SECOND FIVE-YEAR REVIEW REPORT

FOR THE

DUTCHTOWN TREATMENT PLANT SUPERFUND SITE
DUTCHTOWN, ASCENSION PARISH, LOUISIANA

SEPTEMBER 2007

PREPARED BY:

United States Environmental Protection Agency
Region 6
Dallas, Texas

SECOND FIVE-YEAR REVIEW REPORT
Dutchtown Treatment Plant Superfund Site
EPA ID No. LAD980879449
Dutchtown, Ascension Parish, Louisiana

This memorandum documents the United States Environmental Protection Agency's (EPA's) performance, determinations, and approval of the Dutchtown Treatment Plant Superfund Site (Dutchtown Site) second five-year review under Section 121(c) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 United States Code Section 9621(c), as provided in the attached Second Five-Year Review Report prepared by EA Engineering, Science, and Technology, Inc. on behalf of EPA.

Summary of Second Five-Year Review Findings

The second five-year review for the Dutchtown Site was performed through a review of site documents and site-specific requirements; a site inspection performed on March 29, 2007; interviews with personnel from the Louisiana Department of Environmental Quality (LDEQ) and ARCADIS Geraghty & Miller, Inc. (AGM), the contractor to the Dutchtown Oil Treatment Site Participating Group (also known as the Dutchtown Steering Committee); and a review of data collected for the site during the second five-year review period.

The site remedy included monitored natural attenuation of groundwater; maintaining the existing clay cap and fence; closing out the well on the Watts property and drilling a replacement well; applying physical on-site controls such as access restrictions and installation of signs; implementing institutional controls (ICs) in the form of restrictions on future use of property, conveyance notifications, and/or restriction on use of groundwater from the site water wells. The remedial action (RA) was initiated in July 1997 with site mobilization; construction completion was attained in January 1998. Operation and maintenance (O&M) activities were scheduled quarterly for the first year after the RA, then semiannually from years 2 through 5. Starting in year 6, O&M activities were scheduled annually. The remedy appears to be performing as intended and is currently protective of human health and the environment.

The previous Five-Year Review Report (EPA 2002a) stated that monitoring wells MW-14 and MW-20 were lost during highway ditch system maintenance. These monitoring wells remain lost at the time of this review process. Also, monitoring well MW-10, located on the adjacent property west of the fenced enclosure, was lost between 2003 and 2004. All evidence of MW-10 (e.g., the well casing and concrete pad) was noted to be missing during the March 2007 site visit. The cap on monitoring well MW-13, north of the perimeter fence, appeared to be damaged and would not close properly. Three areas of fence damage were observed during the March 2007 site visit; one on the northwest side of the site and two along the eastern side of the site. Only three warning signs on the perimeter fence were noted at the time of the site visit. Vegetation on the exterior side of the fenced enclosure is overgrown and has the potential to damage the fence, but is currently not compromising it. Vegetation around MW-12 is somewhat overgrown making future access a potential issue. To date, the french drain located on the western edge of the site has never been formally investigated for the site-specific contaminants of concern (COCs). Monitoring wells MW-16 and MW-17 were plugged and abandoned in December 2003. The removal of these wells prevents monitoring of the groundwater south of the cap.

The second five-year review found that the selected remedy is performing as intended, and is protective of human health and the environment. The remedy will be protective in the long term provided the fence and monitoring well repairs are made and the missing signs are replaced.

Actions Recommended

The main deficiencies noted during the site inspection were the lack of signs and the damaged sections of the fence. It is recommended that "Danger Keep Out" signs be placed on the fence every 200 feet as stated in the O&M section of the Revised Remedial Action Report (G&M 1997), repairs be made to the damaged sections of the fence. The hinge on monitoring well MW-13 should be repaired properly if excessive corrosion inhibits access to the well. An attempt should be made to locate the well casings of MW-10, MW-14, and MW-20, and properly plug and abandon them, if found. In addition, future annual reports should clarify through documentation the status of MW-10, MW-14, and MW-20, as well as, updating the O&M Plan to reflect the new monitoring network. Based on the fact that MW-10 was a sentinel well located west of MW-4A (an impacted well), should statistical trend analysis indicate an upward contaminant trend in MW-4A and/or redirection of the groundwater gradient indicate flow to the west, then assessing the replacement of MW-10 will need to be considered. The vegetation on the exterior of the fence and around MW-12 should be maintained to prevent damage to the fence and allow access to the monitoring well. Should future land use of the site change, then it is recommended that the french drain be sampled and analyzed for the Dutchtown Site COCs. Based on these results, future actions can be determined concerning the final disposition of the french drain. Areas along the western boundary near the french drain and MW-4 should also be investigated to determine the extent of contamination. Furthermore, should future land use change, then an assessment should be conducted with respect to whether additional ICs and/or access controls are needed to ensure that the site and the selected remedy remains protective of human health and the environment. The final recommendation is to install a monitoring well on the south side of the cap to monitor the groundwater on that side, if land use changes or if the groundwater flow direction changes. If a new monitoring well is installed on the south side of the cap, then the O&M Plan would again need to be updated to reflect the monitoring network.

None of the other deficiencies noted during the site inspection were significant enough to warrant further action, other than the fence and monitoring well repairs, replacement signs, continued site inspections, and maintenance. Inspections should continue to be performed at least once per year to check the condition of the cap and site access restrictions (fencing and warning signs) and, at a minimum, repairs and mowing should be performed as necessary to maintain current conditions.

Determinations

I have determined that the remedy for the Dutchtown Treatment Plant Superfund Site is protective of human health and the environment and that current human exposure is controlled and is thus protective, and will remain so provided the action items herein are addressed and corrective actions implemented.

Tom Phillips, Acting

Samuel Coleman, P.E.
Director
Superfund Division, Region 6
U.S. Environmental Protection Agency

9/12/07
Date

CONCURRENCES:

SECOND FIVE-YEAR REVIEW REPORT
DUTCHTOWN TREATMENT PLANT SUPERFUND SITE
EPA ID No. LAD980879449

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Pamela Phillips, U.S. EPA
Deputy Director, Superfund Division

CONTENTS

Attachments

LIST OF TABLES

LIST OF ACRONYMS

AGM	ARCADIS Geraghty & Miller, Inc.
ARAR	Applicable or relevant and appropriate requirement
bgs	Below ground surface
BTEX	Benzene, toluene, ethylbenzene, xylene
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Contaminant of concern
Dutchtown	Dutchtown Treatment Plant Superfund Site
EA	EA Engineering, Science, and Technology, Inc.
EPA	U.S. Environmental Protection Agency Region 6
ERA	Expedited Response Action
FS	Feasibility study
G&M	Geraghty & Miller, Inc.
I-10	Interstate Highway 10
IC	Institutional control
LDEQ	Louisiana Department of Environmental Quality
LDOTD	Louisiana Department of Transportation and Development
MCL	Maximum Contaminant Level
mg/L	Milligram per liter
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	Operation and maintenance
OSWER	Office of Solid Waste and Emergency Response
PRP	Potentially responsible party
RA	Remedial action
RAO	Remedial action objective
RD	Remedial design
RECAP	Risk Evaluation/Corrective Action Program
RI	Remedial investigation
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
UAO	Unilateral Administrative Order

EXECUTIVE SUMMARY

The U.S. Environmental Protection Agency Region 6 (EPA) has conducted the second five-year review of the remedial action (RA) implemented at the Dutchtown Treatment Plant Superfund Site (Dutchtown Site) in Ascension Parish, Louisiana. The purpose of this second five-year review was to determine whether the selected remedy for the site continues to protect human health and the environment. This review was conducted from February to September 2007, and its findings and conclusions are documented in this report. The first five-year review of the RA was signed on September 16, 2002; this established the second five-year review period of September 16, 2002 to September 16, 2007.

Several documents were reviewed as part of this second five-year review, including those containing the following data: (1) groundwater sampling summaries, (2) monitoring well water levels, (3) analytical sampling results, and (4) inspection summaries. The site history, RA objectives, selected remedy, and implementation status of the selected remedy are discussed in the following paragraphs.

The 5-acre Dutchtown Site is located at the intersection of Interstate Highway 10 (I-10) and Louisiana Highway 74 near the community of Dutchtown in Ascension Parish, Louisiana (Figure 1). The site is surrounded by residential and commercial property. The Dutchtown Middle School is located ½ mile to the west of the site. As stated in the 1994 Record of Decision (ROD), the reported population within a 1-mile radius of the site was 1,836; approximately 369 people were within the Dutchtown community.

Between 1965 and 1982, the site received waste oils and other waste materials (solvents and petrochemical wastes) from offsite sources, processed them, and redistributed them. In August 1983, the State of Louisiana ordered the suspension and proper closure of operations at the site. On January 17, 1984, the State declared the site abandoned after failure by facility owners to properly close the site in accordance with regulations.

Following the declaration of abandonment, the Louisiana Department of Environmental Quality conducted a series of investigations and presented a site closure strategy plan to EPA in June 1985. EPA completed a series of site investigations from July 1985 to March 1987, and an emergency response was performed in March 1987 to clean up an onsite spill resulting from site vandalism. The site was proposed for inclusion on the National Priorities List (NPL) on January 22, 1987 and was promulgated on the NPL on July 27, 1987.

On March 25, 1988, EPA issued an action memorandum to perform an Expedited Response Action (ERA). On May 23, 1990, a consent decree to design and implement the ERA was signed by the potentially responsible parties (PRPs). The ERA was conducted by the PRPs from January 1991 through August 1991. It involved the removal of waste oil from the holding pond, waste oil pit, and storage tanks, as well as the removal and treatment of storm water from the pits and holding ponds. The pond and pit were backfilled with fly ash-stabilized soil that had been washed to reduce benzene concentrations below 4 parts per million. A french drain was also installed in the waste oil pit to recover contaminated groundwater, and clay was imported to cover the backfilled holding pond, french drain, and areas previously occupied by the storage tank. A 6-foot, barbed-wire, chain-link fence was erected around 5 acres of the site.

During the ERA, the remedial investigation/feasibility study for the site was initiated and completed with the signing of the ROD on June 20, 1994. Of the two shallow water-bearing units from 0 to 14 feet below ground surface (bgs) and from 30 to 35 feet bgs, only the upper unit was found to be contaminated. However, this upper unit was identified as a Class III groundwater unit (not an underground source of drinking water) and no complete pathways were identified between this unit and any potential receptor population. Thus, the selected remedy for the site was monitored natural attenuation and institutional controls (ICs).

On December 30, 1996, EPA issued a Unilateral Administrative Order (UAO) to the PRPs for implementation of the selected remedy. On February 4, 1997, the PRPs notified EPA of their intent to comply with the UAO and initiated remedial design/remedial action (RD/RA) activities. On July 24, 1997, EPA approved the RD/RA work plans, and under EPA supervision, the PRPs conducted the RA from July to December 1997. Since most of the contamination had been addressed during the ERA, the RA only involved installation of a new monitoring well, the plugging and abandoning of a residential well, and the initiation of operation and maintenance (O&M) activities.

O&M of the Dutchtown Site includes maintenance of the clay cap constructed above the treated soil, groundwater monitoring, and fence inspection. Groundwater monitoring was scheduled quarterly for the first year of O&M, semiannually from years 2 to 5, and annually from years 6 to 30. At this time, annual groundwater monitoring is occurring. Other O&M activities were scheduled on an annual basis.

The second five-year review focused on data obtained during routine inspections and sampling events conducted at the Dutchtown Site during the second five-year review period. At this time, the selected remedy appears to be performing as intended.

Documents reviewed for this five-year review included but was not limited to the following documents: (1) 1994 ROD; (2) 1997 O&M Plan; (3) 1997 Revised RA Report; (4) Natural Attenuation Reports– years 1 (1998) through 9 (2006); (5) 1997 Addendum to the Health and Safety Plan; (6) 2002 Updated O&M Plan; and (7) 2003 Plug and Abandonment Report. This five-year review included a site inspection and interviews with local representatives and State personnel.

Responses to the site survey questionnaires were generally favorable. No complaints or concerns were noted. All returned surveys are included in Attachment 5 of this report.

Issues noted during this five-year review include the following:

1. Monitoring well MW-10, located on the adjacent property west of the fenced enclosure, was lost between 2003 and 2004. All evidence of MW-10 (e.g., the well casing and concrete pad) was noted to be missing during the March 2007 site visit.

2. The hinge to monitoring well MW-13 has been damaged, leaving a large gap between the protective metal well cap and casing.

3. Three areas of fence damage were observed during the March 2007 site visit; one on the northwest side of the site and two along the eastern side of the site.

4. Only three warning signs on the perimeter fence were noted at the time of the site visit.

5. Vegetation on the exterior side of the fenced enclosure is overgrown and has the potential to damage the fence, but is currently not compromising it.

6. Vegetation around MW-12 is somewhat overgrown making future access a potential issue.

7. To date, the onsite french drain has not been formally investigated for the site-specific contaminants of concern (COCs).

8. Monitoring wells MW-16 and MW-17, which were located on the south side of the cap, were plugged and abandoned in December 2003. The removal of these wells prevents monitoring of groundwater south of the cap.

9. Monitoring wells MW-14 and MW-20, which were located within the I-10 right-of-way, were lost during highway ditch system maintenance.

Recommendations and follow-up actions include the following:

1. Monitoring well MW-10 has been missing for several years. There is no evidence or reports indicating the plugging and abandonment of the well. In addition, a search of the Louisiana Department of Transportation and Development (LDOTD)'s Registered Water Wells Database (LDOTD 2007) for MW-10 indicates the well is still in use. An attempt should be made to locate the well casing of MW-10 and properly plug and abandon it, if possible. All future Annual Natural Attenuation Evaluation Reports should clarify and explain the status of MW-10. In addition, the O&M plan should be updated to reflect the new monitoring well network. Based on the fact that MW-10 was a sentinel well that is located west of MW-4A (a COC-impacted well), should statistical trend analysis indicate an upward trend in MW-4A and/or redirection of the groundwater gradient indicate flow to the west, then assessing the replacement of MW-10 will need to be considered.

2. The hinge on monitoring well MW-13 should be repaired properly, if excessive corrosion inhibits access to the well.

3. The three areas of damaged fence noted during the site visit should be repaired, including the barbed-wire strands along the top of the fence, to prevent unauthorized access to the site.

4. The O&M section of the Revised RA Report (Geraghty & Miller, Inc. [G&M] 1997) stated the placement of "Danger Keep Out" signs every 200 feet along the fence. These signs should be replaced as previously agreed.

5. Vegetation immediately adjacent to the fence should be removed to prevent damage to the perimeter fence.

6. Vegetation surrounding MW-12 should be cleared to maintain access of the well during sampling events.

7. Should future land use of the site change, then the french drain should be sampled and analyzed for the site-specific COCs. Areas along the western boundary near the french drain and MW-4 should also be investigated to determine the extent of contamination. Furthermore, an assessment should be conducted with respect to whether additional ICs and/or access controls are needed.

8. The installation of a sentinel monitoring well on the south side of the cap should be considered if the land use changes; a statistical trend analysis indicates an upward contaminant trend in MW-4A, and/or redirection of the groundwater gradient indicates a change in the flow.

9. An attempt should be made to locate the well casings of MW-14 and MW-20, and properly plug and abandon them, if found. Activities associated with locating these two wells should be documented.

At this time, based on the information available during the second five-year review, the selected remedy at the Dutchtown Treatment Plant site is protective of human health and the environment in the long-term provided repairs are made to the fence and warning signs are placed on the fence.

Five-Year Review Summary Form

SITE IDENTIFICATION

Site Name (from WasteLAN): Dutchtown Treatment Plant Superfund Site

EPA ID (from WasteLAN): LAD980879449

Region: 6 | **State:** Louisiana | **City/County:** Dutchtown/Ascension Parish

SITE STATUS

NPL Status: ☐ Final ☒ Deleted ☐ Other (specify) _____

Remediation Status (choose all that apply): ☐ Under Construction ☐ Operating ☒ Complete

Multiple OUs?* ☐ YES ☒ NO **Construction Completion Date:** December 1997

Has site been put into reuse? ☐ YES ☒NO

REVIEW STATUS

Reviewing Agency: ☒ EPA ☐ State ☐ Tribe ☐ Other Federal Agency _____

Author Name: Mr. Michael Hebert

Author Title: Remedial Project Manager | **Author Affiliation:** U.S. EPA Region 6

Review Period:** February–September 2007

Date(s) of Site Inspection: March 29, 2007

Type of Review:
☒ Statutory
☐ Policy ☒ Post-SARA ☐ Pre-SARA ☐ NPL-Removal only
☐ Non-NPL Remedial Action Site ☐ NPL State/Tribe-lead
☐ Regional Discretion

Review Number: ☐ 1 (first) ☒ 2 (second) ☐ 3 (third) ☐ Other (specify) _____

Triggering Action:
☐ Actual RA Onsite Construction at OU ☐ Actual RA Start
☐ Construction Completion ☒ Previous Five-Year Review Report
☐ Other (specify)_____

Triggering Action Date (from WasteLAN): September 16, 2002

Due Date (Five Years After Triggering Action Date): September 16, 2007

* "OU" refers to operable unit.

** The review period refers to the period during which the five-year review was conducted.

Five-Year Review Summary Form (Continued)

Issues:

1. **Monitoring well MW-10 –** appears to have been lost between 2003 and 2004.
2. **Monitoring well MW-13** – the hinge is damaged, leaving a large gap.
3. **Fence damage** – three areas of fence damage were observed during the March 2007 site visit.
4. **Lack of warning signs** – only three warning signs on the perimeter fence noted March 2007.
5. **Exterior side of fence** – vegetation on the exterior side of the fenced enclosure is overgrown.
6. **Monitoring well MW-12** – vegetation is somewhat overgrown.
7. **French drain** – The onsite french drain has not been formally investigated for COCs.
8. **Lack of monitoring wells** – there are currently no monitoring wells located south of the cap.
9. **Monitoring wells MW-14 and MW-20** – both wells are still missing.

Recommendations and Follow-up Actions:

1. Locate MW-10 well casing and plug and abandon it, if possible. All future reports should clarify and explain the status of MW-10. Also, the O&M Plan should be updated. Should statistical trend analysis indicate an upward contaminant trend in MW-4A and/or redirection of the groundwater gradient indicate flow to the west, then assessing the replacement of MW-10 will need to be considered.
2. Repair the hinge on monitoring well MW-13 if excessive corrosion inhibits access.
3. Repair the damaged portions of the fence.
4. Replace “Danger Keep Out” signs along the fence.
5. Remove vegetation immediately adjacent to the fence.
6. Clear and maintain vegetation surrounding MW-12.
7. Should future land use of the site change, then the french drain should be sampled and analyzed for the site-specific COCs; areas along the western boundary near the french drain and MW-4 should also be investigated to determine the extent of contamination; furthermore, an assessment should be conducted with respect to whether additional ICs and/or access controls are required.
8. If determined necessary based on land use changes or directional groundwater flow changes, install a monitoring well on the south side of the cap and update the O&M Plan.
9. If possible, locate and plug and abandon monitoring wells MW-14 and MW-20.

Five-Year Review Summary Form (Continued)

Protectiveness Statement:

Based on the information available during the second five-year review, the selected remedy for the Dutchtown Treatment Plant Superfund Site is protective of human health and the environment and current human exposure is controlled. This remedy is protective and will remain so, provided the action items herein are addressed and implemented.

Long-Term Protectiveness:

At this time, based on the information available during the second five-year review, the selected remedy at the Dutchtown Treatment Plant site is protective of human health and the environment in the long-term provided repairs are made to the fence and warning signs are placed on the fence.

1.0 INTRODUCTION

The U.S. Environmental Protection Agency Region 6 (EPA) has conducted a second five-year review of the remedial action (RA) implemented at the Dutchtown Treatment Plant Superfund Site (Dutchtown Site), located near Dutchtown, Ascension Parish, Louisiana, for the period between the completion of the first five-year review in September 2002 through September 2007. The purpose of a five-year review is to determine whether the remedy at a site remains protective of human health and the environment, and to document the methods, findings, and conclusions of the five-year review in a Five-Year Review Report. Five-Year Review Reports identify issues found during each review, if any, and make recommendations to address the issues. This Second Five-Year Review Report documents the results of the review for the Dutchtown Site, conducted in accordance with EPA guidance (EPA 2001) on five-year reviews.

The five-year review process is required by federal statute. EPA must implement five-year reviews consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). CERCLA Section 121(c), as amended, states the following:

> "If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented."

NCP Section 300.430(f)(4)(ii) states the following:

> "If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action."

The EPA five-year review guidance further states that a five-year review should be conducted as a matter of policy for the following types of actions:

- A pre-Superfund Amendments and Reauthorization Act (SARA) RA that leaves hazardous substances, pollutants, or contaminants onsite above levels that allow for unlimited use and unrestricted exposure

- A pre- or post-SARA RA that, once completed, will not leave hazardous substances, pollutants, or contaminants onsite above levels that allow for unlimited use and unrestricted exposure but will require more than five years to complete

- A removal-only site on the National Priorities List (NPL) where the removal action leaves hazardous substances, pollutants, or contaminants onsite above levels that allow for unlimited use and unrestricted exposure and no RA has or will be conducted.

Because hazardous substances, pollutants, or contaminants remain at the Dutchtown Site above levels that allow for unlimited use and unrestricted exposure, a five-year review is required.

