LAD008434185
HZ/RC/ENG

After copying, return to Gene Keppel

Box 1 of 1

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The Modern Link to Legal Histor

- IDENTIFY THOSE PARTIES WHO DID NOT JOIN CLEAN-UP CONSORTIUM (MAKE LIST).
- THEN DRAFT A LETTER REQUIRING THAT THOSE NON-PARTICIPANTS CONTRIBUTE FUNDS FOR CLEAN-UP.

FORMER CUSTOMERS

9648042

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Environmental Management and Engineering Services

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Sugar Land, Texas 77478
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April 23, 2003

Mr. Gene Keepper, CHMM
U.S. Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202-2733

Subject: Bed Ash Treatability Study Report
SBA Shipyards, Inc. (Jefferson Davis Parish)
EPA ID No. LAD008434185
Docket No. RCRA 6-2002-0908
LDEQ A.I. No. 1478

Dear Mr. Keepper:

This correspondence documents additional treatability study activities conducted by Michael Pisani & Associates, Inc. (MP&A) for solidifying/stabilizing oily material from the SBA Shipyards, Inc. (SBA) site in Jennings, Louisiana. This investigation of bed ash as a solidification reagent augments treatability results presented in the November 1, 2001 *Solidification/Stabilization Work Plan.* Testing was performed in early February 2003 using currently produced fly ash and existing sludges in the south end of the oil pit.

Treatability Evaluation

The objective of this treatability study was to observe the effectiveness of currently produced bed ash in solidifying/stabilizing oily material from the Oil Pit at the SBA site. The effectiveness of the bed ash solidification process was evaluated based on pocket penetrometer measurements and TCLP testing of the solidified material.

A composite sample of oily material was collected from the east side of the Oil Pit, as shown in Figure 1. The composite sample was homogenized by vigorous hand stirring for two minutes. Bed ash was mixed into the oily material at doses of 20%, 40% and 60% by weight.

The bed ash reagent was obtained from LA Ash (Westlake, Louisiana). The three tests were conducted on approximately 500 grams of oily material from the SBA Oil Pit.

Pocket penetrometer readings were taken at intervals of 1 hour, 24 hours, and 72 hours after reagent mixing. The 72-hour penetrometer measurements for each bed ash dose are presented in Table 1.

Penetrometer readings indicated that stabilization of the material began within 24 hours and sufficient stabilization of the material occurred within 72 hours. After curing, the samples were submitted to Gulf Coast Analytical Laboratories (Baton Rouge, Louisiana) for TCLP benzene analysis.

Discussion of Results

All three doses sufficiently stabilized to meet RCRA Subtitle D landfill acceptability criteria. A summary of the TCLP benzene analytical results is presented in Table 1. Laboratory results supporting the data presented in Table 1 are provided in Attachment 1.

Conclusions

The bed ash material evaluated in this study is acceptable for use as a solidification/ stabilization reagent in fulfilling the objectives of the November 1, 2001 *Solidification/Stabilization Work Plan.*

If you have any questions regarding this matter, please do not hesitate to contact us.

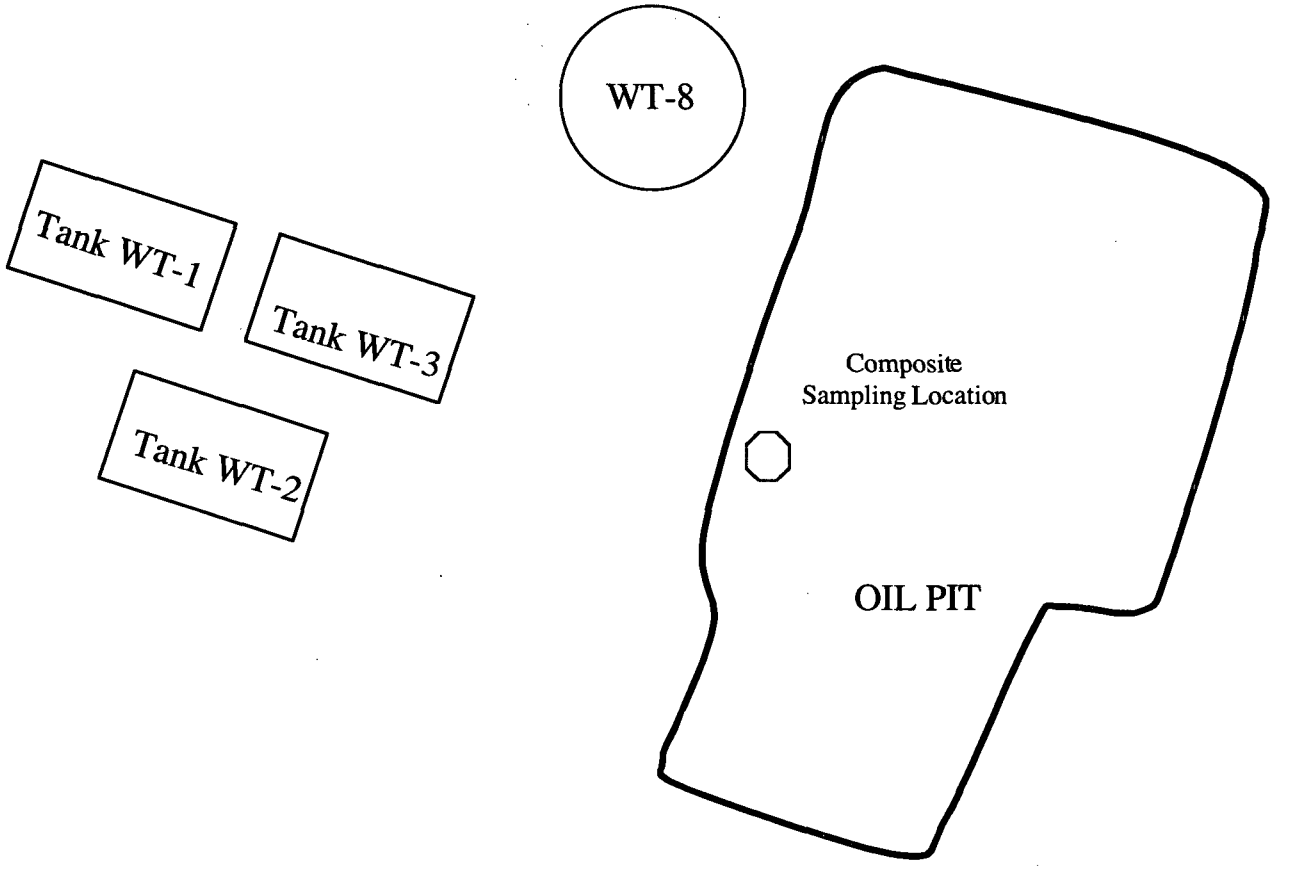
Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.

Michael E. Pisani, P.E.

cc: Michael A. Chernekoff (Jones, Walker, Waechter, Poitevent, Carrere & Denegre)
Keith Horn (Louisiana Department of Environmental Quality)

Attachments



APPROXIMATE SCALE
1" = 75'

Legend

OIL PIT

OIL PIT SAMPLING/SOUNDING LOCATION

TANK OR VESSEL

Michael Pisani & Associates, Inc.
Environmental Management & Engineering Services
New Orleans, Louisiana Houston, Texas

Figure 1
Oil Pit Sampling Location
SBA Shipyards, Inc. Jennings, Louisiana

Table 1

Summary of Bed Ash Treatability Results

Interim Measures/Removal Action
SBA Shipyards Site

Bed Ash Dose[(a)]	**Pocket Penetrometer Readings** (psf)	**Compound Detected**	**TCLP Concentration** (mg/L)	**TCLP Regulatory Limit**[(b)] (mg/L)
20%	2.5	Benzene	0.361	0.5
40%	2.0	Benzene	0.288	0.5
60%	3.0	Benzene	0.326	0.5

Notes:

(a) Weight/weight basis.
(a) Promulgated at 40 CFR 261.24.

GULF COAST
ANALYTICAL LABORATORIES, INC.

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Report Date: **02/21/2003**

GCAL REPORT NO: **203021434**

Deliver To:	Pisani Associates 1100 Poydras Suite 1430 New Orleans, LA 70163
Attn:	Chris Fetters

CUSTOMER NAME: Pisani & Associates

PROJECT NAME: General

GULF COAST ANALYTICAL LABORATORIES, INC

LABORATORY ENDORSEMENT

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 Days unless otherwise arranged. Following this retention period the samples will be disposed of in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND-Indicates that the parameter was not detected at the specified detection limit
DO-Indicates that the result was diluted out
MI-Indicates that the result was subject to Matrix Interference
TNTC-Indicates that the result was Too Numerous to Count
SUBC-Indicates that the analysis was subcontracted
FLD-Indicates that the parameter was performed in the field
PQL-Practical Quantitation Limit
MDL-Method Detection Limit
RDL-Reporting Detection Limit

Reporting Flags Utilized in this Report

J-Indicates that the result was detected between the PQL and MDL
U-Indicates that the result was not detected at the referenced detection limit
B-Organics Indicates that the compound was detected in the associated Method Blank
B-Inorganics Indicates that the compound was detected between the PQL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This Report pertains only to the samples listed in the Sample Cross-Reference and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the Client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

SCOTT A. BAILEY
OPERATIONS MANAGER

GCAL REPORT NO.: 203021434

Workorder Sample Summary

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20302143401	SAMPLE-1	Solid	02/14/2003 14:00	02/14/2003 16:10
20302143402	SAMPLE-2	Solid	02/14/2003 14:00	02/14/2003 16:10
20302143403	SAMPLE-3	Solid	02/14/2003 14:00	02/14/2003 16:10
20302143404	SAMPLE-4	Solid	02/14/2003 14:00	02/14/2003 16:10
20302143405	SAMPLE-5	Solid	02/14/2003 14:00	02/14/2003 16:10
20302143406	SAMPLE-6	Solid	02/14/2003 14:00	02/14/2003 16:10

Lab ID	Sample ID	Matrix	Collected	Received
20302143401	SAMPLE-1	Solid	02/14/2003 14:00	02/14/2003 16:10

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	02/18/2003 16:02	HJL	242096

CAS #	Parameter	Result		RDL	REG LIMIT	Units
75-35-4	1,1-Dichloroethene	ND		0.200	0.7	mg/L
107-06-2	**1,2-Dichloroethane**	**0.365**		**0.200**	**0.5**	**mg/L**
78-93-3	2-Butanone	ND		1.00	200	mg/L
71-43-2	**Benzene**	**0.585**	*	**0.200**	**0.5**	**mg/L**
56-23-5	Carbon tetrachloride	ND		0.200	0.5	mg/L
108-90-7	Chlorobenzene	ND		0.200	100	mg/L
67-66-3	Chloroform	ND		0.200	6	mg/L
127-18-4	Tetrachloroethene	ND		0.200	0.7	mg/L
79-01-6	Trichloroethene	ND		0.200	0.5	mg/L
75-01-4	**Vinyl chloride**	**0.285**	*	**0.200**	**0.2**	**mg/L**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	2000	1760 ug/L	88	78 - 115
1868-53-7	Dibromofluoromethane	2000	2200 ug/L	110	70 - 130
2037-26-5	Toluene d8	2000	1920 ug/L	96	83 - 112
17060-07-0	1,2-Dichloroethane-d4	2000	2060 ug/L	103	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

Lab ID	Sample ID	Matrix	Collected	Received
20302143402	SAMPLE-2	Solid	02/14/2003 14:00	02/14/2003 16:10

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	02/18/2003 16:23	HJL	242096

CAS #	Parameter	Result	RDL	REG LIMIT	Units
75-35-4	1,1-Dichloroethene	ND	0.200	0.7	mg/L
107-06-2	1,2-Dichloroethane	ND	0.200	0.5	mg/L
78-93-3	2-Butanone	ND	1.00	200	mg/L
71-43-2	**Benzene**	**0.388**	**0.200**	**0.5**	**mg/L**
56-23-5	Carbon tetrachloride	ND	0.200	0.5	mg/L
108-90-7	Chlorobenzene	ND	0.200	100	mg/L
67-66-3	Chloroform	ND	0.200	6	mg/L
127-18-4	Tetrachloroethene	ND	0.200	0.7	mg/L
79-01-6	Trichloroethene	ND	0.200	0.5	mg/L
75-01-4	Vinyl chloride	0.166J	0.200	0.2	mg/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	2000	1770 ug/L	89	78 - 115
1868-53-7	Dibromofluoromethane	2000	2160 ug/L	108	70 - 130
2037-26-5	Toluene d8	2000	1950 ug/L	98	83 - 112
17060-07-0	1,2-Dichloroethane-d4	2000	2030 ug/L	102	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

Lab ID	Sample ID	Matrix	Collected	Received
20302143403	SAMPLE-3	Solid	02/14/2003 14:00	02/14/2003 16:10

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	02/18/2003 17:16	HJL	242096

CAS #	Parameter	Result		RDL	REG LIMIT	Units
75-35-4	1,1-Dichloroethene	ND		0.200	0.7	mg/L
107-06-2	1,2-Dichloroethane	ND		0.200	0.5	mg/L
78-93-3	2-Butanone	ND		1.00	200	mg/L
71-43-2	**Benzene**	**0.595**	*	**0.200**	**0.5**	**mg/L**
56-23-5	Carbon tetrachloride	ND		0.200	0.5	mg/L
108-90-7	Chlorobenzene	ND		0.200	100	mg/L
67-66-3	Chloroform	ND		0.200	6	mg/L
127-18-4	Tetrachloroethene	ND		0.200	0.7	mg/L
79-01-6	Trichloroethene	ND		0.200	0.5	mg/L
75-01-4	**Vinyl chloride**	**0.270**	*	**0.200**	**0.2**	**mg/L**

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	2000	1780 ug/L	89	78 - 115
1868-53-7	Dibromofluoromethane	2000	2050 ug/L	103	70 - 130
2037-26-5	Toluene d8	2000	1970 ug/L	99	83 - 112
17060-07-0	1,2-Dichloroethane-d4	2000	2070 ug/L	104	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

Lab ID	Sample ID	Matrix	Collected	Received
20302143404	SAMPLE-4	Solid	02/14/2003 14:00	02/14/2003 16:10

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	02/19/2003 16:48	KRV	242590

CAS #	Parameter	Result	RDL	REG LIMIT	Units
75-35-4	1,1-Dichloroethene	ND	0.200	0.7	mg/L
107-06-2	1,2-Dichloroethane	ND	0.200	0.5	mg/L
78-93-3	2-Butanone	ND	1.00	200	mg/L
71-43-2	**Benzene**	**0.361**	**0.200**	**0.5**	**mg/L**
56-23-5	Carbon tetrachloride	ND	0.200	0.5	mg/L
108-90-7	Chlorobenzene	ND	0.200	100	mg/L
67-66-3	Chloroform	ND	0.200	6	mg/L
127-18-4	Tetrachloroethene	ND	0.200	0.7	mg/L
79-01-6	Trichloroethene	ND	0.200	0.5	mg/L
75-01-4	Vinyl chloride	0.186J	0.200	0.2	mg/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	2000	1880 ug/L	94	78 - 115
1868-53-7	Dibromofluoromethane	2000	2300 ug/L	115	70 - 130
2037-26-5	Toluene d8	2000	2070 ug/L	104	83 - 112
17060-07-0	1,2-Dichloroethane-d4	2000	2470 ug/L	124	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

Lab ID	Sample ID	Matrix	Collected	Received
20302143405	SAMPLE-5	Solid	02/14/2003 14:00	02/14/2003 16:10

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	02/19/2003 17:13	KRV	242590

CAS #	Parameter	Result	RDL	REG LIMIT	Units
75-35-4	1,1-Dichloroethene	ND	0.200	0.7	mg/L
107-06-2	1,2-Dichloroethane	ND	0.200	0.5	mg/L
78-93-3	2-Butanone	ND	1.00	200	mg/L
71-43-2	**Benzene**	**0.288**	**0.200**	**0.5**	**mg/L**
56-23-5	Carbon tetrachloride	ND	0.200	0.5	mg/L
108-90-7	Chlorobenzene	ND	0.200	100	mg/L
67-66-3	Chloroform	ND	0.200	6	mg/L
127-18-4	Tetrachloroethene	ND	0.200	0.7	mg/L
79-01-6	Trichloroethene	ND	0.200	0.5	mg/L
75-01-4	Vinyl chloride	ND	0.200	0.2	mg/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	2000	1890 ug/L	95	78 - 115
1868-53-7	Dibromofluoromethane	2000	2290 ug/L	115	70 - 130
2037-26-5	Toluene d8	2000	2070 ug/L	104	83 - 112
17060-07-0	1,2-Dichloroethane-d4	2000	2510 ug/L	126	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

Lab ID	Sample ID	Matrix	Collected	Received
20302143406	SAMPLE-6	Solid	02/14/2003 14:00	02/14/2003 16:10

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	02/19/2003 17:38	KRV	242590

CAS #	Parameter	Result	RDL	REG LIMIT	Units
75-35-4	1,1-Dichloroethene	ND	0.200	0.7	mg/L
107-06-2	1,2-Dichloroethane	ND	0.200	0.5	mg/L
78-93-3	2-Butanone	ND	1.00	200	mg/L
71-43-2	**Benzene**	**0.326**	**0.200**	**0.5**	**mg/L**
56-23-5	Carbon tetrachloride	ND	0.200	0.5	mg/L
108-90-7	Chlorobenzene	ND	0.200	100	mg/L
67-66-3	Chloroform	ND	0.200	6	mg/L
127-18-4	Tetrachloroethene	ND	0.200	0.7	mg/L
79-01-6	Trichloroethene	ND	0.200	0.5	mg/L
75-01-4	Vinyl chloride	ND	0.200	0.2	mg/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	2000	1900 ug/L	95	78 - 115
1868-53-7	Dibromofluoromethane	2000	2230 ug/L	112	70 - 130
2037-26-5	Toluene d8	2000	2030 ug/L	102	83 - 112
17060-07-0	1,2-Dichloroethane-d4	2000	2430 ug/L	122	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
85403	Method Blank	Water	

SW-846 1311/8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	02/18/2003 10:15	HJL	242096

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
75-35-4	1,1-Dichloroethene	ND	0.005		mg/L
107-06-2	1,2-Dichloroethane	ND	0.005		mg/L
78-93-3	2-Butanone	ND	0.025		mg/L
71-43-2	Benzene	ND	0.005		mg/L
56-23-5	Carbon tetrachloride	ND	0.005		mg/L
108-90-7	Chlorobenzene	ND	0.005		mg/L
67-66-3	Chloroform	ND	0.005		mg/L
127-18-4	Tetrachloroethene	ND	0.005		mg/L
79-01-6	Trichloroethene	ND	0.005		mg/L
75-01-4	Vinyl chloride	ND	0.005		mg/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	4-Bromofluorobenzene	50	45.7 ug/L	91	78 - 115
1868-53-7	Dibromofluoromethane	50	57.6 ug/L	115	70 - 130
2037-26-5	Toluene d8	50	48.4 ug/L	97	83 - 112
17060-07-0	1,2-Dichloroethane-d4	50	53.8 ug/L	108	76 - 128

LAB ID	SAMPLE ID	MATRIX	REPORTED
85592	Method Blank	Water	

SW-846 1311/8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	02/19/2003 10:10	KRV	242590

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
75-35-4	1,1-Dichloroethene	ND	0.005		mg/L
107-06-2	1,2-Dichloroethane	ND	0.005		mg/L
78-93-3	2-Butanone	ND	0.025		mg/L
71-43-2	Benzene	ND	0.005		mg/L
56-23-5	Carbon tetrachloride	ND	0.005		mg/L
108-90-7	Chlorobenzene	ND	0.005		mg/L
67-66-3	Chloroform	ND	0.005		mg/L
127-18-4	Tetrachloroethene	ND	0.005		mg/L
79-01-6	Trichloroethene	ND	0.005		mg/L
75-01-4	Vinyl chloride	ND	0.005		mg/L

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
85592	Method Blank	Water	

SW-846 1311/8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	02/19/2003 10:10	KRV	242590

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	4-Bromofluorobenzene	50	46.6 ug/L	93	78 - 115
1868-53-7	Dibromofluoromethane	50	56.3 ug/L	113	70 - 130
2037-26-5	Toluene d8	50	52.8 ug/L	106	83 - 112
17060-07-0	1,2-Dichloroethane-d4	50	57.4 ug/L	115	76 - 128

QUALITY CONTROL SUMMARY

LCS ID: 85402 | ORIGINAL LAB ID: | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 242096

SW-846 1311/8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
75-35-4	1,1-Dichloroethene	0.05 mg/L	0.066	132	67 - 140
71-43-2	Benzene	0.05 mg/L	0.055	109	74 - 128
79-01-6	Trichloroethene	0.05 mg/L	0.059	118	63 - 118
108-90-7	Chlorobenzene	0.05 mg/L	0.055	111	78 - 125

MS LAB ID: 85564 | ORIGINAL LAB ID: 20302141720 | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 242096

SW-846 1311/8260B

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
75-35-4	1,1-Dichloroethene	0	0.05 mg/L	0.058	116	61 - 145
71-43-2	Benzene	0.00955	0.05 mg/L	0.061	102	76 - 127
79-01-6	Trichloroethene	0.0108	0.05 mg/L	0.066	110	71 - 120
108-90-7	Chlorobenzene	0.0591	0.05 mg/L	0.107	96	75 - 130

MSD LAB ID: 85565 | ORIGINAL LAB ID: 20302141720 | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 242096

SW-846 1311/8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
75-35-4	1,1-Dichloroethene	0.05 mg/L	0.061	122	61 - 145	5	0 - 14
71-43-2	Benzene	0.05 mg/L	0.061	103	76 - 127	1	0 - 11
79-01-6	Trichloroethene	0.05 mg/L	0.066	110	71 - 120	0	0 - 14
108-90-7	Chlorobenzene	0.05 mg/L	0.109	100	75 - 130	4	0 - 13

MS LAB ID: 20302141904 | ORIGINAL LAB ID: 20302141901 | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 242590

SW-846 1311/8260B

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
75-35-4	1,1-Dichloroethene	0	0.5 mg/L	0.678	136	61 - 145
71-43-2	Benzene	0	0.5 mg/L	0.487	97	76 - 127
79-01-6	Trichloroethene	0	0.5 mg/L	0.469	94	71 - 120
108-90-7	Chlorobenzene	0	0.5 mg/L	0.51	102	75 - 130

MSD LAB ID: 20302141905 | ORIGINAL LAB ID: 20302141901 | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 242590

SW-846 1311/8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
75-35-4	1,1-Dichloroethene	0.5 mg/L	0.592	118	61 - 145	14	0 - 14
71-43-2	Benzene	0.5 mg/L	0.491	98	76 - 127	1	0 - 11
79-01-6	Trichloroethene	0.5 mg/L	0.471	94	71 - 120	0	0 - 14
108-90-7	Chlorobenzene	0.5 mg/L	0.542	108	75 - 130	6	0 - 13

QUALITY CONTROL SUMMARY

LCS ID: 65591	ORIGINAL LAB ID:	PREP BATCH:
	MATRIX: Water	ANALYTICAL BATCH: 242590

SW-846 1311/8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
75-35-4	1,1-Dichloroethene	0.05 mg/L	0.066	131	67 - 140
71-43-2	Benzene	0.05 mg/L	0.052	105	74 - 128
79-01-6	Trichloroethene	0.05 mg/L	0.05	101	63 - 118
108-90-7	Chlorobenzene	0.05 mg/L	0.055	110	78 - 125

GULF COAST ANALYTICAL LABORATORIES, INC.

7979 GSRI Avenue
Baton Rouge, LA
70820-7402

(225) 769-4900 • Fax (225) 767-5717

CHAIN OF CUSTODY RECORD

Lab use only	Client Name	Client #	Group #	Due Date
	Pisani & Assoc	4271	20302/434	2-19-03

Report to:
Client: Michael Pisani + Associates
Address: 1100 Poydras
1430 Energy Ctr New Orleans
Contact: Chris Fellers
Phone: 504-582-2468
Fax: 504-582-2470

Bill to:
Client: Same
Address:
Contact:
Phone: (225-772-3439)
Fax:

P.O. Number | Project Name/Number

Sampled By:

Lab use only:
Custody Seal
used ☐ yes ☒ no
in tact ☐ yes ☐ no
Temperature °C 15
Samples were on ice.

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	Preservatives	No Containers	Analytical Requests & Method: TCLP (VOCs)	Remarks:	Lab ID
S	2/14	1400	X		SAMPLE-1	None	1	3		214-01
					SAMPLE-2					-02
					SAMPLE-3					-03
					SAMPLE-4					-04
					SAMPLE-5					-05
					SAMPLE-6					-06

Turn Around Time: ☐ 24-48 hrs. ☒ 3 days ☐ 1 week ☐ Standard ☐ Other

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		2-14-03	1610
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Note:

By submitting these samples, you agree to the terms and conditions contained in our most recent schedule of services.

Matrix1: W = water, S = soil, SD = solid, L = liquid, SL = sludge, o = oil, CT = charcoal tube, A = air bag

We cannot accept verbal changes. Please fax written changes to (225) 767-5717

WHITE: CLIENT FINAL REPORT — CANARY: LABORATORY — PINK: CLIENT

GCAL-06 11/98

GULF COAST ANALYTICAL LABORATORIES INC.

7979 GSRI Avenue
Baton Rouge, LA
70820-7402

(225) 769-4900 • Fax (225) 767-5717

CHAIN OF CUSTODY RECORD

Lab use only

Client Name	Client #	Group #	Due Date

Report to:

Client: Michael Pisani + Associates
Address: 1100 Poydras
1430 Energy Ctr New Orleans
Contact: Chris Fellers
Phone: 504-582-2468
Fax: 504-582-2470

Bill to:

Client: Same
Address:
Contact:
Phone (225-772-3139)
Fax:

P.O. Number

Project Name/Number

Sampled By:

Analytical Requests & Method

TCLP (VOC's)

Lab use only:

Custody Seal
used ☐ yes ☒ no
in tact ☐ yes ☐ no
Temperature °C 15

Samples were on ice.

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	Preservatives	No Containers	Remarks:	Lab ID
S	2/14	1400	X		SAMPLE-1	None	1		
					SAMPLE-2				
					SAMPLE-3				
					SAMPLE-4				
					SAMPLE-5				
					SAMPLE-6				

Turn Around Time: ☐ 24-48 hrs. ☒ 3 days ☐ 1 week ☐ Standard ☐ Other

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		2-14-07	1610
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Note:

By submitting these samples, you agree to the terms and conditions contained in our most recent schedule of services.

Matrix[1]: W = water, S = soil, SD = solid, L = liquid, SL = sludge, o = oil, CT = charcoal tube, A = air bag

We cannot accept verbal changes. Please fax written changes to (225) 767-5717

WHITE: CLIENT FINAL REPORT — CANARY: LABORATORY — PINK: CLIENT

GCAL-06 11/98

FILED
2003 DEC 24 AM 10: 32
CLERK

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF INDIANA
NEW ALBANY DIVISION

In re:	)	Chapter 11
	)	
American Commercial Lines LLC, et al.,	)	Case No. 03-90305 (BHL)
	)	
Debtors.	)	(Jointly Administered)
	)	

DEBTORS' MOTION FOR AUTHORITY TO SATISFY THE SSIC CAPITAL CALL

The above-captioned debtors and debtors in possession (collectively, the "Debtors"),[1] by counsel, hereby respectfully move this Court (the "Motion") for an order authorizing Debtor American Commercial Lines LLC ("ACL") to make a $181,000 payment to satisfy ACL's obligation to meet a capital call made by SSIC Remediation LLC ("SSIC"). In support of this Motion, Debtors respectfully state as follows:

Background

1. On January 31, 2003 (the "Petition Date"), each of the Debtors filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code, 11 U.S.C. § 101 et seq., as amended (the "Bankruptcy Code"). Debtors' cases are being jointly administered as captioned above for procedural purposes. Debtors continue to operate their businesses and manage their properties as debtors in possession pursuant to Sections 1107(a) and 1108 of the Bankruptcy Code.

[1] The Debtors are the following entities: American Commercial Lines Holdings LLC, American Commercial Lines LLC, American Commercial Barge Line LLC, American Commercial Lines International LLC, American Commercial Logistics LLC, Jeffboat LLC, Louisiana Dock Company LLC, Houston Fleet LLC, Lemont Harbor & Fleeting Services LLC, ACL Capital Corp., American Commercial Terminals LLC, ACBL Liquid Sales LLC, Orinoco TASV LLC, Orinoco TASA LLC, American Commercial Terminals-Memphis LLC.

DOCUMENT NO. 1270

2. This Court has jurisdiction over this Motion pursuant to 28 U.S.C. §§ 157 and 1334. This matter is a core proceeding within the meaning of 28 U.S.C. § 157(b)(2).

3. Venue of these Chapter 11 Cases and the Motion in this district is proper under 28 U.S.C. §§ 1408 and 1409.

4. The statutory bases for the relief requested herein are Sections 105(a) and 363(b)(1) of the Bankruptcy Code.

5. An Official Committee of Unsecured Creditors (the "Committee") has been appointed by the United States Trustee and is represented by counsel, Akin Gump Strauss Hauer & Feld LLP, and financial advisors, Houlihan Lokey Howard & Zukin.

6. Debtors are integrated marine transportation and services companies, providing barge transportation and ancillary services throughout the inland United States and Gulf Intercoastal Waterway Systems, which include the Mississippi, Ohio, Illinois, Tennessee and the Missouri Rivers and their tributaries and the intracoastal canals that parallel the Gulf Coast. In addition, Debtors, through themselves and certain non-debtor affiliates, are the leading provider of barge transportation services on the Orinoco River in Venezuela and the Parana/Paraguay River system servicing Argentina, Brazil, Paraguay, Uruguay and Bolivia. As of the Petition Date, on a consolidated basis, Debtors employed approximately 3,528 individuals. Of this total, 650 individuals were engaged in shore-side management and administrative functions, 2,111 individuals were employed as boat officers and crew members on marine vessels, 745 individuals were engaged in production and repair activities at Debtors' shipyard facilities, and 22 individuals were employed in production and hourly work activities at Debtors' terminals. Debtors own or operate numerous land based facilities that support their overall marine operations, including a major construction shipyard, two terminal facilities for cargo

transfer and handling throughout the river system, twelve locations (which include nineteen separate facilities and service operations) for the staging, fleeting, interchange and repair of barges and towboats, and a corporate office complex in Jeffersonville, Indiana.

SSIC Remediation, LLC

7. One of ACL's predecessors in interest, National Marine, Inc. ("NMI"), utilized SBA Shipyards, Inc. ("SBA") located in Jennings, Louisiana, over many years for barge cleaning and repair operations.

8. As a consequence of SBA's operations, which included cleaning the barges of NMI and other customers, alleged hazardous products and wastes were stored at the SBA facility in pits and ponds located on real property owned by SBA (the "SBA Site").

9. In 1997, the Louisiana Department of Environmental Quality and the Environmental Protection Agency (the "EPA") requested that NMI and other SBA customers, as potentially responsible parties ("PRPs"), assist SBA in cleaning up the hazardous wastes and products at the SBA Site.

10. As PRPs, ACL, as successor to NMI, and certain other customers of SBA (collectively, the "Members") organized SSIC as a limited liability company under the Louisiana Limited Liability Company Law.

11. Members of SSIC entered into the SBA Participation Agreement (the "Participation Agreement") in January of 1997.

12. Members of SSIC also entered into the SBA Shipyards Remediation Financing Term Sheet Agreement (the "Term Sheet Agreement") with SBA in April of 1997. A true and accurate copy of the Term Sheet Agreement is attached as **Exhibit 1.**

13. A letter of agreement (the "Agreement") was executed on or about June 27, 2002, among the EPA, SBA and SSIC. Pursuant to the Agreement, SBA agreed to implement all parts of a Statement of Work ("SOW") intended to remediate the SBA Site, and SSIC agreed to "fund and assist in management of that implementation." A true and accurate copy of the Agreement is attached as **Exhibit 2**, and a true and accurate copy of the SOW is attached as **Exhibit 3**.

14. Pursuant to the Agreement, Members of SSIC are entitled to "protection from contribution actions or claims as provided by CERCLA Section 113(f)(2), 42 U.S.C. § 9613(f)(2), or RCRA for all actions or matters addressed" in the Agreement. (Agreement, p. 3).

15. In addition, the Agreement provides that if SBA chooses not to implement the SOW or not to fund or assist in the management of the work pursuant to the SOW, the EPA "will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed." (Agreement, p. 4).

16. SSIC functions as a vehicle for the Members' participation in SBA's cleanup operations. Upon a vote of at least 80% of the membership interests, SSIC may issue a capital call for contributions. The Members are obligated to contribute to the capital call, and SSIC directs the funds to SBA for remediation of the SBA Site. Prior to filing its chapter 11 case, ACL, as successor to NMI, contributed approximately $530,000 to SSIC.

17. Pursuant to the Participation Agreement, the Term Sheet Agreement, and the Agreement described above, as successor to NMI and therefore as a Member of SSIC, ACL is a party to various executory contracts that were intended to effect the remediation of the SBA Site.

18. On November 17, 2003, after receiving an affirmative vote from more than 80% of the membership interests, including ACL, Michael Chernekoff, counsel for SSIC, issued the Notice Of Passage Of Proposal For Additional Capital Contribution (the "Notice"). A true and accurate copy of the Notice is attached as **Exhibit 4**. Pursuant to the Notice, each Member has forty-five (45) days, or until January 1, 2004, to make the contribution.

19. According to an assessment made by Mr. Chernekoff, the funds requested by the November 17, 2003 capital call may be sufficient to complete the remediation of the SBA Site under the SOW.

20. As noted on the SSIC Future Assessment Table (the "Table"), ACL's portion of the capital call is $181,000. A true and accurate copy of the Table is attached as **Exhibit 5**. Because it anticipated the capital call, ACL reserved the necessary funds for its contribution.

Relief Requested

21. By this Motion, Debtors seek entry of an order pursuant to Sections 105(a) and 363(b)(1) of the Bankruptcy Code authorizing ACL to make a payment of $181,000 to satisfy ACL's obligation to meet the SSIC capital call.

Applicable Authority

22. Debtors seek authority pursuant to Section 363(b)(1) of the Bankruptcy Code to meet the capital call.

23. Section 363(b) of the Bankruptcy Code provides in relevant part that "the trustee, after notice and a hearing, may use, sell, or lease, other than in the ordinary course of business, property of the estate." A court can authorize a debtor to use property of the estate pursuant to Section 363(b)(1) of the Bankruptcy Code when such use is an exercise of the

debtor's sound business judgment and when the use of the property is proposed in good faith. "In evaluating whether a sound business purpose justifies the use, sale, or lease of property under Section 363(b), courts consider a variety of factors, which essentially represent a 'business judgment test.'" In re Montgomery Ward Holding Corp., 242 B.R. 147, 153 (D. Del. 1999) citing Collier on Bankruptcy § 363.02 (15th ed. 1997). See e.g., In re Delaware & Hudson R.R. Co., 124 B.R. 169, 176 (D. Del. 1991) (adopting the "sound business purpose" test to evaluate motions brought pursuant to Section 363(b)); see also Stephen Indus., Inc. v. McClung, 789 F.2d 386, 390 (6th Cir. 1986) (adopting the "sound business purpose" standard for sales proposed pursuant to Section 363(b)); In re Abbotts Dairies of Pennsylvania, Inc., 788 F.2d 143 (3d Cir. 1986).

24. The debtor has the burden to establish that a valid business purpose exists for using estate property outside the ordinary course of business. See In re Lionel Corp., 722 F.2d 1063, 1070-71 (2d Cir. 1983). Once the debtor has articulated such a valid business purpose, however, a presumption arises that the debtor's decision was made on an informed basis, in good faith and in the honest belief the action was in the best interest of the company. See In re Integrated Resources, Inc., 147 B.R. 650, 656 (S.D.N.Y. 1992).

25. In addition, the Court's general equitable powers are codified in § 105(a) of the Bankruptcy Code. Section 105(a) empowers the Court to "issue any order, process, or judgment that is necessary to carry out the provisions of this Title." 11 U.S.C. § 105(a). A bankruptcy court's use of its equitable powers to "authorize the payment of prepetition debt when such payment is needed to facilitate the rehabilitation of the debtor is not a novel concept." In re Ionosphere Clubs, Inc., 98 B.R. 174, 175 (Bankr. S.D.N.Y. 1989) (citing NLRB v. Bildisco & Bildisco, 465 U.S. 513, 528 (1984)). Under Section 105(a), a court "can permit pre-plan

payment of a prepetition obligation when essential to the continued operation of the debtor." In re NVR L.P., 147 B.R. 126, 127 (Bankr. E.D. Va. 1992).

26. After conducting a cost benefit analysis, Debtors believe that making a payment of $181,000 to satisfy ACL's obligation to meet the capital call is in the best interests of Debtors' estates, both presently and as they emerge from reorganization. Debtors believe that this proposed contribution to the capital call offers at least two benefits to the Debtors' reorganization efforts:

a. First, if the assessment made by Mr. Chernekoff is correct, ACL's contribution to the capital call will be the final payment required for complete remediation of the SBA Site.

b. Second, ACL's participation in SSIC (i) protects ACL from contribution actions or claims as described in ¶ 14 above, and (ii) preserves ACL's ability to pursue contribution claims to: (A) recoup at least a portion of any post-petition and all pre-petition contributions to SSIC against other major PRPs who are not among the Members of SSIC; and/or (B) to recover the cleanup loans made by SSIC to SBA.

27. ACL is not requesting to assume the various executory contracts to which it is a party due to its membership in SSIC; rather, it reserves its rights to assume the executory contracts in the future, and seeks authority to make the necessary payment to complete the remediation of the SBA Site.

28. Not only will payment of the capital call likely satisfy ACL's obligations to SSIC, but making the contribution without assuming the executory contracts also preserves ACL's ability to later assume the contracts and to reap the benefits of membership in SSIC as described above.

29. The majority of case law indicates that any claims by the EPA or SSIC against Debtors for contributions would be classified as a general unsecured claim. See Signature Combs, Inc. v. United States, 253 F. Supp. 2d 1028 (W.D. Tenn. 2003); In re Chicago, Milwaukee, St. Paul & Pacific Railroad Co., 974 F.2d 775 (7th Cir. 1992) (both holding that contributions brought against the debtor were prepetition where the contamination occurred or was "fairly contemplated" prior to debtor's chapter 11 petition). However, contrary case law exists. See In re M. Frenville Co., Inc., 774 F.2d 332 (3d. Cir. 1984) (classifying claims as postpetition even where the acts that gave rise to the contamination occurred prepetition). Although the potential for a finding that the EPA or SSIC's claims are entitled to priority is remote, it is a possibility. Regardless of whether any claim for priority is meritorious, the costs of litigating the issue will be an additional expense for Debtors.

Notice

30. Notice of this Motion has been given in accordance with the Case Management Order entered in these cases on March 26, 2003.

No Prior Request

31. No prior request for the relief sought in this Motion has been made to this Court or any other court.

WHEREFORE, Debtors respectfully request entry of an order granting the relief requested herein, and such other and further relief as is just.

Respectfully submitted,

BAKER & DANIELS

By: _____

Attorneys for the Debtors

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Ponader & Associates, LLP
5241 North Meridian Street
Indianapolis, Indiana 46208
Telephone: (317) 496-3072
Facsimile: (317) 257-5776

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing was served this 24th day of December, 2003, by expedited delivery (email, facsimile, same day hand delivery and/or overnight mail), on the following:

The Core Group

The 2002 List

_____

SBA SHIPYARDS REMEDIATION FINANCING TERM SHEET

The following constitutes the terms and conditions upon which the SBA Customer Group ("Customer Group") is willing to extend financing toward the cleanup of the SBA Shipyard site. No financing will be provided without an agreement between the Customer Group and the United States Environmental Protection Agency regarding the limited role of the Customer Group Members with respect to the SBA Shipyard site cleanup.

The following summarizes the points and conditions of the Customer Group's proposed investigation and remediation funding mechanism:

Loan and Security. The Customer Group will agree to assist SBA Shipyards, Inc. ("SBA"), by loaning funds to SBA to be used solely for payment of costs incurred in completing the environmental investigation and remedial work consistent with work plans approved by the United States Environmental Protection Agency and/or the Louisiana Department of Environmental Quality, in an amount not to exceed $2 million. The amount of the loan will in no event exceed the actual costs incurred in completing the environmental investigation and remedial work. All invoices from the investigation and remediation work will be submitted to an agent appointed by the Customer Group for approval and, if approved, payment.

In the event that the required environmental investigation and remediation of the SBA site associated with the barge-cleaning facility has been completed and finally accepted by the appropriate

regulatory authorities (except for ground water monitoring and ground water remediation) within two (2) years of the date of the loan agreement, then SBA shall have seven (7) years from the execution of the loan agreement to repay its loan obligation. In the event that the aforementioned remediation associated with the barge-cleaning facility (which is exclusive of ground water monitoring and ground water remediation) has not been completed and finally accepted by the appropriate regulatory authorities within two (2) years of the date of the loan agreement, then SBA shall be obligated to reimburse the Customer Group within five (5) years after such completion and final acceptance by the appropriate regulatory authorities. The date of final acceptance shall be the last date on which all appropriate regulatory authorities execute a document stating that the aforementioned activities are complete and accepted as complete in accordance with the plan for remediation.

As security for the Customer Group's loan, SBA will agree to give as collateral to the Customer Group a security interest in and to all assets of SBA including, but not limited to, all land and equipment, to the extent of the amount loaned. Mr. Louis Smaihall and Mrs. Suzanne Smaihall-Cornelius each will (1) personally guaranty the indebtedness of SBA to the Customer Group to the extent of their ownership interest in the land of the SBA site, and (2) allow the Customer Group to take a security interest in the land at the SBA site, to the extent of their personal ownership interest in that land. SBA, Mr. Louis Smaihall and Mrs. Suzanne

Smaihall-Cornelius will each agree to an assignment of rents and leases to the Customer Group with respect to the SBA land, to be used only in the event of default by SBA on the loan obligation.

Project Management. The Customer Group shall appoint a project manager who shall oversee the approved investigation and remedial activities for the SBA Shipyard site. SBA may designate a technical representative to interact with the Customer Group's project manager with respect to investigative and remedial activities. The cost of any such SBA-designated technical representative shall be born solely by SBA, which amounts may not be paid from loan proceeds. The project manager will be an independent contractor appointed by the Customer Group and will have no authority at, or with respect to, the SBA Shipyard site or its operations, except as noted above.

Sale of SBA Property. To the extent that SBA Shipyards sells all or any portion of its property (encumbered in favor of the Customer Group), the proceeds, net of taxes, must be dedicated to repayment of any outstanding loan balance. To the extent that the net proceeds exceed the amount of any loan balance outstanding at the time of the sale, then all such net proceeds must be placed in escrow for use for site investigative and remedial work, and must be used in advance of any loan proceeds. Any excess funds, after completion to the satisfaction of the appropriate regulatory agency of the investigative and remedial work associated with the barge-cleaning facility (except for ground water monitoring and ground

water remediation activities) and repayment of all loaned funds to the Customer Group, will revert to the current landowners.

Escrow Agreement with SBA The Customer Group is agreeable to and will use best efforts to utilize SBA for future barge-cleaning services. The parties must mutually agree upon the products, schedule and price for such services. Such use of SBA Shipyards is contingent upon arrangements satisfactory to the Customer Group to avoid any additional or new liability as a result of said future use. Upon establishment of the loan, SBA will establish an escrow account with an escrow agent acceptable to the Customer Group into which SBA will deposit 10% of all gross revenues (including rents realized by the lease of any of its property); provided, however, that the Customer Group will waive its right to collect the 10% revenues attributable to rents received from the current lease to LeeVac Shipyards, Inc. for any month during which SBA does not receive payment for barge cleaning work performed for the Customer Group (or any member thereof). The escrow account will be used for funding of investigative and remedial activities, pursuant to the governmentally-approved work plans, and upon approval of the Customer Group, and for repayment of any outstanding loan balance. The Customer Group will have the right to periodically audit the finances of SBA.

Insurance. The Customer Group will by responsible for and assume control of efforts to procure insurance proceeds from the numerous policies SBA has purchased over the years for costs or damages associated with the SBA site. SBA, Mr. Smaihall and Mrs.

Suzanne Smaihall-Cornelius must cooperate to the maximum extent practicable, including communicating with SBA's insurance brokers and carriers. SBA shall execute in favor of the Customer Group a partial assignment of its insurance claims, for costs and damages associated with the approved investigation and remediation effort at the SBA site. The assignment shall also grant to the Customer Group the right to compromise and settle the claims of the Customer Group. However, the right to settle and compromise the claims of the Customer Group may only be exercised so long as the right of SBA to pursue and collect on any non-assigned claims for additional sums which would otherwise be due to SBA pursuant to said policies is not compromised or affected, and any settlement of the claims of the Customer Group shall contain a specific reservation of rights for any and all claims which SBA may have over and above the claims of the Customer Group. All insurance proceeds through settlement, compromise, judgment or otherwise and whether obtained by or through the efforts of SBA or the Customer Group, or their assigns, shall be dedicated toward the payment of costs associated with the approved investigation and remedial efforts and/or to repayment of any loan balances. Any excess insurance proceeds that remain after payment of all costs associated with the approved investigation and remedial efforts and repayment of any loan balance will revert to SBA. The cost of pursuing insurance coverage shall be advanced by the Customer Group in the same manner as approved investigative and remediation costs, subject to the customer Group's secured interest in the SBA property. To the extent SBA wishes to pursue claims for

costs or damages from insurers over and above the claims assigned to and settled or compromised the Customer Group, then any costs or expenses incurred by SBA in pursuit of said claims will be at the sole cost of SBA and will not be funded with loan proceeds. Further, SBA agrees not to interfere with any efforts by the Customer Group to reach settlement or compromise with SBA's insurers with respect to the assigned claims.

Permits and Site Improvements. SBA shall be responsible for applying for, and will use best efforts to procure, any necessary and required environmental permits for the continued and future operations of SBA including cleanup of the SBA facility, and for any necessary site capital improvements in order to procure any necessary and required permits. The costs associated with applying for and procuring said permits and for said site improvements shall be born solely by SBA, and will not be funded with any loan proceeds. SBA, Mr. Louis Smaihall and Ms. Suzanne Smaihall-Cornelius agree and warrant to use best efforts to continue operations at the SBA facility until such time as the remediation of the SBA site is completed and the Customer Group loan has been repaid. In the event Mr. Louis Smaihall should for any reason become unable to continue operations, then SBA, Mr. Louis Smaihall and Ms. Suzanne Smaihall-Cornelius agree and warrant to use best efforts to retain someone to continue operations, after consultation with the Customer Group.

Miscellaneous. SBA, Mr. Louis Smaihall and Mrs. Suzanne Smaihall-Cornelius will cooperate with the Customer Group in all

matters involving the investigation and remedial activities and this financial package, including, but not limited to, allowing reasonable access to the physical plant and company records. Additionally, SBA and Mr. Smaihall shall cooperate with Customer Group efforts to identify and locate former SBA customers and documentation of SBA's dealings with said customers.

SBA, Mr. Louis Smaihall and Mrs. Suzanne Smaihall-Cornelius shall grant releases and indemnities in favor of the Customer Group and project manager for all claims against the Customer Group (or any individual Member of the Group) and the project manager relating to this Term Sheet, the matters relating thereto and by the documents and instruments described herein. The Customer Group will agree to indemnify and hold SBA, Mr. Louis Smaihall and Mrs. Suzanne Smaihall-Cornelius harmless from any claims, demands, or causes of action for property damage or personal injury to representatives of the Customer Group while on the SBA site, except to the extent such property damage or personal injury is caused by the negligence of SBA, Mr. Louis Smaihall or Mrs. Suzanne Smaihall-Cornelius.

Upon completion and approval by the appropriate regulatory authorities of the approved remedial activities at the SBA facility, and upon repayment in full of all loan proceeds advanced by the Customer Group, the parties will agree to execute mutual releases of claims regarding the cleanup activities funded by the Customer Group.

Detailed Documents. The Customer Group will prepare and distribute detailed documents necessary to implement the terms of this Term Sheet.

Accepted:

SBA Shipyards, Inc.

Date: 4/30/97

By: _____
Louis Smaihall, President

Date: 4/30/97

_____
Louis Smaihall

Date: _____

_____
Suzanne Smaihall-Cornelius

SBA Customer Group

Date: _____

By: _____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

VIA FEDERAL EXPRESS: 8220 0515 7787
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2561 7788
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h). Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, RCRA Project Manager
Compliance Assurance and Enforcement Division
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. CERCLA-Quality Removal

EPA acknowledges that the work performed in accordance with this Agreement is consistent with the National Contingency Plan, 40 C.F.R. Part 300, and would satisfy the requirements of a CERCLA-quality removal action.

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims as provided by CERCLA Section 113 (f) (2), 42 U.S.C. Section 9613 (f) (2), or RCRA for all actions or matters addressed in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

_____ Date: _____

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

IT IS AGREED:

SSIC Remediation, L.L.C.

Date: 6/26/02

Enclosure

cc: Lourdes Iturralde, LDEQ
Michael Pisani, Michael Pisani and Associates

Exhibit 3

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the

portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described

herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated

material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal. Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-

scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials. Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

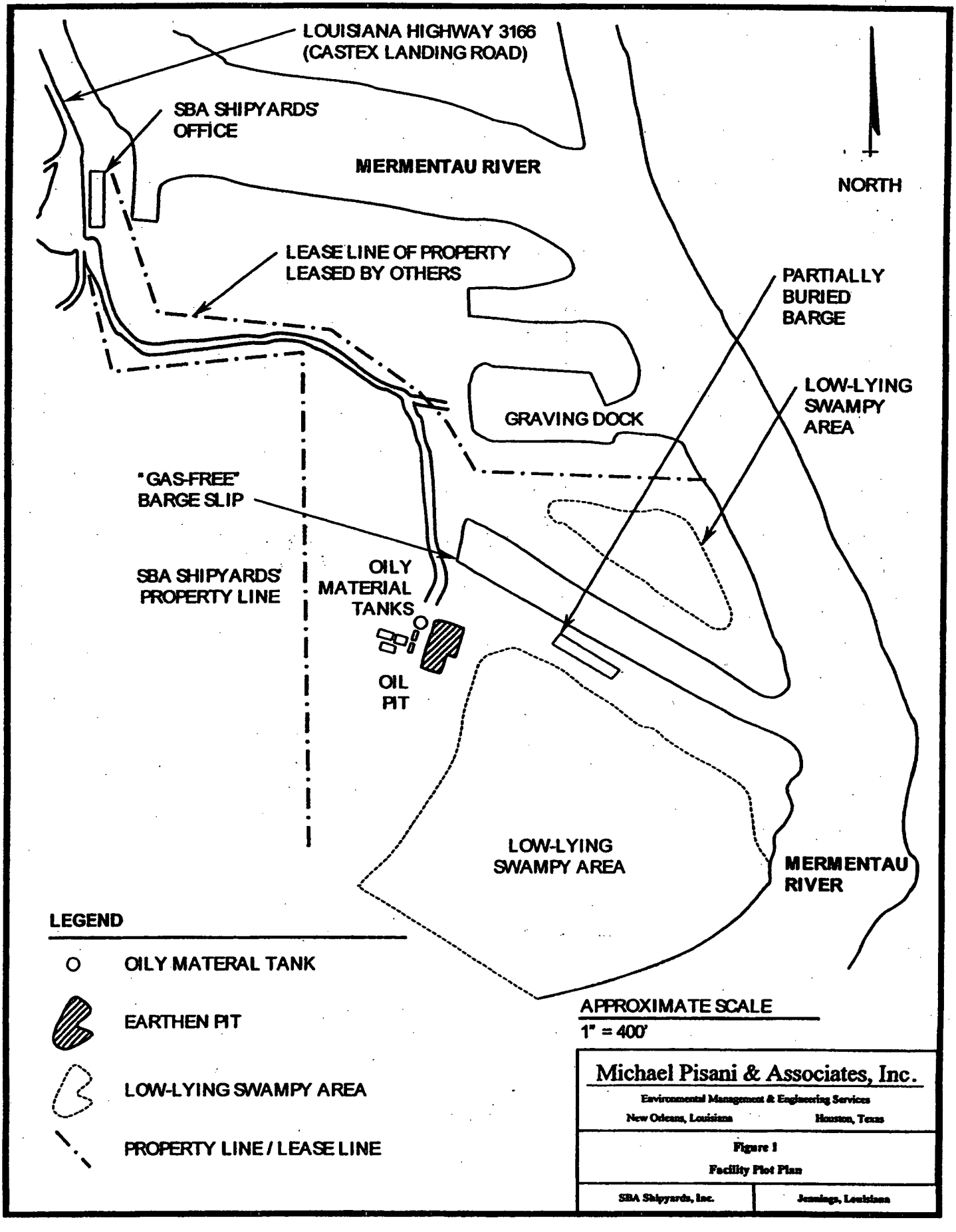
Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).



Michael Pisani & Associates, Inc.	
Environmental Management & Engineering Services	
New Orleans, Louisiana	Houston, Texas
Figure 1	
Facility Plot Plan	
SBA Shipyards, Inc.	Jennings, Louisiana

Table 1

Pumpable Oily Material Inventory
May 3, 2001

SBA Shipyards, Inc.
Jennings, Louisiana

Tank or Impoundment	Estimated Maximum Capacity (gallons)	Estimated Maximum Capacity (barrels)	Observed Depth of Contents[b]	Estimated Material Inventory (gal)	Estimated Material Inventory (barrels)	Estimated Material Inventory (pounds)[a]	Visual Observations[b]
Selected Tanks							
Tank AT-1	17,042	406	52"	9,814	234	81,898	Horizontal cylindrical tank (mostly water).
Tank AT-2	17,042	406	77"	13,703	326	114,352	Horizontal cylindrical tank (2" sludge layer on bottom).
Tank WT-1	106,837	2,544	85"	88,561	2,109	739,044	Very thick oil.
Tank WT-2	111,482	2,654	70"	77,553	1,847	647,183	24" sludge layer on bottom.
Tank WT-3	109,159	2,599	93"	93,998	2,238	784,416	36" sludge layer on bottom.
Tank ST-1	420,000[c]	10,000	9' - 10"[d]	99,474	2,368	830,111	38' high vertical cylindrical tank.
Total	781,562 gallons	18,609 barrels		383,104 gallons	9,122 barrels	3,197,003 pounds	
Former Barge (OT-4)							
Bow Rake Tank	26,853	639	56"	20,862	497	174,093	Very thick oil (2" sludge layer on bottom).
Deck Tank S	Not Measured	Unknown	Empty	Negligible	Negligible	Negligible	Dry, some rust scale.
Deck Tank P	Not Measured	Unknown	6"	Negligible	Negligible	Negligible	Oil, no visible water.
Compartment 1S	75,054	1,787	118"	65,659	1,563	547,924	
Compartment 1P	75,054	1,787	119"	64,874	1,545	541,374	
Compartment 2S	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 2P	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 3S	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 3P	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 4S	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 4P	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 5S	86,908	2,069	115"	75,689	1,802	631,625	
Compartment 5P	86,908	2,069	114"	75,057	1,787	626,351	
Aft Trim Tank	18,388	438	112"	17,447	415	145,595	
Total	913,897 gallons	21,759 barrels		778,134 gallons	18,527 barrels	6,493,528 pounds	
Grand Total	1,695,459 gallons	40,368 barrels		1,161,238 gallons	27,649 barrels	9,690,531 pounds	

NOTES:

(a) Based on bulk density of 8.345 pounds/gallon.
(b) MP&A site visit (May 3, 2001).
(c) According to Mr. Louis Smaihall, the total volume is 10,000 barrels (420,000 gallons).
(d) Measurement read from permanently installed float gauge on tank.

Chernekoff, Mike

From: Chernekoff, Mike
Sent: Monday, November 17, 2003 11:32 AM
To: 'Barry T. Dyer (Barry.Dyer@acbl.net)';

Cc:
Subject: RE: SSIC/SBA: NOTICE OF PASSAGE OF PROPOSAL FOR ADDITIONAL CAPITAL CONTRIBUTION

Importance: High

TO ALL MEMBERS:

I have now received votes exceeding 80% in interest to the proposal to raise additional capital totaling $500,000. Accordingly, pursuant to the SSIC Operating Agreement, the proposal PASSES. Each Member has 46 days from today, or until January 1, 2004, to pay the additional assessment. Because of the critical need for cash to complete the current disposal phase of work, prompt payment is important. Please make your checks payable to SSIC Remediation L.L.C. and forward them to my attention. Our firm will then deposit each check as it is received.

For convenience, the chart attached to the proposal of each Members' assessment is attached to this notice.

CHART. SSIC
TURE ASSESSMENT

For your information, I received written/email concurrences for the proposal from all Members except Talen (who orally advised it opposed any additional contributions) and Higman (who orally expressed reservations about additional capital expenditures). Ashland voted in favor of the proposal but with a condition that all Members contribute. The proposal passes even if the positions/conditions of Talen, Higman and Ashland are considered objections.

Should you have any additional questions or comments please contact me. A copy of this notice will also be sent by mail.

Mike Chernekoff
Jones Walker
201 St. Charles Ave.
50th Floor
New Orleans, LA 70170-5100
mchernekoff@joneswalker.com
PH: (504) 582-8264(direct)
FX: (504) 589-8264(direct)
FX: (504) 582-8583(firm main)
www.joneswalker.com

CONFIDENTIAL and PRIVILEGED

SSIC FUTURE ASSESSMENT TABLE
(Proposed September 26, 2003)

	Capital Basis (in thousands of dollars)	Future Assessment Percentage	Assessment (based on $500K)
ACL	530	36.20	181,000
TOTAL:	1464	100%	500,000

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Hollywood Marine
P.O. Box 1343
Houston, TX 77251

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Hollywood Marine:

Records and work orders indicate that barges owned and operated by Hollywood Marine were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Hollywood Marine is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Hollywood Marine are now present in the soil, subsoil, and groundwater.

In March of 1996, Hollywood Marine was contacted via letter by legal counsel representing SBA. Hollywood Marine was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Hollywood Marine was potentially liable, in part, for remediation and closure activities to be conducted at the site. Hollywood Marine was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Hollywood Marine did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Hollywood Marine and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Hollywood Marine to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Hollywood Marine has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Hollywood Marine may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Transerve Marine
P.O. Box 867
Norfolk, VA 23501

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Transerve Marine:

Records and work orders indicate that barges owned and operated by Transerve Marine were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Transerve Marine is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Transerve Marine are now present in the soil, subsoil, and groundwater.

In March of 1996, Transerve Marine was contacted via letter by legal counsel representing SBA. Transerve Marine was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Transerve Marine was potentially liable, in part, for remediation and closure activities to be conducted at the site. Transerve Marine was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Transerve Marine did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Transerve Marine and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Transerve Marine to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Transerve Marine has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Transerve Marine may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Sargeant Marine
3020 Military Trail
Suite 100
Boca Raton, FL 33431

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Sargeant Marine:

Records and work orders indicate that barges owned and operated by Sargeant Marine were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Sargeant Marine is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Sargeant Marine are now present in the soil, subsoil, and groundwater.

In March of 1996, Sargeant Marine was contacted via letter by legal counsel representing SBA. Sargeant Marine was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Sargeant Marine was potentially liable, in part, for remediation and closure activities to be conducted at the site. Sargeant Marine was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Sargeant Marine did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Sargeant Marine and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Sargeant Marine to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Sargeant Marine has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Sargeant Marine may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Marine Operators
P.O. Box 51694
Lafayette, LA 70505

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Marine Operators:

Records and work orders indicate that barges owned and operated by Marine Operators were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Marine Operators is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Marine Operators are now present in the soil, subsoil, and groundwater.

In March of 1996, Marine Operators was contacted via letter by legal counsel representing SBA. Marine Operators was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Marine Operators was potentially liable, in part, for remediation and closure activities to be conducted at the site. Marine Operators was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Marine Operators did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Marine Operators and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Marine Operators to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Marine Operators has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Marine Operators may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Sun Oil Co.
Sun Marine Terminals of Louisiana
P.O. Box 758
Nederland, TX 77627

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Sun Oil Co.:

Records and work orders indicate that barges owned and operated by Sun Oil Co. were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Sun Oil Co. is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Sun Oil Co. are now present in the soil, subsoil, and groundwater.

In March of 1996, Sun Oil Co. was contacted via letter by legal counsel representing SBA. Sun Oil Co. was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Sun Oil Co. was potentially liable, in part, for remediation and closure activities to be conducted at the site. Sun Oil Co. was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Sun Oil Co. did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Sun Oil Co. and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Sun Oil Co. to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Sun Oil Co. has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Sun Oil Co. may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Ingram Barge Lines
4400 Harding Road
Nashville, TN 37205

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Ingram Barge Lines:

Records and work orders indicate that barges owned and operated by Ingram Barge Lines were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Ingram Barge Lines is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Ingram Barge Lines are now present in the soil, subsoil, and groundwater.

In March of 1996, Ingram Barge Lines was contacted via letter by legal counsel representing SBA. Ingram Barge Lines was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Ingram Barge Lines was potentially liable, in part, for remediation and closure activities to be conducted at the site. Ingram Barge Lines was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Ingram Barge Lines did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Ingram Barge Lines and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Ingram Barge Lines to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Ingram Barge Lines has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Ingram Barge Lines may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Higman Barge Lines, Inc.
3600 One Bank Center
New Orleans, Louisiana 70170

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Higman Barge Lines:

Records and work orders indicate that barges owned and operated by Higman Barge Lines, Inc. ("Higman") were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Higman is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Higman are now present in the soil, subsoil, and groundwater.

In March of 1996, Higman was contacted via letter by legal counsel representing SBA. Higman was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, Higman was informed that EPA would take control over remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. EPA is aware that Higman participated in this voluntary clean-up effort for a certain period and to an extent, but is no longer an active member of SSIC Remediation, L.L.C. ("SSIC").

In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review, and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005. Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. As you know, remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and the Louisiana Department of Environmental Quality ("LDEQ") have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Higman and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Higman to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Higman has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that the remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Higman may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under the Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

SBA Shipyards, Inc.
Probable Sources of Contaminants

Hollywood Marine Barges Inc.
P.O. Box 1343
Houston, TX 77251

Marine Operators
P.O. Box 51694
Lafayette, LA 70505
Phone: 318-232-9248

Sargeant Marine
3020 Military Trail
Suite 100
Boca Raton, FL 33431
Phone: 561-999-9916

Allied Towing (BANKRUPT ?)
P.O. Box 717
Norfolk, VA 23501
Phone: 804-545-7301

Transerve Marine
P.O. Box 867
Norfolk, VA 23501
Phone: 804-545-7301
*Subsidiary of Allied Towing

Sun Oil Co.
Sun Marine Terminals of Louisiana
P.O. Box 758
Nederland, TX 77627

Ingram Barge Lines
4400 Harding Road
Nashville, TN 37205

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Hollywood Marine
P.O. Box 1343
Houston, TX 77251

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Hollywood Marine:

Records and work orders indicate that barges owned and operated by Hollywood Marine were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Hollywood Marine is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Hollywood Marine are now present in the soil, subsoil, and groundwater.

In March of 1996, Hollywood Marine was contacted via letter by legal counsel representing SBA. Hollywood Marine was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Hollywood Marine was potentially liable, in part, for remediation and closure activities to be conducted at the site. Hollywood Marine was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Hollywood Marine did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Hollywood Marine and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Hollywood Marine to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Hollywood Marine has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Hollywood Marine may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Marine Operators
P.O. Box 51694
Lafayette, LA 70505

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Marine Operators:

Records and work orders indicate that barges owned and operated by Marine Operators were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Marine Operators is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Marine Operators are now present in the soil, subsoil, and groundwater.

In March of 1996, Marine Operators was contacted via letter by legal counsel representing SBA. Marine Operators was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Marine Operators was potentially liable, in part, for remediation and closure activities to be conducted at the site. Marine Operators was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Marine Operators did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Marine Operators and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Marine Operators to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Marine Operators has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Marine Operators may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Sargeant Marine
3020 Military Trail
Suite 100
Boca Raton, FL 33431

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Sargeant Marine:

Records and work orders indicate that barges owned and operated by Sargeant Marine were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Sargeant Marine is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Sargeant Marine are now present in the soil, subsoil, and groundwater.

In March of 1996, Sargeant Marine was contacted via letter by legal counsel representing SBA. Sargeant Marine was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Sargeant Marine was potentially liable, in part, for remediation and closure activities to be conducted at the site. Sargeant Marine was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Sargeant Marine did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Sargeant Marine and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Sargeant Marine to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Sargeant Marine has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Sargeant Marine may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Transerve Marine
P.O. Box 867
Norfolk, VA 23501

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Transerve Marine:

Records and work orders indicate that barges owned and operated by Transerve Marine were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Transerve Marine is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Transerve Marine are now present in the soil, subsoil, and groundwater.

In March of 1996, Transerve Marine was contacted via letter by legal counsel representing SBA. Transerve Marine was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Transerve Marine was potentially liable, in part, for remediation and closure activities to be conducted at the site. Transerve Marine was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Transerve Marine did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Transerve Marine and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Transerve Marine to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Transerve Marine has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Transerve Marine may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Sun Oil Co.
Sun Marine Terminals of Louisiana
P.O. Box 758
Nederland, TX 77627

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Sun Oil Co.:

Records and work orders indicate that barges owned and operated by Sun Oil Co. were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Sun Oil Co. is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Sun Oil Co. are now present in the soil, subsoil, and groundwater.

In March of 1996, Sun Oil Co. was contacted via letter by legal counsel representing SBA. Sun Oil Co. was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Sun Oil Co. was potentially liable, in part, for remediation and closure activities to be conducted at the site. Sun Oil Co. was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Sun Oil Co. did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Sun Oil Co. and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Sun Oil Co. to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Sun Oil Co. has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Sun Oil Co. may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Ingram Barge Lines
4400 Harding Road
Nashville, TN 37205

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Ingram Barge Lines:

Records and work orders indicate that barges owned and operated by Ingram Barge Lines were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Ingram Barge Lines is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Ingram Barge Lines are now present in the soil, subsoil, and groundwater.

In March of 1996, Ingram Barge Lines was contacted via letter by legal counsel representing SBA. Ingram Barge Lines was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Ingram Barge Lines was potentially liable, in part, for remediation and closure activities to be conducted at the site. Ingram Barge Lines was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Ingram Barge Lines did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Ingram Barge Lines and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Ingram Barge Lines to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Ingram Barge Lines has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Ingram Barge Lines may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

July 7, 2005

Higman Barge Lines, Inc.
3600 One Bank Center
New Orleans, Louisiana 70170

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Higman Barge Lines:

Records and work orders indicate that barges owned and operated by Higman Barge Lines, Inc. ("Higman") were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Higman is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Higman are now present in the soil, subsoil, and groundwater.

In March of 1996, Higman was contacted via letter by legal counsel representing SBA. Higman was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, Higman was informed that EPA would take control over remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. EPA is aware that Higman participated in this voluntary clean-up effort for a certain period and to an extent, but is no longer an active member of SSIC Remediation, L.L.C. ("SSIC").

In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review, and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005. Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. As you know, remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and the Louisiana Department of Environmental Quality ("LDEQ") have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Higman and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Higman to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Higman has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that the remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Higman may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under the Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

"Chernekoff, Mike" <mchernekoff@joneswalker.com>

11/07/2005 09:43 AM

To Scott McDonald/R6/USEPA/US@EPA

cc Gene Keepper/R6/USEPA/US@EPA, Ellen Belk/R6/USEPA/US@EPA, "Chernekoff, Mike" <mchernekoff@joneswalker.com>

bcc

Subject RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Thanks, Scott. I would apprecaite any further update on discussions with the non-participating parties as well as the review of our final report. We would like to wrap up the pending Order/Agreement.

Mike

-----Original Message-----
From: Mcdonald.Scott@epamail.epa.gov
[mailto:Mcdonald.Scott@epamail.epa.gov]
Sent: Thursday, November 03, 2005 7:12 PM
To: Chernekoff, Mike
Cc: Keepper.Gene@epamail.epa.gov; Chernekoff, Mike;
Belk.Ellen@epamail.epa.gov
Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Mr. Chernekoff -
Thanks for the follow-up e-mail. The RCRA program (Gene & Ellen) have been monitoring the receipt of response letters from non-SSIC, former customers of SBA. They can provide you with information in that regard. Also - the RCRA program was in the process of reviewing your final assessment report. I do not believe that their review is complete? Perhaps Gene can provide us with a status report? Any news?
Thanks -
Scott
(214) 665-2718

"Chernekoff, Mike" <mchernekoff@joneswalker.com>

10/31/2005 01:03 PM

To Gene Keepper/R6/USEPA/US@EPA, Scott McDonald/R6/USEPA/US@EPA

cc "Chernekoff, Mike" <mchernekoff@joneswalker.com>

Subject RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Gene and Scott,

Can you give me an update on what is happening re: SBA? Has our final report been reviewed?

Mike

-----Original Message-----
From: Mcdonald.Scott@epamail.epa.gov
[mailto:Mcdonald.Scott@epamail.epa.gov]
Sent: Monday, August 22, 2005 6:29 PM
To: Chernekoff, Mike
Cc: Chernekoff, Mike; Keepper.Gene@epamail.epa.gov;
Belk.Ellen@epamail.epa.gov
Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Mr. Chernekoff -
I left a lengthy voice mail for you today (8/22) providing current status of EPA's issuance of demand letters upon eight (8) former customers of SBA Shipyards. I have attached a couple of those letters for reference. EPA issued those letters on July 7, 2005, whereby the identified former customers were instructed to respond to EPA within 60 days of issuance of the notification. Keep in mind that each of these former customers are non-SSIC in that the respective companies failed to participate in past clean-up activities conducted by SSIC (as we discussed). The company name was the only change on seven of the letters issued...with the exception of Higman Barge Lines (who received their own distinct letter).

Also note that EPA has already received responses from three (3) such companies. I intend to draft a formal response summary (report) once the 60 days has expired...which provides detailed information as to which companies (former customers) have volunteered to participate in funding the final remedial and closure efforts required at the site. I will provide copies of the report to yourself and EPA's RCRA Program. Please call should you have any questions. Thanks -

Scott McDonald
Office of Regional Counsel
(214) 665-2718

**I spoke with Gene Keeper last week...he informed me that EPA's RCRA Program has not yet received the final Environmental Assessment Report. Any idea on when that report will be complete?

(See attached file: SBA - Form letter(gene-final).wpd)(See attached file: SBA Shipyards - Higman letter.wpd)

"Chernekoff, Mike"
<mchernekoff@jones walker.com>

To: Scott McDonald/R6/USEPA/US@EPA
cc: "Chernekoff, Mike" <mchernekoff@joneswalker.com>

Scott McDonald/R6/USEPA/US
11/03/2005 07:07 PM

To "Chernekoff, Mike" <mchernekoff@joneswalker.com>
cc Gene Keepper/R6/USEPA/US@EPA, "Chernekoff, Mike" <mchernekoff@joneswalker.com>, Ellen Belk/R6/USEPA/US
bcc
Subject RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

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Scott
(214) 665-2718

"Chernekoff, Mike" <mchernekoff@joneswalker.com>

"Chernekoff, Mike" <mchernekoff@joneswalker.com>
10/31/2005 01:03 PM

To Gene Keepper/R6/USEPA/US@EPA, Scott McDonald/R6/USEPA/US@EPA
cc "Chernekoff, Mike" <mchernekoff@joneswalker.com>
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To: Chernekoff, Mike
Cc: Chernekoff, Mike; Keepper.Gene@epamail.epa.gov;
Belk.Ellen@epamail.epa.gov
Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

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Scott McDonald
Office of Regional Counsel
(214) 665-2718

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(See attached file: SBA - Form letter(gene-final).wpd)(See attached file: SBA Shipyards - Higman letter.wpd)

"Chernekoff, Mike"
<mchernekoff@jones walker.com>
08/05/2005 11:23 AM

To: Scott McDonald/R6/USEPA/US@EPA
cc: "Chernekoff, Mike" <mchernekoff@joneswalker.com>
Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Scott,

Have there been any new developments?

By the way, we apologize for delays in getting to EPA our final report. We hope to get it to Gene Keepper in the next week or two.

Mike

-----Original Message-----
From: Mcdonald.Scott@epamail.epa.gov
[mailto:Mcdonald.Scott@epamail.epa.gov]
Sent: Tuesday, June 21, 2005 6:02 PM
To: Chernekoff, Mike
Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Mike -
Thanks again for your assistance in this matter. Yes...the letter from SBA counsel to mystery customer dated 1996 is exactly what EPA was seeking. Said letter that you forwarded provides me with relevant insight as to content and tone of the original request letter sent to SBA customers.

You asked if EPA intends to require that SBA, SBA shareholders, and/or current landowners perform future remedial/clean-up work at the site? I do not know the answer to this question...but I have left a voice mail and sent an e-mail to Gene Keeper inquiring into this issue. I shall provide a response after discussing SBA's planned future involvement with the RCRA Program.
Scott

"Chernekoff, Mike"
<mchernekoff@jones walker.com>
06/20/2005 03:29 PM

To: Scott McDonald/R6/USEPA/US@EPA
cc: "Chernekoff, Mike" <mchernekoff@joneswalker.com>
Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Scott,

I have located a specimen from documents produced to us by SBA. I will copy and send. I had intended to block out the addressee, as SBA send individualized letters to each of its customers. Let me know if this is what you are looking for.

Also, neither SBA nor its stockholders nor the listed landowners of the property are member of our LLC. What are your intentions relative to them for any future work requests?

Mike

-----Original Message-----
From: Mcdonald.Scott@epamail.epa.gov
[mailto:Mcdonald.Scott@epamail.epa.gov]
Sent: Monday, June 20, 2005 1:44 PM
To: Chernekoff, Mike
Cc: Angeletti.Christine@epamail.epa.gov
Subject: SBA Shipyards & SSIC - Original Request Letter dated 1996

Mr. Chernekoff -
Thank you once again for the background information and current remedial

status of the SBA Shipyards site. I found the information which you provided last week to be very helpful. As we discussed, EPA's RCRA Program has requested that I draft a notification/demand letter to be sent to regular client customers of SBA who chose not to join SSIC (non-members). I was hoping to reference and attach the original letter (1996) inviting customers to participate and contribute to remedial efforts at the site. Were you able to locate this letter? If so, then could you please scan and e-mail or fax to my attention at 214/665-3177. Thanks again for your assistance in this matter.

Sincerely,
Scott McDonald
214/665-2718

FOWLER RODRIGUEZ & CHALOS

COUNSELLORS AT LAW

400 POYDRAS STREET, 30TH FLOOR
NEW ORLEANS, LOUISIANA 70130
(504) 523-2600
TELECOPIER (504) [illegible]

HOUSTON
4 Houston Center, Suite 1560
1331 Lamar
Houston, Texas 77010
(713) 654-1560
Telecopier (713) 654-7930

MIAMI
Gables International Plaza
2655 LeJeune Road, Suite 805
Coral Gables, Florida 33134
(305) 445-2930
Telecopier (305) 445-2450

NEW YORK
366 Main Street
Port Washington, New York 11050
(516) 767-3600
Telecopier (516) 767-3605

MOBILE
AmSouth Bank Building
107 St. Francis Street, Suite 1204
Mobile, Alabama 36602
(251) 344-4721
Telecopier (251) 343-7503

EDWARD F. LeBRETON, III
PARTNER
Direct Dial: (504) 595-5142
E-Mail: lebreton@frc-law.com

August 16,

To: Scott M.
Fr: Ellen B.
Re: SBA Shipyards
8/24/05

U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Attn: Mr. Gene Keepper, CHMM, P.G.
RCRA Project Manager

RE: Notification as Co-Generator and Requ
Activities at SBA Shipyards, Inc.; 9040
Louisiana; EPA I.D. No. LAD0084341
Our File No. 4094-009

Gentlemen:

I write to acknowledge your letter to Higman Barge Lines, Inc. dated July 7, 2005, which I received on August 15, 2005. Please direct future correspondence to my current address, as follows:

Edward F. LeBreton, III
Fowler, Rodiguez & Chalos
400 Poydras Street, 30th Floor
New Orleans, LA 70130

Very truly yours,

Edward F. LeBreton, III

EFL/sbm

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

RECEIVED
05 AUG 15 AM 5:40
HAZARDOUS WASTE ENF BR
TEXAS SECTION

July 7, 2005

Marine Operators
P.O. Box 51694
Lafayette, LA 70505

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Marine Operators:

Records and work orders indicate that barges owned and operated by Marine Operators were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Marine Operators is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Marine Operators are now present in the soil, subsoil, and groundwater.

In March of 1996, Marine Operators was contacted via letter by legal counsel representing SBA. Marine Operators was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Marine Operators was potentially liable, in part, for remediation and closure activities to be conducted at the site. Marine Operators was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Marine Operators did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Marine Operators and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Marine Operators to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Marine Operators has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Marine Operators may ignore a unilateral Order, or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

Gene Keepper
08/17/2005 04:15 PM

To: "Edward F. LeBreton, III" <lebreton@frc-law.com>
cc: (bcc: Scott McDonald/R6/USEPA/US)
Subject: Re: SBA Shipyard EPA I.D. No. LAD008434185 & LDEQ AIN 1478

Mr. LeBreton:
You are correct in your belief regarding the misdelivery of the notification letter. Accordingly, I have no issue with and do agree to your request for extension to 15 September 2005 . Given this extension, please do not rush your response; feel free to confer with the Agency and your client as you believe most prudent, and I will avail myself to your inquiry as we can best schedule teleconferences or e-mail exchanges.

Sincerely,

Gene Keepper, CHMM, P.G.
TSP Engineering Forum Co-Chair
RCRA Project Manager (6EN-HX)
»»

Gene Keepper, CHMM, P.G **Phone:** 214-665-2280
Soil Chemist **Fax:** 214-665-7264
and **E-Mail:** Keepper.Gene@epa.gov
Environmental Scientist **S-Mail:** 1445 Ross Avenue, Suite 900
Specializing in: Dallas, TX 75202-2733
Complex Case Development and Site
Remediation, Inspections, and Field Sampling
Technical Section (6EN-HX)
Hazardous Waste Enforcement Branch

----- Forwarded by Gene Keepper/R6/USEPA/US on 08/17/2005 15:48 -----

"Edward F. LeBreton, III"
<lebreton@frc-law.com
>
08/16/2005 12:09

To: Gene Keepper/R6/USEPA/US@EPA
cc:
Subject: SBA Shipyard EPA I.D. No. LAD008434185

I write further to my voice mail message and your letter of July7, 2005, to me as representative of Higman Barge Lines. The letter was not received until August 15, 2005, apparently because it was sent to my firm's old address.

The matters in your letter are addressed, in part, in the letter I sent to you on May12, 2005, but there are additional issues as well. I would like write to you about these and then discuss them with you

Your letter states that absent an agreement, EPA may take certain actions within60 days, which taking into account holidays, ends Sep 2. In light of the fact that I have just received your letter, that I wish to review the response with Higman, and that certain persons will be on vacation in August, I request that you agree to extend the time to discuss this matter with the EPA to September 15, 2005. I would appreciate your response by email.

I will endeavor to get you a response with in the next two weeks.

Thank you for your consideration
16 Aug 05

Edward F. LeBreton, III
Fowler, Rodriguez & Chalos, LLP
400 Poydras Street
30th Floor
New Orleans, LA 70130
(504) 523-2600
(504) 595-5142 (direct)

********** -COMM. JOURNAL- ********** DATE AUG-23-2005 ***** TIME 13:30 *** P.01

MODE = TRANSMISSION START=AUG-23 13:12 END=AUG-23 13:30

STN NO.	COM	ABBR NO.	STATION NAME/TEL.NO.	PAGES	DURATION
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********** ********** **********

TELECOPY COVER SHEET

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
OFFICE OF REGIONAL COUNSEL
1445 ROSS AVENUE
DALLAS, TEXAS 75202

SENDER'S DIRECT DIAL MEMBER

OFFICE OF REGIONAL COUNSEL
BUS. PHO. NO: (214) 665-2718
FAX NO. (214) 665-3177

PLEASE DELIVER TO: MIKE CHERNEKOFF - JONES WALKER

DIRECT PHONE NUMBER: (504) 582-8264

FAX NUMBER: (504) 589-8264

REGARDING: EPA REGION 6 - DEMAND LETTERS - SBA SHIPYARD

THE INFORMATION CONTAINED IN THIS MESSAGE IS PRIVILEGED AND CONFIDENTIAL INFORMATION INTENDED FOR THE ADDRESSEE. IF YOU ARE NEITHER THE INTENDED RECIPIENT NOR THE EMPLOYEE OR AGENT RESPONSIBLE FOR DELIVERING THIS MESSAGE TO THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISCLOSURE, COPYING, DISTRIBUTION, OR THE TAKING OF ANY ACTION IN RELIANCE ON THE CONTENTS OF THIS TELECOPIED INFORMATION IS PROHIBITED. IF YOU RECEIVED THIS TELECOPY IN ERROR, PLEASE IMMEDIATELY TELEPHONE US TO ARRANGE FOR RETURN OF THE DOCUMENTS TO US. THANK YOU

FROM: SCOTT MCDONALD, EPA ASST REGIONAL COUNSEL
(214) 665-2718

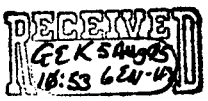
DATE: 8/23/05

IN CASE OF PROBLEMS, PLEASE CALL me AT 214/665- 2718

THIS IS PAGE 1 OF 34 PAGES

TMI ***Transerve Marine, Inc.***

P.O. BOX 867 • NORFOLK, VIRGINIA 23501 • OFFICE (757) 545-7301 • FAX (757) 545-5692



1 August 2005

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and Enforcement Division
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Subj: SBA Shipyards; EPA I.D. No. LAD008434185
Notification as Co-Generator & Request Response for Investigation & Remediation

Dear Mr. Keepper:

Transerve Marine Inc. (TMI) was first contacted by Mr. Gerald L. Walker of the legal firm Schwab & Walter representing SBA Shipyards on 8 March 1996 to enlist TMI's participation in funding remediation and closure efforts at SBA Shipyard. The basis for the request is due to work accomplished onboard TMI vessels at SBA between 1984 and 1990 that contributed to the current condition of the property. I have attached a work sheet provided by Mr. William Hodgkins of Schwab & Walter on 28 October 1996 entitled, "Probable Sources of Contaminants Currently Present in Tanks and Pits". This list purports to show the TMI vessels worked on at the facility. The report notes 11 barges cleaned for TMI. The vessel ATC 586 and the Hooker Burlington were not owned by TMI.

I was informed the reason for the remedial efforts was to address substantial hydrocarbon residuals in the surface impoundments and possible groundwater. We were provided with reports from JESCO Environmental and Geotechnical Service 1996 and Woodward-Clyde; RCRA Facility Investigation Work Plan dated 1996. Our review of the subject reports indicate the contamination issue at this site is petroleum-based in nature. All TMI vessels, with the noted exception of the barge I-50 in March 1985, worked on at the SBA facility did not carry hydrocarbon products. The referenced barge I-50 was normally

engaged in the carriage of caustic soda, however in early 1985 the vessel was cleaned for the carriage of multi-grades of lube oils from Houston Texas to Tampa Florida. After delivery of the cargo, the vessel tanks were cleaned to remove any remaining oil prior to proceeding to SBA shipyard for scheduled American Bureau of Shipping (ABS) and U.S. Coast Guard regulatory inspection and owner's work.

I have attached a copy of a Material Safety data Sheet (MSDS) for caustic soda, corn and soybean oil. In my initial review of the supplied data to TMI, I failed to find any correlation between the cargo tank cleaning performed by SBA on the TMI vessels and the constitutes of concern mentioned in the referenced two reports. The only mention of a petroleum product on a TMI vessel is work order 887 dated 21 March 1985 for the barge I-50. However, work order 878 (not dated) states under the additional information column that the barge I-50 arrived pre-cleaned. Given the close work order numbers I suspect they cover the same repair period. I am at a loss to explain SBA's work order 887 stating "removed lube oil" from the barge I-50. The forgoing is the basis upon which I based my decision to decline TMI's participation in the SSIC Remediation group in 1996.

I will be happy to discuss what level of participation, if any, that TMI should have at the SBA site with the USEPA and LDEQ. If you have any information regarding potential contribution by TMI, beyond attachment 1 to this letter, I would appreciate a copy prior to discussing this matter further. I was told at one time that SBA was going to compile a list of volumes or residue removed from each barge from each customer of the shipyard, but to date I have not received that information.

After you have had an opportunity to look over this letter, please contact the undersigned to discuss the next step in resolving the issue of TMI's participation in this remedial activity.

Sincerely,

W. Bruce Law

SBA SHIPYARDS, INC.
PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS

COMPANY	DATE(S)*	VESSEL NUMBER	PREVIOUS 3 CARGOES	WORK ORDER NO.	ADDITIONAL INFO.
Transerve Marine	11/6/84	Ryan	Caustic Soda	1007	Arrived Pre-Cleaned
	1/20/85	ATC 586	Caustic Soda, Tallow	955	removed 55 gal of waste oil; also cleaned 7 main cargo tanks of tallow and caustic soda
	3/21/85	I-50	Lube Oil	887	Removed lube oil
		I-50		878	Arrived Pre-Cleaned
	11/13/85	Ryan	Caustic Soda	920	Removed heavy deposits of caustic
	7/21/86	Hooker Burlington	Caustic Soda	975	Arrived Pre-Cleaned
	11/17/86	I-50	Caustic Soda	978	Removed caustic
	4/21/87	I-50	Corn Oil, Caustic Soda	1003	Removed caustic and corn oil
	12/17/86	I-50	Caustic soda	989	Removed caustic and silt
	5/26/87	Ryan	Caustic Soda	1007	Arrived Pre-Cleaned
	1/11/88	I-50	Caustic Oil/Caustic	881	Removed caustic
	3/27/89	TMI-91	Caustic Soda (3)	1119	Cleaned out caustic, mud and rust
	8/9/89	TMI-96	UREA-Ammonium Nitrate	1130	Arrived Pre-Cleaned
	12/4/89	I-50	Soybean & Corn Oil/Caustic Soda	1145	Removed caustic and corn oil
	12/13/89	I-50	Corn Oil, Soybean Oil	1145	Approx. 200 bbl of caustic soda and corn oil removed
	4/12/90	I-50	Caustic Soda	1161	cleaned caustic barge for hotwork and personnel

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 11

* - Based on date from Marine Chemist's Gas Free Certificate

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

24-HOUR EMERGENCY PHONE NUMBER: 517-636-4400

Product: CAUSTIC SODA SOLUTION 50%, COMMERCIAL GRADE

Product Code: 15216

Effective Date: 04/14/99 Date Printed: 01/19/00 MSD: 005120

The Dow Chemical Company, Midland, MI 48674

Customer Information Center: 800-258-2436

2. COMPOSITION/INFORMATION ON INGREDIENTS

Sodium hydroxide (NaOH)	CAS# 001310-73-2	49-51%
Sodium chloride (NaCl)	CAS# 007647-14-5	1% max
Water	CAS# 007732-18-5	BAL

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

****
* Colorless liquid. Odorless. May react violently with water. *
* Causes severe eye burns. Causes severe skin burns. Causes *
* respiratory tract irritation. *
****

POTENTIAL HEALTH EFFECTS (See Section 11 for toxicological data.)

EYE: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Mists may cause eye irritation.

SKIN: Classified as corrosive according to DOT. Short single exposure may cause severe skin burns. A single prolonged exposure is not likely to result in absorption of harmful amounts.

INGESTION: May cause severe burns of the mouth and throat. Ingestion may cause gastrointestinal irritation or ulceration.

INHALATION: Mists may cause severe irritation of the upper respiratory tract (nose and throat).

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: No relevant information found.

(Continued on Page 2)
* or (R) Indicates a Trademark of The Dow Chemical Company

Product: CAUSTIC SODA SOLUTION 50%, COMMERCIAL GRADE
Product Code: 15216

Effective Date: 04/14/99 Date Printed: 01/19/00 MSD: 005120

---

3. HAZARDS IDENTIFICATION (CONTINUED)

CANCER INFORMATION: No relevant information found.

TERATOLOGY (BIRTH DEFECTS): No relevant information found.

REPRODUCTIVE EFFECTS: No relevant information found.

4. FIRST AID

EYE:
Wash eyes immediately and continuously until assistance arrives for transport to medical facility; wash enroute, if possible. If medical assistance is not immediately available, wash for 30 minutes and seek medical attention immediately.

SKIN: Immediate continued and thorough washing in flowing water for 30 minutes is imperative while removing contaminated clothing. Prompt medical consultation is essential.

INGESTION: Do not induce vomiting. Give large amounts of water or milk if available and transport to medical facility.

INHALATION: Remove to fresh air if effects occur. Consult a physician.

NOTE TO PHYSICIAN: May cause tissue destruction/stricture. If lavage is performed, suggest endotracheal and/or esophageal control. Material is strong alkali. If burn is present, treat as any thermal burn, after decontamination. For burns of skin only. Eye irrigation may be necessary for an extended period of time to remove as much caustic as possible. Duration of irrigation and treatment is at the discretion of medical personnel. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASH POINT: None
METHOD USED: Not applicable

(Continued on Page 3)
* or (R) Indicates a Trademark of The Dow Chemical Company

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5. FIRE FIGHTING MEASURES (CONTINUED)

AUTOIGNITION TEMPERATURE: Not applicable.

FLAMMABILITY LIMITS
LFL: Not applicable
UFL: Not applicable

HAZARDOUS COMBUSTION PRODUCTS: Not applicable.

OTHER FLAMMABILITY INFORMATION: Product reacts with water. Reaction may produce heat and/or gases. This reaction may be violent. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. This material does not burn.

EXTINGUISHING MEDIA: This material does not burn. If exposed to fire from another source, use suitable fire extinguishing agent for that fire.

FIRE FIGHTING INSTRUCTIONS: Keep people away. Isolate fire area and deny unnecessary entry. This material does not burn. Fight fire for other material that is burning.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants boots and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant clothing with SCBA. This will not provide sufficient fire protection, consider fighting fire from a remote location. For protective equipment in post-fire or non-fire clean up situations, refer to the relevant sections.

6. ACCIDENTAL RELEASE MEASURES (See Section 15 for Regulatory Information)

PROTECT PEOPLE: Evacuate area. Clear non-emergency personnel from area. Ventilate area of spill or leak. See MSDS, Section 10, for information on Stability and Reactivity.

PROTECT THE ENVIRONMENT: Contain material to prevent contamination of soil, surface water or ground water.

(Continued on Page 4)
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6. ACCIDENTAL RELEASE MEASURES (See Section 15 for Regulatory (CONTINUED

CLEANUP: Dike spills immediately. Carefully flush small spills of caustic soda solution with water. Attempt to neutralize final traces of caustic soda with dilute acid, preferably acetic acid.

7. HANDLING AND STORAGE

HANDLING:
SPECIAL PRECAUTIONS FOR DILUTING CAUSTIC SODA SOLUTION:
1. ALWAYS add caustic soda solution to water with constant agitation. NEVER add water to the caustic soda solution.
2. The water should be lukewarm (80-100F). NEVER start with hot or cold water.

The addition of caustic soda to liquid will cause a rise in temperature. If caustic soda becomes concentrated in one area, is added too rapidly, or is added to hot or cold liquid, a rapid temperature increase can result in DANGEROUS mists, boiling or spattering which may cause an immediate VIOLENT ERUPTION.

STORAGE: Store away from incompatible materials. Store in a dry place. Keep containers tightly closed when not in use. See Stability & Reactivity, Section 10, of this MSDS. Store above 60F (16C).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

PERSONAL PROTECTIVE EQUIPMENT
EYE/FACE PROTECTION:
Use chemical goggles. Wear a face-shield which allows use of chemical goggles, or wear a full-face respirator to protect face and eyes when there is any likelihood of splashes. Eye wash fountain should be located in immediate work area.

SKIN PROTECTION: Use protective clothing impervious to this

(Continued on Page 5)
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

material. Selection of specific items such as faceshield, gloves, boots, apron, or full-bodysuit will depend on operation. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse. Contaminated leather items, such as shoes, belts and watchbands, should be removed and destroyed.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. If respiratory irritation is experienced, use an approved air-purifying respirator.

EXPOSURE GUIDELINE(S): Sodium hydroxide: OSHA PEL and ACGIH TLV are 2 mg/m3 Ceiling.

PELs are in accord with those recommended by OSHA, as in the 1989 revision of PELs.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless to slightly hazy.
ODOR: Odorless.
VAPOR PRESS: 1.5 mmHg, 0.2kPa @ 20C
VAPOR DENSITY: Not applicable
BOILING POINT: Approximately 293F, 145C
SOLUBILITY IN WATER: Water solution
SPECIFIC GRAVITY: @ 20C (Dens.) 1.52 g/ml
FREEZING POINT: Approximately 58F, 14C
PH: 14

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under recommended storage conditions. See storage section.

CONDITIONS TO AVOID: Avoid temperature below 85F.

INCOMPATIBILITY WITH OTHER MATERIALS: Heat is generated when mixed with water. Spattering and boiling can occur. Flammable hydrogen may be generated from contact with metals such as:

(Continued on Page 6)
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10. STABILITY AND REACTIVITY (CONTINUED)

aluminum, brass, tin, zinc. Avoid contact with acids, halogenated organics, organic nitro compounds, glycols. Caustic soda solution reacts readily with various reducing sugars (i.e. fructose, galactose, maltose, dry whey solids) to produce carbon monoxide. Precautions should be taken including monitoring the tank atmosphere for carbon monoxide to ensure safety of personnel.

HAZARDOUS DECOMPOSITION PRODUCTS: Does not decompose.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION (See Section 3 for Potential Health Effects. For detailed toxicological data, write or call the address or non-emergency number shown in Section 1)

SKIN: The dermal LD50 has not been determined.

INGESTION: Single dose oral LD50 has not been determined.

MUTAGENICITY: No relevant information found.

12. ECOLOGICAL INFORMATION (For detailed Ecological data, write or call the address or non-emergency number shown in Section 1)

ENVIRONMENTAL FATE:

MOVEMENT & PARTITIONING: Based on information for sodium hydroxide. No bioconcentration is expected because of the relatively high water solubility. Partitioning from water to n-octanol is not applicable.

DEGRADATION & PERSISTENCE: Based on information for sodium hydroxide. Biodegradation is not applicable.

ECOTOXICITY: Based on information for sodium hydroxide. Material is slightly toxic to aquatic organisms on an acute basis (LC50 between 10 and 100 mg/L in most sensitive species). May cause pH shifts outside the range of 5-10; this change may be toxic to aquatic organisms.

(Continued on Page 7)
* or (R) Indicates a Trademark of The Dow Chemical Company

Product: CAUSTIC SODA SOLUTION 50%, COMMERCIAL GRADE
Product Code: 15216

Effective Date: 04/14/99 Date Printed: 01/19/00 MSD: 005120

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13. DISPOSAL CONSIDERATIONS (See Section 15 for Regulatory Information)

DISPOSAL: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. THE DOW CHEMICAL COMPANY HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (Composition/Information On Ingredients).

FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: recycler.

As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone Dow's Customer Information Center at 800-258-2436 or 517-832-1556 for further details.

14. TRANSPORT INFORMATION

U.S. DOT Classification/Description:
For DOT regulatory information, if required, consult transportation regulations, product shipping papers, or your Dow representative.

CANADIAN INFORMATION:
For TDG regulatory information, if required, consult transportation regulations, product shipping papers, or your Dow representative.

15. REGULATORY INFORMATION (Not meant to be all-inclusive--selected regulations represented)

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following

(Continued on Page 8)
* or (R) Indicates a Trademark of The Dow Chemical Company

Product: CAUSTIC SODA SOLUTION 50%, COMMERCIAL GRADE
Product Code: 15216

Effective Date: 04/14/99 Date Printed: 01/19/00 MSD: 005120

REGULATORY INFORMATION:(CONTINUED)

specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

U.S. REGULATIONS
==========

SARA 313 INFORMATION: To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard
A reactive hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA):

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

The CAS number(s) for TSCA is(are):

CAS# 001310-73-2
CAS# 000497-19-8
CAS# 007647-14-5
CAS# 007732-18-5

STATE RIGHT-TO-KNOW: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

(Continued on Page 9)
* or (R) Indicates a Trademark of The Dow Chemical Company

Product: CAUSTIC SODA SOLUTION 50%, COMMERCIAL GRADE
Product Code: 15216

Effective Date: 04/14/99 Date Printed: 01/19/00 MSD: 005120

REGULATORY INFORMATION: (CONTINUED)

CHEMICAL NAME	CAS NUMBER	LIST
SODIUM HYDROXIDE (SOLUTION)	001310-73-2	NJ1 NJ3 PA1 PA3

NJ1=New Jersey Special Health Hazard Substance (present at greater than or equal to 0.1%).
NJ3=New Jersey Workplace Hazardous Substance (present at greater than or equal to 1.0%).
PA1=Pennsylvania Hazardous Substance (present at greater than or equal to 1.0%).
PA3=Pennsylvania Environmental Hazardous Substance (present at greater than or equal to 1.0%).

OSHA HAZARD COMMUNICATION STANDARD:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND):

This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA which may require reporting of releases:
Category:

Chemical Name	CAS#	RQ	% in Product
Sodium hydroxide	001310-73-2	1000	49-51%

CANADIAN REGULATIONS
==========

WHMIS INFORMATION: The Canadian Workplace Hazardous Materials

(Continued on Page10)
* or (R) Indicates a Trademark of The Dow Chemical Company

Product: CAUSTIC SODA SOLUTION 50%, COMMERCIAL GRADE
Product Code: 15216

Effective Date: 04/14/99 Date Printed: 01/19/00 MSD: 005120

REGULATORY INFORMATION:(CONTINUED)

Information System (WHMIS) Classification for this product is:

E - corrosive to metal or skin
Refer elsewhere in the MSDS for specific warnings and safe handling information. Refer to the employer's workplace education program.

- - - - -

CPR STATEMENT: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

- - - - -

HAZARDOUS PRODUCTS ACT INFORMATION: This product contains the following ingredients which are Controlled Products and/or on the Ingredient Disclosure List (Canadian HPA section 13 and 14):

COMPONENTS:	CAS #	AMOUNT(%w/w)
Sodium hydroxide	CAS# 001310-73-2	49-51%

16. OTHER INFORMATION

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Health	3
Flammability	0
Reactivity	1

MSDS STATUS: Revised Section 2.

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The Information Herein Is Given In Good Faith, But No Warranty, Express Or Implied, Is Made. Consult The Dow Chemical Company For Further Information.

Natural Form Oil

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

DISTRIBUTED BY	Natural Soy Products, L.L.C.
ADDRESS	2 Liberty Street, Watkins, IA 52354
TRADE NAME	Natural Form Oil
SYNONYMS	Water-dispersed soy oil for concrete form release.
TELEPHONE NO.	319-227-7418

2. COMPONENTS AND HAZARD CLASSIFICATION

Contains expelled soy oil, nonionic surfactant.
Contains no chemicals subject to SARA 302 or 313 reporting.

3. PHYSICAL DATA

BOILING POINT (F)	ng	SPECIFIC GRAVITY	73F
VAPOR DENSITY	n/a	MELTING POINT	ng
SOLUBILITY IN WATER	Dispersible	VAPOR PRESSURE	n/a
APPERANCE AND ODOR	As of soybean oil, anber liquid		

4. FIRE AND EXPLOSION DATA

FLASH POINT	>500F (PM)	AUTOIGNITION TEMPERATURE	>500F
(TEST METHOD)			
EXTINGUISHING MEDIA		Foam, dry chemical, carbon dioxide, sand/earth	
SPECIAL FIRE FIGHTING PROCEDURES		None	
UNUSUAL FIRE		None expected.	
EXPLOSION HAZARD		None	

5. HEALTH HAZARD INFORMATION

SLIPPAGE Slippery, may cause falls if walked on.
FIRST AID:
EYES: Flush eyes with large amounts of water for at least 15 minutes. Seek medical aid.
SKIN: Remove contaminated clothing. Wash with soap and water. If irritation occurs, seek medical attention.
INHALATION: Remove to fresh air. If not breathing, give artificial respiration and seek medical attention immediately. Oxygen should only be administered by trained personnel.
INGESTION: If swallowed, call a physician. ONLY induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.
NATURE OF HAZARD:
EYE: Irritation may occur with exposure to concentrated vapors or contact with product. May cause corneal inflammation.
SKIN: Repeated or prolonged contact may cause reddening and scaling of the skin (dermatitis) if hypoallergenic.
INHALATION: This material is a negligible hazard due to its low volatility. If vapor is present in high concentrations, irritation to upper respiratory tract may occur.
INGESTION: Low order of toxicity. No hazard by this route in normal use. Ingestion of large amounts may be irritating to gastrointestinal tract.
EXPOSURE LIMITS: None established for this product.
TOXICITY DATA: This product has not been specifically tested.

6. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY:

Stable under normal conditions for 12 months. Reacts slowly with air or oxygen. Heating increases oxidation potential.
INCOMPATIBILITY: Can react with strong oxidizers, inorganic acids, and halogens.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.
CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:
Should not occur.

7. SPILL OR LEAK PROCEDURES

Dike and contain the spilled material. Floor will be extremely slippery. Collect liquid with an inert absorbent and transfer to a container for reuse or disposal.

WASTE CLASSIFICATION: If discarded in its purchased form, this product is not a RCRA hazardous waste. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, and mixtures may change the classification.

8. SPECIAL PROTECTION INFORMATION

VENTILATION RECOMMENDATIONS Use only with adequate ventilation.
SPECIFIC PERSONAL PROTECTIVE EQUIPMENT
EYES: Chemical safety glasses.
SKIN: Use rubber or plastic, solvent resistant gloves.
RESPIRATORY PROTECTION: Use organic vapors mask when handling this product above 120 degrees F.

9. SHIPPING, TRANSFER AND STORAGE

SHIPPING INFORMATION
ICAO/IATA DESCRIPTION: This product is not a dangerous good as defined by IATA for air transportation.
DOT DESCRIPTION: Non hazardous liquid, expelled soybean oil.
TRANSPORTATION AND STORAGE
ELECTROSTATIC ACCUMULATION HAZARD: Precautions should be taken to prevent electrostatic discharge.
USUAL SHIPPING CONTAINERS: Tank cars, tank trucks, and drums, pails.
STORAGE/TRANSPOST TEMPERATURE: Ambient
STORAGE/TRANSPORT PRESSURE: Ambient
VISCOSITY: >15 cSt @ 100F, as water
BULK QUANTITIES: Provide diking to contain potential spills.

HANDLING AND STORAGE MATERIALS AND COATINGS
TANKS: Use containers that will not rust.

THE ABOVE DATA IS BASED ON TESTS AND EXPERIENCE WHICH NATURAL SOY PRODUCTS, L.L.C. BELIEVES RELIABLE AND ARE SUPPLIED FOR INFORMATIONAL PURPOSES ONLY. NATURAL SOY PRODUCTS, L.L.C. PRODUCTS ARE INTENDED FOR SALE TO COMMERCIAL CUSTOMERS. NATURAL SOY PRODUCTS, L.L.C. REQUESTS THAT CUSTOMERS INSPECT AND TEST OUR PRODUCTS BEFORE USE AND SATISFY THEMSELVES AS TO CONTENTS AND SUITABILITY. NATURAL SOY PRODUCTS, L.L.C. DISCLAIMS ANY LIABILITY FOR DAMAGE OR INJURY WHICH RESULTS FROM THE USE OF THE ABOVE DATA AND NOTHING CONTAINED THERIN SHALL CONSTITUTE A GUARANTEE, WARRANTY (INCLUDING WARRANTY OF MERCHANTABILITY) OR REPRESENTATION (INCLUDING FREEDOM FROM PATENT LIABILITY) BY WITH RESPECT TO THE DATA, THE PRODUCT DESCRIBED, OR THEIR USE FOR ANY SPECIFIC PURPOSE, EVEN IF THAT PURPOSE IS KNOWN TO NATURAL SOY PRODUCTS, L.L.C.

Material Safety Data Sheet

Science Stuff, Inc.
1104 Newport Avenue
Austin, TX 78753

Phone (512) 323-6002
Chemtrec 800-424-9300
24 Hour Emergency Assistance

Section 1 Identification

Product Number:	C1623
Product Name:	Corn Oil
Trade/Chemical Synonyms	
Formula:	N/A
RTECS:	NONE
C.A.S	CAS# 8001-30-7

Health:	0
Flammability	1
Reactivity	0

Hazard Rating:

Least	Slight	Moderate	High	Extreme
0	1	2	3	4

NA = Not Applicable NE = Not Established

Section 2 Component Mixture

Sara 313	Component	CAS Number	%	Dim	Exposure Limits:
☐	Corn Oil	CAS# 8001-30-7	100	V/V	None established

Section 3 Hazard Identification (Also see section 11)

Generally not hazardous in normal handling, however good laboratory practices should always be used. Avoid long term exposure to skin or by inhalation.

Section 4 First Aid Measures

Generally not hazardous in normal handling, however good laboratory practices should always be used. Avoid long term exposure to skin or by inhalation.

FIRST AID: SKIN: Wash exposed area with soap and water. If irritation persists, seek medical attention.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: Give several glasses of milk or water. Vomiting may occur spontaneously, but it is not necessary to induce. Never give anything by mouth to an unconscious person.

Section 5 Fire Fighting Measures

Fire Extinguisher Type:	Carbon Dioxide, dry chemical powder or appropriate foam
Fire/Explosion Hazards:	None Known.
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

Section 6 Accidental Release Measures

Evacuate area. Wear self-contained breathing apparatus and protective clothing. Eliminate all sources of ignition.ABSORB WITH sand or vermiculite and place in a closed container for disposal.ventilate area and wash spill site after material pick is compl

Section 7 Handling and Storage

air and light sensitive.

Section 8 Exposure Controls & Personal Protection

Respiratory Protection:NIOSH/MSHA-approved respirator

Ventilation: Mechanical: ☐ Local Exhaust: ☐

Protection: Hand NIOSH Approved Gloves

Eye Protection: Splash Goggles

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure . Eye wash and deluge shower.

Section 9 Physical and Chemical Properties

Melting Point:	-18° c	*Specific Gravity*	0.9
Boiling Point:	Information not available	Percent Volatile by Volume:	n/a
Vapor Pressure:	Information not available	Evaporation Rate:	n/a
Vapor Density:	Information not available	Evaporation Standard:	Not Applicable
Solubility in Water:	no	Auto ignition Temperature:	Not applicable
Appearance and Odor:	liquid with a mild characteristic odor.	Lower Flamm. Limit in Air:	none
Flash Point:	321°c	Upper Flamm. Limit in Air:	none

Section 10 Stability and Reactivity Information

Stability: yes Conditions to Avoid: may decompose on exposure to air

Materials to Avoid:
none specified

Hazardous Decomposition Products:
toxic fumes of carbon monoxide,carbon dioxide

Hazardous Polymerization:Will Not Occur

Condition to Avoid:None known

Section 11 Additional Information

ingestion:wash out mouth with copious amounts of water provided person is conscious.call M.D. skin flush w/ copious amts of water for at least @ lst 15 min remove contam clothing. Inhal: remove to fresh air if breathing becomes diffcult call M.D. eyes: flush w/copious amonts of water for at least 15 min assure adeq flushing by seperating lids.conditions aggravated/target organs. Person with pre-existing conditions may be more susceptible.

DOT Classification: Not Regulated

DOT regulations may change from time to time. Please consult the most recent version of the relevant regulations.

Revision No:0 Date Entered: 1/1/2003 Approved by: WPF

The information contained herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty is expressed or implied regarding the completeness or accuracy of this information, whether originating from Science Stuff, Inc. or from an alternate source. Users of this material should satisfy themselves by independent investigation of current scientific and medical information that this material may be safely handled.

Scott McDonald

08/22/2005 05:49 PM

To: "Chernekoff, Mike" <mchernekoff@joneswalker.com>
cc: "Chernekoff, Mike" <mchernekoff@joneswalker.com>, Gene Keepper/R6/USEPA/US, Ellen Belk/R6/USEPA/US
cc: Scott McDonald/R6/USEPA/US@EPA, "Chernekoff, Mike" <mchernekoff@joneswalker.com>
Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Mr. Chernekoff -
I left a lengthy voice mail for you today (8/22) providing current status of EPA's issuance of demand letters upon eight (8) former customers of SBA Shipyards. I have attached a couple of those letters for reference. EPA issued those letters on July 7, 2005, whereby the identified former customers were instructed to respond to EPA within 60 days of issuance of the notification. Keep in mind that each of these former customers are non-SSIC in that the respective companies failed to participate in past clean-up activities conducted by SSIC (as we discussed). The company name was the only change on seven of the letters issued...with the exception of Higman Barge Lines (who received their own distinct letter).

Also note that EPA has already received responses from three (3) such companies. I intend to draft a formal response summary (report) once the 60 days has expired...which provides detailed information as to which companies (former customers) have volunteered to participate in funding the final remedial and closure efforts required at the site. I will provide copies of the report to yourself and EPA's RCRA Program. Please call should you have any questions. Thanks -

Scott McDonald
Office of Regional Counsel
(214) 665-2718

**I spoke with Gene Keeper last week...he informed me that EPA's RCRA Program has not yet received the final Environmental Assessment Report. Any idea on when that report will be complete?

SBA - Form letter(gene-final).wpd

SBA Shipyards - Higman letter.wpd

"Chernekoff, Mike" <mchernekoff@joneswalker.com>

"Chernekoff, Mike" <mchernekoff@joneswalker.com>

08/05/2005 11:23 AM

To: Scott McDonald/R6/USEPA/US@EPA
cc: "Chernekoff, Mike" <mchernekoff@joneswalker.com>
Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Scott,

Have there been any new developments?

By the way, we apologize for delays in getting to EPA our final report. We hope to get it to Gene Keepper in the next week or two.

Mike

-----Original Message-----
From: Mcdonald.Scott@epamail.epa.gov [mailto:Mcdonald.Scott@epamail.epa.gov]
Sent: Tuesday, June 21, 2005 6:02 PM
To: Chernekoff, Mike

Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Mike -
Thanks again for your assistance in this matter. Yes...the letter from SBA counsel to mystery customer dated 1996 is exactly what EPA was seeking. Said letter that you forwarded provides me with relevant insight as to content and tone of the original request letter sent to SBA customers.

You asked if EPA intends to require that SBA, SBA shareholders, and/or current landowners perform future remedial/clean-up work at the site? I do not know the answer to this question...but I have left a voice mail and sent an e-mail to Gene Keeper inquiring into this issue. I shall provide a response after discussing SBA's planned future involvement with the RCRA Program.
Scott

"Chernekoff, Mike"
<mchernekoff@jones walker.com>
06/20/2005 03:29 PM

To: Scott McDonald/R6/USEPA/US@EPA
cc: "Chernekoff, Mike" <mchernekoff@joneswalker.com>
Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Scott,

I have located a specimen from documents produced to us by SBA. I will copy and send. I had intended to block out the addressee, as SBA send individualized letters to each of its customers. Let me know if this is what you are looking for.

Also, neither SBA nor its stockholders nor the listed landowners of the property are member of our LLC. What are your intentions relative to them for any future work requests?

Mike

-----Original Message-----
From: Mcdonald.Scott@epamail.epa.gov
[mailto:Mcdonald.Scott@epamail.epa.gov]
Sent: Monday, June 20, 2005 1:44 PM
To: Chernekoff, Mike
Cc: Angeletti.Christine@epamail.epa.gov
Subject: SBA Shipyards & SSIC - Original Request Letter dated 1996

Mr. Chernekoff -
Thank you once again for the background information and current remedial status of the SBA Shipyards site. I found the information which you provided last week to be very helpful. As we discussed, EPA's RCRA Program has requested that I draft a notification/demand letter to be sent to regular client customers of SBA who chose not to join SSIC (non-members). I was hoping to reference and attach the original letter (1996) inviting customers to participate and contribute to remedial efforts at the site. Were you able to locate this letter? If so, then could you please scan and e-mail or fax to my attention at 214/665-3177. Thanks again for your assistance in this matter.

Sincerely,
Scott McDonald
214/665-2718

JONES WALKER

Michael A. Chernekoff
Direct Dial 504-582-8264
Fax 504-582-8583
mchernekoff@joneswalker.com

Rec'd H" 2/4/2003 SPC.

February 3, 2003

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733

Re: Order and Agreement ("Agreement") for Interim Measures/Removal Action:
SBA Shipyards, Inc., Jennings, Louisiana
EP ID No. LAD008434185 ("SBA")
Docket No.: RCRA-6-2002-0908
Our File: 68700-00

Dear Mr. Keepper:

This letter is in response to your letter to me of December 12, 2002, as attorney for SSIC Remediation, LLC ("SSIC"). This letter also refers to your letter of December 12, 2002 to Mr. Louis Smaihall of SBA Shipyards, Inc. ("SBA").

Your letter to me of December 12, 2002 requests the following:

> A member listing of the Limited Liability Corporation SSIC Remediation, which includes designation of corporate representation by those members; the Articles of Incorporation for SSIC Remediation, LLC; and the full listing of SBA Shipyards, Inc. customers to the best of the knowledge of SSIC.

In response to that request, SSIC responds by providing to you SSIC's List of Members (in alphabetical order) and Articles of Organization of SSIC Remediation, LLC.

With regard to your request for the list of SBA customers, we point out that SBA would be the best source of that information. We have been in contact with SBA and it has provided to us copies (and some which appear to be originals) of records from its operations. We cannot attest that what we were provided by SBA is complete or constitutes all or substantially all of SBA's customer records, and note that many of the files appear incomplete or poor quality copies.

Additionally, we were provided summaries of information put together by SBA's former attorneys. Again, we cannot attest that what we were provided is complete.

In response to your inquiry, we provide to you documents which identify barge cleaning customers of SBA who are not Members of SSIC. Enclosed are compilations and summaries (some redacted to delete references to SSIC Members) furnished to us by SBA and/or its counsel. Additionally enclosed are copies of SBA business records of specific work items performed by SBA for its various customers. We believe that each of the customers identified in the documents were contacted and notified of this site by SBA's former counsel in around 1996 and/or subsequently by SSIC or its Members. SBA's documents also identify at least one other former customer presumably not previously notified about their involvement with the site: the State of Louisiana, which appears to have been a customer of SBA's barge cleaning operations with respect to one or more state-owned ferries.

Finally, with respect to the ownership of SBA and the land on which it has operated, SBA (and the land) is currently controlled by Mr. Smaihall and his family. SBA's former shareholders and former co-owners of the SBA property during the early years of SBA's operations were Mr. and Mrs. Leland Bowman. Mr. Bowman is deceased and was survived by his wife. Mrs. Leland Bowman's last known address is: 311 Cary Avenue, Jennings, LA 70546.

With respect to your letter to Mr. Smaihall, please be advised that our office does not represent SBA or Mr. Smaihall. However, as previously noted, the information SSIC is furnishing was information obtained from Mr. Smaihall or his former counsel and, to the best of our understanding, is responsive to your request to him.

Should you have any questions regarding this response, please contact the undersigned.

Yours very truly,

MICHAEL A. CHERNEKOFF

MAC/rbm
cc: Mr. Louis Smaihall
Managers
(without enclosures)

Gene Keepper
08/17/2005 04:15 PM

To: "Edward F. LeBreton, III" <lebreton@frc-law.com>
cc: (bcc: Scott McDonald/R6/USEPA/US)
Subject: Re: SBA Shipyard EPA I.D. No. LAD008434185 & LDEQ AIN 1478

Mr. LeBreton:
You are correct in your belief regarding the misdelivery of the notification letter. Accordingly, I have no issue with and do agree to your request for extension to 15 September 2005 . Given this extension, please do not rush your response; feel free to confer with the Agency and your client as you believe most prudent, and I will avail myself to your inquiry as we can best schedule teleconferences or e-mail exchanges.

Sincerely,

Gene Keepper, CHMM, P.G.
TSP Engineering Forum Co-Chair
RCRA Project Manager (6EN-HX)
»»

Gene Keepper, CHMM, P.G. **Phone:** 214-665-2280
Soil Chemist **Fax:** 214-665-7264
and **E-Mail:** Keepper.Gene@epa.gov
Environmental Scientist **S-Mail:** 1445 Ross Avenue, Suite 900
Specializing in: Dallas, TX 75202-2733
Complex Case Development and Site
Remediation, Inspections, and Field Sampling
Technical Section (6EN-HX)
Hazardous Waste Enforcement Branch

----- Forwarded by Gene Keepper/R6/USEPA/US on 08/17/2005 15:48 -----

"Edward F. LeBreton, III" <lebreton@frc-law.com>
08/16/2005 12:09

To: Gene Keepper/R6/USEPA/US@EPA
cc:
Subject: SBA Shipyard EPA I.D. No. LAD008434185

I write further to my voice mail message and your letter of July7, 2005, to me as representative of Higman Barge Lines. The letter was not received until August 15, 2005, apparently because it was sent to my firm's old address.

The matters in your letter are addressed, in part, in the letter I sent to you on May12, 2005, but there are additional issues as well. I would like write to you about these and then discuss them with you

Your letter states that absent an agreement, EPA may take certain actions within60 days, which taking into account holidays, ends Sep 2. In light of the fact that I have just received your letter, that I wish to review the response with Higman, and that certain persons will be on vacation in August, I request that you agree to extend the time to discuss this matter with the EPA to September 15, 2005. I would appreciate your response by email.

I will endeavor to get you a response with in the next two weeks.

Thank you for your consideration
16 Aug 05

Edward F. LeBreton, III
Fowler, Rodriguez & Chalos, LLP
400 Poydras Street
30th Floor
New Orleans, LA 70130
(504) 523-2600
(504) 595-5142 (direct)

Gene Keepper

12/09/02 02:57 PM

To: "Horn, Keith" <k_horn@ldeq.org>
cc: "Chernekoff, Mike" <mchernekoff@joneswalker.com>, "Miller, Michael" <mike_m@exch.deq.state.la.us>, m.pisani@ix.netcom.com, (bcc: Scott McDonald/R6/USEPA/US)
Subject: Status of SBA Shipyards, Inc. (LDEQ AIN 1478)

Keith:
To explain first a bit. Since LDEQ reviewed that SOW some delays have indeed occurred and due in large part to EPA. Internal issues between RCRA and CERCLA surfaced while final signatures were being obtained for the agreement to begin remedial work at SBA. Suffice it to say these issues were unexpected and significantly delayed the agreement. The agreement is once again in EPA's possession with signatures affixed by all responding parties (SSIC Remediation, LLC and Mr. Louis Smaihall) and I expect final EPA signatures today. If you want a facsimile or PDF copy Keith, I'd be happy to get it to you just as soon as the agreement is filed with the Regional Hearing Clerk.

I was somewhat surprised to read the portion of your e-mail stating "LDEQ inspectors also visited the site on August 5, 2002, and found that no remedial actions have yet been conducted." Unless substantial misrepresentations have been made by Messrs. Chernekoff and Pisani, which I strongly doubt based upon documentation provided me; I believe the inspectors were unfamiliar with the site. This lack of familiarity may have failed to account for approximately 1M gal. of pumpable wastes previously stored on-site in the impoundment and various tanks. This approx. 1M gal. of pumpable waste has been removed from the site for disposal as hazardous waste by incineration at Rhodia-Baton Rouge. I have spoken at length with Messrs. Chernekoff and Pisani regarding this removal and also requested a report on the removal from MP&A Staffer Mr. Robert Leslie. Based upon these conversations, I believe the Pumpables Disposal Report will be forthcoming upon final execution & filing of the Agreement by EPA.

I do have in my possession one "Solidification/Stabilization Work Plan: SBA Shipyards, Inc. (LAD008434185), Jennings, Louisiana" dated November 1, 2001, which I have been delaying approval upon until the agreement is final. I had believed that MP&A or Mr. Chernekoff had provided LDEQ a copy of this plan for review. It appears I may have been mistaken.

By copy of this e-mail I am directing the SSIC Project Manager named in the agreement, Mr. Michael Pisani, to provide a copy of the S/S Work Plan to you Keith for LEDQ review and comment. I am also directing the SSIC Project Manager to provide copies of all reports and correspondence, including but not limited to the Pumpables Disposal Report, to you from this date forward as the designated LDEQ contact on the SBA Shipyards Remediation Project, LDEQ AIN 1478.

Sincerely,

Gene Keepper, CHMM
RCRA Project Manager (6EN-HX)

»»

Gene Keepper, CHMM
Soil Chemist
and
Environmental Scientist
Specializing in:
Complex Case Development and Site Remediation, Inspections, and Field Sampling

Phone: 214-665-2280
Fax: 214-665-7264
E-Mail: Keepper.Gene@epa.gov
S-Mail: 1445 Ross Avenue, Suite 900
Dallas, TX 75202-2733

Technical Section (6EN-HX)
Hazardous Waste Enforcement Branch

----------- Message Included by Keepper.Gene@epa.gov on 12/09/2002 at 14:45 -----------

"Horn, Keith"
<k_horn@ldeq.org>
12/04/2002 08:04

To: Gene Keepper/R6/USEPA/US
cc: "Miller, Michael" <mike_m@exch.deq.state.la.us>, "Chernekoff, Mike" <mchernekoff@joneswalker.com>
Subject: Status of SBA Shipyard

Mr. Keeper:

I wanted to check with you on the status of the SBA Shipyard site in Jennings, La. The last known action the LDEQ is aware of concerning the site is our approval of the Accelerated Cleanup Action Plan/Statement of Work (SOW) on January 28, 2002. LDEQ inspectors also visited the site on August 5, 2002, and found that no remedial actions have yet been conducted.

It was our expectation that the various detailed work plans called for by the SOW would be forthcoming for EPA/LDEQ review and approval. To date, I have not received any such plan(s). Since EPA is the lead agency on this project, I wanted to determine if you knew of any actions/work plans that the LDEQ is not aware of. Please advise.

Keith Horn, LDEQ-RSD
(225)765-0477 (desk)
(225) 952-3744 (pager)

UNITED STATES OF AMERICA

State of Louisiana

UNION JUSTICE AND CONFIDENCE

Fox McKeithen

SECRETARY OF STATE

As Secretary of State, of the State of Louisiana, I do hereby Certify that the annexed transcript was prepared by and in this office from the record on file, of which purports to be a copy, and that it is full, true and correct.

In testimony whereof, I have hereunto set my hand and caused the Seal of my Office to be affixed at the City of Baton Rouge on,

JAN 19 2001

Fox McKeithen

Secretary of State

STATE OF LOUISIANA
UNION JUSTICE CONFIDENCE
SECRETARY OF STATE

CERTIFICATES SS 1[illegible] TC

ARTICLES OF ORGANIZATION
of
SSIC REMEDIATION, L.L.C.

