

# Memorandum

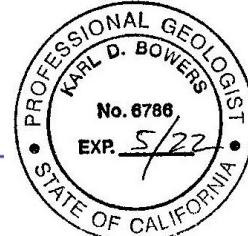
**To:** John Hundley, World Oil Corp.

**From:** Karl Bowers, P.G., Apex Companies LLC

**cc:** File

**Date:** December 6, 2021

**Re:** Technical Memo of Findings from Shallow Soil Sampling on November 3, 2021 at World Oil #52, 16720 Monterey Road, Morgan Hill, California



Mr. Hundley,

This memorandum provides a summary of work completed and findings from shallow soil sampling conducted by Apex Companies, LLC (Apex) on November 3, 2021 at the World Oil #52 facility in Morgan Hill, California. Work was completed to address recommendations in the June 1, 2021 report, by Cornerstone Earth Group entitled *Environmental Document Review*. Those recommendations were for soil sampling to investigate the potential for impacts in shallow soil which may be associated with historical orchards and/or historical building structures that pre-dated development of the site as a retail gasoline station in the late 1960's. World contracted Apex to provide soil assessment and address the recommendations for sampling associated with the historical site features that predated the station operations.

Apex scientist Michael Basilisco utilized a hand auger to collect soil from a depth of 2 feet below ground surface. In the rear of the facility, the surface was unpaved at the locations of borings APX-SB-1 through -3. Subcontractor Penhall was subcontracted to core through the asphalt cover at the remaining seven (7) boring locations (APX-SB-4 through -10) in the forecourt of the station. Notes of the field sampling and sample location map are attached. Soil was collected from a depth of 2 feet bgs into one to two laboratory-provided sample jars from each boring. The hand auger was decontaminated before and after each location using a triple-wash approach, including Alconox/water solution in the initial wash bucket. Soil type was noted on the field sheet. Work was performed under the supervision of the California PG stamping this document. After reaching total depth, the boring was filled with the cuttings, tamped to compact the soil, and topped with cold-patch asphalt at grade.

All collected samples were labeled, bagged, and placed on ice in a sample cooler for transport to the laboratory for analysis. Samples were logged on the laboratory's Chain-of-Custody and shipped overnight to State-certified American Analytics (American) in Chatsworth, California. Samples were analyzed by American for organochlorine pesticides (OCPs) by EPA Method 8081A, for total lead and total arsenic by EPA Method 6010B, and for total mercury by EPA Method by EPA Method 7470A/7471A. Laboratory results are summarized in Table 1, attached. The laboratory report and Chain-of-Custody are also attached. Findings and conclusions/recommendations follow.

### Findings

- Observed soil at the property at 2 feet bgs was mostly sandy clay. Several locations were noted as silty clay or clayey gravel. No groundwater was encountered in the shallow borings.
- OCPs and lead, arsenic, and mercury were investigated at 10 locations from a depth of 2 feet bgs. From the OCP analyses of the ten (10) samples, all constituents were below reporting limits, except for a trace detection of two constituents in a single sample location. Sample APX-SB-3-2' showed 0.0080 milligrams per kilogram (mg/kg) 4,4'-DDE and 0.0095 mg/kg 4,4'-DDT. Results are below applicable soil screening levels, as indicated in the attached Table 1.
- Arsenic was detected in all 10 samples at concentrations of 1.0 mg/kg (APX-SB-6-2') to 7.0 mg/kg (APX-SB-2-2'). These appear to be in the range of background for the area, based on Duverge, 2011 "Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region", which indicates an average of 11 mg/kg.
- Total lead was detected in 9 of 10 samples at concentrations of 10 mg/kg (samples APX-SB-2-2' and APX-SB-4-2') to 64 mg/kg (APX-SB-3-2'). Results are below their applicable screening levels.
- Mercury was detected in all 10 samples at concentrations of 0.046 mg/kg (APX-SB-7-2') to 0.18 mg/kg (APX-SB-7-2'). Results are below their applicable screening levels.

