LOUISIANA ABANDONED OIL FACILITY
SITE ASSESSMENT SUMMARY REPORT

FOR

Quality Petroleum, Inc.-Hoffman, et al.
Caddo Parish, Louisiana
FPN: E06614
EPA ID: 09-E-1181

NPFC COPY

May 23, 2008

Prepared for:
United States Army Corps of Engineers
Tulsa District

USACE Contract: W912BV-06-G-1001
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E & E Project No.: 002338.TU07

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Louisiana Abandoned Oil Facility
Site Assessment Summary Report

FACILITY SUMMARY

Facility Name: Quality Petroleum, Inc.-Hoffman, et al. **FPN:** E06614

Parish: CADDO **Referral Date:** 2/28/2006

Assessment Status: Abandoned	**Date:** 11/15/2006	**Current Status** Abandoned	**Date:** 4/5/2008

Statement of Threat:

Drainage from Source 1 flows southeast down gradient (a 35-foot drop over 770 feet) to a National Hydrography Dataset (NHD) defined perennial tributary of Caddo Lake, which is hydrologically connected to and forms a significant surface water nexus with Caddo Lake. Caddo Lake is navigable "in fact" and subject to interstate commerce.

An actual and substantial threat of discharge was determined to exist by the Federal On-Scene Coordinator (FOSC) at Source 1. Containers AST1 and AST3 were actively discharging their oily contents through seeps from corroded and delaminated metal or peeling and degraded fiberglass at their bases. All containers at Source 1 have heavy corrosion at the lower tank sidewalls and on connecting flow lines. Due to their poor condition, catastrophic failure is imminent; meaning all tank contents will be released into secondary containment, where present. The berm of the secondary containment around the containers is breeched, reducing its holding capacity. As a result, 74.5 barrels (bbl) of oil and oil emulsion and 68.4 bbl of oily produced water could drain from Source 1 and flow downgradient, ultimately impacting the Caddo Lake if action is not taken to mitigate this threat.

Facility Description:

The Quality Petroleum, Inc.-Hoffman, et al., abandoned oil production facility is located in Caddo Pine Island Oil and Gas Field (Field ID: 2152), approximately 2.8 miles southwest of Vivian, in Section 004, Township 21 North, Range 16 West (Sec. 004, T21N, R16W) of Caddo Parish, Louisiana. The facility is accessed from the northwest by an access road that is off of Monterey School Road.

The facility consists of three above ground storage tanks (AST), one separator (S), one secondary containment area (CONT), and one production well located at one potential spill source (Source 1).

The facility serviced one production well, identified as Hoffman, et al. Well No. 001 (SN 179621). Louisiana Department of Natural Resources (LDNR) records list this well as orphaned.

Source 1 consists of two welded-steel ASTs, identified as AST1 and AST2, a fiberglass AST, identified as AST3, and one welded-steel gun-barrel type separator, identified as S1, located in a rectangular 70-foot by 30-foot breached and eroded, earthen-bermed, secondary containment area identified as CONT1.

Based on gauging, thermal and acoustic differentials, and surface soil, core, and field observations, the following volumes of non-hazardous oilfield waste (NOW) were estimated to be present at Source 1 of the facility. AST1, AST2, and AST3 contain a total of 32.1 bbl of oil and oil emulsion and 68.4 bbl of oily produced water. S1 is estimated to contain an additional 42.4 bbl of oil emulsion based on thermal imaging and acoustic differentials. The contents of these containers were documented as NOW. In addition, CONT 1 has 26.4 cubic yards (yd3) of oil-saturated/heavily oil-stained soil.

Facility Components:

AST 1, AST 2, AST 3, CONT1, S 1

Number of Associated Wells: 1

Oil and Gas Field ID: 2152 **Field Name:** CADDO PINE ISLAND

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Facility Coordinates:

Latitude (DMS) 32 ° 50 ' 32.2 " **North,** **Longitude (DMS)** 94 ° 1 ' 45.7 " **West**

Latitude/Longitude Measured by:

◉ **GPS** **Differential:** ☐ **DOP Value:** 1.6 ○ **Map Scale** **Datum:**

7.5 Minute Quadrangle: TREES TEX. **LADOTD No.:** 026D **USGS No.:** 32094G1

Section: 4 **Township** 21 N **Range:** 16 W **Specific Section Location:** of

Nearest Landmarks:

City:	Vivian	**Direction:** NE	**Distance:** 2.8	**Units:** mi.
Waterway:	Caddo Lake	**Direction:** S	**Distance:** 0.9	**Units:** mi.
Surface Water Intake:	RAW WATER INTAKE	**Direction:** S	**Distance:** 5.6	**Units:** mi.

☑ **Accessible by Land** ☐ **Accessible by Water**

Is it over water or sheen on water? ○ **Yes** ◉ **No** **Distance to surface water or wetland (feet):** 770

Navigable Water: Caddo Lake **Downstream Distance to Navigable Water:** 0.9 mi.

Directions to Site:

From the intersection of Louisiana Highway (LA Hwy) 1 and LA Hwy 2, south of Vivian, in Caddo Parish, Louisiana, travel west on LA Hwy 2 for approximately 2.1 miles to Boyter Lane. Turn right and travel north on Boyter Lane for 2.9 miles to Monterey School Road. Turn left and travel west and southwest for 1.4 miles to the facility access road. Turn left and travel south southeast and east for 0.15 mile to Source 1 of the facility.

Approximate size of facility in acres:

Are security features present? ◉ Yes ○ No

Type and condition of security features:

An unlocked gate is located across the facility access road to the facility.

