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NCBC GULFPORT
5090.3a

MONTHLY ASSESSMENT REPORT FOR FREE PHASE PRODUCT BETWEEN 28
SEPTEMBER 1993 AND 4 NOVEMBER 1993 WITH TRANSMITTAL NCBC GULFPORT MS
11/5/1993
ABB

39501-IRP
18.03.06.0002



5 November, 1993

Commanding Officer
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, SC 29418

Attention: Mr. David Criswell

Subject: NCBC Site 6 Free Phase Product Assessment
Contract Task Order 096
Progress Report - October 1993

Dear Mr. Criswell:

This progress report covers the period from the 28 September, 1993 through 4 November, 1993. The status of major task activities conducted during this CTO, as well as projected activities, are summarized in Attachment 1.

If you have any questions, please call me at (615) 531-1922.

Sincerely,

ABB ENVIRONMENTAL SERVICES, INC.

A handwritten signature in cursive script, appearing to read 'Penny M. Baxter', is written over the typed name.

Penny M. Baxter
Senior Project Manager

attach

cc: Project files

ABB Environmental Services Inc.

ATTACHMENT 1

MONTHLY PROGRESS REPORT
OCTOBER 1993
NCBC GULFPORT SITE 6
CTO 96

A. WORK ACCOMPLISHED DURING REPORTING PERIOD

On 30 September 1993 a letter was received from USGS detailing the collection of the free product sample at Site 6 along with comments on the FPPA work plan. The letter is enclosed as Attachment 2.

A phone conversation on 30 September 1993 with Charlie Haddon/NCBC resulted in the information that the Base does have good vertical controls but that latitude-longitude data are unreliable. Two surveyors' names were obtained for procuring surveying services at Site 6.

The dioxin analysis was received via fax from CH2M Hill on 6 October 1993 and the full lab report on the free product fingerprint was received on 13 October. Selected pages from both analyses are included in Attachment 3. The analyses showed the free product to consist of 60% diesel with heavier hydrocarbons. The dioxin sample was negative at the ppb level.

A meeting was held at NCBC Gulfport on 7 October 1993 to discuss finalizing the FPPA/IAD work plan. In attendance were representatives of NCBC, SouthDiv, USGS, and ABB-ES. Meeting minutes are included as Attachment 4.

The Final Draft FPPA/IAD was shipped to SouthDiv, NCBC, USGS, and MSDEQ for review on 13 October 1993. The transmittal letter is enclosed as Attachment 5.

A meeting was held at Jackson, MS at MSDEQ on 21 October 1993 to discuss with the State regulators the finalized FPPA/IAD work plan and to notify the MSDEQ of the schedule for field activities at Site 6. Meeting minutes are included as Attachment 6.

The green cover Final MILCON Technical Memorandum (CTO 24) was shipped to SouthDiv and NCBC on 29 October 1993. A copy of the transmittal letter is enclosed as Attachment 7.

The green cover Final FPPA/IAD work plan was shipped to SouthDiv, NCBC, USGS, and MSDEQ on 3 November 1993. A copy of the transmittal letter is enclosed as Attachment 8.

A letter from MSDEQ addressed to Mr. Gordon Crane/NCBC was received via fax on 3 November 1993. The letter addressed three items: (1) MSDEQ approval of RI/FS work plan (CTO 17); (2) periodic status reports on activities related to IRP and Site 8 (CTOs 24, 92, and 96); and (3) questions about Site 8 projected activities (CTO 92). A copy of the letter is enclosed as Attachment 9.

B. FUTURE PROJECT ACTIVITIES

As discussed in the 21 October meeting, the field activities at Site 6 will begin on 15 November with the Hydropunch II investigation. The following week, Thanksgiving week, the data will be evaluated, a technical bulletin will be issued early the week of 29 November, and a consensus will be reached as to where the monitoring wells will be placed.

Drilling and installation of the monitoring wells is tentatively scheduled to begin the week of 6 December dependent on the driller's availability.

Given interference by the holidays, it is possible that the pump test (the final stage of the Site 6 assessment) may have to be done the first of January 1994.

C. FINANCIAL STATUS SUMMARY AND PROJECTION

The request that sample locations be expressed in latitude-longitude may be a problem. The State does not have a state plane coordinate system and the Base does not have its own coordinate system. I am currently discussing the possibility of bringing a benchmark onto Base with the USGS. In any case the costs of surveying are likely to be higher than originally estimated. It is too early in this CTO to know if this cost can be absorbed in the overall budget.

