# **Appendix H**

Report of Phase II Investigation Earth Systems Southwest February 23, 2006



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February 23, 2006

File No.: 10437-02 06-02-791

Manors Construction and Development Company, Inc. 127 Business Park Drive, Suite C Corona, California 92882

Attention:

Mr. Paul Minnick

Subject:

Report of Phase II Investigation

Project:

APNs 419-160-005 and -024, 419-170-016, -017, -018, -022, and -027

East Side of Xenia Avenue between 6<sup>th</sup> and 8<sup>th</sup> Streets

Beaumont, California

References:

- 1. Earth Systems Southwest, Report of Phase I Environmental Site Assessment, East Side of Xenia Avenue Between 6<sup>th</sup> Street and 8<sup>th</sup> Street, Assessors Parcel Numbers 419-160-005 and -024, 419-170-016, -017, -018, -022, and -027, Beaumont, California, File No.: 10437-01, Document No.: 05-12-595, dated December 28, 2005.
- 2. Earth Systems Southwest, Proposal for Phase II Investigation, East Side of Xenia Avenue between 6<sup>th</sup> Street and 8<sup>th</sup> Street, APNs 419-160-005 and -024, 419-170-016, -017, -018, -022, and 0-27, Beaumont, California, Proposal No.: SWP-06-616, dated January 13, 2006.

#### Dear Mr. Minnick:

Pursuant to your request and authorization, Earth Systems Southwest [ESSW] has completed a Phase II Investigation at the site referenced above, in accordance with our proposal dated January 13, 2006 and signed on January 25, 2006 (referenced above). Note that this report was prepared for your exclusive use. It was prepared to stand as a whole and no part should be excerpted or used in exclusion of any other part.

This report presents the findings of the Phase II Investigation conducted by Earth Systems Southwest [ESSW] for approximately 11 acres of land located on the east side of Xenia Road between 6<sup>th</sup> Street and 8<sup>th</sup> Street in the City of Beaumont, California. The site consists of former agricultural (grazing) land. The site is identified as Assessors Parcel Numbers [APNs] 419-160-005 and -024, 419-170-016, -017, -018, -022, and -027. Figures depicting the site location and layout are presented in Appendix A.

#### Background

ESSW completed a Phase I Environmental Site Assessment [ESA] of the site in December, 2005 (referenced above) that identified several issues of potential concern, including the following:

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- 1. Sixteen dirt piles and two excavations were observed northeast of the slab foundation, adjacent to the northern boundary. It was not clear whether the dirt piles originated onsite.
- 2. The site had been used for agriculture or grazing from at least 1949, the earliest historical reference available. Therefore, the potential exists for residues of presently banned Organochlorine Pesticides [OCPs], such as DDT, to be present in soils at the site.
- 3. Based on an historical aerial photograph review, at least six buildings and/or sheds have been onsite. Four of the buildings/sheds were in the northwest quarter of the site; one building was within a fenced enclosure east of the center of the site; and a shed was near the center of the south boundary. Rural residences and farms often have onsite fuel storage tanks, either above ground or underground [ASTs and USTs, respectively]. The concern with USTs is that a release can occur and go unnoticed until the UST is removed.

#### **Summary of Activities**

The purpose of this Phase II investigation was to evaluate the issues stated above. ESSW personnel conducted the fieldwork at the site on February 6, 2006. Work at the site is summarized below. The site location and a map of the sample and survey locations are presented on Figures 1 and 2. The laboratory reports and chain-of-custody forms are included in Appendix A. The methods used are summarized in Appendix B.

- 1. The geophysical survey consisted of using a Terrain Conductivity Meter [TCM] (a type of metal detector) to locate possible USTs. The surveyed area consisted of the area around the former building locations. The locations of the survey are presented on Figure 2.
- 2. Six surface soil samples were collected from the dirt piles, four were collected from the former building locations, and twelve were collected in the agricultural fields. Samples were analyzed as follows:
  - The six dirt-pile samples (SS-1 through SS-6) were made into two composite samples by the laboratory. Each composite sample was analyzed for the following:
    - o Total Petroleum Hydrocarbons fuel screen [TPHfs] using EPA Method 8015M,
    - o Title 22 (CAM) metals using EPA method 6010B/7471A, and
    - o OCPs using EPA method 8081A.
  - The sixteen surface samples from the agricultural fields (SS-101 through SS-112) and building areas (SS-7 through SS-10) were analyzed for OCPs using EPA method 8081A.

### Summary of Findings

Buried metallic objects were not identified during the geophysical survey. Other indications of USTs were not observed.