The undersigned, acting pursuant to the Louisiana Limited Liability Company Law (as amended from time to time or any successor statute, the "LLLCL"), does hereby form a limited liability company and adopts the following Articles of Organization.

ARTICLE I
Name

The name of this limited liability company (the "LLC") is SSIC REMEDIATION, L.L.C.

ARTICLE II
Purpose

The purpose of the LLC is to engage in any lawful activity for which limited liability companies may be formed under the LLLCL.

ARTICLE III
Management

A. The LLC shall be managed by managers selected by the members as provided in the operating agreement of the LLC. Except as expressly limited in the operating agreement of the LLC, each manager has full authority to act on behalf of the LLC in all matters, whether or not in the ordinary course of business, including the authority to (i) lease or encumber all or any portion of the immovable property of the LLC and (ii) incur indebtedness on behalf of the LLC. No member other than the managers shall have the authority to act as a mandatary of the LLC.

B. Persons dealing with the LLC may rely upon a certificate signed on behalf of the LLC by a manager to establish the following: the identity of any manager or member of the LLC; the authenticity of any records of the LLC; or the authority of any person to act on behalf of the LLC.

ARTICLE IV
Limitation on Liability and Indemnification

A. Neither any member nor any manager shall be liable under a judgment, decree, or order of the court, or in any other manner, for a debt, obligation or liability of the LLC or for monetary damages for breach of any duty provided for in Section 1314 of the LLLCL.

B. Except to the extent prohibited by Section 1315(B) of the LLLCL, each member and manager shall be indemnified by the LLC from and against any and all judgments, settlements,

penalties, fines and expenses (including reasonable legal fees and expenses) to the extent indemnification would be either mandatory or permissive under Section 83 of the Louisiana Business Corporation Law, La. R.S. 12:1, *et. seq.*, as amended, if the LLC were a Louisiana business corporation and such member or manager were an officer or director thereof.

ARTICLE V
Operating Agreement

The internal affairs of the LLC shall be regulated by a written Operating Agreement to be entered into among all entities or persons who are now or may subsequently become Members of the Company. In the event of a conflict between the Articles of Organization and the Operating Agreement, the Articles of Organization shall govern.

ARTICLE VI
Amendments

The Company's Articles of Organization may be amended, altered or modified only by the vote of Members holding, in the aggregate, 80% of the Percentage Interests (as defined in the Company's Operating Agreement).

IN WITNESS WHEREOF, the undersigned Organizer has duly executed these Articles of Organization as of December 27th, 2000.

WITNESSES:

Michael A. Chernekoff, Organizer

ACKNOWLEDGMENT

STATE OF LOUISIANA

PARISH OF ORLEANS

BEFORE ME, the undersigned authority, personally came and appeared Michael A. Chernekoff, to me known to be the person who signed the foregoing instrument as Organizer, and who, having been duly sworn, acknowledged and declared, in the presence of the two witnesses whose names are subscribed above, that he signed such instrument as his free act and deed for the purposes mentioned therein.

IN WITNESS WHEREOF, the appearer, witnesses and I have hereunto affixed our hands on this 22nd day of December, 2000, in the aforesaid parish and state.

WITNESSES:

Michael A. Chernekoff, Organizer

NOTARY PUBLIC

DOMESTIC LIMITED LIABILITY COMPANY INITIAL REPORT

(To be filed when the Articles of Organization are filed)
(R.S. 12:1305)

State of Louisiana
Parish of Orleans

To: The Secretary of State
Baton Rouge, Louisiana

Complying with R.S. 12:1305, SSIC Remediation, L.L.C. hereby makes its initial report as follows:

1. The name of the limited liability company is SSIC Remediation, L.L.C.

2. The location and municipal address of this limited liability company's registered office:

   201 St. Charles Avenue, 50th Floor
   New Orleans, Louisiana, LA 70170

3. The full name and municipal address of this limited liability company's registered agent:

   Michael A. Chernekoff
   201 St. Charles Avenue, 50th Floor
   New Orleans, LA 70170

4. The names and municipal addresses of the initial managers:

Barry T. Dyer Box 610 Jeffersonville, Indiana 47131-0610	Benny Cenac, Jr. 141 Bayou Dularge Road Houma, Louisiana 70361	John R. Clark, III 5454 Wisconsin Avenue Chevy Chase, MD 20815

IN WITNESS WHEREOF, the undersigned has duly executed this Initial Report on this 22nd day of December, 2000.

Michael A. Chernekoff, Organizer

AGENT'S AFFIDAVIT AND ACKNOWLEDGMENT OF ACCEPTANCE

I hereby acknowledge and accept the appointment of registered agent for and on behalf of the above named limited liability company.

Sworn to and subscribed before me this 22nd day of December, 2000.

Registered Agent

Notary Public

HOUSTON
4 Houston Center, Suite 1560
1331 Lamar
Houston, Texas 77010
(713) 654-1560
Telecopier (713) 654-7930

MIAMI
Gables International Plaza
2655 LeJeune Road, Suite 805
Coral Gables, Florida 33134
(305) 445-2930
Telecopier (305) 445-2450

•

EDWARD F. LeBRETON, III
PARTNER
Direct Dial: (504) 595-5142
E-Mail: lebreton@frc-law.com

FOWLER RODRIGUEZ & CHALOS

COUNSELLORS AT LAW

400 POYDRAS STREET, 30TH FLOOR
NEW ORLEANS, LOUISIANA 70130
(504) 523-2600
TELECOPIER (504) 523-2705

May 12, 2005

NEW YORK
366 Main Street
Port Washington, New York 11050
(516) 767-3600
Telecopier (516) 767-3605

MOBILE
AmSouth Bank Building
107 St. Francis Street, Suite 1204
Mobile, Alabama 36602
(251) 344-4721
Telecopier (251) 343-7503

BOGOTA
Carrera 12A #77-41
Oficina 502
Bogota, COLOMBIA
011-571-313-4488
Telecopier 011-571-313-4677

Director
Compliance Assurance and Enforcement Division
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1440 Ross Avenue, Suite 900
Dallas, TX 75202-2733

RE: *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).*
Docket No. RCRA-6-2002-0908.
Our File No. 4094-009

Gentlemen:

We write on behalf of Higman Barge Lines, Inc. with respect to the alleged contamination at the SBA Shipyard identified in the caption. We also refer to the Order and Agreement ("Agreement") executed by the Compliance, Assurance, and Enforcement Division on or about December 10, 2002 (copy enclosed).

The Agreement was with SBA Shipyards and SSIC Remediation, LLC ("SSIC"). At the time of the Agreement, Higman Barge Lines, Inc. was a member of SSIC. This is shown by the enclosed excerpt of the first page of the Operating Agreement for SSIC, and the signature page showing Higman Barge Lines, Inc. We have excerpted the Agreement for reasons of confidentiality among the members; however, should you require further confirmation that Higman Barge Lines, Inc. was, in 2002, a member of SSIC, please advise.

While Higman Barge Lines, Inc. denies liability for cleanup at the SBA Shipyard, Higman Barge Lines, Inc. joined SSIC to avoid the costs of any dispute and to help to clean up the site.

Under the terms of the Agreement, SBA and SSIC agreed to undertake a designated Scope of Work. On the condition that the Scope of Work was completed, the EPA agreed that, with respect to the Scope of Work and any further phase of the cleanup of the SBA Shipyard, SSIC and its members, including Higman Barge Lines, Inc., would be protected from contribution actions or claims for the actions or matters addressed by Section 3008(h) of RCRA, and exempt from oversight costs.

We are advised that the Scope of Work for the SBA Shipyards now has been or shortly will be completed. Accordingly, Higman Barge Lines, Inc., as a member of SSIC, is entitled to the benefits of the Agreement.

In 2005, Higman Barge Lines, Inc. and SSIC disagreed on the proper amount of the continuing contributions of Higman Barge Lines, Inc. to SSIC. Higman Barge Lines, Inc. believes that it has contributed all amounts which it is required to contribute, whereas SSIC disagrees. We are advised that SSIC, in concluding this matter with the EPA, has or will advise the EPA that Higman Barge Lines, Inc. is not among the companies to whom the benefits of the Agreement should be extended.

In these circumstances, we are writing now to advise that it is the position of Higman Barge Lines, Inc. that the EPA is required to extend the benefits of the Agreement to Higman Barge Lines, Inc. The dispute is only between Higman Barge Lines, Inc. and SSIC and is to be resolved between Higman Barge Lines, Inc. and SSIC. The current dispute does not affect the facts that Higman Barge Lines, Inc. was, in 2002 and continuing until 2005, a member of SSIC, that the Agreement expressly extends its benefits to the individual members of SSIC, including Higman Barge Lines, Inc., and that the prescribed Scope of Work has been completed.

Accordingly, Higman Barge Lines, Inc. is entitled to the benefits of the Agreement.

Very truly yours,

FOWLER, RODRIGUEZ & CHALOS

By: Edward F. LeBreton, III

EFL/ca
Enclosure

JONES WALKER

Michael A. Chernekoff
Direct Dial 504-582-8264
Fax 504-582-8583
mchernekoff@joneswalker.com

November 27, 2002

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733

Re: SBA Shipyards, Inc.
Our File: 68700-00

Dear Gene:

I am enclosing the original of the Order and Agreement (Agreement) between EPA, SBA Shipyards, Inc. and SSIC Remediation, LLC, executed by one of the managers of SSIC. It is my understanding that Mr. Smaihall has executed and has returned to EPA for SBA an original of the Agreement which was forwarded directly to him.

When finally executed by EPA, I would appreciate a fully-executed copy for our records. As we discussed, upon receipt of the final, executed version of the Agreement, SSIC will forward to you the names of the entities which are members of SSCI.

As we have further discussed, we are prepared to move forward with implementation of the approved work plan. To the extent that we require any further written approvals with respect to the implementation of the solidification activities, please forward same to me at your earliest opportunity.

We look forward to working with you on this matter and with kindest regards, I am

Yours very truly,

MICHAEL A. CHERNEKOFF

MAC:kcs
encls.
cc: Gloria Moran (EPA)
Michael Pisani

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

VIA FEDERAL EXPRESS: 8220 0515 8452
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2560 7543
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h). Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the world wide web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

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The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. Work

EPA acknowledges that the work performed at this facility in accordance with this Agreement would achieve programmatic parity, avoid duplication and delay, and achieve substantive consistency between remedial programs as described in the NPL/RCRA deferral policy (54 FR 41000).

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims for the actions or matters addressed by Section 3008(h) of RCRA and memorialized in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

_____ Date: _____

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

IT IS AGREED:

Aler. B. Cenac Jr.

Signature/Printed Name, Manager
SSIC Remediation, L.L.C.

Date: 11/14/02

Enclosure

cc: Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD
Michael Pisani, Michael Pisani and Associates

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-

Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal.

Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials.
Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).

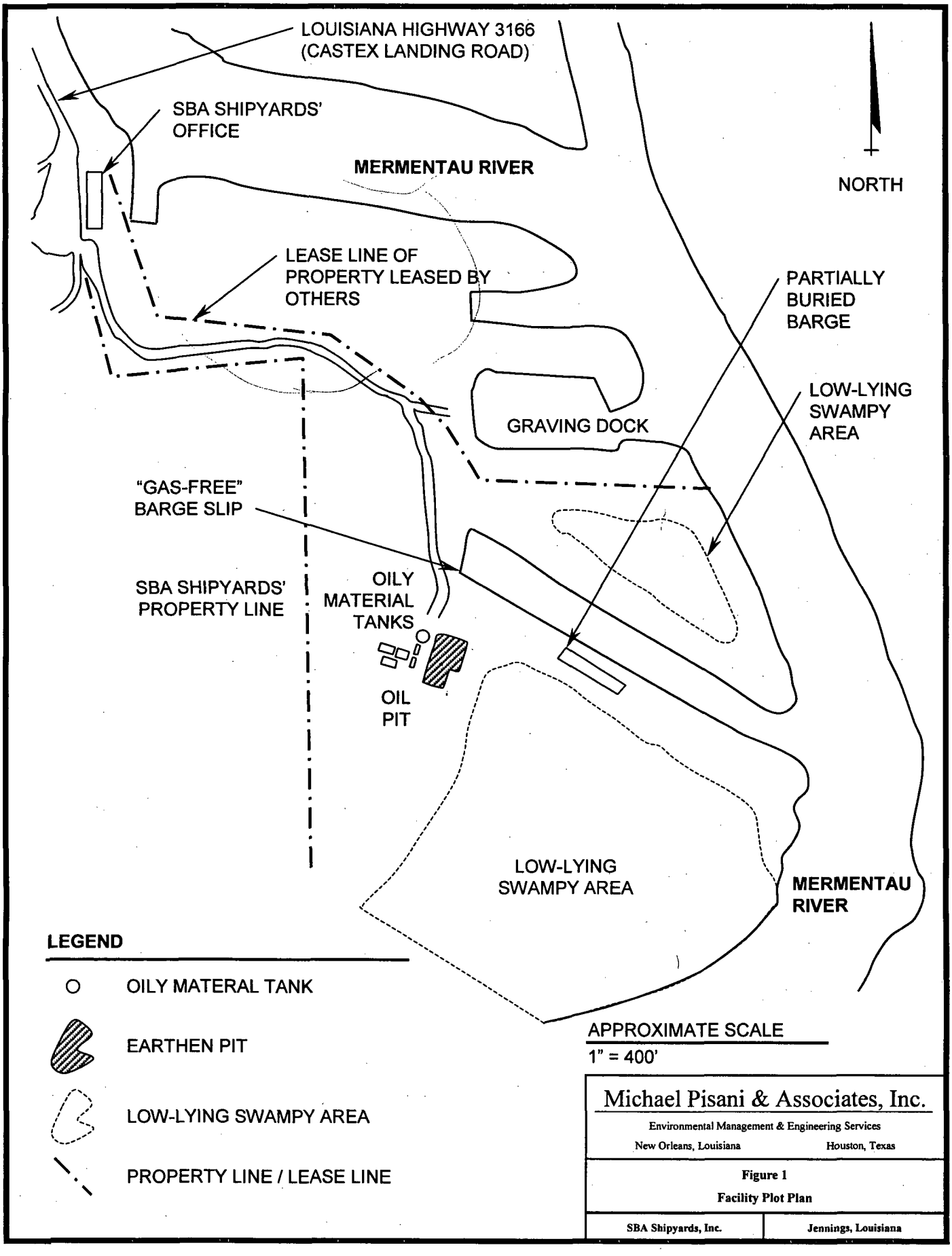

LOUISIANA HIGHWAY 3166
(CASTEX LANDING ROAD)
SBA SHIPYARDS'
OFFICE
MERMENTAU RIVER
NORTH
LEASE LINE OF
PROPERTY LEASED BY
OTHERS
PARTIALLY
BURIED
BARGE
LOW-LYING
SWAMPY
AREA
GRAVING DOCK
"GAS-FREE"
BARGE SLIP
SBA SHIPYARDS'
PROPERTY LINE
OILY
MATERIAL
TANKS
OIL
PIT
LOW-LYING
SWAMPY AREA
MERMENTAU
RIVER
LEGEND
OILY MATERAL TANK
EARTHEN PIT
LOW-LYING SWAMPY AREA
PROPERTY LINE / LEASE LINE
APPROXIMATE SCALE
1" = 400'
Michael Pisani & Associates, Inc.
Environmental Management & Engineering Services
New Orleans, Louisiana
Houston, Texas
Figure 1
Facility Plot Plan
SBA Shipyards, Inc.
Jennings, Louisiana

Table 1

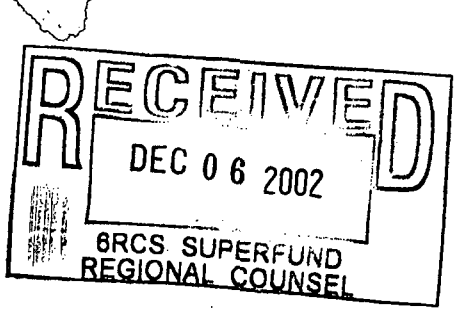
Pumpable Oily Material Inventory
May 3, 2001

SBA Shipyards, Inc.
Jennings, Louisiana

Tank or Impoundment	Estimated Maximum Capacity (gallons)	Estimated Maximum Capacity (barrels)	Observed Depth of Contents[b]	Estimated Material Inventory (gal)	Estimated Material Inventory (barrels)	Estimated Material Inventory (pounds)[a]	Visual Observations[b]
Selected Tanks							
Tank AT-1	17,042	406	52"	9,814	234	81,898	Horizontal cylindrical tank (mostly water).
Tank AT-2	17,042	406	77"'	13,703	326	114,352	Horizontal cylindrical tank (2" sludge layer on bottom).
Tank WT-1	106,837	2,544	85"	88,561	2,109	739,044	Very thick oil.
Tank WT-2	111,482	2,654	70"	77,553	1,847	647,183	24" sludge layer on bottom.
Tank WT-3	109,159	2,599	93"	93,998	2,238	784,416	36" sludge layer on bottom.
Tank ST-1	420,000[c]	10,000	9' - 10"[d]	99,474	2,368	830,111	38' high vertical cylindrical tank.
Total	781,562 gallons	18,609 barrels		**383,104 gallons**	9,122 barrels	3,197,003 pounds	
Former Barge (OT-4)							
Bow Rake Tank	26,853	639	56"	20,862	497	174,093	Very thick oil (2" sludge layer on bottom).
Deck Tank S	Not Measured	Unknown	Empty	Negligible	Negligible	Negligible	Dry, some rust scale.
Deck Tank P	Not Measured	Unknown	6"	Negligible	Negligible	Negligible	Oil, no visible water.
Compartment 1S	75,054	1,787	118"	65,659	1,563	547,924	
Compartment 1P	75,054	1,787	119"	64,874	1,545	541,374	
Compartment 2S	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 2P	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 3S	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 3P	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 4S	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 4P	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 5S	86,908	2,069	115"	75,689	1,802	631,625	
Compartment 5P	86,908	2,069	114"	75,057	1,787	626,351	
Aft Trim Tank	18,388	438	112"	17,447	415	145,595	
Total	913,897 gallons	21,759 barrels		**778,134 gallons**	18,527 barrels	6,493,528 pounds	
Grand Total	1,695,459 gallons	40,368 barrels		**1,161,238 gallons**	27,649 barrels	9,690,531 pounds	

NOTES:

(a) Based on bulk density of 8.345 pounds/gallon.
(b) MP&A site visit (May 3, 2001).
(c) According to Mr. Louis Smaihall, the total volume is 10,000 barrels (420,000 gallons).
(d) Measurement read from permanently installed float gauge on tank.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6RCS SUPERFUND
REGIONAL COUNSEL

Gene Keepper
07/01/2005 03:33 PM

To: GWaldrep@leevac.com
cc: (bcc: Scott McDonald/R6/USEPA/US)
Subject: Phone conversation & Snail Mail address

Gilbert:
Again I appreciate your call back to me this afternoon. Below you will find my mailing address for any environmental analytical data you may have available to you which I can review and evaluate. Have a fun, safe July 4th weekend and do not think about this stuff once the door closes behind you today.

Should you have any questions regarding this inquiry or our future plans in the weeks which follow, please do not hesitate to use the information below to call or email me with those questions.

Sincerely,

Gene Keepper, CHMM, P.G.
TSP Engineering Forum Co-Chair
RCRA Project Manager (6EN-HX)
»»»
Gene Keepper, CHMM, P.G **Phone:** 214-665-2280
Soil Chemist **Fax:** 214-665-7264
and **E-Mail:** Keepper.Gene@epa.gov
Environmental Scientist **S-Mail:** 1445 Ross Avenue, Suite 900
Specializing in: Dallas, TX 75202-2733.
Complex Case Development and Site
Remediation, Inspections, and Field Sampling
Technical Section (6EN-HX)
Hazardous Waste Enforcement Branch

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

June 29, 2005

Hollywood Marine
ADDRESS

Re: Notification as Co-Generator and Request Response for Investigation and Remediation Activities at SBA Shipyards, Inc.; 9040 Castex Landing, Jennings, Jefferson Davis Parish, Louisiana; EPA I.D. No. LAD008434185

Dear Hollywood Marine:

Records and work orders indicate that barges owned and operated by Hollywood Marine were previously serviced and cleaned by SBA Shipyards, Inc. ("SBA"). These barges contained residues consisting of hazardous materials, pollutants, and hazardous waste constituents. Historically, SBA deposited such barge cleaning wastes into unlined surface impoundments, pits, land farm areas, and tanks. The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in soil, subsoil, and ground water resulting from leaking surface impoundments and pits located at the site. EPA has traced this contamination to residues removed from barges during historic clean-out operations conducted by SBA. EPA has determined that Hollywood Marine is potentially liable as a contributory responsible party for the contamination present at the site. Site assessment and sampling data indicate that residuals removed from barges owned and operated by Hollywood Marine are now present in the soil, subsoil, and groundwater.

In March of 1996, Hollywood Marine was contacted via letter by legal counsel representing SBA. Hollywood Marine was then invited to participate in the funding of remediation and closure activities at the site by joining a voluntary clean-up action. In this letter, SBA counsel set forth its belief that Hollywood Marine was potentially liable, in part, for remediation and closure activities to be conducted at the site. Hollywood Marine was informed that EPA would take control of remedial and closure activities at the site in the event that adequate remediation and closure not occur. The 1996 letter warned that failure to participate in the clean-up effort could result in insufficient funding for remedial and closure activities which could increase subsequent clean-up costs well above that of participants in the voluntary clean-up effort. Hollywood Marine did not participate in this voluntary effort.

SSIC Remediation, L.L.C. ("SSIC") is the entity formed by former customers of SBA that joined and participated in the voluntary clean-up effort. In November of 2002, SSIC entered into an *Order and Agreement* with SBA and EPA. That *Order and Agreement* is pending final resolution upon submission, review and approval of a completion report to be submitted by the SSIC prime contractor and environmental consultant/project manager during July of 2005.

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File Code: Enforcement LAD008434185

Pursuant to the *Order and Agreement*, SSIC's clean-up and waste removal efforts focused upon Interim Measures/Removal Actions designed to remediate the South Operable Unit ("SBA-SOU") located on-site. Initial investigation and assessment of the site conducted during the mid-1990s indicated that the SBA-SOU was heavily contaminated with hazardous waste constituents which posed an immediate threat to human health and environment. Under the supervision of EPA and Louisiana Department of Environmental Quality ("LDEQ"), SSIC began costly clean-up and waste removal activities at the SBA-SOU during 2000. Remedial and closure activities conducted by SSIC over the past five (5) years have exhausted the financial resources of SSIC members.

EPA and LDEQ have determined that further investigation and potential remediation of soil, subsoil, and ground water contamination is required at the North Operable Unit ("SBA-NOU") and Ground Water Operable Unit ("SBA-GWOU") located on-site. SSIC is financially incapable of funding the remaining clean-up activities. Therefore, EPA now requests through this notification that Hollywood Marine and other former SBA customers voluntarily participate in funding the final remedial and closure efforts required at the site.

This notification presents an opportunity for Hollywood Marine to enter into an agreement with EPA, LDEQ, and other non-SSIC participants. Hollywood Marine has 60 days to respond to this notification. The U.S. Army Corp of Engineers and U.S. Fish and Wildlife Service have monitored the Resource Conservation and Recovery Act ("RCRA") clean-up activities at the site and provided natural resources damage evaluations in recent years. All interested parties believe that remaining site investigation and clean-up activities should continue to be conducted under RCRA authority. If investigation and clean-up operations cannot be agreed to and conducted under RCRA authority, EPA will explore unilateral Orders to be issued under RCRA authority. In the event that Hollywood Marine, may ignore a unilateral Order or fails to implement either a unilateral or agreed Order issued under RCRA authority, EPA will examine all unilateral actions available under Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") authority.

Should you have any questions or comments regarding this notification, please do not hesitate to contact me at 214-665-2280 or via e-mail at Keepper.Gene@epa.gov.

Sincerely yours,

/s/ Gene Keepper

Gene Keepper, CHMM, P.G.
RCRA Project Manager
Technical Enforcement Section (6EN-HX)
Compliance Assurance and
Enforcement Division

of the owner or operator seeking a permit under subtitle C of RCRA. This definition also applies to facilities implementing corrective action under RCRA Section 3008(h).

(3) Notwithstanding paragraph (2) of this definition, a remediation waste management site is not a facility that is subject to 40 CFR 264.101, but is subject to corrective action requirements if the site is located within such a facility.

Federal agency means any department, agency, or other instrumentality of the Federal Government, any independent agency or establishment of the Federal Government including any Government corporation, and the Government Printing Office.

Federal, State and local approvals or permits necessary to begin physical construction means permits and approvals required under Federal, State or local hazardous waste control statutes, regulations or ordinances.

Final closure means the closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under parts 264 and 265 of this chapter are no longer conducted at the facility unless subject to the provisions in §262.34.

Food-chain crops means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

Free liquids means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

Freeboard means the vertical distance between the top of a tank or surface impoundment dike, and the surface of the waste contained therein.

Generator means any person, by site, whose act or process produces hazardous waste identified or listed in part 261 of this chapter or whose act first causes a hazardous waste to become subject to regulation.

Ground water means water below the land surface in a zone of saturation.

Hazardous waste means a hazardous waste as defined in §261.3 of this chapter.

Hazardous waste constituent means a constituent that caused the Administrator to list the hazardous waste in part 261, subpart D, of this chapter, or a constituent listed in table 1 of §261.24 of this chapter.

Hazardous waste management unit is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.

In operation refers to a facility which is treating, storing, or disposing of hazardous waste.

Inactive portion means that portion of a facility which is not operated after the effective date of part 261 of this chapter. (See also "active portion" and "closed portion".)

Incinerator means any enclosed device that:

(1) Uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

(2) Meets the definition of infrared incinerator or plasma arc incinerator.

Incompatible waste means a hazardous waste which is unsuitable for:

(1) Placement in a particular device or facility because it may cause corrosion or decay of containment materials (e.g., container inner liners or tank walls); or

(2) Commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases.

(See part 265, appendix V, of this chapter for examples.)

Individual generation site means the contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

Industrial furnace means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy:

(1) Cement kilns
(2) Lime kilns
(3) Aggregate kilns
(4) Phosphate kilns
(5) Coke ovens
(6) Blast furnaces
(7) Smelting, melting and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machine, roasters, and foundry furnaces)
(8) Titanium dioxide chloride process oxidation reactors
(9) Methane reforming furnaces
(10) Pulping liquor recovery furnaces
(11) Combustion devices used in the recovery of sulfur values from spent sulfuric acid
(12) Halogen acid furnaces (HAFs) for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least 3%, the acid product is used in a manufacturing process, and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of 20% as-generated.
(13) Such other devices as the Administrator may, after notice and comment, add to this list on the basis of one or more of the following factors:
(i) The design and use of the device primarily to accomplish recovery of material products;
(ii) The use of the device to burn or reduce raw materials to make a material product;
(iii) The use of the device to burn or reduce secondary materials as effective substitutes for raw materials, in processes using raw materials as principal feedstocks;
(iv) The use of the device to burn or reduce secondary materials as ingredi-

FORMER CUSTOMERS SBA

Leevac
337.824.2210
fx 337.824.2970
111 Bunge St., P.O. Box 1190
Jennings, LA 70546

- W.F. (Fred) Stokes → pres
- Troy Skelton → V.P.
- Gilber Waldrep → env.
  ↳ ext. 227

RCRA CORRECTIVE ACTION SITE VISIT REPORT

SBA SHIPYARDS, INC.
EPA ID NUMBER LAD008434185
HWY 3166
JENNINGS, LOUISIANA 70546

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 6 COMPLIANCE ASSURANCE AND ENFORCEMENT DIVISION
DALLAS, TEXAS 75202

Prepared by

NANCY L. FAGAN

February 12, 1998

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1.0	GENERAL INFORMATION	1
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1.0 GENERAL INFORMATION

PURPOSE AND SCOPE OF INSPECTION: To gather information about the status of SBA Shipyards (SBA), Jennings, Louisiana, following a reported fire that occurred at a solid waste management unit (SWMU) on January 31, 1998. SBA is a barge repair and cleaning operation located on the Mermentau River south of Jennings, Jefferson Davis Parish, Louisiana.

FACILITY INFORMATION: SBA Shipyards, Jennings, Louisiana. EPA ID Number is LAD0084344185. Telephone number is (318) 824-1519.

FACILITY REPRESENTATION: Louis Smaihall Owner/operator
Customer Group (PRP) contractors:
Mike Pisani Pisani and Associates, Inc.
Carlton Todd Pisani and Associates, Inc.

EPA INSPECTION PARTICIPANTS:
Nancy Fagan Environmental Engineer

LDEQ INSPECTION PARTICIPANTS:
Roy Varnado Inspector/ Acadiana Regional Office/ LDEQ
Ron Cady Inspector/ Southwest Regional Office/ LDEQ

INSPECTION DATE AND TIME: Wednesday, February 4, 1998.

2.0 FACILITY BACKGROUND

The SBA Shipyards facility in Jennings, Louisiana is a barge repair and cleaning operation located on the Mermentau River. Since the mid-1960's, the 98-acre facility has repaired, sandblasted, cleaned and painted barges. Barges serviced at SBA have typically held gasoline, diesel, coal tar, crude oil, and asphalt. Waste from the barges and the washout solutions that are used to clean the barges are treated and stored in three unlined surface impoundments on site. A fourth impoundment (Water pit No. 1) has sludges only.

A Compliance Evaluation Inspection (CEI) was conducted by PRC Environmental Management in August, 1994. Multimedia samples were collected to determine whether hazardous wastes were present at the site. The data indicated that toxicity characteristic levels of benzene, 1,2-dichlorethane, tetrachloroethiene, and vinyl chloride from several sludge/sediment samples were exceeded. Depositions taken from the owner, Mr. Smaihall, indicate that he had used chlorinated solvents in his cleaning process in the past.

EPA issued a RCRA 3008(a) Complaint, Compliance Order on July 1, 1997. On September 9, 1997 SBA entered into a Consent Agreement and Consent Order (CACO) with EPA to resolve all issues presented in the Complaint. In the CACO, EPA agrees to hold in abeyance the civil penalty assessed and SBA agrees to enter into a Corrective Action Consent Order under RCRA 3008(h) for clean up of the Facility.

The fire reported at the facility occurred at the Oil Pit on Saturday, January 31, 1998 when sparks from a cutting torch ignited the oil sludge in the pit. Workers were disassembling a barge used for sludge storage at the pit site. Local newspapers reported that the fire sent flames 200 to 300 feet into the air, and the black smoke was visible for 20 miles.

3.0 SITE TOUR

The EPA and LDEQ representatives visited the site and made the following observations:

There were about three or four workers on site during the inspection. One worker was using an acetylene cutting torch at a scrap metal pile to clean sludge material from the metal. This is a scrap pile from the barge that is being disassembled near the Oil Pit (Photograph 1). Health and safety equipment provided was not adequate. Other workers were re-assembling piping that was scorched and burned at the Oil Pit.

EPA and LDEQ representatives held a brief discussion with Mr. Smaihall and contractors for the Customer Group (potentially responsible parties), to review site characteristics and upcoming work to be performed.

A walk-around at the site revealed no evidence of any surface water releases from the Oil Pit due to fire extinguishing activities (Photograph 2).

There was evidence of a release to surface water from a nearby oil/water separator located near monitoring well no. 3 (Photograph 3). Water from the oil/water separator flowed through a hose to the red roll-off box near the ditch. This roll-off box was full of hay. Water was leaking from the hose into the ditch. A thick black sludge was observed in the ditch at the point of discharge from the oil/water separator. This ditch is parallel to the barge slip, and flows less than a ½ mile to the Mermentau River. It appears that this wastewater treatment system is being used to partially treat and then discharge wastewater from the pits.

Surface water releases are also occurring from the backfilled Water Pit No. 1 area. Surface water runoff from this area is draining into the same ditch described above.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the inspection, there is no reason to believe that the status of the surface impoundments has changed due to the fire at the Oil Pit. There is however, a concern about the discharge of wastewater from the oil/water separator to the ditch. As part of the proposed corrective action activities, the facility plans to submit the necessary air and water quality discharge permits. However, according to Ron Cady (LDEQ), these permits have not been issued.

LDEQ and the Customer Group contractors stated that they believe that the Oil Pit still contains flammable material beneath the top layer of paraffin. This is a concern because hazardous constituents could be released into the air in the case of another fire.

There is also a concern about the health and safety issues for the workers at the site based on the conditions that instigated the fire at the Oil Pit, and worker conditions observed during this investigation.

The surface impoundments at SBA are within 200 yards of the Mermentau River. Runoff from this area drains into the nearby barge slip, which discharges into the Mermentau River and adjacent wetlands. Borings around the surface impoundments have revealed the presence of free-phase hydrocarbons at a depth of 1 to 15 feet. There may be privately owned residences within ½ mile of the site that use groundwater as a source of drinking water.

The site is scheduled for remediation through corrective action activities as outlined in the RCRA 3008(h) Order. The issuance of the Order is imminent, however, EPA believes that the discharge to the nearby drainage ditch should be addressed. The Health and Safety issues should also be addressed.

"Chernekoff, Mike" <mchernekoff@joneswalker.com>

06/20/2005 04:37 PM

To: Scott McDonald/R6/USEPA/US@EPA
cc: "Chernekoff, Mike" <mchernekoff@joneswalker.com>
Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

See attached letters from documents produced by SBA to us.

-----Original Message-----
From: Mcdonald.Scott@epamail.epa.gov
[mailto:Mcdonald.Scott@epamail.epa.gov]
Sent: Monday, June 20, 2005 1:44 PM
To: Chernekoff, Mike
Cc: Angeletti.Christine@epamail.epa.gov
Subject: SBA Shipyards & SSIC - Original Request Letter dated 1996

Mr. Chernekoff -
Thank you once again for the background information and current remedial status of the SBA Shipyards site. I found the information which you provided last week to be very helpful. As we discussed, EPA's RCRA Program has requested that I draft a notification/demand letter to be sent to regular client customers of SBA who chose not to join SSIC (non-members). I was hoping to reference and attach the original letter (1996) inviting customers to participate and contribute to remedial efforts at the site. Were you able to locate this letter? If so, then could you please scan and e-mail or fax to my attention at 214/665-3177. Thanks again for your assistance in this matter.

Sincerely,
Scott McDonald
214/665-2718

S-D. 3-8-96 LETTER - SBA (N1307655).PDF

S-D. 4-24-96 LETTER - SBA (N1307658).PDF

Schwab & Walter
Attorneys at Law

John Schwab
Gerald L. Walter, Jr.

William E. Hodgkins
Anne Jordan Crochet
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J. Lee Alcock, Jr.
Brent B. Boxill

10636 Linkwood Court
Baton Rouge, Louisiana 70810-2854
Telephone (504) 767-1460
Fax (504) 769-0010

March 8, 1996

CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

[redacted]

ATTN: [redacted]

RE: Request for Voluntary Contribution to Fund Remediation and Closure Activities at SBA Shipyards

Dear [redacted]

The undersigned has been retained to assist SBA Shipyards, Inc. ("SBA") in addressing certain pending and proposed enforcement actions and interfacing with a remediation and compliance project team for the timely remediation and closure of certain waste management units at SBA. As you are aware, SBA has cleaned residues from [redacted]'s barges in the past. A summary of those cleanings is attached for your review. Historically, SBA deposited these barge cleaning residues in unlined surface impoundments and recovered the hydrocarbons from the impoundments for off-site use as supplemental fuel or crude oil feedstock at oil refineries. Although the management of hydrocarbons during recent years has primarily been conducted in tanks, substantial hydrocarbon residuals remain in the surface impoundments. Moreover, it is believed by SBA (and will be confirmed in the next 30 to 60 days) that a free-phase hydrocarbon layer is present in the subsurface stratum between the bottom of the surface impoundments and the upper surface of the water table.

In light of enforcement actions issued by the Louisiana Department of Environmental Quality and an anticipated enforcement action from EPA Region VI, SBA is currently taking steps to develop the data necessary for the preparation and implementation of a remediation and closure program for the hydrocarbon management area of the facility. SBA also has the added incentive that, unless reasonable, consistent progress is made toward ultimate remediation and closure, EPA Region VI will likely take control of the remediation and closure activities. The resultant cleanup costs and litigation that would be initiated by EPA against SBA and its former and current

customers for cost recovery would result in final costs between three and four times the cost of a voluntary remediation and closure effort.

Unfortunately, it is impossible for SBA to fund the activities that must be conducted to remediate and close this portion of the facility within a time frame that will be acceptable to the regulatory agencies. Thus, SBA now finds itself in the awkward position of seeking outside resources to enable it to maintain satisfactory progress.

SBA's purpose for contacting you regarding this activity is to enlist [redacted]'s voluntary participation in the funding of the remediation and closure efforts at the facility. Obviously, [redacted] has some potential liability at SBA since residuals from the cleaning of its barges are now present in the surface impoundments and groundwater. In an attempt to avoid delays in remediation activities and inevitable EPA intervention, SBA is approaching all of its former and current customers regarding voluntary contribution.

Please contact Mike DiGiglia of our office regarding [redacted]'s interest in participating in the funding of the remediation and closure activities at SBA. We will be scheduling a meeting with representatives of SBA and SBA's former and current customers to provide more detailed information regarding the nature of the hydrocarbons involved, the probable scope of remediation and closure activities and the current level of progress that has been made to date.

If you should have any questions regarding this request, please contact the undersigned or Mike DiGiglia at (504) 767-1460.

Very truly yours,

SCHWAB & WALTER

Gerald L. Walter, Jr.

Gerald L. Walter, Jr.

GLWjr/mr
Enclosure
c: Mr. Louis Smaihall
Mr. Larry LeJeune

Schwab & Walter
Attorneys at Law

John Schwab
Gerald L. Walter, Jr.

William E. Hodgkins
Anne Jordan Crochet
John F. Derenbecker
J. Lee Alcock, Jr.
Brent B. Boxill

10636 Linkwood Court
Baton Rouge, Louisiana 70810-2854
Telephone (504) 767-1460
Fax (504) 769-0010

April 24, 1996

[redacted]

RE: Follow Up to Request for Voluntary Funding and Notice of Proposed Meeting
SBA Shipyards, Inc.

Dear [redacted]

As indicated in the April 12, 1996 letter to the U.S. Environmental Protection Agency of which you received a copy, SBA Shipyards, Inc. ("SBA") has had the surface impoundments sampled by TRC Environmental Solutions, Inc. ("TRC") for purposes of conducting a treatability study and preparing a remediation and closure cost estimate. TRC has indicated that the results of the study and its cost estimates will be available by May 15, 1996. TRC is conducting the treatability study and preparing the remediation and closure cost estimate **at no cost** with the understanding that **it will not be precluded from being considered as a bidder for conducting the actual closure and remediation activities.**

Accordingly, we are proposing a **meeting on Wednesday, May 29, 1996 in Lafayette, Louisiana** at a location to be announced at a later date and inviting those we believe may be included as SBA's current and former customers. If you would like to attend the meeting, whether you believe you are or have been a customer, please advise.

If you are planning on attending, we will endeavor to provide you with a summary of the results of TRC's treatability study and their remediation and closure cost estimate at least three to four days in advance of the proposed meeting date. A proposed agenda for the meeting is attached. Please review the proposed agenda and fax me any suggested revisions that you feel are appropriate.

If you should have any questions in the interim, please do not hesitate to contact the undersigned, or J. Mike DiGiglia of our office, at your convenience.

Sincerely,

SCHWAB & WALTER

William E. Hodgkins

WEH/mr

Enclosure: Proposed Agenda for May 29, 1996 SBA Customer Meeting

PROPOSED AGENDA

MEETING OF SBA SHIPYARD, INC.'S CUSTOMERS PERTAINING TO THE ENVIRONMENTAL REMEDIATION AT SBA

MAY 29, 1996

I. INTRODUCTION

- Representatives of SBA Shipyards, Inc.
- Representatives of TRC Environmental Solutions, Inc.

II. NATURE AND SCOPE OF KNOWN ENVIRONMENTAL PROBLEMS

- Tanks and Converted Barges
- Surface Impoundments
- Land Treatment Area
- Groundwater

III. REVIEW OF TREATABILITY STUDY AND COST ESTIMATES

- Treatability Study
  - Relevant Chemical and Physical Parameters Encountered/Considered
  - Technology Options Considered/Tested
    - Surface Impoundments
    - Tank Contents
  - Results and Conclusions
- Remediation and Closure Cost Estimates
  - Preparation of Closure Plan
  - Preparation of Phased Hydrocarbon Removal and Groundwater Remediation Plan
  - Surface Impoundment/Land Treatment Unit Closure
  - Tank Closure
  - Free-Phase Hydrocarbon Layer Recovery
  - Groundwater Pumping, Treatment and Monitoring
  - Time Tables for Completion

IV. ALLOCATION OF LIABILITY/COSTS

- Number of Barges Cleaned
- Volumes of Material Removed From Each Barge
- Nature of Material Removed From Each Barge
- Information regarding SBA

V. PROJECT AND FUND MANAGEMENT

- Consideration of Formation of Legal Entity Owned by Each Party Participating in Cleanup Proportionate to Agreed Upon Participation.
- Board Members and Officers of Legal Entity
- Selection of Closure and Remediation Contractor(s)
- On-Site Management of Closure and Remediation Activities

VI. VISIT TO SBA SHIPYARDS, INC.'S FACILITY

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-11

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/28/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-5

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:38:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Cadmium, Total Method 7130 *** Analyzed by: PB Date: 12/22/93 13:30:00	ND	0.5	mg/Kg
Chromium, Total Method 7190 *** Analyzed by: PB Date: 12/22/93 14:30:00	ND	5	mg/Kg
Mercury, Total Method 7471 *** Analyzed by: GS Date: 12/22/93 14:00:00	ND	0.1	mg/Kg
Moisture, E.P.A. Method CLP SOW Analyzed by: EH Date: 12/20/93 17:30:00	6.6	0.1	%

D - Not detected.

es: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

OMMENTS: Analytical results reported as Wet Weight.

UALITY ASSURANCE: This analysis was performed in accordance with EPA uidelines for analysis and quality control. Results reported on a Wet eight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-11

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-5

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:38:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons Method Mod. 418.1 * Analyzed by: DB Date: 12/21/93 13:00:00	650	10 P	mg/kg
Silver, Total Method 7760 *** Analyzed by: PB Date: 12/22/93 09:30:00	ND	1	mg/Kg
Arsenic, Total Method 7060 *** Analyzed by: MC Date: 12/21/93 16:06:00	5.2	0.1	mg/Kg
Barium, Total Method 7080 *** Analyzed by: PB Date: 12/21/93 14:00:00	100	10	mg/Kg

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: Analytical results reported as Wet Weight.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-10

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-4

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:30:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Lead, Total Method 7420 *** Analyzed by: PB Date: 12/23/93 09:00:00	ND	10 M	mg/Kg
Selenium, Total Method 7740 *** Analyzed by: MC Date: 12/21/93 14:26:00	ND	0.2	mg/Kg

ND - Not detected. (M) - Method Detection Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-10

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/28/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-4

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:30:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Cadmium, Total Method 7130 *** Analyzed by: PB Date: 12/22/93 13:30:00	ND	0.5	mg/Kg
Chromium, Total Method 7190 *** Analyzed by: PB Date: 12/22/93 14:30:00	ND	5	mg/Kg
Mercury, Total Method 7471 *** Analyzed by: GS Date: 12/22/93 14:00:00	ND	0.1	mg/Kg
Moisture, E.P.A. Method CLP SOW Analyzed by: EH Date: 12/20/93 17:30:00	12.1	0.1	%

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-10

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

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MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:30:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons Method Mod. 418.1 * Analyzed by: DB Date: 12/21/93 13:00:00	790	10 P	mg/kg
Silver, Total Method 7760 *** Analyzed by: PB Date: 12/22/93 09:30:00	ND	1	mg/Kg
Arsenic, Total Method 7060 *** Analyzed by: MC Date: 12/21/93 16:06:00	0.7	0.1	mg/Kg
Barium, Total Method 7080 *** Analyzed by: PB Date: 12/21/93 14:00:00	10	10	mg/Kg

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 3541
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-09

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-3

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:18:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Lead, Total Method 7420 *** Analyzed by: PB Date: 12/23/93 09:00:00	40	10 M	mg/Kg
Selenium, Total Method 7740 *** Analyzed by: MC Date: 12/21/93 14:26:00	0.5	0.2	mg/Kg

M) - Method Detection Limit

es: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

ALITY ASSURANCE: This analysis was performed in accordance with EPA. idelines for analysis and quality control. Results reported on a Wet ight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-09

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/28/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-3

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:18:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Cadmium, Total Method 7130 *** Analyzed by: PB Date: 12/22/93 13:30:00	ND	0.5	mg/Kg
Chromium, Total Method 7190 *** Analyzed by: PB Date: 12/22/93 14:30:00	ND	5	mg/Kg
Mercury, Total Method 7471 *** Analyzed by: GS Date: 12/22/93 14:00:00	ND	0.1	mg/Kg
Moisture, E.P.A. Method CLP SOW Analyzed by: EH Date: 12/20/93 17:30:00	4.9	0.1	%

D - Not detected.

es: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

UALITY ASSURANCE: This analysis was performed in accordance with EPA uidelines for analysis and quality control. Results reported on a Wet eight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-09

G & E-ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-3

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:18:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons Method Mod. 418.1 * Analyzed by: DB Date: 12/21/93 13:00:00	2100	100 P	mg/kg
Silver, Total Method 7760 *** Analyzed by: PB Date: 12/22/93 09:30:00	ND	1	mg/Kg
Arsenic, Total Method 7060 *** Analyzed by: MC Date: 12/21/93 16:06:00	4.8	0.1	mg/Kg
Barium, Total Method 7080 *** Analyzed by: PB Date: 12/21/93 14:00:00	80	10	mg/Kg

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-08

& E-ENGINEERING, INC.
915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-2

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:15:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Lead, Total Method 7420 *** Analyzed by: PB Date: 12/23/93 09:00:00	ND	10 M	mg/Kg
Selenium, Total Method 7740 *** Analyzed by: MC Date: 12/21/93 14:26:00	0.2	0.2	mg/Kg

) - Not detected. (M) - Method Detection Limit

s: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

LITY ASSURANCE: This analysis was performed in accordance with EPA delines for analysis and quality control. Results reported on a Wet ght Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-08

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/28/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-2

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:15:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Cadmium, Total Method 7130 *** Analyzed by: PB Date: 12/22/93 13:30:00	ND	0.5	mg/Kg
Chromium, Total Method 7190 *** Analyzed by: PB Date: 12/22/93 14:30:00	10	5	mg/Kg
Mercury, Total Method 7471 *** Analyzed by: GS Date: 12/22/93 14:00:00	ND	0.1	mg/Kg
Moisture, E.P.A. Method CLP SOW Analyzed by: EH Date: 12/20/93 17:30:00	17.8	0.1	%

ND - Not detected.

tes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8543
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-08

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-2

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:15:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons Method Mod. 418.1 * Analyzed by: DB Date: 12/21/93 13:00:00	330	10 P	mg/kg
Silver, Total Method 7760 *** Analyzed by: PB Date: 12/22/93 09:30:00	ND	1	mg/Kg
Arsenic, Total Method 7060 *** Analyzed by: MC Date: 12/21/93 16:06:00	2.3	0.1	mg/Kg
Barium, Total Method 7080 *** Analyzed by: PB Date: 12/21/93 14:00:00	10	10	mg/Kg

(P) - Practical Quantitation Limit ND - Not detected.

otes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-07

; & E ENGINEERING, INC.
:915 S. SHERWOOD FOREST BLVD.
3ATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-1

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:05:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Lead, Total Method 7420 *** Analyzed by: PB Date: 12/23/93 09:00:00	ND	10 M	mg/Kg
Selenium, Total Method 7740 *** Analyzed by: MC Date: 12/21/93 14:26:00	0.2	0.2	mg/Kg

ND - Not detected. (M) - Method Detection Limit

tes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8543
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-07

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/28/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-1

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:05:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Cadmium, Total Method 7130 *** Analyzed by: PB Date: 12/22/93 13:30:00	ND	0.5	mg/Kg
Chromium, Total Method 7190 *** Analyzed by: PB Date: 12/22/93 14:30:00	1	5	mg/Kg
Mercury, Total Method 7471 *** Analyzed by: GS Date: 12/22/93 14:00:00	ND	0.1	mg/Kg
Moisture, E.P.A. Method CLP SOW Analyzed by: EH Date: 12/20/93 17:30:00	4.0	0.1	%

ND - Not detected.

otes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-07

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-1

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:05:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons Method Mod. 418.1 * Analyzed by: DB Date: 12/21/93 13:00:00	21	10 P	mg/kg
Silver, Total Method 7760 *** Analyzed by: PB Date: 12/22/93 09:30:00	ND	1	mg/Kg
Arsenic, Total Method 7060 *** Analyzed by: MC Date: 12/21/93 16:06:00	0.2	0.1	mg/Kg
Barium, Total Method 7080 *** Analyzed by: PB Date: 12/21/93 14:00:00	10	10	mg/Kg

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

ile: /chem/Z.i/z931220.b/z354s04.d
Date: 21-[illegible]-1993 09:10

SPL Laboratories

RECOVERY REPORT

Name:
Matrix: LIQUID
ID:
Type: MS DATA
List File: 8240water.spk
File: /chem/Z.i/z931220.b/zvo8240w.m
Info: V354W1/Z354B03/

Client SDG: z931220.b
Fraction: VOA
Level: LOW
SampleType: SAMPLE
Quant Type: ISTD

OGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
5 1,2-Dichloroethane	50.00	51.57	103.15	76-114
2 Toluene-d8	50.00	51.00	102.01	88-110
3 Bromofluorobenzene	50.00	50.51	101.03	86-115

lues outside of QC limits
Recovery: 0 out of 3 outside limits
0 out of 3 not found

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-06

G & E ENGINEERING, INC. **SAMPLE ID:** 2425-B-3

ANALYZED BY: YTS DATE/TIME: 12/21/93 01:55:00
METHOD: 8240, Volatile Organics - Water
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS: Associated Blank: Z354B03 File ID: Z354S04

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-06

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-B-3

PROJECT NO: 1A-2425
MATRIX: WATER
DATE SAMPLED: 12/16/93 13:35:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	10	µg/L
Benzene	ND	5	µg/L
Bromodichloromethane	ND	5	µg/L
Bromoform	ND	5	µg/L
Bromomethane	ND	10	µg/L
2-Butanone	ND	10	µg/L
Carbon Disulfide	ND	5	µg/L
Carbon Tetrachloride	ND	5	µg/L
Chlorobenzene	ND	5	µg/L
Chloroethane	ND	10	µg/L
2-Chloroethylvinylether	ND	10	µg/L
Chloroform	ND	5	µg/L
Chloromethane	ND	10	µg/L
Dibromochloromethane	ND	5	µg/L
1,1-Dichloroethane	ND	5	µg/L
1,1-Dichloroethene	ND	5	µg/L
1,2-Dichloroethane	ND	5	µg/L
total-1,2-Dichloroethene	ND	5	µg/L
1,2-Dichloropropane	ND	5	µg/L
cis-1,3-Dichloropropene	ND	5	µg/L
trans-1,3-Dichloropropene	ND	5	µg/L
Ethylbenzene	ND	5	µg/L
2-Hexanone	ND	10	µg/L
Methylene Chloride	ND	5	µg/L
4-Methyl-2-Pentanone	ND	10	µg/L
Styrene	ND	5	µg/L
1,1,2,2-Tetrachloroethane	ND	5	µg/L
Tetrachloroethene	ND	5	µg/L
Toluene	ND	5	µg/L
1,1,1-Trichloroethane	ND	5	µg/L
1,1,2-Trichloroethane	ND	5	µg/L
Trichloroethene	ND	5	µg/L
Trichlorofluoromethane	ND	5	µg/L
Vinyl Acetate	ND	10	µg/L
Vinyl Chloride	ND	10	µg/L
Xylenes (total)	ND	5	µg/L

METHOD: 8240, Volatile Organics - Water

(continued on next page)

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-06

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-B-3

PROJECT NO: 1A-2425
MATRIX: WATER
DATE SAMPLED: 12/16/93 13:35:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons Method 418.1 * Analyzed by: JC Date: 12/21/93 10:00:00	1	1 P	mg/L

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

le chem .i/z931220.b/z354s03.d
rt Date: 21-Nov-1993 09:10

SPL Laboratories

RECOVERY REPORT

nt Name:
le Matrix: LIQUID
nt ID:
Type: MS DATA
eList File: 8240water.spk
od File: /chem/Z.i/z931220.b/zvo8240w.m
Info: V354W1/Z354B03/

Client SDG: z931220.b
Fraction: VOA
Level: LOW
SampleType: SAMPLE
Quant Type: ISTD

RROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
25 1,2-Dichloroethane	50.00	50.93	101.87	76-114
42 Toluene-d8	50.00	50.83	101.67	88-110
58 Bromofluorobenzene	50.00	49.90	99.80	86-115

/alues outside of QC limits
e Recovery: 0 out of 3 outside limits
0 out of 3 not found

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-05

G & E ENGINEERING, INC. **SAMPLE ID:** 2425-B-1

ANALYZED BY: YTS DATE/TIME: 12/21/93 01:20:00
METHOD: 8240, Volatile Organics - Water
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS: Associated Blank: Z354B03 File ID: Z354S03

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-05

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-B-1

PROJECT NO: 1A-2425
MATRIX: WATER
DATE SAMPLED: 12/16/93 11:25:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	10	µg/L
Benzene	ND	5	µg/L
Bromodichloromethane	ND	5	µg/L
Bromoform	ND	5	µg/L
Bromomethane	ND	10	µg/L
2-Butanone	ND	10	µg/L
Carbon Disulfide	ND	5	µg/L
Carbon Tetrachloride	ND	5	µg/L
Chlorobenzene	ND	5	µg/L
Chloroethane	ND	10	µg/L
2-Chloroethylvinylether	ND	10	µg/L
Chloroform	ND	5	µg/L
Chloromethane	ND	10	µg/L
Dibromochloromethane	ND	5	µg/L
1,1-Dichloroethane	ND	5	µg/L
1,1-Dichloroethene	ND	5	µg/L
1,2-Dichloroethane	ND	5	µg/L
total-1,2-Dichloroethene	ND	5	µg/L
1,2-Dichloropropane	ND	5	µg/L
cis-1,3-Dichloropropene	ND	5	µg/L
trans-1,3-Dichloropropene	ND	5	µg/L
Ethylbenzene	ND	5	µg/L
2-Hexanone	ND	10	µg/L
Methylene Chloride	ND	5	µg/L
4-Methyl-2-Pentanone	ND	10	µg/L
Styrene	ND	5	µg/L
1,1,2,2-Tetrachloroethane	ND	5	µg/L
Tetrachloroethene	ND	5	µg/L
Toluene	ND	5	µg/L
1,1,1-Trichloroethane	ND	5	µg/L
1,1,2-Trichloroethane	ND	5	µg/L
Trichloroethene	ND	5	µg/L
Trichlorofluoromethane	ND	5	µg/L
Vinyl Acetate	ND	10	µg/L
Vinyl Chloride	ND	10	µg/L
Xylenes (total)	ND	5	µg/L

METHOD: 8240, Volatile Organics - Water

(continued on next page)

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE 318 237 4775

Certificate of Analysis No. 9312647-05

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-B-1

PROJECT NO: 1A-2425
MATRIX: WATER
DATE SAMPLED: 12/16/93 11:25:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons Method 418.1 * Analyzed by: JC Date: 12/21/93 10:00:00	ND	1 P	mg/L

D - Not detected. (P) - Practical Quantitation Limit

es: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

LITY ASSURANCE: This analysis was performed in accordance with EPA delines for analysis and quality control. Results reported on a Wet ght Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

e: /chem/Z.i/z931221.b/z355s07.d
a: 21-JUN-1993 19:02

SPL Laboratories

RECOVERY REPORT

Name:
Matrix: SOLID
ID:
pe: MS DATA
st File:
File: /chem/Z.i/z931221.b/zvoals.m
To: V355S1/Z355B03/

Client SDG: z931221.b
Fraction: VOA
Level: LOW
SampleType: SAMPLE
Quant Type: ISTD

ATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
1,2-Dichloroethane	50.00	54.30	108.60	70-121
Toluene-d8	50.00	49.04	98.08	84-138
Bromofluorobenzene	50.00	50.69	101.37	59-113

es outside of QC limits
covery: 0 out of 3 outside limits
0 out of 3 not found

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-04

G & E ENGINEERING, INC. **SAMPLE ID:** 2425-B-4(7'-8')

ANALYZED BY: YTS DATE/TIME: 12/21/93 18:51:00
METHOD: 8240, Volatile Organics - Soil
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS: Associated Blank: Z355B03 File ID: Z355S07
B=Blank Contribution

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-04

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-B-4(7'-8')

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 13:20:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	10	µg/Kg
Benzene	ND	5	µg/Kg
Bromodichloromethane	ND	5	µg/Kg
Bromoform	ND	5	µg/Kg
Bromomethane	ND	10	µg/Kg
2-Butanone	ND	10	µg/Kg
Carbon Disulfide	ND	5	µg/Kg
Carbon Tetrachloride	ND	5	µg/Kg
Chlorobenzene	ND	5	µg/Kg
Chloroethane	ND	10	µg/Kg
2-Chloroethylvinylether	ND	10	µg/Kg
Chloroform	ND	5	µg/Kg
Chloromethane	ND	10	µg/Kg
Dibromochloromethane	ND	5	µg/Kg
1,1-Dichloroethane	ND	5	µg/Kg
1,1-Dichloroethene	ND	5	µg/Kg
1,2-Dichloroethane	ND	5	µg/Kg
total-1,2-Dichloroethene	ND	5	µg/Kg
1,2-Dichloropropane	ND	5	µg/Kg
cis-1,3-Dichloropropene	ND	5	µg/Kg
trans-1,3-Dichloropropene	ND	5	µg/Kg
Ethylbenzene	ND	5	µg/Kg
2-Hexanone	ND	10	µg/Kg
Methylene Chloride	(B=4) 5	5	µg/Kg
4-Methyl-2-Pentanone	ND	10	µg/Kg
Styrene	ND	5	µg/Kg
1,1,2,2-Tetrachloroethane	ND	5	µg/Kg
Tetrachloroethene	ND	5	µg/Kg
Toluene	ND	5	µg/Kg
1,1,1-Trichloroethane	ND	5	µg/Kg
1,1,2-Trichloroethane	ND	5	µg/Kg
Trichloroethene	ND	5	µg/Kg
Trichlorofluoromethane	ND	5	µg/Kg
Vinyl Acetate	ND	10	µg/Kg
Vinyl Chloride	ND	10	µg/Kg
Xylenes (total)	ND	5	µg/Kg

METHOD: 8240, Volatile Organics - Soil

(continued on next page)

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-04

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-B-4(7'-8')

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 13:20:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons Method Mod. 418.1 * Analyzed by: DB Date: 12/21/93 13:00:00	ND	10 P	mg/kg

ND - Not detected. (P) - Practical Quantitation Limit

tes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

/chem/Z.i/z931221.b/z355s06.d
993 18:31

SPL Laboratories

RECOVERY REPORT

ient Name:
mple Matrix: SOLID
ient ID:
:a Type: MS DATA
ikeList File:
:hod File: /chem/Z.i/z931221.b/zvoals.m
:c Info: V355S1/Z355B03/

Client SDG: z931221.b
Fraction: VOA
Level: LOW
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
25 1,2-Dichloroethane	50.00	54.73	109.47	70-121
42 Toluene-d8	50.00	48.17	96.35	84-138
58 Bromofluorobenzene	50.00	51.27	102.54	59-113

Values outside of QC limits
ke Recovery: 0 out of 3 outside limits
0 out of 3 not found

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-03

G & E ENGINEERING, INC. **SAMPLE ID:** 2425-B-3(7'-8')

ANALYZED BY: YTS DATE/TIME: 12/21/93 18:20:00
METHOD: 8240, Volatile Organics - Soil
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS: Associated Blank: Z355B03 File ID: Z355S06

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE 318 237 4775

Certificate of Analysis No. 9312647-03

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-B-3(7'-8')

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 12:25:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	10	µg/Kg
Benzene	ND	5	µg/Kg
Bromodichloromethane	ND	5	µg/Kg
Bromoform	ND	5	µg/Kg
Bromomethane	ND	10	µg/Kg
2-Butanone	ND	10	µg/Kg
Carbon Disulfide	ND	5	µg/Kg
Carbon Tetrachloride	ND	5	µg/Kg
Chlorobenzene	ND	5	µg/Kg
Chloroethane	ND	10	µg/Kg
2-Chloroethylvinylether	ND	10	µg/Kg
Chloroform	ND	5	µg/Kg
Chloromethane	ND	10	µg/Kg
Dibromochloromethane	ND	5	µg/Kg
1,1-Dichloroethane	ND	5	µg/Kg
1,1-Dichloroethene	ND	5	µg/Kg
1,2-Dichloroethane	ND	5	µg/Kg
total-1,2-Dichloroethene	ND	5	µg/Kg
1,2-Dichloropropane	ND	5	µg/Kg
cis-1,3-Dichloropropene	ND	5	µg/Kg
trans-1,3-Dichloropropene	ND	5	µg/Kg
Ethylbenzene	ND	5	µg/Kg
2-Hexanone	ND	10	µg/Kg
Methylene Chloride	ND	5	µg/Kg
4-Methyl-2-Pentanone	ND	10	µg/Kg
Styrene	ND	5	µg/Kg
1,1,2,2-Tetrachloroethane	ND	5	µg/Kg
Tetrachloroethene	ND	5	µg/Kg
Toluene	ND	5	µg/Kg
1,1,1-Trichloroethane	ND	5	µg/Kg
1,1,2-Trichloroethane	ND	5	µg/Kg
Trichloroethene	ND	5	µg/Kg
Trichlorofluoromethane	ND	5	µg/Kg
Vinyl Acetate	ND	10	µg/Kg
Vinyl Chloride	ND	10	µg/Kg
Xylenes (total)	ND	5	µg/Kg

METHOD: 8240, Volatile Organics - Soil

(continued on next page)

SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-03

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-B-3(7'-8')

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 12:25:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons Method Mod. 418.1 * Analyzed by: DB Date: 12/21/93 13:00:00	ND	10 P	mg/kg

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

/chem/Z.i/z931223.b/z357s02.d
Date: 29 Dec 1993 12:39

SPL Laboratories

RECOVERY REPORT

Name:
Matrix: SOLID
ID:
pe: MS DATA
st File:
File: /chem/Z.i/z931223.b/zvoams.m
fo: V357M1/Z357B03/

Client SDG: z931223.b
Fraction: VOA
Level: MED
SampleType: SAMPLE
Quant Type: ISTD

GATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
1,2-Dichloroethane	5000	4585	91.70	70-121
Toluene-d8	5000	4874	97.48	84-138
Bromofluorobenzene	5000	4773	95.46	59-113

ues outside of QC limits
ecovery: 0 out of 3 outside limits
0 out of 3 not found

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-02

& E ENGINEERING, INC. **SAMPLE ID:** 2425-B-2(8'-9')

IALYZED BY: YTS DATE/TIME: 12/23/93 12:28:00
:THOD: 8240, Volatile Organics - Soil
)TES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

)MMENTS: Associated Blank: Z357B03 File ID: Z35SS02
B=Blank Contribution

JALITY ASSURANCE: This analysis was performed in accordance with EPA
iidelines for analysis and quality control. Results reported on a Wet
:ight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-02

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-B-2(8'-9')

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 10:15:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	1000	µg/Kg
Benzene	ND	500	µg/Kg
Bromodichloromethane	ND	500	µg/Kg
Bromoform	ND	500	µg/Kg
Bromomethane	ND	1000	µg/Kg
2-Butanone (B=2000)	1400	1000	µg/Kg
Carbon Disulfide	ND	500	µg/Kg
Carbon Tetrachloride	ND	500	µg/Kg
Chlorobenzene	ND	500	µg/Kg
Chloroethane	ND	1000	µg/Kg
2-Chloroethylvinylether	ND	1000	µg/Kg
Chloroform	ND	500	µg/Kg
Chloromethane	ND	1000	µg/Kg
Dibromochloromethane	ND	500	µg/Kg
1,1-Dichloroethane	ND	500	µg/Kg
1,1-Dichloroethene	ND	500	µg/Kg
1,2-Dichloroethane	ND	500	µg/Kg
total-1,2-Dichloroethene	ND	500	µg/Kg
1,2-Dichloropropane	ND	500	µg/Kg
cis-1,3-Dichloropropene	ND	500	µg/Kg
trans-1,3-Dichloropropene	ND	500	µg/Kg
Ethylbenzene	2200	500	µg/Kg
2-Hexanone	ND	1000	µg/Kg
Methylene Chloride	ND	500	µg/Kg
4-Methyl-2-Pentanone	ND	1000	µg/Kg
Styrene	ND	500	µg/Kg
1,1,2,2-Tetrachloroethane	ND	500	µg/Kg
Tetrachloroethene	ND	500	µg/Kg
Toluene	ND	500	µg/Kg
1,1,1-Trichloroethane	ND	500	µg/Kg
1,1,2-Trichloroethane	ND	500	µg/Kg
Trichloroethene	ND	500	µg/Kg
Trichlorofluoromethane	ND	500	µg/Kg
Vinyl Acetate	ND	1000	µg/Kg
Vinyl Chloride	ND	1000	µg/Kg
Xylenes (total)	3900	500	µg/Kg

METHOD: 8240, Volatile Organics - Soil

(continued on next page)

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-02

G &-E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-B-2(8'-9')

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 10:15:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons Method Mod. 418.1 * Analyzed by: DB Date: 12/21/93 13:00:00	1700	10 P	mg/kg

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

/chem/Z.i/z931221.b/z355s05.d
993 18:00

SPL Laboratories

RECOVERY REPORT

.ent Name:
ıple Matrix: SOLID
.ent ID:
:a Type: MS DATA
.keList File:
:hod File: /chem/Z.i/z931221.b/zvoals.m
;c Info: V355S1/Z355B03/

Client SDG: z931221.b
Fraction: VOA
Level: LOW
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
25 1,2-Dichloroethane	50.00	54.42	108.84	70-121
42 Toluene-d8	50.00	48.50	97.01	84-138
58 Bromofluorobenzene	50.00	50.68	101.35	59-113

Values outside of QC limits
.ke Recovery: 0 out of 3 outside limits
0 out of 3 not found

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-01

G & E ENGINEERING, INC. **SAMPLE ID:** 2425-B-1(9'-10')

ANALYZED BY: YTS DATE/TIME: 12/21/93 17:50:00
METHOD: 8240, Volatile Organics - Soil
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS: Associated Blank: Z355B03 File ID: Z355S05
B=Blank Contribution

UALITY ASSURANCE: This analysis was performed in accordance with EPA uidelines for analysis and quality control. Results reported on a Wet eight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 3544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-01

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-B-1(9'-10')

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 09:03:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	10	µg/Kg
Benzene	8	5	µg/Kg
Bromodichloromethane	ND	5	µg/Kg
Bromoform	ND	5	µg/Kg
Bromomethane	ND	10	µg/Kg
2-Butanone	ND	10	µg/Kg
Carbon Disulfide	ND	5	µg/Kg
Carbon Tetrachloride	ND	5	µg/Kg
Chlorobenzene	ND	5	µg/Kg
Chloroethane	ND	10	µg/Kg
2-Chloroethylvinylether	ND	10	µg/Kg
Chloroform	ND	5	µg/Kg
Chloromethane	ND	10	µg/Kg
Dibromochloromethane	ND	5	µg/Kg
1,1-Dichloroethane	ND	5	µg/Kg
1,1-Dichloroethene	ND	5	µg/Kg
1,2-Dichloroethane	ND	5	µg/Kg
total-1,2-Dichloroethene	ND	5	µg/Kg
1,2-Dichloropropane	ND	5	µg/Kg
cis-1,3-Dichloropropene	ND	5	µg/Kg
trans-1,3-Dichloropropene	ND	5	µg/Kg
Ethylbenzene	ND	5	µg/Kg
2-Hexanone	ND	10	µg/Kg
Methylene Chloride	(B=4) 6	5	µg/Kg
4-Methyl-2-Pentanone	ND	10	µg/Kg
Styrene	ND	5	µg/Kg
1,1,2,2-Tetrachloroethane	ND	5	µg/Kg
Tetrachloroethene	ND	5	µg/Kg
Toluene	ND	5	µg/Kg
1,1,1-Trichloroethane	ND	5	µg/Kg
1,1,2-Trichloroethane	ND	5	µg/Kg
Trichloroethene	ND	5	µg/Kg
Trichlorofluoromethane	ND	5	µg/Kg
Vinyl Acetate	ND	10	µg/Kg
Vinyl Chloride	ND	10	µg/Kg
Xylenes (total)	ND	5	µg/Kg

METHOD: 8240, Volatile Organics - Soil
(continued on next page)

LAFAYETTE AREA LAB
300 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-01

& E ENGINEERING, INC.
15 S. SHERWOOD FOREST BLVD.
TON ROUGE, LA 70816
TN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

OJECT: LEEVAC (SBA) SHIPYARDS
TE: JENNINGS, LOUISIANA
MPLED BY: G & E ENGINEERING, INC.
MPLE ID: 2425-B-1(9'-10')

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 09:03:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

ARAMETER	RESULTS	DETECTION LIMIT	UNITS
otal Petroleum Hydrocarbons Method Mod. 418.1 * Analyzed by: DB Date: 12/21/93 13:00:00	ND	10 P	mg/kg

- Not detected. (P) - Practical Quantitation Limit

s: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

ALITY ASSURANCE: This analysis was performed in accordance with EPA idelines for analysis and quality control. Results reported on a Wet ight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

****SUMMARY REPORT*****

12/27/93

Company: G & E ENGINEERING, INC.
Site: JENNINGS, LOUISIANA
Project No: 1A-2425
Project: LEEVAC (SBA) SHIPYARDS

ANALYTICAL DATA
NOTE: ND - Not Detected

ID IX	CLIENT ID DATE SAMPLED	BENZENE	TOLUENE	ETHYLBENZ.	XYLENE	TPH-IR PQL	TPH-GC	LEAD	MTBE
7-01	2425-B-1(9'-10') 12/16/93 09:03:00					ND 10mg/kg			
7-02	2425-B-2(8'-9') 12/16/93 10:15:00					1700 10mg/kg			
7-03	2425-B-3(7'-8') 12/16/93 12:25:00					ND 10mg/kg			
-04	2425-B-4(7'-8') 12/16/93 13:20:00					ND 10mg/kg			
-05	2425-B-1 12/16/93 11:25:00					ND 1mg/L			
-06	2425-B-3 12/16/93 13:35:00					1 1mg/L			
-07	2425-CS-1 12/16/93 16:05:00					21 10mg/kg		ND 10mg/Kg	
-08	2425-CS-2 12/16/93 16:15:00					330 10mg/kg		ND 10mg/Kg	
09	2425-CS-3 12/16/93 16:18:00					2100 100mg/kg		40 10mg/Kg	
10	2425-CS-4 12/16/93 16:30:00					790 10mg/kg		ND 10mg/Kg	
11	2425-CS-5 12/16/93 16:38:00					650 10mg/kg		870 10mg/Kg	

-IR - Method Mod. 418.1 *
) - Method 7420 ***

APPENDIX C

ANALYTICAL LABORATORY REPORT

AND CHAIN-OF-CUSTODY DOCUMENT

DECEMBER 16, 1993

BORING LOG

oject: Modified Phase I Assessment
SBA Shipyards, Inc.
Jennings, Louisiana

No. B-4

ent: Leevac Shipyards, Inc.
Jennings, Louisiana

File No.: 1A-2425
Date: 12/16/93
Drilling Co.: G&E Engineering, Inc.
Supervisor:
Type Rig: Hand Auger
Surface Elevation: N/A
Logged by: RJL

ABORATORY TEST DATA					FIELD DATA					BORING DATA
(%)	Atterberg Test LL	Atterberg Test PL	Atterberg Test PI	% Finer than #200 Sieve	Other	Organic Vapor Meter (1) (ppm)	Penetrometer (Tons/sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Hand Auger (3.5" I.D.): 0' to 8' Start Time: 1245 Finish Time: 1320
						<1					Brown-tan clayey SILT (ML)
						1					Gray to brown silty CLAY (CL) with ferrous nodules
						1			2.5		
						1					
						1			5.0		
						1					
						1					--brownish-red
						1	*		7.5		
											Boring terminated at 8' due to an obstruction and grouted to the surface with a thick cement-bentonite mixture.
									10.0		

helby Tube

plit-Spoon Sampler

uger Cuttings

o Recovery

(1) HNU Model PI 101 Photoionization Analyzer
Span Setting 4.68

Stratification Is Inferred And May Not Be Exact.

Soil Classification Based on Visual-Manual Procedure

NP Non Plastic

* No Penetrometer Value

G & E ENGINEERING, INC.
ENVIRONMENTAL CONSULTANTS

BORING LOG

ject: Modified Phase I Assessment
SBA Shipyards, Inc.
Jennings, Louisiana

No. B-3

nt: Leevac Shipyards, Inc.
Jennings, Louisiana

File No.: 1A-2425
Date: 12/16/93
Drilling Co.: G&E Engineering, Inc.
Supervisor:
Type Rig: Hand Auger
Surface Elevation: N/A
Logged by: RJL

LABORATORY TEST DATA					FIELD DATA					BORING DATA
Atterberg Test										
LL	PL	PI	% Finer than #200 Sieve	Other	Organic Vapor Meter (1) (ppm)	Penetrometer (Tons/sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Hand Auger (3.5" I.D.): 0' to 8' Start Time: 1150 Finish Time: 1225
					7					Gray silty CLAY (CL) with shell and hydrocarbon odor
					2					--gray-black, no shells
					1					--gray, increasing silt
					1			2.5		--increasing humus to 4'
					1					Gray to brown CLAY (CH)
					1			5.0		
					<1				▽	--brown
					2			7.5		
										Boring terminated at 8' and grouted to the surface with a thick cement-bentonite mixture.
								10.0		

Shelby Tube

Split-Spoon Sampler

Auger Cuttings

No Recovery

(1) HNU Model PI 101 Photoionization Analyzer, Span Setting 4.68

Stratification Is Inferred And May Not Be Exact.

Soil Classification Based on Visual-Manual Procedure

▽ Water First Noted

NP Non Plastic

* No Penetrometer Value

G & E ENGINEERING, INC.
ENVIRONMENTAL CONSULTANTS

BORING LOG

ect: Modified Phase I Assessment
SBA Shipyards, Inc.
Jennings, Louisiana

No. B-2

nt: Leevac Shipyards, Inc.
Jennings, Louisiana

File No.: 1A-2425
Date: 12/16/93
Drilling Co.: G&E Engineering, Inc.
Supervisor:
Type Rig: Hand Auger
Surface Elevation: N/A
Logged by: RJL

LABORATORY TEST DATA					FIELD DATA					BORING DATA
Atterberg Test			% Finer than #200 Sieve	Other	Organic Vapor Meter (ppm)	Penetrometer (Tons/sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Hand Auger (3.5" I.D.): 0' to 9' Start Time: 0923 Finish Time: 1015
LL	PL	PI								
										Gray CLAY (CH) with ferrous staining
								2.5		Gray to brown silty CLAY (CL) --tan to brown
								5.0		--black streaks with hydrocarbon odor --strong hydrocarbon odor below 6' --tan with increasing silt
								7.5		Gray clayey SILT (ML)
								10.0		Boring terminated at 9' due to an obstruction and grouted to the surface with a thick cement-bentonite mixture.

Shelby Tube

Split-Spoon Sampler

Auger Cuttings

No Recovery

Stratification Is Inferred And May Not Be Exact.

Soil Classification Based on Visual-Manual Procedure

NP Non Plastic

* No Penetrometer Value

G & E ENGINEERING, INC.
ENVIRONMENTAL CONSULTANTS

BORING LOG

ject: Modified Phase I Assessment
SBA Shipyards, Inc.
Jennings, Louisiana

No. B-1

nt: Leevac Shipyards, Inc.
Jennings, Louisiana

File No.: 1A-2425
Date: 12/16/93
Drilling Co.: G&E Engineering, Inc.
Supervisor:
Type Rig: Hand Auger
Surface Elevation: N/A
Logged by: RJL

LABORATORY TEST DATA						FIELD DATA				BORING DATA
	Atterberg Test			% Finer than #200 Sieve	Other	Organic Vapor Meter (ppm)	Penetrometer (Tons/sq.ft) or Std Pen. Test (blows/foot)	Sampling	Depth (feet)	Water Level	Hand Auger (3.5" I.D.): 0' to 11'
	LL	PL	PI								Start Time: 0820 Finish Time: 0903
											Brown and black silty CLAY (CL)
											--gray
									2.5		
											Gray CLAY (CH)
									5.0		
											--with silt
									7.5		--gray to brown
											--gray with ferrous staining
									10.0	▽	
											Boring terminated at 11' and grouted to the surface with a thick cement-bentonite mixture.
									12.5		

■ Shelby Tube

☑ Split-Spoon Sampler

□ Auger Cuttings

☑ No Recovery

▽ Water First Noted

Stratification Is Inferred And May Not Be Exact.

Soil Classification Based on Visual-Manual Procedure

NP Non Plastic

* No Penetrometer Value

G & E ENGINEERING, INC.
ENVIRONMENTAL CONSULTANTS

APPENDIX B

SOIL BORING LOGS

- Each sample container was individually identified as to sample number, date and time taken, and source of sample. A chain-of-custody record was maintained for all samples to include:

  a) The name of the persons collecting the samples;
  b) The identify of each sample collected;
  c) The source of each sample;
  d) Analytical requirements; and
  e) Name of person accepting samples.

Custody transfers of samples were evidenced on the chain-of-custody form by signature of the transferer (relinquisher) and the transferee (receiver). This procedure was repeated through final delivery to the analytical laboratory.

APPENDIX A
FIELD INVESTIGATION PROTOCOLS

Soil Exploration Boring Installations.

- Hand auger equipment was steam-cleaned offsite prior to use in each boring (four hand auger units brought to the field).

- Clean, unused gloves (cotton, nitrile, or latex) were worn during the boring installation activities.

Soil and Composite Surface Materiasl Sample Collection.

- Each sample was collected using clean, unused latex gloves.

- Soil samples from each boring were field screened with a portable photoionization analyzer, HNU Model PI 101 (HNU). Using clean, unused latex gloves, soil samples were placed in airtight plastic bags and sealed, labeled, allowed to volatilize for various time periods to reach ambient temperature, and then the headspace of each bagged sample was screened with the HNU. The HNU was calibrated prior to use in accordance with the manufacturer's specifications.

- Upon collection, samples were immediately placed in appropriate, chemically clean containers provided by the laboratory and labeled.

- Immediately upon collection, samples were stored on ice; they remained on ice until received by the laboratory.

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

Reported on: 01/06/94
Analyzed on: 01/05/94
Analyst: GS

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Barium, TCLP Leachate
Method - 7080

PL Sample D Number	Blank Value mg/L	Amt Added mg/L	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
12647-08C	ND	4.0	90	98	8.5

3100940105160500-010594N

SPL, Incorporated

John Durand, Corporate QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

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Barium, TCLP Leachate
Method - 7080

SPL Sample ID Number	Blank Value mg/L	Amt Added mg/L	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
312647-08C	ND	4.0	90	98	8.5

3100940105160500-010594N

SPL, Incorporated

John Durand, Corporate QC Officer

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500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

Reported on: 01/06/94
Analyzed on: 01/06/94
Analyst: MC

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Selenium, TCLP Leachate
Method - 7740

SPL Sample ID Number	Blank Value ug/L	Amt Added ug/L	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
312647-09C	ND	80	99	100	1.0

5100940106105700-010694F

SPL, Incorporated

John Durand, Corporate QC Officer

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SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

Reported on: 01/06/94
Analyzed on: 01/06/94
Analyst: MC

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Arsenic, TCLP Leachate
Method - 7060

L Sample Number	Blank Value ug/L	Amt Added ug/L	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
.2647-09C	ND	80	109	109	0.0

5100940106090100-010694G

SPL, Incorporated

John Durand, Corporate QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237 4775

** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

Reported on: 01/06/94
Analyzed on: 01/06/94
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Chromium, TCLP Leachate
Method - 7190

PL Sample D Number	Blank Value mg/L	Amt Added mg/L	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
12647-08C	ND	0.40	82	85	3.6

3100940106123100-010694R

SPL, Incorporated

John Durand, Corporate QC Officer

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PHONE (318) 237 4775

** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

Reported on: 01/06/94
Analyzed on: 01/06/94
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Cadmium, TCLP Leachate
Method - 7130

L Sample Number	Blank Value mg/L	Amt Added mg/L	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
2647-08C	ND	0.100	92	90	2.2

3100940106103100-010694T

SPL, Incorporated

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PHONE (318) 237-4775

** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

Reported on: 01/06/94
Analyzed on: 01/06/94
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Silver, TCLP Leachate
Method - 7760

SPL Sample ID Number	Blank Value mg/L	Amt Added mg/L	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
312647-08C	ND	0.10	80	90	12

3100940106094600-010694V

SPL, Incorporated

John Durand, Corporate QC Officer

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SCOTT, LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

Reported on: 01/06/94
Analyzed on: 01/06/94
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Lead, TCLP Leachate
Method - 7420

PL Sample) Number	Blank Value mg/L	Amt Added mg/L	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
L2647-08C	ND	1.0	80	80	0.0

3100940106090100-010694X

SPL, Incorporated

John Durand, Corporate QC Officer

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** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

Reported on: 01/07/94
Analyzed on: 01/06/94
Analyst: GS

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Mercury, TCLP Leachate
Method - 7470

SPL Sample ID Number	Blank Value ug/L	Amt Added ug/L	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
)312647-08C	ND	10.0	86	93	7.8

2100940106160000-0194-V

SPL, Incorporated

John Durand, Corporate QC Officer

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500 AMBASSADOR CAFFERY PKWY
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ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-11

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-5

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:38:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Selenium, TCLP Leachate Method 7740 *** Analyzed by: MC Date: 01/06/94 10:57:00	0.003	0.002	mg/L

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: Analytical results reported as Wet Weight.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

LAFAYETTE AREA LAB
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Certificate of Analysis No. 9312647-11

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-5

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:38:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Cadmium, TCLP Leachate Method 7130 *** Analyzed by: PB Date: 01/06/94 10:30:00	0.032	0.005	mg/L
Chromium, TCLP Leachate Method 7190 *** Analyzed by: PB Date: 01/06/94 12:30:00	ND	0.05	mg/L
Mercury, TCLP Leachate METHOD 7470 *** Analyzed by: EH Date: 01/06/94 16:00:00	ND	0.0002	mg/L
Lead, TCLP Leachate Method 7420 *** Analyzed by: PB Date: 01/06/94 09:00:00	0.2	0.1 M	mg/L
TCLP Leachate extraction Method 1311 *** Analyzed by: BD Date: 01/04/94 10:00:00	01/04/94		NA

ND - Not detected. (M) - Method Detection Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: Analytical results reported as Wet Weight.
QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-11

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-5

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:38:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Lead, Total Method 7420 *** Analyzed by: PB Date: 12/23/93 09:00:00	870	10 M	mg/Kg
Selenium, Total Method 7740 *** Analyzed by: MC Date: 12/21/93 14:26:00	0.4	0.2	mg/Kg
Silver, TCLP Leachate Method 7760 *** Analyzed by: PB Date: 01/06/94 09:45:00	0.01	0.01	mg/L
Arsenic, TCLP Leachate Method 7060 *** Analyzed by: MC Date: 01/06/94 09:01:00	0.003	0.001	mg/L
Barium, TCLP Leachate Method 7080 *** Analyzed by: GS Date: 01/05/94 16:00:00	1.0	0.1	mg/L

(M) - Method Detection Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: Analytical results reported as Wet Weight.
QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-11

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-5

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:33:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Cadmium, Total Method 7130 *** Analyzed by: PB Date: 12/22/93 13:30:00	ND	0.5	mg/Kg
Chromium, Total Method 7190 *** Analyzed by: PB Date: 12/22/93 14:30:00	ND	5	mg/Kg
Mercury, Total Method 7471 *** Analyzed by: GS Date: 12/22/93 14:00:00	ND	0.1	mg/Kg
Moisture, E.P.A. Method CLP SOW Analyzed by: EH Date: 12/20/93 17:30:00	6.6	0.1	%

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: Analytical results reported as Wet Weight.

Cons

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-11

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-5

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:38:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons Method Mod. 418.1 * Analyzed by: DB Date: 12/21/93 13:00:00	650	10 P	mg/kg
Silver, Total Method 7760 *** Analyzed by: PB Date: 12/22/93 09:30:00	ND	1	mg/Kg
Arsenic, Total Method 7060 *** Analyzed by: MC Date: 12/21/93 16:06:00	5.2	0.1	mg/Kg
Barium, Total Method 7080 *** Analyzed by: PB Date: 12/21/93 14:00:00	100	10	mg/Kg

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: Analytical results reported as Wet Weight.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
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PHONE (318) 237-4775

Certificate of Analysis No. 9312647-09

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-3

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:18:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Selenium, TCLP Leachate Method 7740 *** Analyzed by: MC Date: 01/06/94 10:57:00	ND	0.002	mg/L

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-09

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-3

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:18:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Cadmium, TCLP Leachate Method 7130 *** Analyzed by: PB Date: 01/06/94 10:30:00	0.053	0.005	mg/L
Chromium, TCLP Leachate Method 7190 *** Analyzed by: PB Date: 01/06/94 12:30:00	ND	0.05	mg/L
Mercury, TCLP Leachate METHOD 7470 *** Analyzed by: EH Date: 01/06/94 16:00:00	ND	0.0002	mg/L
Lead, TCLP Leachate Method 7420 *** Analyzed by: PB Date: 01/06/94 09:00:00	0.2	0.1 M	mg/L
TCLP Leachate extraction Method 1311 *** Analyzed by: BD Date: 01/04/94 10:00:00	01/04/94		NA

ND - Not detected. (M) - Method Detection Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

LAFAYETTE AREA LAB
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Certificate of Analysis No. 9312647-09

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-3

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:18:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Lead, Total Method 7420 *** Analyzed by: PB Date: 12/23/93 09:00:00	40	10 M	mg/Kg
Selenium, Total Method 7740 *** Analyzed by: MC Date: 12/21/93 14:26:00	0.5	0.2	mg/Kg
Silver, TCLP Leachate Method 7760 *** Analyzed by: PB Date: 01/06/94 09:45:00	0.02	0.01	mg/L
Arsenic, TCLP Leachate Method 7060 *** Analyzed by: MC Date: 01/06/94 09:01:00	0.004	0.001	mg/L
Barium, TCLP Leachate Method 7080 *** Analyzed by: GS Date: 01/05/94 16:00:00	0.6	0.1	mg/L

(M) - Method Detection Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-09

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-3

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:18:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons Method Mod. 418.1 * Analyzed by: DB Date: 12/21/93 13:00:00	2100	100 P	mg/kg
Silver, Total Method 7760 *** Analyzed by: PB Date: 12/22/93 09:30:00	ND	1	mg/Kg
Arsenic, Total Method 7060 *** Analyzed by: MC Date: 12/21/93 16:06:00	4.8	0.1	mg/Kg
Barium, Total Method 7080 *** Analyzed by: PB Date: 12/21/93 14:00:00	80	10	mg/Kg

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-08

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-2

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:15:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Selenium, TCLP Leachate Method 7740 *** Analyzed by: MC Date: 01/06/94 10:57:00	0.002	0.002	mg/L

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
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ZIP 70583-8544
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Certificate of Analysis No. 9312647-08

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-2

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:15:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Cadmium, TCLP Leachate Method 7130 *** Analyzed by: PB Date: 01/06/94 10:30:00	0.013	0.005	mg/L
Chromium, TCLP Leachate Method 7190 *** Analyzed by: PB Date: 01/06/94 12:30:00	ND	0.05	mg/L
Mercury, TCLP Leachate METHOD 7470 *** Analyzed by: EH Date: 01/06/94 16:00:00	ND	0.0002	mg/L
Lead, TCLP Leachate Method 7420 *** Analyzed by: PB Date: 01/06/94 09:00:00	ND	0.1 M	mg/L
TCLP Leachate extraction Method 1311 *** Analyzed by: BD Date: 01/04/94 10:00:00	01/04/94		NA

ND - Not detected. (M) - Method Detection Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

LAFAYETTE AREA LAB
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Certificate of Analysis No. 9312647-08

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-2

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:15:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Lead, Total Method 7420 *** Analyzed by: PB Date: 12/23/93 09:00:00	ND	10 M	mg/Kg
Selenium, Total Method 7740 *** Analyzed by: MC Date: 12/21/93 14:26:00	0.2	0.2	mg/Kg
Silver, TCLP Leachate Method 7760 *** Analyzed by: PB Date: 01/06/94 09:45:00	0.01	0.01	mg/L
Arsenic, TCLP Leachate Method 7060 *** Analyzed by: MC Date: 01/06/94 09:01:00	0.003	0.001	mg/L
Barium, TCLP Leachate Method 7080 *** Analyzed by: GS Date: 01/05/94 16:00:00	0.3	0.1	mg/L

ND - Not detected. (M) - Method Detection Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

LAFAYETTE AREA LAB
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Certificate of Analysis No. 9312647-08

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-2

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:15:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Cadmium, Total Method 7130 *** Analyzed by: PB Date: 12/22/93 13:30:00	ND	0.5	mg/Kg
Chromium, Total Method 7190 *** Analyzed by: PB Date: 12/22/93 14:30:00	10	5	mg/Kg
Mercury, Total Method 7471 *** Analyzed by: GS Date: 12/22/93 14:00:00	ND	0.1	mg/Kg
Moisture, E.P.A. Method CLP SOW Analyzed by: EH Date: 12/20/93 17:30:00	17.8	0.1	%

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

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BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 01/07/94

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-2

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:15:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons Method Mod. 418.1 * Analyzed by: DB Date: 12/21/93 13:00:00	330	10 P	mg/kg
Silver, Total Method 7760 *** Analyzed by: PB Date: 12/22/93 09:30:00	ND	1	mg/Kg
Arsenic, Total Method 7060 *** Analyzed by: MC Date: 12/21/93 16:06:00	2.3	0.1	mg/Kg
Barium, Total Method 7080 *** Analyzed by: PB Date: 12/21/93 14:00:00	10	10	mg/Kg

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

Baton Rouge, Louisiana (504) 292-3007
Houston, Texas (713) 442-0873
Oklahoma City, Oklahoma (405) 720-9831
Titusville, Florida (407) 269-9891

G&E ENGINEERING, INC.
ENVIRONMENTAL CONSULTANTS

CHAIN-OF-CUSTODY RECORD

Purchase Order No. BR-3969

Project No. 1A-2425

Project Name LeeVac (SBA) Shipyards Jennings, Louisiana

Samplers: (Print/Signature)
1. RANDAL J LANDRY / Randal J Landry
2. MICHAEL D LUCKETT / Michael D Luckett
3. /

Sample I.D.	Date	Time	Comp.	Grab	Coll. By 1,2,3	Matrix	No. of Containers	TPH (Method 418.1) Volatile Organics (Method 8240) PETAS	TPH (Method 418.1) Volatile Organics (Method 8240) 8240W	RCRA (E) Metals (Methods from TCCC series) RCRA-2	Remarks
2425-CS-5	12/16/93	1638	✓		1,2	Soil	1	✓		✓	
2425-WT-1	12/15/93	0905		✓		Water	2		✓		
2425-WE-1	12/16/93	1107		✓	1,2	Water	2		✓		VOC analysis only. RJL
											1/3/94 As per Randal Landry - G&E add TCLP Metals to samples 2425-CS-2, 2425-CS-3 and 2425-CS-5. SG/K. Lostelle
CHECK IF PRESERVED:									✓		

Relinquished by (Signature):	Date	Time	Received by (Signature):	Relinquished by (Signature):	Date	Time	Received by (Signature):
Randal J Landry	12/17/93	1500					
Relinquished by (Signature):	Date	Time	Received by (Signature):	Relinquished by (Signature):	Date	Time	Received for Lab by (Signature)
					12/18/93	0900	[signature]

ALL SAMPLES ICED IN THE FIELD AND DURING TRANSPORT TO THE LAB.
✓ YES ___ NO

G&E CONTACT: RANDAL J LANDRY

TRANSPORTED BY: SPL Courier

LABORATORY: SPL

ANALYSES TO BE COMPLETED:
___ FAST TURNAROUND ✓ NORMAL TURNAROUND PERIOD
DATE: ___ ✓ CALL G&E WITH RESULTS UPON COMPLETION

WHITE (REPORT COPY) YELLOW (LABORATORY COPY) PINK (PROJECT MANAGER COPY) GOLD (FILE COPY)

MDL

Houston, Texas (713) 492-0675
Oklahoma City, Oklahoma (405) 720-9831
Titusville, Florida (407) 269-9891

ENVIRONMENTAL CONSULTANTS

CHAIN-OF-CUSTODY RECORD

Purchase Order No. 27161

Project No.	Project Name
1A-2425	LeeVac (SBA) Shipyards Jennings, Louisiana

Samplers: (Print/Signature)
1. RANDAL J LANDRY
2. MICHAEL D LUCKETT
3.

Sample I.D.	Date	Time	Comp.	Grab	Coll. By 1,2,3	Matrix	No. of Containers	TPH (Method 418.1) Volatile Organics (Method 8240)	TPH (Method 418.1) Volatile Organics (Method 8240)	RCRA (8) Metals (Methods 7000 Series)	Remarks
2425-B-1 (9'-10')	12/16/93	0903		✓	1,2	Soil	2	✓	✓		
2425-B-2 (8'-9')		1015		✓	1,2		2	✓	✓		
2425-B-3 (7'-8')		1225		✓	1,2		2	✓	✓		
2425-B-4 (7'-8')		1320		✓	1,2		2	✓	✓		
2425-B-1		1125		✓	1,2	Water	3		✓	✓	
2425-B-3		1335		✓	1,2	Water	3		✓	✓	
2425-CS-1		1605	✓		1,2	Soil	1	✓		✓	
2425-CS-2		1615	✓		1,2		1	✓		✓	
2425-CS-3		1618	✓		1,2		1	✓		✓	
2425-CS-4	✓	1630	✓		1,2		1	✓		✓	
						CHECK IF PRESERVED:			✓	✓	

Relinquished by (Signature):	Date	Time	Received by (Signature):	Relinquished by (Signature):	Date	Time	Received by (Signature):
Randal J Landry	12/17/93	1500					
Relinquished by (Signature):	Date	Time	Received by (Signature):	Relinquished by (Signature):	Date	Time	Received for Lab by (Signature)
					12/18/93	0900	

ALL SAMPLES ICED IN THE FIELD AND DURING TRANSPORT TO THE LAB.
✓ YES ___ NO

G&E CONTACT: RANDAL J LANDRY

TRANSPORTED BY: SPL Courier

LABORATORY: SPL

ANALYSES TO BE COMPLETED:
___ FAST TURNAROUND ✓ NORMAL TURNAROUND PERIOD
DATE: ___ ✓ CALL G&E WITH RESULTS UPON COMPLETION

WHITE (REPORT COPY) YELLOW (LABORATORY COPY) PINK (PROJECT MANAGER COPY) GOLD (FILE COPY)

MDL

LAFAYETTE LAB
P.O. BOX 31780
LAFAYETTE, LA
ZIP 70593-1780
PHONE: (318) 984-2374

SPL CHEST #_____ ENVIRONMENTAL LABORATORY DATE 12/18/93

CLIENT CHEST: YES (NO) SAMPLE LOGIN CHECKLIST

	YES	NO
1) IS A CHAIN-OF CUSTODY FORM PRESENT:	✓	
2) IS THE COC PROPERLY COMPLETED:	✓	
IF NO, DESCRIBE WHAT IS INCOMPLETE:		
3) HAS CLIENT BEEN CONTACTED ABOUT INCOMPLETE COC:		
4) IS AIRBILL/PACKING LIST/BILL OF LADING ATTACHED TO SHIPMENT:		✓
IF YES, ID# SPL P/U		
5) ARE CUSTODY SEALS PRESENT ON THE PACKAGE:	✓	
IF YES, ARE THEY INTACT UPON RECEIPT:		
6) ARE ALL SAMPLES TAGGED OR LABELED:	✓	
DO THE LABELS MATCH THE COC:	✓	
IF NO, HAS CLIENT BEEN CONTACTED ABOUT IT:		
(PLACE SUBSEQUENT DOCUMENTATION FROM CLIENT IN REMARKS)		
7) DO ALL SHIPPING DOCUMENTS AGREE:	✓	
IF NO, DESCRIBE WHAT IS IN NONCONFORMITY:		

8) CONDITION/TEMPERATURE OF SHIPPING CONTAINER:

Ok/4c

9) CONDITION OF SAMPLE CONTAINERS:

ok

10) SAMPLE DISPOSAL: SPL ✓ RETURN TO CLIENT _____

REMARKS/CONTACT/PHONE/DATE:

[redacted]

CO: GE	REPTS TO:	INV.TO:
J #: IA-2425	ATTN:	ATTN:
J LOC.: LA.	ADDR:	ADDR:
REP.: mmm	CTY/ST	CTY/ST

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

Reported on: 01/18/94
Analyzed on: 01/06/94
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Silver, TCLP Leachate
Method - 7760

Sample Number	Blank Value mg/L	Amt Added mg/L	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
2647-08C	ND	0.10	80	90	12

3100940106094600-010694V

SPL, Incorporated

John Durand, Corporate QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-9544
PHONE (318) 237-4775

** SPL QUALITY CONTROL REPORT **

Matrix: Soil

Reported on: 12/23/93
Analyzed on: 12/23/93
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Lead
Method - 7420

L Sample Number	Blank Value mg/Kg	Amt Added mg/Kg	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
2647-07B	ND	100	90	80	12

3100931223090200-122393G

SPL, Incorporated

John Durand, Corporate QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

** SPL QUALITY CONTROL REPORT **

Matrix: Soil

Reported on: 12/23/93
Analyzed on: 12/22/93
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Cadmium
Method - 7130

'L Sample) Number	Blank Value mg/Kg	Amt Added mg/Kg	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
.2647-07B	ND	100	89	87	2.3

3100931222133100-122293Y

SPL, Incorporated

John Durand, Corporate QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583 9544
PHONE (318) 237 4775

** SPL QUALITY CONTROL REPORT **

Matrix: Soil

Reported on: 12/23/93
Analyzed on: 12/22/93
Analyst: GS

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Mercury
Method - 7471

SPL Sample ID Number	Blank Value ug	Amt Added ug	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
12647-07B	ND	2.50	98	100	2.0

2100931222140000-1293-43

SPL, Incorporated

John Durand, Corporate QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 3541
PHONE 318 237 4775

** SPL QUALITY CONTROL REPORT **

Matrix: Soil

Reported on: 12/23/93
Analyzed on: 12/22/93
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Chromium
Method - 7190

SPL Sample ID Number	Blank Value mg/Kg	Amt Added mg/Kg	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
2647-07B	ND	40	90	88	2.2

3100931222143100-122293S

SPL, Incorporated

John Durand, Corporate QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

** SPL QUALITY CONTROL REPORT **

Matrix: Soil

Reported on: 12/21/93
Analyzed on: 12/21/93
Analyst: MC

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Selenium
Method - 7740

SPL Sample Number	Blank Value mg/Kg	Amt Added mg/Kg	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
2647-07B	ND	8	94	95	1.1

510093122114260O-122193M

SPL, Incorporated

John Durand, Corporate QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

** SPL QUALITY CONTROL REPORT **

Matrix: Soil

Reported on: 12/22/93
Analyzed on: 12/21/93
Analyst: MC

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Arsenic
Method - 7060

SPL Sample ID Number	Blank Value mg/Kg	Amt Added mg/Kg	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
312647-07B	ND	8	76	76	0.0

5100931221160600-122193T

MATRIX INTERFERENCE

SPL, Incorporated

John Durand, Corporate QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

** SPL QUALITY CONTROL REPORT **

Matrix: Soil

Reported on: 12/22/93
Analyzed on: 12/21/93
Analyst: MC

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Arsenic
Method - 7060

Sample Number	Blank Value mg/Kg	Amt Added mg/Kg	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
	ND	67.7	106	104	1.9

5100931221160600-122193U

SPL, Incorporated

John Durand, Corporate QC Officer

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500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583 8544
PHONE (318) 237-4775

** SPL QUALITY CONTROL REPORT **

Matrix: Soil

Reported on: 12/22/93
Analyzed on: 12/21/93
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Barium
Method - 7080

Sample Number	Blank Value mg/Kg	Amt Added mg/Kg	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
647-07B	ND	400	92	90	2.2

3100931221114010-1293-36

SPL, Incorporated

John Durand, Corporate QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237 4775

** SPL QUALITY CONTROL REPORT **

Matrix: Soil

Reported on: 01/24/94
Analyzed on: 12/22/93
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Silver
Method - 7760

Sample Number	Blank Value mg/Kg	Amt Added mg/Kg	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
647-07B	ND	10	80	80	0.0

3100931222093000-1293-99

SPL, Incorporated

John Durand, Corporate QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

** SPL QUALITY CONTROL REPORT **

Matrix: SOIL

Reported on: 12-28-93
Analyzed on: 12-20-93
Analyst: E. HEMPHILL

This sample was randomly selected for use in the SPL quality control program. The results are as follows:

MOISTURE
Method- CLP SOW

DUPLICATE ANALYSIS --

Sample ID	Original Sample Concentration %	Duplicate Sample %	% RPD #
12650-03	27.70	28.00	1.1

SPL, Incorporated

John Durand, QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

** SPL QUALITY CONTROL REPORT **

Matrix: Water

Reported on: 12/21/93
Analyzed on: 12/21/93
Analyst: JC

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Petroleum Hydrocarbon
Method - 418.1

PL Sample) Number	Blank Value mg/kg	Amt Added mg/kg	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
ANK SPIKE	ND	100	112	102	9.4

IRS9312211000 -122193F

SPL, Incorporated

John Durand, Corporate QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
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** SPL QUALITY CONTROL REPORT **

Matrix: Soil

Reported on: 12/21/93
Analyzed on: 12/21/93
Analyst: DB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Petroleum Hydrocarbons
Method - Mod. 418.1

PL Sample D Number	Blank Value mg/kg	Amt Added mg/kg	Matrix Spike Recovery %	Matrix Spike Duplicate Recovery %	Relative Percent Difference %
12647-04A	ND	300	94	95	1.1

IRS1931221130000-122193Q

SPL, Incorporated

John Durand, Corporate QC Officer

LAFAYETTE AREA LAB
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*** SPL BATCH QUALITY CONTROL REPORT ***

Volatile Organics Method 8240

Matrix: Liquid

Units: ug/L

Blank Spike

Spike Compounds	Method Blank Results <2>	Spike Added <3>	Blank Spike Results <1>	Blank Spike Recovery %	QC Limits (**) (Mandatory) %Recovery Range
1,1-Dichloroethene	ND	50	53	106	60-140
Trichloroethene	ND	50	53	106	70-149
Benzene	ND	50	51	102	75-140
Toluene	ND	50	52	104	75-125
Chlorobenzene	ND	50	53	106	75-125

Matrix Spikes

Spike Compounds	Sample Results <2>	Spike Added <3>	Matrix Spike Results <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Results <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative Percent Difference	QC Limits (***) (Advisory) RPD Max.	QC Limits (***) (Advisory) Recovery Range
1,1-Dichloroethene	ND	50	37	74	37	74	0	14	61-145
Trichloroethene	ND	50	43	86	43	86	0	14	71-120
Benzene	ND	50	48	96	49	98	2	11	76-127
Toluene	ND	50	48	96	47	94	2	13	76-125
Chlorobenzne	ND	50	51	102	50	100	2	13	75-130

ANALYST: YTS
SEQUENCE DATE: 12-20-93
SPL ID OF SAMPLE SPIKED: 9312647-13A
SAMPLE FILE ID: Z354S06
METHOD BLANK FILE ID: Z354B03
BLANK SPIKE FILE ID: Z354KB3
MATRIX SPIKE FILE ID: Z354K06
MATRIX SPIKE DUPLICATE FILE ID: Z354KD6

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>) x 0.5] x100
(**) = Source: SPL Lafayette, October 1993
(***) = Source: CLP SOW for Organics (3/90)

SAMPLES IN BATCH (SPL ID): 9312647-05B,06B,12A,13A
9312653-01A,02A

John Durand, QC Officer SPL, Inc.

LAFAYETTE AREA LAB
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SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

a File: /chem/Z.i/z931220.b/z354b03.d
Acct Date: 21-Dec-1993 09:40

SPL Laboratories

RECOVERY REPORT

ent Name:
ple Matrix: LIQUID
ent ID:
a Type: MS DATA
keList File: 8240water.spk
hod File: /chem/Z.i/z931220.b/zvo624w.m
c Info: V354W1/Z354B03/

Client SDG: z931220.b
Fraction: VOA
Level: LOW
SampleType: SAMPLE
Quant Type: ISTD

URROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
25 1,2-Dichloroethane	50.00	50.41	100.82	76-114
42 Toluene-d8	50.00	48.50	97.00	88-110
58 Bromofluorobenzene	50.00	48.37	96.73	86-115

Values outside of QC limits
ce Recovery: 0 out of 3 outside limits
0 out of 3 not found

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
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METHOD BLANK QA/QC REPORT

SAMPLE ID: METHOD BLANK Z354B03
MATRIX: LIQUID

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	10	µg/L
Benzene	ND	5	µg/L
Bromodichloromethane	ND	5	µg/L
Bromoform	ND	5	µg/L
Bromomethane	ND	10	µg/L
2-Butanone	ND	10	µg/L
Carbon Disulfide	ND	5	µg/L
Carbon Tetrachloride	ND	5	µg/L
Chlorobenzene	ND	5	µg/L
Chloroethane	ND	10	µg/L
2-Chloroethylvinylether	ND	10	µg/L
Chloroform	ND	5	µg/L
Chloromethane	ND	10	µg/L
Dibromochloromethane	ND	5	µg/L
1,1-Dichloroethane	ND	5	µg/L
1,1-Dichloroethene	ND	5	µg/L
1,2-Dichloroethane	ND	5	µg/L
total-1,2-Dichloroethene	ND	5	µg/L
1,2-Dichloropropane	ND	5	µg/L
cis-1,3-Dichloropropene	ND	5	µg/L
trans-1,3-Dichloropropene	ND	5	µg/L
Ethylbenzene	ND	5	µg/L
2-Hexanone	ND	10	µg/L
Methylene Chloride	ND	5	µg/L
4-Methyl-2-Pentanone	ND	10	µg/L
Styrene	ND	5	µg/L
1,1,2,2-Tetrachloroethane	ND	5	µg/L
Tetrachloroethene	ND	5	µg/L
Toluene	ND	5	µg/L
1,1,1-Trichloroethane	ND	5	µg/L
1,1,2-Trichloroethane	ND	5	µg/L
Trichloroethene	ND	5	µg/L
Trichlorofluoromethane	ND	5	µg/L
Vinyl Acetate	ND	10	µg/L
Vinyl Chloride	ND	10	µg/L
Xylenes (total)	ND	5	µg/L

ANALYZED BY: YTS DATE/TIME: 12/21/93 00:09:00
METHOD: 8240 Volatile Organics - Liquid
NOTES: * - Practical Quantitation Limit ND - Not Detected

John Durand, QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

*** SPL BATCH QUALITY CONTROL REPORT ***

Volatile Organics Method 8240

Matrix: Solid

Units: ug/Kg

Blank Spike

Spike Compounds	Method Blank Results <2>	Spike Added <3>	Blank Spike Results <1>	Blank Spike Recovery %	QC Limits (**) (Mandatory) %Recovery Range
1,1-Dichloroethene	ND	50	51	102	60-150
Trichloroethene	ND	50	48	96	65-130
Benzene	ND	50	49	98	70-140
Toluene	ND	50	49	98	60-130
Chlorobenzene	ND	50	48	96	60-130

Matrix Spikes

Spike Compounds	Sample Results <2>	Spike Added <3>	Matrix Spike Results <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Results <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative Percent Difference	QC Limits (***) (Advisory) RPD Max.	QC Limits (***) (Advisory) Recovery Range
1,1-Dichloroethene	ND	50	43	86	51	102	17	22	59-172
Trichloroethene	ND	50	50	100	50	100	0	24	62-137
Benzene	ND	50	51	102	51	102	0	21	66-142
Toluene	ND	50	50	100	51	102	2	21	59-139
Chlorobenzene	ND	50	51	102	51	102	0	21	60-133

ANALYST: YTS
SEQUENCE DATE: 12-23-93
SPL ID OF SAMPLE SPIKED: 9312472-01A
SAMPLE FILE ID: Z357S01
METHOD BLANK FILE ID: Z357B03
BLANK SPIKE FILE ID: Z357KB1
MATRIX SPIKE FILE ID: Z357K01
MATRIX SPIKE DUPLICATE FILE ID: Z357KD1

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>) x 0.5] x100
(**) = Source: SPL Lafayette, October 1993
(***) = Source: CLP SOW for Organics (3/90)

SAMPLES IN BATCH (SPL ID): 9312647-02B

John Durand, QC Officer SPL, Inc.

LAFAYETTE AREA LAB
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PHONE (318) 237-4775

le: chem/Z.i/z931223.b/z357b03.d
[illegible] 993 10:39

SPL Laboratories

RECOVERY REPORT

ıt Name:
.e Matrix: SOLID
ıt ID:
Type: MS DATA
:List File:
ɔd File: /chem/Z.i/z931223.b/zvoams.m
Info: V357M1//

Client SDG: z931223.b
Fraction: VOA
Level: MED
SampleType: SAMPLE
Quant Type: ISTD

:ROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
25 1,2-Dichloroethane	5000	4524	90.47	70-121
42 Toluene-d8	5000	4820	96.39	84-138
58 Bromofluorobenzene	5000	4767	95.34	59-113

'alues outside of QC limits
Recovery: 0 out of 3 outside limits
0 out of 3 not found

LAFAYETTE AREA LAB
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PHONE: (318) 237-4775

METHOD BLANK QA/QC REPORT

SAMPLE ID: METHOD BLANK Z357B03
MATRIX: SOIL

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	
Acetone	ND	1000	µg/Kg
Benzene	ND	500	µg/Kg
Bromodichloromethane	ND	500	µg/Kg
Bromoform	ND	500	µg/Kg
Bromomethane	ND	1000	µg/Kg
2-Butanone	2000	1000	µg/Kg
Carbon Disulfide	ND	500	µg/Kg
Carbon Tetrachloride	ND	500	µg/Kg
Chlorobenzene	ND	500	µg/Kg
Chloroethane	ND	1000	µg/Kg
2-Chloroethylvinylether	ND	1000	µg/Kg
Chloroform	ND	500	µg/Kg
Chloromethane	ND	1000	µg/Kg
Dibromochloromethane	ND	500	µg/Kg
1,1-Dichloroethane	ND	500	µg/Kg
1,1-Dichloroethene	ND	500	µg/Kg
1,2-Dichloroethane	ND	500	µg/Kg
total-1,2-Dichloroethene	ND	500	µg/Kg
1,2-Dichloropropane	ND	500	µg/Kg
cis-1,3-Dichloropropene	ND	500	µg/Kg
trans-1,3-Dichloropropene	ND	500	µg/Kg
Ethylbenzene	ND	500	µg/Kg
2-Hexanone	ND	1000	µg/Kg
Methylene Chloride	ND	500	µg/Kg
4-Methyl-2-Pentanone	ND	1000	µg/Kg
Styrene	ND	500	µg/Kg
1,1,2,2-Tetrachloroethane	ND	500	µg/Kg
Tetrachloroethene	ND	500	µg/Kg
Toluene	ND	500	µg/Kg
1,1,1-Trichloroethane	ND	500	µg/Kg
1,1,2-Trichloroethane	ND	500	µg/Kg
Trichloroethene	ND	500	µg/Kg
Trichlorofluoromethane	ND	500	µg/Kg
Vinyl Acetate	ND	1000	µg/Kg
Vinyl Chloride	ND	1000	µg/Kg
Xylenes (total)	ND	500	µg/Kg

ANALYZED BY: YTS DATE/TIME: 12/23/93 10:28:00
METHOD: 8240, Volatile Organics - Soil
NOTES: * - Practical Quantitation Limit ND - Not Detected

John Durand, QC Officer

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
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PHONE (318) 237-4775

*** SPL BATCH QUALITY CONTROL REPORT ***

Volatile Organics Method 8240

Matrix: Solid

Units: ug/Kg

Blank Spike

Spike Compounds	Method Blank Results <2>	Spike Added <3>	Blank Spike Results <1>	Blank Spike Recovery %	QC Limits (**) (Mandatory) % Recovery Range
1,1-Dichloroethene	ND	50	37	74	60-150
Trichloroethene	ND	50	50	100	65-130
Benzene	ND	50	53	106	70-140
Toluene	ND	50	54	108	60-130
Chlorobenzene	ND	50	53	106	60-130

Matrix Spikes

Spike Compounds	Sample Results <2>	Spike Added <3>	Matrix Spike Results <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Results <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative Percent Difference	QC Limits (***) (Advisory) RPD Max.	QC Limits (***) (Advisory) Recovery Range
1,1-Dichloroethene	ND	50	42	84	43	86	2	22	59-172
Trichloroethene	ND	50	45	90	43	86	5	24	62-137
Benzene	ND	50	48	96	45	90	6	21	66-142
Toluene	ND	50	46	92	44	88	4	21	59-139
Chlorobenzne	ND	50	43	86	39	78	10	21	60-133

ANALYST: YTS
SEQUENCE DATE: 12-21-93
SPL ID OF SAMPLE SPIKED: 9312515-03A
SAMPLE FILE ID: Z355S01
METHOD BLANK FILE ID: Z355B03
BLANK SPIKE FILE ID: Z355KB3
MATRIX SPIKE FILE ID: Z355K01
MATRIX SPIKE DUPLICATE FILE ID: Z355KD1

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>) x 0.5] x100
(**) = Source: SPL Lafayette, October 1993
(***) = Source: CLP SOW for Organics (3/90)

SAMPLES IN BATCH (SPL ID): 9312515-03A
9312523-01C,02C
9312647-01B,03B,04B
9312578-01C,02C

John Durand, QC Officer SPL, Inc.

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PHONE: (318) 237-4775

/chem/Z.i/z931221.b/z355b03.d
Date: 21-DEC-1993 13:40

SPL Laboratories

RECOVERY REPORT

t Name:
e Matrix: SOLID
t ID:
Type: MS DATA
List File:
d File: /chem/Z.i/z931221.b/zvoals.m
Info: V355S1//

Client SDG: z931221.b
Fraction: VOA
Level: LOW
SampleType: SAMPLE
Quant Type: ISTD

ROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
25 1,2-Dichloroethane	50.00	54.24	108.47	70-121
42 Toluene-d8	50.00	48.12	96.24	84-138
58 Bromofluorobenzene	50.00	51.32	102.65	59-113

alues outside of QC limits
Recovery: 0 out of 3 outside limits
0 out of 3 not found

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
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METHOD BLANK QA/QC REPORT

SAMPLE ID: METHOD BLANK Z355B03
MATRIX: SOIL

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	10	µg/Kg
Benzene	ND	5	µg/Kg
Bromodichloromethane	ND	5	µg/Kg
Bromoform	ND	5	µg/Kg
Bromomethane	ND	10	µg/Kg
2-Butanone	ND	10	µg/Kg
Carbon Disulfide	ND	5	µg/Kg
Carbon Tetrachloride	ND	5	µg/Kg
Chlorobenzene	ND	5	µg/Kg
Chloroethane	ND	10	µg/Kg
2-Chloroethylvinylether	ND	10	µg/Kg
Chloroform	ND	5	µg/Kg
Chloromethane	ND	10	µg/Kg
Dibromochloromethane	ND	5	µg/Kg
1,1-Dichloroethane	ND	5	µg/Kg
1,1-Dichloroethene	ND	5	µg/Kg
1,2-Dichloroethane	ND	5	µg/Kg
total-1,2-Dichloroethene	ND	5	µg/Kg
1,2-Dichloropropane	ND	5	µg/Kg
cis-1,3-Dichloropropene	ND	5	µg/Kg
trans-1,3-Dichloropropene	ND	5	µg/Kg
Ethylbenzene	ND	5	µg/Kg
2-Hexanone	ND	10	µg/Kg
Methylene Chloride	ND	5	µg/Kg
4-Methyl-2-Pentanone	ND	10	µg/Kg
Styrene	ND	5	µg/Kg
1,1,2,2-Tetrachloroethane	ND	5	µg/Kg
Tetrachloroethene	ND	5	µg/Kg
Toluene	ND	5	µg/Kg
1,1,1-Trichloroethane	ND	5	µg/Kg
1,1,2-Trichloroethane	ND	5	µg/Kg
Trichloroethene	ND	5	µg/Kg
Trichlorofluoromethane	ND	5	µg/Kg
Vinyl Acetate	ND	10	µg/Kg
Vinyl Chloride	ND	10	µg/Kg
Xylenes (total)	ND	5	µg/Kg

ANALYZED BY: YTS DATE/TIME: 12/21/93 13:29:00
METHOD: 8240, Volatile Organics - Soil
NOTES: * - Practical Quantitation Limit ND - Not Detected

John Durand, QC Officer

QUALITY CONTROL DOCUMENTATION

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE: (318) 237-4775

/chem/Z.i/z931220.b/z354s06.d
Date: 21-DEC-1993 09:10

SPL Laboratories

RECOVERY REPORT

ent Name: Client SDG: z931220.b
ple Matrix: LIQUID Fraction: VOA
ent ID: Level: LOW
a Type: MS DATA SampleType: SAMPLE
ceList File: 8240water.spk Quant Type: ISTD
thod File: /chem/Z.i/z931220.b/zvo8240w.m
a Info: V354W1/Z354B03/

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
25 1,2-Dichloroethane	50.00	51.31	102.63	76-114
42 Toluene-d8	50.00	50.79	101.59	88-110
58 Bromofluorobenzene	50.00	49.79	99.59	86-115

Values outside of QC limits
e Recovery: 0 out of 3 outside limits
0 out of 3 not found

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-13

G & E ENGINEERING, INC. **SAMPLE ID:** 2425-WE-1

ANALYZED BY: YTS DATE/TIME: 12/21/93 03:07:00
METHOD: 8240, Volatile Organics - Water
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS: Associated Blank: Z354B03 File ID: Z354S06

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT, LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-13

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-WE-1

PROJECT NO: 1A-2425
MATRIX: WATER
DATE SAMPLED: 12/16/93 11:07:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	10	µg/L
Benzene	ND	5	µg/L
Bromodichloromethane	ND	5	µg/L
Bromoform	ND	5	µg/L
Bromomethane	ND	10	µg/L
2-Butanone	ND	10	µg/L
Carbon Disulfide	ND	5	µg/L
Carbon Tetrachloride	ND	5	µg/L
Chlorobenzene	ND	5	µg/L
Chloroethane	ND	10	µg/L
2-Chloroethylvinylether	ND	10	µg/L
Chloroform	ND	5	µg/L
Chloromethane	ND	10	µg/L
Dibromochloromethane	ND	5	µg/L
1,1-Dichloroethane	ND	5	µg/L
1,1-Dichloroethene	ND	5	µg/L
1,2-Dichloroethane	ND	5	µg/L
total-1,2-Dichloroethene	ND	5	µg/L
1,2-Dichloropropane	ND	5	µg/L
cis-1,3-Dichloropropene	ND	5	µg/L
trans-1,3-Dichloropropene	ND	5	µg/L
Ethylbenzene	ND	5	µg/L
2-Hexanone	ND	10	µg/L
Methylene Chloride	ND	5	µg/L
4-Methyl-2-Pentanone	ND	10	µg/L
Styrene	ND	5	µg/L
1,1,2,2-Tetrachloroethane	ND	5	µg/L
Tetrachloroethene	ND	5	µg/L
Toluene	ND	5	µg/L
1,1,1-Trichloroethane	ND	5	µg/L
1,1,2-Trichloroethane	ND	5	µg/L
Trichloroethene	ND	5	µg/L
Trichlorofluoromethane	ND	5	µg/L
Vinyl Acetate	ND	10	µg/L
Vinyl Chloride	ND	10	µg/L
Xylenes (total)	ND	5	µg/L

METHOD: 8240, Volatile Organics - Water

(continued on next page)

LAFAYETTE AREA LAB
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PHONE (318) 237-4775

e: /chem/Z.i/z931220.b/z354s05.d
: 21-JUN-1993 09:10

SPL Laboratories

RECOVERY REPORT

nt Name:
le Matrix: LIQUID
nt ID:
Type: MS DATA
eList File: 8240water.spk
od File: /chem/Z.i/z931220.b/zvo8240w.m
Info: V354W1/Z354B03/

Client SDG: z931220.b
Fraction: VOA
Level: LOW
SampleType: SAMPLE
Quant Type: ISTD

RROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
25 1,2-Dichloroethane	50.00	50.59	101.18	76-114
42 Toluene-d8	50.00	50.99	101.99	88-110
58 Bromofluorobenzene	50.00	50.64	101.30	86-115

Values outside of QC limits
e Recovery: 0 out of 3 outside limits
0 out of 3 not found

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE (318) 237 4775

Certificate of Analysis No. 9312647-12

G & E ENGINEERING, INC. **SAMPLE ID:** 2425-WT-1

ANALYZED BY: YTS DATE/TIME: 12/21/93 02:31:00
METHOD: 8240, Volatile Organics - Water
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS: Associated Blank: Z354B03 File ID: Z354S05

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583-8544
PHONE (318) 237-4775

Certificate of Analysis No. 9312647-12

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-WT-1

PROJECT NO: 1A-2425
MATRIX: WATER
DATE SAMPLED: 12/15/93 09:05:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	10	µg/L
Benzene	ND	5	µg/L
Bromodichloromethane	ND	5	µg/L
Bromoform	ND	5	µg/L
Bromomethane	ND	10	µg/L
2-Butanone	ND	10	µg/L
Carbon Disulfide	ND	5	µg/L
Carbon Tetrachloride	ND	5	µg/L
Chlorobenzene	ND	5	µg/L
Chloroethane	ND	10	µg/L
2-Chloroethylvinylether	ND	10	µg/L
Chloroform	ND	5	µg/L
Chloromethane	ND	10	µg/L
Dibromochloromethane	ND	5	µg/L
1,1-Dichloroethane	ND	5	µg/L
1,1-Dichloroethene	ND	5	µg/L
1,2-Dichloroethane	ND	5	µg/L
total-1,2-Dichloroethene	ND	5	µg/L
1,2-Dichloropropane	ND	5	µg/L
cis-1,3-Dichloropropene	ND	5	µg/L
trans-1,3-Dichloropropene	ND	5	µg/L
Ethylbenzene	ND	5	µg/L
2-Hexanone	ND	10	µg/L
Methylene Chloride	ND	5	µg/L
4-Methyl-2-Pentanone	ND	10	µg/L
Styrene	ND	5	µg/L
1,1,2,2-Tetrachloroethane	ND	5	µg/L
Tetrachloroethene	ND	5	µg/L
Toluene	ND	5	µg/L
1,1,1-Trichloroethane	ND	5	µg/L
1,1,2-Trichloroethane	ND	5	µg/L
Trichloroethene	ND	5	µg/L
Trichlorofluoromethane	ND	5	µg/L
Vinyl Acetate	ND	10	µg/L
Vinyl Chloride	ND	10	µg/L
Xylenes (total)	ND	5	µg/L

METHOD: 8240, Volatile Organics - Water

(continued on next page)

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY
SCOTT LOUISIANA
ZIP 70583 8544
PHONE 318 237 4775

Certificate of Analysis No. 9312647-11

G & E ENGINEERING, INC.
4915 S. SHERWOOD FOREST BLVD.
BATON ROUGE, LA 70816
ATTN: TOM EWING

P.O.# BR-3969
DATE: 12/27/93

PROJECT: LEEVAC (SBA) SHIPYARDS
SITE: JENNINGS, LOUISIANA
SAMPLED BY: G & E ENGINEERING, INC.
SAMPLE ID: 2425-CS-5

PROJECT NO: 1A-2425
MATRIX: SOIL
DATE SAMPLED: 12/16/93 16:38:00
DATE RECEIVED: 12/18/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Lead, Total Method 7420 *** Analyzed by: PB Date: 12/23/93 09:00:00	870	10 M	mg/Kg
Selenium, Total Method 7740 *** Analyzed by: MC Date: 12/21/93 14:26:00	0.4	0.2	mg/Kg

(M) - Method Detection Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: Analytical results reported as Wet Weight.