This is the second five-year review for the Dutchtown Site. The period addressed by this five-year review for Dutchtown Site extended from September 2002 to September 2007. The triggering action for this review was the completion of the first five-year review on September 16, 2002. The second five-year review was conducted from January 25 through August 1, 2007, and its methods, findings, conclusions, and recommendations are documented in this report.

This report documents the five-year review for the Dutchtown Site by providing the following information: site chronology (Section 2.0), background information (Section 3.0), an overview of the RAs (Section 4.0), progress since the first five-year review (Section 5.0), the five-year review process (Section 6.0), technical assessment of the site (Section 7.0), institutional controls (Section 8.0), issues (Section 9.0), recommendations and follow-up activities (Section 10.0), protectiveness statement (Section 11.0), and discussion of the next review (Section 12.0). Attachment 1 provides the site location map and site layout map. Attachment 2 provides a copy of the conveyance notification. Attachment 3 provides a list of documents reviewed. Attachment 4 provides the site inspection checklist. Attachment 5 provides the interview records. Attachment 6 provides the site inspection photographs. Attachment 7 provides a historical benzene, toluene, ethylbenzene, and xylene (BTEX) data table. Attachment 8 provides benzene and ethylbenzene concentration trend graphs. Attachment 9 provides a copy of the Plug and Abandonment Report.

2.0 SITE CHRONOLOGY

A chronology of site events for the Dutchtown Site is provided in Table 1. Additional historical information for the site is available online at http://www.epa.gov/earth1r6/6sf/pdffiles/0600633.pdf (EPA 2007).

TABLE 1

CHRONOLOGY OF SITE EVENTS
DUTCHTOWN TREATMENT PLANT SUPERFUND SITE

Date	Event
1965 to 1982	Site operated as an oil refinery and reclamation facility
August 1983	LDEQ issues order for property site closure
January 17, 1984	LDEQ declares site abandoned
November 1984-June 1985	LDEQ site investigation and referral to EPA
July 1985-March 1987	EPA site investigations
March 1987	EPA emergency response to clean spill from site vandalism
January 22, 1987	EPA proposes site for inclusion on NPL
July 27, 1987	EPA finalizes site for inclusion on NPL
December 1987-January 1988	EPA conducts removal assessment
February 1988	EPA issues engineering evaluation/cost analysis
March 25, 1988	EPA issues ERA action memorandum
May 23, 1990	PRPs sign ERA consent decree
January 1991-August 1991	PRPs conduct ERA site activities
November 30, 1992	PRPs' RI report completed
May 19, 1993	PRPs' FS report completed
October 28, 1993	EPA conducted formal public meeting on proposed remedy
June 20, 1994	EPA ROD signed
December 30, 1996	EPA issues UAO for RA work plan
February 4, 1997	PRPs comply with order and initiates RA work plan
July 24, 1997	EPA approves RA work plan
August 1997-December 1997	PRPs conduct RA
December 12, 1997	PRPs' RA report completed
January 12, 1998	EPA PCOR completed
August 24, 1999	EPA FCOR completed
November 16, 1999	EPA deletes site from NPL
July 1997-September 1998	Year 1 natural attenuation and monitoring
October 1998-October 1999	Year 2 natural attenuation and monitoring
November 1999-August 2000	Year 3 natural attenuation and monitoring
September 2000-August 2001	Year 4 natural attenuation and monitoring
October 2001-July 2002	Year 5 natural attenuation, monitoring, and statistical evaluation
September 16, 2002	First five-year review report completed
December 16, 2002	O&M Plan updated
December 12, 2003	Plug and abandon 11 monitoring wells and 1 piezometer
December 17, 2003	Plug and Abandonment Report completed

TABLE 1

CHRONOLOGY OF SITE EVENTS
DUTCHTOWN TREATMENT PLANT SUPERFUND SITE

Date	Event
August 2002-August 2003	Year 6 natural attenuation, monitoring, and statistical evaluation
September 2003-October 2004	Year 7 natural attenuation, monitoring, and statistical evaluation
July 9, 2004	Site purchased by the Ascension Holding Company
November 2004-August 2005	Year 8 natural attenuation, monitoring, and statistical evaluation
October 13, 2005	EPA site visit to evaluate potential adverse impacts from Hurricane Katrina
December 13, 2005	Hurricane Katrina Evaluation Report completed
September 2005-December 2006	Year 9 natural attenuation, monitoring, and statistical evaluation
June 9, 2006	Conveyance notification filed and recorded at the Ascension Clerk of Court

Notes:

EPA	U.S. Environmental Protection Agency
ERA	Expedited Response Action
FCOR	Final Close Out Report
FS	Feasibility study
LDEQ	Louisiana Department of Environmental Quality
NPL	National Priorities List
O&M	Operation and maintenance
PCOR	Preliminary Close Out Report
PRP	Potentially responsible party
RA	Remedial action
RI	Remedial investigation
ROD	Record of Decision
UAO	Unilateral Administrative Order

3.0 BACKGROUND

This section discusses the site's physical characteristics, land and resource use near the site, history of site contamination, initial response to the site, and the basis for the response.

3.1 PHYSICAL CHARACTERISTICS

The Dutchtown Site is a former waste oil reclamation plant located near Dutchtown in Ascension Parish, Louisiana (Attachment 1), at the intersection of I-10 and Louisiana Highway 74. The fenced waste site complex consists of a 5-acre plot, which previously contained a 0.8-acre holding pond, a 0.07-acre waste oil pit, seven aboveground vertical storage tanks, two small horizontal tanks, and a railroad tank car used as a horizontal tank.

The site is currently clear of brush and trees, with the exception of two large trees located in the southern section of the property. Large tree stumps were noted within the fenced perimeter near the northwest corner of the site. The northern portion of the property outside of the fence remains wooded with heavy undergrowth. The only structures on the site are a well house and a concrete pad, which was constructed for equipment decontamination during the Expedited Response Action (ERA).

3.2 LAND AND RESOURCE USE

Historical land use is unknown prior to the establishment of the oil refinery and waste oil reclamation facility in the mid-1960s. The land surrounding the Dutchtown Site is primarily zoned as residential and commercial property. The Dutchtown Middle School is located ½ mile to the west of the site. As stated in the 1994 Record of Decision (ROD), the reported population within a 1-mile radius of the site was 1,836, of which approximately 369 people were within the Dutchtown community. A site location map and site layout map are provided in Attachment 1.

3.3 HISTORY OF CONTAMINATION

Historically, the site received waste oil and other waste materials (solvents and petrochemical wastes) from offsite sources, processed them, and redistributed them. The State of Louisiana ordered the suspension and proper closure of operations at the site in August 1983. On January 17, 1984, the State

declared the site abandoned after failure by facility owners to properly close the site in accordance with regulations.

3.4 INITIAL RESPONSE

Following the declaration of site abandonment, the Louisiana Department of Environmental Quality (LDEQ) conducted a series of investigations and presented a site closure strategy plan to EPA in June 1985. Following the presentation of the site closure strategy plan by LDEQ, EPA conducted a series of site investigations in 1985, and investigative sampling in 1986 and 1987. An emergency response to clean up a spill that resulted from vandalism to the rail tank car and finished oil storage tank was required in March 1987. The site was proposed for inclusion on the NPL on January 22, 1987, and was promulgated on the NPL on July 27, 1987.

On March 25, 1988, EPA issued an action memorandum to perform an ERA. On May 23, 1990, the potentially responsible parties (PRPs) signed a consent decree to design and implement the ERA. The ERA was conducted from January through August 1991. It involved the removal of 449,810 gallons of waste oil from the holding pond, waste oil pit, and storage tanks, as well as the removal and treatment of 3,451,999 gallons of storm water from the pits and holding ponds. Seepage of contaminated groundwater into the excavated pond led to the installation of a french drain that would enable recovery and treatment of groundwater during the remedial investigation/feasibility study (RI/FS) phase. A total of 75,792 gallons of groundwater was recovered through August 1992. The pond and pit were backfilled with 4,400 cubic yards of fly ash-stabilized soil that had been washed to reduce benzene concentrations below 4 parts per million.

Following the completion of the ERA, compacted caps of imported clay were installed over the backfilled holding pond, the french drain in the excavated waste oil pit, and the areas previously occupied by the storage tanks. The compacted clay cap is 18 inches over the backfilled holding pond and waste oil pit and 6 inches over the areas occupied by the storage tanks. The site was also surrounded by a 6-foot chain link fence with three strands of barbed-wire along the top.

3.5 BASIS FOR TAKING ACTION

During the ERA, the RI/FS for the site was initiated. On November 30, 1992, the RI report was completed and on May 19, 1993, the FS report was completed. The RI/FS identified two water-bearing

units: an upper unit from 0 to 14 feet below ground surface (bgs), and the other lower unit from 30 to 35 feet bgs. Neither of these identified water-bearing units were used for drinking water and only the upper unit was found to be contaminated. However, no risk pathways were identified between this Class III groundwater unit (not an underground source of drinking water) and any potential receptor population.

Surface and subsurface soils were found to be residually contaminated near their onsite sources. The residual contamination lay below a clay cap and all surface and subsurface soils were within EPA's acceptable risk range. In addition, further analysis of contaminant transport modeling also predicted that contaminant concentrations would be well below Maximum Contaminant Levels (MCLs) before reaching the shallowest drinking water aquifer (encountered at 100 feet bgs and extending to 300 feet bgs).

A formal public meeting was conducted on October 28, 1993, on proposed EPA remedies to address the unusable upper water-bearing unit and residual soil contamination found at the site. Following the formal public comment period, the ROD for the site was signed on June 20, 1994. The ROD selected monitored natural attenuation and institutional controls (ICs) for the site.

4.0 REMEDIAL ACTIONS

This section discusses the selected remedy, remedy implementation, operation and maintenance (O&M) activities, and O&M costs.

4.1 SELECTED REMEDY

The FS determined that natural attenuation was the best remedy to meet the remedial action objectives (RAOs) for the site. The RAOs as stated in the ROD are as follows:

- Prevent human exposure to the contaminated water
- Prevent contamination of underlying 150-foot-deep drinking water aquifer,
- Restore contaminated shallow groundwater, based on its classification, for future use.

The selected remedy included:

- Monitoring groundwater to determine if current conditions improve through time, remain constant, or worsen. This included installation and monitoring of both onsite and adjacent private wells.

- Implementing contingency measures at the site if groundwater monitoring indicates a confirmed 30-percent increase in contaminant concentrations (either vertically or horizontally). The contingency measures, if warranted, may include: installation of additional monitoring wells, increasing the frequency of sampling, construction of a slurry wall, active extraction of contaminated groundwater, or *in situ* treatment.

- Implementing ICs in the form of access restrictions, including installation of signs, restrictions on future use of property, fencing, deed notices, and restriction on the use of groundwater from site wells.

- Installing additional monitoring wells to provide additional data on plume movement towards any drinking water wells and/or beneath I-10.

- Maintaining the existing cap and fence.

- Close out the residential well on the Watts property and drill a replacement well.

4.2 REMEDY IMPLEMENTATION

On December 30, 1996, EPA issued a Unilateral Administrative Order (UAO) to the PRPs for implementation of the selected remedy. On February 4, 1997, the PRPs notified EPA of their intent to comply with the UAO and initiated RA work plan activities. The RA work plan was approved on July 24, 1997, and RA onsite construction was initiated in August 1997. The RA completed at this site included the following major work elements:

- Installation of a flush-mounted, 15-foot deep monitoring well (MW-21) on the Babin and Smith, Inc. property located east of I-10.

- Plugging and abandonment of the 260-foot deep water well located on the Watts' property in accordance with the Louisiana Department of Transportation and Development (LDOTD) Water Well Rules, Regulations, and Standards.

- Inspection of the perimeter fence and clay cap, and installation of "Danger Keep Out" signs along the fence at 200-foot increments.

- Sample and analyze site monitoring wells for BTEX using EPA SW-846 Method 8020. One of two drinking water wells at the Dutchtown Middle School was sampled as well. The pump in the second water well was inoperable and therefore, was not sampled. It was determined during the RA that monitoring wells MW-14 and MW-20 were lost and, consequently, not sampled.

4.3 OPERATION AND MAINTENANCE

The initial O&M work plan was prepared in July 1997 and O&M activities were initiated with the first groundwater sampling event in August 1997. Groundwater monitoring was scheduled quarterly for the first year of the O&M, semiannual from years 2 to 5, and annually from years 6 to 30. Other O&M activities include inspection and maintenance of the clay cap and perimeter fence on an annual basis, and clearing of vegetation and site mowing, as required.

Based on EPA recommendations during the first five-year review, several monitoring wells were plugged and abandoned. The current groundwater monitoring network (see Attachment 1) at the Dutchtown Site consists of eight Shallow Zone monitoring wells (ranging from 4 feet to 13 feet bgs) and one Deep Zone monitoring well (36 feet bgs). Due to this site change, an updated O&M Plan (ARCADIS Geraghty & Miller, Inc. [AGM] 2002b) was developed and submitted on December 16, 2002.

The requirements for the Dutchtown Site, as stated in the updated O&M Plan (AGM 2002b), are as follows:

- Thirteen monitoring wells, where contaminants have never been detected, and a piezometer installed during the ERA will be plugged and abandoned. These wells include: MW-1, MW-2A, MW-8, MW-9, MW-11, MW-15, MW-16, MW-17, MW-18, MW-19, MW-21, MW-14 (if located), MW-20 (if located), and P-1.

- Groundwater sampling and analysis for BTEX will be performed annually until cleanup goals are attained. During these sampling events, static water levels will be measured.

- Conditions (i.e., 30-percent increase in concentration in shallow aquifer wells [EPA 1994]) that trigger contingency measures for the site will be evaluated during each annual monitoring event. A detailed explanation of the procedure is available in Section 5.0 of the updated O&M Plan.

- The clay cap and perimeter fence will be inspected annually by a licensed engineer in the State of Louisiana. The engineer will provide an inspection report to be included in the Annual Natural Attenuation Evaluation Report.

- The Natural Attenuation Evaluation report will be prepared annually.

- A statistical evaluation of groundwater monitoring data will be performed for each well to determine whether the constituent concentrations are increasing or decreasing.

- The site will be evaluated for attainment of cleanup standards (RECAP [LDEQ 2003]).

Below is a summary of major milestones that have been conducted during the O&M activities for this five-year review period:

- **Monitoring well plugging and abandonment—**Eleven monitoring wells (MW-1, MW-2A, MW-8, MW-9, MW-11, MW-15, MW-16, MW-17, MW-18, MW-19, and MW-21) and one piezometer (P-1) were plugged and abandoned in December 2003. Monitoring wells MW-14 and MW-20 were not located and, therefore, not plugged and abandoned.

- **Monitoring well report—**A brief letter report was prepared and submitted to EPA and LDEQ, on December 17, 2003, documenting the abandonment of the wells mentioned above. Copies of the LDOTD well reports were included in the report.

- **Updated O&M Plan—**The O&M Plan was updated and submitted on December 16, 2002, to reflect the changes in the number of monitoring wells to be sampled and the frequency and order of collection during each sampling event.

- **Monitoring well sampling—**Groundwater sampling of the remaining eight Shallow Zone monitoring wells (MW-2, MW-3, MW-3A, MW-4A, MW-6, MW-10, MW-12, and MW-13) and one Deep Zone monitoring well (MW-7) has continued on an annual basis.

- **Engineering inspection**—The clay cap and perimeter fence is inspected annually by a licensed engineer in the State of Louisiana. The engineering inspection reports are included within the Annual Natural Attenuation Evaluation Reports.

- **Statistical evaluation**—Beginning in 2003, the statistical evaluation was completed annually using the Mann-Kendall statistical methodology.

- **Hurricane Katrina review**—In October 2005, EPA conducted an assessment of the Dutchtown site to determine if Hurricane Katrina had adversely impacted the existing site conditions and/or remedy in place. The determination as quoted in the Hurricane Katrina Evaluation Report (EPA 2005b) was, "The site sustained no appreciable damage from Hurricane Katrina. Groundwater sampling will continue under the current operations and maintenance plan to monitor the implemented remedy."

4.4 OPERATION AND MAINTENANCE COST

AGM, the contractor to the Dutchtown Oil Treatment Site Participating Group (also known as the Dutchtown Steering Committee), provided approximate associated annual costs for the Dutchtown Site during O&M activities since the last five-year review. The costs include but are not limited to the following activities:

- Operation and maintenance of the site
- Groundwater sampling and analysis
- Consulting and reporting activities

Table 2 below provides the approximate costs for the years stated.

TABLE 2

ANNUAL OPERATION AND MAINTENANCE COSTS
DUTCHTOWN TREATMENT PLANT SUPERFUND SITE

Dates		Total Cost Rounded to Nearest $1,000
From	**To**	**Contractor Costs**
9/2002	8/2003	$19,000
9/2003	8/2004	$24,000
9/2004	8/2005	$11,000
9/2005	8/2006	$21,000
9/2006	6/2007	$4,000

5.0 PROGRESS SINCE THE FIRST FIVE-YEAR REVIEW

This is the second five-year review for the Dutchtown Site. The first five-year review was completed in September 2002. The site appears to have been properly maintained during the period between reports. The scheduled date for the third five-year report is September 2012. However, the final commitment date is 5 years from the signature date of this second report.

5.1 PROTECTIVENESS STATEMENT FROM FIRST FIVE-YEAR REVIEW

The First Five-Year Review Report (EPA 2002a) concluded that the remedy for the site continues to be protective of human health and the environment.

5.2 FIRST FIVE-YEAR REVIEW RECOMMENDATIONS AND FOLLOW-UP ACTIONS

The first five-year review of the Dutchtown Site, completed in September 2002, recommended the following follow-up actions:

- Replace hinge on monitoring well MW-8
- Place lock on piezometer well P-1
- Remove excess vegetation around offsite monitoring well MW-12
- Remove excess vegetation that is endangering the integrity of the fence
- Clear vegetation (excess small plant growth at northwest corner of clay cap)

- Repair eroded clay cap
- Plug and abandon (if possible) monitoring wells MW-14 and MW-20
- Use the Mann-Kendall or the Seasonal Kendall test in lieu of linear regression
- Develop a new groundwater monitoring plan using fewer wells
- Implement deed notice.

5.3 STATUS OF RECOMMENDED ACTIONS

This section describes the current status of implementation of the recommendations included in the First Five-Year Review Report as follows:

- Monitoring well MW-8 was plugged and abandoned in December 2003, which alleviated the need to repair the hinge
- Piezometer P-1 was plugged and abandoned in December 2003, which alleviated the need for a lock
- Excess vegetation has been removed from around the offsite monitoring well MW-12, but continued maintenance to prevent excessive vegetation is required
- Excess vegetation that is endangering the integrity of the fence has been removed from the interior portion of the enclosure
- Vegetation (excess small plant growth at northwest corner of clay cap) has been removed
- Erosion on the clay cap appeared to have been repaired with vegetation growing on the cap
- Monitoring wells MW-14 and MW-20 have not been located and, therefore, have not been plugged and abandoned
- Statistical evaluation is being completed using the Mann-Kendall statistical methodology
- An updated O&M Plan for groundwater monitoring using fewer wells was developed and submitted on December 16, 2002
- A conveyance notification (Instrument No. 00638851) was filed and recorded at the Ascension Clerk of Court on June 9, 2006 (see Attachment 2).

6.0 FIVE-YEAR REVIEW PROCESS

This section presents the process and findings of the second five-year review. Specifically, this section presents the findings of site interviews, the site inspection, an applicable or relevant and appropriate requirements (ARARs) review, and a data review.

6.1 ADMINISTRATIVE COMPONENTS

The Dutchtown Site second five-year review team was lead by Mr. Michael Hebert of EPA, Remedial Project Manager for the Dutchtown Site, with participation from Mr. Thomas Stafford, the LDEQ project manager. Ms. April Ballweg and Mr. Mark Paddack, representatives from EA Engineering, Science, and Technology, Inc. (EA), assisted in the review process.

In March 2007, the review team established the review schedule, which included the following components:

- Community involvement
- Site inspection
- Local interviews
- ARAR review
- Data review
- Five-Year Review Report development and review

6.2 COMMUNITY INVOLVEMENT

Upon signature, the Second Five-Year Review Report will be placed in the information repositories for the site, including: the Ascension Parish Library repository; the LDEQ office in Baton Rouge, Louisiana; and the EPA Region 6 office in Dallas, Texas. A notice will then be published in the local newspaper to summarize the findings of the review and announce the availability of the report at the information repositories.

6.3 DOCUMENT REVIEW

This second five-year review for the site included a review of relevant site documents, including decision documents, construction and implementation reports, sampling reports, and related monitoring data. The complete list of documents reviewed during this second five-year review is provided in Attachment 3.

6.4 DATA REVIEW

A review of the Natural Attenuation Evaluation Reports (AGM 2002a, 2003a, 2004, 2005, 2006) indicates the updated O&M Plan (AGM 2002b) is being followed and the RAOs are being met. The following sections discuss the 2002 through 2006 data associated with operation and maintenance of the Dutchtown Site since the first five-year review.

