



MEMORANDUM

Date: January 2, 2007

Job No. 29869765

To: **Maggie Fitzgerald**
URS Corporation

From: **Stuart B. St. Clair, PE, & Cynthia Shen**
URS Corporation

Re: Limited Soil Investigation
Planned Panoche Energy Center
Fresno County, California

At the request of the California Energy Commission (CEC), URS Corporation (URS) collected soil samples at the above-referenced site to assess whether surface soil contains residual pesticide concentrations that could pose a potential health risk or hazard to workers. The work was completed by URS on behalf of the Panoche Energy Center as a part of the Response to Data Request No. 60 being submitted to the CEC.

The proposed Panoche Energy Center Power Plant Project consists of the 12.8-acre site and the adjacent 7.2-acre planned laydown area. The site and adjacent laydown area are currently developed as part of a pomegranate orchard. The soil sampling activities discussed herein were conducted in accordance with the August 26, 2002 California Department of Toxic Substances Control (DTSC) "Interim Guidance for Sampling Agricultural Fields for School Sites" as requested by the CEC.

The current owner purchased the parcel that includes the site and laydown area in 1987. He reported to a PEC representative that paraquat has not been used on the property in the time he has owned it. Therefore, in accordance with the DTSC guidance document, the soil samples collected from the site and laydown area were analyzed only for organochlorine pesticides (OCPs) and metals.

SAMPLING AND ANALYSIS

A URS geologist collected 40 discrete soil samples on December 19, 2006. The samples were collected from the depth interval of approximately 0 to 3 inches below ground surface (bgs) at 40 locations spaced regularly across the site and the adjacent planned laydown area. The sample locations are shown on the attached Figure 1. The latitude and longitude of each of the sample locations were measured to an accuracy of approximately 15 feet using a Global Positioning System instrument.

Soil samples were collected directly into laboratory certified-clean glass jars provided by the analytical laboratory. Immediately after sampling, the jars were capped, labeled, and placed into an ice-cooled, insulated container. An equipment rinsate blank sample was not collected because no reusable sampling equipment that required cleaning between sample locations was used. The samples were shipped under chain-of-custody protocol via overnight courier to Alpha Scientific Corporation

Environmental Laboratories (Alpha). Alpha is accredited under the Environmental Laboratory Accreditation Program (ELAP) of the California Department of Health Services (Certification Number 2633).

In accordance with the DTSC guidance document, the laboratory prepared 11 composite samples (10 primary composite samples and one duplicate composite sample) from the 40 discrete samples. Each composite sample consisted of four discrete surface samples from adjacent sampling locations. The laboratory analyzed the 11 composite samples for OCPs using method 8081A of the U.S. Environmental Protection Agency (USEPA). In addition, the four discrete samples associated with the composite sample with the highest detected total concentration of OCPs were also analyzed for OCPs per the DTSC guidance document. The laboratory analyzed five of the composite samples (four primary composite samples and one duplicate composite sample) for Title 22 total metals using USEPA methods 6010B and 7471A. Eleven discrete soil samples (one discrete sample from each of the 10 primary composite samples and a duplicate discrete sample) were analyzed for arsenic using USEPA method 6010B.

DATA QUALITY ASSESSMENT

The analytical reporting limits reported by the laboratory were less than the respective California Human Health Screening Levels (CHHSL) for commercial/industrial land use as established by the California Environmental Protection Agency (CalEPA) and less than the detection limits specified in the DTSC guidance document. Analytes were not detected in any of the laboratory method blank samples. Percent recoveries for surrogate compounds and for laboratory control spike/laboratory control spike duplicate (LCS/LCSD) and matrix spike/matrix spike duplicate (MS/MSD) samples were all within the laboratory's acceptance limits. The relative percent differences (RPDs) for analytes in LCS/LCSD or MS/MSD pairs were all below 30-percent, which is generally considered acceptable. The RPDs for analytes in the primary and duplicate samples were all below 20-percent, except for nickel which had an RPD of 42-percent. An RPD of less than 50-percent is generally considered acceptable for primary/duplicate sample pairs. Non-project samples were utilized for the MS/MSD analyses. Consequently, matrix effects cannot be determined; however this is not in itself basis for data qualification.

Overall, the data are considered useable for the intended purpose.

FINDINGS

Analytical results for OCPs and metals are summarized on the attached Tables 1 and 2, respectively. The laboratory report is attached. Four of the OCP compounds analyzed and eight of the metal compounds analyzed were detected in the composite and discrete soil samples reported in Tables 1 and 2. The mean and maximum concentrations of detected chemicals are presented on the attached Table 3, along with the respective commercial/industrial CHHSLs. Note that the OCP concentrations were converted from micrograms per kilogram ($\mu\text{g}/\text{kg}$) on Table 1 to milligrams per kilogram (mg/kg) on Table 3.