### Conclusions/Recommendations

- Pesticides, mercury and lead were below their screening levels while the low arsenic concentration (up to 7.0 mg/kg) are in the range considered background.
- Results indicate the soil is not impacted with pesticides or lead associated with historical building and orchard operations.
- During redevelopment, ensure that conditions of the Santa Clara County Local Oversight Program Case Closure letter dated September 10, 2015 (under the State Low Threat Closure Policy) are followed. That letter is located on the State's GeoTracker site at [CLOS\\_09S3E28L01f.pdf\(ca.gov\)](http://CLOS_09S3E28L01f.pdf(ca.gov)).

If you have any questions or require additional information about this memorandum or the activities detailed herein, please do not hesitate to contact Karl Bowers at (805) 373-9063, x1703 or by email at [Karl.Bowers@apexcos.com](mailto:Karl.Bowers@apexcos.com).

Attached:

- Table 1 – Summary of Soil Analytical Results
- Sample Location Map
- Field Notes
- Soil Laboratory Analytical Report and Chain-of-Custody

**Table 1**  
**Soil Assessment Results**  
**World Oil Station No. 52**  
**16720 Morgan Hill, California**

Sample ID	Sample Depth (feet bgs)	Date	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	alpha-BHC	alpha-Chlordane	beta-BHC	Chlordane	delta-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfate Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	gamma-BHC (Lindane)	gamma-Chlordane	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	Arsenic	Lead	Mercury
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
DTSC SL (Commercial/Industrial) <sup>1</sup>	6.2	9.3	7.1	0.18	0.24	--	0.82	6.1	--	0.093	6,000	6,000	3,200	160	--	--	2.0	--	0.63	0.33	2,600	1.2	0.36	320	4.4		
USEPA RSL (Commercial/Industrial) <sup>2</sup>	9.6	9.3	8.5	0.18	0.36	500	1.3	7.7	--	0.14	7,000	7,000	4,900	250	--	--	2.5	500	0.63	0.33	4,100	2.1	3.0	800	46		
SFWRQCB ESLs (Commercial/Industrial) <sup>3</sup>	12	8.3	8.5	0.15	--	--	--	2.2	--	0.16	--	--	--	290	--	--	2.5	--	0.53	0.28	4,800	2.2	0.31	320	190		
SFWRQCB ESLs (Construction Worker) <sup>3</sup>	81	57	57	1.0	--	--	--	14	--	1.1	--	--	--	74	--	--	16	--	3.7	1.9	1,200	14	0.98	160	44		
Method Reporting Limit:	0.0040	0.0040	0.0040	0.0020	0.0020	0.0040	0.0020	0.020	0.0020	0.0020	0.0040	0.0040	0.0040	0.0040	0.0040	0.0040	0.0040	0.0040	0.0020	0.0020	0.020	0.10	0.50	3.0	0.020		
APX-SB-1-2'	2	11/3/2021	<0.020	<0.020	<0.020	<0.010	<0.010	<0.010	<0.10	<0.010	<0.010	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.010	<0.010	<0.50	5.9	17	0.15		
APX-SB-2-2'	2	11/3/2021	<0.020	<0.020	<0.020	<0.010	<0.010	<0.020	<0.010	<0.10	<0.010	<0.010	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.010	<0.010	<0.10	<0.50	7.0	10	0.072	
APX-SB-3-2'	2	11/3/2021	<0.0080	<b>0.0080</b>	<b>0.0095</b>	<0.0040	<0.0040	<0.0080	<0.0040	<0.040	<0.0040	<0.0040	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0040	<0.0040	<0.040	<0.20	4.1	64	0.066	
APX-SB-4-2'	2	11/3/2021	<0.0040	<0.0040	<0.0040	<0.0020	<0.0020	<0.0040	<0.0020	<0.020	<0.0020	<0.0020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0020	<0.0020	<0.020	<0.10	6.6	10	0.082	
APX-SB-5-2'	2	11/3/2021	<0.020	<0.020	<0.020	<0.010	<0.010	<0.020	<0.010	<0.10	<0.010	<0.010	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.010	<0.010	<0.10	<0.50	4.4	22	0.11		
APX-SB-6-2'	2	11/3/2021	<0.040	<0.040	<0.040	<0.020	<0.020	<0.040	<0.020	<0.20	<0.020	<0.020	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.020	<0.020	<0.20	<1.0	1.0	15	0.17	
APX-SB-7-2'	2	11/3/2021	<0.0040	<0.0040	<0.0040	<0.0020	<0.0020	<0.0040	<0.0020	<0.020	<0.0020	<0.0020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0020	<0.0020	<0.020	<0.10	2.0	<3.0	0.18		
APX-SB-8-2'	2	11/3/2021	<0.0080	<0.0080	<0.0080	<0.0040	<0.0040	<0.0080	<0.0040	<0.040	<0.0040	<0.0040	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0040	<0.0040	<0.040	<0.20	2.7	12	0.046		
APX-SB-9-2'	2	11/3/2021	<0.040	<0.040	<0.040	<0.020	<0.020	<0.040	<0.020	<0.20	<0.020	<0.020	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.020	<0.020	<0.20	<1.0	5.0	13	0.089		
APX-SB-10-2'	2	11/3/2021	<0.040	<0.040	<0.040	<0.020	<0.020	<0.040	<0.020	<0.20	<0.020	<0.020	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.020	<0.020	<0.20	<1.0	5.3	14	0.079		

