ANNEX - 3

EIRA LABORATORY REPORT :
Compilation of Narrative Reports,
Procedure Records and Chain-of-Custody

ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.
161 James Drive West, Suite 100
St. Rose, Louisiana 70087
(504) 469-0333

LABORATORY REPORT

Prepared for: U.S. ARMY CORPS OF ENG.
Attention: MR. GEORGE BACUTA, JR.
P.O. BOX 60267
NEW ORLEANS, LA 70160

Lab Episode Descriptor: W304JI
Work Order Number: 13952
Date Received by the Laboratory: 04/19/93
Sampled By: Other

BPA Number: 92-A-0018
Call Number: 007
Boland Marine Site

NARRATIVE

LAB ID	MATRIX	SAMPLE ID
W304JI01	SOLID	IC-BS-1
W304JI02	SOLID	IC-BS-3
W304JI03	SOLID	IC-BS-4
W304JI04	SOLID	IC-BS-6
W304JI05	SOLID	IC-BS-6 (MATRIX SPIKE)
W304JI06	SOLID	IC-BS-5
W304JI07	SOLID	IC-BS-2
W304JI08	SOLID	IC-BS-2 (MATRIX SPIKE)
W304JI09	SOLID	IC-BS-9
W304JI10	SOLID	IC-BS-8
W304JI11	SOLID	IC-BS-7
W304JI12	SOLID	IC-BS-7 (MATRIX SPIKE)

Analysis results are presented on the following pages for the samples identified above.

In the Volatile Organics analysis, methylene chloride is a common laboratory contaminant. The surrogate recovery for 4-Bromofluorobenzene was out of the QC range due to coeluting interferences with hydrocarbon for samples IC-BS-2 (W304JI07) and IC-BS-7 (W304JI11).

In the Semivolatile Organics analysis dilutions had to be performed on samples IC-BS-9 (W304JI09) and IC-BS-7 (W304JI11) thus increasing their detection limits.

The following samples displayed "hits" in the following organic categories:

Sample	Organic Category
IC-BS-1	BTEX
IC-BS-2	Volatile
IC-BS-6	Volatile & Base Neutral
IC-BS-7	Volatile & Base Neutral
IC-BS-9	Volatile & Base Neutral

The chain of custody record is attached to this report.

Please note that recovery data for TCLP analytes are provided for each sample submitted for TCLP analysis utilizing one of two QC options meeting or exceeding the final rule QA requirements of Method 1311 (Federal Register : November 24, 1992).

Lab Descriptor: W304JI
Page Number: 2

Narrative Continued -

If you have any questions or require any additional information, please contact the Project Coordinator referencing the Lab Episode Descriptor.

Technical Review/Method Compliance/Report Completeness Certified By:

Wendy Stehling
Manager of Administration

05/14/93
Date

David W. Smith, Ph.D.
Laboratory Manager

14 May 1993
Date

EIRA ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.

Lab Descriptor: W304JI

PROCEDURE RECORDS

Test Methods for Evaluating Solid Waste,
Physical/Chemical Methods, SW-846, USEPA 3rd Edition, Revised November, 1986

Test	Method	Analyst	Date/Time Analyzed
BNA Extraction - Solid	3550	SC	SEE COMP. LIST
BNA Extraction - TCLP	3520	SC	SEE COMP. LIST
Herbicide Extraction - TCLP	3520	SC	SEE COMP. LIST
Pest/PCB Extraction - Solid	3550	SC	SEE COMP. LIST
Pesticide Extraction - TCLP	3520	SC	SEE COMP. LIST
TCLP Leachate Preparation	1311	OM	04/20/93 14:00
TCLP Zero Headspace Extraction	1311	OM	04/20/93 14:45
BTEX	8021	RM	SEE COMP. LIST
Chlorinated Herbicides - TCLP	8150	RM	SEE COMP. LIST
Chlorinated Hydrocarbons	8121	RM	SEE COMP. LIST
Chlorinated Pesticides - TCLP	8080	RM	SEE COMP. LIST
Organochlorine Pesticides & PCB	8080	RM	SEE COMP. LIST
Arsenic	6010	LH	05/07/93 09:15
Arsenic TCLP	6010	LH	05/07/93 08:50
Arsenic (graphite furnace)	7060	LH	05/07/93 08:46
Barium	6010	LH	05/07/93 08:46
Barium TCLP	6010	LH	05/07/93 08:50
Cadmium	6010	LH	05/07/93 08:46
Cadmium TCLP	6010	LH	05/07/93 08:50
Chromium	6010	LH	05/07/93 08:46
Chromium TCLP	6010	LH	05/07/93 08:50
Lead	6010	LH	05/07/93 08:44
Lead TCLP	6010	LH	05/07/93 08:50
Mercury	7471	LH	05/07/93 08:46
Mercury TCLP	7470	LH	05/07/93 08:52
Mercury(*) TCLP	7470	LH	05/07/93 08:50
Selenium	6010	LH	05/07/93 09:15
Selenium TCLP	6010	LH	05/07/93 08:50
Selenium (graphite furnace)	7740	LH	05/07/93 15:30
Silver	6010	LH	05/07/93 08:46
Silver TCLP	6010	LH	05/07/93 08:50
GC/MS Semivolatile Organics	8270	GK	SEE COMP. LIST
GC/MS Semivolatiles - TCLP	8270	GK	SEE COMP. LIST
GC/MS Volatile Organics	8240	GK	SEE COMP. LIST
GC/MS Volatile Organics - TCLP	8240	GK	SEE COMP. LIST
Ignitability	M1010	MS	05/04/93 09:30

Leaking Underground Fuel Tank Field Manual:
Guidelines For Site Assessment, Cleanup, and Underground Storage Tank Closure, December 1987, State of California

Test	Method	Analyst	Date/Time Analyzed
Total Petroleum Hydrocarbons	LUFT	RM	SEE COMP. LIST

Lab Descriptor: W304JI

Procedure Records Continued -

Interim Method for the Determination of Asbestos in Bulk Insulation Samples, EPA-600/M4-82-020 Dec. 1982

Test	Method	Analyst	Date/Time Analyzed
Asbestos	Bulk ID	WS	05/06/93 13:30

ER 1110-1-263
1 Oct 90

U.S. Army Corps of Engineers

Chain of Custody Record
(ER 1110-1-263)

Proj. No.:
Project Name: Inner Harbor Navigation Canal (IHNC) New Lock Site
Sampler: (Signature) [illegible]