TPH and OCPs were not detected in the samples from the dirt piles. Heavy metals were detected below the regulatory limits for hazardous waste [TTLCs] and residential preliminary remediation goals [PRGs]. The heavy metals appear consistent with naturally occurring background concentrations.

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Trace concentrations of OCPs were detected in two of the agricultural area and building area samples. Chlordane was detected at 0.036 mg/kg in building area sample SS-10. DDE (a breakdown product of DDT) was detected at 0.002 mg/kg in agricultural area sample SS-112. These results are well below the TTLCs and PRGs.

-3-

Issues beyond those identified during the Phase I Investigation were not observed. Based on the activities and findings summarized above, further investigations do not appear warranted.

-000-

We appreciate the opportunity to assist you on this project. If we can be of further assistance, or if you have any questions concerning this report, please feel free to contact us. Note that this report was prepared for the exclusive use of Manors Construction and Development, Inc. Limitations on the use of this report are presented in Appendix C.

Sincerely,

EARTH SYSTEMS SOUTHWEST

Alexander Schriener, Jr., PG 7198

Senior Geologist

Phase II/as/ajf

Distribution: 6/Manors Construction & Development Company, Inc.

1/SAS 1/RC File 2/BD File

Enclosures: Figure 1 – Site Location

Figure 2 – Sample Locations

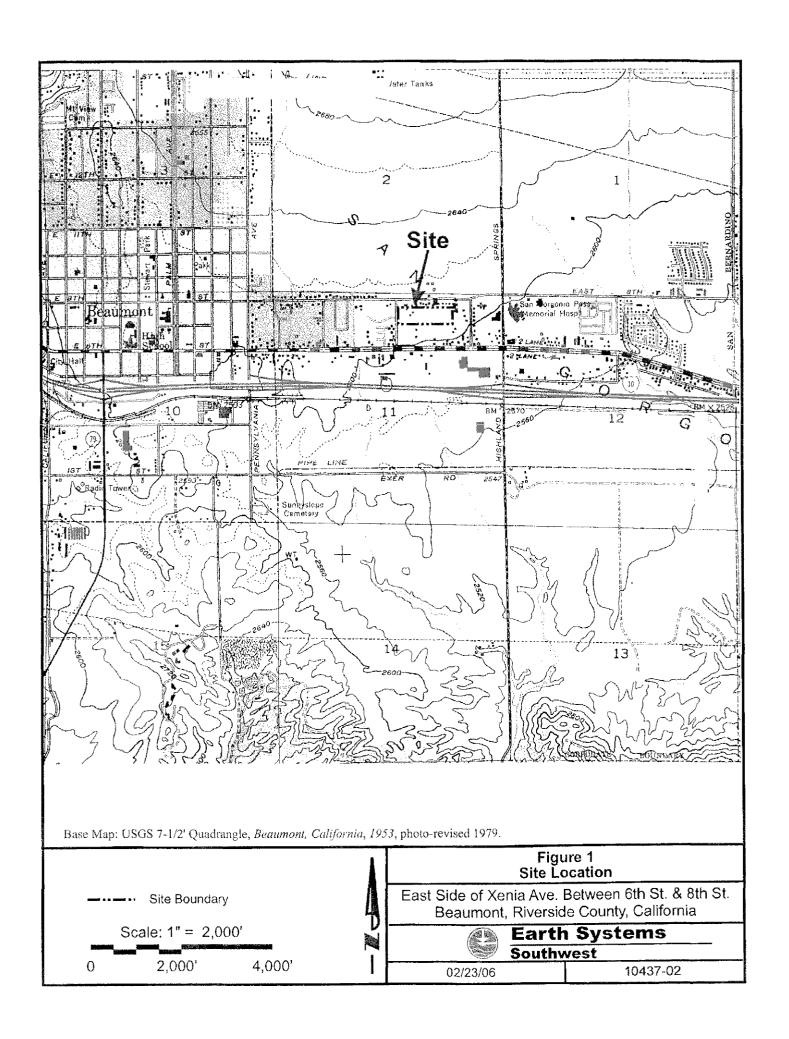
Table 1 – TPH Results

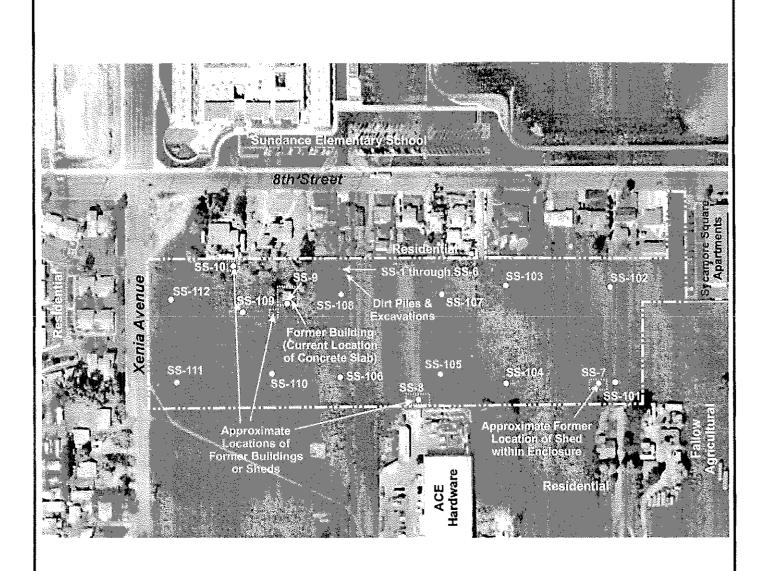
Table 2 – CAM 17 Heavy Metals Results

Table 3 − OCP Results

Appendix A – Laboratory Reports

Appendix B – Methods Appendix C – Limitations





Approximate Scale: 1" = 190'

0 190'

380'

Reference: GlobeXplorer aerial photograph, dated 2004.

# **LEGEND**

Site Boundary

Approximate Boundaries of

Geophysical Survey

• SS-112 Surface Sample Location



# Figure 2 Site Layout

East Side of Xenia Ave. Between 6th St. & 8th St. Beaumont, Riverside County, California



Earth Systems
Southwest

02/23/06

10437-02

# Table 1 East Side of Xenia Road - TPH results EPA Method 8015 Fuel Screen

Sample ID	Gasoline	Jet Fuel	Diesel	Motor Oil	Extractable Hydrocarbons	
SS-1 SS-2 SS-3	ND<10	ND<10	ND<10	ND<10	ND<10	
SS-4 SS-5 SS-6	ND<10	ND<10	ND<10	ND<10	ND<10	

Notes: All concentrations in mg/kg.

Samples SS-1,-2,-3 and SS-4,-5,-6 were made into composite samples