Are there visual signs of human or wildlife access to site? ◉ Yes ○ No

Description of signs and activity by humans or wildlife:

Deer tracks, rabbits and other wildlife were observed at the facility.

Additional Comments:

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FACILITY ACTIONS

EPA ID:	09-E-1181	**Event:**	Site Reconnaissance
Date:	11/15/2006	**Time:**	

Agency/Contractor:	**Representative(s):**
EPA	FOSC Wally Cooper
START-3	Dana Beck

Comments:

The facility was visited on November 15, 2006, and a site reconnaissance was conducted at that time. LDNR Conservation Enforcement Specialist (CES), Gerald Humphery, provided access to conduct on-site activities. During the reconnaissance, the general condition of the facility and containers was evaluated to determine the volume of oil and oil emulsion present, and a preliminary assessment of substantial threat to navigable waters of the United States was documented using revised U.S. Environmental Protection Agency (EPA) Region 6 protocols.

LDNR records indicate that the contents of the surface components consist of NOW in the form of oil, oil emulsion, and/or oily produced water. These fluids meet the definition of "oil" as defined by Section 1001(23) of the Oil Pollution Act, 33 United States Code (U.S.C.) § 2701(23). The surface components were not gauged during the reconnaissance, but their volumes were estimated by acoustic and thermal differential observations.

The condition of all the containers at Source 1 was deemed to be inadequate. Significant corrosion was present on the containers and connected flow lines. Oil and oil-saturated soil around the containers indicated prior discharges to the environment. The tanks were actively discharging their oily contents through seeps from delaminated metal or peeling and degraded fiberglass at their bases. The secondary containment did not appear to be adequate to prevent oil releases from draining to adjacent waterways. The available capacity will need to be determined.

The Federal On-Scene Coordinator (FOSC) has determined that a failure of the storage and process components through corrosion, vandalism, or force majeure has a high potential to release a harmful quantity of oil, within the meaning of Section 311 (b)(3) of U.S.C. § 1321(b)(3), and title 40 of Code of Federal Regulations (CFR) § 110.3(b), into the site drainage and, ultimately, into the Caddo Lake.

The EPA Region 6 FOSC has determined from his reconnaissance that Source 1 of this facility meets the revised Region 6 substantial threat criteria.

Louisiana Abandoned Oil Facility
Site Assessment Summary Report

EPA ID:	09-E-1181	**Event:**	Site Assessment
Date:	4/5/2008	**Time:**	09:55

Agency/Contractor:	**Representative(s):**
USACE Contractor	Colin Johnson and Robert Sekerka

Comments:

On April 5, 2008, a Site Assessment (SA) was conducted by the United States Army Corps of Engineers (USACE) and their contractor, on behalf of the EPA, to document the condition of the abandoned facility. Access to conduct on-site activities was coordinated with LDNR CES, Don Owens.

AST1, AST2, and AST3 were gauged and their conditions were documented. Due to the lack of access ports, S1 could not be accessed for gauging, but the volume of its contents was determined by thermal imaging and acoustic differentials and its condition was documented. Container AST1 was actively discharging its oily contents through seeps from corroded and delaminated metal at its base. Container AST3 was also actively discharging its oily contents through seeps from peeling and degraded fiberglass at its base. All containers at Source 1 had heavy corrosion at the lower tank sidewalls and/or on connecting flow lines.

The surface condition of CONT1 was documented. The local elevations were surveyed to determine the capacity of each containment area and the slope to the nearest drainage. Observation soil cores were also used to determine the extent of the oil saturation of the soil below ground surface (BGS).

Oily liquid seeping through delaminated metal at the base of AST1 and AST3 created areas of oil-saturated soil in most of CONT1. Soil cores revealed that oil-saturated soil extended to a maximum depth of 1 foot BGS. A breach eroded in southern earthen berm of CONT1 significantly reduced the containment capacity and allowed it to drain oily water to adjacent waterways. Water with an oily sheen was pooled up to a depth of 0.5 foot in the southern portion of CONT1. Medium pines and vegetation were present in CONT1. Lack of maintenance was evident from the heavily overgrown condition, eroding berms, and the oil-saturated soil in CONT1.

The wellhead for SN 179621 was located at the coordinates reported by LDNR and its condition was documented. The wellhead and the connected flow lines were heavily corroded. An empty 55-gallon drum was located east of the wellhead.

All of the facility components were screened for naturally occurring radioactive material (NORM). AST3 had radiation emissions of 40 micro Roentgens per hour (μR/hr) at the base of the tank. No radiation readings significantly exceeded the background level of 5 μR/hr.

Louisiana Abandoned Oil Facility
Summary of Facility Container Contents

Container Name	Tank Size (bbl)	Oil (bbl)	Oil Emulsion (bbl)	Water (bbl)	Other Matrix (bbl)	Total Sum of Liquids (bbl)
AST 1	111.64	1.40	11.16	0.00	0.00	12.56
AST 2	111.64	0.00	11.16	0.00	0.00	11.16
AST 3	209.33	1.40	6.98	68.38	0.00	76.75
S 1	44.66	42.42	0.00	0.00	0.00	42.42
Total	**477.27**	**45.21**	**29.31**	**68.38**	**0.00**	**142.90**

Key: bbl = Barrels

Louisiana Abandoned Oil Facility
Summary of Facility Containment, Pit, and Oil Impacted Area Contents

Component Name	Required Capacity (bbl)	Available Capacity (bbl)	Wet Soil (yd3) [4]		Soil (yd3)	Dry Soil (yd3) [4]		Free Water (bbl)	Free Oil (bbl)	Total Soil (yd3)
			Light [1]	Medium [2]	Heavy [3]	Light [1]	Medium [2]			
CONT1	483.20	44.02	0.00	0.00	26.44	0.00	0.00	33.58	0.00	26.44

Key: bbl = Barrels yd3 = Cubic yards NA = Not Applicable

Footnote:
1. Estimated Oil and grease (OG) concentrations ranging from 1 percent (%) to 3% by dry weight (dw).
2. Estimated OG concentrations ranging from 3.1% to 20% dw.
3. Estimated OG concentrations ranging greater than 20% dw.
4. Estimated Wet soil has a moisture content greater then or equal to 40% and Dry soil has a moisture content less then 40%. Percent moisture does not factor into soils with an OG concentration greater then 20% dw.