Date 1993	Time	Proc.	Grab	Comp	Site Code/Sample Number	Number of Containers	BTEX, TPH, Pb	VOA, BNA, Chlorinated HC, RCRA metals	PCB & Pesticide	Asbestos	RCRA metals	TCLP	Ignitability	Remarks
4/15	1055	ICE		✓	IC-BS-1	3	✓							Composite 2 borings (0.5' to 1.0' deep) near UST
4/16	0850	ICE		✓	IC-BS-3	1					✓			Composite 4 borings (2" to 1.0' deep) sandblast area
4/16	0930	ICE		✓	IC-BS-4	1				✓				Composite 4 borings (2" to 0.5' deep) asbestos area
4/16	1600	ICE		✓	IC-BS-6	5		✓				✓		Composite of 3 borings (1' to 4.5' deep)
4/17	0930	ICE		✓	IC-BS-5	1			✓					Composite of 2 borings (2' to 3' deep) transformer area
4/17	1400	ICE		✓	IC-BS-2	5		✓				✓		Composite of 3 borings (2' to 3' deep) paint house area
4/18	1330	ICE	✓		IC-BS-9	4		✓						Near flood wall; 1 boring (1' – 3' deep)
4/18	1350	ICE		✓	IC-BS-8	1					✓			Composite of 2 borings (2" to 6" deep) sandblast area
4/18	1430	ICE		✓	IC-BS-7	7		✓				✓	✓	Composite of 3 borings (6" to 3' deep) sandblast area

Nothing follows

Sampler Relinquished by: [illegible]	Date/Time 4/19/93 0940	Received by: (Sig.) L. Comeaux	Date/Time 4/19 9:40
Relinquished by: (Sig.)	Date/Time	Received by: (Sig.)	Date/Time
Relinquished by: (Sig)	Date/Time APW	Received for Laboratory by: (Sig.) [illegible]	Date/Time 4-19-93 12:15
Custody Seal No.		Lab case No.:	

Hazards Associated with Samples

Remarks at time of receipt:

ENG Form 5021-R, Oct 90

Proponent: CEMP-RT

ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.
161 James Drive West, Suite 100
St. Rose, Louisiana 70087
(504) 469-0333

LABORATORY REPORT

Prepared for: U.S. ARMY CORPS OF ENG.
Attention: MR. GEORGE BACUTA
P.O. BOX 60267
NEW ORLEANS, LA 70160

Lab Episode Descriptor: W304KF
Work Order Number: 13974
Date Received by the Laboratory: 04/21/93
Sampled By: Other

BPA Number: DACW29-92-A-0018
Call Number: 007
Site: Boland Marine

NARRATIVE

LAB ID	MATRIX	SAMPLE ID
W304KF01	WATER	IC-BW-1
W304KF02	WATER	IC-BW-7
W304KF03	WATER	IC-BW-2
W304KF04	WATER	IC-BW-2
W304KF05	WATER	IC-BW-6
W304KF06	SOLID	IC-BS-10

Analysis results are presented on the following pages for the samples identified above.

In the semivolatile organic analysis, the samples exhibited high, non-target hydrocarbon peaks. All three samples for semivolatile analysis, IC-BW-7 (W304KF02), IC-BW-2 (W304KF04), and IC-BW-6 (W304KF05), had to be analyzed with dilutions.

The chain of custody record is attached to this report.

If you have any questions or require any additional information, please contact the Project Coordinator referencing the Lab Episode Descriptor.

Technical Review/Method Compliance/Report Completeness Certified By:

Wendy Steehling
Manager of Administration

05/19/93
Date

David W. Smith, Ph.D.
Laboratory Manager

21. May 1993
Date

EIRA ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.

Lab Descriptor: W304KF

PROCEDURE RECORDS

Test Methods for Evaluating Solid Waste,
Physical/Chemical Methods, SW-846, USEPA 3rd Edition, Revised November, 1986

Test	Method	Analyst	Date/Time Analyzed
BNA Extraction - Water	3520	SC	SEE COMP. LIST
BTEX	8021	RM	SEE COMP. LIST
Chlorinated Hydrocarbons	8120	RM	SEE COMP. LIST
Arsenic (graphite furnace)	7060	LH	05/07/93 10:22
Barium	6010	LH	05/07/93 10:22
Cadmium	6010	LH	05/07/93 10:22
Chromium	6010	LH	05/07/93 10:22
Lead	6010	LH	05/07/93 10:08
Mercury	7470	LH	05/07/93 10:22
Selenium (graphite furnace)	7740	LH	05/07/93 15:26
Silver	6010	LH	05/07/93 10:22
GC/MS Semivolatile Organics	8270	GK	SEE COMP. LIST
GC/MS Volatile Organics	8240	GK	SEE COMP. LIST

ER 1110-1-263
1 Oct 90

U.S. Army Corps of Engineers

Chain of Custody Record
(ER 1110-1-263)

Proj. No.: | Project Name: Inner Harbor Navigation Canal (IHNC) New Lock Site

Sampler: (Signature)

Date 1993	Time	Proc.	Grab	Comp	Site Code/Sample Number	Number of Containers	VOA, BNA, Chlorinated HC, RCRA Metals	BTEX, Pb.	RCRA Metals					Remarks:
4-15	1633	HCl, HNO_3, ICE	✓		IC-BW-1	2 (40ml) 1 (500ml)		✓						Sample type: Unfiltered groundwater
4-20	1005	HCl HNO_3, ICE	✓		IC-BW-7	4	✓							Unfiltered groundwater
4-20	1530 1600	HCl, ICE	✓		IC-BW-2	1 (40ml) 1 (1li)	✓							Unfiltered groundwater
4-21	0800	HNO_3 ICE	✓		IC-BW-2	1 (1li) 1 (500ml)	✓							Unfiltered groundwater
4-21	0845	HCl HNO_3 ICE	✓		IC-BW-6	4	✓							Unfiltered groundwater
4-20	1315	ICE		✓	IC-BS-10	1			✓					Soil

Nothing Follows

Sampler Relinquished by:	Date/Time 4-21-93 1005	Received by: (Sig.)	Date/Time 4-21 1005
Relinquished by: (Sig.)	Date/Time 4-21 1150	Received by: (Sig.)	Date/Time
Relinquished by: (Sig.)	Date/Time	Received for Laboratory by:	Date/Time 4-21 1150
Custody Seal No.		Lab case No.	