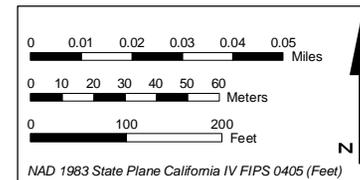
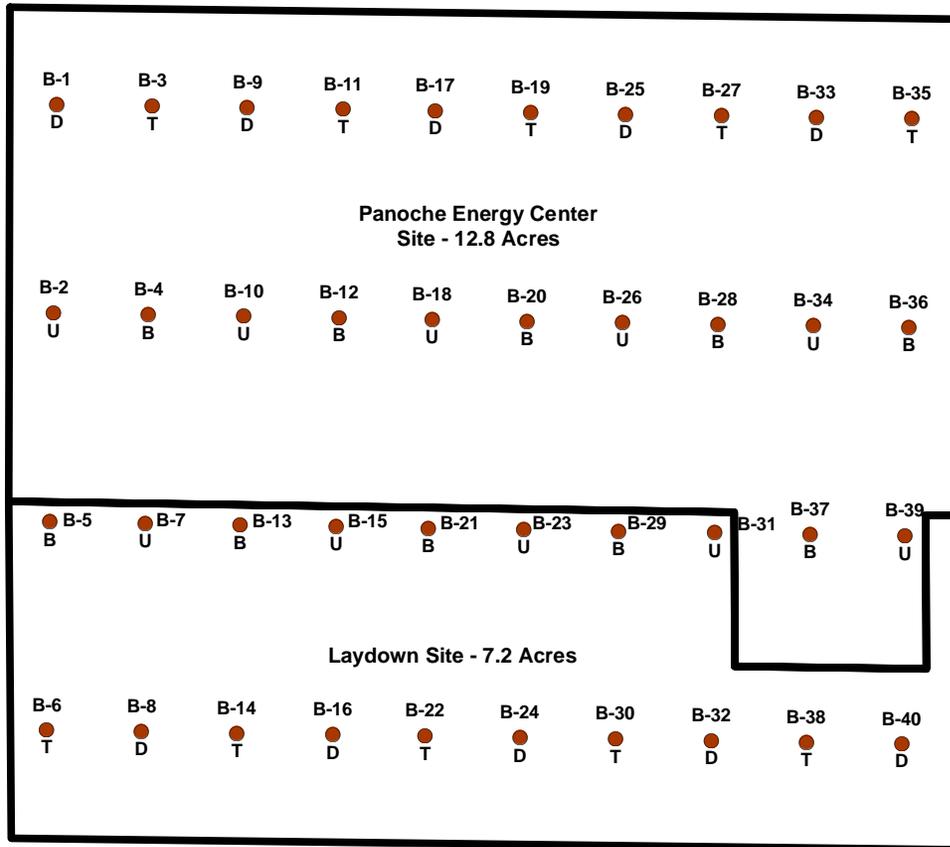
As shown in Table 3, with the exception of arsenic, the maximum concentration of each chemical detected in the on-site surface soil samples was well below the respective commercial/industrial

CHHSL. In the case of arsenic, the maximum concentration of 12.2 mg/kg was greater than the commercial/industrial CHHSL of 0.24 mg/kg. However, the arsenic concentrations detected in the on-site samples are similar to background soil concentrations reported for the area. In the 1980s, 721 soil samples were collected from the Panoche Fan study area, which comprised approximately 750 square miles including the site (USGS, 1989). The samples were collected from a depth interval of approximately 5.5- to 6-feet bgs. Arsenic concentrations in the 721 samples ranged from 3.4 to 21 mg/kg. Thirty-seven of the USGS samples had arsenic concentrations of 12 mg/kg or greater. The five USGS samples nearest to the site contained arsenic concentrations ranging from 6.5 to 8.5 mg/kg. Arsenic concentrations in the 11 discrete soil samples (including one duplicate sample) analyzed by URS ranged from 4.9 to 12.2 mg/kg. Arsenic concentrations in the five composite soil samples (including one duplicate sample) analyzed by URS ranged from 7.7 to 10 mg/kg. These arsenic concentrations are within the range of background arsenic concentrations for the area as reported in the USGS report.

In summary, the only chemical that was detected at concentrations greater than the commercial/industrial CHHSLs was arsenic. However, it appears likely that the arsenic concentrations detected at the site are naturally occurring and are not due to applications of pesticides.

Reference: California Environmental Protection Agency (CalEPA), 2005, "Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties".
Department of Toxic Substances Control (DTSC), 2002, "Interim Guidance for Sampling Agricultural Fields for School Site (Second Revision)".
United States Department of the Interior, Geological Survey (USGS), 1989, "Analysis of 721 Soil Samples from the Panoche Fan Area of the San Joaquin Valley, California" Open File Report 89-298.

Attachments: Figure 1
Tables 1 – 3
Laboratory Report



Legend

● Surface Soil Sample Location

Sample Explanation

B = Sample Between Rows of Trees
 D = Sample at Drip Line of Tree
 T = Sample Between Trees in a Row
 U = Sample Under Tree Canopy

Source: URS 12/19/06 Sample Locations.



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TABLE 1
SOIL ANALYTICAL RESULTS ORGANOCHLORINE PESTICIDES
Planned Panoche Energy Center
Fresno County, CA
Page 1 of 2

Sample Location:		B25	B26	B27	B28	B1,B2,B3,B4	B5,B6,B7,B8	B5,B6,B7,B8	B9,B10,B11,B12
Sample ID:		B-25 @ 0-3"	B-26 @ 0-3"	B-27 @ 0-3"	B-28 @ 0-3"	Composite 1	Composite 2	Composite 2 Duplicate	Composite 3
Sample Date:		12/19/06	12/19/06	12/19/06	12/19/06	12/19/06	12/19/06	12/19/06	12/19/06
Sample Depth:		0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"
Method ID:		USEPA 8081A	USEPA 8081A						
ANALYTE	Units								
Aldrin	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
a-BHC	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
b-BHC	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
g-BHC	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
d-BHC	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlordane	ug/kg	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Chloroneb	ug/kg	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500
4,4'-DDD	ug/kg	4.3 J	6.0	4.0 J	4.8 J	3.8 J	4.6 J	4.9 J	4.3 J
4,4'-DDE	ug/kg	13.2	18.3	13.2	11.9	10.7	12.5	12.4	13.3
4,4'-DDT	ug/kg	16.7	19.1	14.3	15.8	13.6	16.2	16.5	15.0
Dieldrin	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Endosulfan I	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Endosulfan II	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Endosulfan sulfate	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Endrin	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Endrin Aldehyde	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Heptachlor	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Heptachlor epoxide	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methoxychlor	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Mirex	ug/kg	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Toxaphene	ug/kg	160	218	156	181	133	180	181	184
Trifluralin	ug/kg	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100