by the laboratory.

### Definitions:

ND - not detected greater than the listed detection limit.

TPH - Total Petroleum Hydrocarbons.

Table 2
East Side of Xenia Road - CAM 17 Heavy Metals Results
EPA Method 6010

Sample ID	As	Ba	Cr	Co	Cu	Pb	Ni	V	Zn	Others
SS-1										
SS-2	ND<1.0	70	20	11	19	9.5	14	40	56	ND
SS-3				-						
SS-4										
SS-5	1.3	64	18	11	17	8.1	13	37	48	ND
SS-6										
TTLC	500	10,000	2,500	000,8	2,500	1,000	2,000	2,400	5,000	Various
Residential PRG	22	5,400	210	900	3,100	150	1,600	550	23,000	Various

#### Notes:

Concentrations are in mg/kg unless otherwise noted

"Others" includes Antimony, Beryllium, Cadmium, Mercury, Molybdenum, Selenium, Silver, and Thallium, which were all "not detected." Samples SS-1,-2,-3 and SS-4,-5,-6 were made into composite samples by the laboratory.

#### Definitions:

PRG = Preliminary Remediation Goal

ND = not detected (see Appendix C for itemized constituents and corresponding Detection Limits, by sample)

TTLC = Total Threshold Limit Concentration (a California criteria for defining a waste as hazardous)

# Table 3 East Side of Xenia Road - OCP results EPA Method 8081

Sample ID	4,4-DDT	4,4-DDE	4,4-DDD	Chlordane	All Other OCPs
SS-1					
SS-2	ND<0.002	ND<0.002	ND<0.002	ND<0.020	ND
SS-3					
SS-4			, , , , , , , , , , , , , , , , , , ,		
SS-5	ND<0.002	ND<0.002	ND<0.002	ND<0.020	ND
SS-6					
SS-7	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND
SS-8	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND
SS-9	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND
SS-10	ND<0.002	ND<0.002	ND<0.002	0.036	ND
SS-101	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND
SS-102	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND
SS-103	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND
SS-104	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND
SS-105	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND
SS-106	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND
SS-107	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND
SS-108	ND<0.002	ND<0.002	ND<0.002	ND<0,002	ND
SS-109	ND<0,002	ND<0.002	ND<0.002	ND<0.002	ND
SS-110	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND
SS-111	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND
SS-112	ND<0.002	0.002	ND<0.002	ND<0.002	ND
TTLC	1.0 mg/kg as sun	i total of DDT, DI	2.5 mg/kg	Various	
Residential PRG	1.7 mg/kg	1.7 mg/kg	2.4 mg/kg	1.6 mg/kg	Various

Notes: All concentrations in mg/kg.