**Notes:**

Laboratory analyses for OCPs by EPA Method 8081A, Total Arsenic by EPA Method 6010B, Total Lead by EPA Method by EPA Method 6010B, and Mercury by 7470A/7471A.

Detections bolded for quick reference.

See laboratory report for additional details.

mg/kg = milligrams per kilogram

bgs = below ground surface

<## = Analyte not detected at or above the indicated laboratory reporting limit or method detection limit.

-- = Screening level not available from DTSC (2020) or USEPA (2020)

<sup>1</sup> = The screening level represents the DTSC-modified Screening Level (SL, DTSC, 2020).

<sup>2</sup> = The screening level represents the USEPA Regional Screening Level (RSL, USEPA, 2021)

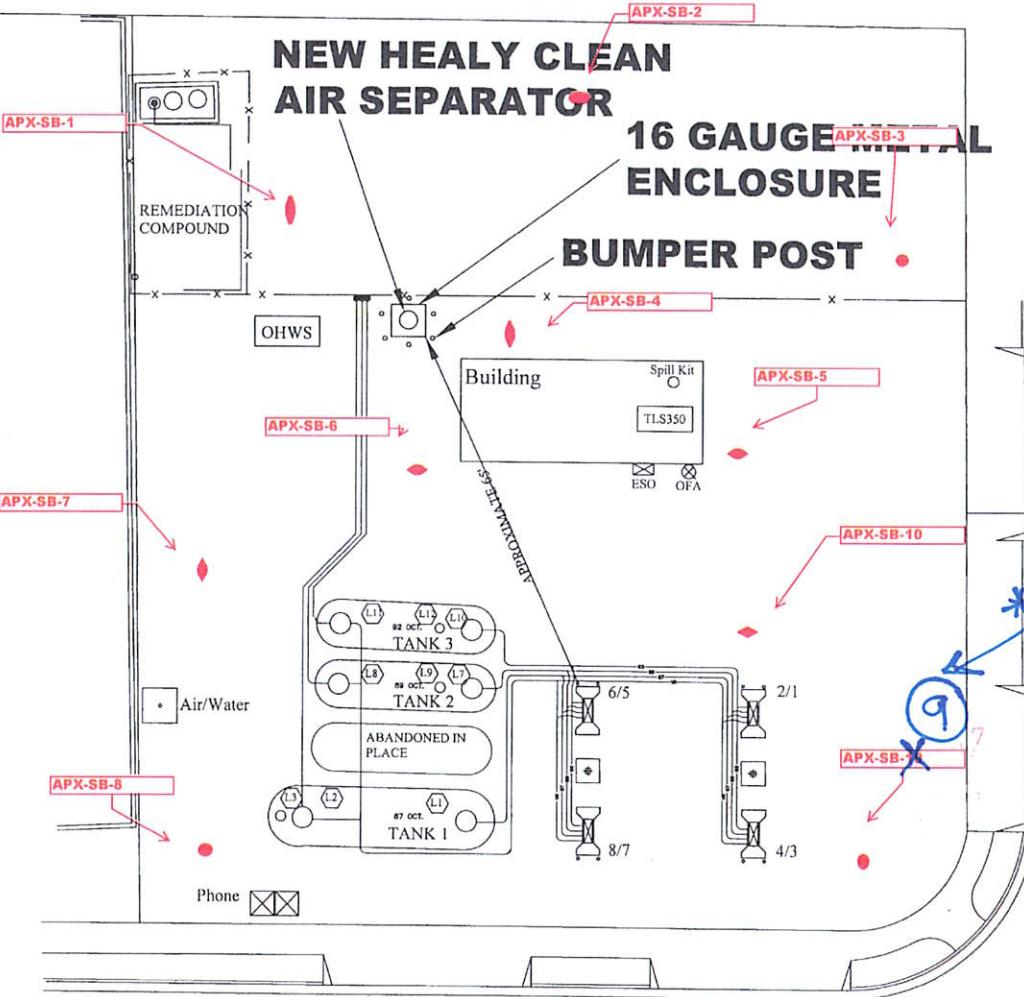
<sup>3</sup> = The screening level represents the SFRWQCB Environmental Screening Level, Table S-1 (ESL, SFBRWQCB, 2019)

**References**

Department of Toxic Substances Control (DTSC). 2020. Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC SLs). June.

