PUBLIC NOTICE
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)

AMAX METALS RECOVERY, INC. / PORT NICKEL FACILITY

PUBLIC HEARING AND REQUEST FOR PUBLIC COMMENT ON A DRAFT VOLUNTARY REMEDIAL ACTION PLAN

The LDEQ, Office of Environmental Assessment (OEA), will conduct a public hearing to receive comments on a draft Remedial Action Plan for Amax Metals Recovery, Inc, 3607 English Turn Road, Braithwaite, LA 70040 for the Port Nickel facility. **The facility is located at 3607 English Turn Road (LA Hwy 3137), Braithwaite, Plaquemines Parish.**

The hearing will be held on **Thursday, September 20, 2007, beginning at 6:00 p.m., at the Lynn Oaks School Auditorium, 1 Lynn Oaks Drive, Braithwaite, LA 70040.** During the hearing, all interested persons will have an opportunity to comment on the draft Plan.

Amax Metals Recovery, Inc. has conducted Risk Evaluation/Corrective Action Program activities to support a Remedial Action Plan under the Louisiana Department of Environmental Quality's Voluntary Remedial Action Program (VRP) for the former UST Waste Pile Area (AOI) at AMRI's Port Nickel Facility.

Written comments or written requests for notification of the final decision regarding this draft Remedial Action Plan may also be submitted to Ms. Soumaya Ghosn at LDEQ, Public Participation Group, P.O. Box 4313, Baton Rouge, LA 70821-4313. **Written comments and/or written requests for notification must be received by 12:30 p.m., Monday, October 1, 2007 .** Written comments will be considered prior to a final decision.

LDEQ will send notification of the final decision to the VRP applicant and to each person who has submitted written comments or a written request for notification of the final decision.

A copy of the Public Records Summary associated with the draft Remedial Action Plan is available for review at the LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). **The available information can also be accessed electronically on the Electronic Document Management System (EDMS) on the DEQ public website at www.deq.louisiana.gov.**

Additional copies may be reviewed at the Plaquemines Parish Library at 8442 Highway 23, Belle Chasse, LA and at the LDEQ Southeast Regional Office (Mandeville), 645 N. Lotus Drive, Suite C, Mandeville, LA 70471.

Individuals with a disability, who need an accommodation in order to participate in the public hearing, should contact Ms. Dina Heidar at the above LDEQ address or by phone at (225) 219-3278.

Inquiries or requests for additional information regarding this draft Remedial Action Plan should be directed to Ms. Kristine Carter, LDEQ, OEA, Environmental Technology Division, P.O. Box 4314, Baton Rouge, LA 70821-4314, phone (225) 219-3396.

Permit public notices including electronic access to the draft Remedial Action Plan can be viewed at the LDEQ permits public notice webpage at www.deq.louisiana.gov/apps/pubNotice/default.asp and general

information related to the public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx

All correspondence should specify AI Number AI 16817.

Public Records Summary

LDEQ Agency Interest Number 16817
Plaquemines Parish

Remedial Action Plan

Pursuant to the Louisiana
Department of Environmental Quality's
Voluntary Remediation Program

for

Amax Metals Recovery, Inc.

3607 English Turn Road
Braithwaite, Louisiana

PUBLIC RECORDS SUMMARY

Remedial Action Plan
Pursuant to the LDEQ's
Voluntary Remediation Program

Amax Metals Recovery, Inc.
3607 English Turn Road
Braithwaite, Louisiana

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PUBLIC NOTICE
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)

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information related to the public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx

All correspondence should specify AI Number AI 16817.

DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO
GOVERNOR

MIKE D. McDANIEL, Ph.D.
SECRETARY

August 15, 2007

CERTIFIED MAIL – RETURN RECEIPT REQUESTED (7004 1160 0000 3798 2013)

Ms. Dianna G. Mahony
Chief Environmental Engineer
Amax Metals Recovery, Inc.
3607 English Turn Road
Braithwaite, LA 70040

RE: Conditional Acceptance of Voluntary Remediation Application
Amax Metals Recovery, Inc. (AMRI)
AI No. 16817
Plaquemines Parish

Dear Ms. Mahony:

The Louisiana Department of Environmental Quality (LDEQ) has completed its review of your application for the Voluntary Remediation Program (VRP) dated June 29, 2007 and revised August 13, 2007. This submittal includes a Facility Investigation Summary Report (June, 2007) and a Remedial Action Plan for the Former UST Waste Pile Area (April, 2007).

LDEQ accepts the application for public review and comment as required by LAC Title 33, Part VI.911.C with the following stipulations regarding the Remedial Action Work Plan:

(1) A minimum of eight post-excavation confirmation samples must be collected from the bottom and sidewalls of the excavation to confirm that diesel-impacted soils in excess of the RECAP MO-1 soil remediation standards have been removed. One sample will be collected from each of the shorter side walls and two samples from each of the longer side walls at a depth of approximately five feet. Two samples will be collected from the bottom of the excavation. Quality assurance/quality control samples must also be collected in accordance with LDEQ's Risk Evaluation Corrective Action Program. Additionally, LDEQ will split a minimum of one soil sample for analysis by LDEQ's laboratory.

(2) Soil samples submitted for laboratory analysis will be analyzed for TPH-D using EPA SW-846 Method 8015B.

(3) A Voluntary Remedial Action Report will be subsequently submitted describing the actions taken and the disposition of the contaminated soil.

ENVIRONMENTAL **ASSESSMENT**
: PO BOX 4314, BATON ROUGE, LA 70821-4314
P:225-219-3236 F:225-219-3239
WWW.DEQ.LOUISIANA.GOV

Please contact me by telephone at (225) 219-3396 or by way of e-mail at kristine.carter@la.gov with any questions. All correspondence must include the AI number and appropriate reference line information, and be submitted in triplicate to Mr. Tom Harris, Administrator, Environmental Technology Division, Louisiana Department of Environmental Quality, P.O. Box 4314, Baton Rouge, LA 70821-4314. One of the copies should be directed to my attention.

Thank you for your cooperation.

Sincerely,

Kristine D. Carter, Geologist
Environmental Technology Division

c: Imaging Operations – SW
Terri Gibson, Remediation Services Division, LDEQ
Vicki Thibodeaux, Remediation Services Division, LDEQ
Amy Exnicios, Waste Permits Division, LDEQ

DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO
GOVERNOR

MIKE D. McDANIEL, Ph.D.
SECRETARY

AUG 16 2007

CERTIFIED MAIL – RETURN RECEIPT REQUESTED (7004 1160 0000 3798 2068)

Ms. Dianna G. Mahony
Chief Environmental Engineer
Amax Metals Recovery, Inc.
3607 English Turn Road
Braithwaite, LA 70040

RE: Request for Waiver of Requirement for Remedial Investigation Work Plan
Voluntary Remediation Program
Amax Metals Recovery, Inc. (AMRI)
AI No. 16817
Plaquemines Parish

Dear Ms. Mahony:

The Louisiana Department of Environmental Quality (LDEQ) has reviewed your request for a waiver of the requirement to submit a remedial investigation work plan under LDEQ's Voluntary Remediation Program (VRP) dated July 16, 2007. We have reviewed the previously submitted reports and find that the investigation of the site was adequate to meet the requirements of the VRP. Therefore, pursuant to the authority provided by the Louisiana Environmental Quality Act, La. R.S. 30:2286.1.A.3, this request is hereby granted.

LDEQ appreciates your cooperation regarding this project. Please contact Ms. Kristine Carter, Geologist, Environmental Technology Division, at (225) 219-3396 or at kristine.carter@la.gov for any questions concerning site issues.

Sincerely,

Wilbert F. Jordan, Jr.
Assistant Secretary
Office of Environmental Assessment

WFJ:kdc

c: Imaging Operations – SW
Dr. James Brent, LDEQ/OEA
Kristine Carter, LDEQ/ETD

ENVIRONMENTAL **ASSESSMENT**
: PO BOX 4314, BATON ROUGE, LA 70821-4314
P:225-219-3236 F:225-219-3239
WWW.DEQ.LOUISIANA.GOV

VOLUNTARY REMEDIATION APPLICATION FORM

Voluntary Remediation Program
Louisiana Department of Environmental Quality

The voluntary remedial action plan for this site and the application review fee must be included with this Voluntary Remediation Application form, as provided in LAC 33:VI.911.B, or this Voluntary Remedial Investigation Application will be considered incomplete and not be accepted for review.

I. Applicant Information

Section A: Applicant

Name/ Company Name: Amax Metals Recovery, Inc.		
Mailing Address: 3607 English Turn Road		
City: Braithwaite	State:LA	Zip Code:70040
Contact Person:Dianna Mahony		
Phone No:(602) 909-9297	Fax No:NA	
Email Address:dianna_mahony@fmi.com		
Interest in Property: Amax Metals Recovery, Inc.		

Section B: Co-Applicant

Name/ Company Name: NA		
Mailing Address:		
City:	State:	Zip Code:
Contact Person:		
Phone No:	Fax No:	
Email Address:		
Interest in Property:		

Section C: Co-Applicant

Name/ Company Name: NA		
Mailing Address:		
City:	State:	Zip Code:
Contact Person:		
Phone No:	Fax No:	
Email Address:		
Interest in Property:		

Section D: Current Property Owner (if different form applicants)

Name/ Company Name: SAME		
Mailing Address:		
City:	State:	Zip Code:
Contact Person:		
Phone No:	Fax No:	
Email Address:		

II. Site Information

Agency Interest Number (if exist):16817

Site Name:Amax Metals Recovery, Inc.

Parish:Plaquemines

Property Size (acres):Total Acreage: 975; VRP Acreage: 215

Physical address or direction and distance from nearest intersection:
3607 English Turn Road
Braithwaite, LA 70040

Latitude: 29 º 51 " 40 N '

Longitude: 89 º 57 " 55 W '

Section/Township/Range (attach legal property description): The AMRI facility is located in Braithwaite, Louisiana, which is located in Plaquemines Parish. The AMRI facility is located across the Mississippi River from Belle Chasse, Louisiana, which is approximately 15 miles south of New Orleans.

VRP Property Description

Commencing at a point on the west Right of Way line of La. State Hwy No. 39 at it's intersection with the northerly line of Lot 3 of St. Clair Plantation, said point being the point of beginning; thence along said westerly Right of Way line S. 26o 09'23" W. a distance of 3104.74 feet to it's point of intersection with the northerly line of Lot 18 of Mon Plaisir Plantation; thence along said northerly line N. 64o 17'54" W. a distance of 2541.51 feet to it's intersection with a line which is parallel to and 25' east of the centerline of La. State Hwy. No. 3137; thence in a northerly direction along said parallel line a distance 3265.24 feet to its intersection with the northerly line of Lot 3 of St. Clair Plantation; thence S. 63o 49'55" E. along said northerly line a distance of 3451.39 feet to the point of beginning, all situated in T 13 S – R12 E Section 6 and T 14 S – R 12 E Sections 1,2 & 3.

Less and except:
A certain parcel of land situated in T 14 S – R 12 E Section 2, being part of Lot 1 of St. Clair Plantation and being the property of the Parish of Plaquemines measuring 205.00 feet in width along La. State Hwy. No. 3137 by 130.00 feet in depth and containing 0.568 acres and shown on plan of H.B. McCurdy, Jr., R.L.S., dated Sept. 22, 1986.

Less and except:
A certain parcel of land situated in T 14 S – R 12 E Section 3, being part of Lots 21 & 22 of Mon Plaisir Plantation and being the property of Entergy, Inc. (formerly La. Power & Light Co.) measuring approximately 380 feet in width along La. State Hwy. 3137 by approximately 400 feet in depth along it's northerly line and 410 feet in depth along it's southerly line and containing 3.3 acres more or less.

Adjacent Property Owners (persons listed as owners of the adjacent properties on the rolls of the parish tax assessor as of the date on which the voluntary remediation application is submitted):

ORLANDO, ELAINE D
c/o EVA VINSANAU
4720 AVRON BLVD
METAIRIE, LA 70006

ENTERGY
1000 HARIMAW CT. WEST
METAIRIE, LA 70001

PLAQUEMINES PARISH
P.O. BOX 40
BELLE CHASSE , LA 70037

Current Property Use (Describe in detail. Use percentages if more than one use.):Inactive, with infrastructure associated with past site operations predominantly demolished and transported to an appropriate facility for recycling or disposal.

Past (historical) Property Use (Describe in detail): The facility was first constructed in 1958 by Cuban-American Nickel Company, a Freeport Sulfur subsidiary, to produce nickel from Cuban ore. The facility utilized a hydrometallurgical technology to extract nickel and cobalt with an acid leach at elevated temperatures and pressures. The facilities original operation was closed in 1959, as a consequence of the changes brought about by the Cuban revolution.

The facility was idle until 1972 when AMAX, Inc. purchased the plant to diversify into production of metallic nickel, cobalt, and copper. The facilities original operations were expanded to receive very pure forms of these metals which were produced from the nickel, cobalt, and copper mattes supplied from Africa and Australia.

In 1985, AMAX, Inc. made a decision to modify the facility's hydro metallurgical manufacturing operations to process spent catalyst from petroleum refining operations into finished products of aluminum, nickel, molybdenum and other metals. Prior to ceasing manufacturing operations in 2000, the facility was operated by Cyprus Amax Minerals Company, which was acquired by Phelps Dodge Corporation in 1999.

In March of 2007, Freeport-McMoRan Copper & Gold, Inc. (Freeport-McMoRan) acquired Phelps Dodge Corporation. The current Facility owner continues to be AMRI, which is a wholly owned subsidiary of Freeport-McMoRan.

Future Property Use (Describe in detail. Use percentages if more than one use.):Industrial

Current Land Use Surrounding Property:Agricultural and Residential

Contaminant Type(s) and Affected Media:Soil with elevated concentrations of Total Petroleum Hydrocarbon – Diesel Range Organics (TPH-D) when compared to appropriate RECAP standard is present in a relatively small area of the former UST Waste Pile, identified as SWMU 42 (see Site Investigation Summay Report dated June 02, 2007).

Applicant(s) must also attach to this form all available historical assessment and or investigation information available for the site, including Phase 1 and 2 Assessments, analytical data, etc.

III. Eligibility Information		
Permitted Hazardous Waste Unit(s) on site?	☐ Yes	☒ No
Site Proposed for Listing on the NPL?	☐ Yes	☒ No
Site Listed on the NPL?	☐ Yes	☒ No
Any Pending Federal Environmental Enforcement Actions Associated with the Site?	☐ Yes	☒ No
If yes, explain		
Any portion of the site UST Trust Fund Eligible?	☐ Yes	☒ No
If yes, explain		

IV. Type of Voluntary Remedial Action Proposed
☒ Voluntary Remedial Action
☐ Partial Voluntary Remedial Action (See note below)

If Partial Voluntary Remedial Action is checked, the applicant and co-applicants must each complete and attach a Partial Remedial Action Supplemental Application Form.

V. Certification	
All applicants must certify the following with their signature below:	
I (we) certify that all of the information I (we) have provided in this Voluntary Remedial Investigation Application is true and correct to the best of my information, knowledge, and belief. I (we) understand and agree that I (we) am obligate to update and notify this application if I (we) learn that information that I (we) have provided is misleading or no longer correct. I (we) further certify that I (we) understand I (we) am responsible for and agree to reimburse the Louisiana Department of Environmental Quality for all actual direct costs associated with reasonable and appropriate oversight activities of the Department conducted pursuant to LAC 33:VI. Chapter 9, including, but not limited to, review, supervision, investigation, and monitoring activities.	
Primary Applicant Signature: Dianna G. Mahony	Date: 8/13/07
Co-Applicant Signature:	Date:
Co-Applicant Signature:	Date:

ELAINE D. ORLANDO PROPERTY

VRP BOUNDARY LIMIT

PLANT PROPERTY BOUNDARY

LOT 4 ST. CLAIR PLANTATION

HORACE EVANS PROPERTY

95.94'

500'±

3458.82'

S 63°49'55" E

100.00'

LOT 3

2368.72'

955.75'

SECTION 6
T13S R12E
T14S R12E
SECTION 7

SECTION 23
SECTION 1

SECTION 24
S 11°24'39" E
626.00'
SECTION 23

S 14°32'55" E
105.82'

S 63°52'14" E
475.80'

S 63°49'55" E
80.51'

S 09°55'10" W
1792.15'

LOT 3
LOT 2

SECTION 23
SECTION 1

SECTION 1
SECTION 2

SECTION 24

SECTION 24
SECTION 25

MISSISSIPPI RIVER

5720'

±RIVER FRONTAGE

RIVER LEVEE

PARISH OF PLAQUEMINES

LOT 2
LOT 1

DRAINAGE CANAL AND LEVEE

MARSH LAND

DELACROIX CORPORATION LINE

ENTERGY
(formerly La. Power and Light)

LOT 1

SECTION 2
SECTION 3

ST. CLAIR PLANTATION
MON PLAISIR PLANTATION

SECTION 25
SECTION 26

VRP BOUNDARY LIMIT

22
21
20
19
18
17
16
15
14
13

100' R/W LOUISIANA STATE HIGHWAY #39

SLOUGH

MARSH LAND

S 18°48'32" W
3094.36'

LOUISIANA STATE HIGHWAY #23W

8
7

1917.81'

100.20'

3764.98'
N 64°17'54" W

1480.54'

200'±

122.81'

LOT 6 MON PLAISIR PLANTATION

PLANT PROPERTY BOUNDARY

BOUNDARY PLAN

SCALE: 1" = 600'

600 300 0 600 1200 1800

Nelson

WALDEMAR S. NELSON AND COMPANY
INCORPORATED
ENGINEERS AND ARCHITECTS
1200 ST. CHARLES AVE. NEW ORLEANS, LA.

AMAX METALS RECOVERY, INC.
BRAITHWAITE, LA.

VRP AND PLANT PROPERTY BOUNDARIES

DATE	SCALE	JOB NO.	DRAWING NO.
3-27-07	SHOWN	20040203	Fig 2-2

PLOT DATE: 3/27/07 12:55 P.M. ACAD FILE: fig 2-2.DWG

AMAX METALS RECOVERY INC.
A Phelps Dodge Industries Company

3607 ENGLISH TURN ROAD
BRAITHWAITE, LA 70040
Bus: (504) 682-2341
Fax: (504) 682-4852

July 16, 2007

Tom Harris, Administrator
Environmental Technology Division
Office of Environmental Assessment
Louisiana Department of Environmental Quality
Post Office Box 4314
Baton Rouge, LA 70821-4314

Regarding: *Waiver Request, Pursuant to R.S. 30:2286.1.A.3*
Amax Metals Recovery, Inc.
AI#16817, Plaquemines Parish

Dear Mr. Harris:

Amax Metals Recovery, Inc. (AMRI) has prepared the following written request for a waiver of the requirement to submit a remedial investigation work plan under the Louisiana Department of Environmental Quality's (LDEQ) Voluntary Remediation Program (VRP). Pursuant to the Louisiana Environmental Quality Act, La. R.S. 30:2286.1.A.3, the Secretary of the LDEQ may waive the requirements for a separate remedial investigation work plan if the applicant incorporates a satisfactory investigative report with the voluntary remedial action plan submitted pursuant to department regulations. AMRI contends that a satisfactory investigative report was submitted in conjunction with AMRI's Voluntary Remediation Application Form and Remedial Action Plan (RAP).

On June 28, 2007, AMRI submitted an investigative report, *Facility Investigation Summary Report*, to support its RAP under the LDEQ's Voluntary Remediation Program (VRP), for a delineated area of AMRI's Port Nickel facility (Facility) located in Braithwaite, Louisiana. AMRI's investigative report defined site investigation activities and risk evaluations conducted on a 215 acre area of the Facility designated for consideration under the LDEQ's VRP. AMRI's investigative report documented that, following completion of remedial activities defined within AMRI's RAP, the environmental conditions within the defined 215 acre area of the Facility will be protective of health and the environment based on its current and anticipated future use.

Should you have any questions or require further information, please contact me, at (602) 909-9297, or Robert Phelan of Environmental Issues Management, L.L.C. at (985) 966-1000.

Sincerely:

Dianna G. Mahony

Dianna Mahony
Resource Management
Phelps Dodge Corporation

c: Dr. James Brent, LDEQ-OEA

RECEIPT OF CHECK

AI Number	**16817**
Company Name	**Phelps Dodge**
Site Name/	**Amax Metals Recovery Inc**
Phone	( ) -
Date Received	**7/17/2007**
Date on Check	**7/11/2007**
Check Number	**576944**
Amount Received	**$500.00**

Check one Media:

☐ Accident Prevention	☐ Ground Water	☐ Radiation
☐ Air Quality	☐ Hazardous Waste	☐ Solid Waste
☐ Air Toxics	X Inactive and Abandoned Sites	☐ Underground Storage Tanks
☐ Asbestos and Lead	☐ Multi-Media	☐ Water Resources

Comments:

VRP application fee

Initials:

vrt

form_5202_r00
08/11/04

AMAX METALS RECOVERY INC.
A Phelps Dodge Industries Company

3607 ENGLISH TURN ROAD
BRAITHWAITE, LA 70040
Bus: (504) 682-2341
Fax: (504) 682-4852

June 27, 2007

Keith L. Casanova, Administrator
Remediation Services Division
Office of Environmental Assessment
Louisiana Department of Environmental Quality
Post Office Box 82178
Baton Rouge, LA 70884-2178

Re: Remedial Action Plan – Former UST Waste Pile Area
Amax Metals Recovery, Inc.
AI#16817, Plaquemines Parish

Dear Mr. Casanova:

Amax Metals Recovery, Inc.(AMRI) has completed investigation and delineation activities to support a Remedial Action Plan (RAP) under the LDEQ's Voluntary Remediation Program (VRP), for the former UST Waste Pile area (AOI) at AMRI's Port Nickel facility. In previous site investigation activities conducted for the AOI, all collected soil samples were identified to be below industrial MO-1 RECAP standards, with the exception of two identified soil sample locations that had Total Petroleum Hydrocarbon – Diesel Range Organics (TPH-D) concentration levels exceeding the MO-1 RECAP standard.

To further delineate the vertical and lateral extent of the impacted area, AMRI prepared a sampling and analysis work plan to delineate the impacted area of subsurface soils and potential source materials for removal under a remedial action (i.e., soil excavation). In May of 2006, AMRI initiated and completed the sampling and analysis plan, and was able to delineate both the vertical and horizontal extent of impacted subsurface soils.

AMRI has prepared the attached RAP for the excavation of impacted soils within the AOI that exceed the applicable RECAP screening standard. Completion of the proposed RAP will ensure that conditions within the AOI are protective of human health and the environment, based on planned future land use.

Should you have any questions or require further information, please contact me, at (602) 909-9297, or Robert Phelan of Environmental Issues Management, L.L.C. at (985) 966-1000.

Sincerely:

Dianna G. Mahony

Dianna Mahony
Resource Management
Phelps Dodge Corporation

Enclosure: VRP Remedial Action Plan, UST Waste Pile Area

c: Dr. James Brent, LDEQ-OEA
Roger Gingles, LDEQ-OEA
Narendra Dave, LDEQ-OEA, Technologies Division
Estuardo Silva, LDEQ-OES, Permits Division

VOLUNTARY REMEDIATION APPLICATION FORM

Voluntary Remediation Program
Louisiana Department of Environmental Quality

The voluntary remedial action plan for this site and the application review fee must be included with this Voluntary Remediation Application form, as provided in LAC 33:VI.911.B, or this Voluntary Remedial Investigation Application will be considered incomplete and not be accepted for review.

I. Applicant Information		
Section A: Applicant		
Name/ Company Name: Amax Metals Recovery, Inc.		
Mailing Address: 3607 English Turn Road		
City: Braithwaite	State:LA	Zip Code:70040
Contact Person:Dianna Mahony		
Phone No:(602) 909-9297	Fax No:NA	
Email Address:dianna_mahony@fmi.com		
Interest in Property:Chief Environmental Engineer		
Section B: Co-Applicant		
Name/ Company Name: NA		
Mailing Address:		
City:	State:	Zip Code:
Contact Person:		
Phone No:	Fax No:	
Email Address:		
Interest in Property:		
Section C: Co-Applicant		
Name/ Company Name: NA		
Mailing Address:		
City:	State:	Zip Code:
Contact Person:		
Phone No:	Fax No:	
Email Address:		
Interest in Property:		
Section D: Current Property Owner (if different form applicants)		
Name/ Company Name: SAME		
Mailing Address:		
City:	State:	Zip Code:
Contact Person:		
Phone No:	Fax No:	
Email Address:		

II. Site Information

Agency Interest Number (if exist):16817

Site Name:Amax Metals Recovery, Inc.

Parish:Plaquemines

Property Size (acres):

Physical address or direction and distance from nearest intersection:
3607 English Turn Road
Braithwaite, LA 70040

Latitude: 29 ° 51 ' 40 N '

Longitude: 89 ° 57 ' 55 W '

Section/Township/Range (attach legal property description):(See Attached Property Description) The AMRI facility is located in Braithwaite, Louisiana, which is located in Plaquemines Parish. The AMRI facility is located across the Mississippi River from Belle Chasse, Louisiana, which is approximately 15 miles south of New Orleans.

Adjacent Property Owners (persons listed as owners of the adjacent properties on the rolls of the parish tax assessor as of the date on which the voluntary remediation application is submitted):

ORLANDO, ELAINE D
c/o EVA 0 VINSANAU
4720 AVRON BLVD
METAIRIE LA 70006

Current Property Use (Describe in detail. Use percentages if more than one use.):Inactive, with infrastructure associated with past site operations predominantly demolished and transported to an appropriate facility for recycling or disposal.

Past (historical) Property Use (Describe in detail): The facility was first constructed in 1958 by Cuban-American Nickel Company, a Freeport Sulfur subsidiary, to produce nickel from Cuban ore. The facility utilized a hydrometallurgical technology to extract nickel and cobalt with an acid leach at elevated temperatures and pressures. The facilities original operation was closed in 1959, as a consequence of the changes brought about by the Cuban revolution.

The facility was idle until 1972 when AMAX, Inc. purchased the plant to diversify into production of metallic nickel, cobalt, and copper. The facilities original operations were expanded to receive very pure forms of these metals which were produced from the nickel, cobalt, and copper mattes supplied from Africa and Australia.

In 1985, AMAX, Inc. made a decision to modify the facility's hydro metallurgical manufacturing operations to process spent catalyst from petroleum refining operations into finished products of aluminum, nickel, molybdenum and other metals. Prior to ceasing manufacturing operations in 2000, the facility was operated by Cyprus Amax Minerals Company, which was acquired by Phelps Dodge Corporation in 1999.

In March of 2007, Freeport-McMoRan Copper & Gold, Inc. (Freeport-McMoRan) acquired Phelps Dodge Corporation, and

is the current Facility owner. The current Facility operator continues to be AMRI, which is a wholly owned subsidiary of Freeport-McMoRan.

Future Property Use (Describe in detail. Use percentages if more than one use.):Industrial

Current Land Use Surrounding Property:Agricultural and Residencial

Contaminant Type(s) and Affected Media:Soil with elevated concentrations of Total Petroleum Hydrocarbon – Diesel Range Organics (TPH-D) when compared to appropriate RECAP standard is present in a relatively small area of the former UST Waste Pile, identified as SWMU 42 (see Site Investigation Summay Report dated June 02, 2007).

Applicant(s) must also attach to this form all available historical assessment and or investigation information available for the site, including Phase 1 and 2 Assessments, analytical data, etc.

III. Eligibility Information		
Permitted Hazardous Waste Unit(s) on site?	☐ Yes	☒ No
Site Proposed for Listing on the NPL?	☐ Yes	☒ No
Site Listed on the NPL?	☐ Yes	☒ No
Any Pending Federal Environmental Enforcement Actions Associated with the Site?	☐ Yes	☒ No
If yes, explain		
Any portion of the site UST Trust Fund Eligible?	☐ Yes	☒ No
If yes, explain		

IV. Type of Voluntary Remedial Action Proposed
☒ Voluntary Remedial Action
☐ Partial Voluntary Remedial Action (See note below)

If Partial Voluntary Remedial Action is checked, the applicant and co-applicants must each complete and attach a Partial Remedial Action Supplemental Application Form.

V. Certification	
All applicants must certify the following with their signature below:	
I (we) certify that all of the information I (we) have provided in this Voluntary Remedial Investigation Application is true and correct to the best of my information, knowledge, and belief. I (we) understand and agree that I (we) am obligate to update and notify this application if I (we) learn that information that I (we) have provided is misleading or no longer correct. I (we) further certify that I (we) understand I (we) am responsible for and agree to reimburse the Louisiana Department of Environmental Quality for all actual direct costs associated with reasonable and appropriate oversight activities of the Department conducted pursuant to LAC 33:VI. Chapter 9, including, but not limited to, review, supervision, investigation, and monitoring activities.	
Primary Applicant Signature: Dianna G. Mahony	Date:06/29/2007
Co-Applicant Signature:	Date:
Co-Applicant Signature:	Date:

REMEDIAL ACTION PLAN
FORMER UST EXCAVATED SOIL PILE

Prepared for:

AMAX METALS RECOVERY, INC.

Agency Interest No. 16817
Braithwaite, Louisiana

Prepared by:
Waldemar S. Nelson and Company, Inc.
New Orleans, Louisiana

Project No. 20040203
April 2007

TABLE OF CONTENTS

AMAX METALS RECOVERY, INC.
Voluntary Remedial Action Plan
Former UST Excavated Soil Pile

INTRODUCTION

Amax Metals Recovery, Inc.(AMRI) has completed investigation and delineation activities to support a Remedial Action Plan (RAP) under the LDEQ's Voluntary Remediation Program (VRP) for the UST Area at the Port Nickel facility in Braithwaite, Louisiana. In previous site investigation activities conducted in this area, all collected soil samples were identified to be below industrial MO-1 RECAP standards, with the exception of two identified soil sample locations that have Total Petroleum Hydrocarbon – Diesel Range Organics (TPH-D) concentration levels exceeding the MO-1 RECAP standard. As defined within the following document, AMRI has completed delineation of both the vertical and lateral extent of the identified soil sample locations, and designed a RAP to remove all potential source material.

SITE DESCRIPTION and HISTORY

The AMRI site is located at 3607 English Turn Road, Braithwaite, Louisiana and comprises a total area of approximately 1,000 acres. AMRI utilized approximately 120 acres of the site for operations and the remaining acreage remains undeveloped. The facility's property is bounded on the north by agricultural farmlands and sparse housing, to the south by sparse housing and a commercial property, to the east by the Forty Arpent Canal and marshlands and to the west by the Mississippi River as shown in Exhibit 1.

The facility was constructed in 1956 and operated as the United State's only nickel refinery until 1958. The plant was idle until 1972 and diversified into the production of metalic nickel, cobalt, copper and ammonium sulfate. In 1986 the facility was converted to a hydrometallurgical manufacturing plant where spent catalyst from petroleum refineries was processed into finished products of aluminum, nickel, molybdenum, and other metals. The facility ceased operations in 2000.

The former Underground Storage Tank Excavated Soil Pile (designated UTP area) consists of an area where approximately 400 to 500 cubic yards of excavated soils were stored in 1992. The soils were stored in this area prior to being transferred off-site to a recycling facility that produces an asphalt-stabilized road base. The UTP area consists of an open surface area approximately 50 feet in length and 30 feet in width. These excavated soils were contaminated with gasoline and diesel and resulted from the removal of four onsite underground storage tanks at the facility in 1992. The soils were covered by tarpaulins during storage. The unit is located southwest of the former

Research and Development Laboratory (now demolished). The UTP area was initially investigated in February of 2004 during the Supplemental Phase of the facility's site investigation and in accordance with a sampling and analysis work plan dated November 2003 and submitted to the Louisiana Department of Environmental Quality. A Supplemental Site Investigation Report dated June 2004 was submitted to the LDEQ and included the evaluation of collected data from soil and groundwater sampling in this area.

SITE GEOLOGY

The facility's shallow geology is characterized by a 20 to 30 foot thick surface stratum of stiff clay which has a permeability of 1×10^{-7} cm/sec or less. These low permeable clays contain minor organic material that is limited in lateral extent across the site and consist of wood, roots and humus at typical depths of 10 to 22 feet below ground surface. The organic material does not exist as distinct layers within the clay material. These overlying stiff clays act as a confining layer to soft clays that contain sand and silt lenses and layers to a depth of approximately 80 feet below ground surface. From a depth of 80 to 90 feet below ground surface, layers of loose to dense silty sand and sand are typically encountered across the site. At depths from 90 to approximately 190 feet, the strata are more medium-stiff to very stiff clays with silt and sand layers.

INVESTIGATION RESULTS – SOIL and GROUNDWATER

In February of 2004, sediment samples were collected at four locations identified as 1, 2, 3 and 4 in the Underground Storage Tank Excavated Soil Pile (designated by UTP in sample collection identification) and shown in Exhibit 2. Samples at each location were collected at depths of 3, 5, 7 and 9 feet below ground surface utilizing a hollow stem drill rig. Only at boring location 3 and depth of 5 feet (UTP-3-5) and boring location 4 and depth of 3 feet (UTP-4-3) did TPH-D exceed the MO-1 Standard. Additionally a shallow groundwater sample was collected from a temporary monitoring well at boring location UTP-4. Soil and groundwater samples were analyzed for benzene, ethyl benzene, toluene and xylene, Total Petroleum Hydrocarbon – Gasoline range Organics (TPH-G), TPH-D, RECAP Indicator Compounds for TPH-D and facility metal COCs (antimony, arsenic, barium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, and vanadium). The RECAP Indicator Compounds for Diesel consist of the following 13 PAHs: acenaphthene, anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, benzo(k)fluoranthene, benzo(b)fluoranthene, benzo(a)anthracene, fluorene, fluoranthene, naphthalene, and pyrene. All analyses were preformed by a LDEQ-accredited laboratory. The laboratory methods of analysis for soil and groundwater samples are presented in Attachment 1.

Soil sample data for all constituents that exceed a Limiting Screening Standard is presented in Table 1A and for constituents that do not exceed is presented in Table 1B. Table 1C evaluates under MO-1 those soil constituent concentrations that exceed a Limiting Screening Standard and identifies only TPH-D in samples UTP-3-5 and UTP-4-

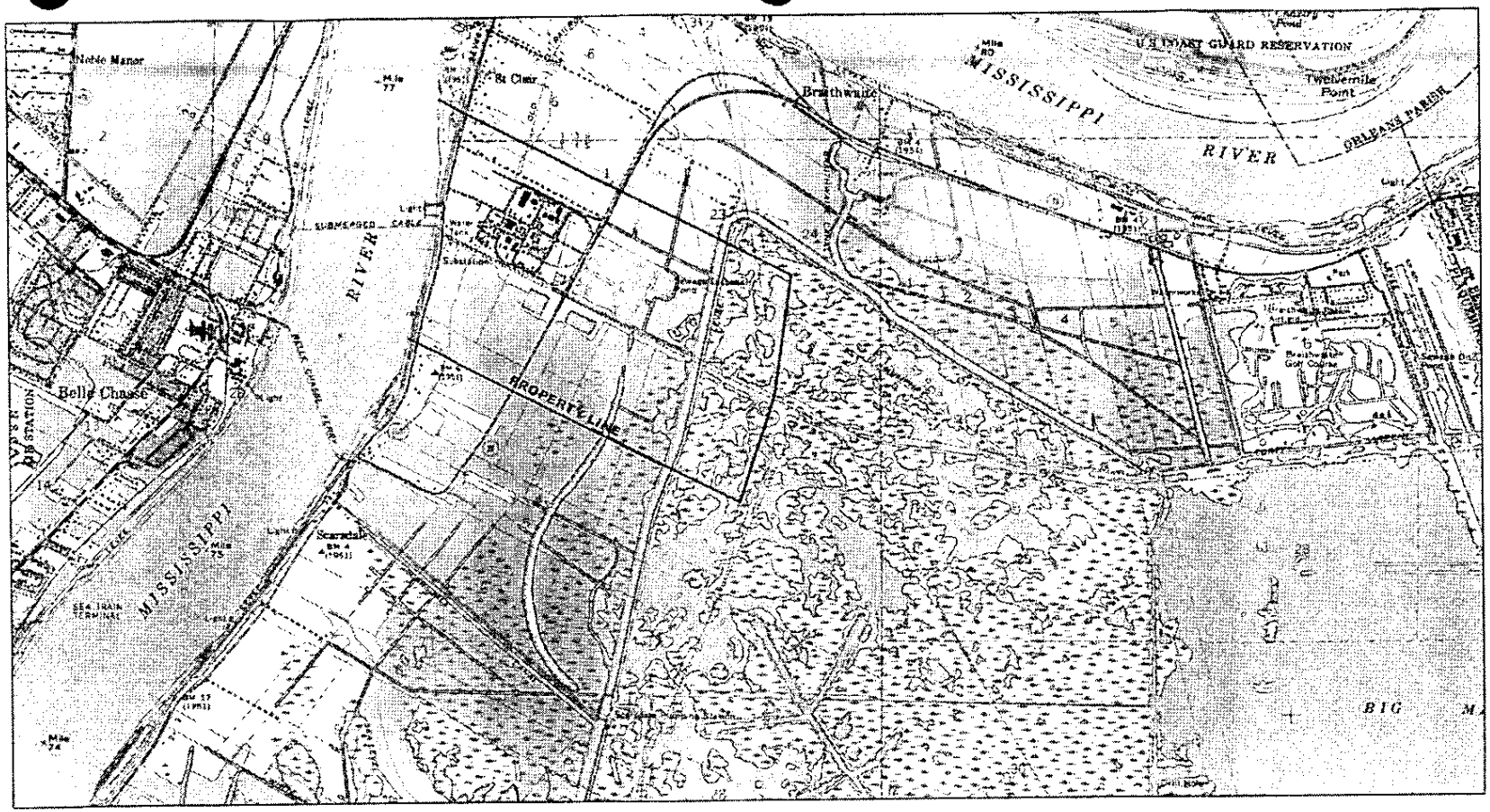
3 exceeding the MO-1 Standard. Groundwater sample data for all constituents that exceed a Limiting Screening Standard, excluding total metals, is presented in Table 2A and for those constituents that do not exceed a Limiting Screening Standard is presented in Table 2B. Table 2C evaluates under MO-1 the dissolved metal concentrations that exceed a Limiting Screening Standard and does not identify that any of these concentrations exceed MO-1 Standards. Table 2D evaluates under MO-1 the organic constituent concentrations that exceed a Limiting Screening Standard and does not identify organic concentrations that exceed MO-1 Standards. In Table 3 groundwater sample data is presented for total metals analysis. Total and dissolved metal constituent analyses were performed on the collected groundwater sample. The analysis for dissolved metals content provides a representative characterization of shallow groundwater that was collected from temporary monitoring wells with typically high suspended sediment content. The suspended sediment content in these collected shallow water samples may influence concentrations from total metal constituent analyses and not be representative for use in characterization of shallow groundwater. In this evaluation of the shallow groundwater for content of metal constituents, the dissolved metal constituent concentrations were compared to the RECAP limiting Standards for groundwater.

In May of 2006, twelve additional soil borings were performed in a Phase 2 investigation designed to further delineate the TPH-D concentrations previously identified to exceed MO-1 standards at location UTP-3 and UTP-4. These additional soil borings are identified as locations 5 though 16 and are shown in Exhibit 2. Each of these borings was advanced to a depth of approximately 7 feet below ground surface with the use of a hydraulic push-probe sampler. Since the TPH-D concentration levels exceeded MO-1 Standards only at the 5-foot sampled depth in boring UTP 3 (sample identification UTP-3-5) and the 3-foot sampled depth in boring UTP 4 (sample identification UTP-4-3) each of the additional borings (locations 5 though 16) was sampled at depths of 3, 5 and 7 feet below ground surface to further delineate the vertical and horizontal extent of the TPH-D concentration that exceeds the MO-1 Standard. In Table 4 an MO-1 evaluation of the initial sample phase soil concentrations from Table 1C is included with an MO-1 evaluation of TPH-D data collected from the twelve additional soil boring locations that were designed to further delineate the horizontal and vertical TPH-D concentrations previously identified in sample location UTP-3-5 and UTP-4-3. A review of initial sample data and Phase 2 delineation sample data presented in Table 4 identifies that TPH-D concentrations exceed the MO-1 Standard in sample locations UTP-3-5, UTP-4-5, UTP-5-5, UTP-9-5, UTP-12-3, UTP-12-5 and UTP-13-3. Exhibit 2 identifies all collected sample locations and can be utilized to delineate the horizontal limits of TPH-D concentrations that exceed MO-1 Standards as determined in Table 4.

PROPOSED PLAN of REMEDIAL ACTION

Soil and groundwater sampling was conducted across the area of the former Underground Storage Waste Pile at the AMRI facility as part of a facility site investigation. Data collected across the former Underground Storage Waste Pile have delineated the horizontal and vertical boundaries of a limited area identified to have TPH-D

concentration in soil above the MO-1 Standard. It is proposed that all soil identified within this area to exceed the MO-1 Standard be excavated and properly disposed in a permitted industrial solid waste landfill. The proposed area of excavation is defined in Exhibit 3 and within this delineated area soil will be removed from surface depth to a depth of 7 feet below ground surface. The proposed excavation of impacted soils will ensure protection of human health and the environment and comply with the RECAP standards. Upon the completion of excavation activities, clean fill sand will be placed into the excavated area and properly graded to prevent ponding of rainfall.



SITE VICINITY MAP

2000 1000 0 2000 4000 6000

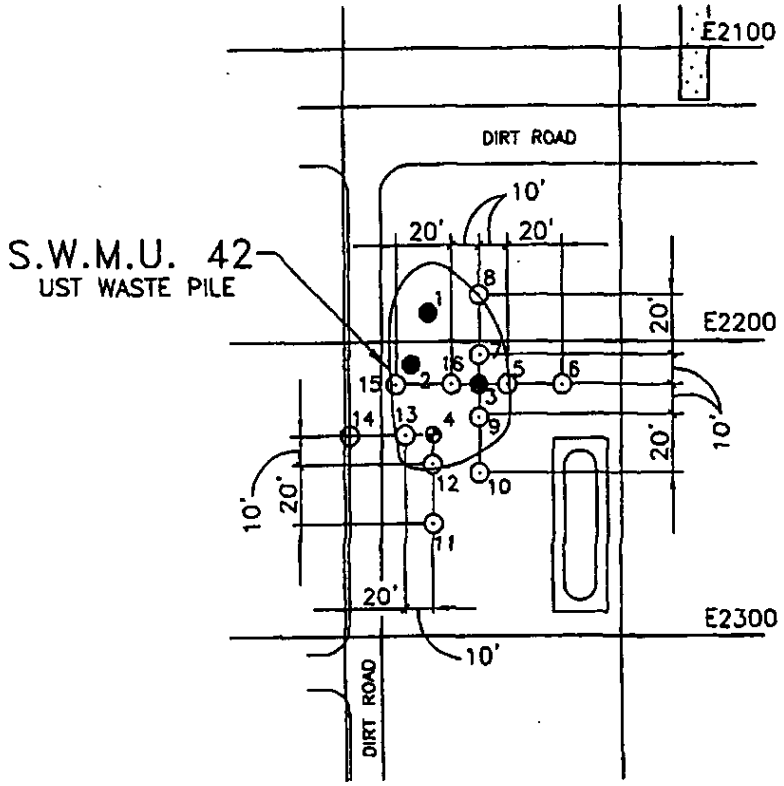
SCALE: 1" = 2000'

EXHIBIT 1

WALDEMAR S. NELSON AND COMPANY
INCORPORATED
ENGINEERS AND ARCHITECTS
1200 ST. CHARLES AVE. NEW ORLEANS, LA

AMAX METALS RECOVERY, INC.
SITE VICINITY MAP
BRAITHWAITE, LA.

DATE	SCALE	JOB NO.	DRAWING NO.
5-23-07	SHOWN	20040203	DS15D_2004



UST WASTE PILE

SCALE: 1" = 60'

⊙ SOIL SAMPLE LOCATION (MAY, 2006)

◉ DENOTES SOIL AND GROUNDWATER SAMPLE LOCATION (FEB., 2004)

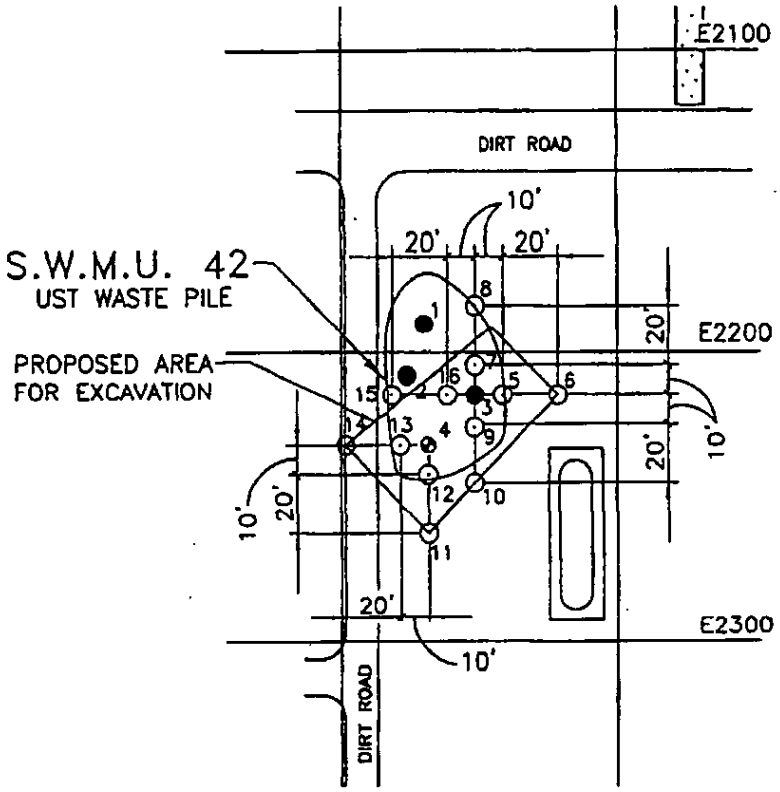
● DENOTES SOIL SAMPLE LOCATION (FEB., 2004)

EXHIBIT 2

WALDEMAR S. NELSON AND COMPANY INCORPORATED ENGINEERS AND ARCHITECTS 1200 ST. CHARLES AVE. NEW ORLEANS, LA.	AMAX METALS RECOVERY, INC. UST WASTE PILE

DATE	SCALE	JOB NO.	DRAWING NO.
6/2/06	NOTED	20040203	DS40A

PLOT DATE: 7/5/2006 10:50 AM ACAD FILE: DS40A_2006.DWG



UST WASTE PILE

SCALE: 1" = 60'

⊙ SOIL SAMPLE LOCATION (MAY, 2006)

DENOTES SOIL AND GROUNDWATER SAMPLE LOCATION (FEB., 2004)

● DENOTES SOIL SAMPLE LOCATION (FEB., 2004)

EXHIBIT 3

WALDEMAR S. NELSON AND COMPANY INCORPORATED ENGINEERS AND ARCHITECTS 1200 ST. CHARLES AVE. NEW ORLEANS, LA.	AMAX METALS RECOVERY, INC. PROPOSED AREA FOR EXCAVATION UST WASTE PILE		
DATE	SCALE	JOB NO.	DRAWING NO.
6/2/06	NOTED	20040203	DS40B

PLOT DATE: 7/5/2006 11:00 AM ACAD FILE: DS40B_2006.DWG

Attachment 1

Underground Storage Tank Excavated Soil Pile
Constituents for Analysis

Inorganics

Constituent	Method of Analysis
Antimony	6010
Arsenic	6010
Barium	6010
Cadmium	6010
Chromium	6010
Cobalt	6010
Copper	6010
Lead	6010
Mercury	7470A (water); 7471A (soil)
Molybdenum	6010
Nickel	6010
Selenium	6010
Silver	6010
Vanadium	6010

Organics

Benzene	8260B
Ethyl Benzene	8260B
Toluene	8260B
Xylene	8260B
TPH-Gasoline	8015
TPH-Diesel	8015
PAH Indicator Compounds for Diesel*	8270C

*acenaphthene, anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3cd)pyrene, benzo(k)fluoranthene, benzo(b)fluoranthene, benzo(a)anthracene, fluorene, fluoranthene, naphthalene, and pyrene

Table 1A - Soil Boring Samples
Metal, Volatile, and Semi-Volatile Samples That Exceeded a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Unit	Detection Limit	CAS #	Result To Compare to SS	0 - 3 ft Lim SSsurf Exceeded?	0 - 15 ft Lim SSsbs Exceeded?	Max(Min(A,B) &(C),D) Lim SS SurfSoil (mg/kg)	A SOILsSSI (mg/kg)	B SOILsat (mg/kg)	C SOILsSSGW (mg/kg)	D PQL (mg/kg)
AOI UTP														
UTP-1-3	Benzene	U	208 ug/Kg		71-43-2	<	0.208 mg/Kg		YES		0.05131	3.08	----	5.13E-02	0.005
UTP-1-5	Benzene		17 ug/Kg		3.81	71-43-2		0.017 mg/Kg		No		0.05131	3.08	----	5.13E-02	0.005
UTP-1-7	Benzene	U	5.07 ug/Kg		71-43-2	<	0.00507 mg/Kg		No		0.05131	3.08	----	5.13E-02	0.005
UTP-1-9	Benzene	U	4.84 ug/Kg		71-43-2	<	0.00484 mg/Kg		No		0.05131	3.08	----	5.13E-02	0.005
UTP-4-3	Benzene	U	206 ug/Kg		71-43-2	<	0.206 mg/Kg		YES		0.05131	3.08	----	5.13E-02	0.005
UTP-4-5	Benzene	U	219 ug/Kg		71-43-2	<	0.219 mg/Kg		YES		0.05131	3.08	----	5.13E-02	0.005
UTP-4-7	Benzene	U	4.94 ug/Kg		71-43-2	<	0.00494 mg/Kg		No		0.05131	3.08	----	5.13E-02	0.005
UTP-4-9	Benzene	U	4 ug/Kg		71-43-2	<	0.004 mg/Kg		No		0.05131	3.08	----	5.13E-02	0.005
UTP-1-3	Diesel Range Organics		796000 ug/Kg		80000	GCSV-00-4		796 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-1-5	Diesel Range Organics	U	4000 ug/Kg		4000	GCSV-00-4	<	4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-1-7	Diesel Range Organics		12800 ug/Kg		4000	GCSV-00-4		12.8 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-1-9	Diesel Range Organics		52800 ug/Kg		4000	GCSV-00-4		52.8 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-2-3	Diesel Range Organics		13400 ug/Kg		4000	GCSV-00-4		13.4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-2-5	Diesel Range Organics		208000 ug/Kg		20000	GCSV-00-4		208 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-2-7	Diesel Range Organics	U	4000 ug/Kg		4000	GCSV-00-4	<	4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-2-9	Diesel Range Organics		4340 ug/Kg		4000	GCSV-00-4		4.34 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-3-3	Diesel Range Organics	U	4000 ug/Kg		4000	GCSV-00-4	<	4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-3-5	Diesel Range Organics		6370000 ug/Kg		800000	GCSV-00-4		6370 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-3-7	Diesel Range Organics		11900 ug/Kg		4000	GCSV-00-4		11.9 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-3-9	Diesel Range Organics		58400 ug/Kg		4000	GCSV-00-4		58.4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-4-3	Diesel Range Organics		3030000 ug/Kg		400000	GCSV-00-4		3030 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-4-5	Diesel Range Organics		450000 ug/Kg		40000	GCSV-00-4		450 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-4-7	Diesel Range Organics	U	4000 ug/Kg		4000	GCSV-00-4	<	4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-4-9	Diesel Range Organics	U	4000 ug/Kg		4000	GCSV-00-4	<	4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-1-3	Gasoline Range Organics		192000 ug/Kg		41500	8006-61-9		192 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-1-5	Gasoline Range Organics		322 ug/Kg		80	8006-61-9		0.322 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-1-7	Gasoline Range Organics		1660 ug/Kg		93.6	8006-61-9		1.66 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-1-9	Gasoline Range Organics	U	99.4 ug/Kg		99.4	8006-61-9	<	0.0994 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-4-3	Gasoline Range Organics		104000 ug/Kg		41300	8006-61-9		104 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-4-5	Gasoline Range Organics		24600 ug/Kg		4390	8006-61-9		24.6 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-4-7	Gasoline Range Organics	U	97.8 ug/Kg		97.8	8006-61-9	<	0.0978 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-4-9	Gasoline Range Organics	U	88.7 ug/Kg		88.7	8006-61-9	<	0.0887 mg/Kg		No		65.12737	511.97	----	6.51E+01	

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Unit	Detection Limit	CAS		Result To Compare to SS	0.3(Lim SSsoil) Exceeded?	0.15(Lim SSpss) Exceeded?	Max((Min A&B),D) Lim SS SurSoil (mg/kg)	Max((Min A,B&O),D) Lim SS PotSurSoil (mg/kg)	A SOILSSi (mg/kg)	B SOILsat (mg/kg)	O SOILSSGW (mg/kg)	D PQL (mg/kg)
AOI UTP																
UTP-1-3	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-1-5	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-1-7	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-1-9	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-2-3	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-2-5	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-2-7	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-2-9	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-3-3	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-3-5	Acenaphthene		1170	ug/Kg	330	83-32-9		1.17 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-3-7	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-3-9	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-4-3	Acenaphthene		995	ug/Kg	330	83-32-9		0.995 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-4-5	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-4-7	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-4-9	Acenaphthene	U		ug/Kg	330	83-32-9	<	0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02	
UTP-1-3	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-1-5	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-1-7	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-1-9	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-2-3	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-2-5	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-2-7	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-2-9	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-3-3	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-3-5	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-3-7	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-3-9	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-4-3	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-4-5	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-4-7	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-4-9	Anthracene	U		ug/Kg	330	120-12-7	<	0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02	
UTP-1-3	Antimony	U		mg/kg	2.4	7440-36-0	<	2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-1-5	Antimony	U		mg/kg	2.4	7440-36-0	<	2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-1-7	Antimony	U		mg/kg	2.4	7440-36-0	<	2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-1-9	Antimony	U		mg/kg	2.4	7440-36-0	<	2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-2-3	Antimony	U		mg/kg	2.39	7440-36-0	<	2.39 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-2-5	Antimony	U		mg/kg	2.39	7440-36-0	<	2.39 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-2-7	Antimony	U		mg/kg	4.78	7440-36-0	<	4.78 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-2-9	Antimony	U		mg/kg	2.4	7440-36-0	<	2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-3-3	Antimony	U		mg/kg	2.4	7440-36-0	<	2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-3-5	Antimony	U		mg/kg	2.39	7440-36-0	<	2.39 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-3-7	Antimony	U		mg/kg	2.39	7440-36-0	<	2.39 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-3-9	Antimony	U		mg/kg	2.4	7440-36-0	<	2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-4-3	Antimony	U		mg/kg	2.4	7440-36-0	<	2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-4-5	Antimony	U		mg/kg	2.4	7440-36-0	<	2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-4-7	Antimony	U		mg/kg	2.4	7440-36-0	<	2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	
UTP-4-9	Antimony	U		mg/kg	2.4	7440-36-0	<	2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01	