Louisiana Abandoned Oil Facility
Site Assessment Summary Report

CONTAINER DESCRIPTION

EPA ID: 09-E-1181

Container Name: AST 1

Assessment Date: 11/15/2006

Component Shape

○ Rectangular ◉ Cylindrical ○ Horizontal Cylindrical

Current Volumes

Tank Size:	111.64 bbl.	**Oil:**	1.40 bbl.
Available Capacity:	99.08 bbl.	**Oil Emulsion:**	11.16 bbl.
Water:	0.00 bbl.	**Other Matrix:**	0.00 bbl.

Open or Removed Top ☐	**ContainerType:**	**Were contents gauged?** ◉ Yes ○ No
Man Way Opened ☐	AST Cylindrical	**Method of estimation if not gauged**
Open, Empty and Gas-Free ☐	**Construction:**	
Significantly Rusted, Cracked or Corroded ☑	Single Wall Steel	
Active Discharge to Environment ☑	**Construction Type:**	
Evidence of Prior Seepage or Discharge ☐	Welded	**Containment Location** CONT1

Container Details: **Container is:** ○ Adequate ◉ Inadequate

AST1 had significant rust and corrosion, and had delaminated metal near its base and on connected flow lines. AST1 was actively discharging oily liquid to the environment via a seep through the delaminated metal at the base of the tank.

Latitude (DMS) ° ' " **North,** **Longitude (DMS)** ° ' " **West**

Location Reference: AST1 is located in the south end of CONT1.

Additional comments:

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CONTAINER DESCRIPTION

Air/NORM Monitoring: **EPA ID:** 09-E-1181 **Container Name:** AST 1

Was Air /NORM monitoring conducted? ◉ Yes ○ No

Location: ○ Inside Container ◉ Breathing Zone ○ Outside Container

Multiple Gas Air Monitoring Equipment: MultiREA PID+4g

LEL: 0 % **H2S:** 0 PPM **CO:** 0 PPM **O2:** 20.9 %

Location: ○ Inside Container ○ Breathing Zone ◉ Outside Container

Equipment Name Ludlum 19R **SN:** 221521 **Parameter:** Radiation **Reading:** 5 uR/hr

Location: ○ Inside Container ◉ Breathing Zone ○ Outside Container

Equipment Name MultiREA PID+4g **SN:** R9951 **Parameter:** PID **Reading:** 0 PPM

Louisiana Abandoned Oil Facility
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CONTAINER DESCRIPTION

EPA ID: 09-E-1181

Container Name: AST 2

Assessment Date: 11/15/2006

Component Shape

○ Rectangular ◉ Cylindrical ○ Horizontal Cylindrical

Current Volumes

Tank Size:	111.64 bbl.	**Oil:**	0.00 bbl.
Available Capacity:	100.48 bbl.	**Oil Emulsion:**	11.16 bbl.
Water:	0.00 bbl.	**Other Matrix:**	0.00 bbl.

Open or Removed Top ☐	**ContainerType:**	**Were contents gauged?** ◉ Yes ○ No
Man Way Opened ☐	AST Cylindrical	**Method of estimation if not gauged**
Open, Empty and Gas-Free ☐	**Construction:**	
Significantly Rusted, Cracked or Corroded ☑	Single Wall Steel	
Active Discharge to Environment ☐	**Construction Type:**	
Evidence of Prior Seepage or Discharge ☑	Welded	**Containment Location** CONT1

Container Details: **Container is:** ○ Adequate ◉ Inadequate

AST2 had extensive rust, corrosion, and delaminated metal near its base and on connected flow lines. Oil staining around the tank indicated prior discharge to the environment.

Latitude (DMS) ° ' " **North,** **Longitude (DMS)** ° ' " **West**

Location Reference: AST2 is located between AST1 and S1 in CONT1.

Additional comments:

Louisiana Abandoned Oil Facility
Site Assessment Summary Report

CONTAINER DESCRIPTION

Air/NORM Monitoring: **EPA ID:** 09-E-1181 **Container Name:** AST 2

Was Air /NORM monitoring conducted? ◉ Yes ○ No

Location: ○ Inside Container ◉ Breathing Zone ○ Outside Container

Multiple Gas Air Monitoring Equipment: MultiREA PID+4g

LEL: 0 % **H2S:** 0 PPM **CO:** 0 PPM **O2:** 20.9 %

Location: ○ Inside Container ○ Breathing Zone ◉ Outside Container

Equipment Name Ludlum 19R **SN:** 221521 **Parameter:** Radiation **Reading:** 5 uR/hr

Location: ○ Inside Container ◉ Breathing Zone ○ Outside Container

Equipment Name MultiREA PID+4g **SN:** R9951 **Parameter:** PID **Reading:** 0 PPM

Louisiana Abandoned Oil Facility
Site Assessment Summary Report

CONTAINER DESCRIPTION

EPA ID: 09-E-1181

Container Name: AST 3

Assessment Date: 11/15/2006

Component Shape

○ Rectangular ◉ Cylindrical ○ Horizontal Cylindrical

Current Volumes

Tank Size:	209.33 bbl.	**Oil:**	1.40 bbl.
Available Capacity:	132.57 bbl.	**Oil Emulsion:**	6.98 bbl.
Water:	68.38 bbl.	**Other Matrix:**	0.00 bbl.