6.4.1 Groundwater Monitoring Data Review

In 1997, the original groundwater monitoring network at the Dutchtown Site consisted of 22 wells. Seventeen wells were screened in the uppermost water-bearing zone (0 to 14 feet bgs), which is referred to as the Shallow Zone. Five of the wells were screened in the second water-bearing zone (30 to 35 feet bgs), which is referred to as the Deep Zone. Two of the network wells (MW-14 and MW-20) located in the I-10 right-of-way appeared to have been destroyed as per the Revised RA Report (G&M 1997).

> "It appears the well surface completions were removed sometime during the time interval of 1992 and 1997 as a result of operation and maintenance of the Interstate ditch system."

This report implies that the well casings for monitoring wells MW-14 and MW-20 are still in place somewhere along I-10. Due to this fact, the implications of these "lost" monitoring wells could result in the introduction of storm water runoff contaminants into the shallow (MW-14) and deep (MW-20) water-bearing zones. A review of the Annual Natural Attenuation Evaluation Reports from 2002 through 2006 did not indicate any attempts to further locate these monitoring wells.

The ROD (EPA 1994) states that the groundwater sampling program consists of "collecting samples from the Dutchtown Oil Treatment Site monitoring wells, as well as the Dutchtown Middle School water well(s)." The Revised First Year Natural Attenuation Evaluation Report (AGM 1998) stated the following concerning the school wells:

> "The Dutchtown Middle School has two drinking water wells… For the August and November sampling events, only one of the wells was in operation. Groundwater samples were collected from

> this well. The pump for the other well was not operational, and therefore, groundwater samples from this well could not be collected. For the February and May 1998 sampling events, the pumping mechanisms for both wells were not operational and groundwater samples were not collected from the Dutchtown Middle School wells. According to personnel at the Dutchtown Middle School, the school is now connected to the municipal water supply system."

Thus, the two Ascension Parish Board Wells, LDOTD 179 and 427, have not been sampled since then.

Based on comments received from EPA after the first five-year review, many of the monitoring wells were plugged and abandoned per the updated O&M Plan (AGM 2002b):

> "Many of the monitoring wells at the Dutchtown Site have never detected the presence of contaminants. Thus the continued monitoring of groundwater quality at these locations is not required. Thirteen wells where contaminants have never been detected and a piezometer installed during the ERA will be plugged and abandoned. These wells/piezometer will be abandoned in accordance with the procedures and specifications for abandoning groundwater monitoring wells as presented in the December 2000 LDEQ/Louisiana Department of Transportation and Development guidance manual entitled *Construction of Geotechnical Boreholes and Groundwater Monitoring Systems*. The wells and piezometer that will be abandoned are…listed below.
>
> Monitor Wells: MW-1, MW-2A, MW-8, MW-9, MW-11, MW-15, MW-16, MW-17, MW-18, MW-19, MW-21, MW-14 (if located), and MW-20 (if located).
>
> Piezometer: P-1."

The 11 monitoring wells and one piezometer were plugged and abandoned during a December 12, 2003 field effort. A *Plug and Abandonment Report* (AGM 2003b) discussing these activities was completed on December 17, 2003. A copy of this report, including the LDOTD forms, is provided as Attachment 9. The updated monitoring well network was identified as consisting of eight Shallow Zone wells (MW-2, MW-3, MW-3A, MW-4A, MW-6, MW-10, MW-12, and MW-13) and one Deep Zone well (MW-7) per the updated O&M Plan (AGM 2002b), for a total of nine monitoring wells.

During the review of the Fifth Year Natural Attenuation Evaluation Report (AGM 2002a), it was noted that ethylbenzene was detected in MW-8 and MW-21 prior to these wells being plugged and abandoned in December 2003. The discussion section of this report stated:

> "The extremely low concentrations of ethylbenzene reported at Well MW-21 in November 2001 and at Wells MW-8 and MW-13 in May 2002 are not believed to be representative of actual groundwater quality in the Shallow Zone at these monitoring locations. None of the site-specific COCs have ever been detected at Wells MW-8, MW-13, and MW-21 during prior sampling events."

In May 2002, MW-8 had an ethylbenzene concentration of 0.006 milligram per liter (mg/L), while in November 2001, MW-21 had an ethylbenzene concentration of 0.0026 mg/L. The reported concentration in MW-21 during the subsequent sampling event (May 2002) was reported as less than 0.001 mg/L for ethylbenzene. No other concentrations were noted for these wells in the summary of reported BTEX concentration tables presented in the Fifth Year Natural Attenuation Evaluation Report (AGM 2002a) during any of the other sampling events.

Beginning in 2003, the groundwater monitoring program at the Dutchtown Site was reduced to sampling on an annual basis per the ROD (EPA 1994). All nine remaining monitoring wells were sampled during the 2003 sampling event; however, during the 2004 sampling event, it was noted that monitoring well MW-10 could not be located. The annual report (AGM 2004) stated, "…the technician could not locate Monitor Well MW-10 and it was not sampled." The annual reports for 2005 and 2006 no longer identified MW-10 as part of the updated monitoring well network and all indications are that it has not been sampled since 2003.

Deep Water-Bearing Zone

According to the first five-year review report (EPA 2002a), "From 1997-2002, BTEX was not detected in any of the Deep Zone wells for any of the sampling events reported in the monitoring results (AGM 1998, 1999, 2000, 2001, 2002)." From 2003 through 2006, BTEX constituents were not detected in the one remaining Deep Zone well (MW-7) for any of the sampling events reported in the groundwater analytical results (AGM 2003, 2004, 2005, 2006). There is no evidence of vertical contaminant migration, thus the remedy continues to be protective of the shallowest drinking water aquifer (encountered at 100 feet bgs and extending to 300 feet bgs). Attachments 7 and 8 summarize the analytical data in detailed tabular and graphical formats, respectively.

Shallow Water-Bearing Zone

According to the first five-year review report (EPA 2002a), "For the monitoring results review (1997-2002), no concentrations of BTEX exceeded the Class III groundwater corrective action levels (taking into account the natural attenuation factor of 173) set forth in the O&M work plan (G&M 1997) for any of the sampling events reported (AGM 1998, 1999, 2000, 2001, 2002)." From 2003 through 2006, BTEX constituents continue to remain below the Class III (not an underground source of drinking water) groundwater corrective action levels with the Updated O&M Plan's (AGM 2002a) identified natural

attenuation factor included. Attachments 7 and 8 summarize the analytical data in detailed tabular and graphical formats, respectively.

6.5 ARAR REVIEW

The Remedial Action Goals section of the ROD (EPA 1994) identified the following goals for the Dutchtown Superfund Site RA:

> "The risk assessment associated with the RI could not identify a pathway between the shallow water-bearing unit and any potential receptor population. Since no pathway was identified, a numerical health-based cleanup level based on exposure cannot be developed. According to the EPA (Office of Solid Waste and Emergency Response [OSWER] Directive 9283.1-2), health-based drinking water levels are usually not appropriate for Class III groundwater. Environmental considerations and prevention of plume expansion determine cleanup levels for Class III groundwater.
>
> Since exposure to surface and subsurface soils at the site are not expected to result in any excess risk/hazard to human health and the environment under current and no action conditions, and since no current or future exposure pathway was identified for the contaminated shallow aquifer, there are no numerical cleanup standards for soils or groundwater."

Therefore, no ARARs relating to risk-based media concentrations exist for soils and shallow groundwater (existing to 14 feet bgs) at the Dutchtown Site. The RAOs set for in the 1994 ROD relating to groundwater were as follows:

1. Prevent human exposure to contaminated water
2. Prevent contamination of the underlying 150-foot-deep drinking water aquifer
3. Restore contaminated shallow groundwater, based on its classification, for future use.

As part of a second five-year review, ARARs identified in the ROD are reviewed to determine if any newly promulgated or modified requirements of federal and state environmental laws have significantly changed the protectiveness of the remedies implemented at the site since the last five-year review was conducted.

Overall, no newly promulgated or modified ARARs were identified during this review that would change the protectiveness of the remedies implemented at the site.

The first five-year review was performed by EPA on September 12, 2002, in which no changes in ARARs were identified.

6.5.1 Federal ARARs

The Safe Drinking Water Act gives the EPA authority to set drinking water standards, which is the basis for MCLs. Based on the second RAO listed above for the third water-bearing unit, one of the goals for long-term monitoring was to assess groundwater concentrations in the 30-foot bgs (Deep Zone) unit as a sentinel for the 150-foot drinking water aquifer in comparison to MCLs; however, MCLs were not specifically listed as an ARAR in the ROD (EPA 1994).

Shallow Zone Wells

The 1994 ROD for the site noted, "The shallow ground water zone does not represent a complete exposure pathway (i.e., drinking, bathing, etc.) since no residential wells currently use this zone in the vicinity of the site, nor is this zone expected to be used in the future due to its insufficient yield capabilities and classification as a Class III aquifer." Since the groundwater in the shallow aquifer is considered a Class III aquifer (not an underground source of drinking water), remediation to MCLs is not required.

As stated previously, the risk assessment, which was associated with the RI, could not identify any complete exposure pathways between the shallow water-bearing unit and any potential receptor population. Although the risk assessment discounted domestic use of groundwater because the impacted shallow water-bearing unit does not serve as a drinking water source, the risk assessment did not consider vapor intrusion to indoor air. EPA considers vapor intrusion to indoor air a potentially complete exposure pathway if there are volatile chemicals in the soil or groundwater within 100 feet laterally or horizontally from an occupied structure, such as a residence or business (EPA 2002b). Although there are residences located within 100 feet of the site boundary (i.e., to the east), there are no residences located within 100 feet of the impacted shallow groundwater zone, and groundwater is not migrating toward the residences (i.e., it is migrating towards the northwest). Therefore, the vapor intrusion pathway is not considered a complete pathway for the Dutchtown Site.

It was determined during this five-year review that the status of the shallow groundwater zone remains a Class III aquifer (nonpotable and poor yield), and no complete exposure pathways from the shallow

water-bearing zone to potential receptors exists; therefore, no new chemical-specific ARARs were identified during this five-year review process.

Deep Zone Wells

As mentioned previously, the Deep Zone wells (approximately 30 ft bgs) are to be compared to risk-based drinking water levels or MCLs. This is to assess potential migration downward into the 150-foot drinking water aquifer. Monitoring wells MW-1, MW-18, and MW-19 were plugged and abandoned in December 2002, while MW-20 was identified as lost during the first five-year review. The only remaining Deep Zone monitoring well is MW-7. None of the Deep Zone wells have ever had site-related contaminants detected based on the data provided from 1997 to 2006.

6.5.2 State ARARs

The Louisiana Risk Evaluation/Corrective Action Program ([RECAP], Title 33, Part I, Chapter 13 of the Louisiana Administrative Code) was promulgated on June 20, 2000, and finalized on October 20, 2003, but is not applicable to the LDEQ-approved activities under corrective action plans approved before the effective date of the RECAP. Therefore, since the 1994 ROD was approved by LDEQ prior to the effective date, RECAP was not considered a potential ARAR for the Dutchtown Site.

6.5.3 Newly Promulgated Potential ARARs

Though RECAP is not an ARAR, the site-specific O&M Plan Updated (AGM 2002b) utilizes RECAP to compare Class III risk-based corrective action levels to the groundwater monitoring data.

> "Under RECAP, a 'dilution factor' is used to account for attenuation through the migration of constituents to the nearest surface water body. The nearest surface water body is 1,200 feet from the site, but is located upgradient from the direction of groundwater flow at the site. Assuming a thickness of the impacted groundwater zone of 6 to 10 feet and a distance of 1,200 feet to the nearest surface water body, the resulting dilution factor would be 86. The nearest downgradient water body is located at least 4,000 feet away from the site, yielding a dilution factor of 220. Using either dilution factor, all BTEX constituents measured in groundwater since the remedy was implemented have been below the RECAP action levels."

In summary, it appears that no other new laws or regulations have been promulgated or enacted that would call into question the effectiveness of the remedy at the site to protect human health and the environment. EPA will continue to monitor this site and any future changes in ARARs will be reported in the next five-year review.

6.6 SITE INSPECTION

A site inspection was conducted on March 29, 2007, to assess the condition of the site and the measures employed to protect human health and the environment from the COCs still present at the site. Attendees included: (1) Michael Hebert (EPA); (2) Thomas Stafford (LDEQ); (3) Alan Karr (LDEQ); (4) George Cramer (AGM); (5) April Ballweg (EA); and (6) Mark Paddack (EA). The site inspection checklist is included in Attachment 4. Site survey forms (interview records) are provided in Attachment 5. A photographic log of the site inspection is included in Attachment 6.

No evidence of contamination was visible at the site. The site's general appearance is good, with a healthy stand of spring vegetation. The inspection team investigated the site within the boundary of the fence, as well as the area immediately adjacent to the site. In addition, the team inspected the eight shallow and one deep groundwater monitoring wells.

The vegetation at the site appeared to be in good condition. The wells appeared to be in good condition. Site access appeared to be sufficiently restricted. No vandalism was observed, and the fence, gates, and locks were in good condition. A few areas of the fence are in need of repair, but restrictive access has not been compromised.

6.7 SITE INTERVIEWS

In accordance with the community involvement requirements of the five-year review process, key individuals to be surveyed were identified by EPA. Completed survey forms for the following individuals are included in Attachment 5:

- Thomas Stafford, Project Manager, LDEQ
- George Cramer, Associate Vice President, AGM

- Robert Holden, Attorney, Liskow & Lewis
- George Valentine, Councilman/Elected Official, Ascension Parish

Overall, the received responses were positive and no serious issues or concerns were identified by any of the responding interviewees. Continuing or unresolved issues that were brought up through the interview process are as follows.

Comments received from Mr. Thomas Stafford (LDEQ) on April 5, 2007:

- "Levels of concern about the site have continued to fall."
- "There is off and on interest in doing something with the property. There is also debate about what that utilization should be."
- "I know that the fence on the east side of the site has been damaged. I suspect that it occurred during clearing of the land and placement of the manufactured housing and or by residents and visitors backing into it. We had two major hurricanes with hurricane force winds that felled trees and blew things against the fences on all sides. There is little evidence of 'trespassing'. It seems that the large wire in the transmission box would have been scavenged by trespassers if many were coming on the site. I wasn't aware of any 'emergencies' until during the site walk, when George Cramer mentioned the 'fireworks incident' that had ignited the grass."
- "The discussion of potential future use of the site that was briefly discussed during the site walk interests me."

Comments received from Mr. George Cramer (AGM) on April 5, 2007:

- "Generally facility maintenance and monitoring. Groundwater concentrations continuing to trend downward as a general rule."
- "Keeping the site maintained and looking good has generated interest in building on the facility due to the tremendous pressures of expansion in the surrounding area. Proximity to new schools and being within the appropriate school zone have added to the desire for this piece of property."
- "Last 4th of July (2006) the neighbors set off fireworks that landed on the front of the property and started a grass fire. The volunteer fire department has to cut the lock to get into the facility to put the fire out. It took several days for them to determine the correct number to call to let us know. As a result, a sign has been affixed to the gate with two emergency contact numbers for people to call."
- "I suggest we pursue segregating the front portion of the property and allowing it to return to commerce while maintaining access to the back where the waste has been capped."

Comments received from Mr. Robert Holden (Liskow & Lewis) on February 24, 2007:

- "The site is well maintained. The groundwater sample results demonstrate that monitored natural

attenuation has worked. The current level of expenses for continued monitoring and reporting do not appear justified based on environmental risks. The site appears to be ready for post-closure maintenance, preferably under the Louisiana RECAP program."

- "None, other than that the site has been taken out of commerce."
- "The Superfund program has a success. The site no longer appears to require EPA oversight."

Comments received from Mr. George Valentine (Ascension Parish) on March 20, 2007:

- "Site appears to be in very good condition-well taken care of as far as landscaping."
- "I have not heard of any site problems or operational concerns from neighbors."
- "I have not heard of any environmental concerns/issues from surrounding neighborhoods."
- "Not aware of any [events, incidents, or activities…such as vandalism, trespassing, etc.]."
- "I'm comfortable with the information provided."

7.0 TECHNICAL ASSESSMENT

The conclusions presented in this section support the determination that the selected remedy for the Dutchtown Site is currently protective of human health and the environment. EPA Guidance indicates that to assess the protectiveness of a remedy, three questions (Questions A, B, and C) shall be answered.

7.1 QUESTION A: IS THE REMEDY FUNCTIONING AS INTENDED BY THE DECISION DOCUMENTS? YES.

- **RA performance**—Based on the review of documents, ARARs, and the results of the site inspection, the selected remedy for the Dutchtown Site is functioning as intended by the ROD (EPA 1994). The remaining monitoring wells (MW-3, MW-3A, MW-4A, and MW-6) with detected concentrations of benzene and ethylbenzene have been statistically analyzed using the Mann-Kendall statistical methodology. The statistical trend results from the Ninth Year Natural Attenuation Evaluation Report (AGM 2006) are provided in the table below (Table 3).

- **Cost of system and O&M**—O&M cost information for fiscal years 2002 through 2007 was an average of approximately $16,600 annually. Current O&M activities (as described in Section 4.3) appear sufficient to maintain the effectiveness of the current remedy.

TABLE 3

STATISTICAL ANALYSIS RESULTS
DUTCHTOWN TREATMENT PLANT SUPERFUND SITE

Monitoring Well	Constituent	Statistical Results
MW-3	Benzene	Downward trend
	Ethylbenzene	Downward trend
MW-3A	Benzene	Unable to determine(1)
	Ethylbenzene	No trend
MW-4A	Benzene	No trend
	Ethylbenzene	Downward trend
MW-6	Ethylbenzene	Unable to determine(1)

Notes:

(1) Limited occurrence of analytical constituents

- **Opportunities for optimization**—The current monitoring well network should be reassessed to determine if additional monitoring wells could be plugged and abandoned, therefore, reducing the costs associated with annual sampling.

  Another potential cost saving opportunity could be the use of passive diffusion bag sampling in lieu of the traditional sampling methods currently in use at the site. The sampling device offers cost savings due to reduced sampling time and reduced purge water disposal, with the added benefit of a potentially better representative sample of groundwater. A fact sheet provided by the Interstate Technology Regulatory Council can be review online at: http://diffusionsampler.itrcweb.org/Documents/PDBFAQs2.pdf.

- **Early indicators of potential issues**—There is no indication of remedy failure.

- **Implementation of ICs and other measures** – Implementation of the ICs at the site includes a conveyance notification (see Attachment 2) which was filed and recorded at the Ascension Clerk of Court on June 9, 2006. In addition, the perimeter fence remains in place, thereby limiting access to the site.

7.2 QUESTION B: ARE THE ASSUMPTIONS USED AT THE TIME OF REMEDY SELECTION STILL VALID? YES.

- **Changes in exposure pathways**—There have been no changes that bear on the protectiveness of the selected remedy.

- **Changes in standards, newly promulgated standards, and to-be-considereds**—No new laws or regulations have been promulgated or enacted that would call into question the effectiveness of the remedy at the site to protect human health and the environment.
- **Changes in toxicity and other contaminant characteristics**—There have been no changes during the past 5 years that bear on the protectiveness of the selected remedy.

- **Changes in land use**—There have been no changes in land use at the site that bear on the protectiveness of the selected remedy. There have been changes to the property east of the site. This land has recently been developed with single-family residential homes. Based on discussions during the site visit, it was determined that these homes are serviced by the local public water department.

- **New contaminants and/or contaminant sources**—There have been no new contaminants or contaminant sources identified at the site.

- **Expected progress toward meeting RA Objectives**—The RA objectives relating to contaminated groundwater have been met in all but four monitoring wells. Further groundwater monitoring is needed to establish that the RA objective is being met which is to prevent contamination of the underlying 150-foot-deep drinking water aquifer.

7.3 QUESTION C: HAS ANY OTHER INFORMATION COME TO LIGHT THAT COULD CALL INTO QUESTION THE PROTECTIVENESS OF THE REMEDY? NO.

The type of other information that might call into question the protectiveness of the remedy includes potential future land use changes in the vicinity of the site or other unexpected changes in site conditions or exposure pathways. Based on interviews during the five-year review process, there appears to be a desire to develop a portion of the site (southern section). At the time of this report, no formal requests concerning changes in the land use of the site have been initiated. No other information has come to light as part of this second five-year review for the site that would call into question the protectiveness of the site remedy.

7.4 TECHNICAL ASSESSMENT SUMMARY

According to documents and data reviewed, the site inspection, and interviews, the remedy appears to be functioning as intended by the 1994 ROD. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. The ARARs cited in the ROD have been met. There have been no changes in toxicity factors for the primary COCs during the five-year review period, and there has been no change to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

8.0 INSTITUTIONAL CONTROLS

ICs are generally defined as non-engineered instruments such as administrative and legal tools that do not involve construction or physically changing the site and that help minimize the potential for human exposure to contamination and/or protect the integrity of a remedy by limiting land and/or resource use (EPA 2005a). ICs can be used for many reasons including restriction of site use, modifying behavior, and providing information to individuals (EPA 2000). ICs may include easements, covenants, restrictions or other conditions on deeds, and/or groundwater and/or land use restriction documents (EPA 2001). The following sections describe the ICs implemented at the site, the potential effect of future land use plans on ICs, and any plans for changes to site contamination status.

8.1 TYPES OF INSTITUTIONAL CONTROLS IN PLACE AT THE SITE

ICs are currently in place as both EPA and LDEQ have evidence remediation/cleanup appears to be achievable. Implementation of an IC during this five-year review period includes a conveyance notification (Instrument No. 00638851) which was filed and recorded at the Ascension Clerk of Court on June 9, 2006.