During the 21 October meeting MSDEQ asked that deep DNAPL samples be obtained using the Hydropunch II techniques. This effort was not scoped for the Hydropunch effort and is likely to result in a cost variance of roughly (very roughly) \$2000. It is unknown at this point if this cost can be absorbed in the total budget.

D. TECHNICAL STATUS SUMMARY AND PROJECTION

No technical problems are anticipated.

The question of IDW disposal for waste from the pump test has not yet been finalized.

ATTACHMENT 2

USGS LETTER



United States Department of the Interior



GEOLOGICAL SURVEY
Water Resources Division
100 W. Capitol Street, Suite 710
Jackson, MS 39269

September 27, 1993

Ms. Penny M. Baxter
ABB Environmental Services, Inc.
1400 Centerpoint Blvd.
Suite 158
Knoxville, TN 37932-1968

Dear Penny:

This letter provides information for your files concerning our August 24, 1993, site visit to the Naval Construction Battalion Center in Gulfport, Mississippi. The purpose of the visit was to sample the free-phase product present in monitor well GPT-6-1. The water level in well GPT-6-1 was 5.14 feet below land-surface datum prior to sampling. The steel tape used to measure the water level was coated with about 2 feet of heavy black product.

Two samples were collected using a Voss Technologies disposable 1 1/2-inch Teflon bailor. The bailor was lowered directly below the product surface to collect only the product material. In removing the bailor from the well, a strong smell was evident from the very dark black product. The samples were placed in the bubble bags, packed in the paint cans filled with vermiculite which were placed in a shipping container, iced, and shipped via Federal Express to CH2M Hill Quality Analytical Laboratories as instructed. The Chain of Custody Record, Form 340, accompanied the sample containers.

Water-level measurements were made in 18 monitor wells located in the vicinity of site 6 and are enclosed for your information. A chalked steel tape was used to measure the water levels. The water levels were corrected to land-surface datum using a measuring point at the top of the 2-inch PVC casing. A few observations were made during the water-level survey and are listed below:

- locks need replacing (single-key type)
- damaged protective covers need repair or replaced
- remove suspended material if needed (redevelop)
- slug tests
- stamp well ID on cover
- establish and mark permanent measuring point

If there are any questions regarding the information included herein, do not hesitate to contact me.

Sincerely yours,

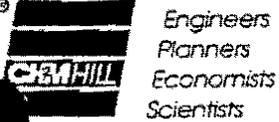

William T. Oakley
Senior Ground-Water Technician

Enclosures

Water levels in feet below land-surface datum
measured August 24, 1993

<u>GPT-1-1</u>	<u>GPT-4-1</u>
2.92	1.80
<u>GPT-1-2</u>	<u>GPT-4-2</u>
3.76	3.72
<u>GPT-1-3</u>	<u>GPT-4-3</u>
3.31	7.77
<u>GPT-2-1</u>	<u>GPT-5-1</u>
3.88	6.65
<u>GPT-2-2</u>	<u>GPT-5-2</u>
3.43	4.23
<u>GPT-2-3</u>	<u>GPT-5-3</u>
2.42	8.74
<u>GPT-3-1</u>	<u>GPT-6-1</u>
3.37	5.14 <i>Fluvial Level</i>
<u>GPT-3-2</u>	<u>GPT-6-2</u>
5.27	5.12
<u>GPT-3-3</u>	<u>GPT-6-3</u>
6.28	2.41

ATTACHMENT 3
FREE PHASE PRODUCT ANALYSES



October 11, 1993

Penny Baxter
ABB Environmental Services
1400 Center Point, Suite 158
Knoxville, TN 37932

RE: Analytical Data for NCBC Gulfport Site 6
LGN Lab Ref. No. 90116

Dear Ms. Baxter:

On August 26, 1993, the CH2M HILL Gainesville Laboratory (LGN) received one sample with a request for analysis of selected parameters.

The samples for hydrocarbon/solvent were sent to CORE Laboratories. The sample for dioxin were sent to Canviro Analytical Laboratories LTD. Both reports are enclosed. For your convenience, we have included a copy of the chain of custody.

CH2M HILL Laboratories appreciate your business and look forward to serving your analytical needs again. If you should have any questions concerning the data, or if you need additional information, please call me or Tom Emenhiser, Client Services Manager, at 904-462-3050.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Karen Daniels', is written over the typed name.