Samples SS-1,-2,-3 and SS-4,-5,-6 were made into composite samples

by the laboratory.

#### **Definitions:**

PRG = Preliminary Remediation Goal

ND = not detected greater than the listed detection limit.

listed detection limit.

TTLC = Total Threshold Limit Concentration (a California criteria

for defining a waste as hazardous)

# Appendix A

Laboratory Report



Convert Hazametas Washa Tea No Moya & N. Heide Deciminates

Client: Earth Systems

79-811B Country Club Drive Bermuda Dunes, CA 92203 Date Sampled: Date Received: Job Number:

02/06/06 02/07/06 27557

Project: East Side Xenia Road

#### **CASE NARRATIVE**

The following information applies to samples which were received on 02/07/06:

The samples were received at the laboratory chilled and sample containers were intact.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested. The date of issue for this report is 02/14/06.

Report approved by:

2006.02.14

Jon Wilson 15:28:49 -08'00'

Tom Wilson

Laboratory Director

ELAP Lab# 2419, 2479, 2527, 2373, 2562

RL: Reporting Limit -- The lowest level at which the compound can be reliably detected under normal laboratory conditions.

ND: Not Detected -- The compound was analyzed for, but was not found to be present at or above the Reporting Limit.

NA: Not Analyzed -- This compound was not on the list of compounds requested for analysis.

Page 1 of 10



# Metals by EPA 6010B and EPA 7471A

Client: Earth Systems

Project: East Side Xenia Road

Job No: 27557 Matrix: Soil Analyst: TLB Date Sampled: Date Received: 02/06/06 02/07/06

Date Digested: Date Analyzed: 02/08/06 02/08/06

Batch Number: 6010S3564

7471\$1367

	Sample ID:	Blank	Composite: SS-1,2,3	Composite: SS-4,5,6
Method	RL	mg/Kg	mg/Kg	mg/Kg
6010B	5.0	ND	ND	ND
6010B	1.0	ND	ND	1.3
6010B	0.50	ND	70	64
6010B	0.50	ND	ND	ND
6010B	0.50	ND	ND	ND
6010B	0.50	ND	20	18
6010B	0.50	ND	11	11
6010B	1.0	ND	19	17
6010B	1.0	ND	9.5	8.1
6010B	5.0	ND	ND	ND
6010B	1.0	ND	14	13
6010B	5.0	ND	ND	ND
6010B	2.0	ND	ND	ND
6010B	10	ND	ND	ND
6010B	5.0	ND	40	37
6010B	10	ND	56	48
7471A	0.02	ND	ND	ND
	6010B 6010B 6010B 6010B 6010B 6010B 6010B 6010B 6010B 6010B 6010B 6010B 6010B	Method         RL           6010B         5.0           6010B         1.0           6010B         0.50           6010B         0.50           6010B         0.50           6010B         0.50           6010B         0.50           6010B         1.0           6010B         1.0           6010B         5.0           6010B         5.0           6010B         5.0           6010B         2.0           6010B         10           6010B         5.0           6010B         5.0           6010B         10           6010B         10	6010B 5.0 ND 6010B 1.0 ND 6010B 0.50 ND 6010B 1.0 ND 6010B 1.0 ND 6010B 1.0 ND 6010B 5.0 ND 6010B 5.0 ND 6010B 1.0 ND 6010B 1.0 ND 6010B 1.0 ND 6010B 5.0 ND	Method         RL         mg/Kg         mg/Kg           6010B         5.0         ND         ND           6010B         1.0         ND         ND           6010B         0.50         ND         ND           6010B         0.50         ND         ND           6010B         0.50         ND         20           6010B         0.50         ND         11           6010B         0.50         ND         19           6010B         1.0         ND         9.5           6010B         1.0         ND         9.5           6010B         5.0         ND         ND           6010B         5.0         ND         ND           6010B         5.0         ND         ND           6010B         5.0         ND         ND           6010B         10         ND