NOTES:

Detected concentrations are printed in boldface type.
 * < # indicates that the chemical was not detected at or above the analytical reporting limit (#).
 USEPA = U.S. Environmental Protection Agency
 ug/kg = micrograms per kilogram
 J = estimated trace value between the method detection limit and the practical quantitation limit

TABLE 1
SOIL ANALYTICAL RESULTS ORGANOCHLORINE PESTICIDES
Planned Panoche Energy Center
Fresno County, CA
Page 2 of 2

Sample Location:		B13,B14,B15,B16	B17,B18,B19,B20	B21,B22,B23,B24	B25,B26,B27,B28	B29,B30,B31,B32	B33,B34,B35,B36	B37,B38,B39,B40
Sample ID:		Composite 4	Composite 5	Composite 6	Composite 7	Composite 8	Composite 9	Composite 10
Sample Date:		12/19/06	12/19/06	12/19/06	12/19/06	12/19/06	12/19/06	12/19/06
Sample Depth:		0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"
Method ID:		USEPA 8081A						
ANALYTE	Units							
Aldrin	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
a-BHC	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
b-BHC	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
g-BHC	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
d-BHC	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlordane	ug/kg	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Chloroneb	ug/kg	< 500	< 500	< 500	< 500	< 500	< 500	< 500
4,4'-DDD	ug/kg	5.9	5.1	4.1 J	5.5	3.7 J	4.4 J	4.0 J
4,4'-DDE	ug/kg	21.6	13.9	13.6	16.8	12.8	16.2	16.2
4,4'-DDT	ug/kg	21.5	17.0	15.1	18.7	13.6	16.4	14.8
Dieldrin	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Endosulfan I	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Endosulfan II	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Endosulfan sulfate	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Endrin	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Endrin Aldehyde	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Heptachlor	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Heptachlor epoxide	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methoxychlor	ug/kg	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Mirex	ug/kg	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Toxaphene	ug/kg	180	216	175	229	158	191	182
Trifluralin	ug/kg	< 100	< 100	< 100	< 100	< 100	< 100	< 100

NOTES:

Detected concentrations are printed in boldface type.

< # indicates that the chemical was not detected at or above the analytical reporting limit (#).

USEPA = U.S. Environmental Protection Agency

ug/kg = micrograms per kilogram

J = estimated trace value between the method detection limit and the practical quantitation limit

TABLE 2
SOIL ANALYTICAL RESULTS TITLE 22 METALS
Planned Panoche Energy Center
Fresno County, CA
Page 1 of 2

Sample Location:		B1	B5	B9	B13	B13	B20	B24	B28	B32	B33
Sample ID:		B-1 @ 0-3"	B-5 @ 0-3"	B-9 @ 0-3"	B-13 @ 0-3"	B-13 @ 0-3" Duplicate	B-20 @ 0-3"	B-24 @ 0-3"	B-28 @ 0-3"	B-32 @ 0-3"	B-33 @ 0-3"
Sample Date:		12/19/06	12/19/06	12/19/06	12/19/06	12/19/06	12/19/06	12/19/06	12/19/06	12/19/06	12/19/06
Sample Depth:		0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"
Method ID:		USEPA 6010B/7471A	USEPA 6010B/7471A	USEPA 6010B/7471A	USEPA 6010B/7471A	USEPA 6010B/7471A	USEPA 6010B/7471A	USEPA 6010B/7471A	USEPA 6010B/7471A	USEPA 6010B/7471A	USEPA 6010B/7471A
ANALYTE	Units										
Antimony	mg/kg										
Arsenic	mg/kg	8.0	7.3	4.9	7.1	6.7	7.6	6.3	7.2	7.8	12.2
Barium	mg/kg										
Beryllium	mg/kg										
Cadmium	mg/kg										
Chromium	mg/kg										
Cobalt	mg/kg										
Copper	mg/kg										
Lead	mg/kg										
Mercury	mg/kg										
Molybdenum	mg/kg										
Nickel	mg/kg										
Selenium	mg/kg										
Silver	mg/kg										
Thallium	mg/kg										
Vanadium	mg/kg										
Zinc	mg/kg										

NOTES:

Detected concentrations are printed in boldface type.

A blank entry indicates the sample was not analyzed for that chemical.

"< #" indicates that the chemical was not detected at or above the analytical reporting limit (#).

USEPA = U.S. Environmental Protection Agency

mg/kg = milligrams per kilogram

TABLE 2
SOIL ANALYTICAL RESULTS TITLE 22 METALS
Planned Panoche Energy Center
Fresno County, CA
Page 2 of 2

