N60211_000343
CROWS LANDING
SSIC NO. 5090.3.A

TRANSMITTAL

THE IT GROUP
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To: Lynn Hornecker **Date:** November 28, 2001

From: David Kelly DK

Subject: Interim Data Summary
Sewer Line Survey

A passive soil gas survey was conducted in the areas of the former and current sewer system to evaluate the potential of a release of volatile and semivolatile compounds from the former and current sewer pipelines and associated treatment structures. The work was completed in accordance with the *Soil Vapor Extraction Optimization for the Remediation of UST Cluster 1 and Site Verification Activities at Various Sites Work Plan, Revision 2*, Attachment 9. The passive soil gas survey fieldwork was conducted from July 16, 2001 through August 3, 2001. The attached report provides the results of the passive soil gas survey.

The passive soil gas survey focused on three main areas, the former sewer pipeline and treatment system, the current sewer pipeline along Bell Road to the Imhoff tank, and the Administration Area. Based on the analytical data, drawings were prepared that present the relative mass distribution of compounds that best represent chlorinated hydrocarbons (carbon tetrachloride), petroleum hydrocarbons (total benzene, toluene, ethylbenzene, and xylenes [BTEX]), and non-chlorinated solvents (acetone) at each of the three target areas. These drawings are included in the attached report.

The only significant detection of compounds along the current and former sewer system pipelines and within the former sewer system treatment area are detections of acetone and BTEX in soil gas survey modules installed near Building 109. These detections are likely related to the known release of petroleum hydrocarbons from underground storage tank (UST) 109, which is currently being investigated and remediated under the petroleum program. The lack of any other detections is a good indication that there has been no releases of these compounds from the current and former sewer system. This is also consistent with soil and groundwater data published in the *Draft Current and Former Sewer System Site Investigation Report* (TtEMI 1999).

Carbon tetrachloride, BTEX, and acetone were detected in soil gas modules installed in the Administration Area. The highest levels of carbon tetrachloride were detected in modules centered near the western edge of the Administration Area close to groundwater wells where the highest concentrations of carbon tetrachloride have been detected in groundwater (IRP Site 17). The high levels of carbon tetrachloride detected in the modules may be a result of compounds adsorbed to the soil in the vadose zone (source of groundwater contamination) or a result of compounds desorbing from groundwater into the soil gas.

BTEX was detected at low levels in modules from several locations within the Administration Area with the highest levels measured along the western edge. Modules installed along the western edge of survey area were installed below the runway apron. The results from soil vapor extraction (SVE) testing at UST Cluster 1 (just west of the survey area) indicated high concentration of vapors trapped under the runway apron that were quickly remediated after minimal vapor extraction. The BTEX compounds detected in modules installed below the apron are potentially a result of theses trapped vapors. The relative level of BTEX detected in these modules is also low compared to the levels detected in modules installed near known petroleum hydrocarbon soil contamination at UST 109.

One location where BTEX was detected at relatively high levels in modules that were not installed below the runway apron was near the former location of UST CL-40. Historical data from UST CL-40 removal activities presented in the *Final Closure Certification Report* (TtEMI 1998) indicates that soil with petroleum hydrocarbon concentrations as high as 310 mg/kg was left in place below the tank distribution piping. The BTEX detection in the soil gas modules is likely a result of this remaining soil contamination.

Only trace levels of acetone were detected in modules installed within the Administration Area and do not likely represent any significant soil of groundwater contamination when compared to levels detected in modules installed near UST 109 where no acetone has been detected in resent soil or groundwater sampling events.

Based on the relative distribution of carbon tetrachloride at IRP Site 17 and BTEX near the former location of UST CL-40, soil samples will be collected and analyzed to evaluate current concentrations of contaminants in soil in these areas. Additional soil sampling will be conducted at other sewer system structures and other sites within the Administration Area to verify current site conditions as discussed below. An attached map and table present all of the proposed sample locations with summarize the sampling details and rationale.