Open or Removed Top ☐	**ContainerType:**	**Were contents gauged?** ◉ Yes ○ No
Man Way Opened ☐	AST Cylindrical	**Method of estimation if not gauged**
Open, Empty and Gas-Free ☐	**Construction:**	
Significantly Rusted, Cracked or Corroded ☑	Fiberglass	
Active Discharge to Environment ☑	**Construction Type:**	
Evidence of Prior Seepage or Discharge ☐	Resin	**Containment Location** CONT1

Container Details: **Container is:** ○ Adequate ◉ Inadequate

AST3 was degraded and peeling, and had delaminated metal on connected flow lines. AST3 was actively discharging oily liquid to the environment via a seep through the peeling fiberglass at the base of the tank.

Latitude (DMS) ° ' " **North,** **Longitude (DMS)** ° ' " **West**

Location Reference: AST3 is located in the northern end of CONT1.

Additional comments:

Elevated radiation readings were limited to the valve at the base of the tank and connected flowlines. No readings exceeded the NORM threshold of 50 uR/hr.

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CONTAINER DESCRIPTION

Air/NORM Monitoring: **EPA ID:** 09-E-1181 **Container Name:** AST 3

Was Air /NORM monitoring conducted? ◉ Yes ○ No

Location: ○ Inside Container ◉ Breathing Zone ○ Outside Container

Multiple Gas Air Monitoring Equipment: MultiREA PID+4g

LEL: 0 % **H2S:** 0 PPM **CO:** 0 PPM **O2:** 20.9 %

Location: ○ Inside Container ○ Breathing Zone ◉ Outside Container

Equipment Name Ludlum 19R **SN:** 221521 **Parameter:** Radiation **Reading:** 40 uR/hr

Location: ○ Inside Container ◉ Breathing Zone ○ Outside Container

Equipment Name MultiREA PID+4g **SN:** R9951 **Parameter:** PID **Reading:** 0 PPM

Louisiana Abandoned Oil Facility
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CONTAINER DESCRIPTION

EPA ID: 09-E-1181

Container Name: S 1

Assessment Date: 11/15/2006

Component Shape

○ Rectangular ◉ Cylindrical ○ Horizontal Cylindrical

Current Volumes

Tank Size:	44.66 bbl.	**Oil:**	42.42 bbl.
Available Capacity:	2.23 bbl.	**Oil Emulsion:**	0.00 bbl.
Water:	0.00 bbl.	**Other Matrix:**	0.00 bbl.

Open or Removed Top ☐	**ContainerType:**	**Were contents gauged?** ○ Yes ◉ No
Man Way Opened ☐	Separator	**Method of estimation if not gauged**
Open, Empty and Gas-Free ☐		Acoustic and thermal differentials.
Significantly Rusted, Cracked or Corroded ☑	**Construction:** Single Wall Steel	
Active Discharge to Environment ☐	**Construction Type:**	
Evidence of Prior Seepage or Discharge ☑	Welded	**Containment Location** CONT1

Container Details: **Container is:** ○ Adequate ◉ Inadequate

S1 had extensive rust, corrosion, and delaminated metal near its base and on connected flow lines. Oil staining around the tank indicated prior discharge to the environment.

Latitude (DMS) ° ' " **North,** **Longitude (DMS)** ° ' " **West**

Location Reference: S1 is located between AST2 and AST3 in CONT1.

Additional comments:

Louisiana Abandoned Oil Facility
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CONTAINER DESCRIPTION

Air/NORM Monitoring: **EPA ID:** 09-E-1181 **Container Name:** S 1

Was Air /NORM monitoring conducted? ◉ Yes ○ No

Location: ○ Inside Container ◉ Breathing Zone ○ Outside Container

Multiple Gas Air Monitoring Equipment: MultiREA PID+4g

LEL: 0 % **H2S:** 0 PPM **CO:** 0 PPM **O2:** 20.9 %

Location: ○ Inside Container ○ Breathing Zone ◉ Outside Container

Equipment Name Ludlum 19R **SN:** 221521 **Parameter:** Radiation **Reading:** 5 uR/hr

Location: ○ Inside Container ◉ Breathing Zone ○ Outside Container

Equipment Name MultiREA PID+4g **SN:** R9951 **Parameter:** PID **Reading:** 0 PPM

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CONTAINMENT DESCRIPTION

EPA ID: 09-E-1181 **Assessment Date:** 11/15/2006

Containment Name: CONT1 **Containment Orientation:** Rectangular

Length: 70 ft.	**Width:** 30 ft.	Oil	0 ft.	**Estimated Category**	
or Diameter:	0 ft.	Water	0.09 ft.		
		Layer A	0.34 ft.	Heavy (> 20% OG)	
Depth to mean surface: (1)	0.208 ft.	Layer B	0 ft.		
		Layer C	0 ft.		