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Units	Detection Limit	CAS #	Compare to SSL?	Result < Limit	>40*SSLim Exceeded?	>0.15*Lim SSsss Exceeded?	Max((Min A&B)*D) Lim SS SurfSoil (mg/kg)	Max((Min A&B&C)*D) Lim SS PolSurfSoil (mg/kg)	A SOILSSL (mg/kg)	B SOILsat (mg/kg)	C SOILSSGW (mg/kg)	D POL (mg/kg)
UTP-1-3	Arsenic		2.79	mg/kg	1.6	7440-38-2		2.79 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-1-5	Arsenic		3.95	mg/kg	1.6	7440-38-2		3.95 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-1-7	Arsenic		2.03	mg/kg	1.6	7440-38-2		2.03 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-1-9	Arsenic		1.93	mg/kg	1.6	7440-38-2		1.93 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-2-3	Arsenic		2.05	mg/kg	1.59	7440-38-2		2.05 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-2-5	Arsenic		3.29	mg/kg	1.59	7440-38-2		3.29 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-2-7	Arsenic		4.85	mg/kg	3.19	7440-38-2		4.85 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-2-9	Arsenic	U		mg/kg	1.6	7440-38-2	<	1.6 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-3-3	Arsenic	U		mg/kg	1.6	7440-38-2	<	1.6 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-3-5	Arsenic		2.8	mg/kg	1.59	7440-38-2		2.8 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-3-7	Arsenic		2.08	mg/kg	1.59	7440-38-2		2.08 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-3-9	Arsenic	U		mg/kg	1.6	7440-38-2	<	1.6 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-4-3	Arsenic		2.22	mg/kg	1.6	7440-38-2		2.22 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-4-5	Arsenic		6.22	mg/kg	1.6	7440-38-2		6.22 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-4-7	Arsenic		3.98	mg/kg	1.6	7440-38-2		3.98 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-4-9	Arsenic	U		mg/kg	1.6	7440-38-2	<	1.6 mg/Kg		No		1.15E+01	11.50	----	1.00E+02	
UTP-1-3	Barium		119	mg/kg	0.4	7440-39-3		119 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-1-5	Barium		106	mg/kg	0.4	7440-39-3		106 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-1-7	Barium		115	mg/kg	0.4	7440-39-3		115 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-1-9	Barium		94	mg/kg	0.4	7440-39-3		94 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-2-3	Barium		56.5	mg/kg	0.4	7440-39-3		56.5 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-2-5	Barium		116	mg/kg	0.4	7440-39-3		116 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-2-7	Barium		420	mg/kg	0.8	7440-39-3		420 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-2-9	Barium		82.3	mg/kg	0.4	7440-39-3		82.3 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-3-3	Barium		21.4	mg/kg	0.4	7440-39-3		21.4 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-3-5	Barium		88.9	mg/kg	0.4	7440-39-3		88.9 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-3-7	Barium		119	mg/kg	0.4	7440-39-3		119 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-3-9	Barium		80.6	mg/kg	0.4	7440-39-3		80.6 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-4-3	Barium		59.6	mg/kg	0.4	7440-39-3		59.6 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-4-5	Barium		118	mg/kg	0.4	7440-39-3		118 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-4-7	Barium		139	mg/kg	0.4	7440-39-3		139 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-4-9	Barium		93.4	mg/kg	0.4	7440-39-3		93.4 mg/Kg		No		2.00E+03	14308.00	----	2.00E+03	
UTP-2-3	Benzene	U		ug/Kg	4.21	71-43-2	<	0.00421 mg/Kg		No		5.13E-02	3.08	----	5.13E-02	
UTP-2-5	Benzene	U		ug/Kg	4.68	71-43-2	<	0.00468 mg/Kg		No		5.13E-02	3.08	----	5.13E-02	
UTP-2-7	Benzene	U		ug/Kg	4.47	71-43-2	<	0.00447 mg/Kg		No		5.13E-02	3.08	----	5.13E-02	
UTP-2-9	Benzene	U		ug/Kg	3.28	71-43-2	<	0.00328 mg/Kg		No		5.13E-02	3.08	----	5.13E-02	
UTP-3-3	Benzene	U		ug/Kg	4.52	71-43-2	<	0.00452 mg/Kg		No		5.13E-02	3.08	----	5.13E-02	
UTP-3-5	Benzene	U		ug/Kg	3.86	71-43-2	<	0.00386 mg/Kg		No		5.13E-02	3.08	----	5.13E-02	
UTP-3-7	Benzene	U		ug/Kg	4.14	71-43-2	<	0.00414 mg/Kg		No		5.13E-02	3.08	----	5.13E-02	
UTP-3-9	Benzene	U		ug/Kg	4.22	71-43-2	<	0.00422 mg/Kg		No		5.13E-02	3.08	----	5.13E-02	
UTP-1-3	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	<	0.33 mg/Kg		No		2.87E+00	2.87	----	3.35E+02	
UTP-1-5	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	<	0.33 mg/Kg		No		2.87E+00	2.87	----	3.35E+02	
UTP-1-7	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	<	0.33 mg/Kg		No		2.87E+00	2.87	----	3.35E+02	
UTP-1-9	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	<	0.33 mg/Kg		No		2.87E+00	2.87	----	3.35E+02	
UTP-2-3	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	<	0.33 mg/Kg		No		2.87E+00	2.87	----	3.35E+02	
UTP-2-5	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	<	0.33 mg/Kg		No		2.87E+00	2.87	----	3.35E+02	
UTP-2-7	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	<	0.33 mg/Kg		No		2.87E+00	2.87	----	3.35E+02	
UTP-2-9	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	<	0.33 mg/Kg		No		2.87E+00	2.87	----	3.35E+02	
UTP-3-3	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	<	0.33 mg/Kg		No		2.87E+00	2.87	----	3.35E+02	
UTP-3-5	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	<	0.33 mg/Kg		No		2.87E+00	2.87	----	3.35E+02	

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Unit	Detection Limit	CAS #	Result To Compare to SS	Unit	0.3 in SS Limit Exceeded?	0-15 in SS Limit Exceeded?	Max((Min A&B),D) Limiting SS Soil (mg/kg)	Max((Min A,B,&C),D) Limiting SS Pot Soil (mg/kg)	A: SS Soil (mg/kg)	B: SOILsat (mg/kg)	C: SS GW (mg/kg)	D: PQL (mg/kg)
UTP-3-7	Benzo(a)anthracene	U	ug/Kg	330	56-55-3	<	0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-3-9	Benzo(a)anthracene	U	ug/Kg	330	56-55-3	<	0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-4-3	Benzo(a)anthracene	U	ug/Kg	330	56-55-3	<	0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-4-5	Benzo(a)anthracene	U	ug/Kg	330	56-55-3	<	0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-4-7	Benzo(a)anthracene	U	ug/Kg	330	56-55-3	<	0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-4-9	Benzo(a)anthracene	U	ug/Kg	330	56-55-3	<	0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-1-3	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-1-5	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-1-7	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-1-9	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-2-3	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-2-5	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-2-7	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-2-9	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-3-3	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-3-5	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-3-7	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-3-9	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-4-3	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-4-5	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-4-7	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-4-9	Benzo(a)pyrene	U	ug/Kg	330	50-32-8	<	0.33 mg/Kg			No		3.30E-01	0.33	---	2.32E+01	
UTP-1-3	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-1-5	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-1-7	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-1-9	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-2-3	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-2-5	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-2-7	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-2-9	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-3-3	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-3-5	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-3-7	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-3-9	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-4-3	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-4-5	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-4-7	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-4-9	Benzo(b)fluoranthene	U	ug/Kg	330	205-99-2	<	0.33 mg/Kg			No		2.87E+00	2.87	---	2.21E+02	
UTP-1-3	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	<	0.33 mg/Kg			No		2.88E+01	28.79	---	1.18E+02	
UTP-1-5	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	<	0.33 mg/Kg			No		2.88E+01	28.79	---	1.18E+02	
UTP-1-7	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	<	0.33 mg/Kg			No		2.88E+01	28.79	---	1.18E+02	
UTP-1-9	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	<	0.33 mg/Kg			No		2.88E+01	28.79	---	1.18E+02	
UTP-2-3	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	<	0.33 mg/Kg			No		2.88E+01	28.79	---	1.18E+02	
UTP-2-5	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	<	0.33 mg/Kg			No		2.88E+01	28.79	---	1.18E+02	
UTP-2-7	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	<	0.33 mg/Kg			No		2.88E+01	28.79	---	1.18E+02	
UTP-2-9	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	<	0.33 mg/Kg			No		2.88E+01	28.79	---	1.18E+02	
UTP-3-3	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	<	0.33 mg/Kg			No		2.88E+01	28.79	---	1.18E+02	
UTP-3-5	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	<	0.33 mg/Kg			No		2.88E+01	28.79	---	1.18E+02	
UTP-3-7	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	<	0.33 mg/Kg			No		2.88E+01	28.79	---	1.18E+02	
UTP-3-9	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	<	0.33 mg/Kg			No		2.88E+01	28.79	---	1.18E+02	

Dashes (---) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Unit	Detection Limit	CAS	Result To Compare to SS	Exceeds 0.3 Limiting SS?	Exceeds 1.5 Limiting SS?	Max((Min(A,B) & C), D) Limiting SS (mg/kg)	Max((Min(A,B) & C), D) Limiting SS Pollutant	A SOIL SS (mg/kg)	B SOILsat (mg/kg)	C SOIL&SSGW (mg/kg)	D PQL (mg/kg)
UTP-4-3	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.88E+01		28.79	----	1.18E+02	
UTP-4-5	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.88E+01		28.79	----	1.18E+02	
UTP-4-7	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.88E+01		28.79	----	1.18E+02	
UTP-4-9	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.88E+01		28.79	----	1.18E+02	
UTP-1-3	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-1-5	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-1-7	Cadmium		0.2 mg/kg	0.2	7440-43-9	0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-1-9	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-2-3	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-2-5	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-2-7	Cadmium	U	mg/kg	0.4	7440-43-9	< 0.4 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-2-9	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-3-3	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-3-5	Cadmium		0.6 mg/kg	0.2	7440-43-9	0.6 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-3-7	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-3-9	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-4-3	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-4-5	Cadmium		0.29 mg/kg	0.2	7440-43-9	0.29 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-4-7	Cadmium		0.2 mg/kg	0.2	7440-43-9	0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-4-9	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-1-3	Chromium		8.73 mg/kg	0.4	7440-47-3	8.73 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-1-5	Chromium		6.71 mg/kg	0.4	7440-47-3	6.71 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-1-7	Chromium		8.14 mg/kg	0.4	7440-47-3	8.14 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-1-9	Chromium		7.03 mg/kg	0.4	7440-47-3	7.03 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-2-3	Chromium		3.84 mg/kg	0.4	7440-47-3	3.84 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-2-5	Chromium		8.33 mg/kg	0.4	7440-47-3	8.33 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-2-7	Chromium		9.08 mg/kg	0.8	7440-47-3	9.08 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-2-9	Chromium		6.67 mg/kg	0.4	7440-47-3	6.67 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-3-3	Chromium		2.78 mg/kg	0.4	7440-47-3	2.78 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-3-5	Chromium		16 mg/kg	0.4	7440-47-3	16 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-3-7	Chromium		6.93 mg/kg	0.4	7440-47-3	6.93 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-3-9	Chromium		6.07 mg/kg	0.4	7440-47-3	6.07 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-4-3	Chromium		4.36 mg/kg	0.4	7440-47-3	4.36 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-4-5	Chromium		8.77 mg/kg	0.4	7440-47-3	8.77 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-4-7	Chromium		8.28 mg/kg	0.4	7440-47-3	8.28 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-4-9	Chromium		7.08 mg/kg	0.4	7440-47-3	7.08 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-1-3	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-1-5	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-1-7	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-1-9	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-2-3	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-2-5	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-2-7	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-2-9	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-3-3	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-3-5	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-3-7	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-3-9	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-4-3	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-4-5	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples
Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Chem Name / Parameter	Lab Qual	Lab Result	Unit	Detection Limit	CAS #	Compare to SSTL	0-3 ft Lim SSTL Exceeded?	0-15 ft Lim SSres Exceeded?	Max(Min(A,B)&C),D) Lim SS Soil (mg/kg)	Max((Min(A,B)&C),D) Lim SS Pathway Soil (mg/kg)	A SSL SOILsat (mg/kg)	B SSL SOILsat (mg/kg)	C SSL SOIL-SSGW (mg/kg)	D PQL (mg/kg)
UTP-4-7	Chrysene	U	ug/Kg	330	218-01-9	<	0.33 mg/Kg		No		7.63E+01	285.52	----	7.63E+01	
UTP-4-9	Chrysene	U	ug/Kg	330	218-01-9	<	0.33 mg/Kg		No		7.63E+01	285.52	----	7.63E+01	
UTP-1-3	Cobalt		4.47 mg/kg	0.4	7440-48-4		4.47 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-1-5	Cobalt		5.5 mg/kg	0.4	7440-48-4		5.5 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-1-7	Cobalt		3.22 mg/kg	0.4	7440-48-4		3.22 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-1-9	Cobalt		4.05 mg/kg	0.4	7440-48-4		4.05 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-2-3	Cobalt		2.21 mg/kg	0.4	7440-48-4		2.21 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-2-5	Cobalt		4.39 mg/kg	0.4	7440-48-4		4.39 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-2-7	Cobalt		10.3 mg/kg	0.8	7440-48-4		10.3 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-2-9	Cobalt		4.47 mg/kg	0.4	7440-48-4		4.47 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-3-3	Cobalt		2.83 mg/kg	0.4	7440-48-4		2.83 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-3-5	Cobalt		22 mg/kg	0.4	7440-48-4		22 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-3-7	Cobalt		3.45 mg/kg	0.4	7440-48-4		3.45 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-3-9	Cobalt		5.23 mg/kg	0.4	7440-48-4		5.23 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-4-3	Cobalt		3.45 mg/kg	0.4	7440-48-4		3.45 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-4-5	Cobalt		8.11 mg/kg	0.4	7440-48-4		8.11 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-4-7	Cobalt		4.57 mg/kg	0.4	7440-48-4		4.57 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-4-9	Cobalt		5.31 mg/kg	0.4	7440-48-4		5.31 mg/Kg		No		4.40E+03	12264.00	----	4.40E+03	
UTP-1-3	Copper		18.9 mg/kg	1	7440-50-8		18.9 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-1-5	Copper		8.8 mg/kg	1	7440-50-8		8.8 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-1-7	Copper		17.2 mg/kg	1	7440-50-8		17.2 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-1-9	Copper		12.8 mg/kg	1	7440-50-8		12.8 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-2-3	Copper		6.14 mg/kg	1	7440-50-8		6.14 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-2-5	Copper		14.5 mg/kg	1	7440-50-8		14.5 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-2-7	Copper		11 mg/kg	0.8	7440-50-8		11 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-2-9	Copper		11.8 mg/kg	1	7440-50-8		11.8 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-3-3	Copper		3.59 mg/kg	1	7440-50-8		3.59 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-3-5	Copper		273 mg/kg	1	7440-50-8		273 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-3-7	Copper		23.9 mg/kg	1	7440-50-8		23.9 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-3-9	Copper		15 mg/kg	1	7440-50-8		15 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-4-3	Copper		5.11 mg/kg	1	7440-50-8		5.11 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-4-5	Copper		16.5 mg/kg	1	7440-50-8		16.5 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-4-7	Copper		14.8 mg/kg	1	7440-50-8		14.8 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-4-9	Copper		12.1 mg/kg	1	7440-50-8		12.1 mg/Kg		No		1.50E+03	8176.00	----	1.50E+03	
UTP-1-3	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-1-5	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-1-7	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-1-9	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-2-3	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-2-5	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-2-7	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-2-9	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-3-3	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-3-5	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-3-7	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-3-9	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-4-3	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-4-5	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-4-7	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	
UTP-4-9	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	----	5.36E+02	

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples
Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Units	Detection Limit	CAS		Result To Compare to SS	20 x 3 (IX) Lim SSsurf Exceeded?	20 x 15 (IX) Lim SSpos Exceeded?	Max((Min A&B),D) Lim SS SurfSoil (mg/kg)	Max((Min A,B,&C),D) Lim SS PotSurfSoil (mg/kg)	A SOIL SSI (mg/kg)	B SOILsat (mg/kg)	C SOIL SSGW (mg/kg)	D PQL (mg/kg)
UTP-1-3	Ethylbenzene	U		ug/Kg	208	100-41-4	<	0.208 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-1-5	Ethylbenzene	U		ug/Kg	3.81	100-41-4	<	0.00381 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-1-7	Ethylbenzene	U		ug/Kg	5.07	100-41-4	<	0.00507 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-1-9	Ethylbenzene	U		ug/Kg	4.84	100-41-4	<	0.00484 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-2-3	Ethylbenzene	U		ug/Kg	4.21	100-41-4	<	0.00421 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-2-5	Ethylbenzene	U		ug/Kg	4.68	100-41-4	<	0.00468 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-2-7	Ethylbenzene	U		ug/Kg	4.47	100-41-4	<	0.00447 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-2-9	Ethylbenzene	U		ug/Kg	3.28	100-41-4	<	0.00328 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-3-3	Ethylbenzene	U		ug/Kg	4.52	100-41-4	<	0.00452 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-3-5	Ethylbenzene	U		ug/Kg	3.86	100-41-4	<	0.00386 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-3-7	Ethylbenzene	U		ug/Kg	4.14	100-41-4	<	0.00414 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-3-9	Ethylbenzene	U		ug/Kg	4.22	100-41-4	<	0.00422 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-4-3	Ethylbenzene	U		ug/Kg	206	100-41-4	<	0.206 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-4-5	Ethylbenzene	U		ug/Kg	219	100-41-4	<	0.219 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-4-7	Ethylbenzene	U		ug/Kg	4.94	100-41-4	<	0.00494 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-4-9	Ethylbenzene	U		ug/Kg	4	100-41-4	<	0.004 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-1-3	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-1-5	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-1-7	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-1-9	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-2-3	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-2-5	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-2-7	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-2-9	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-3-3	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-3-5	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-3-7	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-3-9	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-4-3	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-4-5	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-4-7	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-4-9	Fluoranthene	U		ug/Kg	330	206-44-0	<	0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-1-3	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-1-5	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-1-7	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-1-9	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-2-3	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-2-5	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-2-7	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-2-9	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-3-3	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-3-5	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-3-7	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-3-9	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-4-3	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-4-5	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-4-7	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-4-9	Fluorene	U		ug/Kg	330	86-73-7	<	0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-2-3	Gasoline Range Organics		402	ug/Kg	86.5	8006-61-9		0.402 mg/Kg		No		6.51E+01	511.97	----	6.51E+01	
UTP-2-5	Gasoline Range Organics		9710	ug/Kg	4250	8006-61-9		9.71 mg/Kg		No		6.51E+01	511.97	----	6.51E+01	

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples
Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Units	Detection Limit	CAS#		Result To Compare to SS	0-3 ft Lim SSsurf Exceeded?	0-15 ft Lim SSpss Exceeded?	Max(Min A&B) D) Lim SS SurfSoil (mg/kg)	Max(Min A,B&C) D) Lim SS PotSurfSoil (mg/kg)	A SOIL SSi (mg/kg)	B SOILsat (mg/kg)	C SOIL SSGW (mg/kg)	D PQL (mg/kg)
UTP-2-7	Gasoline Range Organics	U		ug/Kg	91.4	8006-61-9	<	0.0914 mg/Kg		No		6.51E+01	511.97	—	6.51E+01	
UTP-2-9	Gasoline Range Organics	U		ug/Kg	77.6	8006-61-9	<	0.0776 mg/Kg		No		6.51E+01	511.97	—	6.51E+01	
UTP-3-3	Gasoline Range Organics	U		ug/Kg	88.2	8006-61-9	<	0.0882 mg/Kg		No		6.51E+01	511.97	—	6.51E+01	
UTP-3-5	Gasoline Range Organics		12000	ug/Kg	3860	8006-61-9		12 mg/Kg		No		6.51E+01	511.97	—	6.51E+01	
UTP-3-7	Gasoline Range Organics		198	ug/Kg	92.9	8006-61-9		0.198 mg/Kg		No		6.51E+01	511.97	—	6.51E+01	
UTP-3-9	Gasoline Range Organics		422	ug/Kg	84.7	8006-61-9		0.422 mg/Kg		No		6.51E+01	511.97	—	6.51E+01	
UTP-1-3	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-1-5	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-1-7	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-1-9	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-2-3	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-2-5	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-2-7	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-2-9	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-3-3	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-3-5	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-3-7	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-3-9	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-4-3	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-4-5	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-4-7	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-4-9	Indeno(1,2,3-cd)pyrene	U		ug/Kg	330	193-39-5	<	0.33 mg/Kg		No		2.88E+00	2.88	—	9.15E+00	
UTP-1-3	Lead		10.6	mg/kg	0.6	7439-92-1		10.6 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-1-5	Lead		6.7	mg/kg	0.6	7439-92-1		6.7 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-1-7	Lead		10.4	mg/kg	0.6	7439-92-1		10.4 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-1-9	Lead		8.13	mg/kg	0.6	7439-92-1		8.13 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-2-3	Lead		7.86	mg/kg	0.6	7439-92-1		7.86 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-2-5	Lead		9.64	mg/kg	0.6	7439-92-1		9.64 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-2-7	Lead		11.3	mg/kg	1.2	7439-92-1		11.3 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-2-9	Lead		6.21	mg/kg	0.6	7439-92-1		6.21 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-3-3	Lead		4.11	mg/kg	0.6	7439-92-1		4.11 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-3-5	Lead		11.5	mg/kg	0.6	7439-92-1		11.5 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-3-7	Lead		8.65	mg/kg	0.6	7439-92-1		8.65 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-3-9	Lead		5.59	mg/kg	0.6	7439-92-1		5.59 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-4-3	Lead		3.72	mg/kg	0.6	7439-92-1		3.72 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-4-5	Lead		10.3	mg/kg	0.6	7439-92-1		10.3 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-4-7	Lead		9.48	mg/kg	0.6	7439-92-1		9.48 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-4-9	Lead		7.61	mg/kg	0.6	7439-92-1		7.61 mg/Kg		No		1.00E+02	1400.00	—	1.00E+02	
UTP-1-3	Mercury		0.029	mg/kg	0.01	7439-97-6		0.029 mg/Kg		No		4.00E+00	56.00	—	4.00E+00	
UTP-1-5	Mercury		0.013	mg/kg	0.01	7439-97-6		0.013 mg/Kg		No		4.00E+00	56.00	—	4.00E+00	
UTP-1-7	Mercury		0.022	mg/kg	0.01	7439-97-6		0.022 mg/Kg		No		4.00E+00	56.00	—	4.00E+00	
UTP-1-9	Mercury		0.023	mg/kg	0.01	7439-97-6		0.023 mg/Kg		No		4.00E+00	56.00	—	4.00E+00	
UTP-2-3	Mercury		0.011	mg/kg	0.01	7439-97-6		0.011 mg/Kg		No		4.00E+00	56.00	—	4.00E+00	
UTP-2-5	Mercury		0.029	mg/kg	0.01	7439-97-6		0.029 mg/Kg		No		4.00E+00	56.00	—	4.00E+00	
UTP-2-7	Mercury		0.028	mg/kg	0.01	7439-97-6		0.028 mg/Kg		No		4.00E+00	56.00	—	4.00E+00	
UTP-2-9	Mercury		0.016	mg/kg	0.01	7439-97-6		0.016 mg/Kg		No		4.00E+00	56.00	—	4.00E+00	
UTP-3-3	Mercury	U		mg/kg	0.01	7439-97-6	<	0.01 mg/Kg		No		4.00E+00	56.00	—	4.00E+00	
UTP-3-5	Mercury		0.29	mg/kg	0.01	7439-97-6		0.29 mg/Kg		No		4.00E+00	56.00	—	4.00E+00	
UTP-3-7	Mercury		0.029	mg/kg	0.01	7439-97-6		0.029 mg/Kg		No		4.00E+00	56.00	—	4.00E+00	
UTP-3-9	Mercury		0.021	mg/kg	0.01	7439-97-6		0.021 mg/Kg		No		4.00E+00	56.00	—	4.00E+00	

Dashes (—) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Units	Detection Limit	CAS #	Result Compare to SS?	Lim SSuit Exceeded?	Lim SSres Exceeded?	Max((Min A&B),D) Lim SS SuRSat (mg/kg)	Max((Min A,B,(&C),D) Lim SS PaSuit Soil (mg/kg)	A SOILSS (mg/kg)	B SOILsat (mg/kg)	C SOILSSGW (mg/kg)	D PQL (mg/kg)
UTP-4-3	Mercury	U	mg/kg	0.01	7439-97-6	< 0.01 mg/Kg		No			4.00E+00	56.00	----	4.00E+00	
UTP-4-5	Mercury		0.026 mg/kg	0.01	7439-97-6	0.026 mg/Kg		No			4.00E+00	56.00	----	4.00E+00	
UTP-4-7	Mercury		0.025 mg/kg	0.01	7439-97-6	0.025 mg/Kg		No			4.00E+00	56.00	----	4.00E+00	
UTP-4-9	Mercury		0.019 mg/kg	0.01	7439-97-6	0.019 mg/Kg		No			4.00E+00	56.00	----	4.00E+00	
UTP-1-3	Molybdenum	U	mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-1-5	Molybdenum	U	mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-1-7	Molybdenum	U	mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-1-9	Molybdenum	U	mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-2-3	Molybdenum	U	mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-2-5	Molybdenum	U	mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-2-7	Molybdenum	U	mg/kg	2.39	7439-98-7	< 2.39 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-2-9	Molybdenum	U	mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-3-3	Molybdenum		4.3 mg/kg	1.2	7439-98-7	4.3 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-3-5	Molybdenum		11.9 mg/kg	1.2	7439-98-7	11.9 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-3-7	Molybdenum	U	mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-3-9	Molybdenum		1.83 mg/kg	1.2	7439-98-7	1.83 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-4-3	Molybdenum	U	mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-4-5	Molybdenum	U	mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-4-7	Molybdenum	U	mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-4-9	Molybdenum	U	mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No			3.65E+02	1022.00	----	3.65E+02	
UTP-1-3	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-1-5	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-1-7	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-1-9	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-2-3	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-2-5	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-2-7	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-2-9	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-3-3	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-3-5	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-3-7	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-3-9	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-4-3	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-4-5	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-4-7	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-4-9	Naphthalene	U	ug/Kg	330	91-20-3	< 0.33 mg/Kg		No			1.45E+00	42.60	----	1.45E+00	
UTP-1-3	Nickel		15.8 mg/kg	1.6	7440-02-0	15.8 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-1-5	Nickel		14.2 mg/kg	1.6	7440-02-0	14.2 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-1-7	Nickel		16 mg/kg	1.6	7440-02-0	16 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-1-9	Nickel		11.2 mg/kg	1.6	7440-02-0	11.2 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-2-3	Nickel		5.98 mg/kg	1.59	7440-02-0	5.98 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-2-5	Nickel		14.3 mg/kg	1.59	7440-02-0	14.3 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-2-7	Nickel		19.7 mg/kg	3.19	7440-02-0	19.7 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-2-9	Nickel		14.8 mg/kg	1.6	7440-02-0	14.8 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-3-3	Nickel		13.9 mg/kg	1.6	7440-02-0	13.9 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-3-5	Nickel		624 mg/kg	1.59	7440-02-0	624 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-3-7	Nickel		14.9 mg/kg	1.59	7440-02-0	14.9 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-3-9	Nickel		22.1 mg/kg	1.6	7440-02-0	22.1 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-4-3	Nickel		8.22 mg/kg	1.6	7440-02-0	8.22 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-4-5	Nickel		17.8 mg/kg	1.6	7440-02-0	17.8 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample_ID	Parameter	Lab Qual	Lab Result	Units	Detection Limit	CAS #	Result To Report	Compare to SS	0.3 ft SSsoil Exceeded?	0-15 ft SSsoil Exceeded?	Max(Min A;B;C) D) Limiting SS (mg/kg)	Max(Min A;B;(C) D) Limiting SS Pollutant	A SOIL SSI (mg/kg)	B SOILsat (mg/kg)	C SOILSSGW (mg/kg)	D POL (mg/kg)
UTP-4-7	Nickel		13.4	mg/kg	1.6	7440-02-0		13.4 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-4-9	Nickel		12.6	mg/kg	1.6	7440-02-0		12.6 mg/Kg		No			1.50E+03	4088.00	----	1.50E+03	
UTP-1-3	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-1-5	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-1-7	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-1-9	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-2-3	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-2-5	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-2-7	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-2-9	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-3-3	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-3-5	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-3-7	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-3-9	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-4-3	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-4-5	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-4-7	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-4-9	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No			1.10E+03	5606.70	----	1.10E+03	
UTP-1-3	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-1-5	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-1-7	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-1-9	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-2-3	Selenium	U		mg/kg	1.59	7782-49-2	<	1.59 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-2-5	Selenium	U		mg/kg	1.59	7782-49-2	<	1.59 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-2-7	Selenium	U		mg/kg	3.19	7782-49-2	<	3.19 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-2-9	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-3-3	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-3-5	Selenium	U		mg/kg	1.59	7782-49-2	<	1.59 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-3-7	Selenium	U		mg/kg	1.59	7782-49-2	<	1.59 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-3-9	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-4-3	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-4-5	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-4-7	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-4-9	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No			2.00E+01	1022.00	----	2.00E+01	
UTP-1-3	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-1-5	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-1-7	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-1-9	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-2-3	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-2-5	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-2-7	Silver	U		mg/kg	0.8	7440-22-4	<	0.8 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-2-9	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-3-3	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-3-5	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-3-7	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-3-9	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-4-3	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-4-5	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-4-7	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	
UTP-4-9	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No			1.00E+02	1022.00	----	1.00E+02	

Dashes (---) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples
Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Result	Units	Detection Limit	CAS #	Result To Compare to SS	2.01.3 Lim SSGW Exceeded?	30.15 Lim SSgss Exceeded?	Max((Min(A,B)+C)*D) Lim SS PolSurfSoil (mg/Kg)	Max((Min(A,B)+C)*D) Lim SS SurfSoil (mg/Kg)	A SOILsat (mg/Kg)	B SOILsat (mg/Kg)	C SOILsSGW (mg/Kg)	D PQL (mg/Kg)
UTP-1-3	Toluene	U	ug/Kg	208	108-88-3	< 0.208 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-1-5	Toluene	U	ug/Kg	3.81	108-88-3	< 0.00381 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-1-7	Toluene	U	ug/Kg	5.07	108-88-3	< 0.00507 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-1-9	Toluene	U	ug/Kg	4.84	108-88-3	< 0.00484 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-2-3	Toluene	U	ug/Kg	4.21	108-88-3	< 0.00421 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-2-5	Toluene	U	ug/Kg	4.68	108-88-3	< 0.00468 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-2-7	Toluene	U	ug/Kg	4.47	108-88-3	< 0.00447 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-2-9	Toluene	U	ug/Kg	3.28	108-88-3	< 0.00328 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-3-3	Toluene	U	ug/Kg	4.52	108-88-3	< 0.00452 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-3-5	Toluene	U	ug/Kg	3.86	108-88-3	< 0.00386 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-3-7	Toluene	U	ug/Kg	4.14	108-88-3	< 0.00414 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-3-9	Toluene	U	ug/Kg	4.22	108-88-3	< 0.00422 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-4-3	Toluene	U	ug/Kg	206	108-88-3	< 0.206 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-4-5	Toluene	U	ug/Kg	219	108-88-3	< 0.219 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-4-7	Toluene	U	ug/Kg	4.94	108-88-3	< 0.00494 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-4-9	Toluene	U	ug/Kg	4	108-88-3	< 0.004 mg/Kg		No		1.97E+01		466.28	----	1.97E+01	
UTP-1-3	Vanadium		16.9 mg/kg	0.8	7440-62-2	16.9 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-1-5	Vanadium		10.7 mg/kg	0.8	7440-62-2	10.7 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-1-7	Vanadium		15.8 mg/kg	0.8	7440-62-2	15.8 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-1-9	Vanadium		10.5 mg/kg	0.8	7440-62-2	10.5 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-2-3	Vanadium		5.65 mg/kg	0.8	7440-62-2	5.65 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-2-5	Vanadium		11.8 mg/kg	0.8	7440-62-2	11.8 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-2-7	Vanadium		11.6 mg/kg	1.59	7440-62-2	11.6 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-2-9	Vanadium		10.3 mg/kg	0.8	7440-62-2	10.3 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-3-3	Vanadium		12.4 mg/kg	0.8	7440-62-2	12.4 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-3-5	Vanadium		45.1 mg/kg	0.8	7440-62-2	45.1 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-3-7	Vanadium		10 mg/kg	0.8	7440-62-2	10 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-3-9	Vanadium		9.48 mg/kg	0.8	7440-62-2	9.48 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-4-3	Vanadium		7.18 mg/kg	0.8	7440-62-2	7.18 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-4-5	Vanadium		16 mg/kg	0.8	7440-62-2	16 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-4-7	Vanadium		13.2 mg/kg	0.8	7440-62-2	13.2 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-4-9	Vanadium		11.5 mg/kg	0.8	7440-62-2	11.5 mg/Kg		No		5.20E+02		1430.80	----	5.20E+02	
UTP-1-3	Xylene (total)	U	ug/Kg	208	1330-20-7	< 0.208 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-1-5	Xylene (total)		5.49 ug/Kg	3.81	1330-20-7	0.00549 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-1-7	Xylene (total)	U	ug/Kg	5.07	1330-20-7	< 0.00507 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-1-9	Xylene (total)	U	ug/Kg	4.84	1330-20-7	< 0.00484 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-2-3	Xylene (total)	U	ug/Kg	4.21	1330-20-7	< 0.00421 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-2-5	Xylene (total)	U	ug/Kg	4.68	1330-20-7	< 0.00468 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-2-7	Xylene (total)	U	ug/Kg	4.47	1330-20-7	< 0.00447 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-2-9	Xylene (total)	U	ug/Kg	3.28	1330-20-7	< 0.00328 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-3-3	Xylene (total)	U	ug/Kg	4.52	1330-20-7	< 0.00452 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-3-5	Xylene (total)	U	ug/Kg	3.86	1330-20-7	< 0.00386 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-3-7	Xylene (total)	U	ug/Kg	4.14	1330-20-7	< 0.00414 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-3-9	Xylene (total)	U	ug/Kg	4.22	1330-20-7	< 0.00422 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-4-3	Xylene (total)	U	ug/Kg	206	1330-20-7	< 0.206 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-4-5	Xylene (total)	U	ug/Kg	219	1330-20-7	< 0.219 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-4-7	Xylene (total)	U	ug/Kg	4.94	1330-20-7	< 0.00494 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	
UTP-4-9	Xylene (total)	U	ug/Kg	4	1330-20-7	< 0.004 mg/Kg		No		1.21E+02		120.65	----	1.48E+02	

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1C - MO-1 Evaluation of Phase 1 Exceedances
Soil Sampling Results - Organics

		A	B	C	D	G	H	I	J	K	L	M	N	O	P	Q	[illegible]	[illegible]	[illegible]	AA	AB	[illegible]	[illegible]
			Soil	$Soil_{ing}$	Soil Protective of GW												Comparisons			SOIL-PEF Comparisons			
Sample Location	Constituent	Conc or Det Limit (mg/kg)	MO-1 RS $Soil_{ti}$ (mg/kg)	$Soil_{ing}$ (mg/kg)	RS $Soil_{gwsow}$ (mg/kg)	RECAP Table 2 Note	DAF 3	=F x H Final $Soil_{gwsow}$ (mg/kg)	RS $Soil_{gwa}$ (mg/kg)	Final $Soil_{gwsow}$ Less Than $Soil_{gwa}$?	DAF 2	=J x L Final $Soil_{gwa}$ (mg/kg)	RS $Soil_{gw}$ (mg/kg)	Final $Soil_{gwa}$ Less Than $Soil_{gw}$?	Manage As	Limiting RS $SOIL_{gw}$ RS	Is A > B? Conc Exceeds HQ=1 or 10^-6 SOILI RS?	Is A > C? Conc Exceeds $SOIL_{ast}$ RS?	Is A > O? Conc Exceeds $SOIL_{gw}$ RS?	Inhalation Only $SOIL_{inIPEF}$ (mg/kg)	Inhalation Only $SOIL_{IPEF}$ (mg/kg)	Is A > AA? Conc Exceeds $SOIL_{inIPEF}$?	Is A > AB? Conc Exceeds $SOIL_{IPEF}$?
	Phase 1 Samples																						
UTP-1-3	Benzene	< 0.206	3.083	898	0.126	X DF 3	32	4.10E+00	5.13E-02	no	-->	-->	-->	-->	GW3	4.0960	no	no	no	1.59	3.13	no	no
UTP-4-3	Benzene	< 0.206	3.083	898	0.126	X DF 3	32	4.10E+00	5.13E-02	no	-->	-->	-->	-->	GW3	4.0960	no	no	no	1.59	3.13	no	no
UTP-4-5	Benzene	< 0.219	3.083	898	0.126	X DF 3	32	4.10E+00	5.13E-02	no	-->	-->	-->	-->	GW3	4.0960	no	no	no	1.59	3.13	no	no
UTP-1-3	TPH-G	786	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-2-5	TPH-D	208	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-3-5	TPH-D	6370	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	[illegible]	no	no	819	5,467	[illegible]	[illegible]
UTP-4-3	TPH-D	3000	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	[illegible]	no
UTP-4-5	TPH-D	450	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-1-3	TPH-G	192	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-4-3	TPH-G	104	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no

Table 2A - Groundwater Samples
Dissolved Metals, Volatile & SemiVolatile Samples that Exceeded a Limiting SS

Sample ID	Parameter	CAS #	Lab Qual	Result	Unit	Detection Limit	Result To Compare to SS	SS Exceeded?	LimSS (mg/L)	GW SS (mg/L)	PQL (mg/L)
UTP-4W (DISS)	Arsenic	7440-38-2		0.11	mg/L	0.01	0.11 mg/L	YES	0.0100	0.010	
UTP-4W (DISS)	Molybdenum	7439-98-7		0.031	mg/L	0.03	0.031 mg/L	YES	0.0300	0.018	0.030
UTP-4W	Diesel Range Organics	GCSV-00-4		29200	ug/L	3000	29.2 mg/L	YES	0.1500	0.150	
UTP-4W	Gasoline Range Organics	8006-61-9		478	ug/L	100	0.478 mg/L	YES	0.1500	0.150	

Table 2B - Groundwater Samples
Dissolved Metals, Volatile & SemiVolatile Samples that Did Not Exceed a Limiting SS

Sample ID	Parameter	CAS	Lab Qual	Result	Unit	Detection Limit	Dilution Factor	Result To Compare to SS	SS Exceeded?	Lim SS (mg/L)	GW SS (mg/L)	PQL (mg/L)
UTP-4W	Acenaphthene	83-32-9		18.4 ug/L	10	1	0.0184 mg/L		No	0.0365	0.037	
UTP-4W	Anthracene	120-12-7	U	ug/L	10	1	< 0.01 mg/L		No	0.0430	0.043	
UTP-4W	Benzene	71-43-2	U	ug/L	5	1	< 0.005 mg/L		No	0.0050	0.005	
UTP-4W	Benzo(a)anthracene	56-55-3	U	ug/L	7.8	1	< 0.0078 mg/L		No	0.0100	7.80E-03	0.010
UTP-4W	Benzo(a)pyrene	50-32-8		0.274 ug/L	0.2	1	0.00027 mg/L		No	0.0100	2.00E-04	0.010
UTP-4W	Benzo(b)fluoranthene	205-99-2	U	ug/L	4.8	1	< 0.0048 mg/L		No	0.0100	4.80E-03	0.010
UTP-4W	Benzo(k)fluoranthene	207-08-9	U	ug/L	2.5	1	< 0.0025 mg/L		No	0.0100	2.50E-03	0.010
UTP-4W	Chrysene	218-01-9	U	ug/L	1.6	1	< 0.0016 mg/L		No	0.0100	1.60E-03	0.010
UTP-4W	Dibenz(a,h)anthracene	53-70-3	U	ug/L	2.5	1	< 0.0025 mg/L		No	0.0100	2.50E-03	0.010
UTP-4W	Ethylbenzene	100-41-4	U	ug/L	5	1	< 0.005 mg/L		No	0.7000	0.700	
UTP-4W	Fluoranthene	206-44-0	U	ug/L	10	1	< 0.01 mg/L		No	0.1460	0.146	
UTP-4W	Fluorene	86-73-7		20.6 ug/L	10	1	0.0206 mg/L		No	0.0243	0.024	
UTP-4W	Indeno(1,2,3-cd)pyrene	193-39-5	U	ug/L	3.7	1	< 0.0037 mg/L		No	0.0100	3.70E-03	0.010
UTP-4W	Naphthalene	91-20-3	U	ug/L	10	1	< 0.01 mg/L		No	0.0100	0.010	0.010
UTP-4W	Pyrene	129-00-0	U	ug/L	10	1	< 0.01 mg/L		No	0.0183	0.018	
UTP-4W	Toluene	108-88-3	U	ug/L	5	1	< 0.005 mg/L		No	1.0000	1.000	
UTP-4W	Xylene (total)	1330-20-7	U	ug/L	5	1	< 0.005 mg/L		No	10.0000	10.000	
UTP-4W (DISS)	Antimony	7440-36-0	U	mg/L	0.006	1	< 0.006 mg/L		No	0.0600	0.006	0.060
UTP-4W (DISS)	Barium	7440-39-3		0.59 mg/L	0.01	1	0.59 mg/L		No	2.0000	2.000	
UTP-4W (DISS)	Cadmium	7440-43-9	U	mg/L	0.005	1	< 0.005 mg/L		No	0.0050	0.005	
UTP-4W (DISS)	Chromium	7440-47-3	U	mg/L	0.01	1	< 0.01 mg/L		No	0.1000	0.100	
UTP-4W (DISS)	Cobalt	7440-48-4	U	mg/L	0.01	1	< 0.01 mg/L		No	0.2190	0.219	
UTP-4W (DISS)	Copper	7440-50-8	U	mg/L	0.025	1	< 0.025 mg/L		No	1.3000	1.300	
UTP-4W (DISS)	Lead	7439-92-1	U	mg/L	0.015	1	< 0.015 mg/L		No	0.0150	0.015	
UTP-4W (DISS)	Mercury	7439-97-6	U	mg/L	0.0002	1	< 0.0002 mg/L		No	0.0020	0.002	
UTP-4W (DISS)	Nickel	7440-02-0	U	mg/L	0.04	1	< 0.04 mg/L		No	0.0730	0.073	
UTP-4W (DISS)	Selenium	7782-49-2	U	mg/L	0.04	1	< 0.04 mg/L		No	0.0500	0.050	
UTP-4W (DISS)	Silver	7440-22-4	U	mg/L	0.01	1	< 0.01 mg/L		No	0.0183	0.018	
UTP-4W (DISS)	Vanadium	7440-62-2	U	mg/L	0.02	1	< 0.02 mg/L		No	0.0256	0.026	

Table 2C - MO-1 Evaluation of Exceedances
Groundwater Sampling Results - Metals

Sample Location	Constituent	A Conc or Det Limit (mg/L)	B RECAP Table 3 GW_{3NDW} (mg/L)	C GW_{3NDW} Foot Note	D DAF 3	E = B * D Final GW_{3NDW} (mg/L)	F RECAP Table 3 GW_2 (mg/L)	G Is E<F? Is Final GW_{3NDW} < GW_2 ?	H Manage As	I GW RS (mg/L)	J $Water_{sol}$ (mg/L)	K GW_{AIR} (mg/L)	L Min Of I,J,& K Limiting GWRS (mg/L)	M Is A > L? Max Exceeds Limiting GW RS?
UTP-4W (DISS)	Arsenic	0.11	0.050	X DF 3	32	1.600	0.010	no	GW3	1.600	NA	NA	1.600	no
UTP-4W (DISS)	Molybdenum	0.031	3.930		32	125.760	0.183	no	GW3	125.760	NA	NA	125.760	no

Table 2D - MO-1 Evaluation of Exceedances
Groundwater Sampling Results - Organics

		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Sample Location	Constituent	Conc or Det Limit (mg/L)	RECAP Table 3 GW_{SNDW} (mg/L)	GW_{SNDW} Foot Note	MDL (mg/L)	Greater of GW_{SNDW} and MDL (mg/L)	DAF 3	=B or E x F Final GW_{SNDW} (mg/L)	RECAP Table 3 GW_2 (mg/L)	Is G<H? Is Final GW_{SNDW} < GW_2?	GW_2 Foot Note	RECAP Table 3 GW_1 (mg/L)	GW_1 Foot Note	Manage As	GW RS (mg/L)	$Water_{sol}$ (mg/L)	GW_{ARs} (mg/L)	Min Of N,O,& P Limiting GWRS (mg/L)	Is A > Q? Max Exceeds Limiting GW RS?
UTP-4W	Diesel Range Organics	29.2	23.596	X DF3			32	755.1	0.337	no	--->	--->	--->	GW3	755.1	NA	------	755.1	no
UTP-4W	Gasoline Range Organics	0.478	31.461	X DF3			32	1,006.7	0.337	no	--->	--->	--->	GW3	1,006.7	NA	1,000	1,000.0	no

Table 3
GW Samples (Total Metals)

Sample ID	CAS #	Parameter	Lab Qual	Result	Unit	Detection Limit	Dilution Factor
UTP-4W	7440-38-2	Arsenic		0.26	mg/L	0.01	1
UTP-4W	7440-36-0	Antimony	U		mg/L	0.006	1
UTP-4W	7440-39-3	Barium		1.31	mg/L	0.01	1
UTP-4W	7440-43-9	Cadmium	U		mg/L	0.005	1
UTP-4W	7440-47-3	Chromium	U		mg/L	0.01	1
UTP-4W	7440-48-4	Cobalt	U		mg/L	0.01	1
UTP-4W	7440-50-8	Copper	U		mg/L	0.025	1
UTP-4W	7439-92-1	Lead	U		mg/L	0.015	1
UTP-4W	7439-98-7	Molybdenum	U		mg/L	0.03	1
UTP-4W	7440-02-0	Nickel		0.047	mg/L	0.04	1
UTP-4W	7782-49-2	Selenium	U		mg/L	0.04	1
UTP-4W	7440-22-4	Silver		0.015	mg/L	0.01	1
UTP-4W	7440-62-2	Vanadium	U		mg/L	0.02	1
UTP-4W	7439-97-6	Mercury	U		mg/L	0.0002	1

Table 4 - MO-1 Evaluation of Phase 1 Exceedances, and all Phase 2 Samples
Soil Sampling Results - Organics

		A	B	C	D	G	H	I	J	K	L	M	N	O	P	Q	[illegible]	[illegible]	[illegible]	AA	AB	[illegible]	[illegible]
			Soil	$Soil_{ind}$	Soil Protective of GW												Comparisons			SOIL-PEF Comparisons			
Sample Location	Constituent	Conc or Det Limit (mg/kg)	MO-1 RS $Soil_i$ (mg/kg)	$Soil_{ow}$ (mg/kg)	RS $Soil_{gwsow}$ (mg/kg)	RECAP Table 2 Note	DAF 3	=P x H Final $Soil_{gwsow}$ (mg/kg)	RS $Soil_{gws}$ (mg/kg)	Final $Soil_{gwsow}$ Less Than $Soil_{gws}$?	DAF 2	=J x L Final $Soil_{gw}$ (mg/kg)	RS $Soil_{gw}$ (mg/kg)	Final $Soil_{gw}$ Less Than $Soil_{gws}$?	Manage As	Limiting RS $SOIL_{gw}$ RS	Is A > B? Conc Exceeds HQ=1 or 10^-6 SOILI RS?	Is A > C? Conc Exceeds SOILsat RS?	Is A > Q? Conc Exceeds SOILgw RS?	Inhalation Only SOILintPEF (mg/kg)	Inhalation Only SOILIPEF (mg/kg)	Is A > AA? Conc Exceeds SOILintPEF ?	Is A > AB? Conc Exceeds SOILIPEF ?
	Phase 1 Samples																						
UTP-1-3	Benzene	< 0.208	3.083	896	0.128	X DF 3	32	4.10E+00	5.13E-02	no	-->	-->	-->	-->	GW3	4.0960	no	no	no	1.59	3.13	no	no
UTP-4-3	Benzene	< 0.206	3.083	896	0.128	X DF 3	32	4.10E+00	5.13E-02	no	-->	-->	-->	-->	GW3	4.0960	no	no	no	1.59	3.13	no	no
UTP-4-5	Benzene	< 0.219	3.083	896	0.128	X DF 3	32	4.10E+00	5.13E-02	no	-->	-->	-->	-->	GW3	4.0960	no	no	no	1.59	3.13	no	no
UTP-1-3	TPH-D	796	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-2-5	TPH-D	208	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-3-5	TPH-D	6370	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	[illegible]	no	no	819	5,467	[illegible]	[illegible]
UTP-4-3	TPH-D	3030	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	[illegible]	no
UTP-4-5	TPH-D	450	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-1-3	TPH-G	192	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-4-3	TPH-G	104	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
	Phase 2 Samples																						
UTP-16-7	TPH-D	< 2.81	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-16-5	TPH-D	297	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-16-3	TPH-D	54.6	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-15-7	TPH-D	4.55	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-15-5	TPH-D	< 2.8	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-15-3	TPH-D	371	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-10-7D	TPH-D	126	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-14-7	TPH-D	110	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-14-5	TPH-D	656	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-14-3	TPH-D	29.5	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-13-7	TPH-D	39.6	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-13-5	TPH-D	181	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-13-3	TPH-D	1780	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	[illegible]	no
UTP-12-7	TPH-D	577	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-12-5	TPH-D	6850	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	[illegible]	no	no	819	5,467	[illegible]	[illegible]
UTP-12-3	TPH-D	2790	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	[illegible]	no
UTP-11-7	TPH-D	74.2	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-11-5	TPH-D	17.9	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-11-3	TPH-D	78.2	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-10-7	TPH-D	15.3	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-10-5	TPH-D	219	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-10-3	TPH-D	1510	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	YES	no
UTP-9-7	TPH-D	< 2.82	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-9-5	TPH-D	925	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	[illegible]	no
UTP-9-3	TPH-D	23.9	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-8-7	TPH-D	< 2.81	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-8-5	TPH-D	354	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-8-3	TPH-D	24.7	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-7-7	TPH-D	< 2.76	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-7-5	TPH-D	< 2.8	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-7-3	TPH-D	J 3.09	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-6-7	TPH-D	429	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-6-5	TPH-D	< 2.76	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-6-3	TPH-D	< 2.8	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-5-7	TPH-D	36	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-5-5	TPH-D	2290	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	[illegible]	no
UTP-5-3	TPH-D	< 2.79	5119	NA	6061	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no

SAMPLING AND ANALYSIS WORK PLAN
FORMER UST EXCAVATED SOIL PILE

AMAX METALS RECOVERY, INC.

Plaquemines Parish
Agency Interest No. 16817
3607 English Turn Road
Braithwaite, Louisiana

TABLE OF CONTENTS

AMAX METALS RECOVERY, INC.
Sampling and Analysis Work Plan
Former UST Excavated Soil Pile

This Sampling and Analysis Plan (Plan) is designed to further investigate the former UST Excavated Soil Pile at Amax Metals Recovery, Inc.'s (AMRI) Port Nickel facility in Braithwaite, Louisiana. Specifically, the Plan has been designed to further delineate the lateral and horizontal extent of two previously identified soil sample locations that have Total Petroleum Hydrocarbon – Diesel Range Organics (TPH-D) concentration levels above the MO-1 RECAP standard.

In February of 2004, soil samples were collected at four locations identified as 1, 2, 3 and 4, as shown in Exhibit 1. Samples at each location were collected at depths of 3, 5, 7 and 9 feet below ground surface. Only at boring location 3 at a depth of 5 feet (UTP-3-5) and boring location 4 at a depth of 3 feet (UTP-4-3) did TPH-D exceed the MO-1 standard. Additionally a shallow groundwater sample was collected from a temporary monitoring well at boring location UTP-4.

Soil and groundwater samples were analyzed for facility organic COCs; benzene, ethyl benzene, toluene and xylene, Total Petroleum Hydrocarbon – Gasoline range Organics (TPH-G), TPH-D, RECAP Indicator Compounds for TPH-D, and facility inorganic COCs; antimony, arsenic, barium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, and vanadium. The RECAP Indicator Compounds for Diesel consist of the following 13 PAHs: acenaphthene, anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, benzo(k)fluoranthene, benzo(b)fluoranthene, benzo(a)anthracene, fluorene, fluoranthene, naphthalene, and pyrene.

Soil sample data for all constituents that exceeded a limiting screening standard are presented in Table 1A. Soil sample data for all constituents that did not exceed a limiting screening standard are presented in Table 1B. Table 1C evaluates those soil constituent concentrations that exceeded a MO-1 screening standard, and identifies only TPH-D in samples UTP-3-5 and UTP-4-3 as exceeded a MO-1 standard.