Sample Location:		B37	B5,B6,B7,B8	B5,B6,B7,B8	B9,B10,B11,B12	B29,B30,B31,B32	B33,B34,B35,B36
Sample ID:		B-37 @ 0-3"	Composite 2	Composite 2 Duplicate	Composite 3	Composite 8	Composite 9
Sample Date:		12/19/06	12/19/06	12/19/06	12/19/06	12/19/06	12/19/06
Sample Depth:		0-3"	0-3"	0-3"	0-3"	0-3"	0-3"
Method ID:		USEPA 6010B/7471A	USEPA 6010B/7471A	USEPA 6010B/7471A	USEPA 6010B/7471A	USEPA 6010B/7471A	USEPA 6010B/7471A
ANALYTE	Units						
Antimony	mg/kg		< 2	< 2	< 2	< 2	< 2
Arsenic	mg/kg	8.4	7.7	8.8	10	8.2	9.9
Barium	mg/kg		327	353	437	361	425
Beryllium	mg/kg		< 2	< 2	< 2	< 2	< 2
Cadmium	mg/kg		< 2	< 2	< 2	< 2	< 2
Chromium	mg/kg		< 2	< 2	< 2	< 2	< 2
Cobalt	mg/kg		9.1	11	13	11	12
Copper	mg/kg		27	29	38	30	35
Lead	mg/kg		10	11	14	11	11
Mercury	mg/kg		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Molybdenum	mg/kg		< 2	< 2	< 2	< 2	< 2
Nickel	mg/kg		13	20	27	38	41
Selenium	mg/kg		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Silver	mg/kg		< 2	< 2	< 2	< 2	< 2
Thallium	mg/kg		< 2	< 2	< 2	< 2	< 2
Vanadium	mg/kg		85	90	111	108	127
Zinc	mg/kg		84	96	117	98	110

NOTES:

Detected concentrations are printed in boldface type.

A blank entry indicates the sample was not analyzed for that chemical.

"< #" indicates that the chemical was not detected at or above the analytical reporting limit (#).

USEPA = U.S. Environmental Protection Agency

mg/kg = milligrams per kilogram

TABLE 3
SUMMARY OF CHEMICALS DETECTED IN SURFACE SOIL
Planned Panoche Energy Center
Fresno County, CA
Page 1 of 1

Chemical Detected at Site	Number of Samples	Number of Detections	Frequency of Detection (%)	Site Minimum Concentration (mg/kg)	Site Maximum Concentration (mg/kg)	Site Arithmetic Mean Concentration (mg/kg)	Commercial/Industrial CHHSL (mg/kg)
<i>Naturally Occurring Metals</i>							
Arsenic	16	16	100	4.9	12.2	8.0	0.24
Barium	5	5	100	327	437	381	63,000
Cobalt	5	5	100	9.1	13	11	3,200
Copper	5	5	100	27	38	32	38,000
Lead	5	5	100	10	14	11	3,500
Nickel	5	5	100	13	41	28	16,000
Vanadium	5	5	100	85	127	104	6,700
Zinc	5	5	100	84	117	101	100,000
<i>Organochlorine Pesticides</i>							
4,4'-DDD	15	15	100	0.0037 J	0.0060	0.0056	9.0
4,4'-DDE	15	15	100	0.0107	0.0216	0.0144	6.3
4,4'-DDT	15	15	100	0.0136	0.0215	0.0163	6.3
Toxaphene	15	15	100	0.133	0.229	0.182	1.8

NOTES:

The number of samples and number of detections include discrete, composite, and duplicate samples.

mg/kg = milligrams per kilogram

J = estimated trace value between the method detection limit and the practical quantitation limit

CHHSL = California Human Health Screening Level



Alpha Scientific Corporation
Environmental Laboratories

12-26-2006

Mr. Stuart St. Clair
URS Corporation
30 River Park Place West, Suite 180
Fresno, CA 93720

Project: 29869765
Project Site: Panoche Energy Center
Sample Date: 12-19-2006
Lab Job No.: UR612122

Dear Mr. St. Clair:

Enclosed please find the analytical report for the sample(s) received by Alpha Scientific Corporation on 12-20-2006 and analyzed for the following analytes:

EPA 8081A (Organochlorine Pesticides)
EPA 6010B/7471A for CAM Metals
EPA 6010B (Arsenic)

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Alpha Scientific Corporation is a CA DHS certified laboratory (Certificate Number 2633). Thank you for giving us the opportunity to serve you. Please feel free to call me at (562) 809-8880 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph. D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.



Alpha Scientific Corporation

Environmental Laboratories

Client: URS Corporation
 Project: 29869765
 Project Site: Panoche Energy Center
 Matrix: Soil
 Extraction Method: EPA 3550B
 Batch No.: 1220-PS1

Lab Job No.: UR612122
 Date Sampled: 12-19-2006
 Date Received: 12-20-2006
 Date Extracted: 12-20-2006
 Date Analyzed: 12-20-2006
 Date Reported: 12-21-2006

EPA 8081A (Organochlorine Pesticides)

Reporting Unit: µg/kg (ppb)

LAB SAMPLE I.D.			MB	UR612122-(1-4)	UR612122-(5-8)	UR612122-(5-8) DUP	UR612122-(9-12)	UR612122-(13-16)	UR612122-(17-20)
CLIENT SAMPLE I.D.				Composite 1 (B1-B4)	Composite 2 (B5-B8)	Composite 2 DUP (B5-B8)	Composite 3 (B9-B12)	Composite 4 (B13-B16)	Composite 5 (B17-B20)
DILUTION FACTOR				1	1	1	1	1	1
COMPOUND	MDL	PQL							
Alpha-BHC	3	5	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC (Lindane)	3	5	ND	ND	ND	ND	ND	ND	ND
Heptachlor	3	5	ND	ND	ND	ND	ND	ND	ND
Aldrin	3	5	ND	ND	ND	ND	ND	ND	ND
Beta-BHC	3	5	ND	ND	ND	ND	ND	ND	ND
Delta-BHC	3	5	ND	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	3	5	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	3	5	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	3	5	ND	10.7	12.5	12.4	13.3	21.6	13.9
Dieldrin	3	5	ND	ND	ND	ND	ND	ND	ND
Endrin	3	5	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	3	5	ND	3.8J	4.6J	4.9J	4.3J	5.9	5.1
Endosulfan II	3	5	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	3	5	ND	13.6	16.2	16.5	15.0	21.5	17.0
Endrin Aldehyde	3	5	ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	3	5	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	3	5	ND	ND	ND	ND	ND	ND	ND
Chlordane	15	25	ND	ND	ND	ND	ND	ND	ND
Toxaphene	60	100	ND	133	180	181	184	180	216
Chloroneb	250	500	ND	ND	ND	ND	ND	ND	ND
Trifluralin	50	100	ND	ND	ND	ND	ND	ND	ND
Mirex	20	50	ND	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; PQL=Practical Quantitation Limit; MB=Method Blank;
 ND=Not Detected (below DF × MDL)

* : Obtained from a higher dilution analysis.