Although not of themselves considered ICs, the site is secured by a 6-foot, barbed-wire topped, chain-link fence, with the entrance restricted by a locked gate, and warning signs visible on the gate and two of the fenced sides.

8.2 EFFECT OF FUTURE LAND USE PLANS ON INSTITUTIONAL CONTOLS

No future land uses have been formally established for the site that would require an adjustment to the ICs currently being implemented. The anticipation to potentially develop the southern portion of the property is a future land use that may require an adjustment to the ICs currently being implemented. Furthermore, should future land use change, then an assessment should be conducted with respect to whether additional ICs and/or access controls are needed to ensure that the site and the selected remedy remains protective of human health and the environment.

8.3 PLANS FOR CHANGES TO SITE CONTAMINATION STATUS

No changes to the status of the contamination at the site are anticipated.

9.0 ISSUES

This section describes issues associated with the Dutchtown Site identified during the second five-year review:

- **Monitoring well MW-10**: MW-10 appears to have been lost between 2003 and 2004. All evidence of MW-10 (e.g., the well casing and concrete pad) was noted to be missing during the March 2007 site visit. The O&M Plan identifies MW-10 as a part of the monitoring network.

- **Monitoring well MW-13**: The hinge on MW-13 appears to have been damaged, leaving a large gap between the protective metal well cap and the casing.

- **Fence damage**: Three areas of fence damage were observed during the March 2007 site visit; one on the northwest side of the site and two along the eastern side of the site.

- **Signs**: Only three warning signs on the perimeter fence were noted at the time of the site visit.

- **Vegetation on exterior side of fence**: The vegetation is overgrown and has the potential to damage the fence, but is currently not compromising it.
- **MW-12 vegetation**: The vegetation near this well is somewhat overgrown making future access a potential issue.

- **French drain**: The french drain has not been formally investigated for the site-specific COCs.

- **Groundwater monitoring south of cap**: Monitoring wells MW-16 and MW-17 were plugged and abandoned in December 2003, thereby preventing groundwater monitoring south of the cap.

- **MW-14 and MW-20**: Both monitoring wells have yet to be located.

A summary table of issues identified and if they currently affect the remedy protectiveness (Table 4) is provided below.

TABLE 4

ISSUES IDENTIFIED
DUTCHTOWN TREATMENT PLANT SUPERFUND SITE

Issue	Currently Affects Remedy Protectiveness (Yes/No)
Missing MW-10	No
Hinge damage to MW-13	No
Fence damage	No
Signs	No
Vegetation on exterior side of fence	No

Issue	Currently Affects Remedy Protectiveness (Yes/No)
MW-12 vegetation	No
French drain	No
Groundwater monitoring south of cap	No

10.0 RECOMMENDATIONS AND FOLLOW-UP ACTIONS

Monitoring wells MW-14 and MW-20 were apparently lost during highway ditch system maintenance and remain missing at the time of this review process. Monitoring well MW-10, located on the adjacent property west of the fenced enclosure, was lost between 2003 and 2004. All evidence of MW-10 (e.g., the well casing and concrete pad) was noted to be missing during the March 2007 site visit. The cap on monitoring well MW-13, located north of the perimeter fence, appeared to be damaged and would not close properly. Monitoring wells MW-16 and MW-17 were plugged and abandoned in December 2003. The removal of these wells prevents monitoring of the groundwater south of the cap. Vegetation on the exterior side of the fenced enclosure is overgrown and has the potential to damage the fence, but is currently not compromising it. Vegetation around MW-12 is somewhat overgrown making future access a potential issue. To date, the french drain, located on the western edge of the site, has never been formally investigated for the site-specific COCs. Three areas of fence damage were observed during the March 2007 site visit: one on the northwest side of the site and two along the eastern side of the site. Only three warning signs on the perimeter fence were noted at the time of the site visit.

The main deficiencies noted during the site inspection was the lack of signs and the damaged sections of the fence. It is recommended that "Danger Keep Out" signs be placed on the fence every 200 feet as stated in the O&M section of the Revised RA Report (G&M 1997), and repairs be made to the damaged sections of the fence. The hinge on monitoring well MW-13 should be repaired properly, if excessive corrosion inhibits access to the well. In addition, edits to the annual report explaining the status of MW-10 is recommended, as well as updating the O&M Plan to reflect the new monitoring well network. Based on the fact that MW-10 was a sentinel well located west of MW-4A (an impacted well), should statistical trend analysis indicate an upward trend in MW-4A, and/or redirection of the groundwater gradient indicate flow to the west, then assessing the replacement of MW-10 will need to be considered. The vegetation on the exterior of the fence and around MW-12 should be maintained to prevent damage to the fence and allow access to MW-12 in the future. Should future land use of the site change, then it is recommended that the french drain be sampled and analyzed for the site's COCs. Based on these results, future activities can be discussed concerning the final disposition of the french drain. Areas along the

western boundary near the french drain and MW-4 should also be investigated to determine the extent of contamination. Furthermore, should future land use change, then an assessment should be conducted with respect to whether additional ICs and/or access controls are needed to ensure that the site and the selected remedy remains protective of human health and the environment. The final recommendation is to install a monitoring well on the south side of the cap to monitor the groundwater on that side of the cap, if land use changes or if the groundwater flow direction changes. If a new monitoring well is installed on the south side of the cap, then the O&M Plan would again need to be updated to accurately reflect the monitoring network. An attempt should be made to locate the well casings of MW-14 and MW-20 and properly plug and abandon them, if found. Activities associated with locating these two wells should be documented.

None of the other deficiencies noted during the site inspection were significant enough to warrant further action, other than the fence and monitoring well repairs, replacement of warning signs, continued site inspections, and maintenance. Inspections should continue to be performed at least once per year to check the condition of the cap and site access restrictions (fencing and warning signs) and, at a minimum, repairs and mowing should be performed as necessary to maintain current conditions.

Table 5 summarizes the recommendations and follow-up actions for the Dutchtown Site.

TABLE 5

RECOMMENDATIONS AND FOLLOW-UP ACTIONS
DUTCHTOWN TREATMENT PLANT SUPERFUND SITE

Issue	Recommendations and Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Follow-up Actions Affect Long-Term Remedy Protectiveness (Yes/No)
Lost monitoring well MW-10	Locate MW-10 well casing and plug and abandon it, if possible; clarification of MW-10 status in future annual reports; O&M plan update; possible replacement of MW-10 if deemed necessary	DSC	EPA	09/30/2008	No
Hinge damage MW-13	Repair the hinge if excessive corrosion inhibits access to the well	DSC	EPA	09/30/2008	No
Fence damage	Repair the damaged portions of the fence	DSC	EPA	09/30/2008	Yes
Lack of warning signs	Replace “Danger Keep Out” signs along the fence	DSC	EPA	09/30/2008	No
Vegetation on exterior of fence	Remove vegetation immediately adjacent to the fence	DSC	EPA	09/30/2008	No
Vegetation near MW-12	Clear and maintain vegetation surrounding MW-12	DSC	EPA	09/30/2008	No
French drain	Conduct analysis of structure and possible plug and abandonment if land use changes are implemented; investigate area along western boundary near MW-4; conduct assessment of ICs and/or access controls	DSC	EPA	Upon initiation of land use change	No
Lack of monitoring wells south of cap	Installation of a monitoring well south of the cap; update the O&M plan	DSC	EPA	Upon initiation of land use change	No
Lost monitoring wells MW-14 and MW-20	Locate MW-14 and MW-20 and plug and abandon them, if possible	DSC	EPA	09/30/2008	No

Notes:

DSC Dutchtown Steering Committee
EPA U.S. Environmental Protection Agency
LDEQ Louisiana Department of Environmental Quality
MW Monitoring well
O&M Operation and maintenance

11.0 PROTECTIVENESS STATEMENT

At this time, based on the information available during the second five-year review, the selected remedy at the Dutchtown Treatment Plant site is protective of human health and the environment in the long-term provided repairs are made to the fence and warning signs are placed on the fence.

12.0 NEXT REVIEW

The Dutchtown Site requires ongoing five-year reviews. The next review will be conducted within the next five years, but no later than September 2012.

Attachment 1

Site Location Map and Site Layout Map

N

500 250 0 500

GRAPHIC SCALE IN FEET

SOURCE: GOOGLE EARTH

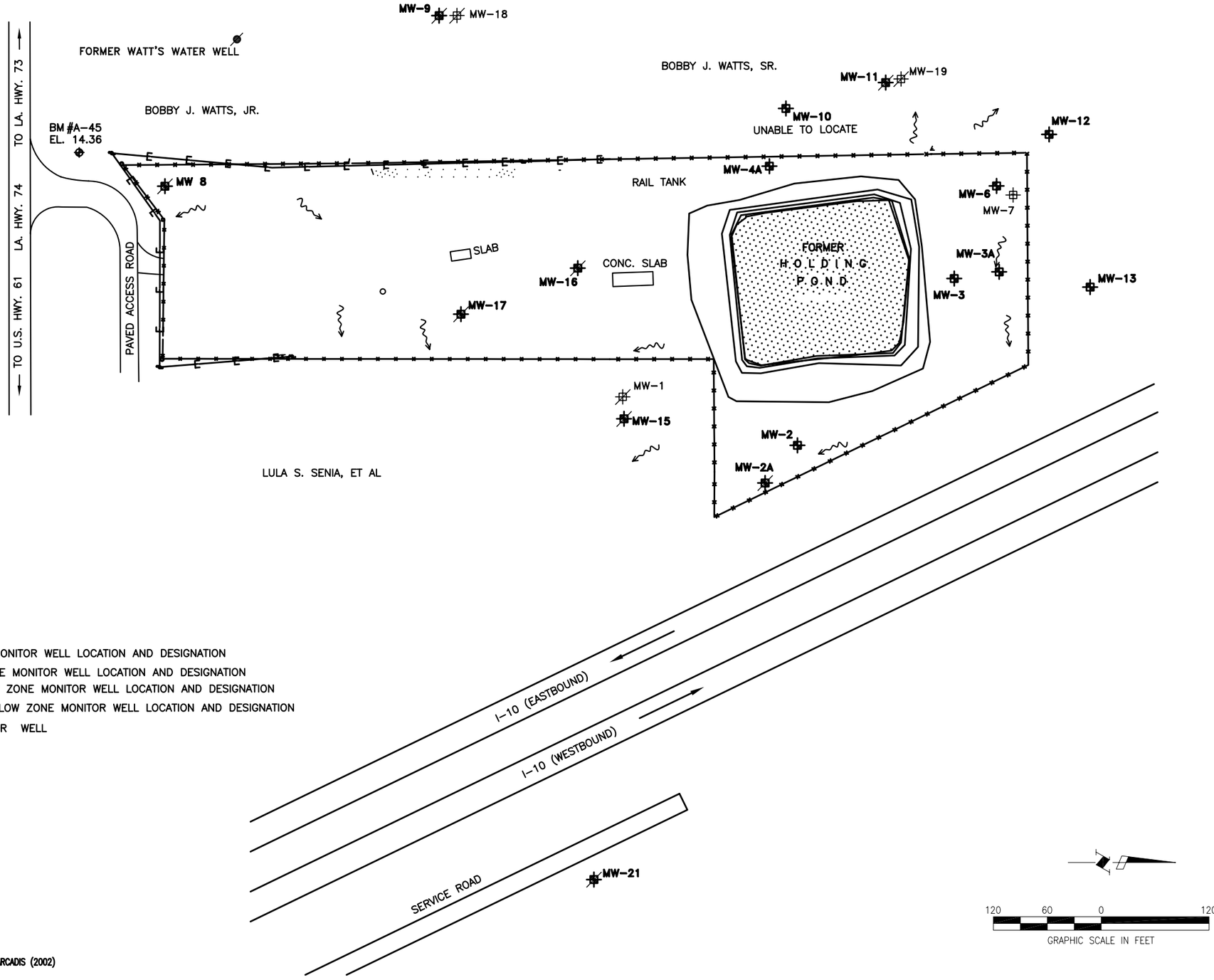
DUTCHTOWN TREATMENT PLANT SUPERFUND SITE
DUTCHTOWN, ASCENSION PARISH LOUISIANA

SITE LOCATION MAP

DRAWING NAME: F:\Federal\EPA\RAC II\0017-dutchtown\figures\cad\aerial-dutchtown.dwg
DATE:03/29/2007 TIME:10:17 DRAWN BY: lhorne

SITE LAYOUT MAP

DUTCHTOWN TREATMENT PLANT SUPERFUND SITE
DUTCHTOWN, ASCENSION PARISH, LOUISIANA



EXPLANATION

- MW-1 ⊕ DEEP ZONE MONITOR WELL LOCATION AND DESIGNATION
- **MW-2** ⊕ SHALLOW ZONE MONITOR WELL LOCATION AND DESIGNATION
- MW-1 ⊕ FORMER DEEP ZONE MONITOR WELL LOCATION AND DESIGNATION
- **MW-2** ⊕ FORMER SHALLOW ZONE MONITOR WELL LOCATION AND DESIGNATION
- ⊘ INACTIVE WATER WELL

120 60 0 120

GRAPHIC SCALE IN FEET

REFERENCED FROM ARCADIS (2002)

DRAWING NAME: F:\federal\epa\rac II\0017-dutchtown\figures\cad\ea-dutchtown.dwg
DATE:03/30/2007 TIME:15:30 DRAWN BY: lhorne

Attachment 2

Conveyance Notification

LISKOW&LEWIS
A PROFESSIONAL LAW CORPORATION

ONE SHELL SQUARE
701 POYDRAS STREET, SUITE 5000
NEW ORLEANS, LOUISIANA 70139-5099
TELEPHONE (504) 581-7979
FACSIMILE (504) 556-4108

Robert E. Holden

Direct Phone (504) 556-4130
reholden@liskow.com

June 14, 2006

Mr. Keith Casanova, Administrator
Louisiana Department of Environmental Quality
Remediation Services Division
Post Office Box 4314
Baton Rouge, LA 70821-4314

VIA CERTIFIED MAIL--RETURN RECEIPT REQUESTED
NO. 7002 0510 0000 4763 5332

Re: Dutchtown Superfund Site
Conveyance Notification
Our File: 06990.007

Dear Tom:

Enclosed is a certified copy of the Conveyance Notification which has now been filed in the Conveyance Records of the Parish of Ascension on behalf of Ascension Holding Company LLC, in connection with the Dutchtown Superfund Site.

Very truly yours,

Robert E. Holden

REH:ddt
Enclosure

cc: Thomas Stafford, LDEQ

822 HARDING STREET
P.O. BOX 52008
LAFAYETTE, LOUISIANA 70505-2008
TELEPHONE (337) 232-7424
FACSIMILE (337) 267-2399

WWW.LISKOW.COM

THREE ALLEN CENTER
333 CLAY STREET, SUITE 3485
HOUSTON, TEXAS 77002-4102
TELEPHONE (713) 651-2900
FACSIMILE (713) 651-2908

CONVEYANCE NOTIFICATION

PLEASE TAKE NOTICE THAT: Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. § 9601 *et seq.*; the National Oil and Hazardous Substances Contingency Plan ("NCP"), 40 C.F.R. Part 300; the Louisiana Environmental Quality Act ("LEQA"), La. Rev. Stat. Ann. Title 30, Subtitle II, Chapters 10 and 12; and the Record of Decision dated June 1994 for the Dutchtown Superfund site, EPA ID No. LAD980879449, Site ID No. 0600633 ("ROD") (available at the Louisiana Department of Environmental Quality ("LDEQ") file room, 602 N. Fifth Street, First Floor, Baton Rouge, LA 70802), Ascension Holding, LLC, hereby notifies the public that:

The property depicted in the plat attached hereto as Exhibit 1 (hereinafter "the Dutchtown Superfund Site") and described in the property description attached hereto as Exhibit 2 has been used to manage hazardous constituents and is the subject of a response action under CERCLA.

Under La. Admin. Code 33:V.Chapter 35 (2005), future use of this property may be restricted to commercial or industrial use. Hazardous constituents above levels that allow for unrestricted exposure may remain in the soil and the groundwater. This notification shall remain effective from the date of its filing until the property (soil and groundwater) subject to this notification can support unlimited uses and unrestricted exposures. EPA and LDEQ shall determine if the hazardous constituents are at levels which allow unlimited use and unrestricted exposure.

Disturbing or removing soil or groundwater may subject the property owner and the party causing the disturbance to liability under CERCLA, the LEQA, or other laws.

INSTRUMENT # 00638851
FILED AND RECORDED
ASCENSION CLERK OF COURT
2006 JUN 09 09:47:33 AM
COB ✓ MOB ____ OTHER ____

DEPUTY CLERK & RECORDER

CERTIFIED TRUE COPY BY

The CERCLA remedy includes but is not limited to:

- the clay cap;
- the French Drain;
- the monitoring wells and piezometers; and
- the fence and gate.

These features are depicted on Exhibit 1. Disturbance of, destruction of, interference with, or in any way damaging or altering elements of the CERCLA remedy without authorization from LDEQ, EPA, or their successor agencies may result in legal liability under CERCLA, the LEQA, or other laws.

The property may be subject to additional future environmental requirements under CERCLA or the LEQA as may be determined necessary by EPA, LDEQ, or their successor agencies. The property may be subject to restrictions under La. Admin. Code 33:V.Chapter 35 (Closure and Post-Closure).

Any owner of the property may become liable jointly and severally under federal law, or in solido under Louisiana law, for any environmental response action required on the property.

ASCENSION HOLDING COMPANY, L.L.C.

By: _____
Lionel Bailey
Representing
Northrop Grumman Ship Systems, Inc., as
Member, Ascension Holding Company L.L.C.

Signed in my presence on the 24th day of May, 2006, in the presence of the undersigned competent witnesses and me, Notary, after reading of the whole.

WITNESSES:

_____
Print Name: JAN T. WHITE

_____
Print Name: DARLENE A. GUAGLIARDO

_____
NOTARY PUBLIC

ANDREW D. PILANT
NOTARY PUBLIC
STATE OF LOUISIANA
La. Bar Roll No. 26468
My commission is issued for life.

Exhibit 1

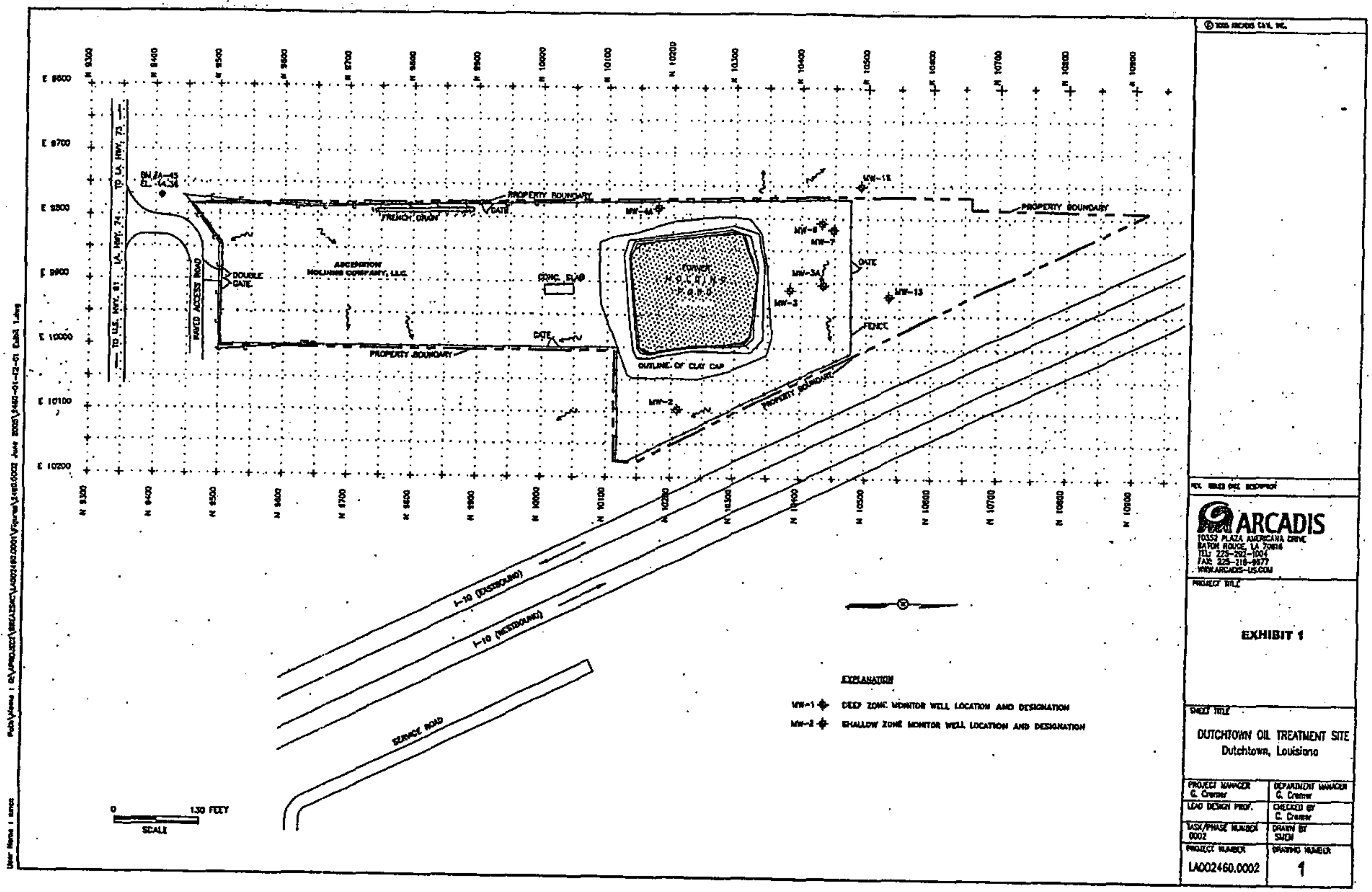

PROPERTY BOUNDARY
FRENCH DRAIN
GATE
DOUBLE GATE
PAVED ACCESS ROAD
CONC. SLAB
OUTLINE OF CLAY CAP
FENCE
I-10 (EASTBOUND)
I-10 (WESTBOUND)
SERVICE ROAD
EXPLANATION
DEEP ZONE MONITOR WELL LOCATION AND DESIGNATION
SHALLOW ZONE MONITOR WELL LOCATION AND DESIGNATION
SCALE
ARCADIS
EXHIBIT 1
DUTCHTOWN OIL TREATMENT SITE
Dutchtown, Louisiana
LA002460.0002

Exhibit 2

A CERTAIN TRACT OR PORTION OF LAND located in Section 14, Township 9 South, Range 2 East, Southeastern District, Ascension Parish, Louisiana, and being more particularly described on a plan of survey by John P. Earles, III, R.L.S., dated June 5, 1980, and filed with the Act of Sale dated July 9, 2004, between James Glorioso, Inc. (Seller) and Ascension Holding Company L.L.C., a Delaware limited liability company (Buyer) as Conveyance Instrument No. 00582489 in the conveyance records of Ascension Parish, Louisiana. Being more particularly described as follows: COMMENCE at the Southwest corner of Section 14, Township 9 South, Range 2 East, thence proceed North 89 degrees 55 minutes 48 seconds East a distance of 2,708.67 Feet to a point and corner; thence proceed North 0 degrees 33 minutes 02 seconds West a distance of 120.53 Feet to the POINT OF BEGINNING. From said Point of Beginning, continue North 0 degrees 33 minutes 02 seconds West a distance of 1,202.39 Feet to a point and corner; thence proceed North 89 degrees 33 minutes 24 seconds East a distance of 14.81 Feet to an iron pipe and corner; thence proceed North 0 degrees 33 minutes 02 seconds West a distance of 265.66 Feet to an iron rod and corner; thence proceed South 25 degrees 52 minutes 52 seconds East a distance of 862.89 Feet to a pipe and corner; thence proceed South 0 degrees 33 minutes 02 seconds East a distance of 29.69 Feet to an iron pipe and corner; thence proceed South 0 degrees 33 minutes 02 seconds East a distance of 615.39 feet to an iron pipe and corner; thence proceed South 89 degrees 55 minutes 48 seconds West a distance of 144.67 Feet to an iron pipe and corner; thence proceed South 53 degrees 37 minutes 48 seconds West a distance of 78.11 Feet to the POINT OF BEGINNING. Being more fully shown on the above referred to plan of survey.