Groundwater sample data for all constituents that exceeded a limiting screening standard, excluding total inorganic constituents, is presented in Table 2A. Groundwater sample data for all constituents that did not exceed a limiting screening standard, are presented in Table 2B. Table 2C evaluates dissolved inorganic constituents concentrations that exceeded a limiting screening standard and does not identify that any of these concentrations exceed MO-1 standards.

Table 2D evaluates the organic constituent concentrations that exceeded a limiting screening standard and does not identify that any organic concentrations exceeded MO-1 standards.

Table 3 presents groundwater sample data for total inorganic constituents analysis. Total and dissolved inorganic constituents analyses were performed on the collected groundwater sample. The analysis for dissolved inorganic constituents content provides a representative characterization of shallow groundwater that was collected from temporary monitoring wells with typically high suspended sediment content. The suspended sediment content in these collected shallow water samples may influence concentrations from total inorganic constituent analyses and not be representative for use in characterization of shallow groundwater. In this evaluation of the shallow groundwater for content of inorganic constituents, the dissolved inorganic constituent concentrations were compared to the RECAP limiting standards for groundwater.

FIELD DATA COLLECTION and ANALYTICAL METHODS

The proposed soil borings identified as locations 5 though 16 are shown in Exhibit 1. The proposed borings will be advanced to a depth of approximately 7 feet below ground surface with the use of a hydraulic push-probe sampler. A total of 12 soil borings locations will be sampled at locations surrounding the previously sampled soil borings UTP-3 and UTP-4 as shown in Exhibit 1.

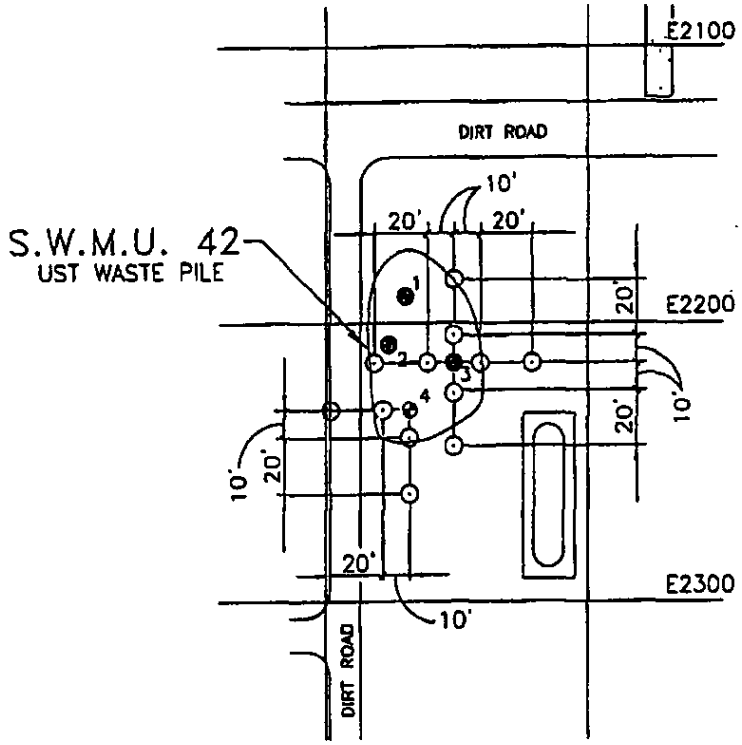
Since TPH-D concentration levels exceeded MO-1 standards only at the 5-foot sampled depth in boring UTP 3 (sample identification UTP-3-5) and the 3-foot sampled depth in boring UTP 4 (sample identification UTP-4-3) each of the additional borings for installation will be sampled at depths of 3, 5 and 7 feet below ground surface to further delineate the vertical and horizontal extent of the TPH-Diesel concentration that exceeds the MO-1 standard. Each soil sample will be analyzed for TPH-D by SW846 Method 8015B by a LDEQ-accredited laboratory.

TYPES OF FIELD QUALITY CONTROL SAMPLES

Quality control of field sampling will involve collecting field replicates, matrix spike/matrix spike duplicates in accordance with the applicable procedures described in this document.

As defined in this document, field replicate samples are samples that have been divided into two portions and each submitted to the contracted laboratory for analysis. A replicate sample or duplicate will be collected at the rate of one sample for every 20 investigative samples. In addition, one matrix spike/matrix spike duplicate will be collected at the rate of one sample for every 20 investigative samples.

The collected samples will be placed into laboratory supplied jars and immediately preserved as appropriate. All sample containers will be properly labeled. Sample and sample transfer will be conducted under chain-of custody between the site and the analytical laboratory. A copy of the completed chain-of-custody form will be maintained by site personnel.



UST WASTE PILE

SCALE: 1" = 60'

⊙ PROPOSED SOIL SAMPLE LOCATION (MAY, 2006)

⊕ DENOTES SOIL AND GROUNDWATER SAMPLE LOCATION FEB., 2004)

● DENOTES SOIL SAMPLE LOCATION (FEB., 2004)

EXHIBIT 1

WALDEMAR S. NELSON AND COMPANY INCORPORATED ENGINEERS AND ARCHITECTS 1200 ST. CHARLES AVE. NEW ORLEANS, LA.	AMAX METALS RECOVERY, INC. UST WASTE PILE		
DATE	SCALE	JOB NO.	DRAWING NO.
4/25/06	NOTED	20040203	DS40

PLOT DATE: 4/28/06 3:44 P M. ACAD FILE: 0540_2006.DWG

Table 1A - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Exceeded a Limiting SS

Sample ID	Constituent/Parameter	Lab Qual	Lab Result	Unit	Detection Limit	CAS #	Result, TOC Compare to SS	0 - 3 ft Um SSsurf Exceeded?	0 - 15 ft Um SSpss Exceeded?	Max((Min A,B, & C),D) Um SS SurfSoil (mg/kg)	Max((Min A,B, & C),D) Um SS PotSurfSoil (mg/kg)	A SOIL SSL (mg/kg)	B SOILsat (mg/kg)	C SOIL GSGW (mg/kg)	D PQL (mg/kg)
AOI UTP															
UTP-1-3	Benzene	U	ug/Kg	208	71-43-2	<	0.208 mg/Kg		YES		0.05131	3.08	----	5.13E-02	0.005
UTP-1-5	Benzene		17 ug/Kg	3.81	71-43-2		0.017 mg/Kg		No		0.05131	3.08	----	5.13E-02	0.005
UTP-1-7	Benzene	U	ug/Kg	5.07	71-43-2	<	0.00507 mg/Kg		No		0.05131	3.08	----	5.13E-02	0.005
UTP-1-9	Benzene	U	ug/Kg	4.84	71-43-2	<	0.00484 mg/Kg		No		0.05131	3.08	----	5.13E-02	0.005
UTP-4-3	Benzene	U	ug/Kg	206	71-43-2	<	0.206 mg/Kg		YES		0.05131	3.08	----	5.13E-02	0.005
UTP-4-5	Benzene	U	ug/Kg	219	71-43-2	<	0.219 mg/Kg		YES		0.05131	3.08	----	5.13E-02	0.005
UTP-4-7	Benzene	U	ug/Kg	4.94	71-43-2	<	0.00494 mg/Kg		No		0.05131	3.08	----	5.13E-02	0.005
UTP-4-9	Benzene	U	ug/Kg	4	71-43-2	<	0.004 mg/Kg		No		0.05131	3.08	----	5.13E-02	0.005
UTP-1-3	Diesel Range Organics		796000 ug/Kg	80000	GCSV-00-4		796 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-1-5	Diesel Range Organics	U	ug/Kg	4000	GCSV-00-4	<	4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-1-7	Diesel Range Organics		12800 ug/Kg	4000	GCSV-00-4		12.8 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-1-9	Diesel Range Organics		52800 ug/Kg	4000	GCSV-00-4		52.8 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-2-3	Diesel Range Organics		13400 ug/Kg	4000	GCSV-00-4		13.4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-2-5	Diesel Range Organics		208000 ug/Kg	20000	GCSV-00-4		208 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-2-7	Diesel Range Organics	U	ug/Kg	4000	GCSV-00-4	<	4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-2-9	Diesel Range Organics		4340 ug/Kg	4000	GCSV-00-4		4.34 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-3-3	Diesel Range Organics	U	ug/Kg	4000	GCSV-00-4	<	4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-3-5	Diesel Range Organics		6370000 ug/Kg	800000	GCSV-00-4		6370 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-3-7	Diesel Range Organics		11900 ug/Kg	4000	GCSV-00-4		11.9 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-3-9	Diesel Range Organics		58400 ug/Kg	4000	GCSV-00-4		58.4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-4-3	Diesel Range Organics		3030000 ug/Kg	400000	GCSV-00-4		3030 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-4-5	Diesel Range Organics		450000 ug/Kg	40000	GCSV-00-4		450 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-4-7	Diesel Range Organics	U	ug/Kg	4000	GCSV-00-4	<	4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-4-9	Diesel Range Organics	U	ug/Kg	4000	GCSV-00-4	<	4 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-1-3	Gasoline Range Organics		192000 ug/Kg	41500	8006-61-9		192 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-1-5	Gasoline Range Organics		322 ug/Kg	80	8006-61-9		0.322 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-1-7	Gasoline Range Organics		1660 ug/Kg	93.6	8006-61-9		1.66 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-1-9	Gasoline Range Organics	U	ug/Kg	99.4	8006-61-9	<	0.0994 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-4-3	Gasoline Range Organics		104000 ug/Kg	41300	8006-61-9		104 mg/Kg		YES		65.12737	511.97	----	6.51E+01	
UTP-4-5	Gasoline Range Organics		24600 ug/Kg	4390	8006-61-9		24.6 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-4-7	Gasoline Range Organics	U	ug/Kg	97.8	8006-61-9	<	0.0978 mg/Kg		No		65.12737	511.97	----	6.51E+01	
UTP-4-9	Gasoline Range Organics	U	ug/Kg	88.7	8006-61-9	<	0.0887 mg/Kg		No		65.12737	511.97	----	6.51E+01	

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples
Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Units	Detection Limit	CAS #	Result To Compare to SS	0.3 ft Lim SSSurf Exceeded?	5.0 - 15 ft Lim SSpss Exceeded?	Max((Min A&B),C,D) Lim SS SurfSoil (mg/kg)	Max((Min A&B),C,D) Lim SS PotSurfSoil (mg/kg)	A SOILSSI (mg/kg)	B SOILsat (mg/kg)	C SOILSSGW (mg/kg)	D PQL (mg/KG)
AOI UTP															
UTP-1-3	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-1-5	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-1-7	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-1-9	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-2-3	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-2-5	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-2-7	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-2-9	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-3-3	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-3-5	Acenaphthene		1170 ug/Kg	330	83-32-9	1.17 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-3-7	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-3-9	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-4-3	Acenaphthene		995 ug/Kg	330	83-32-9	0.995 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-4-5	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-4-7	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-4-9	Acenaphthene	U	ug/Kg	330	83-32-9	< 0.33 mg/Kg		No		2.15E+02	6124.44	----	2.15E+02		
UTP-1-3	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-1-5	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-1-7	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-1-9	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-2-3	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-2-5	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-2-7	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-2-9	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-3-3	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-3-5	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-3-7	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-3-9	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-4-3	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-4-5	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-4-7	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-4-9	Anthracene	U	ug/Kg	330	120-12-7	< 0.33 mg/Kg		No		1.21E+02	47808.42	----	1.21E+02		
UTP-1-3	Antimony	U	mg/kg	2.4	7440-36-0	< 2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-1-5	Antimony	U	mg/kg	2.4	7440-36-0	< 2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-1-7	Antimony	U	mg/kg	2.4	7440-36-0	< 2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-1-9	Antimony	U	mg/kg	2.4	7440-36-0	< 2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-2-3	Antimony	U	mg/kg	2.39	7440-36-0	< 2.39 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-2-5	Antimony	U	mg/kg	2.39	7440-36-0	< 2.39 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-2-7	Antimony	U	mg/kg	4.78	7440-36-0	< 4.78 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-2-9	Antimony	U	mg/kg	2.4	7440-36-0	< 2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-3-3	Antimony	U	mg/kg	2.4	7440-36-0	< 2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-3-5	Antimony	U	mg/kg	2.39	7440-36-0	< 2.39 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-3-7	Antimony	U	mg/kg	2.39	7440-36-0	< 2.39 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-3-9	Antimony	U	mg/kg	2.4	7440-36-0	< 2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-4-3	Antimony	U	mg/kg	2.4	7440-36-0	< 2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-4-5	Antimony	U	mg/kg	2.4	7440-36-0	< 2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-4-7	Antimony	U	mg/kg	2.4	7440-36-0	< 2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		
UTP-4-9	Antimony	U	mg/kg	2.4	7440-36-0	< 2.4 mg/Kg		No		1.20E+01	81.76	----	1.20E+01		

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Unit	Detection Limit	CAS	Compare to SS	Result To Use	0-3 ft Um SSsurf Exceeded?	0 - 15 ft Um SSpss Exceeded?	Max((Min A&B)D) Um SS SurfSoil (mg/kg)	Max((Min A,B1&C)D) Um SS PolSurfSoil (mg/kg)	A SOILSSI (mg/kg)	B SOILsat (mg/kg)	C SOILSSGW (mg/kg)	D ROI-2 (mg/kg)
UTP-1-3	Arsenic		2.79	mg/kg	1.6	7440-38-2	2.79 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-1-5	Arsenic		3.95	mg/kg	1.6	7440-38-2	3.95 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-1-7	Arsenic		2.03	mg/kg	1.6	7440-38-2	2.03 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-1-9	Arsenic		1.93	mg/kg	1.6	7440-38-2	1.93 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-2-3	Arsenic		2.05	mg/kg	1.59	7440-38-2	2.05 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-2-5	Arsenic		3.29	mg/kg	1.59	7440-38-2	3.29 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-2-7	Arsenic		4.85	mg/kg	3.19	7440-38-2	4.85 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-2-9	Arsenic	U		mg/kg	1.6	7440-38-2	< 1.6 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-3-3	Arsenic	U		mg/kg	1.6	7440-38-2	< 1.6 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-3-5	Arsenic		2.8	mg/kg	1.59	7440-38-2	2.8 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-3-7	Arsenic		2.08	mg/kg	1.59	7440-38-2	2.08 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-3-9	Arsenic	U		mg/kg	1.6	7440-38-2	< 1.6 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-4-3	Arsenic		2.22	mg/kg	1.6	7440-38-2	2.22 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-4-5	Arsenic		6.22	mg/kg	1.6	7440-38-2	6.22 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-4-7	Arsenic		3.98	mg/kg	1.6	7440-38-2	3.98 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-4-9	Arsenic	U		mg/kg	1.6	7440-38-2	< 1.6 mg/Kg			No		1.15E+01	11.50	---	1.00E+02	
UTP-1-3	Barium		119	mg/kg	0.4	7440-39-3	119 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-1-5	Barium		106	mg/kg	0.4	7440-39-3	106 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-1-7	Barium		115	mg/kg	0.4	7440-39-3	115 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-1-9	Barium		94	mg/kg	0.4	7440-39-3	94 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-2-3	Barium		56.5	mg/kg	0.4	7440-39-3	56.5 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-2-5	Barium		116	mg/kg	0.4	7440-39-3	116 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-2-7	Barium		420	mg/kg	0.8	7440-39-3	420 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-2-9	Barium		82.3	mg/kg	0.4	7440-39-3	82.3 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-3-3	Barium		21.4	mg/kg	0.4	7440-39-3	21.4 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-3-5	Barium		88.9	mg/kg	0.4	7440-39-3	88.9 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-3-7	Barium		119	mg/kg	0.4	7440-39-3	119 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-3-9	Barium		80.6	mg/kg	0.4	7440-39-3	80.6 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-4-3	Barium		59.6	mg/kg	0.4	7440-39-3	59.6 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-4-5	Barium		118	mg/kg	0.4	7440-39-3	118 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-4-7	Barium		139	mg/kg	0.4	7440-39-3	139 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-4-9	Barium		93.4	mg/kg	0.4	7440-39-3	93.4 mg/Kg			No		2.00E+03	14308.00	---	2.00E+03	
UTP-2-3	Benzene	U		ug/Kg	4.21	71-43-2	< 0.00421 mg/Kg			No		5.13E-02	3.08	---	5.13E-02	
UTP-2-5	Benzene	U		ug/Kg	4.68	71-43-2	< 0.00468 mg/Kg			No		5.13E-02	3.08	---	5.13E-02	
UTP-2-7	Benzene	U		ug/Kg	4.47	71-43-2	< 0.00447 mg/Kg			No		5.13E-02	3.08	---	5.13E-02	
UTP-2-9	Benzene	U		ug/Kg	3.28	71-43-2	< 0.00328 mg/Kg			No		5.13E-02	3.08	---	5.13E-02	
UTP-3-3	Benzene	U		ug/Kg	4.52	71-43-2	< 0.00452 mg/Kg			No		5.13E-02	3.08	---	5.13E-02	
UTP-3-5	Benzene	U		ug/Kg	3.86	71-43-2	< 0.00386 mg/Kg			No		5.13E-02	3.08	---	5.13E-02	
UTP-3-7	Benzene	U		ug/Kg	4.14	71-43-2	< 0.00414 mg/Kg			No		5.13E-02	3.08	---	5.13E-02	
UTP-3-9	Benzene	U		ug/Kg	4.22	71-43-2	< 0.00422 mg/Kg			No		5.13E-02	3.08	---	5.13E-02	
UTP-1-3	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-1-5	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-1-7	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-1-9	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-2-3	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-2-5	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-2-7	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-2-9	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-3-3	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	
UTP-3-5	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg			No		2.87E+00	2.87	---	3.35E+02	

Dashes (---) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples
Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Units	Detection Limit	CAS No.	Result to Compare to SS	0-3 ft Um SSsurf Exceeded?	0-15 ft Um SSpot Exceeded?	Max((Min A&B),C,D) Um SS SurfSoil (mg/kg)	Max((Min A&B),C,D) Um SS PotSurfSoil (mg/kg)	A: SOIL-SSI (mg/kg)	B: SOILsat (mg/kg)	C: SOIL-SSGW (mg/kg)	D: POL (mg/kg)
UTP-3-7	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg		No		2.67E+00	2.67	---	3.35E+02	
UTP-3-9	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg		No		2.67E+00	2.67	---	3.35E+02	
UTP-4-3	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg		No		2.67E+00	2.67	---	3.35E+02	
UTP-4-5	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg		No		2.67E+00	2.67	---	3.35E+02	
UTP-4-7	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg		No		2.67E+00	2.67	---	3.35E+02	
UTP-4-9	Benzo(a)anthracene	U		ug/Kg	330	56-55-3	< 0.33 mg/Kg		No		2.67E+00	2.67	---	3.35E+02	
UTP-1-3	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-1-5	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-1-7	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-1-9	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-2-3	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-2-5	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-2-7	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-2-9	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-3-3	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-3-5	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-3-7	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-3-9	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-4-3	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-4-5	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-4-7	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-4-9	Benzo(a)pyrene	U		ug/Kg	330	50-32-8	< 0.33 mg/Kg		No		3.30E-01	0.33	---	2.32E+01	
UTP-1-3	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-1-5	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-1-7	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-1-9	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-2-3	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-2-5	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-2-7	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-2-9	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-3-3	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-3-5	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-3-7	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-3-9	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-4-3	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-4-5	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-4-7	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-4-9	Benzo(b)fluoranthene	U		ug/Kg	330	205-99-2	< 0.33 mg/Kg		No		2.67E+00	2.67	---	2.21E+02	
UTP-1-3	Benzo(k)fluoranthene	U		ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.68E+01	26.79	---	1.18E+02	
UTP-1-5	Benzo(k)fluoranthene	U		ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.68E+01	26.79	---	1.18E+02	
UTP-1-7	Benzo(k)fluoranthene	U		ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.68E+01	26.79	---	1.18E+02	
UTP-1-9	Benzo(k)fluoranthene	U		ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.68E+01	26.79	---	1.18E+02	
UTP-2-3	Benzo(k)fluoranthene	U		ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.68E+01	26.79	---	1.18E+02	
UTP-2-5	Benzo(k)fluoranthene	U		ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.68E+01	26.79	---	1.18E+02	
UTP-2-7	Benzo(k)fluoranthene	U		ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.68E+01	26.79	---	1.18E+02	
UTP-2-9	Benzo(k)fluoranthene	U		ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.68E+01	26.79	---	1.18E+02	
UTP-3-3	Benzo(k)fluoranthene	U		ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.68E+01	26.79	---	1.18E+02	
UTP-3-5	Benzo(k)fluoranthene	U		ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.68E+01	26.79	---	1.18E+02	
UTP-3-7	Benzo(k)fluoranthene	U		ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.68E+01	26.79	---	1.18E+02	
UTP-3-9	Benzo(k)fluoranthene	U		ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.68E+01	26.79	---	1.18E+02	

Dashes (---) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Unit	Detection Limit	CAS #	Result To Compare to SSLs	0-3 ft bgs Lim SSsuit Exceeded?	10-15 ft bgs Lim SSpss Exceeded?	Max((Min(A,B),C),D) Lim SS PotSurSoil (mg/kg)	Max((Min(A&B),C),D) Lim SS SurSoil (mg/kg)	A: SOILvSSL (mg/kg)	B: SOILsat (mg/kg)	C: SOILvSSGW (mg/kg)	D: PQL (mg/kg)
UTP-4-3	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.88E+01		28.79	----	1.18E+02	
UTP-4-5	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.88E+01		28.79	----	1.18E+02	
UTP-4-7	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.88E+01		28.79	----	1.18E+02	
UTP-4-9	Benzo(k)fluoranthene	U	ug/Kg	330	207-08-9	< 0.33 mg/Kg		No		2.88E+01		28.79	----	1.18E+02	
UTP-1-3	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-1-5	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-1-7	Cadmium		0.2 mg/kg	0.2	7440-43-9	0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-1-9	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-2-3	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-2-5	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-2-7	Cadmium	U	mg/kg	0.4	7440-43-9	< 0.4 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-2-9	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-3-3	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-3-5	Cadmium		0.6 mg/kg	0.2	7440-43-9	0.6 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-3-7	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-3-9	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-4-3	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-4-5	Cadmium		0.29 mg/kg	0.2	7440-43-9	0.29 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-4-7	Cadmium		0.2 mg/kg	0.2	7440-43-9	0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-4-9	Cadmium	U	mg/kg	0.2	7440-43-9	< 0.2 mg/Kg		No		2.00E+01		100.87	----	2.00E+01	
UTP-1-3	Chromium		8.73 mg/kg	0.4	7440-47-3	8.73 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-1-5	Chromium		6.71 mg/kg	0.4	7440-47-3	6.71 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-1-7	Chromium		8.14 mg/kg	0.4	7440-47-3	8.14 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-1-9	Chromium		7.03 mg/kg	0.4	7440-47-3	7.03 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-2-3	Chromium		3.84 mg/kg	0.4	7440-47-3	3.84 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-2-5	Chromium		8.33 mg/kg	0.4	7440-47-3	8.33 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-2-7	Chromium		9.08 mg/kg	0.8	7440-47-3	9.08 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-2-9	Chromium		6.67 mg/kg	0.4	7440-47-3	6.67 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-3-3	Chromium		2.78 mg/kg	0.4	7440-47-3	2.78 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-3-5	Chromium		16 mg/kg	0.4	7440-47-3	16 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-3-7	Chromium		6.93 mg/kg	0.4	7440-47-3	6.93 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-3-9	Chromium		6.07 mg/kg	0.4	7440-47-3	6.07 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-4-3	Chromium		4.36 mg/kg	0.4	7440-47-3	4.36 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-4-5	Chromium		8.77 mg/kg	0.4	7440-47-3	8.77 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-4-7	Chromium		8.28 mg/kg	0.4	7440-47-3	8.28 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-4-9	Chromium		7.08 mg/kg	0.4	7440-47-3	7.08 mg/Kg		No		1.00E+02		613.20	----	1.00E+02	
UTP-1-3	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-1-5	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-1-7	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-1-9	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-2-3	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-2-5	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-2-7	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-2-9	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-3-3	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-3-5	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-3-7	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-3-9	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-4-3	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	
UTP-4-5	Chrysene	U	ug/Kg	330	218-01-9	< 0.33 mg/Kg		No		7.63E+01		285.52	----	7.63E+01	

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample_ID1	Parameter	Lab Qual	Lab Result	Unit	Detection Limit	CAS #	Result To Be Compare to SSLs	(0.3 * Lim SSsurf Exceeded?	(0.3*0.5) * Lim SSpss Exceeded?	Max((Min(A&B)D) Lim SS SurfSoil (mg/kg)	Max((Min(A,B,&C)D) Lim SS PoiSurfSoil (mg/kg)	A SOILSSI (mg/kg)	B SOILsat (mg/kg)	C SOILSSGW (mg/kg)	D PQL (mg/kg)
UTP-4-7	Chrysene	U	ug/Kg	330	218-01-9	<	0.33 mg/Kg		No		7.63E+01	265.52	---	7.63E+01	
UTP-4-9	Chrysene	U	ug/Kg	330	218-01-9	<	0.33 mg/Kg		No		7.63E+01	265.52	---	7.63E+01	
UTP-1-3	Cobalt		4.47 mg/kg	0.4	7440-48-4		4.47 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-1-5	Cobalt		5.6 mg/kg	0.4	7440-48-4		5.5 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-1-7	Cobalt		3.22 mg/kg	0.4	7440-48-4		3.22 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-1-9	Cobalt		4.05 mg/kg	0.4	7440-48-4		4.05 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-2-3	Cobalt		2.21 mg/kg	0.4	7440-48-4		2.21 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-2-5	Cobalt		4.39 mg/kg	0.4	7440-48-4		4.39 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-2-7	Cobalt		10.3 mg/kg	0.8	7440-48-4		10.3 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-2-9	Cobalt		4.47 mg/kg	0.4	7440-48-4		4.47 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-3-3	Cobalt		2.83 mg/kg	0.4	7440-48-4		2.83 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-3-5	Cobalt		22 mg/kg	0.4	7440-48-4		22 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-3-7	Cobalt		3.45 mg/kg	0.4	7440-48-4		3.45 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-3-9	Cobalt		5.23 mg/kg	0.4	7440-48-4		5.23 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-4-3	Cobalt		3.45 mg/kg	0.4	7440-48-4		3.45 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-4-5	Cobalt		8.11 mg/kg	0.4	7440-48-4		8.11 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-4-7	Cobalt		4.57 mg/kg	0.4	7440-48-4		4.57 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-4-9	Cobalt		5.31 mg/kg	0.4	7440-48-4		5.31 mg/Kg		No		4.40E+03	12264.00	---	4.40E+03	
UTP-1-3	Copper		18.9 mg/kg	1	7440-50-8		18.9 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-1-5	Copper		8.8 mg/kg	1	7440-50-8		8.8 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-1-7	Copper		17.2 mg/kg	1	7440-50-8		17.2 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-1-9	Copper		12.8 mg/kg	1	7440-50-8		12.8 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-2-3	Copper		6.14 mg/kg	1	7440-50-8		6.14 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-2-5	Copper		14.5 mg/kg	1	7440-50-8		14.5 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-2-7	Copper		11 mg/kg	0.8	7440-50-8		11 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-2-9	Copper		11.8 mg/kg	1	7440-50-8		11.8 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-3-3	Copper		3.59 mg/kg	1	7440-50-8		3.59 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-3-5	Copper		273 mg/kg	1	7440-50-8		273 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-3-7	Copper		23.9 mg/kg	1	7440-50-8		23.9 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-3-9	Copper		15 mg/kg	1	7440-50-8		15 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-4-3	Copper		5.11 mg/kg	1	7440-50-8		5.11 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-4-5	Copper		16.5 mg/kg	1	7440-50-8		16.5 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-4-7	Copper		14.8 mg/kg	1	7440-50-8		14.8 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-4-9	Copper		12.1 mg/kg	1	7440-50-8		12.1 mg/Kg		No		1.50E+03	8176.00	---	1.50E+03	
UTP-1-3	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-1-5	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-1-7	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-1-9	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-2-3	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-2-5	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-2-7	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-2-9	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-3-3	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-3-5	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-3-7	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-3-9	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-4-3	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-4-5	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-4-7	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	
UTP-4-9	Dibenz(a,h)anthracene	U	ug/Kg	330	53-70-3	<	0.33 mg/Kg		No		3.30E-01	0.33	---	5.36E+02	

Dashes (---) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Unit	Detection Limit	CAS#	Result To Compare to SSs	0.03 (I) Lim SSsurf Exceeded?	0.15 (I) Lim SSsse Exceeded?	Max((Min(A&B),D) Lim SS SurfSoil (mg/kg)	Max((Min(A,B),(C),D) Lim SS PotSurfSoil (mg/kg)	A SOILSSI (mg/kg)	B SOILsat (mg/kg)	C SOILSSGW (mg/kg)	D PQL (mg/kg)
UTP-1-3	Ethylbenzene	U		ug/Kg	208	100-41-4	< 0.208 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-1-5	Ethylbenzene	U		ug/Kg	3.81	100-41-4	< 0.00381 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-1-7	Ethylbenzene	U		ug/Kg	5.07	100-41-4	< 0.00507 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-1-9	Ethylbenzene	U		ug/Kg	4.84	100-41-4	< 0.00484 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-2-3	Ethylbenzene	U		ug/Kg	4.21	100-41-4	< 0.00421 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-2-5	Ethylbenzene	U		ug/Kg	4.68	100-41-4	< 0.00468 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-2-7	Ethylbenzene	U		ug/Kg	4.47	100-41-4	< 0.00447 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-2-9	Ethylbenzene	U		ug/Kg	3.28	100-41-4	< 0.00328 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-3-3	Ethylbenzene	U		ug/Kg	4.52	100-41-4	< 0.00452 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-3-5	Ethylbenzene	U		ug/Kg	3.86	100-41-4	< 0.00386 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-3-7	Ethylbenzene	U		ug/Kg	4.14	100-41-4	< 0.00414 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-3-9	Ethylbenzene	U		ug/Kg	4.22	100-41-4	< 0.00422 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-4-3	Ethylbenzene	U		ug/Kg	206	100-41-4	< 0.206 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-4-5	Ethylbenzene	U		ug/Kg	219	100-41-4	< 0.219 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-4-7	Ethylbenzene	U		ug/Kg	4.94	100-41-4	< 0.00494 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-4-9	Ethylbenzene	U		ug/Kg	4	100-41-4	< 0.004 mg/Kg		No		1.92E+01	232.50	----	1.92E+01	
UTP-1-3	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-1-5	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-1-7	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-1-9	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-2-3	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-2-5	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-2-7	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-2-9	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-3-3	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-3-5	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-3-7	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-3-9	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-4-3	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-4-5	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-4-7	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-4-9	Fluoranthene	U		ug/Kg	330	206-44-0	< 0.33 mg/Kg		No		1.21E+03	2885.39	----	1.21E+03	
UTP-1-3	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-1-5	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-1-7	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-1-9	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-2-3	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-2-5	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-2-7	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-2-9	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-3-3	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-3-5	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-3-7	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-3-9	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-4-3	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-4-5	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-4-7	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-4-9	Fluorene	U		ug/Kg	330	86-73-7	< 0.33 mg/Kg		No		2.26E+02	5407.22	----	2.26E+02	
UTP-2-3	Gasoline Range Organics		402	ug/Kg	86.5	8006-61-9	0.402 mg/Kg		No		6.51E+01	511.97	----	6.51E+01	
UTP-2-5	Gasoline Range Organics		9710	ug/Kg	4250	8006-61-9	9.71 mg/Kg		No		6.51E+01	511.97	----	6.51E+01	

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Units	Detection Limits	CAS #	Result To Be Compared to SS	0'-3' in Lim SSsurf Exceeded?	0'-15' in Lim SSsss Exceeded?	Max((Min A&B),D) Lim SS SurfSoil (mg/kg)	Max((Min A,B &C),D) Lim SS PolSurfSoil (mg/kg)	A SOILSSI (mg/kg)	B SOILsat (mg/kg)	C SOILSSGW (mg/kg)	D PQL (mg/kg)
UTP-2-7	Gasoline Range Organics	U	ug/Kg	91.4	8006-61-9	< 0.0914 mg/Kg		No		6.51E+01	511.97	----	6.51E+01		
UTP-2-9	Gasoline Range Organics	U	ug/Kg	77.6	8006-61-9	< 0.0776 mg/Kg		No		6.51E+01	511.97	----	6.51E+01		
UTP-3-3	*Gasoline Range Organics*	*U*	*ug/Kg*	*88.2*	*8006-61-9*	< *0.0882 mg/Kg*		*No*		*6.51E+01*	*511.97*	----	*6.51E+01*		
UTP-3-5	Gasoline Range Organics		12000 ug/Kg	3860	8006-61-9	12 mg/Kg		No		6.51E+01	511.97	----	6.51E+01		
UTP-3-7	Gasoline Range Organics		198 ug/Kg	92.9	8006-61-9	0.198 mg/Kg		No		6.51E+01	511.97	----	6.51E+01		
UTP-3-9	Gasoline Range Organics		422 ug/Kg	84.7	8006-61-9	0.422 mg/Kg		No		6.51E+01	511.97	----	6.51E+01		
UTP-1-3	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-1-5	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-1-7	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-1-9	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-2-3	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-2-5	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-2-7	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-2-9	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-3-3	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-3-5	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-3-7	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-3-9	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-4-3	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-4-5	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-4-7	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-4-9	Indeno(1,2,3-cd)pyrene	U	ug/Kg	330	193-39-5	< 0.33 mg/Kg		No		2.88E+00	2.88	----	9.15E+00		
UTP-1-3	Lead		10.6 mg/kg	0.6	7439-92-1	10.6 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-1-5	Lead		6.7 mg/kg	0.6	7439-92-1	6.7 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-1-7	Lead		10.4 mg/kg	0.6	7439-92-1	10.4 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-1-9	Lead		8.13 mg/kg	0.6	7439-92-1	8.13 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-2-3	Lead		7.86 mg/kg	0.6	7439-92-1	7.86 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-2-5	Lead		9.64 mg/kg	0.6	7439-92-1	9.64 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-2-7	Lead		11.3 mg/kg	1.2	7439-92-1	11.3 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-2-9	Lead		6.21 mg/kg	0.6	7439-92-1	6.21 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-3-3	Lead		4.11 mg/kg	0.6	7439-92-1	4.11 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-3-5	Lead		11.5 mg/kg	0.6	7439-92-1	11.5 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-3-7	Lead		8.65 mg/kg	0.6	7439-92-1	8.65 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-3-9	Lead		5.59 mg/kg	0.6	7439-92-1	5.59 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-4-3	Lead		3.72 mg/kg	0.6	7439-92-1	3.72 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-4-5	Lead		10.3 mg/kg	0.6	7439-92-1	10.3 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-4-7	Lead		9.48 mg/kg	0.6	7439-92-1	9.48 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-4-9	Lead		7.61 mg/kg	0.6	7439-92-1	7.61 mg/Kg		No		1.00E+02	1400.00	----	1.00E+02		
UTP-1-3	Mercury		0.029 mg/kg	0.01	7439-97-6	0.029 mg/Kg		No		4.00E+00	56.00	----	4.00E+00		
UTP-1-5	Mercury		0.013 mg/kg	0.01	7439-97-6	0.013 mg/Kg		No		4.00E+00	56.00	----	4.00E+00		
UTP-1-7	Mercury		0.022 mg/kg	0.01	7439-97-6	0.022 mg/Kg		No		4.00E+00	56.00	----	4.00E+00		
UTP-1-9	Mercury		0.023 mg/kg	0.01	7439-97-6	0.023 mg/Kg		No		4.00E+00	56.00	----	4.00E+00		
UTP-2-3	Mercury		0.011 mg/kg	0.01	7439-97-6	0.011 mg/Kg		No		4.00E+00	56.00	----	4.00E+00		
UTP-2-5	Mercury		0.029 mg/kg	0.01	7439-97-6	0.029 mg/Kg		No		4.00E+00	56.00	----	4.00E+00		
UTP-2-7	Mercury		0.028 mg/kg	0.01	7439-97-6	0.028 mg/Kg		No		4.00E+00	56.00	----	4.00E+00		
UTP-2-9	Mercury		0.016 mg/kg	0.01	7439-97-6	0.016 mg/Kg		No		4.00E+00	56.00	----	4.00E+00		
UTP-3-3	Mercury	U	mg/kg	0.01	7439-97-6	< 0.01 mg/Kg		No		4.00E+00	56.00	----	4.00E+00		
UTP-3-5	Mercury		0.29 mg/kg	0.01	7439-97-6	0.29 mg/Kg		No		4.00E+00	56.00	----	4.00E+00		
UTP-3-7	Mercury		0.029 mg/kg	0.01	7439-97-6	0.029 mg/Kg		No		4.00E+00	56.00	----	4.00E+00		
UTP-3-9	Mercury		0.021 mg/kg	0.01	7439-97-6	0.021 mg/Kg		No		4.00E+00	56.00	----	4.00E+00		

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample_ID	Parameter	Lab Qual	Lab Result	Units	Detection Limit	CAS #	Result To Compare to SS	0-3 ft Lim SSsur Exceeded?	0-15 ft Lim SSoss Exceeded?	Max((Min A&B),D) Lim SS SurSoil (mg/kg)	Max((Min A,B,&C),D) Lim SS PolSurSoil (mg/kg)	A SOIL SSI (mg/kg)	B SOILsat (mg/kg)	C SOIL SSGW (mg/kg)	D POLS (mg/kg)
UTP-4-3	Mercury	U		mg/kg	0.01	7439-97-6	< 0.01 mg/Kg		No		4.00E+00	56.00	----	4.00E+00	
UTP-4-5	Mercury		0.026	mg/kg	0.01	7439-97-6	0.026 mg/Kg		No		4.00E+00	56.00	----	4.00E+00	
UTP-4-7	Mercury		0.025	mg/kg	0.01	7439-97-6	0.025 mg/Kg		No		4.00E+00	56.00	----	4.00E+00	
UTP-4-9	Mercury		0.019	mg/kg	0.01	7439-97-6	0.019 mg/Kg		No		4.00E+00	56.00	----	4.00E+00	
UTP-1-3	Molybdenum	U		mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-1-5	Molybdenum	U		mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-1-7	Molybdenum	U		mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-1-9	Molybdenum	U		mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-2-3	Molybdenum	U		mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-2-5	Molybdenum	U		mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-2-7	Molybdenum	U		mg/kg	2.39	7439-98-7	< 2.39 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-2-9	Molybdenum	U		mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-3-3	Molybdenum		4.3	mg/kg	1.2	7439-98-7	4.3 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-3-5	Molybdenum		11.9	mg/kg	1.2	7439-98-7	11.9 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-3-7	Molybdenum	U		mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-3-9	Molybdenum		1.83	mg/kg	1.2	7439-98-7	1.83 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-4-3	Molybdenum	U		mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-4-5	Molybdenum	U		mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-4-7	Molybdenum	U		mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-4-9	Molybdenum	U		mg/kg	1.2	7439-98-7	< 1.2 mg/Kg		No		3.65E+02	1022.00	----	3.65E+02	
UTP-1-3	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-1-5	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-1-7	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-1-9	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-2-3	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-2-5	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-2-7	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-2-9	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-3-3	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-3-5	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-3-7	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-3-9	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-4-3	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-4-5	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-4-7	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-4-9	Naphthalene	U		ug/Kg	330	91-20-3	< 0.33 mg/Kg		No		1.45E+00	42.60	----	1.45E+00	
UTP-1-3	Nickel		15.8	mg/kg	1.6	7440-02-0	15.8 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	
UTP-1-5	Nickel		14.2	mg/kg	1.6	7440-02-0	14.2 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	
UTP-1-7	Nickel		16	mg/kg	1.6	7440-02-0	16 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	
UTP-1-9	Nickel		11.2	mg/kg	1.6	7440-02-0	11.2 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	
UTP-2-3	Nickel		5.98	mg/kg	1.59	7440-02-0	5.98 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	
UTP-2-5	Nickel		14.3	mg/kg	1.59	7440-02-0	14.3 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	
UTP-2-7	Nickel		19.7	mg/kg	3.19	7440-02-0	19.7 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	
UTP-2-9	Nickel		14.8	mg/kg	1.6	7440-02-0	14.8 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	
UTP-3-3	Nickel		13.9	mg/kg	1.6	7440-02-0	13.9 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	
UTP-3-5	Nickel		624	mg/kg	1.59	7440-02-0	624 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	
UTP-3-7	Nickel		14.9	mg/kg	1.59	7440-02-0	14.9 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	
UTP-3-9	Nickel		22.1	mg/kg	1.6	7440-02-0	22.1 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	
UTP-4-3	Nickel		8.22	mg/kg	1.6	7440-02-0	8.22 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	
UTP-4-5	Nickel		17.8	mg/kg	1.6	7440-02-0	17.8 mg/Kg		No		1.50E+03	4088.00	----	1.50E+03	

Dashes (---) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Unit	Detection Limit	CAS #		Result To Compare to SS	0-0.3 ft Lim SSsurf Exceeded?	0-15 ft Lim SSpss Exceeded?	Max((Min(A&B),D) Lim SS SurfSoil) (mg/kg)	Max((Min(A,B,&C),D) Lim SS PolSurfSoil (mg/kg)	A SOIL-SSI (mg/kg)	B SOILsat (mg/kg)	C SOIL-SSGW (mg/kg)	D PQL (mg/kg)
UTP-4-7	Nickel		13.4	mg/kg	1.6	7440-02-0		13.4 mg/Kg		No		1.50E+03	4088.00	---	1.50E+03	
UTP-4-9	Nickel		12.6	mg/kg	1.6	7440-02-0		12.6 mg/Kg		No		1.50E+03	4088.00	---	1.50E+03	
UTP-1-3	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-1-5	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-1-7	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-1-9	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-2-3	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-2-5	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-2-7	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-2-9	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-3-3	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-3-5	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-3-7	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-3-9	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-4-3	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-4-5	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-4-7	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-4-9	Pyrene	U		ug/Kg	330	129-00-0	<	0.33 mg/Kg		No		1.10E+03	5606.70	---	1.10E+03	
UTP-1-3	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-1-5	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-1-7	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-1-9	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-2-3	Selenium	U		mg/kg	1.59	7782-49-2	<	1.59 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-2-5	Selenium	U		mg/kg	1.59	7782-49-2	<	1.59 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-2-7	Selenium	U		mg/kg	3.19	7782-49-2	<	3.19 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-2-9	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-3-3	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-3-5	Selenium	U		mg/kg	1.59	7782-49-2	<	1.59 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-3-7	Selenium	U		mg/kg	1.59	7782-49-2	<	1.59 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-3-9	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-4-3	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-4-5	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-4-7	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-4-9	Selenium	U		mg/kg	1.6	7782-49-2	<	1.6 mg/Kg		No		2.00E+01	1022.00	---	2.00E+01	
UTP-1-3	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-1-5	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-1-7	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-1-9	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-2-3	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-2-5	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-2-7	Silver	U		mg/kg	0.8	7440-22-4	<	0.8 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-2-9	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-3-3	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-3-5	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-3-7	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-3-9	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-4-3	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-4-5	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-4-7	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	
UTP-4-9	Silver	U		mg/kg	0.4	7440-22-4	<	0.4 mg/Kg		No		1.00E+02	1022.00	---	1.00E+02	

Dashes (---) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1B - Soil Boring Samples

Metal, Volatile, and Semi-Volatile Samples That Did Not Exceed a Limiting SS

Sample ID	Parameter	Lab Qual	Lab Result	Unit	Detection or Limit	CAS #	Result To Compare to SSV	(0 - 3 ft) Lim SSsurf Exceeded?	(0 - 15 ft) Lim SSpss Exceeded?	Max((Min(A,B),D) Lim SS SurfSoil (mg/kg)	Max((Min(A,B),C),D) Lim SS PotSurfSoil (mg/kg)	(A) SOILsSSL (mg/kg)	(B) SOILsat (mg/kg)	(C) SOILsSSGW (mg/kg)	(D) PQL (mg/kg)
UTP-1-3	Toluene	U		ug/Kg	208	108-88-3	< 0.208 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-1-5	Toluene	U		ug/Kg	3.81	108-88-3	< 0.00381 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-1-7	Toluene	U		ug/Kg	5.07	108-88-3	< 0.00507 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-1-9	Toluene	U		ug/Kg	4.84	108-88-3	< 0.00484 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-2-3	Toluene	U		ug/Kg	4.21	108-88-3	< 0.00421 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-2-5	Toluene	U		ug/Kg	4.68	108-88-3	< 0.00468 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-2-7	Toluene	U		ug/Kg	4.47	108-88-3	< 0.00447 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-2-9	Toluene	U		ug/Kg	3.28	108-88-3	< 0.00328 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-3-3	Toluene	U		ug/Kg	4.52	108-88-3	< 0.00452 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-3-5	Toluene	U		ug/Kg	3.86	108-88-3	< 0.00386 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-3-7	Toluene	U		ug/Kg	4.14	108-88-3	< 0.00414 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-3-9	Toluene	U		ug/Kg	4.22	108-88-3	< 0.00422 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-4-3	Toluene	U		ug/Kg	206	108-88-3	< 0.206 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-4-5	Toluene	U		ug/Kg	219	108-88-3	< 0.219 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-4-7	Toluene	U		ug/Kg	4.94	108-88-3	< 0.00494 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-4-9	Toluene	U		ug/Kg	4	108-88-3	< 0.004 mg/Kg		No		1.97E+01	466.28	----	1.97E+01	
UTP-1-3	Vanadium		16.9	mg/kg	0.8	7440-62-2	16.9 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-1-5	Vanadium		10.7	mg/kg	0.8	7440-62-2	10.7 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-1-7	Vanadium		15.8	mg/kg	0.8	7440-62-2	15.8 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-1-9	Vanadium		10.5	mg/kg	0.8	7440-62-2	10.5 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-2-3	Vanadium		5.65	mg/kg	0.8	7440-62-2	5.65 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-2-5	Vanadium		11.8	mg/kg	0.8	7440-62-2	11.8 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-2-7	Vanadium		11.6	mg/kg	1.59	7440-62-2	11.6 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-2-9	Vanadium		10.3	mg/kg	0.8	7440-62-2	10.3 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-3-3	Vanadium		12.4	mg/kg	0.8	7440-62-2	12.4 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-3-5	Vanadium		45.1	mg/kg	0.8	7440-62-2	45.1 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-3-7	Vanadium		10	mg/kg	0.8	7440-62-2	10 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-3-9	Vanadium		9.48	mg/kg	0.8	7440-62-2	9.48 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-4-3	Vanadium		7.18	mg/kg	0.8	7440-62-2	7.18 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-4-5	Vanadium		16	mg/kg	0.8	7440-62-2	16 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-4-7	Vanadium		13.2	mg/kg	0.8	7440-62-2	13.2 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-4-9	Vanadium		11.5	mg/kg	0.8	7440-62-2	11.5 mg/Kg		No		5.20E+02	1430.80	----	5.20E+02	
UTP-1-3	Xylene (total)	U		ug/Kg	208	1330-20-7	< 0.208 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-1-5	Xylene (total)		5.49	ug/Kg	3.81	1330-20-7	0.00549 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-1-7	Xylene (total)	U		ug/Kg	5.07	1330-20-7	< 0.00507 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-1-9	Xylene (total)	U		ug/Kg	4.84	1330-20-7	< 0.00484 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-2-3	Xylene (total)	U		ug/Kg	4.21	1330-20-7	< 0.00421 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-2-5	Xylene (total)	U		ug/Kg	4.68	1330-20-7	< 0.00468 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-2-7	Xylene (total)	U		ug/Kg	4.47	1330-20-7	< 0.00447 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-2-9	Xylene (total)	U		ug/Kg	3.28	1330-20-7	< 0.00328 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-3-3	Xylene (total)	U		ug/Kg	4.52	1330-20-7	< 0.00452 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-3-5	Xylene (total)	U		ug/Kg	3.86	1330-20-7	< 0.00386 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-3-7	Xylene (total)	U		ug/Kg	4.14	1330-20-7	< 0.00414 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-3-9	Xylene (total)	U		ug/Kg	4.22	1330-20-7	< 0.00422 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-4-3	Xylene (total)	U		ug/Kg	206	1330-20-7	< 0.206 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-4-5	Xylene (total)	U		ug/Kg	219	1330-20-7	< 0.219 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-4-7	Xylene (total)	U		ug/Kg	4.94	1330-20-7	< 0.00494 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	
UTP-4-9	Xylene (total)	U		ug/Kg	4	1330-20-7	< 0.004 mg/Kg		No		1.21E+02	120.65	----	1.48E+02	

Dashes (----) mean SOILsat is not needed when constituent is listed in RECAP Tables

Table 1C - MO-1 Evaluation of Phase 1 Exceedances
Soil Sampling Results - Organics

		A	B	C	D	G	H	I	J	K	L	M	N	O	P	Q	[illegible]	[illegible]	[illegible]	AA	AB	[illegible]	[illegible]
			Soil	$Soil_{ext}$	Soil Protective of GW												Comparisons			SOIL-PEF Comparisons			
Sample Location	Constituent	Conc or Det Limit (mg/kg)	MO-1 RS $Soil_i$ (mg/kg)	$Soil_{ext}$ (mg/kg)	RS $Soil_{sewow}$ (mg/kg)	RECAP Table 2 Note	DAF 3	=F x H Final $Soil_{sewow}$ (mg/kg)	RS $Soil_{ow2}$ (mg/kg)	Final $Soil_{sewow}$ Less Than $Soil_{GW1}$?	DAF 2	=J x L Final $Soil_{ow2}$ (mg/kg)	RS $Soil_{ew1}$ (mg/kg)	Final $Soil_{ow2}$ Less Than $Soil_{ew1}$?	Manage As	Limiting RS SOILow RS	Is A > B? Conc Exceeds HQ=1 or 10^-6 SOILI RS?	Is A > C? Conc Exceeds SOILsat RS?	Is A > O? Conc Exceeds SOILgw RS?	Inhalation Only SOILniPEF (mg/kg)	Inhalation Only SOILiPEF (mg/kg)	Is A > AA? Conc Exceeds SOILniPEF ?	Is A > AB? Conc Exceeds SOILiPEF ?
	Phase 1 Samples																						
UTP-1-3	Benzene	< 0.208	3.083	898	0.128	X DF 3	32	4.10E+00	5.13E-02	no	-->	-->	-->	-->	GW3	4.0960	no	no	no	1.59	3.13	no	no
UTP-4-3	Benzene	< 0.206	3.083	898	0.128	X DF 3	32	4.10E+00	5.13E-02	no	-->	-->	-->	-->	GW3	4.0960	no	no	no	1.59	3.13	no	no
UTP-4-5	Benzene	< 0.219	3.083	898	0.128	X DF 3	32	4.10E+00	5.13E-02	no	-->	-->	-->	-->	GW3	4.0960	no	no	no	1.59	3.13	no	no
UTP-1-3	TPH-D	796	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-2-5	TPH-D	208	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-3-5	TPH-D	6370	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	[illegible]	no	no	819	6,467	[illegible]	[illegible]
UTP-4-3	TPH-D	3030	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	[illegible]	no
UTP-4-5	TPH-D	450	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-1-3	TPH-G	192	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no
UTP-4-3	TPH-G	104	5119	NA	6081	X DF 3	32	194,592	65.12	no	-->	-->	-->	-->	GW3	194,592	no	no	no	819	5,467	no	no

Table 2A - Groundwater Samples
Dissolved Metals, Volatile & SemiVolatile Samples that Exceeded a Limiting SS

Sample ID	Parameter	CAS	Lab Qual	Result	Unit	Detection Limit	Result To Compare to SS		SS Exceeded?	Lim SS (mg/L)	GW SS (mg/L)	PQL (mg/L)
UTP-4W (DISS)	Arsenic	7440-38-2		0.11	mg/L	0.01	0.11	mg/L	YES	0.0100	0.010	
UTP-4W (DISS)	Molybdenum	7439-98-7		0.031	mg/L	0.03	0.031	mg/L	YES	0.0300	0.018	0.030
UTP-4W	Diesel Range Organics	GCSV-00-4		29200	ug/L	3000	29.2	mg/L	YES	0.1500	0.150	
UTP-4W	*Gasoline Range Organics*	*8006-61-9*		*478*	*ug/L*	*100*	*0.478*	*mg/L*	YES	*0.1500*	*0.150*	

Table 2B - Groundwater Samples
Dissolved Metals, Volatile & SemiVolatile Samples that Did Not Exceed a Limiting SS

Sample ID	Parameter	CAS	Lab Qual	Result	Unit	Detection Limit	Dilution Factor	Result To Compare to SS		SS Exceeded?	Lim SS (mg/L)	GW SS (mg/L)	PQL (mg/L)
UTP-4W	Acenaphthene	83-32-9		18.4	ug/L	10	1	0.0184	mg/L	No	0.0365	0.037	
UTP-4W	Anthracene	120-12-7	U		ug/L	10	1	< 0.01	mg/L	No	0.0430	0.043	
UTP-4W	Benzene	71-43-2	U		ug/L	5	1	< 0.005	mg/L	No	0.0050	0.005	
UTP-4W	Benzo(a)anthracene	56-55-3	U		ug/L	7.8	1	< 0.0078	mg/L	No	0.0100	7.80E-03	0.010
UTP-4W	Benzo(a)pyrene	50-32-8		0.274	ug/L	0.2	1	0.00027	mg/L	No	0.0100	2.00E-04	0.010
UTP-4W	Benzo(b)fluoranthene	205-99-2	U		ug/L	4.8	1	< 0.0048	mg/L	No	0.0100	4.80E-03	0.010
UTP-4W	Benzo(k)fluoranthene	207-08-9	U		ug/L	2.5	1	< 0.0025	mg/L	No	0.0100	2.50E-03	0.010
UTP-4W	Chrysene	218-01-9	U		ug/L	1.6	1	< 0.0016	mg/L	No	0.0100	1.60E-03	0.010
UTP-4W	Dibenz(a,h)anthracene	53-70-3	U		ug/L	2.5	1	< 0.0025	mg/L	No	0.0100	2.50E-03	0.010
UTP-4W	Ethylbenzene	100-41-4	U		ug/L	5	1	< 0.005	mg/L	No	0.7000	0.700	
UTP-4W	Fluoranthene	206-44-0	U		ug/L	10	1	< 0.01	mg/L	No	0.1460	0.146	
UTP-4W	Fluorene	86-73-7		20.6	ug/L	10	1	0.0206	mg/L	No	0.0243	0.024	
UTP-4W	Indeno(1,2,3-cd)pyrene	193-39-5	U		ug/L	3.7	1	< 0.0037	mg/L	No	0.0100	3.70E-03	0.010
UTP-4W	Naphthalene	91-20-3	U		ug/L	10	1	< 0.01	mg/L	No	0.0100	0.010	0.010
UTP-4W	Pyrene	129-00-0	U		ug/L	10	1	< 0.01	mg/L	No	0.0183	0.018	
UTP-4W	Toluene	108-88-3	U		ug/L	5	1	< 0.005	mg/L	No	1.0000	1.000	
UTP-4W	Xylene (total)	1330-20-7	U		ug/L	5	1	< 0.005	mg/L	No	10.0000	10.000	
UTP-4W (DISS)	Antimony	7440-36-0	U		mg/L	0.006	1	< 0.006	mg/L	No	0.0600	0.006	0.060
UTP-4W (DISS)	Barium	7440-39-3		0.59	mg/L	0.01	1	0.59	mg/L	No	2.0000	2.000	
UTP-4W (DISS)	Cadmium	7440-43-9	U		mg/L	0.005	1	< 0.005	mg/L	No	0.0050	0.005	
UTP-4W (DISS)	Chromium	7440-47-3	U		mg/L	0.01	1	< 0.01	mg/L	No	0.1000	0.100	
UTP-4W (DISS)	Cobalt	7440-48-4	U		mg/L	0.01	1	< 0.01	mg/L	No	0.2190	0.219	
UTP-4W (DISS)	Copper	7440-50-8	U		mg/L	0.025	1	< 0.025	mg/L	No	1.3000	1.300	
UTP-4W (DISS)	Lead	7439-92-1	U		mg/L	0.015	1	< 0.015	mg/L	No	0.0150	0.015	
UTP-4W (DISS)	Mercury	7439-97-6	U		mg/L	0.0002	1	< 0.0002	mg/L	No	0.0020	0.002	
UTP-4W (DISS)	Nickel	7440-02-0	U		mg/L	0.04	1	< 0.04	mg/L	No	0.0730	0.073	
UTP-4W (DISS)	Selenium	7782-49-2	U		mg/L	0.04	1	< 0.04	mg/L	No	0.0500	0.050	
UTP-4W (DISS)	Silver	7440-22-4	U		mg/L	0.01	1	< 0.01	mg/L	No	0.0183	0.018	
UTP-4W (DISS)	Vanadium	7440-62-2	U		mg/L	0.02	1	< 0.02	mg/L	No	0.0256	0.026	

Table 2C - MO-1 Evaluation of Exceedances
Groundwater Sampling Results - Metals

Sample Location	Constituent	A Conc or Det Limit (mg/L)	B RECAP Table 3 GW_{3NDW} (mg/L)	C GW_{3NDW} Foot Note	D DAF 3	E = B * D Final GW_{3NDW} (mg/L)	F RECAP Table 3 GW_2 (mg/L)	G Is E<F? Is Final GW_{3NDW} < GW_2 ?	H Manage As	I GW RS (mg/L)	J $Water_{sol}$ (mg/L)	K GW_{AIR} (mg/L)	L Min Of I,J,& K Limiting GWRS (mg/L)	M Is A > L? Max Exceeds Limiting GW RS?
UTP-4W (DISS)	Arsenic	0.11	0.050	X DF 3	32	1.600	0.010	no	GW3	1.600	NA	NA	1.600	no
UTP-4W (DISS)	Molybdenum	0.031	3.930		32	125.760	0.183	no	GW3	125.760	NA	NA	125.760	no

Table 2D - MO-1 Evaluation of Exceedances
Groundwater Sampling Results - Organics

		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Sample Location	Constituent	Conc or Det Limit (mg/L)	RECAP Table 3 GW_{3NDW} (mg/L)	GW_{3NDW} Foot Note	MDL (mg/L)	Greater of GW_{3NDW} and MDL (mg/L)	DAF 3	=B or E x F Final GW_{NDW} (mg/L)	RECAP Table 3 GW_2 (mg/L)	Is G<H? Is Final GW_{3NDW} < GW_2 ?	GW_2 Foot Note	RECAP Table 3 GW_1 (mg/L)	GW_1 Foot Note	Manage As	GW RS (mg/L)	$Water_{sol}$ (mg/L)	GW_{ASR} (mg/L)	Min Of N,O,& P Limiting GWRS (mg/L)	Is A > Q? Max Exceeds Limiting GW RS?
UTP-4W	Diesel Range Organics	29.2	23.596	X DF3			32	755.1	0.337	no	--->	--->	--->	GW3	755.1	NA	------	755.1	no
UTP-4W	Gasoline Range Organics	0.478	31.461	X DF3			32	1,006.7	0.337	no	--->	--->	--->	GW3	1,006.7	NA	1,000	1,000.0	no

Table 3
GW Samples (Total Metals)

Sample ID	CAS #	Parameter	Lab Qual	Result	Unit	Detection Limit	Dilution Factor
UTP-4W	7440-38-2	Arsenic		0.26	mg/L	0.01	1
UTP-4W	7440-36-0	Antimony	U		mg/L	0.006	1
UTP-4W	7440-39-3	Barium		1.31	mg/L	0.01	1
UTP-4W	7440-43-9	Cadmium	U		mg/L	0.005	1
UTP-4W	7440-47-3	Chromium	U		mg/L	0.01	1
UTP-4W	7440-48-4	Cobalt	U		mg/L	0.01	1
UTP-4W	7440-50-8	Copper	U		mg/L	0.025	1
UTP-4W	7439-92-1	Lead	U		mg/L	0.015	1
UTP-4W	7439-98-7	Molybdenum	U		mg/L	0.03	1
UTP-4W	7440-02-0	Nickel		0.047	mg/L	0.04	1
UTP-4W	7782-49-2	Selenium	U		mg/L	0.04	1
UTP-4W	7440-22-4	Silver		0.015	mg/L	0.01	1
UTP-4W	7440-62-2	Vanadium	U		mg/L	0.02	1
UTP-4W	7439-97-6	Mercury	U		mg/L	0.0002	1

AMAX METALS RECOVERY INC.
A Phelps Dodge Industries Company

3607 ENGLISH TURN ROAD
BRAITHWAITE, LA 70040
Bus: (504) 682-2341
Fax: (504) 682-4852

June 27, 2007

Keith L. Casanova, Administrator
Remediation Services Division
Office of Environmental Assessment
Louisiana Department of Environmental Quality
Post Office Box 82178
Baton Rouge, LA 70884-2178

Re: Facility Investigation Summary Report
Amax Metals Recovery, Inc.
AI#16817, Plaquemines Parish

Dear Mr. Casanova:

Amax Metals Recovery, Inc.(AMRI) has prepared the enclosed Site Investigation Summary Report to support a Remedial Action Plan (RAP) under the LDEQ's Voluntary Remediation Program (VRP), for a delineated area of the UST Waste Pile (SWMU 42) at the Port Nickel facility (Facility) located in Braithwaite, Louisiana. AMRI's RAP is being submitted under separate cover.