Hazards Associated with Samples:

Remarks at time of receipt:

ENG Fo 5021-R, Oct 90

Proponent: CEMP-

ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.
161 James Drive West, Suite 100
St. Rose, Louisiana 70087
(504) 469-0333

LABORATORY REPORT

Prepared for: U.S. ARMY CORPS OF ENG.
Attention: MR. GEORGE BACUTA
P.O. BOX 60267
NEW ORLEANS, LA 70160

Lab Episode Descriptor: W304MK
Work Order Number: 14025
Date Received by the Laboratory: 04/28/93
Sampled By: Other

BPA Number: DACW29-92-A-0018
Call Number: 0010 and 0011
Sites: MacDonough and Distributor's Oil

NARRATIVE

LAB ID	MATRIX	SAMPLE ID
W304MK01	SOLID	IC-MS-2
W304MK02	SOLID	IC-MS-4
W304MK03	SOLID	IC-MS-3
W304MK04	SOLID	IC-MS-3 (MATRIX SPIKE)
W304MK05	SOLID	IC-MS-1
W304MK06	SOLID	IC-MS-1 (MATRIX SPIKE)
W304MK07	SOLID	IC-MS-5
W304MK08	SOLID	IC-DS-1
W304MK09	SOLID	IC-DS-2
W304MK10	SOLID	IC-DS-2 (MATRIX SPIKE)
W304MK11	SOLID	IC-DS-3
W304MK12	SOLID	IC-DS-4
W304MK13	SOLID	IC-DS-4 (MATRIX SPIKE)
W304MK14	SOLID	IC-DS-5
W304MK15	SOLID	IC-DS-5 (MATRIX SPIKE)
W304MK16	SOLID	IC-DS-6

Analysis results are presented on the following pages for the samples identified above.

In the TCLP Extractables analysis, the blank and Laboratory Control Spike displayed high surrogates recoveries. Examination of the spike check standard indicated the surrogate standard had concentrated. The surrogate recoveries for the samples were then recalculated and were within the acceptance ranges. The recalculations are not included with this report, but are contained within the raw data at EIRA, and upon request, would be provided to the Corps of Engineers.

In the TCLP Herbicide analysis of sample IC-DS-4 (W304MK12) the surrogate recoveries were outside the QC range. Reextraction and reanalysis was performed and exhibited acceptable surrogate recoveries and the same sample results as in the initial analysis. The reextraction occurred outside the holding time. Both sets of data are included in this report.

The chain of custody record is attached to this report.

Please note that recovery data for TCLP analytes are provided for each sample submitted for TCLP analysis utilizing one of two QC options meeting or exceeding the final rule QA requirements of Method 1311 (Federal Register : November 24, 1992).

Lab Descriptor: W304MK
Page Number: 2

Narrative Continued -

If you have any questions or require any additional information, please contact the Project Coordinator referencing the Lab Episode Descriptor.

Technical Review/Method Compliance/Report Completeness Certified By:

Wendy Stehling
Manager of Administration

06/03/93
Date

David W. Smith, Ph.D.
Laboratory Manager

4. June 1993
Date

EIRA ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.

Lab Descriptor: W304MK

PROCEDURE RECORDS

Test Methods for Evaluating Solid Waste,
Physical/Chemical Methods, SW-846, USEPA 3rd Edition, Revised November, 1986

Test	Method	Analyst	Date/Time Analyzed
BNA Extraction - Solid	3550	SC	SEE COMP. LIST
BNA Extraction - TCLP	3520	SC	SEE COMP. LIST
Herbicide Extraction - TCLP	3520	SC	SEE COMP. LIST
Pesticide Extraction - TCLP	3520	SC	SEE COMP. LIST
TCLP Leachate Preparation	1311	OM	05/04/93 15:00
TCLP Zero Headspace Extraction	1311	OM	05/04/93 14:0
BTEX	8021	PM	SEE COMP. LIST
Chlorinated Herbicides - TCLP	8150	PM	SEE COMP. LIST
Chlorinated Hydrocarbons	8121	PM	SEE COMP. LIST
Chlorinated Pesticides - TCLP	8080	PM	SEE COMP. LIST
Arsenic	6010	SP	05/25/93 15:40
Arsenic TCLP	6010	SP	05/25/93 14:59
Arsenic (graphite furnace)	7060	SP	05/25/93 14:59
Barium	6010	SP	05/25/93 14:59
Barium TCLP	6010	SP	05/25/93 14:59
Cadmium	6010	SP	05/25/93 14:59
Cadmium TCLP	6010	SP	05/25/93 15:00
Chromium	6010	SP	05/25/93 14:59
Chromium TCLP	6010	SP	05/25/93 15:00
Lead	6010	SP	05/25/93 14:54
Lead TCLP	6010	SP	05/25/93 15:00
Mercury	7471	SP	05/25/93 14:59
Mercury TCLP	7470	SP	05/25/93 15:01
Mercury(*) TCLP	7470	SP	05/25/93 15:00
Selenium	6010	SP	05/25/93 15:41
Selenium TCLP	6010	SP	05/25/93 15:00
Selenium (graphite furnace)	7740	SP	05/25/93 14:59
Silver	6010	SP	05/25/93 14:59
Silver TCLP	6010	SP	05/25/93 15:00
GC/MS Semivolatile Organics	8270	GK	SEE COMP. LIST
GC/MS Semivolatiles - TCLP	8270	GK	SEE COMP. LIST
GC/MS Volatile Organics	8240	GK	SEE COMP. LIST
GC/MS Volatile Organics - TCLP	8240	GK	SEE COMP. LIST
Ignitability	M1010	MS	04/30/93 11:00

Leaking Underground Fuel Tank Field Manual:
Guidelines For Site Assessment, Cleanup, and Underground Storage
Tank Closure, December 1987, State of California

Test	Method	Analyst	Date/Time Analyzed
Total Petroleum Hydrocarbons	LUFT	PM	SEE COMP. LIST

EIRA ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.

CHAIN OF CUSTODY RECORD

161 James Drive West
St. Rose, LA 70087
(504) 469-0333

PROJ. NO.