# QC Sample Report - Metals by EPA 6010B and EPA 7471A

Matrix: Soil

# Metals by EPA 6010B

Batch Number: 6010S3564

Spike Sample ID: Laboratory Control Sample MS/MSD Sample ID: Composite: SS-4.5.6

MS/MSD Sample ID: Composite: SS-4,5,6										
	Bat	tch Acc	uracy Resi	ults	E	Batch Pro	ecision I	Results	Ì	
Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail	
Antimony	50	102	75 - 125	Pass	42.54	42.68	0%	20%	Pass	
Arsenic	50	102	75 - 125	Pass	45.01	45.74	2%	20%	Pass	
Barium	50	102	75 - 125	Pass	106.8	100.7	6%	20%	Pass	
Beryllium	50	100	75 - 125	Pass	44.32	46.12	4%	20%	Pass	
Cadmium	50	103	75 - 125	Pass	43.86	44.71	2%	20%	Pass	
Chromium	50	104	75 - 125	Pass	62.48	62.42	0%	20%	Pass	
Cobalt	50	104	75 - 1 <b>2</b> 5	Pass	52.22	52.69	1%	20%	Pass	
Copper	50	102	75 - 125	Pass	63.56	63.79	0%	20%	Pass	
Lead	50	102	75 - 125	Pass	50.46	51.19	1%	20%	Pass	
Molybdenum	50	100	75 - 125	Pass	41.48	42.35	2%	20%	Pass	
Nickel	50	104	75 - 125	Pass	55.31	55.80	1%	20%	Pass	
Selenium	50	101	75 - 125	Pass	41.68	42.78	3%	20%	Pass	
Silver	50	91	75 - 125	Pass	39.39	40.00	2%	20%	Pass	
Thallium	50	102	75 - 125	Pass	39.60	41,29	4%	20%	Pass	
Vanadium	50	101	75 - 125	Pass	79,88	78.29	2%	20%	Pass	
Zinc	50	107	75 - 125	Pass	92,67	91.52	1%	20%	Pass	

### Analytical Notes:

Mercury by EPA 7471A

Batch Number: 7471S1367

Spike Sample ID: Laboratory Control Sample MS/MSD Sample ID: Composite: SS-4,5,6

молиор запретр.	1	Batch Accuracy Results				Batch Pre	ecision	Results	
Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Mercury	0.42	99	75 - 125	Pass	0.446	0.449	1%	20%	Pass

MIRCH	YUCHE	INOTE	S.

MS: Matrix Spike

LCS: Laboratory Control Sample

MSD: Matrix Spike Duplicate

LCSD: Laboratory Control Sample Duplicate



# Fuel Screen by GC/FID

Client:

Earth Systems

Project:

East Side Xenia Road

Job No.: Matrix:

27557 Soil JΤ

Analyst:

Date Sampled:

Date Received: 02/07/06

02/06/06

Date Extracted: 02/09/06

Date Analyzed: 02/10/06

Batch Number: M48015DS1363

Fuel Identified:	Gasoline	Jet Fuel	Diesel	Motor Oil	Extractable Hydrocarbons	Reporting Limits
Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/kg
Method Blank	ND	ND	ND	ND	ND	10
Composite: SS-1, SS-2, SS-3	ND	ND	ND	ND	ND	10
Composite: \$\$-4, \$\$-5, \$\$-6	ND	ND	ND	ND	ND	10



# QC Sample Report - Extractable Hydrocarbons as Diesel by GC/FID

Matrix: Soil

Batch Number: M48015DS1363

# **Batch Accuracy Results**

Spike Sample ID: Laborator	y Control	Sample			Analytical Notes:
Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	
Diesel	500	91	70 - 130	Pass	

#### **Batch Precision Results**

MS/MSD Sample ID: 27564-	1					Analytical Notes:
Compound	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail	
Diesel	475.4	494.9	4%	25%	Pass	

MS: Matrix Spike MSD: Matrix Spike Duplicate LCS: Laboratory Control Sample

LCSD: Laboratory Control Sample Duplicate



Client: Project: Earth Systems

East Side Xenia Road

Date Sampled: Date Received: 02/06/06 02/07/06

Job No.: Matrix: Analyst:

27557 Soil SEC/LB Date Extracted: Date Analyzed: 02/10/06

Batch Number:

02/10-11/06 PESTS0990

	Sample ID:	Method Blank	\$\$-7	SS-8	SS-9	SS-10	SS-101
Pesticides	RL	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Aldrin	0.001	ОИ	ND	ND	ND	ND	ND
Alpha-BHC	0.001	ND	ND	ND	ND	ND	ND
Beta-BHC	0.001	ND	ND	ND	ND	ND	ND
Delta-BHC	0.001	ND	ND	ND	ND	ND	ND
Gamma-BHC (Lindane)	0.001	ND	ND	ND	ND	ND	ND
Technical Chlordane	0.020	ND	ND	ND	ND	0.036	ND
4,4'-DDD	0.002	ND	ND	ND	ND	ND	ND
4,4'-DDE	0.002	ND	ND	ND	ND	ND	ND
4,4'-DDT	0.002	ND	ND	ND	ND	ND	ND
Dieldrin	0.002	ND	ND	ND	ND	ND	ND
Endosulfan I	0.001	ND	ND	ND	ND	ND	ND
Endosulfan II	0.002	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	0.002	ND	ND	ND	ND	ND	ND
Endrin	0.002	ND	ND	ND	ND	ND	ND
Endrin Aldehyde	0.002	ND	ND	ND	ND	ND	ND
Endrin Ketone	0.010	ND	ND	ND	ND	ND	ND
Heptachlor	0.001	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	0.001	ND	ND	ND	ND	ND	ND
Methoxychlor	0.010	ND	ND	ND	ND	ND	ND
Toxaphene	0.020	ND	ND	ND	ND	ND	ND

Surrogates in % Rec	Sample ID:	Method Blank	\$S-7	SS-8	SS-9	SS-10	SS-101
Tetrachloro-m-xylene		75	91	83	71	61	87



Client: Earth Systems
Project: East Side Xenia Road

Job No.: 27557 Matrix: Soil Analyst: SEC/LB Date Sampled:
Date Received:
Date Extracted:

02/06/06 02/07/06 02/10/06

Date Analyzed: Batch Number: 02/10-11/06 PESTS0990

	Sample ID:	SS-102	SS-103	SS-104	SS-105	SS-106	SS-107
Pesticides	RL	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Aldrin	0.001	ND	ND	ND	ND	ND	ND
Alpha-BHC	0.001	ND	ND	ND	ND	ND	ND
Beta-BHC	0.001	ND	ND	ND	ND	ND	ND
Delta-BHC	0.001	ND	ND	ND	ND	ND	ND :
Gamma-BHC (Lindane)	0.001	ND	ND	ND	ND	ND	ND
Technical Chlordane	0.020	ND	ND	ND	ND	ND	ND
4,4'-DDD	0.002	ND	ND	ND	ND	ND	ND
4,4'-DDE	0.002	ND	ND	ND	ND.	ND	ND
4,4'-DDT	0.002	ND	ND	ND	ND	ND	ND
Dieldrin	0.002	ND	ND	ND	ND	ND	ND
Endosulfan I	0.001	ND	ND	ND	ND	ND	ND
Endosulfan II	0.002	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	0.002	ND	ND	ND	ND	ND	ND
Endrin	0.002	ND	ND	ND	ND	ND	ND
Endrin Aldehyde	0.002	ND	ND	ND	ND	ND	ND
Endrin Ketone	0.010	ND	ND	ND	ND	ND	ND
Heptachlor	0.001	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	0.001	ND	ND	ND	ND	ND	ND
Methoxychlor	0.010	ND	ND	ND	ND	ND	ND
Toxaphene	0.020	ND	ND	ND	ND	ND	ND

Surrogates in % Recovery (Acceptance Limits: 50 - 150%)

	Sample ID:	SS-102	SS-103	SS-104	SS-105	SS-106	SS-107
Tetrachloro-m-xylene		86	91	90	81	84	81



Client: Earth Systems
Project: East Side Xenia Road

Job No.: 27557 Matrix: Soil Analyst: SEC/LB Date Sampled:
Date Received:
Date Extracted:

02/06/06 02/07/06 02/10/06

Date Analyzed: Batch Number; 02/10-11/06 PESTS0990

	Sample ID:	SS-108	SS-109	SS-110	SS-111	SS-112	Composite: SS-1,2,3
Pesticides	RL	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Aldrin	0.001	ND	ND	ND	ND	ND	ND
Alpha-BHC	0.001	ND	ND	ND	ND	ND	ND
Beta-BHC	0.001	ND	ND	ND	ND	ND	ND
Delta-BHC	0.001	ND	ND	ND	ND	ND	ND
Gamma-BHC (Lindane)	0.001	ND	ND	ND	ND	ND	ND
Technical Chlordane	0.020	ND	ND	ND	ND	ND	ND
4,4'-DDD	0.002	ND	ND	ND	ND	ND	ND
4,4'-DDE	0.002	ND	ND	ND	ND	0.002	ND
4,4'-DDT	0.002	ND	ND	ND	ND	ND	ND
Dieldrin	0.002	ND	ND	ND	ND	ND	ND
Endosulfan I	0.001	ND	ND	ND	ND	ND	ND
Endosulfan II	0.002	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	0.002	ND	ND	ND	ND	ND	ND
Endrin	0.002	ND	ND	ND	ND	ND	ND
Endrin Aldehyde	0.002	ND	ND	ND	ND	ND	ND
Endrin Ketone	0.010	ND	ND	ND	ND	ND	ND
Heptachlor	0.001	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	0.001	ND	ND	ND	ND	ND	ND
Methoxychlor	0.010	ND	ND	ND	ND	ND	ND
Toxaphene	0.020	ND	ND	ND	ND	ND	ND