U.S. Environmental Protection Agency (USEPA). 2021. Regional Screening Levels (TR=1E-06, HQ=1). May.

San Francisco Bay Regional Water Quality Control Board (SFRWQCB). 2019. Environmental Screening Levels. July.



ALL COPPER TUBE FOR WATER PIPING  
SHALL HAVE A WEIGHT OF NOT LESS THAN  
TYPE L AS PER CITY ORDINANCE 15.20.050.

CITY DEPARTMENT SIGN OFF CARD  
REQUIRED FOR FINAL INSPECTION

PLANS APPROVED  
SUBJECT TO  
FIELD INSPECTION

SCOPE OF WORK

1. INSTALL NEW PHASE 2 EVR (VR-202-E) EQUIPMENT:
- A. HEALY MODEL 900 NOZZLES
- B. HEALY MODEL 9961 CLEAN AIR SEPARATOR
- C. HEALY MODEL 75 SERIES VAPOR ASSIST HOSES
- D. HEALY MODEL 8701 VAPOR ASSIST HOSE BREAKAWAY
- E. HEALY MODEL 75 SERIES WHIP HOSES
- F. HEALY MODEL VP1000 VAPOR VACUUM PUMPS
2. VEEDER-ROOT ISD EQUIPMENT:
- A. UPGRADE EXISTING VEEDER-ROOT TLS-350 WITH NEW ECUPS BOARD AND SOFTWARE
- B. VEEDER-ROOT 330020-445 VAPOR FLOW METER
- C. VEEDER-ROOT 330020-515 VAPOR PRESSURE SENSOR
- D. VEEDER-ROOT RS232/RJ485 DUAL PORT INTERFACE MODULE
- E. DISPENSER INTERFACE MODULE
- F. SMART SENSOR MODULE