QUALITY ASSURANCE: This analysis was performed in accordance with EPA guidelines for analysis and quality control. Results reported on a Wet Weight Basis except for those under the 29-B ruling.

C. A. Guardia, Laboratory Manager

TABLE 4
ANALYTICAL LABORATORY RESULTS
COMPOSITE SURFACE MATERIALS SAMPLES
DECEMBER 16, 1993

Parameter (units)	Sample ID				
	CS-1	CS-2	CS-3	CS-4	CS-5
TPH (mg/kg)	21	330	2100	790	650
Total Metals (mg/kg)					
Arsenic	0.2	2.3	4.8	0.7	5.2
Barium	10	10	80	10	100
Cadmium	ND	ND	ND	ND	ND
Chromium	1	10	ND	ND	ND
Mercury	ND	ND	ND	ND	ND
Lead	ND	ND	40	ND	870
Selenium	0.2	0.2	0.5	ND	0.4
Silver	ND	ND	ND	ND	ND
Total Metals by TCLP (mg/L)					
Arsenic	NA	0.003	0.004	NA	0.003
Barium	NA	0.3	0.6	NA	1.0
Cadmium	NA	0.018	0.053	NA	0.032
Chromium	NA	ND	ND	NA	ND
Mercury	NA	ND	ND	NA	ND
Lead	NA	ND	0.2	NA	0.2
Selenium	NA	0.002	ND	NA	0.003
Silver	NA	0.01	0.02	NA	0.01

Notes:
(1) mg/kg = milligrams per kilogram, which is equivalent to parts per million (ppm).
(2) mg/L = milligrams per liter, which is equivalent to parts per million (ppm).
(3) TCLP = Toxicity Characteristic Leaching Procedure
(4) ND = Not detected above the laboratory practical quantitation limit; the laboratory practical quantitation limits varied; see Appendix C.
(5) NA = Not analyzed
(6) Laboratory Methods
- o U.S. EPA Methods for Chemical Analysis of Water and Wastes, 1983, Method 418.1 for total petroleum hydrocarbons.
- o U.S. EPA Test Methods for Evaluating Solid Waste, SW-846, Third Edition, November 1986, Method from 7000 series for total metals and metals by TCLP leachate.

TABLE 3
ANALYTICAL LABORATORY RESULTS
GROUNDWATER SAMPLES
DECEMBER 16, 1993

Parameters (Units)	Boring ID			
	B-1	B-2	B-3	B-4
TPH (mg/L)	ND	NS	1	NS
VOCs (mg/kg)	ND	NS	ND	NS

Notes:
(1) mg/L = milligrams per liter, which is equivalent to parts per million (ppm).
(2) µg/L = micrograms per liter, which is equivalent to parts per billion (ppb).
(3) TPH = Total Petroleum Hydrocarbons
(4) VOCs = Volatile organic compounds
(5) ND = Not detected above the laboratory practical quantitation limit; the laboratory limits varied; see Appendix C.
(6) NS = Not sampled due to absence of groundwater in boring.
(7) Laboratory Methods:
- o U.S. EPA Methods for Chemical Analysis of Water and Wastes, 1983, Method 418.1 for total petroleum hydrocarbons.
- o U.S. EPA Test Methods for Evaluating Solid Wastes, SW-846, Third Edition, November 1986, Method 8240 for volatile organic compounds.

TABLE 2
ANALYTICAL LABORATORY RESULTS
SOIL SAMPLES
DECEMBER 16, 1993

Parameters (Units)	Boring ID With Sample Depth			
	B-1 9'-10'	B-2 8'-9'	B-3 7'-8'	B-4 7'-8'
TPH (mg/kg)	ND	1700	ND	ND
VOCs (~~mg/kg~~ µg/kg)				
Benzene	8	ND	ND	ND
2-Butanone	ND	1400	ND	ND
Ethylbenzene	ND	2200	ND	ND
Methylene Chloride	6	ND	ND	5
Xylenes (total)	ND	3900	ND	ND

Notes:
(1) mg/kg = milligrams per kilogram, which is equivalent to parts per million (ppm).
(2) µg/kg = micrograms per kilogram, which is equivalent to parts per billion (ppb).
(3) TPH = Total Petroleum Hydrocarbons
(4) ND = Not detected above the laboratory practical quantitation limit; the laboratory limits varied; see Appendix C.
(5) VOCs = Volatile organic compounds. Only those compounds detected during laboratory analysis are listed.
(6) Laboratory Methods:
- o U.S. EPA Methods for Chemical Analysis of Water and Wastes, 1983, Method 418.1 for total petroleum hydrocarbons.
- o U.S. EPA Test Methods for Evaluating Solid Wastes, SW-846, Third Edition, November 1986, Method 8240 for volatile organic compounds.

TABLE 1

FIELD SCREENING OF SOIL AND GROUNDWATER SAMPLES FROM BORINGS
DECEMBER 16, 1993

	HNU Units, ppm*			
Depth (ft)	B-1	B-2	B-3	B-4
0-1	NA	NA	7	<1
1-2	NA	NA	2	1
2-3	NA	NA	1	1
3-4	NA	NA	1	1
4-5	NA	NA	1	1
5-6	NA	NA	1	1
6-7	NA	NA	<1	1
7-8	NA	NA	2	1
8-9	NA	NA		
9-10	NA			
10-11	NA			
Parameter				
pH (Standard Units)	NA	NS	NA	NS
Specific Conductance (μmhos/cm)	2600	NS	2500	NS
Temperature (°C)	25	NS	NS	24

*ppm = parts per million

NA = Not screened due to equipment malfunction.
NS = Not sampled due to absence of groundwater in boring.

Attachments: Tables 1 through 4
Figures 1 through 3
Appendix A: Field Investigation Protocols
Appendix B: Boring Logs
Appendix C: Analytical Laboratory Report and Chain-of-Custody Document
Photographs 1 through 12

cc: Mr. Richard Cryar
Cari Investment Company
New Orleans, Louisiana

- Abrasive blasting equipment should be upgraded to contain spent blasting material from escaping the general work area. Upon completion of blasting operations, all spent materials should be stockpiled in a location away from the adjacent Mermentau River pending disposition in a nonhazardous waste landfill following proper materials characterization.

- Bulk fuel storage areas and the pump station should be properly upgraded with an appropriate containment barrier to prevent runoff from spillage and/or leaks from entering the Mermentau River.

- Further investigation should be conducted to further define the extent of subsurface hydrocarbon impact in the vicinity of borings B-1, B-2, and B-4.

- Additional sampling of spent abrasive blasting materials from the area of composite samples CS-3 and CS-5 should be conducted to define the extent of elevated lead cocnentrations in these areas. Following delineation, spent abrasive materials may have to be removed from the site and disposed in an appropriate non-hazardous waste landfill.

- Leaking compressors and or other equipment used in the operation of the shipyard should be repaired as necessary to prevent further impact to surface areas from released lubricants.

G&E appreciates the opportunity to be of service to LeeVac Shipyards, Inc. If you have any questions concerning this report, please call either of the undersigned at G&E Engineering, Inc. (504) 292-9007.

Sincerely,
G&E ENGINEERING, INC.

Randal J. Landry, PG
Project Manager

Leonard H. Sedlin, PE
Vice President

RJL/LHS:wc

summarized in Table 2 through 4. The analytical laboratory report and chain-of-custody document for these samples is included in Appendix C.

The laboratory utilized analytical methods approved by the Louisiana Department of Environmental Quality (LaDEQ). Soil and groundwater samples submitted to SPL were analyzed for TPH by Method 418.1 using U.S. EPA Methods for Chemical Analysis of Water and Wastes, 1983; and for VOCs by Method 8240 using U.S. EPA Test Methods for Evaluating Solid Waste, SW-846, Third Edition, November 1986. Composite soil samples were analyzed for TPH by Method 418.1; and for total RCRA metals and TCLP metals by Methods from the 7000 series using U.S. EPA Test Methods for Evaluating Solid Waste, SW-846, Third Edition, November 1986. In addition to the soil samples analyses, the laboratory report includes quality assurance/quality control data and analytical results for one trip blank sample (2425-WT-1).

Upon completion of sampling activities, all borings were abandoned by placing a thick cement-bentonite grout mix from bottom to surface grade.

REGULATORY RESEARCH. The regulatory agency files review was previously conducted and the findings presented to Cari in a letter reported dated December 7, 1993.

SUMMARY OF FINDINGS. The following is a summary of the findings of the Limited Phase I Environmental Assessment and Site Investigation conducted at the subject property:

- The results of continuous HNU screening of two soil samples from the hand-augered soil borings did not exceed 7 ppm and were not indicative of the presence of volatile organics. (Two samples were not screened.)

- Laboratory analysis of the soil sample from boring B-2 detected TPH constituent concentrations of 1,700 milligrams per kilogram (mg/kg). No TPH constituents were detected above the laboratory practical quantitation limit of 10 mg/kg in samples collected from borings B-1, B-3 and B-4.

- Analyses of soil samples from the borings indicated the presence of varying concentrations of the following VOCs: benzene and methylene chloride (B-1); 2-butanone, ethylbenzene, and xylenes (B-2); and methylene chloride (B-4). No VOCs were detected in boring B-3.

- Analyses of the groundwater samples collected from borings B-1 and B-3 did not indicate the presence of TPH or VOC constituents above the laboratory practical quantitation limit, except for a 1 milligram per liter (mg/L) concentration of TPH in B-3, which was the quantitation limit for this analysis.

- Five composite surface materials samples collected from various areas across the site were analyzed for the presence of TPH and RCRA metals. TPH constituents were detected in all samples ranging from a low of 21 milligrams per kilogram (mg/kg) in sample CS-1 to a maximum of 2,100 mg/kg in sample CS-3. Varying concentrations of arsenic, barium, chromium, mercury, lead, and/or selenium were detected above the laboratory practical quantitation limit in all composite samples. No detectable concentrations of cadmium or silver were found in any of the composite samples analyzed.

- Elevated lead levels were detected in composite samples CS-3 (40 mg/kg) and CS-5 (870 mg/kg). However, the levels of lead and other metals detected by TCLP analysis from composite samples CS-2, CS-3 and CS-5 did not have leachate which was at a level of regulatory concern.

CONCLUSIONS. The following conclusions are made as a result of the findings of the modified Phase I assessment:

- Based on the TPH and VOC constituent concentrations detected in the soil sample from boring B-2, the hydrocarbon impact at this location may be environmentally significant. The source of these constituents could not be determined in the field as no overt source for these compounds was identified. The benzene concentration detected in boring B-1 does not appear to be significant; the methylene chloride concentrations detected in this boring and boring B-4 may be indicative of a laboratory quality assurance problem.

- The results of the analyses of the two groundwater samples (B-1 and B-3) indicates historical operations do not appear to have impacted the shallow groundwater resources below the site in the areas sampled. However, site-wide characterization of the groundwater resources at the site, and the degree of impact, if any, from historical site operations cannot be determined due to the limited scope of this investigation.

- The concentrations of detected metals in the composite soil samples were within the normal range for metals found in soils, except for lead levels, and do not appear to pose and environmental concern. The results of the TCLP analyses of three composite surface materials samples composed principally abrasive blast materials residue, do not have leachate which exceed the regulatory action level for the range of metal detected.

RECOMMENDATIONS: Based on the conclusions of the modified Phase I assessment, the following recommendations are made:

- Solid waste (paint cans, debris, etc.) should be removed and disposed in an appropriate manner.

public water supplies. The Chicot is divided into upper and lower zones in this area with the two intervals separated by a relatively continuous clay horizon. The lower Chicot aquifer is apparently brackish to saline in this area and is not used as a drinking water resource. The deeper Evangeline and Jasper aquifers may also be present in the Pliocene age sediments underlying the Chicot, but are also saline in this area.

SITE INVESTIGATION. On December 16, 1993, G&E personnel (Messrs. Randal J. Landry and Michael D. Luckett) conducted the site investigation. Four hand-augered soil exploration borings were installed at selected areas across the site in accordance with G&E's field investigation protocols outlined in Appendix A, the locations of which are shown on Figure 3. Due to the shallow depths of groundwater generally encountered during subsurface investigations in southern Louisiana, all borings were scheduled to a maximum depth of 15 feet. However, groundwater was encountered in only two of the four borings installed.

Soil samples were collected from each boring at 1-foot intervals and visually/manually inspected in the field for evidence of environmental impact and for classification of soil type. New, clean, latex gloves were worn when examining samples for soil classification, characteristics, odor, and visual evidence of petroleum hydrocarbons or other substances of potential environmental concern which may have been used at the site. Soil descriptions are included on the boring logs presented in Appendix B.

Immediately upon collection, portions of each soil sample were placed in an airtight plastic bag. Upon completion of each borehole, the headspace of each bagged sample was screened with a portable photoionization analyzer (HNU). However, an equipment malfunction prevented the screening of samples from borings B-1 and B-2. The maximum HNU value recorded from the samples collected from borings B-3 and B-4 was 7 parts per million (ppm) in the 1- to- 2-foot interval from boring B-3. All other HNU values were 2 ppm or less. The result of these field screening tests are presented in Table 1 and on the boring logs in Appendix B.

One soil sample was collected from each boring and was submitted for laboratory analyses for TPH and VOC constituents. Groundwater samples were collected from borings B-1 and B-3 for field analyses (pH, specific conductance, and temperature) and subsequent laboratory analysis. No groundwater accumulated in borings B-2 and B-4 following installation. The field analytical results are included on Table 1. Additionally, five composite surface materials samples were collected at selected locations across the site for analysis.

All samples were placed in clean, laboratory-supplied sample containers provided by G&E's subcontractor, SPL, Inc. (SPL) in Scott, Louisiana, placed on ice, and subsequently transported by SPL courier, following strict chain-of-custody procedures, to SPL for analyses. The analytical laboratory results for the soil and groundwater samples are

- Construction debris, principally scrap iron, was observed in various locations across the site.

- Asphaltic-like materials were observed at various locations throughout the site. A heavy asphalt mat was observed east of the pump station located at the northeast corner of the site. Reportedly, the materials originated from the cleaning of asphalt barges and from the spreading hydrocarbon wastes associated with the sludge pits operated by SBA which are located at the southern area of the SBA-owned site (Photograph 3).

- Hydrocarbon impact to surface areas was noted adjacent to the pump station and bulk fuel storage areas located along the northern property boundary adjacent to the Mermentau River (Photographs 4 and 5).

- Spent abrasive blasting materials were observed on surface areas throughout the site. These materials are applied under pressure to clean metal surfaces prior to repair operations and/or following vessel fabrication in preparation for painting. No spent abrasives containment devices or centralized waste materials storage area were observed to be in use (Photograph 6).

- Used automotive batteries were observed stockpiled on the southern side of the machine shop (Photograph 7). An area on the north side of the machine shop has been impacted by hydrocarbons (Photograph 8).

- The air compressor located at the rear of the machine shop was noted to be leaking oil. A significant quantity of oil appears to have leaked from the unit and impacted the ground surfaces surrounding the compressor and on the floor of the building housing the compressor. Sand has been spread inside and around the compressor building to absorb the oil (Photographs 9 and 10).

- Waste paint cans and other debris were observed inside a small storage building near the southern boundary of the LeeVac lease (Photographs 11 and 12).

SITE GEOLOGIC/HYDROGEOLOGIC CONDITIONS. The site is a slightly elevated tract of land located adjacent to the Mermentau River in the Gulf Coastal Plain. The land lies approximately 10-to-15 feet above sea level (NGVD) and approximately five feet above the elevation of the river. Natural drainage from the site is radially outwards to the river and abandoned river channels in the backswamp areas. Four boat slips have been excavated into the site periphery from the Mermentau River. The surface soils consists of recent alluvial sands, silts, and clays associated with channel and backswamp deposits of the Mermentau River.

Pleistocene age sand and gravels are located within 200 feet of the ground surface, and contain the Chicot aquifer, a regional aquifer which is extensively utilized for irrigation and

SITE DESCRIPTION. The property is a 17.85-acre tract of land located in the northern portion of the original SBA site on the Mermentau River, east of the town of Jennings, Louisiana, approximately two miles south of U.S. Highway 90. The property is bounded on the north and east by the Mermentau River; on the south by the 79.19-acre tract of land operated by the owner of SBA; and on the west by agricultural/grazing lands.

Public utility services to the site include electrical and natural gas service from Entergy Corporation (formerly Gulf States Utilities); and telephone service from South Central Bell. Potable water is obtained from an onsite water well. Sanitary sewerage service is provided by a septic tank system. Solid wastes generated at the site are disposed by Browning-Ferris Industries.

G&E understands that the property has been in continuous operations as a shipyard fabrication and repair facility for at least 40 years. The portion of the property leased by LeeVac does not include those areas previously identified by the Louisiana Department of Environmental Quality as containing hydrocarbon compounds and hazardous wastes.

SITE INSPECTION. On December 16, 1993, a site inspection was conducted by G&E professional staff. This included a reconnaissance survey of the immediate surrounding area. Documentary photographs are included herein for reference. Photographs not included herein will be retained in G&E's files for future reference.

The inspection was conducted by walking the site boundaries as follows: north and east along the property line bounded by the Mermentau River; south, lease line between the site and the 79.19-acre tract being operated by SBA; and west, along the site perimeter fence separating the site from the Bowman farm acreage (see Figures 2 and 3). The LeeVac site is located in Section 19, Township 10 South, Range 2 West, Jefferson Davis Parish, and covers approximately 17.85 acres of land in the northern portion of the original SBA site. Panoramic views of the site are shown in Group Photographs 1 and 2. Principal features of the site include:

- A two-story wood office building is located at the northwest corner of the LeeVac property at the entrance to the site. Other structures observed on the LeeVac site include: building ways and marine railway slips; engraving dock; fabrication slab; two warehouse buildings; machine shop; carpenter/electrical shop; air compressor stations; tool sheds; pump house; miscellaneous storage sheds; and bulk fuel storage area.

- The entire facility is enclosed by a chainlink fence along the northern and southern property boundaries to the intersection with the Mermentau River and on the west along the property identified as Bowman farm land (see Figure 3). Although the property has been professionally surveyed as shown in Figure 2, there is no clearly defined boundary between the active SBA property and that portion of the former SBA property currently leased to LeeVac.

property. Accordingly, the modified Phase I assessment acts to reduce the risk of unknown environmental liabilities by identifying potential items of concern; however, G&E offers no warranty, expressed or implied, that all items of potential concern will be identified by a thorough, professionally prudent investigation within the limited scope of the project. The authorized scope of work included:

- Conducting a detailed site inspection of the portion of the property to be leased and surrounding areas to determine and document environmental concerns that are visible or indicated, exclusive of the previously-identified problems associated with the four waste pits and the solid waste land farm;

- Installing four soil exploration borings by hand augering to first-encountered groundwater (maximum depth 15 feet);

- Collecting continuous soil samples from the borings for the purpose of characterizing soil types and stratigraphy, and field screening for volatile organic compounds (VOCs) using a portable photoionization analyzer (HNU Model PI 101 [HNU]);

- Collecting one soil sample from each boring for subsequent laboratory analyses for total petroleum hydrocarbons (TPH); and volatile organic compounds (VOCs);

- Collecting first-encountered groundwater samples from the borings (if sufficient groundwater accumulates) for field analyses (pH, specific conductance, and temperature) and subsequent laboratory analyses for TPH and VOCs;

- Abandoning the boreholes following sampling activities by filling them from bottom to surface grade with a cement-bentonite grout mixture;

- Collecting surficial soil samples (0-to-1-foot in depth) at selected locations on road surfaces and low-lying areas of the site where waste materials from past site operations may have been spread for subsequent laboratory analysis for TPH and Resource Conservation and Recovery Act (RCRA) metals (8) by the Toxicity Characteristic Leaching Procedure (TCLP);

- Compiling and evaluating field observations and laboratory analytical data;

- Providing a verbal report of findings upon completion of field work and evaluation of analytical laboratory data; and

- Preparing a summary report of findings upon completion of the above scope of work to include recommendations for performing additional site investigation work, as necessary, to address environmental concerns noted.

G & E ENGINEERING, INC.
ENVIRONMENTAL CONSULTANTS

77510
OUGE, LOUISIANA 70879-7510

4915 SOUTH SHERWOOD FOREST BOULEVARD
BATON ROUGE, LOUISIANA 70816

(504) 292-9007

TABLES

FIGURES

APPENDICES

February 22, 1994

Mr. Fred Stokes, Manager
LeeVac Shipyards, Inc.
P.O. Box 1190
HWY 90 East
Jennings, LA 70546

Re: Modified Phase I Environmental Assessment
and Limited Site Investigation
SBA Shipyards, Inc.
9040 Castex Landing
Jennings, Jefferson Davis Parish, Louisiana
G&E File: 1A-2425

Dear Mr. Stokes:

G&E Engineering, Inc. (G&E) has completed the Modified Phase I Environmental Assessment and Limited Site Investigation (Phase I) of a portion of the SBA Shipyards, Inc. (SBA) property (approximately 97 acres) at the above referenced location. This assessment was recommended by G&E in a letter report dated December 7, 1993 following a regulatory agency files review performed on behalf of Cari Investment Company (Cari). On December 8, 1993, following a review of G&E's letter report, Mr. Fred Stokes of LeeVac Shipyards, Inc. (LeeVac), a Cari subsidiary, authorized G&E to proceed with the site assessment. LeeVac has subsequently entered into an agreement to lease a portion (17.85 acres) of the SBA property.

The modified Phase I assessment encompasses shipways, buildings, drydock and associated facilities and land, and specifically excludes certain surface impoundments and a solid waste land farm on the southern and eastern portions of the property. A vicinity map showing the location of the site is presented on Figure 1. A surveyed plat depicting the area of the SBA property leased by LeeVac is shown on Figure 2. Figure 3 is a hand-drawn site plan (dated 3/8/89) obtained during the regulatory files research which depicts all pertinent features located on the entire SBA property.

SCOPE OF WORK. The purpose of the modified Phase I assessment is to further investigate the potential areas of environmental concern identified during G&E's review of regulatory agency files pursuant to LeeVac's proposed lease of a portion of the SBA

S B A INC
SHIPYARDS
JENNINGS, LOUISIANA

TELEPHONE (318) 324-1519 / P. O. BOX 1386 / JENNINGS, LOUISIANA 70546
FAX (318) 824-8330 / foot of LA Hwy #3166

98 SEP -4 AM 9:24

HAZARDOUS WASTE COMP.
ENFORCEMENT SECTION

September 21, 1998

U.S. Environmental Protection Agency
Hazardous Waste Enforcement BEN-HX Branch
1445 Ross Avenue, Ste 900
Dallas, TX 75202-2733

Attn: Gene Keepper

Subj: Requested Information on LeeVac Leased

Ref: Reports of samples taken

Dear Mr. Keepper;

As requested in our meeting of 9/17/98, we are providing a copy of sampling that LeeVac Shipyard, Inc., conducted before they leased property from S.B.A. Shipyards, Inc.

Should you have any question do not hesitate to call.

Respectfully submitted;

Louis Smaihall
President

cc: Woodward-Clyde

Nibco, Incorporated., Nacogdoches, Texas: On August 2, 2005, the Hazardous Waste Enforcement Branch received a response to its request for information under Section 3007 of the Resource Conservation and Recover Act (RCRA) from Nibco, Inc. in Nacogdoches, Texas. The response is being reviewed to investigate potential violations of the Resource Conservation and Recovery Act and the Clean Water Act. This case was referred to DOJ on September 29, 2004. Analytical results from soil samples obtained on-site indicate that the material disposed is characteristic hazardous waste due to elevated lead levels (e.g., analytical sample results of 229 mg/L TCLP lead vs. regulatory limit for toxicity for lead of 5.0 mg/L TCLP). It is anticipated that the case will involve both enforcement and corrective actions. **Technical Contacts: Ellen Belk (214)665-2164, Everett Spencer (214) 665-8060, David Robertson (214)665-7363; Legal Contact: John Emerson (214)665-3137.**

SBA Shipyards, Inc., Jennings, LA: On July 20, 2005, a letter was sent to eight facilities as part of the SBA Shipyards, Inc. cleanup project in Jennings, Louisiana. The letters provided Notification as Co-Generators and Request for a Response regarding Investigation and Remediation Activities at SBA Shipyards, Inc. The notification presents an opportunity for each of the eight facilities to enter into an agreement with EPA, LDEQ, and other participants in conducting a second phase of cleanup at SBA Shipyards under the Resource Conservation and Recovery Act (RCRA). Each facility was given 60 days to respond to the letter. **Technical Contacts: Ellen Belk (214)665-2164, Gene Keepper (214) 665-2280; Legal Contacts: Scott McDonald (214)665-, Christine Angelitti (214)665-.**

Quality Assurance Management Training Course: July 26 - 29, 2005, Ellen Belk attended a 4-day training course entitled Orientation to Quality Assurance Management.
Technical Contact: Ellen H. Belk (214) 665-2164.

Managing Uncertainty and Systematic Planning for Environmental Decision Making Training Course:
August 2-4, 2005, Ellen Belk attended a 3-day course entitled Managing Uncertainty and Systematic Planning for Environmental Decision Making.
Technical Contact: Ellen H. Belk (214) 665-2164.

Visual Sample Plan Training Course: July 26 - 29, 2005, Ellen Belk attended a 1-day training course entitled Visual Sample Plan Training Course for VSP Version 3.0.
Technical Contact: Ellen H. Belk (214) 665-2164.

Jesco

Environmental & Geotechnical Services, Inc.

WORKING COPY

Mr. Mike Di Giglia
Schwab and Walters
10636 Linkwood Court
Baton Rouge, LA 70810-2854

Re: Subsurface Sampling Investigation
SBA Shipyards
Jennings, Louisiana

Dear Mr. Di Giglia:

On March 28, 1996 Jesco Environmental and Geotechnical Services, Inc. (Jesco) conducted two soil borings (A and B) in the areas outlined in your March 20, 1996 fax.

The two soil borings were conducted utilizing direct push technology. Discreet soil samples were obtained throughout the entire depth of the borehole. These samples were logged and head space analysis was conducted on each sample using a photo ionization detector.

When the first unconfined aquifer was reached soil sampling was discontinued. The borings were then over drilled using a trailer mounted drilling rig. Two 2 inch diameter temporary wells were then set and allowed to recharge. Water samples were then collected from the temporary wells utilizing disposable polyethylene bailers. The water samples were submitted to the laboratory following the proper chain of custody procedures and analyzed for Volatiles (EPA Method 624), Semi-Volatiles (EPA Method 625) and Total Metals (EPA Methods 200.7, 206.3, 245.1 and 270.3). After sample collection, the wells were removed and the boreholes were plugged and abandonded.

Field observations indicated the presence of NAPL in both soils and groundwater. Headspace analysis also indicated the presence of volatile organic compounds. These observations are noted on the soil boring logs.

Laboratory analysis indicated the presence of both volatile and semivolatile compounds in both of the groundwater samples collected. Phenolic compounds were also detected in Sample A. Although no background sample was collected and analyzed for comparison purposes, Total Metal concentrations for these samples do not appear to be of environmental concern.

Please find enclosed the laboratory data, chain of custody, soil boring logs and a field map indicating the locations where the samples were collected.

Jesco appreciates the opportunity to provide our services to your company. If we can be of further assistance please contact or office at (318)-824-9074.

Sincerely,

Alvinette Teal

Alvinette Teal, P.G.

cc: Mr. Louis Smaihall, SBA Shipyards, Inc.

719 North Main • P.O. Box 1324 • Jennings, Louisiana 70546
Office (318) 824-9074 • Fax (318) 824-9076

316 Mecca Drive
Lafayette, LA 70508-3306
Telephone (318) 235-0483

SHERRY LABORATORIES

INDIANA LOUISIANA OKLAHOMA

James Laboratories

P.O. Box 81816
Lafayette, LA 70598-1816
Fax 318-233-6540
800-737-2378

SHERRY LABS LA TEST REPORT Work Order # 96-03-606

Received: 03/29/96

04/16/96 11:35:29

ATTEN ALVINETTE TEAL
REPORT JESCO ENV & GEO SERVICES INC
TO P O BOX 1324
JENNINGS LA 70546-1324

CERTIFIED BY

CONTACT JERRY

PREPARED SHERRY LABORATORIES LOUISIANA
BY P O BOX 81816
316 MECCA DRIVE
LAFAYETTE LA 70598-1816
ATTEN ENVIRONMENTAL LABORATORY
PHONE (318) 235-0483

CLIENT JESCO ENV SAMPLES 2
COMPANY JESCO ENV & GEO SERVICES INC
FACILITY
BEEPER - 821-0588

JERRY LANDRY — VICE-PRESIDENT/LAB MANAGER
LAURA JANKOWER — QUALITY ASSURANCE MANAGER

WORK ID SBA - PROJECT #153
TAKEN 3/28/96 BY W. SCHEXNIDER
TRANS HAND DELIVERED
TYPE WATER
P.O. #
INVOICE under separate cover

SAMPLE IDENTIFICATION

01 SBA - SAMPLE A
02 SBA - SAMPLE B

TEST CODES and NAMES used on this workorder

8240	VOA'S - METHOD 8240 LIST
ACEXT	ACID EXTRACTABLES-GC/MS
AG	SILVER
AS	ARSENIC
BA	BARIUM
BNEXT	B/N EXTRACTABLES-GC/MS
CD	CADMIUM
CR	CHROMIUM
HG	MERCURY
PB	LEAD
SE	SELENIUM
ZN	ZINC

TOTAL PAGES OF THIS REPORT : 9

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL,
WITHOUT THE WRITTEN APPROVAL OF SHERRY LABORATORIES

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Fax 318-233-6540
800-737-2378

LAB I.D. 9603606-01A DATE REPORTED: 04/16/96

SAMPLE DESCRIPTION SBA - SAMPLE A
DATE COLLECTED: 03/28/96 11:30

LABORATORY REPRESENTATIVE
SHERRY LABORATORIES LA

ANALYTE	ANALYST INITIALS	DATE ANALYZED	REFERENCE METHOD	DETECTION LIMIT	CONCENTRATION ppm
SILVER	TS	04/03/96	EPA 200.7	0.007 ppm	BDL
ARSENIC	TS	04/03/96	EPA 206.3	0.0004 ppm	0.0606
BARIUM	TS	04/03/96	EPA 200.7	0.004 ppm	2.33
CADMIUM	TS	04/03/96	EPA 200.7	0.005 ppm	BDL
CHROMIUM	TS	04/03/96	EPA 200.7	0.007 ppm	0.017
MERCURY	TS	04/10/96	EPA 245.1	0.00002 ppm	0.00018
LEAD	TS	04/03/96	EPA 200.7	0.050 ppm	BDL,
SELENIUM	TS	04/03/96	EPA 270.3	0.00004 ppm	0.00062
ZINC	TS	04/03/96	EPA 200.7	0.002 ppm	0.599

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LAB I.D. 9603606-01A DATE REPORTED: 04/16/96

SAMPLE DESCRIPTION SBA - SAMPLE A
DATE COLLECTED: 03/28/96 11:30

Jerry Landry
Laboratory Representative

DATE EXTRACTED 04/05/96 DATE INJECTED 04/11/96 ANALYST GMC METHOD EPA 625

COMPOUND	RESULT	COMPOUND	RESULT
benzoic acid	ND	2-nitrophenol	ND
2-chlorophenol	ND	4-nitrophenol	ND
2,4-dichlorophenol	ND	p-chloro-m-cresol	ND
2,4-dimethylphenol	ND	pentachlorophenol	ND
2,4-dinitrophenol	ND *	phenol	0.47
2-methyl-4,6-dinitro-phenol	ND **	tetrachlorophenol	ND
2-methyl phenol	0.36	2,4,5-trichlorophenol	ND
4-methyl phenol	0.23	2,4,6-trichlorophenol	ND

All results reported in ppm unless otherwise specified.

ND = not detected at 0.20 ppm
ND* = not detected at 0.40 ppm
ND** = not detected at 1.0 ppm

SURROGATE RECOVERIES (%)

PHENOL-D5	ND
2-FLUOROPHENOL	ND
2,4,6-TRIBROMOPHENOL	ND

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LAB I.D. 9603606-01A DATE REPORTED: 04/16/96

SAMPLE DESCRIPTION SBA - SAMPLE A

DATE COLLECTED: 03/28/96 11:30

Laboratory Representative

ANALYST GMC Date Extracted: 04/05/96 Date Analyzed: 04/11/96 Method: EPA 625

COMPOUND	RESULT	COMPOUND	RESULT	COMPOUND	RESULT
acenaphthene	0.51	4-chlorophenyl phenyl ether	ND	hexachlorocylclopentadiene	ND
acenaphthylene	ND	chrysene	ND	hexachloraethane	ND
aniline	ND	dibenzo (a,h) anthracene	ND*	indeno (1,2,3-cd) pyrene	ND*
anthracene	1.6	dibenzofuran	0.48	isophorone	ND
benzidine	ND	1,2 dichlorobenzene	ND	2-methylnaphthalene	0.69
benzo (a) anthracene	0.37	1,3 dichlorobenzene	ND	naphthalene	5.1
benzo (a) pyrene	ND	1,4 dichlorobenzene	ND	2-nitroaniline	ND
benzo (b) fluoranthene	ND	3,3 dichlorobenzidine	ND	3-nitroaniline	ND
benzo (ghi) perylene	ND*	diethyl phthalate	ND	4-nitroaniline	ND
benzo (k) fluoranthene	ND	dimethyl phthalate	ND	nitrobenzene	ND
benzyl alcohol	ND	di-n-butyl phthalate	ND	N-nitrosodimethylamine	ND
benzylbutyl phthalate	ND	dinitrobenzene	ND	N-nitrosodiphenylamine	ND
bis (2-chlorethoxy)methane	ND	2,4-dinitrotoluene	ND	N-nitrosodipropylamine	ND
bis (2-chloroethyl)ether	ND	2,6-dinitrotoluene	ND	phenanthrene	ND
bis (2-chlorisopropyl) ether	ND	di-n-octyl phthalate	ND	2-picoline	ND**
bis (2-ethylhexyl) phthalate	ND	1,2-diphenylhydrazine	ND	pyrene	0.61
4-bromophenyl phenyl ether	ND	fluoranthene	0.83	pyridine	ND**
carbazole	ND	fluorene	0.71	tetrachlorobenzene (s)	ND
4-chloroaniline	ND	hexachlorobenzene	ND	toluendiamine	ND
2-chloronaphthalene	ND	hexachlorobutadiene	ND	1,2,4 trichlorobenzene	ND

All results reported in ppm unless otherwise specified.

ND = not detected at detection limit 0.20 ppm
ND * = not detected at detection limit 0.40 ppm
ND ** = not detected at detection limit 1.0 ppm

SURROGATE RECOVERIES (%)

2-fluorobiphenyl	ND
nitrobenzene-d5	ND
terphenyl-d14	ND

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LAB I.D. 9603606-01A DATE REPORTED: 04/16/96

SAMPLE DESCRIPTION SBA - SAMPLE A

DATE COLLECTED: 03/28/96 11:30

LABORATORY REPRESENTATIVE

ANALYST GMC Date Analyzed: 04/04/96 Method EPA 624

COMPOUND	RESULT	COMPOUND	RESULT	COMPOUND	RESULT
acetone	BDL	chloromethane	BDL	paraldehyde	BDL
acrolein	BDL	dichlorodifluoromethane	BDL	styrene	BDL
acrylonitrile	BDL	1,1-dichloroethane	BDL	1,1,2,2-tetrachloroethane	BDL
benzene	1.5	1,2-dichloroethane	BDL	tetrachloroethylene	BDL
bis (chloromethyl) ether	BDL	1,1-dichloroethylene	BDL	toluene	1.3
bromodichloromethane	BDL	1,2-trans-dichloroethylene	BDL	1,1,1-trichloroethane	BDL
bromoform	BDL	1,2-dichloropropane	BDL	1,1,2-trichloroethane	BDL
bromomethane	BDL	cis-1,3-dichloropropylene	BDL	trichloroethylene	BDL
carbon disulfide	BDL	trans-1,3-dichloropropylene	BDL	vinyl acetate	BDL
carbon tetrachloride	BDL	ethylbenzene	BDL	vinyl chloride	BDL
chlorobenzene	BDL	fluorotrichloromethane	BDL	o-xylene	
chlorodibromomethane	BDL	2-hexanone	BDL	m-xylene TOTAL	1.9
chloroethane	BDL	methylene chloride	1.4	p-xylene	
2-chloroethylvinyl ether	BDL	methyl-isobuytl-ketone	BDL	1,2 dichlorobenzene	BDL
chloroform	BDL	methyl-ethyl-ketone	BDL	1,3 dichlorobenzene	BDL
				methyl methacrylate	BDL

All results reported in ppm unless otherwise specified.
ND = not detected at detection limit 1.0 ppm

ND** = not detected at 50 ppb
ND* = not detected at 100 ppb

SURROGATE RECOVERIES	(%)
1,2 DICHLOROETHANE-D4	107
TOLUENE-D8	100
BROMOFLUOROBENZENE	92

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LAB I.D. 9603606-02A DATE REPORTED: 04/16/96

SAMPLE DESCRIPTION SBA - SAMPLE B
DATE COLLECTED: 03/28/96 12:45

LABORATORY REPRESENTATIVE
SHERRY LABORATORIES LA

ANALYTE	ANALYST INITIALS	DATE ANALYZED	REFERENCE METHOD	DETECTION LIMIT	CONCENTRATION ppm
SILVER	TS	04/03/96	EPA 200.7	0.007 ppm	BDL
ARSENIC	TS	04/03/96	EPA 206.3	0.0004 ppm	0.0152
BARIUM	TS	04/03/96	EPA 200.7	0.004 ppm	1.88
CADMIUM	TS	04/03/96	EPA 200.7	0.005 ppm	BDL
CHROMIUM	TS	04/03/96	EPA 200.7	0.007 ppm	0.015
MERCURY	TS	04/10/96	EPA 245.1	0.00002 ppm	0.00010
LEAD	TS	04/03/96	EPA 200.7	0.050 ppm	BDL
SELENIUM	TS	04/03/96	EPA 270.3	0.00004 ppm	0.00034
ZINC	TS	04/03/96	EPA 200.7	0.002 ppm	0.263

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LAB I.D. 9603606-02A DATE REPORTED: 04/16/96

SAMPLE DESCRIPTION SBA - SAMPLE B
DATE COLLECTED: 03/28/96 12:45

Laboratory Representative

DATE EXTRACTED 04/05/96 DATE INJECTED 04/11/96 ANALYST GMC METHOD EPA 625

COMPOUND	RESULT	COMPOUND	RESULT
benzoic acid	ND	2-nitrophenol	ND
2-chlorophenol	ND	4-nitrophenol	ND
2,4-dichlorophenol	ND	p-chloro-m-cresol	ND
2,4-dimethylphenol	ND	pentachlorophenol	ND
2,4-dinitrophenol	ND *	phenol	ND
2-methyl-4,6-dinitro-phenol	ND **	tetrachlorophenol	ND
2-methyl phenol	ND	2,4,5-trichlorophenol	ND
4-methyl phenol	ND	2,4,6-trichlorophenol	ND

All results reported in ppm unless otherwise specified.

ND = not detected at 50 ppm
ND* = not detected at 100 ppm
ND** = not detected at 200 ppm

SURROGATE RECOVERIES (%)

PHENOL-D5	ND
2-FLUOROPHENOL	ND
2,4,6-TRIBROMOPHENOL	ND

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LAB I.D. 9603606-02A DATE REPORTED: 04/16/96

SAMPLE DESCRIPTION SBA - SAMPLE B

DATE COLLECTED: 03/28/96 12:45

Laboratory Representative

ANALYST GMC Date Extracted: 04/05/96 Date Analyzed: 04/11/96 Method: EPA 625

COMPOUND	RESULT	COMPOUND	RESULT	COMPOUND	RESULT
acenaphthene	150	4-chlorophenyl phenyl ether	ND	hexachlorocylclopentadiene	ND
acenaphthylene	ND	chrysene	ND	hexachloraethane	ND
aniline	ND	dibenzo (a,h) anthracene	ND*	indeno (1,2,3-cd) pyrene	ND*
anthracene	550	dibenzofuran	120	isophorone	ND
benzidine	ND	1,2 dichlorobenzene	ND	2-methylnaphthalene	160
benzo (a) anthracene	ND	1,3 dichlorobenzene	ND	naphthalene	810
benzo (a) pyrene	ND	1,4 dichlorobenzene	ND	2-nitroaniline	ND
benzo (b) fluoranthene	ND	3,3 dichlorobenzidine	ND	3-nitroaniline	ND
benzo (ghi) perylene	ND*	diethyl phthalate	ND	4-nitroaniline	ND
benzo (k) fluoranthene	ND	dimethyl phthalate	ND	nitrobenzene	ND
benzyl alcohol	ND	di-n-butyl phthalate	ND	N-nitrosodimethylamine	ND
benzylbutyl phthalate	ND	dinitrobenzene	ND	N-nitrosodiphenylamine	ND
bis (2-chlorethoxy)methane	ND	2,4-dinitrotoluene	ND	N-nitrosodipropylamine	ND
bis (2-chloroethyl)ether	ND	2,6-dinitrotoluene	ND	phenanthrene	ND
bis (2-chlorisopropyl) ether	ND	di-n-octyl phthalate	ND	2-picoline	ND**
bis (2-ethylhexyl) phthalate	ND	1,2-diphenylhydrazine	ND	pyrene	220
4-bromophenyl phenyl ether	ND	fluoranthene	280	pyridine	ND**
carbazole	ND	fluorene	180	tetrachlorobenzene (s)	ND
4-chloroaniline	ND	hexachlorobenzene	ND	toluendiamine	ND
2-chloronaphthalene	ND	hexachlorobutadiene	ND	1,2,4 trichlorobenzene	ND

All results reported in ppm unless otherwise specified.

ND = not detected at detection limit 50 ppm
ND * = not detected at detection limit 100 ppm
ND **= not detected at detection limit 200 ppm

SURROGATE RECOVERIES (%)

2-fluorobiphenyl	ND
nitrobenzene-d5	ND
terphenyl-d14	ND

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LAB I.D. 9603606-02A DATE REPORTED: 04/16/96

SAMPLE DESCRIPTION SBA - SAMPLE B

DATE COLLECTED: 03/28/96 12:45

LABORATORY REPRESENTATIVE

ANALYST GMC Date Analyzed: 04/04/96 Method EPA 624

COMPOUND	RESULT	COMPOUND	RESULT	COMPOUND	RESULT
acetone	BDL	chloromethane	BDL	paraldehyde	BDL
acrolein	BDL	dichlorodifluoromethane	BDL	styrene	BDL
acrylonitrile	BDL	1,1-dichloroethane	BDL	1,1,2,2-tetrachloroethane	BDL
benzene	2.7	1,2-dichloroethane	BDL	tetrachloroethylene	4.1
bis (chloromethyl) ether	BDL	1,1-dichloroethylene	BDL	toluene	2.9
bromodichloromethane	BDL	1,2-trans-dichloroethylene	BDL	1,1,1-trichloroethane	BDL
bromoform	BDL	1,2-dichloropropane	BDL	1,1,2-trichloroethane	BDL
bromomethane	BDL	cis-1,3-dichloropropylene	BDL	trichloroethylene	BDL
carbon disulfide	BDL	trans-1,3-dichloropropylene	BDL	vinyl acetate	BDL
carbon tetrachloride	BDL	ethylbenzene	1.7	vinyl chloride	BDL
chlorobenzene	BDL	fluorotrichloromethane	BDL	o-xylene	
chlorodibromomethane	BDL	2-hexanone	BDL	m-xylene TOTAL	7.7
chloroethane	BDL	methylene chloride	BDL	p-xylene	
2-chloroethylvinyl ether	BDL	methyl-isobuytl-ketone	BDL	1,2 dichlorobenzene	BDL
chloroform	BDL	methyl-ethyl-ketone	BDL	1,3 dichlorobenzene	BDL
				methyl methacrylate	BDL

All results reported in ppm unless otherwise specified.
ND = not detected at detection limit 1.0 ppm

ND** = not detected at 50 ppb
ND* = not detected at 100 ppb

SURROGATE RECOVERIES	(%)
1,2 DICHLOROETHANE-D4	106
TOLUENE-D8	102
BROMOFLUOROBENZENE	97

SHERRY LABORATORIES

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Fax 219-471-7777

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Fax 318-233-6540

☐ 10835 E. Independence, Suite 102
TULSA OK 74116
.918-234-7111/800-324-5757
Fax 918-234-7152

Page 1 of 1

Chain of Custody Record

Laboratory Number 603606

Client Name: Jesco.
Contact Name: S. Teal
Phone/Fax: 824-9074/824-9076

Project Name: SBA
Project #: 153
Sampler's Signature:

Collection Date	Collection Time	Grab	Comp	Sample Identification/Description	Preservative	Number/Type of Container	Matrix Code	Tests Requested: Volatiles	Semi-Volatiles	T-Metals	Comments/Remarks
3/28/96	11:30 Am	X		Sample A	HNO3	1/P	MW			X	
				Sample A	—	1/G	MW		X		
				Sample A	—	2/G	MW	X			
3/28/96	12:45 Pm	X		Sample B	HNO3	1/P	MW			X	
				Sample B	—	1/G	MW		X		
				Sample B	—	2/G	MW	X			

UPS/FedEx
Airborne/Sherry
Hand/Mail

All samples submitted to Sherry Laboratories for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Sherry Laboratories reserves the right to return unused sample portions.

P.O. Number

Relinquished by: (Signature)	Received by: (Signature)	Date	Time	Relinquished by: (Signature)	Received by: (Signature)	Date	Time
		3-29-96	11:15 Am				
Relinquished by: (Signature)	Received by: (Signature)	Date	Time	Relinquished by: (Signature)	Received by Laboratory: (Signature)	3/29/96	1115

Matrix Codes
DW = Drinking Water, MW = Monitoring Well, WW = Waste Water, W = Water, SL = Sludge, SO = Soil, O = Oil, OT = Other

Container Types
G = Glass, P = Plastic

Shipping Conditions
☐ Iced ☐ Ambient

Which Regulations Apply
☐ RCRA ☐ Drinking Water ☐ NPDES ☐ POTW ☐ Other

Thank-you for using SHERRY LABORATORIES
The Source for Metallurgical, Materials, & Environmental Testing Services

Jesco
Environmental & Geotechnical Services, Inc.

Soil Boring Log

Project Name: SBA Shipyards, Inc. | Date: 03/28/1996

Project# 153 | Borehole# A | Drill Method: DPT

Boring Location: Jennings, LA | Depth: 14 ft | Geologist: A. Teal

Surface Elevation: N/A | Diameter: 1.125" | Driller: W. Schexnider

Depth(ft)	Symbol	samples	Penetrometer	PID Reading	Material Description	Remarks
2			<0.5	30	2.5 YR 2.5/1 Reddish black sandy silt	Brittle, Noncohesive, mild hydrocarbon odor
4			1.25	7	10 YR 7/2 Lt. gray clay with ferric inclusions	Plastic, cohesive, moist, slight hydrocarbon odor
6			0.5	78	10 YR 7/2 Lt. gray silty clay with ferric inclusions	Plastic, cohesive, moist, slight hydrocarbon odor
8			0.5	54	10 YR 7/2 Lt. gray silty clay with ferric inclusions	Plastic, cohesive, moist, slight hydrocarbon odor
▽ 10			0.5	197	10 YR 3/3 Dark brown sandy silt	Hydrocarbon stained, strong Hydrocarbon odor, saturated with NAPL, cohesive, nonplastic
12			<0.5	373	10 YR 3/3 Dark brown sandy silt	Hydrocarbon stained, strong Hydrocarbon odor, saturated with NAPL, cohesive, nonplastic
14			<0.5	373	10 YR 3/3 Dark brown sandy silt	Hydrocarbon stained, strong Hydrocarbon odor, saturated with NAPL, cohesive, nonplastic
16					Borehole terminated.	

Remarks:

Jesco
Environmental & Geotechnical Services, Inc.

Soil Boring Log

Project Name: SBA Shipyards, Inc. | Date: 03/28/1996

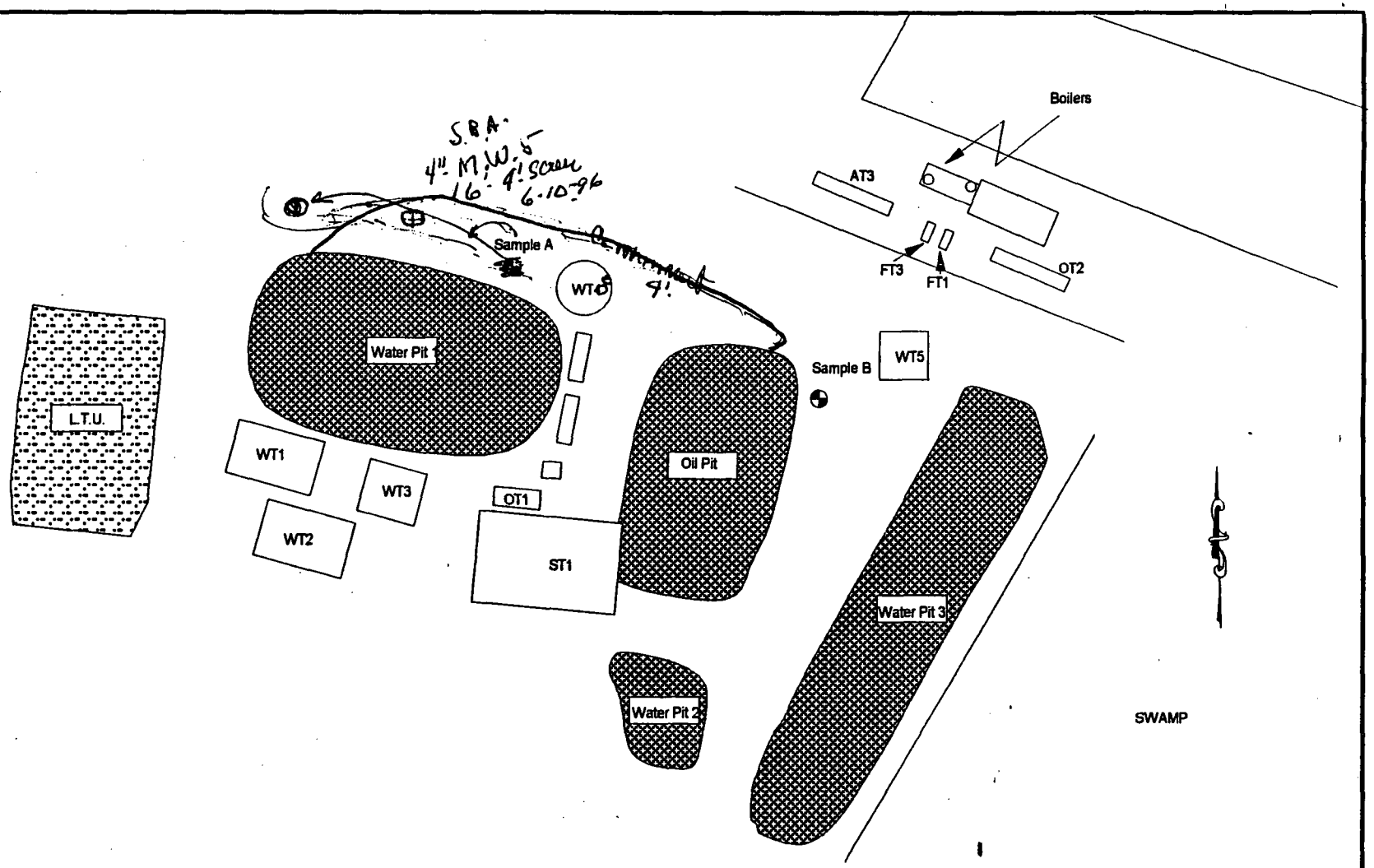
Project# 153 | Borehole# B | Drill Method: DPT

Boring Location: Jennings, LA | Depth: 14 ft | Geologist: A. Teal

Surface Elevation: N/A | Diameter: 1.125" | Driller: W. Schexnider

Depth(ft)	Symbol	samples	Penetrometer	PID Reading	Material Description	Remarks
2			1.5	116	2.5 YR 2.5/1 Reddish black clay	Brittle, Noncohesive, strong hydrocarbon odor
4			0.5	92	10 YR 6/2 Lt. brownish gray silty clay	Nonplastic, cohesive, strong hydrocarbon odor
6			1.5	140	10 YR 6/2 Lt. brownish gray silty clay	Plastic, cohesive, moist, strong hydrocarbon odor
8			<0.5	183	10 YR 7/2 Lt. brownish gray silty clay	Plastic, cohesive, moist, strong hydrocarbon odor
10			<0.5	221	10 YR 7/2 Lt. brownish gray clayey silt	Strong Hydrocarbon odor, saturated with NAPL, cohesive, plastic
▽ 12			<0.5	107	10 YR 7/2 Lt. brownish gray sandy clay	Strong Hydrocarbon odor, saturated with NAPL, cohesive, plastic
14			<0.5	192	10 YR 7/2 Lt. brownish gray sand	Strong Hydrocarbon odor, saturated with NAPL, cohesive, plastic, wet
16					Borehole terminated.	

Remarks:



Jesco Environmental & Geotechnical Services, Inc.	CLIENT: SBA Shipyards, Inc. Jennings, Louisiana DATE: 04/02/96 DRAWN BY: P.K.U.	**Figure 1** **Sample Location Map**	**LEGEND** Temp. Well Location

"Chernekoff, Mike" <mchernekoff@joneswalker.com>
06/22/2005 12:57 PM

To: Scott McDonald/R6/USEPA/US@EPA
cc: "Chernekoff, Mike" <mchernekoff@joneswalker.com>
Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Thanks for the response. Please keep in touch on this issue.

-----Original Message-----
From: Mcdonald.Scott@epamail.epa.gov
[mailto:Mcdonald.Scott@epamail.epa.gov]
Sent: Tuesday, June 21, 2005 6:02 PM
To: Chernekoff, Mike
Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Mike -
Thanks again for your assistance in this matter. Yes...the letter from SBA counsel to mystery customer dated 1996 is exactly what EPA was seeking. Said letter that you forwarded provides me with relevant insight as to content and tone of the original request letter sent to SBA customers.

You asked if EPA intends to require that SBA, SBA shareholders, and/or current landowners perform future remedial/clean-up work at the site? I do not know the answer to this question...but I have left a voice mail and sent an e-mail to Gene Keeper inquiring into this issue. I shall provide a response after discussing SBA's planned future involvement with the RCRA Program.
Scott

"Chernekoff, Mike" <mchernekoff@joneswalker.com>
06/20/2005 03:29 PM

To: Scott McDonald/R6/USEPA/US@EPA
cc: "Chernekoff, Mike" <mchernekoff@joneswalker.com>
Subject: RE: SBA Shipyards & SSIC - Original Request Letter dated 1996

Scott,

I have located a specimen from documents produced to us by SBA. I will copy and send. I had intended to block out the addressee, as SBA send individualized letters to each of its customers. Let me know if this is what you are looking for.

Also, neither SBA nor its stockholders nor the listed landowners of the property are member of our LLC. What are your intentions relative to them for any future work requests?

Mike

-----Original Message-----
From: Mcdonald.Scott@epamail.epa.gov
[mailto:Mcdonald.Scott@epamail.epa.gov]
Sent: Monday, June 20, 2005 1:44 PM
To: Chernekoff, Mike
Cc: Angeletti.Christine@epamail.epa.gov
Subject: SBA Shipyards & SSIC - Original Request Letter dated 1996

Mr. Chernekoff -
Thank you once again for the background information and current remedial status of the SBA Shipyards site. I found the information which you provided last week to be very helpful. As we discussed, EPA's RCRA Program has requested that I draft a notification/demand letter to be sent to regular client customers of SBA who chose not to join SSIC (non-members). I was hoping to reference and attach the original letter (1996) inviting customers to participate and contribute to remedial efforts at the site. Were you able to locate this letter? If so, then could you please scan and e-mail or fax to my attention at 214/665-3177. Thanks again for your assistance in this matter.

Sincerely,
Scott McDonald
214/665-2718

JONES WALKER

Michael A. Chernekoff
Direct Dial 504-582-8264
Fax 504-582-8583
mchernekoff@joneswalker.com

November 27, 2002

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733

Re: SBA Shipyards, Inc.
Our File: 68700-00

Dear Gene:

I am enclosing the original of the Order and Agreement (Agreement) between EPA, SBA Shipyards, Inc. and SSIC Remediation, LLC, executed by one of the managers of SSIC. It is my understanding that Mr. Smaihall has executed and has returned to EPA for SBA an original of the Agreement which was forwarded directly to him.

When finally executed by EPA, I would appreciate a fully-executed copy for our records. As we discussed, upon receipt of the final, executed version of the Agreement, SSIC will forward to you the names of the entities which are members of SSCI.

As we have further discussed, we are prepared to move forward with implementation of the approved work plan. To the extent that we require any further written approvals with respect to the implementation of the solidification activities, please forward same to me at your earliest opportunity.

We look forward to working with you on this matter and with kindest regards, I am

Yours very truly,

MICHAEL A. CHERNEKOFF

MAC:kcs
encls.
cc: Gloria Moran (EPA)
Michael Pisani

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

VIA FEDERAL EXPRESS: 8220 0515 8452
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2560 7543
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

* Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the world wide web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

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The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. Work

EPA acknowledges that the work performed at this facility in accordance with this Agreement would achieve programmatic parity, avoid duplication and delay, and achieve substantive consistency between remedial programs as described in the NPL/RCRA deferral policy (54 FR 41000).

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims for the actions or matters addressed by Section 3008(h) of RCRA and memorialized in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

_____ Date: _____

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

IT IS AGREED:

Aeler. B. Cenac JR.

Signature/Printed Name, Manager
SSIC Remediation, L.L.C.

Date: 11/14/02

Enclosure

cc: Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD
Michael Pisani, Michael Pisani and Associates

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-

Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal.

Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials.
Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

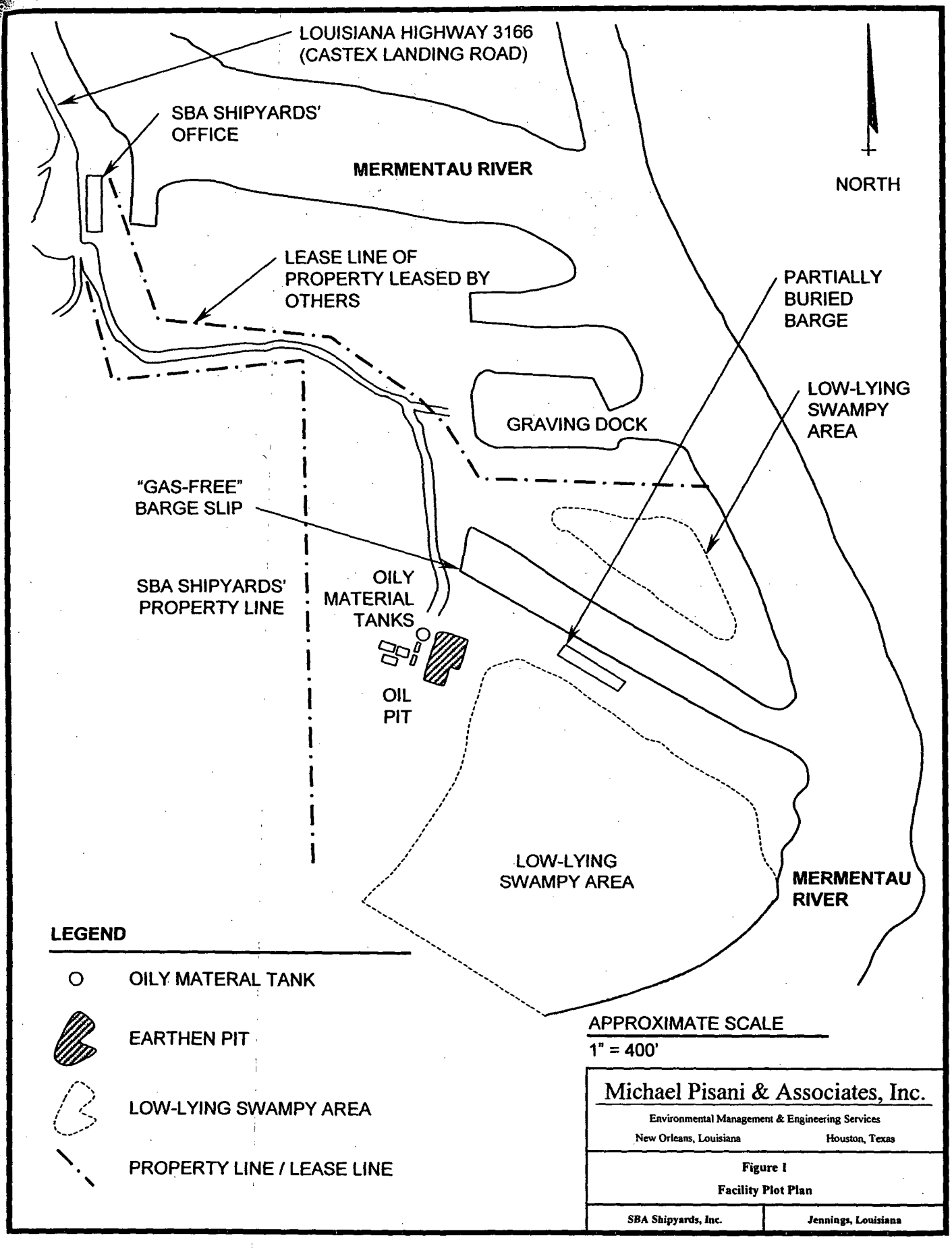
Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).



Michael Pisani & Associates, Inc.

Environmental Management & Engineering Services

New Orleans, Louisiana Houston, Texas

Figure 1

Facility Plot Plan

SBA Shipyards, Inc.	Jennings, Louisiana

Table 1

Pumpable Oily Material Inventory
May 3, 2001

SBA Shipyards, Inc.
Jennings, Louisiana

Tank or Impoundment	Estimated Maximum Capacity (gallons)	Estimated Maximum Capacity (barrels)	Observed Depth of Contents[b]	Estimated Material Inventory (gal)	Estimated Material Inventory (barrels)	Estimated Material Inventory (pounds)[a]	Visual Observations[b]
Selected Tanks							
Tank AT-1	17,042	406	52"	9,814	234	81,898	Horizontal cylindrical tank (mostly water).
Tank AT-2	17,042	406	77"	13,703	326	114,352	Horizontal cylindrical tank (2" sludge layer on bottom).
Tank WT-1	106,837	2,544	85"	88,561	2,109	739,044	Very thick oil.
Tank WT-2	111,482	2,654	70"	77,553	1,847	647,183	24" sludge layer on bottom.
Tank WT-3	109,159	2,599	93"	93,998	2,238	784,416	36" sludge layer on bottom.
Tank ST-1	420,000[c]	10,000	9' - 10"[d]	99,474	2,368	830,111	38' high vertical cylindrical tank.
Total	781,562 gallons	18,609 barrels		**383,104 gallons**	9,122 barrels	3,197,003 pounds	
Former Barge (OT-4)							
Bow Rake Tank	26,853	639	56"	20,862	497	174,093	Very thick oil (2" sludge layer on bottom).
Deck Tank S	Not Measured	Unknown	Empty	Negligible	Negligible	Negligible	Dry, some rust scale.
Deck Tank P	Not Measured	Unknown	6"	Negligible	Negligible	Negligible	Oil, no visible water.
Compartment 1S	75,054	1,787	118"	65,659	1,563	547,924	
Compartment 1P	75,054	1,787	119"	64,874	1,545	541,374	
Compartment 2S	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 2P	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 3S	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 3P	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 4S	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 4P	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 5S	86,908	2,069	115"	75,689	1,802	631,625	
Compartment 5P	86,908	2,069	114"	75,057	1,787	626,351	
Aft Trim Tank	18,388	438	112"	17,447	415	145,595	
Total	913,897 gallons	21,759 barrels		**778,134 gallons**	18,527 barrels	6,493,528 pounds	
Grand Total	1,695,459 gallons	40,368 barrels		**1,161,238 gallons**	27,649 barrels	9,690,531 pounds	

NOTES:

(a) Based on bulk density of 8.345 pounds/gallon.
(b) MP&A site visit (May 3, 2001).
(c) According to Mr. Louis Smaihall, the total volume is 10,000 barrels (420,000 gallons).
(d) Measurement read from permanently installed float gauge on tank.

SSIC Remediation LLC
List of Members
(In Alphabetical Order)

American Commercial Line, L.L.C.
(Successor to National Marine Service)
Box 610
Jeffersonville, Indiana 47131-0610

Barge Transport Company, Inc.
1515 Poydras Street, Suite 1950
New Orleans, Louisiana 70112

Beazer-East, Inc.
1 Oxford Centre, Suite 300
Pittsburgh, Pennsylvania 15219

Canal Barge Company
835 Union Street, Suite 300
New Orleans, Louisiana 70112

Cenac Towing Co., Inc.
141 Bayou Dularge Road
Houma, Louisiana 70361

ConocoPhillips Company
(Successor to Conoco Inc.)
600 N. Dairy Ashford Road
Houston, Texas 77079

Higman Barge Lines, Inc. ← WAS A MEMBER OF SSIC FROM 2002 TO 3/23/05. HIGMAN AND SSIC DISAGREED ON AMOUNT OF CONTINUING CONTRIBUTIONS. HIGMAN WAS SUBSEQUENTLY REMOVED AS A MEMBER OF SSIC.
3600 One Bank Center
New Orleans, Louisiana 70170

Hornbeck Offshore Transportation, LLC
(Successor to Leevac Marine, Inc.)
414 N. Causeway Boulevard
Mandeville, Louisiana 70448

L&L Oil and Gas Services, LLC
(also ASCO US, LLC)
3421 N. Causeway Boulevard, Suite 502
Metairie, Louisiana 70002

10 Martin Transport, Inc.
1717 St. James Place
Houston, Texas 77056

Marathon Ashland Petroleum, LLC
5200 Blazer Parkway
Dublin, Ohio 43017

Sabine Towing and Transportation, Inc.
1301 McKinney
Houston, Texas 77010

Steuart Transportation Company
5454 Wisconsin Avenue
Chevy Chase, Maryland 20815

14 Talens Marine and Fuel, Inc.
225 Pleasant Street
Lake Arthur, Louisiana 70549

SBA SHIPYARDS, INC. PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS					
COMPANY	**DATE(S)***	**VESSEL NUMBER**	**PREVIOUS 3 CARGOES**	**WORK ORDER NO.**	**ADDITIONAL INFO.**
Allied Towing	8/21/85	Kelly	Asphalt, Bunker C	911	Removed asphalt and bunker C.
	4/21/86	Kelly	Asphalt	964	Arrived Pre-Cleaned
	8/1/86	I-150	Caustic Soda	978	Arrived Pre-Cleaned

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 1

* - Based on date from Marine Chemist's Gas Free Certificate

- NOT ENOUGH ACTIVITY & SERVICE WORK TO INCLUDE : STATE OF LA, ~~MARINA TRANSPORT~~

SBA SHIPYARDS, INC. PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS					
COMPANY	**DATE(S)***	**VESSEL NUMBER**	**PREVIOUS 3 CARGOES**	**WORK ORDER NO.**	**ADDITIONAL INFO.**
Hollywood Marine	10/17/87	Hollywood 2802	Crude Oil, No. 6 Oil	1021	Cleaned barge
	11/17/87	Hollywood 1401	Bunker Oil (No. 6)	1013	Cleaned barge
	3/8/90	Hollywood 2511	Suspected Light Crude Oil	1153	Gas free and clean 14 barge tanks
	5-8/90	Hollywood 2513	Black Oil, Crude Oil	1166	20,000 bbl barge; 55 bbls contain rust, scale, and crude oil

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 4

* - Based on date from Marine Chemist's Gas Free Certificate

SBA SHIPYARDS, INC.
PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS

COMPANY	DATE(S)*	VESSEL NUMBER	PREVIOUS 3 CARGOES	WORK ORDER NO.	ADDITIONAL INFO.
Ingram Barge Lines	1/9/87	I-B 7027	Crude	994	Arrived Pre-Cleaned
	3/5/88	TB-911		1035	Stripped cargo tanks approx. 15 bbls.
	3/5/88	WTB-806		1035	Stripped cargo tanks approx. 15 bbls.
	3/16/88	George	#6 Oil/Coal Tar	1033	10 cargo tanks; bucketed out approx. 20 bbls black & carbon oils
	3/30/88	Hollywood 2102	Slop #6 Oil	1037	cleaned out slop oil; #6 oil & B.S. & W.
	5/2/88	Hollywood 2523	Slop Oil	1041	Approx. 260 bbls of sludge, wax and B.S. & W.
	10/10/88	IB-1302	Coal Tar (3)	1088	Approx. 600 bbls creosote & coal tar removed.
	1/25/89	IB-1308	Heavy Aromatics/Gasoline	1110	approx. 60 bbls of product removed
	8/5/90	I-B 908	Wastewaver	1178	Barge already gas free. Just pumped water from tank barge
	10/5/90	I-B 1926	Ethonol	1185	Approx. 18 bbls of product removed/striped tanks with vacuum truck
	11/8/93	IB-2710	Crude Oil	1296	Arrived Pre-Cleaned

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 9

* - Based on date from Marine Chemist's Gas Free Certificate

SBA SHIPYARDS, INC. PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS					
COMPANY	**DATE(S)***	**VESSEL NUMBER**	**PREVIOUS 3 CARGOES**	**WORK ORDER NO.**	**ADDITIONAL INFO.**
Marine Operators	11/15/85	MOP 190	Diesel Oil	921	Arrived Pre-Cleaned

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 0

* - Based on date from Marine Chemist's Gas Free Certificate

SBA SHIPYARDS, INC. PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS					
COMPANY	**DATE(S)***	**VESSEL NUMBER**	**PREVIOUS 3 CARGOES**	**WORK ORDER NO.**	**ADDITIONAL INFO.**
Sergeant Marine	3/13/95	MC Asphalt 201	Asphalt (x3)	1342	Removed approx. 156 bbls of asphalt, rust and scale.

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 1

* - Based on date from Marine Chemist's Gas Free Certificate

SBA SHIPYARDS, INC.
PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS

COMPANY	DATE(S)*	VESSEL NUMBER	PREVIOUS 3 CARGOES	WORK ORDER NO.	ADDITIONAL INFO.
Sun Oil Co. Sun Marine Terminal P. O. Box 758 Nederland, TX 77627	5/3/77	JAR-5	Suspect asphalt	170	Wash out/clean vessell for change of cargo
	4/8/80	Lou II	Suspect asphalt	490	Gas free and clean tank barge
	11/12/80	Lou III	Suspect asphalt	557	Gas free and clean tank barge
	7/27/81	Lou IV	Suspect asphalt	588	Gas free and clean 26,000 barrel barge
	12/19/88 - 1/13/89	Lou IV	Asphalt	1104	Clean and gas free tank barge

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 5

* - Based on date from Marine Chemist's Gas Free Certificate

SBA SHIPYARDS, INC.
PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS

COMPANY	DATE(S)*	VESSEL NUMBER	PREVIOUS 3 CARGOES	WORK ORDER NO.	ADDITIONAL INFO.
Transerve Marine	11/6/84	Ryan	Caustic Soda	1007	Arrived Pre-Cleaned
	1/20/85	ATC 586	Caustic Soda, Tallow	955	removed 55 gal of waste oil; also cleaned 7 main cargo tanks of tallow and caustic soda
	3/21/85	I-50	Lube Oil	887	Removed lube oil
		I-50		878	Arrived Pre-Cleaned
	11/13/85	Ryan	Caustic Soda	920	Removed heavy deposits of caustic
	7/21/86	Hooker Burlington	Caustic Soda	975	Arrived Pre-Cleaned
	11/17/86	I-50	Caustic Soda	978	Removed caustic
	4/21/87	I-50	Corn Oil, Caustic Soda	1003	Removed caustic and corn oil
	12/17/86	I-50	Caustic soda	989	Removed caustic and silt
	5/26/87	Ryan	Caustic Soda	1007	Arrived Pre-Cleaned
	1/11/88	I-50	Caustic Oil/Caustic	881	Removed caustic
	3/27/89	TMI-91	Caustic Soda (3)	1119	Cleaned out caustic, mud and rust
	8/9/89	TMI-96	UREA-Ammonium Nitrate	1130	Arrived Pre-Cleaned
	12/4/89	I-50	Soybean & Corn Oil/Caustic Soda	1145	Removed caustic and corn oil
	12/13/89	I-50	Corn Oil, Soybean Oil	1145	Approx. 200 bbl of caustic soda and corn oil removed
	4/12/90	I-50	Caustic Soda	1161	cleaned caustic barge for hotwork and personnel

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 11

* - Based on date from Marine Chemist's Gas Free Certificate

*NONE OF THESE COMPANIES (7) JOINED SSIC
* AND MORANIA OIL TRANSPORT TO LIST (8) COMPANIES TOTAL

SBA SHIPYARDS, INC.

CUSTOMER INFORMATION RELATING TO HISTORICAL BARGE CLEANING ACTIVITIES
(Revised August 15, 1996)

BARGE COMPANY/OWNER	DATE RANGE	NUMBER OF VESSELS CLEANED	PREVIOUS CARGOES
REDACTED			
REDACTED			

REDACTED			
REDACTED			
REDACTED			
REDACTED			

Ingram Barge Lines P. O. Box 23049 Nashville, TN 37020 Contact: Bill Morelli Phone: (615) 296-8200/8244 **ATTORNEY:** Mr. Bob Holden Liskow & Lewis 701 Poydras Street, Suite 5000 New Orleans, LA 70139 (ph) 504-556-4130 (fx) 504-556-4108	1/87 - 11/93	9	Crude, No. 6 Oil, Coal Tar, Slop #6 Oil, Creosote (U051), Heavy Aromatics/Gasoline, Crude Oil
Allied Towing P. O. Box 717 Norfok, VA 23501 Contact: W. Bruce Law (ph) 804-545-7301 (fx) 804-545-5692	8/85	1	Asphalt, Bunker C
Transerve Marine P. O. Box 717 Norfok, VA 23501 Contact: W. Bruce Law (ph) 804-545-7301 (fx) 804-545-5692	11/84 - 4/90	11	Caustic Soda, Tallow, Lube Oil, Corn Oil, UREA-Ammonium Nitrate, Soybean Oil
REDACTED			
REDACTED			

Hollywood Marine P. O. Box 1343 Houston, TX 77251 Contact: Mary Shaddock Jones (ph) 713-866-1661 (fx) 713-868-6422	10/87 - 8/90	4	Crude Oil, No. 6 Oil, Bunker Oil, Black Oil
Marine Operators, Inc. P. O. Box 51694 Lafayette, LA 70505 Contact: Stephen Ortte (ph) 318-232-9248 (fx) 318-232-9043	11/85	0	Diesel Oil
Sargent Marine 3111 University Drive Suite 1000 Coral Springs, FL 33065 (ph) 954-753-6501 (fx) 954-753-6603 Dan Finocchi 868 Marian Road Woodbury, NJ 08096 (ph) 609-848-0535 (fx) 609-848-0535	3/95	1	Asphalt
REDACTED			
REDACTED			

REDACTED			
REDACTED			
REDACTED			
Sun Oil Company 1801 Market Street Philadelphia, PA 19103 Contact: Thomas Haines, Esq. (ph) 215-977-6273 (fx) 215-977-6898	5/77 - 1/89	5	Asphalt
REDACTED			

HOLLYWOOD MARINE

W/O #1153 "HOLLYWOOD-2511"	INV 3-3(90) DTD 3/8/90 300' x 50' x 11'; 14 TANKS CLEANED LIGHT CRUDE OIL.
W/O #1166 "HOLLYWOOD-2513"	INV 8-1(90) DTD 8/17/90 20,000 BBL BARGE; 55 BBLS CONTAIN RUST, SCALE, AND CRUDE OIL.

INGRAM BARGE COMPANY

W/O #1035 "TB-911/WTB-806"	INV 3-5(88) DTD 3/8/88 STRIPPED CARGO TANKS BOTH BARGES APPROX 15 BBLS.
W/O #1033 "GEORGE"	INV 3-7(88) DTD 3/7/88 10 CARGO TANKS; BUCKETED OUT APPROX 20 BBLS BLACK & CARBON OILS.
W/O #1041 "HOLLYWOOD-2523"	INV 5-2(88) DTD 5/12/88 295'x50'x12'; APPROX 260 BBLS OF SLUDGE, WAX, AND B.S.& W.

W/O #1088 "I-B 1302"	INV 10-3(88) DTD 10/20/88 APPROX 600 BBLS [illegible]EOSOTE & COAL TAR REMOVED.
W/O #1110 "I-B 1308"	INV 3-5(89) DTD 3/15/89 154'x54'x15'; APPROX 60 BBLS OF PRODUCT REMOVED.
W/O #1178 "I-B 908"	INV 8-5(90) DTD 9/28/90 **BARGE ALREADY GAS FREE** JUST PUMPED WATER FROM TANK BARGE
W/O #1185 "I-B 1926"	INV 10-5(90) DTD 10/16/90 200'x35'x15'; APPROX 18 BBLS OF PRODUCT REMOVED/STRIPED TANKS WITH VACUUM TRUCK.
W/O #994 "I-B 7027"	CERTIFICATE FOR HOTWORK ONLY.
W/O #1037 "HOLLYWOOD-2102"	CLEANED OUT SLOP OIL; #6-OIL & B.S.& W.
W/O #1296 "I-B 2710"	CERTIFICATE FOR HOTWORK ONLY.

SARGEANT MARINE

W/O #1342 "MCASPHALT 201"	INV #4-1(95) DTD 4/7/95 REMOVED APPROX 156 BBLS OF ASPHALT, RUST, & SCALE. 265'x 52' x 16'

****

TRANSERVE MARINE/ALLIED TOWING

W/O 1145 "I-50"	INV 5-4(89) DTD 12-29-89 P/O T-0606 300'x55'x22'; APPROX 200BBL OF CAUSTIC SODA & CORN OIL REMOVED.
W/O 1161 "I-50"	INV 11-3(90) DTD 9/26/90 P/O T-0697 CLEANED CAUSTIC BARGE FOR HOTWORK AND PERSONNEL.
W/O 911 "KELLY"	REMOVED ASPHALT & BUNKER C.

W/O 964	"KELLY"	CERTIFICATE FOR HOTWORK ONLY.
W/O 978	"I-50"	CERTIFICATE FOR HOTWORK ONLY.
W/O 955	"ATC-586"	REMOVED 55 GAL OF WASTE OIL; ALSO CLEANED 7 MAIN CARGO TANKS OF TALLOW & CAUSTIC SODA.
W/O 920	"RYAN"	REMOVED HEAVY DEPOSITS OF CAUSTIC.
W/O 975	"HOOKER-BURLINTON"	CERTIFICATE FOR HOTWORK ONLY.
W/O 1007	"RYAN"	CERTIFICATE FOR HOTWORK ONLY.
W/O 1003	"I-50"	REMOVED CAUSTIC AND CORN OIL.
W/O 989	"I-50"	REMOVED CAUSTIC AND SILT.
W/O 1130	"TM-96"	CERTIFICATE FOR HOTWORK ONLY.
W/O 1145	"I-50"	REMOVED CAUSTIC AND CORN OIL.
W/O 1161	"I-50"	REMOVED CAUSTIC, SCALE, & RUST.
W/O 887	"I-50"	REMOVED LUBE OIL.
W/O 878	"I-50"	CERTIFICATE FOR HOTWORK ONLY.
W/O 1119	"TM-91"	CLEANED OUT CAUSTIC, MUD, & RUST.

JONES WALKER

Michael A. Chernekoff
Direct Dial 504-582-8264
Fax 504-582-8583
mchernekoff@joneswalker.com

Rec'd H 11
2/4/2003
SP.

February 3, 2003

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733

Re: Order and Agreement ("Agreement") for Interim Measures/Removal Action:
SBA Shipyards, Inc., Jennings, Louisiana
EP ID No. LAD008434185 ("SBA")
Docket No.: RCRA-6-2002-0908
Our File: 68700-00

Dear Mr. Keepper:

This letter is in response to your letter to me of December 12, 2002, as attorney for SSIC Remediation, LLC ("SSIC"). This letter also refers to your letter of December 12, 2002 to Mr. Louis Smaihall of SBA Shipyards, Inc. ("SBA").

Your letter to me of December 12, 2002 requests the following:

> A member listing of the Limited Liability Corporation SSIC Remediation, which includes designation of corporate representation by those members; the Articles of Incorporation for SSIC Remediation, LLC; and the full listing of SBA Shipyards, Inc. customers to the best of the knowledge of SSIC.

In response to that request, SSIC responds by providing to you SSIC's List of Members (in alphabetical order) and Articles of Organization of SSIC Remediation, LLC.

With regard to your request for the list of SBA customers, we point out that SBA would be the best source of that information. We have been in contact with SBA and it has provided to us copies (and some which appear to be originals) of records from its operations. We cannot attest that what we were provided by SBA is complete or constitutes all or substantially all of SBA's customer records, and note that many of the files appear incomplete or poor quality copies.

Additionally, we were provided summaries of information put together by SBA's former attorneys. Again, we cannot attest that what we were provided is complete.

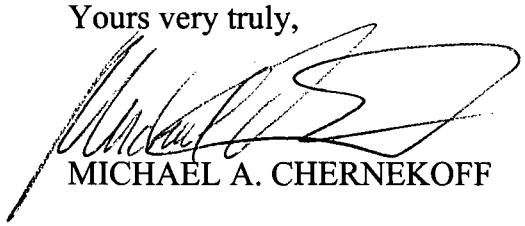
In response to your inquiry, we provide to you documents which identify barge cleaning customers of SBA who are not Members of SSIC. Enclosed are compilations and summaries (some redacted to delete references to SSIC Members) furnished to us by SBA and/or its counsel. Additionally enclosed are copies of SBA business records of specific work items performed by SBA for its various customers. We believe that each of the customers identified in the documents were contacted and notified of this site by SBA's former counsel in around 1996 and/or subsequently by SSIC or its Members. SBA's documents also identify at least one other former customer presumably not previously notified about their involvement with the site: the State of Louisiana, which appears to have been a customer of SBA's barge cleaning operations with respect to one or more state-owned ferries.

Finally, with respect to the ownership of SBA and the land on which it has operated, SBA (and the land) is currently controlled by Mr. Smaihall and his family. SBA's former shareholders and former co-owners of the SBA property during the early years of SBA's operations were Mr. and Mrs. Leland Bowman. Mr. Bowman is deceased and was survived by his wife. Mrs. Leland Bowman's last known address is: 311 Cary Avenue, Jennings, LA 70546.

With respect to your letter to Mr. Smaihall, please be advised that our office does not represent SBA or Mr. Smaihall. However, as previously noted, the information SSIC is furnishing was information obtained from Mr. Smaihall or his former counsel and, to the best of our understanding, is responsive to your request to him.

Should you have any questions regarding this response, please contact the undersigned.

Yours very truly,



MICHAEL A. CHERNEKOFF

MAC/rbm
cc: Mr. Louis Smaihall
Managers
(without enclosures)

SSIC Remediation LLC
List of Members
(In Alphabetical Order)

American Commercial Line, L.L.C.
(Successor to National Marine Service)
Box 610
Jeffersonville, Indiana 47131-0610

Barge Transport Company, Inc.
1515 Poydras Street, Suite 1950
New Orleans, Louisiana 70112

Beazer-East, Inc.
1 Oxford Centre, Suite 300
Pittsburgh, Pennsylvania 15219

Canal Barge Company
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New Orleans, Louisiana 70112

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600 N. Dairy Ashford Road
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Higman Barge Lines, Inc.
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New Orleans, Louisiana 70170

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5200 Blazer Parkway
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Sabine Towing and Transportation, Inc.
1301 McKinney
Houston, Texas 77010

Steuart Transportation Company
5454 Wisconsin Avenue
Chevy Chase, Maryland 20815

Talens Marine and Fuel, Inc.
225 Pleasant Street
Lake Arthur, Louisiana 70549

Gloria-Small Moran
12/09/02 04:55 PM

To: Scott McDonald/R6/USEPA/US@EPA
cc: Gene Keepper/R6/USEPA/US@EPA
Subject: Re: Status of SBA Shipyards, Inc. (LDEQ AIN 1478) - REPLY and forwarded email

No, but I am a cc on the email from Gene. Gene Keepper is the Enforcement Officer. He indicated that he spoke to you about this case, and would sit down with you one day to talk about it. For your info, the long-awaited letter agreement between EPA, SBA Shipyards and a Customer Group is going through sign-off right now. Gene will file it after Sam Coleman or his designee signs it.

Gloria

Scott McDonald

Scott McDonald
12/09/02 04:05 PM

To: Gloria-Small Moran/R6/USEPA/US@EPA
cc:
Subject: Status of SBA Shipyards, Inc. (LDEQ AIN 1478)

Gloria -
Here is the latest correspondence activity b/t LDEQ and EPA re: SBA Shipyards (read below). Were you able to locate and sort through your file for SBA Shipyards? I would like to review the Complaint, work plan, and background facts for this case in the near future. Is Sam Tates the EO? Please let me know when I can pick-up whatever you have...Thanks -
Scott

----- Forwarded by Scott McDonald/R6/USEPA/US on 12/09/02 03:55 PM -----

Gene Keepper
12/09/02 02:57 PM

To: "Horn, Keith" <k_horn@ldeq.org>
cc: "Chernekoff, Mike" <mchernekoff@joneswalker.com>, "Miller, Michael" <mike_m@exch.deq.state.la.us>, m.pisani@ix.netcom.com, (bcc: Scott McDonald/R6/USEPA/US)
Subject: Status of SBA Shipyards, Inc. (LDEQ AIN 1478)

Keith:
To explain first a bit. Since LDEQ reviewed that SOW some delays have indeed occurred and due in large part to EPA. Internal issues between RCRA and CERCLA surfaced while final signatures were being obtained for the agreement to begin remedial work at SBA. Suffice it to say these issues were unexpected and significantly delayed the agreement. The agreement is once again in EPA's possession with signatures affixed by all responding parties (SSIC Remediation, LLC and Mr. Louis Smaihall) and I expect final EPA signatures today. If you want a facsimile or PDF copy Keith, I'd be happy to get it to you just as soon as the agreement is filed with the Regional Hearing Clerk.

I was somewhat surprised to read the portion of your e-mail stating "LDEQ inspectors also visited the site on August 5, 2002, and found that no remedial actions have yet been conducted." Unless substantial misrepresentations have been made by Messrs. Chernekoff and Pisani, which I strongly doubt based upon documentation provided me; I believe the inspectors were unfamiliar with the site. This lack of familiarity may have failed to account for approximately 1M gal. of pumpable wastes previously stored on-site in the impoundment and various tanks. This approx. 1M gal. of pumpable waste has been removed from the site for disposal as hazardous waste by incineration at Rhodia-Baton Rouge. I have spoken at length with Messrs. Chernekoff and Pisani regarding this removal and also requested a report on the removal from MP&A Staffer Mr. Robert Leslie. Based upon these conversations, I believe the Pumpables Disposal Report will be forthcoming upon final execution & filing of the Agreement by EPA.

I do have in my possession one "Solidification/Stabilization Work Plan: SBA Shipyards, Inc. (LAD008434185), Jennings, Louisiana" dated November 1, 2001, which I have been delaying approval upon until the agreement is final. I had believed that MP&A or Mr. Chernekoff had provided LDEQ a copy of this plan for review. It appears I may have been mistaken.

By copy of this e-mail I am directing the SSIC Project Manager named in the agreement, Mr. Michael Pisani, to provide a copy of the S/S Work Plan to you Keith for LEDQ review and comment. I am also directing the SSIC Project Manager to provide copies of all reports and correspondence, including but not limited to the Pumpables Disposal Report, to you from this date forward as the designated LDEQ contact on the SBA Shipyards Remediation Project, LDEQ AIN 1478.

Sincerely,

Gene Keepper, CHMM
RCRA Project Manager (6EN-HX)
»»

Gene Keepper, CHMM **Phone:** 214-665-2280
Soil Chemist **Fax:** 214-665-7264
and **E-Mail:** Keepper.Gene@epa.gov
Environmental Scientist **S-Mail:** 1445 Ross Avenue, Suite 900
Specializing in: Dallas, TX 75202-2733
Complex Case Development and Site
Remediation, Inspections, and Field Sampling
Technical Section (6EN-HX)
Hazardous Waste Enforcement Branch

.... Message Included by Keepper.Gene@epa.gov on 12/09/2002 at 14:45 ....

"Horn, Keith" <k_horn@ldeq.org>
12/04/2002 08:04

To: Gene Keepper/R6/USEPA/US
cc: "Miller, Michael" <mike_m@exch.deq.state.la.us>, "Chernekoff, Mike" <mchernekoff@joneswalker.com>
Subject: Status of SBA Shipyard

Mr. Keeper:

I wanted to check with you on the status of the SBA Shipyard site in Jennings, La. The last known action the LDEQ is aware of concerning the site is our

Gene Keepper

12/16/02 06:08 PM

To: "Chernekoff, Mike" <mchernekoff@joneswalker.com>, m.pisani@ix.netcom.com
cc: "Horn, Keith" <k_horn@ldeq.org>, "Miller, Michael" <mike_m@exch.deq.state.la.us>, (bcc: Scott McDonald/R6/USEPA/US)
Subject: SBA Shipyards, Inc. Agreement (LDEQ AIN 1478)

Messrs. Michael & Mr. Rob Leslie:

This is the way I'd like to be able to handle ALL of our less than 100 page count documents. Any comments pro or con?

LO3008_SBA1105.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7567

Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Smaihall:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records. At this time I am also requesting summary information which you have developed relating to the customers of SBA. This would include but not be limited to the circa 1996 letter from your counsel of the time to SBA customers in which SBA requests funding support for remedial activities at the SBA facility from approximately twenty-two (22) current and former customers.

Should you have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael A. Chernekoff, Esq.
Michael Pisani, MP&A
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

FILED
02 DEC 10 PM 1:21
REGIONAL HEARING CLERK
EPA REGION VI

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

DEC 0 9 2002

VIA FEDERAL EXPRESS: 8220 0515 8452
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2560 7543
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h). Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the world wide web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

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JONES WALKER

Michael A. Chernekoff
Direct Dial 504-582-8264
Fax 504-582-8583
mchernekoff@joneswalker.com

April 15, 2005

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733

Re: Order and Agreement ("Agreement")
for Interim Measures/Removal Action:
SBA Shipyards, Inc., Jennings, Louisiana
EP ID No. LAD008434185 ("SBA")
Docket No.: RCRA-6-2002-0908
Our File: 68700-00

Dear Mr. Keepper:

Our office represents SSIC Remediation, LLC ("SSIC"). This letter is supplemental to our letter to you of February 3, 2003, and in further response to your letter of December 12, 2002.

Your letter of December 12, 2002, requested certain information of SSIC, including a member listing of SSIC. We responded by letter of February 3, 2003, with various attachments, including an alphabetical list of the members.

Please be advised that effective March 23, 2005, by vote of the voting members, Higman Barge Lines, Inc. was removed as a member of the company.

Should you have any questions regarding this response, please contact the undersigned.

Yours very truly,

MICHAEL A. CHERNEKOFF

MAC/rbm

JONES WALKER

201 St. Charles Avenue

New Orleans, Louisiana 70170-5100

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733

75202+2733

-Draft-

August 15, 2001

Mr. Gene Keepper
U.S. Environmental Protection Agency
Region 6, Hazardous Waste Enforcement Branch
EPA Mail Code 6EN-HX
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Subject: Treatability Study Work Plan
SBA Shipyards, Inc.
Jennings, Louisiana

Dear Mr. Keepper:

Pursuant to our draft Statement of Work, this treatability study work plan defines our procedure for evaluating the material from the SBA Shipyard pit for solidification/ stabilization and offsite disposal.

Objective

The objective of solidification/stabilization of the oily material and sludge in the SBA shipyard pit is to eliminate free liquids and to stabilize the wastes to allow bulk transportation and disposal of the solidified/stabilized material in a Subtitle D landfill as industrial solid waste.

Purpose

The purpose of the work outlined in this plan is to identify solidification reagents and mix ratios required to meet the project objectives.

Treatability Study Procedures

In summary, the treatability study consists of the following tasks, which are discussed in further detail in this work plan:

1. Collect and composite samples of oily material and sludge
2. Submit raw composite sample for TCLP analysis

3. Conduct Treatability Study using Portland cement and fly ash.
4. Evaluate results from treatability study
5. Select solidification alternative(s) for further testing
6. Submit solidified/stabilized sample for TCLP analysis
7. Generate report.

Task 1 Collect Samples of Oily Material and Sludge

Samples will be collected from approximately 9 locations in the pit using the on-site dragline. A sample from each location will be placed in a 5-gallon bucket and thoroughly mixed to create homogeneous subsamples representing the area sampled. Samples from each location will be mixed in equal proportions to form a representative composite sample of the pit contents. The composite sample will be used to conduct the treatability study described in Task 3.

Task 2 Submit Raw Composite Sample for Laboratory Analyses

A portion of the composite sample will be placed in a laboratory-supplied container and submitted to an analytical laboratory for a full Toxicity Characteristic Leaching Procedure (TCLP) analysis. These results will be used to determine if leachability of hazardous constituents will need to be included as evaluation criteria in the study. Evaluation criteria are discussed in Task 4. Additional sample volume from the composite will be submitted to a laboratory for the following analyses: percent solids, percent oil, percent water, density, and baroid retort. Samples of the site soils, oily material+soil mixtures, and reagents will be submitted to the laboratory for measurement of material bulk density.

Task 3 Conduct Treatability Study Using Portland Cement and Fly Ash

The treatability study will be performed using portland cement and fly ash to solidify/stabilize oily material and oily material+soil mixtures. In some treatability study samples, site soils will be mixed with oily material to increase the solids content of the oily material, which will reduce the quantity of required binding reagent and may also improve the effectiveness of the pozzolanic binding reaction.

The study will be conducted by precisely weighing the material, mixing a predetermined quantity (weight) of reagent, and observing and measuring the material during and after mixing of reagents. Results will be recorded for the following evaluation criteria: free liquids after testing, material handling, volume increase, and material strength.

Material strength will be measured after 1 hour, 24 hours, 72 hours, and 7 days using a pocket penetrometer. Detailed treatability study procedures are provided in Attachment A.

Task 4 *Evaluate Results From Treatability Study*

The results of the treatability study will be evaluated to determine the preferred solidification alternative based on the following criteria: raw material usage and cost, final strength, projected volume and weight increase, and material handling characteristics. The evaluation will consider the balance between raw material usage and cost and increased disposal costs. If required, leachability of constituents will be considered in the evaluation based on the results of TCLP analysis of the raw composite sample. The evaluation criteria and reagent mix ratios are presented in Table 1.

Task 5 *Select Solidification Alternative(s) for Further Testing*

The selected reagent and mix ratio will be retested using the remaining volume of the composite sample (approximately 2 liters). Results will be recorded for the following evaluation criteria: free liquids after testing, material handling, volume increase, and material strength as described in Task 3.

Task 6 *Submit Solidified Sample for TCLP Analysis*

A portion of the solidified sample will be placed in a laboratory-supplied container and submitted to an analytical laboratory for a full TCLP analysis. The results of this analysis will be used to determine if the solidified material will meet the TCLP regulatory limits.

Task 7 *Generate Report*

Results of the treatability study will be reported to the EPA, along with a detailed plan for stabilization and solidification of pond contents.

Should you have any questions or comments, please contact us.

Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.

J. Carlton Todd, P.E.

Michael E. Pisani, P.E.