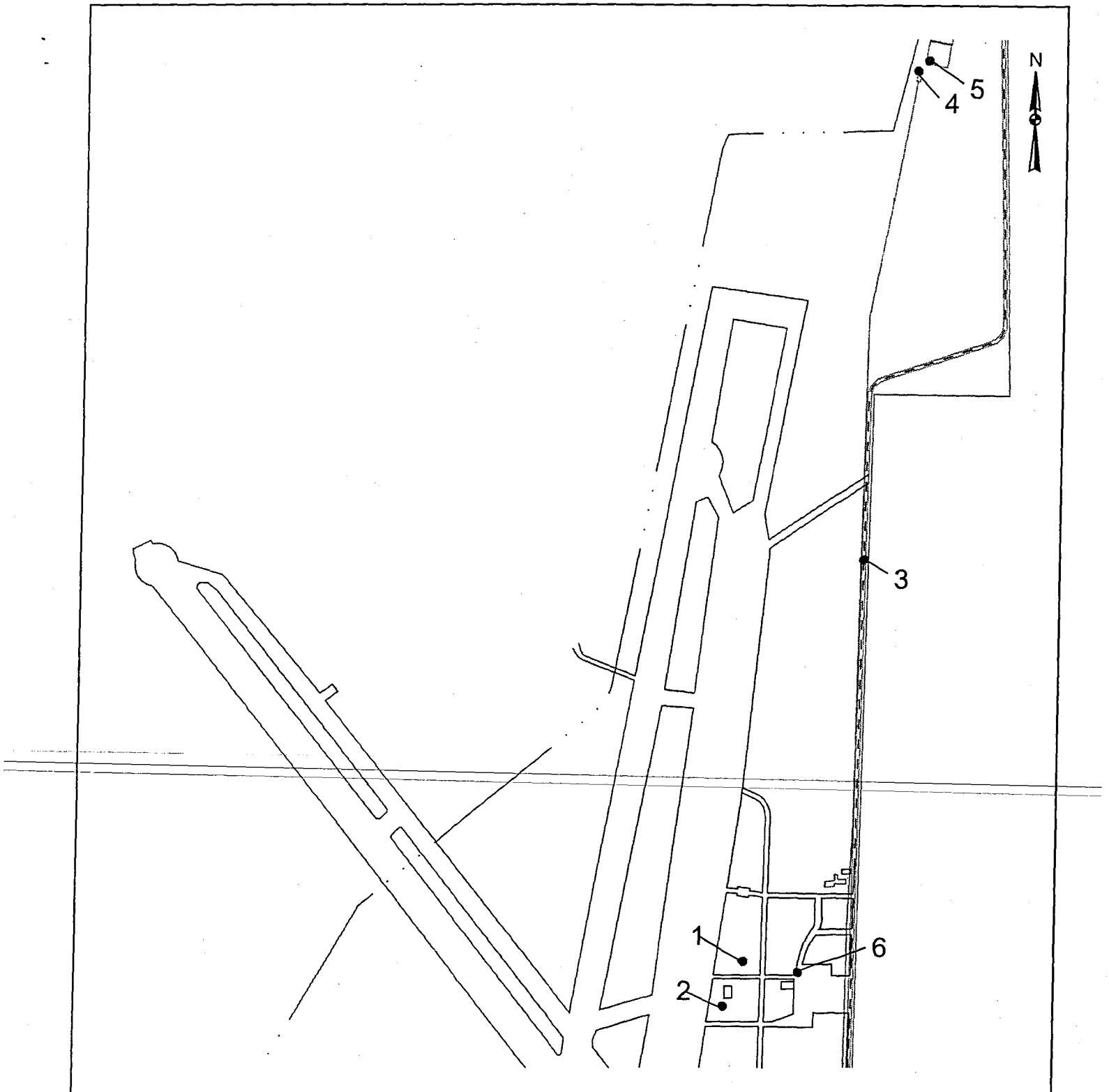
The soil sample data will be used to determine if the soil is impacted by potential contaminants of concern, if any soil contamination found is a potential source of groundwater contamination at the site, and if soil contamination found presents a significant risk to human health and the environment. The soil sampling will be conduced using the procedures defined in Attachment 8 of the Work Plan. Discrete groundwater sampling forms are attached that present the details of the soil sample collection at each location. No groundwater samples will be collected. The samples will be collected using direct-push techniques and a continuous core of the soil from each boring will be logged in accordance with the Unified Soil Classification System.

Soil samples will also be collected at other sewer system structures to verify previous results and evaluate other potential sources of contamination. Soil samples will be collected from the current oxidation pond to verify previous results and evaluate current conditions. Soil samples will be collected from the current sludge drying beds located north of the Imhoff tank to determine if previous activities impacted soil in the area. Due to limited site access, these samples will be collected using a hand auger and the boring will not be logged. Soil samples will also be collected near the former location of the incinerator, along Bell Road, to evaluate if previous activities impacted soil in the area.

The soil gas survey conducted in the Administration Area did not indicate any significant detections of BTEX in the area of UST 117. Long-term SVE testing was conducted at the UST 117 site from May 1997 through March 1998. No soil samples have been collected after March of 1998 to evaluate the effectiveness of the SVE treatment. The lack of detection in the soil gas survey modules indicates that the SVE treatment may have significantly reduced the petroleum hydrocarbon concentrations in soil. Soil samples will be collected to evaluate the current soil concentrations and to determine the risk associated with any compounds that remain in the soil above the groundwater table.