4" of Class 2 Aggregate Base Rock or Approx.  
Base & 6" of Concrete w/ Steel  
Reinforcement

EXISTING VEEDER-ROOT CONDUIT TO WIRE THE ISD TO  
THE VEEDER-ROOT MONITORING PANEL

**JOB COPY**

These plans must be kept on the job at all times

CITY OF MORGAN HILL  
BUILDING DIVISION

Reviewed for Code Compliance

*[Signature]*  
8/15/08  
DATE

**WORLD OIL MARKETING COMPANY**  
932 S. GARFIELD AVE. SOUTH GATE, CA 90280  
TEL: (626) 979-0200 FAX: (626) 979-1561

**PHASE II EVR UPGRADE SITE PLAN**

PROJECT ADDRESS:

WORLD OIL #52  
16720 MONTEREY HIGHWAY, MORGAN HILL, CA 92307

PREPARED BY: MONICA LU  
2008-07-21

BLD2008-00557

## DAILY FIELD RECORD



Page 1 of 2

Project and Task Number:	092-VAR-2H21.01	Date:	11-3-21	
Project Name:	World Oil (W52)	Field Activity:	Concrete coring, hand augering, soil sample collection	
Location:	16720 monterey Rd.	Weather:		
PERSONNEL:	Name	Company	Time In	Time Out
	morgan hill, CA			
Michael Basilisco	Apex	1000	1630	
Jose Cortes	Penhall	1000	1230	

### PERSONAL SAFETY CHECKLIST

<input checked="" type="checkbox"/>	Steel-toed Boots	<input checked="" type="checkbox"/>	Hard Hat	Tyvek Coveralls
<input checked="" type="checkbox"/>	Rubber Gloves/Leather Gloves	<input checked="" type="checkbox"/>	Safety Goggles	½ Face Respirator
<input checked="" type="checkbox"/>	Safety Vest	<input checked="" type="checkbox"/>	face mask	
DRUM I.D.	DESCRIPTION OF CONTENTS AND QUANTITY			LOCATION

TIME	DESCRIPTION OF WORK PERFORMED
1000	- Arrive on site; meet w/ Penhall & discuss scope of work
1010	- H & S meeting
1015	- Talk w/ Store/gas station manager
1020	- Remark points/ coring locations
1030	- Penhall begins coring <ul style="list-style-type: none"> <li>• 7 locations in parking lot, all on asphalt; 3 locations (SB-1, SB-2, SB-3) in unpaved lot behind property.</li> <li>• Asphalt varies in thickness from 4" to 8" (cores)</li> </ul>
1050	- Apex begins hand augering / soil sampling <ul style="list-style-type: none"> <li>• SB-6: clayey gravels * collect @ aft bgs</li> <li>• SB-7: <del>clayey sand</del> Sandy clays</li> <li>• SB-8: <del>clayey sand</del> Sandy clays</li> <li>• SB-4: <del>clayey sand</del> w/ some gravels</li> <li>• SB-5: sandy clays</li> </ul>



**DAILY FIELD RECORD (Continued)**



APEX Page 2 of 2

Project and Task Number: 092-VAR-2H21 Date: 11-3-21



9765 Eton Avenue  
Chatsworth  
California 91311  
Tel: (818) 998-5547  
Fax: (818) 998-7258

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November 15, 2021

John Hundley  
World Oil Marketing Company  
9302 South Garfield Avenue  
South Gate, CA 90280-3896

**Re : WO #52 / 092-VAR-2H21.01**  
**A2917147 / 1K05001**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 11/05/21 09:10 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytics.

