. Invoices should be submitted near the end of each calendar month covering the value of "in-place" construction work performed, material delivered to the site, and preparatory work done, all during the current calendar month.
4. Payment will be made upon completion of the work under dual party checks per the following schedule:

ECO Solutions, Inc./O'Day Drilling Co.	\$ 3,634.00
ECO Solutions, Inc./Joe Shibi Services	\$38,370.00
ECO Solutions, Inc./Core Laboratories	\$ 8,200.00
ECO Solutions, Inc./Mr. Ben H. Siegel	\$ 7,000.00

ARTICLE IV - ADMINISTRATION

1. The Subcontractor agrees that Mr. Ben H. Siegel and/or his duly authorized representative will have overall direction of the subcontract work and unless a change in assignment is made by the Subcontractor and accepted by the Contractor, he and/or his duly authorized representative will be available at all reasonable times in connection therewith.
2. It is agreed that, unless the Subcontractor is otherwise notified in writing, the Contractor's responsibilities under this subcontract will be administered by the Manager, Facility Engineering & Acquisitions, of EG&G Idaho, Inc., and/or his duly authorized representative who is Mr. Michael A. Bolender, Subcontract Administrator.
3. The EG&G Idaho Technical Representative is Mr. Ben Rinehart. All technical direction shall be obtained from this individual only. Mr. Rinehart is also your contact for Environmental, Safety & Health and Occurrence Reporting and may be reached at 208-526-1002.

ARTICLE V - NOTICES

Any notice or order provided for in this subcontract shall be considered as having been given:

1. To the Contractor, if delivered personally to the designated representative or the Manager, Facility & Engineering Acquisitions, or if mailed by Certified U. S. Mail, addressed to the Manager, Facility & Engineering Acquisitions, EG&G Idaho, Inc., 1955 Fremont Avenue, P.O. Box 1625, Idaho Falls, Idaho 83415-3521; or
2. To the Subcontractor, if delivered personally to its representative at the site of the work, Pleasant Bayou Texas well site, or if mailed by Certified U.S. Mail addressed to the Subcontractor at 10333 Richmond Avenue, Suite 250, Houston, Texas 77042.

ARTICLE VI - LIABILITY FOR DAMAGE TO PERSONS AND PROPERTY

Except for losses caused solely by acts of employees of the Contractor or of the Government, the Subcontractor assumes entire responsibility for and hereby agrees, to indemnify the Contractor and the Government, their agents, servants and employees against any and all losses, expenses, damages, demands, and claims connected with or arising out of any injury or alleged injury (including death), or damage or alleged damage to persons or property sustained or alleged to have been sustained in connection with, or arising out of, the performance of the work by the Subcontractor, its subcontractors, and its and their agents, servants, and employees including losses, expenses, or damages sustained by the Contractor and/or the Government.

ARTICLE VII - CERTIFICATION

The subcontract requires that the Subcontractor construct the work in accordance with the subcontract plans, specifications, and requirements. Upon completion of the work and inspection and acceptance by the Contractor (either for the total subcontract work or for partial work completed, inspected, and accepted by the Contractor), the Subcontractor shall certify, on a form (Facility Transfer Form) prepared by EG&G Idaho, as follows:

"I certify on behalf of _____ (Company) _____, subject to the penalties provided under 18 U.S.C. Section 1001, that our personnel have accomplished the subcontract work and, to the best of my knowledge, the work was performed or accomplished in accordance with the subcontract documents, including all approved changes."

Signature _____
Subcontractor Authorized Representative

ARTICLE VIII - CONSTRUCTION SCHEDULE

The Subcontractor shall submit to the Contractor a construction schedule, in accordance with General Condition GC-6, covering the work to be performed under this subcontract. The Subcontractor shall update this schedule monthly (during the life of this subcontract) to show the actual progress made. Eight copies of the updated schedule shall be submitted to the Contractor.

When requested by the Subcontract Administrator, the Subcontractor shall submit a written narrative report which relates the reasons for any failure to meet schedules and the corrective action taken to ensure meeting the subcontract completion date.

ARTICLE IX - MATERIAL AND VENDOR DATA SCHEDULE

Reference Clause No. 8, "Payments to Subcontractor", Paragraph C, Construction Subcontract General Provisions. For the purposes of this subcontract, final completion and acceptance of the subcontract work shall not be deemed to have been accomplished by the Subcontractor until all data required has been submitted and approved by the Contractor.

ARTICLE X - UNDERSTANDING

1. As a matter of clarification, the following definitions shall apply to words and/or phrases used in Appendix A, Wage Rates:

Contract shall mean Subcontract
Contracting Officer shall mean EG&G Idaho, Inc.

2. As a matter of clarification, all references in the General Provisions or the General Conditions to the Idaho National Engineering Laboratory (INEL) site shall mean the Pleasant Bayou well site in Texas.
3. This subcontract and its designated specifications and drawings, whether taken separately or together, are to be interpreted according to their full intent, meaning, and spirit, and shall be deemed to mutually explain each other and to be descriptive of any materials to be furnished and the work to be performed under this subcontract. In cases of any difference or discrepancy between the subcontract documents, the order of precedence shall be this Subcontract form, General Provisions, General Conditions, Special Conditions, specifications and drawings.
4. Delete the following clauses from the General Provisions or the General Conditions:

Delete GC-11 INEL Site Jurisdictional Procedural Agreement.

ARTICLE XI - PRIORITY RATING

This subcontract carries priority rating DO-E1. Certified for national defense use under DMS Regulation 1.

You are required to follow the provisions of DMS Regulation 1 and of all other applicable regulations and orders of the Industry and Trade Administration, Department of Commerce, in obtaining controlled materials and other products and materials needed to fill this order. This rating must be passed on to your supplier in all cases to ensure delivery of the materials as required.

ARTICLE XII - SALES AND USE TAXES

1. No allowance for sales or use tax on items listed on Schedule "X": shall be included in subcontractor's proposed price.
2. The Texas Sales Tax will apply to purchases of materials by the Subcontractor under this subcontract. Payment of the Sales Tax will be the responsibility of the Subcontractor.

IN WITNESS WHEREOF, the Contractor and the Subcontractor have caused this subcontract to be executed on the day and year first above written intending to be legally bound thereby.

ECO SOLUTIONS, INC.
Subcontractor

By _____

Title _____

Date _____

EG&G IDAHO, INC.
Contractor

By _____
M. A. Bolender

Title Subcontract Administrator

Date _____

Appendix B

Texas Railroad Commission
Plugging Notification

Please use black ink.

File WHITE COPY with:
Texas Water Commission
P.O. Box 13087
Austin, Texas 78711
Phone (512) 371-6299

State of Texas

PLUGGING REPORT

(This form must be completed and filed with the TWC
within 30 days following the date the well is plugged as
required by current statutory law.)

Texas Water Well Drillers Board
P.O. Box 13087
Austin, Texas 78711
Phone (512) 371-6299

DOE /

A. Well Identification and Location Data

- 1) Owner ECO SOLUTIONS INC. Address 3931 FOREST VILLAGE KINGWOOD, TX 77339
(Name) (Street or RFD) (City) (State) (Zip)
- 2) Owner's Well Number FIRE WATER WELL
- 3) Location of Well: County BRAZORIA 5 miles in SE direction from LIVERPOOL
(N.E., S.W., etc.) (Town)

☐ Legal description:

Driller or other person performing the plugging operations must complete the legal description to the right with distance and direction from two intersecting section or survey lines; or he must locate and identify the well on an official Quarter- or Half-Scale Texas County General Highway Map and attach the map to this form.

Section No. _____ Block No. _____ Township _____

Abstract No. _____ Survey Name _____

Distance and direction from two intersecting section lines or survey lines: _____

☐ See Attached map.

B. Historical Data on Well To Be Plugged (if available)

- 4) Driller O'DAY DRILLING CO. INC. License Number 1877 City PEARLAND, TX
- 5) Drilled 12-22 1988; 6) Diameter of hole 5 inches; 7) Total depth of well 160' feet.

C. Current Plugging Data

- 8) Date well plugged 1-3-94, 19____.
- 9) Sketch of well: Using space at right, show method of plugging the well including all casing and cemented intervals.
- 10) Name of Driller or other person actually performing the plugging operations
MARSHALL BANNERT
if a water well driller plugged the well, give the driller's license no. 4111
- 11) Casing and cementing data relative to the plugging operations:

Diameter (inches)	Casing Left in Well	
	From (feet)	To (feet)
<u>5</u>		
<u>2 1/2</u>		
Cement Plug(s) Placed in Well		Sack(s) of cement used
From (feet)	To (feet)	
<u>158</u>	<u>0</u>	<u>9 SKS CEMENT</u>
		<u>3 SKS GEL</u>

D. Validation of Information Included in Form

I hereby certify that this well was plugged by me (or under my supervision) and that
all of the statements herein are true and accurate to the best of my knowledge and belief.

Company or Individual's Name O'DAY DRILLING CO. INC.

Address 14405 GARDEN RD. PEARLAND TX 77581
(Street or RFD) (City) (State) (Zip)

(Signed) [Signature] (Signed) [Signature]
(Person performing plugging operations) (Owner of Well)

For TWC use only

Well No. _____
Location on map _____

**FIRE WATER
WELL**

WELL LOCATION MAP

DOE Pleasant Bayou Site

Graphic Scale in Feet
0 50 100

ECO Solutions, Inc.

Please use black ink.

File WHITE COPY with:
Texas Water Commission
P.O. Box 13087
Austin, Texas 78711
Phone (512) 371-6299

State of Texas

PLUGGING REPORT

(This form must be completed and filed with the TWC
within 30 days following the date the well is plugged as
required by current statutory law.)

Texas Water Well Drillers Board
P.O. Box 13087
Austin, Texas 78711
Phone (512) 371-6299

A. Well Identification and Location Data

- 1) Owner ECO SOLUTIONS INC. Address 3931 FOREST VILLAGE KINGWOOD, TX 77339
(Name) (Street or RFD) (City) (State) (Zip)
2) Owner's Well Number (Name) TWIN
3) Location of Well: County BRAZORIA 5 miles in SE direction from LIVERPOOL
(N.E., S.W., etc.) (Town)

☐ Legal description: N/A

Driller or other person performing the plugging operations must complete the legal description to the right with distance and direction from two intersecting section or survey lines, or he must locate and identify the well on an official Quarter- or Half-Scale Texas County General Highway Map and attach the map to this form.

Section No. _____ Block No. _____ Township _____

Abstract No. _____ Survey Name _____

Distance and direction from two intersecting section lines or survey lines: _____

☒ See Attached map.

B. Historical Data on Well To Be Plugged (if available)

- 4) Driller _____ License Number _____ City _____
5) Drilled _____ 19____; 6) Diameter of hole _____ inches; 7) Total depth of well _____ feet.

C. Current Plugging Data

- 8) Date well plugged 1-3, 19 94

- 9) Sketch of well: Using space at right, show method of plugging the well including all casing and cemented intervals.

- 10) Name of Driller or other person actually performing the plugging operations _____

MARSHALL BANNERT

if a water well driller plugged the well, give the driller's license no. 4111

- 11) Casing and cementing data relative to the plugging operations:

Diameter (inches)	Casing Left in Well	
	From (feet)	To (feet)
	<u>0</u>	
Cement Plug(s) Placed in Well		Sack(s) of cement used
From (feet)	To (feet)	
<u>38</u>	<u>0</u>	<u>3 SKS CEMENT</u>
		<u>1/2 SK GEL</u>

D. Validation of Information Included in Form

I hereby certify that this well was plugged by me (or under my supervision) and that all of the statements herein are true and accurate to the best of my knowledge and belief.

Company or Individual's Name O'DAY DRILLING CO. INC.

Address 14405 GARDEN RD. PEARLAND TX 77581
(Street or RFD) (City) (State) (Zip)

(Signed) Marshall Bannert (Signed) Ben Siegel
(Person performing plugging operations) (Owner of Well)

For TWC use only
Well No. _____
Location on map _____

WELL LOCATION MAP

DOE Pleasant Bayou Site

MWN

Graphic Scale in Feet
0 50 100

▲ Ground Water Monitor Well

ECO Solutions, Inc.

Please use black ink.

File WHITE COPY with:
Texas Water Commission
P.O. Box 13087
Austin, Texas 78711
Phone (512) 371-6299

State of Texas

PLUGGING REPORT

(This form must be completed and filed with the TWC
within 30 days following the date the well is plugged as
required by current statutory law.)

Texas Water Well Drillers Board
P.O. Box 13087
Austin, Texas 78711
Phone (512) 371-6299

- DOE** / **A. Well Identification and Location Data**
- 1) Owner ECO SOLUTIONS INC. Address 3931 FOREST VILLAGE KINGWOOD, TX 77581
(Name) (Street or RFD) (City) (State) (Zip)
- 2) Owner's Well Number MWS
- 3) Location of Well: County BRAZORIA 5 miles in SE direction from LIVERPOOL
(N.E., S.W., etc.) (Town)

☐ Legal description: N/A

Section No. _____ Block No. _____ Township _____

Abstract No. _____ Survey Name _____

Distance and direction from two intersecting section lines or survey lines: _____

Driller or other person performing the plugging operations must complete the legal description to the right with distance and direction from two intersecting section or survey lines, or he must locate and identify the well on an official Quarter- or Half-Scale Texas County General Highway Map and attach the map to this form.

☒ See Attached map.

B. Historical Data on Well To Be Plugged (if available)

- 4) Driller _____ License Number _____ City _____
- 5) Drilled _____ 19____; 6) Diameter of hole _____ inches; 7) Total depth of well _____ feet.

C. Current Plugging Data

- 8) Date well plugged 1-3, 1994
- 9) Sketch of well: Using space at right, show method of plugging the well including all casing and cemented intervals.
- 10) Name of Driller or other person actually performing the plugging operations MARSHALL BANNERT
if a water well driller plugged the well, give the driller's license no. 4111
- 11) Casing and cementing data relative to the plugging operations:

Diameter (inches)	Casing Left in Well	
	From (feet)	To (feet)
	<u>0</u>	
Cement Plug(s) Placed in Well		Sack(s) of cement used
From (feet)	To (feet)	
<u>11</u>	<u>0</u>	<u>2 SKS CEMENT</u>
		<u>1/2 SK GEL</u>

D. Validation of Information Included in Form

I hereby certify that this well was plugged by me (or under my supervision) and that all of the statements herein are true and accurate to the best of my knowledge and belief.

Company or Individual's Name O'DAY DRILLING CO. INC.

Address 14405 GARDEN RD. PEARLAND TX 77581
(Street or RFD) (City) (State) (Zip)

(Signed) Marshall Bannert
(Person performing plugging operations)

(Signed) Ben Siegel
(Owner of Well)

For TWC use only
Well No. _____
Location on map _____

MWS

WELL LOCATION MAP

DOE Pleasant Bayou Site

Graphic Scale in Feet
0 50 100

ECO Solutions, Inc.

Please use black ink.

Use WHITE COPY with:

Texas Water Commission
P.O. Box 19087
Austin, Texas 78761
Phone (512) 971-6200

State of Texas

PLUGGING REPORT

(This form must be completed and filed with the TWC
within 30 days following the date the well is plugged as
required by current statutory law.)Texas Water Well Drillers Board
P.O. Box 19087
Austin, Texas 78761
Phone (512) 971-6200

A. Well Identification and Location Data

- 1) Owner ECO SOLUTIONS INC. Address 3931 FOREST VILLAGE KINGHOOD, TX 77339
(Name) (Street or RFD) (City) (State) (Zip)
- 2) Owner's Well Number MVE
- 3) Location of Well: County DALLAS 5 miles in SE direction from LIVERPOOL
(N.E., S.W., etc.) (Town)

(1) Legal description.

Driller or other person performing the plugging operations must complete the legal description to the right with distance and direction from two intersecting section or survey lines, or he must locate and identify the well on an official Quarter- or Half-Scale Texas County General Highway Map and attach the map to this form.

Section No. _____ Block No. _____ Township _____

Abstract No. _____ Survey Name _____

Distance and direction from two intersecting section lines or survey lines: _____

☐ See Attached map.

B. Historical Data on Well To Be Plugged (if available)

- 4) Driller _____ License Number _____ City _____
- 5) Drilled _____ 19 _____ 6) Diameter of hole _____ inches _____ 7) Total depth of well _____ feet

C. Current Plugging Data

- 8) Date well plugged
- 1-3
- 19
- 94

- 9) Sketch of well: Using space at right, show method of plugging the well including all casing and cemented intervals.

- 10) Name of Driller or other person actually performing the plugging operations _____

MARSHALL J. BARNETTIf a water well driller plugged the well, give the driller's license no. 4111

- 11) Casing and cementing data relative to the plugging operations:

Diameter (Inches)	Casing Left in Well	
	From (feet)	To (feet)
	0	
Cement Plug(s) Placed in Well		Sack(s) of cement used
From (feet)	To (feet)	
39	0	3 SKS CEMENT
		1/2 SK GEL

D. Validation of Information Included in Form

I hereby certify that this well was plugged by me (or under my supervision) and that all of the statements herein are true and accurate to the best of my knowledge and belief.

Company or Individual's Name O'DAY DRILLING CO., INC.Address 14405 GARDEN RD.

PEARLAND

(Type or Print)

TX 77581

(City)

(State)

(Zip)

(Signed) Marshall Barnett

(Person performing plugging operations)

(Signed) Bernie Siegel

(Owner of Well)

WELL LOCATION MAP

DOE Pleasant Bayou Site

MWE

Graphic Scale in Feet
0 50 100

▲ Ground Water Monitor Well

ECO Solutions, Inc.

Appendix C

Soil and Water Sample Analysis

Chain of Custody Forms

CHAIN OF CUSTODY RECORD

* RUSH TURNAROUND MAY REQUIRE SURCHARGE

☐ Anaheim, California
1250 E. Gene Autry Way
Anaheim, California 92805
(714) 937-16 | ☐ Long Beach, California
3700 Cherry Avenue
Long Beach, California 90807
(310) 595-8401 | ☐ Denver (Aurora), Colorado
1300 S. Polomac St. - Suite 130
Aurora, Colorado 80012
(303) 751-1780 | ☐ Casper, Wyoming
420 West 1st Street
Casper, Wyoming 82601
(307) 235-5741 | ☐ Houston, Texas
10201 Westheimer, Bldg. 1-A
Houston, Texas 77042
(713) 972-6700 | ☐ Houston, Texas
8210 Mosely Road
Houston, Texas 77075
(713) 943-9776 | ☐ Corpus Christi, Texas
1733 North Padre Island Dr.
Corpus Christi, Texas 78408
(512) 289-2673 | ☐ Lake Charles, Louisiana
3645 Arizona Street
Lake Charles, Louisiana 70663
(504) 583-4926 |
|---|---|---|--|--|---|--|--|

CORE LABORATORIES

CHAIN OF CUSTODY RECORD

Page 2 of 2

CUSTOMER INFORMATION			PROJECT INFORMATION				NUMBER OF CONTAINERS	ANALYSIS / METHOD REQUEST											LAB JOB NO. 934595		
COMPANY: <u>BEN SIEGEL / EDO Solutions</u>			PROJECT NAME/NUMBER:																		
SEND REPORT TO: <u>BEN SIEGEL</u>			BILLING INFORMATION																		
ADDRESS: <u>3931 FOREST VILLAGE</u> <u>KINGWOOD TX 77339</u>			BILL TO: <u>BEN SIEGEL</u> ADDRESS: <u>3931 FOREST VILLAGE</u> <u>KINGWOOD TX 77339</u>																		
PHONE: <u>359-9212</u>			PHONE: <u>359-9212</u>																		
FAX: <u>789 5533</u>			FAX: _____ PO NO.: _____																		
SAMPLE NO.	SAMPLE ID	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.	REMARKS / PRECAUTIONS														
4	1	12-9	1700	Soil	GLASS	Ice	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TCLP MET AD (8)/6010</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PCP</div> </div>														
5	2																				
6	3																				
7	4																				
8	5																				
9	6																				
10	7																				
11	8																				
12	9																				
13	10																				

SAMPLER: <u>PERRY BARNES</u>		SHIPMENT METHOD:		AIRBILL NO.:	
REQUIRED TURNAROUND: * ☐ SAME DAY ☐ 24 HOURS ☐ 48 HOURS ☐ 72 HOURS ☐ 5 DAYS ☐ 10 DAYS ☐ ROUTINE OTHER: <u>Verbals by 12-28-93 or Sooner</u>					
1. RELINQUISHED BY: <u>Perry Barnes</u>		DATE: <u>12-10</u>		2. RELINQUISHED BY: <u>Bernadette Fini</u>	
SIGNATURE:		SIGNATURE:		DATE: <u>12-13-93</u>	
PRINTED NAME/COMPANY: <u>PERRY BARNES</u>		TIME: <u>808</u>		PRINTED NAME/COMPANY: <u>Bernadette Fini / CORE LABS</u>	
3. RECEIVED BY: <u>Bernadette Fini</u>		DATE: <u>12-10-93</u>		4. RECEIVED BY: <u>James Mayore</u>	
SIGNATURE:		SIGNATURE:		DATE: <u>12/14/93</u>	
PRINTED NAME/COMPANY: <u>Bernadette Fini / CORE LABS</u>		TIME: <u>0808</u>		PRINTED NAME/COMPANY: <u>James Mayore / CORE LABS</u>	
				TIME: <u>1200</u>	

* RUSH TURNAROUND MAY REQUIRE SURCHARGE

☐ Anaheim, California
1250 E. Gene Autry Way
Anaheim, California 92805
(714) 937-1100

☐ Long Beach, California
3700 Cherry Avenue
Long Beach, California 90807
(310) 595-8401

☐ Denver (Aurora), Colorado
1300 S. Potomac St. - Suite 130
Aurora, Colorado 80012
(303) 751-1780

☐ Casper, Wyoming
420 West 1st Street
Casper, Wyoming 82601
(307) 235-5741

☐ Houston, Texas
10201 Westheimer, Bldg. 1-A
Houston, Texas 77042
(713) 972-6700

☐ Houston, Texas
8210 Mosely Road
Houston, Texas 77075
(713) 943-9776

☐ Corpus Christi, Texas
1733 North Padre Island Dr.
Corpus Christi, Texas 78408
(512) 289-2673

☐ Lake Charles, Louisiana
3645 Arizona Street
Lake Charles, Louisiana 70663
(504) 583-4926

CHAIN OF CUSTODY RECORD

* RUSH TURNAROUND MAY REQUIRE SURCHARGE

☐ Anaheim, California
1250 E. Gene Autry Way
Anaheim, California 92805
(714) 937-1094 | ☐ Long Beach, California
3700 Cherry Avenue
Long Beach, California 90807
(310) 595-8401 | ☐ Denver (Aurora), Colorado
1300 S. Potomac St. - Suite 130
Aurora, Colorado 80012
(303) 751-1780 | ☐ Casper, Wyoming
420 West 1st Street
Casper, Wyoming 82601
(703) 235-5741 | ☐ Houston, Texas
10201 Westheimer, Bldg. 1-A
Houston, Texas 77042
(713) 972-6700 | ☐ Houston, Texas
8210 Mosely Road
Houston, Texas 77075
(713) 943-9776 | ☐ Corpus Christi, Texas
1733 North Padre Island Dr.
Corpus Christi, Texas 78408
(512) 289-2673 | ☐ Lake Charles, Louisiana
3645 Arizona Street
Lake Charles, Louisiana 70663
(337) 483-4926 |
|---|---|---|--|--|---|--|--|