P.O. #

CLIENT: Corps of Engineers, New Orleans District

SAMPLER: (Signature and Initials) [signature] / [signature]

SAMPLE NO.	DATE SAMPLED 1993	TIME SAMPLED HRS	COMP	GRAB	SAMPLE I.D.	NO. OF CONTAINERS	SAMPLES PRESERVED (Y/N)	BTEX	TPH, Pb	VOA	BNA, Chlor. Hydrocarbons	RCRA metals	TCLP					REMARKS	FOR LAB USE ONLY LAB I.D. #
1	24 Apr	1030	✓		IC-MS-2	2	N	✓	✓									MacDonough Project Composite of 4 borings fr. 3.0'-4.0' depth	
2	24 Apr	1510	✓		IC-MS-4	2	N	✓	✓									Composite of 4 borings fr. 3.0'-4.0' depth	
3	26 Apr	1045	✓		IC-MS-3	3	N			✓	✓	✓	✓					Composite of 4 borings fr. 3.0'-4.0' depth	
4	26 Apr	1500 ~~1045~~	✓		IC-MS-1	3	N			✓	✓	✓	✓					Composite of 4 borings fr. 2.5'-4.0' depth	
5	26 Apr	1535		✓	IC-MS-5	1	N					✓						Sample fr. 1.0'-1.6' depth	
6	27 Apr	1120	✓		IC-DS-1	2	N	✓	✓									Distributors Oil - Mayer Yatch Project Composite of 4 borings fr. 1.5'-3.5' depth	
7	27 Apr	1455	✓		IC-DS-2	3	N	✓	✓				✓					Composite of 4 borings fr. 1.0-2.5' depth	
8	27 Apr	1120	✓		IC-DS-3	2	N	✓	✓									Composite of 4 borings fr. 1.5'-3.5' depth	
9	28 Apr	0845		✓	IC-DS-4	3	N			✓	✓	✓	✓					Sample fr. 2.0'-6.0' depth	
10	27 Apr	1600	✓		IC-DS-5	2	N					✓	✓					Composite of 6 borings fr. 1.0'-1.5' depth	
11	28 Apr	0845		✓	IC-DS-6	2	N			✓	✓	✓						Sample fr. 2.0'-6.0' depth	

Nothing Follows

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	4/28/93 1530	[signature]
[signature]	4/28/93 1640	
	ABC	[signature]

Requested Turnaround
- ___ 24 - 48 hours
- ___ Less than 5 days
- ___ Less than standard
- ✓ Standard

Regulatory Concerns
- ✓ RCRA
- ___ NPDES
- ___ Drinking Water
- ___ CLP
- ___ None
- ___ Other ___

EPISODE ID: W304 MK

LABORTARY APPROVAL REQUIRED PRIOR TO SAMPLE SUBMISSION

Received for Laboratory by: (Signature) [signature] Date/Time 4-28-93 1640

CONTACT NAME AND PHONE NUMBER
George Bacuta 862-1021 or
Tim Flaherty 1096

White Copy_____ Canary Copy_____ Pink Copy_____

ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.
161 James Drive West, Suite 100
St. Rose, Louisiana 70087
(504) 469-0333

LABORATORY REPORT

Prepared for: U.S. ARMY CORPS OF ENG.
Attention: MR. GEORGE BACUTA
P.O. BOX 60267
NEW ORLEANS, LA 70160

Lab Episode Descriptor: W305RE
Work Order Number: 14149
Date Received by the Laboratory: 05/13/93
Sampled By: Other

BPA Number: DACW29-92-A-0018
Call Number: 0011
Site: Distributor's Oil

NARRATIVE

LAB ID	MATRIX	SAMPLE ID
W305RE01	WATER	IC-DW-4
W305RE02	WATER	IC-DW-2
W305RE03	WATER	IC-DW-3

Analysis results are presented on the following pages for the samples identified above.

The chain of custody record is attached to this report.

If you have any questions or require any additional information, please contact the Project Coordinator referencing the Lab Episode Descriptor.

Technical Review/Method Compliance/Report Completeness Certified By:

Wendy Stenling
Manager of Administration

06/02/93
Date

David W. Smith, Ph.D.
Laboratory Manager

4. June 1993
Date

EIRA ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.

Lab Descriptor: W305RE

PROCEDURE RECORDS

Test Methods for Evaluating Solid Waste,
Physical/Chemical Methods, SW-846, USEPA 3rd Edition, Revised November, 1986

Test	Method	Analyst	Date/Time Analyzed
BNA Extraction - Water	3520	SC	SEE COMP. LIST
BTEX	8021	PM	SEE COMP. LIST
Chlorinated Hydrocarbons	8120	PM	SEE COMP. LIST
Arsenic (graphite furnace)	7060	SP	06/01/93 14:11
Barium	6010	SP	06/01/93 14:11
Cadmium	6010	SP	06/01/93 14:11
Chromium	6010	SP	06/01/93 14:11
Lead	6010	SP	06/01/93 14:11
Mercury	7470	SP	06/01/93 14:11
Selenium (graphite furnace)	7740	SP	06/01/93 14:11
Silver	6010	SP	06/01/93 14:11
GC/MS Semivolatile Organics	8270	GK	SEE COMP. LIST
GC/MS Volatile Organics	8240	GK	SEE COMP. LIST

Leaking Underground Fuel Tank Field Manual:
Guidelines For Site Assessment, Cleanup, and Underground Storage
Tank Closure, December 1987, State of California

Test	Method	Analyst	Date/Time Analyzed
Total Petroleum Hydrocarbons	LUFT	PM	SEE COMP. LIST

Bo. 159

ER 1110-1-263
1 Oct 90

U.S. Army Corps of Engineers

Chain of Custody Record
(ER 1110-1-263)

Proj. No.

Project Name: USArmy COE

Sampler's (Signature): [signature]

Date 1993	Time	Pres.	Grab	Comp	Site Code/Sample Number	Number of Containers	VOA	BNA	Chlorinated Hydrocarbon	RCRA Metals	BTEX	TPH	Lead	Remarks:
5-12	1023 1025	HCl	✓		IC-DW-4	2	✓							
5-12	1250	ICE 4°C	✓		IC-DW-4	1		✓						
5-12	1535	ICE 4°C	✓		IC-DW-4	1			✓					
5-12	1028	HNO3	✓		IC-DW-4	1				✓				
5-13	0835	HCL	✓		IC-DW-2	2					✓			
5-13	0845	ICE 4°C	✓		IC-DW-2	1						✓		
5-13	0835	HNO3	✓		IC-DW-2	1							✓	
5-13	0835	HCL	✓		IC-DW-3	2					✓			
5-13	0845	ICE 4°C	✓		IC-DW-3	1						✓		
5-13	0835	HNO3	✓		IC-DW-3	1							✓	

Sampler Relinquished by: [signature]	Date/Time 5/13/93 1038	Received by: (Sig.) [signature]	Date/Time 5-13-93 1615	Hazards Associated with Samples
Relinquished by: (Sig.) [signature]	Date/Time 5-13 1600	Received by: (Sig.)	Date/Time	
Relinquished by: (Sig)	Date/Time	Received for Laboratory by: [signature]	Date/Time 5-13-93 1600	Remarks at time of receipt:
Custody Seal No.		Lab case No.:		

ENG Form 5021-R, Oct 90

Proponent: CEMP-RT

ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.
161 James Drive West, Suite 100
St. Rose, Louisiana 70087
(504) 469-0333

LABORATORY REPORT

Prepared for: U.S. ARMY CORPS OF ENG.
Attention: MR. GEORGE BACUTA
P.O. BOX 60267
NEW ORLEANS, LA 70160

Lab Episode Descriptor: W3050Z
Work Order Number: 14099
Date Received by the Laboratory: 05/07/93
Sampled By: Other

BPA Number: DACW29-92-A-0018
Call Number: 009
Site: International Tank Terminal
Sampler's Initials: EC

NARRATIVE

LAB ID	MATRIX	SAMPLE ID
W3050Z01	WATER	IC-TW-3

Analysis results are presented on the following pages for the sample identified above.