Preliminary results from the soil sample analysis will be presented in a summary report. The analytic data will be validated and may be used in various documents to support ongoing investigations, site remediation, or site closure.

cc: B Hulet
E Ramirez w/o report
T Barry w/o report
R Condit w/o report
Project File



Scale:

1000 0 1000 Feet

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NASA CROWS LANDING
FLIGHT FACILITY
CROWS LANDING, CALIFORNIA

PROPOSED SOIL SAMPLE LOCATIONS

PROPOSED SOIL SAMPLE LOCATIONS

Map ID	Site	Sample ID	Sample Depth (ft bgs)	Comments
1	Site 17	17-GP-01	20	Evaluate potential source of Site 17 groundwater plume where soil gas survey results indicate elevated levels of carbon tetrachloride
			40	
		17-GP-02	20	
			40	
		17-GP-03	20	
			40	
2	UST CL-40	CL40-GP-01	10	Verify petroleum hydrocarbons concentrations where previously detected and where passive soil gas result indicate elevated levels of BTEX
			20	
			40	
3	Site 11A	11A-GP-01	5	Evaluate soil near former location of incinerator for potential contaminants
			10	
		11A-GP-02	5	
			10	
		11A-GP-03	5	
			10	
4	Site 11A	11A-GP-04	surface	Verify petroleum hydrocarbons and metals concentrations in the former oxidation basins
			5	
5	Site 11A	11A-GP-05	surface	Evaluate soil near former location of sludge drying beds for potential contaminants
			2	
			5	
		11A-GP-06	surface	
			2	
			5	
6	UST 117	117-GP-01	20	Verify petroleum hydrocarbons concentrations in soil following long-term soil vapor extraction testing conducted in 1998
			35	
			50	
		117-GP-02	20	
			35	
			50	
		117-GP-03	20	
			35	
			50	
		117-GP-04	20	
			35	
			50	

APPENDIX A

SITE-SPECIFIC GROUNDWATER SAMPLING FORM

NASA Crows Landing Flight Facility

Sample Site:	SITE 17
Sampling Rig Type:	GEOPROBE
Borehole/Rod Diameter:	2 INCH
Anticipated Depth to GW:	55.33' (17-MW-06 ON 11/8/2001)

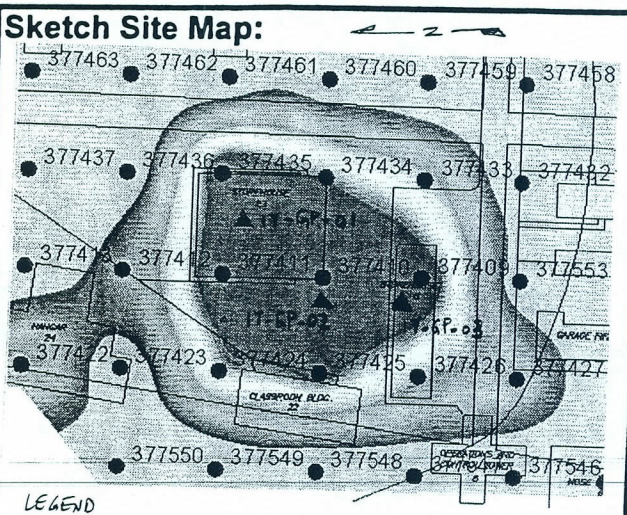
Date: 11/26/2001

Page 1 **of** 2

Purpose of Investigation: EVALUATE CHLORINATED SOLVENT CONCENTRATIONS IN SOIL AT LOCATIONS WHERE PASSIVE SOIL GAS SURVEY DATA INDICATES A POTENTIAL SOURCE OF THE GROUNDWATER CONTAMINATION.

Sampling Collection Rationale: COLLECT SOIL SAMPLES FROM 20 AND 40 FEET BELOW GROUND SURFACE AT LOCATIONS WITHIN THE AREA WHERE THE SOIL GAS SURVEY RESULTS INDICATE HIGH LEVELS OF CARBON TETRACHLORIDE AND ANALYZE FOR VOLATILE ORGANIC COMPOUNDS

Sketch Site Map:



LEGEND
▲ PROPOSED SAMPLE LOCATIONS

Groundwater Sample ID	Depth (bgs)	VOCs (EPA 8260)	TPH as Gas, Jet Fuel (EPA 8015B)	TPH as Diesel, Motor/Fuel Oil (EPA 8015B)	PAH's (EPA 8310)	CAM 17 Metals (EPA 6010B/7000)	Hexavalent Chromium (EPA 7196)	Anions (EPA 300)	Alkalinity (EPA 310.1)	Total Dissolved Solids (TDS)	*Other			

Soil Samples Collected: (Yes) No (If yes, attach boring log)

Soil Sample ID	Depth (bgs)													
17-GP-01 (20)	20 FT	X												
17-GP-01 (40)	40 FT	X												
17-GP-02 (20)	20 FT	X												
17-GP-02 (40)	40 FT	X												
17-GP-03 (20)	20 FT	X												