J : Trace value. Result is lower than PQL but higher than MDL.



Alpha Scientific Corporation

Environmental Laboratories

Client: URS Corporation
 Project: 29869765
 Project Site: Panoche Energy Center
 Matrix: Soil
 Extraction Method: EPA 3550B
 Batch No.: 1220-PS1

Lab Job No.: UR612122
 Date Sampled: 12-19-2006
 Date Received: 12-20-2006
 Date Extracted: 12-20-2006
 Date Analyzed: 12-20-2006
 Date Reported: 12-21-2006

EPA 8081A (Organochlorine Pesticides)

Reporting Unit: µg/kg (ppb)

LAB SAMPLE I.D.			MB	UR612122-(21-24)	UR612122-(25-28)	UR612122-(29-32)	UR612122-(33-36)	UR612122-(37-40)
CLIENT SAMPLE I.D.				Composite 6 (B21-B24)	Composite 7 (B25-B28)	Composite 8 (B29-B32)	Composite 9 (B33-B36)	Composite 10 (B37-B40)
DILUTION FACTOR				1	1	1	1	1
COMPOUND	MDL	PQL						
Alpha-BHC	3	5	ND	ND	ND	ND	ND	ND
Gamma-BHC (Lindane)	3	5	ND	ND	ND	ND	ND	ND
Heptachlor	3	5	ND	ND	ND	ND	ND	ND
Aldrin	3	5	ND	ND	ND	ND	ND	ND
Beta-BHC	3	5	ND	ND	ND	ND	ND	ND
Delta-BHC	3	5	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	3	5	ND	ND	ND	ND	ND	ND
Endosulfan I	3	5	ND	ND	ND	ND	ND	ND
4,4'-DDE	3	5	ND	13.6	16.8	12.8	16.2	16.2
Dieldrin	3	5	ND	ND	ND	ND	ND	ND
Endrin	3	5	ND	ND	ND	ND	ND	ND
4,4'-DDD	3	5	ND	4.1J	5.5	3.7J	4.4J	4.0 J
Endosulfan II	3	5	ND	ND	ND	ND	ND	ND
4,4'-DDT	3	5	ND	15.1	18.7	13.6	16.4	14.8
Endrin Aldehyde	3	5	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	3	5	ND	ND	ND	ND	ND	ND
Methoxychlor	3	5	ND	ND	ND	ND	ND	ND
Chlordane	15	25	ND	ND	ND	ND	ND	ND
Toxaphene	60	100	ND	175	229	158	191	182
Chloroneb	250	500	ND	ND	ND	ND	ND	ND
Trifluralin	50	100	ND	ND	ND	ND	ND	ND
Mirex	20	50	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; PQL=Practical Quantitation Limit; MB=Method Blank;
 ND=Not Detected (below DF × MDL)
 * : Obtained from a higher dilution analysis.
 J : Trace value. Result is lower than PQL but higher than MDL.



Alpha Scientific Corporation

Environmental Laboratories

Client: URS Corporation
 Project: 29869765
 Project Site: Panoche Energy Center
 Matrix: Soil
 Extraction Method: EPA 3550B
 Batch No.: 1222-PS1

Lab Job No.: UR612122
 Date Sampled: 12-19-2006
 Date Received: 12-20-2006
 Date Extracted: 12-22-2006
 Date Analyzed: 12-22-2006
 Date Reported: 12-26-2006

EPA 8081A (Organochlorine Pesticides)
Reporting Unit: µg/kg (ppb)

LAB SAMPLE I.D.			MB	UR612122-25	UR612122-26	UR612122-27	UR612122-28	
CLIENT SAMPLE I.D.				B-25@ 0-3"	B-26@ 0-3"	B-27@ 0-3"	B-28@ 0-3"	
DILUTION FACTOR				1	1	1	1	
COMPOUND	MDL	PQL						
Alpha-BHC	3	5	ND	ND	ND	ND	ND	
Gamma-BHC (Lindane)	3	5	ND	ND	ND	ND	ND	
Heptachlor	3	5	ND	ND	ND	ND	ND	
Aldrin	3	5	ND	ND	ND	ND	ND	
Beta-BHC	3	5	ND	ND	ND	ND	ND	
Delta-BHC	3	5	ND	ND	ND	ND	ND	
Heptachlor Epoxide	3	5	ND	ND	ND	ND	ND	
Endosulfan I	3	5	ND	ND	ND	ND	ND	
4,4'-DDE	3	5	ND	13.2	18.3	13.2	11.9	
Dieldrin	3	5	ND	ND	ND	ND	ND	
Endrin	3	5	ND	ND	ND	ND	ND	
4,4'-DDD	3	5	ND	4.3 J	6.0	4.0J	4.8J	
Endosulfan II	3	5	ND	ND	ND	ND	ND	
4,4'-DDT	3	5	ND	16.7	19.1	14.3	15.8	
Endrin Aldehyde	3	5	ND	ND	ND	ND	ND	
Endosulfan Sulfate	3	5	ND	ND	ND	ND	ND	
Methoxychlor	3	5	ND	ND	ND	ND	ND	
Chlordane	15	25	ND	ND	ND	ND	ND	
Toxaphene	60	100	ND	160	218	156	181	
Chloroneb	250	500	ND	ND	ND	ND	ND	
Trifluralin	50	100	ND	ND	ND	ND	ND	
Mirex	20	50	ND	ND	ND	ND	ND	

MDL=Method Detection Limit; PQL=Practical Quantitation Limit; MB=Method Blank;
 ND=Not Detected (below DF × MDL)

* : Obtained from a higher dilution analysis.