Attachment A

Treatability Study Procedures

SBA Shipyard
Jennings, Louisiana

```
**********************************************************************************
* User name:    CN=GKEEPPER.OU=CAED.OU=Dallas.OU=R6.OU=WEST.O=EPA (217)           *
* File name:                                                                      *
* Directory:                                                                      *
* Print queue: R6SUPESD/Q09AQUA-HP5SI.CAED.DALLAS.R6.WEST.EPA                     *
* PServer:     CN=PS_R6SUPESD.OU=CAED.OU=DALLAS.OU=R6.OU=WEST.O=EPA               *
* Description: Formosa Amendment                                                  *
*              10:11:41 am                          3/3/2003                      *
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1.) Put Remaining Docs, which aren't in Admin. Rec., in Chron Order → ~~$1344~~ $120 hrs ≈ $6K

AND

2.) Add back data to AR → $1300 pages 44

4.) 3 sets of AR CD's

3.) Put these docs into the Analytical data base

5.) Dups sent back w.o./indexing (Do I need these Dups in chron order)

Wally vacating on 7 Feb

MICHAEL PISANI & ASSOCIATES, INC.

Environmental Management and Engineering Services

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
Facsimile (504) 582-2470
m.pisani@ix.netcom.com

13313 Southwest Freeway
Suite 227
Sugar Land, Texas 77478
Telephone (281) 242-5700
Facsimile (281) 242-1737
dangle@orbitworld.net

RECEIVED
13 NOV 2001
6850 GEK

November 1, 2001

Mr. Gene Keepper
U.S. Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202-2733

Subject: Solidification/Stabilization Work Plan
SBA Shipyards, Inc. (LAD 008434185)
Jennings, Louisiana

Dear Mr. Keepper:

In accordance with your request to SSIC Remediation, LLC, Michael Pisani & Associates, Inc. (MP&A) is pleased to provide this work plan for your review and approval.

Summary

This Work Plan defines procedures for the solidification/stabilization of oily material found at SBA Shipyards Inc. ("SBA") site near Jennings, Louisiana ("the site"), as described in the Statement of Work (SOW) submitted to U.S. EPA Region VI.

The SOW states that oils, waxes and oily sludges that are not accepted by the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill. This work plan describes the steps for completion of that task.

Bomb Threat/Nuisance Call Guidelines (Ctrl-P to print) (Back)

THIS REPORT PREPARED BY:_____ DATE:_____
At _____AM/PM, I received a threat at phone number _____
The following message was received:

_____
_____

1. TRY TO GET THE CALLER TO REPEAT THE MESSAGE!
("I'm sorry, would you say that again, please")

2. DO NOT INTERRUPT THE CALLER WHILE HE/SHE IS TALKING

3. TRY TO KEEP THE CALLER TALKING!
(Use your imagination - try to act natural)
What does the bomb look like?
When is the bomb going to explode?
Where is it right now?
What kind of bomb is it?
What will cause it to explode?
Did you place the bomb?
Why?
What can we do to keep innocent people from getting hurt?
What is your address?
What is your name?

4. DESCRIBE THE CALL
SEX (OF CALLER) M/F_____ RACE_____ AGE_____
How does the caller's voice sound?_____

CALLER'S VOICE:		BACKGROUND NOISES:	
____Calm	____Nasal	____Street	____Factory
____Angry	____Stutter	____Noises	____Local Call
____Excited	____Lisp	____Crockery	____Long
____Slow	____Raspy	____Voices	Distance
____Rapid	____Deep	____PA System	____Phone
____Soft	____Ragged	____Music	Booth
____Loud	____Cleared	____House	____Static
____Happy	Throat	Noise	____Laughter
____Sad	____Deep	____Motor	____Crying
____Normal	Breathing	____Office	____Animal
____Cracking	____Slurred	____Machinery	Noise
____Distinct	Voice	THREAT LANGUAGE:	
____Disguised	____Accent	____Educated	____Foul
____Familiar	____Taped	(Well Spoken)	____Incoherent
(If so, who?)		____Message	____Irrational
		Read by Caller	____Taped

Other information that may help identify caller:
_____

5. IMMEDIATELY NOTIFY BUILDING SECURITY (5-5555) AND THE SERVICE DESK (5-6570)

- Check sample of Stab. materials to be used/confirmed prior to fall
- technical
  WILL survey bottom elevations prior to backfill for future CPT/sampling investigation /boring

State of Louisiana

Department of Environmental Quality

M. J. "MIKE" FOSTER, JR.
GOVERNOR

BOLLINGER
RETARY

NATURE SAVER™ FAX MEMO 01616

Date	1/16/03	No. of pages ▶	4
To	GENE KEEPPER	From	Keith Ho
Co./Dept.	EPA 6EN-HX	Co.	LDEQ-RSD
Phone #	214-665-2280	Phone #	225-765-0477
Fax #	214-665-7264	Fax #	225-765-0435

January 16, 2003

CERTIFIED MAIL - RETURN RECEIPT (7001 0320 0003 0931 8782)

Mr. Gene Keepper, RCRA PM (6EN-HX)
US Environmental Protection Agency
1445 Ross Avenue, Suite 900
Dallas, TX 75202-2733

RE: Review of "Solidification/Stabilization Work Plan"
SBA Shipyards, Inc.; Agency Interest Number 1478
At the Foot of State Highway 3166, Jennings, Jefferson Davis Parish

Dear Mr. Keeper:

We have received and reviewed the "Solidification/Stabilization Work Plan" for the referenced facility dated November 1, 2002, submitted as an attachment to a letter by Michael Pisini & Associates dated December 17, 2002. Thank you for requesting this information be submitted to us for review and comment. Based on a technical review of this document, we have the following comments/concerns. It is anticipated that these comments will be addressed in a revision of the referenced plan as directed by the EPA, which remains the lead agency for the site.

Treatability Study Results, page 2; No information is provided concerning the relative homogeneity of the pit content grab samples, nor is it clear whether a composite pit sample was used for the solidification testing (for estimation purposes a composited sample would have been appropriate). Sample size of unamended pit material is not disclosed either. If the sample size was small (e.g., 100 grams or so), the value of the estimates of solidification agent required presented are lesser value than if a larger sample size was used.

Solidification/Stabilization Procedures, page 4; The plan says that fly ash will be delivered and held onsite for later mixing. Exposing dust to the weather will result in hydration of the dust, thereby reducing its effectiveness as a solidifying agent. Rather than using the concept of mixing cells, we may want to consider solidifying the entire pond at one time. This has the advantage of having all mixed contents in a relatively secure area. The plan does not mention the volume increase resulting from such mixing. If the pit is solidified at one time, the existing levees should be raised in height to contain the contents. Dust/ash could be

introduced directly into the pit using pneumatic trucks, with delivery beneath plastic sheeting, to minimize dust.

Solidification/Stabilization Procedures, Page 4; The extent of the "landfarm" area is stated to be "100-foot by 200-foot." The Louisiana Department of Environmental Quality -- Remediation Services Division (LDEQ-RSD) has no information that verifies that that the horizontal extent of contamination in the land-farm area has been delineated. This Section also states that it will be excavated to a maximum depth of 18 inches. Again, the LDEQ-RSD has no information that documents that the vertical depth of contamination has been delineated in the land-farm area. The August 15, 2001 Statement of Work (SOW), Preliminary Remedial Goals Section, Page 3, paragraph 3, states that the land-farm and pit are to have wastes removed both laterally and vertically till visibly clean, and/or to six inches below the waste/soil interface. The LDEQ-RSD agrees with this approach, and would like to see the "Solidification/Stabilization Work Plan" edited to be consistent with the criteria agreed upon in the approved SOW. Since this approach is essentially subjective, the LDEQ-RSD also feels that EPA and/or LDEQ inspectors must be present during or at the end of this operation to verify the removal criteria have been met.

Backfilling and Grading, Page 5; The LDEQ-RSD opposes backfilling the excavation areas at this time, particularly the land-farm area. As stated on page four of the approved August 15, 2001 SOW, following the source removal action, further evaluation under the LDEQ Risk Evaluation/Corrective Action Program (RECAP), or more stringent standards will be required. The sampling needed to perform this evaluation would be made more difficult by backfilling. Backfilling would also give the mistaken impression that the remediation of these areas has been completed. The LDEQ-RSD will consider the remediation of these areas completed only when sampling and analysis have proven that all contaminants have been reduced to concentrations that are at or below the standards that are to be established.

The land-farm area excavation is expected to be shallow (estimated at 18 inches). This area is located on a hill, so the excavation can be graded to prevent ponding of water after waste removal activities have been completed. The edges of this shallow excavation can be graded to reduce "slip, trip, or fall" hazards, which should be of little concern in any case since this is an access-controlled facility. Only authorized personnel are expected to be present in these areas. The excavation area could then be fertilized and seeded as proposed to prevent erosion.

Following excavation of the oil pit area, berms of clean soil could be constructed to prevent rainwater run-off from entering the excavated pit area. Only minimal water would then have to be managed later, as only the rain that falls directly into the excavation would be held in the oil pit area.

General;

The LDEQ RSD must be notified at least five days in advance of the implementation of the fieldwork specified. This notification must be made directly to the LDEQ-RSD Team Leader (Keith Horn), via phone, pager, or e-mail (see below). The LDEQ-RSD will then provide oversight to insure the requirements of the plan are met.

If anyone has any questions concerning this matter, they may feel free to contact me at my desk line (225) 765-0477, by pager (225) 952-3744, or by e-mail at k_horn@ldeq.org. All future correspondence regarding this matter should be submitted in triplicate and directed to:

Keith L. Casanova, Administrator
Remediation Services Division
P.O. Box 82178
Baton Rouge, LA 70884-2178.

One of the copies should be directed to my attention. Please include the Agency Interest (AI) number and name referenced above on all correspondence. By always using the correct AI number and name, delay and misfiling can be avoided. Thank you for your cooperation.

Sincerely,

Keith Horn

Keith Horn, Staff Environmental Scientist
Remediation Services Division

klh

c: LDEQ File Scanning Room 1400-IAS

Lourdes Iturralde, LDEQ Enforcement Division
Via LDEQ Interoffice Mail: HQ-3406

Mr. Michael A. Chernekoff
Jones, Walker, Waechter, Poitevent,
Carrere & Denegre, L.L.P.
201 St. Charles Avenue
New Orleans, Louisiana 70170-5100

Mr. Robert E. Leslie, Jr. P. E.
Michael Pisini & Associates
1100 Poydras Street
1430 Energy Center
New Orleans, LA 70163

Background

The site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments containing oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit ("the oil pit") on the site contains oil, waxes, solids and/or sludges and water.

Currently, pumpable oily materials from the tanks, vessels and pit are shipped offsite for thermal destruction. In accordance with the SOW, this work plan defines procedures for stabilizing oils, waxes, solids and/or other oily materials not accepted for thermal destruction. Those materials are accumulated in the oil pit.

Oil Pit Sampling Event

On September 12, 2001, nine grab samples were collected from nine sampling locations around the oil pit. Approximately one gallon of material was collected from each location using a 2-inch diameter PVC syringe sludge/sediment sampler and transferred directly to a new, clean, dedicated, steel paint can.

The nine grab samples were used to create a volume-weighted composite sample of oil pit material for treatability testing and laboratory analyses. A site plan, showing the oil pit and the nine sampling locations, is presented as Figure 2 (attached).

Inventory of Oil Pit Materials

On September 12, 2001, the oil pit depth was measured at each of the nine sampling locations shown in Figure 2, using a steel tape measure affixed to a capped PVC gauge pole, advanced to refusal. The relative area of influence for each gauging location was estimated by the Thiesen polygon method and multiplied by the gauged depth at each location to calculate the estimated volume of oily sludges and waxes in the oil pit.

A maximum depth of excavation at each gauging location was established to estimate the total in-situ volume of oil pit material to be treated by solidification/stabilization. For refusal depths less than 10 feet at any gauging location, the excavation depth is assumed to be refusal depth plus 0.5 feet. For refusal depths greater than10 feet at any gauging location, the excavation depth is assumed to be refusal depth plus 1.0 feet.

A summary of the estimated inventory of pit contents is presented as Table 1 (attached). The total estimated in-situ volume of pit contents is 6,550 cyd. Table 1 also lists the pit volume-weighted relative contribution of each grab sample used to create a composite sample of oil pit contents for treatability testing and laboratory analyses.

Characterization of Oily Materials

A sub-portion of each of the nine grab samples of oil pit material was mixed in a 1:1 ratio with soil from the landfarm. The samples of oil pit material (unmixed) and oil pit material mixed with landfarm soils were sent to Lubriport Laboratories Inc. (Kenner Louisiana) for analyses of water and sediment content by ASTM methods D95 and D473, respectively. A summary of analytical results is presented as Table 2 (attached) and supporting analytical laboratory reports are provided in Appendix A.

Results of laboratory toxicity characteristic leachate procedure (TCLP) analyses performed on a volume-weighted composite sample of untreated oil pit material are consistent with previous characterization analyses performed by others. TCLP leachate of untreated oily material from the oil pit shows the potential to exceed regulatory limits for benzene, vinyl chloride (chloroethene), o-cresol (2-methylphenol), and p-cresol (4-methylphenol).

Treatability Study Results

A solidification/stabilization treatability study was performed on oil pit material and on oil pit material mixed with soils from the landfarm area identified in the Statement of Work. Procedures used in the treatability study are described in the August 15, 2001 Treatability Study Work Plan.

The following solidification/stabilization amendments were added to the samples of oil pit material:

- Landfarm soils (1:1 mixture, if used)
- Type C or Type F fly ash (provided by ISG Resources; Lake Charles, Louisiana)
- ASTM C-150 Holnam Portland Cement.

Solidification/stabilization amendments used in the treatability study were measured out using an Acculab V-333 top loading balance (300-gram maximum load). The amendment materials were blended into samples of oil pit contents using a laboratory stir rod, and the samples were allowed to cure. Unconfined compressive strengths (UCS) were measured with a pocket penetrometer at 1-hour, 24-hours, 72-hours, and 7 days. A summary of treatability study results is presented in Table 3 (attached).

Based on the initial results of the treatability study, Class C Fly ash was mixed with oil pit material at a 1:2 ratio, without landfarm soils (sample 6A). After curing for three days, a sample of the treated material was analyzed for TCLP metals, volatile organics and semi-volatile organics. A summary of the sample 6A TCLP analytical results is presented in Table 4 (attached) and supporting analytical laboratory reports are provided in Appendix A.

Sample 6A meets the TCLP acceptance criteria of the selected RCRA Subtitle D non-hazardous solid waste landfill (BFI Landfill; Welsh, Louisiana). Therefore, the selected dosages of solidification/stabilization amendments are:

Amendment	Selected Dosage
Landfarm Soils[(a)]	As required for bulking agent based on visual observations
Class C Fly Ash	1:2 (fly ash:pit contents).

Notes:

(a) As discussed in the Statement of Work, soils will be obtained from the 100' x 200' landfarm area west of the oil pit, excavated to a maximum depth of 18 inches.

Field Equipment Requirements

The heavy equipment items to be used in the implementation of for this work plan are the following:

1. One hydraulic excavator.
2. One clamshell bucket.

The hydraulic excavator will be used to mix the oily material and solidification/stabilization reagents, and to transfer the solidified/stabilized material from the oil pit area to the transport vehicles. The clamshell bucket will be used for transferring material within the oil pit, if necessary. Safety requirements and decontamination procedures for the operators and heavy equipment are described in the Health and Safety Plan (HASP) in Appendix B.

Solidification/Stabilization Procedures

Solidification/stabilization amendments will be mixed with oil pit materials in-situ. The southern end of the oil pit is relatively shallow, and mixing will generally take place within this area. The southern end of the oil pit will be divided into 25-feet by 25-feet mixing cells.

The oil pit material will be mixed with fly ash in the mixing cells, and landfarm soils will be added as needed as a bulking agent, based on visual observations in the field. The fly ash will be delivered by bulk truck and deposited onsite in a designated area. Soils for mixing with oil pit materials will be excavated to a maximum depth of 18 inches from the 100-foot by 200-foot landfarm area west of the oil pit.

The oil pit material will then be transferred to the mixing cells and mixed using the hydraulic excavator. The hydraulic excavator will be used to mix and homogenize the mixture of solidification/stabilization reagent based on visual inspection.

The mixture of oil pit material and solidification/stabilization reagents in each mixing cell will be allowed to cure for approximately three days. The cured material will then be removed from the mixing cells by the backhoe loader.

Emptied mixing cells will then be refilled with oily material from the oil pit using the clamshell bucket. The process will be repeated until the contents of the oil pit have been solidified/stabilized.

Excavation of Stabilized Material

The solidified/stabilized material will either be transferred directly to the transport vehicles for offsite disposal or transferred to a designated temporary stockpile area prior to loading into trucks for offsite disposal. Temporarily stockpiled solidified/stabilized material will be placed on a plastic liner, then covered with plastic sheeting (e.g., Visqueen). Temporary berms and/or runoff diversion trenches will be constructed around the temporary stockpile area to minimize the potential for contact with stormwater runoff.

Transportation and Landfill Disposal

The solidified/stabilized material will be hauled by dump truck to a permitted RCRA Subtitle D disposal facility. Prior to loading, a plastic liner will be placed in each empty dump truck bed. Once loaded, the material will be covered by the plastic liner and the canopy tarp of the truck, and the material will be hauled offsite under a non-hazardous solid waste manifest listing SBA Shipyards, Inc. as the solid waste generator. Safety requirements and decontamination procedures for the operators and vehicles are described in the HASP in Appendix B.

Backfilling and Grading

Excavated areas will be backfilled with visibly clean onsite soils or imported offsite soils. Backfill soils will be placed in one-foot lifts and recompacted using onsite heavy equipment.

Excavated areas will be backfilled and graded to approximate local topography and to allow adequate surface drainage without ponding onsite. The graded excavation areas will also be fertilized with commercially available agricultural nutrients and seeded with native grasses.

Recordkeeping and Reporting

A daily site log will be kept onsite to document solidification/stabilization activities. The log will include time of events, activities, problems, corrective measures, etc. A copy of all solid waste manifests will also be kept onsite as a record of all material transported offsite. After

completion of solidification/stabilization activities, a report summarizing site activities, material usage and hauling quantities will be submitted to the U.S. EPA project manager. The solidification/stabilization report will also include copies of all completed solid waste trucking manifests and/or weigh tickets of loads received at the landfill.

If you have any questions, please do not hesitate to call us.

Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.

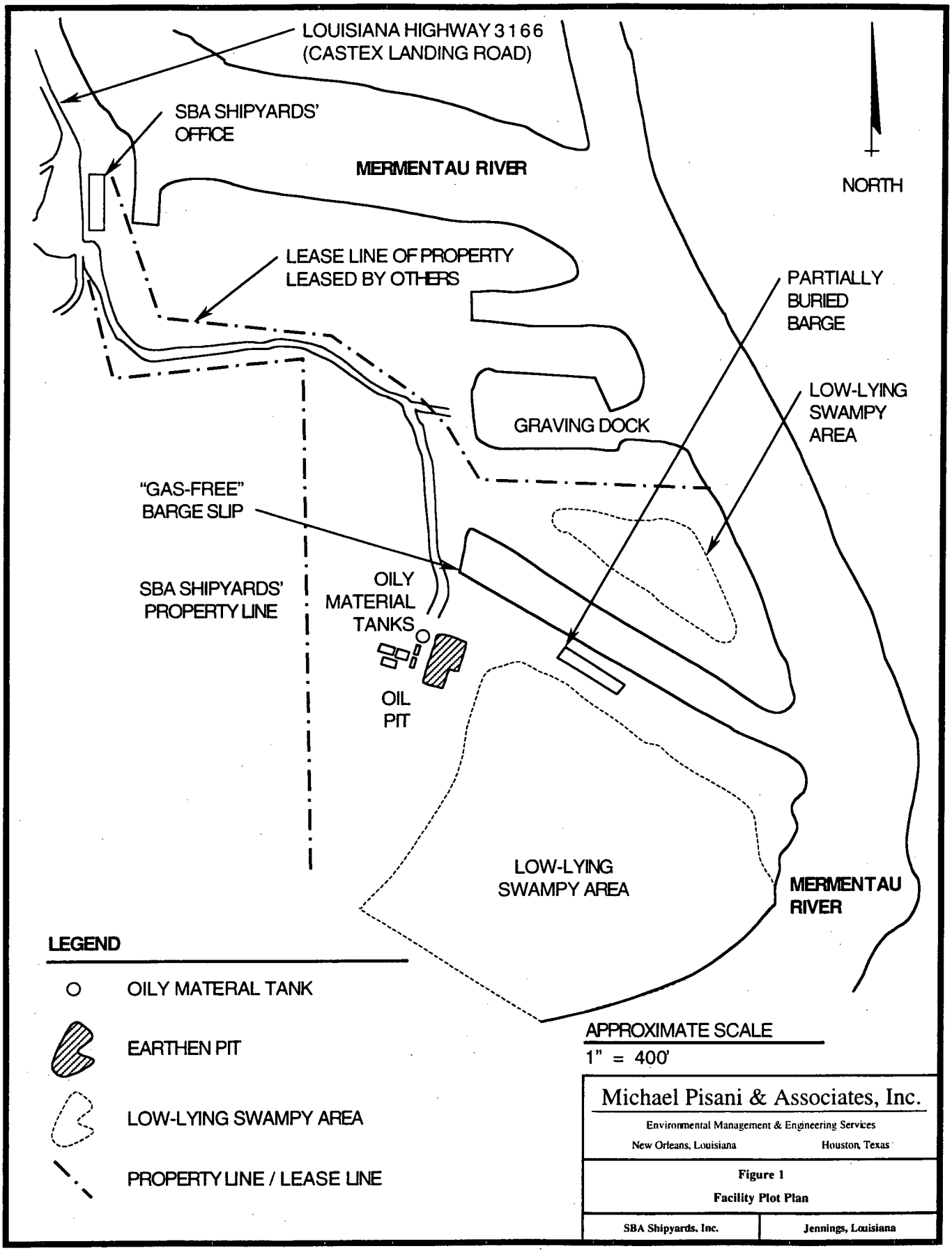
Christopher M. Fetters

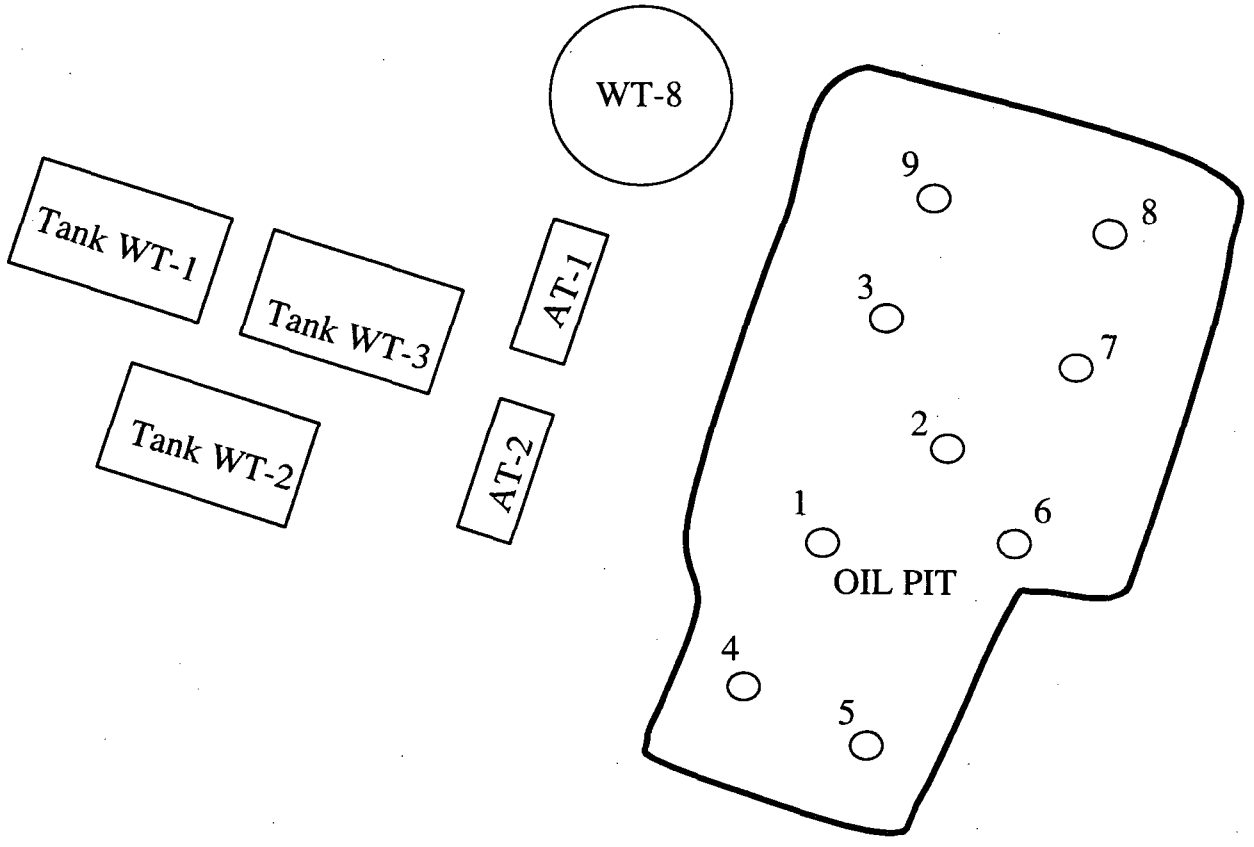
Robert E. Leslie, Jr., P.E.

Attachments:

Figure 1:	Site Map
Figure 2:	Oil Pit Sampling Locations
Table 1:	Estimated Volume of Pit Contents
Table 2:	Summary of Oil Pit Water, Sediment and Oils/Waxes Content
Table 3:	Summary of Treatability Study Results
Table 4:	Summary of Treated Oil Pit Material TCLP Results
Appendix A:	Supporting Laboratory Reports
Appendix B:	Site Health and Safety Plan

cc: Michael A. Chernekoff (Jones, Walker, Waechter, Poitevent, Carrere & Denegre)


LOUISIANA HIGHWAY 3166
(CASTEX LANDING ROAD)
SBA SHIPYARDS' OFFICE
MERMENTAU RIVER
NORTH
LEASE LINE OF PROPERTY LEASED BY OTHERS
PARTIALLY BURIED BARGE
LOW-LYING SWAMPY AREA
GRAVING DOCK
"GAS-FREE" BARGE SLIP
SBA SHIPYARDS' PROPERTY LINE
OILY MATERIAL TANKS
OIL PIT
LOW-LYING SWAMPY AREA
MERMENTAU RIVER
LEGEND
OILY MATERAL TANK
EARTHEN PIT
LOW-LYING SWAMPY AREA
PROPERTY LINE / LEASE LINE
APPROXIMATE SCALE
1" = 400'
Michael Pisani & Associates, Inc.
Environmental Management & Engineering Services
New Orleans, Louisiana
Houston, Texas
Figure 1
Facility Plot Plan
SBA Shipyards, Inc.
Jennings, Louisiana



APPROXIMATE SCALE
1" = 75'

Legend

OIL PIT

OIL PIT SAMPLING/SOUNDING LOCATION

TANK OR VESSEL

Michael Pisani & Associates, Inc.
Environmental Management & Engineering Services
New Orleans, Louisiana Houston, Texas

Figure 2
Oil Pit Sampling Locations

SBA Shipyards, Inc. Jennings, Louisiana

Table 1

Estimated Volume of Pit Contents

SBA Shipyards, Inc.
Jennings, Louisiana

Grab Sample Location	Area of Influence[(a)] (sft)	Refusal Depth[(b)] (ft)	Calculated Sludge Volume (cyd)	Estimated Excavation Depth[(c)] (ft)	Calculated In-situ Volume (cyd)	Relative Fraction[(d)] (%)
Sample 1	3,002	3.83	426	4.33	482	7.0%
Sample 2	2,464	7.83	715	8.33	760	11.8%
Sample 3	2,266	8.25	692	8.75	734	11.4%
Sample 4	3,420	4.92	623	5.42	686	10.3%
Sample 5	3,420	4.92	623	5.42	686	10.3%
Sample 6	2,950	7.92	865	8.42	920	14.3%
Sample 7	2,206	12.33	1,008	13.33	1,089	16.6%
Sample 8	2,300	6.25	532	6.75	575	8.8%
Sample 9	2,300	6.75	575	7.25	618	9.5%
Total	24,328		6,059		6,550	100.0%

Notes:

(a) Estimated by Thiesen polygon method of weighted influence for each sampling location.
(b) Measured September 12, 2001 using PVC staff gauge advanced to refusal.
(c) For refusal depths less than 10 feet, excavation depth is refusal depth plus 0.5 feet for sludge and underlying soils. For refusal depths greater than 10 feet, excavation depth is refusal depth plus 1.0 foot for sludge and underlying soils.
(d) Relative fraction (volume basis) used to create volume-weighted composite laboratory sample from nine grab-sampling locations.

Table 2

Summary of Oil Pit Water, Sediment and Oils/Waxes Content

SBA Shipyards, Inc.
Jennings, Louisiana

Sampling Location	Oil Pit Contents[a]			1:1 Soil Mixture[b]		
	Water (%) ASTM D95[c]	Sediment (%) ASTM D473[c]	Oils/Waxes (%) Calculated[d]	Water (%) ASTM D95[c]	Sediment (%) ASTM D473[c]	Oils/Waxes (%) Calculated[d]
1	34%	13%	53%	23%	38%	39%
2	32%	11%	57%	26%	32%	42%
3	44%	12%	44%	26%	41%	33%
4	16%	40%	44%	14%	63%	23%
5	20%	29%	51%	12%	52%	36%
6	26%	7%	67%	28%	44%	28%
7	20%	13%	67%	24%	39%	37%
8	36%	12%	52%	22%	45%	33%
9	47%	9%	44%	38%	31%	31%
Average:	31%	16%	53%	24%	43%	34%
Composite[e]	N.A.[f]	N.A.	N.A.	36%	14%	50%

Notes:

(a) Neat oil pit material sample with no amendments or soil addition, designated by sample identifier "-A" suffix on sample custody documentation.

(b) Oil pit material sample mixed with landfarm soils at indicated mixing ratio designated by sample identifier "-B" suffix on sample custody documentation.

(c) Analytical method used by Lubriport Laboratories (Kenner, Louisiana).

(d) Oil/wax content calculated as difference of total minus water and sediments ($\%_{oils/waxes} = 100\% - \%_{water} - \%_{sediment}$)

(e) Volume-weighted composite sample created from nine grab samples.

(f) Not analyzed.

Table 3

Summary of Treatability Study Results

SBA Shipyards, Inc.
Jennings, Louisiana

		Oil Pit Contents[a]						1:1 Soil Mixture[b]				
		Oil Pit Contents, Class C Fly Ash and Portland Cement				Oil Pit Contents and Class C Fly Ash		Oil Pit Contents, Soil, Class C Fly Ash and Portland Cement			Oil Pit Contents, Soil and Class F Fly Ash	
Test Parameter	Units	1A	2A	3A	4A	5A	6A	1B	2B	3B	1C	2C
Fly Ash Dose[c]	fly ash : pit contents	1:10	1:5	3:5	1:1	1:1	1:2	1:10	1:5	3:5	1:10	1:5
Cement Dose[d]	cement : pit contents	1:10	1:5	3:5	1:2	None	None	1:10	1:5	3:5	None	None
UCS[e]												
After 1 Hour	lb / in^2	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	0.22
After 24 hours	lb / in^2	<0.22	<0.22	<0.22	1.31	3.48	0.87	<0.22	0.44	1.09	0.22	0.22
After 72 Hours	lb / in^2	<0.22	0.22	0.87	1.74	6.95	0.87	0.22	0.87	3.48	0.44	0.87
After 7 Days	lb / in^2	<0.22	0.44	0.87	2.61	13.89	0.87	0.22	2.18	27.78	0.44	0.87

Notes:

(a) Neat oil pit material sample with no amendments or soil addition.
(b) Oil pit material sample mixed with landfarm soils at 1:1 mixing ratio.
(c) Dosage of Class C or Class F fly ash added by weight.
(d) Dosage of portland cement added by weight (cement:pit contents).
(e) Unconfined Compressive Strength (UCS) measured by pocket penetrometer after indicated curing time.

Table 4

Summary of Treated Oil Pit Material TCLP Results

SBA Shipyards, Inc.
Jennings, Louisiana

Analytical Parameter	Units	Analytical Method[a]	Regulatory Limit[b]	Analytical Result[c]
Volatile Organic Compounds				
Benzene	mg/L	8260	0.5	0.217
2-Butanone (MEK)[d]	mg/L	8260	200	ND (0.2)
Carbon tetrachloride	mg/L	8260	0.5	ND (0.1)
Chlorobenzene	mg/L	8260	100	ND (0.1)
Chloroform	mg/L	8260	6.0	ND (0.1)
1,2-Dichloroethane (EDC)[e]	mg/L	8260	0.5	ND (0.1)
1,1-Dichloroethene	mg/L	8260	0.7	ND (0.1)
Tetrachloroethene	mg/L	8260	0.7	ND (0.1)
Trichloroethene	mg/L	8260	0.5	ND (0.1)
Vinyl chloride	mg/L	8260	0.2	ND (0.2)
Semivolatile Organic Compounds				
1,4-Dichlorobenzene	mg/L	8270	7.5	ND (0.04)
2,4-Dinitrotoluene	mg/L	8270	0.13	ND (0.04)
Hexachlorobenzene	mg/L	8270	0.13	ND (0.04)
Hexachlorobutadiene	mg/L	8270	0.5	ND (0.04)
Hexachloroethane	mg/L	8270	3.0	ND (0.04)
2-Methylphenol (o-cresol)	mg/L	8270	200	0.261
3-Methylphenol (m-cresol)	mg/L	8270	200	ND (0.2)
4-Methylphenol (p-cresol)	mg/L	8270	200	0.516
Nitrobenzene	mg/L	8270	2.0	ND (0.04)
Pentachlorophenol	mg/L	8270	100	ND (0.1)
Pyridine	mg/L	8270	5.0	ND (0.04)
2,4,5-Trichlorophenol	mg/L	8270	400	ND (0.1)
2,4,6-Trichlorophenol	mg/L	8270	2.0	ND (0.04)
Metals				
Arsenic	mg/L	7060	5.0	ND (0.1)
Barium	mg/L	6010	100	ND (1.0)
Cadmium	mg/L	6010	1.0	ND (0.1)
Chromium	mg/L	6010	5.0	ND (0.5)
Lead	mg/L	6010	5.0	ND (0.5)
Mercury	mg/L	7470	0.2	ND (0.0002)
Selenium	mg/L	6010	1.0	ND (0.2)
Silver	mg/L	6010	5.0	ND (0.5)

Notes:

(a) Unless otherwise specified, EPA SW-846 method.

(b) Hazardous waste toxicity characteristic, in accordance with 40 CFR 261.24.

(c) Analysis conducted leachate generated by Toxicity Characteristic Leachate Procedure (TCLP) performed on oil pit sample treated using 1:1 dose of class C fly ash.

(d) Methyl ethyl ketone (MEK).

(e) Ethylene dichloride (EDC).

Appendix A

Supporting Laboratory Reports

SBA Shipyards, Inc.
Jennings, Louisiana

Project No. 26-01

LUBRIPORT LABORATORIES INC.

PRODUCT: SLUDGE

SAMPLE MARKED: SEE BELOW

SAMPLE REC'D DATE: 9/19/01

DATE SAMPLE DRAWN: -------

ACCOUNT: MICHAEL PISANI & ASSOCIATES. INC.
1100 POYDRAS STREET
1430 ENERGY CENTRE
NEW ORLEANS LA 70163

INVOICE NO. LL-30154

P.O. NO. ----------

DATE: SEPTEMBER 27, 2001

LAB NO. 9-498 THRU 9-516

REVIEWED BY Anne Tullos

SAMPLE MARKED	WATER BY DISTILLATION ASTM (D95)	SEDIMENT BY EXTRACTION ASTM (D473)
1A	34%	12.6%
1B	23%	38.1%
2A	32%	10.8%
2B	26%	32.4%
3A	44%	12.1%
3B	26%	40.7%
4A	16%	39.9%
4B	14%	62.9%
5A	20%	29.3%
5B	12%	51.8%
6A	26%	6.9%
6B	28%	44.1%
7A	20%	12.7%
7B	24%	39.0%
8A	36%	11.6%
8B	22%	45.4%
9A	47%	9.3%
9B	38%	30.6%
COMP	36%	13.8%

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, Inc.
1000 Riverbend Blvd., Suite F
St. Rose, LA 70087
Phone: 504.469.0333
Fax: 504.469.0555

October 16, 2001

RECEIVED OCT 18 2001

Mr. Rob Leslie
Michael Pisani & Associates
1100 Poydras Street
1430 Energy Centre
New Orleans, LA 70163

RE: Lab Project Number: 208152
Client Project ID: SBA SHIPYARDS

Dear Mr. Leslie:

Enclosed are the analytical results for sample(s) received by the laboratory on October 9, 2001. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Randy Shackelford
Project Manager

Enclosures

Report of Laboratory Analysis
Project Number: 208152

Pace Analytical Services, Inc.
1000 Riverbend Blvd, Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Narrative for Project 208152

Organic Preparations

Insufficient sample was provided to perform full volume ZHE extraction (25 grams) and TCLP extraction(100 grams) for sample 2064779. The sample and fluid volumes were reduced in a proportionate manner. No problems were encountered with the analysis.

Pace Analytical™
New Orleans Laboratory

Report of Laboratory Analysis

www.pacelabs.com

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Client: MICHAEL PISANI & ASSOCIATES

Client ID: SBA-6A-TS
Site: None
Project: SBA SHIPYARDS
Project No.: 208152
Sample Qu:
Lab ID: 2064779 Leachate
Matrix: Soil
% Moisture: Not Corrected
Description: None
Prep Level: Soil
Batch: 12444
Method: SW 8260 TCLP Volatile Organics - 8260LLEA
Units: mg/l
Target List: 8260LLEA
Collected: 10/09/01
Received: 10/09/01
Prep Factor: 1
Leached: 10/10/01
Prepared:
Analyzed: 10/16/01 02:48 DET

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
71-43-2	Benzene	2	0.217	N C3	0.100	0.500
78-93-3	2-Butanone (Methyl ethyl ketone)	2	ND	N C3	0.200	200.
56-23-5	Carbon tetrachloride	2	ND	N C3	0.100	0.500
108-90-7	Chlorobenzene	2	ND	N C3	0.100	100.
67-66-3	Chloroform	2	ND	N C3	0.100	6.00
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	2	ND	N C3	0.100	0.500
75-35-4	1,1-Dichloroethene (Dichloroethylene)	2	ND	N C3	0.100	0.700
127-18-4	Tetrachloroethene (Perchloroethylene)	2	ND	N C3	0.100	0.700
79-01-6	Trichloroethene (Trichloroethylene)	2	ND	N C3	0.100	0.500
75-01-4	Vinyl chloride (Chloroethene)	2	ND	N C3	0.200	0.200

10 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

10/16/01 14:12:46

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services -
USDA Foreign Soil Import (U.S. Territories) - S-47270

Pace Analytical™
New Orleans Laboratory

Report of Laboratory Analysis

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

www.pacelabs.com

Client: MICHAEL PISANI & ASSOCIATES

Client ID: SBA-6A-TS
Site: None
Project: SBA SHIPYARDS
Project No.: 208152
Sample Qu:
Lab ID: 2064779 Leachate
Matrix: Soil
% Moisture: Not Corrected
Description: None
Prep Level: Soil
Batch: 12168
Method: SW 8270 TCLP Semivolatile Organics - 8270LLEA
Units: mg/l
Target List: 8270LLEA
Collected: 10/09/01
Received: 10/09/01
Prep Factor: 1
Leached: 10/10/01
Prepared: 10/11/01
Analyzed: 10/15/01 16:48 AKE

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND	N C3	0.0400	7.50
121-14-2	2,4-Dinitrotoluene	1	ND	N C3	0.0400	0.130
118-74-1	Hexachlorobenzene	1	ND	N C3	0.0400	0.130
87-68-3	Hexachlorobutadiene	1	ND	N C3	0.0400	0.500
67-72-1	Hexachloroethane	1	ND	N C3	0.0400	3.00
95-48-7	2-Methylphenol (o-Cresol)	1	0.261	N C3	0.0400	200.
108-39-4	3-Methylphenol (m-Cresol)	5	ND	A7 N C3	0.200	200.
106-44-5	4-Methylphenol (p-Cresol)	5	0.516	A7 N C3	0.200	200.
98-95-3	Nitrobenzene	1	ND	N C3	0.0400	2.00
87-86-5	Pentachlorophenol	1	ND	N C3	0.100	100.
110-86-1	Pyridine	1	ND	N C3	0.0400	5.00
95-95-4	2,4,5-Trichlorophenol	1	ND	N C3	0.100	400.
88-06-2	2,4,6-Trichlorophenol	1	ND	N C3	0.0400	2.00

13 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

10/16/01 14:12:47

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

Pace Analytical™
New Orleans Laboratory

Report of Laboratory Analysis

www.pacelabs.com

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Client ID: SBA-6A-TS
Client: MICHAEL PISANI & ASSOCIATES
Project: SBA SHIPYARDS
Site: None
Lab ID: 2064779 Leachate
Project No.: 208152
Description: None
Matrix: Soil
%Moisture: Not Corrected
Collected: 10/09/01
Received: 10/09/01

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis		Reg. Limit
Arsenic	SW 7060	12460	1	ND	C3	mg/l	0.100	12-Oct-01	12-Oct-01 13:18	KJR	5.00
Barium	SW 6010	12460	1	ND	C3	mg/l	1.00	12-Oct-01	12-Oct-01 13:18	KJR	100.
Cadmium	SW 6010	12460	1	ND	C3	mg/l	0.100	12-Oct-01	12-Oct-01 13:18	KJR	1.00
Chromium	SW 6010	12460	1	ND	C3	mg/l	0.500	12-Oct-01	12-Oct-01 13:18	KJR	5.00
Lead	SW 6010	12460	1	ND	C3	mg/l	0.500	12-Oct-01	12-Oct-01 13:18	KJR	5.00
Mercury	SW 7470	12459	1	ND	C3	mg/l	0.0002	12-Oct-01	12-Oct-01 10:33	KJR	0.200
Selenium	SW 6010	12460	1	ND	C3	mg/l	0.200	12-Oct-01	12-Oct-01 13:18	KJR	1.00
Silver	SW 6010	12460	1	ND	C3	mg/l	0.500	12-Oct-01	12-Oct-01 13:18	KJR	5.00

8 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for ignitibility.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
(1c) Reactive cyanide above 250 ppm is hazardous for reactivity.
(1d) Reactive sulfide above 500 ppm is hazardous for reactivity.
Ethylene is a common synonym for the IUPAC standard ethene in all compounds with this functional group.
methyl ethyl keytone is a synonym for 2-butanone
o,m,p-cresol are synonyms for 2,3,4-methylphenol, respectively.
Hexachlorobutadiene is hexachloro-1,3-butadiene

Laboratory Certifications: Puerto Rico - 3449
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U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

Pace Analytical Services, Inc. - New Orleans
Laboratory Quality Control Definitions

Our laboratory employs quality control (QC) measures to ensure the quality of our analytical data by defining its accuracy and precision. Presentation of the QC data with the report allows the data user the opportunity to evaluate those results and to gauge the method performance. In order to assist the understanding of these data, routine components of our QC program are defined below.

BATCH - A batch is a group of 20 samples or less of a given matrix and analysis by a specific protocol or analytical method.

BLANK - A method blank is a "clean" laboratory sample carried through the entire analytical process. One or more method blanks are prepared with each batch of samples. The analysis of method blanks demonstrates that method interferences caused by contaminants, reagents and glassware are known and minimized. A method blank should not contain any analytes of interest above the reporting limit. There are method allowances for common laboratory artifacts such as methylene chloride, acetone, and bis-2-ethylhexyl phthalate.

LABORATORY CONTROL SPIKE - A laboratory control spike (LCS or blank spike) is a blank which has been spiked with known concentrations of target analytes. The LCS is carried through the entire analytical process. One or more LCS are prepared with each batch of samples. The percent recovery of the spiked analytes provides a measure of the accuracy of the analytical process in the absence of matrix effects.

MATRIX SPIKE - A matrix spike (MS) is a client sample which is spiked with known concentrations of target analytes. The MS is carried through the entire analytical process. One or more matrix spikes are prepared with every batch of samples. For organic methods, a matrix spike duplicate (MSD) is also prepared. The percent recovery of the spiked analytes provides a measure of the method accuracy in the selected sample and matrix.

DUPLICATE - A duplicate is a sample for which replicate aliquots are carried through the entire analytical process. Comparison of the original results to those of the duplicate results provides a measure of the method precision in the sample and matrix. By convention, precision is measured for inorganic analyses using a sample and a sample duplicate, whereas for organics analyses, an MS/MSD are used.

SURROGATE - A surrogate is a non-target analyte which is added to all samples and QC samples prior to extraction or analysis. The percent recovery of the surrogate provides a measure of the method accuracy in each sample tested. Surrogates are used for organics methods only.

QC LIMITS - QC limits specify the expected percent recovery range for a spiked compound. QC limits may be set by method criteria or calculated from laboratory generated data. For many methods, these limits are advisory and do not require corrective action if exceeded.

Pace Analytical™
New Orleans Laboratory

Report of Quality Control

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Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208152

Method: Leachate GC/MS Volatile Organics **Batch:** 12444 **Units:** mg/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
Benzene	200.00				5000.00	111	110	0		70 - 137	63 - 146	50	
Benzene	50.00	112			200.00					70 - 137	63 - 146	50	
Toluene	50.00	118			50.00					50 - 150	50 - 150	50	
Toluene	50.00				5000.00	161 *	169 *	3		50 - 150	50 - 150	50	Q3
2-Butanone (Methyl ethyl ketone)	200.00				5000.00	140	146	4		22 - 165	8 - 181	50	
2-Butanone (Methyl ethyl ketone)	50.00	133			200.00					22 - 165	8 - 181	50	
1,2,3-Trichloropropane	50.00				5000.00	106	97	8		50 - 150	50 - 150	50	
1,2,3-Trichloropropane	50.00	107			50.00					50 - 150	50 - 150	50	
Carbon tetrachloride	50.00	116			200.00					63 - 151	63 - 150	50	
Carbon tetrachloride	200.00				5000.00	123	121	2		63 - 151	63 - 150	50	
Chlorobenzene	50.00	109			200.00					70 - 134	69 - 133	50	
Chlorobenzene	200.00				5000.00	107	107	0		70 - 134	69 - 133	50	
Chloroform	50.00	95			200.00					74 - 129	71 - 132	50	
Chloroform	200.00				5000.00	93	93	0		74 - 129	71 - 132	50	
1,2-Dichloroethane (Ethylene dichlori	50.00	112			200.00					64 - 148	62 - 150	50	
1,2-Dichloroethane (Ethylene dichlori	200.00				5000.00	107	106	1		64 - 148	62 - 150	50	
1,1-Dichloroethene (Dichloroethylene)	50.00	89			200.00					57 - 150	57 - 152	50	
1,1-Dichloroethene (Dichloroethylene)	200.00				5000.00	86	91	5		57 - 150	57 - 152	50	
Tetrachloroethene (Perchloroethylene)	200.00				5000.00	99	98	1		48 - 136	51 - 133	50	
Tetrachloroethene (Perchloroethylene)	50.00	96			200.00					48 - 136	51 - 133	50	
Trichloroethene (Trichloroethylene)	50.00	112			200.00					52 - 145	52 - 144	50	
Trichloroethene (Trichloroethylene)	200.00				5000.00	101	107	6		52 - 145	52 - 144	50	
Vinyl chloride (Chloroethene)	50.00	92			200.00					31 - 167	29 - 166	50	
Vinyl chloride (Chloroethene)	200.00				5000.00	88	97	10		31 - 167	29 - 166	50	

24 compound(s) reported

*** denotes recovery outside of QC limits.**
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

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Pace Analytical™
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Report of Batch Surrogate Recovery

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Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Method: Leachate GC/MS Volatile Organics

Report: 208152

Batch: 12444

Lab ID	Type and Qualifiers	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
12444B1Z15	BLANK	91	100	77					
12444MS	MS	100	92	83					
12444MSD	MSD	105	87	79					
12444SZ15	LCS	106	92	77					
2063579DL	Sample	99	99	78					
2063918	Sample	108	103	76					
2064521	Sample	102	102	82					
2064523	Sample M1	102	70D	77					
2064523RE	RE M1	112	73	75					
2064525	Sample	97	92	80					
2064527	Sample	103	90	78					
2064638	Sample	99	99	81					
2064639	Sample	102	96	80					
2064779	Sample	98	93	82					
QC limits:		**80-116**	**73-126**	**69-124**					

Sur 1: Toluene-d8 (S)
Sur 2: 4-Bromofluorobenzene (S)
Sur 3: Dibromofluoromethane (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

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Report of Method Blank

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Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12444B1Z15
Description: Leachate Method Blan **Project No.:** 208152
Method: Leachate GC/MS Volatile Organics **Batch:** 12444 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 15-Oct-01 16:43 DET

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
71-43-2	Benzene	1	ND	C3	50.0
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND	C3	100.
56-23-5	Carbon tetrachloride	1	ND	C3	50.0
108-90-7	Chlorobenzene	1	ND	C3	50.0
67-66-3	Chloroform	1	ND	C3	50.0
107-06-2	1,2-Dichloroethane (Ethylene dichlo	1	ND	C3	50.0
75-35-4	1,1-Dichloroethene (Dichloroethylen	1	ND	C3	50.0
127-18-4	Tetrachloroethene (Perchloroethylen	1	ND	C3	50.0
79-01-6	Trichloroethene (Trichloroethylene)	1	ND	C3	50.0
75-01-4	Vinyl chloride (Chloroethene)	1	ND	C3	100.

10 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

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Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208152

Method: Leachate GC/MS Semivolatile Organics **Batch:** 12168 **Units:** mg/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
1,4-Dichlorobenzene (p-Dichlorobenze	100.00	61			100.00					19 - 87	8 - 97	50	
1,4-Dichlorobenzene (p-Dichlorobenze	100.00	38			100.00	53	68	24		19 - 87	8 - 97	50	
1,4-Dichlorobenzene (p-Dichlorobenze	100.00	67			100.00					19 - 87	8 - 97	50	
1,4-Dichlorobenzene (p-Dichlorobenze	25000.00	85			50000.00					30 - 85	27 - 87	50	
1,4-Dichlorobenzene (p-Dichlorobenze	25000.00	60			50000.00					30 - 85	27 - 87	50	
1,4-Dichlorobenzene (p-Dichlorobenze	25000.00	67			50000.00					30 - 85	27 - 87	50	
2,4-Dinitrotoluene	100.00	67			100.00	91	92	1		29 - 108	3 - 137	50	
2,4-Dinitrotoluene	100.00	80			100.00					29 - 108	3 - 137	50	
2,4-Dinitrotoluene	100.00	70			100.00					29 - 108	3 - 137	50	
2,4-Dinitrotoluene	25000.00	76			50000.00					35 - 103	0 - 149	50	
2,4-Dinitrotoluene	25000.00	56			50000.00					35 - 103	0 - 149	50	
2,4-Dinitrotoluene	25000.00	68			50000.00					35 - 103	0 - 149	50	
Hexachlorobenzene	100.00	91			100.00					35 - 114	17 - 125	50	
Hexachlorobenzene	100.00	41			100.00					35 - 114	17 - 125	50	
Hexachlorobenzene	100.00	81			100.00	75	74	1		35 - 114	17 - 125	50	
Hexachlorobenzene	25000.00	85			50000.00					38 - 96	23 - 102	50	
Hexachlorobenzene	25000.00	68			50000.00					38 - 96	23 - 102	50	
Hexachlorobenzene	25000.00	39			50000.00					38 - 96	23 - 102	50	
Hexachlorobutadiene	100.00	56			100.00					13 - 91	0 - 108	50	
Hexachlorobutadiene	100.00	37			100.00	64	68	5		13 - 91	0 - 108	50	
Hexachlorobutadiene	100.00	57			100.00					13 - 91	0 - 108	50	
Hexachlorobutadiene	25000.00	70			50000.00					37 - 93	31 - 98	50	
Hexachlorobutadiene	25000.00	55			50000.00					37 - 93	31 - 98	50	
Hexachlorobutadiene	25000.00	64			50000.00					37 - 93	31 - 98	50	
Hexachloroethane	100.00	56			100.00					9 - 90	4 - 92	50	
Hexachloroethane	100.00	57			100.00					9 - 90	4 - 92	50	
Hexachloroethane	100.00	33			100.00	0 *	0 *	0		9 - 90	4 - 92	50	Q1
Hexachloroethane	25000.00	88			50000.00					31 - 92	0 - 131	50	
Hexachloroethane	25000.00	61			50000.00					31 - 92	0 - 131	50	
Hexachloroethane	25000.00	58			50000.00					31 - 92	0 - 131	50	
2-Methylphenol (o-Cresol)	300.00	60			300.00	176 *	194 *	10		22 - 111	8 - 125	50	Q1
2-Methylphenol (o-Cresol)	300.00	80			300.00					22 - 111	8 - 125	50	
2-Methylphenol (o-Cresol)	300.00	69			300.00					22 - 111	8 - 125	50	
2-Methylphenol (o-Cresol)	75000.00	92			50000.00					35 - 96	31 - 95	50	
2-Methylphenol (o-Cresol)	75000.00	63			50000.00					35 - 96	31 - 95	50	
2-Methylphenol (o-Cresol)	75000.00	79			50000.00					35 - 96	31 - 95	50	
3-Methylphenol (m-Cresol)	300.00	68			300.00					37 - 103	16 - 121	50	
3-Methylphenol (m-Cresol)	300.00	63			300.00	0 *	0 *	0		37 - 103	16 - 121	50	Q3
3-Methylphenol (m-Cresol)	300.00	79			300.00					37 - 103	16 - 121	50	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

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1000 Riverbend Blvd, Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208152

Method: Leachate GC/MS Semivolatile Organics **Batch:** 12168 **Units:** mg/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
4-Methylphenol (p-Cresol)	300.00	68			300.00					19 - 116	18 - 119	50	
4-Methylphenol (p-Cresol)	300.00	63			300.00	0 *	0 *	0		19 - 116	18 - 119	50	Q3
4-Methylphenol (p-Cresol)	300.00	79			300.00					19 - 116	18 - 119	50	
4-Methylphenol (p-Cresol)	75000.00	93			50000.00					36 - 95	29 - 95	50	
4-Methylphenol (p-Cresol)	75000.00	77			50000.00					36 - 95	29 - 95	50	
4-Methylphenol (p-Cresol)	75000.00	64			50000.00					36 - 95	29 - 95	50	
Nitrobenzene	100.00	68			100.00					25 - 113	14 - 114	50	
Nitrobenzene	100.00	84			100.00					25 - 113	14 - 114	50	
Nitrobenzene	100.00	58			100.00	0 *	0 *	0		25 - 113	14 - 114	50	Q1
Nitrobenzene	25000.00	90			50000.00					33 - 91	13 - 114	50	
Nitrobenzene	25000.00	64			50000.00					33 - 91	13 - 114	50	
Nitrobenzene	25000.00	72			50000.00					33 - 91	13 - 114	50	
Pentachlorophenol	300.00	84			300.00					42 - 116	27 - 131	50	
Pentachlorophenol	300.00	97			300.00					42 - 116	27 - 131	50	
Pentachlorophenol	300.00	86			300.00	92	90	3		42 - 116	27 - 131	50	
Pentachlorophenol	75000.00	63			50000.00					26 - 99	0 - 114	50	
Pentachlorophenol	75000.00	77			50000.00					26 - 99	0 - 114	50	
Pentachlorophenol	75000.00	50			50000.00					26 - 99	0 - 114	50	
Pyridine	100.00	57			100.00	0	11	200 *		8 - 105	0 - 144	50	
Pyridine	100.00	56			100.00					8 - 105	0 - 144	50	
Pyridine	100.00	26			100.00					8 - 105	0 - 144	50	
Pyridine	25000.00	90			50000.00					50 - 150	50 - 150	50	
Pyridine	25000.00	66			50000.00					50 - 150	50 - 150	50	
Pyridine	25000.00	63			50000.00					50 - 150	50 - 150	50	
2,4,5-Trichlorophenol	300.00	74			300.00					32 - 113	23 - 121	50	
2,4,5-Trichlorophenol	300.00	89			300.00					32 - 113	23 - 121	50	
2,4,5-Trichlorophenol	300.00	72			300.00	83	84	1		32 - 113	23 - 121	50	
2,4,5-Trichlorophenol	75000.00	75			50000.00					35 - 94	24 - 101	50	
2,4,5-Trichlorophenol	75000.00	87			50000.00					35 - 94	24 - 101	50	
2,4,5-Trichlorophenol	75000.00	54			50000.00					35 - 94	24 - 101	50	
2,4,6-Trichlorophenol	300.00	70			300.00	77	81	5		41 - 107	24 - 122	50	
2,4,6-Trichlorophenol	300.00	86			300.00					41 - 107	24 - 122	50	
2,4,6-Trichlorophenol	300.00	70			300.00					41 - 107	24 - 122	50	
2,4,6-Trichlorophenol	75000.00	71			50000.00					35 - 94	27 - 95	50	
2,4,6-Trichlorophenol	75000.00	89			50000.00					35 - 94	27 - 95	50	
2,4,6-Trichlorophenol	75000.00	57			50000.00					35 - 94	27 - 95	50	

75 compound(s) reported

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

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Report of Batch Surrogate Recovery

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1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Method: Med Soil GC/MS Semivolatile Organics

Report: 208152

Batch: 12168

Lab ID	Type and Qualifiers	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
12168B1	BLANK	69	81	87	68	68	64		
12168B2	BLANK	64	69	67	67	63	71		
12168B3	BLANK	85	88	103	80	77	94		
12168B4	BLANK	81	78	96	78	76	91		
12168B5	BLANK	85	79	97	79	82	90		
12168MS	MS	7*	75	92	61	60	88		
12168MSD	MSD	0*	75	92	62	73	89		
12168S1	LCS	77	90	97	74	72	78		
12168S2	LCS	66	68	62	66	65	71		
12168S3	LCS	56	59	93	58	50	88		
12168S4	LCS	82	80	97	78	74	92		
12168S5	LCS	67	59	92	64	61	80		
2062466	Sample								
2063173	Sample	118	67	90	71	53	71		
2063918	Sample	93	88	98	52	78	97		
2064515	Sample	74	68	91	69	65	81		
2064521	Sample	83	84	102	80	74	93		
2064523	Sample	91	78	72	79	59	66		
2064523DL	Sample	0D	0D	0D	0D	0D	0D		
2064525	Sample	31	48	70	37	28	62		
2064525DL	Sample	35	48	59	42	29	55		
2064527	Sample	71	65	62	69	59	63		
2064527DL	Sample	0D	0D	0D	0D	0D	0D		
2064723	Sample	0D	0D	0D	0D	0D	0D		
2064724	Sample	0D	0D	0D	0D	0D	0D		
2064724DL	Sample	0D	0D	0D	0D	0D	0D		
2064779	Sample	94	75	87	77	72	89		
2064779DL	Sample	75	79	86	78	67	83		
2064924	Sample	60	60	68	59	53	72		
2065107	Sample	60	81	94	31	31	92		
QC limits:		**13-119**	**21-112**	**18-137**	**17-112**	**14-104**	**1-138**		

Sur 1: Nitrobenzene-d5 (S)
Sur 2: 2-Fluorobiphenyl (S)
Sur 3: Terphenyl-d14 (S)
Sur 4: Phenol-d5 (S)
Sur 5: 2-Fluorophenol (S)
Sur 6: 2,4,6-Tribromophenol (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

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New Jersey DEPE/Wastewater - 58002
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U.S. Dept. of Agriculture Animal & Plant Health Inspection Services -
USDA Foreign Soil Import (U.S. Territories) - S-47270

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New Orleans Laboratory

Report of Method Blank

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Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12168B1

Description: Med Soil Method Blan **Project No.:** 208152

Method: Med Soil GC/MS Semivolatile Organics **Batch:** 12168 **Units:** ug/kg

Prep Factor: 1 **Leached:** **Prepared:** 28-Sep-01 **Analyzed:** 01-Oct-01 11:27 AKE

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenz	1	ND		10000
121-14-2	2,4-Dinitrotoluene	1	ND		10000
118-74-1	Hexachlorobenzene	1	ND		10000
87-68-3	Hexachlorobutadiene	1	ND		10000
67-72-1	Hexachloroethane	1	ND		10000
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10000
108-39-4	3-Methylphenol (m-Cresol)	1	ND	A7	10000
106-44-5	4-Methylphenol (p-Cresol)	1	ND		10000
98-95-3	Nitrobenzene	1	ND		10000
87-86-5	Pentachlorophenol	1	ND		25000
110-86-1	Pyridine	1	ND		10000
95-95-4	2,4,5-Trichlorophenol	1	ND		25000
88-06-2	2,4,6-Trichlorophenol	1	ND		10000

13 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/16/01 16:50:52

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/EL WHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
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Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12168B2

Description: Med Soil Method Blan **Project No.:** 208152

Method: Med Soil GC/MS Semivolatile Organics **Batch:** 12168 **Units:** ug/kg

Prep Factor: 1 **Leached:** **Prepared:** 03-Oct-01 **Analyzed:** 04-Oct-01 10:56 AKE

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenz	1	ND		10000
121-14-2	2,4-Dinitrotoluene	1	ND		10000
118-74-1	Hexachlorobenzene	1	ND		10000
87-68-3	Hexachlorobutadiene	1	ND		10000
67-72-1	Hexachloroethane	1	ND		10000
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10000
108-39-4	3-Methylphenol (m-Cresol)	1	ND	A7	10000
106-44-5	4-Methylphenol (p-Cresol)	1	ND		10000
98-95-3	Nitrobenzene	1	ND		10000
87-86-5	Pentachlorophenol	1	ND		25000
110-86-1	Pyridine	1	ND		10000
95-95-4	2,4,5-Trichlorophenol	1	ND		25000
88-06-2	2,4,6-Trichlorophenol	1	ND		10000

13 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/16/01 16:50:52

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELW/HW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services -
USDA Foreign Soil Import (U.S. Territories) - S-47270

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Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12168B3

Description: Leachate Method Blan **Project No.:** 208152

Method: Leachate GC/MS Semivolatile Organics **Batch:** 12168 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** 09-Oct-01 **Analyzed:** 11-Oct-01 09:55 AKE

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenz	1	ND	C3	40.0
121-14-2	2,4-Dinitrotoluene	1	ND	C3	40.0
118-74-1	Hexachlorobenzene	1	ND	C3	40.0
87-68-3	Hexachlorobutadiene	1	ND	C3	40.0
67-72-1	Hexachloroethane	1	ND	C3	40.0
95-48-7	2-Methylphenol (o-Cresol)	1	ND	C3	40.0
108-39-4	3-Methylphenol (m-Cresol)	1	ND	C3	40.0
106-44-5	4-Methylphenol (p-Cresol)	1	ND	C3	40.0
98-95-3	Nitrobenzene	1	ND	C3	40.0
87-86-5	Pentachlorophenol	1	ND	C3	100.
110-86-1	Pyridine	1	ND	C3	40.0
95-95-4	2,4,5-Trichlorophenol	1	ND	C3	100.
88-06-2	2,4,6-Trichlorophenol	1	ND	C3	40.0

13 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/16/01 16:50:52

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/EL WHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services -
USDA Foreign Soil Import (U.S. Territories) - S-47270

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Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12168B4

Description: Med Soil Method Blan **Project No.:** 208152

Method: Med Soil GC/MS Semivolatile Organics **Batch:** 12168 **Units:** ug/kg

Prep Factor: 1 **Leached:** **Prepared:** 09-Oct-01 **Analyzed:** 10-Oct-01 21:00 AKE

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenz	1	ND		10000
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenz	1	ND	C3	40.0
121-14-2	2,4-Dinitrotoluene	1	ND		10000
121-14-2	2,4-Dinitrotoluene	1	ND	C3	40.0
118-74-1	Hexachlorobenzene	1	ND	C3	40.0
118-74-1	Hexachlorobenzene	1	ND		10000
87-68-3	Hexachlorobutadiene	1	ND	C3	40.0
87-68-3	Hexachlorobutadiene	1	ND		10000
67-72-1	Hexachloroethane	1	ND	C3	40.0
67-72-1	Hexachloroethane	1	ND		10000
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10000
95-48-7	2-Methylphenol (o-Cresol)	1	ND	C3	40.0
108-39-4	3-Methylphenol (m-Cresol)	1	ND	C3	40.0
108-39-4	3-Methylphenol (m-Cresol)	1	ND	A7	10000
106-44-5	4-Methylphenol (p-Cresol)	1	ND	C3	40.0
106-44-5	4-Methylphenol (p-Cresol)	1	ND		10000
98-95-3	Nitrobenzene	1	ND		10000
98-95-3	Nitrobenzene	1	ND	C3	40.0
87-86-5	Pentachlorophenol	1	ND	C3	100.
87-86-5	Pentachlorophenol	1	ND		25000
110-86-1	Pyridine	1	ND		10000
110-86-1	Pyridine	1	ND	C3	40.0
95-95-4	2,4,5-Trichlorophenol	1	ND		25000
95-95-4	2,4,5-Trichlorophenol	1	ND	C3	100.
88-06-2	2,4,6-Trichlorophenol	1	ND	C3	40.0
88-06-2	2,4,6-Trichlorophenol	1	ND		10000

26 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/16/01 16:50:53

Laboratory Certifications: Puerto Rico - 3449
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Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
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Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12168B5

Description: Leachate Method Blan **Project No.:** 208152

Method: Leachate GC/MS Semivolatile Organics **Batch:** 12168 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** 12-Oct-01 **Analyzed:** 15-Oct-01 18:02 AKE

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenz	1	ND	C3	40.0
121-14-2	2,4-Dinitrotoluene	1	ND	C3	40.0
118-74-1	Hexachlorobenzene	1	ND	C3	40.0
87-68-3	Hexachlorobutadiene	1	ND	C3	40.0
67-72-1	Hexachloroethane	1	ND	C3	40.0
95-48-7	2-Methylphenol (o-Cresol)	1	ND	C3	40.0
108-39-4	3-Methylphenol (m-Cresol)	1	ND	C3	40.0
106-44-5	4-Methylphenol (p-Cresol)	1	ND	C3	40.0
98-95-3	Nitrobenzene	1	ND	C3	40.0
87-86-5	Pentachlorophenol	1	ND	C3	100.
110-86-1	Pyridine	1	ND	C3	40.0
95-95-4	2,4,5-Trichlorophenol	1	ND	C3	100.
88-06-2	2,4,6-Trichlorophenol	1	ND	C3	40.0

13 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/16/01 16:50:53

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
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USDA Foreign Soil Import (U.S. Territories) - S-47270

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Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208152

Parameter	Batch	Blank	ARL	Units	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Mercury	12459	ND	0.0002	mg/l	1.00	93			1.00	92	93	1		80 - 120	50 - 150	20	
Antimony	12460	ND	0.500	mg/l	1000.00	113			1000.00	87	86	2		89 - 129	74 - 142	20	
Arsenic	12460	ND	0.100	mg/l	5000.00	98			5000.00	110	106	3		80 - 120	75 - 125	20	
Barium	12460	ND	1.00	mg/l	5000.00	104			5000.00	96	97	1		78 - 129	58 - 134	20	
Beryllium	12460	ND	0.500	mg/l	1000.00	97			1000.00	106	108	1		87 - 120	81 - 128	20	
Cadmium	12460	ND	0.100	mg/l	5000.00	106			5000.00	96	98	2		76 - 125	55 - 132	20	
Chromium	12460	ND	0.500	mg/l	5000.00	103			5000.00	101	102	0		81 - 129	62 - 137	20	
Copper	12460	ND	0.500	mg/l	1000.00	127			1000.00	91	95	4		93 - 128	86 - 128	20	
Lead	12460	ND	0.500	mg/l	5000.00	108			5000.00	96	93	3		79 - 131	56 - 134	20	
Nickel	12460	ND	0.500	mg/l	1000.00	112			1000.00	90	87	3		74 - 139	37 - 163	20	
Selenium	12460	ND	0.200	mg/l	1000.00	106			1000.00	113	111	1		74 - 121	59 - 140	20	
Silver	12460	ND	0.500	mg/l	1000.00	114			1000.00	104	106	2		60 - 145	60 - 141	20	
Thallium	12460	ND	0.500	mg/l	1000.00	109			1000.00	97	89	8		80 - 120	75 - 125	20	
Zinc	12460	ND	0.500	mg/l	1000.00	110			1000.00	108	93	14		71 - 141	28 - 168	20	

#Error
ARL denotes Adjusted Reporting Limit , corrected for sample size, dilution and moisture content as applicable.
* denotes recovery outside of QC limits.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

10/16/01 16:50:54

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services -
USDA Foreign Soil Import (U.S. Territories) - S-47270

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Report Qualifiers

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Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208152

ALL Qualifiers

Qualifier	Qualifier Description
N	See narrative for a detailed explanation.

Analyte Qualifiers

Qualifier	Qualifier Description
A7	3-Methylphenol and 4-methylphenol coelute under the conditions used for analysis, therefore the precise isomer in the sample cannot be determined. The sample concentration is arbitrarily reported as 4-methylphenol.
C3	The result for this parameter is not corrected for moisture content.

General Qualifiers

Qualifier	Qualifier Description
D1	The analysis was performed at a dilution due to the high analyte concentration.

QC Qualifiers

Qualifier	Qualifier Description
Q1	The matrix spike recoveries are poor. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample recovery.
Q3	The matrix spike recoveries are poor due to the presence of this analyte in the sample at a concentration greater than 4 times the spiked amount. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample.

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services -
USDA Foreign Soil Import (U.S. Territories) - S-47270

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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605006

Page: of

To Be Completed by Pace Analytical and Client **Section C**

Quote Reference:

Project Manager:

Project #:

Profile #:

Requested Analysis: TCLP, VOA, SVOC

Required Client Information: Section A

Company: MP+A
Address: 1100 Poydras
1430 Energy Ctr.
New Orleans, LA
Phone: 582-2468 Fax: 582-2470

Required Client Information: Section B

Report To: Rob Leslie
Copy To: Rob Leslie
Invoice To: Rob Leslie
P.O.: 26-01
Project Name: SBA Shipyards
Project Number: 26-01

Client Information (Check quote/contract):
Requested Due Date: Std. *TAT:

* Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calendar days.

Section D Required Client Information:

SAMPLE ID
One character per box.
(A–Z, 0–9 / .–)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

ITEM #	Sample ID	MATRIX CODE	DATE COLLECTED (mm / dd / yy)	TIME COLLECTED (hh:mm a/p)	# Containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Remarks / Lab ID
1	SBA-6A-TS	SL	10/9/01	14:30		X							X X X
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													

SHIPMENT METHOD	AIRBILL NO.	SHIPPING DATE	NO. OF COOLERS

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
1	[signature] / MP+A	10/9	1730	C. Dominick / Pace	10/9/01	1432

Pace Project No.:

SAMPLE CONDITION

Temp: °C	Received on Ice: Y / N	Sealed Cooler: Y / N	Samples Intact: Y / N	pH
[illegible]				

Additional Comments:

ORIGINAL

SEE REVERSE SIDE FOR INSTRUCTIONS

Appendix B

Health and Safety Plan

SBA Shipyards, Inc.
Jennings, Louisiana

Project No. 26-01

Health and Safety Plan

SBA Shipyards, Inc. Site
Jennings, Louisiana

November 1, 2001

Project No. 26-01

MICHAEL PISANI & ASSOCIATES, INC.
Environmental Management and Engineering Services
1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
(504) 582-2468

Health and Safety Plan
Table of Contents

SBA Shipyards, Inc.
Jennings, Louisiana

Section		Page
Executive Summary		
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2.0	Key Personnel	1
3.0	Hazard Assessment	1
	3.1 Chemicals Hazards	1
	3.2 Physical Hazards	3
	3.3 Natural Hazards	3
	3.4 Heat Stress	3
4.0	Worker Training Requirements	4
5.0	Personal Protective Equipment	4
6.0	Monitoring Equipment/Action Levels	5
7.0	Medical Surveillance Requirements	5
8.0	Decontamination Procedures	5
9.0	Contingency Plan	6
10.0	Project Safety Log	6
11.0	Incident Reporting	6
12.0	Prohibitions	8

Health and Safety Plan
Table of Contents

SBA Shipyards, Inc.
Jennings, Louisiana

List of Figures

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1	Facility Plot Plan	2
2	Site Location Map and Hospital Route Map	7

List of Attachments

1 Material Safety Data Sheets

2 Worker Compliance Agreement

3 Emergency Services Contact Information

Health and Safety Plan

SBA Shipyards, Inc.
Jennings, Louisiana

Executive Summary

This Health and Safety Plan defines health and safety procedures for planned solidification/stabilization activities at the SBA Shipyards, Inc. site near Jennings, Louisiana. The site contains hazardous materials, and all personnel working onsite must comply with the safety training requirements of OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) regulations (29 CFR 1910.120). Anticipated hazards at the site include:

- Chemical Hazards (Section 3.1).
- Physical Hazards and Heat Stress (Sections 3.2 and 3.4).
- Natural Hazards (Section 3.3).

An emergency route to the closest hospital is presented as Figure 2 of this document. Directions to the nearest hospital (Jennings American Legion Hospital) are as follows:

- Exit the site onto Highway 3166.
- Continue on Highway 3166 to Highway 1126.
- Take a left onto Highway 1126.
- Continue on Highway 1126 to Highway 90.
- Take Highway 90 West to Jennings.
- At the first red light take a right onto Cutting Road.
- Take a left at tennis courts (red light) Shankland Road.
- At the second red light, Mr. Cook/Popeye's, take a right onto Elton Road (Highway 26).
- Jennings American Legion Hospital is located on the right side of the road at 1634 Elton Road.
- This hospital is located south of Interstate 10.

In the event of an emergency at the site, the following list of emergency contacts should be notified as required:

Emergency Contact	Location	Telephone Numbers
Jennings American Legion Hospital	1634 Elton Road Jennings, Louisiana	(318) 824-2490
Acadian Ambulance	Jefferson Davis Parish	911 or 311
Fire Department	Jefferson Davis Parish	911
Police Department	Jefferson Davis Parish	(318) 824-3850
Poison Control Center	Monroe, Louisiana	(800) 256-9822
Project Manager	Michael Pisani & Associates, Inc. New Orleans, Louisiana	(504) 582-2468

1.0 Introduction

The SBA Shipyards, Inc. facility is located on the west bank of the Mermentau River, near Jennings, Louisiana at the end of Highway 3166 (Castex Landing Road). The facility has been used for construction, repair and cleaning of barges and other vessels since the mid 1960's. Most of the barges cleaned at this facility have held crude oil, petroleum products, coal tar, creosote, and other miscellaneous chemicals or agricultural related materials. A site map of the facility is provided in Figure 1.

Residue materials from the barge cleaning operation were placed into the Oil Pit. Previous investigations and analytical results indicate that the material is characteristically hazardous based on ignitability and the toxicity characteristic.

2.0 Key Personnel

The project manager for this project is Michael E. Pisani, P.E. (504-582-2468). The corporate health and safety officer for Michael Pisani & Associates, Inc. is Robert E. Leslie, Jr., P.E. (504-582-2468). The site safety officer (SSO) for this project is Christopher M. Fetters (504-582-2468). The U.S. EPA Project Manager for this project is Mr. Gene Keepper (214-665-2280).

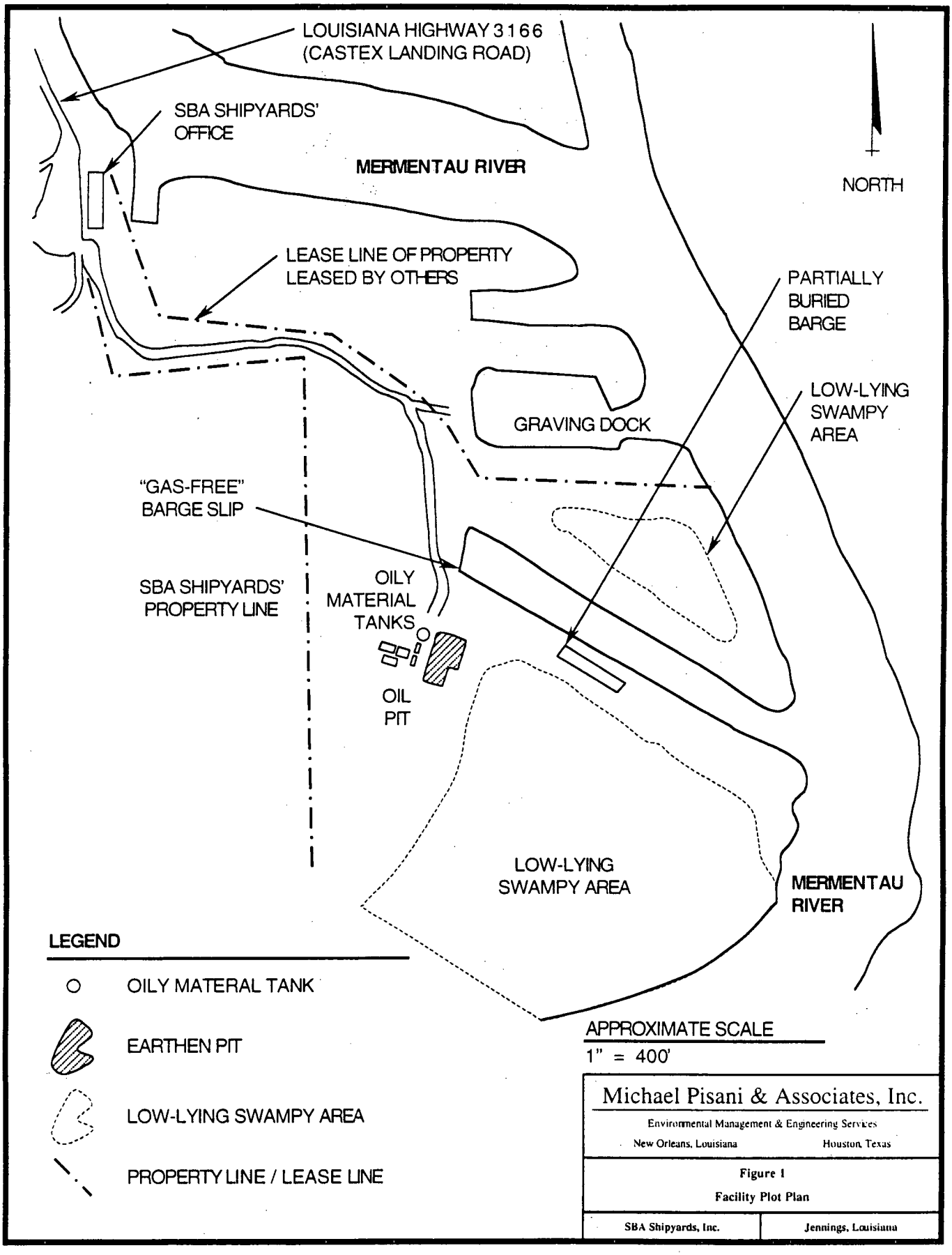
The project manager is responsible for the day to day execution on the project and serves as the central point of communications regarding the site health and safety issues. The corporate health and safety officer is responsible for the coordination and implementation of MP&A's health and safety program. The SSO is responsible for the application of MP&A's health and safety program to site-specific activities at the SBA Shipyards, Inc. site. The corporate health and safety officer will support and assist the SSO with the site-specific health and safety issues on an as needed basis.

3.0 Hazard Assessment

3.1 Chemicals Hazards

Chemical exposure may occur through four routes: inhalation, ingestion, skin contact, and eye contact. To minimize ingestion of site-related chemicals, eating, drinking, and/or smoking are prohibited in the work areas.

Site-related chemicals of concern are benzene, vinyl chloride (chlorobenzene), o-cresol (2-methylphenol), p-cresol (4-methylphenol), and class C fly ash. The material safety data sheets for these chemicals are provided in Attachment 1. If any action levels are triggered, work practices will be altered in the following manner:


LOUISIANA HIGHWAY 3166
(CASTEX LANDING ROAD)
SBA SHIPYARDS'
OFFICE
MERMENTAU RIVER
NORTH
LEASE LINE OF PROPERTY
LEASED BY OTHERS
PARTIALLY
BURIED
BARGE
LOW-LYING
SWAMPY
AREA
GRAVING DOCK
"GAS-FREE"
BARGE SLIP
SBA SHIPYARDS'
PROPERTY LINE
OILY
MATERIAL
TANKS
OIL
PIT
LOW-LYING
SWAMPY AREA
MERMENTAU
RIVER
LEGEND
OILY MATERAL TANK
EARTHEN PIT
LOW-LYING SWAMPY AREA
PROPERTY LINE / LEASE LINE
APPROXIMATE SCALE
1" = 400'
Michael Pisani & Associates, Inc.
Environmental Management & Engineering Services
New Orleans, Louisiana
Houston, Texas
Figure 1
Facility Plot Plan
SBA Shipyards, Inc.
Jennings, Louisiana

- Heavy equipment operators will cease operations and remain at station;
- All personnel within the area will either don respirators or temporarily leave the work area.

3.2 Physical Hazards

Personnel should be cognizant of the fact that when protective equipment, such as respirators, gloves, and protective clothing is worn, visibility, hearing, and manual dexterity are impaired. The location and activity of heavy equipment should be known at all times. The heavy equipment operator should know the location of personnel and their activity within the work area at all times.

3.3 Natural Hazards

Natural hazards at the site may include biting/stinging insects, venomous snakes, and poisonous/stinging plants. Although the personal protective equipment that is required for this project would provide protection for much of the body, it is encouraged that field personnel use practical precautions. Field personnel should check for poisonous snakes, ants, poison ivy or poison oak in suspected areas before traveling through them. A first aid kit with a bloodborne pathogen kit will be available for use at the site.

3.4 Heat Stress

Personal protective equipment and environmental conditions at the site may lead to heat-related incidents. Site personnel should be able to identify the symptoms of heat exhaustion and heat stroke and be knowledgeable of the procedures for preventing and treating these conditions.

Symptoms of heat exhaustion include the following:

- Pale, cool, moist skin
- Heavy sweating
- Dizziness
- Nausea
- Fainting.

Symptoms of heat stroke include the following:

- Red, hot, unusually dry skin
- Lack of or reduced perspiration
- Nausea
- Dizziness and confusion
- Strong rapid pulse
- Coma.

Elements of the heat stress prevention program should include the following:

- Modify work schedule
- Provide shelters or shaded areas
- Maintain body fluids
- Maintain fitness
- Provide engineering controls (e.g., field shower, cooler clothing).

4.0 Worker Training Requirements

All personnel working at the site shall have the minimal amount of health and safety training necessary for completing the site-specific tasks. Designated personnel will be required to have completed 40-hour health and safety training and 8-hour annual refresher training as required by OSHA hazardous waste and operations (HAZWOPER) regulations (29 CFR 1910.120).

Daily safety meetings will be conducted prior to beginning work at the site. These meetings will include an overview of the planned work and a discussion of the associated hazards based on current conditions. These meetings will be conducted by the SSO or other designated supervisory personnel.

Personnel working on site are required to read this health and safety plan and sign the worker compliance agreement presented in Attachment 2.

5.0 Personal Protective Equipment

Protecting against exposures to toxic substances by utilizing appropriate personal protective equipment (PPE) may minimize potential hazards from contaminants. The level of protection is based on the activity being performed. The initial level of protection indicated is the minimum level of protection required.

Level D PPE:

- Safety glasses with side shields or chemical splash goggles
- Hard hat
- Steel toe/shank boots.

Modified Level D PPE:

- Level D
- Chemical-resistant inner latex gloves
- Chemical-resistant outer nitrile gloves
- Chemical-resistant disposable coveralls (Polycoated tyvek).

Level C PPE:

- Modified Level D
- Full-face or half-face, air purifying cartridge-equipped respirator (MSHA/NIOSH approved).

6.0 Monitoring Equipment/Action Levels

Personal exposure monitoring will be conducted by measuring organic vapor and/or particulate concentrations in the breathing zone of site personnel and along the downwind perimeter of the work areas. The monitoring of organic vapors will be achieved by utilizing a photoionization detector (PID) organic vapor monitor (OVM). A range of sustained readings above background will indicate the need for upgrading the level of respiratory protection or modification of work practices. The following table provides action levels for monitored organic vapor or particulate concentrations in the work areas.

Action Levels		
Sustained PID/OVM Readings Above Background (ppm)	**Level of PPE**	**Action**
0-1	Level D	Continue work
1-10	Level C	Don respirator
Greater than 10	Level C	Stop work or modify practices to reduce emissions

During the stabilization/solidification activities, ambient air monitoring of airborne particulates will be performed along the downwind perimeter of work areas to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of offsite personnel. Work modification or stoppage shall be implemented as needed to maintain offsite protectiveness.

7.0 Medical Surveillance Requirements

Personnel who regularly work on hazardous waste sites shall receive annual medical examinations. Michael Pisani & Associates administers a medical surveillance program for full-time MP&A personnel on an annual basis.

8.0 Decontamination Procedures

In the event that equipment or personnel come into contact with contaminated materials on site, decontamination procedures shall be followed to minimize the offsite transport of contamination and the potential for personnel exposures to contaminated materials. Equipment or personnel decontamination shall be conducted within the work area by the following steps:

- Wash with potable water and phosphate-free detergent (e.g., liquinox).
- Rinse with potable water.
- Allow to air dry.

9.0 Contingency Plan

Any illness, injury or accident occurring onsite must be attended to immediately. The SSO shall implement the following procedures where, as appropriate:

- Remove the injured or exposed person(s) from immediate danger.
- Render first aid, if necessary, decontaminate affected personnel, if necessary.
- Contact SBA Shipyard, Inc. representative or emergency response personnel (e.g. police, firefighters, EMS, etc.) by telephone, if emergency assistance is needed.
- Notify offsite emergency response personnel of the nature of the emergency and the type of assistance needed (for example, fire equipment or medical help).
- Report the incident to the SBA Shipyards, Inc. representative and to the SSO.
- Complete an incident report.
- Develop procedures to prevent recurrence of the illness, injury or accident, and submit the procedures to the project manager and/or SSO.

For treatment of injuries that require transporting the injured to a medical facility, the injured will be decontaminated to the extent practicable, as needed, wrapped in plastic sheeting to minimize contamination of attending personnel.

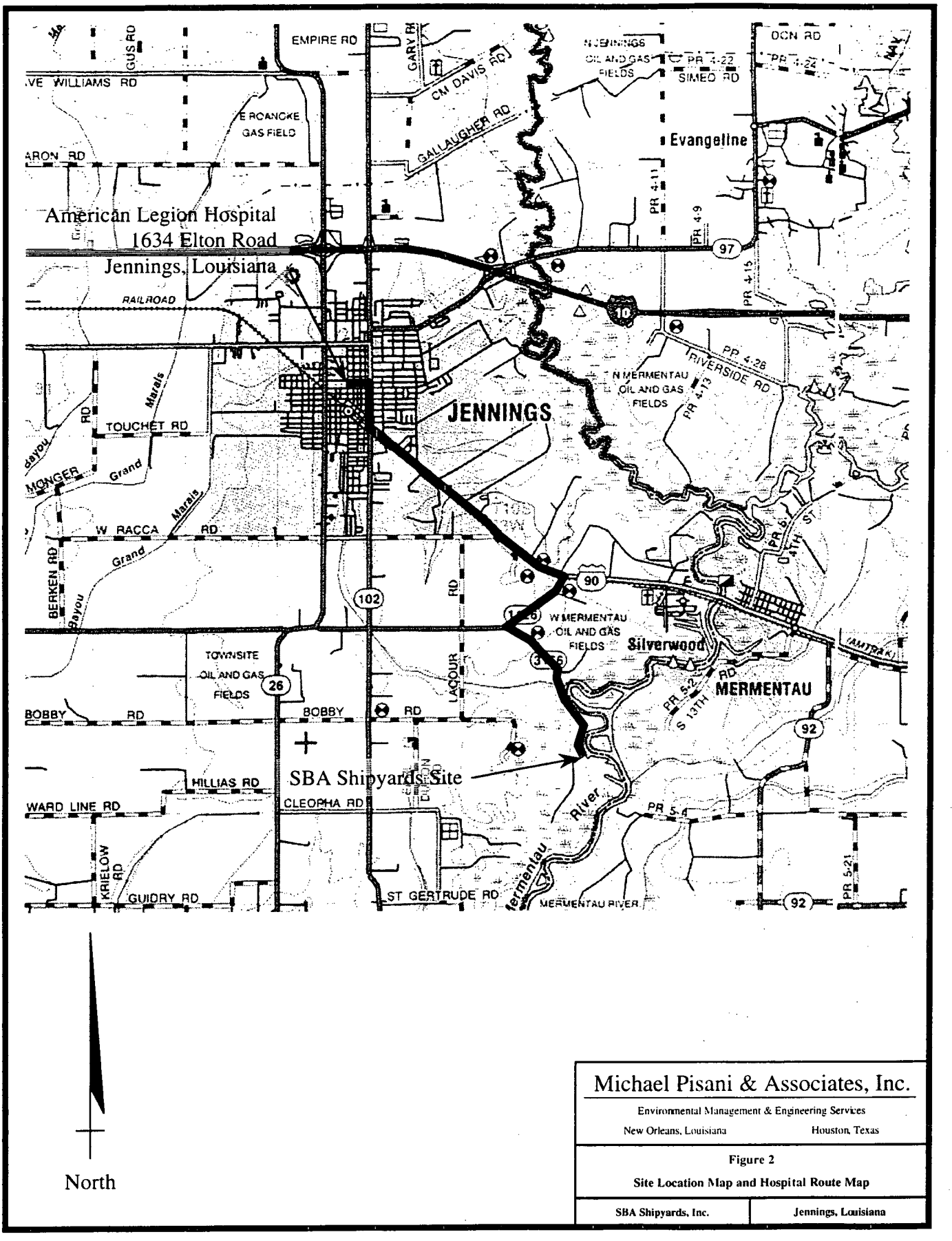
In the event of on-site injuries or incidents, which require off-site services the emergency services contact numbers are presented in Attachment 3. The evacuation route to the nearest medical facility to the site (Jennings American Legion Hospital) is described in Attachment 3, and a map to the nearest medical facility is provided in Figure 2.

10.0 Project Safety Log

Project safety logs will be used to record the names, entry and exit dates and times of all personnel and of project site visitors; accidents, injuries, and illnesses; incidences of safety infractions by field personnel; air quality and personal exposure monitoring data; and other information related to safety matters. This information may be entered in the same field log book used for documenting other site activities.

11.0 Incident Reporting

Any accident, illness, or other incident involving onsite personnel will require completion of an incident report to be filed and maintained at the offices of the project manager. Incidents covered by this requirement include fires, explosions, illnesses, injuries, and automobile accidents.



Michael Pisani & Associates, Inc.

Environmental Management & Engineering Services

New Orleans, Louisiana Houston, Texas

Figure 2

Site Location Map and Hospital Route Map

SBA Shipyards, Inc.	Jennings, Louisiana

12.0 Prohibitions

The following activities are expressly prohibited in onsite work areas:

- Smoking, eating, drinking, chewing gum or tobacco, storing food or food containers shall not be permitted on the work site. Good personal hygiene should be practiced by field personnel to avoid ingestion of contaminants or spread of contaminated materials.
- Ignition of flammable liquids within, on, or through improvised heating devices or space heaters shall not be permitted on the work site.
- No one shall approach or enter into areas or spaces where toxic or explosive concentrations of gases or dust may exist without the proper equipment and permits to enable safe entry.

Attachment 1

Material Safety Data Sheets

SBA Shipyards, Inc. Site
Jennings, Louisiana

Material Safety Data Sheet

From Genium's Reference Collection
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GENIUM PUBLISHING CORP.

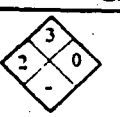
No. 316

BENZENE
(Revision D)
Issued: November 1978
Revised: April 1988

SECTION 1. MATERIAL IDENTIFICATION

25

Material Name: BENZENE



Description (Origin/Uses): Used in the manufacture of medicinal chemicals, dyes, linoleum, airplane dopes, varnishes, and lacquers; and as a solvent for waxes, resins, and oils.

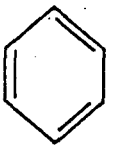
Other Designations: Benzol; Phene; Phenylhydride; C_6H_6; NIOSH *RTECS* No. CY1400000; CAS No. 0071-43-2

Manufacturer: Contact your supplier or distributor. Consult the latest edition of the *Chemicalweek Buyers' Guide* (Genium ref. 73) for a list of suppliers.

HMIS			
H	2		
F	3	R	1
R	0	I	4
PPG*		S	2
*See sect. 8		K	4

SECTION 2. INGREDIENTS AND HAZARDS

	%	EXPOSURE LIMITS
Benzene, CAS No. 0071-43-2	Ca 100	**OSHA PEL** 8-Hr TWA: 1 ppm 15-Min Ceiling: 5 ppm Action Level: 0.5 ppm **ACGIH TLV, 1987-88** TLV-TWA: 10 ppm, 30 mg/m³ **Toxicity Data*** Human, Inhalation, LC_{Lo}: 2000 ppm/5 Min Human, Oral, TD_{Lo}: 130 mg/kg Human, Inhalation, TC_{Lo}: 210 ppm



*See NIOSH, *RTECS*, for additional data with references to irritative, mutagenic, tumorigenic, and reproductive effects.

SECTION 3. PHYSICAL DATA

Boiling Point: 176°F (80°C)
Melting Point: 42°F (5.5°C)
Vapor Pressure: 75 Torrs at 68°F (20°C)
Vapor Density (Air = 1): >1

Water Solubility (%): Slight
% Volatile by Volume: 100
Molecular Weight: 78 Grams/Mole
Specific Gravity (H_2O = 1): 0.87865 at 68°F (20°C)

Appearance and Odor: A colorless liquid; characteristic aromatic odor.

SECTION 4. FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temperature	Flammability Limits in Air	LOWER	UPPER
		% by Volume		
12°F (-11.1°C) CC	928°F (498°C)		1.3%	7.1%

Extinguishing Media: Use dry chemical, foam, or carbon dioxide to put out benzene fires. Water may be ineffective as an extinguishing agent because it can scatter and spread the fire. Use water to cool fire-exposed containers, flush spills away from exposures, disperse benzene vapor, and protect personnel attempting to stop an unignited benzene leak.

Unusual Fire or Explosion Hazards: Benzene vapor is heavier than air and can collect in low-lying areas such as sumps or wells. Eliminate all sources of ignition there to prevent a dangerous flashback to the original liquid benzene. **Danger:** Explosive and flammable benzene vapor-air mixtures can easily form at room temperature; always use this material in a way that minimizes dispersion of its vapor into general work areas.

Special Fire-fighting Procedures: Wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in the pressure-demand or positive-pressure mode.

SECTION 5. REACTIVITY DATA

Benzene is stable in closed containers during routine operations. It does not undergo hazardous polymerization.

Chemical Incompatibilities: Hazardous chemical reactions involving benzene and the following materials are reported in Genium reference 84: bromine pentafluoride, chlorine, chlorine trifluoride, chromic anhydride, nitryl perchlorate, oxygen, ozone, perchlorates, perchloryl fluoride and aluminum chloride, permanganates and sulfuric acid, potassium peroxide, silver perchlorate, and sodium peroxide.

Conditions to Avoid: Avoid all exposure to sources of ignition and to incompatible chemicals.

Hazardous Products of Decomposition: Toxic gases like carbon monoxide (CO) may be produced during benzene fires.

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SECTION 6. HEALTH HAZARD INFORMATION

Benzene is listed as a suspected human carcinogen by the ACGIH.

Summary of Risks: Prolonged skin contact with benzene or excessive inhalation of its vapor may cause headache, weakness, loss of appetite, and lassitude. Continued exposure can cause collapse, bronchitis, and pneumonia. The most important health hazards are cancer (leukemia), bone marrow effects, and injuries to the blood-forming tissue from chronic low-level exposure.

Medical Conditions Aggravated by Long-Term Exposure: Ailments of the heart, lungs, liver, kidneys, blood, and central nervous system (CNS) may be worsened by exposure. Administer preplacement and periodic medical exams emphasizing these organs' functions and reassign workers who test positive. **Target Organs:** Blood, CNS, bone marrow, eyes, and upper respiratory tract (URT). **Primary Entry:** Skin contact, inhalation. **Acute Effects:** Dizziness, mental dullness, nausea, headache, fatigue, and giddiness. **Chronic Effects:** Possible cancer (leukemia).

FIRST AID

Eyes: Immediately flush eyes, including under the eyelids, gently but thoroughly with plenty of running water for at least 15 minutes.

Skin: Immediately wash the affected area with soap and water.

Inhalation: Remove the exposed person to fresh air; restore and/or support his or her breathing as needed.

Ingestion: Never give anything by mouth to someone who is unconscious or convulsing. Do not induce vomiting because of the possibility of aspiration.

GET MEDICAL HELP (IN PLANT, PARAMEDIC, COMMUNITY) FOR ALL EXPOSURES. Seek prompt medical assistance for further treatment, observation, and support after first aid.

SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES

Spill/Leak: Notify safety personnel, provide ventilation, and eliminate all sources of ignition immediately. Cleanup personnel need protection against contact with and inhalation of vapor (see sect. 8). Contain large spills and collect waste or absorb it with an inert material such as sand, earth, or vermiculite. Use nonsparking tools to place waste liquid or absorbent into closable containers for disposal. Keep waste out of sewers, watersheds, and waterways.

Waste Disposal: Contact your supplier or a licensed contractor for detailed recommendations for disposal. Follow Federal, state, and local regulations.

OSHA Designations

Air Contaminant (29 CFR 1910.1000 Subpart Z)

EPA Designations (40 CFR 302.4)

RCRA Hazardous Waste, No. U019

CERCLA Hazardous Substance, Reportable Quantity: 1000 lbs (454 kg)

SECTION 8. SPECIAL PROTECTION INFORMATION

Goggles: Always wear protective eyeglasses or chemical safety goggles. Where splashing is possible, wear a full face shield. Follow the eye- and face-protection guidelines in 29 CFR 1910.133. **Respirator:** Wear a NIOSH-approved respirator per the *NIOSH Pocket Guide to Chemical Hazards* for the maximum-use concentrations and/or the exposure limits cited in section 2. Follow the respirator guidelines in 29 CFR 1910.134. For emergency or nonroutine use (e.g., cleaning reactor vessels or storage tanks), wear an SCBA with a full facepiece operated in the pressure-demand or positive-pressure mode. **Warning:** Air-purifying respirators will *not* protect workers in oxygen-deficient atmospheres. **Other:** Wear impervious gloves, boots, aprons, gauntlets, etc., to prevent any possibility of skin contact with this suspected human carcinogen. **Ventilation:** Install and operate general and local ventilation systems powerful enough to maintain airborne levels of benzene below the OSHA PEL standard cited in section 2.

Safety Stations: Make eyewash stations, washing facilities, and safety showers available in use and handling areas. **Contaminated Equipment:** Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them. Do *not* wear contact lenses in any work area. Remove contaminated clothing and launder it before wearing it again; clean this material from shoes and equipment. **Comments:** Practice good personal hygiene; always wash thoroughly after using this material. Keep it off of your clothing and equipment. Avoid transferring it from your hands to your mouth while eating, drinking, or smoking. Do *not* eat, drink, or smoke in any work area. Do not inhale benzene vapor!

SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS

Storage/Segregation: Store benzene in a cool, dry, well-ventilated area away from sources of ignition and incompatible chemicals.

Special Handling/Storage: Protect containers from physical damage. Electrically ground and bond all metal containers used in shipping or transferring operations. Follow all parts of 29 CFR 1910.1028.

Engineering Controls: All engineering systems (production, transportation, etc.) must be of maximum explosion-proof design (non-sparking, electrically grounded and bonded, etc.)

Comments: If possible, substitute less toxic solvents for benzene; use this material with extreme caution and only if it is absolutely essential.

Transportation Data (49 CFR 172.101-2)

DOT Shipping Name: Benzene	**DOT Label:** Flammable Liquid	**IMO Label:** Flammable Liquid
DOT Class: Flammable Liquid	**DOT ID No.** UN1114	**IMO Class:** 3.2

References: 1, 2, 12, 73, 84-94, 100, 103.

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Material Safety Data Sheets Collection:

Sheet No. 409
Cresol (Mixed Isomers)

Issued: 12/78 Revision: B, 3/92

Section 1. Material Identification

Cresol, *mixed isomers* ($CH_3C_6H_4OH$) Description: Derived from coal tar or petroleum. Cresol is marketed by individual isomer and as pure or crude cresol. Pure cresol is a mixture of *ortho*, *meta*, and *para* isomers. Crude cresol (commercial cresol) is prepared by distilling "grey phenic acid" at 356 to 401 °F (180 to 205 °C) and is comprised of 20% *ortho*, 40% *meta*, and 30% *para* isomers, plus small amounts of phenol and xylenols. Each isomer can be prepared synthetically by diazotization of the specific corresponding toluidine. Used in manufacturing synthetic resins, explosives, photographic developers, petroleum, paint, disinfectants, and fumigants; as an ore flotation agent; and in the agriculture industry for herbicides and insecticides.
Other Designations: CAS No. 1319-77-3, Bacillol, cresylic acid, Tekresol, tricresol.
Manufacturer: Contact your supplier or distributor. Consult latest *Chemical Week Buyers' Guide*(73) for a suppliers list.

Cautions: Cresol is severely irritating to mucous membranes, eyes, and skin. Depending on the cresol concentration, extent of exposure, and amount of skin exposed, toxicity may be slight (irritation) or severe (permanent injury or death).

R 1
I 4
S 3*
K 2
* Skin absorption

NFPA
2
3 0
—

HMIS
H 3
F 2
R 0
PPG*
* Sec. 8

Section 2. Ingredients and Occupational Exposure Limits

Cresol (*mixed isomers*) National Formulary (NF) grade contains < 5% phenol

1990 OSHA PEL (Skin)
8-hr TWA: 5 ppm (22 mg/m³)

1990 NIOSH REL
TWA: 5 ppm (22 mg/m³)

1990 IDLH Level
250 ppm

1991-92 ACGIH TLV (Skin)
TWA: 5 ppm (22 mg/m³)

1990 DFG (Germany) MAK
TWA: 5 ppm (22 mg/m³) (H)*
Peak Exposure Limit: 10 ppm, 5 min, momentary value/8 per shift

1985-86 Toxicity Data†
Rat, oral, LD_{50}: 1454 mg/kg; toxic effects not yet reviewed
Mouse, inhalation, LC_{50}: 179 mg/m³/2 hr; no toxic effects noted (*o-*)
Rabbit, eye: 103 mg produced severe irritation (*p-*)
Rabbit, skin: 517 mg applied for 24 hr produced severe irritation (*m-*)
Rabbit, skin, LD_{50}: 2000 mg/kg; toxic effects not yet reviewed

* Danger of cutaneous absorption.
† See NIOSH, *RTECS* (GO5950000), for additional toxicity data. For data on specific isomers, see *RTECS* (GO6125000, *meta*; GO6300000, *ortho*; and GO6475000, *para*).

Section 3. Physical Data

Boiling Point Range: 375.8 to 397.4 °F (191 to 203 °C)
Melting Point Range: 51.8 to 95 °F (11 to 35 °C)
Vapor Pressure: 0.25 (*ortho*), 0.15 (*meta*), 0.11 (*para*) mm Hg at 68 °F (20 °C)
Vapor Density (air = 1): 3.72
pH: Saturated solutions are neutral or slightly acidic to litmus
Viscosity: 4.49 to 7.0 cP at 104 °F (40 °C)
Molecular Weight: 108.13
Specific Gravity: 1.030 to 1.038 at 77 °F (25 °C)
Water Solubility: Soluble, 1%
Other Solubilities: Soluble in alcohol, ether, dilute alkalies, glycol and vegetable oils
Refraction Index: 1.5353 at 75.2 °F (24 °C)
Odor Threshold: Low, 0.012 mg/m³; high, 22 mg/m³

Appearance and Odor: Colorless, yellow, or pinkish liquid turning brown on exposure to air or light with a phenolic odor and pungent taste.

Section 4. Fire and Explosion Data

Flash Point: 178 °F (81.11 °C, *ortho*), 187 °F (86.11 °C, *meta* and *para*), CC

Autoignition Temperature: 1110 °F (559 °C, *ortho*), 1038 °F (558 °C, *meta* and *para*)

LEL: 1.4% (*ortho*), 1.1% (*meta* and *para*) at 302 °F (150 °C) **UEL:** None reported

Extinguishing Media: While cresol does not ignite easily, it burns. For small fires, use dry chemical, carbon dioxide (CO_2), water spray, or regular foam. For large fires, use water spray, fog, or regular foam. Do not scatter material with more water than is necessary to put out fire.
Unusual Fire or Explosion Hazards: Container may explode in heat of fire.
Special Fire-fighting Procedures: Since fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode. Structural firefighters' protective clothing is ineffective for fires involving cresol. Use clothing the manufacturer recommends specifically for use with cresol. If possible without risk, remove container from fire area. Fight fire from maximum distance. Stay away from ends of tanks. Be aware of runoff from fire control methods. Do not release to sewers or waterways.

Section 5. Reactivity Data

Stability/Polymerization: Cresol is stable at room temperature in closed containers under normal storage and handling conditions. Hazardous polymerization cannot occur.
Chemical Incompatibilities: Cresol reacts with oxidizing materials and causes a temperature and pressure increase with chlorosulfonic acid, nitric acid, and oleum.
Conditions to Avoid: Ignition sources and contact with incompatibles.
Hazardous Products of Decomposition: Thermal oxidative decomposition of cresol can produce carbon dioxide (CO_2) and toxic cresol fumes.

Section 6. Health Hazard Data

Carcinogenicity: The IARC,(164) NTP,(142) and OSHA(164) do not list cresol as a carcinogen. **Summary of Risks:** Cresol is corrosive to eyes, skin, and mucous membranes. Degree of toxicity depends on the cresol concentration involved, amount of surface area exposed, and duration of exposure. Ingestion is corrosive to the digestive tract's mucous membranes and can pose serious problems if not treated promptly. Because cresol has a low vapor pressure, it is not volatile enough under normal conditions to present an inhalation hazard. If heated, vapor inhalation is likely. Severe chemical burns and dermatitis are the main hazards in industry. Note that cresol's *ortho* and *para* isomers (if used individually) are in crystal form and thus are a dust inhalation hazard. By all routes of exposure, cresol produces toxic symptoms similar to phenol's. **Medical Conditions Aggravated by Long-Term Exposure:** Skin diseases. **Target Organs:** Eyes, skin, central nervous system (CNS), liver and kidney. **Primary Entry Routes:** Skin and eye contact/absorption. **Acute Effects:** Cresol is absorbed through skin, open wounds, and the mucous membranes of the respiratory and digestive tracts. The rate at which skin absorbs cresol depends more on the size of exposure area than on the concentration of material applied. Cresol is corrosive to the skin causing smarting; tingling; redness; swelling; burns that may be very painful and become white and wrinkled with softening that may become gangrenous; blisters; possible shock as a result

Continue on next page

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Section 6. Health Hazard Data, *continued*

of pain; and, in severe cases of absorption, coma and death. Contact with eyes may cause stinging, and burning, watering of eyes, redness and swelling of lids, corneal opaqueness causing blurred vision and possible loss of sight. In rare cases, a pigment disorder called ochronosis occurs characterized by darkening of skin, conjunctiva, and cartilage of the nose and ears. Ingestion leads to burning of lips, mouth, and throat, pain in swallowing, ulceration of the mucous membranes of the mouth, color change of the tongue (white), thirst, throat swelling, cramps, nausea and vomiting (sometimes of coffee grounds-like material due to digestive hemorrhage). In severe cases symptoms might progress to shock, convulsions, coma, and death. If vapor inhalation occurs, symptoms include irritation of mucous membranes of nose, eyes, and mouth, watering of eyes, sneezing, coughing, difficulty breathing, headache, nausea, muscle weakness, and possible pulmonary edema. In most cases of exposure, if death occurs, it is usually caused by respiratory failure. **Chronic Effects:** Repeated exposure to cresol may cause digestive disturbances, liver, kidney, spleen and pancreatic damage, and skin eruptions or dermatitis. Some people can become allergic or hypersensitive to cresol.

FIRST AID: *Emergency personnel should protect against contamination.*

Eyes: Gently lift eyelids and flush immediately and continuously with flooding amounts of water until transported to an emergency medical facility. *Do not* allow victim to rub or keep eyes tightly shut. Consult a physician immediately. **Skin:** *Quickly* remove contaminated clothing to prevent burns. Rinse with flooding amounts of water for at least 15 min. If clothing is stuck to skin after flushing with water, *do not* remove! Thoroughly wash exposed area with soap and water. For reddened or blistered skin, consult a physician. **Inhalation:** Remove exposed person to fresh air and support breathing as needed. **Ingestion:** Never give anything by mouth to an unconscious or convulsing person. Contact a poison control center. Unless the poison control center advises otherwise, have that *conscious and alert* person drink 1 to 2 glasses of water, then induce vomiting with 2 tablespoons of Ipecac (adult dose). After patient vomits, give activated charcoal in 8 oz. of water to drink. **After first aid, get appropriate in-plant, paramedic, or community medical support.**

Note to Physicians: Since effects may be delayed, keep victim under observation. Irrigate eyes and wash skin with a mixture of polyethylene glycol 300 and industrial methylated spirits (PEG 300/IMS, 2:1 by volume). Recommended treatment for ingestion is repeated gastric lavage with large quantities of olive oil.

Section 7. Spill, Leak, and Disposal Procedures

Spill/Leak: Immediately notify safety personnel, isolate and ventilate area (with fixed or portable fan systems for cross-ventilation), deny entry, and stay upwind. Shut off all ignition sources. Spilled liquid can be neutralized with crushed limestone or soda ash. Take up small spills with earth, sand, vermiculite or other absorbent, noncombustible material and place into suitable containers. For large spills, dike far ahead of liquid for later disposal or reclamation. For water spills, you may need to trap cresol at the bottom with sandbag barriers, apply activated charcoal, and then remove trapped material with dredges or lifts. Follow applicable OSHA regulations (29 CFR 1910.120).

Environmental Degradation: When released into the atmosphere, cresol degrades by reacting with photochemically produced hydroxyl radicals during the day (half-life = 8 to 10 hr), and with nitrate radicals at night (half-life = 2 to 5 min). Cresol biodegrades in eutrophic (nutrient-rich) waters.

Ecotoxicity Values: Blue gill, TL_m, 24 mg/L/96 hr (fresh water); shrimp, TL_m, 10 to 100 ppm/48 hr (saltwater).

Soil Absorption/Mobility: Cresol is mobile in soil but biodegradation is probable. Cresols probably leach due to water solubility.

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

EPA Designations

Listed as a RCRA Hazardous Waste (40 CFR 261.33): No. U052*
Listed as a CERCLA Hazardous Substance† (40 CFR 302.4): Reportable Quantity (RQ), 1000 lb (454 kg) [† per RCRA, Sec. 3001 and CWA, Sec. 311(b)(4)]
Listed (*o-cresol only*) as a SARA Extremely Hazardous Substance (40 CFR 355)
Listed as a SARA Toxic Chemical (40 CFR 372.65)

OSHA Designations

Listed as an Air Contaminant (29 CFR 1910.1000, Table Z-1-A)

* When a spent solvent and classified as a hazardous waste from nonspecific sources, cresol has Hazardous Waste No. F004.

Section 8. Special Protection Data

Goggles: Wear protective eyeglasses or chemical safety goggles or faceshields to protect against droplets or spray, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Because contact lens use in industry is controversial, establish your own policy.

Respirator: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. At 50 to 500 ppm use a full face gas mask. For emergency or nonroutine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a respiratory protection program that includes: training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Other: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent all skin contact. Rubber is suggested as a material suitable for protection against cresol.

Ventilation: Provide general and local exhaust ventilation systems to maintain airborne concentrations below the OSHA PEL (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.[103]

Safety Stations: Make available in the work area emergency eyewash stations, safety/quick-drench showers, and washing facilities.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder contaminated work clothing before wearing. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9. Special Precautions and Comments

Storage Requirements: Prevent physical damage to containers. Store in properly labelled (with trade name) iron or steel containers in cool, dry, well-ventilated location. Protect from light and keep away from incompatibles (Sec. 5). Outside or detached storage is preferred. To prevent static sparks, electrically ground and bond all equipment used in cresol manufacture, use, and storage.

Engineering Controls: To reduce potential health hazards, use sufficient dilution or local exhaust ventilation to control airborne contaminants and to maintain concentrations at the lowest practical level.

Administrative Controls: Consider preplacement and periodic examinations of exposed workers that emphasize skin, kidney, liver, and respiratory system.

Transportation Data (49 CFR 172.101, .102)

DOT Shipping Name: Cresol
DOT Hazard Class: Corrosive material
ID No.: UN2076
DOT Label: Corrosive
DOT Packaging Exceptions: 173.244
DOT Packaging Requirements: 173.245

IMO Shipping Name: Cresols (*o-, m-, p-*)
IMO Hazard Class: 6.1
ID No.: UN2076
IMO Label: Poison
IMDG Packaging Group: II

MSDS Collection **References:** 26, 38, 73, 89, 100, 101, 103, 124, 126, 127, 132, 133, 136, 140, 153, 159, 162, 163, 164

Prepared by: M Gannon, BA; **Industrial Hygiene Review:** PA Roy, MPH, CIH; **Medical Review:** AC Darlington, MPH, MD; **Edited by:** JR Stuart, MS

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ISG RESOURCES, INC.

Material Safety Data Sheet

FLY ASH/ ASTM Class C

(TYPICAL)

(770) 424-1900
Information Phone Number

(800) 241-7799
Emergency Phone Number

Prepared: March 12, 1999

SECTION 1 - MATERIAL IDENTIFICATION AND INFORMATION

INGREDIENTS	Formula	%(1)	OSHA PEL(2)	ACGIH TLV(2)
Aluminosilicate Glass	(Contains Al,Si,Fe,Ca,Mg,Ti)	50-70	Not Listed(3)	Not Listed(3)
Crystalline Silica (total)	SiO_2	5-10	$30/(\%SiO_2+2)$(4)	0.3
Crystalline Silica (respirable)(5)	SiO_2	ND	$10/(\%SiO_2+2)$(4)	0.1
Calcium Oxide	CaO	20-30	5	2
Iron Mineral Dusts6	Fe_2O_3, Fe_3O_4	2-5	10	5

Notes:

(1) Values approximate, material is derived from naturally occurring coal. May contain unburned carbon from coal which may be considered a nuisance dust (see note 3).

(2) Airborne exposure limits in mg/m^3.

(3) Not listed specifically by substance name. Exposure to aluminosilicate glass dust may be covered by inert or nuisance dust limits of 15 mg/m^3 for total dust and 5 mg/m^3 for respirable portion.

(4) The percentage of crystalline silica in the formula is the amount determined from airborne samples.

(5) The presence of respirable crystalline silica has not been confirmed.

(6) Iron minerals may include magnesium, hematite, and other iron oxides.

SECTION 2 - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	N/A	Specific Gravity (H_20 =1)	2.2-2.8
Vapor Pressure (mm Hg and Temperature)	N/A	Melting Point	> 2000°F
Vapor Density (Air = 1)	N/A	Evaporation Rate	N/A
Solubility in Water	Negligible	Water Reactive	Not Reactive

Appearance and Odor - Gray to tan color, no odor; average particle size is 10-20 microns. pH in water- 10-12

SECTION 3 - FIRE AND EXPLOSION HAZARD DATA

Extinguisher Media: No special media required.
Auto-Ignition Temperature: N/A
Flammability Limits in Air % by Volume: Not Flammable
LEL: N/A UEL: N/A
Special Fire Fighting Procedures: No special procedures required.
Flash Point and Method Used: N/A
Unusual Fire and Explosion Hazards: None, this material is considered non-flammable and non-combustible. Use fire extinguishing agent suitable for surrounding media.

SECTION 4 - REACTIVITY HAZARD DATA

STABILITY: Considered to be stable. Mixing with water may produce a slight temperature increase.
HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition products are unknown and not suspected.
HAZARDOUS POLYMERIZATION: Hazardous polymerization not known to occur.
REACTIVITY: Material is considered inert, avoid contact with strong acids, reducing agents, and oxidizers.
N/A = Not Applicable
ND = Not Determined

SECTION 5 - HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY:
Inhalation - Can be inhaled.
Ingestion - Can be ingested.
Skin Absorption - Can irritate skin.
Hazardous - Is not considered hazardous.

CARCINOGEN LISTED IN:
NTP -Yes (Crystalline Silica)*
IARC Monograph - Yes (Crystalline Silica)*
OSHA - No

*Respirable crystalline silica is listed in IARC and NTP as a suspected carcinogen. Presence of crystalline silica in respirable dust has not been established.

HEALTH HAZARDS:

Acute - Dust may irritate eyes, skin, respiratory tract and mucous membranes. Material is alkaline. Dust hazard should not occur under normal use.

Chronic - Pneumoconiosis

Signs and Symptoms of Exposure - Eye, skin or respiratory tract irritation.

Medical Conditions Generally Aggravated by Exposure - May aggravate existing pulmonary condition if high dust situation is created. Dusting conditions should not occur under normal use.

EMERGENCY FIRST AID PROCEDURES:

Eye Contact - Immediately flush eyes with water to remove dust particles seek medical attention.

Skin Contact - Wash skin with soap and water, if irritation develops, seek medical attention.

Inhalation - Immediately remove affected person to fresh air, if irritation develops, seek medical attention.

Ingestion - Rinse mouth out with water. Induce vomiting if significant quantities ingested. Seek medical attention.

SECTION 6 - CONTROL AND PROTECTIVE MEASURES

RESPIRATORY PROTECTION - If airborne dust exposure approaches the TLV or PEL (Section 1) use half-mask or full-face air purifying respirator equipped with NIOSH or MSHA-approved high efficiency filters for protection against pneumoconiosis-producing dust. An airline respirator may be required where dust levels are extremely high.

PROTECTIVE GLOVES – Limit contact with skin. Use rubber or cloth gloves as necessary.

EYE PROTECTION - Wear goggles or face shield as appropriate. Avoid contact lenses.

VENTILATION TO BE USED - Keep dust levels below PEL. Use general and local exhaust ventilation and dust collection systems to keep dust levels within acceptable limits.

OTHER PROTECTIVE CLOTHING AND EQUIPMENT - None normally required, wear long sleeves and long pants to reduce skin contact. Use work gloves, goggles and face shield as necessary.

HYGIENIC WORK PRACTICES - Do not allow dust to get into eyes, to be inhaled, to be swallowed, or remain on skin if irritation occurs. Practice good personal hygiene. Wash or shower after use. Launder clothes as normal.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING/LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED - Avoid creating airborne dust. Pick up with shovel or mechanical equipment. Wet methods and vacuuming may be used on spills.

WASTE DISPOSAL METHODS - Handle as inert bulk material. Material may be disposed of as a non-hazardous solid waste consistent with state, federal and local disposal regulations. Disposal in a sanitary landfill is usually adequate.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE - Keep material dry in storage. No special handling required. Avoid creating airborne dust.

OTHER PRECAUTIONS AND/OR SPECIAL HAZARDS - None

Note: Information herein is based on data considered to be accurate as of date prepared. No warranty or representation, express or implied, is made as to the accuracy or completeness of this data and safety information. No responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.

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Material Safety Data Sheets Collection:
Sheet No. 382
Vinyl Chloride
Issued: 7/78 Revision: C, 9/92

Section 1. Material Identification

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Vinyl Chloride (C_2H_3Cl) Description: Derived from ethylene dichloride and alcoholic potassium, by reaction of acetylene and hydrogen chloride (as gas or liquids), or by oxychlorination where ethylene reacts with hydrochloric acid and oxygen. Inhibitors such as butyl catechol, hydroquinone, or phenol are added to prevent polymerization. Used in the plastics industry for the production of polyvinyl chloride resins, in organic synthesis and formerly as a refrigerant, extraction solvent, and propellant (banned in 1974 because of its carcinogenic activity).

Other Designations: CAS No. 75-01-4, chloroethylene, chloroethene, ethylene monochloride, Trovidur, VC, VCM.

Manufacturer: Contact your supplier or distributor. Consult latest *Chemical Week Buyers' Guide*[73] for a suppliers list.

Cautions: Vinyl chloride is a confirmed human carcinogen. Vapor inhalation leads to central nervous system (CNS) depression. The liquid can cause frostbite. It is a flammable gas at room temperature and polymerizes on exposure to air or sunlight. Avoid exposure to VC through engineering controls and wearing PPE

NFPA
R 2
I 4
S 4
K 4

HMIS
H 3*
F 4
R 2
PPE - Sec. 8
* Chronic effects

Section 2. Ingredients and Occupational Exposure Limits

Vinyl Chloride, ca 98 to 99%. Impurities include water, acetaldehyde, hydrogen chloride, hydrogen peroxide, methyl chloride, butane, 1,3-butadiene, chlorophene, diacetylene, vinyl acetylene, and propine.