Total Advanced Depth: 40 FT

**Confirm Method is Described in SAP (IT 2001). If Not, Prepare RFI For New Method.*

APPENDIX A

SITE-SPECIFIC GROUNDWATER SAMPLING FORM

NASA Crows Landing Flight Facility

Sample Site:	SITE 17
Sampling Rig Type:	GEOPROBE
Borehole/Rod Diameter:	2 INCH
Anticipated Depth to GW:	55.33' (17-MW-06 ON 11/8/2001)

Date: 11/26/2001

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Purpose of Investigation: SEE PAGE 1 OF 2

Sampling Collection Rationale: SEE PAGE 1 OF 2

Sketch Site Map: SEE PAGE 1 OF 2

Groundwater Sample ID	Depth (bgs)	VOCs (EPA 8260)	TPH as Gas, Jet Fuel (EPA 8015B)	TPH as Diesel, Motor/Fuel Oil (EPA 8015B)	PAH's (EPA 8310)	CAM 17 Metals (EPA 6010B/7000)	Hexavalent Chromium (EPA 7196)	Anions (EPA 300)	Alkalinity (EPA 310.1)	Total Dissolved Solids (TDS)	*Other			

Soil Samples Collected: Yes No (If yes, attach boring log)

Soil Sample ID	Depth (bgs)													
17-GP-03(40)	40 FT	X												

Total Advanced Depth: 40 FT

**Confirm Method is Described in SAP (IT 2001). If Not, Prepare RFI For New Method.*

APPENDIX A

SITE-SPECIFIC GROUNDWATER SAMPLING FORM

NASA Crows Landing Flight Facility

Sample Site:	UST CL-40
Sampling Rig Type:	GEOPROBE
Borehole/Rod Diameter:	2 INCH
Anticipated Depth to GW:	57.75' (CLI-MW-09 ON 11/8/2001)

Date: 11/26/2001
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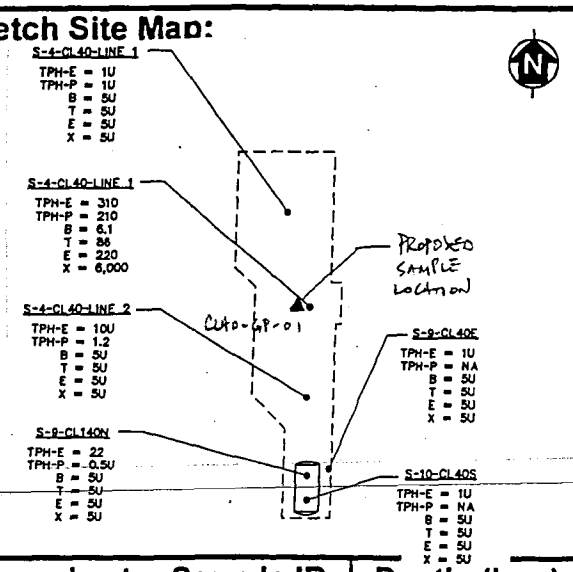
Purpose of Investigation: VERIFY PETROLEUM HYDROCARBON CONCENTRATIONS IN SOIL AT THE PREVIOUS LOCATION OF UST CL-40 WHERE PASSIVE SOIL GAS SURVEY DATA AND PREVIOUS SOIL SAMPLING INDICATE THE POTENTIAL OF REMAINING SOIL IMPACT

Sampling Collection Rationale: COLLECT SOIL SAMPLES FROM 10, 20 AND 40 FEET BELOW GROUND SURFACE NEAR AND BELOW THE LOCATION OF PREVIOUS SOIL SAMPLE LOCATIONS WHERE SOIL GAS SURVEY RESULTS INDICATE ELEVATED LEVELS OF BTEX.

Sketch Site Map:



Groundwater Sample ID	Depth (bgs)	VOCs (EPA 8260)	TPH as Gas, Jet Fuel (EPA 8015B)	TPH as Diesel, Motor/Fuel Oil (EPA 8015B)	PAH's (EPA 8310)	CAM 17 Metals (EPA 6010B/7000)	Hexavalent Chromium (EPA 7196)	Anions (EPA 300)	Alkalinity (EPA 310.1)	Total Dissolved Solids (TDS)	*Other			

Soil Samples Collected: (Yes) No (If yes, attach boring log)

Soil Sample ID	Depth (bgs)													
CL40-GP-01 (10)	10 FT	X	X	X										
CL40-GP-01 (20)	20 FT	X	X	X										
CL40-GP-01 (40)	40 FT	X	X	X										
Total Advanced Depth:	40													