J : Trace value. Result is lower than PQL but higher than MDL.



Alpha Scientific Corporation

Environmental Laboratories

12-26-2006

Client: URS Corporation
 Project: 29869765
 Project Site: Panoche Energy Center
 Matrix: Soil
 Extraction Method: EPA 3050B
 Batch No.: 1220-MS1

Lab Job No.: UR612122
 Date Sampled: 12-19-2006
 Date Received: 12-20-2006
 Date Extracted: 12-20-2006
 Date Analyzed: 12-20-2006
 Date Reported: 12-21-2006

EPA 6010B/7471A for Cam Metals (TTLC)
Reporting Units: mg/kg (ppm)

Element	EPA Method	Method Blank	UR612122-(5-8)	UR612122-(5-8)DUP	UR612122-(9-12)	UR612122-(29-32)	UR612122-(33-36)	Reporting
			Composite 2 (B5-B8)	Composite 2 (B5-B8)Dup	Composite 3 (B9-B12)	Composite 8 (B29-B32)	Composite 9 (B33-B36)	Limit
Antimony (Sb)	6010B	ND	ND	ND	ND	ND	ND	2
Arsenic (As)	6010B	ND	7.7	8.8	10	8.2	9.9	0.5
Barium (Ba)	6010B	ND	327	353	437	361	425	2
Beryllium (Be)	6010B	ND	ND	ND	ND	ND	ND	2
Cadmium (Cd)	6010B	ND	ND	ND	ND	ND	ND	2
Chromium (Cr)	6010B	ND	ND	ND	ND	ND	ND	2
Cobalt (Co)	6010B	ND	9.1	11	13	11	12	2
Copper (Cu)	6010B	ND	27	29	38	30	35	2
Lead (Pb)	6010B	ND	10	11	14	11	11	2
Mercury (Hg)	7471A	ND	ND	ND	ND	ND	ND	0.05
Molybdenum (Mo)	6010B	ND	ND	ND	ND	ND	ND	2
Nickel (Ni)	6010B	ND	13	20	27	38	41	2
Selenium (Se)	6010B	ND	ND	ND	ND	ND	ND	0.5
Silver (Ag)	6010B	ND	ND	ND	ND	ND	ND	2
Thallium (Tl)	6010B	ND	ND	ND	ND	ND	ND	2
Vanadium (V)	6010B	ND	85	90	111	108	127	2
Zinc (Zn)	6010B	ND	84	96	117	98	110	1

ND: Not Detected (at the specified limit).



Alpha Scientific Corporation

Environmental Laboratories

12-26-2006

Client: URS Corporation
Project: 29869765
Project Site: Panoche Energy Center
Matrix: Soil
Extraction Method: EPA 3050B
Batch No.: 1220-MS1

Lab Job No.: UR612122
Date Sampled: 12-19-2006
Date Received: 12-20-2006
Date Extracted: 12-20-2006
Date Analyzed: 12-20-2006
Date Reported: 12-21-2006

EPA 6010B (Arsenic, TTLC)
Reporting Unit: mg/kg (ppm)

Sample ID	Lab ID	Arsenic (As)	Reporting Limit
MB		ND	0.5
B-1@ 0-3"	UR612122-1	8.0	0.5
B-5@ 0-3"	UR612122-5	7.3	0.5
B-9@ 0-3"	UR612122-9	4.9	0.5
B-13@ 0-3"	UR612122-13	7.1	0.5
B-20@ 0-3"	UR612122-20	7.6	0.5
B-24@ 0-3"	UR612122-24	6.3	0.5
B-28@ 0-3"	UR612122-28	7.2	0.5
B-32@ 0-3"	UR612122-32	7.8	0.5
B-33@ 0-3"	UR612122-33	12.2	0.5
B-37@ 0-3"	UR612122-37	8.4	0.5
B-13@ 0-3"	UR612122-13 (DUP)	6.7	0.5

ND: Not Detected (at the specified limit).



12-26-2006

**EPA 8081A (Pesticides)
Batch QA/QC Report**

Client: URS Corporation
Project: 29869765
Matrix: Soil
Batch No.: 1220-PS1

Lab Job No.: UR612122
Lab Sample I.D.: SS1220-1
Date Analyzed: 12-20-2006

I. MS/MSD Report
Unit: ppb

Analyte	Method Blank	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Gamma-BHC	ND	20	22.2	22.4	111.0	112.0	0.9	30	46-127
Heptachlor	ND	20	22.4	22.6	112.0	113.0	0.9	30	31-134
Aldrin	ND	20	24.8	22.6	124.0	113.0	9.3	30	36-132
Dieldrin	ND	20	18.1	17.9	90.5	89.5	1.1	30	21-134
Endrin	ND	20	22.5	24.8	112.5	124.0	9.7	30	42-139
4,4'-DDT	ND	20	21.9	20.9	109.5	104.5	4.7	30	21-134

II. LCS Result
Unit: ppb

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limit
Gamma-BHC	22.3	20	111.5	80-120
Heptachlor	23.0	20	115.0	80-120
Aldrin	23.1	20	115.5	80-120
Dieldrin	23.0	20	115.0	80-120
Endrin	23.4	20	117.0	80-120
4,4'-DDT	22.1	20	110.5	80-120

ND: Not Detected.