Karen Daniels
Client Services Coordinator

Enclosures

State Certifications:

Florida No. 82112, E82124

Alabama No. 40080

California No. I-1014

CORE LABORATORIES
ANALYTICAL REPORT

Job Number: 934227
Prepared For:

CH2M HILL QUALITY ANALYTICAL LABS
NANCY MOSURICK
1 INNOVATION DRIVE
ALACHUA, FL 32615

Date: 09/22/93

Larry Scott, JAW
Signature

9-22-93
Date:

Name: Larry Scott

CORE LABORATORIES
P O BOX 34766
HOUSTON, TX 77234-4282

Title: Laboratory Supervisor



CORE LABORATORIES

P.O. Box 34282
Houston, TX 77034
(713) 943-9776

CH2M Hill Quality Analytical Labs
ATTN: Nancy Mosurick

Job No: 934227
Sample I.D.: 90116-001

CAPILLARY ANALYSIS

	<u>Wt. %</u>	<u>L.V. %</u>	<u>Mole %</u>
Ethylbenzene	0.01	0.01	0.02
m-Xylene	0.03	0.03	0.08
p-Xylene	0.01	0.01	0.02
2-Methyloctane	0.01	0.01	0.02
o-Xylene/3-Methyloctane	0.04	0.03	0.09
n-Nonane	0.11	0.12	0.22
Unidentified C9 Compounds	0.03	0.03	0.05
n-Propylbenzene	0.03	0.02	0.05
1-Methyl-3-Ethylbenzene (METOL)	0.05	0.05	0.11
1-Methyl-4-Ethylbenzene (PETOL)	0.03	0.02	0.05
1,3,5-Trimethylbenzene	0.11	0.10	0.24
1-Methyl-2-Ethylbenzene (OETOL)	0.09	0.08	0.19
4-Methylnonane	0.06	0.06	0.10
tert-Butylbenzene/1,2,4-Trimethylbenzene	0.14	0.13	0.28
1-Methyl-2-Isopropylbenzene/sec-Butylbenzene	0.05	0.05	0.09
n-Decane	0.44	0.48	0.78
Unidentified C10 compounds	0.30	0.32	0.55
Isobutylbenzene	0.02	0.02	0.04
1,2,3-Trimethylbenzene	0.06	0.06	0.13
1-Methyl-3-Isopropylbenzene	0.01	0.01	0.01
1-Methyl-4-Isopropylbenzene	0.01	0.01	0.02
Indane (2,3-Dihydroindene)	0.02	0.02	0.04
1,3-Diethylbenzene/1-Methyl-3-n-Propylbenzene	0.17	0.16	0.32
n-Butylbenzene	0.06	0.06	0.12
1-Methyl-4-n-Propylbenzene/1,2-Diethylbenzene	0.04	0.04	0.08
1-Methyl-2-n-Propylbenzene	0.09	0.09	0.18
1,4-Dimethyl-2-Ethylbenzene	0.18	0.16	0.33
1,3-Dimethyl-4-Ethylbenzene	0.08	0.07	0.14
1,2-Dimethyl-4-Ethylbenzene	0.08	0.07	0.15
1,3-Dimethyl-2-Ethylbenzene	0.01	0.01	0.02
1,2-Dimethyl-3-Ethylbenzene	0.02	0.02	0.04
n-Undecane	0.93	0.99	1.51

P.O. Box 34282
Houston, TX 77034
(713) 943-9776

CH2M Hill Quality Analytical Labs
ATTN: Nancy Mosurick

Page 2

Job No: 934227
Sample I.D.: 90116-001

CAPILLARY ANALYSIS

	<u>Wt. %</u>	<u>L.V. %</u>	<u>Mole %</u>
Unidentified C11 compounds	0.65	0.69	1.09
1,2,4,5-Tetramethylbenzene (Durene)	0.06	0.05	0.11
1,2,3,5-Tetramethylbenzene (Isodurene)	0.11	0.10	0.21
1,2,3,4-Tetramethylbenzene (Prehnitene)	0.13	0.12	0.25
Naphthalene	0.21	0.14	0.41
n-Dodecane(C-12)	1.21	1.27	1.80
C-12 Unidentified	1.61	1.64	2.11
C-12 thru C-13 (not including *)	3.30	3.35	5.03
n-Tridecane(C-13)	1.69	1.72	2.32
C-13 thru C-14	5.44	5.53	7.65
n-Tetradecane	2.37	2.41	3.03
C-14 thru C-15	6.13	6.24	7.84
n-Pentadecane	2.48	2.53	2.96
C-15 thru C-16	6.74	6.88	8.06
n-Hexadecane	2.21	2.26	2.47
C-16 thru C-17	3.92	4.02	4.40
n-Heptadecane	2.06	2.10	2.18
Pristane	1.91	1.97	1.81
C-17 thru C-18	3.93	4.00	4.15
n-Octadecane	1.72	1.75	1.71
Phytane	1.34	1.39	1.21
C-18 thru C-19	2.14	2.19	2.14
n-Nonadecane	1.46	1.49	1.38
C-19 thru C-20	1.85	1.89	1.75
n-Eicosane	0.90	0.91	0.81
C-20 thru C-21	1.28	1.29	1.15
n-Heneicosane	0.53	0.53	0.45
C-21 thru C-22	0.33	0.33	0.28
n-Docosane	0.36	0.36	0.29
C-22 thru C-23	0.02	0.02	0.02
n-Tricosane	0.13	0.13	0.10





CANVIRO
Analytical Laboratories Ltd.