The chain of custody record is attached to this report.

If you have any questions or require any additional information, please contact the Project Coordinator referencing the Lab Episode Descriptor.

Technical Review/Method Compliance/Report Completeness Certified By:

Wendy Stebling
Manager of Administration

06/10/93
Date

David W. Smith, Ph.D.
Laboratory Manager

10. June 1993
Date

EIRA ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.

Lab Descriptor: W3050Z

PROCEDURE RECORDS

Test Methods for Evaluating Solid Waste,
Physical/Chemical Methods, SW-846, USEPA 3rd Edition, Revised November, 1986

Test	Method	Analyst	Date/Time Analyzed
BNA Extraction - Water	3520	SC	SEE COMP. LIST
Chlorinated Hydrocarbons	8120	PM	SEE COMP. LIST
Arsenic (graphite furnace)	7060	SP	05/25/93 13:25
Barium	6010	SP	05/25/93 13:25
Cadmium	6010	SP	05/25/93 13:25
Chromium	6010	SP	05/25/93 13:25
Lead	6010	SP	05/25/93 13:25
Mercury	7470	SP	05/25/93 13:25
Selenium (graphite furnace)	7740	SP	05/25/93 13:25
Silver	6010	SP	05/25/93 13:25
GC/MS Semivolatile Organics	8270	GK	SEE COMP. LIST
GC/MS Volatile Organics	8240	GK	SEE COMP. LIST

U.S. Army Corps of Engineers

Chain of Custody Record
(ER 1110-1-263)

Proj. No.

Project Name: Inner Harbor Navigation Canal (IHNC) New Lock Site

Sampler: (Signature) [signature] EWC

Date 1993	Time	Pres.	Grab	Comp	Site Code/Sample Number	Number of Containers	VOA	Base, neutral acid extract (semivolatile organics)	Chlorinated Hydrocarbons	RCRA Metals				Remarks:
5-6	0905	HCL	✓		IC-TW-3	2-40ml	✓							
5-6	0930	HNO_3	✓		IC-TW-3	1-500ml				✓				unfiltered
5-6	1050	4°C ICED	✓		IC-TW-3	1-1li		✓	✓					

Nothing Follows

Sampler Relinquished by: [signature]	Date/Time 5-7 0700	Received by: (Sig.) [signature]	Date/Time 5-7 0700	Hazards Associated with Samples
Relinquished by: (Sig.) [signature] 5-7-93	Date/Time	Received by: (Sig.)	Date/Time	
Relinquished by: (Sig)	Date/Time	Received for Laboratory by: (Sig.) [signature]	Date/Time 5-7-93 0700	Remarks at time of receipt:
Custody Seal No.		Lab case No.:		

Form 5021-R, Oct 90

Proponent: CEMP

ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.
161 James Drive West, Suite 100
St. Rose, Louisiana 70087
(504) 469-0333

LABORATORY REPORT

Prepared for: U.S. ARMY CORPS OF ENG.
Attention: MR. GEORGE BACUTA
P.O. BOX 60267
NEW ORLEANS, LA 70160

Lab Episode Descriptor: W3050B
Work Order Number: 14076
Date Received by the Laboratory: 05/05/93
Sampled By: Other
Sampler's Initials: DL

BPA Number: DACW29-92-A-0018
Call Numbers: 0013, 0014, and 009
Sites: Saucer Marine, Indian Towing, and International Tank

NARRATIVE

LAB ID	MATRIX	SAMPLE ID
W3050B01	SOLID	IC-SS-1
W3050B02	SOLID	IC-SS-2
W3050B03	SOLID	IC-SS-2 (MATRIX SPIKE)
W3050B04	SOLID	IC-SS-3
W3050B05	SOLID	IC-SS-3 (MATRIX SPIKE)
W3050B06	SOLID	IC-SS-14
W3050B07	SOLID	IC-SS-14 (MATRIX SPIKE)
W3050B08	SOLID	IC-IS-1
W3050B09	SOLID	IC-IS-6
W3050B10	SOLID	IC-IS-3
W3050B11	SOLID	IC-IS-2
W3050B12	SOLID	IC-IS-5
W3050B13	SOLID	IC-IS-5 (MATRIX SPIKE)
W3050B14	SOLID	IC-IS-4
W3050B15	SOLID	IC-IS-4 (MATRIX SPIKE)
W3050B16	SOLID	IC-IS-7
W3050B17	SOLID	IC-IS-7 (MATRIX SPIKE)
W3050B18	WATER	IC-TW-1
W3050B19	WATER	IC-TW-1

Analysis results are presented on the following pages for the samples identified above.

In the Volatile Organics analyses performed on May 11, 1993, 2-Butanone contamination is exhibited in the blank and corresponding samples. Methylene chloride and Acetone are common soil contaminants, however, the acetone displayed in sample IC-SS-2 (W3050B02) cannot be attributed to contamination due to: 1) the high recovery, 2) linearily of dilution, and 3) recoveries are repetitive in matrix spike and duplicate.

In the Semivolatile Organic analysis, samples IC-SS-2 (W3050B02), IC-SS-3 (W3050B04), and IC-SS-14 (W3050B06) were of a very basic nature, thus affecting the surrogate recoveries.

The chain of custody record is attached to this report.