LESS AND EXCEPT the following described property transferred by Act of Cash Sale by Martha Glorioso Germanis and James Glorioso, Inc. with intervention by Mary Glorioso Pearson, which Act of Cash Sale is recorded at COB 595, Entry No. 412098 of the records of Ascension Parish, Louisiana:

A. All right, title and interest in and to that Servitude Agreement dated April 14, 1998 in favor of Martha G. Germanis, recorded on April 21, 1998, COB 595, Entry No. 411317, in the Parish of Ascension, State of Louisiana; and

B. All right, title and interest in and to that Act of Servitude dated August 22, 2003, made by Martha G. Germanis in favor of TLC Properties, Inc., recorded on September 4, 2003, Conveyance Entry No. 555082, in the Parish of Ascension, State of Louisiana; and

C. All right, title and interest in and to the following described property:

A CERTAIN TRACT OF LAND, together with all the buildings and improvements thereon, and all the rights, ways, privileges, servitudes, appurtenances, advantages thereunto belonging or in anywise appertaining, being situated in the Parish of Ascension, being described as follows:

Commence at the intersection of the North right of way line of Louisiana State Highway 74 and the East right of way line of Interstate 10; thence N25°48'47"W a distance of 547.73' to a point; thence S64°11'13"W, a distance of 20.00' to a point; thence N25°48'47"W, a distance of 823.22' to the Point of Beginning (P.O.B.); thence N25°48'48"W, a distance of 894.73' to a point; thence N00°26'38"W, a distance of 392.01' to a point; thence S88°07'53"E, a distance of 380.97' to a point; thence S00°34'26"E, a distance of 1185.09' to the Point of Beginning.

Attachment 3

Documents Reviewed

DOCUMENTS REVIEWED

ARCADIS Geraghty & Miller, Inc. (AGM). 1998. Revised 1st Year Natural Attenuation Evaluation Report, Dutchtown Oil Treatment Site. Prepared for Dutchtown Steering Committee, Baton Rouge, Louisiana. September 8.

AGM. 2002a. Fifth Year Natural Attenuation Evaluation Report, Dutchtown Oil Treatment Site (AI 5217). Prepared for Dutchtown Steering Committee by AGM, Baton Rouge, LA. LA002307.0001. July 17.

AGM. 2002b. Operation and Maintenance Plan (Updated). Dutchtown Oil Treatment Site (AI 5217). Prepared for Dutchtown Steering Committee by AGM, Baton Rouge, Louisiana. LA002166.0003.00001. December 16.

AGM. 2003a. Sixth Year Natural Attenuation Evaluation Report, Dutchtown Oil Treatment Site (AI 5217). Prepared for Dutchtown Steering Committee by AGM, Baton Rouge, LA. LA002307.0002.00002. August 1.

AGM. 2003b. Plug and Abandonment Report, Adjustment of Groundwater Monitoring Network, Dutchtown Oil Treatment Site. LA002307.0003.00002. December 17.

AGM. 2004. Seventh Year Natural Attenuation Evaluation Report, Dutchtown Oil Treatment Site. Agency Interest No. 5217. Prepared for Dutchtown Steering Committee by AGM, Baton Rouge, LA. LA002460.0001.00002. October 4.

AGM. 2005. Eighth Year Natural Attenuation Evaluation Report, Dutchtown Oil Treatment Site. Agency Interest No. 5217. Prepared for Dutchtown Steering Committee by AGM, Baton Rouge, LA. LA002460.0001.00002. August 23.

AGM. 2006. Ninth Year Natural Attenuation Evaluation Report, Dutchtown Oil Treatment Site. Agency Interest No. 5217. Prepared for Dutchtown Steering Committee by AGM, Baton Rouge, LA. LA002713.0001.0001. December 29.

ARCADIS U.S., Inc. 2007. Correction to Ninth Year Natural Attenuation Evaluation Report, Dutchtown Oil Treatment Site. LA002713.0001.0001. February 2.

Geraghty & Miller, Inc. (G&M). 1997. Revised Remedial Action Report. Prepared for the Dutchtown Steering Committee, Baton Rouge, Louisiana. G&M Project No. LA1511.001.003. December 12.

Louisiana Department of Environmental Quality (LDEQ). 2003. Risk Evaluation/Corrective Action Program (RECAP). October 20.

Louisiana Department of Transportation and Development (LDOTD). 2007. Registered Water Wells, Public Works & Water Resources Division Water, Resources Section, Ascension Parish. On-line Address: http://www.dotd.louisiana.gov/intermodal/wells/wellsearch.asp?parish=Ascension. Accessed 2 March 2007.

U.S. Environmental Protection Agency (EPA). 1994. EPA Superfund Record of Decision: Dutchtown Treatment Plant, EPA ID: LAD980879449, Ascension Parish, LA. June 20.

EPA. 2000. Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups. EPA 540-F-00-005. September.

EPA. 2001. Comprehensive Five-Year Review Guidance. EPA 540-R-01-007. June 2001.

EPA. 2002a. Five-Year Review Report for the Dutchtown Treatment Plant Superfund Site, Ascension Parish, Louisiana. September.

EPA. 2002b. Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance). Draft Federal Register. Volume 67. Number 230. Pages 71169 - 71172. On-line Address: http://www.epa.gov/correctiveaction/eis/vapor.htm. November 29.

EPA. 2005a. Institutional Controls: A Citizen's Guide to Understanding Institutional Controls at Superfund, Brownfields, Federal Facilities, Underground Storage Tank, and Resource Conservation and Recovery Act Cleanups. EPA-540-R-04-003. February.

EPA. 2005b. Hurricane Katrina Evaluation Report, Dutchtown Treatment Plant Superfund Site, Ascension Parish, Louisiana. December 13.

EPA. 2007. Dutchtown Treatment Plant (Ascension Parish), Louisiana. EPA ID# LAD980879449, Site ID: 0600633. On-line Address: http://www.epa.gov/earth1r6/6sf/pdffiles/0600633.pdf. Accessed 13 February 2007. Publication date: February 7.

Attachment 4

Site Inspection Checklist

FIVE-YEAR REVIEW SITE VISIT CHECKLIST

I. SITE INFORMATION

Site Name: Dutchtown Treatment Plant Superfund Site	**Date of Inspection:** March 29, 2007
Location and Region: Ascension Parish, LA	**EPA ID:** LAD980879449
Agency leading the five-year review: EPA Region 6	**Weather/temperature:** Partly cloudy, 83°F

Remedy Includes: (Check all that apply)

- ☒ Landfill cover/containment
- ☒ Access controls
- ☒ Institutional controls
- ☐ Groundwater pump-and-treatment
- ☐ Surface water collection and treatment
- ☐ Other-Leachate collection and treatment

Attachments: ☒ Inspection team roster attached ☒ Site map attached to report

II. INTERVIEWS (Check all that apply)

1. O&M Site Manager George Cramer (Name) Project Manager/ARCADIS (Title) 3/29/2007 (Date)

Interviewed: ☐ by mail ☐ at site ☐ by phone Phone no. 225-292-1004
Problems, suggestions: ☒ Report attached Survey form attached to report

2. O&M Staff _____ (Name) _____ (Title) _____ (Date)

Interviewed: ☐ by mail ☐ at office ☐ by phone Phone no. _____
Problems, suggestions: ☐ Report attached

3. Local regulatory authorities and response agencies (i.e.; State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.). Fill in all that apply.

Agency Louisiana Department of Environmental Quality (LDEQ)
Contact Thomas Stafford (Name) Project Manager (Title) 3/29/2007 (Date) 225-219-3236 (Phone no.)
Problems, suggestions: ☒ Report attached Survey form attached to report

Agency N/A
Contact _____ (Name) _____ (Title) _____ (Date) _____ (Phone no.)
Problems, suggestions: ☐ Report attached _____

4. Other interviews (optional): ☒ Report attached Survey form (1)

Robert Holden, Liskow & Lewis, attorney for Dutchtown Steering Committee, survey form attached

III. ONSITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)			
1. O&M Documents			
☒ O&M manual (long term monitoring plan)	☒ Readily available	☒ Up to date	☐ N/A
☐ As-built drawings	☐ Readily available	☐ Up to date	☒ N/A
☐ Maintenance logs (current and cumulative monitoring reports)	☐ Readily available	☐ Up to date	☐ N/A
Remarks:			
2. Site-Specific Health and Safety Plan	☐ Readily available	☒ Up to date	☐ N/A
☐ Contingency plan/emergency response plan	☐ Readily available	☐ Up to date	☒ N/A
Remarks: The Addendum Health and Safety Plan was provided and reviewed, not the original HSP.			
3. O&M and OSHA Training Records	☐ Readily available	☐ Up to date	☒ N/A
Remarks:			
4. Permits and Service Agreements			
☐ Air discharge permit	☐ Readily available	☐ Up to date	☒ N/A
☐ Effluent discharge	☐ Readily available	☐ Up to date	☒ N/A
☐ Waste disposal, POTW	☐ Readily available	☐ Up to date	☒ N/A
☐ Other permits	☐ Readily available	☐ Up to date	☒ N/A
Remarks:			
5. Gas Generation Records	☐ Readily available	☐ Up to date	☒ N/A
6. Settlement Monument Records	☐ Readily available	☐ Up to date	☒ N/A
7. Groundwater Monitoring Records	☒ Readily available	☐ Up to date	☐ N/A
8. Leachate Extraction Records	☐ Readily available	☐ Up to date	☒ N/A
9. Discharge Compliance Records			
☐ Air	☐ Readily available	☐ Up to date	☒ N/A
☐ Water (effluent)	☐ Readily available	☐ Up to date	☒ N/A
Remarks:			
10. Daily Access/Security Logs	☐ Readily available	☐ Up to date	☒ N/A
Remarks:			

IV. O&M COSTS

1. O&M Organization

☐ State in-house ☐ Contractor for State ☐ PRP in-house

☒ Contractor for PRP ☐ Other _____

2. O&M Cost Records

☒ Readily available ☒ Up to date ☒ Funding mechanism/agreement in place

☐ Original O&M cost estimate ☐ Breakdown attached

Total annual cost by year for review period, if available

Date	Date	Total Cost		
From 1/2001	to 12/2001	$21,603	- ☐	Breakdown attached
From 1/2002	to 12/2002	$8,711	- ☐	Breakdown attached
From 1/2003	to 12/2003	$18,540	- ☐	Breakdown attached
From 1/2004	to 12/2004	$24,001	- ☐	Breakdown attached
From 1/2005	to 12/2005	$11,647	- ☐	Breakdown attached
From 1/2006	to 12/2006	$20,646	- ☐	Breakdown attached
From 1/2007	to 3/2007	$3,661	- ☐	Breakdown attached
From _____	to _____	_____	- ☐	Breakdown attached

3. Unanticipated or Unusually High O&M Costs During Review Period

_____

V. ACCESS AND INSTITUTIONAL CONTROLS ☒ Applicable ☐ N/A

A. Fencing

1. Fencing damaged ☐ Location shown on site map ☒ Gates secured ☐ N/A

Remarks: Three areas of damage noted

B. Other Access Restrictions

1. Signs and other security measures ☐ Location shown on site map ☐ N/A

Remarks: Site sign was clearly visible at the main entrance gate

C. Institutional Controls

1. Implementation and enforcement

Site conditions imply ICs not properly implemented ☐ Yes ☒ No ☐ N/A

Site conditions imply ICs not being fully enforced ☐ Yes ☒ No ☐ N/A

Type of monitoring (e.g., self-reporting, drive by) Self-reporting; annual groundwater monitoring

Frequency Annually at a minimum

Responsible party/agency ARCADIS

Contact George Cramer Vice President

Name Title Date Phone no.

Reporting is up-to-date ☒ Yes ☐ No ☐ N/A

Reports are verified by the lead agency ☒ Yes ☐ No ☐ N/A

Specific requirements in deed or decision documents have been met ☒ Yes ☐ No ☐ N/A

Violations have been reported ☐ Yes ☐ No ☒ N/A

Other problems or suggestions: ☐ Report attached

2. Adequacy ☒ ICs are adequate ☐ ICs are inadequate ☐ N/A

Remarks:

D. General

1. Vandalism/trespassing ☐ Location shown on site map ☒ No vandalism evident

Remarks:

2. Land use changes onsite ☒ N/A

Remarks: No current land use changes onsite

3. Land use changes offsite ☐ N/A

Remarks: Land to the east of the property has been developed for residences

VI. GENERAL SITE CONDITIONS

A. Roads ☐ Applicable ☒ N/A

Remarks:

B. Other Site Conditions ☐ Applicable ☒ N/A

Remarks: Discussed previously

VII. LANDFILL COVERS ☒ Applicable ☐ N/A

A. Landfill Surface

1. Settlement (Low spots) ☐ Location shown on site map ☒ Settlement not evident

Areal extent Depth

Remarks: _____

2. Cracks ☐ Location shown on site map ☒ Cracking not evident
Lengths _____ Widths _____ Depths _____
Remarks: _____

3. Erosion ☐ Location shown on site map ☒ Erosion not evident
Areal extent _____ Depth _____
Remarks: _____

4. Holes ☐ Holes evident ☒ Holes not evident
Areal extent _____ Depth _____
Remarks: _____

5. Vegetative Cover ☒ Grass ☒ Cover properly established ☒ No signs of stress
☐ Trees/Shrubs (indicate size and locations on a diagram) (None)
Remarks: _____

6. Alternative Cover (armored rock, concrete, etc.) ☐ N/A
Remarks: Rip rap at the southeast toe of the cap

7. Bulges ☐ Location shown on site map ☒ Bulges not evident
Areal extent _____ Depth _____
Remarks: _____

8. Wet Areas/Water Damage ☒ Wet areas/water damage not evident

☐ Wet areas	☐ Location shown on site map	☐ Areal extent _____
☐ Ponding	☐ Location shown on site map	☐ Areal extent _____
☐ Seeps	☐ Location shown on site map	☐ Areal extent _____
☐ Soft subgrade	☐ Location shown on site map	☐ Areal extent _____

Remarks: _____

9. Slope Instability ☐ Slides ☐ Location shown on site map
☒ No evidence of slope instability Areal extent _____
Remarks: _____

B. Benches ☐ Applicable ☒ N/A
(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

1. Flows Bypass Bench ☐ Location shown on site map ☒ N/A or okay
Remarks: _____

2. Bench Breached ☐ Location shown on site map ☒ N/A or okay
Remarks: _____

3. Bench Overtopped ☐ Location shown on site map ☒ N/A or okay
Remarks: _____

C. Letdown Channels ☐ Applicable ☒ N/A

1. Settlement ☐ Location shown on site map ☐ No evidence of settlement
Areal extent _____ Depth _____
Remarks: N/A

2. Material Degradation ☐ Location shown on site map ☐ No evidence of degradation
Material type _____ Areal extent _____
Remarks: N/A

3. Erosion ☐ Location shown on site map ☐ No evidence of erosion
Areal extent _____ Depth _____
Remarks: N/A

4. Undercutting ☐ Location shown on site map ☐ No evidence of undercutting
Areal extent _____ Depth _____
Remarks: N/A

5. Obstructions Type _____
☐ No obstructions ☐ Location shown on site map
Areal extent _____ Size _____
Remarks: N/A

6. Excessive Vegetative Growth Type _____
☐ No evidence of excessive growth ☐ Vegetation in channels does not obstruct flow
☐ Location shown on site map Areal extent _____
Remarks: N/A

D. Cover Penetrations ☐ Applicable ☒ N/A

1. Gas Vents ☐ Active ☐ Passive
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs O&M ☒ N/A
Remarks: _____

2. Gas Monitoring Probes
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition

☐ Evidence of leakage at penetration ☐ Needs O&M ☒ N/A
Remarks: _____

3. Monitoring Wells (within surface area of landfill)
☐ Evidence of leakage at penetration ☐ Needs O&M ☒ N/A
Remarks: _____

4. Leachate Extraction Wells
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs O&M ☒ N/A
Remarks: _____

5. Settlement Monuments ☐ Located ☐ Routinely surveyed ☒ N/A
Remarks: _____

E. Gas Collection and Treatment ☐ Applicable ☒ N/A

1. Gas Treatment Facilities
☐ Flaring ☐ Thermal destruction ☐ Collection for reuse
☐ Good condition ☐ Needs O&M
Remarks: N/A

2. Gas Collection Wells, Manifolds, and Piping ☐ Good condition ☐ Needs O&M
Remarks: _____

3. Gas Monitoring Facilities (e.g., gas monitoring of adjacent homes or buildings)
☐ Good condition ☐ Needs O&M ☒ N/A
Remarks: _____

F. Cover Drainage Layer ☐ Applicable ☒ N/A

1. Outlet Pipes Inspected ☐ Functioning ☒ N/A
Remarks: _____

2. Outlet Rock Inspected ☐ Functioning ☒ N/A
Remarks: _____

G. Detention/Sedimentation Ponds ☐ Applicable ☒ N/A

1. Siltation Areal extent _____ Size _____
☒ N/A ☐ Siltation not evident
Remarks: _____

2. Erosion Areal extent _____ Depth _____
☐ Erosion not evident
Remarks: _____

3. Outlet Works ☐ Functioning ☒ N/A

Remarks: _____

4. Dam ☐ Functioning ☒ N/A
Remarks: _____

H. Retaining Walls ☐ Applicable ☒ N/A

1. Deformations ☐ Location shown on site map ☐ Deformation not evident
Horizontal displacement _____ Vertical displacement _____
Rotational displacement _____
Remarks: N/A

2. Degradation ☐ Location shown on site map ☐ Degradation not evident
Remarks: N/A

I. Perimeter Ditches/Off-Site Discharge ☐ Applicable ☒ N/A

1. Siltation ☐ Location shown on site map ☐ Siltation not evident
Areal extent _____ Depth _____
Remarks: N/A

2. Vegetative Growth ☐ Location shown on site map ☒ N/A
☐ Vegetation does not impede flow
Areal extent _____ Type _____
Remarks: _____