1991 OSHA PELs
8-hr TWA: 1 ppm
Ceiling: 5 ppm; OSHA-X

1990 NIOSH REL
NIOSH-X

1992-93 ACGIH TLV
TWA: 5 ppm (13 mg/m^3)
TLV-A1

1990 DFG (Germany) TRK*
Existing Installations: 3 ppm
MAK-A1

1985-86 Toxicity Data†
Man, inhalation, TC_{Lo}: Intermittent exposure to 200 ppm for 14 yr caused liver tumors.
Man, inhalation, TC_{Lo}: 30 mg/m^3/5 yr caused spermatogenesis
Human, inhalation, TC: Continuous exposure to 300 mg/m^3 for an undetermined number of weeks caused blood tumors.
Rat, oral, LD_{50}: 500 mg/kg; toxic effects not yet reviewed

* TRK (technical exposure limit) is used in place of MAK when a material is a carcinogen. Unlike an MAK below which no adverse effects are expected, the TRK is a limit set below which adverse effects may still occur. This is based on the theory that 1 molecule of a carcinogenic substance may still produce a tumor. The TRK is set to allow for an acceptable risk (for example, 1 tumor in 1 million persons may be an acceptable risk).
† See NIOSH, *RTECS* (KU9625000), for additional mutation, reproductive, tumorigenic, and toxicity data.

Section 3. Physical Data

Boiling Point: 7 °F (-13.9 °C)
Freezing Point: -245 °F (-159.7 °C)
Molecular Weight: 62.5
Specific Gravity: 0.9106 at 68 °F (20 °C)
Ionization Potential: 9.99 eV
Refraction Index: 1.370 at 20 °C/D
Surface Tension: 23.1 dyne/cm at -4 °F (-20 °C)
Odor Threshold: 2000 to 5000 ppm*
Vapor Density (Air = 1): 2.155

Water Solubility: Slightly soluble, 0.1% at 77 °F (25 °C)
Other Solubilities: alcohol, benzene, carbon tetrachloride, ether, hydrocarbon and oils
Vapor Pressure: 2530 mm Hg at 68 °F (20 °C), 400 mm Hg at -18.4 °F (-28 °C)
Critical Temperature: 304.7 °F (151.5 °C)
Critical Pressure: 56.8 atm
Viscosity: 0.01072 cP at 68 °F (20 °C), *gas*; 0.28 cP at -4 °F (-20 °C), *liquid*
Appearance and Odor: A gas at room temperature. Usually found as a compressed/cooled liquid. The colorless liquid forms a vapor with a pleasant ethereal odor.

*The actual vapor concentration that can be detected by humans has not been adequately determined and varies from one individual to another, from impurities, and probably from exposure duration. The odor threshold is not an accurate warning of exposure.

Section 4. Fire and Explosion Data

Flash Point: -108.4 °F (-78 °C) OC	Autoignition Temperature: 882 °F (472 °C)	LEL: 3.6% v/v	UEL: 33% v/v

Extinguishing Media: For small fires, use dry chemical or carbon dioxide. For large fires, use water spray, fog, or regular foam. **Unusual Fire or Explosion Hazards:** Large fires can be practically inextinguishable. Vapors may travel to an ignition source and flash back. VC may polymerize in cylinders or tank cars and explode in heat of fire. Vapors pose an explosion hazard indoors, outdoors, and in sewers. VC decomposes in fire to hydrogen chloride, carbon monoxide, carbon dioxide, and phosgene. Burning rate = 4.3 mm/min. **Special Fire-fighting Procedures:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode. Stop gas leak if possible. Let tank, tank car, or tank truck burn unless leak can be stopped. For massive fire in cargo area, use monitor nozzles or unmanned hose holders; if this is impossible, withdraw from area and let fire burn. Withdraw immediately if you hear a rising sound from venting safety device or notice any tank discoloration due to fire. *Do not* release runoff from fire control methods to sewers or waterways.

Section 5. Reactivity Data

Stability/Polymerization: Long term exposure to air may result in formation of peroxides which initiates explosive polymerization of the chloride. VC can polymerize on exposure to light or in presence of a catalyst. **Chemical Incompatibilities:** VC can explode on contact with oxide of nitrogen, may liberate hydrogen chloride on exposure to strong alkalies, and is incompatible with copper, oxidizers, aluminum, and peroxides. In the presence of moisture, VC attacks iron and steel. **Conditions to Avoid:** Exposure to sunlight, air, heat, and incompatibles. **Hazardous Products of Decomposition:** Thermal oxidative decomposition of vinyl chloride can produce carbon oxides, and chloride gas.

Section 6. Health Hazard Data

Carcinogenicity: Vinyl chloride is listed as a carcinogen by the IARC (Class 1, *sufficient human evidence*),[164] NTP (Class 1, *sufficient human evidence*),[169] NIOSH (Class X, *carcinogen defined without further categorization*),[163] ACGIH (TLV-A1, *confirmed human carcinogen*),[163] DFG (MAK-A1, *capable of inducing malignant tumors in humans*),[163] and OSHA (Class X, *carcinogen defined without further categorization*).[164] Liver tumors (angiosarcomas) are confirmed from VC exposure. Other tumors of the CNS, respiratory system, blood, and lymphatic system have occurred from exposure to the polyvinyl chloride manufacture process but VC itself may not be the causative agent. **Summary of Risks:** Vapor inhalation causes varying degrees of CNS depression with noticeable anesthetic effects at levels of 1% (10,000 ppm). Studies have shown loss of libido and sperm in men exposed to VC and in Russian studies, 77% of exposed women experienced ovarian dysfunction, benign uterine growths, and prolapsed genital organs. However, no teratogenic effects have been seen in offspring of exposed workers.

Continue on next page

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Section 6. Health Hazard Data, *continued*

It appears that metabolism is necessary before many of VC's toxic effects occur. Some vinyl chloride is exhaled unchanged but most is metabolized to chloroacetaldehyde. Skin absorption may occur if liquid is confined on skin but absorbed amount would be small. It is possible that the phenol inhibitor may be absorbed as well. The compressed liquid can cause frostbite. Vapors are severely irritating to the eyes. Chronic exposure can cause cancer and a triad of syndromes known as *vinyl chloride disease*. **Medical Conditions Aggravated by Long-Term Exposure:** Liver, cardiac, pulmonary, and connecuve ussue disorders. **Target Organs:** Liver, CNS, respiratory and lymphauc systems, bone, and connective tissue of the skin. **Primary Entry Routes:** Inhalation, skin/eye contact. **Acute Effects:** CNS effects include fatigue, headache, vertigo, ataxia, euphoria, visual disturbances, dulling of auditory cues, numbness and tingling in the extremities, narcosis, unconsciousness, and death due to respiratory failure. Respiratory problems include dyspnea, asthma, and pneumonoconiosis. **Chronic Effects:** Repeated exposure has lead to liver cancer; confirmed because of the otherwise rarity of its type (angiosarcoma). Tumors in other organs have occurred in the polyvinyl chloride industry but agents other than VC may be responsible; authorities are still debating this issue. A triad of other effects are associated with VC exposure. Acro-osteolysis is associated with hand cleaning of polymerization vessels and characterized by dissolution of bone in the hands, especially when associated with resorption. Raynaud's Phenomenon is a vascular disorder marked by recurrent spasm of the capillaries and especially those of the fingers and toes on exposure to cold. This is usually accompanied by pain and in severe cases may progress to local gangrene. Sclerodermatous skin changes (affecting the dorsal hands and distal forearms) are seen and described as a slowly progressive disease marked by deposition of fibrous connective tissue in the skin. The skin becomes thickened and raised nodules appear. Arthralgias (pain in one or more joints) and blood changes with decreased platelet number and capillary abnormalities may also occur.
FIRST AID Eyes: *Do not* allow victim to rub or keep eyes tightly shut. Gently lift eyelids and flush immediately and continuously with flooding amounts of water until transported to an emergency medical facility. Consult a physician immediately. **Skin:** *Quickly* remove contaminated clothing. Rinse with flooding amounts of water for at least 15 min. Wash exposed area with soap and water. For reddened or blistered skin, consult a physician. For frostbite, immerse affected area in 107.6 °F (42 °C) water until completely rewarmed. *Do not* use dry heat. **Inhalation:** Remove exposed person to fresh air and support breathing as needed. **Ingestion:** Unlikely! VC is a gas above 7 °F (-14°C). **Note to Physicians:** Endotracheal intubation may be required if significant CNS or respiratory depression occur. Diagnostic test: thiodiglycolic acid in urine (normally < 2 mg/g creatinine).

Section 7. Spill, Leak, and Disposal Procedures

Spill/Leak: Notify safety personnel, isolate and ventilate area, deny entry, and stay upwind. If possible without risk, stop gas flow. Shut off ignition sources. Report any release > 1 lb. Follow applicable OSHA regulations (29 CFR 1910.120). **Environmental Transport:** VC reacts with hydroxyl radicals in the trophosphere with a half-life of 1.2 days. The half-life = a few hr in photochemical smog. Reaction products in the air include chloroacetaldehyde, hydrogen chloride, chloroethylene, epoxide, formaldehyde, formyl chloride, formic acid, and carbon monoxide. In soil, VC rapidly volatilizes. What does not evaporate will be highly mobile and may leach into groundwater. In water, VC is not expected to hydrolyze, bioconcentrate, or absorb to sediment. It will rapidly volatilize with an estimated half-life of 0.805 hr for evaporation from a river 1 meter deep with a current of 3 meter/sec and a wind velocity of 3 meter/sec. In waters containing photosensitizers such as humic acid, photodegradation will be rapid. **Soil Absorption/Mobility:** From an estimated solubility of 2,700 ppm, a Koc of 56 is established for VC which indicates high soil mobility and potential to leach into groundwater. **Disposal:** Dilute any waste compressed liquid to a 1% solution and remove phenol inhibitor as sodium. Pour onto vermiculite, sodium bicarbonate, or a sand & soda ash mixture (90/10). Add slaked lime if fluoride is present. Mix in paper boxes, place in incinerator, cover with scrap wood and paper, and ignite with excelsior train. Another method is to dissolve waste in a flammable solvent and spray in incinerator firebox equipped with an afterburner and alkali scrubber. Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

EPA Designations
Listed as a RCRA Hazardous Waste (40 CFR 261.33): No. U043
SARA Extremely Hazardous Substance (40 CFR 355), TPQ: Not listed
Listed as a SARA Toxic Chemical (40 CFR 372.65)
Listed as a CERCLA Hazardous Substance* (40 CFR 302.4): Final Reportable Quantity (RQ), 1 lb (0.454 kg) [* per CWA, Sec. 307 (a); CAA, Sec. 112, & RCRA, Sec. 3001]

OSHA Designations
Listed as an Air Contaminant (29 CFR 1910.1000, Table Z-1-A)

Section 8. Special Protection Data

Goggles: Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Because contact lens use in industry is controversial, establish your own policy. **Respirator:** Seek professional advice prior to respirator selection and use. Follow OSHA (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. According to NIOSH[148], for any detectable concentration use a SCBA or supplied-air respirator with a full facepiece operated in pressure-demand or other positive pressure mode. See 29 CFR 1910.1017 for detailed OSHA respirator recommendations. For emergency or nonroutine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas. **Other:** Wear chemically protective gloves, boots, aprons, and gauntlets made of Viton or chlorinated polyethylene to prevent skin contact. **Ventilation:** Provide general and local exhaust ventilation systems to maintain airborne concentrations below the OSHA PEL's (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.[103] **Safety Stations:** Make available in the work area emergency eyewash stations, safety/quick-drench showers, and washing facilities. **Contaminated Equipment:** Separate work clothes from street clothes, launder before reuse and clean PPE. **Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9. Special Precautions and Comments

Storage Requirements: Store in a cool, dry, well-ventilated area in clearly labeled containers. Outside or detached storage is preferred. Large amounts should be stored in steel containers under pressure. Keep separate from incompatibles (Sec. 5). Venting, under pressure should be safety relief. At atm. venting should be pressure vacuum. Regularly monitor inhibitor levels. To avoid static sparks, electrically ground and bond all equipment used with VC. Avoid open flames, spark formation and electric discharges around VC. **Engineering Controls:** To reduce potential health hazards, use sufficient dilution or local exhaust ventilation to control airborne contaminants and to maintain concentrations at the lowest practical level. Install Class 1, Group D electrical equipment. **Administrative Controls:** Inform VC exposed personnel of hazards associated with its use. Preplacement and periodic medical exams of workers exposed above the action level is mandatory under OSHA 29 CFR (1910.1017). Monitor for liver cancer, scleroderma, pneumonitis, clotting abnormalities, and acro-osteolysis.

Transportation Data (49 CFR 172.101)

DOT Shipping Name: Vinyl Chloride
DOT Hazard Class: 2.1
ID No.: UN1086
DOT Packing Group: --
DOT Label: Flammable Gas
Special Provisions (172.102): B44

Packaging Authorizations
a) Exceptions: 173.306
b) Non-bulk Packaging: 173.304
c) Bulk Packaging: 173.314 & 173.315

Quantity Limitations
a) Passenger Aircraft or Railcar: Forbidden
b) Cargo Aircraft Only: 150 kg

Vessel Stowage Requirements
a) Vessel Stowage: B
b) Other: 40

MSDS Collection **References:** 26, 73, 100, 101, 103, 124, 126, 127, 132, 133, 136, 140, 148, 149, 153, 159, 162, 163, 164, 167, 168, 171, 174, 175
Prepared by: M Gannon, BA; **Industrial Hygiene Review:** PA Roy, MPH, CIH; **Medical Review:** AC Darlington, MPH, MD

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TABLE 20-1

Classification, Medical Aspects, and Prevention of Heat Illness

Category and Clinical Features	Predisposing Factors	Underlying Physiological Disturbances	Treatment	Prevention
Temperature Regulation Heatstroke				
Heatstroke: (1) Hot, dry skin; usually red, mottled, or cyanotic; (2) rectal temperature 40.5°C (104°F) and over; (3) confusion, loss of consciousness, convulsions, rectal temperature continues to rise; fatal if treatment is delayed	(1) Sustained exertion in heat by unacclimatized workers; (2) lack of physical fitness and obesity; (3) recent alcohol intake; (4) dehydration; (5) individual susceptibility; and (6) chronic cardiovascular disease	Failure of the central drive for sweating (cause unknown) leading to loss of evaporative cooling and an uncontrolled accelerating rise in t_{re}; there may be partial rather then complete failure of sweating	Immediate and rapid cooling by immersion in chilled water with massage or by wrapping in wet sheet with vigorous fanning with cool dry air; avoid overcooling; treat shock if present	Medical screening of workers, selection based on health and physical fitness; acclimatization for 5-7 days by graded work and heat exposure; monitoring workers during sustained work in severe heat
Circulatory Hypostasis Heat Syncope				
Fainting while standing erect and immobile in heat	Lack of acclimatization	Pooling of blood in dilated vessels of skin and lower parts of body	Remove to cooler area; rest in recumbent position; recovery prompt and complete	Acclimatization; intermittent activity to assist venous return to heat
Water and or Salt Depletion				
(a) Heat Exhaustion				
(1) Fatigue, nausea, headache, giddiness; (2) skin clammy and moist; complexion pale, muddy, or hectic flush; (3) may faint on standing with rapid thready pulse and low blood pressure; (4) oral temperature normal or low, but rectal temperature usually elevated (37.5-38.5°C or 99.5-101.3°F); water restriction type: urine volume small, highly concentrated; salt restriction type; urine less concentrated chlorides less than 3 g/L	(1) Sustained exertion in heat; (2) lack of acclimatization; and (3) failure to replace water lost in sweat	(1) Dehydration from deficiency of water; (2) depletion of circulating blood volume; (3) circulatory strain from competing demands for blood flow to skin and to active muscles	Remove to cooler environment; rest in recumbent position; administer fluids by mouth; keep at rest until urine volume indicates that water balances have been restored	Acclimatize workers using a breaking-in schedule for 5-7 days; supplement dietary salt only during acclimatization; ample drinking water to be available at all times and to be taken frequently during work day
(b) Heat Cramps				
Painful spasms of muscles used during work (arms, legs, or abdominal); onset during or after work hours	(1) Heavy sweating during hot work; (2) drinking large volumes of water without replacing salt loss	Loss of body salt in sweat, water intake dilutes electrolytes; water enters muscles, causing spasm	Salted liquids by mouth or more prompt relief by IV infusion	Adequate salt intake with meals; for unacclimatized workers, supplement salt intake at meals.

TABLE 201-1 (continued)

Classification, Medical Aspects, and Prevention of Heat Illness

Category and Clinical Features	Predisposing Factors	Underlying Physiological Disturbances	Treatment	Prevention
Skin Eruptions				
(a) Heat Rash (miliaria rubra, or "prickly heat")				
Profuse tiny raised red vesicles (blisterlike) on affected areas; prickling sensations during heat exposure	Unrelieved exposure to humid heat with skin continuously wet from unevaporated sweat	Plugging of sweat gland ducts with sweat retention and inflammatory reaction	Mild drying lotions; skin cleanliness to prevent infection	Cool sleeping quarters to allow skin to dry between heat exposures
(b) Anhidrotic Heat Exhaustion (miliaria profunda)				
Extensive areas of skin which do not sweat on heat exposure, but present gooseflesh appearance, which subsides with cool environments; associated with incapacitation in heat	Weeks or months of constant exposure to climatic heat with previous history of extensive heat rash and sunburn	Skin trauma (heat rash; sunburn) causes sweat retention deep in skin; reduced evaporative cooling causes heat intolerance	No effective treatment available for anhidrotic areas of skin; recovery of sweating occurs gradually on return to cooler climate	Treat heat rash and avoid further skin trauma by sunburn; provide periodic relief from sustained heat
Behavioral Disorders				
(a) Heat Fatigue - Transient				
Impaired performance of skilled sensorimotor, mental, or vigilance tasks, in heat	Performance decrement greater in unacclimatized and unskilled worker	Discomfort and physiologic strain	Not indicated unless accompanied by other heat illness	Acclimatization and training for work in the heat
(b) Heat Fatigue - Chronic				
Reduced performance capacity; lowering of self-imposed standards of social behavior (e.g., alcoholic over-indulgence); inability to concentrate, etc.	Workers at risk come from temperature climates for long residence in tropical latitudes	Psychosocial stresses probably as important as heat stress; may involve hormonal imbalance but no positive evidence	Medical treatment for serious causes; speedy relief of symptoms on returning home	Orientation on life in hot regions (customs, climate, living conditions, etc.)

Attachment 2

Worker Compliance Agreement

SBA Shipyards, Inc. Site
Jennings, Louisiana

Worker Compliance Agreement
SBA Shipyards, Inc. Site
Jennings, Louisiana

I have read the SBA Shipyards, Inc. site Health and Safety Plan. I understand its contents and have received adequate clarification from the SSO when necessary with regard to the contents of the plan. I understand that if I have any questions about the appropriate health and safety procedures while working on the SBA Shipyards, Inc., site, I can contact my supervisor or the SSO, who will inform me of appropriate health and safety measures. I understand that my refusal to comply with the provisions of this plan will subject me to removal form the site.

Signed:

_____ _____

Signature Date

Company:_____

Attachment 3

Emergency Services Contact Information

SBA Shipyards, Inc. Site
Jennings, Louisiana

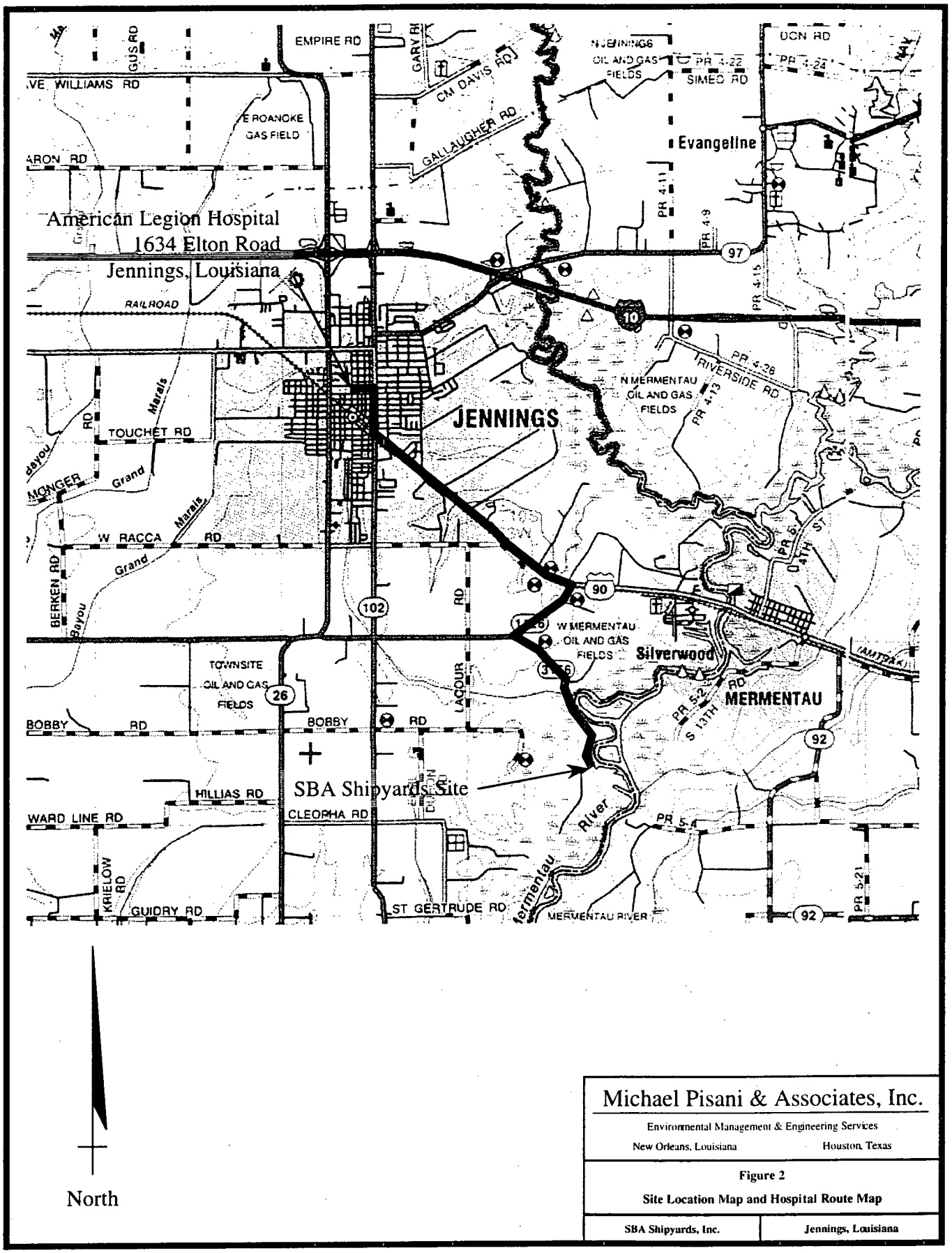
Emergency Services Contact Information
SBA Shipyards, Inc.
End of Highway 3166
Jennings, Louisiana
(318) 824-1519

Directions to the nearest hospital (Jennings American Legion Hospital)

- Exit the site onto Highway 3166.
- Continue on Highway 3166 to Highway 1126.
- Take a left onto Highway 1126.
- Continue on Highway 1126 to Highway 90.
- Take Highway 90 West to Jennings.
- At the first red light take a right onto Cutting Road.
- Take a left at tennis courts (red light) Shankland Road.
- At the second red light, Mr. Cook/Popeye's, take a right onto Elton Road (Highway 26).
- Jennings American Legion Hospital is located on the right side of the road at 1634 Elton Road.
- This hospital is located south of Interstate 10.

Emergency Contact Information

Emergency Services	Location	Telephone Numbers
Hospital	Jennings American Legion Hospital 1634 Elton Road Jennings, Louisiana	(318) 824-2490
Ambulance	Acadian Ambulance, Jefferson Davis Parish	911 or 311
Fire Department	Jefferson Davis Parish	911
Police Department	Jefferson Davis Parish	(318) 824-3850
Poison Control Center	Monroe, Louisiana	1-800-256-9822
Project Manager	Michael Pisani & Associates New Orleans, Louisiana	(504) 582-2468



Michael Pisani & Associates, Inc.	
Environmental Management & Engineering Services	
New Orleans, Louisiana	Houston, Texas
Figure 2	
Site Location Map and Hospital Route Map	
SBA Shipyards, Inc.	**Jennings, Louisiana**

MICHAEL PISANI & ASSOCIATES, INC.
Environmental Management and Engineering Services

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
Facsimile (504) 582-2470
m.pisani@ix.netcom.com

13313 Southwest Freeway
Suite 221
Sugar Land, Texas 77478
Telephone (281) 242-5700
Facsimile (281) 242-1737
dangle@orbitworld.net

March 5, 2004

Mr. Jesse Chang
Industrial Permits Division
Office of Environmental Services
Louisiana Department of Environmental Quality
602 North Fifth Street
Baton Rouge, Louisiana 70802

Subject: Request for Letter of No Objection
Release of Uncontaminated Pond Water
Interim Measures/Removal Action (IM/RA) Work Plan Implementation
SBA Shipyards, Inc. (Jefferson Davis Parish, Louisiana)
EPA ID No. LAD008434185
Docket No. RCRA-6-2002-0908
LDEQ AI No. 1478

Dear Mr. Chang:

This correspondence is submitted on behalf of our client (SSIC Remediation, LLC) to request a Letter of No Objection from LDEQ to discharge uncontaminated water from a pond at the SBA Shipyards, Inc. site referenced above. This request is made to facilitate the successful completion of ongoing cleanup activities currently in progress at the site.

Water in the pond was not involved in ongoing cleanup activities at the site. The pond was formerly used to store treated water from barge cleaning activities at the site, which ceased during the second half of 2000.

Concentrations of Clean Water Act priority pollutant organic compounds in water samples collected in 2001 and 2003 are less than detection limits. With the exception of barium in the 2003 sample (0.22 mg/L), no toxic metals were detected. Other water quality parameters (e.g., BOD, COD, TSS and TOC) are either below detection limits or less than published values for the nearest receiving water body (Mermentau River).

Background

SSIC Remediation, LLC entered into a voluntary agreement with SBA Shipyards, Inc., and EPA Region 6 to conduct source removal activities at the SBA Shipyards, Inc., site in

Jennings, Louisiana. Ongoing cleanup activities at the site include removal and offsite destruction of pumpable oily materials, stabilization and offsite landfill disposal of other oily materials, and management of water on the site.

The scope of the cleanup is described by the Statement of Work attached to the *Order and Agreement for Interim Measures/Removal Action of Hazardous/ Principal Threat Wastes at SBA Shipyards, Inc., Jennings, Louisiana*, dated December 9, 2002. Copies of the December 9, 2002 Agreed Order and Statement of Work are provided as Attachment 1.

The Interim Measures/ Removal Action (IM/RA) statement of work addresses oily materials in the former Oil Pit and a various tanks and vessels at the site. The water pond at the site was not included in the ongoing IM/RA activities at the site.

Site Description

The SBA Shipyards site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River. The site lies entirely within the watershed of stream segment 050401 of the Mermentau River (origin to Lake Arthur).

Key site features include the former Oil Pit excavation area, various steel tanks and vessels, a partially buried steel barge, a drainage ditch and the water pond. IM/RA activities at the site have addressed the removal of hydrocarbons, stained soils and oily materials from in and around the former Oil Pit and the partially buried barge. Site topography and constructed diversion berms/swales divert water from IM/RA work area away from entering the water pond.

A revised copy of Figure 1 from the Agreed Order Statement of Work is provided as Attachment 2, showing significant site features and the water pond. The portion of the site used by SBA for "gas-free" barge cleaning activities is the portion of the site located south and west of the barge slip. The water pond lies approximately 50 feet east of the former Oil Pit excavation area.

Site History

The SBA Shipyards facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm. That firm subsequently acquired the leased portion of the SBA facility.

During barge cleaning operations at SBA Shipyards, water blowdown was collected in tanks and passed through oil/water separators. The separated water was collected in the water

pond. Separated oily materials were placed in tanks, vessels, and the former Oil Pit addressed by the IM/RA cleanup activities.

Barge cleaning activities at the site (and resulting water discharges to the pond) ceased in mid- to late-2000. As part of the IM/RA cleanup activities, pipes between tanks, process equipment and the water pond were removed.

Water Pond Volume

The estimated volume of water in the Water Pit at the SBA Shipyards, Inc. is approximately 800,000 gallons.

September 2001 Pond Water Characterization

Water from the pond was sampled for laboratory analyses on September 26, 2001. Five grab samples collected from around the pond were combined to create a composite sample for laboratory analyses. The composite sample was collected in clean, laboratory-supplied containers and transported to Pace Analytical Services, Inc. (St. Rose, Louisiana), in accordance with LDEQ- and EPA-recommended practices for sample collection, preservation, holding times, sample custody control and sample custody documentation.

Analyses of the water sample resulted in no detectable concentrations of the following compounds. A copy of the September 2001 analytical report is provided as Attachment 3.

- SW-846 method 8260 priority pollutant volatile organic compounds (VOCs).
- SW-846 method 8270 priority pollutant semivolatile organic compounds (SVOCs).
- RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver).

May 2003 Pond Water Characterization

On May 22, 2003, one grab sample was collected from the pond for laboratory analyses. The grab sample was collected in clean, laboratory-supplied containers and transported to Gulf Coast Analytical Laboratories, Inc. (Baton Rouge, Louisiana), in accordance with LDEQ- and EPA-recommended practices for sample collection, preservation, holding times, sample custody control and sample custody documentation.

May 2003 analytical results for the water pond are summarized in Tables 1 through 3. A copy of the May 2003 analytical report is provided as Attachment 4. The May 2003 pond water sample was analyzed for the following analytical parameters:

- Biochemical oxygen demand (BOD)
- Total suspended solids (TSS)
- Chemical oxygen demand (COD)
- Total organic carbon (TOC)
- SW-846 method 8260 priority pollutant volatile organic compounds (VOCs).
- SW-846 method 8270 priority pollutant semivolatile organic compounds (SVOCs).
- RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver).

Concentrations of volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) were all less than the laboratory reporting limits. Concentrations of detected analytical parameters from the May 2003 sampling event are summarized in Table 1.

Additional Water Characterization

In accordance with your March 5, 2004 telephone request, a grab sample of pond water was collected today for hand-delivery to GCAL in Baton Rouge. The sample will be analyzed for pH and Oil & Grease (O&G). Results of those analyses will be forwarded under separate cover.

Request for No Objection to Discharge

As supported by the water characterization data presented herein, we respectfully ask that LDEQ issue a Letter of No Objection to discharge water from the pond to the Mermentau River. Removal of the pond water will facilitate regrading the former Oil Pit excavation so that the excavated areas will not accumulate storm water or provide an opportunity for promiscuous dumping of contaminated materials by unauthorized parties.

If you have any questions, please do not hesitate to contact us.

Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.

Robert E. Leslie, Jr., P.E.

Attachments

cc: Mr. Michael A. Chernekoff (Jones, Walker, Waechter, Poitevent, Carrere & Denegre)
Mr. Gene Keepper (RCRA Enforcement Branch, U.S. EPA Region 6)

26-01Chang030504

Table 1

Summary of Water Pit Conventional Parameters and Metals

SBA Shipyards IM/RA Activities

Jennings, Louisiana

Analytical Parameter	Analytical Method	Units	Result
Conventional Parameters			
Total Suspended Solids (TSS)	EPA 2540D	mg/L	4
Total Organic Carbon (TOC)	EPA 5310B	mg/L	25.8
5-Day Biochemical Oxygen Demand (BOD_5)	EPA 5210B	mg/L	ND (6)
Chemical Oxygen Demand (COD)	Hach 8000	mg/L	72.7
RCRA Metals			
Arsenic	EPA 6010B	mg/L	ND (0.040)
Barium	EPA 6010B	mg/L	0.22
Cadmium	EPA 6010B	mg/L	ND (0.0050)
Chromium	EPA 6010B	mg/L	ND (0.010)
Lead	EPA 6010B	mg/L	ND (0.015)
Mercury	EPA 7470A	mg/L	ND (0.00020)
Selenium	EPA 6010B	mg/L	ND (0.040)
Silver	EPA 6010B	mg/L	ND (0.010)

Table 2

Summary of Water Pit Volatile Organic Compounds

SBA Shipyards IM/RA Activities
Jennings, Louisiana

Analytical Parameter	Analytical Method	Units	Result
1,1,1,2-Tetrachloroethane	EPA SW-846 8260B	mg/L	ND (0.00500)
1,1,1-Trichloroethane	EPA SW-846 8260B	mg/L	ND (0.00500)
1,1,2,2-Tetrachloroethane	EPA SW-846 8260B	mg/L	ND (0.00500)
1,1,2-Trichloroethane	EPA SW-846 8260B	mg/L	ND (0.00500)
1,1-Dichloroethane	EPA SW-846 8260B	mg/L	ND (0.00500)
1,1-Dichloroethene	EPA SW-846 8260B	mg/L	ND (0.00500)
1,1-Dichloropropene	EPA SW-846 8260B	mg/L	ND (0.00500)
1,2,3-Trichloropropane	EPA SW-846 8260B	mg/L	ND (0.00500)
1,2,4-Trichlorobenzene	EPA SW-846 8260B	mg/L	ND (0.00500)
1,2,4-Trimethylbenzene	EPA SW-846 8260B	mg/L	ND (0.00500)
1,2-Dibromo-3-chloropropane	EPA SW-846 8260B	mg/L	ND (0.00500)
1,2-Dibromoethane	EPA SW-846 8260B	mg/L	ND (0.00500)
1,2-Dichlorobenzene	EPA SW-846 8260B	mg/L	ND (0.00500)
1,2-Dichloroethane	EPA SW-846 8260B	mg/L	ND (0.00500)
1,2-Dichloroethene (total)	EPA SW-846 8260B	mg/L	ND (0.0100)
1,2-Dichloropropane	EPA SW-846 8260B	mg/L	ND (0.00500)
1,3,5-Trimethylbenzene	EPA SW-846 8260B	mg/L	ND (0.00500)
1,3-Dichlorobenzene	EPA SW-846 8260B	mg/L	ND (0.00500)
1,3-Dichloropropane	EPA SW-846 8260B	mg/L	ND (0.00500)
1,4-Dichlorobenzene	EPA SW-846 8260B	mg/L	ND (0.00500)
2-Butanone	EPA SW-846 8260B	mg/L	ND (0.0250)
2-Chloroethylvinyl ether	EPA SW-846 8260B	mg/L	ND (0.00500)
2-Chlorotoluene	EPA SW-846 8260B	mg/L	ND (0.00500)
2-Hexanone	EPA SW-846 8260B	mg/L	ND (0.00500)
4-Chlorotoluene	EPA SW-846 8260B	mg/L	ND (0.00500)
4-Isopropyltoluene	EPA SW-846 8260B	mg/L	ND (0.00500)
4-Methyl-2-pentanone	EPA SW-846 8260B	mg/L	ND (0.00500)
Acetone	EPA SW-846 8260B	mg/L	ND (0.0250)
Acrolein	EPA SW-846 8260B	mg/L	ND (0.0250)
Acrylonitrile	EPA SW-846 8260B	mg/L	ND (0.0250)
Benzene	EPA SW-846 8260B	mg/L	ND (0.00500)
Bromobenzene	EPA SW-846 8260B	mg/L	ND (0.00500)
Bromochloromethane	EPA SW-846 8260B	mg/L	ND (0.00500)
Bromodichloromethane	EPA SW-846 8260B	mg/L	ND (0.00500)
Bromoform	EPA SW-846 8260B	mg/L	ND (0.00500)
Bromomethane	EPA SW-846 8260B	mg/L	ND (0.00500)
n-Butylbenzene	EPA SW-846 8260B	mg/L	ND (0.00500)

Table 2
(Continued)

Summary of Water Pit Volatile Organic Compounds

SBA Shipyards IM/RA Activities
Jennings, Louisiana

Analytical Parameter	Analytical Method	Units	Result
Carbon disulfide	EPA SW-846 8260B	mg/L	ND (0.00500)
Carbon tetrachloride	EPA SW-846 8260B	mg/L	ND (0.00500)
Chlorobenzene	EPA SW-846 8260B	mg/L	ND (0.00500)
Chloroethane	EPA SW-846 8260B	mg/L	ND (0.00500)
Chloroform	EPA SW-846 8260B	mg/L	ND (0.00500)
Chloroform	EPA SW-846 8260B	mg/L	ND (0.00500)
Chloromethane	EPA SW-846 8260B	mg/L	ND (0.00500)
Dibromochloromethane	EPA SW-846 8260B	mg/L	ND (0.00500)
Dibromomethane	EPA SW-846 8260B	mg/L	ND (0.00500)
Dichlorodifluoromethane	EPA SW-846 8260B	mg/L	ND (0.00500)
cis-1,3-Dichloropropene	EPA SW-846 8260B	mg/L	ND (0.00500)
trans-1,3-Dichloropropene	EPA SW-846 8260B	mg/L	ND (0.00500)
Ethylbenzene	EPA SW-846 8260B	mg/L	ND (0.00500)
Hexachlorobutadiene	EPA SW-846 8260B	mg/L	ND (0.00500)
Isopropylbenzene (Cumene)	EPA SW-846 8260B	mg/L	ND (0.00500)
Methyl iodide	EPA SW-846 8260B	mg/L	ND (0.00500)
Methylene chloride	EPA SW-846 8260B	mg/L	ND (0.0100)
Naphthalene	EPA SW-846 8260B	mg/L	ND (0.00500)
Styrene	EPA SW-846 8260B	mg/L	ND (0.00500)
Tetrachloroethene	EPA SW-846 8260B	mg/L	ND (0.00500)
Toluene	EPA SW-846 8260B	mg/L	ND (0.00500)
Trichloroethene	EPA SW-846 8260B	mg/L	ND (0.00500)
Trichlorofluoromethane	EPA SW-846 8260B	mg/L	ND (0.00500)
Trichlorotrifluoroethane	EPA SW-846 8260B	mg/L	ND (0.00500)
Vinyl acetate	EPA SW-846 8260B	mg/L	ND (0.00500)
Vinyl chloride	EPA SW-846 8260B	mg/L	ND (0.00500)
Xylene (total)	EPA SW-846 8260B	mg/L	ND (0.0100)
cis-1,2-Dichloroethene	EPA SW-846 8260B	mg/L	ND (0.00500)
m,p-Xylene	EPA SW-846 8260B	mg/L	ND (0.00500)
n-Propylbenzene	EPA SW-846 8260B	mg/L	ND (0.00500)
o-Xylene	EPA SW-846 8260B	mg/L	ND (0.00500)
sec-Butylbenzene	EPA SW-846 8260B	mg/L	ND (0.00500)
tert-Butyl methyl ether (MTBE)	EPA SW-846 8260B	mg/L	ND (0.00500)
tert-Butylbenzene	EPA SW-846 8260B	mg/L	ND (0.00500)
trans-1,2-Dichloroethene	EPA SW-846 8260B	mg/L	ND (0.00500)
trans-1,4-Dichloro-2-butene	EPA SW-846 8260B	mg/L	ND (0.00500)

Table 3

Summary of Water Pit Semivolatile Organic Compounds

SBA Shipyards IM/RA Activities
Jennings, Louisiana

Analytical Parameter	Analytical Method	Units	Result
1,2-Diphenylhydrazine	EPA SW-846 8270C	mg/L	ND (0.0101)
1,2,4-Trichlorobenzene	EPA SW-846 8270C	mg/L	ND (0.0101)
1,2-Dichlorobenzene	EPA SW-846 8270C	mg/L	ND (0.0101)
1,3-Dichlorobenzene	EPA SW-846 8270C	mg/L	ND (0.0101)
1,4-Dichlorobenzene	EPA SW-846 8270C	mg/L	ND (0.0101)
2,4,5-Trichlorophenol	EPA SW-846 8270C	mg/L	ND (0.0101)
2,4,6-Trichlorophenol	EPA SW-846 8270C	mg/L	ND (0.0101)
2,4-Dichlorophenol	EPA SW-846 8270C	mg/L	ND (0.0101)
2,4-Dinitrophenol	EPA SW-846 8270C	mg/L	ND (0.0505)
2,4-Dinitrotoluene	EPA SW-846 8270C	mg/L	ND (0.0101)
2,6-Dinitrotoluene	EPA SW-846 8270C	mg/L	ND (0.0101)
2-Chloronaphthalene	EPA SW-846 8270C	mg/L	ND (0.0101)
2-Chlorophenol	EPA SW-846 8270C	mg/L	ND (0.0101)
2-Methylnaphthalene	EPA SW-846 8270C	mg/L	ND (0.0101)
2-Nitroaniline	EPA SW-846 8270C	mg/L	ND (0.0505)
2-Nitrophenol	EPA SW-846 8270C	mg/L	ND (0.0101)
3,3'-Dichlorobenzidine	EPA SW-846 8270C	mg/L	ND (0.0202)
3-Nitroaniline	EPA SW-846 8270C	mg/L	ND (0.0505)
4,6-Dinitro-2-methylphenol	EPA SW-846 8270C	mg/L	ND (0.0505)
4-Chloro-3-methylphenol	EPA SW-846 8270C	mg/L	ND (0.0101)
4-Chloroaniline	EPA SW-846 8270C	mg/L	ND (0.0101)
4-Chlorophenyl phenyl ether	EPA SW-846 8270C	mg/L	ND (0.0101)
Acenaphthene	EPA SW-846 8270C	mg/L	ND (0.0101)
Acenaphthylene	EPA SW-846 8270C	mg/L	ND (0.0101)
Aniline	EPA SW-846 8270C	mg/L	ND (0.0101)
Anthracene	EPA SW-846 8270C	mg/L	ND (0.0101)
Benzidine	EPA SW-846 8270C	mg/L	ND (0.0101)
Benzo(a)anthracene	EPA SW-846 8270C	mg/L	ND (0.0404)
Benzo(a)pyrene	EPA SW-846 8270C	mg/L	ND (0.0101)
Benzo(b)fluoranthene	EPA SW-846 8270C	mg/L	ND (0.0101)
Benzo(g,h,i)perylene	EPA SW-846 8270C	mg/L	ND (0.0101)
Benzo(k)fluoranthene	EPA SW-846 8270C	mg/L	ND (0.0101)
Benzoic acid	EPA SW-846 8270C	mg/L	ND (0.0505)
Benzyl alcohol	EPA SW-846 8270C	mg/L	ND (0.0101)

Table 3
(Continued)

Summary of Water Pit Semivolatile Organic Compounds

SBA Shipyards IM/RA Activities
Jennings, Louisiana

Analytical Parameter	Analytical Method	Units	Result
bis(2-Chloroethoxy)methane	EPA SW-846 8270C	mg/L	ND (0.0101)
bis(2-Chloroethyl)ether	EPA SW-846 8270C	mg/L	ND (0.0101)
bis(2-Chloroisopropyl)ether	EPA SW-846 8270C	mg/L	ND (0.0101)
bis(2-Ethylhexyl)phthalate	EPA SW-846 8270C	mg/L	ND (0.0101)
4-Bromophenyl phenyl ether	EPA SW-846 8270C	mg/L	ND (0.0101)
Butyl benzyl phthalate	EPA SW-846 8270C	mg/L	ND (0.0101)
Carbazole	EPA SW-846 8270C	mg/L	ND (0.0101)
Chrysene	EPA SW-846 8270C	mg/L	ND (0.0101)
Di-n-butyl phthalate	EPA SW-846 8270C	mg/L	ND (0.0101)
Di-n-octyl phthalate	EPA SW-846 8270C	mg/L	ND (0.0101)
Dibenz(a,h)anthracene	EPA SW-846 8270C	mg/L	ND (0.0101)
Dibenzofuran	EPA SW-846 8270C	mg/L	ND (0.0101)
Diethyl phthalate	EPA SW-846 8270C	mg/L	ND (0.0101)
Dimethyl phthalate	EPA SW-846 8270C	mg/L	ND (0.0101)
2,4-Dimethylphenol	EPA SW-846 8270C	mg/L	ND (0.0101)
Fluoranthene	EPA SW-846 8270C	mg/L	ND (0.0101)
Fluorene	EPA SW-846 8270C	mg/L	ND (0.0101)
Hexachlorobenzene	EPA SW-846 8270C	mg/L	ND (0.0101)
Hexachlorobutadiene	EPA SW-846 8270C	mg/L	ND (0.0101)
Hexachlorocyclopentadiene	EPA SW-846 8270C	mg/L	ND (0.0101)
Hexachloroethane	EPA SW-846 8270C	mg/L	ND (0.0101)
Indeno(1,2,3-c,d)pyrene	EPA SW-846 8270C	mg/L	ND (0.0101)
Isophorone	EPA SW-846 8270C	mg/L	ND (0.0101)
Naphthalene	EPA SW-846 8270C	mg/L	ND (0.0101)
4-Nitroaniline	EPA SW-846 8270C	mg/L	ND (0.0505)
Nitrobenzene	EPA SW-846 8270C	mg/L	ND (0.0101)
4-Nitrophenol	EPA SW-846 8270C	mg/L	ND (0.0505)
Pentachlorophenol	EPA SW-846 8270C	mg/L	ND (0.0505)
Phenanthrene	EPA SW-846 8270C	mg/L	ND (0.0101)
Phenol	EPA SW-846 8270C	mg/L	ND (0.0101)
Pyridine	EPA SW-846 8270C	mg/L	ND (0.0101)
m,p-Cresol	EPA SW-846 8270C	mg/L	ND (0.0101)
n-Nitroso-n-dipropylamine	EPA SW-846 8270C	mg/L	ND (0.0101)
n-Nitrosodimethylamine	EPA SW-846 8270C	mg/L	ND (0.0101)
n-Nitrosodiphenylamine	EPA SW-846 8270C	mg/L	ND (0.0101)
o-Cresol	EPA SW-846 8270C	mg/L	ND (0.0101)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7567

Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Smaihall:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records. At this time I am also requesting summary information which you have developed relating to the customers of SBA. This would include but not be limited to the circa 1996 letter from your counsel of the time to SBA customers in which SBA requests funding support for remedial activities at the SBA facility from approximately twenty-two (22) current and former customers.

Should you have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael A. Chernekoff, Esq.
Michael Pisani, MP&A
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7550

SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Chernekoff:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records and the records of SSIC Remediation. As we have previously discussed, I will await a written response from your office which includes: a member listing of the Limited Liability Corporation SSIC Remediation, which includes designation of corporate representation by those members; the articles of incorporation for SSIC Remediation, L.L.C.; and the full listing of SBA Shipyards, Inc. customers, to the best of the knowledge of SSIC.

Should you or members of SSIC have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael Pisani, MP&A
Louis Smaihall, SBA
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

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EPA REGION VI

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

DEC 0 9 2002

VIA FEDERAL EXPRESS: 8220 0515 8452
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2560 7543
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h). Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the world wide web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

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The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. Work

EPA acknowledges that the work performed at this facility in accordance with this Agreement would achieve programmatic parity, avoid duplication and delay, and achieve substantive consistency between remedial programs as described in the NPL/RCRA deferral policy (54 FR 41000).

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims for the actions or matters addressed by Section 3008(h) of RCRA and memorialized in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Pamela Phillips, Acting

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

Date: 11/21/02

IT IS AGREED:

Arlen B. Cenac Jr.
Signature/Printed Name, Manager
SSIC Remediation, L.L.C.

Date: 11/14/02

Enclosure

cc: Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD
Michael Pisani, Michael Pisani and Associates

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-

Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal.

Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials.
Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).

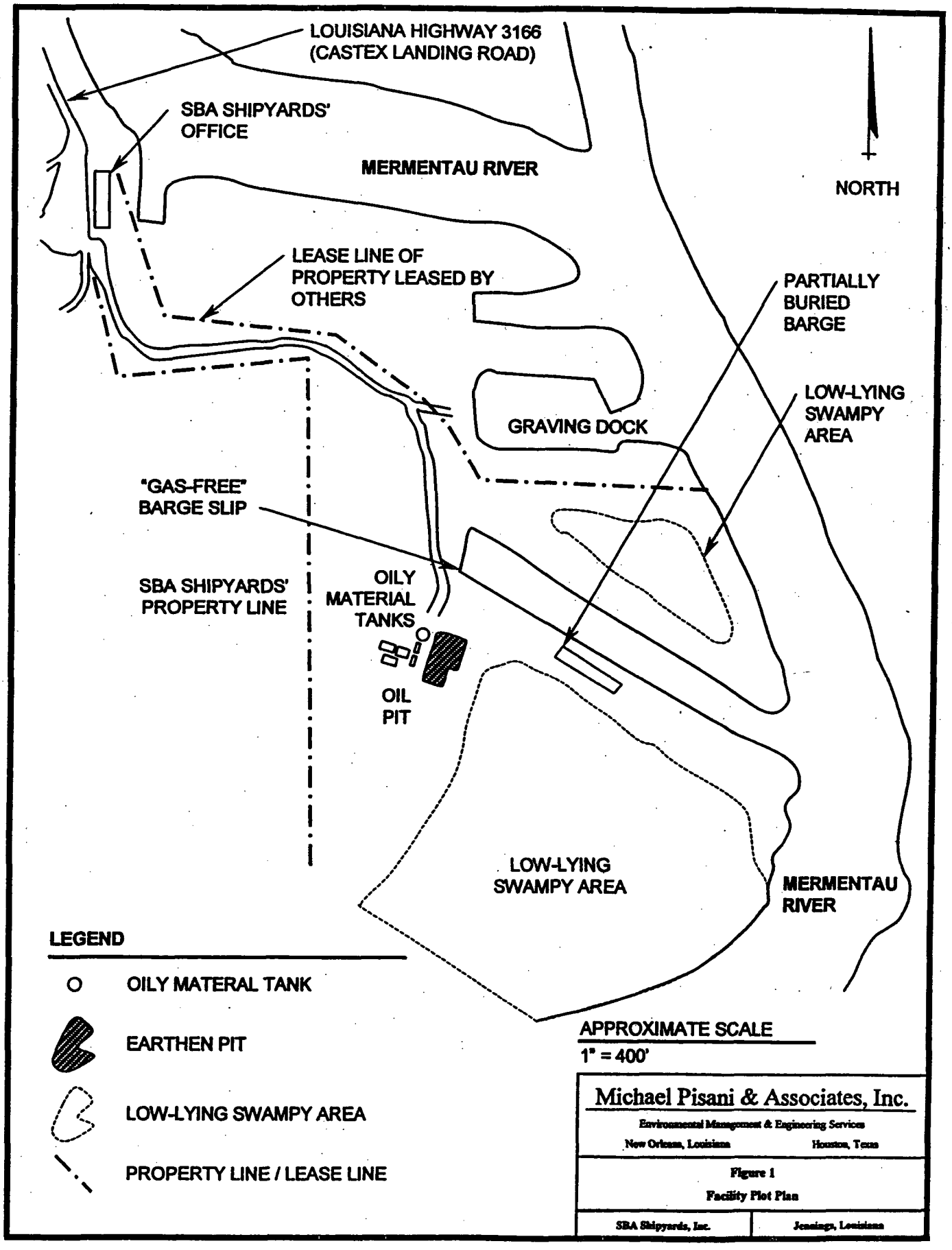

LOUISIANA HIGHWAY 3166
(CASTEX LANDING ROAD)
SBA SHIPYARDS'
OFFICE
MERMENTAU RIVER
NORTH
LEASE LINE OF
PROPERTY LEASED BY
OTHERS
PARTIALLY
BURIED
BARGE
LOW-LYING
SWAMPY
AREA
GRAVING DOCK
"GAS-FREE"
BARGE SLIP
SBA SHIPYARDS'
PROPERTY LINE
OILY
MATERIAL
TANKS
OIL
PIT
LOW-LYING
SWAMPY AREA
MERMENTAU
RIVER
LEGEND
OILY MATERAL TANK
EARTHEN PIT
LOW-LYING SWAMPY AREA
PROPERTY LINE / LEASE LINE
APPROXIMATE SCALE
1" = 400'
Michael Pisani & Associates, Inc.
Environmental Management & Engineering Services
New Orleans, Louisiana
Houston, Texas
Figure 1
Facility Plot Plan
SBA Shipyards, Inc.
Jennings, Louisiana

Table 1

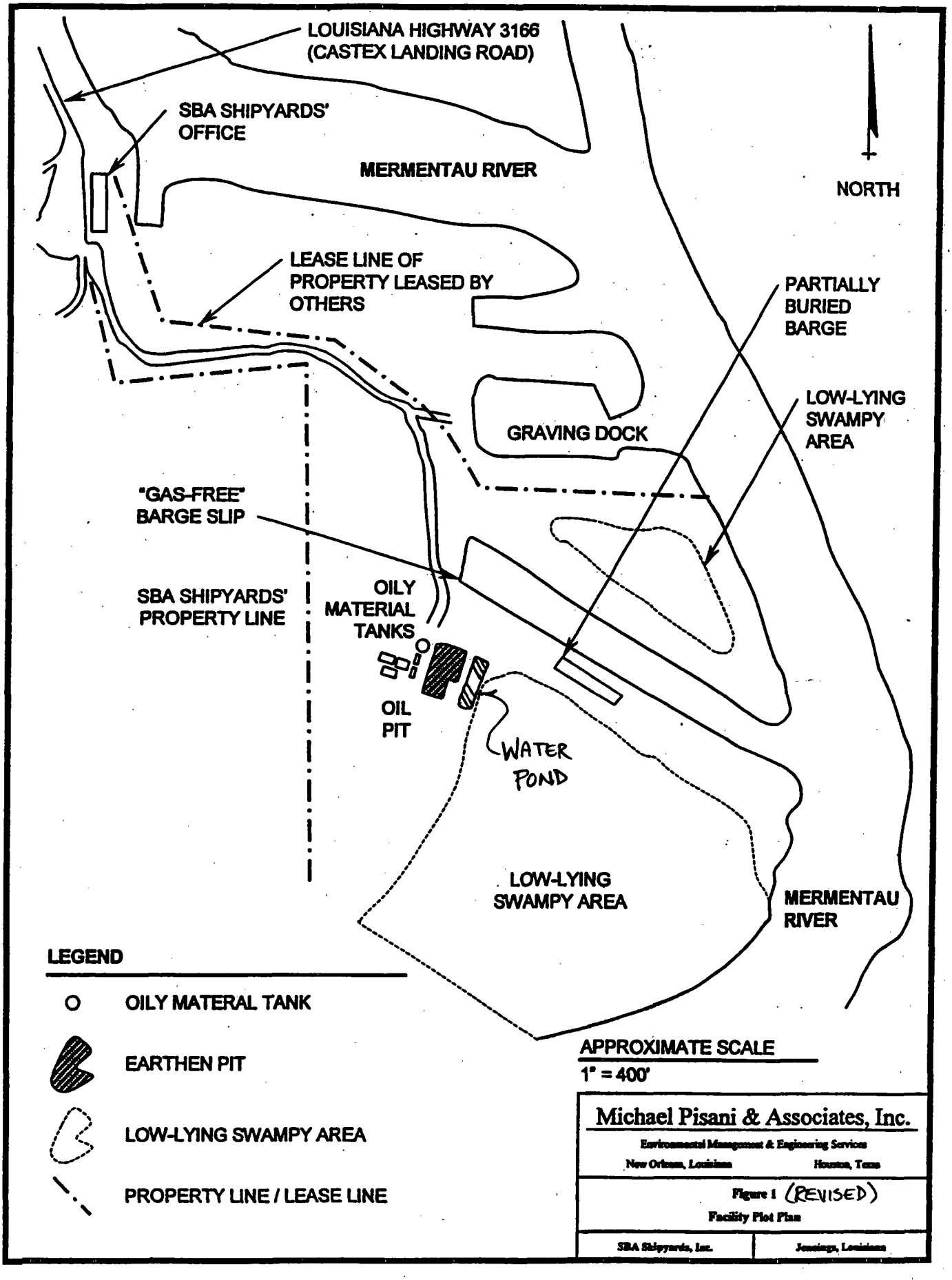
Pumpable Oily Material Inventory
May 3, 2001

SBA Shipyards, Inc.
Jennings, Louisiana

Tank or Impoundment	Estimated Maximum Capacity (gallons)	Estimated Maximum Capacity (barrels)	Observed Depth of Contents[b]	Estimated Material Inventory (gal)	Estimated Material Inventory (barrels)	Estimated Material Inventory (pounds)[a]	Visual Observations[b]
Selected Tanks							
Tank AT-1	17,042	406	52"	9,814	234	81,898	Horizontal cylindrical tank (mostly water).
Tank AT-2	17,042	406	77"	13,703	326	114,352	Horizontal cylindrical tank (2" sludge layer on bottom).
Tank WT-1	106,837	2,544	85"	88,561	2,109	739,044	Very thick oil.
Tank WT-2	111,482	2,654	70"	77,553	1,847	647,183	24" sludge layer on bottom.
Tank WT-3	109,159	2,599	93"	93,998	2,238	784,416	36" sludge layer on bottom.
Tank ST-1	420,000[c]	10,000	9' - 10"[d]	99,474	2,368	830,111	38' high vertical cylindrical tank.
Total	781,562 gallons	18,609 barrels		383,104 gallons	9,122 barrels	3,197,003 pounds	
Former Barge (OT-4)							
Bow Rake Tank	26,853	639	56"	20,862	497	174,093	Very thick oil (2" sludge layer on bottom).
Deck Tank S	Not Measured	Unknown	Empty	Negligible	Negligible	Negligible	Dry, some rust scale.
Deck Tank P	Not Measured	Unknown	6"	Negligible	Negligible	Negligible	Oil, no visible water.
Compartment 1S	75,054	1,787	118"	65,659	1,563	547,924	
Compartment 1P	75,054	1,787	119"	64,874	1,545	541,374	
Compartment 2S	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 2P	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 3S	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 3P	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 4S	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 4P	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 5S	86,908	2,069	115"	75,689	1,802	631,625	
Compartment 5P	86,908	2,069	114"	75,057	1,787	626,351	
Aft Trim Tank	18,388	438	112"	17,447	415	145,595	
Total	913,897 gallons	21,759 barrels		778,134 gallons	18,527 barrels	6,493,528 pounds	
Grand Total	1,695,459 gallons	40,368 barrels		1,161,238 gallons	27,649 barrels	9,690,531 pounds	

NOTES:

(a) Based on bulk density of 8.345 pounds/gallon.
(b) MP&A site visit (May 3, 2001).
(c) According to Mr. Louis Smalhall, the total volume is 10,000 barrels (420,000 gallons).
(d) Measurement read from permanently installed float gauge on tank.



Michael Pisani & Associates, Inc.

Environmental Management & Engineering Services

New Orleans, Louisiana Houston, Texas

Figure 1 (REVISED)

Facility Plot Plan

SBA Shipyards, Inc. Jennings, Louisiana

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St. Rose, LA 70087
Phone: 504.469.0333
Fax: 504.469.0555

October 09, 2001

Mr. Rob Leslie
Michael Pisani & Associates
1100 Poydras Street
1430 Energy Centre
New Orleans, LA 70163

RE: Lab Project Number: 208013
Client Project ID: SBA SHIPYARD WATER PIT

Dear Mr. Leslie:

Enclosed are the analytical results for sample(s) received by the laboratory on September 26, 2001. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Randy Shackelford
Project Manager

Enclosures

Report of Laboratory Analysis
Project Number: 208013

Pace Analytical Services, Inc.
1000 Riverbend Blvd, Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

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1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Client: MICHAEL PISANI & ASSOCIATES

Client ID: COMPOSITE A
Site: None
Project: SBA SHIPYARD WATER PIT
Project No.: 208013
Sample Qu:
Lab ID: 2063406
Matrix: Water
% Moisture: n/a
Description: None
Prep Level: Water
Batch: 12074
Method: SW 8260 Priority Pollutant Volatile Organics - 8260PWAT
Units: ug/l
Target List: 8260PWAT
Collected: 09/26/01
Received: 09/26/01
Prep Factor: 1
Leached: n/a
Prepared:
Analyzed: 10/05/01 14:55 KCB

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
107-02-8	Acrolein (2-Propenal)	1	ND		20.0	
107-13-1	Acrylonitrile (2-Propenenitrile)	1	ND		20.0	
71-43-2	Benzene	1	ND		5.00	
75-27-4	Bromodichloromethane	1	ND		5.00	
75-25-2	Bromoform	1	ND		5.00	
74-83-9	Bromomethane (Methyl bromide)	1	ND		10.0	
56-23-5	Carbon tetrachloride	1	ND		5.00	
108-90-7	Chlorobenzene	1	ND		5.00	
75-00-3	Chloroethane	1	ND		10.0	
110-75-8	2-Chloroethyl vinyl ether	1	ND		5.00	
67-66-3	Chloroform	1	ND		5.00	
74-87-3	Chloromethane (Methyl chloride)	1	ND		10.0	
124-48-1	Dibromochloromethane	1	ND		5.00	
75-34-3	1,1-Dichloroethane	1	ND		5.00	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		5.00	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		5.00	
540-59-0	1,2-Dichloroethene (total)	1	5.00		5.00	
78-87-5	1,2-Dichloropropane	1	ND		5.00	
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00	
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00	
100-41-4	Ethylbenzene	1	ND		5.00	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		5.00	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		5.00	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		5.00	
108-88-3	Toluene	1	ND		5.00	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		5.00	
79-00-5	1,1,2-Trichloroethane	1	ND		5.00	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		5.00	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		10.0	

29 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

10/9/01 15:00:40

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

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1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Client: MICHAEL PISANI & ASSOCIATES

Client ID: COMPOSITE A
Site: None
Project: SBA SHIPYARD WATER PIT
Project No.: 208013
Sample Qu:
Lab ID: 2063406
Matrix: Water
% Moisture: n/a
Description: None
Prep Level: Water
Batch: 11620
Method: SW 8270 Priority Pollutant Semivolatile Organics - 8270PWAT
Units: ug/l
Target List: 8270PWAT
Collected: 09/26/01
Received: 09/26/01
Prep Factor: 1
Leached: n/a
Prepared: 10/02/01
Analyzed: 10/04/01 19:36 AKE

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
83-32-9	Acenaphthene	1	ND		10.0	
208-96-8	Acenaphthylene	1	ND		10.0	
120-12-7	Anthracene	1	ND		10.0	
92-87-5	Benzidine	1	ND	A5	30.0	
56-55-3	Benzo(a)anthracene	1	ND		10.0	
205-99-2	Benzo(b)fluoranthene	1	ND		10.0	
207-08-9	Benzo(k)fluoranthene	1	ND		10.0	
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0	
50-32-8	Benzo(a)pyrene	1	ND		10.0	
101-55-3	4-Bromophenyl-phenylether	1	ND		10.0	
85-68-7	Butylbenzylphthalate	1	ND		10.0	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0	
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0	
108-60-1	2,2'-oxybis(1-Chloropropane)	1	ND		10.0	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		10.0	
91-58-7	2-Chloronaphthalene	1	ND		10.0	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		10.0	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		10.0	
218-01-9	Chrysene	1	ND		10.0	
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0	
84-74-2	Di-n-butylphthalate	1	ND		10.0	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		10.0	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		10.0	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		10.0	
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0	
120-83-2	2,4-Dichlorophenol	1	ND		10.0	
84-66-2	Diethylphthalate	1	ND		10.0	
105-67-9	2,4-Dimethylphenol	1	ND		10.0	
131-11-3	Dimethylphthalate	1	ND		10.0	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		25.0	
51-28-5	2,4-Dinitrophenol	1	ND		25.0	
121-14-2	2,4-Dinitrotoluene	1	ND		10.0	
606-20-2	2,6-Dinitrotoluene	1	ND		10.0	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

10/9/01 15:00:41

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

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1000 Riverbend Blvd, Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Client: MICHAEL PISANI & ASSOCIATES

Client ID: COMPOSITE A
Site: None
Project: SBA SHIPYARD WATER PIT
Project No.: 208013
Sample Qu:
Lab ID: 2063406
Matrix: Water
% Moisture: n/a
Description: None
Prep Level: Water
Batch: 11620
Method: SW 8270 Priority Pollutant Semivolatile Organics - 8270PWAT
Units: ug/l
Target List: 8270PWAT
Collected: 09/26/01
Received: 09/26/01
Prep Factor: 1
Leached: n/a
Prepared: 10/02/01
Analyzed: 10/04/01 19:36 AKE

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
117-84-0	Di-n-octylphthalate	1	ND		10.0	
122-66-7	1,2-Diphenylhydrazine (as azobenzene)	1	ND		10.0	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0	
206-44-0	Fluoranthene	1	ND		10.0	
86-73-7	Fluorene	1	ND		10.0	
118-74-1	Hexachlorobenzene	1	ND		10.0	
87-68-3	Hexachlorobutadiene	1	ND		10.0	
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0	
67-72-1	Hexachloroethane	1	ND		10.0	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0	
78-59-1	Isophorone	1	ND		10.0	
91-20-3	Naphthalene	1	ND		10.0	
98-95-3	Nitrobenzene	1	ND		10.0	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		10.0	
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		25.0	
62-75-9	N-Nitrosodimethylamine	1	ND		10.0	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	10.0	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0	
87-86-5	Pentachlorophenol	1	ND		25.0	
85-01-8	Phenanthrene	1	ND		10.0	
108-95-2	Phenol	1	ND		10.0	
129-00-0	Pyrene	1	ND		10.0	
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0	
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0	

57 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

10/9/01 15:00:42

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

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1000 Riverbend Blvd, Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Client ID: COMPOSITE A
Client: MICHAEL PISANI & ASSOCIATES
Project: SBA SHIPYARD WATER PIT
Site: None
Lab ID: 2063406
Project No.: 208013
Description: None
Matrix: Water
%Moisture: n/a
Collected: 09/26/01
Received: 09/26/01

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis		Reg. Limit
Arsenic	SW 6010	12236	1	ND		ug/l	10.0	02-Oct-01	03-Oct-01 20:38	KJR	
Barium	SW 6010	12236	1	ND		ug/l	200.	02-Oct-01	03-Oct-01 20:38	KJR	
Cadmium	SW 6010	12236	1	ND		ug/l	5.00	02-Oct-01	03-Oct-01 20:38	KJR	
Chromium	SW 6010	12236	1	ND		ug/l	10.0	02-Oct-01	03-Oct-01 20:38	KJR	
Lead	SW 6010	12236	1	ND		ug/l	3.00	02-Oct-01	03-Oct-01 20:38	KJR	
Mercury	SW 7470	12278	1	ND		ug/l	0.200	05-Oct-01	05-Oct-01 13:15	KJR	
Selenium	SW 6010	12236	1	ND		ug/l	5.00	02-Oct-01	03-Oct-01 20:38	KJR	
Silver	SW 6010	12236	1	ND		ug/l	10.0	02-Oct-01	03-Oct-01 20:38	KJR	

8 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for ignitibility.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
(1c) Reactive cyanide above 250 ppm is hazardous for reactivity.
(1d) Reactive sulfide above 500 ppm is hazardous for reactivity.
Ethylene is a common synonym for the IUPAC standard ethene in all compounds with this functional group.
methyl ethyl keytone is a synonym for 2-butanone
o,m,p-cresol are synonyms for 2,3,4-methylphenol, respectively.
Hexachlorobutadiene is hexachloro-1,3-butadiene

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

Pace Analytical Services, Inc. - New Orleans
Laboratory Quality Control Definitions

Our laboratory employs quality control (QC) measures to ensure the quality of our analytical data by defining its accuracy and precision. Presentation of the QC data with the report allows the data user the opportunity to evaluate those results and to gauge the method performance. In order to assist the understanding of these data, routine components of our QC program are defined below.

BATCH - A batch is a group of 20 samples or less of a given matrix and analysis by a specific protocol or analytical method.

BLANK - A method blank is a "clean" laboratory sample carried through the entire analytical process. One or more method blanks are prepared with each batch of samples. The analysis of method blanks demonstrates that method interferences caused by contaminants, reagents and glassware are known and minimized. A method blank should not contain any analytes of interest above the reporting limit. There are method allowances for common laboratory artifacts such as methylene chloride, acetone, and bis-2-ethylhexyl phthalate.

LABORATORY CONTROL SPIKE - A laboratory control spike (LCS or blank spike) is a blank which has been spiked with known concentrations of target analytes. The LCS is carried through the entire analytical process. One or more LCS are prepared with each batch of samples. The percent recovery of the spiked analytes provides a measure of the accuracy of the analytical process in the absence of matrix effects.

MATRIX SPIKE - A matrix spike (MS) is a client sample which is spiked with known concentrations of target analytes. The MS is carried through the entire analytical process. One or more matrix spikes are prepared with every batch of samples. For organic methods, a matrix spike duplicate (MSD) is also prepared. The percent recovery of the spiked analytes provides a measure of the method accuracy in the selected sample and matrix.

DUPLICATE - A duplicate is a sample for which replicate aliquots are carried through the entire analytical process. Comparison of the original results to those of the duplicate results provides a measure of the method precision in the sample and matrix. By convention, precision is measured for inorganic analyses using a sample and a sample duplicate, whereas for organics analyses, an MS/MSD are used.

SURROGATE - A surrogate is a non-target analyte which is added to all samples and QC samples prior to extraction or analysis. The percent recovery of the surrogate provides a measure of the method accuracy in each sample tested. Surrogates are used for organics methods only.

QC LIMITS - QC limits specify the expected percent recovery range for a spiked compound. QC limits may be set by method criteria or calculated from laboratory generated data. For many methods, these limits are advisory and do not require corrective action if exceeded.

Pace Analytical™
New Orleans Laboratory

Report of Quality Control

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Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
Acetone (2-Propanone, Dimethyl keto	100.00	106			50.00					10 - 164	1 - 179	25	
Acrolein (2-Propenal)	200.00	119			100.00					0 - 200	0 - 200	25	
Acetone (2-Propanone, Dimethyl keto	100.00	80			50.00					10 - 164	1 - 179	25	
Acetone (2-Propanone, Dimethyl keto	100.00	99			100.00	73	73	0		10 - 164	1 - 179	25	
Acetone (2-Propanone, Dimethyl keto	100.00	157			50.00					10 - 164	1 - 179	25	
Acetone (2-Propanone, Dimethyl keto	100.00	157			50.00					10 - 164	1 - 179	25	
Acetonitrile (Methyl cyanide)	1000.00	84			500.00					50 - 150	50 - 150	25	
Acrylonitrile (2-Propenenitrile)	200.00	93			100.00					18 - 160	2 - 200	25	
Benzene	50.00	94			50.00					69 - 130	60 - 139	25	
Benzene	50.00	98			50.00					69 - 130	60 - 139	25	
Benzene	50.00	100			50.00	105	106	0		69 - 130	60 - 139	25	
Benzene	50.00	107			50.00					69 - 130	60 - 139	25	
Acrolein (2-Propenal)	200.00	154			100.00					0 - 200	0 - 200	25	
Benzene	50.00	96			50.00					69 - 130	60 - 139	25	
Bromodichloromethane	50.00	87			50.00					64 - 136	63 - 141	25	
Bromodichloromethane	50.00	105			50.00	105	105	0		64 - 136	63 - 141	25	
Bromodichloromethane	50.00	110			50.00					64 - 136	63 - 141	25	
Bromodichloromethane	50.00	125			50.00					64 - 136	63 - 141	25	
Acrylonitrile (2-Propenenitrile)	200.00	102			100.00					18 - 160	2 - 200	25	
Bromodichloromethane	50.00	112			50.00					64 - 136	63 - 141	25	
Bromoform	50.00	100			50.00					53 - 147	45 - 153	25	
Bromoform	50.00	129			50.00					53 - 147	45 - 153	25	
Bromoform	50.00	106			50.00	106	104	2		53 - 147	45 - 153	25	
Bromoform	50.00	115			50.00					53 - 147	45 - 153	25	
Allyl chloride (3-Chloropropene)	200.00	54			50.00					50 - 150	50 - 150	25	
Bromoform	50.00	114			50.00					53 - 147	45 - 153	25	
Bromomethane (Methyl bromide)	50.00	95			50.00					39 - 159	41 - 157	25	
Bromomethane (Methyl bromide)	50.00	110			50.00	114	114	0		39 - 159	41 - 157	25	
Bromomethane (Methyl bromide)	50.00	108			50.00					39 - 159	41 - 157	25	
Bromomethane (Methyl bromide)	50.00	112			50.00					39 - 159	41 - 157	25	
Benzene	50.00	95			50.00					69 - 130	60 - 139	25	
Bromomethane (Methyl bromide)	50.00	106			50.00					39 - 159	41 - 157	25	
2-Butanone (Methyl ethyl ketone)	100.00	95			50.00					17 - 159	1 - 178	25	
2-Butanone (Methyl ethyl ketone)	100.00	119			50.00					17 - 159	1 - 178	25	
2-Butanone (Methyl ethyl ketone)	100.00	101			50.00					17 - 159	1 - 178	25	
2-Butanone (Methyl ethyl ketone)	100.00	92			100.00	94	92	1		17 - 159	1 - 178	25	
Bromodichloromethane	50.00	111			50.00					64 - 136	63 - 141	25	
Carbon tetrachloride	50.00	125			50.00					60 - 152	55 - 164	25	
Carbon disulfide	50.00	97			50.00					49 - 137	42 - 146	25	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

10/9/01 15:00:44

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELW/HW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

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Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
Carbon disulfide	50.00	100			50.00					49 - 137	42 - 146	25	
Carbon disulfide	50.00	102			50.00	106	108	2		49 - 137	42 - 146	25	
Carbon disulfide	50.00	66			50.00					49 - 137	42 - 146	25	
Bromoform	50.00	115			50.00					53 - 147	45 - 153	25	
Chlorobenzene	50.00	107			50.00					72 - 125	71 - 131	25	
Carbon tetrachloride	50.00	82			50.00					60 - 152	55 - 164	25	
Carbon tetrachloride	50.00	113			50.00	111	112	1		60 - 152	55 - 164	25	
Carbon tetrachloride	50.00	119			50.00					60 - 152	55 - 164	25	
Carbon tetrachloride	50.00	123			50.00					60 - 152	55 - 164	25	
Bromomethane (Methyl bromide)	50.00	111			50.00					39 - 159	41 - 157	25	
Chloroethane	50.00	107			50.00					37 - 161	39 - 162	25	
Chlorobenzene	50.00	95			50.00					72 - 125	71 - 131	25	
Chlorobenzene	50.00	104			50.00	103	103	0		72 - 125	71 - 131	25	
Chlorobenzene	50.00	105			50.00					72 - 125	71 - 131	25	
Chlorobenzene	50.00	121			50.00					72 - 125	71 - 131	25	
2-Butanone (Methyl ethyl ketone)	100.00	87			50.00					17 - 159	1 - 178	25	
Chloroethane	50.00	93			50.00					37 - 161	39 - 162	25	
Chloroethane	50.00	107			50.00					37 - 161	39 - 162	25	
Chloroethane	50.00	111			50.00	119	117	1		37 - 161	39 - 162	25	
Chloroethane	50.00	100			50.00					37 - 161	39 - 162	25	
Carbon disulfide	50.00	99			50.00					49 - 137	42 - 146	25	
Chloroform	50.00	100			50.00					69 - 127	64 - 135	25	
Chloroform	50.00	95			50.00					69 - 127	64 - 135	25	
Chloroform	50.00	103			50.00	103	104	1		69 - 127	64 - 135	25	
Chloroform	50.00	102			50.00					69 - 127	64 - 135	25	
Chloroform	50.00	114			50.00					69 - 127	64 - 135	25	
Carbon tetrachloride	50.00	123			50.00					60 - 152	55 - 164	25	
Chloromethane (Methyl chloride)	50.00	101			50.00					18 - 168	14 - 178	25	
Chloromethane (Methyl chloride)	50.00	91			50.00					18 - 168	14 - 178	25	
Chloromethane (Methyl chloride)	50.00	106			50.00					18 - 168	14 - 178	25	
Chloromethane (Methyl chloride)	50.00	113			50.00	120	116	3		18 - 168	14 - 178	25	
Chloromethane (Methyl chloride)	50.00	106			50.00					18 - 168	14 - 178	25	
Chlorobenzene	50.00	103			50.00					72 - 125	71 - 131	25	
Dibromochloromethane	50.00	109			50.00					64 - 135	59 - 140	25	
Dibromochloromethane	50.00	93			50.00					64 - 135	59 - 140	25	
Dibromochloromethane	50.00	104			50.00	103	102	1		64 - 135	59 - 140	25	
Dibromochloromethane	50.00	109			50.00					64 - 135	59 - 140	25	
Dibromochloromethane	50.00	125			50.00					64 - 135	59 - 140	25	
Chloroethane	50.00	114			50.00					37 - 161	39 - 162	25	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
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Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
1,1-Dichloroethane	50.00	101			50.00					64 - 132	64 - 137	25	
1,1-Dichloroethane	50.00	96			50.00					64 - 132	64 - 137	25	
1,2-Dibromo-3-chloropropane (DBCP)	50.00	101			50.00					50 - 150	50 - 150	25	
1,2-Dibromo-3-chloropropane (DBCP)	50.00	97			50.00	102	99	3		50 - 150	50 - 150	25	
1,2-Dibromo-3-chloropropane (DBCP)	50.00	120			50.00					50 - 150	50 - 150	25	
Chloroform	50.00	100			50.00					69 - 127	64 - 135	25	
1,2-Dichloroethane (Ethylene dichlori	50.00	118			50.00					57 - 148	54 - 152	25	
1,2-Dichloroethane (Ethylene dichlori	50.00	83			50.00					57 - 148	54 - 152	25	
1,1-Dichloroethane	50.00	105			50.00					64 - 132	64 - 137	25	
1,1-Dichloroethane	50.00	102			50.00					64 - 132	64 - 137	25	
1,1-Dichloroethane	50.00	102			50.00	104	105	1		64 - 132	64 - 137	25	
Chloromethane (Methyl chloride)	50.00	108			50.00					18 - 168	14 - 178	25	
1,1-Dichloroethene (Dichloroethylene)	50.00	112			50.00					57 - 146	54 - 151	25	
1,1-Dichloroethene (Dichloroethylene)	50.00	101			50.00					57 - 146	54 - 151	25	
1,2-Dichloroethane (Ethylene dichlori	50.00	129			50.00					57 - 148	54 - 152	25	
1,2-Dichloroethane (Ethylene dichlori	50.00	120			50.00					57 - 148	54 - 152	25	
1,2-Dichloroethane (Ethylene dichlori	50.00	109			50.00	111	111	0		57 - 148	54 - 152	25	
1,2-Dichloroethene (total)	100.00	100			100.00					67 - 131	63 - 138	25	
1,2-Dichloropropane	50.00	95			50.00					63 - 132	64 - 135	25	
1,1-Dichloroethene (Dichloroethylene)	50.00	115			50.00	118	119	1		57 - 146	54 - 151	25	
1,1-Dichloroethene (Dichloroethylene)	50.00	113			50.00					57 - 146	54 - 151	25	
1,1-Dichloroethene (Dichloroethylene)	50.00	84			50.00					57 - 146	54 - 151	25	
Dibromochloromethane	50.00	105			50.00					64 - 135	59 - 140	25	
1,2-Dichloropropane	50.00	91			50.00					63 - 132	64 - 135	25	
cis-1,3-Dichloropropene	50.00	93			50.00					60 - 132	60 - 134	25	
cis-1,2-Dichloroethene	50.00	99			50.00	101	105	3		50 - 150	50 - 150	50	
cis-1,2-Dichloroethene	50.00	94			50.00					50 - 150	50 - 150	50	
cis-1,2-Dichloroethene	50.00	104			50.00					50 - 150	50 - 150	50	
1,2-Dibromo-3-chloropropane (DBCP)	50.00	95			50.00					50 - 150	50 - 150	25	
cis-1,3-Dichloropropene	50.00	102			50.00					60 - 132	60 - 134	25	
trans-1,3-Dichloropropene	50.00	93			50.00					51 - 136	48 - 141	25	
trans-1,2-Dichloroethene	50.00	108			50.00	111	114	2		56 - 147	71 - 137	25	
trans-1,2-Dichloroethene	50.00	106			50.00					56 - 147	71 - 137	25	
trans-1,2-Dichloroethene	50.00	99			50.00					56 - 147	71 - 137	25	
1,2-Dibromoethane (Ethylene dibromi	50.00	104			50.00					57 - 156	61 - 143	25	
trans-1,3-Dichloropropene	50.00	108			50.00					51 - 136	48 - 141	25	
Ethylbenzene	50.00	96			50.00					66 - 127	64 - 132	25	
1,2-Dichloropropane	50.00	110			50.00					63 - 132	60 - 135	25	
1,2-Dichloropropane	50.00	97			50.00					63 - 132	60 - 135	25	

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Project No.: 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
1,2-Dichloropropane	50.00	94			50.00	95	95	0		63 - 132	60 - 135	25	
Dibromomethane (Methylene bromide	50.00	101			50.00					50 - 150	50 - 150	25	
Ethylbenzene	50.00	113			50.00					66 - 127	64 - 132	25	
2-Hexanone	100.00	92			50.00					27 - 157	11 - 175	25	
cis-1,3-Dichloropropene	50.00	118			50.00					60 - 132	60 - 134	25	
cis-1,3-Dichloropropene	50.00	106			50.00					60 - 132	60 - 134	25	
cis-1,3-Dichloropropene	50.00	103			50.00	103	103	1		60 - 132	60 - 134	25	
trans-1,4-Dichloro-2-butene	50.00	117			50.00					50 - 150	50 - 150	25	
Methylene chloride (Dichloromethane)	50.00	86			50.00					23 - 157	23 - 146	25	
Methylene chloride (Dichloromethane)	50.00	58			50.00					23 - 157	23 - 146	25	
trans-1,3-Dichloropropene	50.00	107			50.00	107	106	1		51 - 136	48 - 141	25	
trans-1,3-Dichloropropene	50.00	112			50.00					51 - 136	48 - 141	25	
trans-1,3-Dichloropropene	50.00	125			50.00					51 - 136	48 - 141	25	
1,1,2,2-Tetrachloroethane	50.00	90			50.00					47 - 145	39 - 153	25	
4-Methyl-2-pentanone (MIBK)	100.00	99			50.00					1 - 172	1 - 162	25	
Ethylbenzene	50.00	106			50.00					66 - 127	64 - 132	25	
Ethylbenzene	50.00	106			50.00	105	106	0		66 - 127	64 - 132	25	
Ethylbenzene	50.00	120			50.00					66 - 127	64 - 132	25	
1,1-Dichloroethane	50.00	102			50.00					64 - 132	64 - 137	25	
Tetrachloroethene (Perchloroethylene)	50.00	104			50.00					52 - 136	51 - 137	25	
Styrene	50.00	99			50.00					69 - 126	59 - 136	25	
1,2-Dichloroethane (Ethylene dichlori	50.00	119			50.00					57 - 148	54 - 152	25	
Toluene	50.00	99			50.00					72 - 129	70 - 132	25	
1,1,2,2-Tetrachloroethane	50.00	94			50.00					47 - 145	39 - 153	25	
Methylene chloride (Dichloromethane)	50.00	85			50.00					23 - 157	23 - 146	25	
Methylene chloride (Dichloromethane)	50.00	87			50.00	72	73	1		23 - 157	23 - 146	25	
Methylene chloride (Dichloromethane)	50.00	98			50.00					23 - 157	23 - 146	25	
1,1-Dichloroethene (Dichloroethylene)	50.00	114			50.00					57 - 146	54 - 151	25	
1,1,1-Trichloroethane (Methyl chlorof	50.00	106			50.00					70 - 132	68 - 137	25	
Tetrachloroethene (Perchloroethylene)	50.00	99			50.00					52 - 136	51 - 137	25	
4-Methyl-2-pentanone (MIBK)	100.00	94			100.00	43	42	1		1 - 172	1 - 162	25	
4-Methyl-2-pentanone (MIBK)	100.00	113			50.00					1 - 172	1 - 162	25	
4-Methyl-2-pentanone (MIBK)	100.00	103			50.00					1 - 172	1 - 162	25	
trans-1,2-Dichloroethene	50.00	111			50.00					56 - 147	71 - 137	25	
1,1,2-Trichloroethane	50.00	99			50.00					63 - 135	55 - 142	25	
Toluene	50.00	93			50.00					72 - 129	70 - 132	25	
2-Methyl-1-propanol (iso-Butyl alcoho	2500.00	93			1000.00					50 - 150	50 - 150	25	
2-Methyl-1-propanol (iso-Butyl alcoho	2500.00	84			2500.00	88	88	0		50 - 150	50 - 150	25	
2-Methyl-1-propanol (iso-Butyl alcoho	2500.00	101			1000.00					50 - 150	50 - 150	25	

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Project No.: 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
1,2-Dichloropropane	50.00	89			50.00					63 - 132	64 - 135	25	
Trichloroethene (Trichloroethylene)	50.00	101			50.00					63 - 131	59 - 137	25	
1,1,1-Trichloroethane (Methyl chlorof	50.00	92			50.00					70 - 132	68 - 137	25	
Styrene	50.00	107			50.00	106	107	1		69 - 126	59 - 136	25	
Styrene	50.00	107			50.00					69 - 126	59 - 136	25	
Styrene	50.00	125			50.00					69 - 126	59 - 136	25	
cis-1,3-Dichloropropene	50.00	102			50.00					60 - 132	60 - 134	25	
Vinyl chloride (Chloroethene)	50.00	100			50.00					28 - 164	24 - 171	25	
1,1,2-Trichloroethane	50.00	101			50.00					63 - 135	55 - 142	25	
1,1,1,2-Tetrachloroethane	50.00	109			50.00	108	107	0		50 - 150	50 - 150	25	
1,1,1,2-Tetrachloroethane	50.00	129			50.00					50 - 150	50 - 150	25	
1,1,1,2-Tetrachloroethane	50.00	111			50.00					50 - 150	50 - 150	25	
trans-1,3-Dichloropropene	50.00	111			50.00					51 - 136	48 - 141	25	
Trichloroethene (Trichloroethylene)	50.00	95			50.00					63 - 131	59 - 137	25	
1,1,2,2-Tetrachloroethane	50.00	94			50.00	98	97	1		47 - 145	39 - 153	25	
1,1,2,2-Tetrachloroethane	50.00	113			50.00					47 - 145	39 - 153	25	
1,1,2,2-Tetrachloroethane	50.00	95			50.00					47 - 145	39 - 153	25	
Vinyl chloride (Chloroethene)	50.00	94			50.00					28 - 164	24 - 171	25	
Tetrachloroethene (Perchloroethylene)	50.00	102			50.00					52 - 136	51 - 137	25	
Tetrachloroethene (Perchloroethylene)	50.00	119			50.00					52 - 136	51 - 137	25	
Tetrachloroethene (Perchloroethylene)	50.00	99			50.00	94	95	1		52 - 136	51 - 137	25	
Ethylbenzene	50.00	105			50.00					66 - 127	64 - 132	25	
m-p-Xylene	100.00	97			100.00					50 - 150	50 - 150	25	
Toluene	50.00	102			50.00	102	102	1		72 - 129	70 - 132	25	
Toluene	50.00	103			50.00					72 - 129	70 - 132	25	
Toluene	50.00	115			50.00					72 - 129	70 - 132	25	
2-Hexanone	100.00	96			50.00					27 - 157	11 - 175	25	
o-Xylene	50.00	97			50.00					50 - 150	50 - 150	25	
Iodomethane (Methyl iodide)	50.00	111			50.00					50 - 150	50 - 150	25	
trans-1,2-Dichloroethene	50.00	99			50.00					56 - 147	71 - 137	25	
1,1,1-Trichloroethane (Methyl chlorof	50.00	107			50.00					70 - 132	68 - 137	25	
1,1,1-Trichloroethane (Methyl chlorof	50.00	110			50.00	108	109	1		70 - 132	68 - 137	25	
1,1,1-Trichloroethane (Methyl chlorof	50.00	114			50.00					70 - 132	68 - 137	25	
Methacrylonitrile	1000.00	86			50.00					50 - 150	50 - 150	25	
1,1,2-Trichloroethane	50.00	119			50.00					63 - 135	55 - 142	25	
1,1,2-Trichloroethane	50.00	107			50.00					63 - 135	55 - 142	25	
1,1,2-Trichloroethane	50.00	100			50.00	101	101	0		63 - 135	55 - 142	25	
Methylene chloride (Dichloromethane)	50.00	88			50.00					23 - 157	23 - 146	25	
Trichloroethene (Trichloroethylene)	50.00	111			50.00					63 - 131	59 - 137	25	

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Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
Trichloroethene (Trichloroethylene)	50.00	100			50.00					63 - 131	59 - 137	25	
Trichloroethene (Trichloroethylene)	50.00	101			50.00	99	100	1		63 - 131	59 - 137	25	
4-Methyl-2-pentanone (MIBK)	100.00	93			50.00					1 - 172	1 - 162	25	
Trichlorofluoromethane (Freon 11)	50.00	113			50.00					52 - 152	54 - 148	25	
Trichlorofluoromethane (Freon 11)	50.00	112			50.00	111	109	2		52 - 152	54 - 148	25	
Trichlorofluoromethane (Freon 11)	50.00	116			50.00					52 - 152	54 - 148	25	
2-Methyl-1-propanol (iso-Butyl alcoho	2500.00	80			1000.00					50 - 150	50 - 150	25	
Vinyl chloride (Chloroethene)	50.00	104			50.00					28 - 164	24 - 171	25	
Vinyl chloride (Chloroethene)	50.00	109			50.00	114	113	1		28 - 164	24 - 171	25	
Vinyl chloride (Chloroethene)	50.00	103			50.00					28 - 164	24 - 171	25	
Propionitrile (Ethyl cyanide)	250.00	67			50.00					50 - 150	50 - 150	25	
m-p-Xylene	100.00	110			100.00					50 - 150	50 - 150	25	
m-p-Xylene	100.00	108			100.00	107	107	0		50 - 150	50 - 150	25	
m-p-Xylene	100.00	125			100.00					50 - 150	50 - 150	25	
Styrene	50.00	102			50.00					69 - 126	59 - 136	25	
o-Xylene	50.00	106			50.00					50 - 150	50 - 150	25	
o-Xylene	50.00	106			50.00	106	107	1		50 - 150	50 - 150	25	
o-Xylene	50.00	123			50.00					50 - 150	50 - 150	25	
1,1,1,2-Tetrachloroethane	50.00	112			50.00					50 - 150	50 - 150	25	
1,1,2,2-Tetrachloroethane	50.00	89			50.00					47 - 145	39 - 153	25	
Tetrachloroethene (Perchloroethylene)	50.00	101			50.00					52 - 136	51 - 137	25	
Toluene	50.00	98			50.00					72 - 129	70 - 132	25	
1,1,1-Trichloroethane (Methyl chlorof	50.00	105			50.00					70 - 132	68 - 137	25	
1,1,2-Trichloroethane	50.00	103			50.00					63 - 135	55 - 142	25	
Trichloroethene (Trichloroethylene)	50.00	101			50.00					63 - 131	59 - 137	25	
Trichlorofluoromethane (Freon 11)	50.00	118			50.00					52 - 152	54 - 148	25	
1,2,3-Trichloropropane	50.00	109			50.00					50 - 150	50 - 150	25	
Vinyl acetate	50.00	105			50.00					50 - 150	50 - 150	25	
Vinyl chloride (Chloroethene)	50.00	103			50.00					28 - 164	24 - 171	25	

224 compound(s) reported

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

10/9/01 15:00:47

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

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Report of Batch Surrogate Recovery

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Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Method: Water GC/MS Volatile Organics

Report: 208013

Batch: 12074

Lab ID		Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
12074B1A02	BLANK	99	104	104					
12074B1A03	BLANK	100	100	103					
12074B1K04	BLANK	86	85	87					
12074B1K05	BLANK	85	85	86					
12074B1K24	BLANK	89	84	85					
12074B1K25	BLANK	90	83	88					
12074B1K26	BLANK	89	81	89					
12074B1K27	BLANK	89	83	89					
12074MS	MS	90	82	90					
12074MSD	MSD	88	81	89					
12074SA03	LCS	104	97	103					
12074SK04	LCS	88	81	85					
12074SK27	LCS	90	80	86					
2062425		106	104	111					
2062425DL		104	109	118					
2062426		107	101	113					
2062426DL		103	112	118					
2062427		99	105	104					
2062427DL		101	103	110					
2062428		100	106	101					
2062797		89	83	87					
2062798		90	82	86					
2062799		90	82	88					
2062800		89	82	85					
2062801		89	83	86					
2062849		89	82	87					
2062850		91	79	86					
2062850DL		90	85	85					
2062950		88	81	85					
2062951		91	80	84					
2063068		87	82	83					
2063406		85	85	82					
QC limits:		82-113	79-122	72-124					

Sur 1: Toluene-d8 (S)
Sur 2: 4-Bromofluorobenzene (S)
Sur 3: Dibromofluoromethane (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

10/9/01 15:00:52

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
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Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12074B1A02
Description: Water Method Blank **Project No.:** 208013
Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 03-Oct-01 06:11 ACA

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		10.0
107-05-1	Allyl chloride (3-Chloropropene)	1	ND		5.00
110-82-7	Cyclohexane	1	ND		5.00
6863-58-7	sec-Butyl ether	1	ND		5.00
67-63-0	2-Propanol (iso-Propyl alcohol)	1	ND		100.
106-89-8	Epichlorohydrin (1-Chloro-2,3-epoxy	1	ND		100.
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.0
108-88-3	Toluene	1	ND		5.00
1330-20-7	m-p-Xylene	1	ND		5.00
95-47-6	o-Xylene	1	ND		5.00

12 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/9/01 15:00:56

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000008
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/EL/WHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

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Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12074B1A03

Description: Water Method Blank **Project No.:** 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 03-Oct-01 17:20 ACA

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		10.0
107-05-1	Allyl chloride (3-Chloropropene)	1	ND		5.00
110-82-7	Cyclohexane	1	ND		5.00
6863-58-7	sec-Butyl ether	1	ND		5.00
67-63-0	2-Propanol (iso-Propyl alcohol)	1	ND		100.
106-89-8	Epichlorohydrin (1-Chloro-2,3-epoxy	1	ND		100.
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.0
108-88-3	Toluene	1	ND		5.00
1330-20-7	m-p-Xylene	1	ND		5.00
95-47-6	o-Xylene	1	ND		5.00

12 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/9/01 15:00:56

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

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Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12074B1K04

Description: Water Method Blank **Project No.:** 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 04-Oct-01 11:54 KCB

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
67-64-1	Acetone (2-Propanone, Dimethyl keto	1	ND		10.0
75-05-8	Acetonitrile (Methyl cyanide)	1	ND		50.0
107-02-8	Acrolein (2-Propenal)	1	ND		20.0
107-13-1	Acrylonitrile (2-Propenenitrile)	1	ND		20.0
107-05-1	Allyl chloride (3-Chloropropene)	1	ND		5.00
71-43-2	Benzene	1	ND		5.00
75-27-4	Bromodichloromethane	1	ND		5.00
75-25-2	Bromoform	1	ND		5.00
74-83-9	Bromomethane (Methyl bromide)	1	ND		10.0
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		10.0
75-15-0	Carbon disulfide	1	ND		5.00
56-23-5	Carbon tetrachloride	1	ND		5.00
108-90-7	Chlorobenzene	1	ND		5.00
75-00-3	Chloroethane	1	ND		10.0
67-66-3	Chloroform	1	ND		5.00
74-87-3	Chloromethane (Methyl chloride)	1	ND		10.0
126-99-8	Chloroprene (2-Chloro-1,3-butadiene	1	ND		50.0
124-48-1	Dibromochloromethane	1	ND		5.00
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	1	ND		5.00
106-93-4	1,2-Dibromoethane (Ethylene dibromi	1	ND		5.00
74-95-3	Dibromomethane (Methylene bromide)	1	ND		5.00
110-57-6	trans-1,4-Dichloro-2-butene	1	ND		5.00
75-71-8	Dichlorodifluoromethane (Freon 12)	1	ND		50.0
75-34-3	1,1-Dichloroethane	1	ND		5.00
107-06-2	1,2-Dichloroethane (Ethylene dichlo	1	ND		5.00
75-35-4	1,1-Dichloroethene (Dichloroethylen	1	ND		5.00
156-60-5	trans-1,2-Dichloroethene	1	ND		5.00
78-87-5	1,2-Dichloropropane	1	ND		5.00
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00
123-91-1	1,4-Dioxane	1	ND		500.
100-41-4	Ethylbenzene	1	ND		5.00
591-78-6	2-Hexanone	1	ND		10.0
74-88-4	Iodomethane (Methyl iodide)	1	ND		5.00
126-98-7	Methacrylonitrile	1	ND		5.00
75-09-2	Methylene chloride (Dichloromethane	1	ND		5.00

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/9/01 15:00:57

Laboratory Certifications: Puerto Rico - 3449
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Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
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Report of Method Blank

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Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12074B1K04

Description: Water Method Blank **Project No.:** 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 04-Oct-01 11:54 KCB

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.0
78-83-1	2-Methyl-1-propanol (iso-Butyl alco	1	ND		500.
107-12-0	Propionitrile (Ethyl cyanide)	1	ND		10.0
100-42-5	Styrene	1	ND		5.00
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		5.00
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		5.00
127-18-4	Tetrachloroethene (Perchloroethylen	1	ND		5.00
108-88-3	Toluene	1	ND		5.00
71-55-6	1,1,1-Trichloroethane (Methyl chlor	1	ND		5.00
79-00-5	1,1,2-Trichloroethane	1	ND		5.00
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		5.00
75-69-4	Trichlorofluoromethane (Freon 11)	1	ND		5.00
96-18-4	1,2,3-Trichloropropane	1	ND		5.00
108-05-4	Vinyl acetate	1	ND		10.0
75-01-4	Vinyl chloride (Chloroethene)	1	ND		10.0

51 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/9/01 15:00:57

Laboratory Certifications: Puerto Rico - 3449
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Kansas Dept. of Health & Environment/ELWHW - E-10266
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Phone: 504.469.0333
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Lab ID: 12074B1K05
Description: Water Method Blank **Project No.:** 208013
Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 05-Oct-01 12:54 KCB

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
107-02-8	Acrolein (2-Propenal)	1	ND		20.0
107-13-1	Acrylonitrile (2-Propenenitrile)	1	ND		20.0
71-43-2	Benzene	1	ND		5.00
75-27-4	Bromodichloromethane	1	ND		5.00
75-25-2	Bromoform	1	ND		5.00
74-83-9	Bromomethane (Methyl bromide)	1	ND		10.0
56-23-5	Carbon tetrachloride	1	ND		5.00
108-90-7	Chlorobenzene	1	ND		5.00
75-00-3	Chloroethane	1	ND		10.0
110-75-8	2-Chloroethyl vinyl ether	1	ND		5.00
67-66-3	Chloroform	1	ND		5.00
74-87-3	Chloromethane (Methyl chloride)	1	ND		10.0
124-48-1	Dibromochloromethane	1	ND		5.00
75-34-3	1,1-Dichloroethane	1	ND		5.00
107-06-2	1,2-Dichloroethane (Ethylene dichlo	1	ND		5.00
75-35-4	1,1-Dichloroethene (Dichloroethylen	1	ND		5.00
540-59-0	1,2-Dichloroethene (total)	1	ND		5.00
78-87-5	1,2-Dichloropropane	1	ND		5.00
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00
100-41-4	Ethylbenzene	1	ND		5.00
75-09-2	Methylene chloride (Dichloromethane	1	ND		5.00
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		5.00
127-18-4	Tetrachloroethene (Perchloroethylen	1	ND		5.00
108-88-3	Toluene	1	ND		5.00
71-55-6	1,1,1-Trichloroethane (Methyl chlor	1	ND		5.00
79-00-5	1,1,2-Trichloroethane	1	ND		5.00
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		5.00
75-01-4	Vinyl chloride (Chloroethene)	1	ND		10.0

29 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/9/01 15:00:58

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
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1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12074B1K24

Description: Water Method Blank **Project No.:** 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 25-Sep-01 12:20 KCB

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
67-64-1	Acetone (2-Propanone, Dimethyl keto	1	63.7		10.0
71-43-2	Benzene	1	ND		5.00
75-27-4	Bromodichloromethane	1	ND		5.00
75-25-2	Bromoform	1	ND		5.00
74-83-9	Bromomethane (Methyl bromide)	1	ND		5.00
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		10.0
75-15-0	Carbon disulfide	1	ND		5.00
56-23-5	Carbon tetrachloride	1	ND		5.00
108-90-7	Chlorobenzene	1	ND		5.00
75-00-3	Chloroethane	1	ND		5.00
67-66-3	Chloroform	1	ND		5.00
74-87-3	Chloromethane (Methyl chloride)	1	ND		5.00
124-48-1	Dibromochloromethane	1	ND		5.00
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	1	ND		5.00
75-34-3	1,1-Dichloroethane	1	ND		5.00
107-06-2	1,2-Dichloroethane (Ethylene dichlo	1	ND		5.00
75-35-4	1,1-Dichloroethene (Dichloroethylen	1	ND		5.00
156-59-2	cis-1,2-Dichloroethene	1	ND		5.00
156-60-5	trans-1,2-Dichloroethene	1	ND		5.00
78-87-5	1,2-Dichloropropane	1	ND		5.00
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00
100-41-4	Ethylbenzene	1	ND		5.00
1634-04-4	Methyl tert-butyl ether (MTBE)	1	ND		5.00
75-09-2	Methylene chloride (Dichloromethane	1	6.44		5.00
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.0
78-83-1	2-Methyl-1-propanol (iso-Butyl alco	1	ND		250.
100-42-5	Styrene	1	ND		5.00
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		5.00
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		5.00
127-18-4	Tetrachloroethene (Perchloroethylen	1	ND		5.00
108-88-3	Toluene	1	ND		5.00
120-82-1	1,2,4-Trichlorobenzene	1	ND		5.00
71-55-6	1,1,1-Trichloroethane (Methyl chlor	1	ND		5.00
79-00-5	1,1,2-Trichloroethane	1	ND		5.00
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		5.00

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/9/01 15:00:58

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
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U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

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Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12074B1K24

Description: Water Method Blank **Project No.:** 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 25-Sep-01 12:20 KCB

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
75-69-4	Trichlorofluoromethane (Freon 11)	1	ND		5.00
75-01-4	Vinyl chloride (Chloroethene)	1	ND		5.00
1330-20-7	m-p-Xylene	1	ND		5.00
95-47-6	o-Xylene	1	ND		5.00

40 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/9/01 15:00:59

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELW/HW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

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1000 Riverbend Blvd, Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12074B1K25

Description: Water Method Blank **Project No.:** 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 26-Sep-01 00:56 KCB

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
67-64-1	Acetone (2-Propanone, Dimethyl keto	1	11.6		10.0
71-43-2	Benzene	1	ND		5.00
75-27-4	Bromodichloromethane	1	ND		5.00
75-25-2	Bromoform	1	ND		5.00
74-83-9	Bromomethane (Methyl bromide)	1	ND		5.00
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		10.0
75-15-0	Carbon disulfide	1	ND		5.00
56-23-5	Carbon tetrachloride	1	ND		5.00
108-90-7	Chlorobenzene	1	ND		5.00
75-00-3	Chloroethane	1	ND		5.00
67-66-3	Chloroform	1	ND		5.00
74-87-3	Chloromethane (Methyl chloride)	1	ND		5.00
124-48-1	Dibromochloromethane	1	ND		5.00
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	1	ND		5.00
75-34-3	1,1-Dichloroethane	1	ND		5.00
107-06-2	1,2-Dichloroethane (Ethylene dichlo	1	ND		5.00
75-35-4	1,1-Dichloroethene (Dichloroethylen	1	ND		5.00
156-59-2	cis-1,2-Dichloroethene	1	ND		5.00
156-60-5	trans-1,2-Dichloroethene	1	ND		5.00
78-87-5	1,2-Dichloropropane	1	ND		5.00
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00
100-41-4	Ethylbenzene	1	ND		5.00
1634-04-4	Methyl tert-butyl ether (MTBE)	1	ND		5.00
75-09-2	Methylene chloride (Dichloromethane	1	6.74		5.00
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.0
78-83-1	2-Methyl-1-propanol (iso-Butyl alco	1	ND		250.
100-42-5	Styrene	1	ND		5.00
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		5.00
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		5.00
127-18-4	Tetrachloroethene (Perchloroethylen	1	ND		5.00
108-88-3	Toluene	1	ND		5.00
120-82-1	1,2,4-Trichlorobenzene	1	ND		5.00
71-55-6	1,1,1-Trichloroethane (Methyl chlor	1	ND		5.00
79-00-5	1,1,2-Trichloroethane	1	ND		5.00
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		5.00

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/9/01 15:00:59

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services -
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Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12074B1K25
Description: Water Method Blank **Project No.:** 208013
Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 26-Sep-01 00:56 KCB

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
75-69-4	Trichlorofluoromethane (Freon 11)	1	ND		5.00
75-01-4	Vinyl chloride (Chloroethene)	1	ND		5.00
1330-20-7	m-p-Xylene	1	ND		5.00
95-47-6	o-Xylene	1	ND		5.00

40 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/9/01 15:01:00

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New Jersey DEPE/Wastewater - 58002
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Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12074B1K26

Description: Water Method Blank **Project No.:** 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 26-Sep-01 13:30 KCB

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
67-64-1	Acetone (2-Propanone, Dimethyl keto	1	90.3		10.0
71-43-2	Benzene	1	ND		5.00
75-27-4	Bromodichloromethane	1	ND		5.00
75-25-2	Bromoform	1	ND		5.00
74-83-9	Bromomethane (Methyl bromide)	1	ND		5.00
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		10.0
75-15-0	Carbon disulfide	1	ND		5.00
56-23-5	Carbon tetrachloride	1	ND		5.00
108-90-7	Chlorobenzene	1	ND		5.00
75-00-3	Chloroethane	1	ND		5.00
67-66-3	Chloroform	1	ND		5.00
74-87-3	Chloromethane (Methyl chloride)	1	ND		5.00
124-48-1	Dibromochloromethane	1	ND		5.00
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	1	ND		5.00
75-34-3	1,1-Dichloroethane	1	ND		5.00
107-06-2	1,2-Dichloroethane (Ethylene dichlo	1	ND		5.00
75-35-4	1,1-Dichloroethene (Dichloroethylen	1	ND		5.00
156-59-2	cis-1,2-Dichloroethene	1	ND		5.00
156-60-5	trans-1,2-Dichloroethene	1	ND		5.00
78-87-5	1,2-Dichloropropane	1	ND		5.00
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00
100-41-4	Ethylbenzene	1	ND		5.00
1634-04-4	Methyl tert-butyl ether (MTBE)	1	ND		5.00
75-09-2	Methylene chloride (Dichloromethane	1	3.41	J	5.00
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.0
78-83-1	2-Methyl-1-propanol (iso-Butyl alco	1	ND		250.
100-42-5	Styrene	1	ND		5.00
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		5.00
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		5.00
127-18-4	Tetrachloroethene (Perchloroethylen	1	ND		5.00
108-88-3	Toluene	1	ND		5.00
120-82-1	1,2,4-Trichlorobenzene	1	ND		5.00
71-55-6	1,1,1-Trichloroethane (Methyl chlor	1	ND		5.00
79-00-5	1,1,2-Trichloroethane	1	ND		5.00
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		5.00

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

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Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 12074B1K26

Description: Water Method Blank **Project No.:** 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 26-Sep-01 13:30 KCB

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
75-69-4	Trichlorofluoromethane (Freon 11)	1	ND		5.00
75-01-4	Vinyl chloride (Chloroethene)	1	ND		5.00
1330-20-7	m-p-Xylene	1	ND		5.00
95-47-6	o-Xylene	1	ND		5.00

40 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
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Laboratory Certifications: Puerto Rico - 3449
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Phone: 504.469.0333
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Lab ID: 12074B1K27

Description: Water Method Blank **Project No.:** 208013

Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 27-Sep-01 14:12 KCB

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
67-64-1	Acetone (2-Propanone, Dimethyl keto	1	13.0		10.0
71-43-2	Benzene	1	ND		5.00
75-27-4	Bromodichloromethane	1	ND		5.00
75-25-2	Bromoform	1	ND		5.00
74-83-9	Bromomethane (Methyl bromide)	1	ND		5.00
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		10.0
75-15-0	Carbon disulfide	1	ND		5.00
56-23-5	Carbon tetrachloride	1	ND		5.00
108-90-7	Chlorobenzene	1	ND		5.00
75-00-3	Chloroethane	1	ND		5.00
67-66-3	Chloroform	1	ND		5.00
74-87-3	Chloromethane (Methyl chloride)	1	ND		5.00
124-48-1	Dibromochloromethane	1	ND		5.00
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	1	ND		5.00
75-34-3	1,1-Dichloroethane	1	ND		5.00
107-06-2	1,2-Dichloroethane (Ethylene dichlo	1	ND		5.00
75-35-4	1,1-Dichloroethene (Dichloroethylen	1	ND		5.00
156-59-2	cis-1,2-Dichloroethene	1	ND		5.00
156-60-5	trans-1,2-Dichloroethene	1	ND		5.00
78-87-5	1,2-Dichloropropane	1	ND		5.00
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00
100-41-4	Ethylbenzene	1	ND		5.00
1634-04-4	Methyl tert-butyl ether (MTBE)	1	ND		5.00
75-09-2	Methylene chloride (Dichloromethane	1	6.00		5.00
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.0
78-83-1	2-Methyl-1-propanol (iso-Butyl alco	1	ND		250.
100-42-5	Styrene	1	ND		5.00
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		5.00
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		5.00
127-18-4	Tetrachloroethene (Perchloroethylen	1	ND		5.00
108-88-3	Toluene	1	ND		5.00
120-82-1	1,2,4-Trichlorobenzene	1	ND		5.00
71-55-6	1,1,1-Trichloroethane (Methyl chlor	1	ND		5.00
79-00-5	1,1,2-Trichloroethane	1	ND		5.00
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		5.00

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
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Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
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Fax: 504.469.0555

Lab ID: 12074B1K27
Description: Water Method Blank **Project No.:** 208013
Method: Water GC/MS Volatile Organics **Batch:** 12074 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** **Analyzed:** 27-Sep-01 14:12 KCB

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
75-69-4	Trichlorofluoromethane (Freon 11)	1	ND		5.00
75-01-4	Vinyl chloride (Chloroethene)	1	ND		5.00
1330-20-7	m-p-Xylene	1	ND		5.00
95-47-6	o-Xylene	1	ND		5.00

40 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Laboratory Certifications: Puerto Rico - 3449
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Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
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Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208013

Method: Water GC/MS Semivolatile Organics **Batch:** 11620 **Units:** ug/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
Acenaphthene	50.00	50			50.00					35 - 111	30 - 109	25	
Acenaphthene	50.00	58			50.00	55	53	3		35 - 111	30 - 109	25	
Acenaphthylene	50.00	49			50.00					36 - 107	23 - 113	25	
Acenaphthylene	50.00	57			50.00	54	51	6		36 - 107	23 - 113	25	
Anthracene	50.00	51			50.00					41 - 115	33 - 112	25	
Anthracene	50.00	60			50.00	58	57	3		41 - 115	33 - 112	25	
Benzo(a)anthracene	50.00	64			50.00	61	61	1		38 - 120	30 - 117	25	
Benzo(a)anthracene	50.00	50			50.00					38 - 120	30 - 117	25	
Benzo(b)fluoranthene	50.00	54			50.00	50	49	3		33 - 128	27 - 122	25	
Benzo(b)fluoranthene	50.00	41			50.00					33 - 128	27 - 122	25	
Benzo(k)fluoranthene	50.00	50			50.00	49	54	9		29 - 129	24 - 121	25	
Benzo(k)fluoranthene	50.00	38			50.00					29 - 129	24 - 121	25	
Benzoic acid	50.00	44			50.00	70	65	7		0 - 131	0 - 166	25	
Benzoic acid	50.00	29			50.00					0 - 131	0 - 166	25	
Benzo(g,h,i)perylene	50.00	59			50.00					21 - 134	15 - 123	25	
Benzo(g,h,i)perylene	50.00	48			50.00	46	47	2		21 - 134	15 - 123	25	
Benzo(a)pyrene	50.00	39			50.00					34 - 122	25 - 117	25	
Benzo(a)pyrene	50.00	49			50.00	46	47	2		34 - 122	25 - 117	25	
4-Bromophenyl-phenylether	50.00	49			50.00					40 - 114	32 - 114	25	
Benzyl alcohol	50.00	47			50.00					27 - 114	25 - 111	25	
Benzyl alcohol	50.00	50			50.00	49	46	6		27 - 114	25 - 111	25	
Butylbenzylphthalate	50.00	47			50.00					30 - 129	26 - 128	25	
4-Bromophenyl-phenylether	50.00	60			50.00	59	56	5		40 - 114	32 - 114	25	
bis(2-Chloroethoxy)methane	50.00	48			50.00					34 - 107	23 - 113	25	
Butylbenzylphthalate	50.00	74			50.00	73	71	2		30 - 129	26 - 128	25	
bis(2-Chloroethyl) ether	50.00	47			50.00					26 - 106	16 - 110	25	
4-Chloroaniline (p-Chloroaniline)	50.00	32			50.00					16 - 114	1 - 113	25	
4-Chloroaniline (p-Chloroaniline)	50.00	43			50.00	16	10	48 *		16 - 114	1 - 113	25	
2,2'-oxybis(1-Chloropropane)	50.00	48			50.00					19 - 110	12 - 111	25	
bis(2-Chloroethoxy)methane	50.00	53			50.00	53	50	6		34 - 107	23 - 113	25	
4-Chloro-3-methylphenol (p-Chloro-m	50.00	51			50.00					36 - 112	24 - 120	25	
bis(2-Chloroethyl) ether	50.00	46			50.00	46	45	4		26 - 106	16 - 110	25	
2-Chloronaphthalene	50.00	47			50.00					36 - 106	30 - 108	25	
2,2'-oxybis(1-Chloropropane)	50.00	51			50.00	51	48	5		19 - 110	12 - 111	25	
2-Chlorophenol (o-Chlorophenol)	50.00	43			50.00					25 - 104	22 - 103	25	
4-Chloro-3-methylphenol (p-Chloro-m	50.00	59			50.00	57	55	4		36 - 112	24 - 120	25	
4-Chlorophenyl phenyl ether	50.00	48			50.00					39 - 111	33 - 111	25	
2-Chloronaphthalene	50.00	54			50.00	51	49	5		36 - 106	30 - 108	25	
Chrysene	50.00	51			50.00					38 - 117	29 - 116	25	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

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Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208013

Method: Water GC/MS Semivolatile Organics **Batch:** 11620 **Units:** ug/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
2-Chlorophenol (o-Chlorophenol)	50.00	43			50.00	43	41	6		25 - 104	22 - 103	25	
Dibenz(a,h)anthracene	50.00	55			50.00					28 - 130	13 - 131	25	
4-Chlorophenyl phenyl ether	50.00	58			50.00	56	56	0		39 - 111	33 - 111	25	
Di-n-butylphthalate	50.00	53			50.00					37 - 121	29 - 120	25	
Chrysene	50.00	64			50.00	61	61	1		38 - 117	29 - 116	25	
1,2-Dichlorobenzene (o-Dichlorobenze	50.00	38			50.00					17 - 86	11 - 86	25	
Dibenz(a,h)anthracene	50.00	48			50.00	47	48	3		28 - 130	13 - 131	25	
1,3-Dichlorobenzene (m-Dichlorobenz	50.00	35			50.00					14 - 85	8 - 84	25	
Dibenzofuran	50.00	51			50.00					38 - 111	34 - 110	25	
Dibenzofuran	50.00	56			50.00	54	53	3		38 - 111	34 - 110	25	
1,4-Dichlorobenzene (p-Dichlorobenze	50.00	36			50.00					15 - 83	10 - 82	25	
Di-n-butylphthalate	50.00	68			50.00	68	64	6		37 - 121	29 - 120	25	
3,3'-Dichlorobenzidine	50.00	40			50.00					6 - 115	1 - 100	25	
1,2-Dichlorobenzene (o-Dichlorobenze	50.00	33			50.00	34	32	7		17 - 86	11 - 86	25	
2,4-Dichlorophenol	50.00	46			50.00					34 - 111	24 - 117	25	
1,3-Dichlorobenzene (m-Dichlorobenz	50.00	32			50.00	33	31	4		14 - 85	8 - 84	25	
Diethylphthalate	50.00	54			50.00					36 - 120	31 - 119	25	
1,4-Dichlorobenzene (p-Dichlorobenze	50.00	32			50.00	33	31	6		15 - 83	10 - 82	25	
2,4-Dimethylphenol	50.00	42			50.00					4 - 105	9 - 118	25	
3,3'-Dichlorobenzidine	50.00	52			50.00	34	12	96 *		6 - 115	1 - 100	25	
Dimethylphthalate	50.00	52			50.00					39 - 115	33 - 115	25	
2,4-Dichlorophenol	50.00	50			50.00	50	47	7		34 - 111	24 - 117	25	
4,6-Dinitro-2-methylphenol (4,6-Dinitr	50.00	52			50.00					19 - 154	11 - 157	25	
Diethylphthalate	50.00	65			50.00	61	61	1		36 - 120	31 - 119	25	
2,4-Dinitrophenol	50.00	59			50.00					1 - 174	1 - 191	25	
2,4-Dimethylphenol	50.00	51			50.00	50	45	10		4 - 105	9 - 118	25	
2,4-Dinitrotoluene	50.00	51			50.00					36 - 122	29 - 126	25	
Dimethylphthalate	50.00	64			50.00	62	60	2		39 - 115	33 - 115	25	
2,6-Dinitrotoluene	50.00	47			50.00					38 - 120	33 - 122	25	
4,6-Dinitro-2-methylphenol (4,6-Dinitr	50.00	68			50.00	68	65	4		19 - 154	11 - 157	25	
Di-n-octylphthalate	50.00	35			50.00					28 - 133	16 - 138	25	
2,4-Dinitrophenol	50.00	73			50.00	69	69	1		1 - 174	1 - 191	25	
1,2-Diphenylhydrazine (as azobenzene	50.00	48			50.00					28 - 125	10 - 127	25	
2,4-Dinitrotoluene	50.00	61			50.00	58	57	2		36 - 122	29 - 126	25	
bis(2-Ethylhexyl)phthalate	50.00	47			50.00					32 - 134	24 - 131	25	
2,6-Dinitrotoluene	50.00	63			50.00	59	57	3		38 - 120	33 - 122	25	
Fluoranthene	50.00	53			50.00					39 - 117	30 - 116	25	
Di-n-octylphthalate	50.00	60			50.00	58	60	4		28 - 133	16 - 138	25	
Fluorene	50.00	50			50.00					39 - 112	34 - 111	25	

*** denotes recovery outside of QC limits.**
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

10/9/01 15:00:49

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
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1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208013

Method: Water GC/MS Semivolatile Organics **Batch:** 11620 **Units:** ug/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
bis(2-Ethylhexyl)phthalate	50.00	77			50.00	64	108	46 *		32 - 134	24 - 131	25	
Hexachlorobenzene	50.00	50			50.00					39 - 116	31 - 117	25	
Fluoranthene	50.00	65			50.00	61	60	2		39 - 117	30 - 116	25	
Hexachlorobutadiene	50.00	38			50.00					15 - 97	13 - 96	25	
Fluorene	50.00	61			50.00	57	55	3		39 - 112	34 - 111	25	
Hexachlorocyclopentadiene	50.00	4			50.00					1 - 61	1 - 65	25	
Hexachlorobenzene	50.00	59			50.00	57	56	1		39 - 116	31 - 117	25	
Hexachloroethane	50.00	35			50.00					11 - 86	4 - 89	25	
Hexachlorobutadiene	50.00	36			50.00	36	35	1		15 - 97	13 - 96	25	
Indeno(1,2,3-cd)pyrene	50.00	54			50.00					28 - 126	18 - 122	25	
Hexachlorocyclopentadiene	50.00	0 *			50.00	0 *	0 *	0		1 - 61	1 - 65	25	
Isophorone	50.00	46			50.00					36 - 113	25 - 120	25	
Hexachloroethane	50.00	33			50.00	32	31	4		11 - 86	4 - 89	25	
Naphthalene	50.00	46			50.00					28 - 99	22 - 101	25	
Indeno(1,2,3-cd)pyrene	50.00	48			50.00	46	47	2		28 - 126	18 - 122	25	
Nitrobenzene	50.00	46			50.00					26 - 114	15 - 125	25	
Isophorone	50.00	55			50.00	56	52	6		36 - 113	25 - 120	25	
2-Nitrophenol (o-Nitrophenol)	50.00	44			50.00					30 - 115	19 - 124	25	
2-Methylnaphthalene	50.00	47			50.00					33 - 108	25 - 112	25	
2-Methylnaphthalene	50.00	49			50.00	49	46	6		33 - 108	25 - 112	25	
4-Nitrophenol (p-Nitrophenol)	50.00	55			50.00					18 - 137	3 - 161	25	
2-Methylphenol (o-Cresol)	50.00	49			50.00	49	45	7		24 - 108	21 - 107	25	
2-Methylphenol (o-Cresol)	50.00	49			50.00					24 - 108	21 - 107	25	
N-Nitrosodimethylamine	50.00	42			50.00					8 - 107	0 - 115	25	
4-Methylphenol (p-Cresol)	50.00	52			50.00	50	46	8		22 - 111	19 - 111	25	
4-Methylphenol (p-Cresol)	50.00	50			50.00					22 - 111	19 - 111	25	
N-Nitrosodiphenylamine (Diphenylam	50.00	47			50.00					34 - 113	16 - 113	25	
Naphthalene	50.00	43			50.00	45	43	6		28 - 99	22 - 101	25	
N-Nitroso-di-n-propylamine	50.00	49			50.00					30 - 109	22 - 111	25	
2-Nitroaniline (o-Nitroaniline)	50.00	65			50.00	60	58	3		31 - 125	15 - 136	25	
2-Nitroaniline (o-Nitroaniline)	50.00	53			50.00					31 - 125	15 - 136	25	
Pentachlorophenol	50.00	42			50.00					30 - 127	26 - 139	25	
3-Nitroaniline (m-Nitroaniline)	50.00	72			50.00	55	52	6		27 - 124	13 - 123	25	
3-Nitroaniline (m-Nitroaniline)	50.00	50			50.00					27 - 124	13 - 123	25	
Phenanthrene	50.00	51			50.00					41 - 114	32 - 115	25	
4-Nitroaniline (p-Nitroaniline)	50.00	52			50.00					29 - 124	9 - 123	25	
4-Nitroaniline (p-Nitroaniline)	50.00	66			50.00	58	57	1		29 - 124	9 - 123	25	
Phenol	50.00	45			50.00					24 - 107	16 - 115	25	
Nitrobenzene	50.00	49			50.00	50	48	6		26 - 114	15 - 125	25	

*** denotes recovery outside of QC limits.**
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

10/9/01 15:00:49

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
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Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208013

Method: Water GC/MS Semivolatile Organics **Batch:** 11620 **Units:** ug/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
Pyrene	50.00	50			50.00					36 - 121	28 - 121	25	
2-Nitrophenol (o-Nitrophenol)	50.00	48			50.00	50	46	8		30 - 115	19 - 124	25	
1,2,4-Trichlorobenzene	50.00	39			50.00					24 - 95	18 - 99	25	
4-Nitrophenol (p-Nitrophenol)	50.00	69			50.00	61	61	1		18 - 137	3 - 161	25	
2,4,6-Trichlorophenol	50.00	50			50.00					34 - 118	24 - 128	25	
N-Nitrosodiphenylamine (Diphenylam	50.00	57			50.00	53	52	3		34 - 113	16 - 113	25	
N-Nitroso-di-n-propylamine	50.00	59			50.00	57	54	7		30 - 109	22 - 111	25	
Pentachlorophenol	50.00	63			50.00	62	61	2		30 - 127	26 - 139	25	
Phenanthrene	50.00	62			50.00	60	58	3		41 - 114	32 - 115	25	
Phenol	50.00	44			50.00	41	39	5		24 - 107	16 - 115	25	
Pyrene	50.00	66			50.00	64	62	3		36 - 121	28 - 121	25	
1,2,4-Trichlorobenzene	50.00	39			50.00	40	37	6		24 - 95	18 - 99	25	
2,4,5-Trichlorophenol	50.00	60			50.00	57	54	5		34 - 117	31 - 118	25	
2,4,5-Trichlorophenol	50.00	48			50.00					34 - 117	31 - 118	25	
2,4,6-Trichlorophenol	50.00	61			50.00	57	53	7		34 - 118	24 - 128	25	

132 compound(s) reported

*** denotes recovery outside of QC limits.**
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

10/9/01 15:00:50

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Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
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U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

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Report of Batch Surrogate Recovery

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Phone: 504.469.0333
Fax: 504.469.0555

Method: Water GC/MS Semivolatile Organics

Report: 208013

Batch: 11620

Lab ID		Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
11620B1	BLANK	56	50	86	60	57	69		
11620B2	BLANK	71	66	73	70	67	75		
11620S1	LCS	46	38	63	45	36	66		
11620S2	LCS	48	45	51	47	39	54		
2060158		63	55	74	53	56	67		
2060159		72	75	93	69	66	81		
2060160		72	59	90	77	72	78		
2060161MS	MS	48	44	61	43	37	67		
2060162MSD	MSD	45	39	59	40	34	63		
2060163		64	64	89	58	56	76		
2060164		60	58	87	55	50	74		
2060165		48	52	84	44	40	68		
2063406		52	58	50	57	39	78		
QC limits:		21-120	26-106	33-141	19-113	11-103	25-136		

Sur 1: Nitrobenzene-d5 (S)
Sur 2: 2-Fluorobiphenyl (S)
Sur 3: Terphenyl-d14 (S)
Sur 4: Phenol-d5 (S)
Sur 5: 2-Fluorophenol (S)
Sur 6: 2,4,6-Tribromophenol (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

10/9/01 15:00:52

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELW/HW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

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Report of Method Blank

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Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 11620B1
Description: Water Method Blank **Project No.:** 208013
Method: Water GC/MS Semivolatile Organics **Batch:** 11620 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** 05-Sep-01 **Analyzed:** 06-Sep-01 21:29 AKE

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
83-32-9	Acenaphthene	1	ND		10.0
208-96-8	Acenaphthylene	1	ND		10.0
120-12-7	Anthracene	1	ND		10.0
56-55-3	Benzo(a)anthracene	1	ND		10.0
205-99-2	Benzo(b)fluoranthene	1	ND		10.0
207-08-9	Benzo(k)fluoranthene	1	ND		10.0
65-85-0	Benzoic acid	1	ND		25.0
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0
50-32-8	Benzo(a)pyrene	1	ND		10.0
100-51-6	Benzyl alcohol	1	ND		10.0
101-55-3	4-Bromophenyl-phenylether	1	ND		10.0
85-68-7	Butylbenzylphthalate	1	ND		10.0
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		10.0
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0
108-60-1	2,2'-oxybis(1-Chloropropane)	1	ND		10.0
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m	1	ND		10.0
91-58-7	2-Chloronaphthalene	1	ND		10.0
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		10.0
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		10.0
218-01-9	Chrysene	1	ND		10.0
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0
132-64-9	Dibenzofuran	1	ND		10.0
84-74-2	Di-n-butylphthalate	1	ND		10.0
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenz	1	ND		10.0
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenz	1	ND		10.0
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenz	1	ND		10.0
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0
120-83-2	2,4-Dichlorophenol	1	ND		10.0
84-66-2	Diethylphthalate	1	ND		10.0
105-67-9	2,4-Dimethylphenol	1	ND		10.0
131-11-3	Dimethylphthalate	1	ND		10.0