Sample Analysis

CORE LABORATORIES
ANALYTICAL REPORT

Job Number: 940049

Prepared For:

ECO SOLUTIONS
BEN SIEGEL
3931 FOREST VILLAGE
KINGWOOD, TX 77339

Date: 01/14/94

Dana L. Harper
Signature

01-14-94
Date:

Name: DANA L. HARPER

Core Laboratories
3645 Arizona Street
Sulphur, LA 70663

Title: LABORATORY MANAGER

LABORATORY TESTS RESULTS
01/14/94

JOB NUMBER: 940049

CUSTOMER: ECO SOLUTIONS

ATTN: BEN SIEGEL

CLIENT I.D.: ~~CREW WELL~~ FREEMAN WELL *DAE*
DATE SAMPLED: 01/03/94
TIME SAMPLED: 15:50
WORK DESCRIPTION:

LABORATORY I.D.: 940049-0001
DATE RECEIVED: 01/05/94
TIME RECEIVED: 11:40
REMARKS:

TEST DESCRIPTION	FINAL RESULT	DETECTION LIMIT	UNITS OF MEASURE	TEST METHOD	DATE	TECHNICIAN
Arsenic (As), total	<0.05	0.05	mg/L	EPA/200.7	01/11/94	NDF
Barium (Ba), total	0.08	0.01	mg/L	EPA/200.7	01/11/94	NDF
Cadmium (Cd), total	<0.01	0.01	mg/L	EPA/200.7	01/11/94	NDF
Chromium (Cr), total	<0.02	0.02	mg/L	EPA/200.7	01/11/94	NDF
Lead (Pb), total	0.15	0.05	mg/L	EPA/200.7	01/11/94	NDF
Mercury (Hg), total	<0.002	0.002	mg/L	EPA/245.1	01/07/94	HJD
Selenium (Se), total	<0.05	0.05	mg/L	EPA/200.7	01/11/94	NDF
Silver (Ag), total	<0.01	0.01	mg/L	EPA/200.7	01/11/94	NDF
Sodium (Na), total	213	1	mg/L	EPA/200.7	01/11/94	NDF
Digestion for Metals/ICP	COMPLETE			EPA Metals 4.1.3	01/10/94	BNL
Chloride (Cl), total	391	2	mg/L	SM17 4500-Cl B	01/13/94	CPG

3645 Arizona Street
Sulphur, LA 70663
(318) 583-4926

CORE LABORATORIES
ANALYTICAL REPORT

Job Number: 934595
Prepared For:

ECO SOLUTIONS
BEN SIEGEL
3931 FOREST VILLAGE
KINGWOOD, TX 77339

Date: 12/28/93

Dana L. Harper
Signature

12-28-93
Date:

Name: DANA L. HARPER

Core Laboratories
3645 Arizona Street
Sulphur, LA 70663

Title: LABORATORY MANAGER

LABORATORY TESTS RESULTS
12/28/93

JOB NUMBER: 934595

CUSTOMER: ECO SOLUTIONS

ATTN: BEN SIEGEL

CLIENT I.D.....: MW-S
DATE SAMPLED.....: 12/07/93
TIME SAMPLED.....: 16:00
WORK DESCRIPTION....:

LABORATORY I.D....: 934595-0001
DATE RECEIVED.....: 12/14/93
TIME RECEIVED.....: 12:00
REMARKS.....: SAMPLED BY: PERRY BARNES

TEST DESCRIPTION	FINAL RESULT	DETECTION LIMIT	UNITS OF MEASURE	TEST METHOD	DATE	TECHNICIAN
Arsenic (As), total	<0.05	0.05	mg/L	EPA/200.7	12/16/93	NDF
Barium (Ba), total	35.8	0.01	mg/L	EPA/200.7	12/16/93	NDF
Cadmium (Cd), total	<0.01	0.01	mg/L	EPA/200.7	12/16/93	NDF
Chromium (Cr), total	0.33	0.02	mg/L	EPA/200.7	12/16/93	NDF
Lead (Pb), total	0.15	0.05	mg/L	EPA/200.7	12/16/93	NDF
Mercury (Hg), total	<0.04	0.04	mg/L	EPA/245.1	12/21/93	HJD
Selenium (Se), total	<0.05	0.05	mg/L	EPA/200.7	12/16/93	NDF
Silver (Ag), total	<0.01	0.01	mg/L	EPA/200.7	12/16/93	NDF
Sodium (Na), total	193	1	mg/L	EPA/200.7	12/16/93	NDF
Digestion for Metals/ICP	COMPLETE			EPA Metals 4.1.3	12/16/93	RAK
Chloride (Cl), total	307	15	mg/L	SM17 4500-Cl B	12/16/93	BNL

3645 Arizona Street
Sulphur, LA 70663
(318) 583-4926

LABORATORY TESTS RESULTS
12/28/93

JOB NUMBER: 934595

CUSTOMER: ECO SOLUTIONS

ATTN: BEN SIEGEL

CLIENT I.D.....: MW-E
DATE SAMPLED.....: 12/07/93
TIME SAMPLED.....: 16:00
WORK DESCRIPTION....:

LABORATORY I.D....: 934595-0002
DATE RECEIVED.....: 12/14/93
TIME RECEIVED.....: 12:00
REMARKS.....: SAMPLED BY: PERRY BARNES

TEST DESCRIPTION	FINAL RESULT	DETECTION LIMIT	UNITS OF MEASURE	TEST METHOD	DATE	TECHNICIAN
Arsenic (As), total	<0.05	0.05	mg/L	EPA/200.7	12/16/93	NDF
Barium (Ba), total	0.33	0.01	mg/L	EPA/200.7	12/16/93	NDF
Cadmium (Cd), total	<0.01	0.01	mg/L	EPA/200.7	12/16/93	NDF
Chromium (Cr), total	<0.02	0.02	mg/L	EPA/200.7	12/16/93	NDF
Lead (Pb), total	<0.05	0.05	mg/L	EPA/200.7	12/16/93	NDF
Mercury (Hg), total	<0.008	0.008	mg/L	EPA/245.1	12/21/93	HJD
Selenium (Se), total	<0.05	0.05	mg/L	EPA/200.7	12/16/93	NDF
Silver (Ag), total	<0.01	0.01	mg/L	EPA/200.7	12/16/93	NDF
Sodium (Na), total	69	1	mg/L	EPA/200.7	12/16/93	NDF
Digestion for Metals/ICP	COMPLETE			EPA Metals 4.1.3	12/16/93	RAK
Chloride (Cl), total	162	15	mg/L	SM17 4500-CL B	12/16/93	BNL

3645 Arizona Street
Sulphur, LA 70663
(318) 583-4926

LABORATORY TESTS RESULTS
12/28/93

JOB NUMBER: 934595

CUSTOMER: ECO SOLUTIONS

ATTN: BEN SIEGEL

CLIENT I.D.: MW-N
DATE SAMPLED: 12/07/93
TIME SAMPLED: 16:00
WORK DESCRIPTION:

LABORATORY I.D.: 934595-0003
DATE RECEIVED: 12/14/93
TIME RECEIVED: 12:00
REMARKS: SAMPLED BY: PERRY BARNES

TEST DESCRIPTION	FINAL RESULT	DETECTION LIMIT	UNITS OF MEASURE	TEST METHOD	DATE	TECHNICIAN
Arsenic (As), total	<0.05	0.05	mg/L	EPA/200.7	12/16/93	NDF
Barium (Ba), total	0.22	0.01	mg/L	EPA/200.7	12/16/93	NDF
Cadmium (Cd), total	<0.01	0.01	mg/L	EPA/200.7	12/16/93	NDF
Chromium (Cr), total	<0.02	0.02	mg/L	EPA/200.7	12/16/93	NDF
Lead (Pb), total	<0.05	0.05	mg/L	EPA/200.7	12/16/93	NDF
Mercury (Hg), total	<0.008	0.008	mg/L	EPA/245.1	12/21/93	HJD
Selenium (Se), total	<0.05	0.05	mg/L	EPA/200.7	12/16/93	NDF
Silver (Ag), total	<0.01	0.01	mg/L	EPA/200.7	12/16/93	NDF
Sodium (Na), total	105	1	mg/L	EPA/200.7	12/16/93	NDF
Digestion for Metals/ICP	COMPLETE			EPA Metals 4.1.3	12/16/93	RAK
Chloride (Cl), total	137	15	mg/L	SM17 4500-CL B	12/16/93	BNL

3645 Arizona Street
Sulphur, LA 70663
(318) 583-4926

Job Number 934595-004

Customer Name ECO SOLUTIONS

Client I.D. 1
Sample Description *NP

RCRA CHARACTERIZATION REPORT

REPORT SUMMARY

Based on the parameters tested, the sample did not exceed the EPA regulatory threshold for RCRA characteristics and TCLP toxicity characteristics.

SAMPLE MATRIX	RESULT
% Solid	100.0
% Aqueous Liquid	<0.5
% Non-Aqueous Liquid	<0.5

SAMPLE HISTORY	DATE	TIME
Date Sampled	12/09/93	17:00
Sample Received by Laboratory	12/14/93	12:00
		METHOD
Glass Jar Extraction	12/15/93	1311 (1)
Metals Digestion	12/17/93	3010 (2)
Metals Analysis	12/27/93	6010 (2)

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

*NP - Data Not Provided

Job Number 934595-004

Customer Name ECO SOLUTIONS

ANALYTICAL RESULTS

TCLP METALS

TOXICITY CHARACTERISTICS	RESULT	UNITS	METHOD(2)	REGULATORY THRESHOLD		
Arsenic	<0.1	mg/L	6010	≥	5.0	mg/L
Barium	1.87	mg/L	6010	≥	100	mg/L
Cadmium	<0.05	mg/L	6010	≥	1.0	mg/L
Chromium	<0.05	mg/L	6010	≥	5.0	mg/L
Lead	<0.05	mg/L	6010	≥	5.0	mg/L
Mercury	<0.002	mg/L	7470	≥	0.2	mg/L
Selenium	<0.1	mg/L	6010	≥	1.0	mg/L
Silver	<0.05	mg/L	6010	≥	5.0	mg/L

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

Job Number 934595-005

Customer Name ECO SOLUTIONS

Client I.D. 2
Sample Description *NP

RCRA CHARACTERIZATION REPORT

REPORT SUMMARY

Based on the parameters tested, the sample did not exceed the EPA regulatory threshold for RCRA characteristics and TCLP toxicity characteristics.

SAMPLE MATRIX

RESULT

% Solid	100.0
% Aqueous Liquid	<0.5
% Non-Aqueous Liquid	<0.5

SAMPLE HISTORY	DATE	TIME
Date Sampled	12/09/93	17:00
Sample Received by Laboratory	12/14/93	12:00
		METHOD
Glass Jar Extraction	12/15/93	1311 (1)
Metals Digestion	12/17/93	3010 (2)
Metals Analysis	12/27/93	6010 (2)

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

*NP - Data Not Provided

Job Number 934595-005

Customer Name ECO SOLUTIONS

ANALYTICAL RESULTS

TCLP METALS

TOXICITY CHARACTERISTICS	RESULT	UNITS	METHOD(2)	REGULATORY THRESHOLD		
Arsenic	<0.1	mg/L	6010	≥	5.0	mg/L
Barium	1.26	mg/L	6010	≥	100	mg/L
Cadmium	<0.05	mg/L	6010	≥	1.0	mg/L
Chromium	<0.05	mg/L	6010	≥	5.0	mg/L
Lead	<0.05	mg/L	6010	≥	5.0	mg/L
Mercury	<0.002	mg/L	7470	≥	0.2	mg/L
Selenium	<0.1	mg/L	6010	≥	1.0	mg/L
Silver	<0.05	mg/L	6010	≥	5.0	mg/L

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

Job Number 934595-006

Customer Name ECO SOLUTIONS

Client I.D. 3
Sample Description *NP

RCRA CHARACTERIZATION REPORT

REPORT SUMMARY

Based on the parameters tested, the sample did not exceed the EPA regulatory threshold for RCRA characteristics and TCLP toxicity characteristics.

SAMPLE MATRIX

RESULT

% Solid	100.0
% Aqueous Liquid	<0.5
% Non-Aqueous Liquid	<0.5

SAMPLE HISTORY	DATE	TIME
Date Sampled	12/09/93	17:00
Sample Received by Laboratory	12/14/93	12:00
		METHOD
Glass Jar Extraction	12/15/93	1311 (1)
Metals Digestion	12/17/93	3010 (2)
Metals Analysis	12/27/93	6010 (2)

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

*NP - Data Not Provided

Job Number 934595-006

Customer Name ECO SOLUTIONS

ANALYTICAL RESULTS

TCLP METALS

TOXICITY CHARACTERISTICS	RESULT	UNITS	METHOD(2)	REGULATORY THRESHOLD		
Arsenic	<0.1	mg/L	6010	≅	5.0	mg/L
Barium	1.47	mg/L	6010	≅	100	mg/L
Cadmium	<0.05	mg/L	6010	≅	1.0	mg/L
Chromium	<0.05	mg/L	6010	≅	5.0	mg/L
Lead	0.07	mg/L	6010	≅	5.0	mg/L
Mercury	<0.002	mg/L	7470	≅	0.2	mg/L
Selenium	<0.1	mg/L	6010	≅	1.0	mg/L
Silver	<0.05	mg/L	6010	≅	5.0	mg/L

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

Job Number 934595-007

Customer Name ECO SOLUTIONS

Client I.D. 4
Sample Description *NP

RCRA CHARACTERIZATION REPORT

REPORT SUMMARY

Based on the parameters tested, the sample did not exceed the EPA regulatory threshold for RCRA characteristics and TCLP toxicity characteristics.

SAMPLE MATRIX

RESULT

% Solid	100.0
% Aqueous Liquid	<0.5
% Non-Aqueous Liquid	<0.5

SAMPLE HISTORY	DATE	TIME
Date Sampled	12/09/93	17:00
Sample Received by Laboratory	12/14/93	12:00
		METHOD
Glass Jar Extraction	12/15/93	1311 (1)
Metals Digestion	12/17/93	3010 (2)
Metals Analysis	12/27/93	6010 (2)

- (1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II
(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition
*NP - Data Not Provided

Job Number 934595-007

Customer Name ECO SOLUTIONS

ANALYTICAL RESULTS

TCLP METALS

TOXICITY CHARACTERISTICS	RESULT	UNITS	METHOD(2)	REGULATORY THRESHOLD		
Arsenic	<0.1	mg/L	6010	≥	5.0	mg/L
Barium	2.15	mg/L	6010	≥	100	mg/L
Cadmium	<0.05	mg/L	6010	≥	1.0	mg/L
Chromium	<0.05	mg/L	6010	≥	5.0	mg/L
Lead	<0.05	mg/L	6010	≥	5.0	mg/L
Mercury	<0.002	mg/L	7470	≥	0.2	mg/L
Selenium	<0.1	mg/L	6010	≥	1.0	mg/L
Silver	<0.05	mg/L	6010	≥	5.0	mg/L

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

JOB NUMBER: 934595

CUSTOMER: ECO SOLUTIONS

ATTN: BEN SIEGEL

LABORATORY I.D....: 934595-0007

DATE RECEIVED.....: 12/14/93

TIME RECEIVED.....: 12:00

REMARKS.....: SAMPLED BY: PERRY BARNES

3645 Arizona Street
Sulphur, LA 70663
(318) 583-4926

Job Number 934595-008

Customer Name ECO SOLUTIONS

Client I.D. 5
Sample Description *NP

RCRA CHARACTERIZATION REPORT

REPORT SUMMARY

Based on the parameters tested, the sample did not exceed the EPA regulatory threshold for RCRA characteristics and TCLP toxicity characteristics.

SAMPLE MATRIX

RESULT

% Solid	100.0
% Aqueous Liquid	<0.5
% Non-Aqueous Liquid	<0.5

SAMPLE HISTORY	DATE	TIME
Date Sampled	12/09/93	17:00
Sample Received by Laboratory	12/14/93	12:00
		METHOD
Glass Jar Extraction	12/15/93	1311 (1)
Metals Digestion	12/17/93	3010 (2)
Metals Analysis	12/27/93	6010 (2)

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

*NP - Data Not Provided

Job Number 934595-008

Customer Name ECO SOLUTIONS

ANALYTICAL RESULTS

TCLP METALS

TOXICITY CHARACTERISTICS	RESULT	UNITS	METHOD(2)	REGULATORY THRESHOLD		
Arsenic	<0.1	mg/L	6010	≥	5.0	mg/L
Barium	1.66	mg/L	6010	≥	100	mg/L
Cadmium	<0.05	mg/L	6010	≥	1.0	mg/L
Chromium	<0.05	mg/L	6010	≥	5.0	mg/L
Lead	<0.05	mg/L	6010	≥	5.0	mg/L
Mercury	<0.002	mg/L	7470	≥	0.2	mg/L
Selenium	<0.1	mg/L	6010	≥	1.0	mg/L
Silver	<0.05	mg/L	6010	≥	5.0	mg/L

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

Job Number: 934595-009

Customer Name: ECO SOLUTIONS

Client I.D.: 6
Sample Description: *NP

RCRA CHARACTERIZATION REPORT

REPORT SUMMARY

Based on the parameters tested, the sample did not exceed the EPA regulatory threshold for RCRA characteristics and TCLP toxicity characteristics.

SAMPLE MATRIX	RESULT
% Solid	100.0
% Aqueous Liquid	<0.5
% Non-Aqueous Liquid	<0.5

SAMPLE HISTORY	DATE	TIME
Date Sampled	12/09/93	17:00
Sample Received by Laboratory	12/14/93	12:00
		METHOD
Glass Jar Extraction	12/15/93	1311 (1)
Metals Digestion	12/17/93	3010 (2)
Metals Analysis	12/27/93	6010 (2)

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

*NP - Data Not Provided

Job Number 934595-009

Customer Name ECO SOLUTIONS

ANALYTICAL RESULTS

TCLP METALS

TOXICITY CHARACTERISTICS	RESULT	UNITS	METHOD(2)	REGULATORY THRESHOLD		
Arsenic	<0.1	mg/L	6010	≥	5.0	mg/L
Barium	2.89	mg/L	6010	≥	100	mg/L
Cadmium	<0.05	mg/L	6010	≥	1.0	mg/L
Chromium	<0.05	mg/L	6010	≥	5.0	mg/L
Lead	<0.05	mg/L	6010	≥	5.0	mg/L
Mercury	<0.002	mg/L	7470	≥	0.2	mg/L
Selenium	<0.1	mg/L	6010	≥	1.0	mg/L
Silver	<0.05	mg/L	6010	≥	5.0	mg/L

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

Job Number 934595-010

Customer Name ECO SOLUTIONS

Client I.D. 7
Sample Description *NP

RCRA CHARACTERIZATION REPORT

REPORT SUMMARY

Based on the parameters tested, the sample did not exceed the EPA regulatory threshold for RCRA characteristics and TCLP toxicity characteristics.

SAMPLE MATRIX

RESULT

% Solid	100.0
% Aqueous Liquid	<0.5
% Non-Aqueous Liquid	<0.5

SAMPLE HISTORY	DATE	TIME
Date Sampled	12/09/93	17:00
Sample Received by Laboratory	12/14/93	12:00
		METHOD
Glass Jar Extraction	12/15/93	1311 (1)
Metals Digestion	12/17/93	3010 (2)
Metals Analysis	12/27/93	6010 (2)

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

*NP - Data Not Provided

Job Number 934595-010

Customer Name ECO SOLUTIONS

ANALYTICAL RESULTS

TCLP METALS

TOXICITY CHARACTERISTICS	RESULT	UNITS	METHOD(2)	REGULATORY THRESHOLD		
Arsenic	<0.1	mg/L	6010	≥	5.0	mg/L
Barium	1.18	mg/L	6010	≥	100	mg/L
Cadmium	<0.05	mg/L	6010	≥	1.0	mg/L
Chromium	<0.05	mg/L	6010	≥	5.0	mg/L
Lead	<0.05	mg/L	6010	≥	5.0	mg/L
Mercury	<0.002	mg/L	7470	≥	0.2	mg/L
Selenium	<0.1	mg/L	6010	≥	1.0	mg/L
Silver	<0.05	mg/L	6010	≥	5.0	mg/L

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

Job Number 934595-011

Customer Name ECO SOLUTIONS

Client I.D. 8
Sample Description *NP

RCRA CHARACTERIZATION REPORT

REPORT SUMMARY

Based on the parameters tested, the sample did not exceed the EPA regulatory threshold for RCRA characteristics and TCLP toxicity characteristics.

SAMPLE MATRIX

SAMPLE MATRIX	RESULT
% Solid	100.0
% Aqueous Liquid	<0.5
% Non-Aqueous Liquid	<0.5

SAMPLE HISTORY	DATE	TIME
Date Sampled	12/09/93	17:00
Sample Received by Laboratory	12/14/93	12:00
		METHOD
Glass Jar Extraction	12/15/93	1311 (1)
Metals Digestion	12/17/93	3010 (2)
Metals Analysis	12/27/93	6010 (2)

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

*NP - Data Not Provided

Job Number 934595-011

Customer Name ECO SOLUTIONS

ANALYTICAL RESULTS

TCLP METALS

TOXICITY CHARACTERISTICS	RESULT	UNITS	METHOD(2)	REGULATORY THRESHOLD		
Arsenic	<0.1	mg/L	6010	≥	5.0	mg/L
Barium	0.99	mg/L	6010	≥	100	mg/L
Cadmium	<0.05	mg/L	6010	≥	1.0	mg/L
Chromium	<0.05	mg/L	6010	≥	5.0	mg/L
Lead	<0.05	mg/L	6010	≥	5.0	mg/L
Mercury	<0.002	mg/L	7470	≥	0.2	mg/L
Selenium	<0.1	mg/L	6010	≥	1.0	mg/L
Silver	<0.05	mg/L	6010	≥	5.0	mg/L

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

Job Number 934595-012

Customer Name ECO SOLUTIONS

Client I.D. 9
Sample Description *NP

RCRA CHARACTERIZATION REPORT

REPORT SUMMARY

Based on the parameters tested, the sample did not exceed the EPA regulatory threshold for RCRA characteristics and TCLP toxicity characteristics.

SAMPLE MATRIX

RESULT

% Solid	100.0
% Aqueous Liquid	<0.5
% Non-Aqueous Liquid	<0.5

SAMPLE HISTORY	DATE	TIME
Date Sampled	12/09/93	17:00
Sample Received by Laboratory	12/14/93	12:00
		METHOD
Glass Jar Extraction	12/15/93	1311 (1)
Metals Digestion	12/17/93	3010 (2)
Metals Analysis	12/27/93	6010 (2)

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

*NP - Data Not Provided

Job Number 934595-012

Customer Name ECO SOLUTIONS

ANALYTICAL RESULTS

TCLP METALS

TOXICITY CHARACTERISTICS	RESULT	UNITS	METHOD(2)	REGULATORY THRESHOLD		
Arsenic	<0.1	mg/L	6010	≥	5.0	mg/L
Barium	2.56	mg/L	6010	≥	100	mg/L
Cadmium	<0.05	mg/L	6010	≥	1.0	mg/L
Chromium	<0.05	mg/L	6010	≥	5.0	mg/L
Lead	<0.05	mg/L	6010	≥	5.0	mg/L
Mercury	<0.002	mg/L	7470	≥	0.2	mg/L
Selenium	<0.1	mg/L	6010	≥	1.0	mg/L
Silver	<0.05	mg/L	6010	≥	5.0	mg/L

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

Job Number 934595-013

Customer Name ECO SOLUTIONS

Client I.D. 10
Sample Description *NP

RCRA CHARACTERIZATION REPORT

REPORT SUMMARY

Based on the parameters tested, the sample did not exceed the EPA regulatory threshold for RCRA characteristics and TCLP toxicity characteristics.