Current Volume Totals:			**Wet Soil Totals (yd3):**		**Dry Soil Totals (yd3):**	
Free Water:		33.58 bbl	**1%-3% OG (Light):**	0.00	**1%-3% OG (Light):**	0.00
Free Oil:		0.00 bbl	**3.1%-20% OG (Medium):**	0.00	**3.1%-20% OG (Medium):**	0.00
Precipitation event: (2)		340.30 bbl				
Container contents:	+	142.90 bbl	**Soil > 20% OG (Heavy):**	26.44		
Required capacity: (3)	=	483.20 bbl	**Total soil exceeding 1.0% OG:**	26.44		

Available capacity: 44.02 bbl **Total capacity:** 77.61 bbl **Available capacity is:** ○ **sufficient** ◉ **not suffcient**

Containers encompassed by secondary

AST 1
AST 2
AST 3
S 1

Containment Type: Berm

Construction Material: Earthen

Construction Type: Excavation

Is containment accessible for gauging? ◉ Yes ○ No

If not, detail esitmate:

Description: **Is residual oil present ?** ◉ Yes ○ No

Oily liquid seeping through delaminated metal at the base of AST1 and AST3 created areas of oil-saturated soil in most of CONT1. Soil cores revealed that oil-saturated soil extended to a maximum depth of 1 foot BGS.

Are breaches present? ◉ Yes ○ No

Details: A breach eroded in southern earthen berm of CONT1 significantly reduced the containment capacity and allowed it to drain oily water to adjacent waterways.

Secondary containment condition is: ○ Adequate ◉ Inadequate

Details: The breach in CONT1 significantly reduced containment capacity and allowed drainage to the environment. Lack of maintenance was evident from the heavily overgrown condition, eroding berms, and the oil-saturated soil in CONT1.

Latitude (DMS) 32 ° 50 ' 32.2 " **North,** **Longitude (DMS)** 94 ° 1 ' 45.7 " **West**

Location Reference:

Footnote:
1. The depth from the lowest discharge point of the containment to a mean basin surface that represents the total liquid capacity of the containment.
2. The precipitation event is a 24-hour/25-year rainfall event, based on NOAA National Climatic Data Center records for North and South Louisiana regions from 1981 to 2006. This is consistent with the sufficient freeboard guidance provided in the preamble language of the 40 CFR Part 112 SPCC Final Rule, as published in the Federal Register Vol. 67, No. 137 July 17, 2002. Further, this standard is consistent with NPFC policy as we understand it.
3. Per 40 CFR 112, appropriate containment must be capable of containing oil so that any discharge from a primary containment system, such as a tank, will not escape the containment system before cleanup occurs. The Required Capacity is equal to the liquid volume held by the primary containers and sufficient freeboard to contain precipitation.

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CONTAINMENT DESCRIPTION

Container Name: CONT1 **EPA ID:** 09-E-1181

Additional comments:
Medium-sized pines and vegetation were present in CONT1. Water with an oily sheen was pooled up to a depth of 0.5 foot in the southern portion of CONT1. Salinity tests of the water in CONT1 indicated it was from precipitation. Oily liquid seeping through delaminated metal at the base of AST1 and AST3 created areas of oil-saturated soil in most of CONT1. Soil cores revealed that oil-saturated soil extended to a maximum depth of 1 foot below AST3 and to 0.1 to 0.2 foot in the remainder of CONT1. Depths and dimensions were averaged for volume calculations.

Has sampling been conducted ○ Yes ◉ No Refer to Summary of Analytical Results Table(s).

Air/NORM Monitoring

Was Air/NORM monitoring conducted ◉ Yes ○ No

Location: ○ Inside Container ◉ Breathing Zone ○ Outside Container

Multiple Gas Air Monitoring Equipment: MultiREA PID+4g

LEL: 0 % **H2S:** 0 PPM **CO:** 0 PPM **O2:** 20.9 %

Location: ◉ Inside Container ○ Breathing Zone ○ Outside Container

Equipment Name Ludlum 19R **SN:** 221521 **Parameter:** Radiation **Reading:** 5 uR/hr

Location: ○ Inside Container ◉ Breathing Zone ○ Outside Container

Equipment Name MultiREA PID+4g **SN:** R9951 **Parameter:** PID **Reading:** 0 PPM

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WELL DESCRIPTION

Well Name: Hoffman, et al. **Well No.:** 001 **EPA ID:** 09-E-1181

Association: Position

Direction: **Proximity (feet):** Not Entered

LDNR Serial No.: 179621 **LDNR Serial Source:** LDNR records

LDNR Well Status: 23 ACT 404 ORPHAN WELL-ENG **LDNR Well Priority:** 4 Low

Projection Name: **Lambert X:** **Lambert Y:**

Latitude: 32 ° 50 ' 32.4 " **North** **Longitude:** 94 ° 1 ' 44.3 " **West**

Inspection Date: 4/5/2008 **Inspection Time:** **Condition:** corroded

Parish: Not Entered

Section: 004 **Township:** 21 N **Range:** 16 W

Terrain: upland **Elevation:** 10 **inches** above **grade**

Status: not flowing - connected

Is well currently leaking oil? ○ Yes ◉ No

Leaking oil comments:

Additional well comments:

A sucker rod is located in the well head and a pumk jack stand is located next to the well. The pump jack is not present.

Operator History:

Operator	Operator Code	Acquisition Date	Transfer Date
Quality Petroleum, Inc.	Q008	11/1/1996	
Allen Brothers	0104	6/1/1992	11/1/1996
HUTSON OIL CO.	2928	2/1/1990	6/1/1992
JAMES L BARBER	0392	10/1/1983	2/1/1990
CARUTHERS PRODUCING CO., INC.	1133	11/1/1982	10/1/1983
JOHN D. CARUTHERS, JR.	1146	1/1/1982	11/1/1982

APPENDICIES:

1. Site Location Maps
2. Site Sketch
3. Photographic Documentation
4. Site Assessment Field Data Sheets
5. Logbook Documentation
6. LDNR Information
7. LOSCO Information
8. Records of Communication
9. Interim Deliverables
10. Quality Control Acknowledgement