Please note that recovery data for TCLP analytes are provided for each sample submitted for TCLP analysis utilizing one of two QC options meeting or

ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.
161 James Drive West, Suite 100
St. Rose, Louisiana 70087
(504) 469-0333

LABORATORY REPORT

Prepared for: U.S. ARMY CORPS OF ENG.
Attention: MR. GEORGE BACUTA
P.O. BOX 60267
NEW ORLEANS, LA 70160

Lab Episode Descriptor: W3050B
Work Order Number: 14076
Date Received by the Laboratory: 05/05/93
Sampled By: Other
Sampler's Initials: DL

BPA Number: DACW29-92-A-0018
Call Numbers: 0013, 0014, and 009
Sites: Saucer Marine, Indian Towing, and International Tank

NARRATIVE

LAB ID	MATRIX	SAMPLE ID
W3050B01	SOLID	IC-SS-1
W3050B02	SOLID	IC-SS-2
W3050B03	SOLID	IC-SS-2 (MATRIX SPIKE)
W3050B04	SOLID	IC-SS-3
W3050B05	SOLID	IC-SS-3 (MATRIX SPIKE)
W3050B06	SOLID	IC-SS-14
W3050B07	SOLID	IC-SS-14 (MATRIX SPIKE)
W3050B08	SOLID	IC-IS-1
W3050B09	SOLID	IC-IS-6
W3050B10	SOLID	IC-IS-3
W3050B11	SOLID	IC-IS-2
W3050B12	SOLID	IC-IS-5
W3050B13	SOLID	IC-IS-5 (MATRIX SPIKE)
W3050B14	SOLID	IC-IS-4
W3050B15	SOLID	IC-IS-4 (MATRIX SPIKE)
W3050B16	SOLID	IC-IS-7
W3050B17	SOLID	IC-IS-7 (MATRIX SPIKE)
W3050B18	WATER	IC-TW-1
W3050B19	WATER	IC-TW-1

Analysis results are presented on the following pages for the samples identified above.

In the Volatile Organics analyses performed on May 11, 1993, 2-Butanone contamination is exhibited in the blank and corresponding samples. Methylene chloride and Acetone are common soil contaminants, however, the acetone displayed in sample IC-SS-2 (W3050B02) cannot be attributed to contamination due to: 1) the high recovery, 2) linearily of dilution, and 3) recoveries are repetitive in matrix spike and duplicate.

In the Semivolatile Organic analysis, samples IC-SS-2 (W3050B02), IC-SS-3 (W3050B04), and IC-SS-14 (W3050B06) were of a very basic nature, thus affecting the surrogate recoveries.

The chain of custody record is attached to this report.

Please note that recovery data for TCLP analytes are provided for each sample submitted for TCLP analysis utilizing one of two QC options meeting or

Lab Descriptor: W3050B
Page Number: 2

Narrative Continued -

exceeding the final rule QA requirements of Method 1311 (Federal Register : November 24, 1992).

If you have any questions or require any additional information, please contact the Project Coordinator referencing the Lab Episode Descriptor.

Technical Review/Method Compliance/Report Completeness Certified By:

Wendy Stehling
Manager of Administration

06/07/93
Date

David W. Smith, Ph.D.
Laboratory Manager

7. June 1993
Date

EIRA ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.

EIRA ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.

CHAIN OF CUSTODY RECORD

161 James Drive West
St. Rose, LA 70087
(504) 469-0333

PROJ. NO.

P.O. #

CLIENT: CORPS OF ENGINEERS, NEW ORLEANS DISTRICT

SAMPLER: (Signature and Initials) [signature] / Donald S. Sumner

SAMPLE NO.	DATE SAMPLED 1993	TIME SAMPLED	COMP	GRAB	SAMPLE I.D.	NO. OF CONTAINERS	SAMPLES PRESERVED (Y/N)	Volatile organics	Base, Neutral/Acid Extractable (SEMI-VOCs)	Chlorinated Hydrocarbons	RCRA Metals	TCLP	Ignitability	Asbestos	Pesticide/Herbicide	Zn + Ca	REMARKS	FOR LAB USE ONLY / LAB I.D. #
																	SAUCER MARINE	
1	5-3	0945	✓		IC-SS-1	1	N							✓			Composite of 2 borings (top of ground). suspected asbestos material.	
2	5-3	1420	✓		IC-SS-2	3	N	✓	✓	✓	✓	✓	✓				Composite of 5 borings fr. 0.5' to 2.5'	
3	5-3	1005	✓		IC-SS-3	3	N	✓	✓	✓	✓	✓	✓				Composite of 3 borings fr. 0.5' to 1.6'	
4	5-3	1420	✓		IC-SS-14	3	N	✓	✓	✓	✓	✓	✓				Composite of 5 borings fr. 0.5' to 2.5'	
																	INDIAN TOWING	
5	5-4	1000		✓	IC-IS-1	2	N	✓	✓	✓	✓						Composite of 2 borings fr. 1.5' - 3.8'	
6	5-4	1015	✓		IC-IS-6	2	N	✓	✓	✓	✓						1 Boring fr. 2.0' to 3.8'	
7	5-4	1115	✓		IC-IS-3	2	N	✓	✓	✓	✓						Composite of 2 borings fr. 1.0' - 2.0'	
8	5-4	1135		✓	IC-IS-2	1	N				✓						1 Boring fr. 1.5' to 2.5'	
9	5-4	1445	✓		IC-IS-5	3	N	✓	✓	✓	✓	✓	✓				Composite of 3 borings fr. 1.0' - 2.5'	
10	5-4	1510		✓	IC-IS-4	3	N	✓	✓	✓	✓	✓	✓				1 Boring fr. 0.5' to 4.0'	
11	5-4	1510		✓	IC-IS-7	3	N	✓	✓	✓	✓	✓	✓				1 Boring fr. 0.5' to 4.0'	
12	5-3	1600		✓	IC-TW-1	1 li	N								✓		4°C ice cooled; 1 liter.	
13	5-4	1347		✓	IC-TW-1	1	Y									✓	HNO3 preservative; last hr boiling ≈ 1250 hrs, 5/5/93. 500 ml bottle, half-filled; poor recovery.	
					Nothing Follows													

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	5-5-93 1310	Donald S. Sumner
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
Donald S. Sumner	5-5-93 1340	Annie Webster

Requested Turnaround
- ___ 24 - 48 hours
- ___ Less than 5 days
- ___ Less than standard
- ✓ Standard

Regulatory Concerns
- ✓ RCRA
- ___ NPDES
- ___ Drinking Water
- ___ CLP
- ___ None
- ✓ Other TCLP radioactivity (water sample)

LABORTARY APPROVAL REQUIRED PRIOR TO SAMPLE SUBMISSION

EPISODE ID: W3050B

Date/Time: 5-5-93 13:40

CONTACT NAME AND PHONE NUMBER

White Copy_____ Canary Copy_____ Pink Copy_____

ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.
161 James Drive West, Suite 100
St. Rose, Louisiana 70087
(504) 469-0333

LABORATORY REPORT

Prepared for: U.S. ARMY CORPS OF ENG.
Attention: MR. GEORGE BACUTA
P.O. BOX 60267
NEW ORLEANS, LA 70160