12-26-2006

**EPA 8081A (Pesticides)
Batch QA/QC Report**

Client: URS Corporation
Project: 29869765
Matrix: Soil
Batch No.: 1222-PS1

Lab Job No.: UR612122
Lab Sample I.D.: SS1222-1
Date Analyzed: 12-22-2006

I. MS/MSD Report
Unit: ppb

Analyte	Method Blank	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Gamma-BHC	ND	20	23.2	19.0	116.0	95.0	19.9	30	46-127
Heptachlor	ND	20	23.1	19.1	115.5	95.5	19.0	30	31-134
Aldrin	ND	20	24.9	18.7	124.5	93.5	28.4	30	36-132
Dieldrin	ND	20	17.8	15.0	89.0	75.0	17.1	30	21-134
Endrin	ND	20	23.4	21.0	117.0	105.0	10.8	30	42-139
4,4'-DDT	ND	20	23.0	21.6	115.0	108.0	6.3	30	21-134

II. LCS Result
Unit: ppb

Analyte	LCS Report Value	True Value	Rec.%	Accept. Limit
Gamma-BHC	19.4	20	97.0	80-120
Heptachlor	19.9	20	99.5	80-120
Aldrin	20.1	20	100.5	80-120
Dieldrin	16.3	20	81.5	80-120
Endrin	21.3	20	106.5	80-120
4,4'-DDT	20.9	20	104.5	80-120

ND: Not Detected.



Alpha Scientific Corporation
Environmental Laboratories

12-26-2006

EPA 6010B/7471A for CAM Metals
Batch QA/QC Report

Client: URS Corporation
Project: 29869765
Matrix: Soil
Batch No: 1220-MS1

Lab Job No.: UR612122
Lab Sample ID: LCS
Date Analyzed: 12-20-2006

LCS/LCSD Report
Unit: ppm

Analyte	MB Conc.	LCS %Rec.	LCSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Antimony (Sb)	ND	97.0	94.0	3.1	30	70-130
Arsenic (As)	ND	102.0	97.0	5.0	30	70-130
Barium (Ba)	ND	97.0	91.0	6.4	30	70-130
Beryllium (Be)	ND	97.0	91.0	6.4	30	70-130
Cadmium (Cd)	ND	100.0	98.0	2.0	30	70-130
Chromium (Cr)	ND	99.0	97.0	2.0	30	70-130
Cobalt (Co)	ND	102.0	95.0	7.1	30	70-130
Copper (Cu)	ND	99.0	94.0	5.2	30	70-130
Lead (Pb)	ND	96.0	97.0	1.0	30	70-130
Mercury (Hg)	ND	104.0	100.0	3.9	30	70-130
Molybdenum (Mo)	ND	97.0	93.0	4.2	30	70-130
Nickel (Ni)	ND	95.0	99.0	4.1	30	70-130
Selenium (Se)	ND	102.0	102.0	0.0	30	70-130
Silver (Ag)	ND	113.0	97.0	15.2	30	70-130
Thallium (Tl)	ND	105.0	94.0	11.1	30	70-130
Vanadium (V)	ND	91.0	89.0	2.2	30	70-130
Zinc (Zn)	ND	101.0	100.0	1.0	30	70-130

ND: Not Detected



Alpha Scientific Corporation

Environmental Laboratories

12-26-2006

EPA 6010B (Arsenic) Batch QA/QC Report

Client: URS Corporation
Project: 29869765
Matrix: Soil
Batch No: 1220-MS1

Lab Job No.: UR612122
Lab Sample ID: LCS
Date Analyzed: 12-20-2006

LCS/LCSD Report

Analyte	MB Conc.	LCS %Rec.	LCSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Arsenic (As)	ND	102.0	97.0	5.0	30	70-130

ND: Not Detected

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number UR 612-122

Client: <u>URS Corporation</u>				Analyses Requested				T.A.T. Requested					
Address: <u>30 River Park Place West, Suite 180, Fresno, CA 93720</u>				8015M (Gasoline)				<input type="checkbox"/> Rush 8 12 24 hrs <input checked="" type="checkbox"/> 2-3 days <input type="checkbox"/> Normal					
Report Attention: <u>Stuart St. Clair</u>		Phone: <u>559-256-1462</u>		Sampled by: <u>Nelson Bernal</u>		8015M (Diesel)		Sample Condition					
Project Name/No.: <u>29869765</u>		Project Site: <u>Panoche Energy Center</u>		Matrix Type: <u>Soil</u>		8260B (VOCs)		<input checked="" type="checkbox"/> Chilled <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Sample seals					
Client Sample ID	Lab Sample ID	Sample Collect		Sample Preserv	No., type* & size of container	8260B (BTEX, Oxygenates)	8270C (SVOCS)	CAM Metals	Date	Time	Date	Time	Container types: M=Metal Tube A=Air Bag G=Glass bottle V=VOA vial
		Date	Time										
B-1@0-3"	UR 612-122 -1	12/19/06	10:30		4oz. jar				12/19/06	17:35	12/19/06	17:35	
B-2@0-3"	-2		10:42										
B-3@0-3"	Composite OCPs (3081A) -3		11:41										
B-4@0-3"	-4		11:20										
B-5@0-3"	-5		10:53										
B-6@0-3"	-6		11:05										
B-7@0-3"	OCPs CAM Metals -7		11:15										
B-8@0-3"	-8		11:10										
B-9@0-3"	-9		12:05										
B-10@0-3"	-10		12:12										
B-11@0-3"	OCPs CAM Metals -11		13:12										
B-12@0-3"	-12		13:08										
B-13@0-3"	-13		12:20										
B-14@0-3"	-14		12:30										
B-15@0-3"	OCPs -15		13:04										
B-16@0-3"	-16		13:00										
Relinquished by: <u>Stuart St. Clair</u>	Company: <u>URS Corp.</u>	Date: <u>12/19/06</u>	Time: <u>17:35</u>	Received by: <u>Stuart St. Clair</u>	Company: <u>URS Corp.</u>	Date: <u>12/19/06</u>	Time: <u>17:35</u>						
Relinquished by: <u>Stuart St. Clair</u>	Company: <u>URS Corp.</u>	Date: <u>12/19/06</u>	Time: <u>21:27</u>	Received by: <u>California Overnight</u>	Company: <u>California Overnight</u>	Date: <u>12/19/06</u>	Time: <u>21:27</u>						