APPENDIX 1

SITE LOCATION MAPS

SOURCE: U.S.G.S. 7.5 MINUTE QUADRANGLE - TREES, LOUISIANA

ecology and environment, inc.
International Specialists in the Environment

SITE LOCATION MAP
FPN: E06614, EPA ID: 09-E-1181
QUALITY PETROLEUM, INC. - HOFFMAN, ET AL.
CADDO PARISH, LOUISIANA

File Name: E06614_sl.mxd

Date: 5/8/2008

N

0 100 200 400 600 800 1,000 1,200 Feet

Louisiana

SOURCE: 2004 DOQQ - TREES NE, LOUISIANA

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SITE AERIAL
FPN: E06614, EPA ID: 09-E-1181
QUALITY PETROLEUM, INC. - HOFFMAN, ET AL.
CADDO PARISH, LOUISIANA

File Name: E06614_A.mxd

Date: 4/23/2008

SOURCE: U.S.G.S. 7.5 MINUTE QUADRANGLE - LATEX, LOUISIANA

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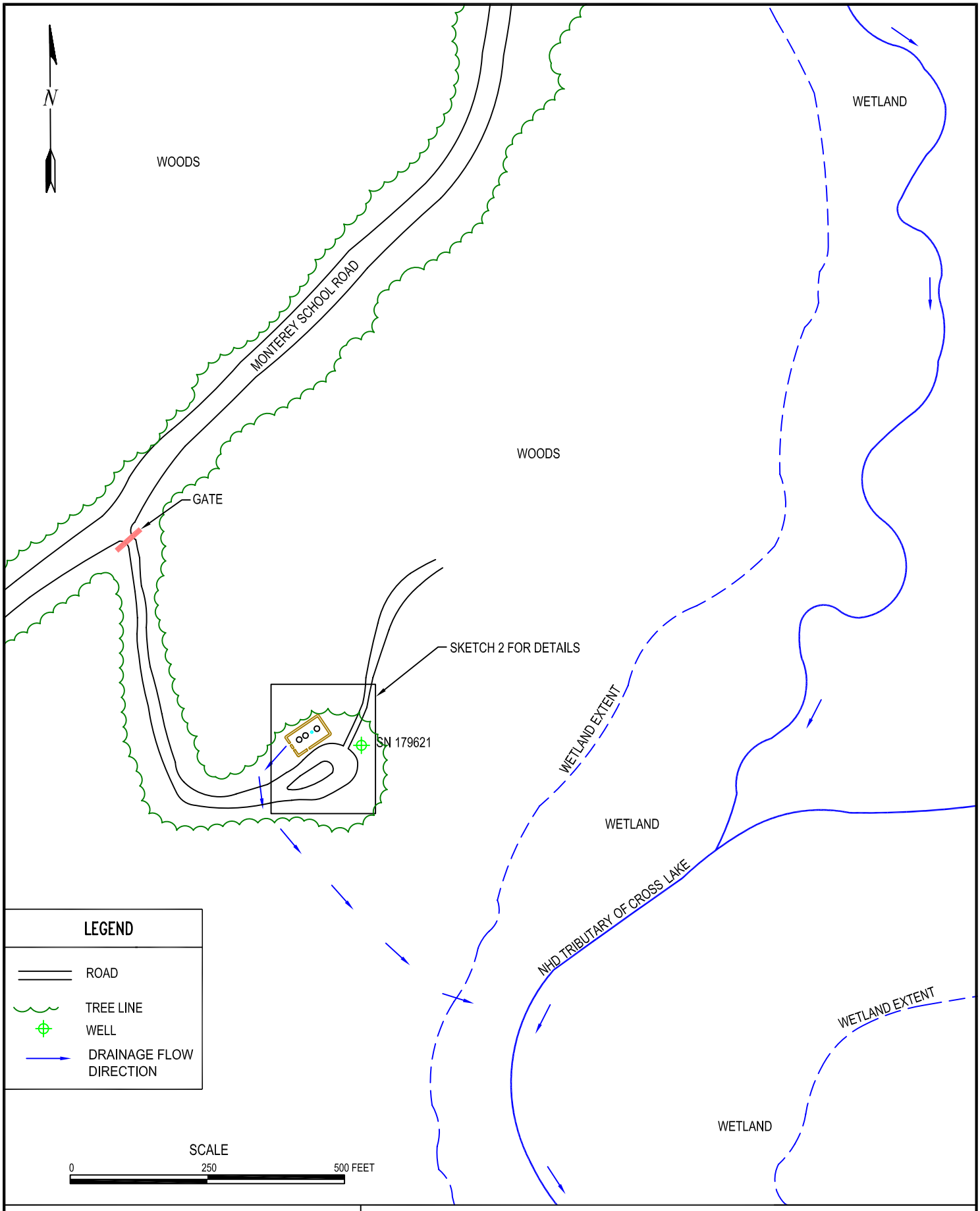
SITE DRAINAGE MAP
FPN: E06614, EPA ID: 09-E-1181
QUALITY PETROLEUM, INC. - HOFFMAN, ET AL.
CADDO PARISH, LOUISIANA