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Din	1	ND		25.0
51-28-5	2,4-Dinitrophenol	1	ND		25.0
121-14-2	2,4-Dinitrotoluene	1	ND		10.0
606-20-2	2,6-Dinitrotoluene	1	ND		10.0

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/9/01 15:00:54

Laboratory Certifications: Puerto Rico - 3449
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Kansas Dept. of Health & Environment/ELWHW - E-10266
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Report of Method Blank

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Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 11620B1
Description: Water Method Blank **Project No.:** 208013
Method: Water GC/MS Semivolatile Organics **Batch:** 11620 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** 05-Sep-01 **Analyzed:** 06-Sep-01 21:29 AKE

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
117-84-0	Di-n-octylphthalate	1	ND		10.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0
206-44-0	Fluoranthene	1	ND		10.0
86-73-7	Fluorene	1	ND		10.0
118-74-1	Hexachlorobenzene	1	ND		10.0
87-68-3	Hexachlorobutadiene	1	ND		10.0
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0
67-72-1	Hexachloroethane	1	ND		10.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0
78-59-1	Isophorone	1	ND		10.0
91-57-6	2-Methylnaphthalene	1	ND		10.0
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0
106-44-5	4-Methylphenol (p-Cresol)	1	ND		10.0
91-20-3	Naphthalene	1	ND		10.0
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		25.0
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		25.0
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		25.0
98-95-3	Nitrobenzene	1	ND		10.0
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		10.0
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		25.0
86-30-6	N-Nitrosodiphenylamine (Diphenylami	1	ND	A10	10.0
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0
87-86-5	Pentachlorophenol	1	ND		25.0
85-01-8	Phenanthrene	1	ND		10.0
108-95-2	Phenol	1	ND		10.0
129-00-0	Pyrene	1	ND		10.0
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0
95-95-4	2,4,5-Trichlorophenol	1	ND		25.0
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0

65 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/9/01 15:00:54

Laboratory Certifications: Puerto Rico - 3449
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Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 11620B2

Description: Water Method Blank **Project No.:** 208013

Method: Water GC/MS Semivolatile Organics **Batch:** 11620 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** 02-Oct-01 **Analyzed:** 04-Oct-01 12:10 AKE

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
83-32-9	Acenaphthene	1	ND		10.0
208-96-8	Acenaphthylene	1	ND		10.0
120-12-7	Anthracene	1	ND		10.0
92-87-5	Benzidine	1	ND	A5	30.0
56-55-3	Benzo(a)anthracene	1	ND		10.0
205-99-2	Benzo(b)fluoranthene	1	ND		10.0
65-85-0	Benzoic acid	1	ND		25.0
207-08-9	Benzo(k)fluoranthene	1	ND		10.0
191-24-2	Benzo(g,h,i)perylene	1	ND		10.0
50-32-8	Benzo(a)pyrene	1	ND		10.0
100-51-6	Benzyl alcohol	1	ND		10.0
101-55-3	4-Bromophenyl-phenylether	1	ND		10.0
85-68-7	Butylbenzylphthalate	1	ND		10.0
111-91-1	bis(2-Chloroethoxy)methane	1	ND		10.0
111-44-4	bis(2-Chloroethyl) ether	1	ND		10.0
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		10.0
108-60-1	2,2'-oxybis(1-Chloropropane)	1	ND		10.0
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m	1	ND		10.0
91-58-7	2-Chloronaphthalene	1	ND		10.0
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		10.0
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		10.0
218-01-9	Chrysene	1	ND		10.0
53-70-3	Dibenz(a,h)anthracene	1	ND		10.0
84-74-2	Di-n-butylphthalate	1	ND		10.0
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenz	1	ND		10.0
132-64-9	Dibenzofuran	1	ND		10.0
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenz	1	ND		10.0
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenz	1	ND		10.0
91-94-1	3,3'-Dichlorobenzidine	1	ND		20.0
120-83-2	2,4-Dichlorophenol	1	ND		10.0
84-66-2	Diethylphthalate	1	ND		10.0
105-67-9	2,4-Dimethylphenol	1	ND		10.0
131-11-3	Dimethylphthalate	1	ND		10.0
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Din	1	ND		25.0
51-28-5	2,4-Dinitrophenol	1	ND		25.0
121-14-2	2,4-Dinitrotoluene	1	ND		10.0

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/9/01 15:00:55

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Phone: 504.469.0333
Fax: 504.469.0555

Lab ID: 11620B2

Description: Water Method Blank **Project No.:** 208013

Method: Water GC/MS Semivolatile Organics **Batch:** 11620 **Units:** ug/l

Prep Factor: 1 **Leached:** **Prepared:** 02-Oct-01 **Analyzed:** 04-Oct-01 12:10 AKE

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
606-20-2	2,6-Dinitrotoluene	1	ND		10.0
117-84-0	Di-n-octylphthalate	1	ND		10.0
122-66-7	1,2-Diphenylhydrazine (as azobenzen	1	ND		10.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		10.0
206-44-0	Fluoranthene	1	ND		10.0
86-73-7	Fluorene	1	ND		10.0
118-74-1	Hexachlorobenzene	1	ND		10.0
87-68-3	Hexachlorobutadiene	1	ND		10.0
77-47-4	Hexachlorocyclopentadiene	1	ND		10.0
67-72-1	Hexachloroethane	1	ND		10.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		10.0
78-59-1	Isophorone	1	ND		10.0
91-20-3	Naphthalene	1	ND		10.0
98-95-3	Nitrobenzene	1	ND		10.0
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		10.0
91-57-6	2-Methylnaphthalene	1	ND		10.0
95-48-7	2-Methylphenol (o-Cresol)	1	ND		10.0
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		25.0
62-75-9	N-Nitrosodimethylamine	1	ND		10.0
106-44-5	4-Methylphenol (p-Cresol)	1	ND		10.0
86-30-6	N-Nitrosodiphenylamine (Diphenylami	1	ND	A10	10.0
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		25.0
621-64-7	N-Nitroso-di-n-propylamine	1	ND		10.0
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		25.0
87-86-5	Pentachlorophenol	1	ND		25.0
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		25.0
85-01-8	Phenanthrene	1	ND		10.0
108-95-2	Phenol	1	ND		10.0
129-00-0	Pyrene	1	ND		10.0
120-82-1	1,2,4-Trichlorobenzene	1	ND		10.0
88-06-2	2,4,6-Trichlorophenol	1	ND		10.0
95-95-4	2,4,5-Trichlorophenol	1	ND		25.0

68 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

10/9/01 15:00:55

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services - USDA Foreign Soil Import (U.S. Territories) - S-47270

Pace Analytical™
New Orleans Laboratory

Report of Quality Control

www.pacelabs.com

Pace Analytical Services, Inc.
1000 Riverbend Blvd, Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208013

Parameter	Batch	Blank	ARL	Units	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS DUP RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Antimony	12236	ND	60.0	ug/l	1000.00	105			1000.00	97	95	2	79 - 122	60 - 131	20	
Arsenic	12236	ND	10.0	ug/l	1000.00	104			1000.00	97	94	2	79 - 121	76 - 126	20	
Barium	12236	ND	200.	ug/l	1000.00	104			1000.00	99	96	3	81 - 122	54 - 137	20	
Beryllium	12236	ND	5.00	ug/l	1000.00	105			1000.00	100	97	3	79 - 118	67 - 126	20	
Cadmium	12236	ND	5.00	ug/l	1000.00	103			1000.00	99	95	4	80 - 117	54 - 119	20	
Chromium	12236	ND	10.0	ug/l	1000.00	103			1000.00	97	94	3	80 - 123	60 - 130	20	
Cobalt	12236	ND	50.0	ug/l	1000.00	106			1000.00	101	97	3	79 - 123	60 - 129	20	
Copper	12236	ND	25.0	ug/l	1000.00	105			1000.00	108	104	3	82 - 124	68 - 136	20	
Lead	12236	ND	3.00	ug/l	1000.00	105			1000.00	98	96	2	81 - 122	59 - 131	20	
Manganese	12236	ND	15.0	ug/l	1000.00	107			1000.00	102	99	3	81 - 125	55 - 138	20	
Nickel	12236	ND	40.0	ug/l	1000.00	106			1000.00	98	96	2	77 - 124	56 - 136	20	
Selenium	12236	7.00	5.00	ug/l	1000.00	103			1000.00	92	91	1	76 - 117	57 - 129	20	
Silver	12236	ND	10.0	ug/l	500.00	102			1000.00	49	47	3	76 - 120	0 - 152	20	
Sodium	12236	ND	500.	ug/l	2000.00	102							71 - 136	-	20	
Thallium	12236	ND	10.0	ug/l	1000.00	103			1000.00	95	92	3	76 - 123	48 - 128	20	
Tin	12236	ND	20.0	ug/l	1000.00	114			1000.00	107	105	2	61 - 135	26 - 147	20	
Vanadium	12236	ND	50.0	ug/l	1000.00	102			1000.00	97	94	3	79 - 122	72 - 125	20	
Zinc	12236	ND	20.0	ug/l	1000.00	103			1000.00	107	104	3	77 - 127	54 - 141	20	
Mercury	12278	ND	0.200	ug/l	1.00	93			1.00	96	96	0	80 - 120	75 - 125	20	

#Error
ARL denotes Adjusted Reporting Limit , corrected for sample size, dilution and moisture content as applicable.
* denotes recovery outside of QC limits.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

10/9/01 17:04:09

Laboratory Certifications: Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water -LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
LA Dept. of Environmental Quality (LELAP) - 02006
U.S. Dept. of Agriculture Animal & Plant Health Inspection Services -
USDA Foreign Soil Import (U.S. Territories) - S-47270

Pace Analytical™
New Orleans Laboratory

Report Qualifiers

www.pacelabs.com

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555

Project No.: 208013

Analyte Qualifiers

Qualifier	Qualifier Description
A5	The result for benzidine was based on a single point calibration and manual search.
A10	N-Nitrosodiphenylamine is reported as diphenylamine.

Laboratory Certifications: Puerto Rico - 3449
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Kansas Dept. of Health & Environment/ELWHW - E-10266
New Jersey DEPE/Wastewater - 58002
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U.S. Dept. of Agriculture Animal & Plant Health Inspection Services -
USDA Foreign Soil Import (U.S. Territories) - S-47270

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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www.pacelabs.com

604990

Page: 1 of 1

Required Client Information: **Section A**

Company	MP+A
Address	1100 Poydras
	1430 Energy Ctr
	New Orleans LA
Phone	504 582 2468
Fax	504 582 2470

Required Client Information: **Section B**

Report To:	Chris Fetters
Copy To:	Robert Leslie
Invoice To:	
P.O.	
Project Name:	SBA Shipyard water pt
Project Number:	2601

Client Information (Check quote/contract):

Requested Due Date: *TAT:

* Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calendar days.

To Be Completed by Pace Analytical and Client **Section C**

Quote Reference:	
Project Manager:	
Project #:	
Profile #:	

Section D **Required** Client Information:

SAMPLE ID

One character per box.
(A–Z, 0–9 / .–)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

Requested Analysis:

ITEM #	SAMPLE ID	MATRIX CODE	DATE COLLECTED (mm / dd / yy)	TIME COLLECTED (hh: mm a/p)	# Containers	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	VOC	SVOC	Metals	Remarks / Lab ID
1	COMPOSITE A	WT	9/26/01	11:30a				X	X				✓	✓	✓	
2	~~COMPOSITE B~~															
3	CO															
4																
5																
6																
7																
8																
9																
10																
11																
12																

SHIPMENT METHOD	AIRBILL NO.	SHIPPING DATE	NO. OF COOLERS

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
1	Chris Fetters / [signature]	9/26/01	16:40	Anne Webster / Pace	9/26/01	16:40

Additional Comments:

Pace Project No.:

SAMPLE CONDITION

Temp: 3 °C | Received on Ice: Y / N | Sealed Cooler: Y / N | Samples Intact: Y / N | pH ___

ORIGINAL

SEE REVERSE SIDE FOR INSTRUCTIONS

NELAP CERTIFICATE NUMBER 01955

GCAL
GULF COAST ANALYTICAL LABORATORIES, INC

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Report Date: 06/04/2003

GCAL REPORT NO.: 203052225

Deliver To: Pisani Associates
1100 Poydras
Suite 1430
New Orleans, LA 70163
(504) 582-2464
Attn: Robert Leslie

CUSTOMER NAME: Pisani & Associates

PROJECT NAME: SBA Shipyards

CASE NARRATIVE

Client: Pisani & Associates **Report:** 203052225

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

METALS

The Sample/Duplicate RPD for Arsenic and Silver for prep batch 257597 is not applicable because the sample and/or duplicate concentration is less than five times the reporting limit.

GULF COAST ANALYTICAL LABORATORIES, INC

LABORATORY ENDORSEMENT

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 Days unless otherwise arranged. Following this retention period the samples will be disposed of in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND-Indicates that the parameter was not detected at the specified detection limit
DO-Indicates that the result was diluted out
MI-Indicates that the result was subject to Matrix Interference
TNTC-Indicates that the result was Too Numerous to Count
SUBC-Indicates that the analysis was subcontracted
FLD-Indicates that the parameter was performed in the field
PQL-Practical Quantitation Limit
MDL-Method Detection Limit
RDL-Reporting Detection Limit

Reporting Flags Utilized in this Report

J-Indicates that the result was detected between the PQL and MDL
U-Indicates that the result was not detected at the referenced detection limit
B-Organics Indicates that the compound was detected in the associated Method Blank
B-Inorganics Indicates that the compound was detected between the PQL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This Report pertains only to the samples listed in the Sample Cross-Reference and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the Client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

SCOTT A. BAILEY
OPERATIONS MANAGER

GCAL REPORT NO.: 203052225

Workorder Sample Summary

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20305222501	WATER PIT	Water	05/22/2003 12:00	05/22/2003 15:35

Lab ID	Sample ID	Matrix	Collected	Received
20305222501	WATER PIT	Water	05/22/2003 12:00	05/22/2003 15:35

SW-846 7470A Mercury

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
05/23/2003 10:45	257598	SW-846 7470A	1	05/25/2003 09:31	JAC	257650

CAS #	Parameter	Result	RDL	REG LIMIT	Units
7439-97-6	Mercury	ND	0.00020		mg/L

SW-846 6010B ICP

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
05/23/2003 10:45	257597	3010A	1	05/25/2003 12:41	JAC	257565

CAS #	Parameter	Result	RDL	REG LIMIT	Units
7440-38-2	Arsenic	ND	0.040		mg/L
7440-39-3	**Barium**	**0.22**	**0.010**		**mg/L**
7440-43-9	Cadmium	ND	0.0050		mg/L
7440-47-3	Chromium	ND	0.010		mg/L
7439-92-1	Lead	ND	0.015		mg/L
7782-49-2	Selenium	ND	0.040		mg/L
7440-22-4	Silver	ND	0.010		mg/L

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	05/28/2003 15:40	KRV	257689

CAS #	Parameter	Result	RDL	REG LIMIT	Units
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.00		ug/L
71-55-6	1,1,1-Trichloroethane	ND	5.00		ug/L
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.00		ug/L
79-00-5	1,1,2-Trichloroethane	ND	5.00		ug/L
75-34-3	1,1-Dichloroethane	ND	5.00		ug/L
75-35-4	1,1-Dichloroethene	ND	5.00		ug/L
563-58-6	1,1-Dichloropropene	ND	5.00		ug/L
96-18-4	1,2,3-Trichloropropane	ND	5.00		ug/L
120-82-1	1,2,4-Trichlorobenzene	ND	5.00		ug/L
95-63-6	1,2,4-Trimethylbenzene	ND	5.00		ug/L
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.00		ug/L
106-93-4	1,2-Dibromoethane	ND	5.00		ug/L
95-50-1	1,2-Dichlorobenzene	ND	5.00		ug/L
107-06-2	1,2-Dichloroethane	ND	5.00		ug/L
540-59-0	1,2-Dichloroethene(Total)	ND	10.0		ug/L
78-87-5	1,2-Dichloropropane	ND	5.00		ug/L
108-67-8	1,3,5-Trimethylbenzene	ND	5.00		ug/L
541-73-1	1,3-Dichlorobenzene	ND	5.00		ug/L
142-28-9	1,3-Dichloropropane	ND	5.00		ug/L
106-46-7	1,4-Dichlorobenzene	ND	5.00		ug/L
594-20-7	2,2-Dichloropropane	ND	5.00		ug/L
78-93-3	2-Butanone	ND	25.0		ug/L
110-75-8	2-Chloroethylvinyl ether	ND	5.00		ug/L

Lab ID	Sample ID	Matrix	Collected	Received
20305222501	WATER PIT	Water	05/22/2003 12:00	05/22/2003 15:35

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	05/28/2003 15:40	KRV	257689

CAS #	Parameter	Result	RDL	REG LIMIT	Units
95-49-8	2-Chlorotoluene	ND	5.00		ug/L
591-78-6	2-Hexanone	ND	5.00		ug/L
106-43-4	4-Chlorotoluene	ND	5.00		ug/L
99-87-6	4-Isopropyltoluene	ND	5.00		ug/L
108-10-1	4-Methyl-2-pentanone	ND	5.00		ug/L
67-64-1	Acetone	ND	25.0		ug/L
107-02-8	Acrolein	ND	25.0		ug/L
107-13-1	Acrylonitrile	ND	25.0		ug/L
71-43-2	Benzene	ND	5.00		ug/L
108-86-1	Bromobenzene	ND	5.00		ug/L
74-97-5	Bromochloromethane	ND	5.00		ug/L
75-27-4	Bromodichloromethane	ND	5.00		ug/L
75-25-2	Bromoform	ND	5.00		ug/L
74-83-9	Bromomethane	ND	5.00		ug/L
104-51-8	n-Butylbenzene	ND	5.00		ug/L
75-15-0	Carbon disulfide	ND	5.00		ug/L
56-23-5	Carbon tetrachloride	ND	5.00		ug/L
108-90-7	Chlorobenzene	ND	5.00		ug/L
75-00-3	Chloroethane	ND	5.00		ug/L
67-66-3	Chloroform	ND	5.00		ug/L
74-87-3	Chloromethane	ND	5.00		ug/L
124-48-1	Dibromochloromethane	ND	5.00		ug/L
74-95-3	Dibromomethane	ND	5.00		ug/L
75-71-8	Dichlorodifluoromethane	ND	5.00		ug/L
10061-01-5	cis-1,3-Dichloropropene	ND	5.00		ug/L
10061-02-6	trans-1,3-Dichloropropene	ND	5.00		ug/L
100-41-4	Ethylbenzene	ND	5.00		ug/L
87-68-3	Hexachlorobutadiene	ND	5.00		ug/L
98-82-8	Isopropylbenzene (Cumene)	ND	5.00		ug/L
74-88-4	Methyl iodide	ND	5.00		ug/L
75-09-2	Methylene chloride	ND	10.0		ug/L
91-20-3	Naphthalene	ND	5.00		ug/L
100-42-5	Styrene	ND	5.00		ug/L
127-18-4	Tetrachloroethene	ND	5.00		ug/L
108-88-3	Toluene	ND	5.00		ug/L
79-01-6	Trichloroethene	ND	5.00		ug/L
75-69-4	Trichlorofluoromethane	ND	5.00		ug/L
76-13-1	Trichlorotrifluoroethane	ND	5.00		ug/L
108-05-4	Vinyl acetate	ND	5.00		ug/L
75-01-4	Vinyl chloride	ND	5.00		ug/L
1330-20-7	Xylene (total)	ND	10.0		ug/L
156-59-2	cis-1,2-Dichloroethene	ND	5.00		ug/L
136777-61-2	m,p-Xylene	ND	5.00		ug/L
103-65-1	n-Propylbenzene	ND	5.00		ug/L

Lab ID	Sample ID	Matrix	Collected	Received
20305222501	WATER PIT	Water	05/22/2003 12:00	05/22/2003 15:35

8260B, Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	05/28/2003 15:40	KRV	257689

CAS #	Parameter	Result	RDL	REG LIMIT	Units
95-47-6	o-Xylene	ND	5.00		ug/L
135-98-8	sec-Butylbenzene	ND	5.00		ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	5.00		ug/L
98-06-6	tert-Butylbenzene	ND	5.00		ug/L
156-60-5	trans-1,2-Dichloroethene	ND	5.00		ug/L
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.00		ug/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	50	42.3 ug/L	85	78 - 115
1868-53-7	Dibromofluoromethane	50	48.8 ug/L	98	70 - 130
2037-26-5	Toluene d8	50	44.5 ug/L	89	83 - 112
17060-07-0	1,2-Dichloroethane-d4	50	47.9 ug/L	96	76 - 128

8270C, SemiVolatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
05/29/2003 14:30	257827	3510C	1	06/02/2003 09:38	RLW	257970

CAS #	Parameter	Result	RDL	REG LIMIT	Units
122-66-7	1,2 Diphenylhydrazine	ND	10.1		ug/L
120-82-1	1,2,4-Trichlorobenzene	ND	10.1		ug/L
95-50-1	1,2-Dichlorobenzene	ND	10.1		ug/L
541-73-1	1,3-Dichlorobenzene	ND	10.1		ug/L
106-46-7	1,4-Dichlorobenzene	ND	10.1		ug/L
95-95-4	2,4,5-Trichlorophenol	ND	10.1		ug/L
88-06-2	2,4,6-Trichlorophenol	ND	10.1		ug/L
120-83-2	2,4-Dichlorophenol	ND	10.1		ug/L
51-28-5	2,4-Dinitrophenol	ND	50.5		ug/L
121-14-2	2,4-Dinitrotoluene	ND	10.1		ug/L
606-20-2	2,6-Dinitrotoluene	ND	10.1		ug/L
91-58-7	2-Chloronaphthalene	ND	10.1		ug/L
95-57-8	2-Chlorophenol	ND	10.1		ug/L
91-57-6	2-Methylnaphthalene	ND	10.1		ug/L
88-74-4	2-Nitroaniline	ND	50.5		ug/L
88-75-5	2-Nitrophenol	ND	10.1		ug/L
91-94-1	3,3'-Dichlorobenzidine	ND	20.2		ug/L
99-09-2	3-Nitroaniline	ND	50.5		ug/L
534-52-1	4,6-Dinitro-2-methylphenol	ND	50.5		ug/L
59-50-7	4-Chloro-3-methylphenol	ND	10.1		ug/L
106-47-8	4-Chloroaniline	ND	10.1		ug/L
7005-72-3	4-Chlorophenyl phenyl ether	ND	10.1		ug/L
83-32-9	Acenaphthene	ND	10.1		ug/L
208-96-8	Acenaphthylene	ND	10.1		ug/L

Lab ID	Sample ID	Matrix	Collected	Received
20305222501	WATER PIT	Water	05/22/2003 12:00	05/22/2003 15:35

8270C, SemiVolatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
05/29/2003 14:30	257827	3510C	1	06/02/2003 09:38	RLW	257970

CAS #	Parameter	Result	RDL	REG LIMIT	Units
62-53-3	Aniline	ND	10.1		ug/L
120-12-7	Anthracene	ND	10.1		ug/L
92-87-5	Benzidine	ND	40.4		ug/L
56-55-3	Benzo(a)anthracene	ND	10.1		ug/L
50-32-8	Benzo(a)pyrene	ND	10.1		ug/L
205-99-2	Benzo(b)fluoranthene	ND	10.1		ug/L
191-24-2	Benzo(g,h,i)perylene	ND	10.1		ug/L
207-08-9	Benzo(k)fluoranthene	ND	10.1		ug/L
65-85-0	Benzoic acid	ND	50.5		ug/L
100-51-6	Benzyl alcohol	ND	10.1		ug/L
111-91-1	Bis(2-Chloroethoxy)methane	ND	10.1		ug/L
111-44-4	Bis(2-Chloroethyl)ether	ND	10.1		ug/L
108-60-1	Bis(2-Chloroisopropyl)ether	ND	10.1		ug/L
117-81-7	Bis(2-Ethylhexyl)phthalate	ND	10.1		ug/L
101-55-3	4-Bromophenyl phenyl ether	ND	10.1		ug/L
85-68-7	Butyl benzyl phthalate	ND	10.1		ug/L
86-74-8	Carbazole	ND	10.1		ug/L
218-01-9	Chrysene	ND	10.1		ug/L
84-74-2	Di-n-butyl phthalate	ND	10.1		ug/L
117-84-0	Di-n-octyl phthalate	ND	10.1		ug/L
53-70-3	Dibenz(a,h)anthracene	ND	10.1		ug/L
132-64-9	Dibenzofuran	ND	10.1		ug/L
84-66-2	Diethyl phthalate	ND	10.1		ug/L
131-11-3	Dimethyl phthalate	ND	10.1		ug/L
105-67-9	2,4-Dimethylphenol	ND	10.1		ug/L
206-44-0	Fluoranthene	ND	10.1		ug/L
86-73-7	Fluorene	ND	10.1		ug/L
118-74-1	Hexachlorobenzene	ND	10.1		ug/L
87-68-3	Hexachlorobutadiene	ND	10.1		ug/L
77-47-4	Hexachlorocyclopentadiene	ND	10.1		ug/L
67-72-1	Hexachloroethane	ND	10.1		ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	ND	10.1		ug/L
78-59-1	Isophorone	ND	10.1		ug/L
91-20-3	Naphthalene	ND	10.1		ug/L
100-01-6	4-Nitroaniline	ND	50.5		ug/L
98-95-3	Nitrobenzene	ND	10.1		ug/L
100-02-7	4-Nitrophenol	ND	50.5		ug/L
87-86-5	Pentachlorophenol	ND	50.5		ug/L
85-01-8	Phenanthrene	ND	10.1		ug/L
108-95-2	Phenol	ND	10.1		ug/L
129-00-0	Pyrene	ND	10.1		ug/L
110-86-1	Pyridine	ND	10.1		ug/L
1319-77-3MP	m,p-Cresol	ND	10.1		ug/L
621-64-7	n-Nitrosodi-n-propylamine	ND	10.1		ug/L

Lab ID	Sample ID	Matrix	Collected	Received
20305222501	WATER PIT	Water	05/22/2003 12:00	05/22/2003 15:35

8270C, SemiVolatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
05/29/2003 14:30	257827	3510C	1	06/02/2003 09:38	RLW	257970

CAS #	Parameter	Result	RDL	REG LIMIT	Units
62-75-9	n-Nitrosodimethylamine	ND	10.1		ug/L
86-30-6	n-Nitrosodiphenylamine	ND	10.1		ug/L
95-48-7	o-Cresol	ND	10.1		ug/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
4165-60-0	Nitrobenzene-d5	50.5	36.5 ug/L	72	43 - 110
321-60-8	2-Fluorobiphenyl	50.5	37.1 ug/L	73	16 - 128
1718-51-0	Terphenyl-d14	50.5	51.8 ug/L	103	47 - 121
4165-62-2	Phenol-d5	101	36.8 ug/L	36	10 - 76
367-12-4	2-Fluorophenol	101	49.5 ug/L	49	24 - 96
118-79-6	2,4,6-Tribromophenol	101	78.6 ug/L	78	19 - 133

HACH 8000 - COD

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	05/27/2003 11:47	MDT	257690

CAS #	Parameter	Result	RDL	REG LIMIT	Units
C-004	COD	72.7	5.0		mg/L

5210B BOD (5 Day)

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
05/23/2003 15:40	257631	BOD PREP	1	05/23/2003 15:40	HLO	257761

CAS #	Parameter	Result	RDL	REG LIMIT	Units
C-002	BOD	ND	6		mg/L

EPA 5310B TOC

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	05/26/2003 00:18	BMC	257654

CAS #	Parameter	Result	RDL	REG LIMIT	Units
C-012	Total Organic Carbon	26.8	1.0		mg/L

2540 D, TSS - Water

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
				05/23/2003 16:25	AEL	257627

CAS #	Parameter	Result	RDL	REG LIMIT	Units
C-009	Total Suspended Solids	4	1		mg/L

Lab ID	Sample ID	Matrix	Collected	Received
20305222501	WATER PIT	Water	05/22/2003 12:00	05/22/2003 15:35

RESULTS REPORTED ON A WET WEIGHT BASIS

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
100169	Method Blank	Water	

SW-846 6010B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
05/23/2003 10:45	257597	3010A	1	05/25/2003 12:26	JAC	257565

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
7440-38-2	Arsenic	ND	0.040		mg/L
7440-39-3	Barium	ND	0.010		mg/L
7440-43-9	Cadmium	ND	0.0050		mg/L
7440-47-3	Chromium	ND	0.010		mg/L
7439-92-1	Lead	ND	0.015		mg/L
7782-49-2	Selenium	ND	0.040		mg/L
7440-22-4	Silver	ND	0.010		mg/L

LAB ID	SAMPLE ID	MATRIX	REPORTED
100173	Method Blank	Water	

SW-846 7470A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
05/23/2003 10:45	257598	SW-846 7470A	1	05/25/2003 09:27	JAC	257650

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
7439-97-6	Mercury	ND	0.00020		mg/L

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
100277	Method Blank	Water	

2540 D

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
				05/23/2003 16:25	AEL	257627

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
C-009	Total Suspended Solids	ND	1		mg/L

LAB ID	SAMPLE ID	MATRIX	REPORTED
100480	Method Blank	Water	

EPA 5310 B (TOC)

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	05/25/2003 18:51	BMC	257654

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
C-012	Total Organic Carbon	ND	1.0		mg/L

LAB ID	SAMPLE ID	MATRIX	REPORTED
100591	Method Blank	Water	

HACH 8000

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	05/27/2003 11:42	MDT	257690

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
C-004	COD	ND	5.0		mg/L

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
100589	Method Blank	Water	

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	05/28/2003 12:47	KRV	257689

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.00		ug/L
71-55-6	1,1,1-Trichloroethane	ND	5.00		ug/L
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.00		ug/L
79-00-5	1,1,2-Trichloroethane	ND	5.00		ug/L
75-34-3	1,1-Dichloroethane	ND	5.00		ug/L
75-35-4	1,1-Dichloroethene	ND	5.00		ug/L
563-58-6	1,1-Dichloropropene	ND	5.00		ug/L
96-18-4	1,2,3-Trichloropropane	ND	5.00		ug/L
120-82-1	1,2,4-Trichlorobenzene	ND	5.00		ug/L
95-63-6	1,2,4-Trimethylbenzene	ND	5.00		ug/L
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.00		ug/L
106-93-4	1,2-Dibromoethane	ND	5.00		ug/L
95-50-1	1,2-Dichlorobenzene	ND	5.00		ug/L
107-06-2	1,2-Dichloroethane	ND	5.00		ug/L
540-59-0	1,2-Dichloroethene(Total)	ND	10.0		ug/L
78-87-5	1,2-Dichloropropane	ND	5.00		ug/L
108-67-8	1,3,5-Trimethylbenzene	ND	5.00		ug/L
541-73-1	1,3-Dichlorobenzene	ND	5.00		ug/L
142-28-9	1,3-Dichloropropane	ND	5.00		ug/L
106-46-7	1,4-Dichlorobenzene	ND	5.00		ug/L
594-20-7	2,2-Dichloropropane	ND	5.00		ug/L
78-93-3	2-Butanone	ND	25.0		ug/L
110-75-8	2-Chloroethylvinyl ether	ND	5.00		ug/L
95-49-8	2-Chlorotoluene	ND	5.00		ug/L
591-78-6	2-Hexanone	ND	5.00		ug/L
106-43-4	4-Chlorotoluene	ND	5.00		ug/L
99-87-6	4-Isopropyltoluene	ND	5.00		ug/L
108-10-1	4-Methyl-2-pentanone	ND	5.00		ug/L
67-64-1	Acetone	ND	25.0		ug/L
107-02-8	Acrolein	ND	25.0		ug/L
107-13-1	Acrylonitrile	ND	25.0		ug/L
71-43-2	Benzene	ND	5.00		ug/L
108-86-1	Bromobenzene	ND	5.00		ug/L
74-97-5	Bromochloromethane	ND	5.00		ug/L
75-27-4	Bromodichloromethane	ND	5.00		ug/L
75-25-2	Bromoform	ND	5.00		ug/L
74-83-9	Bromomethane	ND	5.00		ug/L
104-51-8	n-Butylbenzene	ND	5.00		ug/L
75-15-0	Carbon disulfide	ND	5.00		ug/L
56-23-5	Carbon tetrachloride	ND	5.00		ug/L
108-90-7	Chlorobenzene	ND	5.00		ug/L

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
100589	Method Blank	Water	

SW-846 8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	05/28/2003 12:47	KRV	257689

75-00-3	Chloroethane	ND	5.00	ug/L
67-66-3	Chloroform	ND	5.00	ug/L
74-87-3	Chloromethane	ND	5.00	ug/L
124-48-1	Dibromochloromethane	ND	5.00	ug/L
74-95-3	Dibromomethane	ND	5.00	ug/L
75-71-8	Dichlorodifluoromethane	ND	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	ND	5.00	ug/L
10061-02-6	trans-1,3-Dichloropropene	ND	5.00	ug/L
100-41-4	Ethylbenzene	ND	5.00	ug/L
87-68-3	Hexachlorobutadiene	ND	5.00	ug/L
98-82-8	Isopropylbenzene (Cumene)	ND	5.00	ug/L
74-88-4	Methyl Iodide	ND	5.00	ug/L
75-09-2	Methylene chloride	ND	10.0	ug/L
91-20-3	Naphthalene	ND	5.00	ug/L
100-42-5	Styrene	ND	5.00	ug/L
127-18-4	Tetrachloroethene	ND	5.00	ug/L
108-88-3	Toluene	ND	5.00	ug/L
79-01-6	Trichloroethene	ND	5.00	ug/L
75-69-4	Trichlorofluoromethane	ND	5.00	ug/L
76-13-1	Trichlorotrifluoroethane	ND	5.00	ug/L
108-05-4	Vinyl acetate	ND	5.00	ug/L
75-01-4	Vinyl chloride	ND	5.00	ug/L
1330-20-7	Xylene (total)	ND	10.0	ug/L
156-59-2	cis-1,2-Dichloroethene	ND	5.00	ug/L
136777-61-2	m,p-Xylene	ND	5.00	ug/L
103-65-1	n-Propylbenzene	ND	5.00	ug/L
95-47-6	o-Xylene	ND	5.00	ug/L
135-98-8	sec-Butylbenzene	ND	5.00	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	ND	5.00	ug/L
98-06-6	tert-Butylbenzene	ND	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	ND	5.00	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.00	ug/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	4-Bromofluorobenzene	50	42 ug/L	84	78 - 115
1868-53-7	Dibromofluoromethane	50	43.5 ug/L	87	70 - 130
2037-26-5	Toluene d8	50	44.1 ug/L	88	83 - 112
17060-07-0	1,2-Dichloroethane-d4	50	42.2 ug/L	84	76 - 128

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
101411	Method Blank	Water	

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
05/29/2003 14:30	257827	3510C	1	05/30/2003 17:03	RLW	257925

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
122-66-7	1,2 Diphenylhydrazine	ND	10.0		ug/L
120-82-1	1,2,4-Trichlorobenzene	ND	10.0		ug/L
95-50-1	1,2-Dichlorobenzene	ND	10.0		ug/L
541-73-1	1,3-Dichlorobenzene	ND	10.0		ug/L
106-46-7	1,4-Dichlorobenzene	ND	10.0		ug/L
95-95-4	2,4,5-Trichlorophenol	ND	10.0		ug/L
88-06-2	2,4,6-Trichlorophenol	ND	10.0		ug/L
120-83-2	2,4-Dichlorophenol	ND	10.0		ug/L
51-28-5	2,4-Dinitrophenol	ND	50.0		ug/L
121-14-2	2,4-Dinitrotoluene	ND	10.0		ug/L
606-20-2	2,6-Dinitrotoluene	ND	10.0		ug/L
91-58-7	2-Chloronaphthalene	ND	10.0		ug/L
95-57-8	2-Chlorophenol	ND	10.0		ug/L
91-57-6	2-Methylnaphthalene	ND	10.0		ug/L
88-74-4	2-Nitroaniline	ND	50.0		ug/L
88-75-5	2-Nitrophenol	ND	10.0		ug/L
91-94-1	3,3'-Dichlorobenzidine	ND	20.0		ug/L
99-09-2	3-Nitroaniline	ND	50.0		ug/L
534-52-1	4,6-Dinitro-2-methylphenol	ND	50.0		ug/L
59-50-7	4-Chloro-3-methylphenol	ND	10.0		ug/L
106-47-8	4-Chloroaniline	ND	10.0		ug/L
7005-72-3	4-Chlorophenyl phenyl ether	ND	10.0		ug/L
83-32-9	Acenaphthene	ND	10.0		ug/L
208-96-8	Acenaphthylene	ND	10.0		ug/L
62-53-3	Aniline	ND	10.0		ug/L
120-12-7	Anthracene	ND	10.0		ug/L
92-87-5	Benzidine	ND	40.0		ug/L
56-55-3	Benzo(a)anthracene	ND	10.0		ug/L
50-32-8	Benzo(a)pyrene	ND	10.0		ug/L
205-99-2	Benzo(b)fluoranthene	ND	10.0		ug/L
191-24-2	Benzo(g,h,i)perylene	ND	10.0		ug/L
207-08-9	Benzo(k)fluoranthene	ND	10.0		ug/L
65-85-0	Benzoic acid	ND	50.0		ug/L
100-51-6	Benzyl alcohol	ND	10.0		ug/L
111-91-1	Bis(2-Chloroethoxy)methane	ND	10.0		ug/L
111-44-4	Bis(2-Chloroethyl)ether	ND	10.0		ug/L
108-60-1	Bis(2-Chloroisopropyl)ether	ND	10.0		ug/L
117-81-7	Bis(2-Ethylhexyl)phthalate	ND	10.0		ug/L
101-55-3	4-Bromophenyl phenyl ether	ND	10.0		ug/L
85-68-7	Butyl benzyl phthalate	ND	10.0		ug/L
86-74-8	Carbazole	ND	10.0		ug/L

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
101411	Method Blank	Water	

SW-846 8270C

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
05/29/2003 14:30	257827	3510C	1	05/30/2003 17:03	RLW	257925

218-01-9	Chrysene	ND	10.0	ug/L
84-74-2	Di-n-butyl phthalate	ND	10.0	ug/L
117-84-0	Di-n-octyl phthalate	ND	10.0	ug/L
53-70-3	Dibenz(a,h)anthracene	ND	10.0	ug/L
132-64-9	Dibenzofuran	ND	10.0	ug/L
84-66-2	Diethyl phthalate	ND	10.0	ug/L
131-11-3	Dimethyl phthalate	ND	10.0	ug/L
105-67-9	2,4-Dimethylphenol	ND	10.0	ug/L
206-44-0	Fluoranthene	ND	10.0	ug/L
86-73-7	Fluorene	ND	10.0	ug/L
118-74-1	Hexachlorobenzene	ND	10.0	ug/L
87-68-3	Hexachlorobutadiene	ND	10.0	ug/L
77-47-4	Hexachlorocyclopentadiene	ND	10.0	ug/L
67-72-1	Hexachloroethane	ND	10.0	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	ND	10.0	ug/L
78-59-1	Isophorone	ND	10.0	ug/L
91-20-3	Naphthalene	ND	10.0	ug/L
100-01-6	4-Nitroaniline	ND	50.0	ug/L
98-95-3	Nitrobenzene	ND	10.0	ug/L
100-02-7	4-Nitrophenol	ND	50.0	ug/L
87-86-5	Pentachlorophenol	ND	50.0	ug/L
85-01-8	Phenanthrene	ND	10.0	ug/L
108-95-2	Phenol	ND	10.0	ug/L
129-00-0	Pyrene	ND	10.0	ug/L
110-86-1	Pyridine	ND	10.0	ug/L
1319-77-3MP	m,p-Cresol	ND	10.0	ug/L
621-64-7	n-Nitrosodi-n-propylamine	ND	10.0	ug/L
62-75-9	n-Nitrosodimethylamine	ND	10.0	ug/L
86-30-6	n-Nitrosodiphenylamine	ND	10.0	ug/L
95-48-7	o-Cresol	ND	10.0	ug/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
4165-60-0	Nitrobenzene-d5	50	41.2 ug/L	82	43 - 110
321-60-8	2-Fluorobiphenyl	50	41.3 ug/L	83	16 - 128
1718-51-0	Terphenyl-d14	50	56.4 ug/L	113	47 - 121
4165-62-2	Phenol-d5	100	38.1 ug/L	38	10 - 76
367-12-4	2-Fluorophenol	100	56.7 ug/L	57	24 - 96
118-79-6	2,4,6-Tribromophenol	100	78.6 ug/L	79	19 - 133

QUALITY CONTROL SUMMARY

LCS ID: 100170 | ORIGINAL LAB ID: | PREP BATCH: 257597
MATRIX: Water | ANALYTICAL BATCH: 257585

SW-846 6010B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
7440-38-2	Arsenic	1 mg/L	1.03	103	80 - 120
7440-39-3	Barium	1 mg/L	1	100	80 - 120
7440-43-9	Cadmium	1 mg/L	0.98	98	80 - 120
7440-47-3	Chromium	1 mg/L	1	100	80 - 120
7439-92-1	Lead	1 mg/L	0.98	98	80 - 120
7782-49-2	Selenium	1 mg/L	1	100	80 - 120
7440-22-4	Silver	1 mg/L	1.01	101	80 - 120

DUPLICATE SAMPLE ID: 100171 | ORIGINAL LAB ID: 203052225-01 | PREP BATCH: 257597
MATRIX: Water | ANALYTICAL BATCH: 257585

SW-846 6010B

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
7440-38-2	Arsenic	0.0061	0.0049	22 *	0 - 20
7440-39-3	Barium	0.22	0.22	0	0 - 20
7440-43-9	Cadmium	0	0	0	0 - 20
7440-47-3	Chromium	0.0011	0.001	10	0 - 20
7439-92-1	Lead	0	0	0	0 - 20
7782-49-2	Selenium	0	0	0	0 - 20
7440-22-4	Silver	0	0.001	200 *	0 - 20

MS LAB ID: 100172 | ORIGINAL LAB ID: 203052225-01 | PREP BATCH: 257597
MATRIX: Water | ANALYTICAL BATCH: 257585

SW-846 6010B

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
7440-38-2	Arsenic	0.0061	1 mg/L	1.1	109	75 - 125
7440-39-3	Barium	0.22	1 mg/L	1.26	104	75 - 125
7440-43-9	Cadmium	0	1 mg/L	1.01	101	75 - 125
7440-47-3	Chromium	0.0011	1 mg/L	1.04	103	75 - 125
7439-92-1	Lead	0	1 mg/L	1.01	101	75 - 125
7782-49-2	Selenium	0	1 mg/L	1.06	106	75 - 125
7440-22-4	Silver	0	1 mg/L	1.05	105	75 - 125

LCS ID: 100174 | ORIGINAL LAB ID: | PREP BATCH: 257598
MATRIX: Water | ANALYTICAL BATCH: 257650

SW-846 7470A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
7439-97-6	Mercury	0.005 mg/L	0.00486	97	80 - 120

DUPLICATE SAMPLE ID: 100175 | ORIGINAL LAB ID: 203052225-01 | PREP BATCH: 257598
MATRIX: Water | ANALYTICAL BATCH: 257650

QUALITY CONTROL SUMMARY

SW-846 7470A

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
7439-97-6	Mercury	0	0	0	0 - 20

MS LAB ID: 100176 ORIGINAL LAB ID: 203052225-01 PREP BATCH: 257598
MATRIX: Water ANALYTICAL BATCH: 257650

SW-846 7470A

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
7439-97-6	Mercury	0	0.005 mg/L	0.00487	97	75 - 125

QUALITY CONTROL SUMMARY

LCS ID: 100276 | ORIGINAL LAB ID: | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 257627

2540 D

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
C-009	Total Suspended Solids	50 mg/L	50	100	80 - 120

DUPLICATE SAMPLE ID: 203052320D4 | ORIGINAL LAB ID: 203052320D1 | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 257627

2540 D

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
C-009	Total Suspended Solids	0	0	0	0 - 25

LCS ID: 100451 | ORIGINAL LAB ID: | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 257654

EPA 5310 B (TOC)

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
C-012	Total Organic Carbon	50 mg/L	54.1	108	80 - 120

DUPLICATE SAMPLE ID: 100462 | ORIGINAL LAB ID: 203052305D1 | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 257654

EPA 5310 B (TOC)

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
C-012	Total Organic Carbon	8.9	8.7	2	0 - 25

MS LAB ID: 100463 | ORIGINAL LAB ID: 203052305D1 | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 257654

EPA 5310 B (TOC)

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
C-012	Total Organic Carbon	8.9	50 mg/L	62.2	107	75 - 125

LCS ID: 100592 | ORIGINAL LAB ID: | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 257690

HACH 8000

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
C-004	COD	100 mg/L	108	108	80 - 120

MS LAB ID: 100593 | ORIGINAL LAB ID: 203052305D1 | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 257690

HACH 8000

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
C-004	COD	10.8	100 mg/L	106	95	75 - 125

DUPLICATE SAMPLE ID: 100594 | ORIGINAL LAB ID: 203052305D1 | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 257690

QUALITY CONTROL SUMMARY

HACH 8000

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
C-004	COD	10.8	11.6	7	0 - 25

LCS ID: 100279 ORIGINAL LAB ID: PREP BATCH: 257631
MATRIX: Water ANALYTICAL BATCH: 257751

5210B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
C-002	BOD	200 mg/L	173	86	83.5 - 115.5

DUPLICATE SAMPLE ID: 203052318G2 ORIGINAL LAB ID: 203052318G1 PREP BATCH: 257631
MATRIX: Water ANALYTICAL BATCH: 257761

5210B

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
C-002	BOD	10	9	11	0 - 25

QUALITY CONTROL SUMMARY

LCS ID: 100590 | ORIGINAL LAB ID: | PREP BATCH:
MATRIX: Water | ANALYTICAL BATCH: 257689

SW-846 8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
75-35-4	1,1-Dichloroethene	50 ug/L	52.8	106	67 - 140
71-43-2	Benzene	50 ug/L	54.4	109	74 - 128
79-01-6	Trichloroethene	50 ug/L	49.8	100	63 - 118
108-88-3	Toluene	50 ug/L	54.1	108	76 - 125
108-90-7	Chlorobenzene	50 ug/L	54.3	109	78 - 125

MS LAB ID: 101112 | ORIGINAL LAB ID: 203052203502 | PREP BATCH:
MATRIX: Water | ANALYTICAL BATCH: 257689

SW-846 8260B

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
75-35-4	1,1-Dichloroethene	0	50 ug/L	60.4	121	61 - 145
71-43-2	Benzene	0	50 ug/L	54.5	109	76 - 127
79-01-6	Trichloroethene	0	50 ug/L	49.1	98	71 - 120
108-88-3	Toluene	0	50 ug/L	53.3	107	76 - 125
108-90-7	Chlorobenzene	0	50 ug/L	53.3	107	75 - 130

MSD LAB ID: 101113 | ORIGINAL LAB ID: 203052203502 | PREP BATCH:
MATRIX: Water | ANALYTICAL BATCH: 257689

SW-846 8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
67-64-1	Acetone					0	0 - 30
107-02-8	Acrolein					0	0 - 30
107-13-1	Acrylonitrile					0	0 - 30
74-97-5	Bromochloromethane					0	0 - 30
75-27-4	Bromodichloromethane					0	0 - 30
75-25-2	Bromoform					0	0 - 30
74-83-9	Bromomethane					0	0 - 30
75-15-0	Carbon disulfide					0	0 - 30
56-23-5	Carbon tetrachloride					0	0 - 30
75-00-3	Chloroethane					0	0 - 30
136777-61-2	m,p-Xylene					0	0 - 30
67-66-3	Chloroform					0	0 - 30
74-87-3	Chloromethane					0	0 - 30
124-48-1	Dibromochloromethane					0	0 - 30
74-95-3	Dibromomethane					0	0 - 30
75-71-8	Dichlorodifluoromethane					0	0 - 30
75-34-3	1,1-Dichloroethane					0	0 - 30
107-06-2	1,2-Dichloroethane					0	0 - 30
156-59-2	cis-1,2-Dichloroethene					0	0 - 30
156-60-5	trans-1,2-Dichloroethene					0	0 - 30

QUALITY CONTROL SUMMARY

75-09-2	Methylene chloride	0	0 - 30
78-87-5	1,2-Dichloropropane	0	0 - 30
10061-01-5	cis-1,3-Dichloropropene	0	0 - 30
10061-02-6	trans-1,3-Dichloropropene	0	0 - 30
100-41-4	Ethylbenzene	0	0 - 30
591-78-6	2-Hexanone	0	0 - 30
98-82-8	Isopropylbenzene (Cumene)	0	0 - 30
78-93-3	2-Butanone	0	0 - 30
74-88-4	Methyl iodide	0	0 - 30
108-10-1	4-Methyl-2-pentanone	0	0 - 30
103-65-1	n-Propylbenzene	0	0 - 30
100-42-5	Styrene	0	0 - 30
127-18-4	Tetrachloroethene	0	0 - 30
630-20-6	1,1,1,2-Tetrachloroethane	0	0 - 30
79-34-5	1,1,2,2-Tetrachloroethane	0	0 - 30
120-82-1	1,2,4-Trichlorobenzene	0	0 - 30
71-55-6	1,1,1-Trichloroethane	0	0 - 30
79-00-5	1,1,2-Trichloroethane	0	0 - 30
75-69-4	Trichlorofluoromethane	0	0 - 30
96-18-4	1,2,3-Trichloropropane	0	0 - 30
95-63-6	1,2,4-Trimethylbenzene	0	0 - 30
108-67-8	1,3,5-Trimethylbenzene	0	0 - 30
75-01-4	Vinyl chloride	0	0 - 30
95-47-6	o-Xylene	0	0 - 30
96-12-8	1,2-Dibromo-3-chloropropane	0	0 - 30
106-93-4	1,2-Dibromoethane	0	0 - 30
108-05-4	Vinyl acetate	0	0 - 30
1634-04-4	tert-Butyl methyl ether (MTBE)	0	0 - 30
540-59-0	1,2-Dichloroethene(Total)	0	0 - 30
99-87-6	4-Isopropyltoluene	0	0 - 30
1330-20-7	Xylene (total)	0	0 - 30
110-57-6	trans-1,4-Dichloro-2-butene	0	0 - 30
594-20-7	2,2-Dichloropropane	0	0 - 30
76-13-1	Trichlorotrifluoroethane	0	0 - 30
563-58-6	1,1-Dichloropropene	0	0 - 30
110-75-8	2-Chloroethylvinyl ether	0	0 - 30
142-28-9	1,3-Dichloropropane	0	0 - 30
108-86-1	Bromobenzene	0	0 - 30
95-49-8	2-Chlorotoluene	0	0 - 30
106-43-4	4-Chlorotoluene	0	0 - 30
98-06-6	tert-Butylbenzene	0	0 - 30
135-98-8	sec-Butylbenzene	0	0 - 30
541-73-1	1,3-Dichlorobenzene	0	0 - 30
106-46-7	1,4-Dichlorobenzene	0	0 - 30
104-51-8	n-Butylbenzene	0	0 - 30

QUALITY CONTROL SUMMARY

95-50-1	1,2-Dichlorobenzene					0	0 - 30
87-68-3	Hexachlorobutadiene					0	0 - 30
91-20-3	Naphthalene					0	0 - 30
75-35-4	1,1-Dichloroethene	50 ug/L	57.4	115	61 - 145	5	0 - 14
71-43-2	Benzene	50 ug/L	57.5	115	76 - 127	5	0 - 11
79-01-6	Trichloroethene	50 ug/L	45.7	91	71 - 120	7	0 - 14
108-88-3	Toluene	50 ug/L	54.5	109	76 - 125	2	0 - 13
108-90-7	Chlorobenzene	50 ug/L	54.3	109	75 - 130	2	0 - 13

QUALITY CONTROL SUMMARY

LCS ID: 101412 | ORIGINAL LAB ID: | PREP BATCH: 257927
MATRIX: Water | ANALYTICAL BATCH: 257925

SW-846 8270C

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
108-95-2	Phenol	200 ug/L	64	32	8 - 53
95-57-8	2-Chlorophenol	200 ug/L	162	81	38 - 90
106-46-7	1,4-Dichlorobenzene	100 ug/L	64.3	64	46 - 93
621-64-7	n-Nitrosodi-n-propylamine	100 ug/L	80.9	81	55 - 102
120-82-1	1,2,4-Trichlorobenzene	100 ug/L	69	69	53 - 113
59-50-7	4-Chloro-3-methylphenol	200 ug/L	168	84	45 - 98
83-32-9	Acenaphthene	100 ug/L	77.7	78	58 - 98
100-02-7	4-Nitrophenol	200 ug/L	53.8	27	8 - 62
121-14-2	2,4-Dinitrotoluene	100 ug/L	84.9	85	67 - 123
87-86-5	Pentachlorophenol	200 ug/L	173	87	32 - 132
129-00-0	Pyrene	100 ug/L	94.6	95	44 - 114

MS LAB ID: 101413 | ORIGINAL LAB ID: 203052272001 | PREP BATCH: 257927
MATRIX: Solid | ANALYTICAL BATCH: 257925

SW-846 8270C

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
106-46-7	1,4-Dichlorobenzene	0	500 ug/L	352	70	39 - 104
121-14-2	2,4-Dinitrotoluene	0	500 ug/L	452	90	46 - 130
87-86-5	Pentachlorophenol	0	1000 ug/L	983	98	36 - 125

MSD LAB ID: 101414 | ORIGINAL LAB ID: 203052272001 | PREP BATCH: 257927
MATRIX: Solid | ANALYTICAL BATCH: 257925

SW-846 8270C

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
208-96-8	Acenaphthylene					0	0 - 40
120-12-7	Anthracene					0	0 - 40
56-55-3	Benzo(a)anthracene					0	0 - 40
92-87-5	Benzidine					0	0 - 40
205-99-2	Benzo(b)fluoranthene					0	0 - 40
207-08-9	Benzo(k)fluoranthene					0	0 - 40
191-24-2	Benzo(g,h,i)perylene					0	0 - 40
50-32-8	Benzo(a)pyrene					0	0 - 40
65-85-0	Benzoic acid					0	0 - 40
85-68-7	Butyl benzyl phthalate					0	0 - 40
111-91-1	Bis(2-Chloroethoxy)methane					0	0 - 40
111-44-4	Bis(2-Chloroethyl)ether					0	0 - 40
108-60-1	Bis(2-Chloroisopropyl)ether					0	0 - 40
117-81-7	Bis(2-Ethylhexyl)phthalate					0	0 - 40
101-55-3	4-Bromophenyl phenyl ether					0	0 - 40
86-74-8	Carbazole					0	0 - 40

QUALITY CONTROL SUMMARY

7005-72-3	4-Chlorophenyl phenyl ether	0	0 - 40
218-01-9	Chrysene	0	0 - 40
53-70-3	Dibenz(a,h)anthracene	0	0 - 40
132-64-9	Dibenzofuran	0	0 - 40
95-50-1	1,2-Dichlorobenzene	0	0 - 40
541-73-1	1,3-Dichlorobenzene	0	0 - 40
91-94-1	3,3'-Dichlorobenzidine	0	0 - 40
120-83-2	2,4-Dichlorophenol	0	0 - 40
84-66-2	Diethyl phthalate	0	0 - 40
105-67-9	2,4-Dimethylphenol	0	0 - 40
131-11-3	Dimethyl phthalate	0	0 - 40
117-84-0	Di-n-octyl phthalate	0	0 - 40
51-28-5	2,4-Dinitrophenol	0	0 - 40
606-20-2	2,6-Dinitrotoluene	0	0 - 40
206-44-0	Fluoranthene	0	0 - 40
86-73-7	Fluorene	0	0 - 40
118-74-1	Hexachlorobenzene	0	0 - 40
87-68-3	Hexachlorobutadiene	0	0 - 40
77-47-4	Hexachlorocyclopentadiene	0	0 - 40
67-72-1	Hexachloroethane	0	0 - 40
78-59-1	Isophorone	0	0 - 40
193-39-5	Indeno(1,2,3-cd)pyrene	0	0 - 40
91-57-6	2-Methylnaphthalene	0	0 - 40
95-48-7	o-Cresol	0	0 - 40
91-20-3	Naphthalene	0	0 - 40
98-95-3	Nitrobenzene	0	0 - 40
88-75-5	2-Nitrophenol	0	0 - 40
62-75-9	n-Nitrosodimethylamine	0	0 - 40
86-30-6	n-Nitrosodiphenylamine	0	0 - 40
85-01-8	Phenanthrene	0	0 - 40
95-95-4	2,4,5-Trichlorophenol	0	0 - 40
88-06-2	2,4,6-Trichlorophenol	0	0 - 40
100-51-6	Benzyl alcohol	0	0 - 40
62-53-3	Aniline	0	0 - 40
110-86-1	Pyridine	0	0 - 40
99-09-2	3-Nitroaniline	0	0 - 40
100-01-6	4-Nitroaniline	0	0 - 40
84-74-2	Di-n-butyl phthalate	0	0 - 40
122-66-7	1,2 Diphenylhydrazine	0	0 - 40
88-74-4	2-Nitroaniline	0	0 - 40
91-58-7	2-Chloronaphthalene	0	0 - 40
106-47-8	4-Chloroaniline	0	0 - 40
1319-77-3MP	m,p-Cresol	11	0 - 40
534-52-1	4,6-Dinitro-2-methylphenol	0	0 - 40
108-95-2	Phenol	15	0 - 33

QUALITY CONTROL SUMMARY

95-57-8	2-Chlorophenol					11	0 - 41
106-46-7	1,4-Dichlorobenzene	500 ug/L	322	64	39 - 104	9	0 - 28
621-64-7	n-Nitrosodi-n-propylamine					13	0 - 33
120-82-1	1,2,4-Trichlorobenzene					8	0 - 32
59-50-7	4-Chloro-3-methylphenol					11	0 - 37
83-32-9	Acenaphthene					10	0 - 25
100-02-7	4-Nitrophenol					9	0 - 51
121-14-2	2,4-Dinitrotoluene	500 ug/L	393	79	46 - 130	14	0 - 38
87-86-5	Pentachlorophenol	1000 ug/L	922	92	36 - 125	6	0 - 41
129-00-0	Pyrene					9	0 - 31

GULF COAST ANALYTICAL LABORATORIES, INC.

7979 GSRI Avenue
Baton Rouge, LA
70820-7402

(225) 769-4900 • Fax (225) 767-5717

CHAIN OF CUSTODY RECORD

Lab use only	Client Name	Client #	Workorder #	Due Date
	Pisani & Assoc.	4271	20305225	5-27-03

Report to:
Client: Michael Pisani & Assoc.
Address: 1100 Poydras #1430
New Orleans LA 70163
Contact: Robert Leslie
Phone: 504/582-2468
Fax: 504/582-2470

Bill to:
Client:
Address: SAME
Contact:
Phone:
Fax:

P.O. Number: 26-01
Project Name/Number: SBA Shipyards IM/RA
Sampled By:

Analytical Requests & Method

Lab use only:
Custody Seal used ☐ yes ☑ no
in tact ☐ yes ☐ no
Temperature °C 3

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	Preservatives	No Containers	BOD	TSS	TDS	COD	8260 VOCs	8270 SVOCs	RCRA Metals	Lab ID
W	5/22/03	1200		X	WATER PIT	None	1	X	X						5127
↓	↓	↓		X	↓	HCl	1			X					
				X		H_2SO_4	1				X				
				X		$NaHSO_4$	3					X			
				X		None	2						X		
W	5/22/03	1200		X	Water PIT	HNO_3	1							X	-01

Remarks:

Turn Around Time: ☒ 24-48 hrs. ☐ 3 days ☐ 1 week ☐ Standard ☐ Other

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 5/22/03	Time: 1355
Relinquished by: (Signature)	Received by: (Signature)	Date: 5-22-03	Time: 1440

Note: Contact Robert Leslie 504/258-2521 w/questions

By submitting these samples, you agree to the terms and conditions contained in our most recent schedule of services.

Matrix: W – water, S – soil, SD – solid, L – liquid, SL – sludge, O – oil, CT – charcoal tube, A – air, BG – bag

We cannot accept verbal changes. Please fax written changes to (225) 767-5717

WHITE: CLIENT FINAL REPORT — CANARY: LABORATORY — PINK: CLIENT

GCAL-06 11/98

MAILING ADDRESS: SAME AS ABOVE
(Street/P.O. Box) (City) (State) (ZIP)

FACILITY REPRESENTATIVE: LOUIS SMATHALL TITLE: OWNER

INSPECTION TYPE: REMEDIATION MEDIA INVOLVED: AIR (WASTE) (WATER) OTHER SOIL/GW

INSPECTOR'S OBSERVATIONS: (e.g. AREAS AND EQUIPMENT INSPECTED, PROBLEMS, DEFICIENCIES, REMARKS, VERBAL COMMITMENTS FROM FACILITY REPRESENATIVES)

ROUTINE INSPECTION TO CHECK SITE STATUS. EPA PROJECT MGR. WAS INFORMED LDEQ-RSD TEAM LEADER THAT HE HAS BEEN INFORMED THAT SITE OWNER HAS RECENTLY BEEN DISTURBING STAGED WASTE + TAKING OTHER ACTIONS THAT ARE INTERFERING WITH SITE CLEAN-UP, AND MAY BE WORSENING THE POLLUTION PROBLEMS AT THE

AREAS OF CONCERN	EXPLANATION	RESOLVED
FORMER OIL PIT	ALTHOUGH IT APPEARS THAT THE REMOVAL ACTION ON THIS AOI HAS BEEN	YES (NO)
	COMPLETED, AND THE EXCAVATION HAS BEEN BACKFILLED, THERE IS	YES NO
	NO EVIDENCE IN THE FORM OF	YES NO
	CONFIRMATORY SAMPLE DATA THAT VERIFIES THAT REMEDIATION HAS BEEN	YES NO
	COMPLETED. THEREFORE, THIS AOI REQUIRES FURTHER INVESTIGATION	

PHOTOS TAKEN: ☐ YES ☒ NO SAMPLES TAKEN: ☐ YES ☒ NO (Attach Chain-of-custody)

RECEIVED BY: SIGNATURE: COPIES TO BE MAILED TO OWNER, EPA + CONSULTANT TITLE:

PRINT NAME:

(NOTE: SIGNATURE DOES NOT INDICATE AGREEMENT WITH INSPECTOR'S NOTES)

INSPECTOR(S): KEITH HORN, VICKI HADEN

ATTACHMENTS: KN, KN

NOTE: The Information contained on this form reflects only the preliminary observations of the inspector(s). It should not be interpreted as a final determination by the Department of Environmental Quality or any of its officers or personnel as to any matter, including, but limited to, a determination of compliance or lack thereof by the facility operator with any requirements of statutes regulations or permits. Each day of non-compliance constitutes a separate violation of the regulations and/or the Louisiana Environmental Quality Act.

REVISED: 07/01/99

TEMPO'ED 6/4/04 MEDIA=IAS

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
FIELD INTERVIEW FORM OBSERVATIONS (cont'd)

FACILITY ID#: 1478 INSPECTION DATE: 6/3/04

FACILITY NAME: SBA SHIPYARDS

INSPECTOR OBSERVATIONS CONT:

SITE. I INFORMED HIM THAT THIS ACTIVITY SHOULD BE REPORTED TO THE LDEQ-SPOC, AS THESE ACTIVITIES COULD CAUSE NEW RELEASES WHICH SHOULD BE SUBJECT TO EPA + LDEQ ENFORCEMENT ACTION). KN

KN

INITIALS OF RECEIPT N/A

REVISED: 07/01/99

PAGE 2 OF 2

SBA SHIPYARDS
P.O. Box 1338
Jennings, LA 70546
LAD008434185 318-824-1519
Carolin

7530-00-274-5494
FEDERAL SUPPLY SERVICE
(GPO)

Woodward-Clyde Consultants

Engineering & Sciences applied to the earth & its environment

Dennis E. Reece
Senior Associate

2822 O'Neal Lane (70816) • P.O. Box 66317 (70896)
Baton Rouge, Louisiana • 504-751-1873 • Fax 504-753-3616

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Direct Line 504-756-1401

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Baton Rouge, Louisiana • 504-751-1873 • Fax 504-753-3616

VI-001(h)97-H

mike Digeglio
504-769-0010

Oct. 19 B day Saints.

Louis Smaihall
P.O. Box 1386
Jennings, La. 70546
337
~~318~~ 824-1519
FAX 318-824-8330

Louis Smaihall
701 South Polk St
Welsh, LA 70591
337-734-3501
337-824-8330

SBA Inspection

8/24/94

8:00 A.M Arrive facility.

8:30 Pit #1 clay bottom pit.
Recirculate water for cleaning out barges

8:38 Oil pit 12' deep
50' diameter

want to get incinerator to get rid of waste in tanks
International incinerator

9:30 Return to office of SBA to go through Checklist.

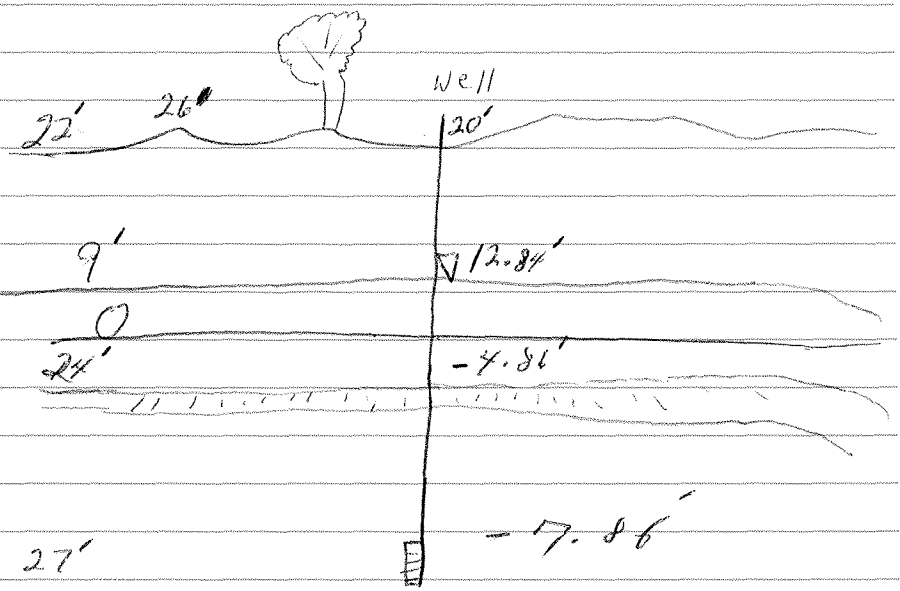
Storage tanks have never been cleaned out. Treat tanks for Haz. waste content. Tanks & impoundments may be RCRA units.

1989 hired ERI Env. Remed. Inc.

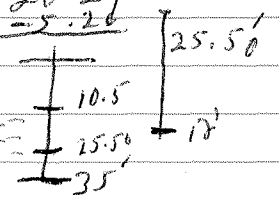
Started June 5, 1965

Reported to LW-EO in 1989 concerning operations no water discharged from plant. All sludge kept in ponds and cleaned out every couple of years.

ERI
John A. Christiansen
mike Thomas
504-291-4440
Fax 504-293-4774
Environmental Solutions

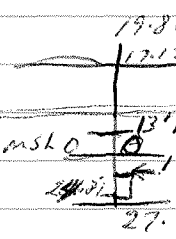


MW1 22.76 TOC Surface 20.24
-5.26 Scrn = 15'
28.02 B below surf.



MW2 16.64 TOC 13.68 surface
-3.86 Scrn = 5'

MW3 17.12 Ft. surface TOC 19.81
-2.69 Ft. -2.69 Ft. Scrn = 5'
19.81



BS From Phone = 5.71'
18.71' MSL
5.71
13.00-BS

Is Sludge from barge cleaning
H.W.?

Fredermans Barge
Lake Charles

No painting since December 1993.

Request attorney 8/16/94
Pat Larkin assigned.

1st meeting with attorney 8/31/94

Check with attorneys for double jeopardy.
State can dismiss without prejudice counts they already have

If no money at all send back to state for action.

Inspection due 9/15/94
Analytical data due 9/30/94

State penalty vs EPA penalty.

May 10, 1993 date when LDEQ took samples to be analyzed for TCLP constituents

Pond 1 & 2 contained HW benzene D018
1,2 dichloroethane D028 tetrachloroethy, D039 trichloroeth. D040

August 18, '93 LDEQ issued order requiring facility to cease using surface impounds.

11/14/94
called facility. Requested last
forms for last 3 years to run ABL
calculations for penalty.

12/28
sent Penalty Calc. to Larkin

1/10/95
Sent draft Complaint to
Pat Larkin
notified Jones of Actions

5/12/95
Received report from PRC on second
sampling event. Reviewed

Memo: Mike Vince, assistant Admin.
LDEQ Haz. Waste.
Pass info. about G. W through Wayne
Lesalle.

Russ Bowen
Water quality limited for constituents.
Measure Environmental indicators.

5/9
made arrangements to meet
at EPA on 6/22

6/2
Checked on land ban restriction
and land farming at SBA
Since TC wastes had no standard
until Dec 1994 cannot say
that landfarming of wastes

violated land ban restrictions (regs) etc.

6/21/95

Called state to let them know meeting with SBA to take place to discuss facts of case.

Water Pit #1 never had waste that showed haz waste.

Ann Kline (202)(564)-(4007) newly identified. Treat standards in 6 mo. No auto prohib. Prohib. only after treatment levels established.

3004(g)(1)(A)

(g)(4)

g(6)(C) hard hammer for those waste identified before Nov. 8, 1984

Any waste afterwards must have establish treat. stand. before subject to LDR ie: TC waste.

7/13/95

Recieved ORC reviewed copy of complaint. Had many wordprocessing corrections. Recieved only hard copy.

7/14 Requested ORC forward WP file of complaint so word-processing changes could be made by clerical staff.

7/26 Sent final draft of complaint to ORC. All clerical corrections were made.

8/10/95

Draft of H order given to H peer review Chairman for review.

9/14/95
Received call from SBA Contractor concerning testing of samples from Shell's old pit. Request EPA release raw data from sampling events. This data will be used to conduct disposal of waste from site.
Ashley corrective action could be given back to State.

1/16/
Don Caffey LDEQ
HW. Engineering Section, Tech. Review.

8/3/96
Dennis Reese Woodard-Clyde
504-756-1431 Fax-753-3616
working up proposal for remediation of SBA

Richard Karkkainen Wood Clyde
504-756-1410

8/27
Called D. Reese to arrange meeting. Proposed 9/24/96

9/18/96
Sent attorney draft of CACO for SBA. Included language of remediation of site.

John Hopkins.

10/11
Talked to Dennis Reese

12/4 Meeting with SBA, Clyde & Generators

12/18 Hear from Lewis
Generator willing to cooperate

Bill Hodgkins
504-767-1460

9/24/96

meeting with Woodward Clyde and SBA on closure and remediation of site.

new attorney - 2/3/97
Gloria Maran - 3/93

10/10/96
Receive SBA Woodward Clyde Remediation plan.

4/1/97
meet with Walter, Chernok, & Pisani.

Project manager? who liability?
Stop work? language.

Role of customer group.

Provision for stips.

Insurance?

SCHWAB & WALTER
ATTORNEYS AT LAW
10636 LINKWOOD COURT
BATON ROUGE, LOUISIANA 70810

GERALD L. WALTER, JR.
TELEPHONE: (504) 767-1460
FAX: (504) 769-0010

JONES, WALKER
WAECHTER, POITEVENT
CARRÈRE & DENÈGRE, L.L.P.

MICHAEL A. CHERNEKOFF

DIRECT LINE 504-582-8264 • FAX 504-582-8583
E-MAIL mchernekoff@jwlaw.com
PLACE ST. CHARLES • 201 ST. CHARLES AVENUE
NEW ORLEANS, LOUISIANA 70170-5100

IM schedule
(if necessary)

1. 30 days after EPA notify IM are necessary
Draft IM WP

2. 30 days after receive Comments on draft, submitted.
Final IM WP

3. IM implemented upon approval of final WP.

4. 30 days after completion of IM
Draft Interim/Stabilization Report

5. 30 days from receipt of comments on Draft IM report, submit Final IM report.

CMS

Upon completion of:

1. RFI
365 from final EPA approval of Woodward Clyde RFI WP submit draft RFI Report

2. 30 days from receipt of Comments by EPA Final RFI report submitted.

9/26/97

Call to Dennis Reese of Wood chips.
Will send in response to 3008(a) for compliance order
Will apply for air, water permit with State.

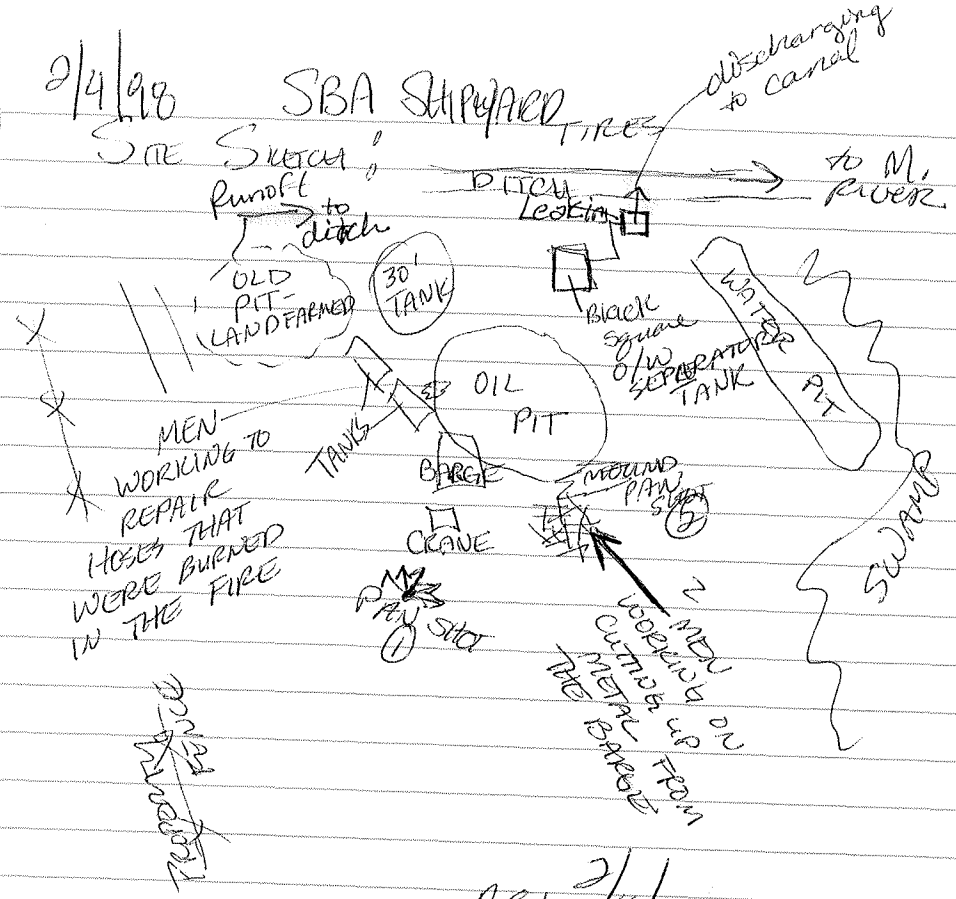
2/4/98 SBA Inspection

0750 - DEPART DPW
0925 - ARRIVE LAFAYETTE
1025 - ARRIVE ON SITE
LDEQ representatives - Roy VARNADO - Acadiana Reg. Off.
Ron Cady - SW Office - Lake Charles
Customer Group consultants
Mike Pisani
Carlton Todd > New Orleans, La
PURPOSE OF VISIT: TO investigate the reported FIRE of 1/31/98 OF the OIL PIT
LOOK FOR EVIDENCE OF RELEASE FROM the OIL PIT FROM SURFACE RUN-OFF OF FIRE-EXTINGUISHING AGENTS

VISITED WITH MR. LOUIS SMALLHALL - OWNER/OPERATOR OF SBA. HE EXPLAINED THAT THE FIRE STARTED FROM A SPARK FROM A CUTTING TORCH THAT WAS BEING USED TO CUT UP & DISASSEMBLE A BARGE LOCATED NEXT TO THE PIT
HIS PLANS ARE TO MOVE THE BARGE TO AN OPEN AREA WITH THE CRANE, THEN CONTINUE CUTTING THE BARGE
ROY V - WAS CONCERNED THAT THE SCRAP METAL FROM THE BARGE WAS BEING

2/4/98 SBA SHIPYARD

SITE SKETCH



NFJ 2/4/98

"CLEANED" WITH A BLOW TORCH. THE SCRAP METAL WAS COATED WITH A THICK RESIDUE FROM OILY SLUDGES ANOTHER CONCERN IS THAT WORKERS ON SITE ARE NOT GIVEN ANY PROTECTIVE WEAR (SAFETY SHIELDS, BREATHING MASKS, ETC.) FOR THE TYPE OF WORK PERFORMED.

MR. SMAILHALL ALSO EXPLAINED THAT HE OWNED 96 ACRES, 36 OF WHICH WERE SWAMPLAND, OR WETLANDS. HE ALSO POINTED OUT THE MONITORING WELL LOCATIONS

2/4/98 SBA Shipyard NFJ

AFTER BRIEF DISCUSSION WITH MR. SMAILHALL, ALSO DISCUSSED THE ORDER WITH MIKE PISANI. MR MIKE PISANI EXPLAINED HIS POSITION AND THAT THEY WERE WAITING ON THE 3008(H) ORDER TO BE SIGNED SO THEY COULD BEGIN CLEAN-UP OPERATIONS AS OUTLINED IN THE RFI WORKPLAN WHICH HAS BEEN PRE-APPROVED BY EPA.

1120 - COMPLETED WALK AROUND OF THE SITE AND TOOK PHOTOGRAPHS MIKE PISANI ALSO TOOK PHOTOGRAPHS

1230 - BREAK FOR LUNCH

DEPARTED SITE

220 - ARRIVE LDEQ ACADIANA REGIONAL OFFICE WITH ROY VARNADO MADE PHONE CALLS TO TRAVEL AGENT TO CHANGE RETURN FLIGHT AND TO THE OFFICE

260 - ARRIVE LAFAYETTE AIRPORT

350 - DEPART LAFAYETTE

540 ARRIVE DFW

END OF LOG FOR 2/4/98

Nancy L Faga

Roy Narvado

Coby

Allen Sifford

Bob Hogue

505-873-703

Bob All

505-397-0510

Frank

505-827-1558

505-827-1544

P.O. Box 26110

S.F 87502

0112-1Ch

Dave Gold Call

Joe Rogers 4/6 Call

601-328-1100 4/11

Pizzani Call

May 1 9:00 P.M. Physical

236.

1964
769

SBA
Mike Digillio
march 25

504-769-0010
767-1460

Paul Dubois

505-397-0510

Troys

m. But.
740-2003 march 22, '95

1914.00
1885.50

397-0510

Dave Gold Call
Joe Rogers 4/6 call

601-328-1100 4/11

Pizzani Call

may 1 9:00 A.M. Physical

MICHAEL PISANI & ASSOCIATES, INC.
Environmental Management and Engineering Services

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
Facsimile (504) 582-2470
m.pisani@ix.netcom.com

13313 Southwest Freeway
Suite 221
Sugar Land, Texas 77478
Telephone (281) 242-5700
Facsimile (281) 242-1737
dangle@orbitworld.net

December 17, 2002

Mr. Keith Horn
Remedial Services Division
Louisiana Department of Environmental Quality (LDEQ)
P.O. Box 82178
Baton Rouge, Louisiana 70884-2178

Subject: Solidification/Stabilization Work Plan
Interim Measures/Removal Action
SBA Shipyards, Inc. (Jefferson Davis Parish, Louisiana)
EPA ID No. LAD008434185
Docket No. RCRA-6-2002-0908
LDEQ AI No. 1478

Dear Mr. Horn:

In accordance with the December 17, 2002 e-mailed request from Mr. Gene Keepper (U.S. EPA Region VI), we are forwarding you a copy of the November 1, 2001 *Solidification/Stabilization Work Plan.* This work plan was prepared in accordance with the Statement of Work, incorporated by direct reference as part of the December 9, 2002 *Agreement and Order for Interim Measures/Removal Action at the SBA Shipyards, Inc. Site.*

If you have any questions or comments, please don't hesitate to contact us.

Sincerely,

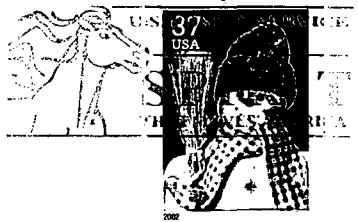
MICHAEL PISANI & ASSOCIATES, INC.

Robert E. Leslie, Jr., P.E.

cc: Mr. Gene Keepper; U.S. EPA Region VI (w/o attachments)
Mr. Michael A. Chernekoff; Jones Walker, Waechter, Poitevent, Carrere & Denegre (w/o attachments)

MICHAEL PISANI & ASSOCIATES, INC.
1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163

NEW ORLEANS LA 701
PM
19 DEC
2002



Gene Keepper
U.S. Environmental Protection Agency
Region 6, Hazardous Waste Enforcement Branch
EPA Mail Code 6EN-HX
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

75202+2733

MICHAEL PISANI & ASSOCIATES, INC.
Environmental Management and Engineering Services

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Telephone (504) 582-2468
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m.pisani@ix.netcom.com

13401 Southwest Freeway
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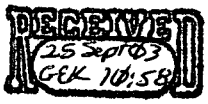
Sugar Land, Texas 77478
Telephone (281) 242-5700
Facsimile (281) 242-1737
dangle@orbitworld.net



September 24, 2003

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. EPA Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733

Subject: Waste Profiling Report
Interim Measures/Removal Action
SBA Shipyards, Inc. (Jefferson Davis Parish, Louisiana)
EPA ID No. LAD008434185
Docket No. RCRA-6-2002-0908
LDEQ AI No. 1478

Dear Mr. Keepper:

In accordance the April 28, 2003 waste profiling work plan submitted to you by electronic mail, Michael Pisani & Associates, Inc. (MP&A) is pleased to submit this brief report of stabilized oily material profiling results for offsite non-hazardous solid waste landfill disposal.

Introduction

As designated Project Manager in accordance with the December 9, 2002 Interim Measures/Removal Action (IM/RA) Agreed Order between EPA Region VI, SBA Shipyards, Inc. and SSIC Remediation, LLC, MP&A has completed waste profile sampling and analytical activities associated with characterizing stabilized oily materials at the SBA Shipyards, Inc. site. Approximately 15,000 tons of stabilized oily material remain onsite.

The April 28, 2003 waste profiling plan specified characterization of the stabilized oily material by at least one analytical laboratory sample for every 3,000 tons of stabilized oily material. A total of six profiling samples have been collected to characterize the 15,000 tons of material remaining onsite and the approximately 900 tons of material hauled offsite as non-hazardous industrial solid waste to the BFI landfill in Welsh, Louisiana during April and May 2003.

This report documents the procedures used to collect the waste profiling samples, waste profiling analytical results and sampling locations for characterizing stabilized oily materials at the SBA Shipyards, Inc. site.

Sample Collection

On April 22, 2003 and June 26, 2003, a total of six samples of stabilized oily material were collected from the SBA Shipyards site. Sampling locations are shown in Figure 1 (attached).

The waste profiling samples were collected by hand directly into clean, laboratory-supplied glass containers. Sample collection, preservation, custody control and custody documentation was performed in accordance with EPA- and LDEQ-recommended procedures and sample holding times. The samples were hand-delivered to Gulf Coast Analytical Laboratories, Inc. (GCAL; Baton Rouge, Louisiana).

Laboratory Analyses

All samples were analyzed using U.S. EPA SW-846 analytical methods. The samples were analyzed for:

- TCLP volatile organic compounds (VOCs)
- Reactivity.
- Corrosivity.
- Ignitibility.

Total metals analyses were performed on three samples at the request of Waste Management, Inc.

Analytical Results

Waste profile sampling laboratory results are summarized in Table 1 (attached). Copies of completed waste profiles for the stabilized oily material are provided in Attachment A, and supporting laboratory reports are provided as Attachment B.

All profiling results meet acceptance criteria for disposal as non-hazardous industrial solid waste at a RCRA Subtitle D landfill operated by BFI and Waste Management, Inc.

As designated Project Manager for implementation of the IM/RA Agreed Order, MP&A is pleased to assist SBA Shipyards, Inc.; SSIC Remediation, LLC and EPA Region VI in this matter. If you have any questions or require additional information, please do not hesitate to contact us.

Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.

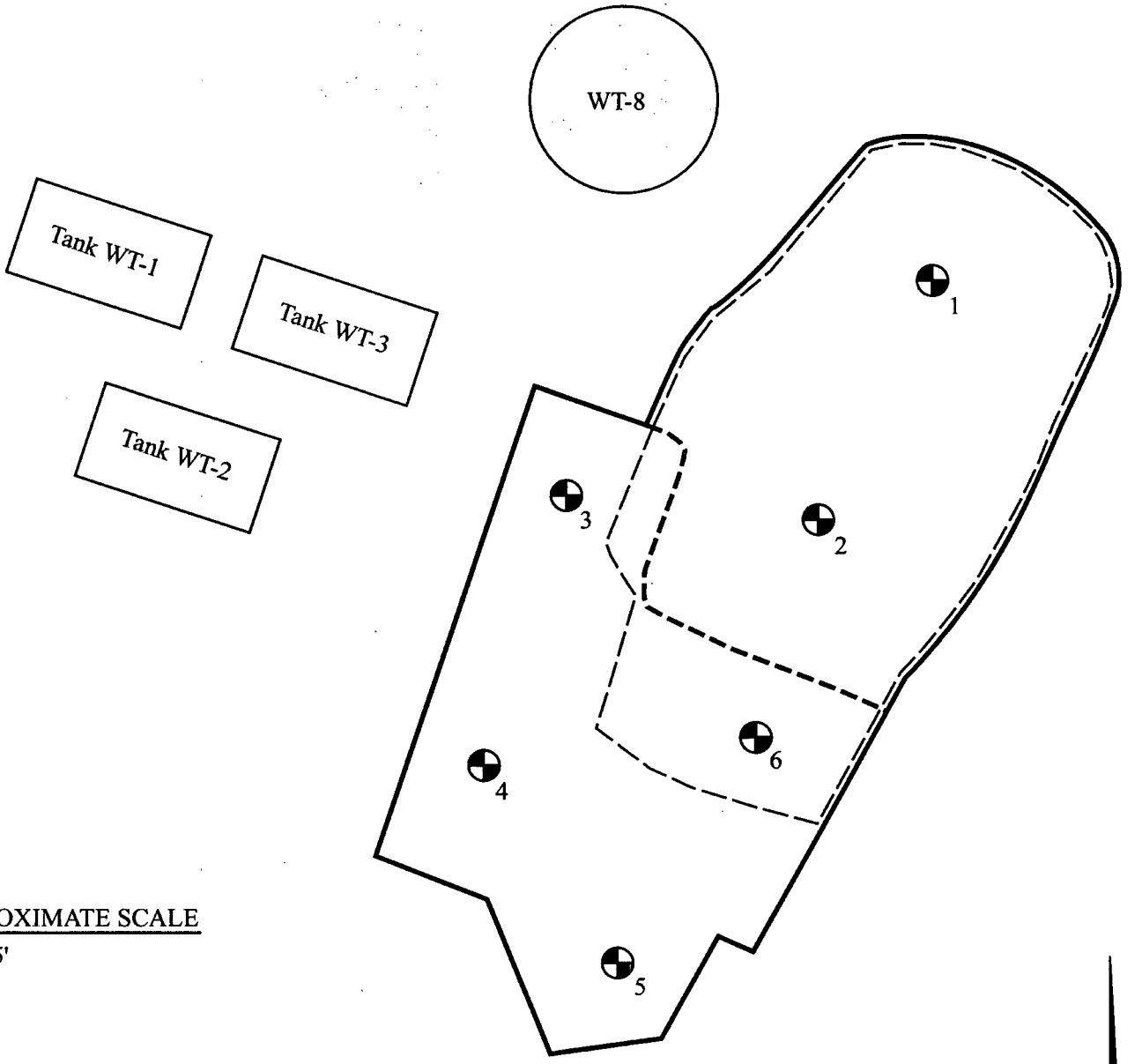
Keith Goggin and

Keith E. Goggin, P.G.

Robert E. Leslie, Jr., P.E.

Attachments

cc: Mr. Michael A. Chernekoff (Jones, Walker, Waechter, Poitevent, Carrere & Denegre)
(with Figure 1 and Table 1 only)



APPROXIMATE SCALE

1" = 75'

NORTH

Legend

- Former Oil Pit Extent
- Extent of Stabilized Oily Material
- Stabilized Oily Material Sampling Location (No. 1 through 5 collected June 26, 2003, No. 6 collected April 22, 2003)
- Tank or Vessel

MICHAEL PISANI & ASSOCIATES, INC.

Environmental Management & Engineering Services

New Orleans, Louisiana Houston, Texas

Figure 1

Oil Pit Sampling Locations

SBA Shipyards, Inc. | Jennings, Louisiana

Table 1

Summary of Detected Waste Profiling Parameters
IM/RA Work Plan Implementation

SBA Shipyards, Inc. Site
Jennings, Louisiana

Detected Parameter	Units	Sample Identifiers and Collection Dates					
		Profile-1 April 22, 2003	SBA Profile-1 June 26, 2003	SBA Profile-2 June 26, 2003	SBA Profile-3 June 26, 2003	SBA Profile-4 June 26, 2003	SBA Profile-5 June 26, 2003
TCLP [a] Volatile Organic Compounds							
Benzene	mg/L	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)
Corrosivity							
pH	Standard Units	11.6	11.7	11.9	11.6	12.4	11.2
Reactivity							
Reactive Cyanide	mg/kg	ND (250)	ND (250)	ND (250)	ND (250)	ND (250)	ND (250)
Rective Sulfide	mg/kg	ND (80)	ND (80)	ND (80)	ND (80)	ND (80)	ND (80)
Ignitibility							
Flashpoint	°F	NI	>212	NI	>212	>212	>212
RCRA Metals							
Total Arsenic	mg/kg	NA	ND (8.00)	NA	ND (8.00)	NA	ND (7.97)
Total Barium	mg/kg	NA	148	NA	110	NA	140
Total Cadmium	mg/kg	NA	ND (1.00)	NA	ND (1.00)	NA	ND (1.0)
Total Chromium	mg/kg	NA	16.8	NA	11.2	NA	14.1
Total Lead	mg/kg	NA	32.6	NA	18.9	NA	30.1
Total Mercury	mg/kg	NA	0.51	NA	0.50	NA	0.94
Total Selemium	mg/kg	NA	ND (8.00)	NA	ND (8.00)	NA	ND (7.97)
Total Silver	mg/kg	NA	ND (2.00)	NA	ND (2.00)	NA	ND (1.99)

Notes:

(a) Toxicity characteristic leachate procedure (TCLP).
NA denotes "Not Analyzed."
ND denotes that the parameter was not detected at the reporting limit shown in parentheses.
NI denotes that the sample was not ignitable at standard laboratory temperatures.
Supporting analytical laboratory reports are on file with the designated Project Manager (Michael Pisani & Associates, Inc.) in accordance with the December 9, 2002 *Interim Measures/Removal Action Agreed Order* between SBA Shipyards, Inc.; U.S. EPA Region VI and SSIC Remediation, LLC.

WASTE MANAGEMENT

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

Service Agreement on File? ☐ YES ☒ NO Profile Number: _____

☐ Hazardous ☒ Non-Hazardous ☐ TSCA Renewal Date _____

A. Waste Generator Information

1.	Generator Name:	SBA Shipyards, Inc	2.	SIC Code	7699
3.	Facility Street Address:	3040 Castex Landing Road (LA Highway 3166)	4.	Phone	(337) 824-1519
5.	Facility City:	Jennings	6.	State/Province:	Louisiana
7.	Zip/Postal Code:	70546	8.	Generator USEPA/FED ID #:	LAD008434185
9.	County:	Jefferson Davis Parish	10.	State/Province ID#:	
11	Customer Name:	SSIC Remediation, LLC	12.	Customer Phone::	(504) 582-2468
13.	Customer Contact:	Robert E. Leslie, P.E.	14.	Customer Fax:	(504) 582-2470
15.	Billing Address	1100 Poydras Street, No. 1430, New Orleans, LA 70163			☐ Same as above

B. Waste Stream Information

1. **DESCRIPTION**

a. Name of Waste: Oily Solids

b. Processing Generating Waste: Solidified and stabilized oily material from petroleum barge "gas-free" cleaning operations, using fly ash in accordance with U.S. EPA - and LDEQ-approved work plans.

c. Color	d. Strong odor (describe)	e. Physical state @ 70°F	f. Layers	g. Free liquid range
Brown	Oily	☒ Solid ☐ Liquid ☐ Gas ☐ Sludge ☐ Other	☐ Single Layer ☐ Multi-Layer N/A	to 0.0 %
				h. pH: Range 11.2 to 12.4

i. Liquid Flash Point: ☐ <73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☒ ≥ 200°F ☐ Not Applicable

j. Chemical Composition (List all constituents [including halogenated organics, debris, and UHC's] present in any concentration and submit representative analysis):.

Constituents	Concentration Range	Constituents	Concentration Range
Benzene (TCLP)	Not Detected (0.200 mg/L)		
Other Solids	100%		

TOTAL COMPOSITION MUST EQUAL OR EXCEED 100%

k. ☐ Oxidizer ☐ Pyrophoric ☐ Explosive ☐ Radioactive ☐ Carcinogen ☐ Infectious ☐ Shock Sensitive ☐ Water Reactive

l. Does the waste represented by this profile contain any of the carcinogens which require OSHA Notification? (list in Section B.1.) ☐ YES ☒ NO

m. Does the waste represented by this profile contain dioxins? (list in B.1.j) ☐ YES ☒ NO

n. Does the waste represented by this profile contain asbestos? ☐ YES ☒ NO
If yes ☐ friable ☐ non-friable

o. Does the waste represented by this profile contain benzene ☐ YES ☒ NO
If yes, concentration _____ Ppm
Is the waste subject to benzene waste operations NESHAP? ☐ YES ☒ NO

p. Is the waste subject to RCRA Subpart CC controls ☐ YES ☒ NO
If no, does the waste meet the organic LDR Exemption: ☒ YES ☐ NO
If no, does the waste contain <500 ppmw volatile organic (VO)? ☒ YES ☐ NO
Volatile organic concentration <0.2 Ppmw

q. Does the waste contain any Class I or Class II ozone-depleting substance? ☐ YES ☒ NO

r. Does the waste contain debris? (list in Section B.1.j) ☐ YES ☒ NO

s. Is the waste subject to controls as a Group 1 wastewater or residual under the HON? ☐ YES ☒ NO
If yes, is it a Table 8 _____ or Table 9 _____ Compound?

2. **Quantity of Waste**

Estimated Annual Volume 15,000 ☒ Tons ☐ Yards ☐ Drums ☐ Other (specify) _____

3. **Shipping Information**

a. Packaging
☒ Bulk Solid; Type/Size: 20-Ton End-Dump Truck Loads ☐ Bulk Liquid, Type/Size _____
☐ Drum; Type/Size: _____ ☐ Other: _____

b. Shipping Frequency: Units 15,000 tons Per: ☐ Month ☐ Quarter ☐ Year ☒ One Time ☐ Other _____

c. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If no, skip d, e and f) ☐ YES ☒ NO

WASTE MANAGEMENT

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

d. Reportable Quantity (lbs.; kgs.): N/A e. Hazard Class/ID#: N/A

f. USDOT Shipping Name: N/A

g. Personal Protective Equipment Requirements: Tyvek Coveralls, Nitrile gloves and organic vapor air-purifying respirator

h. Transporter/Transfer Station: N/A

C. Generator's Certification (Please check appropriate responses, sign, and date below.)

1. Is this a USEPA hazardous waste (40 CFR Part 261)? If the answer is no, skip to 2..... ☐ YES ☒ NO
   a. If yes, identify ALL USEPA listed and characteristic waste code numbers (D,F,K,P,U) N/A
   b. If a characteristic hazardous waste, do underlying hazardous constituents) (UHCs) apply? (if yes, list in Section.B.1.j)..... ☐ YES ☐ NO
   c. Does this waste contain debris? (if yes, list size and type in Chemical Composition- B.1.)..... ☐ YES ☐ NO

2. Is this a state hazardous waste?..... ☐ YES ☒ NO
   Identify ALL state hazardous waste codes

3. Is the waste from a CERCLA (40 CFR 300, Appendix B) or state mandated clean-up?..... ☐ YES ☒ NO
   If yes, attach Record of Decision (ROD), 104/106 or 122 order or court order that governs site clean-up for activity. For state mandated clean-up, provide relevant documentation.

4. Does the waste represented by this waste profile sheet contain radioactive material, or is disposal regulated by the Nuclear Regulatory Commission?..... ☐ YES ☒ NO

5. Does the waste represented by this waste profile sheet contain concentrations of Polychlorinated Biphenyls (PCBs) regulated by 40 CFR 761? (if yes, list in Chemical Composition - B.1.j)..... ☐ YES ☒ NO
   a. If yes, were the PCBs imported into the U.S.?..... ☐ YES ☐ NO

6. Do the waste profile sheet and all the attachments contain true and accurate descriptions of the waste material, and has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor?..... ☒ YES ☐ NO

7. Will all changes which occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?..... ☒ YES NO

☒ Check here if a Certificate of Destruction or Disposal is required.

Any sample submitted is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. I authorize WMI to obtain a sample from any waste shipment for purposes of recertification. If this certification is made by a broker, the undersigned signs as authorized agent of the generator and has confirmed the information contained in this Profile Sheet from information provided by the generator and additional information as it has determined to be reasonably necessary. If approved for management, Contractor has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile.

Certification Signature: _____ Title: PROJECT MANAGER/ ENGINEER

Name (Type or Print) ROBERT E. LESLIE, JR. Company Name MICHAEL PISANI & ASSOCIATES, INC. Date: 9/22/03

☒ Check if additional information is attached. Indicate the number of attached pages. 1

D. WMI Management's Decision FOR WMI USE ONLY

1. Management Method ☐ Landfill ☐ Non-hazardous Solidification ☐ Bioremediation ☐ Incineration ☐ Hazardous Stabilization ☐ Other (Specify)
2. Proposed Ultimate Management Facility:
3. Precautions, Special Handling Procedures, or Limitation on Approval
4. Waste Form: 5. Source 6. System Type

Special Waste Decision..... ☐ Approved ☐ Disapproved

Salesperson's Signature: Date:

Division Approval Signature (Optional): Date:

Special Waste Approvals Person Signature Date:

WASTE MANAGEMENT

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

Information on this form is used to determine if the waste may be transported, treated, stored or disposed in a legal, safe, and environmentally sound manner. This information will be maintained in strict confidence. Answers must be provided for sections A, B, and C and must be printed in ink or typed. A response of "NONE" or NA" (not applicable) can be made if appropriate. If additional space is needed, indicate on the form that additional information is attached, and attach the information to Generator's Waste Profile Sheet. If you have questions concerning this form, please contact the Contractor's sales representative.

A. Waste Generator Information

1. **Generator Name** - Enter the name of the facility where the waste is generated.
2. **SIC Code** - Enter the four digit Standard Industrial Classification Code for the facility where the waste is generated.
3. **Facility Street Address** -Enter the street address (not P.O. Box) of the facility where the waste is generated.
4. **Phone** - Enter Generator's area code and phone number.
5. **Facility City** - Enter the city where the waste is generated.
6. **State/Province** - Enter the state or province where the waste is generated.
7. **Zip/Postal Code** - Enter the generating facility's zip or postal code.
8. **Generator USEPA/FEDERAL ID #** - Enter the identification number issued by the USEPA, Canadian, or Mexican Federal Agency to the facility generating the waste(if applicable).
9. **County** - Enter the county where the waste is generated.
10. **State/Province ID#** - Enter the identification number issued by the state or province to the facility generating the waste (if applicable).
11. **Customer Name** - Entity that the Contractor is directly working with regarding the represented waste stream. If the same as the Generator, mark "Same as Above".
12. **Customer Phone** - Enter technical contact's area code and telephone number.
13. **Customer Contact** - Enter the name of the person who can answer technical questions about the waste.
14. **Customer Fax** - Area code and facsimile number for the customer.
15. **Billing Address** - Address where bill for services should be sent.

B. Waste Stream Information

1.a. **Name of Waste** - Enter a name generally descriptive of this waste (e.g., paint sludge, fluorescent bulbs).

1.b **Process Generating Waste** - Describe the process generating the waste in detail. List the specific process/operation or source that generates the waste (e.g., incineration of municipal refuse, asbestos removal, wastewater treatment, building maintenance).
At a minimum, the Generator should answer the following questions in determining the process generating the waste.

- What chemicals are stored and/or used at the facility?
- Is the waste generated from the production /manufacturing of any of the following industries: wood preservation; inorganic pigments; organic pigments; pesticides; explosives; petroleum refining; iron and steel, copper, lead or zinc production?
- Is the waste a result from degreasing, solvent parts cleaning, recovery/reclaiming of solvents (bottoms), waste water treatment (slugs), or electroplating?

1.c. **Color** - Describe the color of the waste (e.g., blue, transparent, varies).

1.d. **Strong odor** - DO NOT SMELL THE WASTE! If the waste has a known odor, then describe (e.g., acrid, pungent, solvent, sweet.).

1.e. **Physical state @ 70°F** - If the four boxes provided do not apply, a descriptive phrase may be entered after "Other" e.g., multi-phase).

1.f. **Layers** - Single Layers means the waste is homogenous. Multi-layer means the waste is comprised of two or more layers (e.g., oil/water/sludge).

1.g. **Free liquid range** - Range (in percent by volume) of free liquids in the waste.

1.h. **pH Range** - Indicate the pH range.

1.l. **Liquid Flash Point** - Indicate the flash point obtained using the appropriate test method.

1.j. **Chemical Composition** - List all organic and/or inorganic components of the waste using chemical names. If trade names are used, attach Material Safety Data Sheets or other documents that adequately describe the composition of the waste. For each component, estimate the range (in percent) in which the component is present.`

1.k.. Check all that apply.

1.l. Identify any element, chemical compound, or mixture in concentration of j0.1 percent or greater that is considered a carcinogen or potential carcinogen pursuant to OSHA.

1.m. Indicate if the waste contains any dioxins (list in Section B.1.)

1.n. Indicate if the waste contains asbestos. Indicate if the asbestos is friable.

1.o. Indicate if the waste contains benzene, the level in ppm, and whether it is subject to the benzene NESHAP.

1.p. Indicate if the waste is subject to RCRA Subpart CC . Also, indicate whether the waste meets the organic LDR Exemption or contains less than 500 ppmw Volatile Organic (VO). Indicate the VO concentration, if known, in parts per million weight.

1.q. Indicate if the waste contains any Class I or Class II ozone-depleting controlled substances.

1.r. Indicate if the waste contains debris (list size and type in B.1.j.)

1.s. Indicate if the wastewater or residual is subject to 40 CFR Part 63 subpart G controls. If yes, indicate if it is a Table 8 or Table 9 compound.

2. **Quantity of Waste** - Approximate volume in tons, yards, or other (e.g., drums, gallons) that will be received by the ultimate management facility. This volume amount is not intended for use in complying with state and/or permit restrictions.

3.a. **Packaging** - Choose the appropriate option or "other" along with a description.

3.b. **Shipping Frequency** - Choose the appropriate option or "other" along with a description.

3.c. **Is this a U.S. Department of Transportation (USDOT) hazardous material?** - Choose the appropriate response: yes or no.

WASTE MANAGEMENT

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

3.d. **Reportable quantity (lbs.; kgs.)** If the answer to 3.c. is yes, enter the Reportable quantity (RQ) established by 40 CFR 302.4 or equivalent Canadian or Mexican regulation for this waste. Indicate the appropriate units for the RQ.

3.e. **Hazard Class/ID #** - If the answer to 3.c. is yes, indicate the proper USDOT hazard class and identification number.

3.f. **USDOT Shipping Name** - IF the answer to 3.c. is yes, enter the proper USDOT shipping name for the waste.

3.g. **Personal Protective Equipment Requirements** - All personal protective equipment necessary to safely manage the waste stream.

3.h. **Transporter/Transfer Station** – Transporter and/or transfer station name.

C. Generator's Certification (Please check appropriate responses, sign, and date below.)

Indicate the appropriate response to questions/statements 1,2,3,4,5,6, and 7. By signing this Generator's Waste Profile Sheet, the Generator certifies the responses are true and accurate with respect to the waste stream(s) listed.

Certification Signature - Signature of an authorized employee of the Generator or representative of the generator if authorized in writing by the generator.
Title - Enter Employee's title.
Name - Type or Print Employee's name.
Company Name - Company employing the person certifying the Generator's Waste Profile Sheet.
Date - Enter the date this Generator's Waste Profile Sheet is signed.

D. WMI Management's Decision — FOR WMI USE ONLY

To be completed by WMI.

PLEASE INDICATE BY GENERATOR PROCESS KNOWLEDGE, ANALYSIS NOT REQUIRED/NOT ANALYZED FOR

(X)	TCLP Metals	(Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver)
( )	TCLP Volatiles	(Benzene, Carbon Tetrachloride, Chlorobenzene, Chloroform, 1,2-Dichloroethane, 1,1-Dichloroethylene, Methyl Ethyl Ketone, Tetrachloroethylene, Trichloroethylene, Vinyl Chloride)
( )	TCLP Semi-Volatiles	(o-Cresol, m-Cresol, p-Cresol, Cresol (total), Pentachlorophenol, 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, 1,4-Dichlorobenzene, 2,4-Dinitrotoluene, Hexachlorobenzene, Hexachlorobutadiene, Hexachloroethane, Nitrobenzene, Pyridine)
(X)	TCLP Pesticides/ Herbicides	(Chlordane, Endrin, Heptachlor, Heptachlor epoxide, Lindane, Methoxychlor, Toxaphene, 2,4-D, 2,4,5-TP (Silvex))
( )	I, C, R	(Ignitable, Corrosivity, Reactivity Characteristics)

PLEASE DESCRIBE **IN DETAIL** THE PROCESS GENERATING THIS WASTE:

Profile Number: _____

Name of Waste: Stabilized oily waxes and solids

Process Generating Waste/Process Knowledge on those parameters/constituents not tested for: Stabilization of oily waxes and solids resulting from "gas-free" barge cleaning operations. Stabilization activities were conducted in accordance with site cleanup work plans reviewed and approved by U.S. EPA Region VI (copies attached).

Is this waste derived from the treatment of a characteristic hazardous waste per 40 CFR 261?
____YES __X_NO (If yes, please explain/describe process generating initial waste, prior to treatment): Not Applicable.

I certify that the above information contains true and accurate descriptions of the waste and that all relevant information regarding known or suspected hazards have been disclosed. I further certify that the waste described above is not a "Hazardous Waste" as defined by USEPA regulation and/or State regulation and does not contain regulated radioactive materials or regulated concentrations of PCB's (Polychlorinated Biphenyls).

ROBERT E. LESLIE, JR.
Print Name

Signature

PROJECT MANAGER
Title

9/23/03
Date

April 23, 2003

To: Robert Leslie

From: Denny Mize

Re: SBA Shipyard Project

Dear Mr. Leslie:
It is good to be working with you on this SBA Shipyard job. Enclosed is the Generator Waste Profile Sheet that you needed a copy of. Also, the changes we talked about on the Process Knowledge Certification for TCLP Volatiles on sampling. Sampling must be done every 3000 tons. A sample is also needed at the landfill.

Jeff Davis Landfill • 16547 Landfill Road • Welsh, Louisiana 70591
Phone (318) 734-4135 • Fax (318) 734-4158

ALLIED WAS

NERATOR WASTE PROFILE SHEE

Requested Disposal Facility: JEFFERSON DAVIS LANDFILL (WELSH, LA)
an Allied Waste Company

Waste Profile #	
AWI Sales Rep:	KEVIN HEISE
Date:	

I. Generator Information

Generator Name:	SBA SHIPYARDS, INC.		
Generator Site Address:	3040 CASTEX LANDING ROAD (LOUISIANA HIGHWAY 3166)		
City: JENNINGS	County: JEFF DAVIS PARISH	State: LOUISIANA	Zip: 70546
State ID/Reg No:	State Approval/Waste Code: (if applicable)		SIC Code:
Generator Mailing Address (if different):	P.O. BOX 1386		
City: JENNINGS	County: JEFF DAVIS PARISH	State: LOUISIANA	Zip: 70546
Generator Contact Name:	LOUIS H. SMAIHALL, JR.		
Phone Number: (337) 824-1519		Fax Number: (337) 824-1519	

IIa. Transporter Information

Transporter Name:	STRANCO, INC.	Contact Name:	BILBO STRAIN
Transporter Address:	70459 HIGHWAY 59		
City: ABITA SPRINGS	County: ST. TAMMANY PARISH	State: LOUISIANA	Zip: 70420
Phone Number: (504) 893-5308	Fax Number: (504) 893-3989	State Transportation Number:	

IIb. Billing Information

Bill To:	PSC INDUSTRIAL OUTSOURCING, INC.	Contact Name:	LENNY DUPUIS
Billing Address:	543 Renaud Drive		
City: Lafayette	State: LA	Zip: 70507	Phone Number: 337-233-4889

III. Waste Stream Information

Name of Waste:	OILY SOLIDS
Process Generating Waste:	SOLIDIFIED OILY MATERIAL FROM PETROLEUM BARGE "GAS-FREE" CLEANING OPERATIONS.
Type of Waste	☐ INDUSTRIAL PROCESS WASTE or ☒ POLLUTION CONTROL WASTE
Physical State:	☒ SOLID ☐ SEMI-SOLID ☐ POWDER ☐ LIQUID ☐ OTHER: ____
Method of Shipment:	☒ BULK ☐ DRUM ☐ BAGGED ☐ OTHER:
Estimated Annual Volume:	☒ CUBIC YARDS: 40000 ☐ TONS: ____ ☐ GALLONS ____ ☐ OTHER:
Frequency:	☒ ONE TIME ☐ DAILY ☐ WEEKLY ☐ MONTHLY ☐ OTHER:
Special Handling Instructions:	NONE

IV. Representative Sample Certification

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?	☒ YES or ☐ NO
Sample Date: 4/16/03	Type of Sample: ☒ COMPOSITE SAMPLE ☐ GRAB SAMPLE
Laboratory: PACE ANALYTICAL SERVICES, INC. (ST. ROSE, LA)	Sample ID Numbers: SBA-1
Sampler's Employer: MICHAEL PISANI & ASSOCIATES, INC.	
Sampler's Name (printed): ROBERT E. LESLIE, JR., P.E.	Signature:

Waste Profile #

V. Physical Characteristics of Waste

Characteristic Components	% by Weight (range)
1. SOLIDS	100%
2.	
3.	
4.	
5.	

Color	Odor (describe)	Free Liquids	% Solids	pH:	Flash Point	Phenol
BROWN	OILY	☐ YES or ☒ NO Content ____%	100%		____ °F	____ ppm

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Required Parameters Provided for this Profile

Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and it epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes or ☒ No
Does this waste or generating process cause it to exceed OSHA exposure limits from high levels of Hydrogen Sulfide or Hydrogen Cyanide as defined in 40 CFR 261.23?	☐ Yes or ☒ No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes or ☒ No
Does this waste contain regulated concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes or ☒ No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes or ☒ No
Is this a regulated Toxic Material as defined by Federal and/or State regulations?	☐ Yes or ☒ No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes or ☒ No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes or ☒ No
Is this waste generated at a Federal Superfund Clean Up Site?	☐ Yes or ☒ No

VI. Generator Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste. I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue. I further certify that the company has not altered the form or content of this profile sheet as provided by Allied Waste Industries, Inc. The undersigned individual warrants that he/she is authorized to sign this document on behalf of the Generator.

ROBERT E. LESLIE, JR. PROJECT MANAGER ENGINEER
Authorized Representative Name And Title (Printed)

MICHAEL PISANI & ASSOCIATES, INC.
Company Name

Authorized Representative Signature

4/16/03
Date

VII. Allied Waste Decision

Approved Rejected Expiration: _____

Conditions:

Name, Title | Signature | Date

GENERATOR PROCESS KNOWLEDGE CERTIFICATION

Generator Name: SBA SHIPYARDS, INC.

PLEASE INDICATE BY PROCESS KNOWLEDGE THE ANALYSIS THAT IS NOT REQUIRED. (TCLP - Toxicity Characteristic Leaching Procedure)

☒ RCI per Rob	☐ Reactivity, ☐ Corrosivity, ☐ Ignitability.
☒ TCLP Metals per Rob	☐ Arsenic, ☐ Barium, ☐ Cadmium, ☐ Chromium, ☐ Lead, ☐ Mercury, ☐ Selenium, ☐ Silver.
☒ TCLP Semivolatiles	☐ o-Cresol, ☐ m-Cresol, ☐ p-Cresol, ☐ Cresol (total), ☐ 2,4-Dinitrotoluene, ☐ Pyridine,
	☐ Hexachlorobenzene, ☐ Hexachloroethane, ☐ Hexachlorbutadiene, ☐ Nitrobenzene,
	☐ Pentachlorophenol, ☐ 2,4,5-Trichlorophenol, ☐ 2,4,6-Trichlorophenol.
☐ TCLP Volatiles	☐ Benzene, ☐ Carbon Tetrachloride, ☐ Chlorobenzene, ☐ Chloroform, ☐ Methyl Ethyl Ketone,
	☐ 1,4-Dichlorobenzene, ☐ 1,2-Dichloroethane, ☐ 1,1-Dichloroethylene, ☐ Trichloroethylene,
	☐ Tetrachloroethylene, ☐ Vinyl Chloride.
☒ TCLP Herbicides and Pesticides	☐ 2,4-D, ☐ 2,4,5-TP (Silvex), ☐ Chlordane, ☐ Endrin, ☐ Heptachlor, ☐ Heptachlo Epoxide,
	☐ Lindane, ☐ Methoxychlor, ☐ Toxaphene.

PLEASE DESCRIBE IN DETAIL THE PROCESS GENERATING THE WASTE:

OILY MATERIALS FROM PETROLEUM BARGE CLEANING OPERATIONS WERE SOLIDIFIED USING FLY ASH IN ACCORDANCE WITH U.S. EPA- AND LDEQ-APPROVED WORK PLANS.

I certify that the above information is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition or properties exists, that all known or suspect hazards have been disclosed, that the waste is not designated a Hazardous Waste as defined by the USEPA per **40 CFR 261.3** or contains PCBs regulated by **TSCA 40 CFR 761.**

Print Name: ROBERT E. LESLIE, JR.	Signature: [signature]	Date: 4/16/03
Title: ENGINEER	Telephone: (504) 582-2468	Fax: (504) 582-2470

I certify that I understand the definition of an industrial waste per **LAC 33.VII.115** and believe that this waste is not an industrial process waste and does not require an industrial waste code number as required for industrial waste streams per **LAC 33.VII.701.B.** (Write N/A if the waste stream is an industrial waste.)

Print Name: ROBERT LESLIE	Signature: [signature]	Date: 4/16/03

THIS SECTION FOR INDUSTRIAL WASTE ONLY

I certify that I understand the requirements of **LAC 33.VII.711.D.3.d** for waste testing and annual update requirements for industrial waste and that this waste stream must updated annually according to the date of the most current ☐ TCLP analysis, ☐ Corporate approval date, or ☐ process knowledge on file with the disposer (BFI).

Print Name: N/A	Signature: N/A	Date: N/A

REPRESENTATIVE SAMPLE CERTIFICATION

This certification should be completed in its entirety by the individual who collected the sample. A complete lab report, QA/QC, and chain-of-custody should be submitted.

Generator Name:	SBA SHIPYARDS, INC.
Generator: Address:	3040 CASTEX LANDING ROAD (LA HWY 3166)
	JENNINGS, LOUISIANA 70546
Site Address: (If Different)	SAME
Samplers Name:	ROBERT E. LESLIE, JR.
Phone Number:	(504) 582-2468
Name Of Waste:	OILY SOLIDS
Date Sampled:	4/16/03 — Sample Type (circle): (COMPOSITE) GRAB
Type of Waste (circle):	(SOLID) SEMI-SOLID SLUDGE LIQUID OTHER
Name of Laboratory:	PACE ANALYTICAL SERVICES, INC.
Applicable Sample #'s:	SBA-1
COMMENTS (if any):	NONE

I hereby certify to the best of my knowledge and belief the sample described above is representative of the waste to be handled and has been collected in accordance with U.S. EPA §40 CFR 261.20(e) guidelines or equivalent rules. **The information/lab report submitted for review is complete and accurate.**

[signature]	4/16/03
AUTHORIZED REPRESENTATIVE SIGNATURE	DATE
Robert E. Leslie, Jr.	PROJECT MANAGER
AUTHORIZED REPRESENTATIVE (PRINTED NAME)	TITLE
MICHAEL PISANI & ASSOCIATES, INC.	
COMPANY	

ALLIED WASTE

GENERATOR WASTE PROFILE SHEET
Instructions for the Completion of Generator Waste Profile Sheet

Purpose

The Generator Waste Profile Sheet is to be completed to properly identify and characterize the type of waste that is being requested for acceptance. All information provided and certified by the generator of the waste identified by the Waste Profile Sheet is true, correct, and accurate.

This form is to be used when applying for acceptance approval of a new waste stream or the renewal of an existing waste stream.

Waste Profile Sheet Information

Waste Profile Number: Leave blank. A company tracking number will be issued by the Special Waste Department.

Disposal Facility: Enter the name of the proposed landfill facility for the disposal of the non-hazardous waste stream.

I. Generator Information

Generator Name and Address: Enter the required information including the name, address, and telephone number of the company generating the waste stream for disposal. If the address to where correspondence is to be sent is different from the site address, complete the mailing address, otherwise type "SAME". Also, enter the Generator's Contact Person's name, telephone and fax numbers.

State ID Number: Applies only if State Agencies issue identification or registration numbers. For instance, Illinois EPA has a ten-digit code assigned to each generator of special waste). If the state agency does not issue a number enter "NA".

SIC Code: Each industry class is assigned a four-digit code called a Standard Industrial Classification Code. The classification is assigned to the process that generates a specific product.

II. Transporter Information

Transporter: Enter general information for the waste hauler who is to transport the waste.

III. Waste Stream Information

Waste Name: Provide the common name of the major component or substance that most accurately describes the waste.

Process Description: Provide a detailed description of the process or operation that generates the waste.

Pollution Control Waste or Industrial Process Waste: Check the one category that applies to the waste stream.

> **Pollution Control Waste** means any waste generated as a direct or indirect result of the removal of contaminants from the air, water, or land, which pose a present or potential threat to human health or to the environment or with the inherent properties that make the disposal of such waste in a landfill difficult to manage by normal means. "Pollution Control Waste" includes, but is not limited to, water and wastewater treatment plant sludge, baghouse dusts, landfill wastes, scrubber sludges, chemical spill cleaning.
>
> **Industrial Process Waste** means any waste generated as a direct or indirect result of the manufacture of the product or the performance of a service, which would pose a present or potential threat to human health or to the environment or with inherent properties that make the disposal of such waste in a landfill difficult to manage by normal means. "Industrial Process Waste" includes, but is not limited to, spent pickling liquors, cutting oils, chemical catalyst, distillation bottoms, etching acids, equipment cleaning, paint sludge, incinerator ashes (including but not limited to ash resulting from the incineration of potentially infectious medical waste), core sands, metallic dust sweepings, asbestos dust, and off-specification, contaminated or recalled wholesale or retail products. Specifically excluded are uncontaminated packaging material, uncontaminated machinery components, general household waste, landscape waste, and construction and demolition debris.

Physical State: Check one of the choices listed. Give the most accurate phase of the waste.

Method of Shipment: Check one of the choices listed. Describe the planned method of transportation to the disposal site.

Estimated Annual Volume: Specify the estimated annual volume in cubic yards or tons. If other, explain (i.e. drums).

Frequency: Check one of the choices listed. Approximately how often the disposal of the waste is to occur.

Special Handling Instructions: Indicate any specific instructions.

@ Allied Waste Industries, July 2001

IV. Representative Sample Certification

Collection of Representative Sample: Indicate "Yes" or "No" that a representative sample was collected to prepare the profile sheet and laboratory analytical report in accordance with USEPA guidelines or equivalent rule. Enter the date the sample was taken. Indicate by checking whether this is a Composite Sample or Grab Sample. Enter sampler's employer company name. Type or print Sampler's name and also have the sampler sign where indicated. Circle "NO SAMPLE TAKEN" when sample was not collected.

V. Physical Characteristics of Waste

Characteristic Components: Furnish the general constituents and the relative percentages that comprise the waste. These components can have generic or chemical names. The total percentage must equal 100% (i.e. Petroleum Contaminated Soil: Soil 97-100%, unleaded gasoline 0-3%).

Color: Describe the color of the waste. If the color is variable, provide the most dominant color.

Odor: If an odor from the waste is detected give the most accurate description of that odor including what kind of odor and if it is slight, mild, or strong. If no odor is detected, indicate "none".

Free Liquids: Determine if there are free liquids in the waste (Paint Filter Test). Mark "NO" if the waste passes the test (no free liquids present). Mark "YES" if the waste fails the test (detecting the presence of free liquids).

Percent Solids: Determine the amount of solids present in the waste, provide as a percentage of the waste as a whole.

PH: Indicate the pH of the waste (corrosivity).

Flash Point: Indicate the temperature at which the waste ignites.

Phenol: The IEPA limit for Phenol concentration in any non-hazardous special waste is 1,000 total ppm (Illinois Only). List the total ppm of phenol present.

Attach Analytical Report

Eight RCRA TCLP Metals, Cyanide Total/Reactive, Sulfide Total/Reactive, Flash Point, Paint Filter, pH, Phenol, PCBs, EOX, TCLP Organics (TCLP Volatiles, TCLP Semi-Volatiles), Pesticides/Herbicides are parameters required for the majority of waste streams for approval. When performing metals and organics analysis, Total or TCLP procedure may be utilized, but any constituent whose total concentration is greater than 20 times the TCLP level, then TCLP must be performed. Where parameters are not tested, include historical background and/or Material Safety Data Sheets. Analytical used to complete this form MUST be less than one (1) year old.

Pesticides and/or Herbicides: Indicate "Yes" or "No".

Sulfide or Cyanide: Indicate "Yes" or "No".

PCBs" Indicate "Yes" or "No".

PCBs are generally used in electric capacitors, transformers, and vacuum pumps. An alternate name commonly used by laboratories for PCB is "Aroclor" followed by a number defining the special PCB tested. If PCBs are tested and separated into the Aroclor compounds, the highest detection limit is the parameter to be reported.

Non-Hazardous Waste Classification Certification: Indicate "Yes" or "No".

Dioxins: Indicate "Yes" or "No".

Toxic Material: Indicate "Yes" or "No".

Medical or Infectious Waste: Indicate "Yes" or "No".

Federal Superfund Site: Indicate "Yes" or "No".

VI. Generator Certification

The Generator Certification requires the generator name, title date, and signature. If a generator employee does not sign the Waste Profile Sheet, a letter from the generator authorizing the person (Contractor/Hauler) to sign this form on their behalf, must accompany the Waste Profile Sheet.

VII. Allied Waste Decision

Do not fill in this section. The Special Waste Department will use this section to approve or reject the waste stream, assign an expiration date and outline any special conditions or handling that may apply to the waste stream.

@ Allied Waste Industries, July 2001

NELAP CERTIFICATE NUMBER 01955

GCAL
GULF COAST ANALYTICAL LABORATORIES, INC

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Report Date: 07/10/2003

GCAL REPORT NO.: 203062703

Deliver To:	Pisani Associates 1100 Poydras Suite 1430 New Orleans, LA 70163 (504) 582-2464
Attn:	Robert Leslie

CUSTOMER NAME: Pisani & Associates

PROJECT NAME: SBA Shipyards

CASE NARRATIVE

Client: Pisani & Associates **Report:** 203062703

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

CONVENTIONALS

The Flashpoint analysis was performed by SW-846 Method 1010, although, solid samples do not fall within the scope of this method.

GULF COAST ANALYTICAL LABORATORIES, INC

LABORATORY ENDORSEMENT

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 Days unless otherwise arranged. Following this retention period the samples will be disposed of in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND-Indicates that the parameter was not detected at the specified detection limit
DO-Indicates that the result was diluted out
MI-Indicates that the result was subject to Matrix Interference
TNTC-Indicates that the result was Too Numerous to Count
SUBC-Indicates that the analysis was subcontracted
FLD-Indicates that the parameter was performed in the field
PQL-Practical Quantitation Limit
MDL-Method Detection Limit
RDL-Reporting Detection Limit

Reporting Flags Utilized in this Report

J-Indicates that the result was detected between the PQL and MDL
U-Indicates that the result was not detected at the referenced detection limit
B-Organics Indicates that the compound was detected in the associated Method Blank
B-Inorganics Indicates that the compound was detected between the PQL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This Report pertains only to the samples listed in the Sample Cross-Reference and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the Client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

SCOTT A. BAILEY
OPERATIONS MANAGER
GCAL REPORT NO.: 203062703

Workorder Sample Summary

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20306270301	SBA PROFILE-1	Solid	06/26/2003 10:45	06/27/2003 07:52
20306270302	SBA PROFILE-2	Solid	06/26/2003 11:00	06/27/2003 07:52
20306270303	SBA PROFILE-3	Solid	06/26/2003 11:15	06/27/2003 07:52
20306270304	SBA PROFILE-4	Solid	06/26/2003 11:30	06/27/2003 07:52
20306270305	SBA PROFILE-5	Solid	06/26/2003 11:45	06/27/2003 07:52

Lab ID	Sample ID	Matrix	Collected	Received
20306270301	SBA PROFILE-1	Solid	06/26/2003 10:45	06/27/2003 07:52

9045C Solid - pH

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	06/27/2003 15:30	OLT	259266

CAS #	Parameter	Result	RDL	REG LIMIT	Units
pH	pH	11.7	1.00	12.5	pH unit

1010 Flashpoint

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	07/08/2003 10:00	HLO	259647

CAS #	Parameter	Result	RDL	REG LIMIT	Units
000000-01-3	FlashPoint	>212	50		Deg F

9012A Reactivity Cyanide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
06/30/2003 08:30	259288	7.3.3.2	1	07/01/2003 10:57	BMC	259363

CAS #	Parameter	Result	RDL	REG LIMIT	Units
57-12-5R	Reactivity Cyanide	ND	250		mg/kg

Reactivity Sulfide - 9034

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
06/30/2003 08:30	259289	7.3.4.2	1	06/30/2003 17:35	MDT	259339

CAS #	Parameter	Result	RDL	REG LIMIT	Units
18496-25-8R	Reactivity Sulfide	ND	80		mg/kg

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	07/03/2003 14:04	HJL	259537

CAS #	Parameter	Result	RDL	REG LIMIT	Units
75-35-4	1,1-Dichloroethene	ND	0.200	0.7	mg/L
107-06-2	1,2-Dichloroethane	ND	0.200	0.5	mg/L
78-93-3	2-Butanone	ND	1.00	200	mg/L
71-43-2	Benzene	ND	0.200	0.5	mg/L
56-23-5	Carbon tetrachloride	ND	0.200	0.5	mg/L
108-90-7	Chlorobenzene	ND	0.200	100	mg/L
67-66-3	Chloroform	ND	0.200	6	mg/L
127-18-4	Tetrachloroethene	ND	0.200	0.7	mg/L
79-01-6	Trichloroethene	ND	0.200	0.5	mg/L
75-01-4	Vinyl chloride	ND	0.200	0.2	mg/L

Lab ID	Sample ID	Matrix	Collected	Received
20306270301	SBA PROFILE-1	Solid	06/26/2003 10:45	06/27/2003 07:52

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	07/03/2003 14:04	HJL	259537

CAS #	Parameter	Result	RDL	REG LIMIT	Units

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	2000	1990 ug/L	100	78 - 115
1868-53-7	Dibromofluoromethane	2000	1880 ug/L	94	70 - 130
2037-26-5	Toluene d8	2000	1990 ug/L	100	83 - 112
17060-07-0	1,2-Dichloroethane-d4	2000	1820 ug/L	91	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

Lab ID	Sample ID	Matrix	Collected	Received
20306270302	SBA PROFILE-2	Solid	06/26/2003 11:00	06/27/2003 07:52

9045C Solid - pH

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	06/27/2003 15:30	OLT	259266

CAS #	Parameter	Result	RDL	REG LIMIT	Units
pH	pH	11.9	1.00	12.5	pH unit

1010 Flashpoint

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	07/08/2003 10:00	HLO	259647

CAS #	Parameter	Result	RDL	REG LIMIT	Units
000000-01-3	FlashPoint	>212	50		Deg F

9012A Reactivity Cyanide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
06/30/2003 08:30	259288	7.3.3.2	1	07/01/2003 10:57	BMC	259363

CAS #	Parameter	Result	RDL	REG LIMIT	Units
57-12-5R	Reactivity Cyanide	ND	250		mg/kg

Reactivity Sulfide - 9034

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
06/30/2003 08:30	259289	7.3.4.2	1	06/30/2003 17:35	MDT	259339

CAS #	Parameter	Result	RDL	REG LIMIT	Units
18496-25-8R	Reactivity Sulfide	ND	80		mg/kg

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	07/03/2003 11:46	KRV	259537

CAS #	Parameter	Result	RDL	REG LIMIT	Units
75-35-4	1,1-Dichloroethene	ND	0.200	0.7	mg/L
107-06-2	1,2-Dichloroethane	ND	0.200	0.5	mg/L
78-93-3	2-Butanone	ND	1.00	200	mg/L
71-43-2	Benzene	ND	0.200	0.5	mg/L
56-23-5	Carbon tetrachloride	ND	0.200	0.5	mg/L
108-90-7	Chlorobenzene	ND	0.200	100	mg/L
67-66-3	Chloroform	ND	0.200	6	mg/L
127-18-4	Tetrachloroethene	ND	0.200	0.7	mg/L
79-01-6	Trichloroethene	ND	0.200	0.5	mg/L
75-01-4	Vinyl chloride	ND	0.200	0.2	mg/L

Lab ID	Sample ID	Matrix	Collected	Received
20306270302	SBA PROFILE-2	Solid	06/26/2003 11:00	06/27/2003 07:52

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	07/03/2003 11:46	KRV	259537

CAS #	Parameter	Result	RDL	REG LIMIT	Units

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	2000	2010 ug/L	101	78 - 115
1868-53-7	Dibromofluoromethane	2000	1850 ug/L	93	70 - 130
2037-26-5	Toluene d8	2000	1980 ug/L	99	83 - 112
17060-07-0	1,2-Dichloroethane-d4	2000	1900 ug/L	95	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

Lab ID	Sample ID	Matrix	Collected	Received
20306270303	SBA PROFILE-3	Solid	06/26/2003 11:15	06/27/2003 07:52

9045C Solid - pH

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	06/27/2003 15:30	OLT	259266

CAS #	Parameter	Result	RDL	REG LIMIT	Units
pH	pH	11.6	1.00	12.5	pH unit

1010 Flashpoint

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	07/08/2003 10:00	HLO	259647

CAS #	Parameter	Result	RDL	REG LIMIT	Units
000000-01-3	FlashPoint	>212	50		Deg F

9012A Reactivity Cyanide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
06/30/2003 08:30	259288	7.3.3.2	1	07/01/2003 10:57	BMC	259363

CAS #	Parameter	Result	RDL	REG LIMIT	Units
57-12-5R	Reactivity Cyanide	ND	250		mg/kg

Reactivity Sulfide - 9034

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
06/30/2003 08:30	259289	7.3.4.2	1	06/30/2003 17:35	MDT	259339

CAS #	Parameter	Result	RDL	REG LIMIT	Units
18496-25-8R	Reactivity Sulfide	ND	80		mg/kg

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	07/03/2003 12:07	HJL	259537

CAS #	Parameter	Result	RDL	REG LIMIT	Units
75-35-4	1,1-Dichloroethene	ND	0.200	0.7	mg/L
107-06-2	1,2-Dichloroethane	ND	0.200	0.5	mg/L
78-93-3	2-Butanone	ND	1.00	200	mg/L
71-43-2	Benzene	ND	0.200	0.5	mg/L
56-23-5	Carbon tetrachloride	ND	0.200	0.5	mg/L
108-90-7	Chlorobenzene	ND	0.200	100	mg/L
67-66-3	Chloroform	ND	0.200	6	mg/L
127-18-4	Tetrachloroethene	ND	0.200	0.7	mg/L
79-01-6	Trichloroethene	ND	0.200	0.5	mg/L
75-01-4	Vinyl chloride	ND	0.200	0.2	mg/L

Lab ID	Sample ID	Matrix	Collected	Received
20306270303	SBA PROFILE-3	Solid	06/26/2003 11:15	06/27/2003 07:52

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	07/03/2003 12:07	HJL	259537

CAS #	Parameter	Result	RDL	REG LIMIT	Units

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	2000	2140 ug/L	107	78 - 115
1868-53-7	Dibromofluoromethane	2000	1430 ug/L	72	70 - 130