REPORT OF ANALYSIS

CLIENT CH2M Hill Engineering Ltd.

ATTENTION Ms. Nancy Mosurick

ADDRESS 1 Innovation Drive, Suite "C"
Alachua, Florida, 32615

CANVIRO PROJECT NO. 93-09010

SAMPLES RECEIVED September 1st, 1993

CHAIN OF CUSTODY Attached

REPORTED DATE October 7th, 1993

Dear Ms. Mosurick:

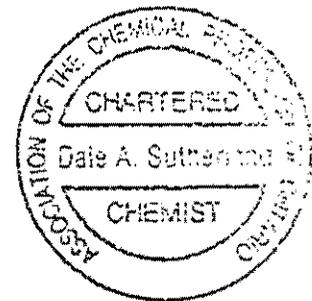
We have completed the analysis of your samples for Polychlorinated Dibenzo-p-Dioxins (PCDDs) and Polychlorinated Dibenzo Furans (PCDFs). The method used was based on SW846 #8290.

Both SW846 #8290 and EPA #1613 are state-of-the-art methods and have been shown to be vastly superior to other published methods due to the strict level of quality control and the high level of specificity achieved by High Resolution Gas Chromatography coupled with High Resolution Mass Spectrometry (HRGC/HRMS). These methods protect your liability by nearly eliminating the possibility of reporting false positives.

Please contact me should you have any questions. THANK-YOU for using CANVIRO Analytical Laboratories Ltd.

Sincerely,

Dale Sutherland, B.Sc., B.Sc., B.Ed., C.Chem.,
Director of Dioxin Technologies



SUBMISSION CASE NARRATIVE

FIELD ID.	CANVIRO ID. NO.	SAMPLE CUSTODIAN	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED
GPT 6-1	9309010-01	MLP	September 01, 1993	N/A	October 01, 1993

This sample was complex in nature and was described as a "free product". Using the guidelines from SW-846 method #8290 approximately 1 gram was extracted. After clean-up procedures the extract would not concentrate to a small volume due to it's oily matrix.

An extra alumina column clean-up was performed with only a small amount of improvement. Gel Permeation Chromatography (GPC) was recognized as a method that might remove the oily fraction. After calibration and testing GPC was used on the sample. Some improvement was noted in colour reduction but the extract still could not be concentrated to the desired volume. The sample was then re-extracted at a size of 27.5 mg and the analysis proceeded on the HRMS. At this sample size the analysis performed very well.

KRATOS ANALYTICAL LABORATORIES LTD. - CONCENTRATION REPORT:

SAMPLE DESCRIPTION: GPT 6-1
METHOD: 8290

SAMPLE DATE: Aug. 24-93
EXTRACTION DATE: NA

SAMPLE WEIGHT (grams) = 0.0265
ANALYSIS DATE: Oct. 1-93
ANALYSIS TIME: 19:01

GC COLUMN & MS: DB-5, 60 m, 0.25 mm ID, 0.25 um df - Kratos Concept HRMS

CANVIRO I.D. NO.: 93009010-01

FILE: K515_0036

APPROVED BY: TC

CONGENERS	CONC. ng/g	DL ng/g	ION RATIO	RATIO LIMITS	RETENTION TIME SHIFT (SEC.)
2,3,7,8-TCDD	ND	0.18		(0.65-0.89)	
2,3,7,8-TCDF	ND	0.27		(0.65-0.89)	
1,2,3,7,8-PeCDD	ND	0.30		(1.32-1.78)	
1,2,3,7,8-PeCDF	ND	0.27		(1.32-1.78)	
2,3,4,7,8-PeCDF	ND	0.14		(1.32-1.78)	
1,2,3,4,7,8-HxCDD	ND	0.14		(1.05-1.43)	
1,2,3,7,8,9-HxCDD	ND	0.12		(1.05-1.43)	
1,2,3,6,7,8-HxCDD	ND	0.22		(1.05-1.43)	
1,2,3,4,7,8-HxCDF	ND	0.16		(1.05-1.43)	
1,2,3,6,7,8-HxCDF	ND	0.23		(1.05-1.43)	
2,3,4,6,7,8-HxCDF	ND	0.23		(1.05-1.43)	
1,2,3,7,8,9-HxCDF	ND	0.32		(1.05-1.43)	
1,2,3,4,6,7,8-HpCDD	ND	0.32		(0.88-1.20)	
1,2,3,4,6,7,8-HpCDF	ND	0.20		(0.88-1.20)	
1,2,3,4,7,8,9-HpCDF	ND	0.37		(0.88-1.20)	
OCDD	ND	0.52		(0.76-1.02)	
OCDF	ND	0.38		(0.76-1.02)	
TE	0.00				