**Confirm Method is Described in SAP (IT 2001). If Not, Prepare RFI For New Method.*

APPENDIX A

SITE-SPECIFIC GROUNDWATER SAMPLING FORM

NASA Crows Landing Flight Facility

Sample Site:	SITE 11 A - FORMER SEWER AREA
Sampling Rig Type:	GEOPROBE
Borehole/Rod Diameter:	2 INCH
Anticipated Depth to GW:	52.41' (17-MW-24 ON 11/8/2001)

Date: 11/26/2001

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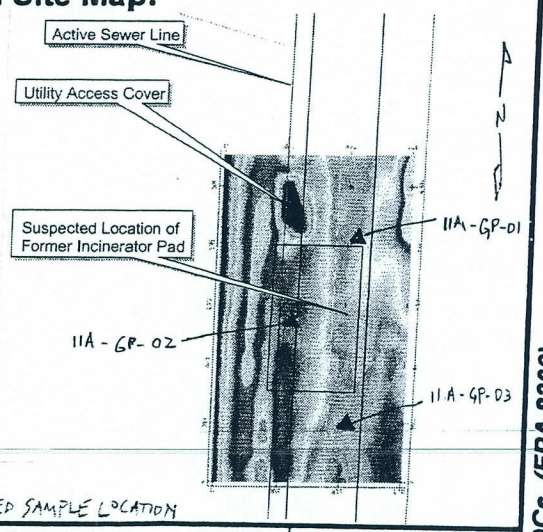
Purpose of Investigation: INVESTIGATE FOR THE PRESENCE AND CONCENTRATION OF POTENTIAL CONTAMINANTS AT THE FORMER LOCATION OF THE INCINERATOR

Sampling Collection Rationale: COLLECT SOIL SAMPLES NEAR (5 FT BGS) AND BELOW (10 FT BGS) THE FORMER LOCATION OF THE INCINERATOR PAD AND ANALYZE FOR POTENTIAL COMPOUND ASSOCIATED WITH WASTE INCINERATION

Sketch Site Map:



▲ PROPOSED SAMPLE LOCATION

Groundwater Sample ID	Depth (bgs)	VOCs (EPA 8260)	TPH as Gas, Jet Fuel (EPA 8015B)	TPH as Diesel, Motor/Fuel Oil (EPA 8015B)	PAH's (EPA 8310)	CAM 17 Metals (EPA 6010B/7000)	Hexavalent Chromium (EPA 7196)	Anions (EPA 300)	Alkalinity (EPA 310.1)	Total Dissolved Solids (TDS)	*Other DIOXINS (EPA 8280A) - SEE RFI #080			

Soil Samples Collected: Yes No (If yes, attach boring log)

Soil Sample ID	Depth (bgs)													
11A-GP-01 (5)	5 FT	X	X	X	X	X					X			
11A-GP-01 (10)	10 FT	X	X	X	X	X					X			
11A-GP-02 (5)	5 FT	X	X	X	X	X					X			
11A-GP-02 (10)	10 FT	X	X	X	X	X					X			
11A-GP-03 (5)	5 FT	X	X	X	X	X					X			
Total Advanced Depth:	10 FT													

Confirm Method is Described in SAP (IT 2001). If Not, Prepare RFI For New Method.

APPENDIX A

SITE-SPECIFIC GROUNDWATER SAMPLING FORM

NASA Crows Landing Flight Facility

Sample Site:	SITE 11A - FORMER SEWER AREA
Sampling Rig Type:	GEOPROBE
Borehole/Rod Diameter:	2 INCH
Anticipated Depth to GW:	52.41' (11-MW-24 ON 11/8/2001)

Date: 11/26/2001
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Purpose of Investigation: SEE PAGE 1 OF 2

Sampling Collection Rationale: SEE PAGE 1 OF 2

Sketch Site Map: SEE PAGE 1 OF 2

Groundwater Sample ID	Depth (bgs)	VOCs (EPA 8260)	TPH as Gas, Jet Fuel (EPA 8015B)	TPH as Diesel, Motor/Fuel Oil (EPA 8015B)	PAH's (EPA 8310)	CAM 17 Metals (EPA 6010B/7000)	Hexavalent Chromium (EPA 7196)	Anions (EPA 300)	Alkalinity (EPA 310.1)	Total Dissolved Solids (TDS)	*Other DIOXINS (EPA 8280A) - SEE RFI #080			

Soil Samples Collected: Yes No (If yes, attach boring log)