File Name: E06614_d.mxd

Date: 4/23/2008

APPENDIX 2

SITE SKETCH



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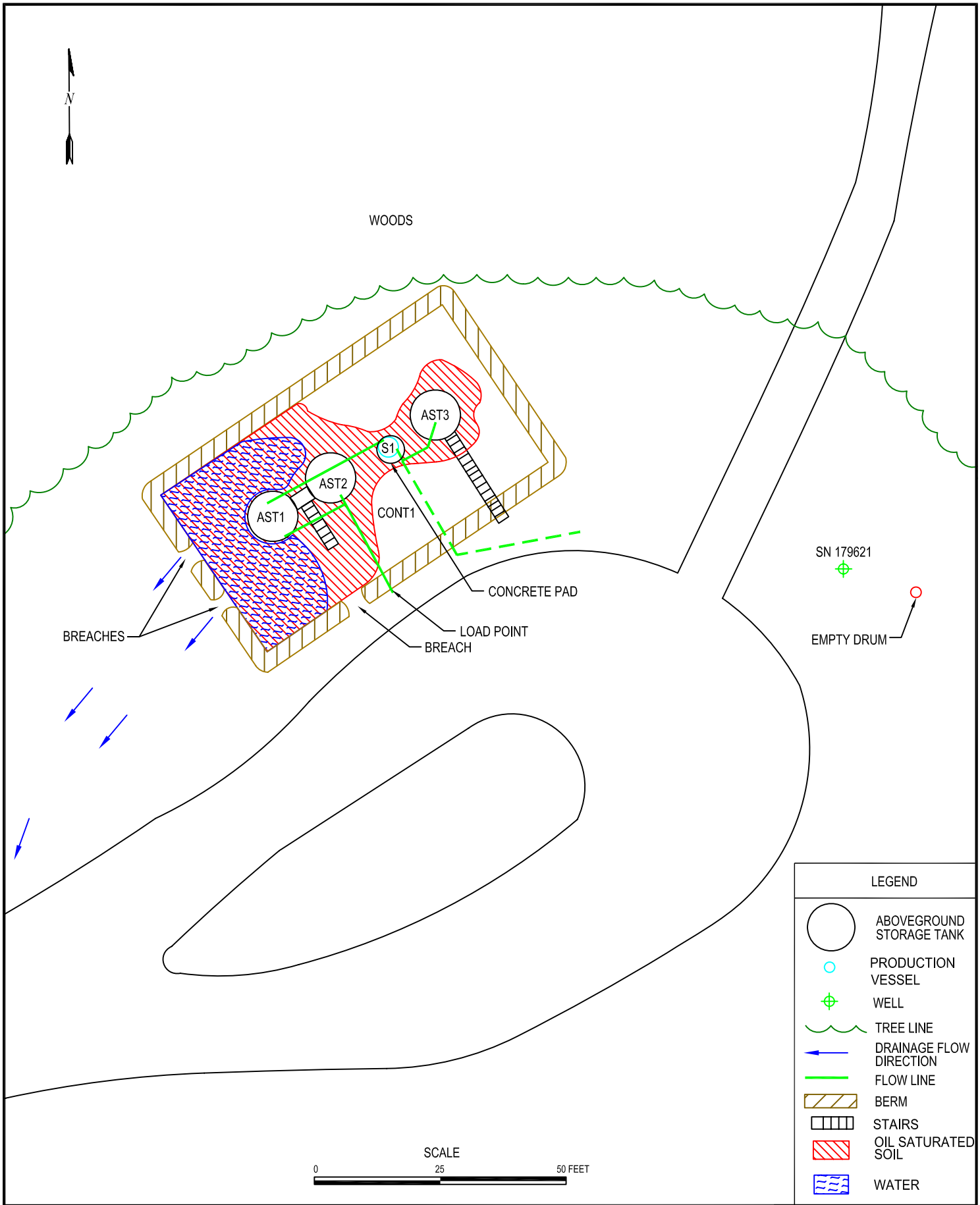
International Specialists in the Environment
Baton Rouge, LA

SITE SKETCH 1 OF 2
QUALITY PETROLEUM, INC. - HOFFMAN, ET AL.
FPN: E06614 - EPA ID: 09-E-1181
CADDO PARISH, LOUSIANA

FILE: E06614.dwg | DATE: 05/15/08 | PROJECT No.: 002388.TU07.01



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Baton Rouge, LA

SITE SKETCH 2 OF 2
QUALITY PETROLEUM, INC. - HOFFMAN, ET AL.
FPN: E06614 - EPA ID: 09-E-1181
CADDO PARISH, LOUSIANA

FILE: E06614.dwg | DATE: 05/15/08 | PROJECT No.: 002388.TU07.01

APPENDIX 3

PHOTOGRAPHIC DOCUMENTATION

Louisiana Abandoned Oil Facility Database
Facility Photograph List

EPA ID: 09-E-1181

DATE	TIME	PHOTO #	DIRECTION	COMMENTS	PHOTOGRAPHER/WITNESS
4/1/2008	13:34	0104	SW	E06614: Unnamed NHD tributary of Caddo Lake just upstream of facility drainage outfall.	Farrar, Will / N/A
4/5/2008	9:28	0201	NW	E06614: AST1, AST2, AST3, and S1 in CONT1.	Sekerka, Robert / Johnson, Colin
4/5/2008	9:37	0207	NW	E06614: Rust, corrosion and oily liquid seeping through the delaminated metal on the man way at the base AST1.	Sekerka, Robert / Johnson, Colin
4/5/2008	9:38	0209	Down	E06614: Oil saturated soil surrounding valve on AST2.	Sekerka, Robert / Johnson, Colin
4/5/2008	9:39	0210	E	E06614: Rust, corrosion and delaminated metal on AST2.	Sekerka, Robert / Johnson, Colin
4/5/2008	9:40	0211	W	E06614: Rust, corrosion and delaminated metal on S1.	Sekerka, Robert / Johnson, Colin
4/5/2008	9:41	0213	E	E06614: Rust, corrosion and delaminated metal at base of S1 and evidence of prior oil release.	Sekerka, Robert / Johnson, Colin
4/5/2008	9:42	0214	Down	E06614: Rust, corrosion and delaminated metal on S1.	Sekerka, Robert / Johnson, Colin
4/5/2008	9:44	0216	Down	E06614: Oily liquid seeping through the chipped and peeling fiberglass ath the base of AST3.	Sekerka, Robert / Johnson, Colin
4/5/2008	10:13	0222	SW	E06614: Oily sheen on water pooled in southwest end of CONT1 (Note breach through CONT1 in background).	Sekerka, Robert / Johnson, Colin
4/5/2008	10:15	0225	SW	E06614: Drainage ditch on north side of facility access road.	Sekerka, Robert / Johnson, Colin
4/5/2008	10:16	0226	S	E06614: Drainage pathway to NHD tributary to Caddo Lake south of access road.	Sekerka, Robert / Johnson, Colin