INTERNAL STANDARDS	% RECOVERY	ION RATIO	RATIO LIMITS
13C-2,3,7,8-TCDD	53.9	0.84	(0.65-0.89)
13C-2,3,7,8-TCDF	39.2 **	0.88	(0.65-0.89)
13C-1,2,3,7,8-PeCDD	51.4	1.71	(1.32-1.78)
13C-1,2,3,7,8-PeCDF	40.4	1.56	(1.32-1.78)
13C-2,3,4,7,8-PeCDF	48.6	1.58	(1.32-1.78)
13C-1,2,3,4,7,8-HxCDD	81.0	1.41	(1.05-1.43)
13C-1,2,3,6,7,8-HxCDD	47.3	1.11	(1.05-1.43)
13C-1,2,3,4,7,8-HxCDF	69.9	0.50	(0.43-0.59)
13C-1,2,3,6,7,8-HxCDF	45.7	0.59	(0.43-0.59)
13C-2,3,4,6,7,8-HxCDF	57.7	0.54	(0.43-0.59)
13C-1,2,3,7,8,9-HxCDF	67.8	0.57	(0.43-0.59)
13C-1,2,3,4,6,7,8-HpCDD	64.7	1.16	(0.88-1.20)
13C-1,2,3,4,6,7,8-HpCDF	66.1	0.49	(0.37-0.51)
13C-1,2,3,4,7,8,9-HpCDF	69.9	0.34	(0.37-0.51) *
13C-OCDD	85.7	0.81	(0.76-1.02)
CLEAN-UP STANDARD	% RECOVERY		
37Cl4-2,3,7,8-TCDD	Not Added		

CANVIRO ANALYTICAL LABORATORIES LTD. - CONCENTRATION REPORT:

SAMPLE DESCRIPTION: GPT 6-1
 METHOD: 8290

SAMPLE DATE: Aug. 24-93
 EXTRACTION DATE: NA

SAMPLE WEIGHT (grams) = 0.0265
 ANALYSIS DATE: Oct. 1-93
 ANALYSIS TIME: 19:01

GC COLUMN & MS: DB-5, 60 m, 0.25 mm ID, 0.25 um df - Kratos Concept HRMS

CANVIRO I.D. NO.: 93009010-01 FILE: K515_0036 APPROVED BY: TC

TOTAL HOMOLOGUES	ng/g	DL	# PEAKS
TOTAL TCDD	ND	0.18	
TOTAL PeCDD	ND	0.30	
TOTAL HxCDD	ND	0.14	
TOTAL HpCDD	ND	0.32	
TOTAL OCDD	ND	0.52	
TOTAL PCDDs	ND		
TOTAL TCDF	ND	0.27	
TOTAL PeCDF	ND	0.27	
TOTAL HxCDF	ND	0.16	
TOTAL HpCDF	ND	0.20	
TOTAL OCDF	ND	0.38	
TOTAL PCDFs	ND		

GENERAL NOTES:

- ng/g = ppb
- CN = Refer to Case Narrative
- ND = Not Detected
- MPC = Not all identification criteria satisfied, Incorrect ion ratio.
 The Maximum Possible Concentration is reported
- TEF = International 2,3,7,8-TCDD Toxic Equivalentts
 Results are corrected for Internal Standard Recovery
- * = Result is outside of Ratio Limit
- DL = Sample specific detection limit.
- NA = Not Applicable

ATTACHMENT 4

MEETING MINUTES
7 OCTOBER 1993

Meeting Minutes
Site 6 Free Phase Product Assessment
NCBC Gulfport, MS
07 October 1993

Attendees:

John Harsh	USGS	Jackson, MS
Bill Oakley	USGS	Jackson, MS
Kenneth Barnes	SouthDiv	Charleston, SC
Kurt Sichelstiel	ABB-ES	Knoxville, TN
Gordon Crane	NCBC Gulfport	Gulfport, MS
Penny Baxter	ABB-ES	Knoxville, TN

A meeting was held at the offices of Gordon Crane at NCBC Gulfport on 7 October 93 to discuss the preliminary draft work plan for the Free Phase Product Assessment and Interim Action Design.