AMRI has completed site investigation activities and a risk evaluation under RECAP within a defined 215 acre area of the Facility designated for consideration under the LDEQ's VRP. The enclosed *Facility Investigation Summary Report* documents that, following completion of remedial activities defined within AMRI's RAP, the environmental conditions within the defined 215 acre area of the Facility will be protective of health and the environment based on its current and anticipated future use.

Should you have any questions or require further information, please contact me, at (602) 909-9297, or Robert Phelan of Environmental Issues Management, L.L.C. at (985) 966-1000.

Sincerely:

Dianna G. Mahony

Dianna Mahony
Resource Management
Phelps Dodge Corporation

Enclosure: Facility Investigation Summary Report

c: Dr. James Brent, LDEQ-OEA
Narendra Dave, LDEQ-OEA, Technologies Division
Estuardo Silva, LDEQ-OES, Permits Division

FACILITY INVESTIGATION SUMMARY REPORT

AMAX METALS RECOVERY, INC.

Plaquemines Parish
Agency Interest No. 16817
3607 English Turn Road
Braithwaite, Louisiana

June 2007

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Log In Date	EDMS ID#	Document Description / Identification	Pages
1997.12.22	NONE	EXCLUSION.APPROVAL	2
1998.11.25	NONE	ADMINISTRATIVE ORDER	2
1999.12.00	NONE	FEEDSTOCK AREAS.CLOSURE PLAN	3, 15
2000.01.28	7185648	PHASE II SI PLAN.SECTION 1	4, 18
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2005.12.05	*33710839*	*GW MONITORING MODIFICATION.COMPLETION*	*14*
2006.01.18	*33824476*	*PHASE II SI DL RESPL..CONFIRMATION REPORT*	*24*
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Amax Metals Recovery, Inc.
3607 English Turn Road
Braithwaite, La. 70040
Plaquemine Parish

Facility Investigation Summary Report.

Date on Document: 06/27/2007

For Central File use

Name of requestor: _____

Date of request: _____

1.0 INTRODUCTION

This *Facility Investigation Summary Report* (Document) has been prepared to summarize the results of site investigations, voluntary remedial actions and closure activities conducted at Amax Metals Recovery, Inc.'s (AMRI) Port Nickel facility (Facility), located in Braithwaite, Louisiana. Activities described within this Document were performed to assess the potential for impacts from historical Facility operations to soils and shallow groundwater in the former processing areas and in selected areas adjacent to the processing areas, and to obtain an accurate characterization for the area of the Facility being considered under the Louisiana Department of Environmental Quality's (LDEQ) Voluntary Remediation Program (VRP). The activities described within this Document were performed and completed using sample collection and analytical procedures in conformance with the LDEQ's Risk Evaluation / Corrective Action Program (RECAP) and pursuant to the requirements of the LDEQ's Ready-for-Reuse (RfR) program and VRP.

1.1 OBJECTIVES

Primary objectives of the Document are to 1) summarize existing investigations, voluntary remedial actions and closure activities conducted at the Facility to confirm that conditions are protective of human health and the environment, based on planned future land use and 2) delineate areas that require remedial action under the VRP.

1.2 PROJECT BACKGROUND

AMRI owns and formerly operated a hydrometallurgical manufacturing facility in Braithwaite, Louisiana, which ceased active operations during March of 2000. AMRI provided notification to the LDEQ, confirming the inactive status of the Facility, on March 28, 2000. A copy of AMRI's notification correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, identified on the LDEQ's EDMS as **8632227**.

To facilitate the future use of the Facility, AMRI implemented an accelerated site investigation and closure program consistent with the EPA's Land Revitalization Action Agenda. AMRI's program involved the combined use of LDEQ's RECAP and U.S. EPA Region 6's Corrective Action Strategy (CAS), under the LDEQ's RfR program and VRP. Implementing the project under the LDEQ's RfR program and VRP, enabled AMRI to complete site investigation activities in a timely manner, and provided a method to establish when conditions on the Facility were protective for human health and the environment, based on planned future land use.

1.2.1 Site History

The Facility was first constructed in 1958 by Cuban-American Nickel Company, a Freeport Sulfur (Freeport) subsidiary, to produce nickel from Cuban ore. The Facility utilized a hydrometallurgical technology associated with the Moa Bay (Cuba) laterite project to extract nickel and cobalt with an acid leach at elevated temperatures and pressures. The Facility's original operation, although technically successful, was closed in 1959 as a consequence of the Cuban revolution.

The Facility was idle until 1972 when AMAX, Inc. (AMAX) purchased the plant from Freeport to diversify into production of metallic nickel, cobalt, and copper. The Facility's original operations were expanded to receive very pure forms of these metals which were produced from the nickel, cobalt, and copper mattes supplied from Africa and Australia. AMAX's metals refining operation was unique, and the only pure nickel refining operation in the United States. However, the nickel market went through a highly depressed stage in the early eighties, the matte supply from Africa was lost and the Facility was closed again at the end of 1985.

In 1985, AMAX made a decision to modify the Facility to utilize spent catalysts from petroleum refining operations as the Facility's principal feedstock. A partnership was formed in 1986, between affiliates of AMAX and Shell Oil Company. This partnership was called CRI-MET, and the Facility's name was changed to Amax Metals Recovery, Inc. (AMRI). The Facility utilized the previously converted hydrometallurgical manufacturing operations to produce finished products of aluminum, nickel, molybdenum and other metals.

Prior to ceasing manufacturing operations in 2000, the facility was operated by Cyprus Amax Minerals Company, which was acquired by Phelps Dodge Corporation in 1999. In March of 2007, Freeport-McMoRan Copper & Gold, Inc. (Freeport-McMoRan) acquired Phelps Dodge Corporation. The current Facility owner continues to be AMRI, which is a wholly owned subsidiary of Freeport-McMoRan.

1.2.2 Regulatory Background

During active operations, the Facility's manufacturing activities were considered to be exempt from RCRA Subtitle C permit requirements. Feedstock materials received at the Facility were directly utilized as ingredients in industrial process to produce commercial products. As such, the feedstock materials received by the Facility were considered RCRA-exempt materials under LAC 33:V.109(5)(a)(i). Under such conditions, the Facility was exempt from RCRA Subtitle C permit requirements. The LDEQ acknowledged the RCRA-exempt status of the Facility in a correspondence issued on December 22, 1997. A copy of LDEQ's correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document.

During the fourth quarter of 1998, AMRI made a decision to cease manufacturing operations conducted at the Facility. Based on AMRI's decision to cease manufacturing operations, and to provide all feasible assurances that the Facility's pending closure activities would be protective of human health and the environment, AMRI and the LDEQ agreed to continue the future operation of the Facility under an Administrative Order issued by the LDEQ. The Administrative Order was finalized on November 25, 1998, and revised on November 24, 1999. A copy of LDEQ's original Administrative Order (November 25, 1998) has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document.

The Administrative Order stated:

"FINDINGS OF FACT: I. The Respondent operates a hydrometallurgical manufacturing facility located at 3607 English Turn Road in Braithwaite, Plaquemines Parish, Louisiana. On December 22, 1997, the Department issued a letter to the Respondent indicating that the spent catalyst processed

at the facility is considered a feedstock to the manufacturing process and is therefore not undergoing reclamation. As such, the material is subject to a jurisdictional exclusion under the definition of solid waste."

1.2.3 Administrative Order

The Administrative Order addresses two principal issues which contributed significantly to the design of investigation and closure activities described within this Document. The two issues included the requirement to address the closure of the Facility's feedstock materials storage areas, and the requirement to address investigation of the Facility's identified Solid Waste Management Units (SWMUs).

1.2.3.1 Required Closure Activities

In consideration of AMRI ceasing manufacturing operations at the Facility, the Administrative Order required AMRI to address the closure of the Facility's feedstock materials storage areas.

In accordance with Part I of the Administrative Order, AMRI was required:

"To submit for the Department's approval, by December 03, 1999, revisions to the facility closure plan, dated February 5, 1999. The revisions must address the Notice of Deficiency (NOD), dated August 11, 1999. Furthermore, the submittal must include a revised closure plan, as well as an itemized response to the aforementioned NOD. This plan will not include the Triangular Pad, which was granted RCRA clean closure on January 22, 1997."

AMRI complied with Part I of the Administrative Order in December of 1999, by submitting a revised closure plan for the Facility's feedstock materials storage areas. AMRI's revised closure plan addressed two bulk solids storage tanks, five container storage buildings, and four container storage pads. A copy of AMRI's revised closure plan, *Closure Plan Revision - Feedstock Materials Storage Areas*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document.

AMRI and the LDEQ's review team developed a site-specific confirmation testing procedure, to verify clean closure of the Facility's feedstock materials storage areas. A copy of AMRI's confirmation sampling procedure dated May 15, 2000, *Operating Directive - Cleanup Verification Testing of Feedstock Storage Areas*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, identified on the LDEQ's EDMS as **9815333**.

AMRI completed closure activities in 2001, and received LDEQ's confirmation of clean closure for all eleven (11) storage areas on October 29, 2002. AMRI also addressed the closure the Facility's two (2) dock structures, utilizing surface cleaning procedures within AMRI's revised closure plan. The Facility's dock structures were not identified SWMUs. A copy of LDEQ's October 29, 2002 confirmation correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document.

1.2.3.2 Required Corrective Action Activities

In addition to requiring a mechanism to address the closure of the Facility's feedstock materials storage areas, the Administrative Order required AMRI to submit a site investigation plan to address the sampling of the Facility's Solid Waste Management Units (SWMUs), that were identified as being recommended for investigation in AMRI's revised RCRA Facility Assessment (RFA) report, dated March 21, 1994.

In accordance with Part II of the Administrative Order, AMRI was required:

> "To submit for the Department's approval, within sixty (60) days after receipt of this ADMINISTRATIVE ORDER, a Site Investigation (SI) Plan to address sampling of those units identified in the March 21, 1994 revised RCRA Facility Assessment (RFA) Report, conducted by the contractors for the USEPA. Alternately, for those units identified during the RFA that are now regulated under another environmental program, the Respondent must provide an explanation of the mechanism to be used in closing, or previously used to close, said areas that is protective of human health and the environment."

Following review of the Facility's revised RFA report, it was determined that 32 of the Facility's 58 identified SWMUs were recommended for investigation. To facilitate the evaluation and prioritization of the 32 SWMUs recommended for investigation, AMRI developed a summary document entitled, *Status of Identified Solid Waste Management Units, Management and Investigation Summary*. The summary document, dated January 28, 2000, was utilized as a reference source during the design of AMRI's site investigation activities at the Facility. A copy of the summary document has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document.

AMRI complied with Part I of the Administrative Order on January 28, 2000, by submitting a site investigation plan, *Site Investigation Plan*, addressing AMRI's selected 32 SWMUs. A copy of AMRI's site investigation plan has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is recorded on the LDEQ's EDMS as **7185648, 7186109 and 7186280.**

1.2.3.3 Termination of Administrative Order

On October 13, 2000, the LDEQ acknowledged that AMRI had met all requirements of the Administrative Order, and terminated the Administrative Order. A copy of the LDEQ's correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is recorded on the LDEQ's EDMS as **27548147.**

Following the termination of the Administrative Order, AMRI initiated closure activities under its revised closure plan and post-closure requirements under AMRI's existing solid waste permits (LDEQ Permits P-0135 & P-0136). Site investigation activities to address the Facility's selected 32 SWMUs were initiated under AMRI's site investigation plan, and modified based on the results obtained during initial investigation activities.

2.0. CHARACTERIZATION ACTIVITIES

The Facility is located in Braithwaite, Louisiana, which is in Plaquemines Parish. The Facility is comprised of approximately 1,100 acres on the east bank of the Mississippi River, approximately 15 miles south of New Orleans, Louisiana. The geographical coordinates of the Facility are 29° 51' 40" N and 89° 57' 55" W.

2.1 PROPERTY DESCRIPTION

As previously noted, activities described within this Document were performed to assess the potential for impacts from historical Facility operations to soils and shallow groundwater in the former processing areas and in selected areas adjacent to the processing areas, and to obtain an accurate characterization for those areas of the Facility being considered under the LDEQ's VRP.

The following provides a property description for the areas of the Facility evaluated for consideration under the LDEQ's VRP.

Commencing at a point on the west Right of Way line of La. State Hwy No. 39 at it's intersection with the northerly line of Lot 3 of St. Clair Plantation, said point being the point of beginning; thence along said westerly Right of Way line S. 26° 09'23" W. a distance of 3104.74 feet to it's point of intersection with the northerly line of Lot 18 of Mon Plaisir Plantation; thence along said northerly line N. 64° 17'54" W. a distance of 2541.51 feet to it's intersection with a line which is parallel to and 25' east of the centerline of La. State Hwy. No. 3137; thence in a northerly direction along said parallel line a distance 3265.24 feet to its intersection with the northerly line of Lot 3 of St. Clair Plantation; thence S. 63° 49'55" E. along said northerly line a distance of 3451.39 feet to the point of beginning, all situated in T 13 S – R12 E Section 6 and T 14 S – R 12 E Sections 1,2 & 3.

Less and except:

A certain parcel of land situated in T 14 S – R 12 E Section 2, being part of Lot 1 of St. Clair Plantation and being the property of the Parish of Plaquemines measuring 205.00 feet in width along La. State Hwy. No. 3137 by 130.00 feet in depth and containing 0.568 acres and shown on plan of H.B. McCurdy, Jr., R.L.S., dated Sept. 22, 1986.

Less and except:

A certain parcel of land situated in T 14 S – R 12 E Section 3, being part of Lots 21 & 22 of Mon Plaisir Plantation and being the property of Entergy, Inc. (formerly La. Power & Light Co.) measuring approximately 380 feet in width along La. State Hwy. 3137 by approximately 400 feet in depth along it's northerly line and 410 feet in depth along it's southerly line and containing 3.3 acres more or less.

2.2 SITE SETTING

The Facility is located in a rural area of Plaquemines Parish, Louisiana that is zoned for heavy industrial activity. The Facility is comprised of approximately 1,100 acres and is located on the east bank of the Mississippi River, 1.5 miles southwest of Braithwaite, Louisiana. AMRI utilizes approximately 120 acres of the site for manufacturing operations and the remaining acreage remains undeveloped.

The Facility's property is bounded on the north by agricultural farmlands, to the south by sparse housing, to the east by the Forty Arpent Canal and wetlands, and to the west by the Mississippi River. The majority of property within a three-mile radius of the Facility remains undeveloped at this time. There are several small residential communities within the region (e.g., Braithwaite, Scarsdale, and St. Clair), with more populated areas are located across the Mississippi River in Belle Chasse.

Figure 2-1 of this Document, presents a map which shows the general vicinity of the Facility in relationship to the Mississippi River.

Figure 2-2 of this Document, presents a plot plan showing the location of buildings, former process-related units and the boundary of the area of the Facility being considered under the LDEQ'S VRP. The approximate 215 acre area of the Facility being considered under the LDEQ'S VRP is contained within the Facility's property boundary, with the exception of the northern limits, which run along the Facility's north property boundary.

2.3 SOURCE CHARACTERIZATION

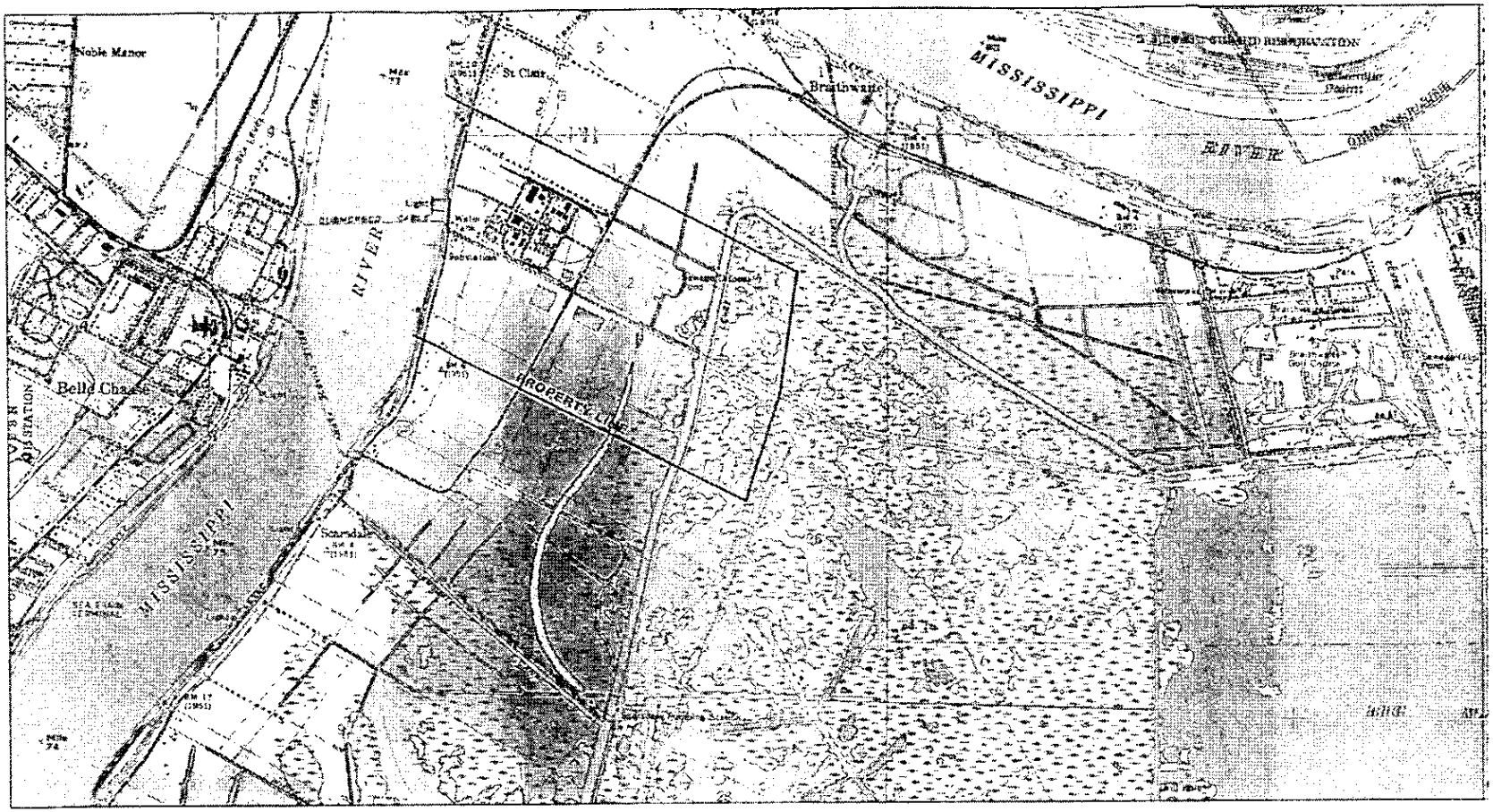
AMRI reviewed historic operations at the Facility to select constituents of concern used during site investigations, voluntary remedial actions and closure activities conducted at the Facility. A description of historic operations conducted at the Facility is provided within the following subsections of this Document.

2.3.1 Freeport Metal Sulfide Concentrate Process (1957 to 1958)

In 1957-1958, Freeport Sulphur Co. established the Facility to process metal sulfide concentrates derived from ores from the Moa Bay (Cuba) laterite project. The Facility's task was to leach nickel and cobalt from the sulfide concentration and produce these two metals in a high purity form. The Facility was closed after several months of operation when the Cuban feedstock could no longer be shipped to the United States.

2.3.2 Nickel Refining Process (1974 to 1985)

The Facility's nickel refining process was operated from 1974 to 1985. The Facility received a pre-processed concentrate (termed matte) containing sulfides of nickel, cobalt, and copper. The incoming matte was crushed, ground, and blended in proportion to the desired production rate for each metal. The slurry of the ground matte was then subjected to a multistage leaching process to extract the three metals in an aqueous sulfate solution by a combination of acid leaching, exchange reactions, and oxidative leaching.



SITE VICINITY MAP

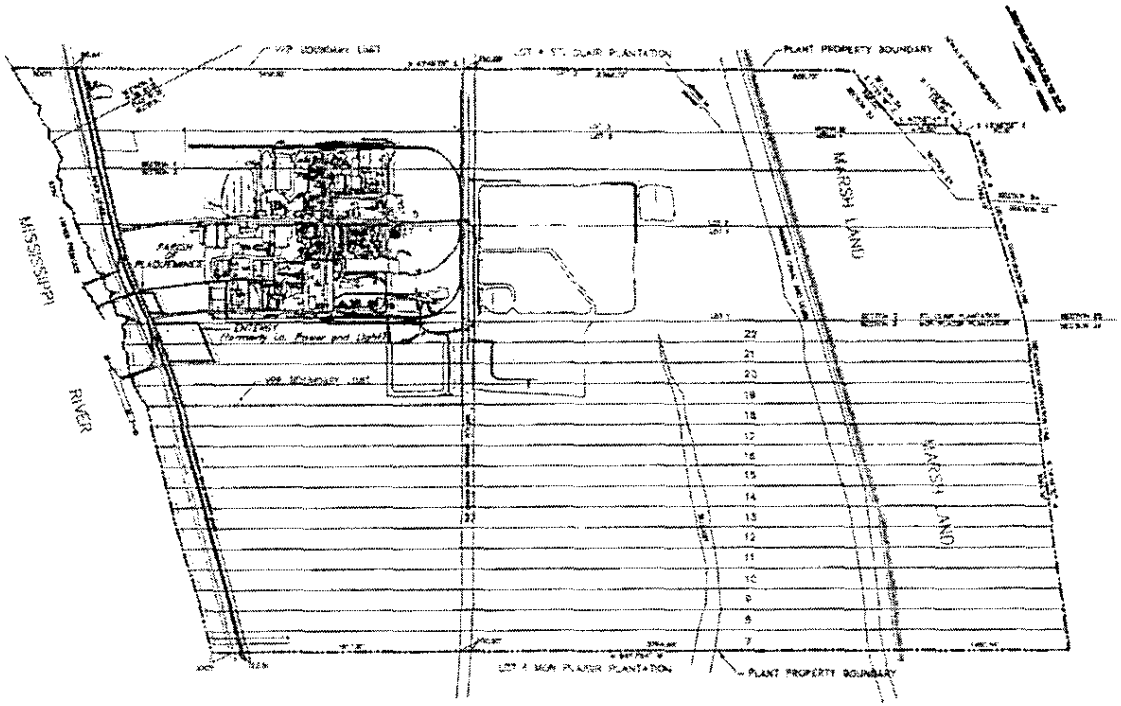
2000 1000 0 2000 4000 6000

SCALE 1" = 2000'

FIGURE 2-1

Nelson	WALDEMAR S. NELSON AND COMPANY INCORPORATED ENGINEERS AND ARCHITECTS 1200 ST. CHARLES AVE. NEW ORLEANS, LA	AMAX METALS RECOVERY, INC. SITE VICINITY MAP BRAITHWAITE, LA.

DATE	SCALE	JOB NO.	DRAWING NO.
5-23-07	SHOWN	20040203	DS15D_2004



BOUNDARY PLAN

SCALE: 1" = 1000'

FIGURE 2-2

WALDEMAR S. NELSON AND COMPANY
INCORPORATED
ENGINEERS AND ARCHITECTS
1200 ST. CHARLES AVE. NEW ORLEANS, LA.

AMAX METALS RECOVERY, INC.
BRAITHWAITE, LA.

VRP AND PLANT PROPERTY BOUNDARIES

DATE	SCALE	JOB NO.	DRAWING NO.
3-27-07	SHOWN	20040203	Fig 2-2

PLOT DATE: 3/27/07 12:00 P.M. ACAD FILE: fig 2-2.DWG

2.3.3 Metals Manufacturing Process (1986 to 2000)

The Facility's hydrometallurgical manufacturing processes utilized spent catalysts resulting from petroleum refining operations as ingredients in an industrial process to produce commercial products. As previously noted, the spent catalysts received as feedstock materials by the Facility were considered RCRA-exempt materials under LAC 33:V.109(5)(a)(i). Under such conditions, the Facility was exempt from RCRA Subtitle C regulations.

The spent catalysts consisted of an alumina (Al_2O_3) base with either NI-Mo oxides or Co-Mo oxides as the active agent. The Facility's hydrometallurgical processes converted spent catalysts into four principal products: Molybdenum Oxide (MoO_3), Vanadium Oxide (V_2O_4), Alumina Trihydrate (($Al_2O_3 3H_2O$), and Nickel-Cobalt Concentrate. The incoming catalyst feedstock was ground and subjected to a multistage process to extract the products by a combination of leaching, precipitation, separation, and drying.

2.3.4 Other Processes

In addition to the main metals recycling processes, the Facility processed small amounts of secondary materials containing chromium and aluminum. A minimal amount of solid waste was generated at the Facility. Typical wastes that were generated consist of wooden pallets, bags and other containers.

2.4 CONSTITUENTS OF CONCERN

Based on the previously defined historic operations at the Facility and discussions with the LDEQ's project review team during pre-project planning meetings, AMRI selected the following three (3) groupings of Constituents of Concern (COCs) for use during site investigation activities, voluntary remedial actions and closure activities conducted at the Facility.

2.4.1 Facility COCs (Qualified Historic Operations)

AMRI determined that for site investigation activities, voluntary remedial actions and closure activities conducted on areas of the Facility with potential impact from qualified past operations, the appropriate grouping of constituents to be used for characterization included Facility Inorganic COCs; antimony, arsenic, barium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum and nickel and Facility Organic COCs; benzene, chrysene, ethyl benzene, naphthalene, phenanthrene, pyrene, toluene and xylene. This grouping of constituents was designated, "Facility COCs."

2.4.2 COCs & TPH (Qualified Historic Operations & Hydrocarbons)

AMRI determined that for site investigation activities, voluntary remedial actions and closure activities conducted on areas of the Facility with potential impact from qualified past operations involving petroleum hydrocarbon usage, the appropriate grouping of constituents to be used for characterization included Facility Inorganic COCs, Facility Organic COCs, TPH Indicator COCs; Total Petroleum Hydrocarbon - Gasoline (TPH-G), Total Petroleum Hydrocarbon - Desiel (TPH-D) and RECAP Indicator

Compounds for TPH-D; acenaphthene, anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, benzo(k)fluoranthene, benzo(b)fluoranthene, benzo(a)anthracene, fluoranthene, naphthalene and pyrene. This grouping of constituents was designated, "Facility COCs & TPH."

2.4.3 Facility COCs & Organics (Non-Qualified Historic Operations & VRP)

AMRI determined that for site investigation activities, voluntary remedial actions and closure activities conducted on areas of the Facility with potential impact from non-qualified past operations, the appropriate grouping of constituents to be used for characterization, included Facility Inorganic COCs, Facility Organic COCs, Volatile Organic Compounds (VOCs) and Semi-Volatile Organic Compounds (S-VOCs). This grouping of constituents was also utilized to characterize areas of the Facility under consideration for the LDEQ's VRP. This grouping of constituents was designated, "Facility COCs & Organics."

2.5 SITE GEOLOGY

The Facility's geology is characterized by a 20 to 30 foot thick surface stratum of clay with has a permeability of 1×10^{-7} cm/sec or less. These low permeable clays contain minor organic material that is limited in lateral extent across the site and consist of wood, roots, and humus at typical depths of 10 to 22 feet below ground surface. The organic material does not exist as distinct layers within the clay matrix.

The overlying clays act as a confining layer to very soft to soft clays that contain sand and silt lenses and layers down to a depth of approximately 80 feet. From a depth of 80 to 90 feet, layers of loose to dense silty sand and sand are typically encountered across the site. At depths from 90 to approximately 190 feet, the strata are more medium-stiff to very-stiff clays with silt and sand layers. Below 190 feet and to 220 feet, the limit of any known borings at the site, very dense sand is typically identified.

In August 1999, AMRI conducted a site-specific groundwater elevation study to identify the first apparent permeable zone for the Facility. Piezometers were installed adjacent to three existing groundwater monitoring wells. The site-specific groundwater elevation study was conducted as a condition of AMRI's reapplication of the Facility's solid waste permit. The piezometers were screened in a low permeable clay matrix that contains a minor fraction of organic material limited to areal extent and typically occurring at depths of 10 to 20 feet below ground surface.

The Facility's existing groundwater monitoring wells are screened in a permeable zone underlying the site which consists of low permeable clays interbedded with silt and sand lenses and layers at typical depths of 30 to 40 feet below ground surface. Results of AMRI's site-specific groundwater elevation study identified the first apparent permeable zone at typical depths of 30 to 40 feet below ground surface. A copy of AMRI's site-specific groundwater elevation report, *Site-Specific Groundwater Elevation Study*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, is identified on the LDEQ's EDMS as **27175568**.

2.6 HYDROLOGY & GROUNDWATER CLASSIFICATION

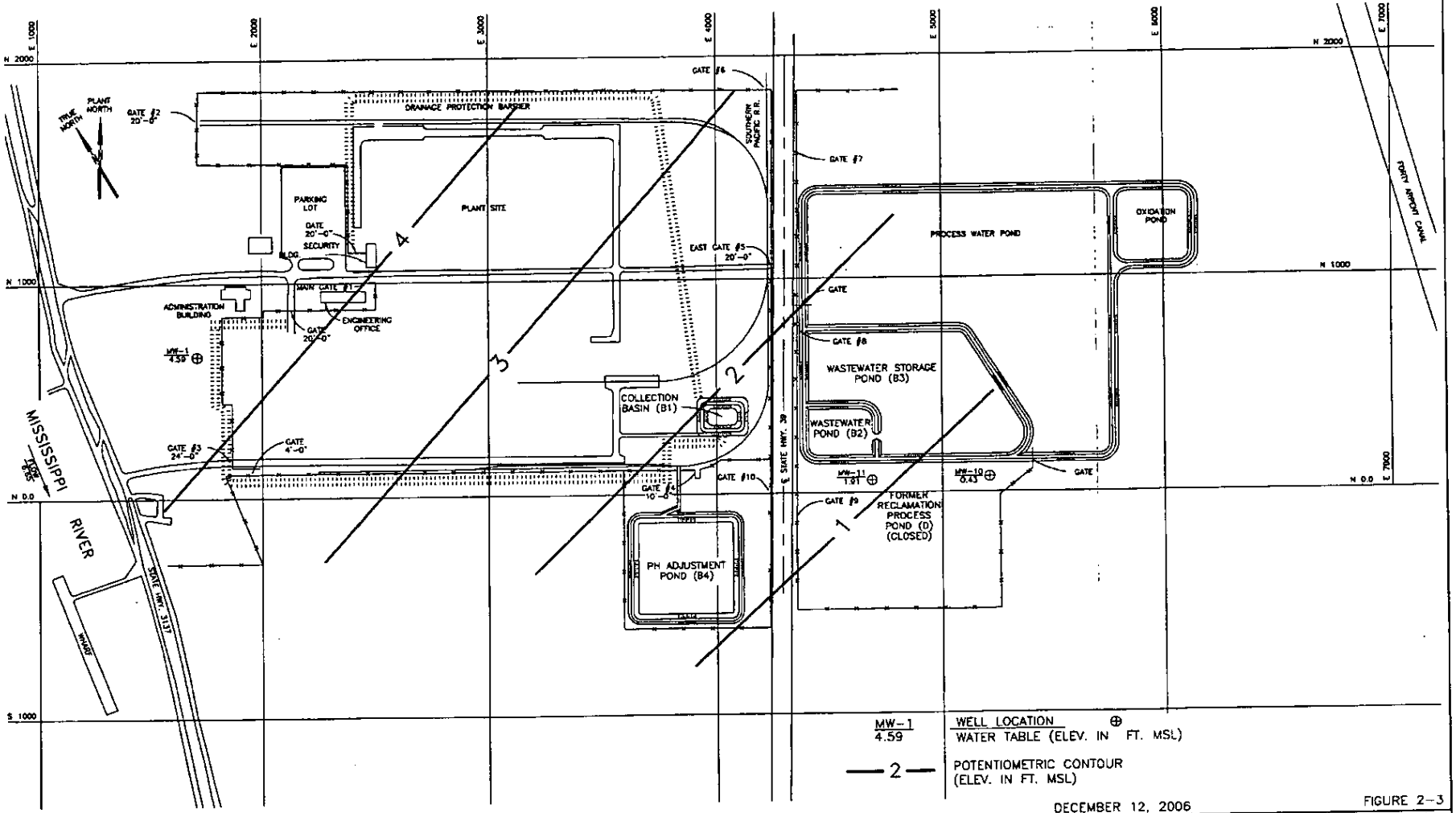
The Facility's groundwater table is typically within three feet of soil surface as determined by groundwater monitoring elevations for existing monitoring wells at the Facility. At typical depths ranging from 10 to 22 feet below ground surface, minor organic material, including wood, roots, and humus is sporadically identified in a low permeable clay matrix. The organic materials do not appear as separate layers within the clays and are higher in permeability relative to the other near surface soils beneath the Facility. The low permeable clays underlying the Facility are inter-bedded with silt and sand lenses and layers at a depth of 28 to 38 feet below the surface which appear to represent the first distinct permeable zone underlying the Facility.

The Facility is located between the Mississippi River to the west and the Forty Arpent Canal to the east. The mean elevation of the Mississippi River on an annual basis is always above two feet mean sea level and the Canal is maintained at an elevation of approximately minus four feet. Due to the proximity of the Facility to the Mississippi River, seasonal river stage fluctuations can produce a variation in groundwater flow parameters. However, elevation data from onsite groundwater monitoring wells indicates the flow direction across the Facility is generally southeast from the Mississippi River towards the Forty Arpent Canal. A shallow groundwater potentiometric map for the Facility is included as **Figure 2-3** of this Document.

As per RECAP regulations, groundwater is classified based on its current and potential use, maximum sustainable yield and total dissolved solids concentration. Groundwater in the first apparent permeable zone (uppermost water bearing zone) of the Facility is not likely to be used for any purpose, domestic or industrial, nor is it likely to be suitable for use as a source of drinking water or process water due to its low available yield. In-situ falling and rising head, hydraulic conductivity (slug) tests were performed on 2004 in order to obtain a site-specific estimate of maximum sustainable yield in the uppermost water bearing zone as per RECAP, Appendix F. As per the hydraulic conductivity and estimated well yield calculations provided in **Appendix A** of this Document, less than 800 gallons per day of water could be obtained from this zone. Therefore, as defined in Section 2.10 of RECAP, the groundwater in the uppermost water bearing zone of the Facility is Groundwater Classification 3 (GW3).

2.7 WATER WELL SURVEY

A listing of all registered groundwater wells within a one-mile radius of the Facility was obtained from the Louisiana Department of Transportation and Development (LDOTD). All water wells, operating or abandoned, registered with the LDOTD and located within one mile of AMRI's Facility are described within **Appendix B** of this Document. Twenty three (23) wells are located within the Facility's perimeter boundary and all 23 of these wells are geographically depicted within the Facility's property boundary. Of the 23 wells depicted within the Facility, 18 have been plugged and abandoned. The remaining fie (5) wells are identified as 50031Z, 5460Z, 5461Z, 5028Z and 5029Z. Wells 5028Z and 5029Z are scheduled to be plugged and abandoned in July of 2007. Recorded shot holes and seismic lines, and oil and/or gas wells, operating or abandoned were not discovered within 2,000 feet of the Facility.



DECEMBER 12, 2006

FIGURE 2-3

WALDEMAR S. NELSON AND COMPANY
INCORPORATED
ENGINEERS AND ARCHITECTS
1200 ST. CHARLES AVE. NEW ORLEANS, LA.

AMAX METALS RECOVERY, INC. BRAITHWAITE, LA.

SOLID WASTE MONITORING WELLS
WATER LEVEL ELEVATIONS

DATE	SCALE	JOB NO.	DRAWING NO.
2-07-07	SHOWN	20040203	FIG. 2-3

PLOT DATE: 2/7/07 12:55 P.M. ACAD FILE: FIGURE 2-3.DWG

3.0 FACILITY INVESTIGATION & CLOSURE ACTIVITES

Prior to the development of the Facility's site investigation (SI), AMRI conducted a review of existing file information regarding closure activities, groundwater monitoring programs and wastewater/storm water discharge monitoring programs conducted at the Facility. To date, all available information indicates that current human health exposures are within acceptable risk limits, and existing monitoring programs have demonstrated that there is no adverse impact to groundwater at the Facility.

The LDEQ concurred with AMRI's interpretation of existing file information by issuing a positive report submittal to the U.S. Environmental Protection Agency (US EPA) for the Government Performance Results Act of 1993 (GPRA) environmental indicators CA 725 & CA 750. A copy of the LDEQ's GPRA submittal to the US EPA, *Documentation of Environmental Indicator Determination*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **29005902**. The LDEQ issued a correspondence to AMRI, dated September 09, 2003, stating that current human exposures (CA 725) and migration of potential contaminated groundwater (CA 750) were under control at the Facility. A copy of the LDEQ's correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document.

3.1 PHASED APPROACH TO FACILITY SI

As previously noted, conditions of the Administrative Order contributed significantly to the design of Facility's SI activities. Specifically, the conditions requiring AMRI to address the closure of the Facility's feedstock materials storage areas and the investigation of the Facility's identified SWMUs created potential for redundant investigation activities. The potential for redundancy was created by several of the Facility's 32 identified SWMUs either being identified as feedstock materials storage areas, or in direct proximity to feedstock materials storage areas. To avoid redundancy during site investigation activities and comply with conditions of the Administrative Order and requirements of AMRI's existing permitted regulatory programs, the Facility's SI strategy was designed to be implemented under a phased approach.

AMRI's phased Facility SI approach, included:

Phase I	Site-Specific Groundwater Elevation Study
Phase II	Closure of Feedstock Materials Storage Areas, Initial Investigation of Selected SWMUs, Supplemental Investigations of Selected SWMUs, and Voluntary Remedial Actions
Phase III	Closure of Permitted Solid Waste Units
Phase IV	Investigation of Areas of Interest

Closure and investigation activities conducted during all phases of the Facility's SI were completed using sample collection and analysis procedures in conformance with requirements defined within the LDEQ's RECAP, RfR program and VRP.

The following subsections of this Document further describe the closure and investigation activities conducted during each phased of the Facility's SI.

3.2 PHASE I ACTIVITIES

Phase I of the Facility's SI involved the implementation of a site-specific groundwater elevation study.

3.2.1 Phase I - Site-Specific Groundwater Elevation Study

The Facility's Site-Specific Groundwater Elevation Study, which was implemented in August of 1999, was conducted as a condition of AMRI's reapplication of the Facility's solid waste permit, to document potential vertical and/or horizontal movement of groundwater between the Facility's upper water-bearing zones. An element of the study was to validate AMRI's preliminary conceptual site model, which was based on the presence of a facility-wide low permeability underlying clay strata which restricts the vertical and lateral mobility of any potential releases.

The study was also used to obtain additional geotechnical data, specific to the Facility's down-gradient facility boundary. AMRI submitted quarterly reports and a final project summary report to the LDEQ, to review groundwater elevation data compared to rainfall and river elevations for the Mississippi river. A copy of AMRI's final project summary report, *Site-Specific Groundwater Elevation Study* (February 01, 2001), has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **27175568**.

The Facility is located in a unique geologic setting, underlain at shallow depths by extremely low permeable clays. The upper 20 feet of sediment at the Facility does not contain a defined permeable zone consisting of humus that is commonly identified at local area sites adjacent to the Mississippi River. Any organic material that does occur within this shallow clay matrix underlying the Facility is limited in lateral extent. Silt and sand lenses and layers that are identified in the soft clays which typically occur at starting depths of 30 feet bgs are recognized as the first permeable zone underlying the Facility. The groundwater elevation data, along with permeability data from across the Facility, indicate the upper silt and sand lenses and layers within these soft clays are the first defined permeable zone for groundwater monitoring at the Facility.

The LDEQ acknowledged agreed with the results of AMRI's site-specific groundwater elevation study, by approving the placement of the Facility's modified solid waste groundwater monitoring system (Solid Waste Permit P-0136) in the first defined permeable zone (30 feet bgs). A copy of the LDEQ's June 29, 2005 approval correspondence, *Closure Plan Approval*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **33023960**.

AMRI completed installation of the groundwater monitoring system in December of 2005. A copy of AMRI's December 05, 2005 submittal, *Notice of Completion - Groundwater Monitoring System Modification*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **33710839**.

3.3 PHASE II ACTIVITIES

Phase II of the Facility's SI involved the implementation of three (3) separate activities, including closure of the Facility's feedstock materials storage areas, initial investigation of selected SWMUs and supplemental investigations of selected SWMUs. Closure and investigation activities conducted during Phase II of the Facility's SI were completed using sample collection and analysis procedures in conformance with requirements defined within the LDEQ's RECAP, RfR program and VRP.

As previously noted, conditions of the Administrative Order contributed to the design of Facility's SI. Specifically, several of the Facility's 32 identified SWMUs were either identified as feedstock materials storage areas, or in direct proximity to feedstock materials storage areas. Therefore, Phase II of the Facility's SI was designed to be implemented in conjunction with confirmation sampling conducted during closure of the Facility's feedstock materials storage areas. Further definition regarding the proximity of Facility SWMUs and feedstock materials storage areas is provided in Section 3.2.1 of this Document.

Investigations conducted during Phase II of the Facility's SI were also used to acquire geotechnical and analytical data for soil borings to further evaluate AMRI's conceptual site model and to complete the design of a facility wide investigation approach to be implemented during a subsequent phases of the Facility's SI. It was also anticipated that results obtained during Phase II of the Facility's SI would be used to confirm AMRI's selected Constituents of Concern (COCs).

3.3.1 Phase II - Closure of Feedstock Materials Storage Areas

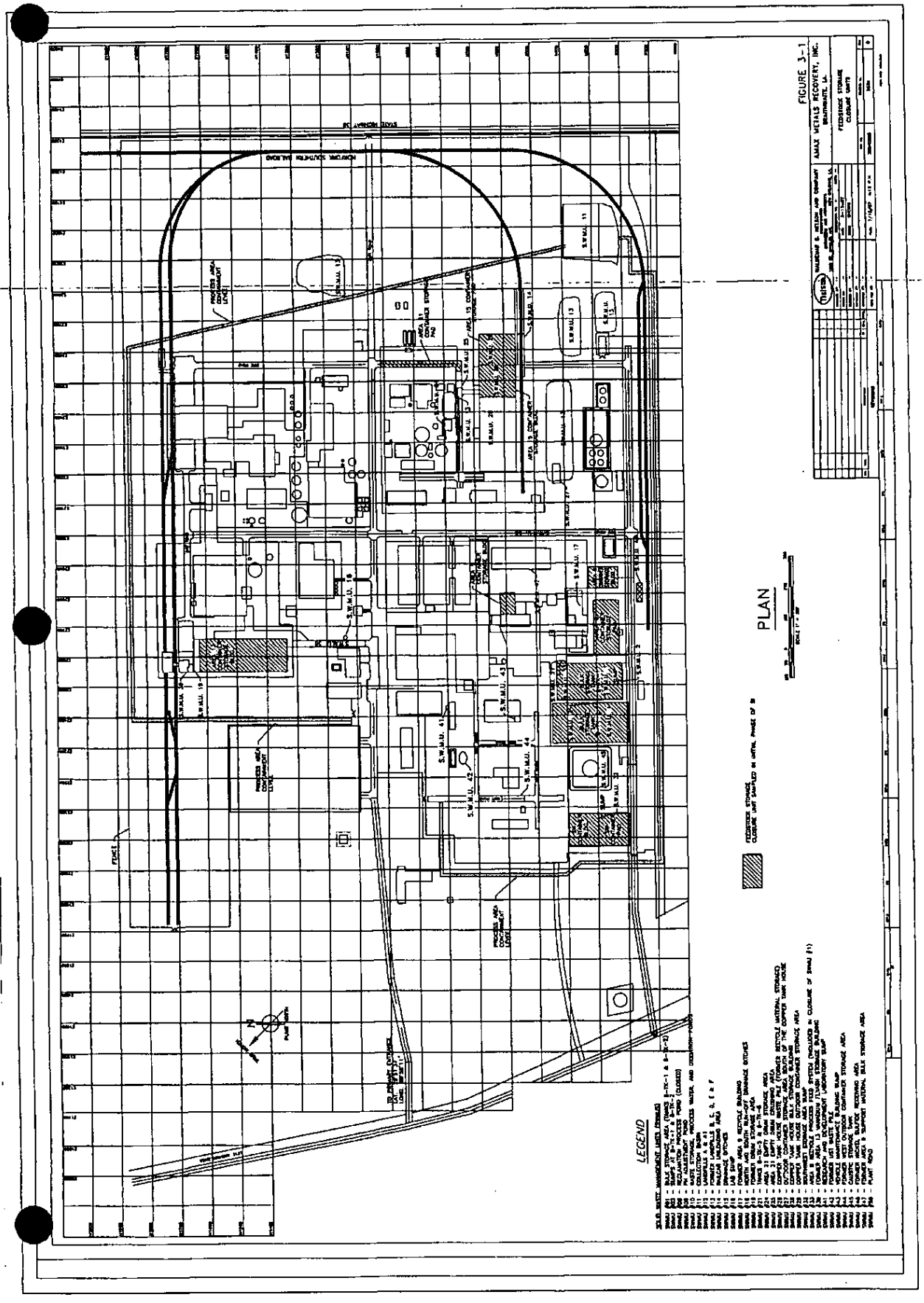
Closure of the Facility's feedstock materials storage areas was conducted in accordance with AMRI's revised closure plan for the Facility's feedstock materials storage areas. A copy of AMRI's revised closure plan, *Closure Plan - Feedstock Materials Storage Areas*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document. AMRI's revised closure plan addressed eleven (11) feedstock materials storage areas, including two (2) bulk solids storage tanks, five (5) container storage buildings, and four (4) container storage pads. A plot plan, identifying locations of the Facility's for sampling activities conducted during Phase II of the Facility SI, are included as **Figure 3-1** of this Document.

The following subsections of this Document contain listings of feedstock materials storage areas, and describe the relationship between the feedstock materials storage areas and the Facility's 32 identified SWMUs. As described in the following, 14 SWMUs were capable of being investigated in conjunction with confirmation sampling activities conducted during feedstock materials closure activities under Phase II of Facility's SI.

3.3.1.1 Bulk Solids Storage Tanks

The Facility's two (2) identified bulk storage tanks, included:

Bulk Storage Tank 8-TK-1, SWMU 01
Bulk Storage Tank 8-TK-2, SWMU 01


PLAN
LEGEND
FIGURE 3-1
AMAX METALS RECOVERY, INC.

Bulk Storage Tanks 8-TK-1 and 8-TK-2 are also designated as SWMU 01. Both tanks have sumps, Sumps in Tanks 8-TK-1 & 8-TK-2, which are designated as SWMU 02. Confirmation sample locations for the two tanks are directly adjacent to Tanks 8-TK-5 and 8-TK-6 (SWMU 21), Area 8 Recycling Process Feed System (SWMU 33) and Caustic Storage Tank (SWMU 45).