Sincerely,

Viorel Vasile  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** World Oil Marketing Company  
**Project No:** 092-VAR-2H21.01  
**Project Name:** WO #52

**AA Project No:** A2917147  
**Date Received:** 11/05/21  
**Date Reported:** 11/15/21

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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### 8081A OCPs

APX-SB-1-2'	1K05001-01	Soil	5	11/03/21 15:40	11/05/21 09:10
APX-SB-2-2'	1K05001-02	Soil	5	11/03/21 15:50	11/05/21 09:10
APX-SB-3-2'	1K05001-03	Soil	5	11/03/21 16:05	11/05/21 09:10
APX-SB-4-2'	1K05001-04	Soil	5	11/03/21 12:30	11/05/21 09:10
APX-SB-5-2'	1K05001-05	Soil	5	11/03/21 13:10	11/05/21 09:10
APX-SB-6-2'	1K05001-06	Soil	5	11/03/21 11:10	11/05/21 09:10
APX-SB-7-2'	1K05001-07	Soil	5	11/03/21 11:25	11/05/21 09:10
APX-SB-8-2'	1K05001-08	Soil	5	11/03/21 11:45	11/05/21 09:10
APX-SB-9-2'	1K05001-09	Soil	5	11/03/21 13:45	11/05/21 09:10
APX-SB-10-2'	1K05001-10	Soil	5	11/03/21 13:30	11/05/21 09:10

### Arsenic Total EPA 6010B

APX-SB-1-2'	1K05001-01	Soil	5	11/03/21 15:40	11/05/21 09:10
APX-SB-2-2'	1K05001-02	Soil	5	11/03/21 15:50	11/05/21 09:10
APX-SB-3-2'	1K05001-03	Soil	5	11/03/21 16:05	11/05/21 09:10
APX-SB-4-2'	1K05001-04	Soil	5	11/03/21 12:30	11/05/21 09:10
APX-SB-5-2'	1K05001-05	Soil	5	11/03/21 13:10	11/05/21 09:10
APX-SB-6-2'	1K05001-06	Soil	5	11/03/21 11:10	11/05/21 09:10
APX-SB-7-2'	1K05001-07	Soil	5	11/03/21 11:25	11/05/21 09:10

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** World Oil Marketing Company  
**Project No:** 092-VAR-2H21.01  
**Project Name:** WO #52

**AA Project No:** A2917147  
**Date Received:** 11/05/21  
**Date Reported:** 11/15/21

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
APX-SB-8-2'	1K05001-08	Soil	5	11/03/21 11:45	11/05/21 09:10
APX-SB-9-2'	1K05001-09	Soil	5	11/03/21 13:45	11/05/21 09:10
APX-SB-10-2'	1K05001-10	Soil	5	11/03/21 13:30	11/05/21 09:10

### Lead Total EPA 6010B

APX-SB-1-2'	1K05001-01	Soil	5	11/03/21 15:40	11/05/21 09:10
APX-SB-2-2'	1K05001-02	Soil	5	11/03/21 15:50	11/05/21 09:10
APX-SB-3-2'	1K05001-03	Soil	5	11/03/21 16:05	11/05/21 09:10
APX-SB-4-2'	1K05001-04	Soil	5	11/03/21 12:30	11/05/21 09:10
APX-SB-5-2'	1K05001-05	Soil	5	11/03/21 13:10	11/05/21 09:10
APX-SB-6-2'	1K05001-06	Soil	5	11/03/21 11:10	11/05/21 09:10
APX-SB-7-2'	1K05001-07	Soil	5	11/03/21 11:25	11/05/21 09:10
APX-SB-8-2'	1K05001-08	Soil	5	11/03/21 11:45	11/05/21 09:10
APX-SB-9-2'	1K05001-09	Soil	5	11/03/21 13:45	11/05/21 09:10
APX-SB-10-2'	1K05001-10	Soil	5	11/03/21 13:30	11/05/21 09:10

### Mercury Total EPA 7470A/7471A

APX-SB-1-2'	1K05001-01	Soil	5	11/03/21 15:40	11/05/21 09:10
APX-SB-2-2'	1K05001-02	Soil	5	11/03/21 15:50	11/05/21 09:10
APX-SB-3-2'	1K05001-03	Soil	5	11/03/21 16:05	11/05/21 09:10
APX-SB-4-2'	1K05001-04	Soil	5	11/03/21 12:30	11/05/21 09:10