2037-26-5	Toluene d8	2000	2070 ug/L	104	83 - 112
17060-07-0	1,2-Dichloroethane-d4	2000	1800 ug/L	90	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

Lab ID	Sample ID	Matrix	Collected	Received
20306270304	SBA PROFILE-4	Solid	06/26/2003 11:30	06/27/2003 07:52

9045C Solid - pH

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	06/27/2003 15:30	OLT	259266

CAS #	Parameter	Result	RDL	REG LIMIT	Units
pH	pH	12.4	1.00	12.5	pH unit

1010 Flashpoint

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	07/08/2003 10:00	HLO	259647

CAS #	Parameter	Result	RDL	REG LIMIT	Units
000000-01-3	FlashPoint	>212	50		Deg F

9012A Reactivity Cyanide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
06/30/2003 08:30	259288	7.3.3.2	1	07/01/2003 10:57	BMC	259363

CAS #	Parameter	Result	RDL	REG LIMIT	Units
57-12-5R	Reactivity Cyanide	ND	250		mg/kg

Reactivity Sulfide - 9034

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
06/30/2003 08:30	259289	7.3.4.2	1	06/30/2003 17:35	MDT	259339

CAS #	Parameter	Result	RDL	REG LIMIT	Units
18496-25-8R	Reactivity Sulfide	ND	80		mg/kg

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	07/03/2003 12:28	KRV	259537

CAS #	Parameter	Result	RDL	REG LIMIT	Units
75-35-4	1,1-Dichloroethene	ND	0.200	0.7	mg/L
107-06-2	1,2-Dichloroethane	ND	0.200	0.5	mg/L
78-93-3	2-Butanone	ND	1.00	200	mg/L
71-43-2	Benzene	ND	0.200	0.5	mg/L
56-23-5	Carbon tetrachloride	ND	0.200	0.5	mg/L
108-90-7	Chlorobenzene	ND	0.200	100	mg/L
67-66-3	Chloroform	ND	0.200	6	mg/L
127-18-4	Tetrachloroethene	ND	0.200	0.7	mg/L
79-01-6	Trichloroethene	ND	0.200	0.5	mg/L
75-01-4	Vinyl chloride	ND	0.200	0.2	mg/L

Lab ID	Sample ID	Matrix	Collected	Received
20306270304	SBA PROFILE-4	Solid	06/26/2003 11:30	06/27/2003 07:52

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	07/03/2003 12:28	KRV	259537

CAS #	Parameter	Result	RDL	REG LIMIT	Units

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	2000	2040 ug/L	102	78 - 115
1868-53-7	Dibromofluoromethane	2000	1930 ug/L	97	70 - 130
2037-26-5	Toluene d8	2000	2000 ug/L	100	83 - 112
17060-07-0	1,2-Dichloroethane-d4	2000	1900 ug/L	95	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

Lab ID	Sample ID	Matrix	Collected	Received
20306270305	SBA PROFILE-5	Solid	06/26/2003 11:45	06/27/2003 07:52

9045C Solid - pH

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	06/27/2003 15:30	OLT	259266

CAS #	Parameter	Result	RDL	REG LIMIT	Units
pH	pH	11.2	1.00	12.5	pH unit

1010 Flashpoint

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	07/09/2003 10:00	HLO	259670

CAS #	Parameter	Result	RDL	REG LIMIT	Units
000000-01-3	FlashPoint	>212	50		Deg F

9012A Reactivity Cyanide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
06/30/2003 08:30	259288	7.3.3.2	1	07/01/2003 10:57	BMC	259363

CAS #	Parameter	Result	RDL	REG LIMIT	Units
57-12-5R	Reactivity Cyanide	ND	250		mg/kg

Reactivity Sulfide - 9034

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
06/30/2003 08:30	259289	7.3.4.2	1	06/30/2003 17:35	MDT	259339

CAS #	Parameter	Result	RDL	REG LIMIT	Units
18496-25-8R	Reactivity Sulfide	ND	80		mg/kg

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	07/03/2003 12:49	CBL	259537

CAS #	Parameter	Result	RDL	REG LIMIT	Units
75-35-4	1,1-Dichloroethene	ND	0.200	0.7	mg/L
107-06-2	1,2-Dichloroethane	ND	0.200	0.5	mg/L
78-93-3	2-Butanone	ND	1.00	200	mg/L
71-43-2	Benzene	ND	0.200	0.5	mg/L
56-23-5	Carbon tetrachloride	ND	0.200	0.5	mg/L
108-90-7	Chlorobenzene	ND	0.200	100	mg/L
67-66-3	Chloroform	ND	0.200	6	mg/L
127-18-4	Tetrachloroethene	ND	0.200	0.7	mg/L
79-01-6	Trichloroethene	ND	0.200	0.5	mg/L
75-01-4	Vinyl chloride	ND	0.200	0.2	mg/L

Lab ID	Sample ID	Matrix	Collected	Received
20306270305	SBA PROFILE-5	Solid	06/26/2003 11:45	06/27/2003 07:52

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	07/03/2003 12:49	CBL	259537

CAS #	Parameter	Result	RDL	REG LIMIT	Units

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	2000	2040 ug/L	102	78 - 115
1868-53-7	Dibromofluoromethane	2000	1880 ug/L	94	70 - 130
2037-26-5	Toluene d8	2000	2030 ug/L	102	83 - 112
17060-07-0	1,2-Dichloroethane-d4	2000	1850 ug/L	93	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
106624	Method Blank	Solid	

9034

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/30/2003 08:30	259289	7.3.4.2	1	06/30/2003 17:35	MDT	259339

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
18496-25-8R	Reactivity Sulfide	ND	80		mg/kg

LAB ID	SAMPLE ID	MATRIX	REPORTED
106621	Method Blank	Solid	

9012A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
06/30/2003 08:30	259288	7.3.3.2	1	07/01/2003 10:57	BMC	259363

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
57-12-5R	Reactivity Cyanide	ND	250		mg/kg

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
107347	Method Blank	Water	

SW-846 1311/8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	07/03/2003 10:31	RJO	259537

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
75-35-4	1,1-Dichloroethene	ND	0.005		mg/L
107-06-2	1,2-Dichloroethane	ND	0.005		mg/L
78-93-3	2-Butanone	ND	0.025		mg/L
71-43-2	Benzene	ND	0.005		mg/L
56-23-5	Carbon tetrachloride	ND	0.005		mg/L
108-90-7	Chlorobenzene	ND	0.005		mg/L
67-66-3	Chloroform	ND	0.005		mg/L
127-18-4	Tetrachloroethene	ND	0.005		mg/L
79-01-6	Trichloroethene	ND	0.005		mg/L
75-01-4	Vinyl chloride	ND	0.005		mg/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	4-Bromofluorobenzene	50	51.7 ug/L	103	78 - 115
1868-53-7	Dibromofluoromethane	50	48.9 ug/L	98	70 - 130
2037-26-5	Toluene d8	50	49.9 ug/L	100	83 - 112
17060-07-0	1,2-Dichloroethane-d4	50	46 ug/L	92	76 - 128

QUALITY CONTROL SUMMARY

DUPLICATE SAMPLE ID: 106569 | ORIGINAL LAB ID: 20306270301 | PREP BATCH:
MATRIX Solid | ANALYTICAL BATCH: 259266

SW-846 9045

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
pH	pH	11.7	11.6	0.9	- 6

LCS ID: 106625 | ORIGINAL LAB ID: | PREP BATCH: 259269
MATRIX Solid | ANALYTICAL BATCH: 259339

9034

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
18496-25-8R	Reactivity Sulfide	1000 mg/kg	602	60.2	26 - 114

DUPLICATE SAMPLE ID: 106626 | ORIGINAL LAB ID: 20306262401 | PREP BATCH: 259269
MATRIX Solid | ANALYTICAL BATCH: 259339

9034

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
18496-25-8R	Reactivity Sulfide	0	0	0	0 - 25

LCS ID: 106622 | ORIGINAL LAB ID: | PREP BATCH: 259269
MATRIX Solid | ANALYTICAL BATCH: 259363

9012A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
57-12-5R	Reactivity Cyanide	250 mg/kg	8.29	3	1 - 25

DUPLICATE SAMPLE ID: 106623 | ORIGINAL LAB ID: 20306262401 | PREP BATCH: 259269
MATRIX Solid | ANALYTICAL BATCH: 259363

9012A

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
57-12-5R	Reactivity Cyanide	0	0	0	0 - 25

QUALITY CONTROL SUMMARY

LCS ID: 107346 | ORIGINAL LAB ID: | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 259537

SW-846 1311/8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
56-23-5	Carbon tetrachloride	0.025 mg/L	0.024	96	70 - 140
67-66-3	Chloroform	0.025 mg/L	0.024	94	80 - 124
107-06-2	1,2-Dichloroethane	0.025 mg/L	0.023	92	79 - 134
78-93-3	2-Butanone	0.025 mg/L	0.019	76	59 - 157
127-18-4	Tetrachloroethene	0.025 mg/L	0.022	87	75 - 140
75-01-4	Vinyl chloride	0.025 mg/L	0.025	101	68 - 127
75-35-4	1,1-Dichloroethene	0.025 mg/L	0.027	109	67 - 140
71-43-2	Benzene	0.025 mg/L	0.024	96	74 - 128
79-01-6	Trichloroethene	0.025 mg/L	0.021	82	63 - 118
108-90-7	Chlorobenzene	0.025 mg/L	0.024	98	78 - 125

MS LAB ID: 107502 | ORIGINAL LAB ID: 20306270301 | PREP BATCH:
MATRIX Solid | ANALYTICAL BATCH: 259537

SW-846 1311/8260B

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
56-23-5	Carbon tetrachloride	0	1 mg/L	0.949	95	70 - 140
67-66-3	Chloroform	0	1 mg/L	0.961	96	80 - 124
107-06-2	1,2-Dichloroethane	0	1 mg/L	0.938	94	79 - 134
78-93-3	2-Butanone	0	1 mg/L	0.87	87	60 - 140
127-18-4	Tetrachloroethene	0	1 mg/L	0.918	92	75 - 140
75-01-4	Vinyl chloride	0	1 mg/L	0.956	96	68 - 127
75-35-4	1,1-Dichloroethene	0	1 mg/L	1.03	103	61 - 145
71-43-2	Benzene	0	1 mg/L	0.972	97	76 - 127
79-01-6	Trichloroethene	0	1 mg/L	1.14	114	71 - 120
108-90-7	Chlorobenzene	0	1 mg/L	1.01	101	75 - 130

MSD LAB ID: 107503 | ORIGINAL LAB ID: 20306270301 | PREP BATCH:
MATRIX Solid | ANALYTICAL BATCH: 259537

SW-846 1311/8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
56-23-5	Carbon tetrachloride	1 mg/L	0.831	83	70 - 140	13	0 - 30
67-66-3	Chloroform	1 mg/L	0.872	87	80 - 124	10	0 - 30
107-06-2	1,2-Dichloroethane	1 mg/L	0.869	87	79 - 134	8	0 - 30
78-93-3	2-Butanone	1 mg/L	0.788	79	60 - 140	10	0 - 30
127-18-4	Tetrachloroethene	1 mg/L	0.804	80	75 - 140	13	0 - 30
75-01-4	Vinyl chloride	1 mg/L	0.861	86	68 - 127	10	0 - 30
75-35-4	1,1-Dichloroethene	1 mg/L	0.92	92	61 - 145	11	0 - 14
71-43-2	Benzene	1 mg/L	0.881	88	76 - 127	10	0 - 11
79-01-6	Trichloroethene	1 mg/L	1.13	113	71 - 120	0.9	0 - 14
108-90-7	Chlorobenzene	1 mg/L	0.909	91	75 - 130	11	0 - 13

GULF COAST ANALYTICAL LABORATORIES, INC.

7979 GSRI Avenue
Baton Rouge, LA
70820-7402

(225) 769-4900 • Fax (225) 767-5717

CHAIN OF CUSTODY RECORD

Lab use only

Client Name	Client #	Workorder #	Due Date
Pisani & Associates	4271	203062703	7/3/03

Report to:
Client: Michael Pisani & Associates
Address: 1100 Poydras #1430
New Orleans LA 70163
Contact: Robert Leslie
Phone: 504/582-2468
Fax: 504/582-2470

Bill to:
Client: SAME
Address:
Contact:
Phone:
Fax:

P.O. Number: 26-01
Project Name/Number: 26-01
Sampled By: Robert E. Leslie, Jr., P.E.

Analytical Requests & Method

Lab use only:
Custody Seal used ☐ yes ☑ no
Custody Seal in tact ☐ yes ☐ no
Temperature °C 2

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	Preservatives	No Containers	TCLP Volatile Organics	Reactivity (S=#CN⁻)	Corrosivity	Ignitibility	Remarks:	Lab ID
SD	6/26/03	1045		X	SBA Profile-1	NONE	1	X	X	X	X		6127-01
SD	"	1100		X	SBA Profile-2	"	1	X	X	X	X		-02
SD	"	1115		X	SBA Profile-3	"	1	X	X	X	X		-03
SD	"	1130		X	SBA Profile-4	"	1	X	X	X	X		-04
SD	6/26/03	1145		X	SBA Profile-5	NONE	1	X	X	X	X		-05

Turn Around Time: ☐ 24-48 hrs. ☐ 3 days ☐ 1 week ☒ Standard ☐ Other

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	[signature]	6/27/03	0752
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Note:

By submitting these samples, you agree to the terms and conditions contained in our most recent schedule of services.

Matrix[1]: W = water, S = soil, SD = solid, L = liquid, SL = sludge, o = oil, CT = charcoal tube, A = air bag

We cannot accept verbal changes. Please fax written changes to (225) 767-5717

WHITE: CLIENT FINAL REPORT — CANARY: LABORATORY — PINK: CLIENT

GCAL-06 11/98

GULF COAST
ANALYTICAL LABORATORIES, INC.

NELAP CERTIFICATE NUMBER 01955

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Report Date: 04/29/2003

GCAL REPORT NO.: 203042228

Deliver To: Pisani Associates
1100 Poydras
Suite 1430
New Orleans, LA 70163

Attn: Robert Leslie

CUSTOMER NAME: Pisani & Associates

PROJECT NAME: General

CASE NARRATIVE

Client: Pisani & Associates **Report:** 203042228

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES MASS SPECTROMETRY

In the SW-846 1311/8260B analysis of sample 20304222801 (PROFILE-1), due to the presence of non-target background, the sample required dilution prior to analysis. This dilution is reflected in elevated detection limits.

GULF COAST ANALYTICAL LABORATORIES, INC

LABORATORY ENDORSEMENT

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 Days unless otherwise arranged. Following this retention period the samples will be disposed of in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND-Indicates that the parameter was not detected at the specified detection limit
DO-Indicates that the result was diluted out
MI-Indicates that the result was subject to Matrix Interference
TNTC-Indicates that the result was Too Numerous to Count
SUBC-Indicates that the analysis was subcontracted
FLD-Indicates that the parameter was performed in the field
PQL-Practical Quantitation Limit
MDL-Method Detection Limit
RDL-Reporting Detection Limit

Reporting Flags Utilized in this Report

J-Indicates that the result was detected between the PQL and MDL
U-Indicates that the result was not detected at the referenced detection limit
B-Organics Indicates that the compound was detected in the associated Method Blank
B-Inorganics Indicates that the compound was detected between the PQL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This Report pertains only to the samples listed in the Sample Cross-Reference and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the Client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Scott Bailey

SCOTT A. BAILEY
OPERATIONS MANAGER

GCAL REPORT NO.: 203042228

Workorder Sample Summary

Lab ID	Sample ID	Matrix	Collect Date/Time	Receive Date/Time
20304222801	PROFILE-1	Solid	04/22/2003 13:20	04/22/2003 17:03

Lab ID	Sample ID	Matrix	Collected	Received
20304222801	PROFILE-1	Solid	04/22/2003 13:20	04/22/2003 17:03

9045C Solid - pH

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	04/25/2003 10:30	OLT	256416

CAS #	Parameter	Result	RDL	REG LIMIT	Units
pH	pH	11.6	1.00	12.5	pH unit

9012A Reactivity Cyanide

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
04/25/2003 09:00	256390	7.3.3.2	1	04/25/2003 12:23	BMC	256408

CAS #	Parameter	Result	RDL	REG LIMIT	Units
57-12-5R	Reactivity Cyanide	ND	250		mg/kg

Reactivity Sulfide - 9034

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
04/25/2003 09:00	256391	7.3.4.2	1	04/25/2003 11:31	MDT	256436

CAS #	Parameter	Result	RDL	REG LIMIT	Units
18496-25-8R	Reactivity Sulfide	ND	80		mg/kg

1030 Flashpoint

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			1	04/25/2003 11:00	HLO	256418

CAS #	Parameter	Result	RDL	REG LIMIT	Units
000000-01-7	Ignitable	NO			

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	04/24/2003 15:11	HJL	256353

CAS #	Parameter	Result	RDL	REG LIMIT	Units
75-35-4	1,1-Dichloroethene	ND	0.200	0.7	mg/L
107-06-2	1,2-Dichloroethane	ND	0.200	0.5	mg/L
78-93-3	2-Butanone	ND	1.00	200	mg/L
71-43-2	Benzene	ND	0.200	0.5	mg/L
56-23-5	Carbon tetrachloride	ND	0.200	0.5	mg/L
108-90-7	Chlorobenzene	ND	0.200	100	mg/L
67-66-3	Chloroform	ND	0.200	6	mg/L
127-18-4	Tetrachloroethene	ND	0.200	0.7	mg/L
79-01-6	Trichloroethene	ND	0.200	0.5	mg/L
75-01-4	Vinyl chloride	ND	0.200	0.2	mg/L

Lab ID	Sample ID	Matrix	Collected	Received
20304222801	PROFILE-1	Solid	04/22/2003 13:20	04/22/2003 17:03

SW-846 8260B, TCLP Volatiles

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	ANALYTICAL BATCH
			40	04/24/2003 15:11	HJL	256353

CAS #	Parameter	Result	RDL	REG LIMIT	Units

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC-LIMITS
460-00-4	4-Bromofluorobenzene	2000	1710 ug/L	86	78 - 115
1868-53-7	Dibromofluoromethane	2000	1800 ug/L	90	70 - 130
2037-26-5	Toluene d8	2000	1800 ug/L	90	83 - 112
17060-07-0	1,2-Dichloroethane-d4	2000	1820 ug/L	91	76 - 128

RESULTS REPORTED ON A WET WEIGHT BASIS

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
94957	Method Blank	Solid	

9012A

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
04/25/2003 09:00	256390	7.3.3.2	1	04/25/2003 12:23	BMC	256408

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
57-12-5R	Reactivity Cyanide	ND	250		mg/kg

LAB ID	SAMPLE ID	MATRIX	REPORTED
94960	Method Blank	Solid	

9034

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
04/25/2003 09:00	256391	7.3.4.2	1	04/25/2003 11:31	MDT	256436

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
18496-25-8R	Reactivity Sulfide	ND	80		mg/kg

QUALITY CONTROL RESULTS

LAB ID	SAMPLE ID	MATRIX	REPORTED
94813	Method Blank	Water	

SW-846 1311/8260B

PREP DATE	PREP BATCH	PREP METHOD	DILUTION	ANALYZED	BY	ANALYTICAL BATCH
			1	04/24/2003 11:15	RJO	256353

CAS #	PARAMETER	RESULT	RDL	REG LIMIT	UNITS
75-35-4	1,1-Dichloroethene	ND	0.005		mg/L
107-06-2	1,2-Dichloroethane	ND	0.005		mg/L
78-93-3	2-Butanone	ND	0.025		mg/L
71-43-2	Benzene	ND	0.005		mg/L
56-23-5	Carbon tetrachloride	ND	0.005		mg/L
108-90-7	Chlorobenzene	ND	0.005		mg/L
67-66-3	Chloroform	ND	0.005		mg/L
127-18-4	Tetrachloroethene	ND	0.005		mg/L
79-01-6	Trichloroethene	ND	0.005		mg/L
75-01-4	Vinyl chloride	ND	0.005		mg/L

CAS #	SURROGATE NAME	CONC ADDED	CONC REC	% RECOVERY	REC LIMITS
460-00-4	4-Bromofluorobenzene	50	42.8 ug/L	86	78 - 115
1868-53-7	Dibromofluoromethane	50	43.5 ug/L	87	70 - 130
2037-26-5	Toluene d8	50	45.1 ug/L	90	83 - 112
17060-07-0	1,2-Dichloroethane-d4	50	44.6 ug/L	89	76 - 128

QUALITY CONTROL SUMMARY

LCS ID: 94958 | ORIGINAL LAB ID: | PREP BATCH: 256390
MATRIX Solid | ANALYTICAL BATCH: 256408

9012A

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
57-12-5R	Reactivity Cyanide	250 mg/kg	33.3	13	1 - 25

DUPLICATE SAMPLE ID: 94959 | ORIGINAL LAB ID: 203042228-01 | PREP BATCH: 256390
MATRIX Solid | ANALYTICAL BATCH: 256408

9012A

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
57-12-5R	Reactivity Cyanide	0	0	0	0 - 25

DUPLICATE SAMPLE ID: 95013 | ORIGINAL LAB ID: 203042228-01 | PREP BATCH:
MATRIX Solid | ANALYTICAL BATCH: 256416

SW-846 9045

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
pH	pH	11.6	11.5	0.6	- 6

LCS ID: 94961 | ORIGINAL LAB ID: | PREP BATCH: 256391
MATRIX Solid | ANALYTICAL BATCH: 256436

9034

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
18496-25-8R	Reactivity Sulfide	1000 mg/kg	745	74.5	26 - 114

DUPLICATE SAMPLE ID: 94962 | ORIGINAL LAB ID: 203042228-01 | PREP BATCH: 256391
MATRIX Solid | ANALYTICAL BATCH: 256436

9034

CAS #	PARAMETER	Original Result	Result	RPD	RPD LIMITS
18496-25-8R	Reactivity Sulfide	0	0	0	0 - 25

QUALITY CONTROL SUMMARY

LCS ID: 94812 | ORIGINAL LAB ID: | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 256353

SW-846 1311/8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
75-35-4	1,1-Dichloroethene	0.05 mg/L	0.051	102	67 - 140
71-43-2	Benzene	0.05 mg/L	0.046	91	74 - 128
79-01-6	Trichloroethene	0.05 mg/L	0.045	90	63 - 118
108-90-7	Chlorobenzene	0.05 mg/L	0.051	102	78 - 125

MS LAB ID: 94849 | ORIGINAL LAB ID: 20304230201 | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 256353

SW-846 1311/8260B

CAS #	PARAMETER	Original Result	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS
75-35-4	1,1-Dichloroethene	0	0.05 mg/L	0.052	103	61 - 145
71-43-2	Benzene	0	0.05 mg/L	0.048	96	76 - 127
79-01-6	Trichloroethene	0	0.05 mg/L	0.046	92	71 - 120
108-90-7	Chlorobenzene	0	0.05 mg/L	0.051	101	75 - 130

MSD LAB ID: 94850 | ORIGINAL LAB ID: 20304230201 | PREP BATCH:
MATRIX Water | ANALYTICAL BATCH: 256353

SW-846 1311/8260B

CAS #	PARAMETER	SPIKE ADDED	Result	% RECOVERY	REC-LIMITS	RPD	RPD LIMITS
75-35-4	1,1-Dichloroethene	0.05 mg/L	0.047	94	61 - 145	9	0 - 14
71-43-2	Benzene	0.05 mg/L	0.045	91	76 - 127	5	0 - 11
79-01-6	Trichloroethene	0.05 mg/L	0.043	86	71 - 120	7	0 - 14
108-90-7	Chlorobenzene	0.05 mg/L	0.048	95	75 - 130	6	0 - 13

Pisani / 4271 / 2030922228 / 4-25-03

PHILIP SERVICES CORP.

CHAIN OF CUSTODY

DATE: 4/22/03

PURCHASE ORDER NO. 26-01

JOB NO.

CONTACT: ~~PHYLLIS ROBISON~~

CLIENT: ~~PHILIP SERVICES~~ Michael Pisani & Assoc. PHONE NO. 504/582-2468 ~~504-031-0370~~

ADDRESS: ~~410 TIGER COURT~~ 1100 Poydras #1430 FAX NO. ~~504-031-0380~~ 504/582-2470

~~MORGAN CITY, LA 70380~~ New Orleans LA 70163

room temp

DATE	TIME	SAMPLE ID.	TYPE	NUMBER OF CONTAINTERS	RADIOCHEMISTRY								GAMMA SPECTROSCOPY				OTHER
					GROSS ALPHA	GROSS BETA	RA-226	RA-228	TOT. RAD.	SR89/ SR90	NAT. URAN.	AM/ PU/CU/ NP/U	FISSION	NATURAL	TOT. GAMMA	OTHER	
4/22/03	1320	PROFILE-1	SOIL	1												TCLP VOCs	R/C/I

RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	4/22/03	1340
Robert W Miller	4-22-03	1703

RECEIVED BY: (SIGNATURE)	DATE	TIME

TCLP 3 day TAT

GCAL
GULF COAST ANALYTICAL LABORATORIES, INC

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.

Report Date 09/15/2003

GCAL Report 203091125

Deliver To	Pisani & Associates 1100 Poydras Suite 1430 New Orleans, LA 70163 (504) 582-2464
Attn	Robert Leslie

Customer Pisani & Associates

Project SBA Shipyards

CASE NARRATIVE

Client: Pisani & Associates **Report:** 203091125

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

METALS

In the Mercury analysis, sample 20309112503 (SBA PROFILE-5) had to be diluted in order to bracket the concentration within the limits of the calibration curve. This is reflected in the elevated detection limit reported.

In the SW-846 6010B analysis, a chemical or physical interference necessitated a dilution for all samples. This is reflected in the elevated reporting limits.

The Sample/Duplicate RPD for Mercury for prep batch 262362 is not applicable because the sample and/or duplicate concentration is less than five times the reporting limit.

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND	Indicates the result was Not Detected at the specified RDL
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags Utilized in this Report

J	Indicates an estimated value
U	Indicates the compound was analyzed for but not detected
B	(ORGANICS) Indicates the analyte was detected in the associated Method Blank
B	(INORGANICS) Indicates the result is between the RDL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with ISO Guide 25 and NELAC, this report shall be reporduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

SCOTT A. BAILEY
OPERATIONS MANAGER
GCAL REPORT 203091125

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20309112501	SBA PROFILE-1	Solid	06/20/2003 10:45	06/27/2003 07:52
20309112502	SBA PROFILE-3	Solid	06/20/2003 11:15	06/27/2003 07:52
20309112503	SBA PROFILE-5	Solid	06/26/2003 11:45	06/27/2003 07:52

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20309112501	SBA PROFILE-1	Solid	06/20/2003 10:45	06/27/2003 07:52

Soil Mercury 7471A

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
09/12/2003 10:30	262362	SW-846 7471A	1	09/12/2003 16:04	MAP	262374

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7439-97-6	Mercury	0.51	0.010		mg/kg

SW-846 6010B - Solid - ICP

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
09/12/2003 10:30	262360	3050B	5	09/13/2003 11:18	JAC	262382

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7440-38-2	Arsenic	ND	8.00		mg/kg
7440-39-3	Barium	148	2.00		mg/kg
7440-43-9	Cadmium	ND	1.00		mg/kg
7440-47-3	Chromium	16.8	2.00		mg/kg
7439-92-1	Lead	32.6	3.00		mg/kg
7782-49-2	Selenium	ND	8.00		mg/kg
7440-22-4	Silver	ND	2.00		mg/kg

RESULTS REPORTED ON A WET WEIGHT BASIS

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20309112502	SBA PROFILE-3	Solid	06/20/2003 11:15	06/27/2003 07:52

Soil Mercury 7471A

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
09/12/2003 10:30	262362	SW-846 7471A	1	09/12/2003 16:05	MAP	262374

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7439-97-6	**Mercury**	**0.50**	**0.010**		**mg/kg**

SW-846 6010B - Solid - ICP

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
09/12/2003 10:30	262360	3050B	5	09/13/2003 11:25	JAC	262382

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7440-38-2	Arsenic	ND	8.00		mg/kg
7440-39-3	**Barium**	**110**	**2.00**		**mg/kg**
7440-43-9	Cadmium	ND	1.00		mg/kg
7440-47-3	**Chromium**	**11.2**	**2.00**		**mg/kg**
7439-92-1	**Lead**	**18.9**	**3.00**		**mg/kg**
7782-49-2	Selenium	ND	8.00		mg/kg
7440-22-4	Silver	ND	2.00		mg/kg

RESULTS REPORTED ON A WET WEIGHT BASIS

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20309112503	SBA PROFILE-5	Solid	06/26/2003 11:45	06/27/2003 07:52

Soil Mercury 7471A

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
09/12/2003 10:30	262362	SW-846 7471A	2	09/12/2003 16:23	MAP	262374

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7439-97-6	Mercury	0.94	0.020		mg/kg

SW-846 6010B - Solid - ICP

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
09/12/2003 10:30	262360	3050B	5	09/13/2003 11:33	JAC	262382

CAS#	Parameter	Result	RDL	REG LIMIT	Units
7440-38-2	Arsenic	ND	7.97		mg/kg
7440-39-3	Barium	140	1.99		mg/kg
7440-43-9	Cadmium	ND	1.0		mg/kg
7440-47-3	Chromium	14.1	1.99		mg/kg
7439-92-1	Lead	30.1	2.99		mg/kg
7782-49-2	Selenium	ND	7.97		mg/kg
7440-22-4	Silver	ND	1.99		mg/kg

RESULTS REPORTED ON A WET WEIGHT BASIS

Inorganics Quality Control Summary

Analytical Batch	262374	Client ID	MB262362			LCS262362		
Prep Batch	262362	GCAL ID	118658			118659		
Prep Method	SW-846	Sample Type	Method Blank			LCS		
	7471A	Prep Date	09/12/2003 10:30			09/12/2003 10:30		
		Analytical Date	09/12/2003 15:54			09/12/2003 15:55		
		Matrix	Solid			Solid		
Soil Mercury 7471A		Units / Result	mg/kg / RDL	Spike Added	Result	% R	Control Limits % R	
7439-97-6	Mercury	ND	0.010	0.25	0.30	120	80 - 120	

Analytical Batch	262374	Client ID	OLEFIN I - 26478-26878			118515MS		
Prep Batch	262362	GCAL ID	20309111801			118661		
Prep Method	SW-846	Sample Type	SAMPLE			MS		
	7471A	Prep Date	09/12/2003 10:30			09/12/2003 10:30		
		Analytical Date	09/12/2003 15:57			09/12/2003 16:00		
		Matrix	Solid			Solid		
Soil Mercury 7471A		Units / Result	mg/kg / RDL	Spike Added	Result	% R	Control Limits % R	
7439-97-6	Mercury	0.036	0.010	0.25	0.33	116	75 - 125	

Analytical Batch	262374	Client ID	OLEFIN I - 26478-26878	118515DUP		
Prep Batch	262362	GCAL ID	20309111801	118660		
Prep Method	SW-846	Sample Type	SAMPLE	DUP		
	7471A	Prep Date	09/12/2003 10:30	09/12/2003 10:30		
		Analytical Date	09/12/2003 15:57	09/12/2003 15:59		
		Matrix	Solid	Solid		
Soil Mercury 7471A		Units / Result	mg/kg / RDL	Result	RPD	RPD Limit
7439-97-6	Mercury	0.036	0.010	0.025	37*	20

GULF COAST ANALYTICAL LABORATORIES

7979 GSRI Avenue
Baton Rouge, LA
70820-7402

(225) 769-4500 • Fax (225) 767-5717

CHAIN OF CUSTODY RECORD

203091125 9-2203

Lab (agency)	Client #	Workorder #	Due Date
Pisani & Associates	4271	~~203062903~~	~~9/3/03~~

Report to:
Client: Michael Pisani & Associates
Address: 1100 Poydras #1430
New Orleans LA 70163
Contact: Robert Leslie
Phone: 504/582-2468
Fax: 504/582-2470

Bill to:
Client: SAME
Address:
Contact:
Phone:
Fax:

P.O. Number: 26-01
Project Name/Number: 26-01
Sampled By: Robert E. Leslie, Jr., P.E.

Analytical Requests & Method

Lab use only:
Custody Seal used ☐ yes ☑ no
in tact: ☐ yes ☐ no
Temperature °C 2

Matrix	Date	Time (2400)	Composite?	Sample Description	Preservatives	No. Containers	TCLP Volatile Organics	Reactivity (S=, CN-)	Corrosivity	Ignitibility	RCRA Metals +	Remarks	Lab ID
SD	6/26/03	1045		X SBA PROFILE-1	NONE	1	X	X	X	X	X	9/11-01	~~-01~~
SD	↓	1100		X SBA PROFILE-2	↓	1	X	X	X	X			~~-02~~
SD		1115		X SBA PROFILE-3		1	X	X	X	X	X	-02	~~-03~~
SD		1130		X SBA-PROFILE-4		1	X	X	X	X			~~-04~~
SD	6/26/03	1145		X SBA PROFILE-5	NONE	1	X	X	X	X	X	-03	~~-05~~

Turn Around Time: ☐ 24-48 hrs ☐ 3 days ☐ 1 week ☒ Standard ☐ Other

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
~~RAELY~~	~~X~~ Judi Smith	6/27/03	0752
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Note: * Analysis added per client 9/11/03

By submitting these samples, you agree to the terms and conditions contained in our most recent schedule of services.

Matrix: W = water, S = soil, SD = solid, L = liquid, SL = sludge, O = oil, CT = charcoal tube, A = air bag

We cannot accept verbal changes. Please fax written changes to (225) 767-5717

WHITE: CLIENT FINAL REPORT — CANARY: LABORATORY — PINK: CLIENT

LOCAL (1-1-96)

PRESERVATION CHECKLIST / COOLER RECEIPT

Gulf Coast Analytical Laboratories, Inc.

WO:	203091125	**Type:**	M
Desc:		**Report:**	REVIEW_RPT
Work ID:	SBA Shipyards	**Status:**	WP
Project Seq:	15142	**Created:**	9/11/03 15:43
Client:	4271 - Pisani & Associates	**QA:**	
Profile:	55304 - SBA - SBA Shipyards	**PO:**	

WORKORDER SAMPLES

			pH PRESERVATIVE			VOA HEADSPACE			
Container ID	**Type**	**Preservative**	A	U	N\A	A	U	N\A	**CONTAINER CONDITION**
20309112501-1	LC	NONE			X			X	OK
Container ID	**Type**	**Preservative**	A	U	N\A	A	U	N\A	**CONTAINER CONDITION**
20309112502-1	LC	NONE			X			X	OK
Container ID	**Type**	**Preservative**	A	U	N\A	A	U	N\A	**CONTAINER CONDITION**
20309112503-1	LC	NONE			X			X	OK

A = ACCEPTABLE
U = UNACCEPTABLE
N\A = NOT APPLICABLE

COOLER (S) TEMPERATURE A U LIMIT = 4C + \ - 2C

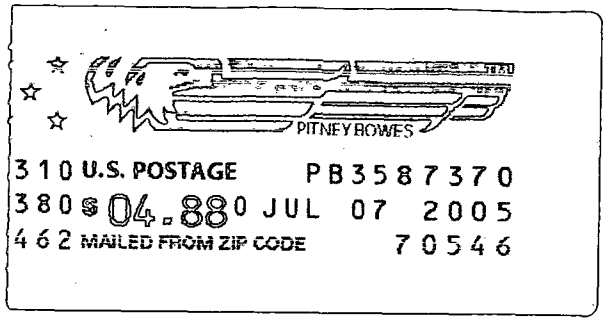
MAXIMUM VOLATILE HEADSPACE BUBBLE 6MM

Custody Seal
used [ ] Yes [X] No
in tact [ ] Yes [ ] No

CUSTODIAN

CERTIFIED MAIL™

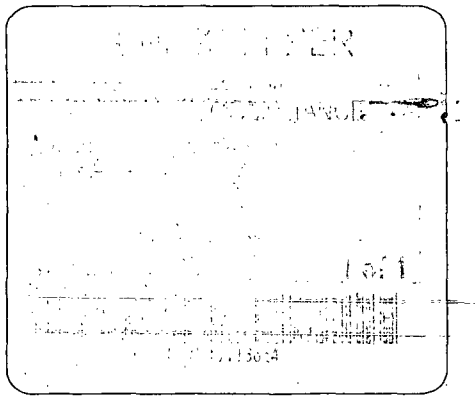
7004 0750 0000 9869 6065



LEEVAC INDUSTRIES, LLC

Hwy. 90 East • P.O. Box 1190, Jennings, Louisiana 70546
(337) 824-2210

GENE KEEPPER
1445 ROSS AVE. SUITE 900
DALLAS, TX 75202-2733



PERMITTEE NAME/ADDRESS (If different from Facility Name/Location)
NAME: LEEVAC SHIPYARD INC.
ADDRESS: P.O. BOX 1190
JENNINGS LA. 70546
ATTN: GILBERT WALDREP
FACILITY: LEEVAC SOUTH
LOCATION: END OF HWY 3166 SOUTHEAST OF JENNING
JEFFERSON DAVIS PARISH 70546

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

FORM APPROVED
OMB No.2040-0004

LA 0103381	001	STORMWATER DISCHARGE
PERMIT NUMBER (2-16)	DISCHARGE NUMBER (17-19)	

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	05	01	01	TO	05	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) (46-53) QUANTITY OR LOADING (54-61) AVERAGE	MAXIMUM	UNITS	(4 Card Only) (38-45) QUALITY OR CONCENTRATION (46-53) MINIMUM	AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
FLOW	SAMPLE MEASUREMENT		PER EVENT						0	1/MTH	EST
	PERMIT REQUIREMENT	REPORT	REPORT	GPD						1/MTH	EST
TOTAL ORGANIC	SAMPLE MEASUREMENT						5		0	1/3MTH	GRAB
COMPOMDS	PERMIT REQUIREMENT	N/A	N/A				50	MG/L		1/3MTH	GRAB
OIL AND	SAMPLE MEASUREMENT						15		0	1/3MTH	GRAB
GREASE	PERMIT REQUIREMENT	N/A	N/A				15	MG/L		1/3MTH	GRAB
pH	SAMPLE MEASUREMENT				7.34		7.34		0	1/3MTH	GRAB
	PERMIT REQUIREMENT	N/A	N/A		6.0		9.0	STD UNITS		1/3MTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE	DATE
GILBERT WALDREP ENVIRONMENTAL MANAGER TYPED OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	337-824-2210 area code NUMBER	05 | 04 | 05 YEAR | MO | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Forms by WindowChem(707)864-0845

PERMITTEE NA[redacted] (Include Facility Name/Location if different)
NAME: LEEVAC [illegible]TARD INC.
ADDRESS: P.O. BOX 1190
JENNINGS LA. 70546
ATTN: GILBERT WALDREP
FACILITY: MERMENTAU FACILITY
LOCATION: 5 MILES E. OF JENNINGS ON HWY. 90
JEFFERSON DAVIS PARISH 70546

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

FORM APPROVED
OMB No.2040-0004

LA 0103381	003	STORMWATER DISCHARGE
PERMIT NUMBER (2-16)	DISCHARGE NUMBER (17-19)	

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	05	01	01	TO	05	01	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) (46-53) QUANTITY OR LOADING (54-61) AVERAGE	MAXIMUM	UNITS	(4 Card Only) (38-45) QUALITY OR CONCENTRATION (46-53) MINIMUM	AVERAGE	MAXIMUM (54-61)	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
FLOW	SAMPLE MEASUREMENT		PER EVENT						0	1/MTH	EST
	PERMIT REQUIREMENT	REPORT	REPORT	GPD						1/MTH	EST
TOTAL ORGANIC	SAMPLE MEASUREMENT						24		0	1/MTH	GRAB
COMPOMDS	PERMIT REQUIREMENT	N/A	N/A				50	MG/L		1/MTH	GRAB
OIL AND	SAMPLE MEASUREMENT						11		0	1/MTH	GRAB
GREASE	PERMIT REQUIREMENT	N/A	N/A				15	MG/L		1/MTH	GRAB
pH	SAMPLE MEASUREMENT				7.71		7.71		0	1/MTH	GRAB
	PERMIT REQUIREMENT	N/A	N/A		6.0		9.0	STD UNITS		1/MTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE	DATE
GILBERT WALDREP ENVIRONMENTAL MANAGER TYPED OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	337-824-2210 area code NUMBER	05 | 02 | 05 YEAR | MO | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Forms by WindowChem(707)864-0845

PERMITTEE NAME/ADDRESS: *(Include Facility Name/Location if different)*
NAME: LEEVAC SHIPYARD INC.
ADDRESS: P.O. BOX 1190
JENNINGS LA. 70546
ATTN: GILBERT WALDREP
FACILITY: LEEVAC SOUTH
LOCATION: END OF HWY 3166 SOUTHEAST OF JENNING
JEFFERSON DAVIS PARISH 70546

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

FORM APPROVED
OMB No.2040-0004

LA 0103381	002	STORMWATER DISCHARGE
PERMIT NUMBER *(2-16)*	DISCHARGE NUMBER *(17-19)*	

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	05	01	01	TO	05	03	31
(20-21)	*(22-23)*	*(24-25)*		*(26-27)*	*(28-29)*	*(30-31)*	

NOTE: Read instructions before completing this form.

PARAMETER *(32-37)*		*(3 Card Only)* *(46-53)* QUANTITY OR LOADING *(54-61)* AVERAGE	MAXIMUM	UNITS	*(4 Card Only)* *(38-45)* QUALITY OR CONCENTRATION *(46-53)* MINIMUM	AVERAGE	*(54-61)* MAXIMUM	UNITS	NO. EX *(62-63)*	FREQUENCY OF ANALYSIS *(64-68)*	SAMPLE TYPE *(69-70)*
FLOW	SAMPLE MEASUREMENT		PER EVENT						0	1/MTH	EST
	PERMIT REQUIREMENT	REPORT	REPORT	GPD						1/MTH	EST
TOTAL ORGANIC	SAMPLE MEASUREMENT						4		0	1/3MTH	GRAB
COMPOMDS	PERMIT REQUIREMENT	N/A	N/A				50	MG/L		1/3MTH	GRAB
OIL AND	SAMPLE MEASUREMENT						11		0	1/3MTH	GRAB
GREASE	PERMIT REQUIREMENT	N/A	N/A				15	MG/L		1/3MTH	GRAB
pH	SAMPLE MEASUREMENT				7.51		7.51		0	1/3MTH	GRAB
	PERMIT REQUIREMENT	N/A	N/A		6.0		9.0	STD UNITS		1/3MTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE
GILBERT WALDREP ENVIRONMENTAL MANAGER TYPED OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	337-824-2210 area code NUMBER	05 | 04 | 05 YEAR | MO | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Forms by WindowChem(707)864-0845

LEEVAC Copy

PERMITTEE NAME/ADDRESS: *(Include Facility Name/Location if different)*
NAME: LEEVAC SHIPYARD INC.
ADDRESS: P.O. BOX 1190
JENNINGS LA. 70546
ATTN: GILBERT WALDREP
FACILITY: LEEVAC SOUTH
LOCATION: END OF HWY 3166 SOUTHEAST OF JENNING
JEFFERSON DAVIS PARISH 70546

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

FORM APPROVED
OMB No.2040-0004

LA 0103381	001	STORMWATER DISCHARGE
PERMIT NUMBER *(2-16)*	DISCHARGE NUMBER *(17-19)*	

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	04	07	01	TO	04	09	30
(20-21)	*(22-23)*	*(24-25)*		*(26-27)*	*(28-29)*	*(30-31)*	

NOTE: Read instructions before completing this form.

PARAMETER *(32-37)*		*(3 Card Only)* QUANTITY OR LOADING *(46-53)* AVERAGE	*(54-61)* MAXIMUM	UNITS	*(4 Card Only)* QUALITY OR CONCENTRATION *(38-45)* MINIMUM	*(46-53)* AVERAGE	*(54-61)* MAXIMUM	UNITS	NO. EX *(62-63)*	FREQUENCY OF ANALYSIS *(64-68)*	SAMPLE TYPE *(69-70)*
FLOW	SAMPLE MEASUREMENT		PER EVENT						0	1/MTH	EST
	PERMIT REQUIREMENT	REPORT	REPORT	GPD						1/MTH	EST
TOTAL ORGANIC	SAMPLE MEASUREMENT						5		0	1/3MTH	GRAB
COMPOMDS	PERMIT REQUIREMENT	N/A	N/A				50	MG/L		1/3MTH	GRAB
OIL AND	SAMPLE MEASUREMENT						2		0	1/3MTH	GRAB
GREASE	PERMIT REQUIREMENT	N/A	N/A				15	MG/L		1/3MTH	GRAB
pH	SAMPLE MEASUREMENT				7.34		7.34		0	1/3MTH	GRAB
	PERMIT REQUIREMENT	N/A	N/A		6.0		9.0	STD UNITS		1/3MTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER
GILBERT WALDREP
ENVIRONMENTAL MANAGER
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: 337-824-2210 (area code NUMBER)

DATE: 04 | 10 | 22 (YEAR | MO | DAY)

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Forms by WindowChem(707)864-0845

PERMITTEE NAME/ADDRESS: *(Include Facility Name/Location if different)*
NAME: LEEVAC SHIPYARD INC.
ADDRESS: P.O. BOX 1190
JENNINGS LA. 70546
ATTN: GILBERT WALDREP
FACILITY: LEEVAC SOUTH
LOCATION: END OF HWY 3166 SOUTHEAST OF JENNING
JEFFERSON DAVIS PARISH 70546

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

FORM APPROVED
OMB No.2040-0004

LA 0103381	002	STORMWATER DISCHARGE
PERMIT NUMBER *(2-16)*	DISCHARGE NUMBER *(17-19)*	

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	04	07	01	TO	04	09	30
	(20-21)	*(22-23)*	*(24-25)*		*(26-27)*	*(28-29)*	*(30-31)*

NOTE: Read instructions before completing this form.

PARAMETER *(32-37)*		*(3 Card Only)* QUANTITY OR LOADING *(46-53)* AVERAGE	*(54-61)* MAXIMUM	UNITS	*(4 Card Only)* QUALITY OR CONCENTRATION *(38-45)* MINIMUM	*(46-53)* AVERAGE	*(54-61)* MAXIMUM	UNITS	NO. EX *(62-63)*	FREQUENCY OF ANALYSIS *(64-68)*	SAMPLE TYPE *(69-70)*
FLOW	SAMPLE MEASUREMENT		PER EVENT						0	1/MTH	EST
	PERMIT REQUIREMENT	REPORT	REPORT	GPD						1/MTH	EST
TOTAL ORGANIC	SAMPLE MEASUREMENT						9		0	1/3MTH	GRAB
COMPOMDS	PERMIT REQUIREMENT	N/A	N/A				50	MG/L		1/3MTH	GRAB
OIL AND	SAMPLE MEASUREMENT						7		0	1/3MTH	GRAB
GREASE	PERMIT REQUIREMENT	N/A	N/A				15	MG/L		1/3MTH	GRAB
pH	SAMPLE MEASUREMENT				7.56		7.56		0	1/3MTH	GRAB
	PERMIT REQUIREMENT	N/A	N/A		6.0		9.0	STD UNITS		1/3MTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE
GILBERT WALDREP ENVIRONMENTAL MANAGER TYPED OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	337-824-2210 area code NUMBER	04 | 10 | 22 YEAR | MO | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Forms by WindowChem(707)864-0845

PERMITTEE NAME/ADDRESS: *(Include Facility Name/Location if different)*
NAME: LEEVAC SHIPYARD INC.
ADDRESS: P.O. BOX 1190
JENNINGS LA. 70546
ATTN: GILBERT WALDREP
FACILITY: LEEVAC SOUTH
LOCATION: END OF HWY 3166 SOUTHEAST OF JENNING
JEFFERSON DAVIS PARISH 70546

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

FORM APPROVED
OMB No.2040-0004

LA 0103381	001	STORMWATER DISCHARGE
PERMIT NUMBER *(2-16)*	DISCHARGE NUMBER *(17-19)*	

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	04	01	01	TO	04	03	31
(20-21)	*(22-23)*	*(24-25)*		*(26-27)*	*(28-29)*	*(30-31)*	

NOTE: Read instructions before completing this form.

PARAMETER *(32-37)*		*(3 Card Only)* QUANTITY OR LOADING *(46-53)* AVERAGE	*(54-61)* MAXIMUM	UNITS	*(4 Card Only)* QUALITY OR CONCENTRATION *(38-45)* MINIMUM	*(46-53)* AVERAGE	*(54-61)* MAXIMUM	UNITS	NO. EX *(62-63)*	FREQUENCY OF ANALYSIS *(64-68)*	SAMPLE TYPE *(69-70)*
FLOW	SAMPLE MEASUREMENT		PER EVENT						0	1/MTH	EST
	PERMIT REQUIREMENT	REPORT	REPORT	GPD						1/MTH	EST
TOTAL ORGANIC	SAMPLE MEASUREMENT						4		0	1/3MTH	GRAB
COMPOMDS	PERMIT REQUIREMENT	N/A	N/A				50	MG/L		1/3MTH	GRAB
OIL AND	SAMPLE MEASUREMENT						< 1		0	1/3MTH	GRAB
GREASE	PERMIT REQUIREMENT	N/A	N/A				15	MG/L		1/3MTH	GRAB
pH	SAMPLE MEASUREMENT				"7.43		"7.43		0	1/3MTH	GRAB
	PERMIT REQUIREMENT	N/A	N/A		6.0		9.0	STD UNITS		1/3MTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE
GILBERT WALDREP ENVIRONMENTAL MANAGER TYPED OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN: AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	337-824-2210 area code NUMBER	04 | 04 | 05 YEAR | MO | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Forms by WindowChem(707)864-0845

PERMITTEE NAME/ADDRESS: *(Include Facility Name/Location if different)*

NAME: LEEVAC SHIPYARD INC.
ADDRESS: P.O. BOX 1190
JENNINGS LA. 70546
ATTN: GILBERT WALDREP
FACILITY: LEEVAC SOUTH
LOCATION: END OF HWY 3166 SOUTHEAST OF JENNING
JEFFERSON DAVIS PARISH 70546

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

FORM APPROVED
OMB No.2040-0004

LA 0103381	002	STORMWATER DISCHARGE
PERMIT NUMBER *(2-16)*	DISCHARGE NUMBER *(17-19)*	

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	04	01	01	TO	04	03	31
(20-21)	*(22-23)*	*(24-25)*		*(26-27)*	*(28-29)*	*(30-31)*	

NOTE: Read instructions before completing this form.

PARAMETER *(32-37)*		*(3 Card Only)* *(46-53)* QUANTITY OR LOADING *(54-61)*			*(4 Card Only)* *(38-45)* QUALITY OR CONCENTRATION *(46-53)* *(54-61)*				NO. EX *(62-63)*	FREQUENCY OF ANALYSIS *(64-68)*	SAMPLE TYPE *(69-70)*
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
FLOW	SAMPLE MEASUREMENT		PER EVENT						0	1/MTH	EST
	PERMIT REQUIREMENT	REPORT	REPORT	GPD						1/MTH	EST
TOTAL ORGANIC	SAMPLE MEASUREMENT						7		0	1/3MTH	GRAB
COMPOMDS	PERMIT REQUIREMENT	N/A	N/A				50	MG/L		1/3MTH	GRAB
OIL AND	SAMPLE MEASUREMENT						11		0	1/3MTH	GRAB
GREASE	PERMIT REQUIREMENT	N/A	N/A				15	MG/L		1/3MTH	GRAB
pH	SAMPLE MEASUREMENT				7.21		7.21		0	1/3MTH	GRAB
	PERMIT REQUIREMENT	N/A	N/A		6.0		9.0	STD UNITS		1/3MTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE
GILBERT WALDREP ENVIRONMENTAL MANAGER TYPED OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN: AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE. ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION. INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	337-824-2210 area code NUMBER	04 | 04 | 05 YEAR | MO | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Forms by WindowChem(707)864-0645

PERMITTEE NAME/ADDRESS: *(Include Facility Name/Location if different)*

NAME: LEEVAC SHIPYARD INC.
ADDRESS: P.O. BOX 1190
JENNINGS LA. 70546
ATTN: GILBERT WALDREP
FACILITY: MERMENTAU FACILITY
LOCATION: 5 MILES E. OF JENNINGS ON HWY. 90
JEFFERSON DAVIS PARISH 70546

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

FORM APPROVED
OMB No.2040-0004

LA 0103381	003	STORMWATER DISCHARGE
PERMIT NUMBER *(2-16)*	DISCHARGE NUMBER *(17-19)*	

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	04	01	01	TO	04	01	31
	(20-21)	*(22-23)*	*(24-25)*		*(26-27)*	*(28-29)*	*(30-31)*

NOTE: Read instructions before completing this form.

PARAMETER *(32-37)*		*(3 Card Only)* *(46-53)* QUANTITY OR LOADING *(54-61)*			*(4 Card Only)* *(38-45)* QUALITY OR CONCENTRATION *(46-53)* *(54-61)*				NO. EX *(62-63)*	FREQUENCY OF ANALYSIS *(64-68)*	SAMPLE TYPE *(69-70)*
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
FLOW	SAMPLE MEASUREMENT		PER EVENT						0	1/MTH	EST
	PERMIT REQUIREMENT	REPORT	REPORT	GPD						1/MTH	EST
TOTAL ORGANIC	SAMPLE MEASUREMENT						3		0	1/MTH	GRAB
COMPOMDS	PERMIT REQUIREMENT	N/A	N/A				50	MG/L		1/MTH	GRAB
OIL AND	SAMPLE MEASUREMENT						2		0	1/MTH	GRAB
GREASE	PERMIT REQUIREMENT	N/A	N/A				15	MG/L		1/MTH	GRAB
pH	SAMPLE MEASUREMENT				7.71		7.71		0	1/MTH	GRAB
	PERMIT REQUIREMENT	N/A	N/A		6.0		9.0	STD UNITS		1/MTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE
GILBERT WALDREP ENVIRONMENTAL MANAGER TYPED OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN: AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE. ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION. INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10.000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	337-824-2210 area code NUMBER	04 | 02 | 05 YEAR | MO | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Forms by WindowCharm(707)884-0845

PERMITTEE NAME/ADDRESS: *(Include Facility Name/Location if different)*
NAME: LEEVAC SHIPYARD INC.
ADDRESS: P.Q. BOX 1190
JENNINGS LA. 70546
ATTN: GILBERT WALDREP
FACILITY: MERMENTAU FACILITY
LOCATION: 5 MILES E. OF JENNINGS ON HWY. 90
JEFFERSON DAVIS PARISH 70546

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

FORM APPROVED
OMB No.2040-0004

LA 0103381	003	STORMWATER DISCHARGE
PERMIT NUMBER *(2-16)*	DISCHARGE NUMBER *(17-19)*	

MONITORING PERIOD

	YEAR *(20-21)*	MO *(22-23)*	DAY *(24-25)*		YEAR *(26-27)*	MO *(28-29)*	DAY *(30-31)*
FROM	04	02	01	TO	04	02	28

NOTE: Read instructions before completing this form.

PARAMETER *(32-37)*		*(3 Card Only)* QUANTITY OR LOADING *(46-53)* AVERAGE	*(54-61)* MAXIMUM	UNITS	*(4 Card Only)* QUALITY OR CONCENTRATION *(38-45)* MINIMUM	*(46-53)* AVERAGE	*(54-61)* MAXIMUM	UNITS	NO. EX *(62-63)*	FREQUENCY OF ANALYSIS *(64-68)*	SAMPLE TYPE *(69-70)*
FLOW	SAMPLE MEASUREMENT		PER EVENT						0	1/MTH	EST
	PERMIT REQUIREMENT	REPORT	REPORT	GPD						1/MTH	EST
TOTAL ORGANIC	SAMPLE MEASUREMENT						10		0	1/MTH	GRAB
COMPOMDS	PERMIT REQUIREMENT	N/A	N/A				50	MG/L		1/MTH	GRAB
OIL AND	SAMPLE MEASUREMENT						1		0	1/MTH	GRAB
GREASE	PERMIT REQUIREMENT	N/A	N/A				15	MG/L		1/MTH	GRAB
pH	SAMPLE MEASUREMENT				7.81		7.81		0	1/MTH	GRAB
	PERMIT REQUIREMENT	N/A	N/A		6.0		9.0	STD UNITS		1/MTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE	DATE
GILBERT WALDREP ENVIRONMENTAL MANAGER TYPED OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	33718-824-22 area code NUMBER	04 | 03 | 05 YEAR | MO | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Forms by WindowChem(707)864-0845

PERMITTEE NAME/ADDRESS: *(Include Facility Name/Location if different)*

NAME: LEEVAC SHIPYARD INC.
ADDRESS: P.O. BOX 1190
JENNINGS LA. 70546
ATTN: GILBERT WALDREP
FACILITY: MERMENTAU FACILITY
LOCATION: 5 MILES E. OF JENNINGS ON HWY. 90
JEFFERSON DAVIS PARISH 70546

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

FORM APPROVED
OMB No.2040-0004

LA 0103381	003	STORMWATER DISCHARGE
PERMIT NUMBER *(2-16)*	DISCHARGE NUMBER *(17-19)*	

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	04	03	01	TO	04	03	31
	(20-21)	*(22-23)*	*(24-25)*		*(26-27)*	*(28-29)*	*(30-31)*

c

NOTE: Read instructions before completing this form.

PARAMETER *(32-37)*		*(3 Card Only)* QUANTITY OR LOADING *(46-53)* AVERAGE	*(54-61)* MAXIMUM	UNITS	*(4 Card Only)* QUALITY OR CONCENTRATION *(38-45)* MINIMUM	*(46-53)* AVERAGE	*(54-61)* MAXIMUM	UNITS	NO. EX *(62-63)*	FREQUENCY OF ANALYSIS *(64-68)*	SAMPLE TYPE *(69-70)*
FLOW	SAMPLE MEASUREMENT		PER EVENT						0	1/MTH	EST
	PERMIT REQUIREMENT	REPORT	REPORT	GPD						1/MTH	EST
TOTAL ORGANIC	SAMPLE MEASUREMENT						9		0	1/MTH	GRAB
COMPOMDS	PERMIT REQUIREMENT	N/A	N/A				50	MG/L		1/MTH	GRAB
OIL AND	SAMPLE MEASUREMENT						6		0	1/MTH	GRAB
GREASE	PERMIT REQUIREMENT	N/A	N/A				15	MG/L		1/MTH	GRAB
pH	SAMPLE MEASUREMENT				7.21		7.21		0	1/MTH	GRAB
	PERMIT REQUIREMENT	N/A	N/A		6.0		9.0	STD UNITS		1/MTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE
GILBERT WALDREP ENVIRONMENTAL MANAGER TYPED OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	337-824-2210 area code NUMBER	04 | 04 | 05 YEAR | MO | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Forms by WindowChem(707)864-0845

PERMITTEE NAME/ADDRESS: *(Include Facility Name/Location if different)*

NAME: LEEVAC SHIPYARD INC.
ADDRESS: P.O. BOX 1190
JENNINGS LA. 70546
ATTN: GILBERT WALDREP
FACILITY: LEEVAC SOUTH
LOCATION: END OF HWY 3166 SOUTHEAST OF JENNING
JEFFERSON DAVIS PARISH 70546

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*

DISCHARGE MONITORING REPORT *(DMR)*

FORM APPROVED
OMB No.2040-0004

LA 0103381	001	STORMWATER DISCHARGE
PERMIT NUMBER *(2-16)*	DISCHARGE NUMBER *(17-19)*	

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	04	04	04	TO	04	06	30
(20-21)	*(22-23)*	*(24-25)*		*(26-27)*	*(28-29)*	*(30-31)*	

NOTE: Read instructions before completing this form.

PARAMETER *(32-37)*		*(3 Card Only)* *(46-53)* QUANTITY OR LOADING *(54-61)*			*(4 Card Only)* *(38-45)* QUALITY OR CONCENTRATION *(46-53)*		*(54-61)*		NO. EX *(62-63)*	FREQUENCY OF ANALYSIS *(64-68)*	SAMPLE TYPE *(69-70)*
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
FLOW	SAMPLE MEASUREMENT		PER EVENT						0	1/MTH	EST
	PERMIT REQUIREMENT	REPORT	REPORT	GPD						1/MTH	EST
TOTAL ORGANIC	SAMPLE MEASUREMENT						8		0	1/3MTH	GRAB
COMPOMDS	PERMIT REQUIREMENT	N/A	N/A				50	MG/L		1/3MTH	GRAB
OIL AND	SAMPLE MEASUREMENT						3		0	1/3MTH	GRAB
GREASE	PERMIT REQUIREMENT	N/A	N/A				15	MG/L		1/3MTH	GRAB
pH	SAMPLE MEASUREMENT				7.55		7.55		0	1/3MTH	GRAB
	PERMIT REQUIREMENT	N/A	N/A		6.0		9.0	STD UNITS		1/3MTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE
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COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Forms by WindowChem(707)864-0345

PERMITTEE NAME/ADDRESS: *(Include Facility Name/Location if different)*
NAME: LEEVAC SHIPYARD INC.
ADDRESS: P.O. BOX 1190
JENNINGS LA. 70546
ATTN: GILBERT WALDREP
FACILITY: LEEVAC SOUTH
LOCATION: END OF HWY 3166 SOUTHEAST OF JENNING
JEFFERSON DAVIS PARISH 70546

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

FORM APPROVED
OMB No.2040-0004

LA 0103381	002	STORMWATER DISCHARGE
PERMIT NUMBER *(2-16)*	DISCHARGE NUMBER *(17-19)*	

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	04	04	04	TO	04	06	30
	(20-21)	*(22-23)*	*(24-25)*		*(26-27)*	*(28-29)*	*(30-31)*

NOTE: Read instructions before completing this form.

PARAMETER *(32-37)*		*(3 Card Only)* *(46-53)* QUANTITY OR LOADING *(54-61)* AVERAGE	MAXIMUM	UNITS	*(4 Card Only)* *(38-45)* QUALITY OR CONCENTRATION *(46-53)* MINIMUM	AVERAGE	MAXIMUM	UNITS	NO. EX *(62-63)*	FREQUENCY OF ANALYSIS *(64-68)*	SAMPLE TYPE *(69-70)*
FLOW	SAMPLE MEASUREMENT		PER EVENT						0	1/MTH	EST
	PERMIT REQUIREMENT	REPORT	REPORT	GPD						1/MTH	EST
TOTAL ORGANIC	SAMPLE MEASUREMENT						10		0	1/3MTH	GRAB
COMPOMDS	PERMIT REQUIREMENT	N/A	N/A				50	MG/L		1/3MTH	GRAB
OIL AND	SAMPLE MEASUREMENT						4		0	1/3MTH	GRAB
GREASE	PERMIT REQUIREMENT	N/A	N/A				15	MG/L		1/3MTH	GRAB
pH	SAMPLE MEASUREMENT				7.29		7.29		0	1/3MTH	GRAB
	PERMIT REQUIREMENT	N/A	N/A		6.0		9.0	STD UNITS		1/3MTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE	DATE
GILBERT WALDREP ENVIRONMENTAL MANAGER TYPED OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	337-824-2210 area code NUMBER	04 | 07 | 02 YEAR | MO | DAY

Forms by WindowChem(707)864-0345

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

From Louis Smarhall -
S B A Shipyards Inc -
P.O. Box 1386.
Jennings La. 70546

UNITED STATES POSTAL SERVICE
0000
75207
U.S. POSTAGE PAID
JENNINGS LA.LA
70546
NOV 21. '02
AMOUNT
$5.11
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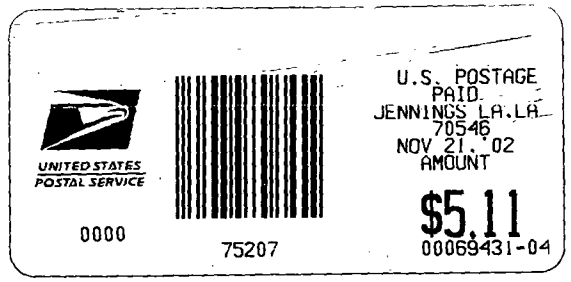

To. EPA.
Environmental Protection agency -
Region VI
allied Bank tower at Fountain place
1445 Ross Avenue
Dallas, Texas - 752[illegible] - 2733

attention Mr. Gene Kepper or
Mr. Samuel. Coleman

From Louis Smarthall

President. S.B.A. Shipyards Inc.
or what left of the yard -

To - Mr. Gene Keepper -
and or Mr. Samuel Coleman P.E.
Director Compliance Assurance and
Enforcement Division -

I: Louis Smarthall have signed
as requests your letter of receiving on
11/15/02.

Please, if you will, send me a
copy of the - agreement with -
S B A and SSIC. Remediation L.C
where finalized -

Sincerely yours Louis
Smarthall -
President of S B A.
Shipyard Inc

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

Received 11/15/02

VIA FEDERAL EXPRESS: 8220 0515 8452
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2560 7543
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h). Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the world wide web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

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The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. Work

EPA acknowledges that the work performed at this facility in accordance with this Agreement would achieve programmatic parity, avoid duplication and delay, and achieve substantive consistency between remedial programs as described in the NPL/RCRA deferral policy (54 FR 41000).

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims for the actions or matters addressed by Section 3008(h) of RCRA and memorialized in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

Louis Smaihall COPY Date: 11/21/02

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

COPY

IT IS AGREED:

_____ Date: _____

Signature/Printed Name, Manager
SSIC Remediation, L.L.C.

Enclosure

cc: Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD
Michael Pisani, Michael Pisani and Associates

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-

Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal.

Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials.
Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

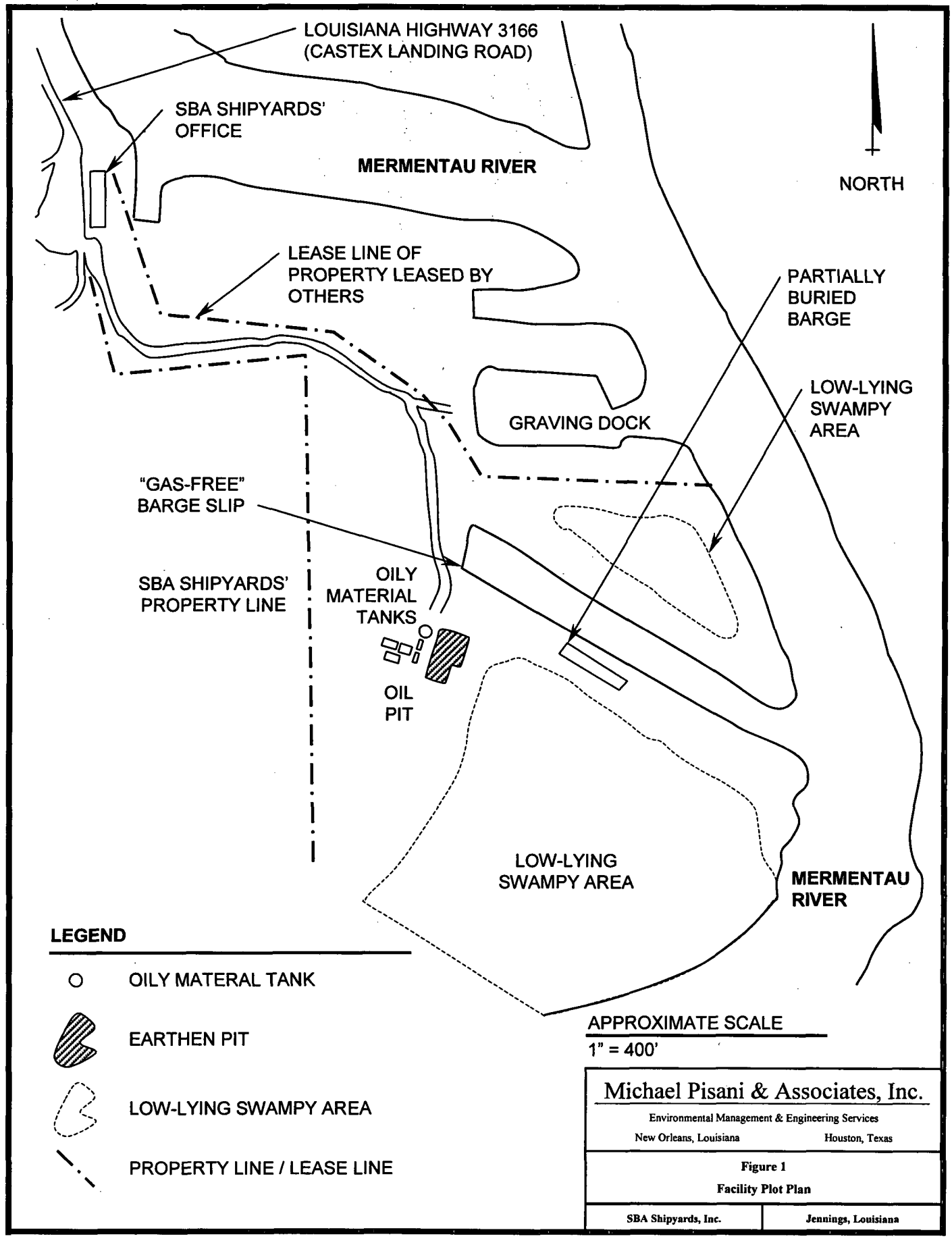
Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).



Michael Pisani & Associates, Inc.

Environmental Management & Engineering Services

New Orleans, Louisiana Houston, Texas

Figure 1

Facility Plot Plan

SBA Shipyards, Inc. **Jennings, Louisiana**

Table 1

Pumpable Oily Material Inventory
May 3, 2001

SBA Shipyards, Inc.
Jennings, Louisiana

Tank or Impoundment	Estimated Maximum Capacity (gallons)	Estimated Maximum Capacity (barrels)	Observed Depth of Contents[b]	Estimated Material Inventory (gal)	Estimated Material Inventory (barrels)	Estimated Material Inventory (pounds)[a]	Visual Observations[b]
Selected Tanks							
Tank AT-1	17,042	406	52"	9,814	234	81,898	Horizontal cylindrical tank (mostly water).
Tank AT-2	17,042	406	77"'	13,703	326	114,352	Horizontal cylindrical tank (2" sludge layer on bottom).
Tank WT-1	106,837	2,544	85"	88,561	2,109	739,044	Very thick oil.
Tank WT-2	111,482	2,654	70"	77,553	1,847	647,183	24" sludge layer on bottom.
Tank WT-3	109,159	2,599	93"	93,998	2,238	784,416	36" sludge layer on bottom.
Tank ST-1	420,000[c]	10,000	9' - 10"[d]	99,474	2,368	830,111	38' high vertical cylindrical tank.
Total	781,562 gallons	18,609 barrels		**383,104 gallons**	9,122 barrels	3,197,003 pounds	
Former Barge (OT-4)							
Bow Rake Tank	26,853	639	56"	20,862	497	174,093	Very thick oil (2" sludge layer on bottom).
Deck Tank S	Not Measured	Unknown	Empty	Negligible	Negligible	Negligible	Dry, some rust scale.
Deck Tank P	Not Measured	Unknown	6"	Negligible	Negligible	Negligible	Oil, no visible water.
Compartment 1S	75,054	1,787	118"	65,659	1,563	547,924	
Compartment 1P	75,054	1,787	119"	64,874	1,545	541,374	
Compartment 2S	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 2P	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 3S	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 3P	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 4S	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 4P	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 5S	86,908	2,069	115"	75,689	1,802	631,625	
Compartment 5P	86,908	2,069	114"	75,057	1,787	626,351	
Aft Trim Tank	18,388	438	112"	17,447	415	145,595	
Total	913,897 gallons	21,759 barrels		**778,134 gallons**	18,527 barrels	6,493,528 pounds	
Grand Total	1,695,459 gallons	40,368 barrels		**1,161,238 gallons**	27,649 barrels	9,690,531 pounds	

NOTES:

(a) Based on bulk density of 8.345 pounds/gallon.
(b) MP&A site visit (May 3, 2001).
(c) According to Mr. Louis Smaihall, the total volume is 10,000 barrels (420,000 gallons).
(d) Measurement read from permanently installed float gauge on tank.

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US Environmental Protection Agency
1445 Ross Avenue, Suite 900
Dallas, TX 75202-2733

75202+2733

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
FIELD INTERVIEW FORM

FACILITY ID#: 1478 INSPECTION DATE: 8/28/03 TIME OF ARRIVAL: 1:00 PM
DEPARTURE DATE: 8/28/03 TIME OF DEPARTURE: 1:20 PM

FACILITY NAME: SBA SHIPYARDS PH #: 337-824-1519

LOCATION: 3040 CASTEX LANDING RD., JENNINGS, LA

PARISH NAME:

MAILING ADDRESS: 3040 CASTEX LANDING RD., JENNINGS, LA 70546
(Street/P.O. Box) (City) (State) (ZIP)

FACILITY REPRESENTATIVE: MR. ROBERT LESLIE TITLE: CONSULTANT

INSPECTION TYPE: REMEDIATION MEDIA INVOLVED: AIR (WASTE) (WATER) OTHER SOILS

INSPECTOR'S OBSERVATIONS: (e.g. AREAS AND EQUIPMENT INSPECTED, PROBLEMS, DEFICIENCIES, REMARKS, VERBAL COMMITMENTS FROM FACILITY REPRESENATIVES)

ARRIVED ON SITE AND OBSERVED THAT NO ACTIVITIES ARE BEING CONDUCTED. THERE WAS NO EVIDENCE THAT ANY OF THE SOLIDIFIED WASTE HAS BEEN SHIPPED FOR OFF-SITE DISPOSAL. RAINWATER & OIL ARE ACCUMULATING IN THE FORMER OIL PIT, HOWEVER, SUFFICENT FREEBOARD WAS PRESENT AT THIS TIME. KN

AREAS OF CONCERN	EXPLANATION	RESOLVED
ODOR	STRONG HYDROCARBON ODOR ON-SITE IN AREAS NEAR STOCKPILED WASTE	YES (NO)
STOCKPILE COVER	STOCKPILED SOLIDIFIED WASTE IS ~25% EXPOSED DUE TO LACK OF MAINT. ON PLASTIC SHEETING	YES (NO)
AST DECON	DECONTAMINATION OF ASTs HAS NOT BEEN COMPLETED, OILY WATER OBSERVED IN OVERTURNED BARGE	YES (NO)
PARTIALLY BURIED BARGE	BARGE USED FOR WASTE MANAGEMENT IS LISTING TO PORT, RAISING CONCERNS THAT IT MAY NOT HAVE HULL INTEGRETY	YES (NO)

PHOTOS TAKEN: ☐ YES ☒ NO SAMPLES TAKEN: ☐ YES ☒ NO (Attach Chain-of-custody)

RECEIVED BY: SIGNATURE: NO ONE AT SITE TITLE:

PRINT NAME: COPIES TO BE MAILED TO EPA, CONSULTANT, & LANDOWNER
(NOTE: SIGNATURE DOES NOT INDICATE AGREEMENT WITH INSPECTOR'S NOTES)

INSPECTOR(S): Keith Horn KEITH HORN ATTACHMENTS:
KH KN KH KN

NOTE: The Information contained on this form reflects only the preliminary observations of the inspector(s). It should not be interpreted as a final determination by the Department of Environmental Quality or any of its officers or personnel as to any matter, including, but limited to, a determination of compliance or lack thereof by the facility operator with any requirements of statutes regulations or permits. Each day of non-compliance constitutes a separate violation of the regulations and/or the Louisiana Environmental Quality Act.

REVISED: 07/01/99

TEMPO'ED 9/2/03
MEDIA = IAS KLH

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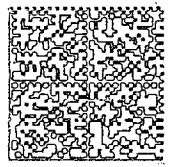

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Mr. Gene Keeper, RCRA PM (6EN-HX)
US Environmental Protection Agency
1445 Ross Avenue, Suite 900
Dallas, TX 75202-2733

K-FNNM3 75202

KEITH HORN, M.S.
Staff Environmental Scientist
Office of Environmental Assessment
Department of Environmental Quality

Remediation Services Division
Post Office Box 4314
Baton Rouge, LA 70821-4314

Telephone # (225) 219-3209
Fax: (225) 219-3239
e-mail: keith.horn@la.gov

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
FIELD INTERVIEW FORM

FACILITY ID#: 1478 INSPECTION DATE: 4/29/05 TIME OF ARRIVAL: 8:05 AM
DEPARTURE DATE: 4/29/05 TIME OF DEPARTURE: 11:35 AM

FACILITY NAME: SBA SHIPYARDS PH #: NEW), TBA

LOCATION: 3040 CASTEX LANDING ROAD, JENNINGS

PARISH NAME: JEFF DAVIS

MAILING ADDRESS: TO BE PROVIDED BY ROBERT LESLIE OF MP+A
(Street/P.O. Box) (City) (State) (ZIP)

FACILITY REPRESENTATIVE: NEW OWNERSHIP TITLE:

INSPECTION TYPE: REMEDIATION) MEDIA INVOLVED: AIR (WASTE) (WATER) (OTHER) SOILS

INSPECTOR'S OBSERVATIONS: (e.g. AREAS AND EQUIPMENT INSPECTED, PROBLEMS, DEFICIENCIES, REMARKS, VERBAL COMMITMENTS FROM FACILITY REPRESENATIVES)

JOINT INSPECTION WITH EPA NW ENFORCEMENT PROJECT MGR. GENE KEMPER TO VERIFY THAT SOW ITEMS SPECIFIED BY THE 12/10/02 EPA RCRA ORDER ON CONSENT HAVE BEEN COMPLETED BY SSC REMEDIATION, LLC. THE INSPECTORS WERE TAKEN ON A WALKING TOUR OF THE SITE BY ROBERT LESLIE OF MP+A, WHO WILL BE SUBMITTING THE COMPLETION REPORT FOR SSC.

AREAS OF CONCERN	EXPLANATION KH	RESOLVED
		YES NO
		YES NO
		YES NO
		YES NO

KH

PHOTOS TAKEN: ☐ YES ☒ NO SAMPLES TAKEN: ☐ YES ☐ NO (Attach Chain-of-custody)

RECEIVED BY: SIGNATURE: TITLE: Project Manager (MP+A)

PRINT NAME: Robert E. Leslie, Jr. (Michael Pisani & Associates, Inc.)

(NOTE: SIGNATURE DOES NOT INDICATE AGREEMENT WITH INSPECTOR'S NOTES)

INSPECTOR(S): KEITH HORN MIKE MILLER ATTACHMENTS: CHECKLIST OF ITEMS FROM SOW

NOTE: The Information contained on this form reflects only the preliminary observations of the inspector(s). It should not be interpreted as a final determination by the Department of Environmental Quality or any of its officers or personnel as to any matter, including, but limited to, a determination of compliance or lack thereof by the facility operator with any requirements of statutes regulations or permits. Each day of non-compliance constitutes a separate violation of the regulations and/or the Louisiana Environmental Quality Act.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
FIELD INTERVIEW FORM

FACILITY ID#: 1478 INSPECTION DATE: 12/30/04 TIME OF ARRIVAL: KH
DEPARTURE DATE: 12/30/04 TIME OF DEPARTURE: KH

FACILITY NAME: SBA SHIPYARDS PH #: (337) 824-1519

LOCATION: 3040 CASTEX LANDING RD, JENNINGS, LA 70546

PARISH NAME: JEFF DAVIS

MAILING ADDRESS: SAME AS ABOVE
(Street/P.O. Box) (City) (State) (ZIP)

FACILITY REPRESENTATIVE: MR. LOUIS SMAINALL TITLE: OWNER

INSPECTION TYPE: REMEDIATION MEDIA INVOLVED: AIR (WASTE) WATER OTHER SOIL/GW

INSPECTOR'S OBSERVATIONS: (e.g. AREAS AND EQUIPMENT INSPECTED, PROBLEMS, DEFICIENCIES, REMARKS, VERBAL COMMITMENTS FROM FACILITY REPRESENATIVES)

ARRIVED ON SITE FOR ROUTINE INSPECTION AND FOUND SALVAGE/WASTE REMOVAL FROM OVERTURNED BARGES HAS LEFT VISIBLY CONTAMINATED SOIL THROUGHOUT THEIR FORMER LOCATIONS. IT IS HOPED ACTIONS ARE STILL ON-GOING, AS THE LARGE AST IN THIS AREA APPEARS TO HAVE BEEN OPENED FOR WASTE REMOVAL, BUT STILL CONTAINS SOME WASTES.

	AREAS OF CONCERN	EXPLANATION	RESOLVED
(1)	STAINED SOILS IN FORMER OVERTURNED BARGE AREA	SALVAGE/WASTE REMOVAL IN AREA OF OVERTURNED BARGES HAS LEFT AREAS OF CONTAMINATED SOIL THAT NEED TO BE ADDRESSED IN A TIMELY FASHION TO PREVENT CONTAMINATED STORM-WATER RUN-OFF FROM ENTERING WET-LAND AREAS & RIVER.	YES (NO)
			YES NO
			YES NO
			YES NO

PHOTOS TAKEN: (YES) NO SAMPLES TAKEN: NO (Attach Chain-of-custody)

RECEIVED BY: SIGNATURE: NO ONE AT SITE TITLE:

PRINT NAME: COPIES TO BE MAILED TO PARTIES & EPA
(NOTE: SIGNATURE DOES NOT INDICATE AGREEMENT WITH INSPECTOR'S NOTES)

INSPECTOR(S): Keith Horn KEITH HORN ATTACHMENTS:
KH KH KH

NOTE: The information contained on this form reflects only the preliminary observations of the inspector(s). It should not be interpreted as a final determination by the Department of Environmental Quality or any of its officers or personnel as to any matter, including, but limited to, a determination of compliance or lack thereof by the facility operator with any requirements of statutes regulations or permits. Each day of non-compliance constitutes a separate violation of the regulations and/or the Louisiana Environmental Quality Act.

TEMPOED 1/3/05 KLH

MICHAEL PISANI & ASSOCIATES, INC.
Environmental Management and Engineering Services

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
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13313 Southwest Freeway
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Sugar Land, Texas 77478
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Facsimile (281) 242-1737
dangle@orbitworld.net

Rec'd "H" 3/18/2003 MP.

March 7, 2003

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. EPA Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733

Subject: Pumpables Disposal Report
Interim Measures/Removal Action
SBA Shipyards, Inc. (Jefferson Davis Parish, Louisiana)
EPA ID No. LAD008434185
Docket No. RCRA-6-2002-0908
LDEQ AI No. 1478

Dear Mr. Keepper:

As Project Manager designated by the December 9, 2002 Order and Agreement filed under the EPA docket number referenced above, Michael Pisani & Associates, Inc. (MP&A) is pleased to submit this pumpable oily material disposal and cost tracking report. This report describes the thermal destruction of oily materials from the SBA Shipyards, Inc. site in Jennings, Louisiana.

Completion of Thermal Destruction Activities

The total estimated inventory of pumpable oily materials at the site on May 3, 2001 was 1.16 million gallons. From March 4, 2001 to January 11, 2002, a total of 9.9 million pounds (1.19 million gallons) of pumpable oily material was shipped from the SBA Shipyards site for offsite thermal destruction. SBA Shipyards, Inc. also removed pumpable oils from the Oil Pit for offsite thermal destruction. That material and material moved offsite between March 4 and May 3, 2001 is not included in the May 3, 2001 volume estimate.

In accordance with the Statement of Work (SOW) attached to the December 9, 2002 Agreement, pumpable oil in tanks and vessels at the SBA Shipyards site was loaded, manifested and transported offsite for fuel blending and thermal destruction. The pumpable oily materials were shipped to Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas), with one trial-burn load shipped to Safety-Kleen Corporation (Deer Park, Texas).

The initial phase of SOW implementation (i.e., offsite transportation and thermal destruction of pumpable oily materials from the site) has been completed. In accordance with the SOW, remaining unpumpable tank heels in vessels at the site (i.e., containing excess solids or otherwise not acceptable to the thermal destruction facilities) will be managed with the materials in the Oil Pit.

Summary of Thermal Destruction Quantities

A summary of monthly quantities of oily material shipped offsite for thermal destruction is provided in Table 1 (attached). In accordance with your December 13, 2002 telephone request, Table 1 also shows a monthly breakdown of thermal destruction and transportation costs.

Current Site Conditions

The Oil Pit and various steel tanks and vessels remain at the site. During recent periods of high Mermentau River stage, the corresponding rise in groundwater table caused the partially buried barge to rise two to three feet. The ability of the partially buried barge to float itself up under such saturated soil conditions is strongly indicative that the hull does not leak.

Upcoming Activities

Contractor bidding and selection is currently in progress for moving forward with implementation of subsequent portions of the SOW. A November 1, 2001 work plan describing the stabilization of waxes and sludges in the Oil Pit, along with results of the Oil Pit material treatability study, was submitted to you under separate cover. MP&A will also forward a Water Management plan to you prior to commencement of Oil Pit stabilization activities.

We are pleased to assist U.S. EPA, SBA Shipyards, Inc. and SSIC Remediation, LLC in the management of this project. If you have any questions or wish to discuss this matter further, please do not hesitate to call us.

Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.

Robert E. Leslie, Jr., P.E.

Michael E. Pisani, P.E.

cc: Mr. Michael A. Chernekoff (Jones, Walker, Waechter, Poitevent, Carrere & Denegre)
Mr. Keith Horn (Louisiana Department of Environmental Quality)

Table 1

Summary of Pumpable Oily Material
Thermal Destruction Quantities and Transportation Costs

SBA Shipyards, Inc.
Jennings, Louisiana

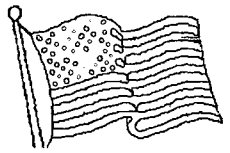
		Thermal Destruction Costs		Transportation Costs	
		Rhodia, Inc.	Safety-Kleen Corp.		
Month	Quantity (pounds)	Truckload Invoices	Invoiced	Truckload Invoices	**Total Cost**
April / May 2001	**423,600**	$18,469.00	- - -	$10,144.50	$28,613.50
June 2001	**1,142,680**	$62,847.40	- - -	$17,180.25	$80,027.65
July 2001	**1,818,240**	$99,948.20	$3,722.26	$28,934.03	$132,604.49
August 2001	**1,835,140**	$100,932.70	- - -	$22,102.00	$123,034.70
September 2001	**1,331,760**	$75,692.96	- - -	$15,745.00	$91,437.96
October 2001	**1,466,960**	$80,830.50	- - -	$21,285.00	$102,115.50
November 2001	**881,940**	$48,506.70	- - -	$12,629.00	$61,135.70
December 2001	**777,720**	$42,774.60	- - -	$14,585.00	$57,359.60
January 2002	**240,480**	$15,056.50	- - -	$14,711.41	$29,767.91
Total:	**9,918,520** Pounds	$545,058.56	$3,722.26	$157,316.19	**$706,097.01** Total Cost

CERTIFIED MAIL

MICHAEL PISANI & ASSOCIATES, INC.
Environmental Management and Engineering Services

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163

7000 0600 0022 2854 9692



Gene Keepper
U. S. Environmental Protection Agency
Region 6, Hazardous Waste Enforcement Branch
EPA Mail Code 6EN-HX
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

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May 20, 2003

Mr. Gene Keepper
RCRA PM (6EN-HX)
U.S. Environmental Protection Agency
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733

Subject: Monthly Status Report No. 1
Reporting Period April 14, 2003 to May 16, 2003
Interim Measures/Removal Action
SBA Shipyards, Inc. Site
Jennings, Louisiana
EPA ID No. LAD008434185
Docket No. RCRA-6-2002-0908

Dear Mr. Keepper:

This monthly status report is submitted in accordance with reporting requirements of the Statement of Work attached to and made part of the December 9, 2002 *Order and Agreement for Interim Measures/Removal Action of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, Louisiana.* Specifically, this report documents implementation of the Interim Measures, including the removal and offsite disposal of oil mixture. For this reporting period, this report describes activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems.

Approved Work Plans

During this reporting period, Interim Measures/Removal Action (IM/RA) activities at the site were performed in accordance with the following work plans reviewed and approved by U.S. EPA Region VI, with concurrence from the Louisiana Department of Environmental Quality (LDEQ).

- December 9, 2002 Agreed Order and Statement of Work.
- November 1, 2001 Solidification/Stabilization Work Plan.
- November 1, 2001 Health and Safety Plan.
- January 31, 2003 Truck Traffic Management Plan.
- April 10, 2003 Fly Ash Staging and Mix Plan and Procedure for Air Monitoring.

- April 11, 2003 Clarifications to November 1, 2001 Solidification/Stabilization Work Plan.
- April 23, 2003 Water Management Plan.
- April 23, 2003 Bed Ash Treatability Study Report.
- April 25, 2003 Storm Water Pollution Prevention Plan.
- April 29, 2003 Landfill Acceptance Criteria and Sampling/Analytical Plan (by electronic mail message).
- May 9, 2003 Work Plan for Initial Decontamination of Vessels (by electronic mail message).

Activities Performed

On Monday, April 14, 2003, IM/RA activities at the site commenced with mobilization of personnel and equipment to the site. Equipment mobilization included delivery of two trackhoes, one bulldozer, one pickup truck and one fuel trailer, and site setup included establishment of clearly defined vehicle parking, vehicle refueling (with secondary containment berms), equipment and personnel decontamination, and oily material stabilization work areas. Work areas were also dressed by bulldozer to create storm water control and diversion berms/swales to minimize the potential for contact of uncontaminated storm water with contaminated materials.

During this reporting period, temporary storage areas for visibly stained soils and stabilized materials were created by constructing bermed areas lined with clean, plastic sheeting. Stored materials were covered with plastic sheeting to minimize the potential for contact of uncontaminated storm water with contaminated materials.

From Monday, April 14, 2003 to Friday, May 6, 2003, a total of 1,859 tons of stabilizing reagent (fly ash and bed ash) were delivered to the site and mixed into oily materials in the Oil Pit. Stabilizing reagents were typically applied in controlled amounts to two 25' x 75' x 6' mixing cells in the south end of the Oil Pit. Stabilized materials were placed in bermed areas lined with plastic sheeting to allow a minimum of three days' curing time. Based on a reagent application rate of 30% (i.e., 30 tons reagent per 100 tons of oily material), approximately 6,200 tons of oily material were stabilized during this reporting period.

During this reporting period, a total of 883 tons of stabilized material from the Oil Pit were transported to a RCRA Subtitle D solid waste landfill (BFI/Allied; Welsh, Louisiana) for disposal as industrial solid waste. The landfill's acceptance criteria for the stabilized material is one analysis per each 3,000 tons of stabilized material for the following analytical parameters:

Analytical Parameter	**Landfill Acceptance Criteria**
TCLP Benzene	< 0.5 mg/L.
Reactivity	Insufficient sulfide or cyanide to produce toxic gases.
Corrosivity	$2.0 \leq pH \leq 12.5$
Ignitibility	Flashpoint $\leq 140^{o}$ F.

On April 22, 2003, a grab sample (sample "Profile-1") of stabilized oily material was collected from the south end of the Oil Pit. The sample was collected and hand-delivered to an LDEQ-

accredited environmental laboratory (Gulf Coast Analytical Laboratories, Inc.; Baton Rouge, Louisiana) in accordance with EPA- and LDEQ-recommended procedures for sample collection, handling, preservation, holding times, sample custody control and sample custody documentation. Sample Profile-1 characterization results are summarized as follows:

	Sample Profile-1 (4/22/03)
Analytical Parameter	**Analytical Results**
TCLP Volatile Organic Compounds (VOCs)	None detected
TCLP Benzene	< 0.2 mg/L
Reactivity Parameters	
Sulfides	< 80 mg/kg
Cyanides	< 250 mg/kg
Corrosivity	pH 11.6
Ignitibility	No Measurable Flashpoint.

Additional tasks performed during this reporting period included:

- Closing and tagging out all valves between onsite tanks and pumps.
- Emptying and removal of overhead piping.
- Scraping of visibly stained surface soils from the former landfarm area west of the Oil Pit.
- Scraping of visibly stained surface oils from former oiled roadways around the site.
- Scraping of visibly stained surface soils from around the partially buried barge.
- Stabilization of all scraped soils as bulking agents with oily materials in the Oil Pit.

Water Management

During this reporting period, accumulated water in the Oil Pit and in onsite tanks and vessels was transferred to the partially buried onsite barge for temporary storage. Approximately 100,000 gallons of impacted water is currently in storage. Daily inspections were made of onsite storm water best management practices (e.g., berms, swales, silt fences, hay bales, etc.), and daily onsite rainfall measurements were recorded. A total of 0.6 inches of rain fell on the site during this reporting period. No offsite storm water discharges were observed.

LDEQ Inspection Visits

On April 14, April 28 and May 15, 2003, Keith Horn and Mike Miller of the Louisiana Department of Environmental Quality (LDEQ) conducted site visits to observe IM/RA activities in progress.

Planned Tasks

Upcoming planned tasks for the next monthly reporting period include continued stabilization of oily material in the Oil Pit, transfer of oily materials from onsite tanks and vessels to the Oil Pit for stabilization, transfer and onsite storage of contaminated water in the partially buried barge.

Problems Encountered

Intermittent dust emissions were observed during this reporting period primarily as the result of vehicular traffic at the site. The oily mixture in the north end of the pond required additional reagent and additional soil to meet stabilization goals.

Corrective Measures

During this reporting period, the following dust control measures were implemented to minimize dust generation:

- All vehicle drivers were reminded to not exceed 10 miles/hour on unpaved roads within the site.
- Loose road dust from unpaved areas is periodically scraped up by front-end loader and placed in the Oil Pit, and the unpaved areas are periodically sprayed with water.

Additional testing was performed and work was modified to include use of stabilized materials as bulking agents with each mixing batch in order to meet stabilization goals.

As designated Project Manager of IM/RA activities, Michael Pisani & Associates, Inc. is pleased to have this opportunity to assist EPA Region VI, SSIC Remediation, LLC and SBA Shipyards, Inc. in the execution of this project. If you have any questions or comments regarding this matter, please do not hesitate to contact us.

MICHAEL PISANI & ASSOCIATES, INC.

REL

Robert E. Leslie, Jr., P.E.

Michael E. Pisani, P.E.

Attachments

cc: Keith Horn (Louisiana Department of Environmental Quality)
Michael A. Chernekoff (Jones, Walker, Waechter, Poitevent, Carrere & Denegre, LLP)

Gene Keepper
03/12/2003 18:26

To: "Michael Pisani & Associates, Inc." <m.pisani@ix.netcom.com>
cc: "Chernekoff, Mike" <mchernekoff@joneswalker.com>, "Keith Horn" <k_horn@exch.deq.state.la.us>, "Michael Miller" <mike_m@ldeq.org>
Subject: SBA Conference Call of 7 March 2003 (LDEQ AIN 1478)
Distribution List: <m.pisani@ix.netcom.com>, <mchernekoff@joneswalker.com>, <k_horn@exch.deq.state.la.us>, <mike_m@ldeq.org>, Cathy Gilmore/R6/USEPA/US@EPA

Messrs. Michael & Mr. Rob Leslie:
To confirm our conversation today regarding the 16 January 2003 LDEQ Comments on the "Solidification/Stabilization Workplan", dated 1 November 2001:

1.) Page 2 Treatability Study Results Item >> This item is addressed on Page One of the Workplan under the heading Oil Pit Sampling Event and you, in behalf of SSIC Remediation, LLC, agreed to perform a final treatability confirmation analysis using actual stabilization reactants which will be used to perform the full scale Solidification/Stabilization on the pit contents and landfarm soils.

2.) Page 4 Solidification/Stabilization Procedures-Fly Ash Management >> You indicated this was your intent from the outset and that, to the extent practicable, fly-ash usage will equal daily fly-ash delivery and were in complete agreement with the fly-ash "Best Management Practices" noted in the LDEQ Comments

3.) Page 4 Solidification/Stabilization Procedures-Landfarm >> Removal of soils at the landfarm are also to be visually discerned for the lateral and vertical extent of the contamination and as further defined in the Workplan; to the extent practicable to facilitate bulking in an appropriate admixture for solidification/stabilization.

4.) Page 5 Backfilling and Grading >> You, in behalf of SSIC Remediation, LLC, agreed perform a bottom elevation survey of the excavated pit prior to backfilling to facilitate future CPT/Boring sampling investigations. This action should minimize/eliminate water which would need to managed were the pit to remain open for an unknown period of time. This action will also provide sub-grade elevations to which CPT/Boring Tools would be advanced, below which confirmatory/investigatory samples could be extracted. To date, SSIC Remediation, LLC has neither agreed nor been directed to conduct any CPT/Boring sampling investigations.

5.) You, in behalf of SSIC Remediation, LLC, agreed to provide EPA/LDEQ at least five (5) days notice prior to initiating the subject field work.

Sincerely,

Gene Keepper, CHMM
RCRA Project Manager (6EN-HX)

»»»

Gene Keepper, CHMM — **Phone:** 214-665-2280
Soil Chemist — **Fax:** 214-665-7264
and — **E-Mail:** Keepper.Gene@epa.gov
Environmental Scientist — **S-Mail:** 1445 Ross Avenue, Suite 900
Specializing in: — Dallas, TX 75202-2733
Complex Case Development and Site
Remediation, Inspections, and Field Sampling
Technical Section (6EN-HX)
Hazardous Waste Enforcement Branch

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7567

Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Smaihall:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records. At this time I am also requesting summary information which you have developed relating to the customers of SBA. This would include but not be limited to the circa 1996 letter from your counsel of the time to SBA customers in which SBA requests funding support for remedial activities at the SBA facility from approximately twenty-two (22) current and former customers.

Should you have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael A. Chernekoff, Esq.
Michael Pisani, MP&A
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7550

SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Chernekoff:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records and the records of SSIC Remediation. As we have previously discussed, I will await a written response from your office which includes: a member listing of the Limited Liability Corporation SSIC Remediation, which includes designation of corporate representation by those members; the articles of incorporation for SSIC Remediation, L.L.C.; and the full listing of SBA Shipyards, Inc. customers, to the best of the knowledge of SSIC.

Should you or members of SSIC have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael Pisani, MP&A
Louis Smaihall, SBA
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

FILED
02 DEC 10 PM 1:21
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EPA REGION VI

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

DEC 0 9 2002

VIA FEDERAL EXPRESS: 8220 0515 8452
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2560 7543
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the world wide web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

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The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. Work

EPA acknowledges that the work performed at this facility in accordance with this Agreement would achieve programmatic parity, avoid duplication and delay, and achieve substantive consistency between remedial programs as described in the NPL/RCRA deferral policy (54 FR 41000).

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims for the actions or matters addressed by Section 3008(h) of RCRA and memorialized in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Pamela Phillips, Acting

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

Date: 11/21/02

IT IS AGREED:

Aelen B Cenac Jr.
Signature/Printed Name, Manager
SSIC Remediation, L.L.C.

Date: 11/14/02

Enclosure

cc: Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD
Michael Pisani, Michael Pisani and Associates

CERTIFICATE OF SERVICE

I hereby certify that on the 10 th day of December 2002, the original of the Subject Letter Agreement was hand delivered to and filed by the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6, Wells Fargo Bank Tower, 1445 Ross Avenue, Dallas, Texas 75202-2733, and that on the 12 th day of December 2002, that true and correct copies of the Letter Agreement were sent to the following by the method indicated below:

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7567

Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7550

SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

Gene Keepper
Signature 12Dec2002

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-

Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal.

Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials.
Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).

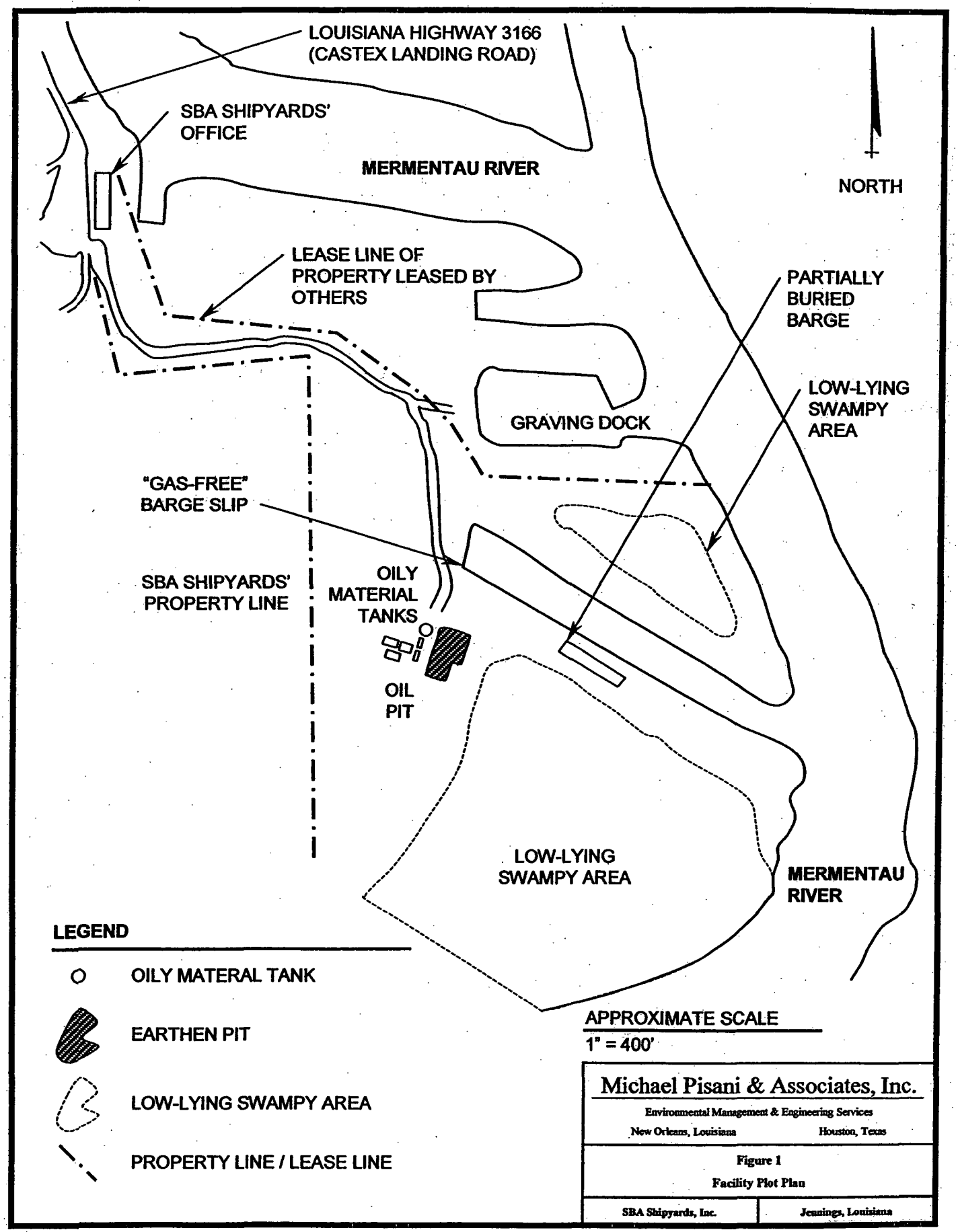
LOUISIANA HIGHWAY 3166
(CASTEX LANDING ROAD)
SBA SHIPYARDS' OFFICE
MERMENTAU RIVER
NORTH
LEASE LINE OF PROPERTY LEASED BY OTHERS
PARTIALLY BURIED BARGE
LOW-LYING SWAMPY AREA
GRAVING DOCK
"GAS-FREE" BARGE SLIP
SBA SHIPYARDS' PROPERTY LINE
OILY MATERIAL TANKS
OIL PIT
LOW-LYING SWAMPY AREA
MERMENTAU RIVER
LEGEND
OILY MATERAL TANK
EARTHEN PIT
LOW-LYING SWAMPY AREA
PROPERTY LINE / LEASE LINE
APPROXIMATE SCALE
1" = 400'
Michael Pisani & Associates, Inc.
Environmental Management & Engineering Services
New Orleans, Louisiana
Houston, Texas
Figure 1
Facility Plot Plan
SBA Shipyards, Inc.
Jennings, Louisiana

Table 1

Pumpable Oily Material Inventory
May 3, 2001

SBA Shipyards, Inc.
Jennings, Louisiana

Tank or Impoundment	Estimated Maximum Capacity (gallons)	Estimated Maximum Capacity (barrels)	Observed Depth of Contents[b]	Estimated Material Inventory (gal)	Estimated Material Inventory (barrels)	Estimated Material Inventory (pounds)[a]	Visual Observations[b]
Selected Tanks							
Tank AT-1	17,042	406	52"	9,814	234	81,898	Horizontal cylindrical tank (mostly water).
Tank AT-2	17,042	406	77"	13,703	326	114,352	Horizontal cylindrical tank (2" sludge layer on bottom).
Tank WT-1	106,837	2,544	85"	88,561	2,109	739,044	Very thick oil.
Tank WT-2	111,482	2,654	70"	77,553	1,847	647,183	24" sludge layer on bottom.
Tank WT-3	109,159	2,599	93"	93,998	2,238	784,416	36" sludge layer on bottom.
Tank ST-1	420,000[c]	10,000	9' - 10"[d]	99,474	2,368	830,111	38' high vertical cylindrical tank.
Total	781,562 gallons	18,609 barrels		**383,104 gallons**	9,122 barrels	3,197,003 pounds	
Former Barge (OT-4)							
Bow Rake Tank	26,853	639	56"	20,862	497	174,093	Very thick oil (2" sludge layer on bottom).
Deck Tank S	Not Measured	Unknown	Empty	Negligible	Negligible	Negligible	Dry, some rust scale.
Deck Tank P	Not Measured	Unknown	6"	Negligible	Negligible	Negligible	Oil, no visible water.
Compartment 1S	75,054	1,787	118"	65,659	1,563	547,924	
Compartment 1P	75,054	1,787	119"	64,874	1,545	541,374	
Compartment 2S	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 2P	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 3S	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 3P	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 4S	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 4P	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 5S	86,908	2,069	115"	75,689	1,802	631,625	
Compartment 5P	86,908	2,069	114"	75,057	1,787	626,351	
Aft Trim Tank	18,388	438	112"	17,447	415	145,595	
Total	913,897 gallons	21,759 barrels		**778,134 gallons**	18,527 barrels	6,493,528 pounds	
Grand Total	1,695,459 gallons	40,368 barrels		**1,161,238 gallons**	27,649 barrels	9,690,531 pounds	

NOTES:

(a) Based on bulk density of 8.345 pounds/gallon.
(b) MP&A site visit (May 3, 2001).
(c) According to Mr. Louis Smaihall, the total volume is 10,000 barrels (420,000 gallons).
(d) Measurement read from permanently installed float gauge on tank.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7567

Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Smaihall:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records. At this time I am also requesting summary information which you have developed relating to the customers of SBA. This would include but not be limited to the circa 1996 letter from your counsel of the time to SBA customers in which SBA requests funding support for remedial activities at the SBA facility from approximately twenty-two (22) current and former customers.

Should you have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael A. Chernekoff, Esq.
Michael Pisani, MP&A
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7550

SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Chernekoff:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records and the records of SSIC Remediation. As we have previously discussed, I will await a written response from your office which includes: a member listing of the Limited Liability Corporation SSIC Remediation, which includes designation of corporate representation by those members; the articles of incorporation for SSIC Remediation, L.L.C.; and the full listing of SBA Shipyards, Inc. customers, to the best of the knowledge of SSIC.

Should you or members of SSIC have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael Pisani, MP&A
Louis Smaihall, SBA
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

FILED
02 DEC 10 PM 1:21
REGIONAL HEARING CLERK
EPA REGION VI

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

DEC 0 9 2002

VIA FEDERAL EXPRESS: 8220 0515 8452
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2560 7543
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the world wide web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

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The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. Work

EPA acknowledges that the work performed at this facility in accordance with this Agreement would achieve programmatic parity, avoid duplication and delay, and achieve substantive consistency between remedial programs as described in the NPL/RCRA deferral policy (54 FR 41000).

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims for the actions or matters addressed by Section 3008(h) of RCRA and memorialized in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Pamela Phillips, Acting

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

Date: 11/21/02

IT IS AGREED:

Arlen B. Cenac Jr.
Signature/Printed Name, Manager
SSIC Remediation, L.L.C.

Date: 11/14/02

Enclosure

cc: Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD
Michael Pisani, Michael Pisani and Associates

CERTIFICATE OF SERVICE

I hereby certify that on the 10 th day of December 2002, the original of the Subject Letter Agreement was hand delivered to and filed by the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6, Wells Fargo Bank Tower, 1445 Ross Avenue, Dallas, Texas 75202-2733, and that on the 12 th day of December 2002, that true and correct copies of the Letter Agreement were sent to the following by the method indicated below:

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7567

Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7550

SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

Gene Keepper
Signature 12Dec2002

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-

Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal.

Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials.
Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).

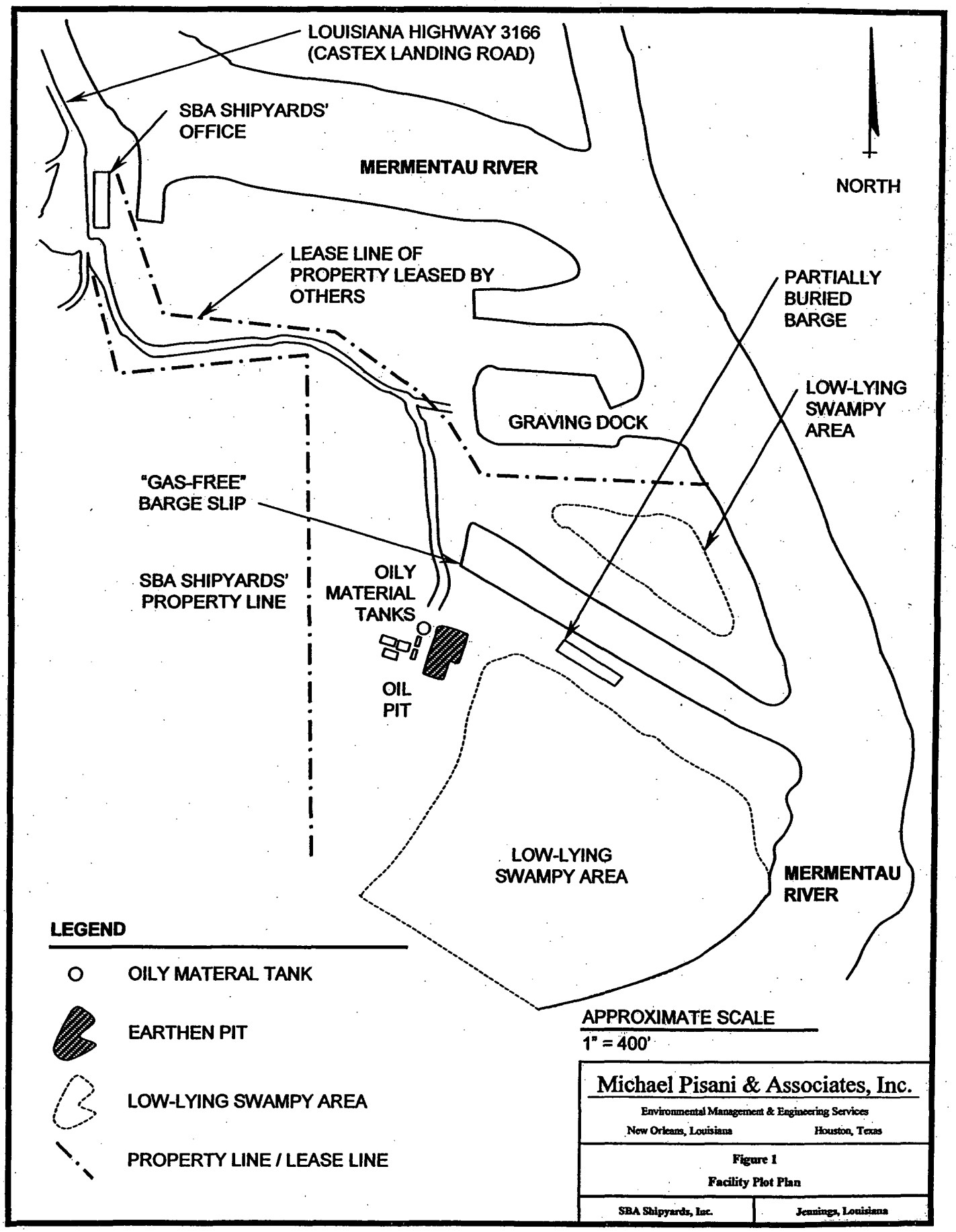
LOUISIANA HIGHWAY 3166
(CASTEX LANDING ROAD)
SBA SHIPYARDS' OFFICE
MERMENTAU RIVER
NORTH
LEASE LINE OF PROPERTY LEASED BY OTHERS
PARTIALLY BURIED BARGE
LOW-LYING SWAMPY AREA
GRAVING DOCK
"GAS-FREE" BARGE SLIP
SBA SHIPYARDS' PROPERTY LINE
OILY MATERIAL TANKS
OIL PIT
LOW-LYING SWAMPY AREA
MERMENTAU RIVER
LEGEND
OILY MATERAL TANK
EARTHEN PIT
LOW-LYING SWAMPY AREA
PROPERTY LINE / LEASE LINE
APPROXIMATE SCALE
1" = 400'
Michael Pisani & Associates, Inc.
Environmental Management & Engineering Services
New Orleans, Louisiana
Houston, Texas
Figure 1
Facility Plot Plan
SBA Shipyards, Inc.
Jennings, Louisiana

Table 1

Pumpable Oily Material Inventory
May 3, 2001

SBA Shipyards, Inc.
Jennings, Louisiana

Tank or Impoundment	Estimated Maximum Capacity (gallons)	Estimated Maximum Capacity (barrels)	Observed Depth of Contents[b]	Estimated Material Inventory (gal)	Estimated Material Inventory (barrels)	Estimated Material Inventory (pounds)[a]	Visual Observations[b]
Selected Tanks							
Tank AT-1	17,042	406	52"	9,814	234	81,898	Horizontal cylindrical tank (mostly water).
Tank AT-2	17,042	406	77"	13,703	326	114,352	Horizontal cylindrical tank (2" sludge layer on bottom).
Tank WT-1	106,837	2,544	85"	88,561	2,109	739,044	Very thick oil.
Tank WT-2	111,482	2,654	70"	77,553	1,847	647,183	24" sludge layer on bottom.
Tank WT-3	109,159	2,599	93"	93,998	2,238	784,416	36" sludge layer on bottom.
Tank ST-1	420,000[c]	10,000	9' - 10"[d]	99,474	2,368	830,111	38' high vertical cylindrical tank.
Total	781,562 gallons	18,609 barrels		**383,104 gallons**	9,122 barrels	3,197,003 pounds	
Former Barge (OT-4)							
Bow Rake Tank	26,853	639	56"	20,862	497	174,093	Very thick oil (2" sludge layer on bottom).
Deck Tank S	Not Measured	Unknown	Empty	Negligible	Negligible	Negligible	Dry, some rust scale.
Deck Tank P	Not Measured	Unknown	6"	Negligible	Negligible	Negligible	Oil, no visible water.
Compartment 1S	75,054	1,787	118"	65,659	1,563	547,924	
Compartment 1P	75,054	1,787	119"	64,874	1,545	541,374	
Compartment 2S	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 2P	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 3S	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 3P	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 4S	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 4P	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 5S	86,908	2,069	115"	75,689	1,802	631,625	
Compartment 5P	86,908	2,069	114"	75,057	1,787	626,351	
Aft Trim Tank	18,388	438	112"	17,447	415	145,595	
Total	913,897 gallons	21,759 barrels		**778,134 gallons**	18,527 barrels	6,493,528 pounds	
Grand Total	1,695,459 gallons	40,368 barrels		**1,161,238 gallons**	27,649 barrels	9,690,531 pounds	

NOTES:

(a) Based on bulk density of 8.345 pounds/gallon.
(b) MP&A site visit (May 3, 2001).
(c) According to Mr. Louis Smaihall, the total volume is 10,000 barrels (420,000 gallons).
(d) Measurement read from permanently installed float gauge on tank.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7567

Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Smaihall:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records. At this time I am also requesting summary information which you have developed relating to the customers of SBA. This would include but not be limited to the circa 1996 letter from your counsel of the time to SBA customers in which SBA requests funding support for remedial activities at the SBA facility from approximately twenty-two (22) current and former customers.

Should you have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael A. Chernekoff, Esq.
Michael Pisani, MP&A
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7550

SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Chernekoff:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records and the records of SSIC Remediation. As we have previously discussed, I will await a written response from your office which includes: a member listing of the Limited Liability Corporation SSIC Remediation, which includes designation of corporate representation by those members; the articles of incorporation for SSIC Remediation, L.L.C.; and the full listing of SBA Shipyards, Inc. customers, to the best of the knowledge of SSIC.

Should you or members of SSIC have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael Pisani, MP&A
Louis Smaihall, SBA
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

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REGIONAL HEARING CLERK
EPA REGION VI

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

DEC 0 9 2002

VIA FEDERAL EXPRESS: 8220 0515 8452
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2560 7543
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the world wide web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

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The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. Work

EPA acknowledges that the work performed at this facility in accordance with this Agreement would achieve programmatic parity, avoid duplication and delay, and achieve substantive consistency between remedial programs as described in the NPL/RCRA deferral policy (54 FR 41000).

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims for the actions or matters addressed by Section 3008(h) of RCRA and memorialized in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Pamela Phillips, Acting

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

Date: 11/21/02

IT IS AGREED:

Arlen B. Cenac Jr.
Signature/Printed Name, Manager
SSIC Remediation, L.L.C.

Date: 11/14/02

Enclosure

cc: Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD
Michael Pisani, Michael Pisani and Associates

CERTIFICATE OF SERVICE

I hereby certify that on the 10 th day of December 2002, the original of the Subject Letter Agreement was hand delivered to and filed by the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6, Wells Fargo Bank Tower, 1445 Ross Avenue, Dallas, Texas 75202-2733, and that on the 12 th day of December 2002, that true and correct copies of the Letter Agreement were sent to the following by the method indicated below:

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7567

Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7550

SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

Gene Keepper
Signature 12Dec2002

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-

Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal.

Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials.
Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

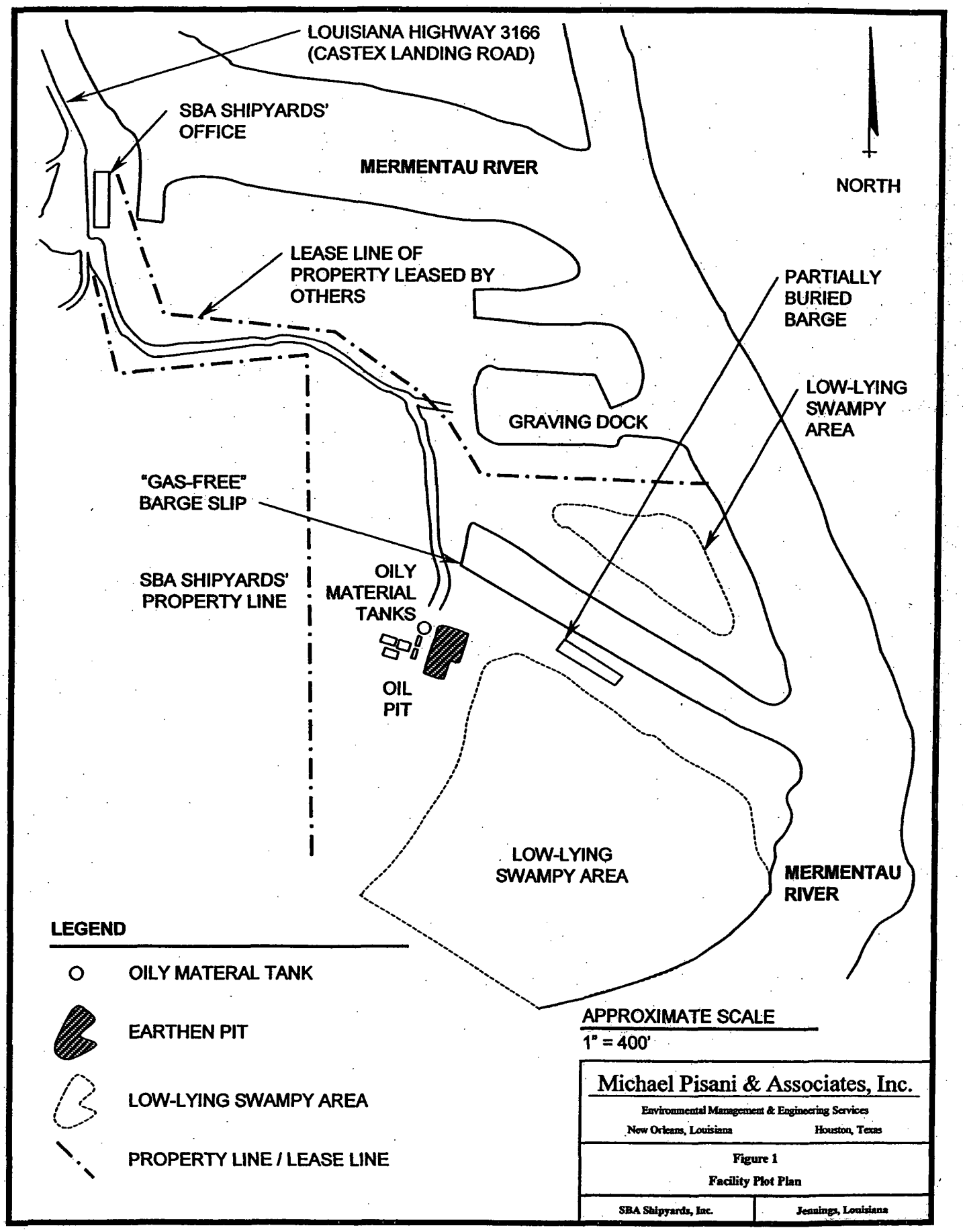
Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).


LOUISIANA HIGHWAY 3166
(CASTEX LANDING ROAD)
SBA SHIPYARDS'
OFFICE
MERMENTAU RIVER
NORTH
LEASE LINE OF
PROPERTY LEASED BY
OTHERS
PARTIALLY
BURIED
BARGE
LOW-LYING
SWAMPY
AREA
GRAVING DOCK
"GAS-FREE"
BARGE SLIP
SBA SHIPYARDS'
PROPERTY LINE
OILY
MATERIAL
TANKS
OIL
PIT
LOW-LYING
SWAMPY AREA
MERMENTAU
RIVER
LEGEND
OILY MATERAL TANK
EARTHEN PIT
LOW-LYING SWAMPY AREA
PROPERTY LINE / LEASE LINE
APPROXIMATE SCALE
1" = 400'
Michael Pisani & Associates, Inc.
Environmental Management & Engineering Services
New Orleans, Louisiana
Houston, Texas
Figure 1
Facility Plot Plan
SBA Shipyards, Inc.
Jennings, Louisiana

"Chernekoff, Mike"
<mchernekoff@jones walker.com>
10/22/2002 16:12

To: Gene Keepper/R6/USEPA/US@EPA
cc: "Mike Pisani (m.pisani@ix.netcom.com)" <m.pisani@ix.netcom.com>, "Chernekoff, Mike" <mchernekoff@joneswalker.com>
Subject: FW: Revision: SBA Oil Pit

Gene,

Per our conference call of today, below is from Mike Pisani.

-----Original Message-----
From: Michael Pisani [mailto:m.pisani@ix.netcom.com]
Sent: Tuesday, October 22, 2002 4:05 PM
To: Mike Chernekoff
Subject: Revision: SBA Oil Pit

The existing earthen pit at the SBA site contains water, waxes and oily sludges. This pit has been subject to constant change over the past 15 years, including;

1. The pit was originally two separate pits which were combined into one pit by Mr. Smaihall.

2. The pit caught fire and burned for several hours.

3. Fluids have constantly been pumped from the pit and moved to tankage and/or the oil water separator.

4. All pumpable oils were removed from the pit and this oil was burned at the Rhodia Baton Rouge commercial facility.

5. Soils have been added to the pit in anticipation of pit solidification activities.

6. Rainwater has presumably been removed from the pit.

The pit contents have historically been, and continue to be, extremely viscous and the pit may be as deep as eighteen feet. Collection of a representative sample under these conditions is nearly impossible.

It is the team's position that the pit contents have not been classified. We have no knowledge of any listed hazardous waste having been placed in the pit. Collection of samples to further classify the wastes (e.g., characteristic hazardous or non-hazardous industrial solid waste) is impracticable from both a technical perspective and a safety perspective. The nature of the materials, required level C sampling gear, the dimensions of the pond, and the depth of the wastes all contribute to the technical and safety limitations of any sampling. The pond presents a potential threat of overflow. Stabilization of the pond contents is essential to:

1. Stabilize the site/situation and eliminate the threat of overflow.

2. Allow appropriate (e.g., statistically valid) and safe sampling of the pond contents to determine if the stabilized waste (or parts thereof) is non-hazardous industrial solid waste or characteristic hazardous waste.

If the stabilized wastes (or parts thereof) test as TC characteristic wastes, only then would we address the question of underlying constituents. Otherwise, the material will be managed offsite as industrial solid waste.

The above approach is embodied in the approved Work Plan for the site and is fundamental to our group's ability to economically and technically perform the work. We would appreciate your concurrence with this approach.

--
Michael Pisani & Associates, Inc.
1430 Energy Centre
1100 Poydras Street
New Orleans, Louisiana 70163-1430

(504) 582-2468 office
(504) 582-2470 fax
m.pisani@ix.netcom.com

"Robert E. Leslie, Jr., P.E." <releslie@ix.netcom.com>

04/28/2003 11:46
Please respond to releslie

To: Gene Keepper/R6/USEPA/US@EPA, "Keith Horn (LDEQ)" <k_horn@deq.state.la.us>, Mike Chernekoff <mchernekoff@joneswalker.com>
cc:
Subject: [Fwd: Pisani & Associates - General - 203042228]

Attn: Mr. Gene Keepper (U.S. EPA Region VI)
cc: Mr. Keith Horn (LDEQ)
cc: Mr. Mike Chernekoff (Jones, Walker, Waechter, Poitevent, Carrere & Denegre)

Mr. Keepper:
In accordance with the Agreed Order Statement of Work, the November 1, 2001 Solidification/ Stabilization Work Plan and your October 23, 2002 e-mail message, Michael Pisani & Associates, Inc. (MP&A) has received the following acceptance criteria from Jefferson Davis Landfill (Welsh, Louisiana).

The Jefferson Davis Landfill operator (BFI/Allied Waste Industries) has agreed to one sample per 3,000 tons of stabilized material analyzed for TCLP volatile organic compounds (VOCs) and reactivity, corrosivity and ignitibility (R/C/I).

MP&A has submitted to BFI/Allied a completed profile form for non-hazardous industrial solid waste. Laboratory analyses of stabilized material from the ongoing IM/RA field activities at SBA Shipyards show no detectable TCLP VOCs, and R/C/I results meet non-hazardous criteria. A copy of the validated analytical results is attached for your review.

In accordance with your October 23, 2002 e-mail, the stabilized material will be characterized by the collection of one sample per each 3,000 tons of material. Each sample will be collected using LDEQ- and EPA-recommended practices for sample collection, preservation, custody control and custody documentation. An LDEQ-accredited environmental laboratory (Gulf Coast Analytical Laboratories, Inc.; Baton Rouge, Louisiana Rouge) will analyze each sample for TCLP VOCs and R/C/I. Characterization results for each sample will be forwarded to U.S. EPA Region VI and LDEQ for review.

In accordance with the landfill's acceptance criteria, only non-hazardous industrial solid waste will be shipped to the landfill.

We are ready to begin shipment of the first 3,000 tons of stabilized material to the landfill as soon as possible. This shipment is necessary to make room in the pond for additional stabilizing reagents. The alternative to shipping is stockpiling onsite, as approved by the work plan. Stockpiling will require double-handling of the material, and offsite transportation is the preferred alternative. Please advise as soon as possible.

If you have any questions or comments regarding this matter, please do not hesitate to contact us.

Thank you,

Robert E. Leslie, Jr., P.E.
--

Robert E. Leslie, Jr., P.E.
Michael Pisani & Associates, Inc.
1430 Energy Centre
1100 Poydras Street
New Orleans, Louisiana 70163-1430

(504) 582-2464 (direct)
(504) 582-2468 (office)
(504) 582-2470 (fax) releslie@ix.netcom.com (e-mail)

-------- Original Message --------

Subject: Pisani & Associates - General - 203042228
Date: Fri, 25 Apr 2003 15:04 -0500
From: carolynd@gcal.com
To: releslie@ix.netcom.com
CC: carolynd@gcal.com

Dear Robert,

The analytical results for Report 203042228 - (General) project - are complete.
Attached are the results in an ASCII format for your immediate review.
The results can also be viewed online through our website at:

http://www.gcal.com/rcaIf you have not setup an online account for viewing your results, and you wish to do so, please contact us at your earliest convenience.

You will be receiving a hardcopy report in the mail within 5-7 business days.

Additionally the Chain-of-Custody(s) for your referenced Project/Report# are included as an Adobe Acrobat (.PDF) attachment. The Adobe Acrobat Reader is available as a free download at:
http://www.adobe.com/products/acrobat/readstep2.html
Thank you for your business,

Carolyn Dicharry

GULF COAST ANALYTICAL LABORATORIES
7979 GSRI Avenue
Baton Rouge, LA 70820
Phone: (225) 769-4900
Fax: (225) 767-5717

VALIDATED RESULTS

Client : Pisani & Associates **Report#:** 203042228
Project: General

SAMPLE SUMMARY

GCAL ID	Client ID	Matrix	Collected	Received
20304222801	PROFILE-1	Solid	04/22/03 13:20	04/22/03 17:03

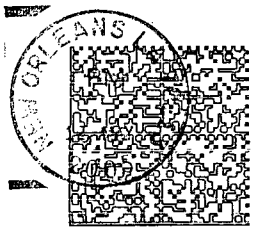
ANALYSIS DETAILS

GCAL ID:	20304222801	Matrix:	Solid
Sample ID:	PROFILE-1		
Collected:	04/22/03 13:20	Received:	04/22/03 17:03

Analyte	Result	RDL	Units	Analyzed	Method
Reactivity Cyanide	ND	250	mg/kg	04/25/03 12:23	9012A
Reactivity Sulfide	ND	80	mg/kg	04/25/03 11:31	9034
pH	11.6	1.00	pH unit	04/25/03 10:30	SW-846 9045

Ignitable	NO			04/25/03 11:00	EPA 1030
1,1-Dichloroethene	ND	0.200	mg/L	04/24/03 15:11	SW-846 1311/8260B
1,2-Dichloroethane	ND	0.200	mg/L	04/24/03 15:11	SW-846 1311/8260B
2-Butanone	ND	1.00	mg/L	04/24/03 15:11	SW-846 1311/8260B
Benzene	ND	0.200	mg/L	04/24/03 15:11	SW-846 1311/8260B
Carbon tetrachloride	ND	0.200	mg/L	04/24/03 15:11	SW-846 1311/8260B
Chlorobenzene	ND	0.200	mg/L	04/24/03 15:11	SW-846 1311/8260B
Chloroform	ND	0.200	mg/L	04/24/03 15:11	SW-846 1311/8260B
Tetrachloroethene	ND	0.200	mg/L	04/24/03 15:11	SW-846 1311/8260B
Trichloroethene	ND	0.200	mg/L	04/24/03 15:11	SW-846 1311/8260B
Vinyl chloride	ND	0.200	mg/L	04/24/03 15:11	SW-846 1311/8260B

FOWLER RODRIGUEZ & CHALOS
400 POYDRAS STREET • 30TH FLOOR
NEW ORLEANS, LOUISIANA 70130



Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1440 Ross Avenue, Suite 900
Dallas, TX 75202-2733

75202/2883

HOUSTON
4 Houston Center, Suite 1560
1331 Lamar
Houston, Texas 77010
(713) 654-1560
Telecopier (713) 654-7930

MIAMI
Gables International Plaza
2655 LeJeune Road, Suite 805
Coral Gables, Florida 33134
(305) 445-2930
Telecopier (305) 445-2450

•

EDWARD F. LeBRETON, III
PARTNER
Direct Dial: (504) 595-5142
E-Mail: lebreton@frc-law.com

FOWLER RODRIGUEZ & CHALOS

COUNSELLORS AT LAW

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NEW ORLEANS, LOUISIANA 70130
(504) 523-2600
TELECOPIER (504) 523-2705

NEW YORK
366 Main Street
Port Washington, New York 11050
(516) 767-3600
Telecopier (516) 767-3605

MOBILE
AmSouth Bank Building
107 St. Francis Street, Suite 1204
Mobile, Alabama 36602
(251) 344-4721
Telecopier (251) 343-7503

BOGOTA
Carrera 12A #77-41
Oficina 502
Bogota, COLOMBIA
011-571-313-4488
Telecopier 011-571-313-4677

May 12, 2005

Director
Compliance Assurance and Enforcement Division
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1440 Ross Avenue, Suite 900
Dallas, TX 75202-2733

RE: *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).*
Docket No. RCRA-6-2002-0908.
Our File No. 4094-009

Gentlemen:

We write on behalf of Higman Barge Lines, Inc. with respect to the alleged contamination at the SBA Shipyard identified in the caption. We also refer to the Order and Agreement ("Agreement") executed by the Compliance, Assurance, and Enforcement Division on or about December 10, 2002 (copy enclosed).

The Agreement was with SBA Shipyards and SSIC Remediation, LLC ("SSIC"). At the time of the Agreement, Higman Barge Lines, Inc. was a member of SSIC. This is shown by the enclosed excerpt of the first page of the Operating Agreement for SSIC, and the signature page showing Higman Barge Lines, Inc. We have excerpted the Agreement for reasons of confidentiality among the members; however, should you require further confirmation that Higman Barge Lines, Inc. was, in 2002, a member of SSIC, please advise.

While Higman Barge Lines, Inc. denies liability for cleanup at the SBA Shipyard, Higman Barge Lines, Inc. joined SSIC to avoid the costs of any dispute and to help to clean up the site.

Under the terms of the Agreement, SBA and SSIC agreed to undertake a designated Scope of Work. On the condition that the Scope of Work was completed, the EPA agreed that, with respect to the Scope of Work and any further phase of the cleanup of the SBA Shipyard, SSIC and its members, including Higman Barge Lines, Inc., would be protected from contribution actions or claims for the actions or matters addressed by Section 3008(h) of RCRA, and exempt from oversight costs.

We are advised that the Scope of Work for the SBA Shipyards now has been or shortly will be completed. Accordingly, Higman Barge Lines, Inc., as a member of SSIC, is entitled to the benefits of the Agreement.