3.3.1.2 Container Storage Buildings

The Facility's five (5) identified container storage buildings, included:

Area 8 Storage Building
Area 9 Storage Building
Area 13 Storage Building
Area 15 Storage Building, SWMU 28
Southwest Storage Building

Area 15 Storage Building (Copper Tank House Bulk Storage Building) is designated SWMU 28, and confirmation sample locations are directly adjacent to the Railcar Unloading Area (SWMU 14) and Copper Tank House Waste Pile (SWMU 26). The Southwest Storage Building has a sump, identified as the Southwest Storage Area Sump (SWMU 32). Area 13 Storage Building is contiguous to the Drum Storage Area (SWMU 19) and Area 13 Vanadium Flyash Storage Building (SWMU 39).

3.3.1.3 Container Storage Pads

The Facility's four (4) identified container storage pads, included:

Area 8 Container Storage Pad
Area 15 Container Storage Pad, SWMU 29
Southwest Container Storage Pad
Area 21 Container Storage Pad

Area 15 Container Storage Pad (Copper Tank House Outdoor Container Storage Area) is designated as SWMU 29. Area 15 Container Storage Pad is contiguous to Area 15 Storage Building, and confirmation sample locations are also directly adjacent to the Railcar Unloading Area (SWMU 14) and Copper Tank House Waste Pile (SWMU 26). Plant Roads (SWMU 58) are in direct proximity or contiguous to nearly all the feedstock materials storage area. The rationale for recommending investigation of the plant roads was based on the historic transfer operations of feedstock materials between storage areas.

AMRI's feedstock materials closure plan was implemented to confirm the clean closure of surfaces and above ground structures associated with the Facility's eleven (11) feedstock materials storage units. AMRI also addressed the closure the Facility's two (2) dock structures, utilizing surface cleaning procedures within AMRI's revised closure plan. The Facility's dock structures were not identified SWMUs.

The investigation of subsurface soils and water associated with the Facility's feedstock materials storage areas was initiated in conjunction with the initial site investigation of selected SWMUs under Phase II of the Facility's SI. Description of

subsurface investigation activities associated with the Facility's feedstock materials storage areas is provided in Subsection 3.3.2 of this Document.

A site-specific confirmation testing procedure was developed to verify clean closure of surfaces and above ground structures associated Facility's feedstock materials storage areas. A copy of AMRI's confirmation sampling procedure, *Operating Directive - Cleanup Verification Testing of Feedstock Storage Areas*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, identified on the LDEQ's EDMS as **9815333**.

AMRI completed closure of surfaces and above ground structures for the Facility's feedstock materials storage areas in 2001 and submitted a closure report to the LDEQ on March 01, 2001. A copy of AMRI's closure report, *Closure Report - Rinsate Sampling of Feedstock Materials Storage Areas*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, identified on the LDEQ's EDMS as **17323984**.

AMRI received the LDEQ's confirmation of clean closure for all eleven (11) feedstock materials storage areas on October 29, 2002. A copy of LDEQ's confirmation correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document.

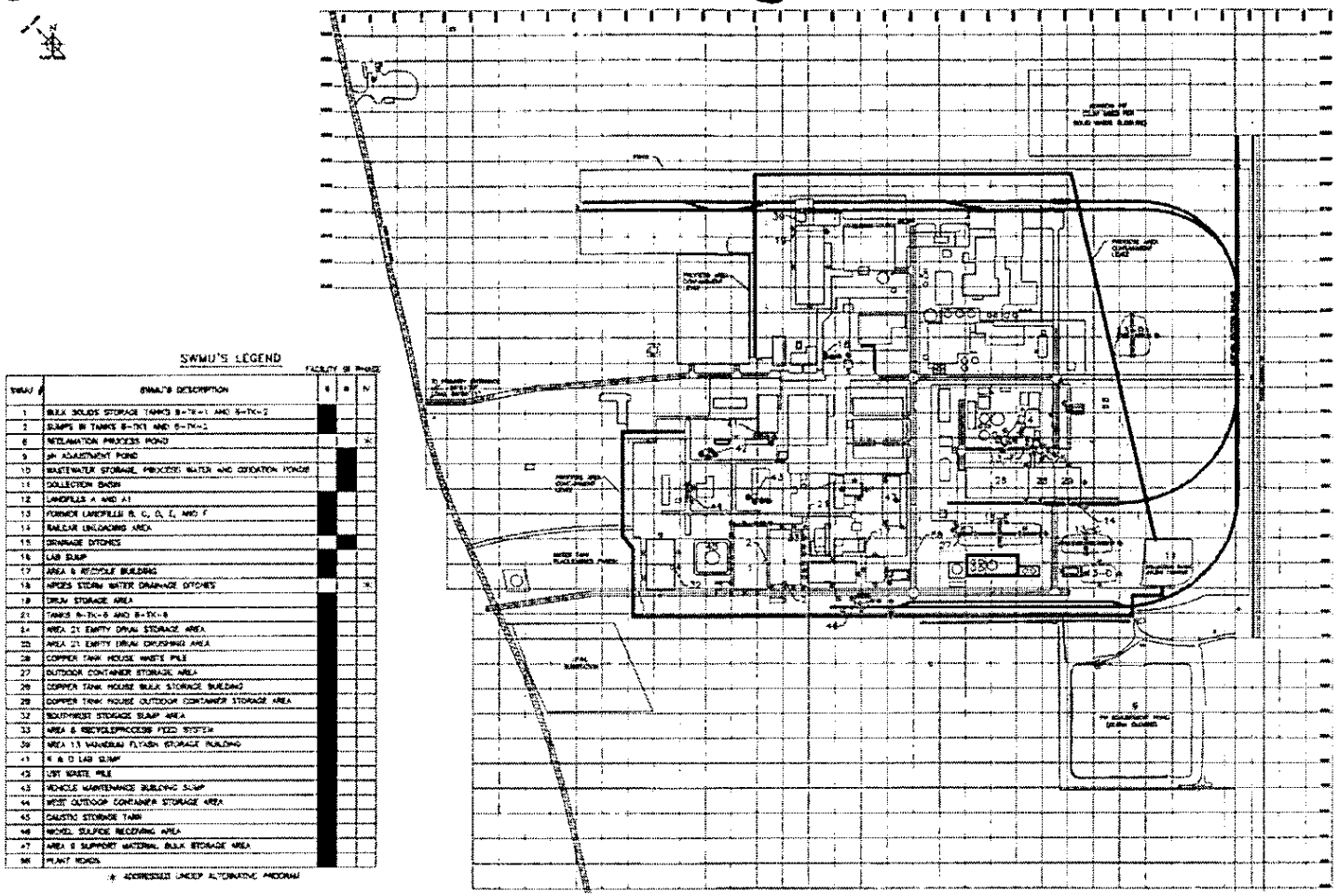
3.3.2 Phase II - Initial Investigation of Selected SWMUs

The initial investigation of selected SWMUs involved the sampling of soils and water adjacent to 21 of the Facility's 32 identified SWMUs, and the subsurface soils and water associated with the Facility's eleven (11) feedstock materials storage areas. The Facility's eleven (11) feedstock materials storage areas undergoing closure were either identified as SWMUs or located in direct proximity to one or more of the Facility's 32 identified SWMUs.

Therefore, investigation activities for Phase II of the Facility's SI were conducted in conjunction with confirmation sampling to support the clean closure of the Facility's feedstock materials storage areas. AMRI's initial investigation of selected SWMUs was also utilized to establish current background conditions for the Facility. Plot plans, identifying boring locations for sampling activities conducted during Phase II of the Facility SI, are included as **Figure 3-2a and Figure 3-2b** of this Document.

Initial investigation activities conducted during Phase II of the Facility's SI were conducted in accordance with AMRI's initial investigation plan, submitted on January 28, 2000. A copy of AMRI's initial investigation plan, *Site Investigation Plan*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **7185648, 7186109 and 7186280**.

AMRI and the LDEQ's project review team made limited revisions to the initial investigation plan during 2001, and plan was approved by the LDEQ on March 01, 2002. A copy of AMRI's response to the LDEQ's approval correspondence, including requested revisions to the initial investigation plan, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **22249368**.



SWMU'S LEGEND

SWMU #	SWMU'S DESCRIPTION	FACILITY OF PHASE I	II	III
1	BULK SOLIDS STORAGE TANKS 8-TK-1 AND 8-TK-2	■		
2	SUMPS IN TANKS 8-TK1 AND 8-TK-2	■		
8	RECLAMATION PROCESS POND			*
9	pH ADJUSTMENT POND		■	
10	WASTEWATER STORAGE, PROCESS WATER AND OXIDATION PONDS		■	
11	COLLECTION BASIN		■	
12	LANDFILLS A AND A1	■		
13	FORMER LANDFILLS B, C, D, E, AND F	■		
14	RAILCAR UNLOADING AREA	■		
15	DRAINAGE DITCHES	*	■	
16	LAB SUMP	■		
17	AREA 6 RECYCLE BUILDING	■		
18	NPDES STORM WATER DRAINAGE DITCHES			*
19	DRUM STORAGE AREA	■		
21	TANKS 8-TK-5 AND 8-TK-6	■		
24	AREA 21 EMPTY DRUM STORAGE AREA	■		
25	AREA 21 EMPTY DRUM CRUSHING AREA	■		
26	COPPER TANK HOUSE WASTE PILE	■		
27	OUTDOOR CONTAINER STORAGE AREA	■		
28	COPPER TANK HOUSE BULK STORAGE BUILDING	■		
29	COPPER TANK HOUSE OUTDOOR CONTAINER STORAGE AREA	■		
32	SOUTHWEST STORAGE SUMP AREA	■		
33	AREA 6 RECYCLE/PROCESS FEED SYSTEM	■		
39	AREA 13 MANDRAN FLYASH STORAGE BUILDING	■		
41	K & D LAB SUMP	■		
42	UST WASTE PILE	■		
43	VEHICLE MAINTENANCE BUILDING SUMP	■		
44	WEST OUTDOOR CONTAINER STORAGE AREA	■		
45	CAUSTIC STORAGE TANK	■		
46	NICKEL SULFIDE RECEIVING AREA	■		
47	AREA 6 SUPPORT MATERIAL BULK STORAGE AREA	■		
98	PLANT ROADS	■		

* ADDRESSED UNDER ALTERNATIVE MEDIUMS

LEGEND

- ● FACILITY COC's AND ORGANICS
- ● FACILITY COC's AND TPH
- ● FACILITY COC's
- ZZZZZZZ TRENCHES
- — INTERNAL DRAINAGE DITCH SYSTEM

SITE PLAN

FIGURE 3-2A
ALLAX METALS RECOVERY
PHASE II ACTIVITIES
SAMPLE LOCATION PLAN

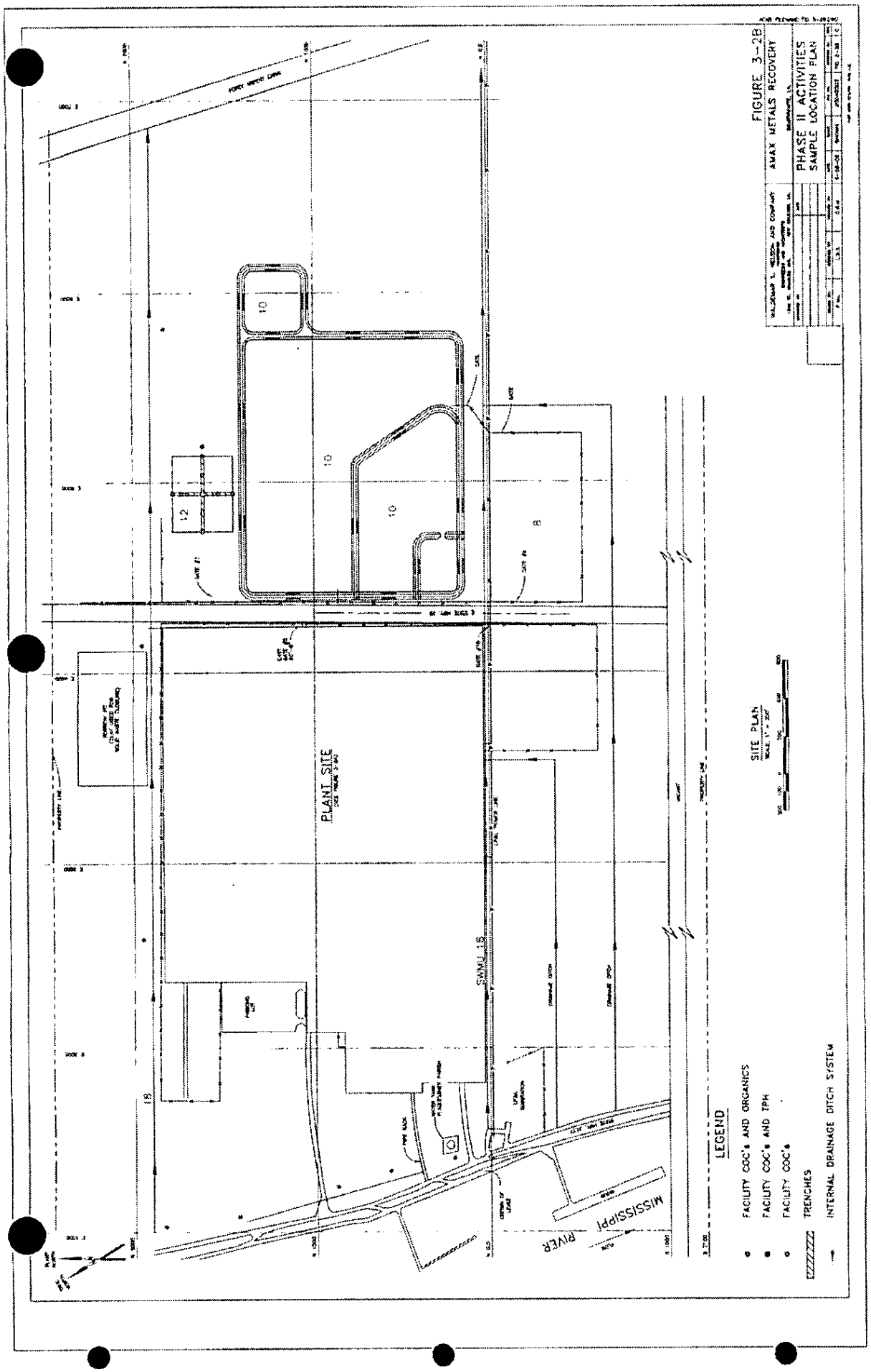


FIGURE 3-2B
AMAX METALS RECOVERY
PHASE II ACTIVITIES
SAMPLE LOCATION PLAN
SITE PLAN
PLANT SITE
SWMU 18
MISSISSIPPI RIVER
LEGEND
FACILITY COC's AND ORGANICS
FACILITY COC's AND TPH
FACILITY COC's
TRENCHES
INTERNAL DRAINAGE DITCH SYSTEM

The initial investigation of selected SWMUs under Phase II of the Facility's SI was designed to address 21 of the Facility's 32 identified SWMUs.

The 21 SWMUs addressed, included:

SWMU 01	Tanks 8-TK-1 & 8-TK-2	[Closure Related] *(a)*
SWMU 02	Sumps in Tanks 8-TK-1 & 8-TK-2	[Closure Related]
SWMU 12	Landfills A & A1	
SWMU 13	Former Landfills B, C, D, E, & F	
SWMU 14	Railcar Unloading Area	[Closure Related]
SWMU 17	Area 9 Recycling Building	[Closure Related]
SWMU 19	Drum Storage Area	[Closure Related]
SWMU 21	Tanks 8-TK-5 & 8-TK-6	[Closure Related]
SWMU 24	Area 21 Empty Drum Storage Area	
SWMU 25	Area 21 Empty Drum Crushing Area	
SWMU 26	Copper Tank House (CTH) Waste Pile	[Closure Related]
SWMU 27	Outdoor Container Storage Area	
SWMU 28	CTH Bulk Storage Building	[Closure Related]
SWMU 29	CTH Outdoor Container Storage Area	[Closure Related]
SWMU 32	Southwest Storage Area Sump	[Closure Related]
SWMU 33	Area 8 Recycling Process Feed System	[Closure Related]
SWMU 39	Area 13 Flyash Recycling Building	[Closure Related]
SWMU 45	Caustic Storage Tank	[Closure Related]
SWMU 46	Nickel Sulfide Receiving Area	
SWMU 47	Area 9 Support Material Storage Area	
SWMU 58	Plant Roads	[Closure Related]

(a) Designates SWMUs investigated in conjunction with subsurface soils and water confirmation sampling activities conducted to support the clean closure of the Facility's feedstock materials storage areas.

The selected 21 SWMUs were investigated as defined within AMRI initial investigation plan. All SWMUs were characterized for Facility COCs, with the exception of SWMU 12 (Landfills A & A1) and SWMU 13 (Landfills B, C, D, E & F). It was determined by AMRI that historic operations for SWMUs 12 and 13 were not qualified adequately to justify the use of Facility COCs. Therefore, SWMUs 12 and 13 were characterized for Facility COCs & Organics. Definition of Facility COCs and Facility COCs & Organics is provided in Section 2.3 of this Document.

As previously noted, the investigation of subsurface soils and water associated with the Facility's eleven (11) feedstock materials storage areas was deferred to this phase of the Facility's SI. The eleven (11) feedstock materials storage areas addressed, included:

Bulk Storage Tank 8-TK-1	[SWMU 01] *(b)*
Bulk Storage Tank 8-TK-2	[SWMU 01]
Area 8 Storage Building	
Area 9 Storage Building	
Area 13 Storage Building	
Area 15 Storage Building	[SWMU 28]
Southwest Storage Building	

Area 8 Container Storage Pad
Area 15 Container Storage Pad [SWMU 29]
Southwest Container Storage Pad
Area 21 Container Storage Pad

(b) Designates feedstock materials storage areas that were also identified as one of the 21 selected SWMUs

The subsurface soils and water associated with the eleven (11) feedstock materials storage areas were investigated as defined within AMRI's revised closure plan and initial investigation plan. Based on AMRI's extensive knowledge of historic operations and available operations records, all eleven (11) feedstock materials storage areas were characterized for Facility COCs. Definition of Facility COCs is provided in Section 2.3 of this Document.

AMRI completed activities associated with the initial investigation of selected SWMUs during October of 2002 and submitted an investigation report to the LDEQ on April 01, 2003. A copy of AMRI's investigation report, *Site Investigation Report*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **26409146**.

Following completion of investigation activities on subsurface soils and water during the initial site investigation of selected SWMUs under the Facility SI, AMRI requested the LDEQ's concurrence to abandon the Facility's Internal Groundwater Monitoring System (IGMS). The Facility's IGMS was comprised of three (3) monitoring wells that provided voluntary down gradient groundwater monitoring of the Facility's two (2) bulk storage tanks, Tanks 8-TK-1 and 8-TK-2 (SWMU 01). The Facility's IGMS was not operated under any regulatory compliance program. A copy of AMRI's request submittal, *Proposed Abandonment of In-Plant Groundwater Monitoring System*, dated November 17, 2003, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **29985004**.

The LDEQ approved AMRI's requested action on December 24, 2003. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **30231867**. Following receipt of the LDEQ's approval, AMRI abandoned the Facility's IGMS during January of 2004, in accordance with appropriate procedures and protocols.

3.3.3 Phase II - Supplemental Investigations of Selected SWMUs

Following review of results and date obtained during AMRI's initial investigation activities, it was determined that elements of the investigation required additional evaluation, and potential resampling. AMRI and the LDEQ's project review team jointly concluded that subsurface water samples obtained during AMRI's initial investigation activities were not representative of normal groundwater conditions encountered at the Facility.

It was determined that excessive rainfall conditions during the investigation, created saturated conditions, resulting in subsurface water samples obtained during the

investigation not being indicative of reproducible groundwater quality for site characterization. AMRI and the LDEQ's project review team agreed that resampling was required for all subsurface water sample locations previously sampled under AMRI's initial investigation activities. A copy of the LDEQ's August 04, 2003 correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **27994850.**

On November 21, 2003, AMRI submitted a supplemental investigation plan, *Supplemental Site Investigation Plan*. A copy of AMRI's supplemental plan has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **29989602.** The LDEQ approved AMRI's supplemental investigation plan on December 24, 2003. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **30231864.**

AMRI's supplemental investigation plan was designed to resample all subsurface water sample locations previously sampled during AMRI's initial investigation activities under the Facility's SI, and to address additional selected SWMUs that were deferred from AMRI's initial investigation activities.

Eleven (11) SWMUs were not addressed during the initial investigation of selected SWMUs under Phase II of the Facility's SI. The eleven (11) SWMUs were either prioritized as low risk units capable of being deferred until a subsequent phase of the Facility's SI, or already being managed under an alternative regulatory program (i.e., LDEQ solid waste or LPDES permit).

Five (5) of the remaining eleven (11) SWMUs were considered low risk, and capable of being addressed during a subsequent phase of the Facility's SI. The five (5) SWMUs, included:

SWMU 16	Laboratory Sump
SWMU 41	R & D Laboratory Sump
SWMU 42	UST Waste Pile
SWMU 43	Vehicle Maintenance Building Sump
SWMU 44	West Outdoor Container Storage Area

The five (5) SWMUs were investigated as defined within AMRI supplemental investigation plan. SWMU 44 was characterized for Facility COCs. SWMU 16 and SWMU 41 were associated with historic laboratory operations and determined to have not been qualified adequately to justify the use of Facility COCs. Therefore, SWMUs 16 and 41 were characterized for Facility COCs & Organics. SWMU 42 and SWMU 43 were associated with historic vehicle maintenance operations involving the use of petroleum hydrocarbons. These two SWMUs were the only areas of the Facility with known historic operations involving petroleum hydrocarbons. Therefore, SWMUs 42 and 43 were characterized for Facility COCs & TPH. Definition of Facility COCs, Facility COCs & TPH and Facility COCs & Organics is provided in Section 2.3 of this Document.

AMRI completed activities associated with the resampling of subsurface water sample locations and supplemental investigation of selected SWMUs during February of 2004. AMRI submitted two (2) separate reports to the LDEQ.

On June 01, 2004, AMRI submitted an investigation report on the supplemental investigation of the five (5) selected SWMUs. A copy of AMRI's investigation report, *Supplemental Site Investigation Report*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **31928628**.

On June 17, 2004, AMRI submitted an investigation report on the resampling of all subsurface sample locations previously sampled during AMRI's initial investigation activities. A copy of AMRI's investigation report, *Initial Site Investigation Resampling Report*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **32364586**.

3.3.4 Phase II - Resolution of Detection & RECAP Screening Limits

Following review of results and data obtained during AMRI's supplemental investigation and resampling activities, it was determined that elements of the investigation required addition evaluation. AMRI and the LDEQ's project review team agreed that certain laboratory analytical data for subsurface soil and water samples obtained during AMRI's supplemental investigation and resampling activities were not consistent with RECAP data quality requirements. Specifically, numerous reported values for laboratory derived detection limits on subsurface soil and water samples exceeded applicable screening limits under RECAP.

On August 18, 2004, the LDEQ issued a request that AMRI resolve these analytical deficiencies, or resample subsurface soil and water for all subsurface sample locations with reported detection limits exceeding applicable RECAP screening limits. A copy of the LDEQ's August 18, 2004 correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **32350503**.

On November 30, 2003, AMRI submitted a supplemental sampling and analysis plan, *Site Investigation Sampling and Analysis Plan - Third Phase*. A copy of AMRI's supplemental investigation plan has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **32525489**. The LDEQ approved AMRI's supplemental sampling and analysis plan on January 06, 2005. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **32592991**.

AMRI's supplemental sampling and analysis plan was designed to resample subsurface soil and water for numerous subsurface sample locations within five (5) areas previously sampled during AMRI's supplemental investigation activities under the Facility's SI.

AMRI completed activities associated with the supplemental investigation of selected SWMUs during March of 2005 and submitted an investigation report to the LDEQ on January 18, 2006. A copy of AMRI's investigation report, *Third Phase - Site Investigation Report*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **33824476**.

3.3.5 Phase II - Voluntary Remedial Actions

Following review of results obtaining during AMRI's initial and supplemental investigation activities, AMRI and the LDEQ's project review team concurred that the 26 of the 32 identified Factilty SWMUs were adequately characterized. AMRI determined that 24, of the 26 SWMUs, posed no unacceptable risk to human health and the environment, based on the Facility's planned future land use. However, AMRI determined that two (2) of the SWMUs represented potential to limit the Facility's planned future land use.

To resolve this condition, AMRI elected to address the two (2) SWMUs under voluntary remedial actions. The two (2) SWMUs identified, included:

SWMU 42 UST Waste Pile
SWMU 46 Nickel Sulfide Receiving Area

3.2.5.1 UST Waste Pile Remedial Action

During AMRI's supplemental investigations, conducted under Phase II of the Facility's SI, a limited number of organic constituents from the Facility's COCs & TPH were identified to exceed applicable RECAP screening limits within the former UST Waste Pile (SWMU 42). AMRI elected to further define the vertical and lateral extent of the impacted area, to delineate the impacted area.

AMRI prepared a sampling and analysis work plan, consistent with the Facility's investigation plan, to delineate the impacted area and potential source materials for removal under a voluntary remedial action (i.e., soil excavation). In May of 2006, AMRI initiated the sampling and analysis plan, and delineated both the vertical and horizontal extent of impacted subsurface soils.

AMRI elected to defer the implementation of the voluntary remedial action until the completion of the Facility SI. Further definition regarding AMRI's pending voluntary remedial action for the former UST Waste Pile (SWMU 42), is provided in Section 5.0 of this Document.

3.2.5.2 Nickel Sulfide Receiving Area Remedial Action

During AMRI's initial and supplemental investigations conducted under Phase II of the Facility's SI, a limited number of dissolved inorganic Facility COCs were identified to exceed applicable RECAP screening limits within the former Nickel Sulfide Receiving Area (SWMU 46). AMRI elected to further define the vertical and lateral extent of the impacted area, to delineate the impacted area.

AMRI prepared a sampling and analysis work plan, consistent with the Facility's investigation plan, to delineate the impacted area and potential source materials for removal under a voluntary remedial action (i.e., soil excavation). In May of 2005, AMRI initiated the sampling and analysis plan, and delineated both the vertical and horizontal extent of impacted subsurface soils. AMRI initiated and completed excavation of the impacted subsurface soils and water during July of 2005. AMRI performed confirmation sampling to characterize the limiting boundary of the excavated area, and confirmed that all potential source materials were removed, and the limiting boundary of the excavation

met applicable RECAP screening limits. Following confirmation sampling, the excavated area was filled with clean soil.

On April 04, 2007, AMRI submitted a report to the LDEQ, defining the voluntary remedial action and results of confirmation sampling of the limiting boundary of the excavated area. A copy of AMRI's report, *Nickel Sulfide Receiving Unit - Sampling and Analysis Work Plan Area and Confirmation Sampling Report*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35955026**.

The LDEQ approved AMRI's voluntary remedial action on May 22, 2007. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35980763**.

3.4 PHASE III ACTIVITIES

Phase III of the Facility's SI involved investigation and closure activities to address the Facility's remaining six (6) SWMUs that were not addressed under Phase I or Phase II of the Facility's SI. Closure and investigation activities conducted during Phase III of the Facility's SI were completed using sample collection and analysis procedures in conformance with requirements defined within the LDEQ's RECAP, RfR program and VRP. Plot plans, identifying boring locations for sampling activities conducted during Phase III of the Facility SI, are included as **Figure 3-3a and Figure 3-3b** of this Document.

3.4.1 Phase III - Solid Waste Closure of Permitted SWMUs

Six (6) SWMUs of the 32 identified Facility SWMUs were managed under alternative regulatory programs, and were either deferred until Phase III of the Facility's SI or remained managed under an alternative regulatory program.

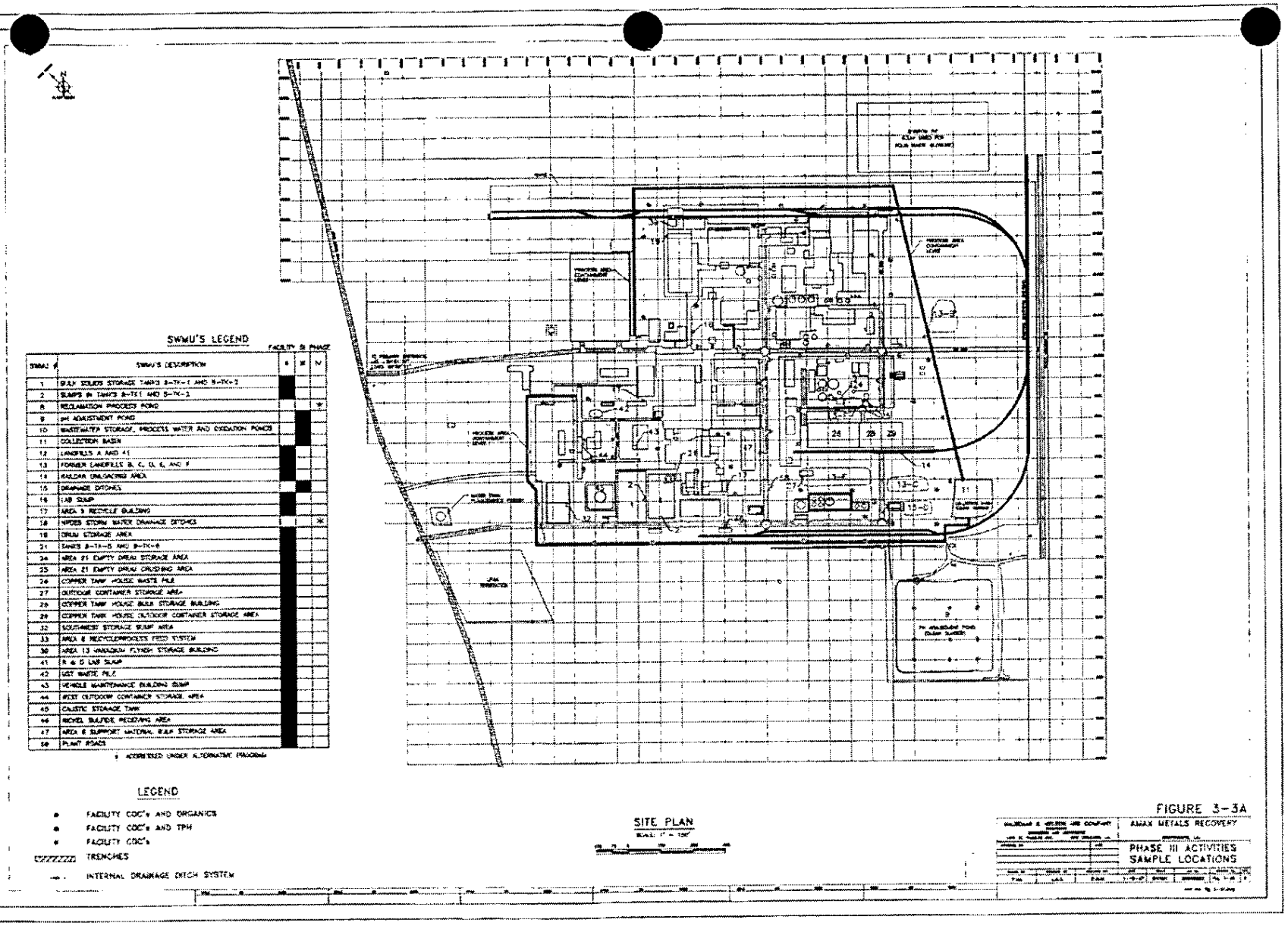
Four (4) of the six (6) SWMUs were addressed during solid waste closure activities conducted during Phase III of the Facility's SI, including:

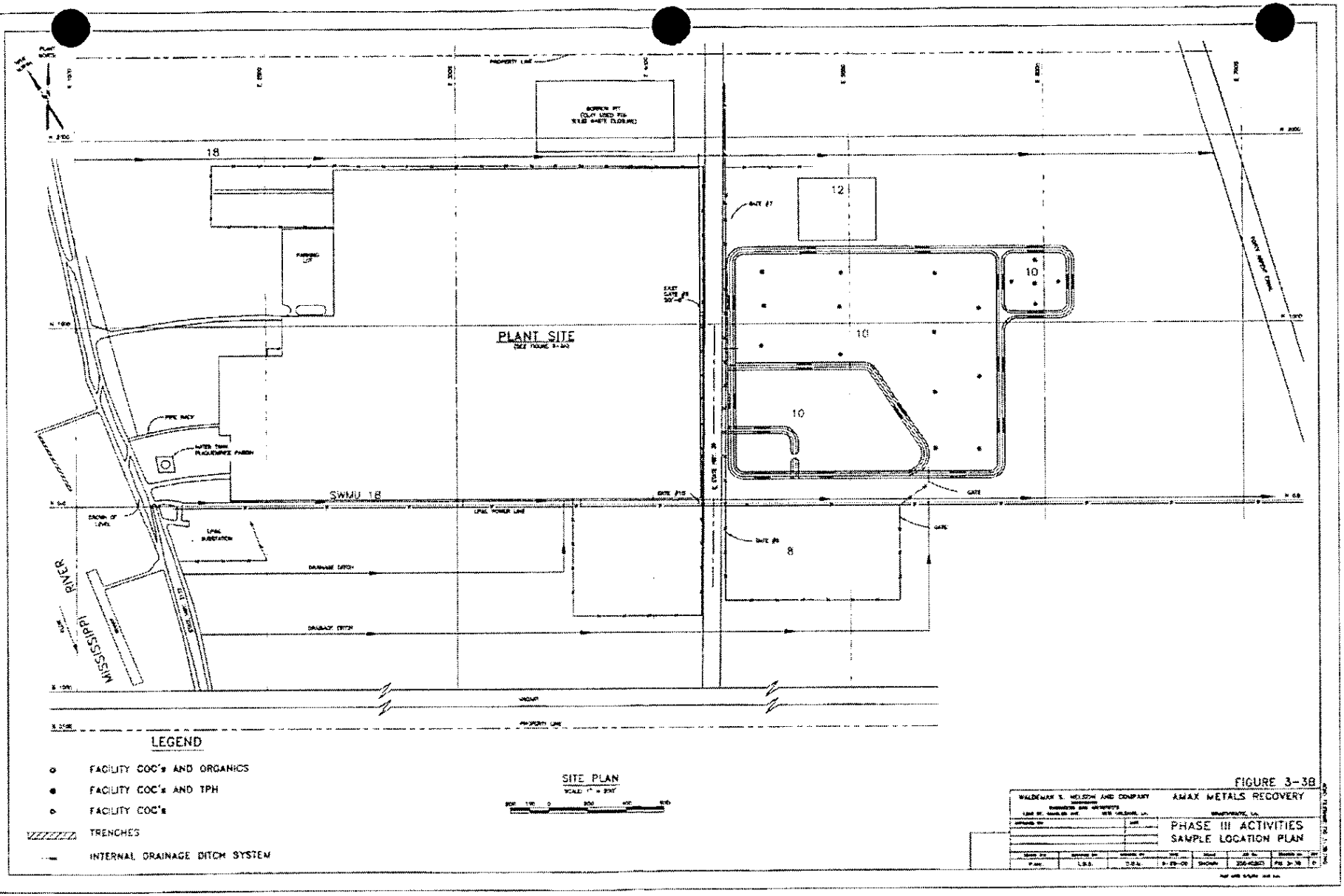
SWMU 09	pH Adjustment Pond
SWMU 10	Waste Storage, Process Water, and Oxidation Ponds
SWMU 11	Collection Basin
SWMU 15	Internal Drainage Ditches

3.4.1.1 Internal Drainage Ditches

The Internal Drainage Ditches (SWMU 10) consists of a conveyance system to manage qualified process water and storm water. The Internal Drainage Ditches were contained within the boundary of the Facility's Process Area Containment (PAC) system.

The Facility's PAC system was a series of constructed and reinforced earthen berms that provided containment of storm water run-off from AMRI's feedstock materials storage areas and manufacturing operations. The outer boundaries of the Internal





Drainage Ditches were adjacent to and contiguous with the Facility's PAC system, providing capture and conveyance of qualified process water, storm water and potential releases to the Facility's wastewater treatment system.

Prior to closure, the Internal Drainage Ditches functioned as part of the Facility's storm water and wastewater treatment system, and was permitted under the Facility's existing Solid Waste Permit P-0136 and LPDES Permit LA0045233. As part of the Facility's solid waste closure activities, the unit was closed according to AMRI's approved solid waste closure plan, *Closure Plan for Solid Waste Facilities*, dated April 27, 2005. A copy of AMRI's closure plan has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **32833892**.

The LDEQ approved AMRI's solid waste closure plan on June 29, 2005. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **33023960**.

Closure of the unit included the stabilization and excavation of all residual solids and underlying soils. Samples of excavated materials were analyzed and classified prior to being consolidated within the Waste Storage Pond (SWMU 10), as specified within the Facility's solid waste closure plan. Prior to backfilling areas of the unit with clean soils, confirmation samples were obtained from subsurface soils. Confirmation samples obtained from the excavated Internal Drainage Ditches were characterized for Facility COCs. Definition of Facility COCs is provided in Section 2.3 of this Document.

On August 29, 2006, AMRI and the LDEQ's project review team met at the Facility to finalize the locations for confirmation sampling. Based on results obtained during Phase II of the Facility's SI, AMRI and the LDEQ's project review team determined that the areas within the Facility's PAC system were capable of being considered under the LDEQ's VRP. A copy of the LDEQ's meeting record has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **34576235**.

AMRI and the LDEQ's project review team agreed that AMRI would obtain a defined number of VRP confirmation samples, to supplement the confirmation samples used to characterize the excavated areas of the Internal Drainage Ditches. VRP samples were characterized for Facility COCs & Organics. Definition of Facility COCs & Organics is provided in Section 2.3 of this Document.

During the August 29th site meeting, AMRI and the LDEQ's project review team agreed on the location and frequency of VRP confirmation samples. It was determined that the majority of the VRP confirmation sample locations would be obtained during confirmation sampling of the Internal Drainage Ditches. Since the Internal Drainage Ditches provided conveyance of qualified process water and storm water run-off from AMRI's feedstock materials storage areas and manufacturing operations, it represented the most likely location to contain impacted subsurface soils and water.

On March 15, 2007, AMRI submitted a closure confirmation report to the LDEQ, defining the closure activities, confirmation sampling conducted on the Internal Drainage Ditches and VRP confirmation sampling. In accordance with LAC 33:VII.713.E.4, AMRI

considered the Internal Drainage Ditches to have been closed to the extent necessary to achieve an alternative level of contaminants that is adequately protective of human health and the environment. A copy of AMRI's report, *Internal Drainage Ditch System - Confirmation Sample Report*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35836808**.

The LDEQ approved AMRI's confirmation report on April 02, 2007. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35926444**.

As previously noted, a portion of the Internal Drainage Ditches was left open to facilitate the surface movement of storm water. Following the completion of confirmation sampling activities and receipt of LDEQ's approval, AMRI diverted the surface run-off of storm water previously managed by the Internal Drainage Ditches to the NPDES North and South Drainage Ditches (i.e., diversion was initiated on April 27, 2006). The diversion was required, prior to closure activities being initiated on the remaining surface impoundments associated with the Facility's wastewater treatment system (i.e., Collection Basin, Waste Storage Pond and pH Adjustment Pond), and the removal of the Facility's PAC system.

AMRI requested the modification of the Facility's LPDES permit (LA0045233) on April 27, 2005, prior to initiating closure activities. Documentation of AMRI's modification request has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **34863380**.

The LDEQ approved AMRI's request on April 27, 2006. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **34183465**.

3.4.1.2 Waste Storage, Process Water and Oxidation Ponds

The Waste Storage, Process Water and Oxidation Ponds (SWMU 10) consist of three separate impoundments, including the Waste Storage Pond, Process Water Pond and Oxidation Pond. The three (3) individual impoundments were maintained under various programs, specific to each impoundment. None of the three (3) impoundments, comprising the unit (SWMU 10), are located within the area of the Facility being considered under the LDEQ's VRP.

Process Water Pond - The Process Water Pond was not a permitted unit and provided storage capacity for reserve process water received from the Mississippi River. The impoundment was reengineered and included within an area of the Facility designated for habitat restoration. As previously noted, the unit is located outside the area of the Facility being considered under the LDEQ's VRP. Description of investigation activities, conducted on the Process Water Pond during Phase III of the Facility SI, is provided within Subsection 3.4.1.5 of this Document.

Oxidation Pond - The Oxidation Pond operated under an approval issued by the Louisiana Department of Health in 1973 as a non-permitted unit, and functioned as the Facility's sanitary treatment system. The impoundment was closed in-place under the LDEQ's RfR program. As previously noted, the unit is located outside the area of the Facility being considered under the LDEQ's VRP. Description of investigation and closure activities conducted during Phase III of the Facility SI on the Process Water Pond, is provided within Subsection 3.4.1.6 of this Document.

Waste Storage Pond - The Waste Storage Pond was originally constructed as two (2) separate impoundments, the Wastewater Pond and Wastewater Storage Pond, which were linked in series. The unit operated under LDEQ Solid Waste Permit P-0136, and also functioned as part of the Facility's wastewater treatment system under LPDES Permit LA0045233. The Waste Storage Pond received influent from the Collection Basin (SWMU 11), which was retained for settling and equalization prior to discharge to the Facility's wastewater treatment plant.

The unit was closed according to AMRI's solid waste closure plan, *Closure Plan for Solid Waste Facilities*, dated April 27, 2005. A copy of AMRI's solid waste closure plan has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **32833892**. The LDEQ approved AMRI's solid waste closure plan on June 29, 2005. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **33023960**.

Closure of the unit included stabilization of residual solids to assure adequate load bearing capacity to support a final cap. Prior to closure of the unit, stabilized sludges and sediments, resulting from closure activities conducted on the Collection Basin (SWMU 11), pH Adjustment Pond (SWMU 09) and Internal Drainage Ditches (SWMU 10), were consolidated within the unit. Following consolidation of stabilized materials, the unit was engineered to the appropriate final grade and slope using clean soils and existing berm materials and properly capped and closed in as specified in AMRI's closure plan and in accordance with LAC 33:VII.713.E.3.c.

On March 15, 2007, AMRI submitted a confirmation sampling and analysis plan to the LDEQ, designed to characterize the stabilized materials within the closed unit. In accordance with LAC 33:VII.713.E.4., AMRI considers the materials that remain in the closed unit to inherently meet an alternative level of contaminants that is adequately protective of human health and the environment. A copy of the sampling and analysis plan, *Sampling and Analysis Plan - Confirmation Sampling of Capped Impoundment*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35827535**.

The LDEQ approved AMRI's sampling and analysis plan on April 20, 2007. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35899011**. AMRI completed confirmation sampling of stabilized materials within the closed Waste Storage Pond during April of 2007, and a confirmation report to the LDEQ is pending.

AMRI completed closure activities to support certification of closure for the Waste Storage Pond during May of 2007. AMRI's closure certification report to the LDEQ is pending.

3.4.1.3 Collection Basin

The Collection Basin (SWMU 11), was operated under LDEQ Solid Waste Permit P-0136, and also functioned as part of the Facility's storm water and wastewater treatment system under LPDES Permit LA0045233. The Collection Basin received influent from the Internal Drainage Ditches (SWMU 15), which was retained for equalization prior to discharge to the Waste Storage Pond (SWMU 10).

As part of the Facility's solid waste closure activities, the unit was closed according to AMRI's approved solid waste closure plan, *Closure Plan for Solid Waste Facilities*, dated April 27, 2005. A copy of AMRI's solid waste closure plan has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **32833892**.

Closure of the unit included the stabilization and excavation of all residual solids and underlying soils. Samples of excavated materials were analyzed and classified prior to being consolidated within the Waste Storage Pond (SWMU 10), as specified within the Facility's solid waste closure plan. Confirmation samples were obtained from subsurface soils, prior to backfilling the unit with clean soils. Confirmation samples were characterized for Facility COCs. Definition of Facility COCs is provided in Section 2.3 of this Document.

On March 15, 2007, AMRI submitted a clean closure certification report to the LDEQ, defining the closure activities and confirmation sampling conducted on the Collection Basin. A copy of AMRI's report, *Collection Basin - Confirmation Sample Report*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35833309**.

The LDEQ approved AMRI's clean closure certification report on April 02, 2007. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35826444**.

3.4.1.4 pH Adjustment Pond

The pH Adjustment Pond (SWMU 9), also known as the Equalization Basin, was operated under LDEQ Solid Waste Permit P-0136, and also functioned as part of the Facility's storm water and wastewater treatment system under LPDES Permit LA0045233. The pH Adjustment Pond received influent from the Facility's wastewater treatment plant, which was retained for pH adjustment and equalization prior to discharge to the Facility's Outfall 001.

As part of the Facility's solid waste closure activities, the unit was closed according to AMRI's approved solid waste closure plan, *Closure Plan for Solid Waste Facilities*, dated April 27, 2005. A copy of AMRI's solid waste closure plan has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **32833892**.

Closure of the unit included the stabilization and excavation of all residual solids and underlying soils. Samples of excavated materials were analyzed and classified prior to being consolidated within the Waste Storage Pond (SWMU 10), as specified within the Facility's solid waste closure plan. Confirmation samples were obtained from subsurface soils, prior to backfilling the unit with clean soils. Confirmation samples were characterized for Facility COCs. Definition of Facility COCs is provided in Section 2.3 of this Document.

On March 15, 2007, AMRI submitted a clean closure certification report to the LDEQ, defining the closure activities and confirmation sampling conducted on the pH Adjustment Pond. A copy of AMRI's report, *pH Adjustment Pond - Confirmation Sample Report*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35836810**.

The LDEQ approved AMRI's clean closure certification report on April 02, 2007. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35926444**.

3.4.1.5 Process Water Pond

The Process Water Pond (SWMU 10), also known as the Raw Water Pond or Firewater Pond, provided storage capacity for reserve process water received from the Mississippi River, that was required to support AMRI's manufacturing operations. As previously noted, the unit did not require permitting and is not located within the area of the Facility being considered under the LDEQ's VRP. The unit was constructed to a maximum depth of six (6) feet below ground surface in isolated areas, and the excavated soils were used to construct a containment berm to separate the unit from adjacent impoundments.

Based on the unit's original location and site elevation, AMRI elected to restore the unit and contiguous down gradient areas of the Facility to a wildlife habitat. Since the unit was not managed under a regulatory program, AMRI and the LDEQ's project review team agreed to close the unit under the LDEQ's RfR program. Prior to initiating restoration activities, AMRI conducted confirmation sampling of subsurface soils in the unit. Confirmation samples were characterized for Facility COCs. Definition of Facility COCs is provided in Section 2.3 of this Document.

Following closure of the adjacent impoundments (i.e., Waste Storage Pond and Oxidation Pond) the containment berm was lowered and a spillway was constructed at the down gradient end the unit to lower the water level in the unit, and restore the unit and contiguous down gradient areas to a wildlife habitat.

On April 20, 2007, AMRI submitted a closure confirmation report to the LDEQ, defining the confirmation sampling activities conducted on the Raw Water Pond. A copy of AMRI's report, *Raw Water Pond Sampling and Analysis Plan - Confirmation Sample Report*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35904374**.

The LDEQ approved AMRI's confirmation report on April 30, 2007. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35938059**.

3.4.1.6 Oxidation Pond

The Oxidation Pond (SWMU 10) provided biological treatment of sewage sludges generated at the Facility. As previously noted, the unit did not require permitting and is not located within the area of the Facility being considered under the LDEQ's VRP. The unit was constructed to a maximum depth of six (6) feet below ground surface in isolated areas, and the excavated soils were used to construct a containment berm to separate the unit from adjacent impoundments.

To facilitate closure of the unit, AMRI and the LDEQ's project review team agreed to close the unit under the LDEQ's RfR program. Closure involved the dewatering of the unit, followed by in-place stabilization of residual sludges. Following stabilization, sampling and analysis of the in-place stabilized sludges was conducted to determine if closure of the unit in-place met criteria under LAC 33:IX.6901 for the land application of sewage sludges. Samples were characterized for Facility COCs and evaluated for the Exceptional Quality Level for fecal coliform, PCBs and specific oxygen uptake rate, as defined in LAC 33:IX.6901.

On April 20, 2007, AMRI submitted a closure confirmation report to the LDEQ, defining the closure activities and confirmation sampling conducted on the Oxidation Pond. A copy of AMRI's report, *Oxidation Pond Sampling and Analysis Plan - Confirmation Sample Report*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35904376**.

The LDEQ approved AMRI's confirmation report on June 06, 2007. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **36016695**.

3.5 PHASE IV ACTIVITIES

Phase IV of the Facility's SI involved investigation activities to address areas of interests identified outside the Facility's PAC system AMRI identified two (2) Areas of Interest (AOIs) for investigation, adjacent to and contiguous with the west boundary of the Facility's processing area and PAC system.

On November 21, 2006, AMRI and the LDEQ's project review team met at the Facility to determine sampling locations and frequencies for investigation activities conducted for the two (2) AOI's under the LDEQ's VRP. A copy of the LDEQ's meeting record has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35483335**.

During the November 21st update meeting, AMRI and the LDEQ's project review team agreed on the locations and sampling frequencies for the investigation of the two

(2) AOIs under the LDEQ's VRP. Investigation activities conducted during Phase IV of the Facility's SI were completed using sample collection and analysis procedures in conformance with requirements defined within the LDEQ's RECAP, RfR program and VRP. A plot plan, identifying boring locations for sampling activities conducted during Phase IV of the Facility SI, is included as **Figure 3-4** of this Document.

3.5.1 Phase IV - NW Corner Property Truck Yard Area

The NW Corner Property Truck Yard Area is located in the northwestern corner of the Facility, and that was historically used for the repair of AMRI vehicles over a limited period of time. The investigation of the AOI was conducted to determine if historic operations had impacted the area, and to characterize the subsurface soils and water to support the inclusion of the area within the LDEQ's VRP.

AMRI's sampling and analysis plan for the AOI was designed to include sample collection and analysis procedures in conformance with requirements defined within the LDEQ's RECAP, RfR program and VRP. Based on the review of historic operations in the AOI, samples obtained from the area were characterized for Facility COCs & TPH. Two (2) additional locations within the AOI were sampled and characterized for Facility COCs & Orgainics, to comply with requirements of the LDEQ's VRP. Definition of Facility COCs & TPH and Facility COCs & Organics is provided in Section 2.3 of this Document. AMRI initiated and completed investigation activities conducted on the NW Corner Property Truck Yard Area in October of 2006.

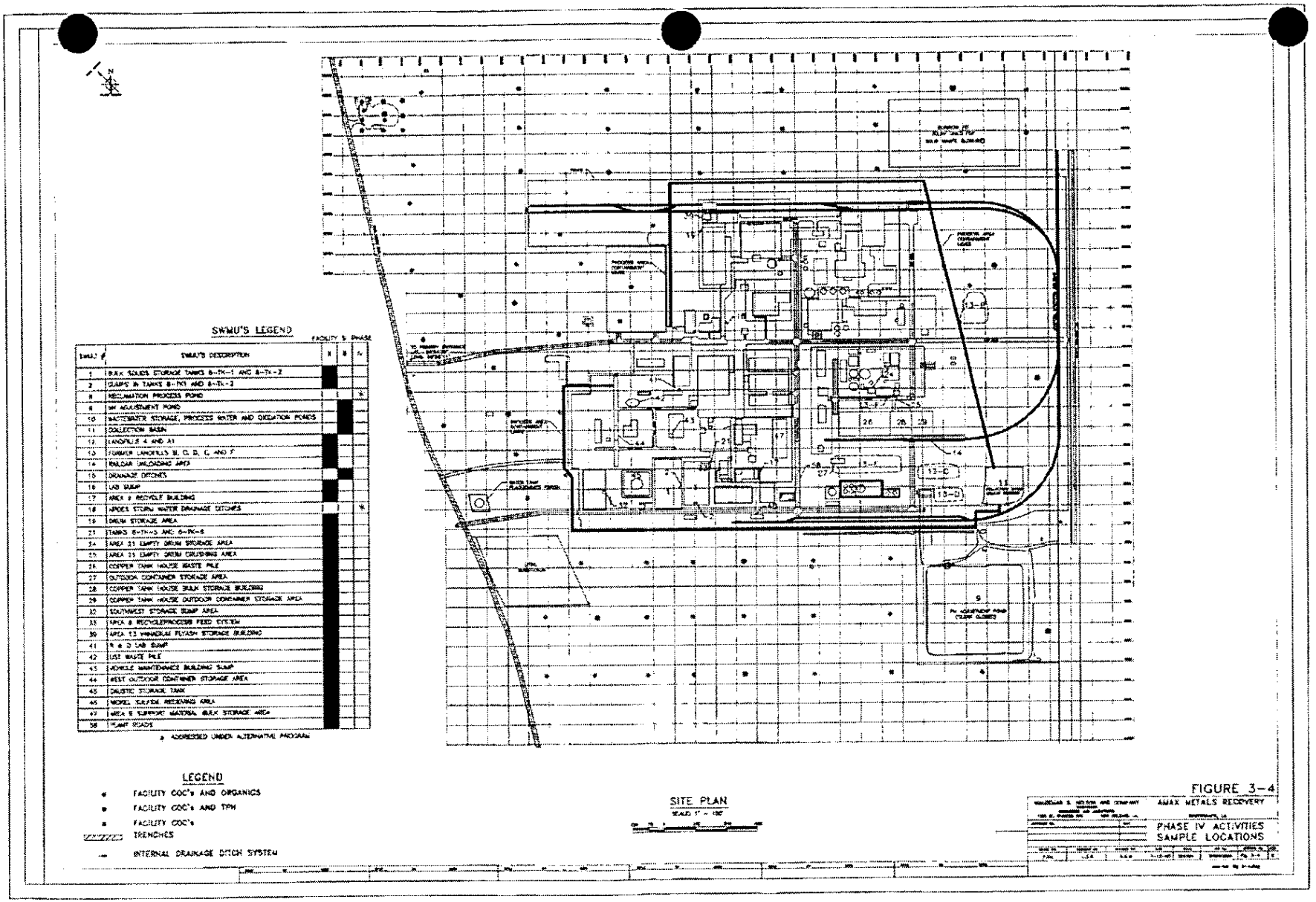
On April 10, 2007, AMRI submitted an investigation report to the LDEQ, defining the investigation activities conducted on the NW Corner Property Truck Yard Area. A copy of AMRI's report, *Northwest Corner Property Truck Yard Site - Sampling and Analysis Plan and Confirmation Sampling Report*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35881881**.