SAMPLE MATRIX

RESULT

% Solid	100.0
% Aqueous Liquid	<0.5
% Non-Aqueous Liquid	<0.5

SAMPLE HISTORY	DATE	TIME
Date Sampled	12/09/93	17:00
Sample Received by Laboratory	12/14/93	12:00
		METHOD
Glass Jar Extraction	12/15/93	1311 (1)
Metals Digestion	12/17/93	3010 (2)
Metals Analysis	12/27/93	6010 (2)

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

*NP - Data Not Provided

Job Number 934595-013

Customer Name ECO SOLUTIONS

ANALYTICAL RESULTS

TCLP METALS

TOXICITY CHARACTERISTICS	RESULT	UNITS	METHOD(2)	REGULATORY THRESHOLD		
Arsenic	<0.1	mg/L	6010	≥	5.0	mg/L
Barium	3.42	mg/L	6010	≥	100	mg/L
Cadmium	<0.05	mg/L	6010	≥	1.0	mg/L
Chromium	<0.05	mg/L	6010	≥	5.0	mg/L
Lead	<0.05	mg/L	6010	≥	5.0	mg/L
Mercury	<0.002	mg/L	7470	≥	0.2	mg/L
Selenium	<0.1	mg/L	6010	≥	1.0	mg/L
Silver	<0.05	mg/L	6010	≥	5.0	mg/L

(1) REFERENCE : Method 1311 - Federal Register, Friday, July 1, 1990, Part 261, Appendix II

(2) REFERENCE : EPA Test Methods for Evaluating Solid Waste : Nov 1990 SW-846 Third Edition

Job Number 934595

Customer Name ECO SOLUTIONS

**TCLP METALS CHARACTERISTICS
QUALITY CONTROL DATA**

MATRIX SPIKE RECOVERY DATA (mg/L)

TOXICITY CHARACTERISTICS	SAMPLE ID	ANALYZED VALUE	ORIGINAL VALUE	SPIKE VALUE	% RECOVERY
Arsenic	934595-004	1.0	0.0	1.0	100
Barium	934595-004	2.89	1.87	1.00	102
Cadmium	934595-004	1.00	0.00	1.00	100
Chromium	934595-004	0.95	0.00	1.00	95
Lead	934595-004	0.96	0.00	1.00	96
Mercury	934595-004	0.006	0.001	0.005	100
Selenium	934595-004	1.0	0.0	1.0	100
Silver	934595-004	0.95	0.00	1.00	95

PRECISION DATA (mg/L)

TOXICITY CHARACTERISTICS	SAMPLE ID	ORIGINAL VALUE	DUPLICATE VALUE	DETECTION LIMIT	DIFFERENCE
Arsenic	934595-004	0.0	0.0	0.1	0
Barium	934595-004	1.87	1.89	0.05	1
Cadmium	934595-004	0.00	0.00	0.05	0
Chromium	934595-004	0.00	0.00	0.05	0
Lead	934595-004	0.00	0.00	0.05	0
Mercury	934595-004	0.000	0.000	0.002	0
Selenium	934595-004	0.0	0.0	0.1	0
Silver	934595-004	0.00	0.00	0.05	0

EXTRACTION FLUID & ANALYTICAL BLANK DATA (mg/L)

TOXICITY CHARACTERISTICS	EXTRACT BLANK ID	ANALYZED VALUE	ANALYTIC BLANK ID	ANALYZED VALUE	DETECTION LIMIT
Arsenic	121593-1	<0.1	121793	<0.1	0.1
Barium	121593-1	<0.05	121793	<0.05	0.05
Cadmium	121593-1	<0.05	121793	<0.05	0.05
Chromium	121593-1	<0.05	121793	<0.05	0.05
Lead	121593-1	<0.05	121793	<0.05	0.05
Mercury	121593-1	<0.002	121793	<0.002	0.002
Selenium	121593-1	<0.1	121793	<0.1	0.1
Silver	121593-1	<0.05	121793	<0.05	0.05

QUALITY ASSURANCE REPORT
12/28/93

JOB NUMBER: 934595

CUSTOMER: ECO SOLUTIONS

ATTN: BEN SIEGEL

ANALYSIS				DUPLICATES		REFERENCE STANDARDS		MATRIX SPIKES		
ANALYSIS TYPE	ANALYSIS SUB-TYPE	ANALYSIS I.D.	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or (A-B)	TRUE VALUE	PERCENT RECOVERY	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY
PARAMETER:Chloride (Cl), total REPORTING LIMIT/DF: 1.5 UNITS:mg/L				DATE/TIME ANALYZED:12/16/93 10:57 METHOD REFERENCE :SM17 4500-Cl B				QC BATCH NUMBER:967380 TECHNICIAN:BNL		
BLANK	METHOD	121693	1.5							
BLANK	METHOD	121693	2.5							
STANDARD	REFERENCE	QC 930049	57.4			58.0	99			
SPIKE	ANALYTICAL	934609-006	108					6.5	100	102
DUPLICATE	ANALYTICAL	934609-006	6.5	6.5	0.0					
PARAMETER:Arsenic (As), total REPORTING LIMIT/DF: 0.05 UNITS:mg/L				DATE/TIME ANALYZED:12/16/93 17:11 METHOD REFERENCE :EPA/200.7				QC BATCH NUMBER:967479 TECHNICIAN:NDF		
BLANK	ICB	121693	<0.05							
BLANK	MB/3030F	121693	<0.05							
STANDARD	ICV	QCS19	4.92			5.00	98			
STANDARD	ICV	QC19N	1.01			1.00	101			
STANDARD	LCS	121693	0.99			1.00	99			
SPIKE	MS	934595-003	0.98					<0.05	1.00	98
SPIKE	MS	934606-001	0.97					<0.05	1.00	97
DUPLICATE	MD	934606-001	<0.05	<0.05	NC					
DUPLICATE	MD	934595-003	<0.05	<0.05	NC					
PARAMETER:Barium (Ba), total REPORTING LIMIT/DF: 0.01 UNITS:mg/L				DATE/TIME ANALYZED:12/16/93 17:11 METHOD REFERENCE :EPA/200.7				QC BATCH NUMBER:967480 TECHNICIAN:NDF		
BLANK	ICB	121693	<0.01							
BLANK	MB/3030F	121693	<0.01							
STANDARD	ICV	QCS7	5.11			5.00	102			
STANDARD	ICV	ICAP7	1.03			1.00	103			
STANDARD	LCS	121693	1.00			1.00	100			
SPIKE	MS	934595-003	1.22					0.22	1.00	100
SPIKE	MS	934606-001	1.34					0.42	1.00	92
DUPLICATE	MD	934606-001	0.42	0.41	2					
DUPLICATE	MD	934595-003	0.22	0.22	0					
PARAMETER:Cadmium (Cd), total REPORTING LIMIT/DF: 0.01 UNITS:mg/L				DATE/TIME ANALYZED:12/16/93 17:11 METHOD REFERENCE :EPA/200.7				QC BATCH NUMBER:967481 TECHNICIAN:NDF		
BLANK	ICB	121693	<0.01							
BLANK	MB/3030F	121693	<0.01							
STANDARD	ICV	QCS19	5.06			5.00	101			
STANDARD	ICV	QC19N	1.00			1.00	100			
STANDARD	LCS	121693	0.95			1.00	95			
SPIKE	MS	934595-003	0.92					<0.01	1.00	92
SPIKE	MS	934606-001	0.96					0.01	1.00	95
DUPLICATE	MD	934606-001	0.01	0	0.01					
DUPLICATE	MD	934595-003	<0.01	<0.01	NC					

3645 Arizona Street
Sulphur, LA 70663
(318) 583-4926

CORE LABORATORIES

QUALITY ASSURANCE REPORT 12/28/93

JOB NUMBER: 934595

CUSTOMER: ECO SOLUTIONS

ATTN: BEN SIEGEL

ANALYSIS				DUPLICATES		REFERENCE STANDARDS		MATRIX SPIKES		
ANALYSIS TYPE	ANALYSIS SUB-TYPE	ANALYSIS I.D.	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or (A-B)	TRUE VALUE	PERCENT RECOVERY	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY
PARAMETER:Chromium (Cr), total				DATE/TIME ANALYZED:12/16/93 17:11				QC BATCH NUMBER:967482		
REPORTING LIMIT/DF: 0.02 UNITS:mg/L				METHOD REFERENCE :EPA/200.7				TECHNICIAN:NDF		
BLANK	ICB	121693	<0.02							
BLANK	MB/3030F	121693	<0.02							
STANDARD	ICV	QCS19	5.03			5.00	101			
STANDARD	ICV	QC19N	1.04			1.00	104			
STANDARD	LCS	121693	1.02			1.00	102			
SPIKE	MS	934595-003	0.99					<0.02	1.00	99
SPIKE	MS	934606-001	0.93					<0.02	1.00	93
DUPLICATE	MD	934606-001	<0.02	<0.02	NC					
DUPLICATE	MD	934595-003	<0.02	<0.02	NC					

PARAMETER:Lead (Pb), total				DATE/TIME ANALYZED:12/16/93 17:11				QC BATCH NUMBER:967484		
REPORTING LIMIT/DF: 0.05 UNITS:mg/L				METHOD REFERENCE :EPA/200.7				TECHNICIAN:NDF		
BLANK	ICB	121693	<0.05							
BLANK	MB/3030F	121693	<0.05							
STANDARD	ICV	QCS19	5.19			5.00	104			
STANDARD	ICV	QC19N	1.04			1.00	104			
STANDARD	LCS	121693	0.97			1.00	97			
SPIKE	MS	934595-003	0.94					<0.05	1.00	94
SPIKE	MS	934606-001	0.97					<0.05	1.00	97
DUPLICATE	MD	934606-001	<0.05	<0.05	NC					
DUPLICATE	MD	934595-003	<0.05	<0.05	NC					

PARAMETER:Selenium (Se), total				DATE/TIME ANALYZED:12/16/93 17:11				QC BATCH NUMBER:967487		
REPORTING LIMIT/DF: 0.05 UNITS:mg/L				METHOD REFERENCE :EPA/200.7				TECHNICIAN:NDF		
BLANK	ICB	121693	<0.05							
BLANK	MB/3030F	121693	<0.05							
STANDARD	ICV	QCS19	5.09			5.00	102			
STANDARD	ICV	QC19N	1.02			1.00	102			
STANDARD	LCS	121693	1.04			1.00	104			
SPIKE	MS	934595-003	1.02					<0.05	1.00	102
SPIKE	MS	934606-001	0.96					<0.05	1.00	96
DUPLICATE	MD	934606-001	<0.05	<0.05	NC					
DUPLICATE	MD	934595-003	<0.05	<0.05	NC					

PARAMETER:Silver (Ag), total				DATE/TIME ANALYZED:12/16/93 17:11				QC BATCH NUMBER:967488		
REPORTING LIMIT/DF: 0.01 UNITS:mg/L				METHOD REFERENCE :EPA/200.7				TECHNICIAN:NDF		
BLANK	ICB	121693	<0.01							
BLANK	MB/3030F	121693	<0.01							
STANDARD	ICV	QCS7	5.14			5.00	103			
STANDARD	ICV	ICAP7	1.04			1.00	104			
STANDARD	LCS	121693	1.00			1.00	100			
SPIKE	MS	934595-003	1.00					<0.01	1.00	100
SPIKE	MS	934606-001	0.94					0.01	1.00	93

3645 Arizona Street
Sulphur, LA 70663
(318) 583-4926

CORE LABORATORIES

QUALITY ASSURANCE REPORT 12/28/93

JOB NUMBER: 934595

CUSTOMER: ECO SOLUTIONS

ATTN: BEN SIEGEL

ANALYSIS				DUPLICATES		REFERENCE STANDARDS		MATRIX SPIKES		
ANALYSIS TYPE	ANALYSIS SUB-TYPE	ANALYSIS I.D.	ANALYZED VALUE (A)	DUPLICATE VALUE (B)	RPD or ([A-B])	TRUE VALUE	PERCENT RECOVERY	ORIGINAL VALUE	SPIKE ADDED	PERCENT RECOVERY
PARAMETER: Silver (Ag), total REPORTING LIMIT/DF: 0.01 UNITS:mg/L				DATE/TIME ANALYZED: 12/16/93 17:11 METHOD REFERENCE :EPA/200.7				QC BATCH NUMBER: 967488 TECHNICIAN: NDF		
DUPLICATE	MD	934606-001	0.01	0	0.01					
DUPLICATE	MD	934595-003	<0.01	<0.01	NC					
PARAMETER: Sodium (Na), total REPORTING LIMIT/DF: 1.0 UNITS:mg/L				DATE/TIME ANALYZED: 12/16/93 17:11 METHOD REFERENCE :EPA/200.7				QC BATCH NUMBER: 967489 TECHNICIAN: NDF		
BLANK	ICB	121693	<1.0							
BLANK	MB/3030F	121693	<1.0							
STANDARD	ICV	QCS7	5			5	100			
STANDARD	ICV	ICAP7	1			1	100			
STANDARD	LCS	121693	11			11	100			
SPIKE	MS	934595-003	117					105	11	109
DUPLICATE	MD	934595-003	105	105	0					
PARAMETER: Pentachlorophenol REPORTING LIMIT/DF: 50 UNITS:ug/kg				DATE/TIME ANALYZED: 12/20/93 11:27 METHOD REFERENCE :SW-846/8270				QC BATCH NUMBER: 967581 TECHNICIAN: DFM		
BLANK	METHOD	SON121793	<50							
STANDARD	SURROGATE	934595-7	221			200	111			
SPIKE	MATRIX	934312-4	80					0	100	80
DUPLICATE	SPIKE/DUP	934312-1	80	81	1					
PARAMETER: Mercury (Hg), total REPORTING LIMIT/DF: 0.002 UNITS:mg/L				DATE/TIME ANALYZED: 12/21/93 16:21 METHOD REFERENCE :EPA/245.1				QC BATCH NUMBER: 967602 TECHNICIAN: HJD		
BLANK	MB/7470	122193	<0.002							
BLANK	TCLP/BLK-1	121493	<0.002							
BLANK	TCLP/BLK-1	121593	<0.002							
BLANK	TCLP/BLK-1	122093	<0.002							
STANDARD	LCS	HGL819	0.005			0.005	100			
STANDARD	REFERENCE	HGL820	0.002			0.002	100			
STANDARD	REFERENCE	HGL821	0.002			0.002	100			
STANDARD	REFERENCE	HGL822	0.002			0.002	100			
STANDARD	REFERENCE	HGL823	0.002			0.002	100			
SPIKE	MS	934595-04	0.006					0.001	0.005	100
SPIKE	MS	934654-01	0.005					0.0	0.005	100
SPIKE	MS	934632-01	0.005					0.0	0.005	100
SPIKE	MS	934663-01	0.005					0.001	0.005	80
DUPLICATE	MD	934595-04	<0.002	<0.002	NC					
DUPLICATE	MD	934654-01	<0.002	<0.002	NC					
DUPLICATE	MD	934632-01	<0.002	<0.002	NC					
DUPLICATE	MD	934663-01	<0.002	<0.002	NC					

3645 Arizona Street
Sulphur, LA 70663
(318) 583-4926

CORE LABORATORIES

QUALITY ASSURANCE FOOTER REPORT DATE

NC = Not Calculable due to values lower than the reporting limit
ND = Analyte Not Detected above the quantitation limit

The detection limit and units reported in the Quality Assurance (QA) Report may not coincide with the values reported in the Analytical Report because the data presented in the QA Report may not account for sample preparation and dilutions performed.

The date and time analyzed on the Quality Assurance Report may not reflect the actual date and/or time of analysis.

Results for soil samples are reported on a wet weight basis (unless otherwise indicated).

Cited Methods are obtained from the following documents:

EPA 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, March 1983
Standard Methods for the Chemical Analysis of Water and Wastewater, 17th Edition, 1989
Federal Register, Friday, October 26, 1984 (40 CFR Part 136)
Standard Methods for the Examination of Water and Wastewater, 16th Edition, 1985

Numerical values expressed in the "LIMITS/*DILUTION" column are Method Quantitation Limits (MQL). A final result of "ND" should be considered as "less than the MQL" (<MQL) unless it is noted otherwise.

SUB CONTRACTED LABORATORY LOCATIONS

Core Laboratories:

Anaheim	* A N
Aurora	* A U
Carrollton	* C R
Casper	* C A
Corpus Christi	* C C
Hollister	* H R
Houston	* H P
Long Beach	* L B
New Orleans	* N O

Other Laboratories:

Saybolt	* 0 1
Caleb Brett	* 0 2
Maxim	* 0 3
Southwestern Labs	* 0 4
Analytichem	* 0 5

For analysis performed by a subcontract laboratory, an "*" and the designated laboratory code is indicated in the "TECHN" column of the laboratory test results report.

3645 Arizona Street
Sulphur, LA 70663
(318) 583-4926

Appendix D

NORM Meter Calibration Certificate

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.

501 OAK ST./PO BOX 810
SWEETWATER, TX 79556
915/235-5494

Ludlum Model 19

CUSTOMER Institute of Gas Technology ORDER NO 200255

Cal. Date 5-22-93 Cal. Due Date 11-22-93 Cal. Interval 6 MO.

Serial No 85934 Meterface 202-527

Check Mark (✓) applies to applicable instrument in accordance with manufacturers specifications.

Temperature 75 °F Relative Humidity 50 % Alt 705.8 mm Hg ☐ New Instrument

☒ Mech. ck. ☒ F/S Resp. ck. ☒ Zero Reset ck. ☒ Audio ck. ☒ Meter Zeroed

☒ Bat. ck. (min volt) 2.2 VDC Instrument Voltage setting 726 V Input sensitivity 39 mV

Repair Instrument Received: ☒ Within Tolerance + -10% ☐ 10-20% ☐ Out Toler. ☐ Requiring Repair

COMMENTS:

RANGE	REFERENCE CAL POINT	INSTRUMENT METER READING*	INSTRUMENT REC'D "AS FOUND READING"
5000	4000 uR/hr	<u>4,000</u>	<u>4,000</u>
5000	1000 uR/hr	<u>1,050</u>	<u>1,050</u>
500	400 uR/hr $\approx$ 7.14 K cpm	<u>400</u>	<u>400</u>
500	100 uR/hr $\approx$ 1.78 K "	<u>105</u>	<u>105</u>
250	200 uR/hr $\approx$ 34.6 K "	<u>200</u>	<u>200</u>
250	100 uR/hr $\approx$ 17.3 K "	<u>110</u>	<u>110</u>
50	7.14 K cpm	<u>40</u>	<u>40</u>
50	1.78 K "	<u>10</u>	<u>10</u>
25	3.46 K "	<u>20</u>	<u>20</u>
25	1.73 K "	<u>10</u>	<u>10</u>

Ranges Calibrated Electronically: 50, 25

*Uncertainty Within + -10%, C. F. Within + -20%

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of MIL. STD 45662A and ANSI N323- 1978.

Source used: ¹³⁷Cesium 1.9 mCi s/n M565

TX License No. LO 1963

Model 500 s/n 57885 Oscilloscope s/n 0060519 Multimeter s/n

Calibrated by: Bill Henson Date 5-22-93

Reviewed by: Debbie Dillmore Date 5-23-93

Section 6.0

Plug and Abandonment of Geothermal Wells

FIGURE 1-1

EOC/DOE Pleasant Bayou Test Site Brazoria County, Texas

• From EATON OFFICE:

Take Interstate Highway (IH) 10 east to Loop 610. Turn right (SOUTH) on Loop 610 and follow around (EAST) to State Highway (SH) 288. Turn right (SOUTH) on SH-288 and follow to SH-6. Turn left (SOUTHEAST) on SH-6 and follow to SH-35. Turn right (SOUTH) on SH-35 and follow to Farm-to-Market road (FM) 2403. Turn left (SOUTH) on FM-2403 and follow to FM-2917. Turn left (SOUTHEAST) on FM 2917 and follow road 3.2 miles past the railroad tracks to gravel road on right. (NOTE: The gravel road is immediately preceded by a culvert bridge). Two location identification signs are posted at the entrance to the gravel road and are labeled: "U.S. DOE/EATON GEOPRESSURED-GEOTHERMAL TEST SITE". The gravel road extends approximately 3 miles, terminating at well location.

Map Inset

FIGURE 1-2

JUN 28 1993

CC: IFB No. PB-00-5-22

Form W-3A

Rev. 1/1/83
483-024

CEMENT DIV.

BROAD COMMISSION OF TEXAS
Oil and Gas Division

Type or print only

Notice of Intention to Plug and Abandon

Operators must comply with RRC plugging procedures as outlined on the reverse side.

1. Operator's Name and Address (Exactly as shown on Form P-5, Organization Report)		3. RRC District No.	4. County of Well Site
Eaton Operating Company 1240 Blalock Suite 100 Houston, Texas 77055		03	Brazoria
		5. API No.	6. Drilling Permit No.
		42-0393/358	
7. Rule 37 Case No.		8. Oil Lease No. or Gas Well ID No.	9. Well No.
		097607	2
10. RRC Operator Number <u>239765</u>			

Field Name (Exactly as shown on RRC records)		11. Lease Name	
Pleasant Bayou (FRIO - GEOTHERMAL)		Pleasant Bayou	
Location			
Section No. _____ Block No. _____		Survey <u>PEERY & AUSTIN S. LEAGUE</u> No. _____ Abstract No. <u>A-107</u>	
Distance (in miles) and direction from a nearby town in this county (name the town). <u>12 mi S/ALVIN</u>			

Type of well		14. Type of completion	15. Total depth
1 - oil 3 - disposal 5 - other (specify) _____ 2 - gas 4 - injection Enter appropriate no. in box ☒ 2		Single ☒ Multiple ☐	16,500'
Usable-quality water strata (as determined by Texas Dept. of Water Resources) occur to a depth of <u>1300</u> feet and in deeper strata from <u>725</u> to <u>900</u> feet and from <u>0</u> to <u>200</u> feet			

• If there are wells in this area which are producing from or have produced from a shallower zone, state depth of zone _____

• If there are wells into which salt water is being or has been disposed of into a shallower zone, state depth of zone _____

Casing record (list all casing in well)					Top of cement determined by:			Anticipated casing recovery (feet)
Depth	Cement (sacks)	Drilled hole size	Top of cement (feet)	Temper. Survey	Calculated	Cement bond log		
25' set o <u>94' Dev</u> w/		Driven		☐	☐	☐	4	
20' set o <u>1395</u> w/	<u>1800</u>		<u>SURF</u>	☐	☐	☐	4	
13 3/8' set o <u>8488</u> w/	<u>3600</u>	17 1/2	✓	☐	☐	☐	4	
9 5/8' set o <u>14284</u> w/	<u>1625</u>	12 1/4		☐	☐	☐	5,000'	
5 1/2' set o <u>13,967</u> w/		8 3/4		☐	☐	☐	8,000'	

Has notice of intent to plug been filed previously for this well?