The meeting began between members of USGS and ABB-ES. Ms. Baxter presented the findings of the free product fingerprint, stating that the product appeared to consist of approximately 60% diesel fuel with heavier petroleum products. The dioxin analysis was negative. A discussion of the work plan followed with USGS and ABB-ES working through the plan and discussing questions that had developed.

Mr. Barnes joined the meeting after the above was completed. The group then began to work through the plan to answer questions that Mr. Barnes raised.

Decisions made and additions requested during the meeting include the following:

- At least two well points will be placed along the ditch during the field investigation to observe the relationship between the groundwater and the surface water in the ditch.
- The USGS will place a staff gauge in the ditch and periodically monitor the water level in the drainage ditch.
- Concern was expressed that the existing wells had "silted up" and were furnishing incorrect data. The decision was made to redevelop these wells during field activities.
- Field data following the Hydropunch II activity will be faxed to the USGS for concurrence with well placement. The resulting decision on locations will be communicated to the MSDEQ prior to start of the second field shift.

Page 2
Meeting Minutes
Site 6 Free Phase Product Assessment
NCBC Gulfport, MS
07 October 1993

- The question of IDW disposal was discussed. Mr. Crane will fax ABB-ES a copy of POTW acceptable levels. ABB-ES will investigate using tanks to contain the pumped fluids from the treatability test.
- The decision was reached that a benchmark was needed on or near the site that would furnish reliable latitude-longitude data for this and future field efforts. It was recognized that this had not been included in the cost estimate and that additional funds would be required for this effort.
- A copy of the Navy CLEAN program HASP will be furnished to the MSDEQ.

11 October 1993

Mr. Kenneth Barnes
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive, P.O. Box 10088
North Charleston, SC 29411

RE: Meeting minutes 7 October 1993

Dear Ken:

Enclosed are the minutes for the meeting held at NCBC Gulfport on 7 October 1993 between NCBC, SouthDiv, USGS, and ABB-ES. I did not include the finer details of comment resolution on the work plan that you and USGS had but tried to consolidate some of the more pertinent decisions we made.

If you have any questions or concerns, please call me at (615) 531-1922.

Sincerely,
ABB Environmental Services, Inc.

Penny M. Baxter
Senior Project Manager

pc: NCBC - G. Crane
USGS - J. Harsh
File

ATTACHMENT 5

TRANSMITTAL LETTER
FINAL DRAFT FPPA/IAD WORK PLAN



13 October 1993

Ken Barnes, PE
Code 18225
Commanding Officer
SOUTHNAVFACENGCOM
2155 Eagle Drive
North Charleston, SC 29418

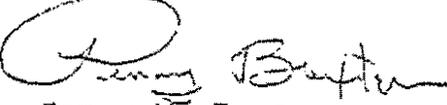
SUBJECT: Free Phase Product Assessment/Interim Action Design Work
Plan

Dear Ken:

ABB-ES is pleased to forward to you the Final Draft FPPA/IAD Work Plan for the Gulfport Site 6 free product assessment. As we discussed, one copy is included for your use, one copy has been forwarded to Mr. Phillip Weathersby at MSDEQ, and one copy has been sent to Mr. Gordon Crane at NCBC.

If you have any questions about the enclosed, please give me a call at (615) 531-1922. I look forward to our meeting next week in Mississippi.

Sincerely,
ABB ENVIRONMENTAL SERVICES, INC.



Penny M. Baxter
Senior Project Manager

enc: G. Crane
P. Weathersby

ABB Environmental Services Inc.

ATTACHEMENT 6

MEETING MINUTES
21 OCTOBER 1993

Meeting Minutes
21 October 1993
Site 6 Free Phase Product Assessment
NCBC, Gulfport, MS

Attendees:	Kenneth Barnes	SouthDiv	(803) 743-0669
	Gordon Crane	NCBC	(601) 871-2485
	Jim Hardage	MSDEQ	(601) 961-5065
	Jon Huey	MSDEQ	(601) 961-5113
	Phillip Weathersby	MSDEQ	(601) 961-5302
	John Harsh	USGS	(601) 965-5582
	Bill Oakley	USGS	(601) 965-5788
	Penny Baxter	ABB-ES	(615) 531-1922

A meeting was held at the offices of MSDEQ on 21 October 1993 in Jackson, MS to discuss finalization of the Free Phase Product Assessment work plan for NCBC Gulfport Site 6.