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** World Oil Marketing Company  
**Project No:** 092-VAR-2H21.01  
**Project Name:** WO #52

**AA Project No:** A2917147  
**Date Received:** 11/05/21  
**Date Reported:** 11/15/21

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
APX-SB-5-2'	1K05001-05	Soil	5	11/03/21 13:10	11/05/21 09:10
APX-SB-6-2'	1K05001-06	Soil	5	11/03/21 11:10	11/05/21 09:10
APX-SB-7-2'	1K05001-07	Soil	5	11/03/21 11:25	11/05/21 09:10
APX-SB-8-2'	1K05001-08	Soil	5	11/03/21 11:45	11/05/21 09:10
APX-SB-9-2'	1K05001-09	Soil	5	11/03/21 13:45	11/05/21 09:10
APX-SB-10-2'	1K05001-10	Soil	5	11/03/21 13:30	11/05/21 09:10

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**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** World Oil Marketing Company  
**Project No:** 092-VAR-2H21.01  
**Project Name:** WO #52  
**Method:** Organochlorine Pesticides by GC EPA 8081A

**AA Project No:** A2917147  
**Date Received:** 11/05/21  
**Date Reported:** 11/15/21  
**Units:** mg/kg

<b>Date Sampled:</b>	11/03/21	11/03/21	11/03/21	11/03/21
<b>Date Prepared:</b>	11/10/21	11/10/21	11/10/21	11/10/21
<b>Date Analyzed:</b>	11/11/21	11/11/21	11/11/21	11/11/21
<b>AA ID No:</b>	1K05001-01	1K05001-02	1K05001-03	1K05001-04
<b>Client ID No:</b>	APX-SB-1-2'	APX-SB-2-2'	APX-SB-3-2'	APX-SB-4-2'
<b>Matrix:</b>	Soil	Soil	Soil	Soil
<b>Dilution Factor:</b>	5	5	2	1
				MRL

### 8081A OCPs (EPA 8081A)

4,4'-DDD	<0.020 [1]	<0.020 [1]	<0.0080	<0.0040	0.0040
4,4'-DDE	<0.020 [1]	<0.020 [1]	<b>0.0080</b>	<0.0040	0.0040
4,4'-DDT	<0.020 [1]	<0.020 [1]	<b>0.0095</b>	<0.0040	0.0040
Aldrin	<0.010 [1]	<0.010 [1]	<0.0040	<0.0020	0.0020
beta-BHC	<0.010 [1]	<0.010 [1]	<0.0040	<0.0020	0.0020
delta-BHC	<0.010 [1]	<0.010 [1]	<0.0040	<0.0020	0.0020
alpha-BHC	<0.010 [1]	<0.010 [1]	<0.0040	<0.0020	0.0020
gamma-BHC (Lindane)	<0.020 [1]	<0.020 [1]	<0.0080	<0.0040	0.0040
gamma-Chlordane	<0.020 [1]	<0.020 [1]	<0.0080	<0.0040	0.0040
alpha-Chlordane	<0.020 [1]	<0.020 [1]	<0.0080	<0.0040	0.0040
Chlordane	<0.10 [1]	<0.10 [1]	<0.040	<0.020	0.020
Dieldrin	<0.010 [1]	<0.010 [1]	<0.0040	<0.0020	0.0020
Endosulfan I	<0.010 [1]	<0.010 [1]	<0.0040	<0.0020	0.0020
Endosulfan II	<0.020 [1]	<0.020 [1]	<0.0080	<0.0040	0.0040
Endosulfan sulfate	<0.020 [1]	<0.020 [1]	<0.0080	<0.0040	0.0040
Endrin	<0.020 [1]	<0.020 [1]	<0.0080	<0.0040	0.0040
Endrin aldehyde	<0.020 [1]	<0.020 [1]	<0.0080	<0.0040	0.0040
Endrin ketone	<0.020 [1]	<0.020 [1]	<0.0080	<0.0040	0.0040
Heptachlor	<0.010 [1]	<0.010 [1]	<0.0040	<0.0020	0.0020
Heptachlor epoxide	<0.010 [1]	<0.010 [1]	<0.0040	<0.0020	0.0020
Methoxychlor	<0.10 [1]	<0.10 [1]	<0.040	<0.020	0.020
Toxaphene	<0.50 [1]	<0.50 [1]	<0.20	<0.10	0.10