Lab Episode Descriptor: W304NF
Work Order Number: 14045
Date Received by the Laboratory: 04/30/93
Sampled By: Other

BPA Number: DACW29-92-A-0018
Call Number: 0013
Site: Saucer Marine

NARRATIVE

LAB ID	MATRIX	SAMPLE ID
W304NF01	SOLID	IC-SS-9
W304NF02	SOLID	IC-SS-8
W304NF03	SOLID	IC-SS-6
W304NF04	SOLID	IC-SS-7
W304NF05	SOLID	IC-SS-7 (MATRIX SPIKE)
W304NF06	SOLID	IC-SS-11
W304NF07	SOLID	IC-SS-11 (MATRIX SPIKE)
W304NF08	SOLID	IC-SS-4
W304NF09	SOLID	IC-SS-4 (MATRIX SPIKE)
W304NF10	SOLID	IC-SS-5
W304NF11	SOLID	IC-SS-10
W304NF12	SOLID	IC-SS-13

SAUCER #13

Bolan Pres #17

Analysis results are presented on the following pages for the samples identified above.

In the TCLP Extractables analysis, the blank and Laboratory Control Spike displayed high surrogate recoveries. Examination of the spike check standard indicated the surrogate standard may have concentrated. The surrogate recoveries for the samples was then recalculated and were within the acceptance ranges. The recalculations are not included with this report, but are contained within the raw data at EIRA, and upon request, may be provided to the Corps of Engineers.

The chain of custody record is attached to this report.

Please note that recovery data for TCLP analytes are provided for each sample submitted for TCLP analysis utilizing one of two QC options meeting or exceeding the final rule QA requirements of Method 1311 (Federal Register : November 24, 1992).

Lab Descriptor: W304NF
Page Number: 2

Narrative Continued -

If you have any questions or require any additional information, please contact the Project Coordinator referencing the Lab Episode Descriptor.

Technical Review/Method Compliance/Report Completeness Certified By:

Wendy Stebling
Manager of Administration

06/07/93
Date

David W. Smith, Ph.D.
Laboratory Manager

8. June 1993
Date

EIRA ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.

Lab Descriptor: W304NF

PROCEDURE RECORDS

Test Methods for Evaluating Solid Waste,
Physical/Chemical Methods, SW-846, USEPA 3rd Edition, Revised November, 1986

Test	Method	Analyst	Date/Time Analyzed
BNA Extraction - Solid	3550	SC	SEE COMP. LIST
BNA Extraction - TCLP	3520	SC	SEE COMP. LIST
Herbicide Extraction - TCLP	3520	SC	SEE COMP. LIST
Pesticide Extraction - TCLP	3520	SC	SEE COMP. LIST
TCLP Leachate Preparation	1311	OM	05/04/93 15:00
TCLP Zero Headspace Extraction	1311	OM	05/04/93 14:00
BTEX	8021	PM	SEE COMP. LIST
Chlorinated Herbicides - TCLP	8150	PM	SEE COMP. LIST
Chlorinated Hydrocarbons	8121	PM	SEE COMP. LIST
Chlorinated Pesticides - TCLP	8080	PM	SEE COMP. LIST
Arsenic	6010	SP	05/27/93 14:41
Arsenic TCLP	6010	SP	05/27/93 13:44
Arsenic (graphite furnace)	7060	SP	05/27/93 13:38
Barium	6010	SP	05/27/93 13:38
Barium TCLP	6010	SP	05/27/93 13:44
Cadmium	6010	SP	05/27/93 13:38
Cadmium TCLP	6010	SP	05/27/93 13:44
Chromium	6010	SP	05/27/93 13:38
Chromium TCLP	6010	SP	05/27/93 13:44
Lead	6010	SP	05/27/93 14:29
Lead TCLP	6010	SP	05/27/93 13:44
Mercury	7471	SP	05/27/93 13:38
Mercury TCLP	7470	SP	05/27/93 13:47
Mercury(*) TCLP	7470	SP	05/27/93 13:44
Selenium	6010	SP	05/27/93 14:41
Selenium TCLP	6010	SP	05/27/93 13:44
Selenium (graphite furnace)	7740	SP	05/27/93 13:38
Silver	6010	SP	05/27/93 13:38
Silver TCLP	6010	SP	05/27/93 13:44
GC/MS Semivolatile Organics	8270	GK	SEE COMP. LIST
GC/MS Semivolatiles - TCLP	8270	GK	SEE COMP. LIST
GC/MS Volatile Organics	8240	GK	SEE COMP. LIST
GC/MS Volatile Organics - TCLP	8240	GK	SEE COMP. LIST
Ignitability	M1010	MS	05/05/93 10:45

Leaking Underground Fuel Tank Field Manual:
Guidelines For Site Assessment, Cleanup, and Underground Storage
Tank Closure, December 1987, State of California

Test	Method	Analyst	Date/Time Analyzed
Total Petroleum Hydrocarbons	LUFT	PM	SEE COMP. LIST

U.S. Army Corps of Engineers

Chain of Custody Record
(ER 1110-1-263)

Proj. No.

Project Name: INNER HARBOR NAVIGATION CANAL (INDUSTRIAL CANAL) NEW LOCK SITE.

Sampler: (Signature) SAUCER MARINE

Date 1993	Time	Pres.	Grab	Comp	Site Code/Sample Number	Number of Containers	BTEX	TPH, Pb	VOA	BNA, Chlorinated Hydrocarbons	RCRA metals	TCLP	Ignitability	Remarks:
4/28	1335	4°C ICE		✓	IC-SS-9	2	✓	✓						Composite of 4 soil borings
4/28	1440	4° ICE		✓	IC-SS-8	2	✓	✓						Composite of 3 soil borings
4/29	0915	4° ICE		✓	IC-SS-6	2			✓	✓	✓			Composite of 3 soil borings (1.0' to 1.5' depth)
4/29	1005	4° ICE		✓	IC-SS-7	3			✓	✓	✓	✓	✓	Composite of 3 soil borings (1.0' to 2.0' depth)
4/29	1103	4° ICE		✓	IC-SS-11	2					✓	✓		Composite of 3 soil borings (1.0' to 1.5' depth)
4/29	1430	4° ICE		✓	IC-SS-4	3			✓	✓	✓	✓	✓	Composite of 2 soil borings (2.0' to 3.0' depth)
4/29	1440	4° ICE		✓	IC-SS-5	2			✓	✓	✓			Composite of 4 soil borings (1.0' to 2.0' depth)
4/29	1545	4° ICE		✓	IC-SS-10	2			✓	✓	✓			Composite of 3 soil borings (1.0' to 2.0' depth)
4/29	1103	4° ICE		✓	IC-SS-13	1					✓			Composite of 3 soil borings (1.0' to 1.5' depth)