In 2005, Higman Barge Lines, Inc. and SSIC disagreed on the proper amount of the continuing contributions of Higman Barge Lines, Inc. to SSIC. Higman Barge Lines, Inc. believes that it has contributed all amounts which it is required to contribute, whereas SSIC disagrees. We are advised that SSIC, in concluding this matter with the EPA, has or will advise the EPA that Higman Barge Lines, Inc. is not among the companies to whom the benefits of the Agreement should be extended.

In these circumstances, we are writing now to advise that it is the position of Higman Barge Lines, Inc. that the EPA is required to extend the benefits of the Agreement to Higman Barge Lines, Inc. The dispute is only between Higman Barge Lines, Inc. and SSIC and is to be resolved between Higman Barge Lines, Inc. and SSIC. The current dispute does not affect the facts that Higman Barge Lines, Inc. was, in 2002 and continuing until 2005, a member of SSIC, that the Agreement expressly extends its benefits to the individual members of SSIC, including Higman Barge Lines, Inc., and that the prescribed Scope of Work has been completed.

Accordingly, Higman Barge Lines, Inc. is entitled to the benefits of the Agreement.

Very truly yours,

FOWLER, RODRIGUEZ & CHALOS

By: Edward F. LeBreton, III

EFL/ca
Enclosure

JONES WALKER

Michael A. Chernekoff
Direct Dial 504-582-8264
Fax 504-582-8583
mchernekoff@joneswalker.com

June 27, 2002
VIA FEDERAL EXPRESS

Gloria Moran, Esq.
United States Environmental
Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Re: SBA Shipyards, Inc.
EPA I.D. No. LAD008434185
Docket No. RCRA VI-001(h)-97-H
Our File: 68700-00

Dear Gloria:

I enclose the original and duplicate original of the order and agreement relative to the SBA Shipyard site. Both are executed by a duly authorized manager of SSIC Remediation, LLC. We understand that Mr. Smaihall has also executed a separate copy on behalf of SBA Shipyards, Inc. Upon EPA's signature and dating of the document, we would appreciate your forwarding back to us one original for our files. Once received, we will forward to you our list of members.

Should you have any questions, please contact me directly.

With kindest regards, I am

Very truly yours,

MICHAEL A. CHERNEKOFF

MAC/rbm
Enclosure
cc: Mr. Gene Keepper

UNITED STATES OF AMERICA

State of Louisiana

UNION JUSTICE AND CONFIDENCE

Fox McKeithen

SECRETARY OF STATE

As Secretary of State, of the State of Louisiana, I do hereby Certify that the annexed transcript was prepared by and in this office from the record on file, of which purports to be a copy, and that it is full, true and correct.

In testimony whereof, I have hereunto set my hand and caused the Seal of my Office to be affixed at the City of Baton Rouge on.

JAN 19 2001

Fox McKeithen

Secretary of State

STATE OF LOUISIANA
UNION JUSTICE CONFIDENCE
SECRETARY OF STATE

CERTIFICATES 00 JAN 20

ARTICLES OF ORGANIZATION
of
SSIC REMEDIATION, L.L.C.

The undersigned, acting pursuant to the Louisiana Limited Liability Company Law (as amended from time to time or any successor statute, the "LLLCL"), does hereby form a limited liability company and adopts the following Articles of Organization.

ARTICLE I
Name

The name of this limited liability company (the "LLC") is SSIC REMEDIATION, L.L.C.

ARTICLE II
Purpose

The purpose of the LLC is to engage in any lawful activity for which limited liability companies may be formed under the LLLCL.

ARTICLE III
Management

A. The LLC shall be managed by managers selected by the members as provided in the operating agreement of the LLC. Except as expressly limited in the operating agreement of the LLC, each manager has full authority to act on behalf of the LLC in all matters, whether or not in the ordinary course of business, including the authority to (i) lease or encumber all or any portion of the immovable property of the LLC and (ii) incur indebtedness on behalf of the LLC. No member other than the managers shall have the authority to act as a mandatary of the LLC.

B. Persons dealing with the LLC may rely upon a certificate signed on behalf of the LLC by a manager to establish the following: the identity of any manager or member of the LLC; the authenticity of any records of the LLC; or the authority of any person to act on behalf of the LLC.

ARTICLE IV
Limitation on Liability and Indemnification

A. Neither any member nor any manager shall be liable under a judgment, decree, or order of the court, or in any other manner, for a debt, obligation or liability of the LLC or for monetary damages for breach of any duty provided for in Section 1314 of the LLLCL.

B. Except to the extent prohibited by Section 1315(B) of the LLLCL, each member and manager shall be indemnified by the LLC from and against any and all judgments, settlements,

penalties, fines and expenses (including reasonable legal fees and expenses) to the extent indemnification would be either mandatory or permissive under Section 83 of the Louisiana Business Corporation Law, La. R.S. 12:1, *et. seq.*, as amended, if the LLC were a Louisiana business corporation and such member or manager were an officer or director thereof.

ARTICLE V
Operating Agreement

The internal affairs of the LLC shall be regulated by a written Operating Agreement to be entered into among all entities or persons who are now or may subsequently become Members of the Company. In the event of a conflict between the Articles of Organization and the Operating Agreement, the Articles of Organization shall govern.

ARTICLE VI
Amendments

The Company's Articles of Organization may be amended, altered or modified only by the vote of Members holding, in the aggregate, 80% of the Percentage Interests (as defined in the Company's Operating Agreement).

IN WITNESS WHEREOF, the undersigned Organizer has duly executed these Articles of Organization as of December 27th, 2000.

WITNESSES:

Michael A. Chernekoff, Organizer

ACKNOWLEDGMENT

STATE OF LOUISIANA

PARISH OF ORLEANS

BEFORE ME, the undersigned authority, personally came and appeared Michael A. Chernekoff, to me known to be the person who signed the foregoing instrument as Organizer, and who, having been duly sworn, acknowledged and declared, in the presence of the two witnesses whose names are subscribed above, that he signed such instrument as his free act and deed for the purposes mentioned therein.

IN WITNESS WHEREOF, the appearer, witnesses and I have hereunto affixed our hands on this 22nd day of December, 2000, in the aforesaid parish and state.

WITNESSES:

Michael A. Chernekoff, Organizer

NOTARY PUBLIC

DOMESTIC LIMITED LIABILITY COMPANY INITIAL REPORT

(To be filed when the Articles of Organization are filed)
(R.S. 12:1305)

State of Louisiana
Parish of Orleans

To: The Secretary of State
Baton Rouge, Louisiana

Complying with R.S. 12:1305, SSIC Remediation, L.L.C. hereby makes its initial report as follows:

1. The name of the limited liability company is SSIC Remediation, L.L.C.

2. The location and municipal address of this limited liability company's registered office:

   201 St. Charles Avenue, 50th Floor
   New Orleans, Louisiana, LA 70170

3. The full name and municipal address of this limited liability company's registered agent:

   Michael A. Chernekoff
   201 St. Charles Avenue, 50th Floor
   New Orleans, LA 70170

4. The names and municipal addresses of the initial managers:

Barry T. Dyer Box 610 Jeffersonville, Indiana 47131-0610	Benny Cenac, Jr. 141 Bayou Dularge Road Houma, Louisiana 70361	John R. Clark, III 5454 Wisconsin Avenue Chevy Chase, MD 20815

IN WITNESS WHEREOF, the undersigned has duly executed this Initial Report on this 22nd day of December, 2000.

Michael A. Chernekoff, Organizer

AGENT'S AFFIDAVIT AND ACKNOWLEDGMENT OF ACCEPTANCE

I hereby acknowledge and accept the appointment of registered agent for and on behalf of the above named limited liability company.

Registered Agent:

Sworn to and subscribed before me this 22nd day of December, 2000.

Notary Public

SSIC Remediation LLC
List of Members
(In Alphabetical Order)

American Commercial Line, L.L.C.
(Successor to National Marine Service)
Box 610
Jeffersonville, Indiana 47131-0610

Barge Transport Company, Inc.
1515 Poydras Street, Suite 1950
New Orleans, Louisiana 70112

Beazer-East, Inc.
1 Oxford Centre, Suite 300
Pittsburgh, Pennsylvania 15219

Canal Barge Company
835 Union Street, Suite 300
New Orleans, Louisiana 70112

Cenac Towing Co., Inc.
141 Bayou Dularge Road
Houma, Louisiana 70361

ConocoPhillips Company
(Successor to Conoco Inc.)
600 N. Dairy Ashford Road
Houston, Texas 77079

Higman Barge Lines, Inc.
3600 One Bank Center
New Orleans, Louisiana 70170

Hornbeck Offshore Transportation, LLC
(Successor to Leevac Marine, Inc.)
414 N. Causeway Boulevard
Mandeville, Louisiana 70448

L&L Oil and Gas Services, LLC
(also ASCO US, LLC)
3421 N. Causeway Boulevard, Suite 502
Metairie, Louisiana 70002

Martin Transport, Inc.
1717 St. James Place
Houston, Texas 77056

Marathon Ashland Petroleum, LLC
5200 Blazer Parkway
Dublin, Ohio 43017

Sabine Towing and Transportation, Inc.
1301 McKinney
Houston, Texas 77010

Steuart Transportation Company
5454 Wisconsin Avenue
Chevy Chase, Maryland 20815

Talens Marine and Fuel, Inc.
225 Pleasant Street
Lake Arthur, Louisiana 70549

ENFORCEMENT SENSITIVE

CENAC TOWING COMPANY
LAR000021212
141 Bayou Dularge Rd.
Houma, Louisiana 70363

Potential Violations:

1. 40 CFR 262.11: Failure to make a hazardous waste determination for material stored in buried metal box at the Gas Free Plant.

Evidence: a. At the time of the inspection, material (rusty, oily, sludge-type material) was observed being stored in a metal container partially buried in the ground (photo # 10). The container's capacity was approximately 28,000 gallons.

b. During a meeting held on Sept. 19, 2001, Mr. Cenac stated that prior to the inspection, sludges removed from barges were placed into the buried container (or "tank") and that no previous testing had been conducted on the material. He also stated that the material had been accumulating in the container since 1985 and had not previously been disposed.

c. On August 14, 2001, the facility submitted its response to a 3007 Request for Information. In its Response, the facility submitted copies of hazardous waste manifests for benzene contaminated material (manifest #'s LAA6587860, LAA6623428, LAA6623429, LAA6623430, LAA6623431). The total amount of hazardous waste removed and shipped off-site was 163,160 tons based on the information submitted in the facility's 1999 annual hazardous waste report. Mr. Cenac stated during the Sept. meeting that this was the material removed from the buried container. The material was removed on January 7, 2000.

***ISSUE: Although the facility disposed of the material as a hazardous waste, samples taken at the time of the inspection did not indicate that the material in the box was a hazardous waste.

---

2. 40 CFR 270.1 and 270.10: Storing hazardous waste without a permit in the buried metal box.

Evidence: The facility did not meet the generator permit exemption requirements in 262.34(a) for the material stored in the buried container. Specifically, at the time of the inspection, it was noted that the container was not labeled or dated, nor was it inspected on a weekly basis. Additionally, the facility did not have an adequate contingency plan, had not submitted copies of the contingency plan to local authorities, and did not have job records for employees handling hazardous waste.

***ISSUE: Although the facility disposed of the material as a hazardous waste, samples taken at the time of the inspection did not indicate that the material in the box was a hazardous waste.

ENFORCEMENT SENSITIVE

3. 40 CFR 262.11: Failure to make a hazardous waste determination for material stored in 5,000-bbl tank.

Evidence: a. At the time of the inspection, a 5,000-bbl tank was observed at the facility. The tank was used for storage of petroleum-based hydrocarbons and oils that are separated in the wastewater treatment system. Additionally, the tank was used to store used oils, spent parts washer solvent, and stripped petroleum-based products from barges.

b. A sample taken from the tank at the time of the inspection indicates that it is a hazardous waste due to benzene and dichloroethane contamination.

***ISSUE: Although the material in the tank fails TCLP for benzene and dichloroethane, it may not be a hazardous waste because it consists of petroleum products recovered from the wastewater treatment system, and used oil, that is going for recycling. The spent solvent placed in the tank was spent mineral spirits which was hazardous only due to ignitability. Solvent can be mixed with used oil as long as the resulting mixture is not ignitable. It is not clear whether or not the contents of the tank was tested for ignitability. If so, it was negative. The benzene present may be attributed to the petroleum products as long as no other benzene-contaminated wastes were mixed in the tank. There is no evidence that other benzene-contaminated wastes were mixed in the tank. Additionally, although dichloroethane was present above regulatory limits, it may be present as a result of being used as an additive in gasoline, in which case the material would not be a hazardous waste if it is going for recycling as a fuel. If it was used as a solvent, it would be hazardous waste; however, there is no evidence that the facility used dichloroethane-containing solvents in any of its processes.

Other concerns:

1. Ignitable hazardous waste stored in sump (spent parts washer spilled on floor and collecting in sump). Facility stated in meeting that the sump has been filled in with cement.

2. Cenac notified as a SQG; however, in one month they stored and shipped off over 600,000 tons of hazardous waste (if the material was actually a hazardous waste).

3. Failure to file an annual report in 1999 (nothing shipped off-site in 1998??)

4. Two containers of used oil not labeled "Used Oil".

5. Poor housekeeping.

SBA SHIPYARDS, INC.

CUSTOMER INFORMATION RELATING TO HISTORICAL BARGE CLEANING ACTIVITIES
(Revised August 15, 1996)

BARGE COMPANY/OWNER	DATE RANGE	NUMBER OF VESSELS CLEANED	PREVIOUS CARGOES
REDACTED			
REDACTED			

REDACTED			
REDACTED			
REDACTED			
REDACTED			

Ingram Barge Lines P. O. Box 23049 Nashville, TN 37020 Contact: Bill Morelli Phone: (615) 296-8200/8244 **ATTORNEY:** Mr. Bob Holden Liskow & Lewis 701 Poydras Street, Suite 5000 New Orleans, LA 70139 (ph) 504-556-4130 (fx) 504-556-4108	1/87 - 11/93	9	Crude, No. 6 Oil, Coal Tar, Slop #6 Oil, Creosote (U051), Heavy Aromatics/Gasoline, Crude Oil
Allied Towing P. O. Box 717 Norfok, VA 23501 Contact: W. Bruce Law (ph) 804-545-7301 (fx) 804-545-5692	8/85	1	Asphalt, Bunker C
Transerve Marine P. O. Box 717 Norfok, VA 23501 Contact: W. Bruce Law (ph) 804-545-7301 (fx) 804-545-5692	11/84 - 4/90	11	Caustic Soda, Tallow, Lube Oil, Corn Oil, UREA-Ammonium Nitrate, Soybean Oil
REDACTED			
REDACTED			

Hollywood Marine P. O. Box 1343 Houston, TX 77251 Contact: Mary Shaddock Jones (ph) 713-866-1661 (fx) 713-868-6422	10/87 - 8/90	4	Crude Oil. No. 6 Oil. Bunker Oil. Black Oil
Marine Operators, Inc. P. O. Box 51694 Lafayette, LA 70505 Contact: Stephen Ortte (ph) 318-232-9248 (fx) 318-232-9043	11/85	0	Diesel Oil
Sargent Marine 3111 University Drive Suite 1000 Coral Springs, FL 33065 (ph) 954-753-6501 (fx) 954-753-6603 Dan Finocchi 868 Marian Road Woodbury, NJ 08096 (ph) 609-848-0535 (fx) 609-848-0535	3/95	1	Asphalt
REDACTED			
REDACTED			

REDACTED			
REDACTED			
REDACTED			
Sun Oil Company 1801 Market Street Philadelphia, PA 19103 Contact: Thomas Haines, Esq. (ph) 215-977-6273 (fx) 215-977-6898	5/77 - 1/89	5	Asphalt
REDACTED			

SBA SHIPYARDS, INC.
PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS

COMPANY	DATE(S)*	VESSEL NUMBER	PREVIOUS 3 CARGOES	WORK ORDER NO.	ADDITIONAL INFO.
Hollywood Marine	10/17/87	Hollywood 2802	Crude Oil, No. 6 Oil	1021	Cleaned barge
	11/17/87	Hollywood 1401	Bunker Oil (No. 6)	1013	Cleaned barge
	3/8/90	Hollywood 2511	Suspected Light Crude Oil	1153	Gas free and clean 14 barge tanks
	5-8/90	Hollywood 2513	Black Oil, Crude Oil	1166	20,000 bbl barge; 55 bbls contain rust, scale, and crude oil

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 4

* - Based on date from Marine Chemist's Gas Free Certificate

SBA SHIPYARDS, INC.
PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS

COMPANY	DATE(S)*	VESSEL NUMBER	PREVIOUS 3 CARGOES	WORK ORDER NO.	ADDITIONAL INFO.
Marine Operators	11/15/85	MOP 190	Diesel Oil	921	Arrived Pre-Cleaned

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 0

* - Based on date from Marine Chemist's Gas Free Certificate

SBA SHIPYARDS, INC.
PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS

COMPANY	DATE(S)*	VESSEL NUMBER	PREVIOUS 3 CARGOES	WORK ORDER NO.	ADDITIONAL INFO.
Sergeant Marine	3/13/95	MC Asphalt 201	Asphalt (x3)	1342	Removed approx. 156 bbls of asphalt, rust and scale.

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 1

* - Based on date from Marine Chemist's Gas Free Certificate

SBA SHIPYARDS, INC.
PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS

COMPANY	DATE(S)*	VESSEL NUMBER	PREVIOUS 3 CARGOES	WORK ORDER NO.	ADDITIONAL INFO.
Allied Towing	8/21/85	Kelly	Asphalt, Bunker C	911	Removed asphalt and bunker C.
	4/21/86	Kelly	Asphalt	964	Arrived Pre-Cleaned
	8/1/86	I-150	Caustic Soda	978	Arrived Pre-Cleaned

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 1

* - Based on date from Marine Chemist's Gas Free Certificate

SBA SHIPYARDS, INC.
PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS

COMPANY	DATE(S)*	VESSEL NUMBER	PREVIOUS 3 CARGOES	WORK ORDER NO.	ADDITIONAL INFO.
Transerve Marine	11/6/84	Ryan	Caustic Soda	1007	Arrived Pre-Cleaned
	1/20/85	ATC 586	Caustic Soda, Tallow	955	removed 55 gal of waste oil; also cleaned 7 main cargo tanks of tallow and caustic soda
	3/21/85	I-50	Lube Oil	887	Removed lube oil
		I-50		878	Arrived Pre-Cleaned
	11/13/85	Ryan	Caustic Soda	920	Removed heavy deposits of caustic
	7/21/86	Hooker Burlington	Caustic Soda	975	Arrived Pre-Cleaned
	11/17/86	I-50	Caustic Soda	978	Removed caustic
	4/21/87	I-50	Corn Oil, Caustic Soda	1003	Removed caustic and corn oil
	12/17/86	I-50	Caustic soda	989	Removed caustic and silt
	5/26/87	Ryan	Caustic Soda	1007	Arrived Pre-Cleaned
	1/11/88	I-50	Caustic Oil/Caustic	881	Removed caustic
	3/27/89	TMI-91	Caustic Soda (3)	1119	Cleaned out caustic, mud and rust
	8/9/89	TMI-96	UREA-Ammonium Nitrate	1130	Arrived Pre-Cleaned
	12/4/89	I-50	Soybean & Corn Oil/Caustic Soda	1145	Removed caustic and corn oil
	12/13/89	I-50	Corn Oil, Soybean Oil	1145	Approx. 200 bbl of caustic soda and corn oil removed
	4/12/90	I-50	Caustic Soda	1161	cleaned caustic barge for hotwork and personnel

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 11

* - Based on date from Marine Chemist's Gas Free Certificate

SBA SHIPYARDS, INC.
PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS

COMPANY	DATE(S)*	VESSEL NUMBER	PREVIOUS 3 CARGOES	WORK ORDER NO.	ADDITIONAL INFO.
Sun Oil Co. Sun Marine Terminal P. O. Box 758 Nederland, TX 77627	5/3/77	JAR-5	Suspect asphalt	170	Wash out/clean vessell for change of cargo
	4/8/80	Lou II	Suspect asphalt	490	Gas free and clean tank barge
	11/12/80	Lou III	Suspect asphalt	557	Gas free and clean tank barge
	7/27/81	Lou IV	Suspect asphalt	588	Gas free and clean 26,000 barrel barge
	12/19/88 - 1/13/89	Lou IV	Asphalt	1104	Clean and gas free tank barge

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 5

* - Based on date from Marine Chemist's Gas Free Certificate

SBA SHIPYARDS, INC.
PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS

COMPANY	DATE(S)*	VESSEL NUMBER	PREVIOUS 3 CARGOES	WORK ORDER NO.	ADDITIONAL INFO.
Ingram Barge Lines	1/9/87	I-B 7027	Crude	994	Arrived Pre-Cleaned
	3/5/88	TB-911		1035	Stripped cargo tanks approx. 15 bbls.
	3/5/88	WTB-806		1035	Stripped cargo tanks approx. 15 bbls.
	3/16/88	George	#6 Oil/Coal Tar	1033	10 cargo tanks; bucketed out approx. 20 bbls black & carbon oils
	3/30/88	Hollywood 2102	Slop #6 Oil	1037	cleaned out slop oil; #6 oil & B.S. & W.
	5/2/88	Hollywood 2523	Slop Oil	1041	Approx. 260 bbls of sludge, wax and B.S. & W.
	10/10/88	IB-1302	Coal Tar (3)	1088	Approx. 600 bbls creosote & coal tar removed.
	1/25/89	IB-1308	Heavy Aromatics/Gasoline	1110	approx. 60 bbls of product removed
	8/5/90	I-B 908	Wastewaver	1178	Barge already gas free. Just pumped water from tank barge
	10/5/90	I-B 1926	Ethonol	1185	Approx. 18 bbls of product removed/striped tanks with vacuum truck
	11/8/93	IB-2710	Crude Oil	1296	Arrived Pre-Cleaned

TOTAL BARGES CLEANED FOR THIS CUSTOMER = 9

* - Based on date from Marine Chemist's Gas Free Certificate

HOLLYWOOD MARINE

W/O #1153 "HOLLYWOOD-2511"	INV 3-3(90) DTD 3/8/90 300' x 50' x 11'; 14 TANKS CLEANED LIGHT CRUDE OIL.
W/O #1166 "HOLLYWOOD-2513"	INV 8-1(90) DTD 8/17/90 20,000 BBL BARGE: 55 BBLS CONTAIN RUST, SCALE, AND CRUDE OIL.

INGRAM BARGE COMPANY

W/O #1035 "TB-911/WTB-806"	INV 3-5(88) DTD 3/8/88 STRIPPED CARGO TANKS BOTH BARGES APPROX 15 BBLS.
W/O #1033 "GEORGE"	INV 3-7(88) DTD 3/7/88 10 CARGO TANKS; BUCKETED OUT APPROX 20 BBLS BLACK & CARBON OILS.
W/O #1041 "HOLLYWOOD-2523"	INV 5-2(88) DTD 5/12/88 295'x50'x12'; APPROX 260 BBLS OF SLUDGE, WAX, AND B.S.& W.

W/O #1088 "I-B 1302"	INV 10-3(88) DTD 10/20/88 APPROX 600 BBLS CREOSOTE & COAL TAR REMOVED.
W/O #1110 "I-B 1308"	INV 3-5(89) DTD 3/15/89 154'x54'x15'; APPROX 60 BBLS OF PRODUCT REMOVED.
W/O #1178 "I-B 908"	INV 8-5(90) DTD 9/28/90 **BARGE ALREADY GAS FREE** JUST PUMPED WATER FROM TANK BARGE
W/O #1185 "I-B 1926"	INV 10-5(90) DTD 10/16/90 200'x35'x15'; APPROX 18 BBLS OF PRODUCT REMOVED/STRIPED TANKS WITH VACUUM TRUCK.
W/O #994 "I-B 7027"	CERTIFICATE FOR HOTWORK ONLY.
W/O #1037 "HOLLYWOOD-2102"	CLEANED OUT SLOP OIL; #6-OIL & B.S.& W.
W/O #1296 "I-B 2710"	CERTIFICATE FOR HOTWORK ONLY.

SARGEANT MARINE

W/O #1342 "MCASPHALT 201"	INV #4-1(95) DTD 4/7/95 REMOVED APPROX 156 BBLS OF ASPHALT, RUST, & SCALE. 265'x 52' x 16'

****

TRANSERVE MARINE/ALLIED TOWING

W/O 1145 "I-50"	INV 5-4(89) DTD 12-29-89 P/O T-0606 300'x55'x22'; APPROX 200BBL OF CAUSTIC SODA & CORN OIL REMOVED.
W/O 1161 "I-50"	INV 11-3(90) DTD 9/26/90 P/O T-0697 CLEANED CAUSTIC BARGE FOR HOTWORK AND PERSONNEL.
W/O 911 "KELLY"	REMOVED ASPHALT & BUNKER C.

W/O 964	"KELLY"	CERTIFICATE FOR HOTWORK ONLY.
W/O 978	"I-50"	CERTIFICATE FOR HOTWORK ONLY.
W/O 955	"ATC-586"	REMOVED 55 GAL OF WASTE OIL; ALSO CLEANED 7 MAIN CARGO TANKS OF TALLOW & CAUSTIC SODA.
W/O 920	"RYAN"	REMOVED HEAVY DEPOSITS OF CAUSTIC.
W/O 975	"HOOKER-BURLINTON"	CERTIFICATE FOR HOTWORK ONLY.
W/O 1007	"RYAN"	CERTIFICATE FOR HOTWORK ONLY.
W/O 1003	"I-50"	REMOVED CAUSTIC AND CORN OIL.
W/O 989	"I-50"	REMOVED CAUSTIC AND SILT.
W/O 1130	"TM-96"	CERTIFICATE FOR HOTWORK ONLY.
W/O 1145	"I-50"	REMOVED CAUSTIC AND CORN OIL.
W/O 1161	"I-50"	REMOVED CAUSTIC, SCALE, & RUST.
W/O 887	"I-50"	REMOVED LUBE OIL.
W/O 878	"I-50"	CERTIFICATE FOR HOTWORK ONLY.
W/O 1119	"TM-91"	CLEANED OUT CAUSTIC, MUD, & RUST.

GENF

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
FIELD INTERVIEW FORM

FACILITY ID#: 1478 INSPECTION DATE: KH 8/16/04 TIME OF ARRIVAL: ——

DEPARTURE DATE: 8/16/04 KH TIME OF DEPARTURE: ——

FACILITY NAME: SBA SHIPYARDS PH #: 337-824-1519

LOCATION: 3040 CASTEX LANDING RD, JENNINGS, LA 70546

PARISH NAME: JEFF DAVIS

MAILING ADDRESS: SAME AS ABOVE
(Street/P.O. Box) (City) (State) (ZIP)

FACILITY REPRESENTATIVE: LOUIS SMAIHALL TITLE: OWNER

INSPECTION TYPE: REMEDIATION MEDIA INVOLVED: AIR (WASTE) WATER OTHER SOIL/GW

INSPECTOR'S OBSERVATIONS: (e.g. AREAS AND EQUIPMENT INSPECTED, PROBLEMS, DEFICIENCIES, REMARKS, VERBAL COMMITMENTS FROM FACILITY REPRESENATIVES)

ARRIVED ON SITE FOR ROUTINE INSPECTION AND FOUND WORKERS CUTTING THE BOTTOMS OFF THE OVERTURNED BARGES VIA OXY/ACTYLENE TORCHES. THESE SELF EMPLOYED WORKERS (2) WERE LED BY KENNETH DURGAN (337) 824-7952, AND WERE REMOVING THE STEEL FOR SALVAGE PURPOSES. THE CUTS WERE

AREAS OF CONCERN	EXPLANATION	RESOLVED
FORMER OIL PIT	WAS BEEN BACKFILLED WITHOUT CONFIRMATORY SAMPLING, FURTHER INVESTIGATION OF THIS AREA WILL NOW BE MORE DIFFICULT	YES (NO)
		YES NO
	KH	YES NO
		YES NO
	KH	

PHOTOS TAKEN: ☐ YES ☒ NO SAMPLES TAKEN: ☐ YES ☒ NO (Attach Chain-of-custody)

RECEIVED BY: SIGNATURE: N/A TITLE:

PRINT NAME: COPIES TO BE MAILED TO PARTIES + EPA
(NOTE: SIGNATURE DOES NOT INDICATE AGREEMENT WITH INSPECTOR'S NOTES)

INSPECTOR(S): ~~Keith Horn~~ KEITH HORN ATTACHMENTS: KH

KH KH KH

NOTE: The Information contained on this form reflects only the preliminary observations of the inspector(s). It should not be interpreted as a final determination by the Department of Environmental Quality or any of its officers or personnel as to any matter, including, but limited to, a determination of compliance or lack thereof by the facility operator with any requirements of statutes regulations or permits. Each day of non-compliance constitutes a separate violation of the regulations and/or the Louisiana Environmental Quality Act.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
FIELD INTERVIEW FORM OBSERVATIONS (cont'd)

FACILITY ID#: 1478 INSPECTION DATE: 8/16/04 KH

FACILITY NAME: SBA SHIPYARDS

INSPECTOR OBSERVATIONS CONT:

BEING MADE AT THE LINE OF LIQUID CONTENT SO IT COULD BE ACCESSED FOR REMOVAL. I THEN MET WITH BRAD BLALOCK OF MICHAEL PISANI AND ASSOCIATES WHO WAS ON SITE PREPARING FOR THE H_2O DISCHARGE ACTIVITIES UNDER THE FACILITIES SOON TO EXPIRE NPDES PERMIT. HE WAS AWAITING ANALYTICAL DATA (EXPECTED THAT AFTERNOON OR TOMORROW MORNING) TO INSURE IT MET PERMIT REQUIREMENTS FOLLOWING TREATMENT VIA SAND & CARBON FILTRATION UNITS STAGED ON SITE. WATER TO BE DISCHARGED INCLUDES THAT FROM THE POND ADJACENT TO THE FORMER OIL PIT (NOW BACKFILLED) AND THAT STORED IN THE BURIED BARGE. WATER FROM THE OVERTURNED BARGES NOW BEING CUT UP WILL ALSO BE TREATED & HOPEFULLY DISCHARGED P.S.I. TO INSPECTION. ON 8/17/04 I SPOKE TO MR. ROB LESLIE OF MICHAEL PISANI & ASSOCIATES WHO INFORMED ME THAT THE SALVAGE WORKERS I ENCOUNTERED WERE WORKING AT THE DIRECTION OF SBA TO ACCOMPLISH THE OPENING OF THE BARGES SO THE WATER COULD BE REMOVED THEN THE SEDIMENTS SOLIDIFIED VIA FLY ASH FOR DISPOSAL. ALL WATER DISCHARGES MUST BE ACCOMPLISHED BY THE END OF THIS MONTH, THUS THE NEED FOR SPEED (EXPIRATION OF NPDES PERMIT). WHEN THE SOLIDS & LIQUIDS ARE REMOVED THE BARGES WILL BE FLIPPED OVER SO THEY WILL NOT COLLECT H_2O, HOWEVER THE POND IS NOT PLANNED TO BE BACKFILLED

KH KH

INITIALS OF RECEIPT N/A

REVISED: 07/01/99

KEITH HORN, MS
Staff Environmental Scientist
Office of Environmental Assessment
Louisiana Department of Environmental Quality

Remediation Services Division
Post Office Box 4314
Baton Rouge, LA 70821-4314

(225) 219-3209
Fax: (225) 219-3239
e-mail: Keith.Horn@la.gov

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

VIA FEDERAL EXPRESS: 8220 0515 7787
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2561 7788
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h). Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, RCRA Project Manager
Compliance Assurance and Enforcement Division
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. CERCLA-Quality Removal

EPA acknowledges that the work performed in accordance with this Agreement is consistent with the National Contingency Plan, 40 C.F.R. Part 300, and would satisfy the requirements of a CERCLA-quality removal action.

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims as provided by CERCLA Section 113 (f) (2), 42 U.S.C. Section 9613 (f) (2), or RCRA for all actions or matters addressed in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

_____ Date: _____

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

IT IS AGREED:

SSIC Remediation, L.L.C.

Date: 6/26/02

Enclosure

cc: Lourdes Iturralde, LDEQ
Michael Pisani, Michael Pisani and Associates

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the

portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described

herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated

material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal. Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-

scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials.
Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).

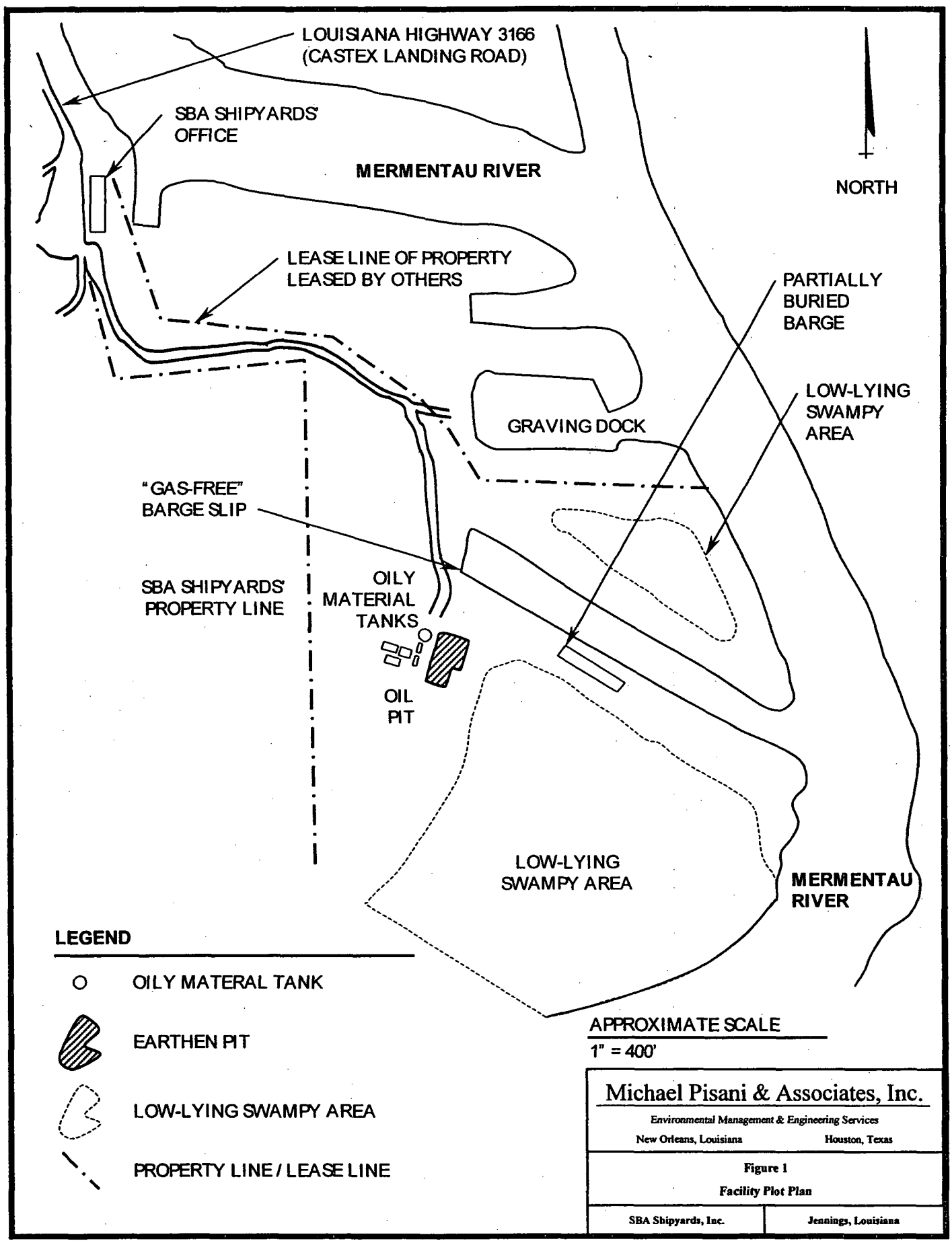
LOUISIANA HIGHWAY 3166
(CASTEX LANDING ROAD)
SBA SHIPYARDS'
OFFICE
MERMENTAU RIVER
NORTH
LEASE LINE OF PROPERTY
LEASED BY OTHERS
PARTIALLY
BURIED
BARGE
LOW-LYING
SWAMPY
AREA
GRAVING DOCK
"GAS-FREE"
BARGE SLIP
SBA SHIPYARDS'
PROPERTY LINE
OILY
MATERIAL
TANKS
OIL
PIT
LOW-LYING
SWAMPY AREA
MERMENTAU
RIVER
LEGEND
OILY MATERAL TANK
EARTHEN PIT
LOW-LYING SWAMPY AREA
PROPERTY LINE / LEASE LINE
APPROXIMATE SCALE
1" = 400'
Michael Pisani & Associates, Inc.
Environmental Management & Engineering Services
New Orleans, Louisiana
Houston, Texas
Figure 1
Facility Plot Plan
SBA Shipyards, Inc.
Jennings, Louisiana

Table 1

Pumpable Oily Material Inventory
May 3, 2001

SBA Shipyards, Inc.
Jennings, Louisiana

Tank or Impoundment	Estimated Maximum Capacity (gallons)	Estimated Maximum Capacity (barrels)	Observed Depth of Contents[b]	Estimated Material Inventory (gal)	Estimated Material Inventory (barrels)	Estimated Material Inventory (pounds)[a]	Visual Observations[b]
Selected Tanks							
Tank AT-1	17,042	406	52"	9,814	234	81,898	Horizontal cylindrical tank (mostly water).
Tank AT-2	17,042	406	77"	13,703	326	114,352	Horizontal cylindrical tank (2" sludge layer on bottom).
Tank WT-1	106,837	2,544	85"	88,561	2,109	739,044	Very thick oil.
Tank WT-2	111,482	2,654	70"	77,553	1,847	647,183	24" sludge layer on bottom.
Tank WT-3	109,159	2,599	93"	93,998	2,238	784,416	36" sludge layer on bottom.
Tank ST-1	420,000[c]	10,000	9' - 10"[d]	99,474	2,368	830,111	38' high vertical cylindrical tank.
Total	781,562 gallons	18,609 barrels		**383,104 gallons**	9,122 barrels	3,197,003 pounds	
Former Barge (OT-4)							
Bow Rake Tank	26,853	639	56"	20,862	497	174,093	Very thick oil (2" sludge layer on bottom).
Deck Tank S	Not Measured	Unknown	Empty	Negligible	Negligible	Negligible	Dry, some rust scale.
Deck Tank P	Not Measured	Unknown	6"	Negligible	Negligible	Negligible	Oil, no visible water.
Compartment 1S	75,054	1,787	118"	65,659	1,563	547,924	
Compartment 1P	75,054	1,787	119"	64,874	1,545	541,374	
Compartment 2S	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 2P	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 3S	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 3P	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 4S	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 4P	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 5S	86,908	2,069	115"	75,689	1,802	631,625	
Compartment 5P	86,908	2,069	114"	75,057	1,787	626,351	
Aft Trim Tank	18,388	438	112"	17,447	415	145,595	
Total	913,897 gallons	21,759 barrels		**778,134 gallons**	18,527 barrels	6,493,528 pounds	
Grand Total	1,695,459 gallons	40,368 barrels		**1,161,238 gallons**	27,649 barrels	9,690,531 pounds	

NOTES:

(a) Based on bulk density of 8.345 pounds/gallon.
(b) MP&A site visit (May 3, 2001).
(c) According to Mr. Louis Smaihall, the total volume is 10,000 barrels (420,000 gallons).
(d) *Measurement read from permanently installed float gauge on tank.*

e-mail:

337-[redacted]262-5480

Smaihall 337-734-3501

J. 337-734-3501

7000 0520 0022 2560 7543

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Mr. Louis Smaihall, SBA Shipyards Inc

Street, Apt. No.; or PO Box No.
PO Box 1386

City, State, ZIP+ 4
Jennings LA 70546

PS Form 3800, February 2000 See Reverse for Instructions

FACSIMILE TRANSMITTAL

U.S. EPA REGION 6
COMPLIANCE ASSURANCE AND ENFORCEMENT DIVISION
HAZARDOUS WASTE BRANCH
1445 ROSS AVENUE, SUITE 900
DALLAS, TEXAS 75202-2733

TO:	**Mr. Louis Smaihall,** SBA Shipyards, Inc.	
MACHINE NUMBER: **337-824-8330**		VERIFICATION NUMBER: **337-824-1519**
FROM:	Gene Keepper, CHMM, RCRA Project Manager	
PHONE: 214-665-2280		MAIL CODE: 6EN-HX
OFFICE: Technical Enforcement Section		
DATE: November 8, 2002		PAGES, INCLUDING COVER SHEET: 16
PLEASE NUMBER ALL PAGES		
INFORMATION FOR SENDING FACSIMILE MESSAGES		
OUR EQUIPMENT	FACSIMILE NUMBER	
Panafax UF-770	214- 665-7264 or 214-665-7446	

COMMENTS:

Mr. Smaihall:

My apologies for resending this document requesting your signature a second time. The Region's Superfund Legal group gave us a different opinion when we asked them to agree with us on this document. I am sending this facsimile copy for you to study and read prior to receipt the original copy for your signature.

This is a Letter Agreement which EPA would like to get agreement to and signatures on from both yourself, as the representative of SBA Shipyards, and the SSIC Remediation customer group. Please review this agreement and the attached Statement of Work for the Removals. You should find it to be an exact duplicate of the documents in the possession of Messrs. Chernekoff and/or Pisiani. An original version of this letter, for your signature, is coming to via certified mail copy also. Should Messrs. Chernekoff and/or Pisiani present you with an original of this document after you have had time to study it, you could sign it instead. Once this agreement is fully executed by EPA and filed with the Regional Hearing Clerk, I will proivide copies to both you, in behalf of SBA and Mr Chernekoff in behalf of SSIC.

If you still have counsel, when last EPA knew it was Mr. Gerald Walter, and would like them to review it also, I can fax them a copy or send an electronic copy of this information, any or all of it is available for his/your use. Please feel free to contact me to discuss all or any part of these documents.

Thank You & Best Regards Sir,

Gene Keepper

Gene Keepper
E-Mail: Keepper.Gene@epa.gov

P.S.: Please contact me upon receipt via phone to confirm your receipt. Thanks!

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. CERCLA-Quality Removal

EPA acknowledges that the work performed in accordance with this Agreement is consistent with the National Contingency Plan, 40 C.F.R. Part 300, and would satisfy the requirements of a CERCLA-quality removal action.

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims as provided by CERCLA Section 113 (f) (2), 42 U.S.C. Section 9613 (f) (2), or RCRA for all actions or matters addressed in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

Original Language

Please see pg. 3 of the order for new Language

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

VIA FEDERAL EXPRESS: 8220 0515 8452
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2560 7543
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h). Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the world wide web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

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The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. Work

EPA acknowledges that the work performed at this facility in accordance with this Agreement would achieve programmatic parity, avoid duplication and delay, and achieve substantive consistency between remedial programs as described in the NPL/RCRA deferral policy (54 FR 41000).

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims for the actions or matters addressed by Section 3008(h) of RCRA and memorialized in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

_____ Date: _____

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

IT IS AGREED:

_____ Date: _____

Signature/Printed Name, Manager
SSIC Remediation, L.L.C.

Enclosure

cc: Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD
Michael Pisani, Michael Pisani and Associates

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-

Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal.

Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials.
Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

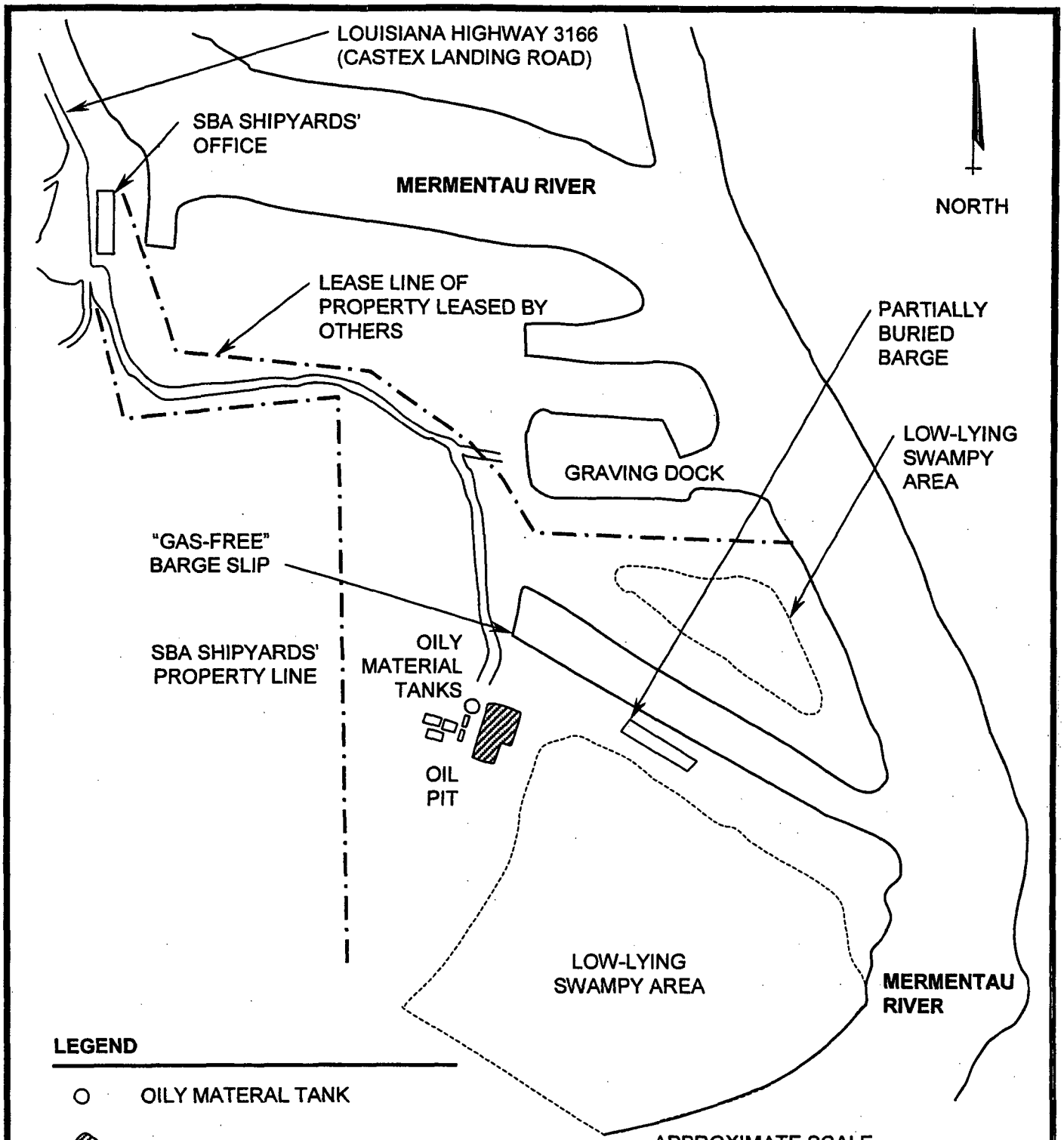
Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).



Michael Pisani & Associates, Inc.

Environmental Management & Engineering Services

New Orleans, Louisiana Houston, Texas

Figure 1

Facility Plot Plan

SBA Shipyards, Inc.	Jennings, Louisiana

Table 1

Pumpable Oily Material Inventory
May 3, 2001

SBA Shipyards, Inc.
Jennings, Louisiana

Tank or Impoundment	Estimated Maximum Capacity (gallons)	Estimated Maximum Capacity (barrels)	Observed Depth of Contents[b]	Estimated Material Inventory (gal)	Estimated Material Inventory (barrels)	Estimated Material Inventory (pounds)[a]	Visual Observations[b]
Selected Tanks							
Tank AT-1	17,042	406	52"	9,814	234	81,898	Horizontal cylindrical tank (mostly water).
Tank AT-2	17,042	406	77"'	13,703	326	114,352	Horizontal cylindrical tank (2" sludge layer on bottom).
Tank WT-1	106,837	2,544	85"	88,561	2,109	739,044	Very thick oil.
Tank WT-2	111,482	2,654	70"	77,553	1,847	647,183	24" sludge layer on bottom.
Tank WT-3	109,159	2,599	93"	93,998	2,238	784,416	36" sludge layer on bottom.
Tank ST-1	420,000[c]	10,000	9' - 10"[d]	99,474	2,368	830,111	38' high vertical cylindrical tank.
Total	781,562 gallons	18,609 barrels		**383,104 gallons**	9,122 barrels	3,197,003 pounds	
Former Barge (OT-4)							
Bow Rake Tank	26,853	639	56"	20,862	497	174,093	Very thick oil (2" sludge layer on bottom).
Deck Tank S	Not Measured	Unknown	Empty	Negligible	Negligible	Negligible	Dry, some rust scale.
Deck Tank P	Not Measured	Unknown	6"	Negligible	Negligible	Negligible	Oil, no visible water.
Compartment 1S	75,054	1,787	118"	65,659	1,563	547,924	
Compartment 1P	75,054	1,787	119"	64,874	1,545	541,374	
Compartment 2S	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 2P	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 3S	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 3P	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 4S	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 4P	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 5S	86,908	2,069	115"	75,689	1,802	631,625	
Compartment 5P	86,908	2,069	114"	75,057	1,787	626,351	
Aft Trim Tank	18,388	438	112"	17,447	415	145,595	
Total	913,897 gallons	21,759 barrels		**778,134 gallons**	18,527 barrels	6,493,528 pounds	
Grand Total	1,695,459 gallons	40,368 barrels		**1,161,238 gallons**	27,649 barrels	9,690,531 pounds	

NOTES:

(a) Based on bulk density of 8.345 pounds/gallon.
(b) MP&A site visit (May 3, 2001).
(c) According to Mr. Louis Smaihall, the total volume is 10,000 barrels (420,000 gallons).
(d) Measurement read from permanently installed float gauge on tank.

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DEPARTMENT OF ENVIRONMENTAL QUALITY

From The Desk Of

Keith Hon

GENE:

CHECKLIST FROM SOW WHICH WAS ATTACHED TO OUR INSPECTION REPORT FOR SBA FOR OUR FILES.

AI 1478: SBA Shipyards

Checklist for evaluating whether the Statement of Work (SOW) Elements were achieved
Site Visit on April 29, 2005

1) **Page 2 of Letter (9 Dec 2002); EPA to SSIC Remediation, LLC & Louis Smaihall:**
"EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years."
EPA project manager, Gene Keeper informed DEQ during the site visit that, in his opinion, the recent removal actions mitigated the potential risk of fire, explosion or release to the environment. However, three Areas of Concern remain for future remedial actions: South Surface AOC (SBA Property), North Surface AOC (Leevac Property), and Groundwater AOC.

2) **SOW, page 1, para. 3**: *Transport of pumpable oils/oily wastes to an offsite thermal destruction facility; whereas non-pumpable materials would be solidified on site and disposed in a Subtitle D landfill.*
The recent removal actions accomplished this element.

3) **SOW, Remedial Goals, page 3**:
Complete removal of oils/wastes in all tanks/containers to be followed by decontamination, followed by exhumation/demolition.
This element was substantially accomplished; however, one large above ground storage tank remains in a partially demolished state, and will have to be addressed later, and the horizontal asphalt tank was neither emptied nor removed due to weight and logistical considerations.

Removal of visually impacted surface/subsurface soils for offsite disposal.
This includes the landfarm and oily pit areas.
Removal of visually impacted soils from both areas was achieved.

However, other areas of visually impacted soils remain for future remedial actions. These include: site roads treated with hydrocarbon materials, stained soil areas by the equipment parking area, stained soils beneath the partially buried barge, stained soils in the former water treatment pond, and stained soils/sediments in and adjacent to the drainage ditch which crosses the site.

Note: The criteria for removal did not include numerical standards, only visual determination/removal of impacted soils to the lesser of 6" below the waste-soil interface or visually impacted soils. There was to be no removal of impacted soils below area groundwater table. Based on discussion/report of Michael Pisani & Associates representative, Mr. Robert Leslie, this element was adequately addressed for the landfarm and pit areas.

4: **SOW, page 4**:
The LDEQ RECAP requirements will be considered for future work, which may include development of long-term goals, protective of nearby wetlands, Mermentau river aquifer, or other ecological receptors:
The LDEQ-RECAP requirements for closure of this site will have to be addressed at a later date.

5) **SOW, page 5:**
All above ground storage tanks and vessels (including the partially buried barge) associated with the oily pit and landfarm were to have been exhumed (if needed), decontaminated, cut up and scrapped.
This element was substantially accomplished for most of the tanks and vessels; the larger AST and barge were not scrapped, largely due to lack of funds. These activities for these 2 vessels will require completion at a later date. Also the horizontal asphalt tank was neither emptied nor removed due to weight and logistical considerations.

6) **SOW, page 6, para. 2**
Removal of soils from the nearby landfarm area to be based upon visual inspection and criteria listed in this paragraph.
Based on discussion with contractor on site, this was also accomplished.

7) **SOW, page 7, Water Management:**
The partially buried barge was used as an interim storage vessel for stormwater generated during the course of the waste solidification processes. Water stored in the barge and that in the adjacent earthen holding pond was tested (and treated if necessary) prior to discharge to the nearby wetlands/Mermentau River, in compliance with the Louisiana Water Discharge Permit.

Interim Closure Measures:
Backfilling of oily pit was required. From EPA standpoint this element was satisfactorily addressed, however for LDEQ requirements, there remains the issue of taking confirmatory samples on bottom and sides of pit to determine whether any residuals were left in place that would be important from a RECAP Regulatory standpoint.

8) **SOW, page 8, Site Health & Safety:**
Appropriate health and safety precautions, including fenceline monitoring was required to be done in accordance with elements provided in the Interim Site Stabilization Measures Work Plan, developed by Woodward-Clyde Consultants, Inc., October 1999.
Based on discussions with Mr. Leslie, this was accomplished and the associated monitoring data will be included in the forthcoming report on this removal action.

To sum up: based upon discussions with Rob Leslie, Gene Keeper, and LDEQ representatives, Keith Horn, and Mike Miller, the elements of the SOW were satisfactorily addressed, considering constraints including funding. Parties agree that those elements completed were satisfactory. Among other things, the scrapping of barge and large AST, Disposal and scrapping of the horizontal asphalt tank, and confirmatory samples in the oil pit and landfarm remain to be done, and should be addressed in future cleanup actions.

Note: the SOW as written, addresses various elements in more than one place. The SOW is attached for reference.

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Lafayette, Louisiana
September 28, 2005

Gene Keepper, CHMM, P.G.
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1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2753

Re: SBA Shipyards, Inc.; Jennings, Louisiana
EPA I.D. No. LAD008434185

Dear Mr. Keepper:

On behalf of Ingram Barge Company ("Ingram"), we are responding to your letter dated July 7, 2005, concerning the captioned site. Your letter was addressed to "Ingram Barge Lines," however, the correct name is Ingram Barge Company. Ingram received your letter on July 24, 2005, and requested an extension of time to respond because of the disruptions caused by Hurricane Katrina.

Ingram has evaluated the information about the SBA Shipyards site ("Site") available to us. In response to your request, Ingram is interested in discussing its possible participation in

the proposed remediation of this site. We know that a group of alleged responsible parties has conducted certain response actions at the Site, but we have no information regarding the current status of the Site, the completed cleanup activities, and the proposed activities intended to complete the site cleanup. Further, there are several areas of significant uncertainty with regard to the site remediation activities including:

- The nature of the North and Ground Water Operable Units
- Status of site work and estimated cost of site completion
- Past costs
- Evaluation of potentially applicable insurance coverage
- Opportunity for a de minimus or other buyout
- Participation in the cleanup by site owners and operators
- Nature of cost allocation scheme
- Number of participants.

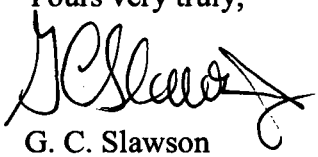
In sum, Ingram is interested in receiving information on the above and in further discussions of the above matters related to its possible participation in future site activities. We request that the EPA assist in coordinating these discussions. As an initial effort, we request access to the EPA files for this site for our review. Please let me know of the needed arrangements for such review. In addition, we plan to review the files of the Louisiana Department of Environmental Quality.

As a preliminary matter, we request access to review the EPA files on this matter. Please notify me regarding arrangements for this review.

You should also note that Ingram has significant questions related to its liability for the contamination at the SBA Shipyard site. First, most (if not all) of the materials alleged to have been removed from Ingram barges are not RCRA listed hazardous wastes. Second, Ingram has no information indicating these materials would exhibit RCRA hazardous waste characteristics. Further, these materials are not CERCLA hazardous substances, but fall within the petroleum exclusion. Thus, Ingram's liability related to the Site, if there is any liability at all, appears limited.

Please contact me as indicated below if you have any questions related to the above or to coordinate further discussion of this matter.

Yours very truly,



G. C. Slawson
Liskow & Lewis
822 Harding Street
Post Office Box 52008
Lafayette, LA 70505-2008
Direct: (337) 354-3008
Fax: (337) 266-2313

GCS/gm

bcc: Paul Mercer, Esq.
Robert E. Holden, Esq.

593143_1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7567

Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Smaihall:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records. At this time I am also requesting summary information which you have developed relating to the customers of SBA. This would include but not be limited to the circa 1996 letter from your counsel of the time to SBA customers in which SBA requests funding support for remedial activities at the SBA facility from approximately twenty-two (22) current and former customers.

Should you have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael A. Chernekoff, Esq.
Michael Pisani, MP&A
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7550

SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Chernekoff:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records and the records of SSIC Remediation. As we have previously discussed, I will await a written response from your office which includes: a member listing of the Limited Liability Corporation SSIC Remediation, which includes designation of corporate representation by those members; the articles of incorporation for SSIC Remediation, L.L.C.; and the full listing of SBA Shipyards, Inc. customers, to the best of the knowledge of SSIC.

Should you or members of SSIC have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael Pisani, MP&A
Louis Smaihall, SBA
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

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02 DEC 10 PM 1:21
REGIONAL HEARING CLERK
EPA REGION VI

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

DEC 0 9 2002

VIA FEDERAL EXPRESS: 8220 0515 8452
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2560 7543
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h). Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the world wide web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

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The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. Work

EPA acknowledges that the work performed at this facility in accordance with this Agreement would achieve programmatic parity, avoid duplication and delay, and achieve substantive consistency between remedial programs as described in the NPL/RCRA deferral policy (54 FR 41000).

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims for the actions or matters addressed by Section 3008(h) of RCRA and memorialized in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Pamela Phillips, Acting

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

Date: 11/21/02

IT IS AGREED:

Alex B Cenac Jr.

Alex B. Cenac Jr.
Signature/Printed Name, Manager
SSIC Remediation, L.L.C.

Date: 11/14/02

Enclosure

cc: Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD
Michael Pisani, Michael Pisani and Associates

CERTIFICATE OF SERVICE

I hereby certify that on the 10 th day of December 2002, the original of the Subject Letter Agreement was hand delivered to and filed by the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6, Wells Fargo Bank Tower, 1445 Ross Avenue, Dallas, Texas 75202-2733, and that on the 12 th day of December 2002, that true and correct copies of the Letter Agreement were sent to the following by the method indicated below:

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7567

Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7550

SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

Gene Keepper
Signature 12Dec2002

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

VIA FEDERAL EXPRESS: 8220 0515 7787
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2561 7788
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h). Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, RCRA Project Manager
Compliance Assurance and Enforcement Division
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. CERCLA-Quality Removal

EPA acknowledges that the work performed in accordance with this Agreement is consistent with the National Contingency Plan, 40 C.F.R. Part 300, and would satisfy the requirements of a CERCLA-quality removal action.

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims as provided by CERCLA Section 113 (f) (2), 42 U.S.C. Section 9613 (f) (2), or RCRA for all actions or matters addressed in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

_____ Date: _____

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

IT IS AGREED:

SSIC Remediation, L.L.C.

Date: 6/26/02

Enclosure

cc: Lourdes Iturralde, LDEQ
Michael Pisani, Michael Pisani and Associates

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the

portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described

herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated

material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal. Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-

scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials. Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

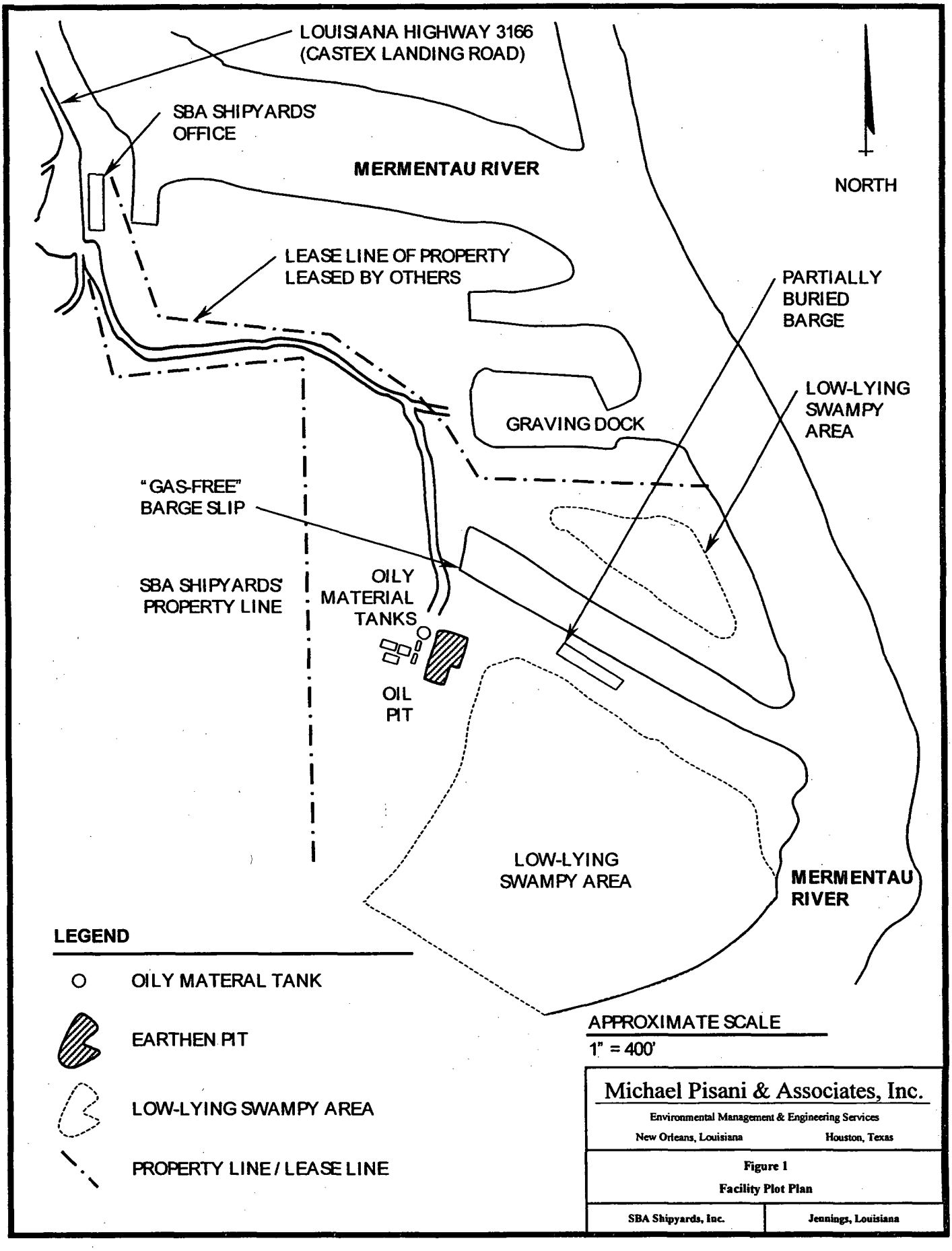
Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).



Michael Pisani & Associates, Inc.

Environmental Management & Engineering Services

New Orleans, Louisiana Houston, Texas

Figure 1

Facility Plot Plan

SBA Shipyards, Inc.	Jennings, Louisiana

Table 1

Pumpable Oily Material Inventory
May 3, 2001

SBA Shipyards, Inc.
Jennings, Louisiana

Tank or Impoundment	Estimated Maximum Capacity (gallons)	Estimated Maximum Capacity (barrels)	Observed Depth of Contents[b]	Estimated Material Inventory (gal)	Estimated Material Inventory (barrels)	Estimated Material Inventory (pounds)[a]	Visual Observations[b]
Selected Tanks							
Tank AT-1	17,042	406	52"	9,814	234	81,898	Horizontal cylindrical tank (mostly water).
Tank AT-2	17,042	406	77"	13,703	326	114,352	Horizontal cylindrical tank (2" sludge layer on bottom).
Tank WT-1	106,837	2,544	85"	88,561	2,109	739,044	Very thick oil.
Tank WT-2	111,482	2,654	70"	77,553	1,847	647,183	24" sludge layer on bottom.
Tank WT-3	109,159	2,599	93"	93,998	2,238	784,416	36" sludge layer on bottom.
Tank ST-1	420,000[c]	10,000	9' - 10"[d]	99,474	2,368	830,111	38' high vertical cylindrical tank.
Total	781,562 gallons	18,609 barrels		**383,104 gallons**	9,122 barrels	3,197,003 pounds	
Former Barge (OT-4)							
Bow Rake Tank	26,853	639	56"	20,862	497	174,093	Very thick oil (2" sludge layer on bottom).
Deck Tank S	Not Measured	Unknown	Empty	Negligible	Negligible	Negligible	Dry, some rust scale.
Deck Tank P	Not Measured	Unknown	6"	Negligible	Negligible	Negligible	Oil, no visible water.
Compartment 1S	75,054	1,787	118"	65,659	1,563	547,924	
Compartment 1P	75,054	1,787	119"	64,874	1,545	541,374	
Compartment 2S	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 2P	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 3S	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 3P	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 4S	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 4P	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 5S	86,908	2,069	115"	75,689	1,802	631,625	
Compartment 5P	86,908	2,069	114"	75,057	1,787	626,351	
Aft Trim Tank	18,388	438	112"	17,447	415	145,595	
Total	913,897 gallons	21,759 barrels		**778,134 gallons**	18,527 barrels	6,493,528 pounds	
Grand Total	1,695,459 gallons	40,368 barrels		**1,161,238 gallons**	27,649 barrels	9,690,531 pounds	

NOTES:

(a) Based on bulk density of 8.345 pounds/gallon.
(b) MP&A site visit (May 3, 2001).
(c) *According to Mr. Louis Smaihall, the total volume is 10,000 barrels (420,000 gallons).*
(d) Measurement read from permanently installed float gauge on tank.

JONES WALKER

Michael A. Chernekoff
Direct Dial 504-582-8264
Fax 504-582-8583
mchernekoff@joneswalker.com

November 27, 2002

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733

Re: SBA Shipyards, Inc.
Our File: 68700-00

Dear Gene:

I am enclosing the original of the Order and Agreement (Agreement) between EPA, SBA Shipyards, Inc. and SSIC Remediation, LLC, executed by one of the managers of SSIC. It is my understanding that Mr. Smaihall has executed and has returned to EPA for SBA an original of the Agreement which was forwarded directly to him.

When finally executed by EPA, I would appreciate a fully-executed copy for our records. As we discussed, upon receipt of the final, executed version of the Agreement, SSIC will forward to you the names of the entities which are members of SSCI.

As we have further discussed, we are prepared to move forward with implementation of the approved work plan. To the extent that we require any further written approvals with respect to the implementation of the solidification activities, please forward same to me at your earliest opportunity.

We look forward to working with you on this matter and with kindest regards, I am

Yours very truly,

MICHAEL A. CHERNEKOFF

MAC:kcs
encls.
cc: Gloria Moran (EPA)
Michael Pisani

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
FIELD INTERVIEW FORM

FACILITY ID#: 1478 INSPECTION DATE: 12/4/03 TIME OF ARRIVAL: 12:00 PM
DEPARTURE DATE: 12/4/03 TIME OF DEPARTURE: 12:40 PM

FACILITY NAME: SBA SHIPYARDS PH #: (337) 824-1519

LOCATION: 3040 CASTEX LANDING ROAD
JENNINGS, LA 70546 PARISH NAME: JEFF. DAVIS

MAILING ADDRESS: SAME AS ABOVE
(Street/P.O. Box) (City) (State) (ZIP)

FACILITY REPRESENTATIVE: LOUIS SMAINALL TITLE: OWNER

INSPECTION TYPE: REMEDIATION MEDIA INVOLVED: AIR (WASTE) (WATER) OTHER SOILS

INSPECTOR'S OBSERVATIONS: (e.g. AREAS AND EQUIPMENT INSPECTED, PROBLEMS, DEFICIENCIES, REMARKS, VERBAL COMMITMENTS FROM FACILITY REPRESENATIVES)

ARRIVED ON SITE AND FOUND NO CURRENT ACTIVITY. THE MAJORITY OF THE STABILIZED WASTE IN THE FORMER OIL PIT WAS APPARENTLY BEEN REMOVED FOR OFF-SITE DISPOSAL, BUT SIGNIFICANT QUANTITIES STILL REMAIN ON ITS S. END STAGED UNDER PLASTIC. THE PIT CONTAINS ACCUMULATED LIQUID OIL & WATER, BUT THERE IS

AREAS OF CONCERN	EXPLANATION	RESOLVED
	KN	YES NO
		YES NO
		YES NO
		YES NO
	KN	

KEITH HORN, MS
Staff Environmental Scientist
Office of Environmental Assessment
Louisiana Department of Environmental Quality

Remediation Services Division
Post Office Box 4314
Baton Rouge, LA 70821-4314

(225) 219-3209
Fax: (225) 219-3239
e-mail: Keith.Horn@la.gov

PHOTOS TAKEN: [X] YES [ ] NO SAMPLES TAKEN: [ ] YES [X] NO (Attach Chain-of-custody)

RECEIVED BY: SIGNATURE: COPIES TO BE MAILED TITLE:

PRINT NAME: TO: OWNER, EPA, & CONSULTANT
(NOTE: SIGNATURE DOES NOT INDICATE AGREEMENT WITH INSPECTOR'S NOTES)

INSPECTOR(S): Keith Horn KEITH HORN ATTACHMENTS:
KN KN KN KN

NOTE: The information contained on this form reflects only the preliminary observations of the inspector(s). It should not be interpreted as a final determination by the Department of Environmental Quality or any of its officers or personnel as to any matter, including, but limited to, a determination of compliance or lack thereof by the facility operator with any requirements of statutes regulations or permits. Each day of non-compliance constitutes a separate violation of the regulations and/or the Louisiana Environmental Quality Act.

TEMPO'ED

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
FIELD INTERVIEW FORM OBSERVATIONS (cont'd)

ACILITY ID#: 1478 INSPECTION DATE: 12/4/03

FACILITY NAME: SBA SHIPYARDS

INSPECTOR OBSERVATIONS CONT:

CURRENTLY PLENTY OF FREEBOARD IN THE PIT TO CONTAIN THIS LIQUID. AN EXAMINATION OF THE OVERTURNED "BARGE TANKS" WT-1 & WT-2 SHOWED THAT THEY CONTAIN SIGNIFICANT AMOUTS OF WATER WITH SOME FLOATING OIL, BUT THERE IS STILL FREEBOARD TO PREVENT DISCHARGE OF THIS LIQUID FROM THE PORTS CUT IN THEIR SIDE IN ORDER TO DECONTAMINATE THEM. I WAS OBSERVED THAT THE PARTIALLY BURIED BARGE BEING USED FOR WATER STORAGE DURING THE SOURCE REMOVAL ACTION IS LISTING TO THE SOUTH. ITS NORTH SIDE APPEARS TO BE FLOATING DUE TO HIGH WATER LEVELS, BUT IT IS NOT CLEAR IF THE CELLS ON THE S. SIDE ARE INTACT, OR IF THE LISTING IS CAUSED BY THE SOUTHERN CELLS TAKING ON WATER. IT WAS ALSO OBSERVED THAT A PARTY (PRESUMABLY THE OWNER, MR. SMITHALL) HAS RECENTY CLEANED THE DITCH THAT RUNS NW TO SE ACROSS THE SITE. THE SEDIMENT/SOILS THAT WERE EXCAVATED FROM THE DITCH WERE PILED ALONG IT AT INTERVALS SOME OF THESE PILES CONTAINED OILY SOILS, AND THE EXCAVATION OF THE DITCH HAD UNCOVERED (EXPOSED) OILY AREAS OF SOIL ALONG ITS BANK. A SHEEN WAS NOTED ON THE WATER BY THE OILY BANK AREAS. EXCAVATION HAD ALSO BEEN CONDUCTED ON THE INSIDE OF THE SEAWALL ON THE S. SIDE OF THE BARGESLIP ADJACENT TO THE PARTIALLY BURIED BARGE. THE EXCAVATED SOIL WAS STAGED BY THE EXCAVATION AREA, AND APPEARED TO BE DISCOLORED AND OILY. THE PLANNED DISPOSITION OF THESE POTENTIALLY CONTAMINATED SPOIL MATERIALS IS NOT KNOWN. IT IS UNDERSTOOD THAT THE NW TO SE DITCH MENTIONED ABOVE DISCHARGES INTO A WETLAND LOCATED ON THE SE PORTION OF THE PROPERTY. KH

KH

INITIALS OF RECEIPT N/A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

VIA FEDERAL EXPRESS: 8220 0515 7787
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2561 7788
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, RCRA Project Manager
Compliance Assurance and Enforcement Division
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. CERCLA-Quality Removal

EPA acknowledges that the work performed in accordance with this Agreement is consistent with the National Contingency Plan, 40 C.F.R. Part 300, and would satisfy the requirements of a CERCLA-quality removal action.

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims as provided by CERCLA Section 113 (f) (2), 42 U.S.C. Section 9613 (f) (2), or RCRA for all actions or matters addressed in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

_____ Date: _____

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

IT IS AGREED:

SSIC Remediation, L.L.C. Manager

Date: 6/26/02

Enclosure

cc: Lourdes Iturralde, LDEQ
Michael Pisani, Michael Pisani and Associates

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the

portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described

herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated

material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal. Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-

scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials.
Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).

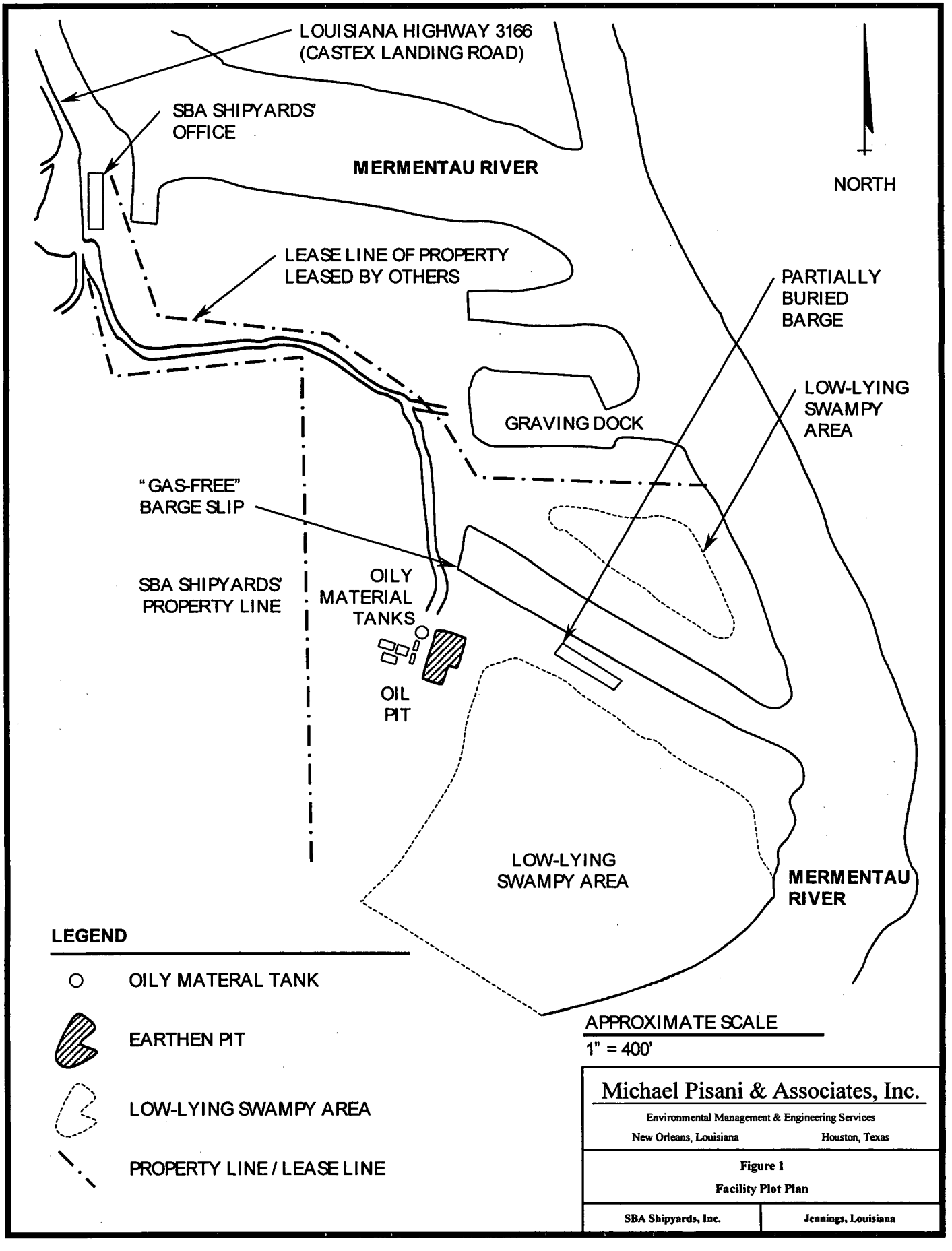

LOUISIANA HIGHWAY 3166
(CASTEX LANDING ROAD)
SBA SHIPYARDS'
OFFICE
MERMENTAU RIVER
NORTH
LEASE LINE OF PROPERTY
LEASED BY OTHERS
PARTIALLY
BURIED
BARGE
LOW-LYING
SWAMPY
AREA
GRAVING DOCK
"GAS-FREE"
BARGE SLIP
SBA SHIPYARDS'
PROPERTY LINE
OILY
MATERIAL
TANKS
OIL
PIT
LOW-LYING
SWAMPY AREA
MERMENTAU
RIVER
LEGEND
OILY MATERAL TANK
EARTHEN PIT
LOW-LYING SWAMPY AREA
PROPERTY LINE / LEASE LINE
APPROXIMATE SCALE
1" = 400'
Michael Pisani & Associates, Inc.
Environmental Management & Engineering Services
New Orleans, Louisiana
Houston, Texas
Figure 1
Facility Plot Plan
SBA Shipyards, Inc.
Jennings, Louisiana

Table 1

Pumpable Oily Material Inventory
May 3, 2001

SBA Shipyards, Inc.
Jennings, Louisiana

Tank or Impoundment	Estimated Maximum Capacity (gallons)	Estimated Maximum Capacity (barrels)	Observed Depth of Contents[b]	Estimated Material Inventory (gal)	Estimated Material Inventory (barrels)	Estimated Material Inventory (pounds)[a]	Visual Observations[b]
Selected Tanks							
Tank AT-1	17,042	406	52"	9,814	234	81,898	Horizontal cylindrical tank (mostly water).
Tank AT-2	17,042	406	77"	13,703	326	114,352	Horizontal cylindrical tank (2" sludge layer on bottom).
Tank WT-1	106,837	2,544	85"	88,561	2,109	739,044	Very thick oil.
Tank WT-2	111,482	2,654	70"	77,553	1,847	647,183	24" sludge layer on bottom.
Tank WT-3	109,159	2,599	93"	93,998	2,238	784,416	36" sludge layer on bottom.
Tank ST-1	420,000[c]	10,000	9' - 10"[d]	99,474	2,368	830,111	38' high vertical cylindrical tank.
Total	781,562 gallons	18,609 barrels		**383,104 gallons**	9,122 barrels	3,197,003 pounds	
Former Barge (OT-4)							
Bow Rake Tank	26,853	639	56"	20,862	497	174,093	Very thick oil (2" sludge layer on bottom).
Deck Tank S	Not Measured	Unknown	Empty	Negligible	Negligible	Negligible	Dry, some rust scale.
Deck Tank P	Not Measured	Unknown	6"	Negligible	Negligible	Negligible	Oil, no visible water.
Compartment 1S	75,054	1,787	118"	65,659	1,563	547,924	
Compartment 1P	75,054	1,787	119"	64,874	1,545	541,374	
Compartment 2S	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 2P	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 3S	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 3P	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 4S	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 4P	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 5S	86,908	2,069	115"	75,689	1,802	631,625	
Compartment 5P	86,908	2,069	114"	75,057	1,787	626,351	
Aft Trim Tank	18,388	438	112"	17,447	415	145,595	
Total	913,897 gallons	21,759 barrels		**778,134 gallons**	18,527 barrels	6,493,528 pounds	
Grand Total	1,695,459 gallons	40,368 barrels		**1,161,238 gallons**	27,649 barrels	9,690,531 pounds	

NOTES:

(a) Based on bulk density of 8.345 pounds/gallon.
(b) MP&A site visit (May 3, 2001).
(c) According to Mr. Louis Smaihall, the total volume is 10,000 barrels (420,000 gallons).
(d) Measurement read from permanently installed float gauge on tank.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc
PO Box 1386
Jennings LA 70546

4a. Article Number
7000 0022 2560 7567

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
12-16-02

5. Signature (Addressee)
Louis Smaihall

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.

PS Form **3811**, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7000 0520 0022 2560 7567

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Recipient's Name (Please Print Clearly) (To be completed by mailer)
Louis Smaihall
Street, Apt. No.; or PO Box No.
City, State, ZIP+ 4

PS Form 3800, February 2000 See Reverse for Instructions

UNITED STATES POSTAL SERVICE

Official Business

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

U.S. MAIL

Print your name, address and ZIP Code here

GENE KEEPER (6EN-HX)
USEPA, Region 6
1445 Ross Avenue, Suite 900
Dallas TX 75202-2733

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
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I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
SSIC Remediation, LLC
% Atty Michael A. Cherneskoff
201 St. Charles Avenue ~~Suite 50~~ 49th Floor
New Orleans, LA 70170-5100

4a. Article Number
7000 0520 0022 2560 7550

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
12-16-02

5. Signature (Addressee)
Cindy Tamarcci

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.

PS Form **3811**, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7000 0520 0022 2560 7550

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Recipient's Name *(Please Print Clearly) (To be completed by mailer)*
SSIC Remediation, LLC % M.A. Cherneskoff Esq.

Street, Apt. No.; or PO Box No.

City, State, ZIP+ 4

PS Form 3800, February 2000 See Reverse for I

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7567

Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Smaihall:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records. At this time I am also requesting summary information which you have developed relating to the customers of SBA. This would include but not be limited to the circa 1996 letter from your counsel of the time to SBA customers in which SBA requests funding support for remedial activities at the SBA facility from approximately twenty-two (22) current and former customers.

Should you have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael A. Chernekoff, Esq.
Michael Pisani, MP&A
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7567

Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

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Sincerely yours,

/s/ Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael A. Chernekoff, Esq.
Michael Pisani, MP&A
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

6EN-HX:GKEEPPER:03/27/01:x2280::C:\work\WP_files\MEM&LTRS\SBA_TRAN_LTR1.wpd

FILE COPY
File Code: - Enforcement

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7550

SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Chernekoff:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records and the records of SSIC Remediation. As we have previously discussed, I will await a written response from your office which includes: a member listing of the Limited Liability Corporation SSIC Remediation, which includes designation of corporate representation by those members; the articles of incorporation for SSIC Remediation, L.L.C.; and the full listing of SBA Shipyards, Inc. customers, to the best of the knowledge of SSIC.

Should you or members of SSIC have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael Pisani, MP&A
Louis Smaihall, SBA
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

December 12, 2002

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7550

SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

Re: **Transmittal of Executed and Filed** *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Mr. Chernekoff:

I am transmitting a copy of the Agreement dated December 9, 2002, for your records and the records of SSIC Remediation. As we have previously discussed, I will await a written response from your office which includes: a member listing of the Limited Liability Corporation SSIC Remediation, which includes designation of corporate representation by those members; the articles of incorporation for SSIC Remediation, L.L.C.; and the full listing of SBA Shipyards, Inc. customers, to the best of the knowledge of SSIC.

Should you or members of SSIC have any further questions, please feel free to contact me at (214) 665-2280 or by any other means noted in the Agreement.

Sincerely yours,

/s/ Gene Keepper

Gene Keepper, CHMM
RCRA Project Manager
Technical Section (6EN-HX)

Enclosures

cc: Michael Pisani, MP&A
Louis Smaihall, SBA
Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD

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EPA REGION VI

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

DEC 0 9 2002

VIA FEDERAL EXPRESS: 8220 0515 8452
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2560 7543
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h). Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

[1]The EPA Region 6 Media Specific Screening Levels are available on the world wide web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

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The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. Work

EPA acknowledges that the work performed at this facility in accordance with this Agreement would achieve programmatic parity, avoid duplication and delay, and achieve substantive consistency between remedial programs as described in the NPL/RCRA deferral policy (54 FR 41000).

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims for the actions or matters addressed by Section 3008(h) of RCRA and memorialized in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

Pamela Phillips, Acting

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

Date: 11/21/02

IT IS AGREED:

Aeler B Cenac Jr.

Signature/Printed Name, Manager
SSIC Remediation, L.L.C.

Date: 11/14/02

Enclosure

cc: Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD
Michael Pisani, Michael Pisani and Associates

CERTIFICATE OF SERVICE

I hereby certify that on the 10 th day of December 2002, the original of the Subject Letter Agreement was hand delivered to and filed by the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6, Wells Fargo Bank Tower, 1445 Ross Avenue, Dallas, Texas 75202-2733, and that on the 12 th day of December 2002, that true and correct copies of the Letter Agreement were sent to the following by the method indicated below:

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7567

Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7000 0520 0022 2560 7550

SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

Gene Keepper
Signature 12Dec2002

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-

Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal.

Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials.
Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).

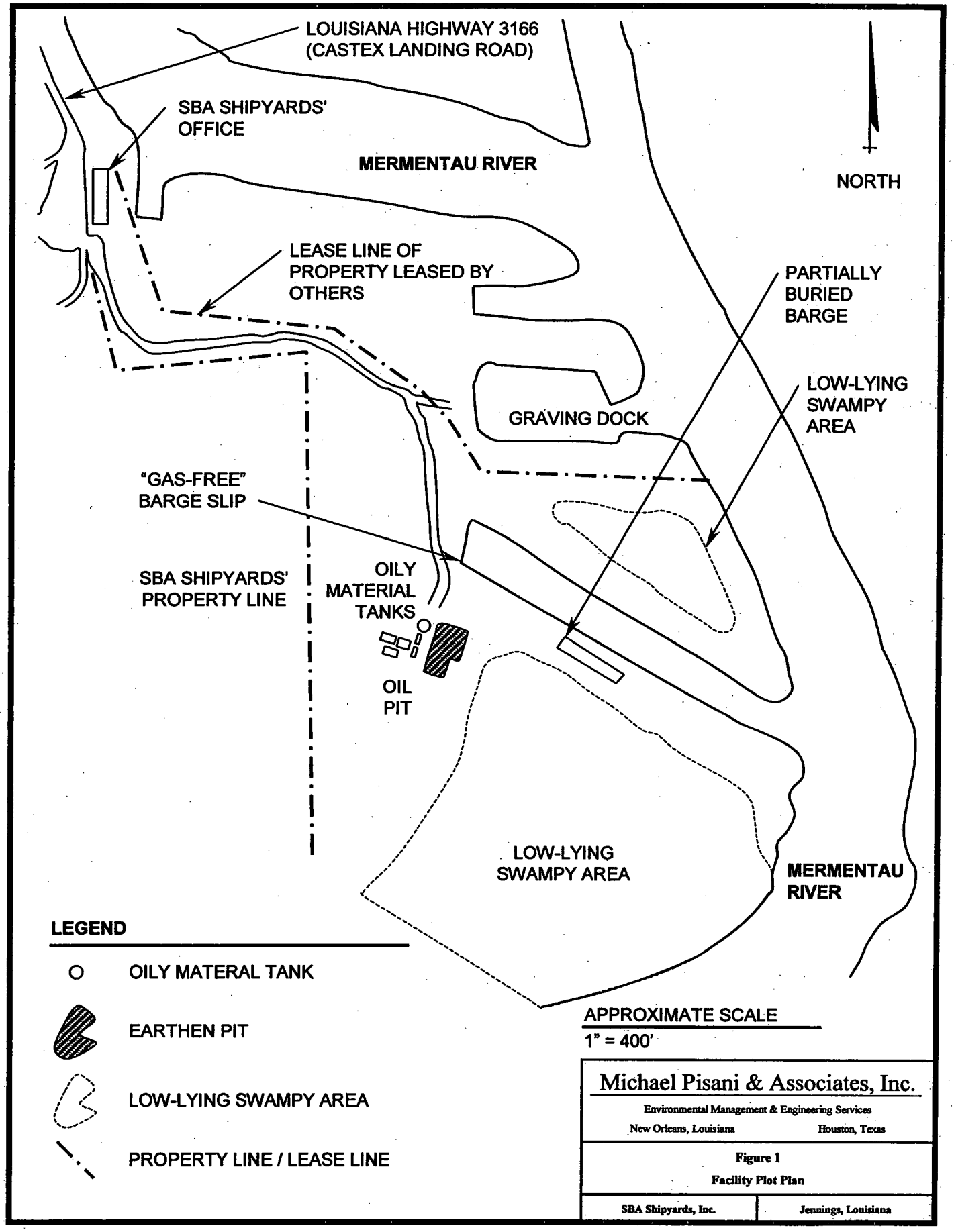
LOUISIANA HIGHWAY 3166
(CASTEX LANDING ROAD)
SBA SHIPYARDS'
OFFICE
MERMENTAU RIVER
NORTH
LEASE LINE OF
PROPERTY LEASED BY
OTHERS
PARTIALLY
BURIED
BARGE
LOW-LYING
SWAMPY
AREA
GRAVING DOCK
"GAS-FREE"
BARGE SLIP
SBA SHIPYARDS'
PROPERTY LINE
OILY
MATERIAL
TANKS
OIL
PIT
LOW-LYING
SWAMPY AREA
MERMENTAU
RIVER
LEGEND
OILY MATERAL TANK
EARTHEN PIT
LOW-LYING SWAMPY AREA
PROPERTY LINE / LEASE LINE
APPROXIMATE SCALE
1" = 400'
Michael Pisani & Associates, Inc.
Environmental Management & Engineering Services
New Orleans, Louisiana
Houston, Texas
Figure 1
Facility Plot Plan
SBA Shipyards, Inc.
Jennings, Louisiana

Table 1

Pumpable Oily Material Inventory
May 3, 2001

SBA Shipyards, Inc.
Jennings, Louisiana

Tank or Impoundment	Estimated Maximum Capacity (gallons)	Estimated Maximum Capacity (barrels)	Observed Depth of Contents[b]	Estimated Material Inventory (gal)	Estimated Material Inventory (barrels)	Estimated Material Inventory (pounds)[a]	Visual Observations[b]
Selected Tanks							
Tank AT-1	17,042	406	52"	9,814	234	81,898	Horizontal cylindrical tank (mostly water).
Tank AT-2	17,042	406	77"'	13,703	326	114,352	Horizontal cylindrical tank (2" sludge layer on bottom).
Tank WT-1	106,837	2,544	85"	88,561	2,109	739,044	Very thick oil.
Tank WT-2	111,482	2,654	70"	77,553	1,847	647,183	24" sludge layer on bottom.
Tank WT-3	109,159	2,599	93"	93,998	2,238	784,416	36" sludge layer on bottom.
Tank ST-1	420,000[c]	10,000	9' - 10"[d]	99,474	2,368	830,111	38' high vertical cylindrical tank.
Total	781,562 gallons	18,609 barrels		**383,104 gallons**	9,122 barrels	3,197,003 pounds	
Former Barge (OT-4)							
Bow Rake Tank	26,853	639	56"	20,862	497	174,093	Very thick oil (2" sludge layer on bottom).
Deck Tank S	Not Measured	Unknown	Empty	Negligible	Negligible	Negligible	Dry, some rust scale.
Deck Tank P	Not Measured	Unknown	6"	Negligible	Negligible	Negligible	Oil, no visible water.
Compartment 1S	75,054	1,787	118"	65,659	1,563	547,924	
Compartment 1P	75,054	1,787	119"	64,874	1,545	541,374	
Compartment 2S	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 2P	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 3S	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 3P	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 4S	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 4P	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 5S	86,908	2,069	115"	75,689	1,802	631,625	
Compartment 5P	86,908	2,069	114"	75,057	1,787	626,351	
Aft Trim Tank	18,388	438	112"	17,447	415	145,595	
Total	913,897 gallons	21,759 barrels		**778,134 gallons**	18,527 barrels	6,493,528 pounds	
Grand Total	1,695,459 gallons	40,368 barrels		**1,161,238 gallons**	27,649 barrels	9,690,531 pounds	

NOTES:

(a) Based on bulk density of 8.345 pounds/gallon.
(b) MP&A site visit (May 3, 2001).
(c) According to Mr. Louis Smaihall, the total volume is 10,000 barrels (420,000 gallons).
(d) Measurement read from permanently installed float gauge on tank.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

VIA FEDERAL EXPRESS: 8220 0515 8452
SSIC Remediation, L.L.C.
c/o Atty. Michael A. Chernekoff
Jones Walker
201 St. Charles Avenue, 50th Floor
New Orleans, LA 70170-5100

VIA FAX & CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7000 5020 0022 2560 7543
Mr. Louis Smaihall
Owner/President
SBA Shipyards, Inc.
P.O. Box 1386
Jennings, LA 70546

Re: *Order and Agreement ("Agreement") for Interim Measures/Removal Action ("IM/RA") of Hazardous/Principal Threat Wastes at SBA Shipyards, Inc., Jennings, LA, EPA ID No. LAD008434185 ("SBA") pursuant to Section 3008(h) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928(h).* Docket No. RCRA-6-2002-0908.

Dear Messrs. Chernekoff and Smaihall:

The U.S. Environmental Protection Agency, Region 6 ("EPA") has identified elevated levels of certain contaminants in waste, soil, subsoil, and ground water media at SBA. This contamination resulted from historic clean-out operations at SBA conducted within barges and ships for or on behalf of members of SSIC Remediation, L.L.C. ("SSIC") and others. The clean-out residues were placed in tanks, two (2) impoundments and a land farm.

Samples were obtained from the area at SBA identified hereinafter as the SBA South Operable Unit ("SBA-SOU"), including samples of soil and subsoil media, and of tank and impoundment contents. The SBA-SOU shall be defined as all SBA property generally south and west of the line identified as "Lease Line of Property by Others" on the attached Statement of Work ("SOW"), Figure 1: Facility Plot Plan. The SBA-SOU soil and subsoil media samples contained concentrations of anthracene, chrysene, fluoranthene, phenanthrene, methylene chloride, and chromium exceeding the EPA Region 6 Media Specific Screening Levels.[1] Certain of the SBA-SOU tank and impoundment samples exceeded the Toxicity Characteristic Regulatory Limits for benzene and vinyl chloride. Most of the contamination of interest for the IM/RA described in the attached SOW exists in and around the areas noted in SOW Figure 1 as oil pit, oily material tanks, partially buried barge.

Ground water samples were obtained from the area at SBA identified hereinafter as the SBA Ground Water Operable Unit ("SBA-GWOU"). The SBA-GWOU, at a minimum, follows the areal extent of the SBA-SOU and may incorporate additional subsurface lateral extent as a function of ground water flow and contamination patterns The SBA-GWOU ground water samples contained non-aqueous phase liquids and concentrations of benzene exceeding the maximum contaminant level ("MCL") for drinking water.

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6SF-C	6RC-EW	6EN-HX	6EN-H
MORAN	SYKES	GILMORE	POTTS

[1]The EPA Region 6 Media Specific Screening Levels are available on the world wide web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm.

The elevated contaminant levels in the SBA-SOU soil and subsoil and in the SBA-GWOU ground water constitute a release of hazardous constituents to the environment. In accordance with Section 3008(h) of RCRA 42, U.S.C. 6928(h), EPA has the authority to issue an Order to require cleanup actions where the Agency has made a determination that there is a release of hazardous constituents into the environment from an interim status facility. SBA should have had interim status or a permit to store characteristic hazardous wastes in impoundments and operate a land farm. EPA believes that the presence of hazardous constituents in the environment at SBA presents a threat to human health and the environment. Consequently, cleanup actions at SBA are necessary to limit exposure for humans or organisms to these hazardous constituents.

EPA has reviewed the attached SOW, submitted by SSIC, and finds it acceptable for an IM/RA. SBA agrees to implement an IM/RA on the SBA-SOU to meet visual removal levels as outlined in the SOW, with SSIC project management assistance. Implementing activities described in the SOW will remove the hazardous/principle threat wastes and allow future long term remedial work at SBA to proceed safely. EPA intends to pursue future long-term remedial work at the SBA facility, under a subsequent agreement to be finalized within three (3) years.

I. Requirements, Studies, and Documents Incorporated by Reference

SBA shall implement all parts of the SOW which is incorporated by reference into this Agreement and SSIC shall fund and assist in management of that implementation. The parties recognize that the SOW requires studies and/or work plans be submitted to EPA for comment and/or approval. All such studies and work plans, upon approval by EPA, are deemed incorporated by reference into both this Agreement and the incorporated SOW. Any changes to the scope of the SOW, whether an increase or a decrease in scope of the SOW, must be in writing and must be agreed to by the Project Managers designated below.

II. Project Managers

EPA has designated a Project Manager to provide oversight for the activities in this Agreement. The EPA Project Manager shall be EPA's designated representative for remedial activities at the Facility and shall be:

Mr. Gene Keepper, CHMM
RCRA Project Manager
U.S. Environmental Protection Agency
Region 6 (6EN-HX)
1445 Ross Avenue, Suite 900
Dallas, Texas 75202-2733
Phone: 214-665-2280
Fax: 214-665-7264
E-mail: Keepper.Gene@epa.gov

SBA and SSIC have designated a joint Project Manager to oversee implementation of the SOW. The SBA/SSIC designated Project Manager is:

Mr. Michael E. Pisani, P.E.
Michael Pisani & Associates, Inc.
1100 Poydras Street
Energy Center
New Orleans, LA 70163
Phone: 504-582-2468
Fax: 504-582-2470
E-mail: m.pisani@ix.netcom.com

Unless otherwise provided herein, all communications between SBA/SSIC and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Agreement shall be directed through the Project Managers.

SBA/SSIC shall notify the EPA in writing of the name, title, and qualifications of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Agreement within five (5) calendar days of the effective date of this Agreement, or within five (5) calendar days prior to such contract or subcontract.

III. Effective Date of this Agreement

SBA shall state its agreement to perform the activities in this Agreement, jointly with SSIC, by the signing by a responsible official on the signature line for SBA found below. SSIC shall state its agreement to perform the activities in this Agreement, jointly with SBA, by the signing by a responsible official on the signature line for SSIC found below. The original of this Agreement with the signatures for SBA and SSIC shall be returned to EPA within 45 calendar days of receipt of this Agreement. This Agreement is effective upon the signatures for both SBA and SSIC and the filing by EPA of the original Agreement containing the signatures for EPA, SBA, and SSIC with the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region 6.

IV. Work

EPA acknowledges that the work performed at this facility in accordance with this Agreement would achieve programmatic parity, avoid duplication and delay, and achieve substantive consistency between remedial programs as described in the NPL/RCRA deferral policy (54 FR 41000).

V. Contribution Protection

The parties agree, and by entering into this Agreement EPA intends, that SBA, its President, Mr. Louis Smaihall, SSIC and the members of SSIC are entitled, as of the effective date of this Agreement, to protection from contribution actions or claims for the actions or matters addressed by Section 3008(h) of RCRA and memorialized in this Agreement.

VI. Oversight Costs

If SBA and SSIC fulfill all obligations of this Agreement, EPA agrees it will not assert any claim against SBA or SSIC (or its members) for costs associated with oversight of work by EPA's RCRA Project Manager performed by SBA and/or SSIC under this Agreement.

If either SBA chooses not to implement or SSIC chooses not to fund or assist in managing work pursuant to the SOW, EPA will evaluate its options (including issuance of Unilateral Orders under Sections 3008(h) or 7003 of RCRA or CERCLA remedial action) against all parties to ensure that concerns are properly addressed. If problems or unforeseen circumstances arise, the EPA will assist as needed to achieve a timely and effective remediation. EPA appreciates your cooperation in this matter. If you have any questions concerning the work required by this Agreement, please do not hesitate to contact Mr. Gene Keepper by any method previously indicated.

Sincerely yours,

/s/ *Samuel Coleman*

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

IT IS AGREED:

_____ Date: _____

Mr. Louis Smaihall
Owner/President, SBA Shipyards, Inc.

IT IS AGREED:

_____ Date: _____

Signature/Printed Name, Manager
SSIC Remediation, L.L.C.

Enclosure

cc: Lourdes Iturralde, LDEQ
Keith Horn, LDEQ-RSD
Michael Pisani, Michael Pisani and Associates

August 15, 2001
Statement of Work
Accelerated Cleanup Action

SBA Shipyards, Inc.
Jennings, Louisiana

Summary

This Statement of Work (SOW) describes Interim Measures to be performed at the SBA Shipyards, Inc. ("SBA"), site near Jennings, Louisiana ("the Site"). The Interim Measures described herein address removal and offsite thermal destruction of oils and the solidification & stabilization of oily sludges. These materials pose a potential risk of fire, explosion or release to the environment. The objective of these Interim Measures is to reduce that threat through the removal of these materials.

This SOW describes the framework and major work components by which the objective of these Interim Measures will be met. Detailed descriptions of key work components and/or tasks (e.g., treatability testing, water disposal, selection of offsite disposal facilities for solidified sludges, etc.) will be presented to the U.S. EPA in brief work plans for review and approval. For each key task, a brief work plan will be submitted at least ten working days prior to commencement of that task.

SBA will transport pumpable oils and oily materials from the site to an offsite permitted thermal destruction facility. Oils, waxes and oily sludges that are not acceptable to the thermal destruction facility will be solidified and stabilized in-situ, and the solidified/stabilized material will be transported offsite to a RCRA Subtitle D permitted landfill.

This SOW does not address ground water, nor does it address any impacted media stemming from site activities not directly associated with barge-cleaning activities conducted by SBA.

Site Description

The Site is located on the west bank of the Mermentau River at the end of Louisiana Highway 3166 (Castex Landing Road), approximately four miles southeast of Jennings, Louisiana and approximately two miles southwest of Mermentau, Louisiana. The SBA facility was used to construct, repair and clean barges and other marine vessels since the mid-1960s. The approximately 98-acre site is a predominantly open area on the banks of the Mermentau River.

Beginning in 1993, the portion of the site used to construct and repair barges and other marine vessels was leased to another firm; that firm has since acquired the leased portion of the SBA facility. The portion of the site used by SBA for "gas-free" barge cleaning activities is the portion of the site located south of the barge slip. A site map, showing major site features, is attached as Figure 1.

A mixture of oils and water resulting from past barge cleaning activities is contained in a number of aboveground steel tanks and vessels in the portion of the facility used for barge cleaning activities. A partially buried barge contains a number of compartments filled or partially filled with oil, water and small amounts of solids and/or sludges. In addition, an open earthen pit on the site contains oil, waxes, solids and/or sludges and water.

Scope of Work

This SOW describes only Interim Measures associated with the stabilization and/or removal of pumpable oils and oily sludges that were generated by SBA as part of barge-cleaning activities at the facility.

This SOW defines the scope of planned Interim Measures for addressing oils and oily sludges generated by barge-cleaning activities conducted by SBA, at its barge-cleaning facility near Jennings, Louisiana. The objective of the Interim Measures described herein is to minimize the potential for release of contaminants from the site by reducing the mobility, toxicity and volume of contaminated media.

The volume, mobility and toxicity of contaminated media will be reduced through the removal from the site of pumpable oils and oily material generated by previous barge cleaning activities conducted at the site. These pumpable oils and oily materials will be incinerated or otherwise thermally destroyed at an offsite, permitted facility.

The volume, toxicity and mobility of contaminants at the site will also be reduced through the stabilization/solidification and offsite disposal (as non-hazardous solid waste) of waxes and sludges generated by barge cleaning activities at the site. In the unlikely event that any material is not accepted for offsite disposal by a RCRA Subtitle D facility, it will be stabilized/solidified, consolidated onsite, and capped with a low-permeability polymer liner until appropriate measures for management and final disposition of the consolidated material can be determined.

A work plan with a definite schedule for final disposition of consolidated onsite materials will be submitted to U.S. EPA within 45 days after completion of the consolidation activities.

The scope of this SOW is performance of the Interim Measures described herein. The scope of the Interim Measures is limited to addressing pumpable oil mixtures, waxes, sludges and sludge-like soils generated by barge cleaning activities at the site.

Management of ground water and/or contaminated soils which may be associated with SBA's barge cleaning activities will be addressed in the future, after the Interim Measures described herein have been completed and evaluated with respect to Preliminary Remedial Goals for the site.

Preliminary Remedial Goals

Preliminary Remedial Goals (PRGs) for the Interim Measures described herein are the removal of oils and oily materials contained in tanks and land based units (i.e., earthen pits and landfarm) at the Site, the SBA South Operable Unit (SBA-SOU). These fluids and sludges contain hazardous constituents in concentrations great enough which present a potential risk of fire, explosion or release to the environment. The removal of these materials from the site will eliminate or mitigate against any such risk. Under these criteria, the site-specific PRGs are:

- Complete removal of oils and oily Principal Threat/Hazardous Wastes contained in all Site tanks or containers followed by decontamination. Removal & decontamination, will be followed by exhumation, if necessary, demolition, and cutting & scrapping of all tanks or containers. Details of decontamination, exhumation, if necessary, demolition, and cutting & scrapping of all tanks are presented in a section below.

- Removal of Principal Threat/Hazardous Wastes from the Site land based units (i.e., impoundments and landfarm) shall, at a minimum, be based upon visual observations of surface or subsurface staining and physical characteristics of the oily materials (i.e., viscosity, solids content and pumpability) not numerical concentration criteria for purposes of this Interim Measures Removal. Respondents may use as yet unidentified numerical PRGs for confirmatory sampling, once those PRGs are identified by respondents and agreed to by both EPA and Respondents. Removals will be performed on site Principal Threat/Hazardous Wastes in the earthen pit(s) and landfarm to a depth and laterally to where no visible staining is apparent or six inches below the interface between pit/landfarm sludges and underlying soils whichever is less but still at or above the water table. If the water table is encountered above the interface of pit sludges and underlying soils, removal shall occur only to the water table.

Guidelines for final disposition of removed materials are presented below:

- Offsite incineration of pumpable oil mixtures conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and offsite RCRA Subtitle D facility disposal of waxes/sludges and oil mixtures not conforming to acceptance criteria of the incineration facility or facilities.

- Stabilization/solidification and temporary onsite consolidation/containment of stabilized/solidified waxes/sludges and oil mixtures not conforming to acceptance criteria of the offsite RCRA Subtitle D facility or facilities. Ultimate disposition of the consolidated material will be determined through a focused feasibility study of appropriate management alternatives.

The Louisiana Risk Evaluation/Corrective Action Program (RECAP), promulgated June 20, 2000 at LAC 33:I.1307, *et seq.*, defines a tiered human health risk-based program for defining cleanup standards for contaminated sites, based on site-specific risk parameters, including current and future use of the site, site geometry, and site geology. The most current version of the Louisiana RECAP program or more stringent risk-based cleanup standards developed under RCRA, including ecological risk based standards, will be considered for any additional work at the site. That additional work may include the development of long-term remedial goals for the site which are protective of human health and the environment, including, but not limited to, the adjacent jurisdictional wetlands and Mermentau River aquifer or other as-yet unidentified ecological receptors.

Inventory of Oil Mixture

The site contains approximately one million gallons of a relatively solids-free oil mixture. This oil mixture consists of roughly 48% hydrocarbons, 50% water and 2% solids in a tightly bound and viscous, black oily emulsion. This material is contained in the partially buried barge/tank and other onsite tanks.

The estimated inventory of oil mixture is summarized in Table 1 (attached). The material inventory estimates provided in Table 1 are based on vessel dimension measurements, visual observations, and tank content measurements made by Michael Pisani & Associates, Inc. on May 3, 2001. The total estimated inventory of pumpable oil mixture is approximately 1.16 million gallons (approximately 27,650 barrels) in the six major vessels and 14 compartments of the partially buried barge/tank located at the site.

The waxes and sludges in the earthen pit may not meet the acceptance criteria of the offsite disposal facility (i.e., viscosity and solids content) and are not included in the inventory of pumpable oil mixture described herein. Based on data presented in the facility's *RCRA Facility Investigation Work Plan* (Woodward-

Clyde Consultants, Inc., October 1996), the estimated inventory of oily sludges in the earthen pit is approximately 1.5 million to 1.7 million gallons.

The volume of oil mixture transported offsite will be measured and recorded by the incineration facility or other facilities accepting the material from SBA. In addition, the transporter hauling the material will measure the size of each truckload transported from the site for billing purposes.

Removal and Offsite Disposal of Oil Mixture

Pumpable oil mixture will be:

1. Heated (if necessary to reduce viscosity);
2. Filtered through cartridge filters to remove large solids;
3. Loaded into tanker trucks (or onto barges, if feasible) for transport;
4. Manifested for transport, measured (by volume); then
5. Transported offsite for weighing and thermal destruction.

Rhodia, Inc. (Baton Rouge, Louisiana and Houston, Texas) accepted the oil mixture for conducting a trial burn. Based on the successful trial burn results, Rhodia has commenced incineration of the oil mixture on a full-scale basis. In addition, discussions with Safety-Kleen Corporation (Deer Park, Texas) are also in progress for Safety-Kleen to incinerate the oil mixture as well.

Scrapping Empty Vessels

As vessels at the Site (including the partially buried barge/tank) are emptied during the execution of these Interim Measures, the empty vessels will be exhumed, if needed, decontaminated, then cut up and sold as scrap metal or sold for reuse. Prior to scrapping or reuse, each empty vessel will be cleaned to remove residual oil and solids. Water and/or steam blowdown that accumulates in the vessel during cleaning will be collected in remaining tankage and managed with other site water, as described in a subsequent section of this SOW.

As the inventory of oily material is reduced, U.S. EPA will be notified of planned empty vessel scrapping activities at least ten working days prior to commencing the work. Decontamination and scrapping procedures will be described in a brief work plan submittal for EPA review and approval.

Stabilization of Waxes and Sludges

The waxes and sludges are contained in the open, onsite earthen pit. The earthen pit also contains water and may also contain small amounts of relatively solids-free oil mixture. The water in the earthen pit will be pumped out of the pit and disposed as discussed in the following section regarding water disposal.

Pumpable, relatively solids-free oil mixture from the earthen pit will be pumped to an onsite tank for management with the oil mixture sent offsite for incineration.

The remaining waxes, oily sludges, oily soils and any impacted soils found above the water table, will then be solidified/ stabilized *in situ* in the earthen pit using fly ash, portland cement and site soils. Optimal dosages and types of stabilization reagent will be determined by bench-scale treatability testing prior to full-scale implementation. The treatability study will include analyses of untreated materials, as well as laboratory analyses of treated materials.
Based on the bench-scale treatability testing results, optimal dosages and types of stabilization reagents will be added to the earthen pit, and the material will be mixed in-situ with a dragline or hydraulic excavator. Pending the results of the treatability study, soil may augment the solidification/stabilization process by increasing the solids content of the oily material, reducing the quantity of required binding reagent and improving the effectiveness of the pozzolanic binding reaction.

Soils will be excavated to a depth of approximately 18 inches from the approximately 100-foot by 200-foot former landfarm unit area west of the oil pit. The extent of excavation will be determined in the field by visual observations of soil staining. The landfarm soils will be solidified/stabilized with the contents of the oil pit.

The stabilized material will then be allowed to harden or cure over a period of several weeks. Precipitation or other accumulated water in the pit will be pumped off and managed as described in the Water Management section of this SOW.

After the stabilizing reactions are complete, the stabilized materials will be sampled and profiled for offsite disposal as non-hazardous, industrial solid waste. Upon acceptance by a permitted solid waste disposal facility, the stabilized material will be excavated and transported offsite for final disposal as solid waste or use as landfill cover material at a permitted RCRA Subtitle D landfill facility. For materials accepted by the RCRA Subtitle D facility, a Land Disposal Regulations (LDR) certification that the stabilized/solidified material does not exhibit hazardous waste characteristics will be prepared and signed by SBA's designated representative.

In the unlikely event that no RCRA Subtitle D facility will accept the stabilized/solidified material, appropriate alternative treatment or offsite disposal measures will be evaluated, depending upon the disqualifying characteristic of the material. A work plan for development of a feasibility study for final disposition of consolidated materials will be submitted to U.S. EPA within 45 days after completion of consolidation activities.

Brief work plans describing the treatability testing and waste testing procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Water Management

Water will be stored in either the partially buried barge or onsite tanks. At the appropriate time and depending upon water volumes and characteristics, the water will either be treated and discharged pursuant to Louisiana Department of Environmental Quality (LDEQ) authorization or transported offsite for treatment and disposal at a permitted commercial facility.

A brief work plan describing water management procedures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Interim Closure Measures

The emptied earthen pit will be backfilled using uncontaminated onsite soils. Nutrients (e.g., nitrogen-containing agricultural fertilizers) may also be added prior to backfilling and regrading excavated areas (e.g., the former pits). The nutrients will be entrained into the soil using a bulldozer and/or tractor-pulled disks, which will also aerate and mix the soil prior to compaction and regrading. Details of the backfilling operation and nutrient addition will be produced in a separate workplan for approval by the EPA.

Based on waste profile sampling and analytical results from samples of stabilized and solidified materials, any material not accepted by the offsite disposal facilities will be stabilized/solidified and consolidated onsite. Consolidated materials will be confined to as small an areal footprint as is practicable, depending upon material volume, design of adequate top and side slopes for surface drainage and slope stability, and other pertinent design factors. As a current concept, the material will be consolidated aboveground, compacted and capped with a low-permeability polymer liner to minimize surface water infiltration for interim staging/storage while decisions for ultimate disposal are made. Excavated areas will be backfilled and compacted. The surfaces of backfilled areas will be graded for proper surface drainage and seeded with native grasses.

A brief work plan describing interim closure measures will be prepared and submitted to U.S. EPA for review at least ten working days prior to commencing the work.

Site Health and Safety

Site activities will be performed in accordance with procedures described in the site-specific health and safety plan developed as Appendix A of *Interim Site Stabilization Measures Work Plan* (Woodward-Clyde Consultants, Inc., October 1996). During stabilization/solidification activities conducted at the site, fenceline ambient air monitoring of airborne particulates will be performed to monitor potential human health affects to site workers and offsite personnel. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

Reporting

As the Interim Measures described herein are implemented, monthly progress reports will be submitted to U.S. EPA, documenting the implementation of the Interim Measures described herein, including the removal and offsite disposal of oil mixture. Each monthly progress report will describe (for the reporting period) activities performed, upcoming planned tasks, problems encountered and measures taken to correct those problems. Air monitoring limits shall be established protective of off-site personnel. Work modification or stoppage shall be implemented as needed to maintain off-site protectiveness.

As described previously herein, brief work plans will be submitted for U.S. EPA review at least ten working days prior to commencement of the following key tasks:

- Scrapping of Empty Vessels
- Stabilization of Waxes and Sludges
- Water Management
- Interim Closure Measures
- Area of Contamination Consolidation (if required).

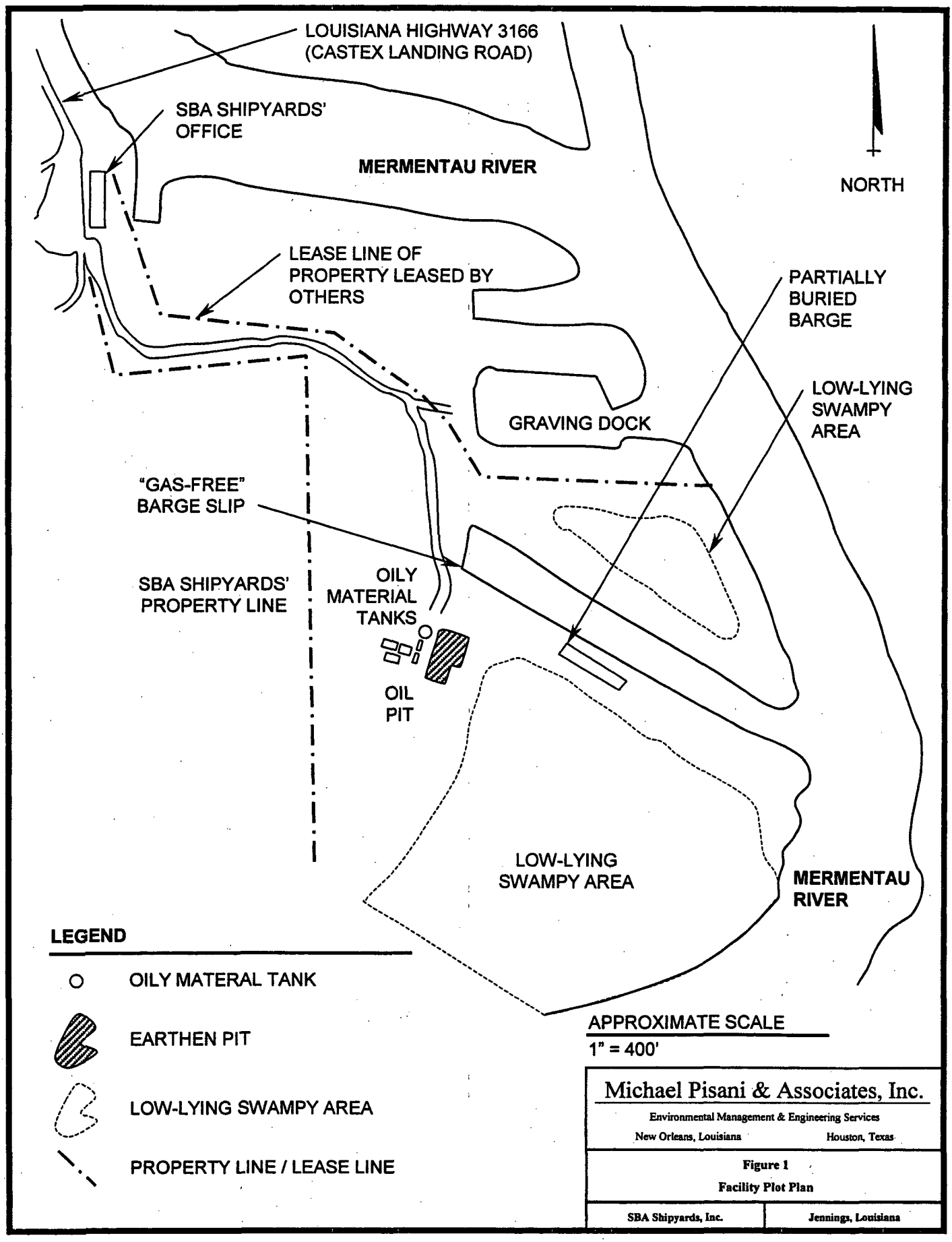
LOUISIANA HIGHWAY 3166
(CASTEX LANDING ROAD)
SBA SHIPYARDS'
OFFICE
MERMENTAU RIVER
NORTH
LEASE LINE OF
PROPERTY LEASED BY
OTHERS
PARTIALLY
BURIED
BARGE
LOW-LYING
SWAMPY
AREA
GRAVING DOCK
"GAS-FREE"
BARGE SLIP
SBA SHIPYARDS'
PROPERTY LINE
OILY
MATERIAL
TANKS
OIL
PIT
LOW-LYING
SWAMPY AREA
MERMENTAU
RIVER
LEGEND
OILY MATERAL TANK
EARTHEN PIT
LOW-LYING SWAMPY AREA
PROPERTY LINE / LEASE LINE
APPROXIMATE SCALE
1" = 400'
Michael Pisani & Associates, Inc.
Environmental Management & Engineering Services
New Orleans, Louisiana
Houston, Texas
Figure 1
Facility Plot Plan
SBA Shipyards, Inc.
Jennings, Louisiana

Table 1

Pumpable Oily Material Inventory
May 3, 2001

SBA Shipyards, Inc.
Jennings, Louisiana

Tank or Impoundment	Estimated Maximum Capacity (gallons)	Estimated Maximum Capacity (barrels)	Observed Depth of Contents[b]	Estimated Material Inventory (gal)	Estimated Material Inventory (barrels)	Estimated Material Inventory (pounds)[a]	Visual Observations[b]
Selected Tanks							
Tank AT-1	17,042	406	52"	9,814	234	81,898	Horizontal cylindrical tank (mostly water).
Tank AT-2	17,042	406	77"'	13,703	326	114,352	Horizontal cylindrical tank (2" sludge layer on bottom).
Tank WT-1	106,837	2,544	85"	88,561	2,109	739,044	Very thick oil.
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Tank WT-3	109,159	2,599	93"	93,998	2,238	784,416	36" sludge layer on bottom.
Tank ST-1	420,000[c]	10,000	9' - 10"[d]	99,474	2,368	830,111	38' high vertical cylindrical tank.
Total	781,562 gallons	18,609 barrels		**383,104 gallons**	9,122 barrels	3,197,003 pounds	
Former Barge (OT-4)							
Bow Rake Tank	26,853	639	56"	20,862	497	174,093	Very thick oil (2" sludge layer on bottom).
Deck Tank S	Not Measured	Unknown	Empty	Negligible	Negligible	Negligible	Dry, some rust scale.
Deck Tank P	Not Measured	Unknown	6"	Negligible	Negligible	Negligible	Oil, no visible water.
Compartment 1S	75,054	1,787	118"	65,659	1,563	547,924	
Compartment 1P	75,054	1,787	119"	64,874	1,545	541,374	
Compartment 2S	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 2P	71,808	1,710	78"	58,344	1,389	486,881	
Compartment 3S	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 3P	100,279	2,388	111"	84,325	2,008	703,692	
Compartment 4S	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 4P	100,279	2,388	114"	86,604	2,062	722,710	
Compartment 5S	86,908	2,069	115"	75,689	1,802	631,625	
Compartment 5P	86,908	2,069	114"	75,057	1,787	626,351	
Aft Trim Tank	18,388	438	112"	17,447	415	145,595	
Total	913,897 gallons	21,759 barrels		**778,134 gallons**	18,527 barrels	6,493,528 pounds	
Grand Total	1,695,459 gallons	40,368 barrels		**1,161,238 gallons**	27,649 barrels	9,690,531 pounds	

NOTES:

(a) Based on bulk density of 8.345 pounds/gallon.
(b) MP&A site visit (May 3, 2001).
(c) According to Mr. Louis Smaihall, the total volume is 10,000 barrels (420,000 gallons).
(d) Measurement read from permanently installed float gauge on tank.