The meeting was opened by Ken Barnes. Ken stated the reason for the meeting and described briefly the next steps in the investigation. No formal presentations were made, and the meeting proceeded in an interactive, conversational manner.

Specific issues or questions raised or comments made during the meeting included the following:

- The schedule, as discussed, included executing the Hydropunch II during the week of November 15 if subcontracting can be coordinated. MSDEQ stated that they intend to have more field presence. Mr. Phillip Weathersby will be visiting the site as field activities progress. The Hydropunch II activity will furnish data on the plume thickness and extent through visual observations. The week of the 22nd will be spent evaluating this data. During the following week of the 29th, the USGS and MSDEQ will be apprised of the findings, and decisions on the placement of the monitoring wells will be finalized. Drilling of the wells is scheduled for the week of December 6.
- The topic of Ken Barnes' departure was discussed. Ken stated that ABB-ES will notify the group of any schedule changes or problems encountered. The discussion continued on the subject of how MSDEQ will generally be informed of activities at the Base. Gordon Crane will be the primary contact for MSDEQ in the foreseeable future.
- A discussion developed over the water table and downgradient direction of movement. The USGS has collected two rounds of water levels at the Base. Generally, at the site the water table is 5 feet below land surface. The downgradient direction of groundwater movement has been to the west toward the ditch. According to Gordon Crane, the ditch has been periodically examined for the presence of free product or sheen. To date, none has been discovered. John Harsh stated that the USGS along with ABB-ES will be looking at the

relationship between groundwater and the ditch. Currently nothing is known of the interaction between the two. Temporary well points will be installed to monitor groundwater near the ditch line.

- In August 1993 a free product fingerprint sample was collected by USGS and run by a laboratory contracted by ABB-ES. The sample contained approximately 60-70% diesel oil with heavier petroleum products. No evidence was found by the laboratory to indicate the presence of volatile organic compounds. A separate dioxin analysis run on the sample indicated that no dioxins existed in the parts per billion range.
- MSDEQ asked if it was possible to have VOCs that are not yet in evidence. Penny Baxter stated that it was possible and that groundwater would be sampled at shallow and deeper intervals after the monitoring wells had been installed. John Hardage stated that at other sites around the state as fuel levels dropped, chlorinated solvents began to appear.
- The question of the presence of DNAPLs was discussed. Nothing is now known about the presence of these compounds but given that solvents were disposed at the site, the possibility exists that DNAPLs will be found near the aquitard clay layer at 30 feet below land surface. MSDEQ asked if it was possible to go deeper with the Hydropunch II and sample for the denser compounds at that level. Penny Baxter stated that it could be done and would check with the project technical lead for placement of two such samples.
- MSDEQ asked when Southern Division expected to receive monies to do the actual remediation of the free product. Ken Barnes stated that he would check on that. MSDEQ also asked when they would be scheduled to provide feedback on the design of the proposed remediation system.
- Community relations were discussed. Gordon Crane stated that the Base was not on the NPL but that the Base community relations personnel is voluntarily producing a fact sheet for distribution.
- The topic of disposal of investigation-derived waste was raised. Gordon Crane stated that they were looking into the possibility of recycling the free product. Ken Barnes stated that the Navy would handle disposal if the Base was not able to. Gordon Crane said that he would talk with Steve Spengler/MS Waste Water on the matter.
- Gordon Crane raised the topic of the MILCON site sampling and dioxin levels found. Penny Baxter gave a thumbnail description of sampled media and locations. Gordon's question revolved around whether the levels found exceeded action levels, whether the warehouse needed to be re-sited, and what should now be done with the site. Gordon said he would send a copy of the Technical Memorandum to MSDEQ. MSDEQ stated that the State was not in a position to make a recommendation for the site without groundwater data.

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Following the previous discussion, MSDEQ asked about the activities at Site A. Penny Baxter gave a brief description of the planned field sampling and stated that the current schedule called for installing the monitoring wells in March 1994. A discussion was held about the value of the face-to-face meetings that have been held on Site 6 and the possibility that the schedule could be accelerated on Site A via the same method. Penny stated that Daniel Owens was the EIC for the Site A activities and that he need to be included in further discussions of that site. Jim Hardage said that his group would coordinate with Jerry Banks on this matter.

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4 November 1993

Commanding Officer
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, SC 29418

Attention: Mr. David Criswell

Subject: Meeting Minutes - 21 October 1993
MSDEQ - NCBC Site 6 Free Phase Product Assessment

Dear Mr. Criswell:

Enclosed are the meeting minutes from the 21 October meeting in Jackson, MS between the Gulfport team and MSDEQ. Copies of these minutes have been forwarded to MSDEQ, NCBC, and USGS.