Site Name: Quality Petroleum, Inc.-Hoffman, et al. **Project No.:** E06614
Photo No.: 0104 **Direction:** SW **Contract No.**
Date: 04/01/2008 **Time:** 1:34:00 PM **Photographer/Witness:** Farrar, Will/N/A
Description: E06614: Unnamed NHD tributary of Caddo Lake just upstream of facility drainage outfall.

Site Name: Quality Petroleum, Inc.-Hoffman, et al. **Project No.:** E06614
Photo No.: 0207 **Direction:** NW **Contract No.**
Date: 04/05/2008 **Time:** 9:37:00 AM **Photographer/Witness:** Sekerka, Robert/Johnson, Colin
Description: E06614: Rust, corrosion and oily liquid seeping through the delaminated metal on the man way at the base AST1.

Site Name: Quality Petroleum, Inc.-Hoffman, et al. **Project No.:** E06614
Photo No.: 0201 **Direction:** NW **Contract No.**
Date: 04/05/2008 **Time:** 9:28:00 AM **Photographer/Witness:** Sekerka, Robert/Johnson, Colin
Description: E06614: AST1, AST2, AST3, and S1 in CONT1.

Site Name: Quality Petroleum, Inc.-Hoffman, et al. **Project No.:** E06614
Photo No.: 0209 **Direction:** Down **Contract No.**
Date: 04/05/2008 **Time:** 9:38:00 AM **Photographer/Witness:** Sekerka, Robert/Johnson, Colin
Description: E06614: Oil saturated soil surrounding valve on AST2.

Site Name: Quality Petroleum, Inc.-Hoffman, et al. **Project No.:** E06614
Photo No.: 0210 **Direction:** E **Contract No.**
Date: 04/05/2008 **Time:** 9:39:00 AM **Photographer/Witness:** Sekerka, Robert/Johnson, Colin
Description: E06614: Rust, corrosion and delaminated metal on AST2.

Site Name: Quality Petroleum, Inc.-Hoffman, et al. **Project No.:** E06614
Photo No.: 0211 **Direction:** W **Contract No.**
Date: 04/05/2008 **Time:** 9:40:00 AM **Photographer/Witness:** Sekerka, Robert/Johnson, Colin
Description: E06614: Rust, corrosion and delaminated metal on S1.

Site Name: Quality Petroleum, Inc.-Hoffman, et al. **Project No.:** E06614
Photo No.: 0213 **Direction:** E **Contract No.**
Date: 04/05/2008 **Time:** 9:41:00 AM **Photographer/Witness:** Sekerka, Robert/Johnson, Colin
Description: E06614: Rust, corrosion and delaminated metal at base of S1 and evidence of prior oil release.

Site Name: Quality Petroleum, Inc.-Hoffman, et al. **Project No.:** E06614
Photo No.: 0214 **Direction:** Down **Contract No.**
Date: 04/05/2008 **Time:** 9:42:00 AM **Photographer/Witness:** Sekerka, Robert/Johnson, Colin
Description: E06614: Rust, corrosion and delaminated metal on S1.

Site Name: Quality Petroleum, Inc.-Hoffman, et al. **Project No.:** E06614
Photo No.: 0216 **Direction:** Down **Contract No.**
Date: 04/05/2008 **Time:** 9:44:00 AM **Photographer/Witness:** Sekerka, Robert/Johnson, Colin
Description: E06614: Oily liquid seeping through the chipped and peeling fiberglass ath the base of AST3.

Site Name: Quality Petroleum, Inc.-Hoffman, et al. **Project No.:** E06614
Photo No.: 0225 **Direction:** SW **Contract No.**
Date: 04/05/2008 **Time:** 10:15:00 A **Photographer/Witness:** Sekerka, Robert/Johnson, Colin
Description: E06614: Drainage ditch on north side of facility access road.

Site Name: Quality Petroleum, Inc.-Hoffman, et al. **Project No.:** E06614
Photo No.: 0222 **Direction:** SW **Contract No.**
Date: 04/05/2008 **Time:** 10:13:00 A **Photographer/Witness:** Sekerka, Robert/Johnson, Colin
Description: E06614: Oily sheen on water pooled in southwest end of CONT1 (Note breach through CONT1 in background).

Site Name: Quality Petroleum, Inc.-Hoffman, et al. **Project No.:** E06614
Photo No.: 0226 **Direction:** S **Contract No.**
Date: 04/05/2008 **Time:** 10:16:00 A **Photographer/Witness:** Sekerka, Robert/Johnson, Colin
Description: E06614: Drainage pathway to NHD tributary to Caddo Lake south of access road.

NOTE TO FILE

This is an abbreviated copy of the Site Assessment Summary Report and it does not contain all supporting documentation.

Appendix 3: Photographic Documentation contains a select subset of photographs.

Appendix 4 through Appendix 10 have been removed.

A copy of this report with all supporting documentation may be available upon request.