The LDEQ approved AMRI's confirmation report on April 20, 2007. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35938061**.

3.5.2 Phase IV - Non-Process Areas

The Non-Process Areas is comprised of the undeveloped areas within the Facility's property boundary, contiguous with and to the west of the Facility's processing area. Based on review of available information, the AOI had no known prior industrial activities.

AMRI's sampling and analysis plan for the Non-Process Areas was designed to include sample collection and analysis procedures in conformance with requirements defined within the LDEQ's RECAP, RfR program and VRP. During the November 21st update meeting, AMRI and the LDEQ's project review team agreed on the locations and sampling frequencies for the investigation. A total of 66 locations were sampled across Non-Process Areas. Based on lack of any historic operations in the AOI and to comply with requirements of the LDEQ's VRP, sample locations within the AOI were sampled



and characterized for Facility COCs & Organics. Definition of Facility COCs & Organics is provided in Section 2.3 of this Document.

AMRI initiated and completed investigation activities conducted on the Non-Process Areas in November of 2006. The investigation activities conducted on the AOI, under Phase IV of the Facility SI, were intended to supplement the results obtained during previous phases of the Facility's SI and to support AMRI's participation under the LDEQ's RfR program and VRP.

On April 24, 2007, AMRI submitted an investigation report to the LDEQ, defining the investigation activities conducted on the NW Corner Property Truck Yard Area. A copy of AMRI's report, *Supplemental Site Investigation Report - Non-Process Areas*, has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **35881881**.

The LDEQ approved AMRI's confirmation report on June 06, 2007. A copy of the LDEQ's approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **36016693**.

3.6 SWMUs REMAINING UNDER ALTERNATIVE REGULATORY PROGRAMS

Two (2) SWMUs of the 32 identified Facility SWMUs continue to be managed under an alternative regulatory program, and were not directly addressed during the Facility's SI. The two (2) SWMUs, include:

SWMU 08	Reclamation Process Pond
SWMU 18	NPDES Storm Water Drainage Ditches

3.4.3.1 Reclamation Process Pond

The Reclamation Process Pond (SWMU 08) is maintained under an alternative regulatory program, LDEQ Solid Waste Permit P-0135, and was not characterized under the Facility's SI. The unit is not located within the area of the Facility being considered under the LDEQ's VRP.

The unit consists of an impoundment which was closed in 1993, under a risk-based program conducted by AMRI. During closure activities, approximately 7,000 cubic yards of industrial debris, solid waste, and contaminated soils were excavated from Landfill A (SWMU 12) and 4,000 cubic yards of solid waste and contaminated soils were excavated from Landfill D (SWMU 13) and placed within the closure, prior to capping activities. Excavated areas of landfills A and D were backfilled with clean soil. In addition to materials from Landfills A and D, approximately 12,000 cubic yards of soils in the area adjacent to and within a defined section of the Southern NPDES Storm Water Drainage Ditch (SWMU 18) were excavated and placed within the closure cell to supplement for clean soils required to achieve capping elevation design. Groundwater monitoring, which was required under the unit's solid waste permit and as a condition of the unit's post-closure requirements, has documented no contaminants. Post-closure groundwater monitoring requirements ceased in 1997, and AMRI currently maintains semi-annual groundwater monitoring on a voluntary basis.

3.4.3.2 NPDES Storm Water Drainage Ditches

The NPDES Storm Water Drainage Ditches (SWMU 18), consists of two (2) separate storm water drainage ditches (North Storm Water Ditch and South Storm Water Ditch), located outside of AMRI's processing and feedstock materials storage areas by the Facility's PAC system. The North and South Storm Water Ditches flow from west to east, away from the Mississippi River and toward the Forty Arpent Canal, and represent LPDES permitted Outfalls 002 and 003, respectively.

The unit is maintained under an alternative regulatory program, LPDES Permit LA0045233, and was not characterized under the Facility's SI. Areas of the unit that were impacted by historic operations were previously investigated and resolved through two (2) voluntary remedial actions conducted in 1979 and 1993. In 1979, a release occurred from the process transfer line the area of the South Storm Water Ditch, adjacent to the Reclamation Process Pond (SWMU 08). The potentially impacted portion of South Storm Water Ditch (i.e., approximately 1,500 feet, running east of State Highway 39) was isolated from the release and blocked to prevent flow to the Forty Arpent Canal. Portable pumps were brought in to flush the isolated portion of the South Storm Water Ditch with water to purge them of the released solution. Following the removal of recoverable tailings material resulting from the release, the areas adjacent to the South Storm Water Ditch and Reclamation Process Pond that were impacted by the release were treated with lime and covered with sand.

In 1993, AMRI conducted in-place closure activities for the Reclamation Process Pond (SWMU No. 8). Closure activities conducted in accordance with site-specific risk-based standards developed in accordance with the American Society of Testing Materials' (ASTM) *Standard Guide for Risk-Based Corrective Action* (RBCA). During closure activities, AMRI conducted a voluntary remedial action (i.e., soil excavation) to address areas directly adjacent to the Reclamation Process Pond, including the previously addressed 1,500 foot section of the South Storm Water Ditch.

To support the remedial action, AMRI established a conservative soil screening standard for nickel (i.e., 400 ppm), that was utilized to delineate soils requiring excavation. During AMRI's characterization of the area, it was determined that nickel represented the highest potential risk to human health and the environment. The soil screening standard for nickel, utilized by AMRI during the remedial action, was nearly two (2) orders of magnitude lower that the LDEQ's current RECAP industrial soil screening standard for nickel. During the remedial action, AMRI excavated approximately 12,000 cubic yards of qualified soils from the South Storm Water Ditch and areas adjacent to the Reclamation Process Pond. Excavated soils were consolidated within the in-place closure of the Reclamation Process Pond. As previously noted, groundwater monitoring which was required as a condition of the Reclamation Process Pond's post-closure requirements under LDEQ Solid Waste Permit P-0136, has documented no contaminants.

During the Facility's SI, AMRI demonstrated that the integrity of the Facility's PAC system isolated the unit from potential releases resulting from historic manufacturing operations and activities associated with feedstock materials storage areas. Investigation activities conducted during the Facility's SI on SWMUs and feedstock materials storage areas in direct proximity or contiguous to the unit,

demonstrated that subsurface soils and water complied with appropriate RECAP screening limits. Investigation activities conducted in direct proximity to the North and South Storm Water Ditches under the Facility's SI included the Nickel Sulfide Receiving Area (SWMU 46) and Area 13 Container Storage Area.

On April 27, 2006, the LDEQ approved a minor modification to the unit's permit, allowing the diversion of storm water, previously managed by the Facility's wastewater treatment system, to flow to Outfalls 002 and 003. The diversion was required, prior to closure activities being initiated on the remaining surface impoundments associated with the Facility's wastewater treatment system and the removal of the Facility's PAC system. A copy of the LDEQ's April 27, 2006 approval correspondence has been provided as an **electronic format (PDF) file** on a computer disk enclosure to this Document, and is identified on the LDEQ's EDMS as **34183465**.

4.0 STATUS OF SWMUs & AOIs UNDER LDEQ's VRP

This section of the Document has been prepared to summarize the status of SWMUs and AOIs addressed during investigations, voluntary remedial actions and closure activities conducted during the Facility's SI. The activities, which were described within the previous sections of this Document, were performed to assess the potential for impacts from historical Facility operations to soils and shallow groundwater to obtain an accurate characterization for the area of the Facility being considered under the LDEQ'S VRP.

As previously noted, the primary objectives of this Document were to 1) summarize existing investigations, voluntary remedial actions and closure activities conducted at the Facility to confirm that conditions are protective of human health and the environment, based on planned future land use, and 2) delineate areas that require remedial action under the LDEQ'S VRP.

The Facility's SI involved the implementation of closure and investigation activities that can be itemized under the following classifications.

SWMUs Addressed Under Investigations,

SWMUs Addressed Under Solid Waste Closure Activities,

AOIs Addressed Under Investigations, and

SWMUs Addressed Under Alternative Regulatory Programs.

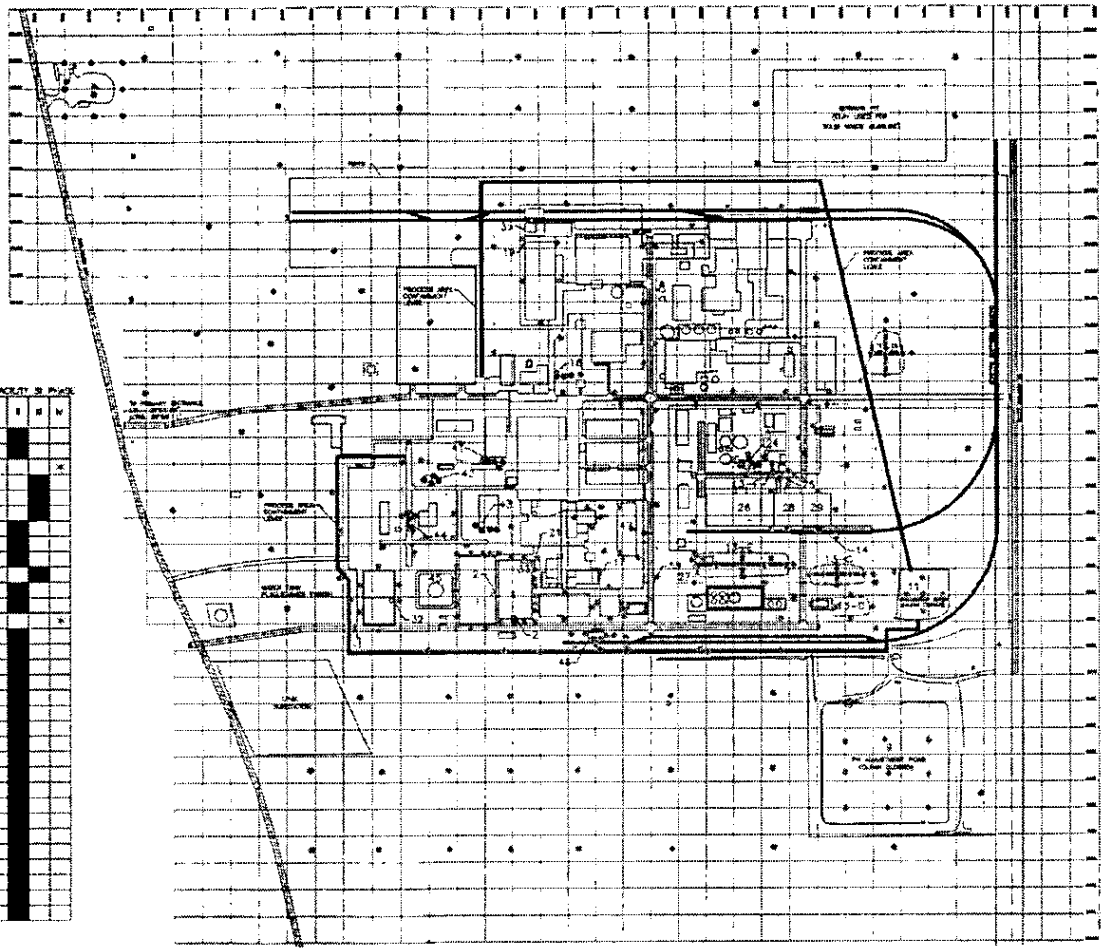
Closure and investigation activities conducted during the Facility's SI were completed using sample collection and analysis procedures in conformance with requirements defined within the LDEQ's RECAP, RfR program and VRP. Plot plans, identifying boring locations for sampling activities conducted during the Facility SI, are included as **Figure 4-1a and Figure 4-1b** of this Document

4.1 SWMUs ADDRESSED UNDER SITE INVESTIGATION ACTIVITES

This section of the Document summarizes the status of SWMUs addressed during initial and supplemental investigations and voluntary remedial actions conducted within the former processing area of the Facility, under the Facility's SI. The activities, which were described within the previous sections of this Document, were performed to assess the potential for impacts from historical Facility operations to soils and shallow groundwater to obtain an accurate characterization for the area under the LDEQ's VRP.

4.1.1 SWMU 01 Tanks 8-TK-1 & 8-TK-2

Unit's Status: The unit is closed and remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water, combined with clean closure of surfaces and above ground structures.



SWMU'S LEGEND

SWMU #	SWMU'S DESCRIPTION	FACILITY IN PHASE I	II	IV
1	BULK SOLIDS STORAGE TANKS 8-TK-1 AND 8-TK-2	■		
2	SUMPS IN TANKS 8-TK1 AND 8-TK-2	■		
8	RECLAMATION PROCESS POND			*
9	pH ADJUSTMENT POND		■	
10	WASTEWATER STORAGE, PROCESS WATER AND EVAPORATION PONDS		■	
11	COLLECTION BASIN		■	
12	LANDFILLS A AND A1	■		
13	FORMER LANDFILLS B, C, D, E, AND F	■	■	
14	RAILCAR UNLOADING AREA	■		
15	DRAINAGE DITCHES	■	■	
16	LAB SUMP	■		
17	AREA 9 RECYCLE BUILDING	■		
18	NPDES STORM WATER DRAINAGE DITCHES	■		*
19	DRUM STORAGE AREA	■		
21	TANKS 8-TK-5 AND 8-TK-6	■		
24	AREA 21 EMPTY DRUM STORAGE AREA	■		
25	AREA 21 EMPTY DRUM CRUSHING AREA	■		
26	COPPER TANK HOUSE WASTE PILE	■		
27	OUTDOOR CONTAINER STORAGE AREA	■		
28	COPPER TANK HOUSE BULK STORAGE BUILDING	■		
29	COPPER TANK HOUSE OUTDOOR CONTAINER STORAGE AREA	■		
30	SOUTHWEST STORAGE SUMP AREA	■		
33	AREA 9 RECYCLE/PROCESS FEED SYSTEM	■		
39	AREA 13 WHARTON FLYASH STORAGE BUILDING	■		
41	P & D LAB SUMP	■		
42	LIST WASTE PILE	■		
43	VEHICLE MAINTENANCE BUILDING SUMP	■		
44	WEST OUTDOOR CONTAINER STORAGE AREA	■		
45	CAUSTIC STORAGE TANK	■		
46	NICKEL SULFIDE RECEIVING AREA	■		
47	AREA 9 SUPPORT MATERIAL BULK STORAGE AREA	■		
58	PLANT ROADS	■		

* ADDRESSED UNDER ALTERNATIVE PROGRAM

LEGEND

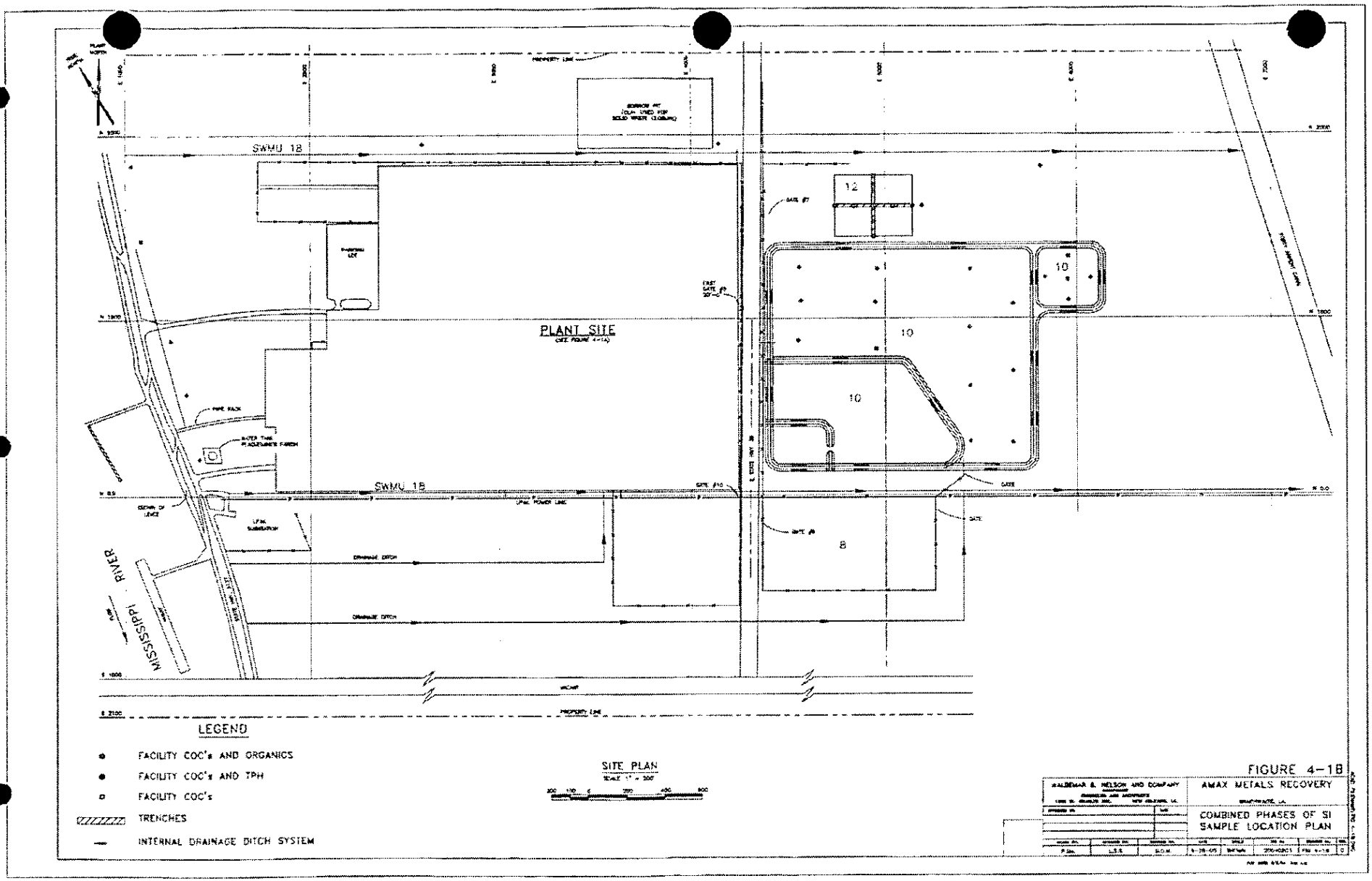
- ● FACILITY COC's AND ORGANICS
- ● FACILITY COC's AND TPH
- ● FACILITY COC's
- TRENCHES
- INTERNAL DRAINAGE DITCH SYSTEM

SITE PLAN

FIGURE 4-1A

AMAX METALS RECOVERY

COMBINED PHASES OF SI SAMPLE LOCATION PLAN



Prior to closure, the unit functioned as the Facility's two bulk storage tanks for feedstock materials used within AMRI's manufacturing operations. Tank 8-TK-1 is an aboveground concrete tank, measuring 232-by-130-feet in area, with an open top and a 10-inch reinforced concrete base. Tank 8-TK-1 is enclosed by an approximately 4-foot-high concrete wall. Incorporated into both the base and the walls are two non-woven geotextile layers on each side of a 60-mil HDPE liner. Tank 8-TK-1 has an additional underlying base consisting of reinforced concrete.

Tank 8-TK-2 is an aboveground concrete tank, 240-by-112-feet in area, with an open top and a 10-inch reinforced concrete base. Tank 8-TK-2 is enclosed by an approximately 4-foot-high concrete wall. Incorporated into both the base and the walls are two non-woven geotextile layers on each side of a 60 mil HDPE liner. The unit has an additional underlying base, consisting of 3 feet of compacted clay.

4.1.2 SWMU 02 Sumps in Tanks 8-TK-1 & 8-TK-2

Unit's Status: The unit is closed and remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water, combined with clean closure of surfaces and above ground structures.

Prior to closure, the unit functioned as two individual sumps which are integral parts of Bulk Solids Storage Tanks 8-TK-1 and 8-TK-2 (SWMU 01). The sump in Tank 8-TK-1 is concrete and was constructed simultaneously with the tank. The sump is 52 inches in depth, located on the south side of the tank. The sump in Tank 8-TK-2 is concrete and was constructed simultaneously with the tank. The sump is 39 inches in depth, located on the east side of the tank.

4.1.3 SWMU 12 Landfills A & A1

The unit is not included within the area of the Facility being considered under the LDEQ'S VRP.

Unit's Status: The unit is closed in-place. The unit was addressed under a voluntary remedial action in 1993 (Landfill A), and under investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consists of two inactive solid waste landfills, located north of the Process Water Pond (SWMU 10). Both landfills are underlain with native clays. Landfill A was excavated and backfilled with clean soil in 1993, as part of AMRI's closure of the Process Reclamation Pond (SWMU 08). Approximately 7,000 cubic yards of industrial debris, solid waste, and contaminated soils were removed and placed within the closure cell prior to capping activities. Prior to 1993, the landfill was inactive since 1973.

Landfill A1 has an estimated surface area of 1.5 acres, with an approximate capacity of 4,000 cubic yards. Prior to closure, Landfill A1 had been inactive since 1979. Contents of Landfill A1 were believed to consist of industrial debris and solid waste resulting from nickel refining operations.

4.1.4 SWMU 13 Former Landfills B, C, D, E, & F

Unit's Status: The unit is closed in-place. The unit was addressed under a voluntary remedial action in 1993 (Landfill D), and under investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consists of five solid waste landfills. All five landfills are underlain with native clays. Landfill B is estimated to contain 1,100 cubic yards of solids, with a surface area of approximately one acre, and was used during the mid-1970s. Landfill C is estimated to contain 2,000 cubic yards of solids, with a surface area of approximately one-half acre, and was used from 1975 to 1979. Landfill D is estimated to contain 2,350 cubic yards of solids, with a surface area of approximately one-half acre, and was used during 1980 and 1981 prior to being partially excavated and backfilled with clean soils in 1993 as part of AMRI's closure of the Reclamation Process Pond (SWMU 08). Landfill E is estimated to contain 2,400 cubic yards of solids, with a surface area of approximately one acre, and was used during 1982 and 1983. Landfill F is limited in surface area, and estimated to contain less than 100 cubic yards of solids.

4.1.5 SWMU 14 Railcar Unloading Area

Unit's Status: The unit is closed and remains structurally intact. The unit was addressed under investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consists of rail unloading area, approximately 12 feet by 50 feet in surface area. The unit is located contiguous to the south boundary of the Copper Tank House Outdoor Container Storage Area (SWMU 28), which is also identified as the Area 15 Container Storage Pad. The Area 15 Container Storage Pad functioned as one of the Facility's container storage areas for feedstock materials used within AMRI's manufacturing operations.

From 1976 to 1984, the unit was used as a rail unloading area. After 1984, the unit was used as a truck and trailer unloading area. Prior to AMRI's operation of the Facility, the unit was used to load copper cathodes into rail cars. From 1984 to 1998, the unit was used during the transfer of bulk and containerized feedstock materials. Bulk and containerized feedstock materials were transferred to the Copper Tank House Bulk Storage Building (SWMU 28) or the Copper Tank House Outdoor Container Storage Area (SWMU 29) from trucks and trailers. Bulk and containerized feedstock materials were transferred to Bulk Solids Storage Tank 8-TK-1 (SWMU 01), prior to insertion within AMRI's manufacturing operations.

4.1.6 SWMU 16 Laboratory Sump

Unit's Status: The unit is closed in-place. The unit was addressed under investigation activities conducted under Phase II and Phase III of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consisted of a concrete pipe, three feet in diameter and five feet in depth, which was set vertically in a concrete base. The piping to and from the unit runs underground, and is constructed of polyvinyl chloride (PVC) pipe. The unit was located across the street and east of the quality control laboratory.

Prior to closure, the unit had been active since 1976. AMRI's laboratory primarily evaluated parameters required for the acceptance of received feedstock materials. Liquids that were collected in the sump were considered beneficial to AMRI's manufacturing operations. Wastewater discharged from the laboratory was collected by the unit and pumped into process tank 11-TK-6, for use as process water for AMRI's manufacturing operations.

4.1.7 SWMU 17 Area 9 Recycling Building

Unit's Status: The unit is closed and only the concrete pad remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consisted of a roofed structure of steel construction, which was closed on three sides. The unit was located north of the Area 8 Container Storage Area, which functioned as one of the Facility's container storage areas for feedstock materials used within AMRI's manufacturing operations. The unit was supported on a concrete base. In 1995, the unit was upgraded with curbing to provide containment.

Prior to closure, the unit was active from 1986 until 1994, and stored various recycle materials resulting from on-site operations, which were used as feedstock materials for AMRI's manufacturing operations. Recycle materials stored in the unit were transferred to Bulk Solids Storage Tank 8-TK-1 (SWMU 01), prior to insertion within AMRI's manufacturing operations.

4.1.8 SWMU 19 Drum Storage Area

Unit's Status: The unit is closed and remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consists of a concrete pad, four to six foot in depth, located south of the Area 13 Vanadium Flyash Storage Building (SWMU #39), and is contiguous to the north boundary of the Area 13 Container Storage Building. The Area 13 Container Storage Building functioned as one of the Facility's container storage areas for feedstock materials used within AMRI's manufacturing operations. The unit stored 55-gallon drums of feedstock materials on wooden pallets.

The unit was active from 1986 to 1993. The unit stored 55-gallon drums of feedstock materials, prior to being transferred to Bulk Solids Storage Tank 8-TK-1 (SWMU 01).

4.1.9 SWMU 21 Tanks 8-TK-5 & 8-TK-6

Unit's Status: The unit is closed and only the concrete pad remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consisted of two process tanks supported on a concrete base that was surrounded by a containment dike. The units were stainless steel and had identical dimensions of 16 feet in diameter, 16 feet high, with a capacity of 24,000 gallons. The unit was located contiguous to the east boundary of Bulk Solids Storage Tank 8-TK-1 (SWMU 01). 8-TK-1 Bulk Storage Tank functioned as one of the Facility's bulk storage tanks for feedstock materials used within AMRI's manufacturing operations.

4.1.10 SWMU 24 Area 21 Empty Drum Storage Area

Unit's Status: The unit is closed and only the concrete roadways remain structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consists of storage area, partially on a concrete road and partially on soil covered with shells. The unit is located contiguous to the west boundary of Landfill F (SWMU 13). The unit was active from 1987 to 1998, and stored empty 55-gallon drums, which contained feedstock materials for AMRI's manufacturing operations. Empty drums were stored in the unit, prior to being transferred to the adjacent Area 21 Drum Crushing Area (SWMU 25).

4.1.11 SWMU 25 Area 21 Empty Drum Crushing Area

Unit's Status: The unit is closed and remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consists of a concrete pad, located southwest of the Area 21 Empty Drum Storage Area (SWMU 24). The unit was also contiguous to the west boundary of the Area 21 Container Storage Pad, which functioned as one of the Facility's container storage areas for feedstock materials used within AMRI's manufacturing operations. The unit contained equipment for crushing empty 55-gallon steel drums which previously contained feedstock materials for AMRI's manufacturing operations. Empty drums were crushed in the unit prior to off-site recycling.

4.1.12 SWMU 26 Copper Tank House (CTH) Waste Pile

Unit's Status: The unit is closed and only the concrete pad remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consisted of an area located beneath the copper tank house, which was constructed in the mid-1970s. The unit was located contiguous to west boundary of the Copper Tank House Bulk Storage Building (SWMU 28), which was also identified as the Area 15 Container Storage Building. The Area 15 Container Storage Building functioned as one of the Facility's container storage areas for feedstock materials used within AMRI's manufacturing operations. The unit has a 30-inch-thick reinforced concrete base, with a 24-inch-high concrete wall providing containment on the perimeter of the concrete base.

The unit was inactive from 1990 to 1998. The unit stored intermediate products resulting from maintenance activities involving process tanks 11-TK-6 and 13-TK-1. The intermediate products were considered "in-process" and "commodity-like" materials under AMRI's manufacturing process. The unit stored the intermediate products, prior to being transferred to Bulk Solids Storage Tank 8-TK-1 (SWMU 01) or Area 8 Recycle Process Feed System (SWMU 33) for insertion within AMRI's manufacturing operations.

4.1.13 SWMU 27 Outdoor Container Storage Area

Unit's Status: The unit is closed in-place. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consisted of reinforced concrete mats, which were positioned to form a 48-by-115 foot slab. The unit was located contiguous to the west boundary, and potentially overlying portion of Landfill E (SWMU 13). The unit was active from 1989 to 1998, and stored 55-gallon drums of feedstock materials prior to being transferred to Bulk Solids Storage Tank 8-TK-1 (SWMU 01).

4.1.14 SWMU 28 CTH Bulk Storage Building

Unit's Status: The unit is closed and only the concrete pad remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water, combined with clean closure of surfaces and above ground structures.

The unit consisted of a section of a steel building, 110-by-125 feet in surface area, and was constructed in the mid-1970's. The unit, which was also identified as the Area 15 Container Storage Building, functioned as one of the Facility's container storage areas for feedstock materials used within AMRI's manufacturing operations. The unit was supported on a concrete base, with concrete walls, measuring 12 feet high and 12 inches thick, which provided containment around the perimeter of the unit. The unit was contiguous to the Copper Tank House Outdoor Container Storage Area (SWMU 29), which was also identified as the Area 15 Container Storage Pad.

The unit was active until closure. However, AMRI ceased storing bulk feedstock materials outside Bulk Solids Storage Tanks 8-TK-1 and 8-TK-2 (SWMU 01) in 1998. After 1998, containerized feedstock materials were stored in the unit prior to being transferred to Bulk Solids Storage Tank 8-TK-1 (SWMU 01).

4.1.15 SWMU 29 CTH Outdoor Container Storage Area

Unit's Status: The unit is closed and only the concrete pad remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water, combined with clean closure of surfaces and above ground structures.

The unit consisted of a reinforced concrete base, 110-by-95 feet in surface area, and was built in 1988. The unit, which was also identified as the Area 15 Container Storage Pad, functioned as one of the Facility's container storage areas for feedstock materials used within AMRI's manufacturing operations. One side of the unit was contiguous with the 12-foot-high concrete wall of the Copper Tank House Bulk Storage Building (SWMU 28), which was also identified as the Area 15 Container Storage Building. The Area 15 Container Storage Building functioned as one of the Facility's container storage areas for feedstock materials used within AMRI's manufacturing operations. Two other sides of the unit had 6-foot-high concrete walls, and the fourth side had a 6 inch curbing. The unit was until 1988. The unit stored containerized feedstock materials prior to being transferred to Bulk Solids Storage Tank 8-TK-1 (SWMU 01).

4.1.16 SWMU 32 Southwest Storage Area Sump

Unit's Status: The unit is closed and remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water, combined with clean closure of surfaces and above ground structures.

The unit consists of a 12 inch square, 10 inch deep sump, which is cut into an existing 18-inch-thick reinforced concrete slab. The unit is located in the northeast corner of the Southwest Container Storage Pad, which functioned as one of the Facility's container storage areas for feedstock materials used within AMRI's manufacturing operations. The unit had a gate valve installed through the existing concrete to drain the sump. The unit had been upgraded in 1998.

The unit was active until closure. Liquids collected in the sump were beneficial to AMRI's manufacturing operations. Liquids collected in the sump area were transferred to Bulk Solids Storage Tank 8-TK-1 (SWMU 01) or process tank 11-TK-6 for use as process water within AMRI's manufacturing operations.

4.1.17 SWMU 33 Area 8 Recycle Process Feed System

Unit's Status: The unit is closed and only the concrete pad remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consisted of a multi-story steel structure located on a 38-by-42 foot reinforced concrete slab, with 6 inch concrete perimeter curbing. A concrete collection sump was located inside the curbed area. The unit was located contiguous to the north

boundary of Bulk Storage Tank 8-TK-1 (SWMU 01), which functioned as one of the Facility's bulk storage tanks for feedstock materials used within AMRI's manufacturing operations.

The unit was active until closure, and managed feedstock materials that were utilized within AMRI's manufacturing process. Feedstock materials were transferred from Bulk Solids Storage Tank 8-TK-1 (SWMU 01) to the unit via conveyor. The equipment contained within the unit conveyed and classified feedstock materials. Following initial processing, resulting intermediate products were transferred to Tanks 8-TK-5 and 8-TK-6 (SWMU 21). Liquids collected in the sump were considered beneficial to AMRI's manufacturing operations and were pumped into process tank 11-TK-6, for use as process water.

4.1.18 SWMU 39 Area 13 Vanadium Flyash Storage Building

Unit's Status: The unit is closed and only the concrete pad remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consisted of steel constructed building, located north of the Drum Storage Area (SWMU 19). The unit had a concrete base, which was 48 inches above grade, without containment. The west side of the building was used to store vanadium flyash in 55-gallon drums. The center of the building was used to store large mechanical replacement parts for plant maintenance. The east side of the building was used as a welding shop.

Prior to closure, the unit was active from 1985 to 1997, and stored vanadium flyash in 55-gallon drums. The vanadium flyash functioned as an alternative feedstock material for AMRI's manufacturing operations. The unit also periodically stored intermediate products resulting from AMRI's manufacturing operations. Feedstock materials and intermediate products were stored within the unit, prior to being transferred to Bulk Solids Storage Tank 8-TK-1 (SWMU 01) or Area 8 Recycle Process Feed System (SWMU 33) for insertion within AMRI's manufacturing operations.

4.1.19 SWMU 41 R & D Laboratory Sump

Unit's Status: The unit is closed in-place. The unit was addressed under investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consisted of a 6-inch-thick concrete sump, 48 inches in diameter and 72 inches deep. AMRI's research and development laboratory primarily evaluated feedstock materials and intermediate products. The unit was located immediately north of the research and development laboratory.

Prior to closure, the unit had been active since the 1970s. Water discharged from the laboratory was collected in the unit, prior to being transferred to process tank 11-TK-6, for use as process water within AMRI's manufacturing operations.

4.1.20 SWMU 42 UST Waste Pile

Unit is pending voluntary remedial action under the LDEQ's VRP.

Unit's Status: The unit is pending closure. The unit will be closed as part of a Remedial Action Plan (RAP) under the LDEQ's VRP. Further definition regarding AMRI's pending remedial action for the unit is provided in Section 5.0 of this Document.

The unit consisted of an area where excavated soils, resulting from the remediation of four (4) underground storage tanks, were temporarily stored during 1992. The unit was located southwest of the Facility's research and development laboratory. The unit consisted of an open area of native soil, 50 feet in length and 30 feet in width.

Prior to closure, the unit was active during 1992, when approximately 400 to 500 cubic yards of soils contaminated with diesel and gasoline were stored in the unit prior being transferred off-site for the production of an asphalt-stabilized road base. The contaminated soils were covered by tarpaulins during storage.

During AMRI's supplemental investigations, conducted under Phase II of the Facility's SI, a limited number of organic constituents from the Facility's COCs & TPH were identified to exceed applicable RECAP screening limits. AMRI elected to further define the vertical and lateral extent of the impacted area, to delineate the impacted area.

AMRI prepared a sampling and analysis work plan, consistent with the Facility's investigation plan, to delineate the impacted area and potential source materials for removal under a voluntary remedial action (i.e., soil excavation). In May of 2006, AMRI initiated the sampling and analysis plan, and delineated both the vertical and horizontal extent of impacted subsurface soils. AMRI has elected to defer the implementation of the remedial action, and initiate closure of the unit as a RAP under LDEQ's VRP.

4.1.21 SWMU 43 Vehicle Maintenance Building Sump

Unit's Status: The unit is closed in-place. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consisted of a sump, contained within a steel constructed building. The unit was located south of the research and development laboratory. The building was supported on a concrete slab, which contained a recessed concrete trough with sump, running the length of the slab. In the mid-1970s, the building was converted to a vehicle maintenance shop, and the trough was filled in with concrete.

The remaining sump, which was part of the original trough, was left intact for use as a collection basin. Liquids were routed to the sump by way of existing slopes of the concrete slab. The unit was upgraded in 1992. Prior to closure, the unit had been active since the mid-1970s. The unit collected liquids which were transferred by portable pump or vacuum truck to an oil water separator located outside of the building, which was installed in 1992.

4.1.22 SWMU 44 West Outdoor Container Storage Area

Unit's Status: The unit is closed in-place. The unit was addressed under investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consisted of a storage area located southwest of the research and development laboratory, on a compacted shell road with a dense clay base. The unit was used to store 55-gallon drums containing feedstock materials. The unit was partially covered with tarpaulins.

Prior to closure, the unit was active from 1988 to 1993. The unit stored feedstock materials, which were stored in 55-gallon drums prior to being transferred to Bulk Solid StorageTank 8-TK-1 (SWMU 01). In 1993, the unit's inventory of 55-gallon drums was transferred to the southwest container storage building.

4.1.23 SWMU 45 Caustic Storage Tank

Unit's Status: The unit is closed and only the concrete pad remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consisted of a carbon steel tank, measuring 55 feet in diameter and 36 feet in height, with an approximate capacity of 630,000 gallons. The unit was located contiguous to the west boundary of Bulk Storage Tank 8-TK-2 (SWMU 01), which functioned as one of the Facility's bulk storage tanks for feedstock materials used within AMRI's manufacturing operations. The unit rested on a steel structure supported by an 18-inch-thick reinforced concrete slab. The unit was surrounded by an earthen dike with a perimeter levee that measured 139 in diameter and 6 feet high.

Prior to 1985, the unit was used for storage of No. 6 fuel oil. After 1985, prior to closure, the unit stored 50 percent sodium hydroxide, which functioned as a principal reagent within AMRI's manufacturing operations.

4.1.24 SWMU 46 Nickel Sulfide Receiving Area

Unit's Status: The unit is closed. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit was resolved under a voluntary remedial action (soil excavation), followed by a RECAP compliant investigation of subsurface soils and water.

The unit consisted of two reinforced concrete basins, which were covered, having a total capacity of approximately 7,750 cubic feet. The unit was constructed in 1974. In 1980, a welded stainless steel lining was added to each basin. The unit was located south of the Area 8 Container Storage Building, which functioned as one of the Facility's container storage areas for feedstock materials used within AMRI's manufacturing operations. Each basin was 27.5 feet in length, 23.5 feet in width and 6 feet in depth, supported by 18-inch-thick reinforced concrete and 18 inches of compacted sand.

The unit was active from 1974 to 1995. From 1974 to 1984, the unit was used to store nickel sulfide feedstock materials, which were used in nickel refining operations. From 1985 to 1995, the unit stored miscellaneous recyclable solid materials and intermediate products resulting from AMRI's manufacturing operations. The unit stored recyclable materials and intermediate products, prior to being transferred to Bulk Solids Storage Tank 8-TK-1 (SWMU 01) or Area 8 Recycle Process Feed System (SWMU 33) for insertion within AMRI's manufacturing operations.

4.1.25 SWMU 47 Area 9 Support Material Bulk Storage Area

Unit's Status: The unit is closed and only the concrete pad remains structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consisted of an outdoor storage area, 204 feet by 60 feet in surface area, supported on a reinforced concrete slab. The unit was located east of the Area-9 Container Storage Building, which functioned as one of the Facility's container storage areas for feedstock materials used within AMRI's manufacturing operations. In 1985, additional concrete slabs were positioned vertically around the perimeter of the area to provide partial containment.

The unit was active from 1958 to 1998. From 1958 to 1985, the unit contained wooden tanks used to store feedstock materials for nickel refining operations. From 1985 to 1998, the unit stored inert support media, separated from feedstock materials used within AMRI's manufacturing operations. The support media was stored prior to being transferred off-site to a recycling company which classified the support media for reuse within the petroleum refining industry.

4.1.26 SWMU 58 Plant Roads

Unit's Status: The unit is closed and only the concrete roadways remain structurally intact. The unit was addressed under combined closure and investigation activities conducted under Phase II of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The unit consisted of two identified segments of road which are used during feedstock materials transfer operations. The two segments of plant road, included the south end of road E3000 for an estimated 600 feet (segment of 9th Street), and road E2650 for an estimated 250 feet (unidentified segment). The primary plant roads were concrete in construction, with less utilized roads consisting of crushed rock or shell surfaces on a clay base.

Prior to closure, the unit had been active since 1985. Until 1999, bulk feedstock materials containing no free liquids, were transferred on plant roads by truck from bulk storage areas to Bulk Solids Storage Tank 8-TK-1 (SWMU 01). In 1999, AMRI ceased storage of bulk feedstock materials outside Bulk Solids Storage Tanks 8-TK-1 and 8-TK-2 (SWMU 01). After 1999, only containerized feedstock materials, 55-gallon drum on wooden pallets and flow bins, were transferred on plant roads.

4.2 SWMUs ADDRESSED UNDER SOLID WASTE CLOSURE ACTIVITES

This section of the Document summarizes the status of SWMUs addressed during solid waste closure activities conducted during the Facility's SI. The activities, which were described within the previous sections of this Document, were performed to assess the potential for impacts from historical Facility operations to soils and shallow groundwater, and to obtain an accurate characterization for the area under the LDEQ's VRP.

4.2.1 SWMU 09, pH Adjustment Pond

Unit's Status: The unit is clean closed. The unit was addressed under combined closure and investigation activities conducted under Phase III of the Facility's SI. The unit's status was resolved through clean closure to comply with RECAP residential screening standards.

The unit was maintained under an alternative regulatory program, LDEQ Solid Waste Permit P-0136 and LPDES Permit LA0045233. The unit consisted of an impoundment, with a surface area of 4.3 acres, which was excavated from underlying native clays, with the embankments constructed from excavated material. The unit had a 15-million-gallon maximum capacity, with a seven million gallon normal operating capacity.

Prior to clean closure, the unit was active since 1979, and functioned as integral part of AMRI's wastewater treatment system. The influent to this unit was treated wastewater resulting from qualified process water and storm water managed within AMRI's wastewater treatment system. The unit was used for pH adjustment and equalization of treated wastewater prior to discharge to LPDES permitted outfall 001, the Mississippi River.

4.2.2 SWMU 10 Waste Storage, Process Water, & Oxidation Ponds

The unit consisted of three separate impoundments, which were maintained under various operating conditions, specific to each impoundment. The three (3) impoundments, Included:

Waste Storage Pond
Process Water Pond
Oxidation Pond

4.2.2.1 Waste Storage Pond

The unit is not included within the area of the Facility being considered under the LDEQ'S VRP.

Unit's Status: The unit is closed in-place. The unit was addressed under combined closure and investigation activities conducted under Phase III of the Facility's SI. The unit's status was resolved through closure to comply with applicable RECAP industrial screening standards, and remains under an alternative regulatory program, LDEQ Solid Waste Permit P-0136.

The Waste Storage Pond, also known as the Wastewater Storage Pond, had a surface area of 10.3 acres. Prior to closure, the unit was maintained under an alternative regulatory program, LDEQ Solid Waste Permit P-0136 and LPDES Permit LA0045233. The impoundment was unlined, and was excavated from underlying native clays, with the embankments constructed from excavated material.

Prior to closure, the unit had been active since 1958, and functioned as integral part of AMRI's wastewater treatment system. The Waste Storage Pond received influent from the Collection Basin (SWMU #11), which was retained for settling and equalization prior to discharge to AMRI's wastewater treatment unit. The unit is maintained under an alternative regulatory program, LDEQ Solid Waste Permit P-0136.

4.2.2.2 Process Water Pond

The unit is not included within the area of the Facility being considered under the LDEQ'S VRP.

Unit's Status: The unit is active as a restored wildlife habitat. The unit was addressed under combined closure and investigation activities conducted under Phase III of the Facility's SI. The unit's status was resolved through restoration activities, after demonstrating compliance with applicable RECAP industrial screening standards.

The Process Water Pond, also known as the Raw Water Pond or Firewater Pond, provided storage capacity for reserve process water received from the Mississippi River, that was required to support AMRI's manufacturing operations. The unit did not require permitting.

The unit was constructed to a maximum depth of six (6) feet below ground surface in isolated areas, and the excavated soils were used to construct a containment berm to separate the unit from adjacent impoundments. Based on the unit's original location and site elevation, AMRI elected to restore the unit and contiguous down gradient areas of the Facility to a wildlife habitat.

4.2.2.3 Oxidation Pond

The unit is not included within the area of the Facility being considered under the LDEQ'S VRP

Unit's Status: The unit is closed in-place. The unit was addressed under combined closure and investigation activities conducted under Phase III of the Facility's SI. The unit's status was resolved through closure to comply with applicable RECAP industrial screening standards, and criteria under LAC 33:IX.6901 for the land application of sewage sludges.

The Oxidation Pond had a surface area of three acres. The unit did not require a permit, and was constructed under an approval issued by the Louisiana Department of Health in 1973. The impoundment was unlined, and was excavated from underlying native clays, with berms constructed from excavated material. Prior to closure, the unit had been active since 1958, and functioned as AMRI's sanitary treatment system.

4.2.3 SWMU 11 Collection Basin

Unit's Status: The unit is clean closed. The unit was addressed under combined closure and investigation activities conducted under Phase III of the Facility's SI. The unit's status was resolved through clean closure to comply with RECAP residential screening standards.

Prior to closure, the unit was maintained under an alternative regulatory program, LDEQ Solid Waste Permit P-0136 and LPDES Permit LA0045233. The unit consisted of an impoundment excavated from underlying native clays, with embankments constructed from excavated material. The unit measured 115 feet by 175 feet, and functioned as integral part of AMRI's wastewater treatment system.

Prior to closure, the unit received influent from the Internal Drainage Ditches (SWMU 15), which were contained within the boundary of the Facility's PAC system. Discharge from the unit was transferred to the Waste Storage Pond (SWMU 10) for retention, prior being transferred to AMRI's wastewater treatment unit.

4.2.4 SWMU 15 Internal Drainage Ditches

Unit's Status: The unit is closed in-place. The unit was addressed under combined closure and investigation activities conducted under Phase III of the Facility's SI. The unit's status was resolved through closure to comply with applicable RECAP industrial screening standards.

In accordance with LAC 33:VII.713.E.4, the unit was closed to the extent necessary to achieve an alternative level of contaminants that is adequately protective of human health and the environment. Prior to closure, the unit was maintained under an alternative regulatory program, LDEQ Solid Waste Permit P-0136 and LPDES Permit LA0045233. The unit consisted of the in-plant storm water conveyance system, which was unlined and excavated from natural clays. The unit was contained within the boundary of AMRI's PAC system, which provided containment of qualified process water and storm water run-off from AMRI's feedstock materials storage areas and manufacturing operations.

A portion of the unit was left open to facilitate the surface movement of storm water, following the diversion of surface run-off previously managed by the Facility's wastewater treatment system to the NPDES North and South Drainage Ditches. The diversion was required, prior to closure activities being initiated on the remaining surface impoundments associated with the Facility's wastewater treatment system.

4.3 SWMUs ADDRESSED UNDER ALTERNATIVE REGULATORY PROGRAMS

This section of the Document summarizes the status of SWMUs addressed under alternative regulatory programs. The two (2) SWMUs listed were not addressed during the Facility's SI, and the units remain managed under an alternative regulatory program.

4.3.1 SWMU 08 Reclamation Process Pond

The unit is not included within the area of the Facility being considered under the LDEQ'S VRP.

Unit's Status: The unit is closed, and is maintained under an alternative regulatory program (LDEQ Solid Waste Permit P-0135). The unit's status was resolved by remaining under the conditions of an alternative regulatory program. The unit was not characterized under the Facility's SI.

The unit is maintained under an alternative regulatory program, LDEQ Solid Waste Permit P-0135. The unit consists of an impoundment which was closed under a risk-based program conducted by AMRI in 1993. The unit was operated from 1974 to 1985, prior to AMRI's manufacturing operations, as a tailings pond which received tailings from nickel refining operations. The unit was excavated from underlying native clays, with a maximum operating capacity of eight million gallons.

During closure activities, approximately 7,000 cubic yards of industrial debris, solid waste, and contaminated soils were excavated from Landfill A (SWMU 12) and 4,000 cubic yards of solid waste and contaminated soils were excavated from Landfill D (SWMU 13) and placed within the closure, prior to capping activities. Excavated areas of landfills A and D were backfilled with clean soil. In addition to materials from Landfills A and D, approximately 12,000 cubic yards of soils in the area adjacent to and within a 1,500 foot section of the Southern NPDES Storm Water Drainage Ditch (SWMU 18) were excavated and placed within the closure cell to supplement for clean soils required to achieve capping elevation design.

Groundwater monitoring, which was required under the unit's solid waste permit and as a condition of the unit's post-closure requirements, has documented no contaminants. Post-closure groundwater monitoring requirements ceased in 1997, and AMRI currently maintains semi-annual groundwater monitoring on a voluntary basis. The unit's current post-closure requirements consist of visual inspection and cap maintenance as defined under LDEQ Solid Waste Permit P-0135.

4.3.2 SWMU 18 NPDES Storm Water Drainage Ditches

Unit's Status: The unit remains active and is maintained under an alternative regulatory program (LPDES Permit LA0045233). The unit's status was resolved under two (2) separate voluntary remedial actions conducted in 1979 and 1993, and by remaining under the conditions of an alternative regulatory program.

The unit continues to be maintained under an alternative regulatory program, LDEQ LPDES Permit LA0045233. The unit consists of two storm water conveyance systems, which are unlined and excavated from natural clays. Both conveyance systems are located outside of AMRI's manufacturing operations area, and separated from AMRI's manufacturing processes and feedstock materials storage areas by the PAC system. Both conveyance systems flow from west to east, away from the Mississippi River and toward Forty Arpent Canal, and represent LPDES permitted outfalls 002 and 003, respectively.

The unit is maintained under an alternative regulatory program, LPDES Permit LA0045233, and was not characterized under the Facility's SI. Areas of the unit that were impacted by historic operations were previously investigated and resolved through two (2) voluntary remedial actions conducted in 1979 and 1993. In 1979, a release occurred from the process transfer line the area of the South Storm Water Ditch, adjacent to the Reclamation Process Pond (SWMU 08). The impacted portion of South Storm Water Ditch (i.e., approximately 1,500 feet, running east of State Highway 39) was isolated from the release and blocked to prevent flow to the Forty Arpent Canal. Portable pumps were brought in to flush the isolated portion of the South Storm Water Ditch with water to purge them of the released solution. Following the removal of recoverable tailings material resulting from the release, the areas adjacent to the South Storm Water Ditch and Reclamation Process Pond that were impacted by the release were treated with lime and covered with sand.

In 1993, AMRI conducted a voluntary remedial action (i.e., soil excavation) to address areas directly adjacent to the Reclamation Process Pond, including the previously addressed 1,500 foot section of the South Storm Water Ditch. During the remedial action, AMRI excavated approximately 12,000 cubic yards of soils from the South Storm Water Ditch and areas adjacent to the Reclamation Process Pond. Excavated soils were consolidated within the in-place closure of the Reclamation Process Pond. The groundwater monitoring which was required as a condition of the Reclamation Process Pond's post-closure requirements under LDEQ Solid Waste Permit P-0135, has documented no contaminants.

During the Facility's SI, AMRI demonstrated that the integrity of the Facility's PAC system isolated the unit from potential releases resulting from historic manufacturing operations and activities associated with feedstock materials storage areas. Investigation activities conducted during the Facility's SI on SWMUs and feedstock materials storage areas in direct proximity or contiguous to the unit, demonstrated that subsurface soils and water complied with appropriate RECAP screening limits. Investigation activities conducted in direct proximity to the North and South Storm Water Ditches under the Facility's SI included the Nickel Sulfide Receiving Area (SWMU 46) and Area 13 Container Storage Area.

During the Facility's SI, AMRI demonstrated that the integrity of the Facility's PAC system isolated the unit from potential releases resulting from historic manufacturing operations and activities associated with feedstock materials storage areas. Investigation activities conducted during the Facility's SI on SWMUs and feedstock materials storage areas in direct proximity or contiguous to the unit, demonstrated that subsurface soils and water complied with appropriate RECAP screening limits.

On April 27, 2006, the LDEQ approved a minor modification to the unit's permit, allowing the diversion of storm water, previously managed by the Facility's wastewater treatment system, to flow to Outfalls 002 and 003. The diversion was required, prior to closure activities being initiated on the remaining surface impoundments associated with the Facility's wastewater treatment system and the removal of the Facility's PAC system.

4.4 AOIs ADDRESSED UNDER INVESTIGATION ACTIVITIES

This section of the Document summarizes the status of AOIs addressed during investigation activities conducted under the Facility's SI. The activities, which were described within the previous sections of this Document, were performed to assess the potential for impacts to soils and shallow groundwater, and to obtain an accurate characterization for the area under the LDEQ's VRP.

AOIs investigated during Phase IV of the Facility's SI involved investigation activities to address areas of interests identified outside the Facility's PAC system AMRI identified two (2) Areas of Interest (AOIs) for investigation, adjacent to and contiguous with the west boundary of the Facility's processing area and PAC system.

4.4.1 Northwest Corner Property Truck Yard Area

Unit's Status: The AOI is closed. The unit was addressed under investigation activities conducted under Phase IV of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The Northwest Corner Property Truck Yard Area is located in the northwestern corner of the Facility, and that was historically used for the repair of AMRI vehicles over a limited period of time. An investigation of the AOI was conducted to determine if historic operations had impacted the area, and to characterize the subsurface soils and water to support the inclusion of the area within the LDEQ's VRP.

4.4.2 Non-Process Areas

Unit's Status: The AOI is resolved. The unit was addressed under investigation activities conducted under Phase IV of the Facility's SI. The unit's status was resolved under a RECAP compliant investigation of subsurface soils and water.

The Non-Process Areas is comprised of the undeveloped areas within the Facility's property boundary, contiguous with and to the west of the Facility's processing area. Based on review of available information, the AOI had no known prior industrial activities. An investigation of the AOI was conducted to determine if any unknown activities or historic operations had impacted the area, and to characterize the subsurface soils and water to support the inclusion of the area within the LDEQ's VRP.

5.0 REMEDIAL ACTION PLAN UNDER LDEQ's VRP

This section of the Document provides description of AMRI's proposed voluntary remedial action for delineated impacted areas of the former UST Waste Pile (SWMU 42) to be implemented as a RAP under LDEQ's VRP.