If you have any questions, please call me at (615) 531-1922.

Sincerely,

ABB ENVIRONMENTAL SERVICES, INC.

Penny M. Baxter
Senior Project Manager

attachment

pc: G. Crane/NCBC
J. Hardage/MSDEQ
J. Harsh/USGS
D. Owens/SoDiv

ATTACHMENT 7

TRANSMITTAL LETTER
FINAL MILCON TECHNICAL MEMORANDUM



29 October 1993

Mr. Kenneth Barnes
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive, P.O. Box 10088
North Charleston, SC 29411

Re: Final Technical Memorandum for MILCON Construction Site

Dear Ken:

ABB-ES is pleased to forward to you the Final Technical Memorandum for the MILCON Construction Site sampling effort. In accordance with discussions with you and with Gordon Crane at NCBC, two copies are included for use by SouthDiv and two copies for the Activity. Also included are two 3-1/2" disks: one contains the text and the other the graphics for the document.

Please contact me at (615) 531-1922 if you have any questions or concerns.

Sincerely,
ABB ENVIRONMENTAL SERVICES, INC.

Penny M. Baxter
Senior Project Manager

cc: G. Crane
file

ABB Environmental Services Inc.

ATTACHMENT 8

TRANSMITTAL LETTER
FINAL FREE PHASE PRODUCT ASSESSMENT/INTERIM ACTION DESIGN



3 November 1993

Ken Barnes, PE
c/o David Criswell
Commanding Officer
SOUTHNAVFACENGCOM
2155 Eagle Drive
North Charleston, SC 29418

SUBJECT: CTO 96 Final Free Phase Product Assessment/Interim
Action Design Work Plan

Dear Mr. Criswell:

ABB-ES is pleased to forward to you the Final FPPA/IAD Work Plan for the Gulfport Site 6 free product assessment. As we discussed with Gordon Crane/NCBC, two copies are included for your use, three copies have been forwarded to Mr. Gordon Crane at NCBC, and two copies have been sent to the USGS in Jackson, MS. Two copies have been sent to Mr. Jim Hardage, MSDEQ in Jackson, MS. Copies of the letters of transmittal are attached.

If you have any questions about the enclosed, please give me a call at (615) 531-1922.

Sincerely,
ABB ENVIRONMENTAL SERVICES, INC.

Penny M. Baxter
Senior Project Manager

cc: G. Crane/NCBC

enc: G. Crane/NCBC
USGS
MSDEQ

ABB Environmental Services Inc.

ATTACHMENT 9

MSDEQ LETTER
1 NOVEMBER 1993

402.1/f



STATE OF MISSISSIPPI
DEPARTMENT OF ENVIRONMENTAL QUALITY
JAMES I. PALMER, JR.
EXECUTIVE DIRECTOR

November 1, 1993

Mr. Gordon Crane
Environmental Coordinator
Naval Construction Battalion Center
Gulfport, Mississippi

RE: Final Approval of Draft Final RI/FS Work Plan for Sites 1-7
NCBC Gulfport, Mississippi

Dear Gordon:

The MS DEQ accepts the contractor's response to comments and approves the referenced work plan.

There are two other matters I need to mention as follows:

- (1) After our meeting on October 21, 1993, concerning the free product removal work at Site 6, I asked Ken Barnes if the Navy would start providing DEQ with a periodic status report on funding and scheduling of both IRP activities and work related to Site 8. He indicated that he would initiate a quarterly status report to DEQ. Please let me know when we can expect the first report. We would also like to be contacted by telephone when reports, work plans, or field activities are delayed or canceled, followed by a letter containing the new schedule.
- (2) Secondly, during the meeting there was some discussion of projected activities at Site 8. It is my understanding that Dan Owens and Penny Baxter (and hopefully you) are planning to meet with DEQ again in November or December to discuss Site 8 activities and issues in more detail. Please provide a tentative date and agenda at your earliest convenience.

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Penny Baxter ABB		From	GORDON CRANE
		Co.	CBC Gulfport
Dept.		Phone	601 871-2465
Fax		Fax	601-871-2188
615-531-8226			

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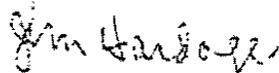
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TO 916155318226 P.02

Mr. Gordon Crane
Page 2

Please contact Phillip Weathersby at (601) 961-5302 or me at extension 5065 if you have any questions.

Sincerely,



Jim Hardage, Chief
CERCLA Section

JH2_77;mes