Do lab duplicate for OCPs + CAM Metals on composite sample.

Do lab duplicate for arsenic on discrete samples.

12/20/06 9:05 AM

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense. Distribution: WHITE with report, PINK to courier.

Tel: (562) 809-8880
Fax: (562) 809-8801

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703



ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number MR 612122

Client: <u>URS Corporation</u>		Project Site: <u>PEC</u>		Sampled by		Analyses Requested		T.A.T. Requested								
Report Attention	Phone	Fax	Sample Collect Date	Matrix Type	Sample Preserv	No. type* & size of container	8015M (Gasoline)	8015M (Diesel)	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	Date	Time	Container types: M=Metal Tube A=Air Bag G=Glass bottle	
Project Name/No.	Project Site		Date	Time									Date	Time	P=Plastic bottle V=VOA vial	
<u>29869765</u>			<u>12/19/06</u>	<u>Soil</u>		<u>4 oz. jar</u>										
<u>B-17@0-3"</u>	<u>MR 612122-17</u>		<u>13:29</u>													
<u>B-18@0-3"</u>	<u>- 18</u>		<u>13:37</u>													
<u>B-19@0-3"</u>	<u>OCPs - 19</u>		<u>14:38</u>													
<u>B-20@0-3"</u>	<u>- 20</u>		<u>14:35</u>													
<u>B-21@0-3"</u>	<u>- 21</u>		<u>13:41</u>													
<u>B-22@0-3"</u>	<u>- 22</u>		<u>13:45</u>													
<u>B-23@0-3"</u>	<u>OCPs - 23</u>		<u>14:31</u>													
<u>B-24@0-3"</u>	<u>- 24</u>		<u>14:28</u>													
<u>B-25@0-3"</u>	<u>- 25</u>		<u>14:49</u>													
<u>B-26@0-3"</u>	<u>- 26</u>		<u>14:52</u>													
<u>B-27@0-3"</u>	<u>OCPs - 27</u>		<u>15:17</u>													
<u>B-28@0-3"</u>	<u>- 28</u>		<u>15:15</u>													
<u>B-29@0-3"</u>	<u>- 29</u>		<u>14:56</u>													
<u>B-30@0-3"</u>	<u>- 30</u>		<u>15:00</u>													
<u>B-31@0-3"</u>	<u>OCPs CAM Metals - 31</u>		<u>15:11</u>													
<u>B-32@0-3"</u>	<u>- 32</u>		<u>15:08</u>	<u>✓</u>		<u>↓</u>										
Relinquished by	Company	Date	Time	Received by	Company	Date	Time	Company	Date	Time	Company	Date	Time	Container types: M=Metal Tube A=Air Bag G=Glass bottle		
				<u>MR 612122</u>	<u>ASC</u>	<u>12/20/06</u>	<u>9:05 AM</u>									

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number WR 612122

Client: <u>URS Corp.</u>		Project Site: <u>PEC</u>		Sampled by												
Address		Phone	Fax	T.A.T. Requested												
Report Attention		Project Name/No. <u>29869765</u>		<input type="checkbox"/> Rush 8 12 24 hrs <input checked="" type="checkbox"/> 1-3 days <input type="checkbox"/> Normal												
Client Sample ID	Lab Sample ID	Sample Collect		Matrix Type	Sample Preserv	No., type* & size of container	Analyses Requested						Sample Condition	Remark		
		Date	Time				8015M (Gasoline)	8015M (Diesel)	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals			<input checked="" type="checkbox"/> Chilled <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Sample seals	
B-33@0-3"	<u>WR 612122-33</u>	<u>12/19/06</u>	<u>15:24</u>	<u>Soil</u>		<u>4 ea. jar</u>										
B-34@0-3"	<u>-34</u>		<u>15:28</u>													
B-35@0-3"	<u>- OCPs CAM Metals</u>		<u>15:51</u>													
B-36@0-3"	<u>- 36</u>		<u>15:48</u>													
B-37@0-3"	<u>- 37</u>		<u>15:31</u>													
B-38@0-3"	<u>- 38</u>		<u>15:34</u>													
B-39@0-3"	<u>- OCPs - 39</u>		<u>15:46</u>													
B-40@0-3"	<u>- 40</u>		<u>15:41</u>													

Relinquished by		Company		Date	Time	Received by		Company		Date	Time	Container types: M=Metal Tube A=Air Bag P=Plastic bottle G=Glass bottle V=VOA vial				
Relinquished by		Company		Date	Time	Received by <u>WR 612122</u>		Company <u>ASC</u>		Date <u>12/20/06</u>	Time <u>9:55 AM</u>					