3. Erosion ☐ Location shown on site map ☐ Erosion not evident
Areal extent _____ Depth _____
Remarks: N/A

4. Discharge Structure ☐ Functioning ☐ N/A
Remarks: _____

VIII. VERTICAL BARRIER WALLS ☐ Applicable ☒ N/A

1. Settlement ☐ Location shown on site map ☐ Settlement not evident
Areal extent _____ Depth _____
Remarks: N/A

2. Performance Monitoring Type of monitoring _____
☐ Performance not monitored Frequency _____ ☐ Evidence of breaching
Head differential _____
Remarks: N/A

IX. GROUNDWATER/SURFACE WATER REMEDIES ☒ Applicable ☐ N/A

A. Groundwater Extraction Wells, Pumps, and Pipelines ☐ Applicable ☒ N/A

1. Pumps, Wellhead Plumbing, and Electrical

☐ Good condition ☐ All required wells located ☐ Needs O&M ☒ N/A

Remarks:

2. Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances

☐ Good condition ☐ Needs O&M

Remarks:

3. Spare Parts and Equipment

☐ Readily available ☐ Good condition ☐ Requires upgrade ☐ Needs to be provided

Remarks: N/A

B. Surface Water Collection Structures, Pumps, and Pipelines ☐ Applicable ☒ N/A

1. Collection Structures, Pumps, and Electrical

☐ Good condition ☐ Needs O&M

Remarks: N/A

2. Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances

☐ Good condition ☐ Needs O&M

Remarks: N/A

3. Spare Parts and Equipment

☐ Readily available ☐ Good condition ☐ Requires upgrade ☐ Needs to be provided

Remarks: N/A

C. Treatment System ☐ Applicable ☒ N/A

1. Treatment Train (Check components that apply)

☐ Metals removal ☐ Oil/water separation ☐ Bioremediation
☐ Air stripping ☐ Carbon absorbers
☐ Filters _____
☐ Additive (e.g., chelation agent, flocculent) _____
☐ Others _____
☐ Good condition ☐ Needs O&M
☐ Sampling ports properly marked and functional
☐ Sampling/maintenance log displayed and up to date
☐ Equipment properly identified
☐ Quantity of groundwater treated annually _____
☐ Quantity of surface water treated annually _____

Remarks: N/A

2. Electrical Enclosures and Panels (Properly rated and functional)

☐ N/A ☐ Good condition ☐ Needs O&M

Remarks: N/A

3. Tanks, Vaults, Storage Vessels

☐ N/A ☐ Good condition ☐ Proper secondary containment ☐ Needs O&M

Remarks: N/A

4. Discharge Structure and Appurtenances

☐ N/A ☐ Good condition ☐ Needs O&M

Remarks: N/A

5. Treatment Building(s)

☐ N/A ☐ Good condition (esp. roof and doorways) ☐ Needs repair
☐ Chemicals and equipment properly stored

Remarks: N/A

6. Monitoring Wells (Pump-and-treatment remedy)

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ All required wells located ☐ Needs O&M ☐ N/A

Remarks: N/A

D. Monitored Natural Attenuation ☒ Applicable ☐ N/A

1. Monitoring Wells (Natural attenuation remedy)

☐ Properly secured/locked ☐ Functioning ☒ Routinely sampled ☒ Good condition
☐ All required wells located ☐ Needs O&M ☐ N/A

Remarks:

X. OTHER REMEDIES

If there are remedies applied at the site that are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

The monitored natural attenuation occurring at the site appears to be operating as designed. Warning signs need to be replaced to alert potential trespassers of the hazards on site. Repairs to the perimeter fence and MW-13 need to be conducted. The french drain needs to be sampled and analyzed to determine if it can be plugged and abandoned. The exterior of the fence needs to have the vegetation cut back, as well as, for MW-12.

B. Adequacy of O&M

Current O&M activities are currently adequate; however, see opportunities for optimization below.

C. Early Indicators of Potential Remedy Failure

There are no early indicators of potential remedy failure.

D. Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

A monitoring well should be installed on the south side of the cap to monitor that side of the cap.

The french drain should be sampled and analyzed in order to determine if it can be plugged and abandoned.

INSPECTION TEAM ROSTER

Name	Organization	Title
Michael Hebert	U.S. EPA Region 6	Remedial Project Manager
Thomas Stafford	LDEQ	Remedial Project Manager
Alan Karr	LDEQ	ES-3
George Cramer	ARCADIS	Principal Scientist
April Ballweg	EA Engineering	Project Manager
Mark Paddack	EA Engineering	Alternate Project Manager

Notes:

EPA = Environmental Protection Agency
LDEQ = Louisiana Department of Environmental Quality
PRPs = Potentially responsibly parties

Attachment 5

Interview Records

SUPERFUND FIVE-YEAR REVIEW SITE SURVEY		
Site Name: Dutchtown Treatment Plant Superfund Site		**EPA ID No.:** LAD980879449
Location: Dutchtown, Ascension Parish, Louisiana		**Date:** February 24, 2007
Contact Made By:		
Name: Michael Hebert	**Title:** Remedial Project Manager	**Organization:** U.S. EPA
Telephone No.: (214) 665-8315 **E-Mail:** Hebert.Michael@epamail.epa.gov	**Street Address:** 1455 Ross Avenue, Suite 1200 **City, State, Zip:** Dallas, Texas 75202	
Name: April Ballweg	**Title:** Project Manager	**Organization:** EA Engineering
Telephone No.: (972) 459-5019 **E-Mail:** aballweg@eaest.com	**Street Address:** 405 S. Highway 121, Building C, Suite 100 **City, State, Zip:** Lewisville, Texas 75067	
Individual Contacted:		
Name: Robert Holden	**Title:** Attorney	**Organization:** Representing Participating Group
Telephone No.: 504-556-4130 **E-Mail Address:** reholden@liskow.com	**Street Address:** 50th Floor, One Shell Square **City, State, Zip:** New Orleans, LA 70139	

Survey Questions

1. What is your general impression of the work conducted at the site since the first Five-Year Review period (since July 2002)?

The Site is well maintained. The groundwater sample results demonstrate that monitored natural attenuation has worked. The current level of expenses for continued monitoring and reporting do not appear justified based on environmental risks. The site appears to be ready for post-closure maintenance, preferably under the Louisiana RECAP program.

2. What effect have site operations had on the surrounding community since the first Five-Year Review?

None, other than that the site has been taken out of commerce.

3. In the past five years, are you aware of any community concerns regarding the site or its operation and administration? If so, please provide details.

None.

SUPERFUND FIVE-YEAR REVIEW SITE SURVEY (continued)	
Site Name: Dutchtown Treatment Plant Superfund Site	**EPA ID No.:** LAD980879449
Location: Dutchtown, Ascension Parish, Louisiana	**Date:** February 24, 2007

Robert Holden Survey (Continued)

4. Are you aware of any events, incidents, or activities at the site in the past five years such as vandalism, trespassing, or emergency responses from local authorities? If so, please provide details.

   None.

5. Do you feel well informed about the site's activities and progress?

   Yes.

6. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?

   The Superfund program has a success. The site no longer appears to require EPA oversight.

SUPERFUND FIVE-YEAR REVIEW SITE SURVEY		
Site Name: Dutchtown Treatment Plant Superfund Site		**EPA ID No.:** LAD980879449
Location: Dutchtown, Ascension Parish, Louisiana		**Date:** April 5, 2007
Contact Made By:		
Name: Michael Hebert	**Title:** Remedial Project Manager	**Organization:** U.S. EPA
Telephone No.: (214) 665-8315 **E-Mail:** Hebert.Michael@epamail.epa.gov	**Street Address:** 1455 Ross Avenue, Suite 1200 **City, State, Zip:** Dallas, Texas 75202	
Name: April Ballweg	**Title:** Project Manager	**Organization:** EA Engineering
Telephone No.: (972) 459-5019 **E-Mail:** aballweg@eaest.com	**Street Address:** 405 S. Highway 121, Building C, Suite 100 **City, State, Zip:** Lewisville, Texas 75067	
Individual Contacted:		
Name: George H. Cramer, P.G.	**Title:** Associate Vice President	**Organization:** ARCADIS
Telephone No.: 225-292-1004, Ext. 228 **E-mail Address:** george.cramer@arcadis-us.com	**Street Address:** 10352 Plaza Americana Drive **City, State, Zip:** Baton Rouge, LA 70816	

Survey Questions

1. What is your general impression of the work conducted at the site since the first Five-Year Review period (since July 2002)?

   General facility maintenance and monitoring. Groundwater concentrations continuing to trend downward as a general rule.

2. What effect have site operations had on the surrounding community since the first Five-Year Review?

   Keeping the site maintained and looking good has generated interest in building on the facility due to the tremendous pressures of expansion in the surrounding area. Proximity to new schools and being within the appropriate school zone has added to the desire for this piece of property.

3. In the past five years, are you aware of any community concerns regarding the site or its operation and administration? If so, please provide details.

   No

SUPERFUND FIVE-YEAR REVIEW SITE SURVEY (continued)	
Site Name: Dutchtown Treatment Plant Superfund Site	**EPA ID No.:** LAD980879449
Location: Dutchtown, Ascension Parish, Louisiana	**Date:** April 5, 2007

George Cramer Survey (continued)

4. Are you aware of any events, incidents, or activities at the site in the past five years such as vandalism, trespassing, or emergency responses from local authorities? If so, please provide details.

Last 4th of July (2006) the neighbors set off fireworks that landed on the front of the property and started a grass fire. The volunteer fire department had to cut the lock to get into the facility to put the fire out. It took several days for them to determine the correct number to call to let us know. As a result, a sign has been affixed to the gate with two emergency contact numbers for people to call.

5. Do you feel well informed about the site's activities and progress?

Yes

6. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?

I suggest we pursue segregating the front portion of the property and allowing it to return to commerce while maintaining access to the back where the waste has been capped.

SUPERFUND FIVE-YEAR REVIEW SITE SURVEY		
Site Name: Dutchtown Treatment Plant Superfund Site		**EPA ID No.:** LAD980879449
Location: Dutchtown, Ascension Parish, Louisiana		**Date:** April 5, 2007
Contact Made By:		
Name: Michael Hebert	**Title:** Remedial Project Manager	**Organization:** U.S. EPA
Telephone Number: (214) 665-8315 **E-Mail:** Heberert.Michael@epamail.epa.gov	**Street Address:** 1455 Ross Avenue, Suite 1200 **City, State, Zip:** Dallas, Texas 75202	
Name: April Ballweg	**Title:** Project Manager	**Organization:** EA Engineering
Telephone No.: (972) 459-5019 **E-Mail:** aballweg@eaest.com	**Street Address:** 405 S. Highway 121, Building C, Suite 100 **City, State, Zip:** Lewisville, Texas 75067	
Individual Contacted:		
Name: Thomas Stafford	**Title:** Project Manager	**Organization:** LDEQ-RSD
Telephone No.: 225-219-3222 **E-Mail Address:** Thomas.Stafford@LA.GOV	**Street Address:** 602 N. Fifth Street, Third Floor **City, State, Zip:** Baton Rouge, LA 70802	

Survey Questions

1) What is your general impression of the work conducted at the site since the first Five-Year Review period (since July 2002)? **Good.**

2) What effect have site operations had on the surrounding community since the first Five-Year Review? **Levels of concern about the site have continued to fall.**

3) In the past five years, are you aware of any community concerns regarding the site or its operation and administration? If so, please provide details. **There is off and on interest in doing something with the property. There is also debate about what that utilization should be.**

4) Are you aware of any events, incidents, or activities at the site in the past five years such as vandalism, trespassing, or emergency responses from local authorities? If so, please provide details. **I know that the fence on the east side of the site has been damaged. I suspect that it occurred during clearing of the land and placement of the manufactured housing and or by residents and visitors backing into it. We had two major hurricanes with hurricane force winds that felled trees and blew things against the fences on all sides. There is little evidence of "trespassing". It seems that the large wire in the transmission box would have been scavenged by trespassers if many were coming on the site. I wasn't aware of any "emergencies" until during the site walk, when George Cramer mentioned the "fireworks incident" that had ignited the grass.**

5) Do you feel well informed about the site's activities and progress? **Yes.**

6) Do you have any comments, suggestions, or recommendations regarding the site's management or operation? **The discussion of potential future use of the site that was briefly discussed during the site walk interests me.**

SUPERFUND FIVE-YEAR REVIEW SITE SURVEY		
Site Name: Dutchtown Treatment Plant Superfund Site		**EPA ID No.:** LAD980879449
Location: Dutchtown, Ascension Parish, Louisiana		**Date:** 3/20/2007 (sent via email)
Contact Made By:		
Name: Michael Hebert	**Title:** Remedial Project Manager	**Organization:** U.S. EPA
Telephone No.: (214) 665-8315 **E-Mail:** Hebert.Michael@epamail.epa.gov	**Street Address:** 1455 Ross Avenue, Suite 1200 **City, State, Zip:** Dallas, Texas 75202	
Name: April Ballweg	**Title:** Project Manager	**Organization:** EA Engineering
Telephone No.: (972) 459-5019 **E-Mail:** aballweg@eaest.com	**Street Address:** 405 S. Highway 121, Building C, Suite 100 **City, State, Zip:** Lewisville, Texas 75067	
Individual Contacted:		
Name: George Valentine, councilman/elected official		**Organization:** Ascension Parish
Telephone No.: 225-473-5984 **E-Mail Address:** george.m.valentine@usa.dupont.com	**Street Address:** 13323 Hwy. 73 **City, State, Zip:** Geismar, LA 70734	

Survey Questions

1. What is your general impression of the work conducted at the site since the first Five-Year Review period (since July 2002)?

   Site appears to be in very good condition-well taken care of as far as landscaping.

2. What effect have site operations had on the surrounding community since the first Five-Year Review?

   I have not heard of any site problems or operational concerns from neighbors.

3. In the past five years, are you aware of any community concerns regarding the site or its operation and administration? If so, please provide details.

   I have not heard of any environmental concerns/issues from surrounding neighborhoods.

SUPERFUND FIVE-YEAR REVIEW SITE SURVEY (continued)	
Site Name: Dutchtown Treatment Plant Superfund Site	**EPA ID No.:** LAD980879449
Location: Dutchtown, Ascension Parish, Louisiana	**Date:** 3/20/2007 (sent via email)

George Valentine Survey (continued)

4. Are you aware of any events, incidents, or activities at the site in the past five years such as vandalism, trespassing, or emergency responses from local authorities? If so, please provide details.

   Not aware of any.

5. Do you feel well informed about the site's activities and progress?

   I am comfortable with the information provided.

6. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?

   None.

Attachment 6

Site Inspection Photographs

Photograph No. 1 Site: Dutchtown Treatment Plant Superfund Site
Description: Entrance gate to site with warning signs Date: March 29, 2007

Photograph No. 2 Site: Dutchtown Treatment Plant Superfund Site
Description: View north of the western portion of the site Date: March 29, 2007

Photograph No. 3 Site: Dutchtown Treatment Plant Superfund Site
Description: View north of the eastern portion of the site Date: March 29, 2007

Photograph No. 4 Site: Dutchtown Treatment Plant Superfund Site
Description: Southern portion of the site with well house Date: March 29, 2007

Photograph No. 5 Site: Dutchtown Treatment Plant Superfund Site
Description: Onsite concrete pad near center of site Date: March 29, 2007
(note cap elevation in background)

Photograph No. 6 Site: Dutchtown Treatment Plant Superfund Site
Description: Northwest portion of site with monitor wells Date: March 29, 2007

Photograph No. 7 Site: Dutchtown Treatment Plant Superfund Site
Description: Monitoring well MW-13 north of site Date: March 29, 2007
(note gap caused by damaged hinge)

Photograph No. 8 Site: Dutchtown Treatment Plant Superfund Site
Description: Monitoring well MW-12 Date: March 29, 2007
(note heavy vegetation surrounding concrete pad)

Photograph No. Site: Dutchtown Treatment Plant Superfund Site
Description: Damaged perimeter fence northwest corner of site Date: March 29, 2007

Photograph No. 10 Site: Dutchtown Treatment Plant Superfund Site
Description: Damaged fence on east side Date: March 29, 2007
(note residential property developments)

Attachment 7

Summary of Reported BTEX Concentrations
(August 1997 Through October 2006)

(Source: ARCADIS U.S., Inc. "Ninth Year Natural Attenuation Evaluation Report, Dutchtown Oil Treatment Site. Agency Interest No. 5217." Table 4. December 26, 2006.)

Table 4. Summary of Reported BTEX Concentrations (August 1997 Through October 2006), Dutchtown Oil Treatment Site, Dutchtown, Louisiana.

	MW-2															
Analytical Parameters	Aug-97	Nov-97	Feb-98	May-98	Nov-98	May-99	Nov-99	May-00	Nov-00	May-01	Nov-01	May-02	June-03	June-04	June-05	Oct-06
Benzene (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Ethylbenzene (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Toluene (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Xylene (mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.010

	MW-3															
Analytical Parameters	Aug-97	Nov-97	Feb-98	May-98	Nov-98	May-99	Nov-99	May-00	Nov-00	May-01	Nov-01	May-02	June-03	June-04	June-05	Oct-06
Benzene (mg/L)	<0.050	**0.031**	<0.050	<0.050	**0.020**	**0.035**	**0.010**	<0.001	**0.0011**	<0.010	**0.014**	**0.026**	<0.001	**0.0039**	<0.001	<0.005
Ethylbenzene (mg/L)	**1.7**	**0.470**	**2.1**	**1.7**	**0.045**	**1.0**	**0.530**	**0.033**	<0.001	**0.240**	**0.480**	**0.960**	<0.001	**0.390**	**0.671**	**0.188**
Toluene (mg/L)	<0.050	<0.010	<0.050	<0.050	<0.001	<0.025	<0.010	<0.001	<0.001	<0.010	<0.010	<0.001	<0.001	<0.001	<0.001	<0.005
Xylene (mg/L)	<0.100	<0.020	<0.100	<0.100	<0.002	<0.050	<0.020	<0.002	<0.002	<0.020	<0.020	<0.002	<0.002	<0.002	<0.002	<0.010

mg/L Milligrams per liter.

<0.001 Below laboratory detection limit.

Table 4. Summary of Reported BTEX Concentrations (August 1997 Through October 2006), Dutchtown Oil Treatment Site, Dutchtown, Louisiana.

	MW-3A															
Analytical Parameters	Aug-97	Nov-97	Feb-98	May-98	Nov-98	May-99	Nov-99	May-00	Nov-00	May-01	Nov-01	May-02	June-03	June-04	June-05	Oct-06
Benzene (mg/L)	**0.053**	**0.042**	<0.200	<0.050	<0.050	**0.150**	**0.086**	<0.001	<0.001	<0.005	<0.050	**0.044**	<0.001	**0.015**	<0.001	<0.005
Ethylbenzene (mg/L)	**2.6**	**1.6**	**6.6**	**1.5**	**2.1**	**4.2**	**3.7**	**0.030**	<0.001	**0.250**	**2.2**	**2.7**	**0.013**	**1.80**	**3.14**	**0.102**
Toluene (mg/L)	<0.050	<0.050	<0.200	<0.050	<0.050	<0.100	<0.025	<0.001	<0.001	<0.005	<0.050	<0.001	<0.001	<0.001	<0.001	<0.005
Xylene (mg/L)	<0.100	<0.100	<0.400	<0.100	<0.100	<0.200	<0.050	<0.002	<0.002	<0.010	<0.100	<0.002	<0.002	<0.002	<0.002	<0.010

	MW-4A															
Analytical Parameters	Aug-97	Nov-97	Feb-98	May-98	Nov-98	May-99	Nov-99	May-00	Nov-00	May-01	Nov-01	May-02	June-03	June-04	June-05	Oct-06
Benzene (mg/L)	<0.0046	**2.0**	**0.007**	**0.012**	**0.0021**	**0.0028**	**0.150**	<0.001	**0.0077**	**0.0012**	<0.001	**0.0091**	**0.004**	**0.028**	**0.91**	<0.005
Ethylbenzene (mg/L)	**0.110**	**3.8**	**0.270**	**0.110**	**0.022**	**0.087**	**0.230**	**0.0074**	**0.0011**	**0.0023**	**0.0034**	**0.054**	**0.0058**	**0.032**	**2.52**	**0.0167**
Toluene (mg/L)	<0.0025	<0.100	<0.005	<0.0025	<0.001	<0.0025	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Xylene (mg/L)	<0.005	<0.200	<0.010	<0.005	<0.002	<0.005	<0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.010

mg/L Milligrams per liter.

<0.001 Below laboratory detection limit.

Table 4. Summary of Reported BTEX Concentrations (August 1997 Through October 2006), Dutchtown Oil Treatment Site, Dutchtown, Louisiana.

	MW-6															
Analytical Parameters	Aug-97	Nov-97	Feb-98	May-98	Nov-98	May-99	Nov-99	May-00	Nov-00	May-01	Nov-01	May-02	June-03	June-04	June-05	Oct-06
Benzene (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Ethylbenzene (mg/L)	<0.001	<0.001	**0.027**	<0.001	<0.001	<0.001	**0.0022**	<0.001	<0.001	<0.001	<0.001	**0.0096**	<0.001	<0.001	<0.001	<0.005
Toluene (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Xylene (mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.010

	MW-7															
Analytical Parameters	Aug-97	Nov-97	Feb-98	May-98	Nov-98	May-99	Nov-99	May-00	Nov-00	May-01	Nov-01	May-02	June-03	June-04	June-05	Oct-06
Benzene (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Ethylbenzene (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Toluene (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Xylene (mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.010

mg/L Milligrams per liter.