☒ Yes 1/1 mo. 1 day 1 yr. ☐ No

Record of perforated intervals or open hole				No. of sacks		Depth in feet (top & bottom)	
Perforations	Open	Plugged	Plugging method				
<u>14,644 - 14,704</u>	☐	☐		1. <u>50</u>	<u>14,704-14,576</u>		
	☐	☐		2. <u>240</u>	<u>13,969-13,769</u>		
	☐	☐		3. <u>25</u>	<u>8,050-7,950</u>		
	☐	☐		4. <u>140</u>	<u>5,100-4,900</u>		
	☐	☐		5. <u>50</u>	<u>55-5</u>		
Open Hole	☐	☐		6. <u>115</u>	<u>1400-1252</u>		
	☐	☐		7. <u>20</u>	<u>450-852</u>		
	☐	☐		8. <u>80</u>	<u>775-675</u>		
	☐	☐		<u>80</u>	<u>250-150</u>		

Name and address of cementing company or contractor

23. Anticipated plugging date for this well is: 6/25/93 mo. day yr.

Signature of operator's representative: Becky Addison Date: 6/21/93

Signature of person: Becky Addison

RRC District Office Action

Expiration date

12251993June1993199319931993199319931993199319931993199319931993199319931993199319931993

DEPTH OF USABLE-QUALITY GROUND WATER TO BE PROTECTED

4453

PLEASE READ ALL INSTRUCTIONS

The information requested is essential in order for this agency to provide an appropriate response. Please allow for receipt of this form in our offices at least one week before your operation begins. Due to the volume of these requests, it is difficult for us to handle telephone inquiries, and such only serve to delay the processing of these forms. Complete, keep the bottom sheet (yellow) for your files, and mail the top 3 sheets of the 4-sheet set of carbon-backed forms to the address below; one of them will be returned to you bearing our response and one will be sent to the appropriate district office of the Railroad Commission. For questions phone: 512/463-8003.

Surface Casing
Texas Water Commission
P.O. Box 13087
Austin, TX 78711-3087

Date 6-21-93

TWC File No.: SC-

Becky Addison 318-261-0295

Name of person preparing this request & telephone no. w/AC

Eaton Operating Company

Company (operator's name as on RRC form W-1)
1240 Blalock Suite 100

Mailing Address
Houston, TX 77055

City and State Zip Code

Do not write in this space

75 1300, 200, 20, 725, 900

COUNTY Brazoria Survey Name Perry & Austin League
Block No. Township Section or Survey No. (or) Lot No.
Abstract No. A- 107 LEASE Name Pleasant Bayou #2 Well No. 2

A map showing all surrounding SURVEYS and your well site must accompany this request.

Distances, in feet, and directions measured at right angles from each of two intersecting Section or Survey lines (NOT LEASE LINES) feet from line and feet from line
Distance (in miles) and direction from a nearby town in this County (name the town).
11 Miles South of Alvin

THE ABOVE INFORMATION IN THIS BLOCK MUST BE COMPLETE AND CORRECT!!!

RRC Lease No. 097607 RRC Dist. No. 03

Elevation (if avail.) Proposed Total Depth 10,465 Geologic Fm. at T.D. 14,704

Purpose of the Request: ☐ New Drill ☐ Re-entry ☒ Plug & Abd. ☐ Other (specify)

Is this an amended request? ☐ Yes ☒ No Give previous file No. for this well: SC-

Additional data (check if attached):

Log of same or nearby well (The applicable type of well log of a nearby well that shows the aquifers.)

ALWAYS attach the electric log of any well that is to be reentered.

Additional remarks:

CO. BRAZORIA SUR. PERRY & AUSTIN LIG. PLEASANT BAYOU #2 A-107 #75/1300-200 ZONE 725-900
The TEXAS WATER COMMISSION'S recommendation for the protection of usable-quality ground water at the referenced location is as follows:

The base of usable-quality water that must be protected is estimated to occur at a depth of 1300 feet below the land surface. Moreover, the interval from the land surface to a depth of 200 feet and the fresh water contained in the ZONE from a depth of 725 feet to 900 feet must be isolated from water in underlying and overlying beds.

Steven L. White

Steven L. White

Very truly yours,

RECEIVED

June 23, 1993

JUN 28 1993

Geologist, Surface Casing, TWC

PROCUREMENT DIV.

Date typed by TWC

NOTE: The depth to which we recommend that usable-quality water strata should be protected is intended to apply only to the subject well and not for area-wide use. Approval of the well-completion methods for protection of this ground water falls under the jurisdiction of the Railroad Commission of Texas. This

ORIGINAL TELETYPE FILE
FAXED/COPIED - PAW DRUG
cc: IFA No. PA-93-3-22

TYPE OR PRINT IN INK

DO NOT WRITE HERE
FOR TWC USE ONLY

RAILROAD COMMUNICATIONS
Oil and Gas Division

Notice of Intention to Plug and Abandon

Operators must comply with RRC plugging procedures as outlined on the reverse side.

Type or print only

Operator's Name and Address (Exactly as shown on Form P-5, Organization Report)		3. RRC District No.	4. County of Well Site																																													
Eaton Operating Company 1240 Blalock Suite 100 Houston, Texas 77055		03	Brazoria																																													
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		42-03931236																																														
10. Field Name (Exactly as shown on RRC records)		7. Rule 37 Case No.	8. Oil Lease No. or Gas Well ID No.																																													
Pleasant Bayou (Frio - GEDTHERMAL)			097606																																													
11. Lease Name		9. Well No.																																														
Pleasant Bayou #1 SWD		1																																														
12. Location		13. Type of well																																														
Section No. Block No. Survey <u>Perry + Austin League</u> No. <u>12 mi S/Alvin</u> Abstract No. <u>A-107</u>		1 - oil 3 - disposal 5 - other (specify) <u>2</u>																																														
Distance (in miles) and direction from a nearby town in this county (name the town).		14. Type of completion																																														
		Single ☒ Multiple ☐																																														
15. Usable-quality water strata (as determined by Texas Dept. of Water Resources) occur to a depth of <u>1300</u> feet and in deeper strata from <u>0</u> to <u>200</u> feet and from <u>725</u> to <u>900</u> feet		15. Total depth <u>15,676</u>																																														
16. If there are wells in this area which are producing from or have produced from a shallower zone, state depth of zone		17. If there are wells into which salt water is being or has been disposed of into a shallower zone, state depth of zone																																														
18. Casing record (List all casing in well)		Top of cement determined by:																																														
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☐	☐	☐																																														
☐	☐	☐																																														
19. Has notice of intent to plug been filed previously for this well?		20. Plugging proposal (List all bridge and cement plugs. Load the hole with at least 9.5 lbs. per gallon mud.)																																														
☒ Yes <u>1/1</u> mo. day yr. ☐ No		<table border="1"> <thead> <tr> <th>No. of sacks</th> <th>Depth in feet (top & bottom)</th> </tr> </thead> <tbody> <tr> <td>1. 150</td> <td>5950-6050</td> </tr> <tr> <td>2. 75</td> <td>750-750</td> </tr> <tr> <td>3. 25</td> <td>55-55</td> </tr> <tr> <td>4. 50</td> <td>1380-1250</td> </tr> <tr> <td>5. 105</td> <td>950-675</td> </tr> <tr> <td>6.</td> <td></td> </tr> <tr> <td>7.</td> <td></td> </tr> <tr> <td>8.</td> <td></td> </tr> </tbody> </table>		No. of sacks	Depth in feet (top & bottom)	1. 150	5950-6050	2. 75	750-750	3. 25	55-55	4. 50	1380-1250	5. 105	950-675	6.		7.		8.																												
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	☐	☐																																														
Open Hole	☐	☐																																														
22. Name and address of cementing company or contractor																																																

RECEIVED
JUN 1 1993
RRC OF TEXAS
OG
HOUSTON, TX
6819

Becky Addison
Typed or printed name of operator's representative
313-261-0295
Telephone: Area Code Number
6/21/93
Date: mo. day yr.

Camp Eng.
Type of person
Becky Addison
Signature

RRC District Office Action
Helene Joseph
District Director
6/25/93
Date

Expiration date 12/25/93
mo. day yr.

DEPTH OF USABLE-QUALITY GROUND WATER TO BE PROTECTED

7132

PLEASE READ ALL INSTRUCTIONS

The information requested is essential in order for this agency to provide an appropriate response. Please allow for receipt of this form in our offices at least one week before your operation begins. Due to the volume of these requests, it is difficult for us to handle telephone inquiries, and such only serve to delay the processing of these forms. Complete, keep the bottom sheet (yellow) for your files, and mail the top 3 sheets to the address below; one of them will be returned to you bearing our response and one will be sent to the appropriate district office of the Railroad Commission. For questions phone: 512/463-8003.

Surface Casing
Texas Water Commission
P.O. Box 13087
Austin, TX 78711-3087

Date 6-21-93

TWC File No.: SC-

4452

Becky Addison 318-261-0295

Name of person preparing this request & telephone no. w/AC

Eaton Operating Company

Company (operator's name as on RRC form W-1)
1240 Blalock Suite 100

Mailing Address

Houston, TX 77055

City and State

Zip Code

Do not write in this space

(75) 1300, 200, ZONE, 725, 900

COUNTY Brazoria

Survey Name Perry & Austin League

Block No. _____

Township _____

Section or Survey No. _____

(or) Lot No. _____

Abstract No. A- 107

LEASE Name Pleasant Bayou #1 SWD

Well No. 1

A map showing all surrounding SURVEYS and your well site must accompany this request.

Distances, in feet, and directions measured at right angles from each of two intersecting Section or Survey lines
(NOT LEASE LINES) 11744 feet from NE line and 1079 feet from FWW line

Distance (in miles) and direction from a nearby town in this County (name the town).
11 Miles South of Alvin

THE ABOVE INFORMATION IN THIS BLOCK MUST BE COMPLETE AND CORRECT!!!

RRC Lease No. 097606

RRC Dist. No. 03

Elevation (if avail.) _____

Proposed Total Depth 15,676

Geologic Fm. at T.D. _____

Purpose of the Request: ☐ New Drill ☐ Re-entry ☒ Plug & Abd. ☐ Other (specify) _____

Is this an amended request? ☐ Yes ☒ No

Give previous File No. for this well: SC- _____

Additional data (check if attached):

Log of same or nearby well _____ (The applicable type of well log of a nearby well that shows the aquifers.)

ALWAYS attach the electric log of any well that is to be reentered.

Additional remarks: _____

SUR-PERRY & AUSTIN, LSE-PLEASANT BAYOU 1 SWD, A-107, #75/1300, 200, ZONE, 725, 9

The TEXAS WATER COMMISSION'S recommendation for the protection of usable-quality ground water at the referenced location is as follows:

The base of usable-quality water that must be protected is estimated to occur at a depth of 1300 feet below the land surface. Moreover, the interval from the land surf to a depth of 200 feet and the fresh water contained in the ZONE from a depth of 725 feet to 900 feet must be isolated from water in underlying and overlying beds.

Steven L. White

Very truly yours,
Steven L. White

RECEIVED

June 23, 1993

JUN 28 1993

Geologist, Surface Casing, TWC

Date _____

Typed by TWC

PROCUREMENT DIV.

NOTE: The depth to which we recommend that usable-quality water strata should be protected is intended to apply only to the subject well and not for area-wide use. Approval of the well-completion methods for protection of this ground water falls under the jurisdiction of the Railroad Commission of Texas. This recommendation is not intended to be a substitute for the protection of the ground water in the area of the well.

cc: TWC No. AB-93-3-22

TYPE OR PRINT IN INK

FOR TWC USE ONLY

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

API NO. 42-03931236 (if available)				1. RRC District 03	
FILE IN DUPLICATE WITH DISTRICT OFFICE OF DISTRICT IN WHICH WELL IS LOCATED WITHIN THIRTY DAYS AFTER PLUGGING				4. RRC Lease or Id. Number 097606	
2. FIELD NAME (as per RRC Records) Pleasant Bayou (Frio-Geothermal)		3. Lease Name Pleasant Bayou #1 SWD		5. Well Number 1	
6. OPERATOR DEO / Eaton Operator Co.		6a. Original Form W-1 Filed in Name of:		10. County Brazoria	
7. ADDRESS P.O. Box 1625; Idaho Falls, ID 83415		6b. Any Subsequent W-1's Filed in Name of:		11. Date Drilling Permit Issued	
8. Location of Well, Relative to Nearest Lease Boundaries of Lease on which this Well is Located		Feet From _____ Line and _____ Feet From _____ Line of the _____ Lease _____		12. Permit Number	
9a. SECTION, BLOCK, AND SURVEY Perry & Austin League A-107		9b. Distance and Direction From Nearest Town in this County 12 Miles South of Alvin		13. Date Drilling Commenced	
16. Type Well (Oil, Gas, Dry) Gas	Total Depth 15,676	17. If Multiple Completion List All Field Names and Oil Lease or Gas ID No.'s Single		14. Date Drilling Completed	
18. If Gas, Amt. of Cond. on Hand at time of Plugging		GAS ID or OIL LEASE # _____ OIL - O _____ Gas - G _____ WELL # _____		15. Date Well Plugged 1/3/94	

CEMENTING TO PLUG AND ABANDON DATA:	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
*19. Cementing Date	12/27/93	12/29/93	12/29/93	12/30/93				
20. Size of Hole or Pipe in which Plug Placed (inches)	13 3/8	9 5/8	9 5/8	9 5/8				
21. Depth to Bottom of Tubing or Drill Pipe (ft.)	6060	1380	950	430				
*22. Sacks of Cement Used (each plug)	150	50	115	160				
*23. Slurry Volume Pumped (cu. ft.)	106.00	53	121.90	169.60				
*24. Calculated Top of Plug (ft.)	5950	1250	650	5				
Measured Top of Plug (if tagged) (ft.)								
25. Slurry Wt. # /Gal.	16.4	16.4	16.4	16.4				
*27. Type Cement	CLASS H	CLASS H	CLASS H	CLASS H				

28. CASING AND TUBING RECORD AFTER PLUGGING					29. Was any Non-Drillable Material (Other than Casing) Left in This Well? ☐ Yes ☒ No	
SIZE	WT. #/FT.	PUT IN WELL (ft.)	LEFT IN WELL (ft.)	HOLE SIZE (in.)	29a. If answer to above is "Yes" state depth to top of "junk" left in hole and briefly describe non-drillable material. (Use Reverse Side of Form if more space is needed.)	
13 3/8	72	8481	8476	17 1/2		
9 5/8	45.50	5990	5985	12 1/4		
26		48'	43	Driver		
20"		1314	1314	Surf		

30. LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS					
FROM	6060	TO	6538	FROM	TO
FROM		TO		FROM	TO
FROM		TO		FROM	TO
FROM		TO		FROM	TO
FROM		TO		FROM	TO

I have knowledge that the cementing operations, as reflected by the information found on this form, were performed as indicated by such information.

• Designates items to be completed by Cementing Company. Items not so designated shall be completed by Operator.

Roughan Toubert
 Signature of Cementor or Authorized Representative

Paw Drilling & Well Serv., Inc.
 Name of Cementing Company

CERTIFICATE:

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

David W. Munson
 REPRESENTATIVE OF COMPANY

CONTRACTING OFFICER 2-22-94
 TITLE DATE

Phone 208 526-5742
 A/C NUMBER

SIGNATURE: REPRESENTATIVE OF RAILROAD COMMISSION

31. Was Well filled with Mud-Laden Fluid, according to the regulations of the Railroad Commission? ☒ Yes ☐ No		32. How was Mud Applied? <div style="text-align: center;">Thru Tubing</div>	33. Mud Weight <div style="text-align: center;">9.6 LBS/G</div>
34. Total Depth <div style="text-align: center;">15,676</div>	Other Fresh Water Zones by T.D.W.R. <div style="display: flex; justify-content: space-between;"> <div>TOP</div> <div>BOTTOM</div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">Depth of Deepest Fresh Water</div> <div style="width: 45%;"></div> </div>	35. Have all Abandoned Wells on this Lease been Plugged according to RRC Rules? ☒ Yes ☐ No	
36. If NO, Explain			
37. Name and Address of Cementing or Service company who mixed and pumped cement plugs in this well PAW Drilling & Well Serv. Inc. 101 Galbert Rd. Lafayette, la 70506			Date RRC District Office notified of plugging <div style="text-align: center;">6-25-93</div>
38. Names and Addresses of Surface Owner of Well Site and Operators of Offset Producing Leases <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div>			
39. Was Notice Given Before Plugging to Each of the Above? <div style="text-align: center;">YES</div>			
FILL IN BELOW FOR DRY HOLES ONLY			
40. For Dry Holes, this Form must be accompanied by either a Driller's, Electric, Radioactivity or Acoustical/Sonic Log or such Log must be released to a Commercial Log Service.			
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;"> ☐ Log Attached </div> <div style="width: 45%;"> ☐ Log released to _____ Date _____ </div> </div>			
Type Logs:			
<div style="display: flex; justify-content: space-around; align-items: center;"> ☐ Driller's ☐ Electric ☐ Radioactivity ☐ Acoustical/Sonic </div>			
41. Date FORM P-8 (Special Clearance) Filed?			
42. Amount of Oil produced prior to Plugging _____ bbls*			
* File FORM P-1 (Oil Production Report) for month this oil was produced			
RRC USE ONLY			
Nearest Field _____			

 REMARKS _____

CEMENTING TO PLUG AND ABANDON	PLUG # 1	PLUG # 2	PLUG # 3	PLUG # 4	PLUG # 5	PLUG # 6	PLUG # 7	PLUG # 8
23. Cementing date	12/27/93	12/29/93	12/29/93	12/30/93				
24. Size of hole or pipe plugged (in.)	13 3/8	9 5/8	9 5/8	9 5/8				
25. Depth to bottom of tubing or drill pipe (ft.)	6060	1380	950	430				
26. Sacks of cement used (each plug)	150	50	115	160				
27. Slurry volume pumped (cu. ft.)	106.00	53	121.90	169.60				
28. Calculated top of plug (ft.)	5050	1250	650	5				
29. Measured top of plug, if tagged (ft.)								
30. Slurry wt. (lbs/gal)	16.4	16.4	16.4	16.4				
31. Type cement	CLASS H	CLASS H	CLASS H	CLASSH				

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Douglas Touchet PAW Drilling Douglas Touchet
Name and title of cementer's representative Cementing Company Signature
101 Gilbert Rd Lafayette LA 70506 318-261-0295 1-3-94
Address City, State, Zip Code Tel.: Area Code Number Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

DAVID W. NEWNAM CONTRACTING OFFICER David W. Newnam
Typed or printed name of operator's representative Title Signature
5 DOE Place Idaho Falls, ID 83401 (208)526-5742 2 22 94
Address City, State, Zip Code Tel.: Area Code Number Date: mo. day yr.

Instructions to Form W-15, Cementing Report

IMPORTANT: Operators and cementing companies must comply with the requirements of the Commission's Statewide Rules 8 (Water Protection), 13 (Casing, Cementing, Drilling, and Completion), and 14 (Well Plugging). For offshore operations, see the requirements of Rule 13 (c).

A. What to file. An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form. Form W-15 should be filed with the following:

- An initial oil or gas completion report, Form W-2 or G-1, as required by Statewide or special field rules;
- Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
- Form W-3, Plugging Record, unless the W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. Where to file. The appropriate Commission District Office for the county in which the well is located.

C. Surface casing. An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Texas Department of Water Resources, Austin. Before drilling a well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable rules, an operator must obtain a letter from the Department of Water Resources stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

D. Centralizers. Surface casing must be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. In nondeviated holes, a centralizer must be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar. All centralizers must meet API specifications.

E. Exceptions and alternative casing programs. The District Director may grant an exception to the requirements of Statewide Rule 13. In a written application, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. An operator must obtain approval of any exception before beginning casing and cementing operations.

F. Intermediate and production casing. For specific technical requirements, operators should consult Statewide Rule 13 (b) (3) and (4).

G. Plugging and abandoning. Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement plugs. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three feet below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, plus ten percent for each 1,000 feet of depth from the ground surface to the bottom of the plug.

To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

Cementers: Fill in shaded areas.
Operator: Fill in other items.

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

Operator's Name (As shown on Form P-5, Organization Report) DEO/EATON OPERATOR CO.	2. RRC Operator No. 097606	3. RRC District No. 03	4. County of Well Site BRAZORIA
Field Name (Wildcat or exactly as shown on RRC records) SANT BAYOU (FRIO-GEOTHERMAL)	6. API No. 42- 03931236		7. Drilling Permit No.
Lease Name PLEASANT BAYOU #1 SWD	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No. 1

USING CEMENTING DATA:		SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Tool	Shoe
1. Cementing Date							
2. *Drilled hole size							
3. *Est. % wash or hole enlargement							
4. Size of casing (In. O.D.)							
5. Top of liner (ft.)							
6. Setting depth (ft.)							
7. Number of centralizers used							
8. Hrs. waiting on cement before drill-out							
1st Slurry	19. API cement used: No. of sacks ▶						
	Class ▶						
	Additives ▶						
2nd Slurry	No. of sacks ▶						
	Class ▶						
	Additives ▶						
3rd Slurry	No. of sacks ▶						
	Class ▶						
	Additives ▶						
1st	20. Slurry pumped: Volume (cu. ft.) ▶						
	Height (ft.) ▶						
2nd	Volume (cu. ft.) ▶						
	Height (ft.) ▶						
3rd	Volume (cu. ft.) ▶						
	Height (ft.) ▶						
	Volume (cu. ft.) ▶						
	Height (ft.) ▶						
Was cement circulated to ground surface or bottom of cellar outside casing?							

Remarks

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

API NO. 42-03931358 (if available)						1. RRC District 03	
FILE IN DUPLICATE WITH DISTRICT OFFICE OF DISTRICT IN WHICH WELL IS LOCATED WITHIN THIRTY DAYS AFTER PLUGGING							
2. FIELD NAME (as per RRC Records) PLEASANT BAYOU (FRIO-GEOTHERMAL)				3. Lease Name PLEASANT BAYOU		4. RRC Lease or Id. Number 097607	
6. OPERATOR DEO / EATON OPERATING CO.				6a. Original Form W-1 Filed in Name of:		5. Well Number 2	
7. ADDRESS P.O. BOX 1625 IDAHO FALLS, ID 83415				6b. Any Subsequent W-1's Filed in Name of:		10. County BRAZORIA	
8. Location of Well, Relative to Nearest Lease Boundaries of Lease on which this Well is Located				Feet From _____ Line and _____ Feet From _____ Line of the _____ Lease		11. Date Drilling Permit Issued	
9a. SECTION, BLOCK, AND SURVEY PERRY & AUSTIN A-107				9b. Distance and Direction From Nearest Town in this County 12 MILES SOUTH OF ALVIN		12. Permit Number	
16. Type Well (Oil, Gas, Dry) GAS		Total Depth 16,500		17. If Multiple Completion List All Field Names and Oil Lease or Gas ID No.'s SINGLE GAS ID or OIL LEASE # _____ Oil - O Gas - G _____ WELL # _____		13. Date Drilling Commenced	
18. If Gas, Amt. of Cond. on Hand at time of Plugging						14. Date Drilling Completed	
						15. Date Well Plugged 12/21/93	

CEMENTING TO PLUG AND ABANDON DATA:	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
*19. Cementing Date RJ	12/2/93	12/14/93	12/20/93	12/21/93	12/21/93	12/23/93	12/21/93	
20. Size of Hole or Pipe in which Plug Placed (inches)	7 & 5/2	5 1/2	9 5/8	9 5/8	9 5/8	9 5/8	9 5/8	
21. Depth to Bottom of Tubing or Drill Pipe (ft.)	14,704	8780	5100	1450	1100	775	250	
*22. Sacks of Cement Used (each plug)	300	70	100	100	70	80	150	
*23. Slurry Volume Pumped (cu. ft.)	432	74.20	106.00	106.00	74.20	84.80	159.00	
*24. Calculated Top of Plug (ft.)	12,230	8580	4900	1250	900	675	5	
25. Measured Top of Plug (if tagged) (ft.)								
*26. Slurry Wt. #/Gal.	15.6	16.4	16.4	16.4	16.4	16.4	16.4	
Type Cement	CLASS H	CLASS H	CLASS H	CLASS H	CLASS H	CLASS H	CLASS H	

28. CASING AND TUBING RECORD AFTER PLUGGING					29. Was any Non-Drillable Material (Other than Casing) Left in This Well ☐ Yes ☒ No	
SIZE	WT. #/FT.	PUT IN WELL (ft.)	LEFT IN WELL (ft.)	HOLE SIZE (in.)	29a. If answer to above is "Yes" state depth to top of "junk" left in hole and briefly describe non-drillable material. (Use Reverse Side of Form if more space is needed.)	
20		1395	1390	SURF		
13 3/8		8488	8483	17 1/2		
9 5/8	54.50	14284	14279	12 1/4		
5 1/2	20	13967	4987	8 3/4		

30. LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS			
FROM	14644	TO	14704
FROM		TO	
FROM		TO	
FROM		TO	
FROM		TO	
FROM		TO	

I have knowledge that the cementing operations, as reflected by the information found on this form, were performed as indicated by such information.