Surrogates in % Recovery (Acceptance Limits: 50 - 150%)

	Sample ID:	SS-108	SS-109	SS-110	SS-111	SS-112	Composite: SS-1,2,3
Tetrachioro-m-xylene		80	84	87	79	86	72



Client: Earth Systems
Project: East Side Xenia Road
Job No.: 27557

Matrix: Soil
Analyst: SEC/LB

Date Sampled: Date Received: Date Extracted: 02/06/06 02/07/06 02/10/06

Date Analyzed: Batch Number:

02/10-11/06 PESTS0990

	Sample ID:	Composite:	 ,	,
		SS-4,5,6		
Pesticides	RL	mg/Kg		
Aldrin	0.001	ND		
Alpha-BHC	0.001	ND		
Beta-BHC	0.001	ND		
Delta-BHC	0.001	ND		
Gamma-BHC (Lindane)	0.001	ND		
Technical Chlordane	0.020	ND		
4,4'-DDD	0.002	ND		
4,4'-DDE	0.002	ND		
4,4'-DDT	0.002	ND		
Diefdrin	0.002	ND		
Endosulfan I	0.001	ND		
Endosulfan II	0.002	ND		
Endosulfan sulfate	0.002	ND		
Endrin	0.002	ND		
Endrin Aldehyde	0.002	ND		
Endrin Ketone	0.010	ND		
Heptachlor	0.001	ND		
Heptachlor Epoxide	0.001	ND		
Methoxychlor	0.010	ND		
Toxaphene	0.020	ND		

Surrogates in % Recovery (Acceptance Limits: 50 - 150%)

Sar	nple ID: Composite:	
	SS-4,5,6	
Tetrachloro-m-xylene	83	



# QC Sample Report - Organochlorine Pesticides by EPA 8081A

Matrix: Soil

Aldrin

Dieldrin

Endrin

DDT

Batch Number: PESTS0990

### **Batch Accuracy Results**

Spike Sample ID: Laborator	ry Control	Sample		
Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
Lindane	0.0067	82	61 - 114	Pass
Heptachlor	0.0067	100	78 - 129	Pass

0.0067

0.027

0.027

0.027

89

84

90

Anal			

#### **Batch Precision Results**

71 - 123

73 - 123

72 - 133

76 - 128

Pass

Pass

Pass

Pass

MS/MSD	Sample	ID:	Laboratory	Control Sample
--------	--------	-----	------------	----------------

Compound	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Lindane	0.0055	0.0069	24%	25%	Pass
Heptachlor	0.0067	0.0078	16%	25%	Pass
Aldrin	0.0059	0.0071	17%	25%	Pass
Dieldrin	0.0223	0.0285	24%	25%	Pass
E <b>nd</b> rin	0.0241	0.0305	24%	25%	Pass
DDT	0.0251	0.0311	21%	25%	Pass

Anal	ytica	No	tes:

MS: Matrix Spike

LCS: Laboratory Control Sample

MSD: Matrix Spike Duplicate

LCSD: Laboratory Control Sample Duplicate



# **Chain of Custody Record**

Centrum Job # 27557
s.com Page 1 of 3

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	Fax: 951.779.0344	00.796.9	335		Voice: 562.498,700 Fax: 562.498.8617	5			Pleas	se Cir	cle /	۱nal	vses	Real	rest	ed		
Project No:			Project Na			- ~ \	T				T							
16	1437 -02		$\mid \epsilon \mid$	ast_	Side Xer	ria Road			ranges)				or Pest/PCB					Turn-Around Time
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'. A	Schriever		(760)	345-14	588				ds) t				i I	6				☐ 48 Hr. RUSH *
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(Report end Blill	CCC:		Address:	ition Z	Note: Reports and Involce w	Meda sent hore	EPA 8015B DRO	. 8015B GRO			b 24 Ygenat	1 625	Pesticides, or	A V	STLC		413.2,	* Requires <u>PRIOR</u> approval, additional charges apply
		*		_			sel, or EF	s, or EPA	TVH, TEH), BTEX/MtBE		BZ60B, or b.z4 BTEX/Oxygenates Only	8270C, or 625	82: <b>C</b> es	Title 22 (CAM)	TCLP, ST	, TSS	5	Requested due date:
Centrum ID	Sample ID  (As it should appear on report)	Date sample	<del></del>	Sample matrix	Site location	Containers: # and type	LUFT Diesel, or	LUFT Gas,	Eucl IDX TVH. 8021B: BTEX		3000	SVOCs:	6081A 8082:	Metals: (	#	pH, TDS,	418.1 (TRPH),	Remarks/Special Instructions
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1	55 - <del>7</del>		1035			402 )							X					P
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1) Relinquis	hed by: (Sampler's Signature)		Date: 2 Date	11me: 0935	3) Reduction and by:	w	Date Q		Time:	Tob	e com	oleted	by Lab	orator	/ pers	onne	4:	Sample Disposal
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	nd Conditions set forth on the			under	6) Received for Laborat	lory by:	Dati 2/7	e: /	Timó:	пс	ourier	<b>□</b> υ	PS/Fed	Ex 🗆	Hano	t can	ried	Sample Locator Number:
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										Ц								* with prior approval only

# Centrum Analytical Laboratories, Inc.

# Chain of Custody Record

1401 Research Park Drive, Suite 100 Riverside, CA 92507 Voice: 951.779.0310 \$ 800.798.9336

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Project Manager  A . Schnene  Project Manager  A . Schnene  A . Schnen	Fax: 951,779,0344	Fax: 562.498.8617		_	PI	6256	Circle	Δna	lyces	Regue	ecto	4		
Sarrele   Date   Time   Sample   Stellows between the properties   Sample   Samp	Project No:  10437-02  Project Manager:  A. Schienen	Project Name:  East side Xeni  Phone:  (760) 345-1588  email:  aschrienen@earth	isys, com	115B DRO	on Chain (specify ranges)		The state of the s	Only	s or PCBs, or Pest/PCB	or RCRA, or PP	ester	or 1664	D 24 Hr. RUSH * D 48 Hr. RUSH * Normal TAT Other	
	(Report and Billing) ESS W		Diesel, or EPA 80	EH	WIBE	1 ~ 1	BTEX/Oxygen	182:		TCLP,	ğ ö	additional charges apply		
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The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.    All sample containers intact?   Yes   No   Lab disposal		27 095 94 18 ml 2/7 0935 4) Kecelved by:	ív .	2 <b>6-j</b> Date:	/Q	ַ כַּ	Chilled?	□Ye	s Tem	pC	D F		eld El Client will pick up	
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# Chain of Custody Record

Centrum Job # 27557
s.com Page 3 of 3

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	Voice: 951,779,0310    8 Fax: 951,779,0344	00.798.933	36		Voice: 562.498.700 Fax: 562.498.8617	5	,				- 61	1-	A		- b-		- 1 -		_	
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Appendix B

Methods

# Appendix B

### Methods

Surface soil samples were collected by driving laboratory-supplied glass jars into the soil. The jars were sealed with Teflon-lined lids. All samples were labeled, logged onto a chain-of-custody form, placed in an ice-cooled chest, and delivered to Centrum Analytical Laboratory. Centrum is a California-certified hazardous waste laboratory.

The geophysical survey was conducted by holding the TCM approximately 3 feet above ground and walking in a grid pattern across the former building locations. The grid spacing was approximately 5 feet. The functionality of the TCM was checked by holding it near other metal objects.

Appendix C

Limitations

# Appendix C

#### Limitations

This report has been prepared for the exclusive use of Manors Construction and Development, Inc. The conclusions rendered in this report are opinions based on readily available information obtained to date within the scope of the work authorized by the client. The scope of work for this project was developed to address the needs of the client as part of a property transaction (buy, sell, refinance, etc.) and may not meet the needs of other users. Other parties participating in the transaction for which this project was conducted may also use the information presented in this report, provided said parties agree that ESSW shall have no additional liability arising from such use than described in the contract under which this project was conducted (a copy of that contract will be provided upon request). Any other use of or reliance on the information and opinions contained in this report without the written authorization of ESSW is at the sole risk of the user.

The results contained in this report are based upon the information acquired during the assessment. It should be noted that any level of assessment cannot ascertain that a property is completely free of chemical or toxic substances. It is possible that variations exist beyond or between points explored during the course of the investigation, and that changes in conditions can occur in the future due to the works of man, contaminant migration, variations in rainfall, temperature, and/or other factors not apparent at the time of the field investigation. We believe the scope of work has been appropriate to allow the client to make an informed business decision.

The services performed by ESSW have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the site vicinity. No warranty is expressed or implied.