<0.001 Below laboratory detection limit.

Table 4. Summary of Reported BTEX Concentrations (August 1997 Through October 2006), Dutchtown Oil Treatment Site, Dutchtown, Louisiana.

	MW-12															
Analytical Parameters	Aug-97	Nov-97	Feb-98	May-98	Nov-98	May-99	Nov-99	May-00	Nov-00	May-01	Nov-01	May-02	June-03	June-04	June-05	Oct-06
Benzene (mg/L)	<0.001	NS	<0.001	<0.001	NS	NS	NS	NS	NS	<0.001	NS	NS	NS	<0.001	<0.001	NS
Ethylbenzene (mg/L	<0.001	NS	<0.001	<0.001	NS	NS	NS	NS	NS	<0.001	NS	NS	NS	<0.001	<0.001	NS
Toluene (mg/L)	<0.001	NS	<0.001	<0.001	NS	NS	NS	NS	NS	<0.001	NS	NS	NS	<0.001	<0.001	NS
Xylene (mg/L)	<0.002	NS	<0.002	<0.002	NS	NS	NS	NS	NS	<0.002	NS	NS	NS	<0.002	<0.002	NS

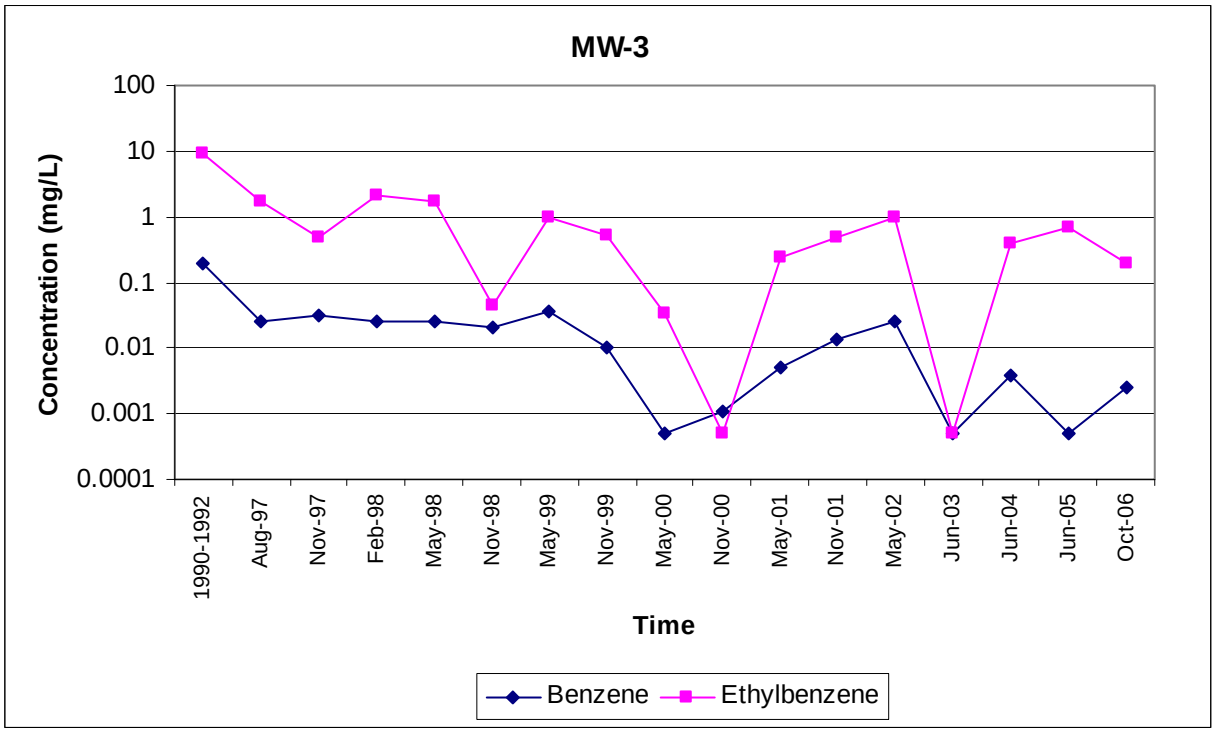
	MW-13															
Analytical Parameters	Aug-97	Nov-97	Feb-98	May-98	Nov-98	May-99	Nov-99	May-00	Nov-00	May-01	Nov-01	May-02	June-03	June-04	June-05	Oct-06
Benzene (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Ethylbenzene (mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	**0.0026**	<0.001	<0.001	<0.001	<0.005
Toluene (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NS	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Xylene (mg/L)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	NS	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.010

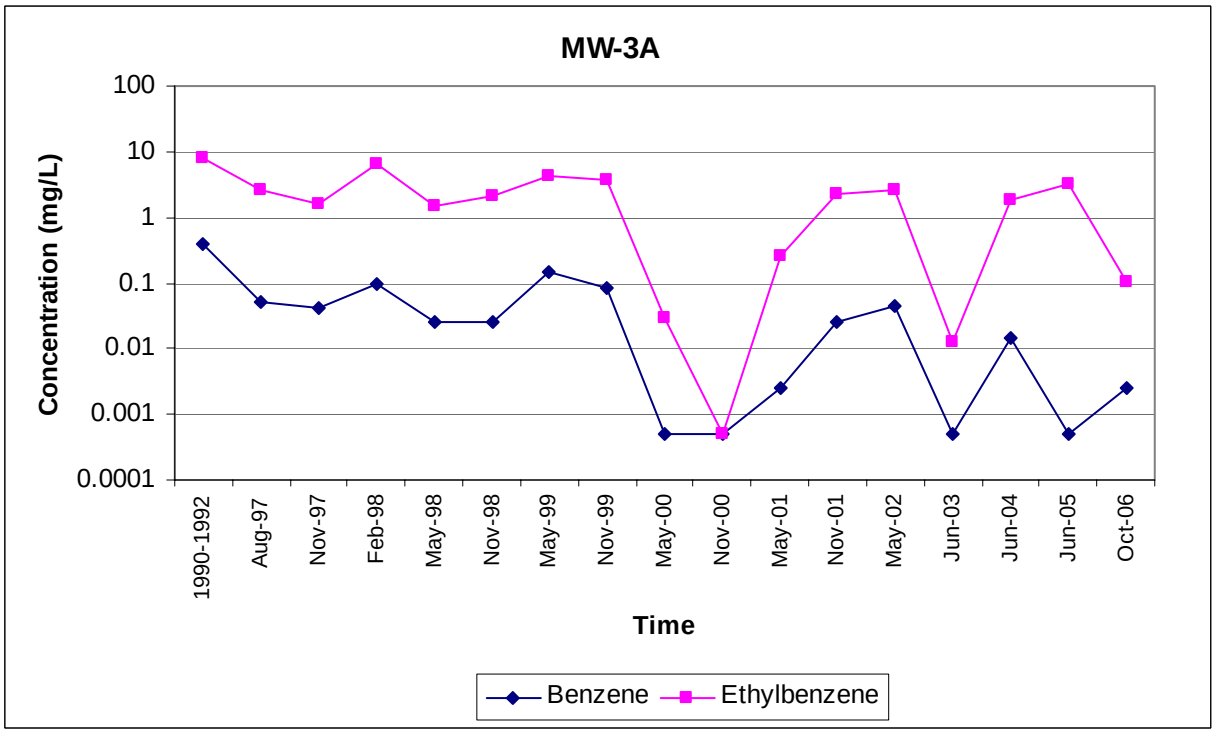
mg/L Milligrams per liter.
NS Not sampled, well was dry.
<0.001 Below laboratory detection limit.

Attachment 8

Benzene and Ethylbenzene Concentration Trend Graphs

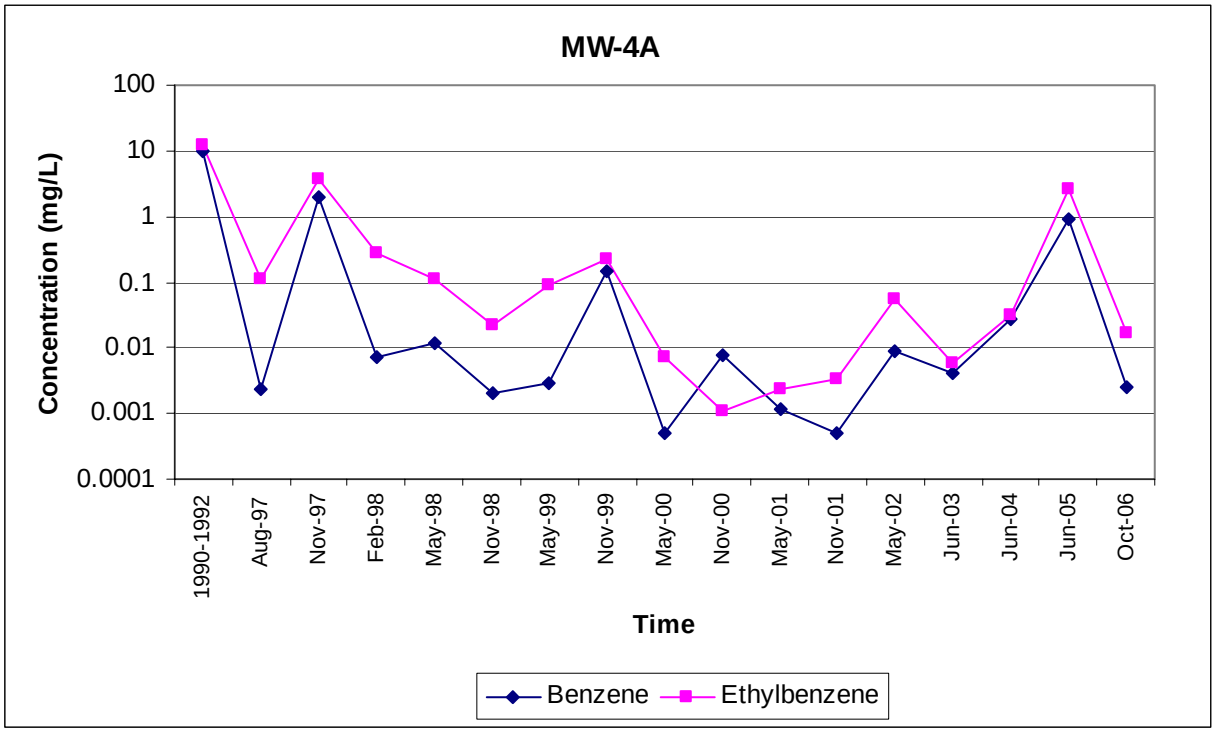
(Source: ARCADIS U.S. Inc. "Ninth Year Natural Attenuation Evaluation Report, Dutchtown Oil Treatment Site, Ascension Parish, Louisiana, Agency Interest No. 5217." December 26, 2006.)

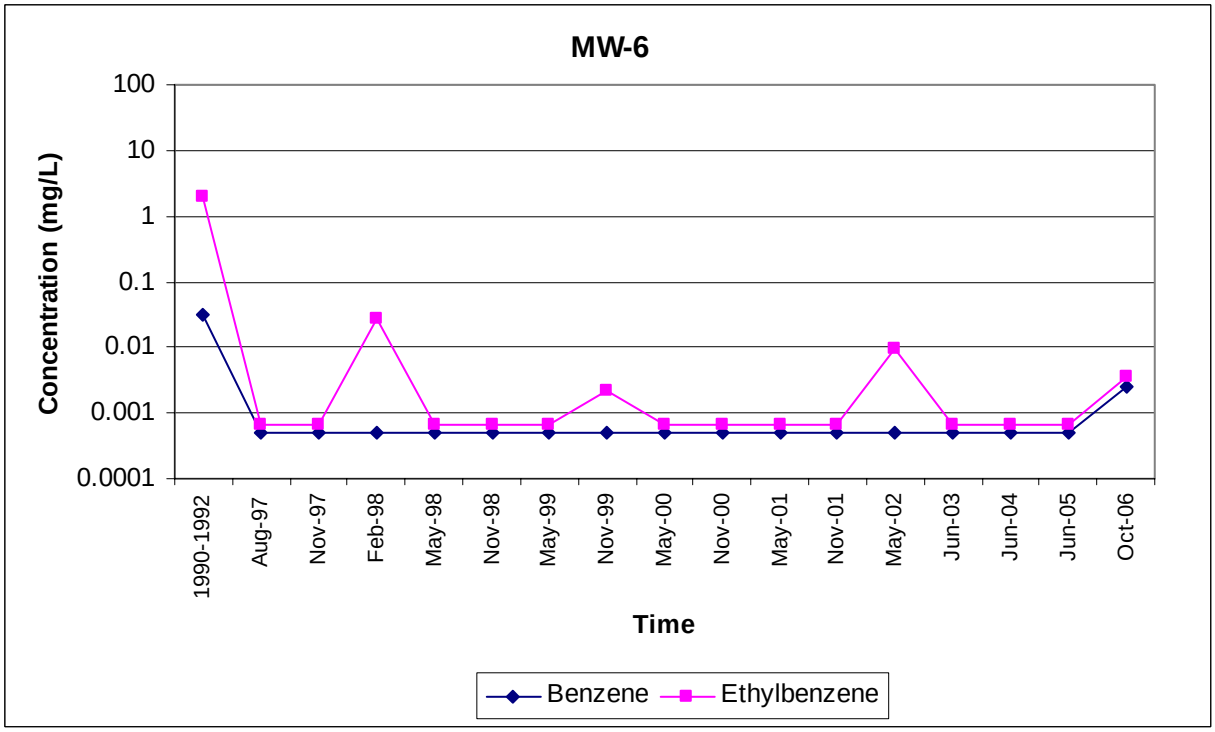




Notes:

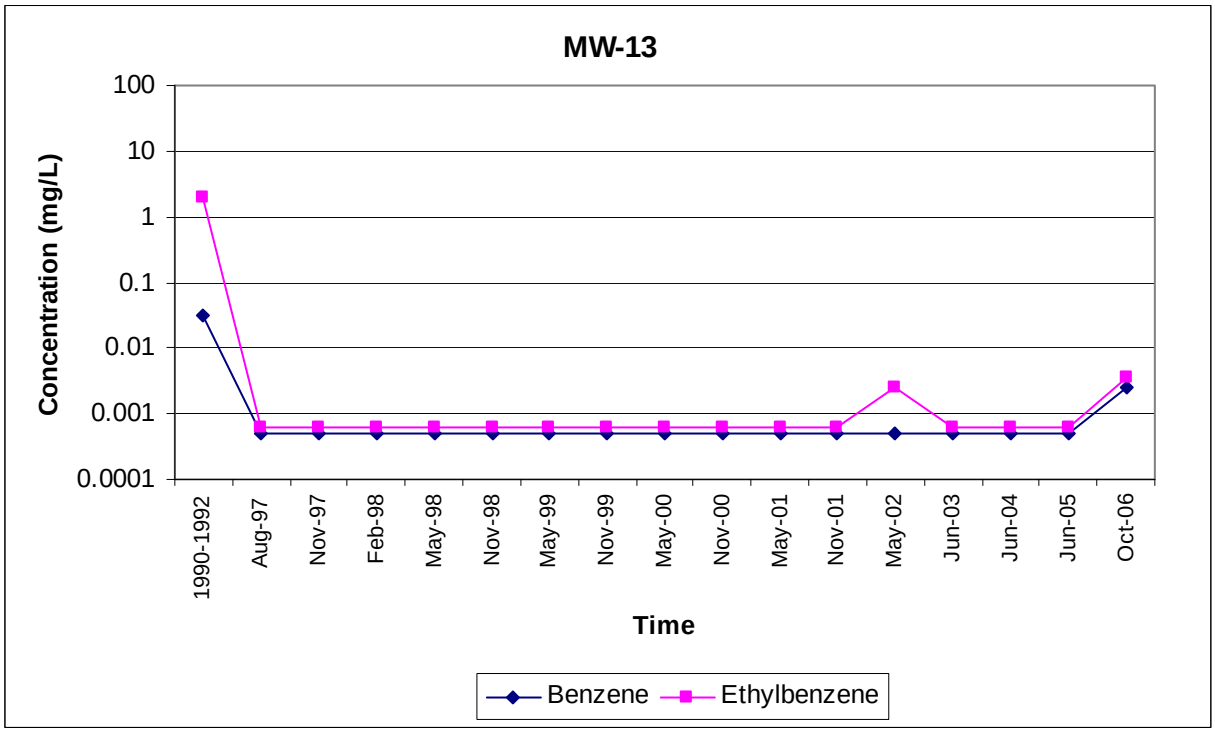
mg/L = Milligram per liter
Graphs are logarithmic
Less than values are graphed at the one half the detection limit.





Notes:

mg/L = Milligram per liter
Graphs are logarithmic
Less than values are graphed at the one half the detection limit.



Notes:

mg/L = Milligram per liter
Graphs are logarithmic
Less than values are graphed at the one half the detection limit.

Attachment 9

Plug and Abandonment Report
December 17, 2003

ARCADIS

Infrastructure, buildings, environment, communications

ARCADIS G&M, Inc.
2900 West Fork Drive
Suite 540
Baton Rouge
Louisiana 70827
Tel 225 292 1004
Fax 225 292 5210
www.arcadis-us.com

Mr. Robert E. Holden
Liskow & Lewis
701 Poydras Street
Suite 5000
New Orleans, Louisiana 70139-5099

ENVIRONMENTAL

Subject:
Plug and Abandonment Report
Adjustment of Groundwater Monitoring Network
Dutchtown Oil Treatment Site

Date:
17 December 2003

Contact:
George H. Cramer, P.G.

Extension:
228

Email:
gcramer@arcadis-us.com

Our ref:
LA002307.0003.00002
Breazeale/2307.3/C/1/ibt

Dear Mr. Holden:

ARCADIS is pleased to provide the Dutchtown Steering Committee (DSC) with this report of the adjustment of the groundwater monitoring network at the above referenced site. The adjustment included plugging and abandoning eleven monitor wells and one piezometer at the Site. The monitor wells included were MW-1, MW-2A, MW-8, MW-9, MW-11, MW-15, MW-16, MW-17, MW-18, MW-19, and MW-21 and Piezometer P-1.

For this work ARCADIS subcontracted Professional Technical Support Services, Inc. (Pro Tech), a licensed water well driller, to provide all necessary labor and equipment needed to plug and abandon the wells. All well abandonment activities were performed under the supervision of an ARCADIS geologist experienced in monitor well placement and abandonment.

Each well was abandoned in accordance with the procedures and specifications for abandoning groundwater monitor wells as presented in the December 2000 Louisiana Department of Environmental Quality (LDEQ) and Louisiana Department of Transportation and Development (LDOTD) handbook entitled *Construction of Geotechnical Boreholes and Groundwater Monitoring Systems*.

Procedures

A truck-mounted drilling rig with 10,000-pound winch and high-strength steel chain was employed to remove the protective steel outer casing, concrete pad, steel protective posts, and polyvinyl chloride (PVC) well casing at each respective well location. Where possible, 100 percent of the PVC casing was removed. At two well locations, MW-18 and MW-19, Pro Tech personnel were unable to remove the PVC casing. In these cases, the PVC casing was severed approximately 2 feet below ground surface and only the top portion was removed. Following PVC casing removal, each well was backfilled with cement/bentonite grout and allowed to cure overnight. The cured grout was then covered over with topsoil. Pro Tech personnel used sledgehammers to reduce the concrete pads to smaller fragments. All waste

materials (concrete, steel posts and PVC casing material) generated were loaded onto a flatbed trailer for subsequent staging and disposal at a local landfill.

Documentation

Water Well Plugging and Abandonment Forms (DOTD-GW-2) were prepared for each well/piezometer that was abandoned. These forms were forwarded to LDOTD. Copies of the forms are attached. In addition, a revised map of the groundwater monitoring network at the site as it currently exists, is also attached.

We appreciate the opportunity to assist the DSC at the site. Should you have any questions or require additional information, please contact George Cramer at (225) 292-1004.

Sincerely,

ARCADIS G&M, Inc.

George H. Cramer, P.G.
Associate Vice President/Principal Hydrogeologist

Rudy J. Guichard
Vice President/Area Manager

GHC:RJG:ibt
Attachments

ATTACHMENTS

PLEASE PRINT IN INK OR TYPE WHEN COMPLETING THIS FORM

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
WATER RESOURCES SECTION
WATER WELL PLUGGING AND ABANDONMENT FORM (DOTD-GW-2)

MAIL ORIGINAL TO
Department of
Transportation and Development
Attn: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1434

1. WELL OWNER: (if different from owner when drilled, note in item 5) _____
Dutchtown Steering Committee
ADDRESS: c/o Frank Conz, PO Box 3197, BZLA 70821-3197
OWNERS WELL NUMBER (if any) MW-11

2. LOCATION OF WELL: Parish: Ascension, Well is Near, Dutchtown
Approximately 1 miles from Intersection of Hwy 73+74
(Crossroads, Town, City, Railroad, Any Landmark, etc.)

(Please draw sketch on back of Original)

3. WELL INFO: Casing material PVC, Diameter of casing 4 in.,
Depth of well 9 ft., Date drilled 2/92 by (give name
of water well contractor who installed well or hole): Lockwood-Clyde

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc.) Well was pulled using cable. Entire casing and screen were pulled. Hole was backfilled w/cement bentonite slurry using pumpdown method with a tremie pipe.