• Designates items to be completed by Cementing Company. Items not so designated shall be completed by Operator.

Douglas Touchet
Signature of Cementer or Authorized Representative

PAW DRILLING & WELL SERVICE, INC.
Name of Cementing Company

CERTIFICATE:

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

David L. Munson
REPRESENTATIVE OF COMPANY

Contracting Officer
TITLE

3/22/94
DATE

Phone 208 526-5742
A/C NUMBER

SIGNATURE: REPRESENTATIVE OF RAILROAD COMMISSION

31. Was Well filled with Mud-Laden Fluid, according to the regulations of the Railroad Commission ☒ Yes ☐ No		32. How was Mud Applied? THRU TUBING		33. Mud Weight 10' LB/7GAL	
34. Total Depth 16,500 Depth of Deepest Fresh Water 1300'	Other Fresh Water Zones by T.D.W.R. TOP _____ BOTTOM _____ _____ _____ _____		35. Have all Abandoned Wells on this Lease been Plugged according to RRC Rules? ☒ Yes ☐ No 36. If NO, Explain _____ _____ _____		
37. Name and Address of Cementing or Service company who mixed and pumped cement plugs in this well PAW DRILLING & WELL SERVICE, INC. 101 GILBERT RD LAFAYETTE, LA 70506				Date RRC District Office notified of plugging 6/25/93	
38. Names and Addresses of Surface Owner of Well Site and Operators of Offset Producing Leases U.S. Department Of Energy 785 DOE Place Idaho Falls, ID 83401 _____ _____ _____					
39. Was Notice Given Before Plugging to Each of the Above? YES					
FILL IN BELOW FOR DRY HOLES ONLY					
40. For Dry Holes, this Form must be accompanied by either a Driller's, Electric, Radioactivity or Acoustical/Sonic Log or such Log must be released to a Commercial Log Service. <div style="display: flex; justify-content: space-between;"> ☐ Log Attached ☐ Log released to _____ Date _____ </div> Type Logs: <div style="display: flex; justify-content: space-around;"> ☐ Driller's ☐ Electric ☐ Radioactivity ☐ Acoustical/Sonic </div>					
41. Date FORM P-8 (Special Clearance) Filed? _____					
42. Amount of Oil produced prior to Plugging _____ bbls* * File FORM P-1 (Oil Production Report) for month this oil was produced					
RRC USE ONLY Nearest Field _____					

 REMARKS _____

CEMENTING TO PLUG AND ABANDON	PLUG # 1	PLUG # 2	PLUG # 3	PLUG # 4	PLUG # 5	PLUG # 6	PLUG # 7	PLUG # 8
23. Cementing date	12/2/93	12/14/93	12/20/93	12/21/93	12/21/93	12/21/93	12/21/93	
24. Size of hole or pipe plugged (in.)	7 & 5/2	5 1/2	9 5/8	9 5/8	9 5/8	9 5/8	9 5/8	
Depth to bottom of tubing or drill pipe (ft.)	14,704	8780	5100	1450	1100	775	250	
Backs of cement used (each plug)	300	70	100	100	70	80	100	
27. Slurry volume pumped (cu. ft.)	432	74.20	106.00	106.00	74.20	84.80	159.00	
28. Calculated top of plug (ft.)	12,230	8580	4900	1250	900	675	5	
29. Measured top of plug. If tagged (ft.)								
30. Slurry wt. (lbs/gal)	15.6	16.4	16.4	16.4	16.4	16.4	16.4	
31. Type cement	CLASS H	CLASS H	CLASS H	CLASS H	CLASS H	CLASS H	CLASS H	

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

DOUGLAS TOUCHET

PAW DRILLING & WELL SERV., INC.

Name and title of cementer's representative

Cementing Company

Signature

101 CALBERT RD

LAFAYETTE, IA 70506

(318) 261-0295

JAN 11, 1994

Address

City

State

Zip Code

Tel.: Area Code Number

Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

David W. Newnam

CONTRACTING OFFICER

Signature

Typed or printed name of operator's representative

Title

785 DOE Place

Idaho Falls, ID 83401

208-526-5742

3/22/94

Address

City

State

Zip Code

Tel.: Area Code Number

Date: mo. day yr.

Instructions to Form W-15, Cementing Report

IMPORTANT: Operators and cementing companies must comply with the requirements of the Commission's Statewide Rules 8 (Water Protection), 13 (Casing, Cementing, Drilling, and Completion), and 14 (Well Plugging). For offshore operations, see the requirements of Rule 13 (c).

A. What to file. An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form. Form W-15 should be filed with the following:

- An initial oil or gas completion report, Form W-2 or G-1, as required by Statewide or special field rules;
- Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
- Form W-3, Plugging Record, unless the W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. Where to file. The appropriate Commission District Office for the county in which the well is located.

C. Surface casing. An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Texas Department of Water Resources, Austin. Before drilling a well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable rules, an operator must obtain a letter from the Department of Water Resources stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

D. Centralizers. Surface casing must be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. In nondeviated holes, a centralizer must be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar. All centralizers must meet API specifications.

E. Exceptions and alternative casing programs. The District Director may grant an exception to the requirements of Statewide Rule 13. In a written application, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. An operator must obtain approval of any exception before beginning casing and cementing operations.

F. Intermediate and production casing. For specific technical requirements, operators should consult Statewide Rule 13 (b) (3) and (4).

G. Plugging and abandoning. Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three feet below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, plus ten percent for each 1,000 feet of depth from the ground surface to the bottom of the plug.

To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

Cementier: Fill in shaded areas.
Operator: Fill in other items.

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

Operator's Name (As shown on Form P-5, Organization Report) DEO / EATON OPERATING CO.	2. RRC Operator No. 239765	3. RRC District No. 03	4. County of Well Site BRAZORIA
Field Name (Wildcat or exactly as shown on RRC records) PLEASANT BAYOU (FRIO-GEOTHERMAL)		6. API No. 42-03931358	7. Drilling Permit No. 2
Well Name PLEASANT BAYOU	9. Rule 37 Case No.	10. Oil Lease/Gas ID No. 097607	11. Well No. 2

USING CEMENTING DATA:	SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
			Single String	Multiple Parallel Strings	Tool	Shoe
1. Cementing Date						
• Drilled hole size						
• Est. % wash or hole enlargement						
2. Size of casing (In. O.D.)						
• Top of liner (ft.)						
• Setting depth (ft.)						
• Number of centralizers used						
• Hrs. waiting on cement before drill-out						
19. API cement used: No. of sacks ▶						
Class ▶						
Additives ▶						
No. of sacks ▶						
Class ▶						
Additives ▶						
No. of sacks ▶						
Class ▶						
Additives ▶						
20. Slurry pumped: Volume (cu. ft.) ▶						
Height (ft.) ▶						
Volume (cu. ft.) ▶						
Height (ft.) ▶						
Volume (cu. ft.) ▶						
Height (ft.) ▶						
Volume (cu. ft.) ▶						
Height (ft.) ▶						
Was cement circulated to ground surface (or bottom of cellar) outside casing?						

Remarks

OVER

CEMENTING TO PLUG AND ABANDON	PLUG # 1	PLUG # 2	PLUG # 3	PLUG # 4	PLUG # 5	PLUG # 6	PLUG # 7	PLUG # 8
23. Cementing date	12/2/93							
24. Size of hole or pipe plugged (in.)	7 & 5 1/2							
25. Depth to bottom of tubing or drill pipe (ft.)	14,704							
26. Sacks of cement used (each plug)	300							
27. Slurry volume pumped (cu. ft.)	432							
28. Calculated top of plug (ft.)	12177							
29. Measured top of plug, if tagged (ft.)								
30. Slurry wt. (lbs/gal)	15.6							
31. Type cement	H+35% S-8+1.3% FL-25+1.2% R-8							

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

SERGIO GONZALEZ-SERVICE SUPERVISOR

BJ SERVICES CO.

Sergio Gonzalez

Name and title of cementer's representative

Cementing Company

Signature

2608 PLAINVIEW, P.O. BOX 3630, VICTORIA TX 77903

512-575-6446

12/02/93

Address

City,

State, Zip Code

Tel: Area Code Number

Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

David W. Newnam

CONTRACTING OFFICER

David W. Newnam

or printed name of operator's representative

Title

Signature

785 DOE Place

Idaho Falls, ID

208-526-5742

3/22/94

Address

City,

State, Zip Code

Tel: Area Code Number

Date: mo. day yr.

Instructions to Form W-15, Cementing Report

IMPORTANT: Operators and cementing companies must comply with the requirements of the Commission's Statewide Rules 8 (Water Protection), 13 (Casing, Cementing, Drilling, and Completion), and 14 (Well Plugging). For offshore operations, see the requirements of Rule 13 (c).

A. What to file. An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form. Form W-15 should be filed with the following:

- An initial oil or gas completion report, Form W-2 or G-1, as required by Statewide or special field rules;
- Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
- Form W-3, Plugging Record, unless the W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. Where to file. The appropriate Commission District Office for the county in which the well is located.

C. Surface casing. An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Texas Department of Water Resources, Austin. Before drilling a well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable rules, an operator must obtain a letter from the Department of Water Resources stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

D. Centralizers. Surface casing must be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. In nondeviated holes, a centralizer must be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar. All centralizers must meet API specifications.

E. Exceptions and alternative casing programs. The District Director may grant an exception to the requirements of Statewide Rule 13. In a written application, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. An operator must obtain approval of any exception before beginning casing and cementing operations.

F. Intermediate and production casing. For specific technical requirements, operators should consult Statewide Rule 13 (b) (3) and (4).

G. Plugging and abandoning. Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement plugs. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three feet below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, plus ten percent for each 1,000 feet of depth from the ground surface to the bottom of the plug.

To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

Cementer: Fill in shaded areas.
Operator: Fill in other items.

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

Cementing Report
Rev. 4/1/83
483-045

1. Operator's Name (As shown on Form P-5, Organization Report) PAW DRILLING COMPANY	2. RRC Operator No.	3. RRC District No.	4. County of Well Site BRAZORIA
5. Field Name (Wildcat or exactly as shown on RRC records)	6. API No. 42-		7. Drilling Permit No.
8. Lease Name PLEASANT BAYOU	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No. #7

CASING CEMENTING DATA:		SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date							
13. •Drilled hole size							
•Est. % wash or hole enlargement							
14. Size of casing (In. O.D.)							
15. Top of liner (ft.)							
16. Setting depth (ft.)							
17. Number of centralizers used							
18. Hrs. waiting on cement before drill-out							
1st Slurry	19. API cement used: No. of sacks ▶						
	Class ▶						
	Additives ▶						
2nd Slurry	No. of sacks ▶						
	Class ▶						
	Additives ▶						
3rd Slurry	No. of sacks ▶						
	Class ▶						
	Additives ▶						
1st	20. Slurry pumped: Volume (cu. ft.) ▶						
	Height (ft.) ▶						
2nd	Volume (cu. ft.) ▶						
	Height (ft.) ▶						
3rd	Volume (cu. ft.) ▶						
	Height (ft.) ▶						
Total	Volume (cu. ft.) ▶						
	Height (ft.) ▶						
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?							

22. Remarks

OVER

P&A PROCEDURE

EATON OPERATING
PLEASANT BAYOU #2

PROVIDED BY PAW DRILLING & WELL SERVICE, INC.

1. CHECK AND RECORD ALL TUBING AND CASING PRESSURES. FILL TUBING AND CASING WITH 13.8#/GAL PLUG MUD. KILL WELL AS NEEDED.

NOTE: IF UNABLE TO PUMP INTO WELL, RUN THRU TUBING PLUG AND PUMP 100' CEMENT ON TOP OF PLUG. CACL WILL BE PUMPED INTO EXISTING SWD.

2. RIG UP PUMP ON 5 1/2 P-110 TUBING AND BULLHEAD SQUEEZE THE PERFS DOWN THE 5 1/2 TUBING WITH 100 SKS CLASS H CMT. DISPLACE CMT WITH 300 BBLs PLUG MUD. PLUG WILL BE FROM 14,704 - 14,576'. LET PLUG SET A MINIMUM OF 24 HOURS. PRESSURE OR TAG PLUG.
3. MOVE ON LOCATION WITH P&A EQUIPMENT. HOLD SAFETY MEETING, DISCUSS PROCEDURES AND WORK SCHEDULE.
4. PERFORATE 5 1/2 AT TOP OF PACKER AND PUMP 240' CMT PLUG ACROSS LINER HANGER. RIH WITH S/L EXPLOSIVES. CUT 5 1/2 TUBING ABOVE PLUG. LAY DOWN TUBING. CIRCULATE PROPERLY WEIGHTED PLUG MUD UP ALL ANNULIS (9.5#/GAL MINIMUM). PICK UP W/S GIH TO 8050' MIX AND PUMP 25 SKS CMT PLG AT 8050 - 7950, POOH TO 7500', TAG POOH WITH W/S.
5. GIH WITH S/L AND CUT 9 5/8 CASING AT +/- 5000'. LAY DOWN CASING.
6. RIH TO CASING STUB AT +/- 5000'. PUMP 140 SX CMT PLUG FROM 5100' TO 4900' (100' IN AND 100' OUT).
7. POOH TO 4700' WAIT ON CMT.
8. GO IN HOLE TO TOP OF PLUG AT 4900' TAG CMT.
9. POOH TO 1400' MIX AND PUMP 115 SX CMT PLUG 1400' TO 1250'.
10. POOH TO 1100' WOC. GIH TO TOP OF PLUG AND TAG.
11. POOH TO 950' MIX AND PUMP 80 SKS OF CMT PLUG FROM 950 - 850'
12. POOH TO 700' WOC, GIH TO TOP OF CMT AND TAG.

AST

P&A PROCEDURE

EATON OPERATING
PLEASANT BAYOU #1 SWD
JULY 1, 1993

PROVIDED BY PAW DRILLING & WELL SERV, INC.

1. MOVE ON LOCATION WITH P&A EQUIPMENT. HOLD SAFETY MEETING, DISCUSS PROCEDURES AND WORK SCHEDULE.
2. CHECK AND RECORD ALL TUBING AND CASING PRESSURES. FILL TUBING AND CASING WITH 9.5#/GAL PLUG MUD. KILL WELL AS NEEDED.
3. RIG UP ON 5 1/2 TUBING AND BULLHEAD 150 SX CMT PLUG FROM 6060-5950'.
4. RELEASE PKR AND CIRCULATE 9.5#/GAL PLUG MUD INTO ANNULUS. POOH WITH 5 1/2 TUBING. LD TUBING.
5. PU 2 3/8 W/S, GIH TO 1380', MIX AND PUMP 50 SX CMT PLUG FROM 1380 TO 1250'. POOH TO 1100' WOC. GIH AND TAG PLUG.
6. POOH TO 950' MIX AND PUMP 105 SX CMT PLUG FROM 950'-675', POOH TO 500' WOC, GIH TO TOP OF PLUG AND TAG.
7. POOH TO 250' MIX AND PUMP 75 SX CMT PLUG FROM 250'-150', POOH TO 50' WOC, GIH TO TOP OF PLUG AND TAG.
8. POOH AND LAY DOWN.
9. MIX AND PUMP 25 SX FOR TOP PLUG FROM 55 - 5'
10. CUT ALL CSG 4' BELOW G/L AND WELD PLATE ON TOP.
11. RESTORE LOCATION TO CONDITION PRIOR TO P&A OPERATION.

CUT & RECOVER
400' of
9 5/8" →

Archie Joseph Bonline
RRC of TX

COMPANY: EATON OPERATING

WELL #: PLEASANT BAYOU #1 SWD

BID #: 0117-017

FILE #: 0117-052

API #:

DATE: 01/27/93

LOCATION: BRAZORIA CO, TX

STATUS: APPROVED

SUBMITTED: 03/17/93

LEASE/WELL #:

=====

P&A PROCEDURE

=====

Provided by PAW Drilling & Well Service, Inc.

1. Move on location w/ P&A equipment. Hold safety meeting, discuss procedures and work schedule.
2. Check and record all tubing and casing pressures. Fill tubing and casing with 9.5 #/gal plug mud. Kill well as needed.
3. Rig up on 5 1/2" tubing and bullhead 100 sx cement plug from 6,538' to 6,060'.
4. Release packer and circulate 9.5#/gal plug mud into annulus. POOH with 5 1/2" tubing. Lay down tubing.
5. Pump 360 sx cement plug from 400' to 3'.
Note: If base of USDW is above 400' (TOC 13-3/8 X 9 5/8" annulus), RU S/L & perf 9 5/8" and squeeze cement plug from 400' to surface.
6. Cut 9 5/8" 40' BGL. Cut 20" and 26" casing 3' below ground level and weld steel plate on top of casing.
7. Restore location to condition prior to P&A operation. RDMO.

Note: If required by state regulations, all plugs will be pressure tested or tagged and a plug will be placed across the lowest known USDW.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7661

REPORT NO. 1

DAILY WORKOVER REPORT

COMPANY ROE DATE 11-22-93
FIELD Pleasant Bayou LEASE Perry Austin WELL NO. 2
PARISH OR COUNTY Brasoria County, TX STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____
Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>Make sure there is no gas around well when using torch</u>	Last Casing Setting	Size _____	Screen Setting	Tubing Setting
		Depth _____	Size _____	Size _____
		Max Bit _____	Interval _____	Type _____
				Amr _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Ram _____	Hydri _____	Make & Model _____		Closing Depth _____	Bit Size _____
Mud Type _____		Size _____		Opening Depth _____	Bit Type _____
Weight _____	Via _____	Depth _____		Footage Made _____	

800-930-1/2 hr. Held safety meeting
830-900-1/2 hr. Check tubing press 3700# & 3700 on casing
900-1000 hrs. start breaking controls off trace & cut bolts on stands & get ready to move rig on well

Pleasant Bayou Drilling
Brotherhood well #2 Brasoria County
TX Permit No 018397 Perry Austin Drilling

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST
	YES	NO	
SUPPLIES			
FUEL			
TRUCKING			

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER		SLIP INSERT		DRILLER <u>R Touchet</u>		UNIT <u>10</u>	HRS. @ \$ _____ \$ _____
DIESEL		T.I.W.		DERRICK MAN <u>E Pasfaint</u>			@ \$ _____ \$ _____
STRIPPER		PIPE RACK		HELPER <u>M Pasfaint</u>			@ \$ _____ \$ _____
POWER SUB.		SHAKER		HELPER <u>D Stevens</u>			@ \$ _____ \$ _____
TRUCKING		2 nd PUMP		HELPER			@ \$ _____ \$ _____
GENERATOR		CENTRIFUGAL					@ \$ _____ \$ _____
EXTRA LABOR		GUARD					@ \$ _____ \$ _____
SUPPLIES		PIPE DOPE					@ \$ _____ \$ _____
RAMS		MISC.					@ \$ _____ \$ _____
LONG DIES							@ \$ _____ \$ _____

TOOLPUSHER Bonghe Touchet COMPANY REPRESENTATIVE _____
JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annlly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7662

REPORT NO. 2

DAILY WORKOVER REPORT

COMPANY DOE DATE 11-23-93
FIELD Pleasant Bayou LEASE Perry, Austin WELL NO. 2
PARISH OR COUNTY Brazoria County, TX. STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING _____ _____ _____	Last Casing Setting } Size _____ Depth _____ Max Bit _____	Screen Setting	Tubing Setting
		Size _____	Size _____
		Interval _____	Type _____
			Amt. _____

B. O. P. TEST PRESSURES	PRODUCTION PRESSURE SETTING	DRILL DEEPER
Rams _____ Hydri _____	Make & Model _____	Closing Depth _____ Bit Size _____
Mud Type _____	Size _____	Opening Depth _____ Bit Type _____
Weight _____ Vis. _____	Depth _____	Footage Made _____

600-830-2 1/2 hrs Pull tree stand & flow line away from tree
830-900-1 1/2 hrs spot Beam & Rig & Tank with Mud pump
930-1030-2 hrs Run Rig & put out anchor & guy wires
1030-1130-1 1/2 hrs pump water out of flat to Big tanks

Pleasant Bayou Depressure/Deather
well #2 Brazoria County, TX. Permit
No 01839. Perry Austin Survey A-127

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES				
FUEL				
TRUCKING				

3 RD PARTY CHARGES			PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER	SLIP INSERT		DRILLER	<u>A Touchet</u>	UNIT <u>11 1/2</u>	HRS. @ \$ _____ \$
DIESEL	T.I.W.		DERRICK MAN	<u>E. Paspart</u>		@ \$ _____ \$
STRIPPER	PIPE RACK		HELPER	<u>M. Norwood</u>		@ \$ _____ \$
POWER SUB.	SHAKER		HELPER	<u>D. Stevens</u>		@ \$ _____ \$
TRUCKING	2 ND PUMP		HELPER			@ \$ _____ \$

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7663

REPORT NO. 3

DAILY WORKOVER REPORT

COMPANY DOE DATE 11-24-93
FIELD Pleasant Bayou LEASE Perry Austin WELL NO. 2
PARISH OR COUNTY Bragoria County Tx STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____
Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING

Make three is
no area on line
to breaking three

Last
Casing
Setting

Size

Depth

Max Bit

Screen Setting

Size

Interval

Tubing Setting

Size

Type

Anti

B. O. P. TEST PRESSURES

Rams _____ Hydral _____
Mud Type _____
Weight _____ Vis. _____

PRODUCTION PRESSURE SETTING

Make & Model _____
Size _____
Depth _____

DRILL DEEPER

Closing Depth _____ Bit Size _____
Opening Depth _____ Bit Type _____
Footage Made _____

630-700-1/2 hr Held safety Meeting & over Rig
700-430-9 1/2 hr start Break line off again on local

Pleasant Bayou Depressure
Geothermal well #2 Bragoria County
TX Permit No. 28397 Perry Austin survey
A-107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES				
FUEL				
TRUCKING				

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
						UNIT	HRS. @ \$
PIPEWIPER		SLIP INSERT		DRILLER	<u>R Touchet</u>		\$
DIESEL		T.I.W.		DERRICK MAN	<u>E Papait</u>		\$
STRIPPER		PIPE RACK		HELPER	<u>M Roswood</u>		\$
POWER SUB.		SHAKER		HELPER	<u>D Sterner</u>		\$
TRUCKING		2 nd PUMP		HELPER			\$
GENERATOR		CENTRIFUGAL					\$
EXTRA LABOR		GUARD					\$
SUPPLIES		PIPE DOPE					\$
RAMS		MISC.					\$
LONG DIES							\$

TOOLPUSHER Bongles Touchet COMPANY REPRESENTATIVE _____
JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annlly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7664

REPORT NO. 4

DAILY WORKOVER REPORT

COMPANY DOE DATE 11-30-93

FIELD Pleasant Bayou LEASE Perry Action WELL NO. 2

PARISH OR COUNTY Bozoria County La STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING

when running
Valve open slow
with press.