Soil Sample ID	Depth (bgs)													
11A-GP-03(10)	10 FT	X	X	X	X	X					X			

Total Advanced Depth: 10 FT

**Confirm Method is Described in SAP (IT 2001). If Not, Prepare RFI For New Method.*

SITE-SPECIFIC GROUNDWATER SAMPLING FORM

NASA Crows Landing Flight Facility

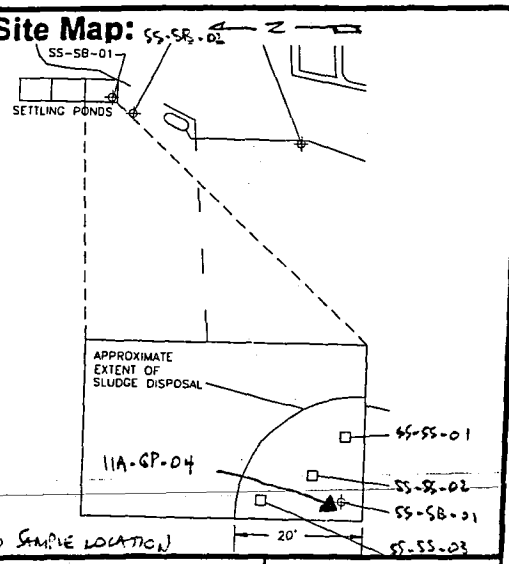
Sample Site:	SITE 11A - SEWER SYSTEM
Sampling Rig Type:	HAND AUGER
Borehole/Rod Diameter:	3 INCH
Anticipated Depth to GW:	NA

Date: 11/26/2001
Page 1 **of** 1

Purpose of Investigation: VERIFY THE CONCENTRATIONS OF PETROLEUM HYDROCARBONS AND METALS IN SOIL NEAR THE DISCHARGE TO THE NEW SEWER SYSTEM SETTLING PONDS.

Sampling Collection Rationale: COLLECT A SURFACE SOIL SAMPLE AND SOIL SAMPLE FROM 5 FEET BELOW GROUND SURFACE NEAR THE LOCATION OF A PREVIOUS SOIL SAMPLE TO VERIFY CURRENT CONDITIONS.

Sketch Site Map:



Groundwater Sample ID	Depth (bgs)	VOCs (EPA 8260)	TPH as Gas, Jet Fuel (EPA 8015B)	TPH as Diesel, Motor/Fuel Oil (EPA 8015B)	PAH's (EPA 8310)	CAM 17 Metals (EPA 6010B/7000)	Hexavalent Chromium (EPA 7196)	Anions (EPA 300)	Alkalinity (EPA 310.1)	Total Dissolved Solids (TDS)	*Other			

Soil Samples Collected: (Yes) No (If yes, attach boring log)

Soil Sample ID	Depth (bgs)													
11A - GP - 04 (SS)	SURFACE	X	X	X	X	X								
11A - GP - 04 (5)	5 FT	X	X	X	X	X								

Total Advanced Depth: 5 FT

**Confirm Method is Described in SAP (IT 2001). If Not, Prepare RFI For New Method.*

SITE-SPECIFIC GROUNDWATER SAMPLING FORM

NASA Crows Landing Flight Facility

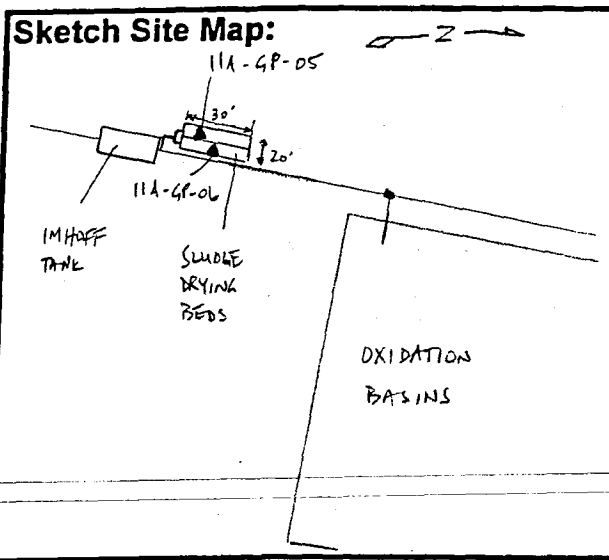
Sample Site:	SITE 11A - SEWER SYSTEM
Sampling Rig Type:	HAND AUGER
Borehole/Rod Diameter:	3 INCH
Anticipated Depth to GW:	NA

Date: 11/26/2001
Page 1 **of** 2

Purpose of Investigation: EVALUATE CONCENTRATIONS OF PETROLEUM HYDROCARBONS AND METALS IN SOIL AT THE FORMER LOCATION OF THE SLUDGE DRYING BEDS

Sampling Collection Rationale: COLLECT SURFACE SOIL SAMPLES AND SAMPLES FROM JUST BELOW THE PREVIOUS DEPTH OF THE BEDS (5FT) NEAR THE DISCHARGE INTO THE BEDS AND SLIGHTLY DOWNSTREAM

Sketch Site Map:



Groundwater Sample ID	Depth (bgs)	VOCs (EPA 8260)	TPH as Gas, Jet Fuel (EPA 8015B)	TPH as Diesel, Motor/Fuel Oil (EPA 8015B)	PAH's (EPA 8310)	CAM 17 Metals (EPA 6010B/7000)	Hexavalent Chromium (EPA 7196)	Anions (EPA 300)	Alkalinity (EPA 310.1)	Total Dissolved Solids (TDS)	*Other				

Soil Samples Collected: Yes No (If yes, attach boring log)

Soil Sample ID	Depth (bgs)														
11A-GP-05 (SS)	SURFACE	X	X	X	X	X									
11A-GP-05 (2)	2 FT	X	X	X	X	X									
11A-GP-05 (5)	5 FT	X	X	X	X	X									
11A-GP-06 (SS)	SURFACE	X	X	X	X	X									
11A-GP-06 (2)	2 FT														
Total Advanced Depth:	5 FT														

Confirm Method is Described in SAP (IT 2001). If Not, Prepare RFI For New Method.

SITE-SPECIFIC GROUNDWATER SAMPLING FORM

NASA Crows Landing Flight Facility

Sample Site:	SITE 11A - SEWER SYSTEM
Sampling Rig Type:	HAND AUGER
Borehole/Rod Diameter:	3 INCH
Anticipated Depth to GW:	NA

Date: 11/26/2001
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Purpose of Investigation: SEE PAGE 1 of 2

Sampling Collection Rationale: SEE PAGE 1 of 2

Sketch Site Map: SEE PAGE 1 of 2

Groundwater Sample ID	Depth (bgs)	VOCs (EPA 8260)	TPH as Gas, Jet Fuel (EPA 8015B)	TPH as Diesel, Motor/Fuel Oil (EPA 8015B)	PAH's (EPA 8310)	CAM 17 Metals (EPA 6010B/7000)	Hexavalent Chromium (EPA 7196)	Anions (EPA 300)	Alkalinity (EPA 310.1)	Total Dissolved Solids (TDS)	*Other			

Soil Samples Collected: Yes No (If yes, attach boring log)

Soil Sample ID	Depth (bgs)													
11A-SP-06(5)	5 FT	X	X	X	X	X								

Total Advanced Depth: 5 FT

**Confirm Method is Described in SAP (IT 2001). If Not, Prepare RFI For New Method.*

APPENDIX A

SITE-SPECIFIC GROUNDWATER SAMPLING FORM

NASA Crows Landing Flight Facility

Sample Site:	UST 117
Sampling Rig Type:	GEOPROBE
Borehole/Rod Diameter:	2 INCH
Anticipated Depth to GW:	55.65' (117-MW-10 ON 11/8/2001)

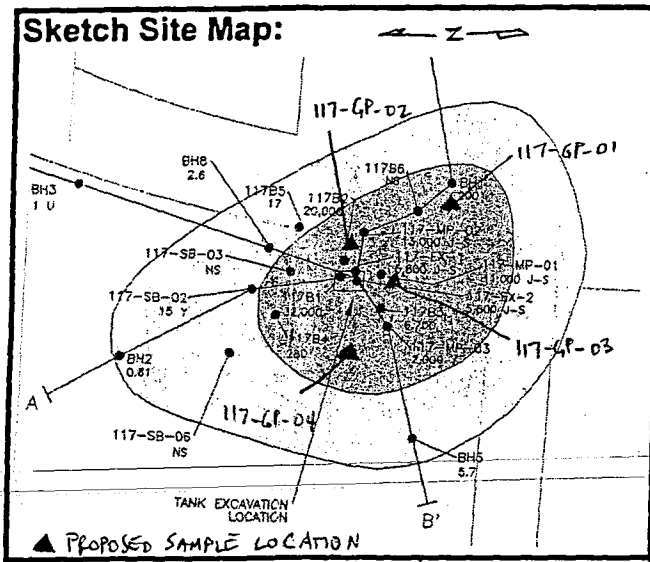
Date: 11/26/2001

Page 1 **of** 3

Purpose of Investigation: VERIFY THE CONCENTRATION OF PETROLEUM HYDROCARBONS IN SOIL AT THE FORMER LOCATION OF UST 117 FOLLOWING LONG TERM SOIL VAPOR EXTRACTION. RESULTS MAY BE USED TO SUPPORT SITE CLOSURE.