5. REMARKS: LA - DOTD # 68687
See sketch on back.

I certify that this work was done and completed in accordance with Rules and Regulations of the State on 12/12, 20 03 by (name and no. of contractor) Professional Technical Support Services WWC-394
Authorized Signature: Darrell Bell Date: 12/12/03

State	Parish	Local Well No.	Identification Number	OFFICE USE ONLY Section	Township	Range	Quad. No.
22		-	0				

DOTD'S COPY

(REV. 6/92)

PLEASE PRINT IN INK OR TYPE WHEN COMPLETING THIS FORM

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

WATER RESOURCES SECTION

WATER WELL PLUGGING AND ABANDONMENT FORM (DOTD-GW-2)

MAIL ORIGINAL TO
Department of
Transportation and Development
Attn: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1434

1. WELL OWNER: (if different from owner when drilled, note in item 5) _____
Dutchtown Steering Committee
ADDRESS: c/o Frank Craig, P.O. Box 3197, BR LA 70821-3197
OWNERS WELL NUMBER (if any) PW-1

2. LOCATION OF WELL: Parish: Ascension, Well is Near, Dutchtown
Approximately 1 miles from intersection of Hwy 73 & 74
(Crossroads, Town, City, Railroad, Any Landmark, etc.)

(Please draw sketch on back of Original)

3. WELL INFO: Casing material PVC, Diameter of casing 4 in.,
Depth of well 13 ft., Date drilled 1/92 by (give name
of water well contractor who installed well or hole): Woodward-Clyde

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc.) Well was pulled using cable. Entire casing and screen removed. Hole was backfilled w/ cement bentonite slurry using pumpdown method with a tremie pipe.

5. REMARKS: See sketch enclosed with these forms. Forms to DOTD #68782

I certify that this work was done and completed in accordance with Rules and Regulations of the State on 12/17, 20 03 by (name and no. of contractor) Professional Technical Systems, Inc. WWC- 394
Authorized Signature: _____ Date: 12/17/03

OFFICE USE ONLY

State	Parish	Local Well No.	Identification Number	Section	Township	Range	Quad. No.
2 2		-	0				

DOTD'S COPY

(REV 6/92)

PLEASE PRINT IN INK OR TYPE WHEN COMPLETING THIS FORM

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
WATER RESOURCES SECTION
WATER WELL PLUGGING AND ABANDONMENT FORM (DOTD-GW-2)

MAIL ORIGINAL TO
Department of
Transportation and Development
Attn: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1434

1. WELL OWNER: (if different from owner when drilled, note in item 5) Dutchtown Steering Committee
ADDRESS: c/o Frank Craig, P.O. Box 3197, BR LA 70821-3197
OWNERS WELL NUMBER (if any) MW-15

2. LOCATION OF WELL: Parish: Ascension, Well is Near, Dutchtown
Approximately 1 miles from intersection of Hwy 73 + 74
(Crossroads, Town, City, Railroad, Any Landmark, etc.)

(Please draw sketch on back of Original)

3. WELL INFO: Casing material PVC, Diameter of casing 4 in., Depth of well 11 ft., Date drilled 1/92 by (give name of water well contractor who installed well or hole): Woodward-Clyde

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc.) Well was removed via cable. Entire casing and screen were pulled. Hole was backfilled w/cement bentonite slurry using pump down method with tremie pipe

5. REMARKS: LA DOTD # 6872 Z

I certify that this work was done and completed in accordance with Rules and Regulations of the State on 12/12, 20 03 by (name and no. of contractor) [illegible] WWC- 574
Authorized Signature: [signature] Date: 12/12/03

OFFICE USE ONLY

State	Parish	Local Well No.	Identification Number	Section	Township	Range	Quad. No.
2 2		–	0				

(REV. 6/92)

DOTD'S COPY

PLEASE PRINT IN INK OR TYPE WHEN COMPLETING THIS FORM

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
WATER RESOURCES SECTION
WATER WELL PLUGGING AND ABANDONMENT FORM (DOTD-GW-2)

MAIL ORIGINAL TO
Department of
Transportation and Development
Attn: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1434

1. WELL OWNER: (if different from owner when drilled, note in item 5) _____
Ditchtown Steering Committee
ADDRESS: c/o Frank Craig PO Box 3197, BRLA 70821-3197
OWNERS WELL NUMBER (if any) MW-16

2. LOCATION OF WELL: Parish: Ascension, Well is Near, Ditchtown
Approximately 1 miles from intersection of Hwy 73 + 74
(Crossroads, Town, City, Railroad, Any Landmark, etc.)

(Please draw sketch on back of Original)

3. WELL INFO: Casing material PVC, Diameter of casing 4 in.,
Depth of well 12 ft., Date drilled 1/92 by (give name
of water well contractor who installed well or hole): Woodward-Clyde

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc.) well materials removed easy enough to pull from ground Hole was backfilled w/cement bentonite, slurry using pumpdown method with a tremie pipe

5. REMARKS: LA DOTD # C873

I certify that this work was done and completed in accordance with Rules and Regulations of the State on 12/12, 20 03 by (name and no. of contractor) Professional Technical Services WWC-5194
Authorized Signature: [signature] Date: 1/6/04

State	Parish	Local Well No.	Identification Number	OFFICE USE ONLY Section	Township	Range	Quad. No.
2 2		-	0				

DOTD'S COPY

(REV. 6/92)

PLEASE PRINT IN INK OR TYPE WHEN COMPLETING THIS FORM

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
WATER RESOURCES SECTION
WATER WELL PLUGGING AND ABANDONMENT FORM (DOTD-GW-2)

MAIL ORIGINAL TO
Department of
Transportation and Development
Attn: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1434

1. WELL OWNER: (if different from owner when drilled, note in item 5) _____
Dutchtown Steering Committee
ADDRESS: c/o Frank Craig PO Box 3197 BRLA 70821-3197
OWNERS WELL NUMBER (if any) MW17

2. LOCATION OF WELL: Parish: Ascension, Well is Near, Dutchtown
Approximately 1 miles from intersection of Hwy 73+74
(Crossroads, Town, City, Railroad, Any Landmark, etc.)

(Please draw sketch on back of Original)

3. WELL INFO: Casing material PVC, Diameter of casing 4 in.,
Depth of well 13 ft., Date drilled 1/92 by (give name
of water well contractor who installed well or hole): Woodward-Clyde

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc.,) Well material removed via cable. Hole was backfilled w/cement grout slurry using pumptown method with a tremie pipe.

5. REMARKS: LA DOTD 68742
See sketch ~~on Back~~ accompanying these forms

I certify that this work was done and completed in accordance with Rules and Regulations of the State on 12/12, 20 03 by (name and no. of contractor) Professional Technical Services WWC- 3764
Authorized Signature: [signature] Date: 12/12/03

State	Parish	Local Well No.	Identification Number	OFFICE USE ONLY Section	Township	Range	Quad. No.
22		-	0				

DOTD'S COPY

(REV 6/92)

PLEASE PRINT IN INK OR TYPE WHEN COMPLETING THIS FORM

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
WATER RESOURCES SECTION
WATER WELL PLUGGING AND ABANDONMENT FORM (DOTD-GW-2)

MAIL ORIGINAL TO
Department of
Transportation and Development
Attn: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1434

1. WELL OWNER: (if different from owner when drilled, note in item 5) Dutchtown Steering Committee
ADDRESS: C/o Frank Craig P.O. Box 3197 BRLA 70821-3197
OWNERS WELL NUMBER (if any) MW-18

2. LOCATION OF WELL: Parish: Ascension, Well is Near, Dutchtown
Approximately 1 miles from intersection of Hwy 73 + 74
(Crossroads, Town, City, Railroad, Any Landmark, etc.)

(Please draw sketch on back of Original)

3. WELL INFO: Casing material PVC, Diameter of casing 4 in., Depth of well 34 ft., Date drilled 2/97 by (give name of water well contractor who installed well or hole): Woodward Clyde

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc.) Protective cover was removed. Attempt was made to pull well with cable. Well would not move. Well casing was cut off 2 ft Bgs and abandoned in place with sand bentonite slurry and pumped until.

5. REMARKS: LA DOTD # 6875 Z

I certify that this work was done and completed in accordance with Rules and Regulations of the State on 12/12, 20 03 by (name and no. of contractor) Professional Technical Support Sv WWC- 344
Authorized Signature: [signature] Date: 12/17/03

State	Parish	Local Well No.	Identification Number	OFFICE USE ONLY	Section	Township	Range	Quad. No.
2 2		–		0				

(REV. 6/92)

DOTD'S COPY

PLEASE PRINT IN INK OR TYPE WHEN COMPLETING THIS FORM

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WATER RESOURCES SECTION
WATER WELL PLUGGING AND ABANDONMENT FORM (DOTD-GW-2)

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Transportation and Development
Attn: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1434

1. WELL OWNER: (if different from owner when drilled, note in item 5) Dutchtown Steering Committee
ADDRESS: c/o Frank Craig PO Box 3197 BR LA 70821-3197
OWNERS WELL NUMBER (if any) MW-19

2. LOCATION OF WELL: Parish: Ascension, Well is Near, Dutchtown
Approximately 1 miles from intersection of Hwy 73 & 74
(Crossroads, Town, City, Railroad, Any Landmark, etc.)

(Please draw sketch on back of Original)

3. WELL INFO: Casing material PVC, Diameter of casing 4 in.,
Depth of well 33 ft., Date drilled 2/97 by (give name of water well contractor who installed well or hole): Woodward-Clyde

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc,) Protective cover was removed. Well casing was cut 2 ft bgs and abandoned in place using cement bentonite slurry. well was backfilled using pump down method with tremie pipe.

5. REMARKS: LA DOTD # 68762

I certify that this work was done and completed in accordance with Rules and Regulations of the State on 12/12, 20 03 by (name and no. of contractor) Professional Technical Supervision WWC- 394
Authorized Signature: [signature] Date: 12/12/03

State	Parish	Local Well No.	Identification Number	OFFICE USE ONLY	Section	Township	Range	Quad. No.
2 2		–	0					

(REV 6/92)

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MAIL ORIGINAL TO
Department of
Transportation and Development
Attn: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1434

1. WELL OWNER: (if different from owner when drilled, note in item 5) _____
Dutchtown Steering Committee
ADDRESS: c/o Frank Craig PO Box 3197 BRLA 70821-3197
OWNERS WELL NUMBER (if any) MW-21

2. LOCATION OF WELL: Parish: Ascension, Well is Near, Dutchtown
Approximately 1 miles from intersection of Hwy 73 + 74
(Crossroads, Town, City, Railroad, Any Landmark, etc.)

(Please draw sketch on back of Original)

3. WELL INFO: Casing material PVC, Diameter of casing 2 in.,
Depth of well 15 ft., Date drilled 8/97 by (give name
of water well contractor who installed well or hole): Eagro

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc.,) Pulled casing with a cable. Hole was backfilled using pumptum method with a cement bentonite slurry using pumptum method with a tremie pipe.

5. REMARKS: LA DOTD # 846772

I certify that this work was done and completed in accordance with Rules and Regulations of the State on 12/12, 2008 by (name and no. of contractor) Professional Environmental Services WWC-3944
Authorized Signature: Paul [illegible] Date: 12/23/08

State	Parish	Local Well No.	Identification Number	OFFICE USE ONLY Section	Township	Range	Quad. No.
22		-	0				

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WATER RESOURCES SECTION

WATER WELL PLUGGING AND ABANDONMENT FORM (DOTD-GW-2)

MAIL ORIGINAL TO
Department of
Transportation and Development
Attn: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1434

1. WELL OWNER: (if different from owner when drilled, note in item 5) _____
Dutchtown Steering Committee
ADDRESS: C/o Frank Covey, P.O. Box 3197, BR, LA 70821-3197
OWNERS WELL NUMBER (if any) MW-8

2. LOCATION OF WELL: Parish: Ascension, Well is Near, Dutchtown
Approximately 1 miles from Intersection of Hwy 74
(Crossroads, Town, City, Railroad, Any Landmark, etc.)
and Hwy 73
(Please draw sketch on back of Original)

3. WELL INFO: Casing material PVC, Diameter of casing 4 in.,
Depth of well 15 ft., Date drilled 1984 by (give name
of water well contractor who installed well or hole): _____

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc.) well was pulled using cable. Entire casing and screen removed. Hole was back filled w/ cement bentonite slurry using pump down method with a tremie pipe.

5. REMARKS: See Sketch included w/ the three forms.

I certify that this work was done and completed in accordance with Rules and Regulations of the State on 12/12, 20 03 by (name and no. of contractor) Professional Technical Support Inc WWC-574
Authorized Signature: [signature] Date: 12/13/03

State	Parish	Local Well No.	Identification Number	OFFICE USE ONLY Section	Township	Range	Quad. No.
22		-	0				

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WATER RESOURCES SECTION

WATER WELL PLUGGING AND ABANDONMENT FORM (DOTD-GW-2)

MAIL ORIGINAL TO
Department of
Transportation and Development
Attn: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1434

1. WELL OWNER: (if different from owner when drilled, note in item 5) _____
Dutchtown Steering Committee
ADDRESS: C/o Frank Craig, P.O Box 3197, BR, LA 70821-3197
OWNERS WELL NUMBER (if any) MW-2A

2. LOCATION OF WELL: Parish: Ascension, Well is Near, Dutchtown
Approximately 1 miles from Hwy 74 + Hwy 73
(Crossroads, Town, City, Railroad, Any Landmark, etc.)
intersection
(Please draw sketch on back of Original)

3. WELL INFO: Casing material PVC, Diameter of casing 4 in.,
Depth of well 15 ft., Date drilled 1984 by (give name
of water well contractor who installed well or hole): Wadward-Clyde

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc.) Well was pulled using cable. Entire casing and screen removed. Hole was backfilled w/cement bentonite slurry using pumpdown method with a tremie pipe.

5. REMARKS: See sketch included with these forms.

I certify that this work was done and completed in accordance with Rules and Regulations of the State on 12/18, 20 03 by (name and no. of contractor) Pro-Tech Support Services WWC- 314
Authorized Signature: [signature] Date: 12/23/03

State	Parish	Local Well No.	Identification Number	Section	Township	Range	Quad. No.
22		-	0				

OFFICE USE ONLY

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(REV. 6/92)

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Transportation and Development
Attn: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1434

1. WELL OWNER: (if different from owner when drilled, note in item 5) _____
Dutchtown Steering Committee
ADDRESS: C/O Frank Borne, P.O Box 3197, BR, LA 70821-3197
OWNERS WELL NUMBER (if any) MW-1

2. LOCATION OF WELL: Parish: Ascension, Well is Near, Dutchtown
Approximately 1 miles from Intersection of Hwy 74
(Crossroads, Town, City, Railroad, Any Landmark, etc.)
+ Hwy 73
(Please draw sketch on back of Original)

3. WELL INFO: Casing material PVC, Diameter of casing 4 in.,
Depth of well 35 ft., Date drilled 1984 by (give name
of water well contractor who installed well or hole): C/K Associates

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc.,) Well was pulled using cable. Entire casing and screen removed. Hole was backfilled w/cement/bentonite slurry using pump down method with tremie pipe.

5. REMARKS: See sketch enclosed with these Forms

I certify that this work was done and completed in accordance with Rules and Regulations of the State on 12/18/03, 20 03 by (name and no. of contractor) Professional Testing Group-Sure WWC-5174
Authorized Signature: [signature] Date: 12/18/03

State	Parish	Local Well No.	Identification Number	OFFICE USE ONLY Section	Township	Range	Quad. No.
22		-	0				

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Attn: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1434

1. WELL OWNER: (if different from owner when drilled, note in item 5) _____
Dutchtown Steering Committee
ADDRESS: c/o Frank Craig, P.O. Box 3197, BR LA 70821-3197
OWNERS WELL NUMBER (if any) MW-9

2. LOCATION OF WELL: Parish: Ascension, Well is Near, Dutchtown
Approximately 1 miles from intersection of Hwy 73+74
(Crossroads, Town, City, Railroad, Any Landmark, etc.)

(Please draw sketch on back of Original)

3. WELL INFO: Casing material PVC, Diameter of casing 4 in.,
Depth of well 11 ft., Date drilled 02/92 by (give name
of water well contractor who installed well or hole): Woodward-Clyde

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc.) Well was pulled using cable. Entire casing and screen was pulled. Hole was backfilled w/ cement bentonite slurry using pump down method with a tremmie pipe

5. REMARKS: LA DOTD # 030662
See sketch on Back

I certify that this work was done and completed in accordance with Rules and Regulations of the State on 12/22, 20 03 by (name and no. of contractor) Professional Technical Support Services WWC- 3174
Authorized Signature: [signature] Date: 12/23/03

State	Parish	Local Well No.	Identification Number	OFFICE USE ONLY Section	Township	Range	Quad. No.
22		-	0				

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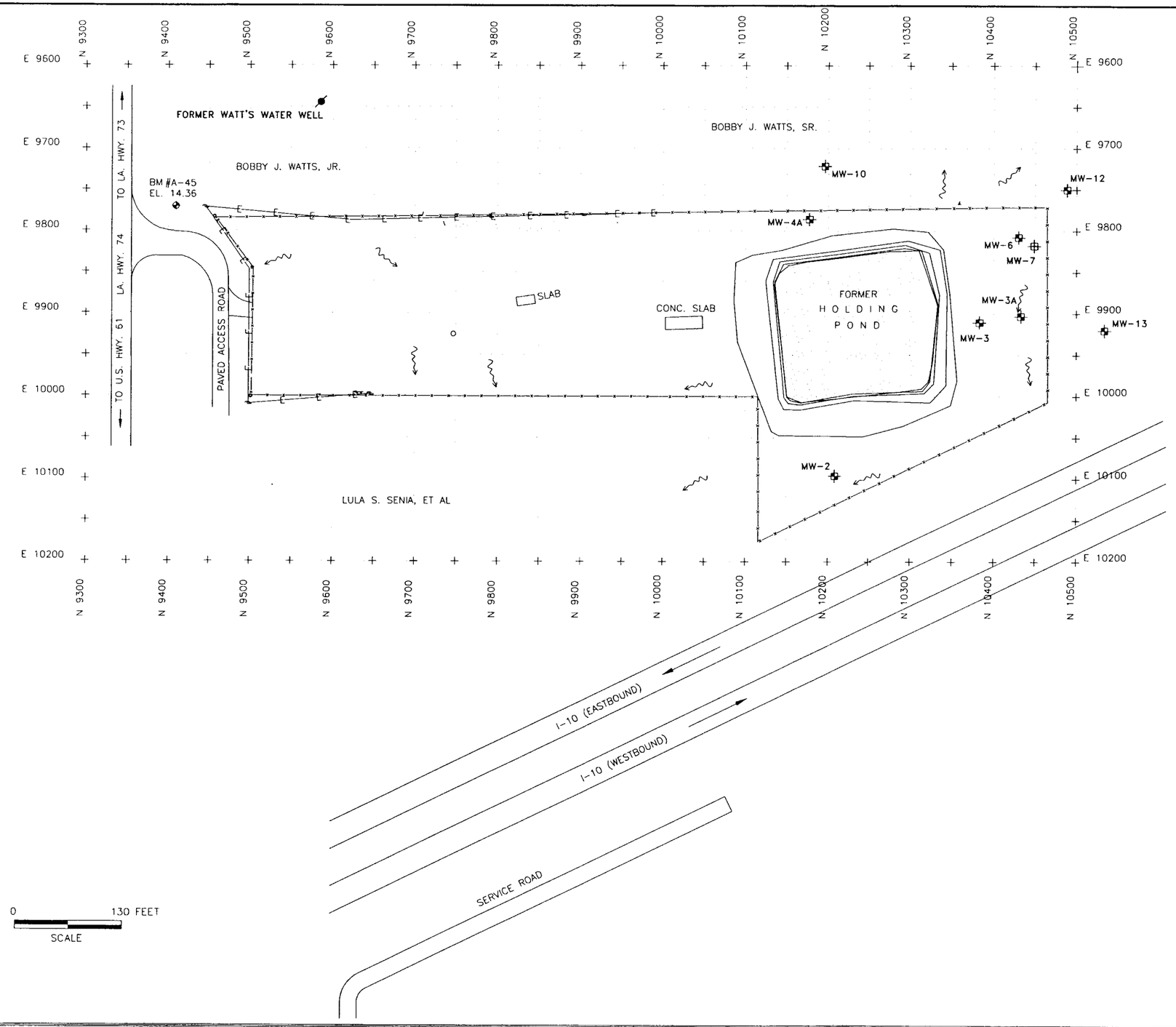

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AutoCAD Version = 16.0
Username = gmadha

12-17-2003
09:01:12

ARCADIS
2900 WEST FORK DRIVE
SUITE 540, BATON ROUGE, LA 70827
Tel: 225-292-1004 Fax: 225-292-5210

NO.	DATE	REVISION DESCRIPTION	BY CKD

MONITOR WELL LOCATION MAP (UPDATED)

DRAWN	DATE	PROJECT MANAGER	CHECKED
GRM	11-6-2002	JT	JT

DUTCHTOWN OIL
TREATMENT SITE
Dutchtown, Louisiana

DRAWING NAME:	CAD-FILE:
2166-03-02A	2166-03-02A
PROJECT NUMBER	DRAWING NUMBER
LA002166.0003	2