Last
Casing
Setting

Size
Depth
Max Bit

Screen Setting
Size
Interval

Tubing Setting

Size
Type
Amt.

B. O. P. TEST PRESSURES

Rams _____ Hydrl _____
Mud Type _____
Weight _____ Via. _____

PRODUCTION PRESSURE SETTING

Make & Model _____
Size _____
Depth _____

DRILL DEEPER

Closing Depth _____ Bit Size _____
Opening Depth _____ Bit Type _____
Footage Made _____

800-930-1/2 hr Held safety meeting & run Rig
830-900-11/2 get ready for mud & cement spot 2 Mud
tanks

Pleasant Bayou Deepwater / Geothermal
well #2 Bozoria County La Permit
#019397 Perry Action survey A-107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>None</u>		
FUEL				
TRUCKING				

3 RD PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
						UNIT <u>12</u>	HRS. @ \$ _____
PIPEWIPER		SLIP INSERT		DRILLER	<u>D Touchet</u>		@ \$ _____
DIESEL		T.I.W.		DERRICK MAN	<u>E. Pasquet</u>		@ \$ _____
STRIPPER		PIPE RACK		HELPER	<u>M. Norwood</u>		@ \$ _____
POWER SUB.		SHAKER		HELPER	<u>D. Sedat</u>		@ \$ _____
TRUCKING		2 ND PUMP		HELPER			@ \$ _____
GENERATOR		CENTRIFUGAL					@ \$ _____
EXTRA LABOR		GUARD					@ \$ _____
SUPPLIES		PIPE DOPE					@ \$ _____
RAMS		MISC.					@ \$ _____
LONG DIES							@ \$ _____

TOOLPUSHER Douglas Touchet COMPANY REPRESENTATIVE _____

JOB NO 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. lly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7665

REPORT NO. 5

DAILY WORKOVER REPORT

COMPANY DOF DATE 12-1-93

FIELD Pleasant Bayou LEASE Perry Station WELL NO. 2

PARISH OR COUNTY Bossier County STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>Stop class of 1000</u> <u>when pump in</u> <u>well with high pressure</u>	Last Casing Setting } Size _____ Depth _____ Max Bit _____	Screen Setting	Tubing Setting
		Size _____	Size _____
		Interval _____	Type _____
			Amf. _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____	Hydri _____	Make & Model _____		Closing Depth _____	Bit Size _____
Mud Type _____		Size _____		Opening Depth _____	Bit Type _____
Weight _____	Vis. _____	Depth _____		Footage Made _____	

6:30-7:00-12hr Held safety meeting & our Rig & Egan
7:00-7:40-9hr get fluid Egan Ready To move off Locar
4:00-6:20-2hr Take on 10" mud with FDF 300 RBL'S

Pleasant Bayou Deepwater
Geothermal well #2 Bossier
County TX Permit #083972 by station survey
A-102

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>None</u>		
FUEL				
TRUCKING				

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER		SLIP INSERT		DRILLER	<u>D Touchet</u>	UNIT	HRS. @ \$ _____
DIESEL		T.I.W.		DERRICK MAN	<u>E Touchet</u>		@ \$ _____
STRIPPER		PIPE RACK		HELPER	<u>M. Norwood</u>		@ \$ _____
POWER SUB.		SHAKER		HELPER	<u>D Ledet</u>		@ \$ _____
TRUCKING		2 nd PUMP		HELPER			@ \$ _____
GENERATOR		CENTRIFUGAL					@ \$ _____
EXTRA LABOR		GUARD					@ \$ _____
SUPPLIES		PIPE DOPE					@ \$ _____
RAMS		MISC.					@ \$ _____
LONG DIES							@ \$ _____

TOOLPUSHER Roughs Touchet COMPANY REPRESENTATIVE _____

JOB NO 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annlly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7665

REPORT NO. 6

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-2-93

FIELD Pleasant Bayou LEASE Larry Nolin WELL NO. 2

PARISH OR COUNTY Brazoria County TX STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>when was Truck</u> <u>set on loc. change</u> <u>and before logging</u>	Last Casing Setting	Size _____	Screen Setting	Tubing Setting
		Depth _____	Size _____	Size _____
		Max Bit _____	Interval _____	Type _____
				Am. _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____	Hydril _____	Make & Model _____	Closing Depth _____	Bit Size _____	
Mud Type _____		Size _____	Opening Depth _____	Bit Type _____	
Weight _____	Vis. _____	Depth _____	Footage Made _____		

630-700-1/2 hr Held safety Meeting & set Rig & Equip
700-800-1 hr R/L B.T.
800-1130-3/4 hr test lines to 8000' & take on fresh wt
1130-1200-1/2 hr inject. Rate 3 BBL's per min. 100 BBL's 3700'
1200-1230-1/2 hr Mix & pump 350 SKS cont 39 BBL's
1230-200-1/2 hr Risch cont with 10' mud edge off with
25 BBL's Behind cont at 5000' Top off cont Est. at ~~12230~~ 12230 ft
200-330-1/2 hr Shut well in & R/L B.T.
330-530-2 hr Break Bolts on Tree left & of them light

Pleasant Bayou Mega-pressure hydrofracture
well #2 Brazoria County TX Permit
#28397 Larry Nolin survey #A-107
Top of cont Est. at 12230
cont in 530/12230 ft

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>None</u>		
FUEL				
TRUCKING				

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER		SLIP INSERT		DRILLER <u>D. Zuckert</u>	UNIT <u>11</u>	HRS. @ \$ _____	
DIESEL		T.I.W.		DERRICK MAN <u>E. Zuckert</u>		@ \$ _____	
STRIPPER		PIPE RACK		HELPER <u>M. Zuckert</u>		@ \$ _____	
POWER SUB.		SHAKER		HELPER <u>D. Zuckert</u>		@ \$ _____	
TRUCKING		2 nd PUMP		HELPER		@ \$ _____	
GENERATOR		CENTRIFUGAL				@ \$ _____	
EXTRA LABOR		GUARD				@ \$ _____	
SUPPLIES		PIPE DOPE				@ \$ _____	
RAMS		MISC.				@ \$ _____	
LONG DIES						@ \$ _____	

TOOLPUSHER Douglas Zuckert COMPANY REPRESENTATIVE _____
JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. lly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7667

REPORT NO. 7

DAILY WORKOVER REPORT

COMPANY DOF DATE 12-3-93

FIELD Pleasant Bayou LEASE Perry Actin WELL NO. 2

PARISH OR COUNTY Bossier County LA STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>Never this under</u> <u>wire when in use</u> <u>because of Back Lash</u>	Last Casing Setting	Size _____	Screen Setting	Tubing Setting
		Depth _____	Size _____	Size _____
		Max Bit _____	Interval _____	Type _____
				Amt. _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____	Hydri _____	Make & Model _____	Closing Depth _____	Bit Size _____	
Mud Type _____		Size _____	Opening Depth _____	Bit Type _____	
Weight _____	Vis. _____	Depth _____	Footage Made _____		

630-700 1/2 hr Held safety Meeting & per Rig & Egan
100-200 The Break Down Egan while waiting on unit & Bolto
on well head
200-230 1/2 hr test 5 1/2 per 1/2 hr 3000# test good
230 att to inject in 9 1/4 2 BBL's 2000# unacc

Pleasant Bayou Bossier County
Geothermal well #2
LA Permit # 04397 Production survey #4107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST
	YES	NO	
SUPPLIES		<u>None</u>	
FUEL			
TRUCKING			

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER		SLIP INSERT		DRILLER	<u>D Touchet</u>	UNIT <u>11</u>	HRS. @ \$ _____
DIESEL		T.I.W.		DERRICK MAN	<u>E Tarjait</u>		@ \$ _____
STRIPPER		PIPE RACK		HELPER	<u>M Norwood</u>		@ \$ _____
POWER SUB.		SHAKER		HELPER	<u>D Touchet</u>		@ \$ _____
TRUCKING		2 nd PUMP		HELPER			@ \$ _____
GENERATOR		CENTRIFUGAL					@ \$ _____
EXTRA LABOR		GUARD					@ \$ _____
SUPPLIES		PIPE DOPE					@ \$ _____
RAMS		MISC.					@ \$ _____
LONG DIES							@ \$ _____

TOOLPUSHER Douglas Touchet COMPANY REPRESENTATIVE _____

JOB NO 26-B ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. lly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7668

REPORT NO. 8

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-4-93

FIELD Pleasant Bayou LEASE Barry Otis WELL NO. 2

PARISH OR COUNTY Bossier County La STATE Louisiana RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING

when R/Lu edute
because not to
be in wrong

Last
Casing
Setting

Size _____
Depth _____
Max Bit _____

Screen Setting
Size _____
Interval _____

Tubing Setting

Size _____
Type _____
Amt. _____

B. O. P. TEST PRESSURES

Rams _____ Hydril _____
Mud Type _____
Weight _____ Vls. _____

PRODUCTION PRESSURE SETTING

Make & Model _____
Size _____
Depth _____

DRILL DEEPER

Closing Depth _____ Bit Size _____
Opening Depth _____ Bit Type _____
Footage Made _____

630-700-1/2 hr Held safety meeting & over Rig & Equip
700-830-1/2 hr open well & R/Lu well
830-1230-6 hr R/Lu 4 1/2 jet cutters R/Lu To 12185 Drop not Bar
Did not fire
230-430-2 hr pack with well R/Lu & use well
430-530-1 hr move well for night

Pleasant Bayou Deep Pressure
Geothermal well #2 Bossier County
La Permit #04397 Ferguson survey #A107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>None</u>		
FUEL				
TRUCKING				

3 RD PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER		SLIP INSERT		DRILLER	<u>D. Forchet</u>	UNIT <u>11</u>	HRS. @ \$ _____ \$ _____
DIESEL		T.I.W.		DERRICK MAN	<u>E. Forchet</u>		@ \$ _____ \$ _____
STRIPPER		PIPE RACK		HELPER	<u>M. Norwood</u>		@ \$ _____ \$ _____
POWER SUB.		SHAKER		HELPER	<u>D. Ledet</u>		@ \$ _____ \$ _____
TRUCKING		2 ND PUMP		HELPER			@ \$ _____ \$ _____
GENERATOR		CENTRIFUGAL					@ \$ _____ \$ _____
EXTRA LABOR		GUARD					@ \$ _____ \$ _____
SUPPLIES		PIPE DOPE					@ \$ _____ \$ _____
RAMS		MISC.					@ \$ _____ \$ _____
LONG DIES							@ \$ _____ \$ _____

TOOLPUSHER Douglas Forchet COMPANY REPRESENTATIVE _____

JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. ly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

TICKET 7669

REPORT NO. 9

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-5-93

FIELD Plissant Basin LEASE Perseus Station WELL NO. 2

PARISH OR COUNTY Bossier County La STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING

everybody should
work together
help each other

Last
Casing
Setting

Size
Depth
Max Bit

Screen Setting
Size
Interval

Tubing Setting

Size
Type
Amt

B. O. P. TEST PRESSURES

Rams _____ Hydri _____
Mud Type _____
Weight _____ Vis. _____

PRODUCTION PRESSURE SETTING

Make & Model _____
Size _____
Depth _____

DRILL DEEPER

Closing Depth _____ Bit Size _____
Opening Depth _____ Bit Type _____
Footage Made _____

630-700-Yaba Held safety meeting & on Rig & Equip
700-730-Yaba open well & R/W well
730-800-6 1/2 hrs R/W 4 1/2 jet cutter. R/W made cut at
10270
800-530-3 1/2 Break bolts on tree all but four very tight

Please see B. O. P. Test Pressures
Geothermal well #2 Bossier County
La Permit #08397 B. O. P. Test Pressures A-107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		None		
FUEL				
TRUCKING				

3 RD PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
						UNIT	HRS. @ \$
PIPEWIPER		SLIP INSERT		DRILLER	<u>Dr Fouchet</u>	11	@ \$
DIESEL		T.I.W.		DERRICK MAN	<u>E. Fayait</u>		@ \$
STRIPPER		PIPE RACK		HELPER	<u>M. Norwood</u>		@ \$
POWER SUB.		SHAKER		HELPER	<u>A. Ledet</u>		@ \$
TRUCKING		2 ND PUMP		HELPER			@ \$
GENERATOR		CENTRIFUGAL					@ \$
EXTRA LABOR		GUARD					@ \$
SUPPLIES		PIPE DOPE					@ \$
RAMS		MISC.					@ \$
LONG DIES							@ \$

TOOLPUSHER Douglas Fouchet COMPANY REPRESENTATIVE _____

JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. lly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7670

REPORT NO. 10

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-6-93

FIELD Pleasant Bayou LEASE Perry Station WELL NO. 2

PARISH OR COUNTY Borgonia County Tx STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>runners touch down</u> <u>unless you have it</u> <u>they are plugged</u>	Last Casing Setting }	Size _____	Screen Setting _____	Tubing Setting _____
		Depth _____	Size _____	Type _____
		Max Bit _____	Interval _____	Am _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____	Hydri _____	Make & Model _____		Closing Depth _____	Bit Size _____
Mud Type _____		Size _____		Opening Depth _____	Bit Type _____
Weight _____	Vis. _____	Depth _____		Footage Made _____	

630-700-4 hr Held safety meeting & saw Rig & Equip
700-1200-5 hr R/Lu frack Tank & take on 13.8" plug Mud
1200-600-6 hr R/Lu 5 1/2 x 9 3/4 annul. with 13.8" mud cutting
Back to 13.8" PPG
600-630-3 hr got in col. back shut well in for night.

Pleasant Bayou Borgonia County Texas
well #2 Borgonia County Texas
Permit #08397 Perry Station survey B-107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>None</u>		
FUEL				
TRUCKING				

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER		SLIP INSERT		DRILLER <u>D Touchet</u>		UNIT _____	HRS. @ \$ _____
DIESEL		T.I.W.		DERRICK MAN <u>D Touchet</u>			@ \$ _____
STRIPPER		PIPE RACK		HELPER <u>M Howard</u>			@ \$ _____
POWER SUB.		SHAKER		HELPER			@ \$ _____
TRUCKING		2 nd PUMP		HELPER			@ \$ _____
GENERATOR		CENTRIFUGAL					@ \$ _____
EXTRA LABOR		GUARD					@ \$ _____
SUPPLIES		PIPE DOPE					@ \$ _____
RAMS		MISC.					@ \$ _____
LONG DIES							@ \$ _____

TOOLPUSHER Bonghee Touchet COMPANY REPRESENTATIVE _____

JOB NO 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann.ily.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

TICKET 7671

REPORT NO. 11

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-7-93

FIELD Pleasant Bayou LEASE Permy Action WELL NO. 2

PARISH OR COUNTY Bossierie County, La STATE La RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>new stand in</u> <u>front of tanks</u> <u>when opening</u>	Last Casing Setting	Size _____	Screen Setting	Tubing Setting
		Depth _____	Size _____	Size _____
		Max Bit _____	Interval _____	Type _____
				Am _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____	Hydri _____	Make & Model _____		Closing Depth _____	Bit Size _____
Mud Type _____		Size _____		Opening Depth _____	Bit Type _____
Weight _____	Vis. _____	Depth _____		Footage Made _____	

630-700-4hr Held safety meeting in our Rig & eqm
700-400-1hr open well start cond. mud 14.2# / gal to 13.8# / gal
got the cal. came back
800-1200-4hrs H/D free.
1200-530# 5 1/2 hr att. to pull 5 1/2 casing free #250000\$
unacc.

Pleasant Bayou Deepensured
Another well well #2 Bossierie County
Texas Permit #08392 Perry Action Permit A-107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>None</u>		
FUEL				
TRUCKING				

3 RD PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER		SLIP INSERT		DRILLER <u>R Touchet</u>		UNIT <u>11</u>	HRS. @ \$ _____ \$
DIESEL		T.I.W.		DERRICK MAN <u>D Lade</u>			@ \$ _____ \$
STRIPPER		PIPE RACK		HELPER <u>M Greenwood</u>			@ \$ _____ \$
POWER SUB.		SHAKER		HELPER <u>D Sharma</u>			@ \$ _____ \$
TRUCKING		2 ND PUMP		HELPER			@ \$ _____ \$
GENERATOR		CENTRIFUGAL					@ \$ _____ \$
EXTRA LABOR		GUARD					@ \$ _____ \$
SUPPLIES		PIPE DOPE					@ \$ _____ \$
RAMS		MISC.					@ \$ _____ \$
LONG DIES							@ \$ _____ \$

TOOLPUSHER Bonglae Touchet COMPANY REPRESENTATIVE _____

JOB NO 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. lly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7672

REPORT NO. 12

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-8-93

FIELD Bossierie County, TX LEASE Perry Adline WELL NO. 2

PARISH OR COUNTY _____ STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING

Very clear of Rig
when pulling
lots of dirt

Last
Casing
Setting

Size _____
Depth _____
Max Bit _____

Screen Setting
Size _____
Interval _____

Tubing Setting

Size _____
Type _____
Amt. _____

B. O. P. TEST PRESSURES

Rams _____ Hydri _____
Mud Type _____
Weight _____ Vis. _____

PRODUCTION PRESSURE SETTING

Make & Model _____
Size _____
Depth _____

DRILL DEEPER

Closing Depth _____ Bit Size _____
Opening Depth _____ Bit Type _____
Footage Made _____

630-700-1/2 hr Held safety meeting & run Rig & Equip
700-1000-1/2 hr New DSA & Hydri & set up casing jacks
1000-130-1/2 hr pick up 5 1/2 jt 9 5/8 jt make up to hanger
130-200-1/2 att to jack 5 1/2 casing 2400* pump press = 282000 pull
take 2000* pump press to move casing = 232000 pull on pipe
200-330-1/2 hr cut & weld on 2" x 4 x over to 5 1/2 casing
330-530-2 hr Run out well to cond. mud

Pleasant Bayside Degreaser
Leather mat well #2 Bossierie County
Texas Permit #0997 Perry Adline Permit A107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		None		
FUEL				
TRUCKING				

3 RD PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
						UNIT 11	HRS. @ \$
PIPEWIPER		SLIP INSERT		DRILLER	<u>D. Zuchet</u>		\$
DIESEL		T.I.W.		DERRICK MAN	<u>S. det</u>		\$
STRIPPER		PIPE RACK		HELPER	<u>M. Norwood</u>		\$
POWER SUB.		SHAKER		HELPER	<u>R. Stevens</u>		\$
TRUCKING		2 ND PUMP		HELPER			\$
GENERATOR		CENTRIFUGAL					\$
EXTRA LABOR		GUARD					\$
SUPPLIES		PIPE DOPE					\$
RAMS		MISC.					\$
LONG DIES							\$

TOOLPUSHER Douglas Zuchet COMPANY REPRESENTATIVE _____

JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. lly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7673

REPORT NO. 13

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-9-93

FIELD Pleasant Bayou LEASE Perforation WELL NO. 2

PARISH OR COUNTY Bossier County, LA STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>stop clear of pump</u> <u>line a well</u> <u>using casing jacks</u>	Last Casing Setting	Size _____	Screen Setting	Tubing Setting
		Depth _____	Size _____	Size _____
		Max Bit _____	Interval _____	Type _____
				Amt. _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____	Hydril _____	Make & Model _____		Closing Depth _____	Bit Size _____
Mud Type _____		Size _____		Opening Depth _____	Bit Type _____
Weight _____	Vis. _____	Depth _____		Footage Made _____	

630-700 hrs Field Safety Meeting & set Rig & Equip
700-930-2 1/2 hrs R/L casing jacks & Hydril
930-1000 hrs R/L casing jacks on well head
1000-1030 hrs work 5 1/2 casing with jack 2000* pump press to 2500* =
29000* pull on 5 1/2 casing

Pleasant Bayou Deoperated
Weathermak well #2 Bossier County
Texas Permit #0497 Perforation Permit A107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST
	YES	NO	
SUPPLIES		<u>None</u>	
FUEL			
TRUCKING			

3 rd PARTY CHARGES			PERSONNEL	TIME DISTRIBUTION
PIPEWIPER	SLIP INSERT		DRILLER <u>D. Touchet</u>	UNIT <u>11</u> HRS. @ \$ _____ \$ _____
DIESEL	T.I.W.		DERRICK MAN <u>D. Touchet</u>	@ \$ _____ \$ _____
STRIPPER	PIPE RACK		HELPER <u>M. Davidson</u>	@ \$ _____ \$ _____
POWER SUB.	SHAKER		HELPER <u>D. Stevens</u>	@ \$ _____ \$ _____
TRUCKING	2 nd PUMP		HELPER	@ \$ _____ \$ _____
GENERATOR	CENTRIFUGAL			@ \$ _____ \$ _____
EXTRA LABOR	GUARD			@ \$ _____ \$ _____
SUPPLIES	PIPE DOPE			@ \$ _____ \$ _____
RAMS	MISC.			@ \$ _____ \$ _____
LONG DIES				@ \$ _____ \$ _____

TOOLPUSHER Bonghe Touchet COMPANY REPRESENTATIVE _____

JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann.ily.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 1014

REPORT NO. 14

DAILY WORKOVER REPORT

COMPANY DO F DATE 12-10-93

FIELD Pleasant Bayou LEASE Levy action WELL NO. 2

PARISH OR COUNTY Bossier County, La STATE La RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>when using jack</u> <u>work complete</u> <u>when enough time</u>	Last Casing Setting	Size _____	Screen Setting	Tubing Setting
		Depth _____	Size _____	Size _____
		Max Bit _____	Interval _____	Type _____
				Am _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____ Hydri _____		Make & Model _____		Closing Depth _____	Bit Size _____
Mud Type _____		Size _____		Opening Depth _____	Bit Type _____
Weight _____ Vis. _____		Depth _____		Footage Made _____	

6:30-7:00 AM Held Safety Meeting & set Rig & Equip
7:00-5:30 PM Work 5 1/2 casing from 0 to 230,000' pull with Rig
& att. to turn of cut by turning 5 1/2

Pleasant Bayou Deepwater well #2
Bossier County, La Permit
*0997 Laminar Permit A107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>None</u>		
FUEL				
TRUCKING				

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER		SLIP INSERT		DRILLER <u>D. Touchet</u>		UNIT <u>11</u>	HRS. @ \$ _____
DIESEL		T.I.W.		DERRICK MAN <u>D. Touchet</u>			@ \$ _____
STRIPPER		PIPE RACK		HELPER <u>M. Rosewood</u>			@ \$ _____
POWER SUB.		SHAKER		HELPER <u>D. Stevens</u>			@ \$ _____
TRUCKING		2 nd PUMP		HELPER			@ \$ _____
GENERATOR		CENTRIFUGAL					@ \$ _____
EXTRA LABOR		GUARD					@ \$ _____
SUPPLIES		PIPE DOPE					@ \$ _____
RAMS		MISC.					@ \$ _____
LONG DIES							@ \$ _____

TOOLPUSHER Douglas Touchet COMPANY REPRESENTATIVE _____

JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annully.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7675

REPORT NO. 15

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-11-93
FIELD Pleasant Bayou LEASE Perry Station WELL NO. 2
PARISH OR COUNTY Borgoria County La STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>always use tubing</u> <u>cut when climbing</u> <u>back to work</u>	Last Casing Setting	Size _____	Screen Setting Size _____ Interval _____	Tubing Setting Size _____
		Depth _____		Type _____
		Max Bit _____		Ami. _____

B. O. P. TEST PRESSURES Rams _____ Hydri _____ Mud Type _____ Weight _____ Vls. _____	PRODUCTION PRESSURE SETTING Make & Model _____ Size _____ Depth _____	DRILL DEEPER Closing Depth _____ Bit Size _____ Opening Depth _____ Bit Type _____ Footage Made _____
--	--	--

630-700-4hr Hold Safety Meetings & ser. Rig & Egan
700-800-1hr Run 5 1/2 casing Tonga
800-900-1hr work 5 1/2 casing Rig & att. to twist of cut with
Tonga
900-400-7hr jack 5 1/2 casing to 348000# pull
400-530-1 1/2 hr set 300,000# on jack get ready to make cut
at 10275 - ft

Pleasant Bayou Deep Pressure / Hydrothermal
well #2 Borgoria County Texas Permit
#0897 Production Permit A107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>None</u>		
FUEL				
TRUCKING				

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
						UNIT <u>11</u>	HRS. @ \$ _____
PIPEWIPER		SLIP INSERT		DRILLER <u>D Touchet</u>			@ \$ _____
DIESEL		T.I.W.		DERRICK MAN <u>D Touchet</u>			@ \$ _____
STRIPPER		PIPE RACK		HELPER <u>M. Woodward</u>			@ \$ _____
POWER SUB.		SHAKER		HELPER <u>D. Stevens</u>			@ \$ _____
TRUCKING		2 nd PUMP		HELPER			@ \$ _____
GENERATOR		CENTRIFUGAL					@ \$ _____
EXTRA LABOR		GUARD					@ \$ _____
SUPPLIES		PIPE DOPE					@ \$ _____
RAMS		MISC.					@ \$ _____
LONG DIES							@ \$ _____

TOOLPUSHER Douglas Touchet COMPANY REPRESENTATIVE _____
JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annually.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7675

REPORT NO. 16

DAILY WORKOVER REPORT

COMPANY D.O.E. DATE 12-12-93

FIELD Pleasant Bayou LEASE Perry Station WELL NO. 2

PARISH OR COUNTY Bergerie County LA STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING

Nothing to write here
over. when making
up bit

Last
Casing
Setting

Size
Depth
Max Bit

Screen Setting
Size
Interval

Tubing Setting

Size
Type
Amt.