5.1 UST Waste Pile Remedial Action Plan

AMRI has completed investigation and delineation activities to support a RAP under the LDEQ's VRP, for the UST Waste Pile (SWMU 42). As noted in Subsection 3.2.5.1, a limited number of organic constituents from the Facility's COCs & TPH were identified to exceed applicable RECAP screening limits within a limited area of the former UST Waste Pile.

To further define the vertical and lateral extent of the impacted area, AMRI prepared a sampling and analysis work plan to delineate the impacted area of subsurface soils and potential source materials for removal under a remedial action (i.e., soil excavation). In May of 2006, AMRI initiated the sampling and analysis plan, and was able to delineate both the vertical and horizontal extent of impacted subsurface soils.

However, AMRI elected to defer the implementation of the remedial action until the completion of the Facility SI, and perform the excavation as a voluntary remedial action (i.e., RAP) under the LDEQ's VRP. AMRI's proposed RAP defines that all soils within the delineated area of the former UST Waste Pile, that exceed the applicable RECAP screening standards, will be excavated and properly disposed in a permitted industrial solid waste landfill. The proposed excavation of soils will ensure protection of human health and the environment, based on planned future land use.

6.0 SUMMARY

AMRI has prepared this Document to support a RAP under the LDEQ's VRP, for a delineated area of the UST Waste Pile (SWMU 42), located within the Facility's former processing area. AMRI's RAP is being submitted under separate cover.

AMRI has completed site investigation activities and a risk evaluation under RECAP within a defined 215 acre area of the Facility designated for consideration under the LDEQ's VRP. The results of site investigations, voluntary remedial actions and closure activities summarized within this Document, demonstrate that the conditions within the defined 215 acre area of the Facility designated for consideration under the LDEQ's VRP are protective of human health and the environment, based on planned future land use.

APPENDIX A

EUSTIS ENGINEERING COMPANY, INC.
3011 28TH STREET
METAIRIE, LOUISIANA 70002-5019
PN 504-834-0157 / FN 504-834-0354
EMAIL: INFO@EUSTISENG.COM / SITE: WWW.EUSTISENG.COM

1 October 2004

Waldemar S. Nelson and Company Incorporated
1200 St. Charles Avenue
New Orleans, Louisiana 70130

Attention Mr. Lyndon Soileau
PN 593-5274
FN 523-4587
Email lyndon.soileau@wsnelson.com

Gentlemen:

Rising Head Slug Test Results
Amax Metals Recovery, Inc.
In Situ Permeability Tests of Two Wells
Braithwaite, Louisiana
Eustis Engineering Project No. 18586

Eustis Engineering Company, Inc., has completed rising head slug tests and analyses to estimate potential well flows for two monitoring wells. The wells are located at the Amax Metals Recovery, Inc.'s facility in Braithwaite, Louisiana. Work associated with this project was authorized by Mr. Lyndom Soileau of Waldemar S. Nelson and Company Incorporated.

Existing Condition

The tested wells are a 4-in. diameter PVC well (MW-1) and a 2-in. diameter PVC well (MW-1P). Based on furnished information, the 4-in. well is 40 feet deep with a 10-ft long slotted (0.010-in.) screen from 30 to 40 feet below the ground surface. The well is sand packed in an 8-in. diameter hole. A bentonite seal exists a few feet above the sand pack.

The 2-in. well extends 21.5 feet below the ground surface. A slotted screen (0.01-in.) extends from 9 to 19 feet below the ground surface. The bore hole is 8 inches in diameter with a 20/40 sand pack around the screen and up to 4 feet below the ground surface. The base of a bentonite pellet seal is 4 feet below the ground surface.

Waldemar S. Nelson and Company Incorporated
1 October 2004

Slug Tests

Rising head slug tests were performed on both wells following ASTM D 4044-91, "Standard Test Method for (Field Procedure) for Instantaneous Change in Head (Slug Tests) for Determining Hydraulic Properties of Aquifers." The procedure involves installing a measured mechanical slug to displace a known volume of water.

The tests were performed beginning on 20 September 2004. Our technician first confirmed both wells were open to their bottoms and measured static water levels within an electric water depth indicator. A Levelogger unit was then installed in each well on the afternoon of 20 September. The Leveloggers are 8-in. long, 0.75-in. diameter self-contained pressure recorders. The Leveloggers were programmed to read pressures every 15 seconds.

After the Leveloggers were installed, physical slugs were added to each of the wells. The slugs consists of PVC pipe filled with sand and water and capped. The slug used in the 2-in. well had a displaced volume of 0.078 c.f. and the slug used in the deep well had a displaced volume of 0.327 c.f. The slugs were installed so the tops of the slugs were below the static water surface. During the afternoon of the following day, 21 September, the slugs were removed from the wells to initiate the rising slug tests.

The initial hydrostatic head changes recorded (based on Levelogger data) were 2.72 feet and 3.87 feet for the 2 and 4-in. diameter wells, respectively. Results of the slug tests are plotted graphically on Enclosures 1 and 2 for the 2-in. diameter (shallow) and the 4-in. diameter (deep) wells, respectively. The plots are of ground water depth below the top of riser versus time.

We have also provided an additional plot for each of the wells on Enclosures 3 and 4. These are semi-log plots with the ratio of the measured hydrostatic head (h) to the original hydrostatic head (h_0) on a log scale versus time as an arithmetic scale.

Permeability Calculations

We have estimated formation permeability at the wells using the slug test data and the "Hvorslev Slug Test Method" described in "Applied Hydrology," third edition, by C. W. Fetter, MacMillan College Publishing Co., 1994.

The equation used to calculate the permeability is: $K = \frac{r^2 \ln(L/R)}{2LeT_o}$

The equation used to calculate the permeability is: $K = \frac{r^2 \ln(1/R)}{2 L_e T_o}$

Where:

K	=	permeability,
r	=	radius of the well casing,
R	=	radius of the sand packed bore hole,
L_e	=	the length of the sand packed area, and
T_o	=	the time for the water level to rise to within 37% of the static level.

Using this equation, the permeability of the formation was calculated to be 1 x 10^{-4} cm/sec and 0.7 x 10^{-4} cm/sec, respectively, for the 2 and 4-in. diameter wells.

Flow Calculations

Flow calculations were performed using guidelines in "Dewatering and Ground Water Control for Deep Excavations," Department of the Army, the Navy, and the Air Force, April 1971.

The estimated radii of influence was determined following procedures given on Figure IV-23 of the reference. The radii of influence for 8 and 25-ft drawdown for the respective shallow and deep wells are 23 and 63 feet.

Equation IV-36 from the reference was used to estimate the flow.

The equation is: $Q = \frac{\pi K (2DH - D^2 - h_w^2)}{\ln(R / r_w)}$

Where:

Q	=	flow,
k	=	permeability,
D	=	thickness of formation (take to be sand packed height),
H	=	static water level above the base of the well,
h_w	=	height of water level in the well above the well base while pumping,
R	=	radius of influence, and
r_w	=	the radius of the sand packed bore hole.

For the selected drawdowns, we have calculated a flow of 454 gallons and 582 gallons per day for the shallow (2-in.) and the deep (4-in.) wells, respectively.

Conclusion

It is our conclusion that both of these wells will produce less than 800 gallons per day if pumped to their maximum.

We hope this fulfills your immediate needs relative to the project. If you have any questions or require further information, please do not hesitate to contact us.

Yours very truly,

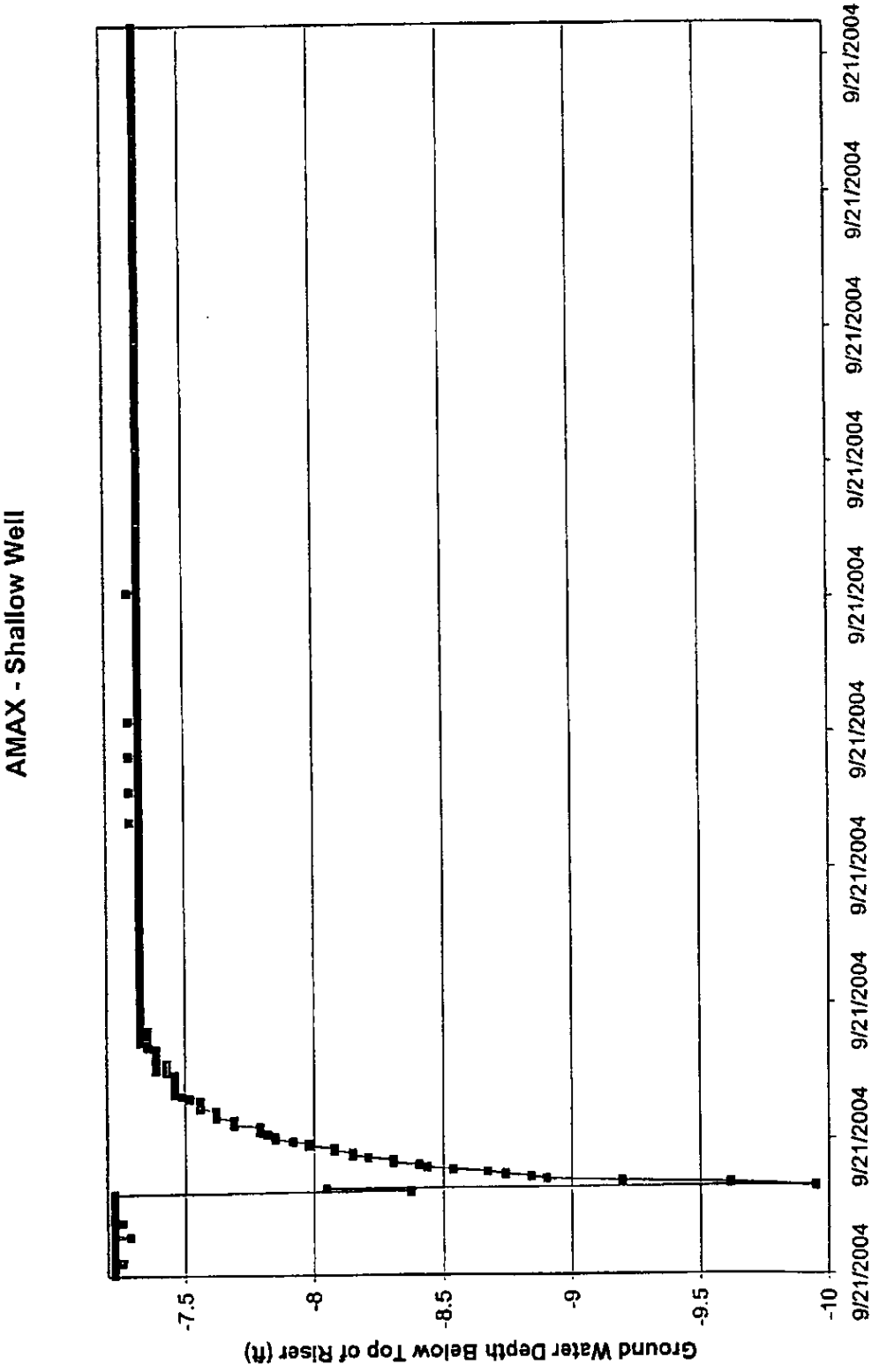
EUSTIS ENGINEERING COMPANY, INC.

THOMAS H. STREMLAU, P.E.

THS:jcl/kdl

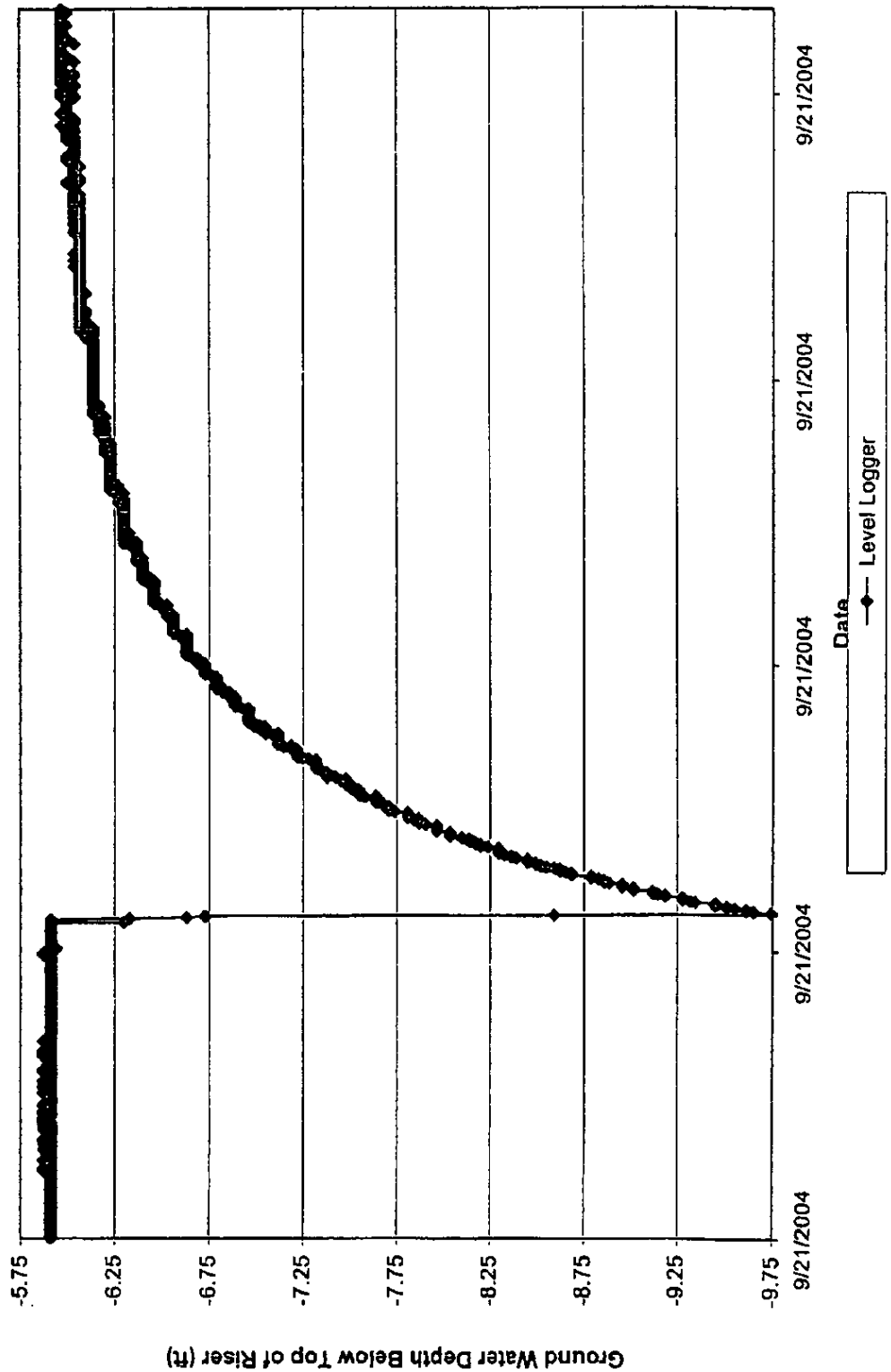
Enclosures 1 through 4

Appendix



EUSTIS ENGINEERING COMPANY, INC.

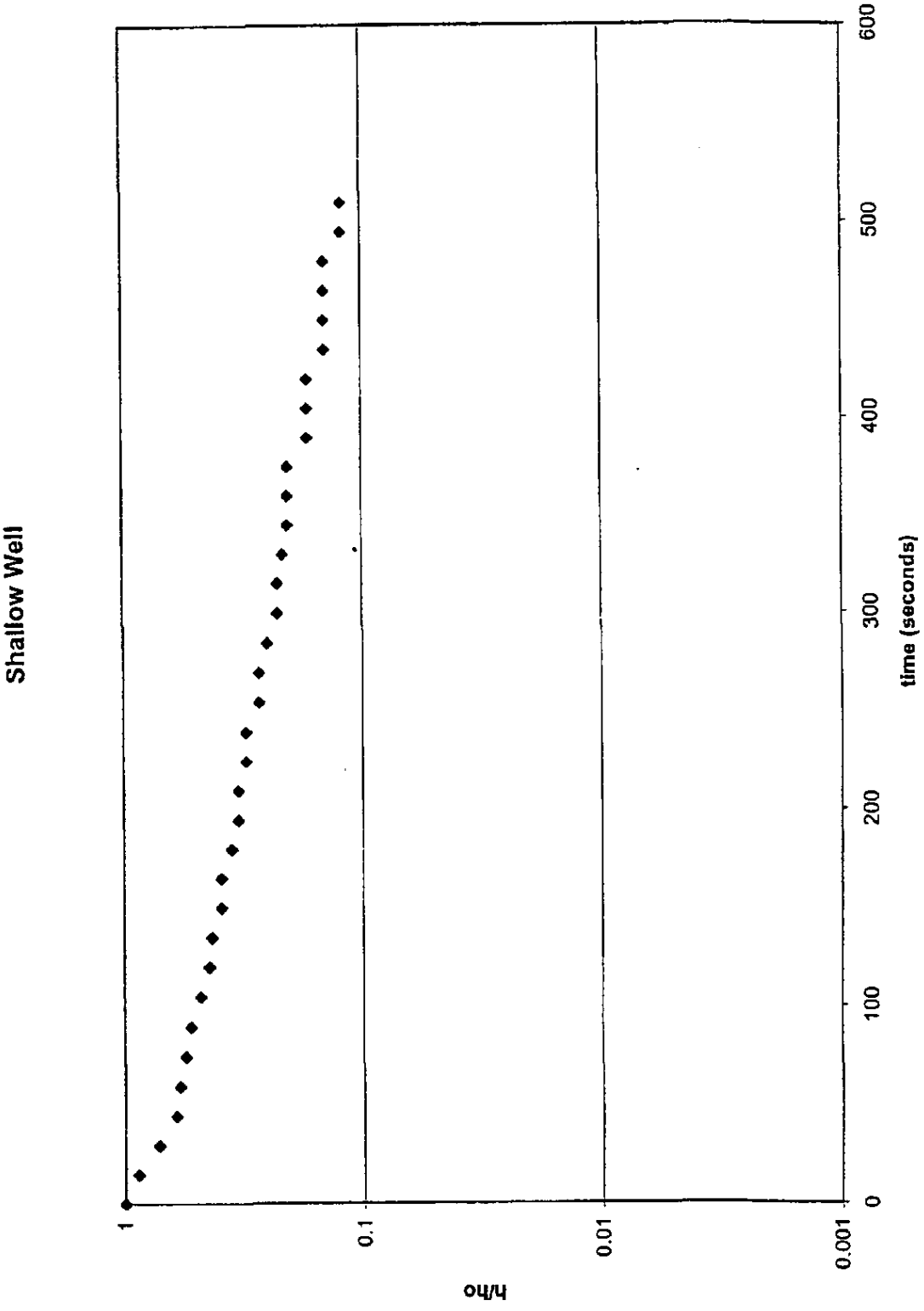
ENCLOSURE 1



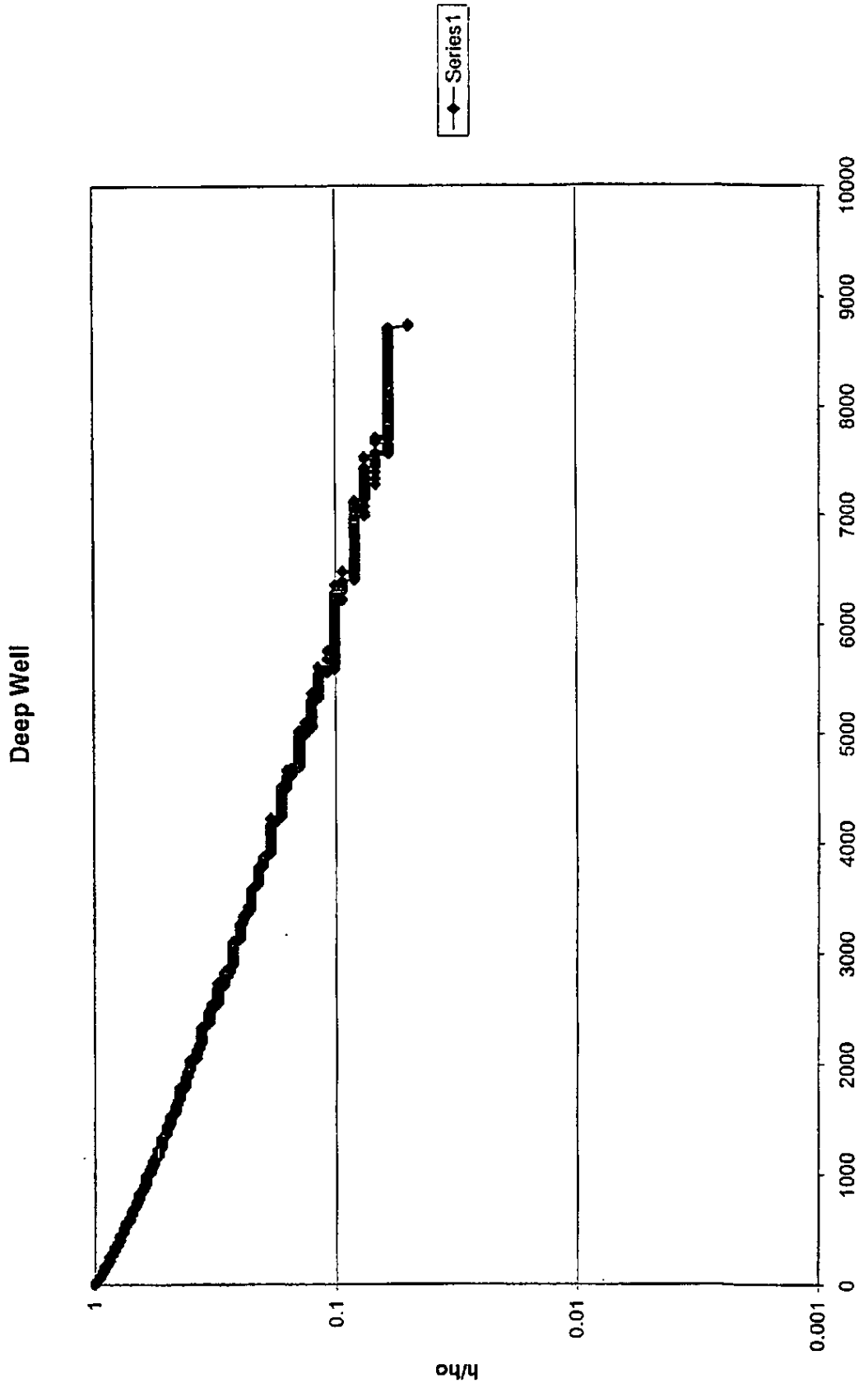
EUSTIS ENGINEERING COMPANY, INC.

ENCLOSURE 2

ENCLOSURE 3



EUSTIS ENGINEERING COMPANY, INC.

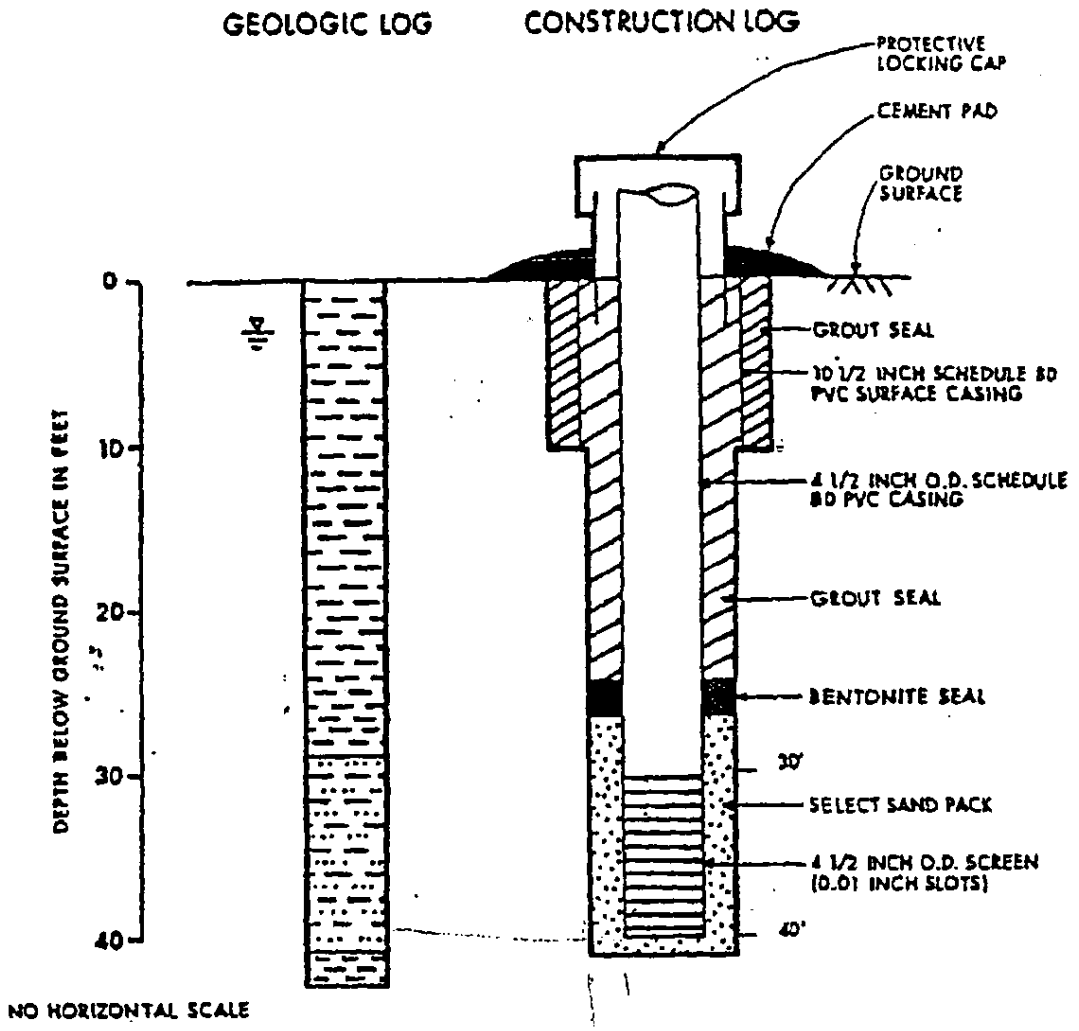


EUSTIS ENGINEERING COMPANY, INC.

ENCLOSURE 4

Appendix

JOHN C. HALLPASKA AND ASSOCIATES, INC.



LEGEND

GRAY CLAY

GRAY CLAY AND SILT

STATIC WATER LEVEL

SUMMARY GEOLOGIC LOG AND WELL COMPLETION DETAILS MONITORING WELL - 1

PROJECT NO. 5059 | FIG. 2

Consulting Ground Water Engine...
333 West Hampden Avenue, Suite 800
Englewood, Colorado 80110
(303) 781-0820

LITHOLOGIC LOG

PROJECT: AMAX PORT NICKEL
ENGINEER: JOE V. MEIGS
PROJECT NO.: 5059
DRILLING COMPANY: GORE ENG, INC
DRILLING RIG: FAILING 1500
DRILLING FLUID: WATER
STATIC WATER LEVEL:

WELL NO.: MW-1
PAGE 1 OF 2
DATE DRILLED: 7/18/86 / 7/23/86
DRILLER: EDDIE DAWSON
HOLE DIAMETER: 14 INCH / 8 INCH
TYPE BIT: 3-INCH THIN WALLED TUBE SAMPLER

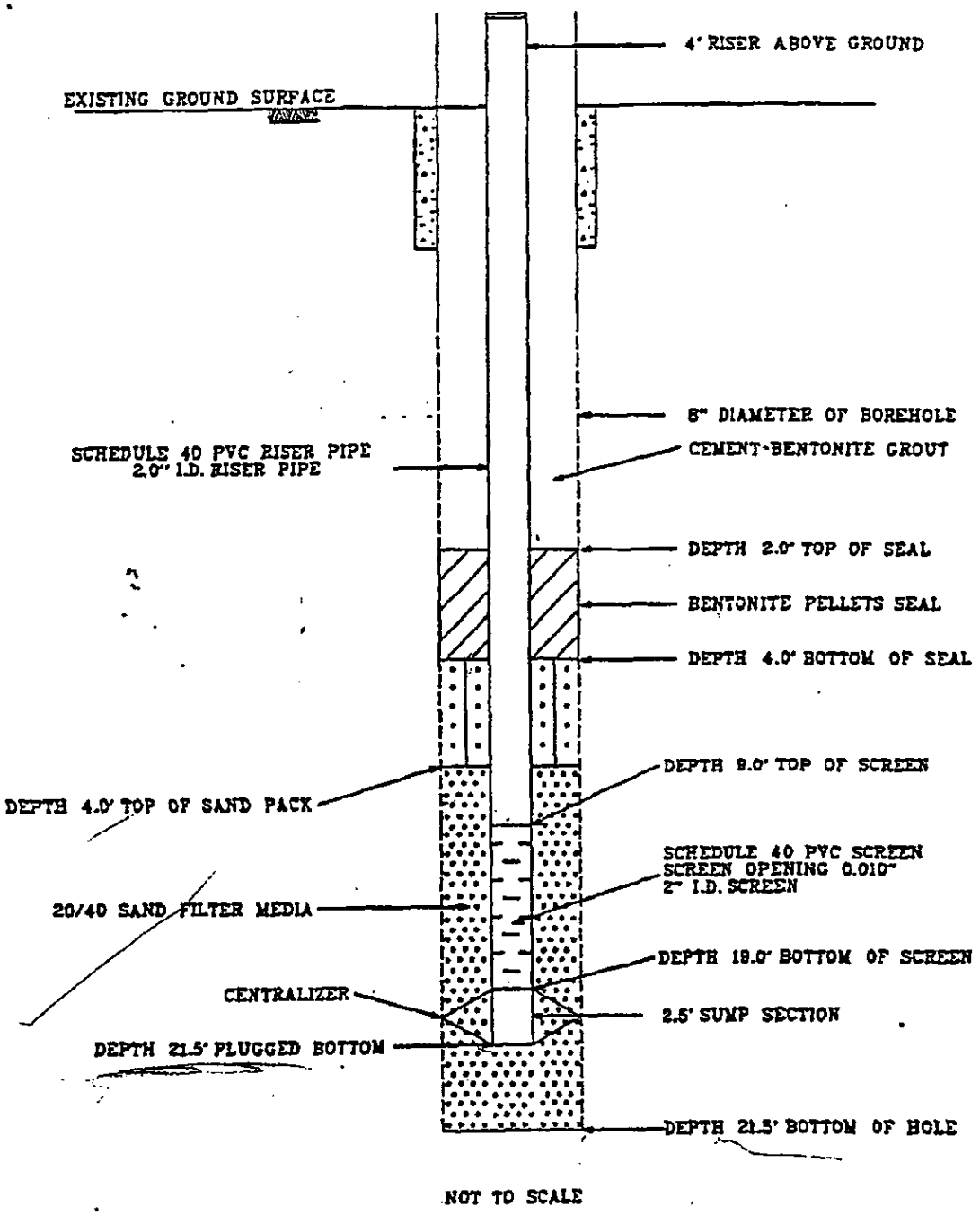
DEPTH (FT)	LAYER DESCRIPTION	COMMENTS
0	BROWN SILTY CLAY	
3.5	GRAY AND BROWN CLAY WITH MINOR SILT LENSES	
10.5	GRAY CLAY WITH MINOR SILT LENSES	
12.0	GRAY SILTY CLAY	
15.0	GRAY CLAY WITH MINOR WOOD	
17.0	GRAY SILTY CLAY	
18.0	GRAY CLAY	
23.0	BROWN CLAY WITH WOOD	
25.5	GRAY CLAY WITH SILT LENSES	
28.0	GRAY CLAY	
29.0	GRAY SILTY CLAY AND SILT	

..., Inc.
Consulting Ground Water Engineers
333 West Hampden Avenue, Suite 803
Englewood, Colorado 80110
(303) 781-0030

LITHOLOGIC LOG

WELL NO.: MW-1
PAGE 2 OF 2
PROJECT NO: 5059

DEPTH(FT)	LAYER DESCRIPTION	COMMENTS
	GRAY SILTY CLAY AND SILT	
32.5		
	GRAY CLAY	
33.5		
	GRAY CLAYEY SILT	
35.0		
	GRAY CLAY	
37.0		
	GRAY CLAYEY SILT	
40.0		
	GRAY SILTY CLAY AND CLAY	
41.0		
	GRAY CLAY	
43.0		



NOT TO SCALE

MWIP

AMAX METALS RECOVERY, INC.
ENVIRONMENTAL DRILLING AND TESTING SERVICES
BRAITHWAITE, LOUISIANA

USTIS ENGINEERING COMPANY, INC

52982 - Reg No.

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

AMAX METALS RECOVERY, INC.
ENVIRONMENTAL DRILLING AND TESTING SERVICES
BRAITHWAITE, LOUISIANA

(Sheet 1 of 1)

Ground Elev.: Datum: Gr. Water Depth: Job No.: 16047 Date Drilled: 8/26/99 Boring: 1 Refer to "Legends & Notes"

Scale in Feet	PP	SPT	SPLIT	Symbol	Visual Classification	USC	Sample Number	Depth in Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests φ	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Sample Notes	Other Tests
0					Loose brown silty clay w/roots & organic matter	CL	1	1-2											
	0.75				Medium stiff brown silty clay w/organic matter (flocculated)	CL	2	3-4											
	0.50				Medium stiff gray clay w/organic matter & silt layers (flocculated)	CH	3	5-6											
	0.65				Medium stiff gray & tan clay w/organic matter (flocculated)	CH	4	7-8											
	0.20				Very soft gray & tan silty clay w/organic matter & sand layers & lenses (flocculated)	CL	5	9-10	34	88	118				40	19	27	ORG % = 2.0	PD, PERM
10	0.10						6	11-12											
	0.10						7	13-14											
	0.20				Very soft gray clay w/roots	CH	8	15-16											
	0.10				Soft gray clay w/organic matter, roots, silt pockets, & wood	CH	9	17-18	48	73	109				77	24	53	ORG % = 4.6	PD, PERM
20	0.10				Very soft gray clay w/organic matter & roots	CH	10	19-20											
30																			
40																			
50																			

Comments:

APPENDIX B

KATHLEEN BABINEAUX BLANCO
GOVERNOR

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
P.O. Box 94245
Baton Rouge, Louisiana 70804-9245
www.dotd.louisiana.gov

JOHNNY B. BRADBERRY
SECRETARY

Public Works & Water Resources Section
(225) 274-4172

June 6, 2007

Mr. Lyndon S. Soileau
Waldemar S. Nelson and Company Inc
1200 St. Charles Avenue
New Orleans, LA 70130-4334

Re: Water Well Listings
Your request of: May 30, 2007

Dear Mr. Soileau:

As per your request received May 30, 2007, we are herewith enclosing the following for your information:

1. Computer printouts listing registered water wells and pertinent information about the wells.
2. An explanation of the codes used on the printout.

Please be advised that this list does not include every possible water well which may have been drilled within the referenced coordinates. The list represents only those wells which have been registered with this Department, including those scheduled by the U.S. Geological Survey, and does not include those which are presently being processed.

This information is made available through our cooperative water resources program with the U.S. Geological Survey.

If I may be of any further assistance, please do not hesitate to contact me at (225) 274-4127.

Sincerely,

George Chike
Water Resources Section

Enclosures

cc: Request for Information File

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

BATON ROUGE

WELL0040 LOUISIANA DOTD - WATER WELL REGISTRATION SYSTEM PAGE 1

DATE: 05/31/07 WATER WELL REPORT SELECTION CRITERIA

		PARISH BOUNDARIES			
		MAX-N	MIN-S	MIN-E	MAX-W
PARISH(ES) REQUESTED :	ALL - ALL PARISHES	333000	280000	893000	943000
USES REQUESTED :	ALL - ALL USES				
AQUIFERS REQUESTED :	ALL - ALL AQUIFERS				

WITHIN A 1.00000 MILE RADIUS OF LATITUDE 295140 LONGITUDE 895755

COMMENTS : REQUESTED BY: WALDEMAR S. NELSON AND COMPANY

NUMBER OF RECORDS SELECTED = 25

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

BATON ROUGE

5/31/2007 LOUISIANA DOTD - WATER WELL REGISTRATION SYSTEM PAGE 1

WELLRQ1A - REGISTERED WATER WELLS IN PLAQUEMINES -- SORTED BY WELL NUMBER

REQUESTED BY: WALDEMAR S. NELSON AND COMPANY

WITHIN A 1.00000 MILE RADIUS OF LATITUDE 295140 LONGITUDE 895755

PARISH CODE	WELL NUMBER	OWNER'S NAME / OWNER'S NO.	LATITUDE / LONGITUDE	GEOLOGIC UNIT / DRILLER	TOWN SECT	SHIP	RANGE	WELL USE	DEPTH SUB USE	CASING DIAMETER MATERIAL	SCREEN DIAMETER INTERVAL	DRILL DATE	AVAIL INFO	
075	-5006Z	AMAX NICKEL OW-1	295143 895754	NEW ORLEANS AQ. SYS. FUGRO (GS)	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	37 PA	4 PLASTIC	4 31-36	0686	D	W
075	-5007Z	AMAX NICKEL OW-2	295140 895750	NEW ORLEANS AQ. SYS. FUGRO (GS)	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	39 PA	4 PLASTIC	4 30-38	0686	D	W
075	-5008Z	AMAX NICKEL OW-25	295140 895750	NEW ORLEANS AQ. SYS. FUGRO (GS)	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	26 PA	4 PLASTIC	4 20-26	0686	D	W
075	-5009Z	AMAX NICKEL OW-3	295141 895746	NEW ORLEANS AQ. SYS. FUGRO (GS)	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	42 PA	4 PLASTIC	4 27-41	0686	D	W
075	-5010Z	AMAX NICKEL OW-4	295136 895749	NEW ORLEANS AQ. SYS. FUGRO (GS)	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	36 PA	4 PLASTIC	4 28-36	0686	D	W
075	-5011Z	AMAX NICKEL OW-5	295132 895751	NEW ORLEANS AQ. SYS. FUGRO (GS)	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	36 PA	4 PLASTIC	4 29-36	0686	D	W
075	-5012Z	AMAX NICKEL OW-6S	295132 895751	NEW ORLEANS AQ. SYS. FUGRO (GS)	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	25 PA	4 PLASTIC	4 21-25	0686	D	W
075	-5013Z	AMAX NICKEL OW-6	295128 895748	NEW ORLEANS AQ. SYS. FUGRO (GS)	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	35 PA	4 PLASTIC	4 25-34	0686	D	W
075	-5014Z	AMAX NICKEL OW-7	295139 895735	NEW ORLEANS AQ. SYS. FUGRO (GS)	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	47 PA	4 PLASTIC	4 18-47	0686	D	W
075	-5015Z	AMAX NICKEL OW-8	295133 895742	NEW ORLEANS AQ. SYS. FUGRO (GS)	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	45 PA	4 PLASTIC	4 27-44	0686	D	W
075	-5016Z	AMAX NICKEL OW-9	295124 895746	NEW ORLEANS AQ. SYS. FUGRO (GS)	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	37 PA	4 PLASTIC	4 24-37	0686	D	W
075	-5017Z	AMAX NICKEL OW-10	295121 895738	NEW ORLEANS AQ. SYS. FUGRO (GS)	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	33 PA	4 PLASTIC	4 19-32	0686	D	W
075	-5018Z	AMAX NICKEL OW-11	295117 895740	NEW ORLEANS AQ. SYS. FUGRO (GS)	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	38 PA	4 PLASTIC	4 20-37	0686	D	W
075	-5025Z	AMAX NICKEL MW-7	295139 895803	NEW ORLEANS AQ. SYS. GORE	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	41 PA	4 PLASTIC	4 31-41	0986		W
075	-5026Z	AMAX NICKEL MW-6	295138 895805	NEW ORLEANS AQ. SYS. GORE	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	41 PA	4 PLASTIC	4 31-41	0986		W
075	-5027Z	AMAX NICKEL MW-5	295130 895805	NEW ORLEANS AQ. SYS. GORE	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	41 PA	4 PLASTIC	4 31-41	0986		W
075	-5028Z	AMAX NICKEL MW-4	295118 895743	NEW ORLEANS AQ. SYS. GORE	002	14S	12E	SURFICIAL CONFINING UNIT MONITOR	36 --	4 PLASTIC	4 26-36	0786		W

WELLRQ1A - REGISTERED WATER WELLS IN PLAQUEMINES -- SORTED BY WELL NUMBER

REQUESTED BY: WALDEMAR S. NELSON AND COMPANY

WITHIN A 1.00000 MILE RADIUS OF LATITUDE 295140 LONGITUDE 895755

PARISH CODE	WELL NUMBER	OWNER'S NAME / OWNER'S NO.	LATITUDE / LONGITUDE	GEOLOGIC UNIT / DRILLER	TOWN SECT	SHIP	RANGE	WELL USE	DEPTH SUB USE	CASING DIAMETER MATERIAL	SCREEN DIAMETER INTERVAL	DRILL DATE	AVAIL	INFO
075	-5029Z	AMAX NICKEL MW-3	295118 895739	NEW ORLEANS AQ. GORE	SYS 002	SURFICIAL 14S	CONFINING UNIT 12E	MONITOR	35 --	4 PLASTIC	4 25-35	0786		
075	-5030Z	AMAX NICKEL MW-2	295123 895729	NEW ORLEANS AQ. GORE	SYS. 002	SURFICIAL 14S	CONFINING UNIT 12E	MONITOR	38 PA	4 PLASTIC	4 28-38	0786		
075	-5031Z	AMAX NICKEL MW-1	295143 895809	NEW ORLEANS AQ. GORE	SYS. 002	SURFICIAL 14S	CONFINING UNIT 12E	MONITOR	40 --	4 PLASTIC	4 30-40	0786		
075	-5298Z	AMAX NICKEL MW-1P	295135 895808	NEW ORLEANS AQ. EUSTIS	SYS. 002	SURFICIAL 14S	CONFINING UNIT 12E	MONITOR	22 PA	2 PLASTIC	2 9-19	0899	D	W
075	-5299Z	AMAX NICKEL MW-2P	295120 895730	NEW ORLEANS AQ. EUSTIS	SYS 002	SURFICIAL 14S	CONFINING UNIT 12E	MONITOR	22 PA	2 PLASTIC	2 9-19	0899	D	W
075	-5300Z	AMAX NICKEL MW-4P	295115 895746	NEW ORLEANS AQ. EUSTIS	SYS. 003	SURFICIAL 14S	CONFINING UNIT 12E	MONITOR	18 PA	2 PLASTIC	2 6-16	0899	D	W
075	-5460Z	AMAX METALS MW-10	295122 895737	NEW ORLEANS AQ. MATHERS	SYS 002	SURFICIAL 14S	CONFINING UNIT 12E	MONITOR	35 --	2 PLASTIC	2 25-35	0805	D	W
075	-5461Z	AMAX METALS MW-11	295125 895743	NEW ORLEANS AQ. MATHERS	SYS. 002	SURFICIAL 14S	CONFINING UNIT 12E	MONITOR	36 --	2 PLASTIC	2 25-35	0805	D	W

NUMBER OF WELLS SELECTED IN PARISH = 25

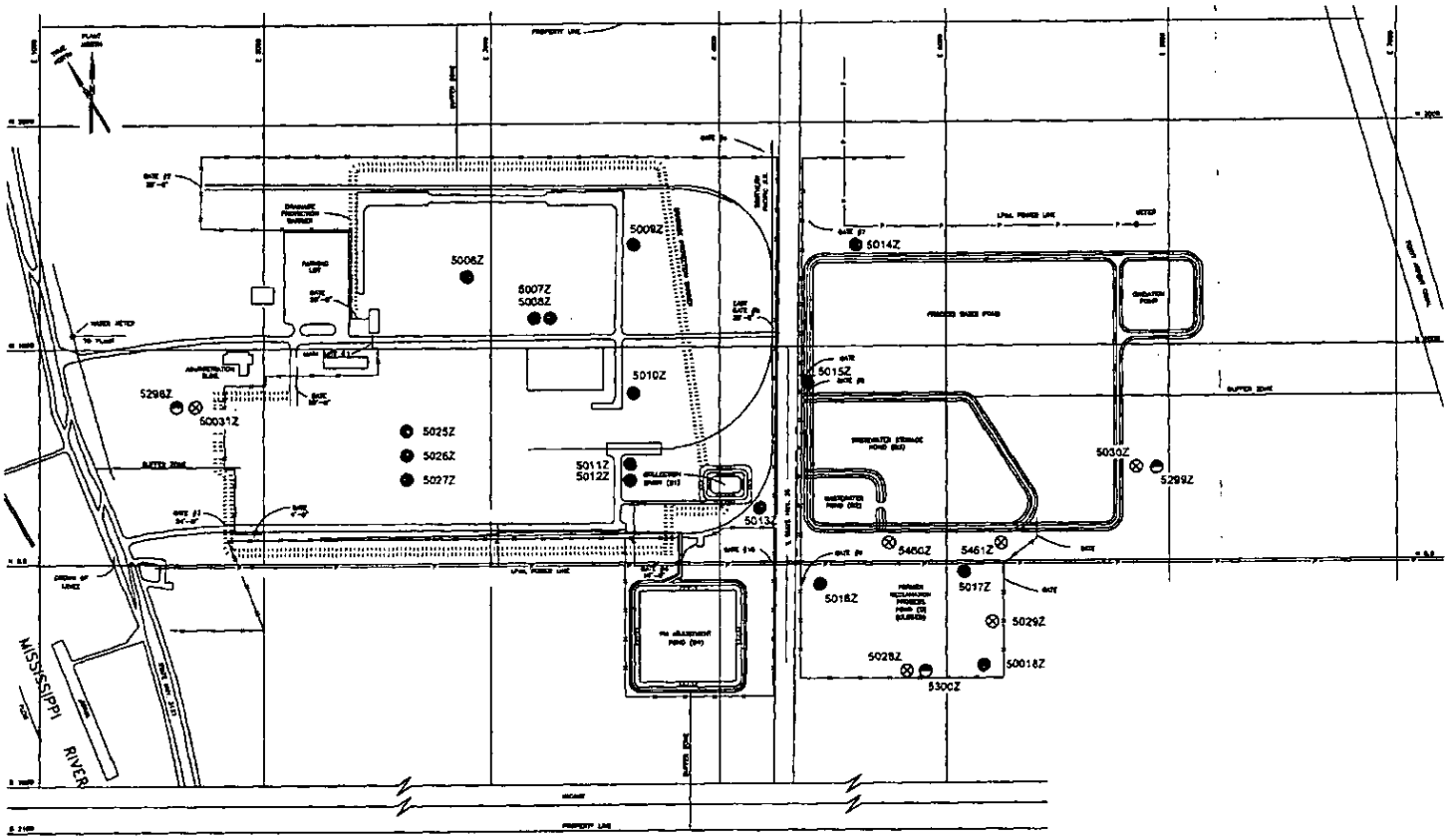
EXPLANATION OF TERMS FOR THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT'S COMPUTERIZED LISTING OF REGISTERED WATER WELLS AND HOLES

Identification Number –	This is a unique ID number that includes the latitude (first six digits), longitude (second six digits) and a sequential number (last two digits). The sequential number identifies a specific well when other nearby wells have the same latitude and longitude.
Revised Coordinates –	Latitude and longitude of a well (shown only if different than the ID number).
Owner's Name –	Name of an individual, company or agency who was or is the legal owner of the property or the lessee at the time the well was inventoried or registered.
Well Number –	Number, by parish, assigned either by the US Geological Survey or LA DOTD.
Owner's Number –	Well name or number assigned by the owner to identify each well on his/her property.
Geologic Unit –	Aquifer in which the well is screened.
Well Depth –	Depth of the well, in feet, measured from the bottom of the screen (or bottom of the tail pipe, back pressure valve, etc.) to the ground surface.
Well Use/Sub-use –	Main use of the well (see page 2). The use of the well is subject to change and may not be up-to-date, especially for older wells.
Casing/Screen Diameter –	Nominal diameter of casing/screen, in inches.
Screen Interval –	Depth, in feet, measured from the ground surface to the top and bottom of the screen.
Date Completed –	The month and year the well was completed.
Available Information –	Indicates available information as follows: E – Geophysical Log D – Drillers Log M – Mechanical Analysis Q – Quality of Water B – Bacteriological Analysis P – Pumping Test W – Water Level Available information may be obtained from DOTD, USGS, driller, engineer and/or other sources.

EXPLANATION OF TERMS FOR THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT'S COMPUTERIZED LISTING OF REGISTERED WATER WELLS AND HOLES

Use and Sub-use computer codes for water wells and holes:

Code	Well Use		Sub-Use
A	Any Use	– A	Abandoned
		– D	Destroyed
		E X	Excavated Out
		– I	Inactive/Standby
		P A	Plugged
B	Borehole/Pilot Hole	– –	
C	Cathodic	– –	
D	Dewatering	– –	
E	Power Generation	– –	
H	Domestic	– –	
I	Irrigation/Agriculture	– –	
		– Q	Aquaculture
		– S	Stock
L	Heat Pump	H H	Hole
		H S	Supply
M	Monitoring	– –	
N	Industrial	2 0	Food and Kindred Products
		2 2	Textile Mill Products
		2 4	Lumber and Wood Products
		2 6	Paper and Allied Products
		2 8	Chemicals and Allied Products
		2 9	Petroleum Refining and Related Industries
		3 3	Primary Metal Products
		9 9	Other
O	Observation	– O	Multiple Purpose
		– Q	Water Quality
		– W	Water Level
P	Public Supply	– C	Commercial
		– M	Therapeutic
		– P	Municipal
		– R	Rural
		– T	Institution/Government
		– Z	Other
R	Recovery	– –	
S	Rig Supply	– –	
T	Test Hole	– –	
W	Piezometer	– –	
Z	Other	– F	Fire Protection
		– R	Reworked
		– U	Unknown
		– Z	Other



WELL LOCATION PLAN

SCALE: 1" = 500'

500 250 0 500 1000 1500

LEGEND

- ⊗ MONITORING WELL LOCATION AND WELL NUMBER
- ⊖ PIEZOMETER LOCATION AND WELL NUMBER
- ● PLUGGED AND ABANDONED OBSERVATION AND MONITORING WELL NUMBER AND LOCATION

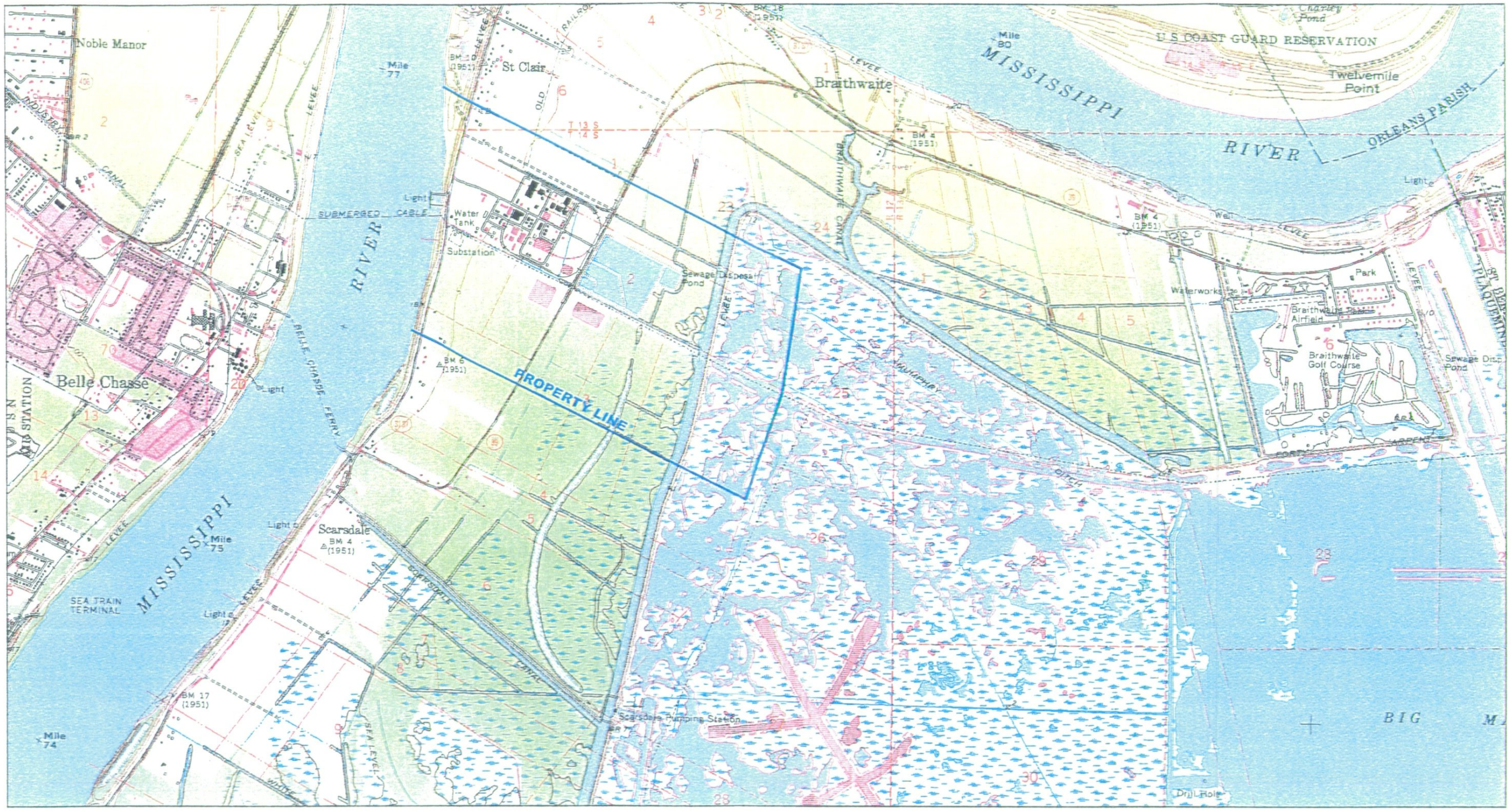
WALDEMAR S. NELSON AND COMPANY
INCORPORATED
ENGINEERS AND ARCHITECTS
1200 ST. CHARLES AVE. NEW ORLEANS, LA.