Sampler Relinquished by:	Date/Time 4/30 1100	Received by: (Sig.)	Date/Time
Relinquished by: (Sig.)	Date/Time	Received by: (Sig.)	Date/Time
Relinquished by: (Sig.)	Date/Time	Received for Laboratory by: (Sig.)	Date/Time 4-30-93 11:00
Custody Seal No.		Lab case No.:	

Hazards Associated with Samples

Remarks at time of receipt:

ENG Form 5021-R, Oct 90

Proponent: CEMP-RT

ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.
161 James Drive West, Suite 100
St. Rose, Louisiana 70087
(504) 469-0333

LABORATORY REPORT

Prepared for: U.S. ARMY CORPS OF ENG.
Attention: MR. GEORGE BACUTA
P.O. BOX 60267
NEW ORLEANS, LA 70160

Lab Episode Descriptor: W305PW
Work Order Number: 14119
Date Received by the Laboratory: 05/11/93
Sampled By: Other
Sampler's Initials: AK

BPA Number: DACW29-92-A-0018
Call Numbers: 0013 and 0010
Sites: Saucer Marine and Marmac (MacDonough)

NARRATIVE

LAB ID	MATRIX	SAMPLE ID
W305PW01	WATER	IC SW-9
W305PW02	WATER	IC SW-9
W305PW03	WATER	IC MW-3
W305PW04	WATER	IC MW-4

Analysis results are presented on the following pages for the samples identified above. As per Mr. Bacuta, on May 12, 1993, sample IC SW-9 was analyzed only for Lead, not all of the RCRA metals.

The chain of custody record is attached to this report.

If you have any questions or require any additional information, please contact the Project Coordinator referencing the Lab Episode Descriptor.

Technical Review/Method Compliance/Report Completeness Certified By:

Wendy Stehling
Manager of Administration

06/09/93
Date

David W. Smith, Ph.D.
Laboratory Manager

9. June 1993
Date

EIRA ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.

Lab Descriptor: W305PW

PROCEDURE RECORDS

Test Methods for Evaluating Solid Waste,
Physical/Chemical Methods, SW-846, USEPA 3rd Edition, Revised November, 1986

Test	Method	Analyst	Date/Time Analyzed
BNA Extraction - Water	3520	SC	SEE COMP. LIST
BTEX	8021	PM	SEE COMP. LIST
Chlorinated Hydrocarbons	8120	PM	SEE COMP. LIST
Arsenic (graphite furnace)	7060	SP	05/28/93 08:48
Barium	6010	SP	05/28/93 08:48
Cadmium	6010	SP	05/28/93 08:48
Chromium	6010	SP	05/28/93 08:48
Lead	6010	SP	05/27/93 14:10
Mercury	7470	SP	05/28/93 08:48
Selenium (graphite furnace)	7740	SP	05/28/93 13:14
Silver	6010	SP	05/28/93 08:48
GC/MS Semivolatile Organics	8270	GK	SEE COMP. LIST
GC/MS Volatile Organics	8240	GK	SEE COMP. LIST

Leaking Underground Fuel Tank Field Manual:
Guidelines For Site Assessment, Cleanup, and Underground Storage
Tank Closure, December 1987, State of California

Test	Method	Analyst	Date/Time Analyzed
Total Petroleum Hydrocarbons	LUFT	PM	SEE COMP. LIST

EI.A ENVIRONMENTAL INDUSTRIAL RESEARCH ASSOCIATES, INC.

CHAIN OF CUSTODY RECORD

161 James D[illegible] West
St. Rose, LA [illegible]87
(504) 469-0331

PROJ. NO.
P.O. #
CLIENT U.S. Army C.O.E.
SAMPLER: (Signature and Initials)

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	COMP	GRAB	SAMPLE I.D.	NO. OF CONTAINERS	SAMPLES PRESERVED (Y/N)	ANALYSIS REQUESTED: BTEX										REMARKS	FOR LAB USE ONLY LAB I.D. #
1	5/10/93	0830		✓	ICSW-9	1		✓											01
2	5/10/93	0830		✓	ICSW-9	1		✓											

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	5/11/93 1556	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	ABW	[signature]

Requested Turnaround
_____24 - 48 hours
_____Less than 5 days
_____Less than standard
_____Standard

Regulatory Concerns
_____RCRA
_____NPDES
_____Drinking Water
_____CLP
_____None
_____Other_____

LABORTARY APPROVAL REQUIRED PRIOR TO SAMPLE SUBMISSION

Date/Time: 5/11/93 1556

CONTACT NAME AND PHONE NUMBER

W365PW

White Copy_____ Canary Copy_____ Pink Copy_____

ER 1110-1-263
1 Oct 90

U.S. Army Corps of Engineers

Chain of Custody Record
(ER 1110-1-263)

Proj. No. 93-18 | Project Name IHNC NEW LOCK SITE

Sampler: (Signature) [signature]

Date	Time	Proc.	Grab	Comp	Site Code/Sample Number	Number of Containers	RCRA Metals	LEAD	TPH	Chlorinated HC	BNA chlor. HC	VOA	B-Tex	Remarks:
10MAY93	1015	HNO_3	✓		IC-SW-9	1	✓	✓						
10MAY93	1105	ICE	✓		IC-SW-9	1			✓					
11MAY93	1320	ICE	✓		IC-MW-3	1				✓				
11MAY93	1320	ICE	✓		IC-MW-3	1					✓			
11MAY93	1317	HNO_3	✓		IC-MW-3	1	✓							
11MAY93	1320	HCl	✓		IC-MW-3	2						✓		
11MAY93	1400	HCl	✓		ICMW-4	2							✓	
11MAY93	1400	HNO_3	✓		ICMW-4	1		✓						
11MAY93	1400	ICE	✓		ICMW-4	1			✓					
		NOTHING follows												

Sampler Relinquished by: [signature]	Date/Time 5/11/93 1542	Received by: (Sig.)	Date/Time	Hazards Associated with Samples
Relinquished by: (Sig.)	Date/Time	Received by: (Sig.)	Date/Time	
Relinquished by: (Sig)	Date/Time ABW	Received for Laboratory by: (Sig.) [signature]	Date/Time 5/11/93 1542	Remarks at time of receipt:
Custody Seal No.		Lab case No.:		

ENG Form 5021-R, Oct 90

Proponent: CEMP