B. O. P. TEST PRESSURES

Rams _____ Hydril _____
Mud Type _____
Weight _____ Vis. _____

PRODUCTION PRESSURE SETTING

Make & Model _____
Size _____
Depth _____

DRILL DEEPER

Closing Depth _____ Bit Size _____
Opening Depth _____ Bit Type _____
Footage Made _____

700-730-1/2 hr. Held safety meeting & ser. Rig & Equip
730-830-2 hrs. R/Lu 5/16
830-1000-1 1/2 hr. Make up 4 1/2" jet cutter
1000-200-4 hr. R/Lu to 5000 ft not make, no hole
200-230-1/2 hr. pool with 5/16
230-500-2 1/2 hr. add more wt. R/Lu 3992 ft. unable to
go down. Pool with 5/16
500-100-2 1/2 hr. in well pumping down 5/16 casing 1000 psi

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>None</u>		
FUEL				
TRUCKING				

3 RD PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
						UNIT <u>12</u>	HRS. @ \$ _____
PIPEWIPER		SLIP INSERT		DRILLER <u>D. Touchet</u>			@ \$ _____
DIESEL		T.I.W.		DERRICK MAN <u>D. Leibel</u>			@ \$ _____
STRIPPER		PIPE RACK		HELPER <u>M. P. ...</u>			@ \$ _____
POWER SUB.		SHAKER		HELPER <u>D. ...</u>			@ \$ _____
TRUCKING		2 ND PUMP		HELPER			@ \$ _____
GENERATOR		CENTRIFUGAL					@ \$ _____
EXTRA LABOR		GUARD					@ \$ _____
SUPPLIES		PIPE DOPE					@ \$ _____
RAMS		MISC.					@ \$ _____
LONG DIES							@ \$ _____

TOOLPUSHER Douglas Touchet COMPANY REPRESENTATIVE _____

JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annlly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7677

REPORT NO. 17

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-13-93
FIELD Placerville Bayou LEASE Perry Actin WELL NO. 2
PARISH OR COUNTY Borgoria County La STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING

stand clear of
all lines when
surge dipole press

Last
Casing
Setting

Size _____
Depth _____
Max Bit _____

Screen Setting
Size _____
Interval _____

Tubing Setting

Size _____
Type _____
Amt _____

B. O. P. TEST PRESSURES

Rams _____ Hydri _____
Mud Type _____
Weight _____ Vis. _____

PRODUCTION PRESSURE SETTING

Make & Model _____
Size _____
Depth _____

DRILL DEEPER

Closing Depth _____ Bit Size _____
Opening Depth _____ Bit Type _____
Footage Made _____

600-700-1/2 hr. Held Safety meeting for ser. Rig & Equip
700-800-1/2 hr. circ. well to cond. mud pump press 3500⁺
800-930-1/2 hr. R/L with 5/8 to 5529 ft tag pool with 5/8
930-1200-2 1/2 hr. R/L to pump mud in 5/8 to cond. to 10275 ft
1200-200-1/2 hr. R/L with 5/8 to 8980 tag pool
200-300-1/2 hr. load up mud pump to cond. mud press 3500⁺ holding
300-400-1/2 hr. pool with 5/8 tag 8980 ft
400-600-2 1/2 hr. make up 4 3/4 cut. R/L on 5/8 make shot
600-700-1/2 hr. pool with 5/8 R/L w/L
700-800-1/2 hr. pull on 5/8 casing with Rig 11000

5 1/2 casing cut
8980 ft

Placerville Bayou Geopressure/Geothermal
well #2 Borgoria County La. Permit
#0997 Perry Actin Permit A 107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		None		
FUEL				
TRUCKING				

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
						UNIT 13	HRS. @ \$
PIPEWIPER		SLIP INSERT		DRILLER	D Touchet		\$
DIESEL		T.I.W.		DERRICK MAN	D Ledet		\$
STRIPPER		PIPE RACK		HELPER	M. Rowland		\$
POWER SUB.		SHAKER		HELPER	D Stevens		\$
TRUCKING		2 nd PUMP		HELPER			\$
GENERATOR		CENTRIFUGAL					\$
EXTRA LABOR		GUARD					\$
SUPPLIES		PIPE DOPE					\$
RAMS		MISC.					\$
LONG DIES							\$

TOOLPUSHER Douglas Touchet COMPANY REPRESENTATIVE _____
JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annlly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7678

REPORT NO. 18

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-14-93
FIELD Pleasant Bayou LEASE Perry Station WELL NO. 2
PARISH OR COUNTY Bossier County, LA STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____
Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>evaluation to</u> <u>what you are doing</u> <u>at all times</u>	Last Casing Setting	Size _____	Screen Setting	Tubing Setting
		Depth _____	Size _____	Size _____
		Max Bit _____	Interval _____	Type _____
				Ami. _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____	Hydri. _____	Make & Model _____		Closing Depth _____	Bit Size _____
Mud Type _____		Size _____		Opening Depth _____	Bit Type _____
Weight _____	Vis. _____	Depth _____		Footage Made _____	

630-700-1/2 hr Held safety Meeting & over. Rig & Equip
700-800-1/2 hr 5 1/2" casing Equip
800-1200-4 hr use casing jack to help rig pull 5 1/2" casing
1200-230-2 1/2 hr start pulling with Rig total jts out 35
230-430-2 hr Mud & pump 70 sacks cont for 200 ft plug
from 8780 to 8880
430-530-1 hr pack with 5 1/2" casing to jts out 35

R-110-23# VAM
8980 ft 5 1/2"

Pleasant Bayou Drilling & Well Service
well #2 Bossier County Texas Permit
#0897 Perry Station Permit A107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		none		
FUEL				
TRUCKING				

3 RD PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
						UNIT	HRS. @ \$
PIPEWIPER		SLIP INSERT		DRILLER <u>D. Touchet</u>		11	\$ _____
DIESEL		T.I.W.		DERRICK MAN <u>D. Touchet</u>			\$ _____
STRIPPER		PIPE RACK		HELPER <u>M. Woodward</u>			\$ _____
POWER SUB.		SHAKER		HELPER <u>D. Stevens</u>			\$ _____
TRUCKING		2 ND PUMP		HELPER <u>Timothy Bugar</u>	6		\$ _____
GENERATOR		CENTRIFUGAL					\$ _____
EXTRA LABOR		GUARD					\$ _____
SUPPLIES		PIPE DOPE					\$ _____
RAMS		MISC.					\$ _____
LONG DIES							\$ _____

TOOLPUSHER Douglas Touchet COMPANY REPRESENTATIVE _____

JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. ly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

TICKET 7679

REPORT NO. 19

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-15-93

FIELD Pleasant Bayou LEASE Larry Astin WELL NO. 2

PARISH OR COUNTY Borgoria County La STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u> crews should wash together for to be safe & help each other</u>	Last Casing Setting } Size _____ Depth _____ Max Bit _____	Screen Setting	Tubing Setting
		Size _____	Size _____
		Interval _____	Type _____
			Amt _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____	Hydri _____	Make & Model _____		Closing Depth _____	Bit Size _____
Mud Type _____		Size _____		Opening Depth _____	Bit Type _____
Weight _____	Vis. _____	Depth _____		Footage Made _____	

520-700-1/2 in. Held safety in over Rig & Equip.
700-530-10 1/2 in. pack & with 5 1/2 casing total jts out of hole.
159 jts

898 cft
5 1/2 P.M. van
Pleasant Bayou Deepensured Geothermal well #2 Borgoria County Texas Permit #0897 Larry Astin La Permit A107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>None</u>		
FUEL				
TRUCKING				

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER		SLIP INSERT		DRILLER <u>Douglas Touchet</u>		UNIT <u>11</u>	HRS. @ \$ _____ \$ _____
DIESEL		T.I.W.		DERRICK MAN <u>Stevens</u>			@ \$ _____ \$ _____
STRIPPER		PIPE RACK		HELPER <u>M. Norwood</u>			@ \$ _____ \$ _____
POWER SUB.		SHAKER		HELPER <u>E. Bagnard</u>			@ \$ _____ \$ _____
TRUCKING		2 nd PUMP		HELPER			@ \$ _____ \$ _____
GENERATOR		CENTRIFUGAL					@ \$ _____ \$ _____
EXTRA LABOR		GUARD					@ \$ _____ \$ _____
SUPPLIES		PIPE DOPE					@ \$ _____ \$ _____
RAMS		MISC.					@ \$ _____ \$ _____
LONG DIES							@ \$ _____ \$ _____

TOOLPUSHER Douglas Touchet COMPANY REPRESENTATIVE _____

JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. lly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7680

REPORT NO. 20

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-16-93
FIELD Pleasant Bayou LEASE Barry Astin WELL NO. 2
PARISH OR COUNTY Bergerie County La STATE Louisiana RIG NO. 5
Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING	Last Casing Setting	Size _____	Screen Setting	Tubing Setting
		Depth _____		Size _____
		Max Bit _____		Type _____
		Interval _____		Amt. _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____	Hydril _____	Make & Model _____		Closing Depth _____	Bit Size _____
Mud Type _____		Size _____		Opening Depth _____	Bit Type _____
Weight _____	Vis. _____	Depth _____		Footage Made _____	

630-700-1/2 hr Held safety meeting & ran Rig & Equip
700-1130-4 1/2 hr took with 5 1/2 casing 23" from #110 total pit
203
1130-400-4 1/2 hr M/Lu Hydril & Break Bott on 9 1/4 well Head
400-630-2 1/2 hr R/Lu 5/8 & Make up shot att to R/Lu unsec
Mud would not let shot go in hole good R/Lu well

5 1/2 Vam - #110
23" - 8980 Lt. Total pit 203
Pleasant Bayou Bergerie County, Louisiana
well #2 Bergerie County La.
Permit # 2997 Barry Astin survey A107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>None</u>		
FUEL				
TRUCKING				

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
						UNIT <u>12</u>	HRS. @ \$ _____ \$
PIPEWIPER		SLIP INSERT		DRILLER <u>D Touchet</u>			@ \$ _____ \$
DIESEL		T.I.W.		DERRICK MAN <u>D Stevens</u>			@ \$ _____ \$
STRIPPER		PIPE RACK		HELPER <u>M Norwood</u>			@ \$ _____ \$
POWER SUB.		SHAKER		HELPER <u>E Bergaud</u>			@ \$ _____ \$
TRUCKING		2 nd PUMP		HELPER			@ \$ _____ \$
GENERATOR		CENTRIFUGAL					@ \$ _____ \$
EXTRA LABOR		GUARD					@ \$ _____ \$
SUPPLIES		PIPE DOPE					@ \$ _____ \$
RAMS		MISC.					@ \$ _____ \$
LONG DIES							@ \$ _____ \$

TOOLPUSHER Douglas Touchet COMPANY REPRESENTATIVE _____
JOB NO 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann.ly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7681

REPORT NO. 21

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-17-93

FIELD Pleasant Bayou LEASE Perry Station WELL NO. 2

PARISH OR COUNTY Barataria County, La STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING

when moving Equip
with trucks thru
stand between truck
and well

Last
Casing
Setting

Size _____
Depth _____
Max Bit _____

Screen Setting
Size _____
Interval _____

Tubing Setting

Size _____
Type _____
Amt. _____

B. O. P. TEST PRESSURES

Rams _____ Hydril _____
Mud Type _____
Weight _____ Vis. _____

PRODUCTION PRESSURE SETTING

Make & Model _____
Size _____
Depth _____

DRILL DEEPER

Closing Depth _____ Bit Size _____
Opening Depth _____ Bit Type _____
Footage Made _____

630-700-4hr Held safety meeting & ser. Rig & Equip
700-900-2hr off load from 4247 ft of 2 3/4 tubing
900-400-7hr Rth to 4247 ft cor'd mud
400-530-1hr cor'd mud from 4247

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>None</u>		
FUEL				
TRUCKING				

3 RD PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
						UNIT <u>11</u>	HRS. @ \$ _____
PIPEWIPER		SLIP INSERT		DRILLER	<u>Don Fouchet</u>		@ \$ _____
DIESEL		T.I.W.		DERRICK MAN	<u>E. Bergaux</u>		@ \$ _____
STRIPPER		PIPE RACK		HELPER	<u>M. Doryood</u>		@ \$ _____
POWER SUB.		SHAKER		HELPER	<u>D. Mulline</u>		@ \$ _____
TRUCKING		2 ND PUMP		HELPER			@ \$ _____
GENERATOR		CENTRIFUGAL					@ \$ _____
EXTRA LABOR		GUARD					@ \$ _____
SUPPLIES		PIPE DOPE					@ \$ _____
RAMS		MISC.					@ \$ _____
LONG DIES							@ \$ _____

TOOLPUSHER Douglas Fouchet COMPANY REPRESENTATIVE _____

JOB NO 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annlly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7682

REPORT NO. 22

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-18-93
FIELD Pleasant Bayou LEASE Perry Station WELL NO. 2
PARISH OR COUNTY Bossier County La STATE Louisiana RIG NO. 5

Present Perforations _____ Present Packer Setting _____
Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>when things heavy</u> <u>and run it down</u> <u>it won't high fall</u> <u>in any thing</u>	Last Casing Setting	Size _____	Screen Setting	Tubing Setting
		Depth _____	Size _____	Size _____
		Max Bit _____	Interval _____	Type _____
				Amt. _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____	Hydri _____	Make & Model _____	Closing Depth _____	Bit Size _____	
Mud Type _____		Size _____	Opening Depth _____	Bit Type _____	
Weight _____	Vis. _____	Depth _____	Footage Made _____		

630-700-1/2 hr Held safety meeting & set Rig & Eqm
700-1000-3/4 hr con'd mud at 4249 ft
1000-300- look with 2 3/8 tubing Racking Back
300-400-1 hr R/L 5/2 & Make up shot R/L to 4000 ft
400-430-1/2 hr look pump press 3500
430-530-1 hr R/L with shot 3500 ft Made shot pool well
530-600-1/2 hr press 3500 on pump ~~then~~ Held
600-730-1 1/2 hr R/L well & secure well for night

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES				
FUEL				
TRUCKING				

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
						UNIT	HRS
PIPEWIPER		SLIP INSERT		DRILLER	<u>R. Touchet</u>		
DIESEL		T.I.W.		DERRICK MAN	<u>E. Bagnard</u>		
STRIPPER		PIPE RACK		HELPER	<u>M. Norwood</u>		
POWER SUB.		SHAKER		HELPER	<u>D. Mullens</u>		
TRUCKING		2 nd PUMP		HELPER			
GENERATOR		CENTRIFUGAL					
EXTRA LABOR		GUARD					
SUPPLIES		PIPE DOPE					
RAMS		MISC.					
LONG DIES							

TOOLPUSHER Douglas Touchet COMPANY REPRESENTATIVE _____
JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annlly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

TICKET 7683

REPORT NO. 23

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-19-93

FIELD Pleasant Bayou LEASE Perry Action WELL NO. 2

PARISH OR COUNTY Bossier County 2N STATE Louisiana RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>Successful when</u> <u>wire line is made</u> <u>up shot & plug zone</u> <u>from 2000 ft</u>	Last Casing Setting	Size _____	Screen Setting _____	Tubing Setting _____
		Depth _____	Size _____	Type _____
		Max Bit _____	Interval _____	Amt. _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____	Hydri _____	Make & Model _____	Closing Depth _____	Bit Size _____	
Mud Type _____		Size _____	Opening Depth _____	Bit Type _____	
Weight _____	Vis. _____	Depth _____	Footage Made _____		

630-730-hr Held safety meeting & Ser. Rig & Equip.
700-830-hr Run 5/8" Make up shot Rth to 2500 ft
3000 ft took with 1/2" w/c
830-900-1/2 hr. press up with mud pump 3500# holding
930-1030-1 hr. Make up shot Rth to 2500 ft
Made shot took with w/c
1030-1100-1/2 hr. press up with mud pump 3500# held
1100-1200-1 hr. Make shot Rth with 3/4" to 2000 ft made
took with 5/8"
1200-1230-1/2 hr. press up with mud pump to 3500# held
1230-130-1 hr. Make shot Rth to 1500 ft made shot
130-200-1 hr. press up 3500# on pump held
200-300-1 hr. Make up shot Rth 1000 ft made shot
300-330-1/2 hr. Press up 3500# with pump held
300-530-2 hr. Break Down Equip on Loca

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>none</u>		
FUEL				
TRUCKING				

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER		SLIP INSERT		DRILLER <u>D Touchet</u>	UNIT <u>11</u>	HRS. @ \$	\$
DIESEL		T.I.W.		DERRICK MAN <u>E Bergau</u>		@ \$	\$
STRIPPER		PIPE RACK		HELPER <u>M. D. ...</u>		@ \$	\$
POWER SUB.		SHAKER		HELPER <u>D. Mullins</u>		@ \$	\$
TRUCKING		2 nd PUMP		HELPER <u>Patrick Lewis</u>		@ \$	\$
GENERATOR		CENTRIFUGAL				@ \$	\$
EXTRA LABOR		GUARD				@ \$	\$
SUPPLIES		PIPE DOPE				@ \$	\$
RAMS		MISC.				@ \$	\$
LONG DIES						@ \$	\$

TOOLPUSHER Douglas Touchet COMPANY REPRESENTATIVE _____

JOB NO 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. ly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7684

REPORT NO. 24

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-20-93

FIELD Pleasant Bayou LEASE _____ WELL NO. 2

PARISH OR COUNTY Bossier County La STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING

always wear
eye protection
using torch

Last
Casing
Setting

Size
Depth
Max Bit

Screen Setting
Size
Interval

Tubing Setting

Size
Type
Amt.

B. O. P. TEST PRESSURES

Rams _____ Hydril _____
Mud Type _____
Weight _____ Vis. _____

PRODUCTION PRESSURE SETTING

Make & Model _____
Size _____
Depth _____

DRILL DEEPER

Closing Depth _____ Bit Size _____
Opening Depth _____ Bit Type _____
Footage Made _____

800-780-1/2 hr Held safety meeting & ser. Rig & Equip.
780-830-1hr Make up shot RT h to 750 ft Made shot
hook with well
830-980-1/2 hr press up with mud pump 3500# held
830-930-1hr Make up shot RT h to 500 ft Made shot
hook with well
930-1000-1/2 hr press up with mud pump 3500# held
1000-1100-1hr R/D wire & R/Lu 2 3/4 Equip.
1100-130-2 3/4 hrs RT h to 2750 ft pushing Int. Bar Down
stopped going
120-900-2hrs hook with 2 3/4 lagging
900-500-2hr mix & pump 180 lbs cont = 28 BBL's cont = 286 ft cont
500-130-1 1/2 hr hook with 2 3/4 tubing

Ben rig sub pipe 9 5/8 x 13 3/8 and was cont'd

RIG EXPENSE	ACCIDENTS	SUPPLY REQUEST
	YES NO	
SUPPLIES		
FUEL		
TRUCKING		

3 RD PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION			
PIPEWIPER	SLIP INSERT			DRILLER	<u>D Touchet</u>	UNIT	HRS.	@ \$	\$
DIESEL	T.I.W.			DERRICK MAN	<u>E Borgeau</u>			@ \$	\$
STRIPPER	PIPE RACK			HELPER	<u>M Norwood</u>			@ \$	\$
POWER SUB.	SHAKER			HELPER	<u>D Mullkane</u>			@ \$	\$
TRUCKING	2 ND PUMP			HELPER	<u>P Lewis</u>			@ \$	\$
GENERATOR	CENTRIFUGAL							@ \$	\$
EXTRA LABOR	GUARD							@ \$	\$
SUPPLIES	PIPE DOPE							@ \$	\$
RAMS	MISC.							@ \$	\$
LONG DIES								@ \$	\$

TOOLPUSHER Douglas Touchet COMPANY REPRESENTATIVE _____

JOB NO 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. ly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7685

REPORT NO. 25

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-21-93

FIELD Pleasant Bayou LEASE _____ WELL NO. 2

PARISH OR COUNTY Barataria County La STATE La RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING

11:00 Breakfast Meeting
when mixing
cont.