AMAX METALS RECOVERY, INC.
LADOTD REGISTERED WATER WELLS
WITHIN 1 MILE OF FACILITY

DATE	SCALE	JOB NO.	DRAWING NO.
2-3-05	1" = SHOWN	20040203	DS16_2004

PLOT DATE: 2/3/05 12:55 P.M. ACAD FILE: 2004020305_16_2004

LIST OF FIGURES



SITE VICINITY MAP

2000 1000 0 2000 4000 6000

SCALE: 1" = 2000'

FIGURE 2-1

WALDEMAR S. NELSON AND COMPANY
INCORPORATED
ENGINEERS AND ARCHITECTS
1200 ST. CHARLES AVE. NEW ORLEANS, LA.

AMAX METALS RECOVERY, INC.
SITE VICINITY MAP
BRAITHWAITE, LA.

DATE	SCALE	JOB NO.	DRAWING NO.
5-23-07	SHOWN	20040203	DS15D_2004

ELAINE D. ORLANDO PROPERTY

95.94'

500'±

VRP BOUNDARY LIMIT

S 63°49'55" E

3458.82'

100.00'

LOT 4 ST. CLAIR PLANTATION

LOT 3

2368.72'

PLANT PROPERTY BOUNDARY

955.75'

HORACE EVANS PROPERTY

SECTION 6
T13S R12E
T14S R12E
SECTION 1

SECTION 23
SECTION 1

SECTION 24
SECTION 23

S 11°24'39" E
626.00'

S 14°32'55" E
105.82'

S 63°52'14" E
475.80'

S 63°49'55" E
80.51'

S 09°55'10" W
1792.15'

SECTION 24
SECTION 25

LOT 3
LOT 2

SECTION 1
SECTION 2

LOT 2
LOT 1

LOT 1

SECTION 2
SECTION 3

ST. CLAIR PLANTATION
MON PLAISIR PLANTATION

SECTION 25
SECTION 26

MARSH LAND

DRAINAGE CANAL AND LEVEE

DELACROIX CORPORATION LINE

MISSISSIPPI RIVER

5720'

± RIVER FRONTAGE

RIVER LEVEE

PARISH OF PLAQUEMINES

ENTERGY
(formerly La. Power and Light)

VRP BOUNDARY LIMIT

100' R/W LOUISIANA STATE HIGHWAY #39

LOUISIANA STATE HIGHWAY #3127

SLOUGH

S 18°48'32" W
3094.36'

22
21
20
19
18
17
16
15
14
13
8
7

1917.81'

100.20'

3764.98'

N 64°17'54" W

1480.54'

200±

722.81'

LOT 6 MON PLAISIR PLANTATION

PLANT PROPERTY BOUNDARY

BOUNDARY PLAN

SCALE: 1" = 600'

600 300 0 600 1200 1800

WALDEMAR S. NELSON AND COMPANY
INCORPORATED
ENGINEERS AND ARCHITECTS
1200 ST. CHARLES AVE. NEW ORLEANS, LA.

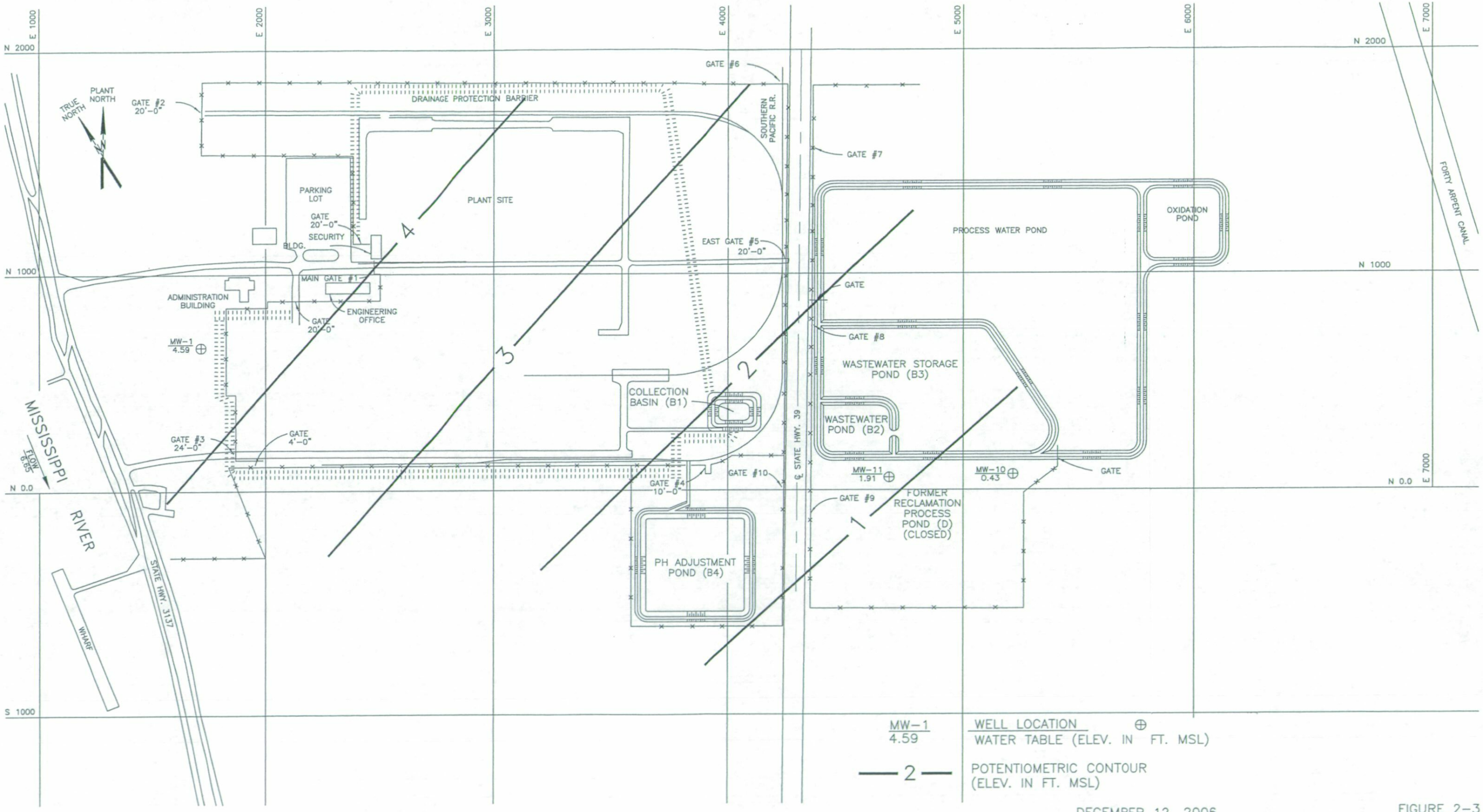
AMAX METALS RECOVERY, INC.
BRAITHWAITE, LA.

VRP AND PLANT PROPERTY BOUNDARIES

DATE	SCALE	JOB NO.	DRAWING NO.
3-27-07	SHOWN	20040203	Fig 2-2

PLOT DATE: 3/27/07 12:55 P.M.

ACAD FILE: fig 2-2.DWG



MW-1 / 4.59 — WELL LOCATION ⊕ / WATER TABLE (ELEV. IN FT. MSL)

— 2 — POTENTIOMETRIC CONTOUR (ELEV. IN FT. MSL)

400 200 0 400 800 1200

SCALE: 1" = 400'

DECEMBER 12, 2006

FIGURE 2-3

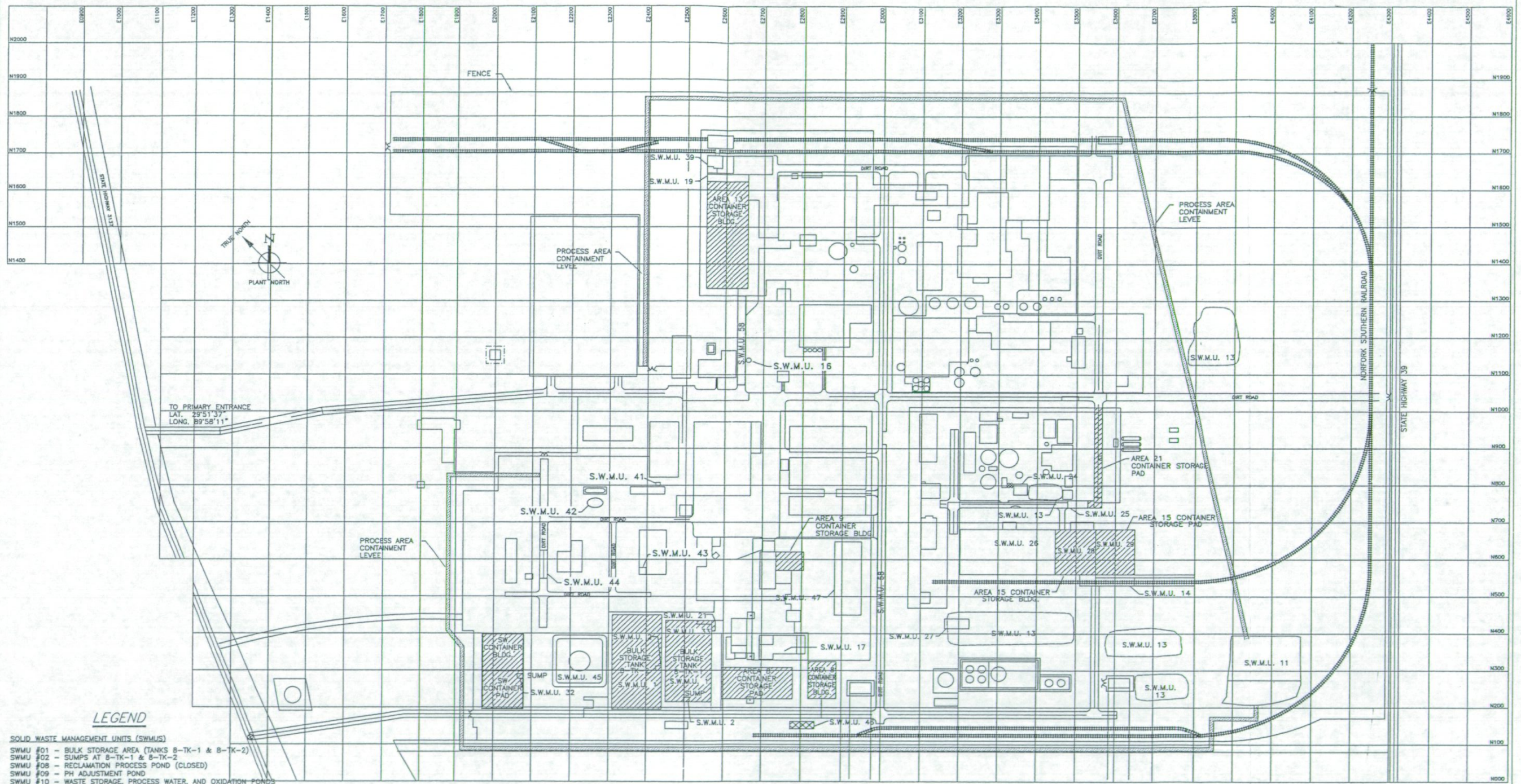
WALDEMAR S. NELSON AND COMPANY
INCORPORATED
ENGINEERS AND ARCHITECTS
1200 ST. CHARLES AVE. NEW ORLEANS, LA.

AMAX METALS RECOVERY, INC. BRAITHWAITE, LA.

SOLID WASTE MONITORING WELLS WATER LEVEL ELEVATIONS

DATE	SCALE	JOB NO.	DRAWING NO.
2-07-07	SHOWN	20040203	FIG. 2-3

PLOT DATE: 2/7/07 12:55 P.M. ACAD FILE: FIGURE 2-3.DWG



LEGEND

SOLID WASTE MANAGEMENT UNITS (SWMUS)

SWMU #01 – BULK STORAGE AREA (TANKS 8–TK–1 & 8–TK–2)
SWMU #02 – SUMPS AT 8–TK–1 & 8–TK–2
SWMU #08 – RECLAMATION PROCESS POND (CLOSED)
SWMU #09 – PH ADJUSTMENT POND
SWMU #10 – WASTE STORAGE, PROCESS WATER, AND OXIDATION PONDS
SWMU #11 – COLLECTION BASIN
SWMU #12 – LANDFILLS A & A1
SWMU #13 – FORMER LANDFILLS B, C, D, E & F
SWMU #14 – RAILCAR UNLOADING AREA
SWMU #15 – DRAINAGE DITCHES
SWMU #16 – LAB SUMP
SWMU #17 – FORMER AREA 9 RECYCLE BUILDING
SWMU #18 – NORTH AND SOUTH RUN–OFF DRAINAGE DITCHES
SWMU #19 – FORMER DRUM STORAGE AREA
SWMU #21 – TANKS 8–TK–5 & 8–TK–6
SWMU #24 – AREA 21 EMPTY DRUM STORAGE AREA
SWMU #25 – AREA 21 EMPTY DRUM CRUSHING AREA
SWMU #26 – COPPER TANK HOUSE WASTE PILE (FORMER RECYCLE MATERIAL STORAGE)
SWMU #27 – OUTDOOR CONTAINER STORAGE AREA SOUTH OF THE COPPER TANK HOUSE
SWMU #28 – COPPER TANK HOUSE BULK STORAGE BUILDING
SWMU #29 – COPPER TANK HOUSE OUTDOOR CONTAINER STORAGE AREA
SWMU #32 – SOUTHWEST STORAGE AREA SUMP
SWMU #33 – AREA 8 RECYCLE PROCESS FEED SYSTEM (INCLUDED IN CLOSURE OF SWMU #1)
SWMU #39 – FORMER AREA 13 VANADIUM FLYASH STORAGE BUILDING
SWMU #41 – RESEARCH AND DEVELOPMENT LABORATORY SUMP
SWMU #42 – FORMER UST WASTE PILE
SWMU #43 – VEHICLE MAINTENANCE BUILDING SUMP
SWMU #44 – FORMER WEST OUTDOOR CONTAINER STORAGE AREA
SWMU #45 – CAUSTIC STORAGE TANK
SWMU #46 – FORMER NICKEL SULFIDE RECEIVING AREA
SWMU #47 – FORMER AREA 9 SUPPORT MATERIAL BULK STORAGE AREA
SWMU #58 – PLANT ROAD

FEEDSTOCK STORAGE
CLOSURE UNIT SAMPLED IN INITIAL PHASE OF SI

PLAN

100 50 0 100 200 300
SCALE 1" = 100'

FIGURE 3–1

REVISIONS											
NO.	DATE	DESCRIPTION	BY	CHK.	APPR.	NO.	DATE	DESCRIPTION	BY	CHK.	APPR.

WALDEMAR S. NELSON AND COMPANY, INCORPORATED
ENGINEERS AND ARCHITECTS
1200 ST. CHARLES AVE. NEW ORLEANS, LA.

DESIGNED BY: –
DRAWN BY: –
CHECKED BY: –
APPROVED BY: –
APPROVED BY: –
ACAD FILE NO.: –
PROJECTION NO.: –
DATE: –
DATE: 6–15–07
SCALE: SHOWN
PLOT: 7/15/07 4:13 P.M.

AMAX METALS RECOVERY, INC.
BRAITHWAITE, LA.

FEEDSTOCK STORAGE CLOSURE UNITS

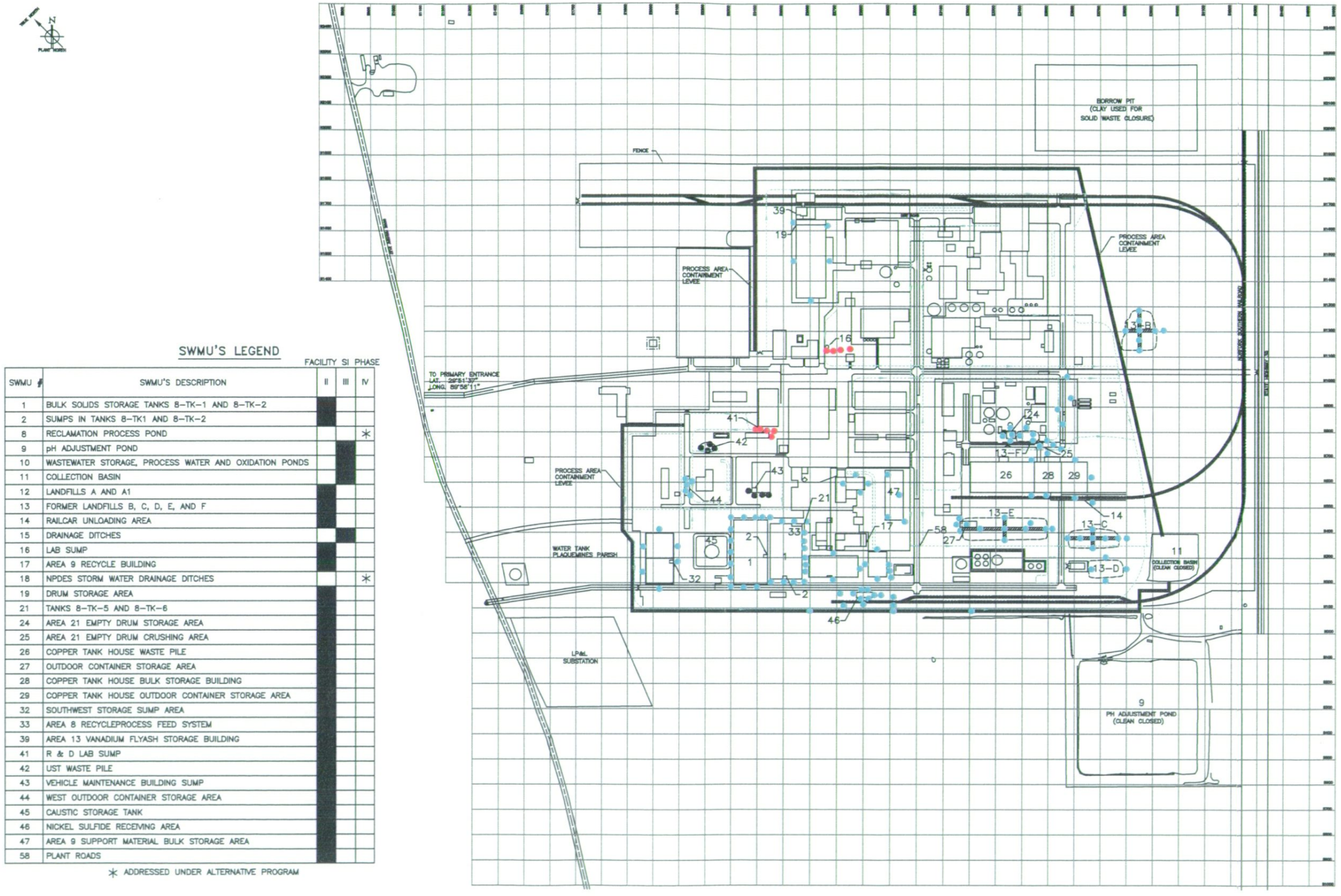
JOB NO.	DRAWING NO.	REV.
20040203	0558	0

ACAD FILE: 0558-2040

SWMU'S LEGEND

SWMU #	SWMU'S DESCRIPTION	FACILITY SI PHASE II	III	IV
1	BULK SOLIDS STORAGE TANKS 8-TK-1 AND 8-TK-2	■		
2	SUMPS IN TANKS 8-TK1 AND 8-TK-2	■		
8	RECLAMATION PROCESS POND			*
9	pH ADJUSTMENT POND		■	
10	WASTEWATER STORAGE, PROCESS WATER AND OXIDATION PONDS		■	
11	COLLECTION BASIN		■	
12	LANDFILLS A AND A1	■		
13	FORMER LANDFILLS B, C, D, E, AND F	■		
14	RAILCAR UNLOADING AREA	■		
15	DRAINAGE DITCHES		■	
16	LAB SUMP	■		
17	AREA 9 RECYCLE BUILDING	■		
18	NPDES STORM WATER DRAINAGE DITCHES			*
19	DRUM STORAGE AREA	■		
21	TANKS 8-TK-5 AND 8-TK-6	■		
24	AREA 21 EMPTY DRUM STORAGE AREA	■		
25	AREA 21 EMPTY DRUM CRUSHING AREA	■		
26	COPPER TANK HOUSE WASTE PILE	■		
27	OUTDOOR CONTAINER STORAGE AREA	■		
28	COPPER TANK HOUSE BULK STORAGE BUILDING	■		
29	COPPER TANK HOUSE OUTDOOR CONTAINER STORAGE AREA	■		
32	SOUTHWEST STORAGE SUMP AREA	■		
33	AREA 8 RECYCLEPROCESS FEED SYSTEM	■		
39	AREA 13 VANADIUM FLYASH STORAGE BUILDING	■		
41	R & D LAB SUMP	■		
42	UST WASTE PILE	■		
43	VEHICLE MAINTENANCE BUILDING SUMP	■		
44	WEST OUTDOOR CONTAINER STORAGE AREA	■		
45	CAUSTIC STORAGE TANK	■		
46	NICKEL SULFIDE RECEIVING AREA	■		
47	AREA 9 SUPPORT MATERIAL BULK STORAGE AREA	■		
58	PLANT ROADS	■		

* ADDRESSED UNDER ALTERNATIVE PROGRAM



LEGEND

- FACILITY COC's AND ORGANICS
- FACILITY COC's AND TPH
- FACILITY COC's
- TRENCHES
- INTERNAL DRAINAGE DITCH SYSTEM

SITE PLAN
SCALE: 1" = 150'

150 75 0 150 300 450

FIGURE 3-2A

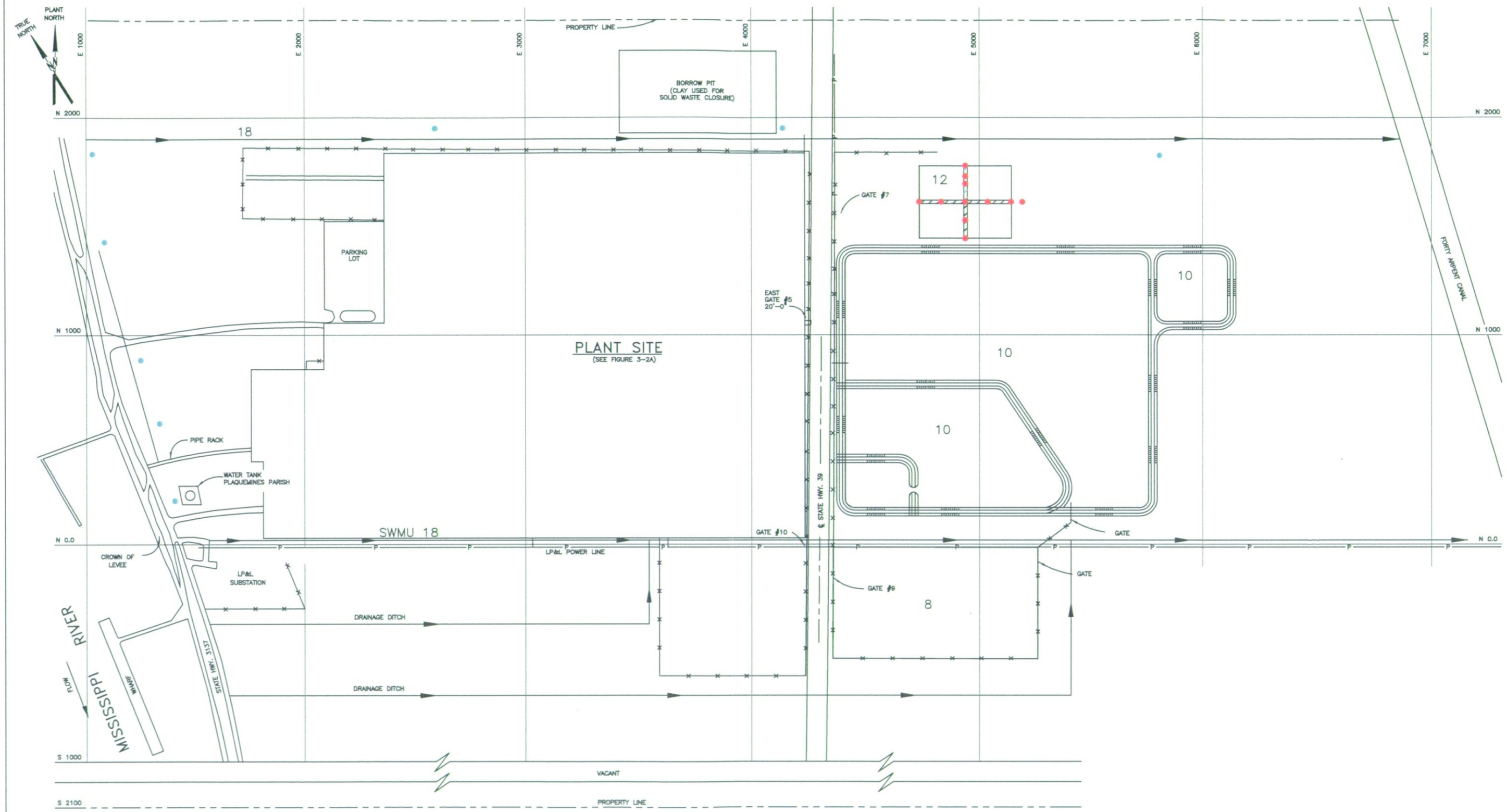
WALDEMAR S. NELSON AND COMPANY, INCORPORATED
ENGINEERS AND ARCHITECTS
1300 ST. CHARLES AVE. NEW ORLEANS, LA.

AMAX METALS RECOVERY
BRAITHWAITE, LA.

PHASE II ACTIVITIES
SAMPLE LOCATION PLAN

DRAWN BY:	SCANNED BY:	CHECKED BY:	DATE	SCALE	JOB No.	DRAWING No.	REV.
P.Mc.	L.S.S.	D.G.M.	6-28-05	SHOWN	20040203	FIG 3-2A	0

ACAD FILE: FIG 3-2A.DWG



LEGEND

- FACILITY COC's AND ORGANICS
- FACILITY COC's AND TPH
- FACILITY COC's
- TRENCHES
- INTERNAL DRAINAGE DITCH SYSTEM

SITE PLAN
SCALE: 1" = 200'

200 100 0 200 400 600

FIGURE 3-2B

WALDEMAR S. NELSON AND COMPANY INCORPORATED ENGINEERS AND ARCHITECTS 1200 ST. CHARLES AVE. NEW ORLEANS, LA.	AMAX METALS RECOVERY BRAITHWAITE, LA.
APPROVED BY: DATE	PHASE II ACTIVITIES SAMPLE LOCATION PLAN

DRAWN BY:	DESIGNED BY:	CHECKED BY:	DATE	SCALE	JOB No.	DRAWING No.	REV.
P.Mc.	L.S.S.	D.G.M.	6-28-05	SHOWN	20040203	FIG 3-2B	0

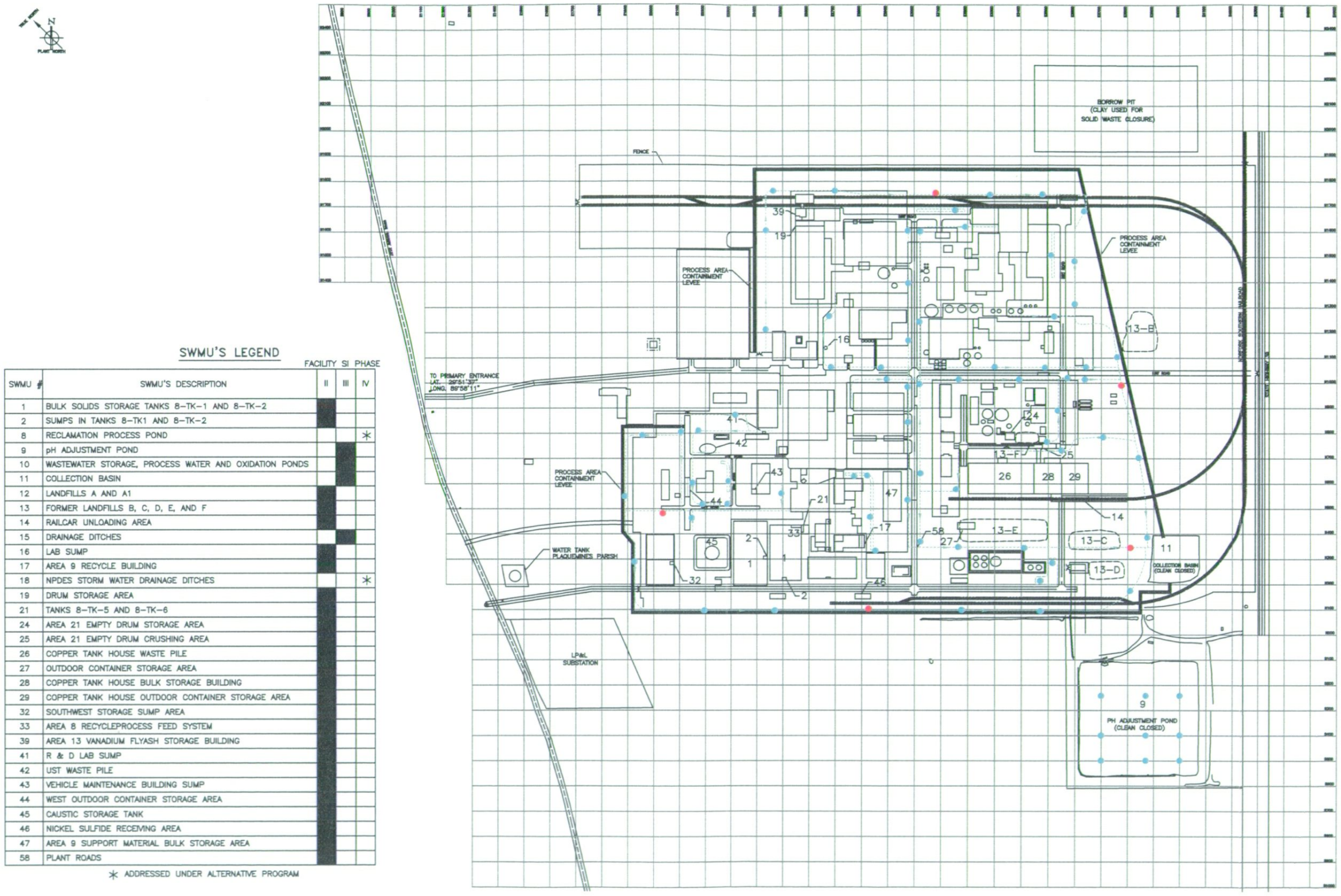
ACAD FILENAME: FIG 3-2B.DWG

PLOT DATE: 8/3/04 8:42 A.M.

SWMU'S LEGEND

SWMU #	SWMU'S DESCRIPTION	FACILITY SI PHASE II	III	IV
1	BULK SOLIDS STORAGE TANKS 8-TK-1 AND 8-TK-2	■		
2	SUMPS IN TANKS 8-TK1 AND 8-TK-2	■		
8	RECLAMATION PROCESS POND			*
9	pH ADJUSTMENT POND		■	
10	WASTEWATER STORAGE, PROCESS WATER AND OXIDATION PONDS		■	
11	COLLECTION BASIN		■	
12	LANDFILLS A AND A1	■		
13	FORMER LANDFILLS B, C, D, E, AND F	■		
14	RAILCAR UNLOADING AREA	■		
15	DRAINAGE DITCHES	■	■	
16	LAB SUMP	■		
17	AREA 9 RECYCLE BUILDING	■		
18	NPDES STORM WATER DRAINAGE DITCHES			*
19	DRUM STORAGE AREA	■		
21	TANKS 8-TK-5 AND 8-TK-6	■		
24	AREA 21 EMPTY DRUM STORAGE AREA	■		
25	AREA 21 EMPTY DRUM CRUSHING AREA	■		
26	COPPER TANK HOUSE WASTE PILE	■		
27	OUTDOOR CONTAINER STORAGE AREA	■		
28	COPPER TANK HOUSE BULK STORAGE BUILDING	■		
29	COPPER TANK HOUSE OUTDOOR CONTAINER STORAGE AREA	■		
32	SOUTHWEST STORAGE SUMP AREA	■		
33	AREA 8 RECYCLEPROCESS FEED SYSTEM	■		
39	AREA 13 VANADIUM FLYASH STORAGE BUILDING	■		
41	R & D LAB SUMP	■		
42	UST WASTE PILE	■		
43	VEHICLE MAINTENANCE BUILDING SUMP	■		
44	WEST OUTDOOR CONTAINER STORAGE AREA	■		
45	CAUSTIC STORAGE TANK	■		
46	NICKEL SULFIDE RECEIVING AREA	■		
47	AREA 9 SUPPORT MATERIAL BULK STORAGE AREA	■		
58	PLANT ROADS	■		

* ADDRESSED UNDER ALTERNATIVE PROGRAM



LEGEND

- FACILITY COC's AND ORGANICS
- FACILITY COC's AND TPH
- FACILITY COC's
- TRENCHES
- INTERNAL DRAINAGE DITCH SYSTEM

SITE PLAN

SCALE: 1" = 150'

150 75 0 150 300 450

FIGURE 3-3A

WALDEMAR S. NELSON AND COMPANY, INCORPORATED
ENGINEERS AND ARCHITECTS
1300 ST. CHARLES AVE. NEW ORLEANS, LA.

AMAX METALS RECOVERY
BRAITHWAITE, LA.

PHASE III ACTIVITIES
SAMPLE LOCATIONS

DESIGNED BY	DRAWN BY	CHECKED BY	DATE	SCALE	JOB No.	DRAWING No.	REV.
P.Mc.	L.S.S.	D.G.M.	7-15-97	SHOWN	20040203	Fig. 3-3A	0

AMX FILE fig 3-3A.dwg

TRUE NORTH

PLANT NORTH

E 1000 E 2000 E 3000 E 4000 E 5000 E 6000 E 7000

N 2000

PROPERTY LINE

BORROW PIT
(CLAY USED FOR
SOLID WASTE CLOSURE)

18

12

GATE #7

PARKING LOT

EAST GATE #5
20'-0"

10

10

10

N 1000

PLANT SITE
(SEE FIGURE 3-3A)

FORTY ARPENT CANAL

PIPE RACK

WATER TANK
PLAQUEMINES PARISH

SWMU 18

GATE #10

GATE

N 0.0

CROWN OF LEVEE

LP&L POWER LINE

LP&L SUBSTATION

GATE #9

8

GATE

DRAINAGE DITCH

RIVER

MISSISSIPPI

FLOW

LEVEE

STATE HWY. 3137

DRAINAGE DITCH

S 1000

VACANT

S 2100

PROPERTY LINE

LEGEND

- FACILITY COC's AND ORGANICS
- FACILITY COC's AND TPH
- FACILITY COC's
- TRENCHES
- INTERNAL DRAINAGE DITCH SYSTEM

SITE PLAN

SCALE: 1" = 200'

200 100 0 200 400 600

FIGURE 3-3B

WALDEMAR S. NELSON AND COMPANY, INCORPORATED, ENGINEERS AND ARCHITECTS, 1200 ST. CHARLES AVE. NEW ORLEANS, LA.			AMAX METALS RECOVERY, BRAITHWAITE, LA.				
APPROVED BY:		DATE	PHASE III ACTIVITIES SAMPLE LOCATION PLAN				
DRAWN BY:	DESIGNED BY:	CHECKED BY:	DATE	SCALE	JOB No.	DRAWING No.	REV.
P.Mc.	L.S.S.	D.G.M.	6-28-05	SHOWN	20040203	FIG 3-3B	0

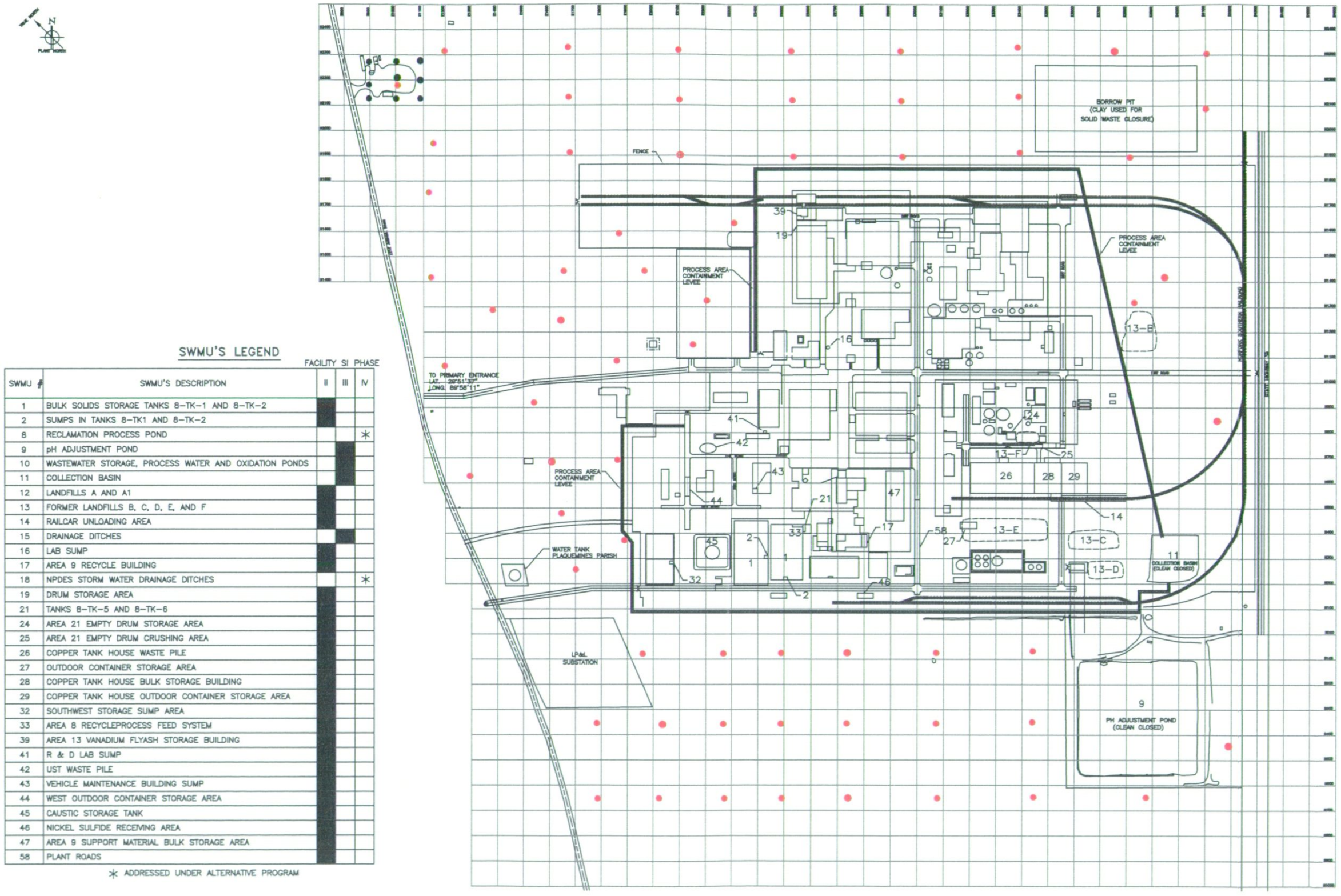
ACAD FILENAME: FIG 3-3B.DWG

PLOT DATE: 8/3/04 8:42 A.M.

SWMU'S LEGEND

SWMU #	SWMU'S DESCRIPTION	FACILITY SI PHASE II	III	IV
1	BULK SOLIDS STORAGE TANKS 8-TK-1 AND 8-TK-2	■		
2	SUMPS IN TANKS 8-TK1 AND 8-TK-2	■		
8	RECLAMATION PROCESS POND			*
9	pH ADJUSTMENT POND		■	
10	WASTEWATER STORAGE, PROCESS WATER AND OXIDATION PONDS		■	
11	COLLECTION BASIN		■	
12	LANDFILLS A AND A1	■		
13	FORMER LANDFILLS B, C, D, E, AND F	■		
14	RAILCAR UNLOADING AREA	■		
15	DRAINAGE DITCHES		■	
16	LAB SUMP	■		
17	AREA 9 RECYCLE BUILDING	■		
18	NPDES STORM WATER DRAINAGE DITCHES			*
19	DRUM STORAGE AREA	■		
21	TANKS 8-TK-5 AND 8-TK-6	■		
24	AREA 21 EMPTY DRUM STORAGE AREA	■		
25	AREA 21 EMPTY DRUM CRUSHING AREA	■		
26	COPPER TANK HOUSE WASTE PILE	■		
27	OUTDOOR CONTAINER STORAGE AREA	■		
28	COPPER TANK HOUSE BULK STORAGE BUILDING	■		
29	COPPER TANK HOUSE OUTDOOR CONTAINER STORAGE AREA	■		
32	SOUTHWEST STORAGE SUMP AREA	■		
33	AREA 8 RECYCLEPROCESS FEED SYSTEM	■		
39	AREA 13 VANADIUM FLYASH STORAGE BUILDING	■		
41	R & D LAB SUMP	■		
42	UST WASTE PILE	■		
43	VEHICLE MAINTENANCE BUILDING SUMP	■		
44	WEST OUTDOOR CONTAINER STORAGE AREA	■		
45	CAUSTIC STORAGE TANK	■		
46	NICKEL SULFIDE RECEIVING AREA	■		
47	AREA 9 SUPPORT MATERIAL BULK STORAGE AREA	■		
58	PLANT ROADS	■		

* ADDRESSED UNDER ALTERNATIVE PROGRAM



LEGEND

- FACILITY COC's AND ORGANICS
- FACILITY COC's AND TPH
- FACILITY COC's
- TRENCHES
- INTERNAL DRAINAGE DITCH SYSTEM

SITE PLAN

SCALE: 1" = 150'

150 75 0 150 300 450

FIGURE 3-4

WALDEMAR S. NELSON AND COMPANY, INCORPORATED
ENGINEERS AND ARCHITECTS
1300 ST. CHARLES AVE. NEW ORLEANS, LA.

AMAX METALS RECOVERY
BRAITHWAITE, LA.

PHASE IV ACTIVITIES
SAMPLE LOCATIONS

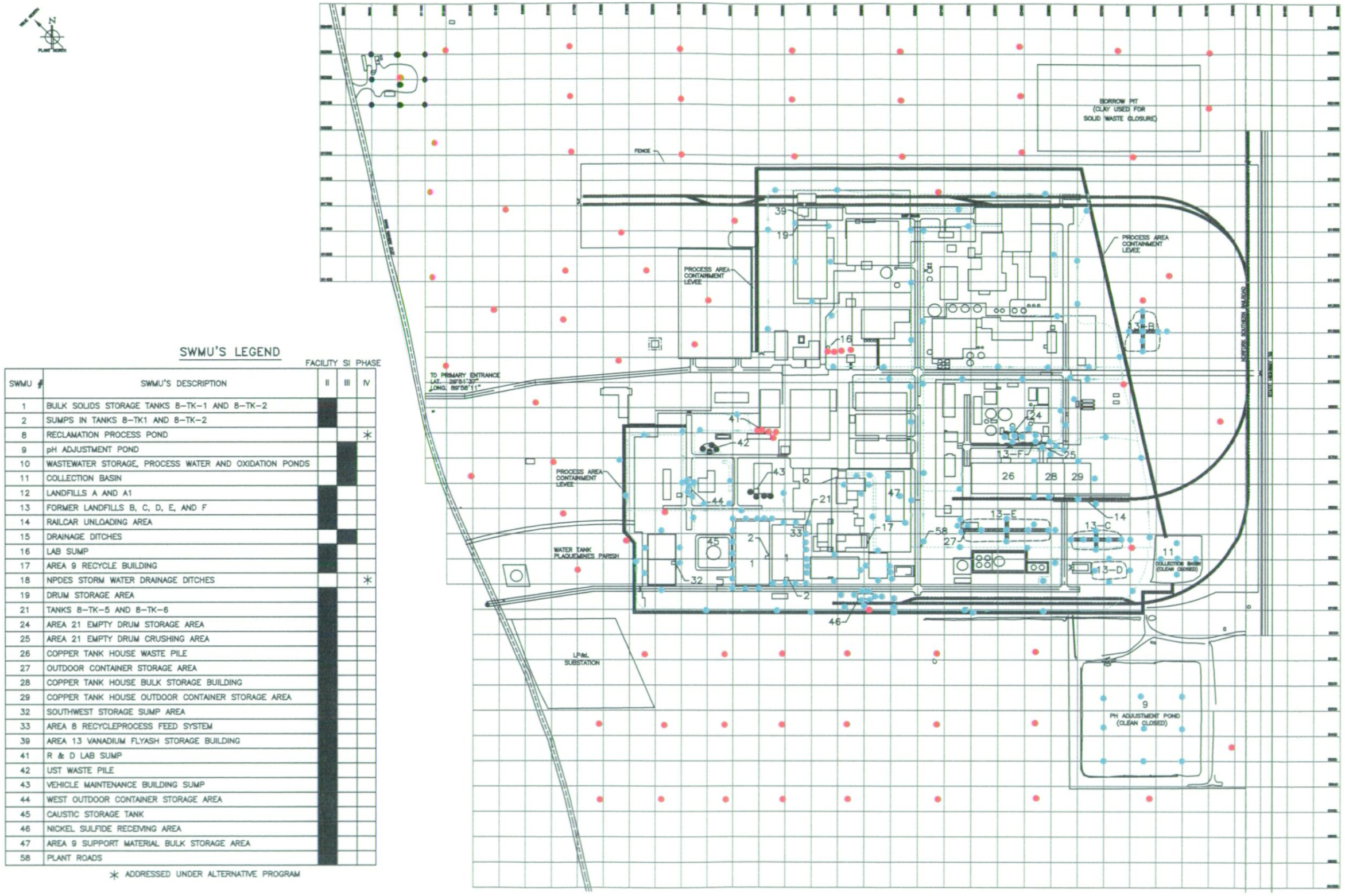
DRAWN BY:	DESIGNED BY:	CHECKED BY:	DATE	SCALE	JOB No.	DRAWING No.	REV.
P.Mc.	L.S.S.	D.G.M.	7-15-07	SHOWN	20040203	Fig. 3-4	0

acad file fig 3-4.dwg

SWMU'S LEGEND

SWMU #	SWMU'S DESCRIPTION	FACILITY SI PHASE II	III	IV
1	BULK SOLIDS STORAGE TANKS 8-TK-1 AND 8-TK-2	■		
2	SUMPS IN TANKS 8-TK1 AND 8-TK-2	■		
8	RECLAMATION PROCESS POND			*
9	pH ADJUSTMENT POND		■	
10	WASTEWATER STORAGE, PROCESS WATER AND OXIDATION PONDS		■	
11	COLLECTION BASIN		■	
12	LANDFILLS A AND A1	■		
13	FORMER LANDFILLS B, C, D, E, AND F	■		
14	RAILCAR UNLOADING AREA	■		
15	DRAINAGE DITCHES		■	
16	LAB SUMP	■		
17	AREA 9 RECYCLE BUILDING	■		
18	NPDES STORM WATER DRAINAGE DITCHES			*
19	DRUM STORAGE AREA	■		
21	TANKS 8-TK-5 AND 8-TK-6	■		
24	AREA 21 EMPTY DRUM STORAGE AREA	■		
25	AREA 21 EMPTY DRUM CRUSHING AREA	■		
26	COPPER TANK HOUSE WASTE PILE	■		
27	OUTDOOR CONTAINER STORAGE AREA	■		
28	COPPER TANK HOUSE BULK STORAGE BUILDING	■		
29	COPPER TANK HOUSE OUTDOOR CONTAINER STORAGE AREA	■		
32	SOUTHWEST STORAGE SUMP AREA	■		
33	AREA 8 RECYCLEPROCESS FEED SYSTEM	■		
39	AREA 13 VANADIUM FLYASH STORAGE BUILDING	■		
41	R & D LAB SUMP	■		
42	UST WASTE PILE	■		
43	VEHICLE MAINTENANCE BUILDING SUMP	■		
44	WEST OUTDOOR CONTAINER STORAGE AREA	■		
45	CAUSTIC STORAGE TANK	■		
46	NICKEL SULFIDE RECEIVING AREA	■		
47	AREA 9 SUPPORT MATERIAL BULK STORAGE AREA	■		
58	PLANT ROADS	■		

* ADDRESSED UNDER ALTERNATIVE PROGRAM



LEGEND

- FACILITY COC's AND ORGANICS
- FACILITY COC's AND TPH
- FACILITY COC's
- TRENCHES
- INTERNAL DRAINAGE DITCH SYSTEM

SITE PLAN
SCALE: 1" = 150'

150 75 0 150 300 450

FIGURE 4-1A

WALDEMAR S. NELSON AND COMPANY, INCORPORATED
ENGINEERS AND ARCHITECTS
1300 ST. CHARLES AVE. NEW ORLEANS, LA.

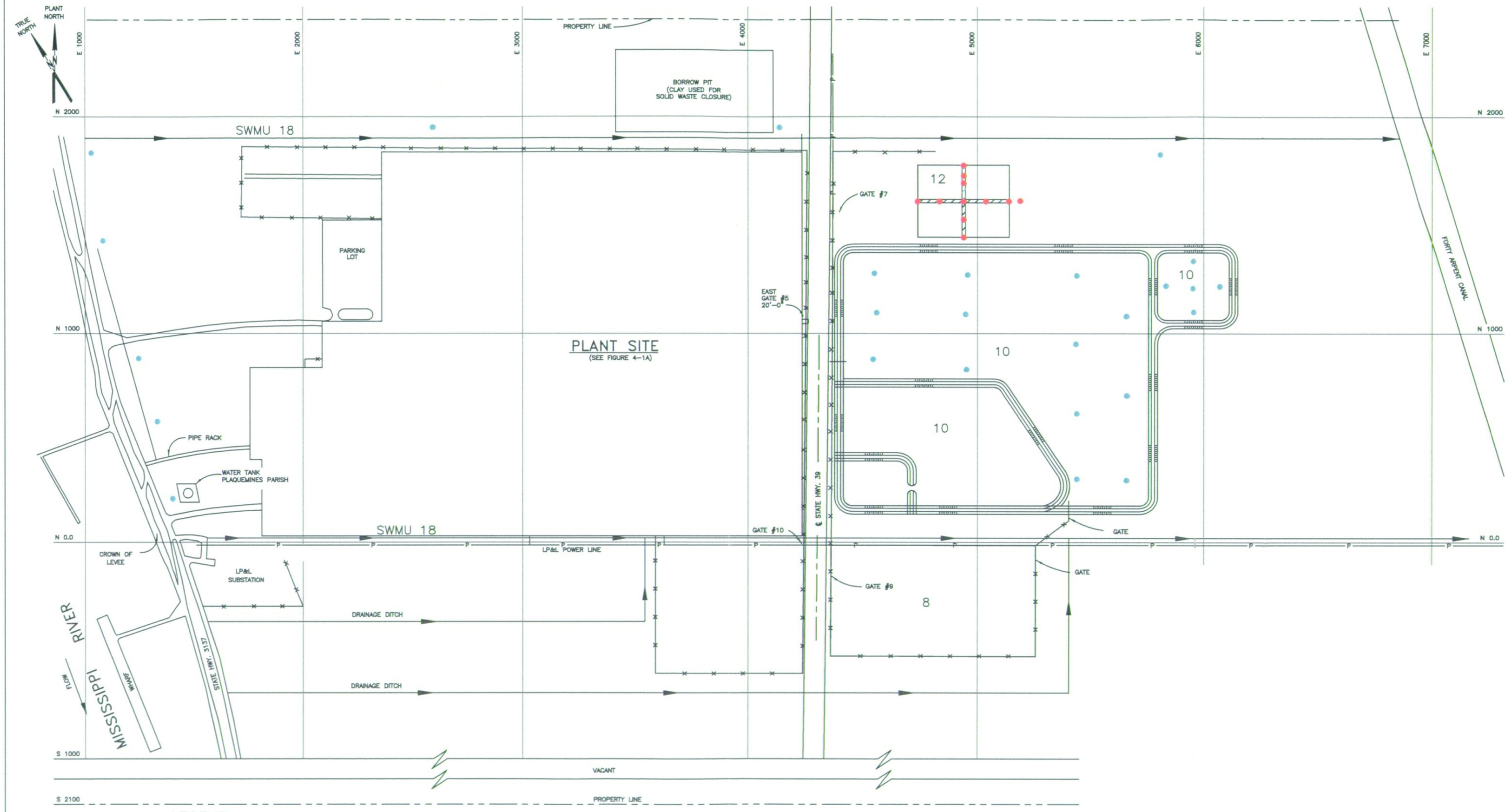
AMAX METALS RECOVERY
BRAITHWAITE, LA.

APPROVED BY: DATE:

COMBINED PHASES OF SI
SAMPLE LOCATION PLAN

DRAWN BY:	ACHKED BY:	DESIGNED BY:	DATE:	SCALE:	JOB No.:	DRAWING No.:	REV.
P.Mc.	L.S.S.	D.G.M.	6-28-05	SHOWN	2004C203	FIG 4-1A	0

ACAD FILE: FIG 4-1A.DWG



LEGEND

- FACILITY COC's AND ORGANICS
- FACILITY COC's AND TPH
- FACILITY COC's
- TRENCHES
- INTERNAL DRAINAGE DITCH SYSTEM

SITE PLAN
SCALE: 1" = 200'

200 100 0 200 400 600

FIGURE 4-1B

WALDEMAR S. NELSON AND COMPANY INCORPORATED ENGINEERS AND ARCHITECTS 1200 ST. CHARLES AVE. NEW ORLEANS, LA.	AMAX METALS RECOVERY BRAITHWAITE, LA.
APPROVED BY: / DATE	COMBINED PHASES OF SI SAMPLE LOCATION PLAN

DRAWN BY:	DESIGNED BY:	CHECKED BY:	DATE	SCALE	JOB No.	DRAWING No.	REV.
P.Mc.	L.S.S.	D.G.M.	6-28-05	SHOWN	20040203	FIG 4-1B	0

ACAD FILENAME: FIG 4-1B.DWG

PLOT DATE: 8/3/04 8:42 A.M.