Sampling Collection Rationale: COLLECT SOIL SAMPLES FROM 20, 35, AND 50 FEET BELOW GROUND SURFACE NEAR AND AWAY FROM PREVIOUS SOIL SAMPLE LOCATIONS TO EVALUATE ANY DECREASE IN CONCENTRATION AND DETERMINE THE RISK ASSOCIATED WITH ANY COMPOUNDS REMAINING

Sketch Site Map:



▲ PROPOSED SAMPLE LOCATION

Groundwater Sample ID	Depth (bgs)	VOCs (EPA 8260)	TPH as Gas, Jet Fuel (EPA 8015B)	TPH as Diesel, Motor/Fuel Oil (EPA 8015B)	PAH's (EPA 8310)	CAM 17 Metals (EPA 6010B/7000)	Hexavalent Chromium (EPA 7196)	Anions (EPA 300)	Alkalinity (EPA 310.1)	Total Dissolved Solids (TDS)	*Other			

Soil Samples Collected: (Yes) No (If yes, attach boring log)

Soil Sample ID	Depth (bgs)													
117-GP-01 (20)	20 FT	X	X	X										
117-GP-01 (35)	35 FT	X	X	X										
117-GP-01 (50)	50 FT	X	X	X										
117-GP-02 (20)	20 FT	X	X	X										
117-GP-02 (35)	35 FT	X	X	X										
Total Advanced Depth:	50 FT													

**Confirm Method is Described in SAP (IT 2001). If Not, Prepare RFI For New Method.*

APPENDIX A

SITE-SPECIFIC GROUNDWATER SAMPLING FORM

NASA Crows Landing Flight Facility

Sample Site:	UST 117
Sampling Rig Type:	GEOPROBE
Borehole/Rod Diameter:	2 INCH
Anticipated Depth to GW:	55.65' (117-MW-10 ON 11/8/2001)

Date: 11/26/2001
Page 2 **of** 3

Purpose of Investigation: SEE PAGE 1 OF 3

Sampling Collection Rationale: SEE PAGE 1 OF 3

Sketch Site Map: SEE PAGE 1 OF 3

Groundwater Sample ID	Depth (bgs)	VOCs (EPA 8260)	TPH as Gas, Jet Fuel (EPA 8015B)	TPH as Diesel, Motor/Fuel Oil (EPA 8015B)	PAH's (EPA 8310)	CAM 17 Metals (EPA 6010B/7000)	Hexavalent Chromium (EPA 7196)	Anions (EPA 300)	Alkalinity (EPA 310.1)	Total Dissolved Solids (TDS)	*Other			

Soil Samples Collected: (Yes) No (If yes, attach boring log)

Soil Sample ID	Depth (bgs)													
117-GP-02 (50)	50 FT	X	X	X										
117-GP-03 (20)	20 FT	X	X	X										
117-GP-03 (35)	35 FT	X	X	X										
117-GP-03 (50)	50 FT	X	X	X										
117-GP-04 (20)	20 FT	X	X	X										
Total Advanced Depth:	50 FT													

**Confirm Method is Described in SAP (IT 2001). If Not, Prepare RFI For New Method.*

APPENDIX A

SITE-SPECIFIC GROUNDWATER SAMPLING FORM

NASA Crows Landing Flight Facility

Sample Site:	UST 117
Sampling Rig Type:	GEOPROBE
Borehole/Rod Diameter:	2 INCH
Anticipated Depth to GW:	55.65' (117-MW-10 ON 11/8/2001)

Date: 11/26/2001
Page 3 **of** 3

Purpose of Investigation: SEE PAGE 1 OF 3

Sampling Collection Rationale: SEE PAGE 1 OF 3

Sketch Site Map: SEE PAGE 1 OF 3

Groundwater Sample ID	Depth (bgs)	VOCs (EPA 8260)	TPH as Gas, Jet Fuel (EPA 8015B)	TPH as Diesel, Motor/Fuel Oil (EPA 8015B)	PAH's (EPA 8310)	CAM 17 Metals (EPA 6010B/7000)	Hexavalent Chromium (EPA 7196)	Anions (EPA 300)	Alkalinity (EPA 310.1)	Total Dissolved Solids (TDS)	*Other			

Soil Samples Collected: (Yes) No (If yes, attach boring log)

Soil Sample ID	Depth (bgs)													
117-GP-04(35)	35 FT	X	X	X										
117-GP-04(50)	50 FT	X	X	X										

Total Advanced Depth: 50 FT

**Confirm Method is Described in SAP (IT 2001). If Not, Prepare RFI For New Method.*

SOUTHWESTNAVFACENGCOM
Code 06CC.LMH
Telephone: (619) 532-0783/Fax (619) 532-0780

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TRANSMITTAL

Date: 30 NOV 2001

From: Lynn Marie Hornecker LMH
CROWS LANDING

To: Diane Silva
Code 01LS.DS

Subj: CERCLA Administrative Record Materials
Former Naval Auxiliary Landing Field, Crows Landing

Installation: Former Naval Auxiliary Landing Field, Crows Landing

UIC Number: N60211

Document Title (or subject): Interim Data Summary and Planned Soil Sampling Locations

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Record Date: 29 Nov 2001

Approximate Number of Pages: ~20

EPA Category: 01.1

Sites: Sites 11A + 17

Key Words: Soil Sampling

Contract: N/A

CTO Number: N/A