Last
Casing
Setting

Size _____
Depth _____
Max Bit _____

Screen Setting
Size _____
Interval _____

Tubing Setting

Size _____
Type _____
Amt. _____

B. O. P. TEST PRESSURES

Rams _____ Hydril _____
Mud Type _____
Weight _____ Vis. _____

PRODUCTION PRESSURE SETTING

Make & Model _____
Size _____
Depth _____

DRILL DEEPER

Closing Depth _____ Bit Size _____
Opening Depth _____ Bit Type _____
Footage Made _____

630-700-1/2 hr Held safety meeting & ser. Rig & Equip.
700-800-1 hr get Ready to mix cont 1540 ft to 1320
800-930-1 1/2 hr Mud 70 SKS = 15.21 BBL's cont = 207 ft pump
to 1540-1320
930-1100-1 1/2 hr Pool to 1100 ft get Ready to set plug
1100-130-2 1/2 hr mix 70 SKS cont = 15.21 BBL's cont pump to 1100 to 900 ft
130-200-1 1/2 hr pool with 2 3/4 tubing to 200 ft
200-430-1 hr mix & pump 80 SKS for 300 ft, by 625 ft
430-530-1 hr mix pump 150 SKS for 250 - 5 ft
N/D Hydril R/D 2 3/4 Equip

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		None		
FUEL				
TRUCKING				

3 rd PARTY CHARGES			PERSONNEL	TIME DISTRIBUTION	
				UNIT	HRS. @ \$
PIPEWIPER		SLIP INSERT	DRILLER <u>D Touchet</u>		@ \$ _____
DIESEL		T.I.W.	DERRICK MAN <u>E Beggard</u>		@ \$ _____
STRIPPER		PIPE RACK	HELPER <u>M Harrison</u>		@ \$ _____
POWER SUB.		SHAKER	HELPER <u>D Mullins</u>		@ \$ _____
TRUCKING		2 nd PUMP	HELPER <u>D Lewis</u>		@ \$ _____
GENERATOR		CENTRIFUGAL			@ \$ _____
EXTRA LABOR		GUARD			@ \$ _____
SUPPLIES		PIPE DOPE			@ \$ _____
RAMS		MISC.			@ \$ _____
LONG DIES					@ \$ _____

TOOLPUSHER Roycha Touchet COMPANY REPRESENTATIVE _____

JOB NO. 26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 26-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. lly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
& Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7686

REPORT NO. 1

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-22-93

FIELD Pleasant Bayou LEASE Perry Station WELL NO. SWD #1

PARISH OR COUNTY Bossierie County Texas STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>when more always</u> <u>watch signal &</u> <u>help watch road</u>	Last Casing Setting	Size _____	Screen Setting Size _____ Interval _____	Tubing Setting Size _____ Type _____ Aml _____
		Depth _____		
		Max Bit _____		

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____	Hydril _____	Make & Model _____	Closing Depth _____	Bit Size _____	
Mud Type _____		Size _____	Opening Depth _____	Bit Type _____	
Weight _____	Vis. _____	Depth _____	Footage Made _____		

6700-700-1/2 hr. Held safety meeting & set Rig & Egm
700-1100 spot Beam & put boards up & bring to SWD
Move Rig in & spot Rig
1100-200-3 hr. R/W Rig & put out guy wire & anchor
200-530-3 1/2 hr. Dig cellar & lay pipe line to salt water
Dig - well

Pleasant Bayou Salt water
Disposal well No. 1 Bossierie
County Tx. Permit 01500 Perry Station
Supply Request Survey A-107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST
	YES	NO	
SUPPLIES			
FUEL			
TRUCKING			

3 rd PARTY CHARGES			PERSONNEL	TIME DISTRIBUTION
PIPEWIPER		SLIP INSERT	DRILLER <u>D Touchet</u>	UNIT _____ HRS. @ \$ _____ \$ _____
DIESEL		T.I.W.	DERRICK MAN <u>E Borgeux</u>	@ \$ _____ \$ _____
STRIPPER		PIPE RACK	HELPER <u>M Mouloud</u>	@ \$ _____ \$ _____
POWER SUB.		SHAKER	HELPER <u>D Mullins</u>	@ \$ _____ \$ _____
TRUCKING		2 nd PUMP	HELPER <u>P Lewis</u>	@ \$ _____ \$ _____
GENERATOR		CENTRIFUGAL		@ \$ _____ \$ _____
EXTRA LABOR		GUARD		@ \$ _____ \$ _____
SUPPLIES		PIPE DOPE		@ \$ _____ \$ _____
RAMS		MISC.		@ \$ _____ \$ _____
LONG DIES				@ \$ _____ \$ _____

TO SHER Rongla Touchet COMPANY REPRESENTATIVE

JOB NO. 27-5 ORDER NO. _____ CONTRACT NO. _____ JOB 27-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annually.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7687

REPORT NO. 2

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-23-73
FIELD Pleasant Bayou LEASE _____ WELL NO. 1
PARISH OR COUNTY Bossier County La STATE Louisiana RIG NO. 5

Present Perforations _____ Present Packer Setting _____
Total Depth _____ Present Depth _____ Type Plug _____

Safety Meeting

Last
Casing
Setting

Size _____
Depth _____
Max Bit _____

Screen Setting
Size _____
Interval _____

Tubing Setting

Size _____
Type _____
Amt. _____

B. O. P. TEST PRESSURES

Hydril _____
Type _____
Vis. _____

PRODUCTION PRESSURE SETTING

Make & Model _____
Size _____
Depth _____

DRILL DEEPER

Closing Depth _____ Bit Size _____
Opening Depth _____ Bit Type _____
Footage Made _____

2-1000-3 hrs Make up 2 3/8 pipe line & cut to
D #1
10-200-4 hrs cut well head off DOE #2 well

Pleasant Bayou Dist. water disposal
well No. 1 Bossier County La Permit
No. 01500 Perry Section Survey A-107

EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
		None		

3 RD PARTY CHARGES			PERSONNEL		TIME DISTRIBUTION		
					UNIT	HRS.	\$
R	SLIP INSERT		DRILLER	D. Fouchet			
	T.I.W.		DERRICK MAN	E. Broussard			
	PIPE RACK		HELPER	M. Norwood			
B.	SHAKER		HELPER	D. Mullena			
	2 ND PUMP		HELPER	P. Lewis			
OR	CENTRIFUGAL						
OR	GUARD						
	PIPE DOPE						
	MISC.						

ER Douglas Fouchet COMPANY REPRESENTATIVE
26-5 ORDER NO. _____ CONTRACT NO. _____ JOB 27-5

NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annually.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7688

REPORT NO. 3

DAILY WORKOVER REPORT

COMPANY D O E DATE 12-27-93
FIELD Pleasant Bayou LEASE Perry Station WELL NO SWD #2
PARISH OR COUNTY Louisiana County 2A STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING

always wear
eye prot. when
use hammer

Last
Casing
Setting

Size

Depth

Max Bit

Screen Setting

Size

Interval

Tubing Setting

Size

Type

Amt

B. O. P. TEST PRESSURES

Rams _____ Hydril _____
Mud Type _____
Weight _____ Vis. _____

PRODUCTION PRESSURE SETTING

Make & Model _____
Size _____
Depth _____

DRILL DEEPER

Closing Depth _____ Bit Size _____
Opening Depth _____ Bit Type _____
Footage Made _____

800-830-4hr Held safety meeting & per Rig & Equip
830-900-4hr open well 250' on tubing & 50' on casing
Bleed off casing
900-1000-4hr Hook up mud pump and inject Rate 3 1/2 gpm
Min 450' 15k BBL'S
1000-2000-4hr take on water to mix cmt & displ. well
2000-4000-2hr pump out seller & Break Bolt on tree
4000-2hr Min & pump 100 SKS = 21.73 BBL'S cmt pump
out at 6000 ft

Pleasant Bayou Salt water disposal
well No 1 Louisiana County 2A Permit
No 01600 Perry Station Survey A-197

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST
	YES	NO	
SUPPLIES		None	
FUEL			
TRUCKING			

3 rd PARTY CHARGES			PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER	SLIP INSERT		DRILLER		UNIT 11	HRS. @ \$
DIESEL	T.I.W.		DERRICK MAN	E. B. B. B.		@ \$
STRIPPER	PIPE RACK		HELPER	M. M. M.		@ \$
POWER SUB.	SHAKER		HELPER	D. M. M.		@ \$
TRUCKING	2 nd PUMP		HELPER			@ \$
GENERATOR	CENTRIFUGAL					@ \$
EXTRA LABOR	GUARD					@ \$
SUPPLIES	PIPE DOPE					@ \$
RAMS	MISC.					@ \$
LONG DIES						@ \$

T. O. SHER Douglas Touchet COMPANY REPRESENTATIVE
JOB NO. 27-5 ORDER NO. _____ CONTRACT NO. _____ JOB 27-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annually.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(316) 261-0295

TICKET 7689

REPORT NO. 4

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-28-93
FIELD Pleasant Bayou LEASE Penn State WELL NO. SWP #1
PARISH OR COUNTY Borgoria County La STATE Louisiana RIG NO. 5

Present Perforations _____ Present Packer Setting _____
Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING	Last Casing Setting	Size _____	Screen Setting	Tubing Setting
		Depth _____	Size _____	Size _____
		Max Bit _____	Interval _____	Type _____
				Am _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
ms _____	Hydri _____	Make & Model _____	Closing Depth _____	Bit Size _____	
d Type _____		Size _____	Opening Depth _____	Bit Type _____	
ght _____	Vis _____	Depth _____	Footage Made _____		

10-730-1/2 hr Held safety meeting & set Rig & Eqm.
10-800-1/2 hr open well & test to 1000' test good
10-1000-1/2 hr R/D Test & R/L 5 1/2 casing casing & work 5 1/2
hr
10-1000-8 to 1001 Laying down 5 1/2 casing

Pleasant Bayou Salt water disposal
well No. 1 Borgoria County La
Permit No. 01500 Laissez-Passer Bureau
A-107

LOG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
RIES		None		
CKING				

3RD PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION		
WIPER	SLIP INSERT			DRILLER	<u>D. Fouchet</u>	UNIT	HRS.	@ \$
EL	T.I.W.			DERRICK MAN	<u>E. Bergant</u>			@ \$
PPER	PIPE RACK			HELPER	<u>M. Norwood</u>			@ \$
ER SUB.	SHAKER			HELPER	<u>H. Mullens</u>			@ \$
CKING	2ND PUMP			HELPER				@ \$
ERATOR	CENTRIFUGAL							@ \$
LABOR	GUARD							@ \$
RIES	PIPE DOPE							@ \$
	MISC.							@ \$
DIES								@ \$

PUSHER Roughie Fouchet COMPANY REPRESENTATIVE _____
NO. 27-5 ORDER NO. _____ CONTRACT NO. _____ JOB 27-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annually.
Account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
& Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7690

REPORT NO. 5

DAILY WORKOVER REPORT

COMPANY D O E DATE 12-29-93

FIELD Pleasant Bayou LEASE Perry Station WELL NO. 1

PARISH OR COUNTY Bossier County La STATE Louisiana RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>watch your when</u> <u>laying down casing</u> <u>and back other</u>	Last Casing Setting	Size _____	Screen Setting	Tubing Setting
		Depth _____	Size _____	Size _____
		Max Bit _____	Interval _____	Type _____
				Ann _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Items _____	Hydri _____	Make & Model _____	Closing Depth _____	Bit Size _____	
Mud Type _____		Size _____	Opening Depth _____	Bit Type _____	
Weight _____	Vis. _____	Depth _____	Footage Made _____		

130-180-1/2 in Held safety meeting & set Rig & Equip
180-200-1/2 in 100 ft with 3/4 casing total job 5 1/2 128
200-180-1/2 in R/D casing eqm
230-380-1/2 in R/D with 1380 of 2 3/4 tubing
380-430-1/2 in mix & turn 50 SKS cont = 10 BBL cont from 1380
to 1250 ft
430-580-1/2 in 100 ft with 2 3/4 tubing to 950 ft
580-1/2 in mix & turning mix 110 SKS cont = 22 1/2 BBL's cont from 950
to 650 ft
650-180 100 ft lay down 2 3/4 tubing #

5 1/2 JBS - FL45 parted Rod pipe

5 1/2 K 55 - 16.50# - 91 lbs = 3231 lbs

5 1/2 JBS - 17# - 47 lbs

Pleasant Bayou Salt water disposal
well No. 1 Bossier County La Permit
No 01500 Perry Station Survey A-107

RIG EXPENSE	ACCIDENTS	SUPPLY REQUEST
<u>R/D 102500-530</u>	YES NO	
SUPPLIES		
FUEL		
TRUCKING		

3 RD PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER		SLIP INSERT		DRILLER	<u>B. Zouchet</u>	UNIT <u>11</u>	HRS. @ \$ _____
DIESEL		T.I.W.		DERRICK MAN	<u>E. Broussard</u>		@ \$ _____
STRIPPER		PIPE RACK		HELPER	<u>M. Norwood</u>		@ \$ _____
POWER SUP.		SHAKER		HELPER	<u>D. Mullins</u>		@ \$ _____
TRUCKING		2 ND PUMP		HELPER			@ \$ _____
GENERATOR		CENTRIFUGAL					@ \$ _____
EXTRA LABOR		GUARD					@ \$ _____
SUPPLIES		PIPE DOPE					@ \$ _____
RAMS		MISC.					@ \$ _____
LONG DIES							@ \$ _____

TO: Bouglas Zouchet COMPANY REPRESENTATIVE

JOB NO. 22-5 ORDER NO. _____ CONTRACT NO. _____ JOB 275

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% annually.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Pumping Services
Salt Water Wells
Plug & Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 7691

REPORT NO. 6

DAILY WORKOVER REPORT

COMPANY DOE DATE 12-30-93

FIELD Pleasant Bayou LEASE Barry Patton WELL NO. 1

PARISH OR COUNTY Borgonia County Tex STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING

watch all cables
when rigging down
so not taking up

Last
Casing
Setting

Size _____
Depth _____
Max Bit _____

Screen Setting
Size _____
Interval _____

Tubing Setting

Size _____
Type _____
Amt. _____

B. O. P. TEST PRESSURES

Rams _____ Hydril _____
Mud Type _____
Weight _____ Vis. _____

PRODUCTION PRESSURE SETTING

Make & Model _____
Size _____
Depth _____

DRILL DEEPER

Closing Depth _____ Bit Size _____
Opening Depth _____ Bit Type _____
Footage Made _____

700-730-1/2 hr Held safety Meeting & set Rig & eqm.
730-830-1 hr RTB open and with 430 ft 2 3/4 tubing
830-1100-2 1/2 hr Mix & pump 160 SKS cont = 79.00 BBL'S cont from
430 ft to 3 ft Below surface in 9 3/4
1100-1200-1 hr Pool Laying Down 430 ft 2 3/4
1200-1300-1 hr cut well head 3 1/2 ft Below ground Level
1300-300-2 hr pick up Rig Eqm & get Ready to R/D & pick up
Rigs from Rig to Mud Pump
300-500-2 hr RTB & wrap cable Bar Road ~~Hot Rig~~

5 1/2 81 gta-K55-15.50# = 3231 ft
5 1/2 47 gta J55-17#-FL-45
5 1/2 J55 Tested at 1950 ft lost 644 ft

9 3/4 XB3 3/4 Annul.

cont'd to surge.

unable to move

Used with 3000# pump Press

Pleasant Bayou Saltwater Disposal
well No1 Borgonia County Texas Permit
No 01500 Barry Patton Survey A-107

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
UPPLIES		none		
UEL				
RUCKING				

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER	SLIP INSERT			DRILLER	<u>D Touchet</u>	UNIT <u>10</u>	HRS. @ \$ _____
DIESEL	T.I.W.			DERRICK MAN	<u>E Bergaux</u>		@ \$ _____
STRIPPER	PIPE RACK			HELPER	<u>M Mosswood</u>		@ \$ _____
POWER SUB.	SHAKER			HELPER	<u>B Mullena</u>		@ \$ _____
TRUCKING	2 nd PUMP			HELPER			@ \$ _____
GENERATOR	CENTRIFUGAL						@ \$ _____
EXTRA LABOR	GUARD						@ \$ _____
SUPPLIES	PIPE DOPE						@ \$ _____
RAMS	MISC.						@ \$ _____
ONG DIES							@ \$ _____

DOLPUSHER Bouglas Touchet COMPANY REPRESENTATIVE _____

OB NO 27-5 ORDER NO. _____ CONTRACT NO. _____ JOB 27-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. lly.

its account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, meys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

Drilling
Workover
Completion
Tank Battery Installation
Logging Services
Water Wells
Abandon

DRILLING & WELL
SERVICE, INC.
101 GALBERT RD.
LAFAYETTE, LA 70506
(318) 261-0295

TICKET 1692

REPORT NO. 7

DAILY WORKOVER REPORT

COMPANY DOE DATE 1-3-94

FIELD Pleasant Bayou LEASE Barry Astin WELL NO. SWD#1

PARISH OR COUNTY Barataria County La STATE Texas RIG NO. 5

Present Perforations _____ Present Packer Setting _____

Total Depth _____ Present Depth _____ Type Plug _____

SAFETY MEETING <u>Let 1 man piece</u> <u>single to open up</u> <u>open in order not</u> <u>allow any fluid</u>	Last Casing Setting	Size _____	Screen Setting	Tubing Setting
		Depth _____	Size _____	Size _____
		Max Bit _____	Interval _____	Type _____
				Amf. _____

B. O. P. TEST PRESSURES		PRODUCTION PRESSURE SETTING		DRILL DEEPER	
Rams _____	Hydril _____	Make & Model _____		Closing Depth _____	Bit Size _____
Mud Type _____		Size _____		Opening Depth _____	Bit Type _____
Weight _____	Vis. _____	Depth _____		Footage Made _____	

800-930-4hr Held safety meeting
830-200-4hr get Prod eqm Ready to load out
200-400-2hr load out 29' at 5 1/2
400-600-2hr get eqm Ready to load out

Pleasant Bayou salt water disposal
well No. 1 Barataria County La Perm
10000 Barry Astin during A-101

RIG EXPENSE	ACCIDENTS		SUPPLY REQUEST	
	YES	NO		
SUPPLIES		<u>None</u>		
FUEL				
TRUCKING				

3 rd PARTY CHARGES				PERSONNEL		TIME DISTRIBUTION	
PIPEWIPER		SLIP INSERT		DRILLER <u>D Touchet</u>	UNIT <u>10</u>	HRS. @ \$ _____	\$ _____
DIESEL		T.I.W.		DERRICK MAN <u>E. Buzgang</u>		@ \$ _____	\$ _____
STRIPPER		PIPE RACK		HELPER <u>M. Norwood</u>		@ \$ _____	\$ _____
POWER SUB.		SHAKER		HELPER <u>R. Mullena</u>		@ \$ _____	\$ _____
TRUCKING		2 nd PUMP		HELPER		@ \$ _____	\$ _____
GENERATOR		CENTRIFUGAL				@ \$ _____	\$ _____
EXTRA LABOR		GUARD				@ \$ _____	\$ _____
SUPPLIES		PIPE DOPE				@ \$ _____	\$ _____
RAMS		MISC.				@ \$ _____	\$ _____
LONG DIES							

TOOLPUSHER Douglas Touchet COMPANY REPRESENTATIVE _____

JOB NO. 27-5 ORDER NO. _____ CONTRACT NO. _____ JOB 27-5

TERMS: NET 30 DAYS. Accounts over 30 days will be charged 1 1/2% per month not to exceed 18% ann. lly.

If this account is placed with a collection agency or an attorney for collection upon default of payment, a fee of 25% of the unpaid balance, together with all court costs, attorneys' fees, garnishment fees and 10% interest from maturity is hereby authorized.

TURNKEY BIDS FOR INDEPENDENT P&A OPERATIONS ON
THE PLEASANT BAYOU WELL NO. 2 AND PLEASANT BAYOU SWDW NO. 1, BRAZORIA CO., TX

BID MATRIX
IFB-PB-93-3-22

PLEASANT BAYOU NO. 2

TURNKEY BID
AS STATED

LINE ITEM DESCRIPTION

SECTION I: Kill (final zero surface pressure) the Pleasant Bayou No. 2. \$ NO BID
 Estimated time to complete _____

SECTION II: Kill the Pleasant Bayou No. 2 and place a bottom cement plug above the present production perforations. Cement plug (location and size) must comply with all applicable regulations. \$ NO BID
 Estimated time to complete _____

SECTION III: Place the bottom cement plug only. \$ NO BID
 Estimated time to complete _____

SECTION IV: Complete plug and abandonment (P&A) of the Pleasant Bayou No. 2 after the well has been killed and the bottom cement plug has been placed by someone other than bidder. \$ 21,900
 Estimated time to complete 180 Hours

Bidder's (Company's) Name PAW Drilling & Well Service, Inc.

Signature of Authorized Company Representative

Date: 4/28/93

**TURNKEY BIDS FOR INDEPENDENT P&A OPERATIONS ON
THE PLEASANT BAYOU WELL NO. 2 AND PLEASANT BAYOU SWDW NO. 1, BRAZORIA CO., TX**

**BID MATRIX
IFB-PB-93-3-22**

**TURNKEY BID
AS STATED**

PLEASANT BAYOU NO. 2

LINE ITEM DESCRIPTION

SECTION V: To kill the Pleasant Bayou No. 2, place the bottom cement plug, and complete plug and abandonment (P&A) of the well. \$ 36,900
Estimated time to complete 145 Hours

SECTION VI: Cost to provide a "Performance Bond", with "Payment Clause", as described in Note No. 8, Pages 3 and 4, of this IFB. \$ 4,355

SECTION VII: Have any of the above bids been affected by bidder's interest in salvaging any casing/tubing or surface production equipment? XX YES
_____ NO
If yes, please attach an itemized list of all items bidder is interested in obtaining. All salvageable downhole and surface equip.

PLEASANT BAYOU SWDW NO. 1

SECTION VIII: Plug and abandon (P&A) the Pleasant Bayou SWDW No. 1 \$ 12,250
Estimated time to complete 58 Hours

SECTION IX: Has the above bid been affected by bidder's interest in salvaging any casing/tubing or the disposal wellhead? XX YES
_____ NO
If yes, please attach an itemized list of all items bidder is interested in obtaining. All salvageable downhole and surface equip.

Bidder's (Company's) Name PAW Drilling & Well Service, Inc.

Signature Authorized Company Representative

Date: 4/28/93

Section 7.0

Cost

EG&G IDAHO, INC.

Transportation & Renewable Energy Programs

Ted L. Rasmussen, Unit Manager

COSTS SAVINGS

Identified bellow are cost savings resulting from Quality Project Management Procedures. A savings of \$3.1 million resulted when EG&G Idaho, Inc. replaced the site operator for three geothermal test sites. By proper project management, intensive investigation of work to be performed (resulting in knowing the proper way to accomplish the work) along with day to day control of contracts by the project manager Bennie N. Rinehart the above savings was the result.

DOE cost with the original contractor:

P&A Wells (3)	\$1,592,442
Restoration	\$347,620
Administration (11m)	\$1,007,776
NORM Storage (10y)	<u>\$158,400</u>
Total Cost	\$3,106,238

Note: The site restoration for Gladys McCall was estimated to be \$115,435 by the original contractor. When it was placed out for bid the cost came in at \$868,350. EG&G Idaho, Inc. changed the restoration plan and completed it for \$78,806. Using this amount then the savings shown below would be increased by \$789,544 to \$3,191,782.

EG&G Idaho, Inc. cost

P&A Wells (3)	\$185,214
Restoration	\$177,000
Administration (11m)	\$60,000
NORM Disposal	\$44,400
Subcontracts (Engineering & Attorney)	<u>\$237,386</u>
Total Cost	\$704,000

SAVINGS \$2,402,238

Adjusted Total SAVINGS \$3,191,782

Bennie N. Rinehart
3-28-94