<b>Surrogates</b>					<b>%REC Limits</b>
Decachlorobiphenyl	120% [1]	116% [1]	98%	90%	36-124
Tetrachloro-meta-xylene	111% [1]	113% [1]	110%	86%	14-130

**Viorel Vasile**  
Operations Manager

LABORATORY ANALYSIS RESULTS

**Client:** World Oil Marketing Company  
**Project No:** 092-VAR-2H21.01  
**Project Name:** WO #52  
**Method:** Organochlorine Pesticides by GC EPA 8081A

**AA Project No:** A2917147  
**Date Received:** 11/05/21  
**Date Reported:** 11/15/21  
**Units:** mg/kg

Date Sampled:	11/03/21	11/03/21	11/03/21	11/03/21	
Date Prepared:	11/10/21	11/10/21	11/10/21	11/10/21	
Date Analyzed:	11/11/21	11/11/21	11/11/21	11/11/21	
AA ID No:	1K05001-05	1K05001-06	1K05001-07	1K05001-08	
Client ID No:	APX-SB-5-2'	APX-SB-6-2'	APX-SB-7-2'	APX-SB-8-2'	
Matrix:	Soil	Soil	Soil	Soil	
Dilution Factor:	5	10	1	2	MRL

8081A OCPs (EPA 8081A)

4,4'-DDD	<0.020 [1]	<0.040 [1]	<0.0040	<0.0080 [1]	0.0040
4,4'-DDE	<0.020 [1]	<0.040 [1]	<0.0040	<0.0080 [1]	0.0040
4,4'-DDT	<0.020 [1]	<0.040 [1]	<0.0040	<0.0080 [1]	0.0040
Aldrin	<0.010 [1]	<0.020 [1]	<0.0020	<0.0040 [1]	0.0020
beta-BHC	<0.010 [1]	<0.020 [1]	<0.0020	<0.0040 [1]	0.0020
delta-BHC	<0.010 [1]	<0.020 [1]	<0.0020	<0.0040 [1]	0.0020
alpha-BHC	<0.010 [1]	<0.020 [1]	<0.0020	<0.0040 [1]	0.0020
gamma-BHC (Lindane)	<0.020 [1]	<0.040 [1]	<0.0040	<0.0080 [1]	0.0040
gamma-Chlordane	<0.020 [1]	<0.040 [1]	<0.0040	<0.0080 [1]	0.0040
alpha-Chlordane	<0.020 [1]	<0.040 [1]	<0.0040	<0.0080 [1]	0.0040
Chlordane	<0.10 [1]	<0.20 [1]	<0.020	<0.040 [1]	0.020
Dieldrin	<0.010 [1]	<0.020 [1]	<0.0020	<0.0040 [1]	0.0020
Endosulfan I	<0.010 [1]	<0.020 [1]	<0.0020	<0.0040 [1]	0.0020
Endosulfan II	<0.020 [1]	<0.040 [1]	<0.0040	<0.0080 [1]	0.0040
Endosulfan sulfate	<0.020 [1]	<0.040 [1]	<0.0040	<0.0080 [1]	0.0040
Endrin	<0.020 [1]	<0.040 [1]	<0.0040	<0.0080 [1]	0.0040
Endrin aldehyde	<0.020 [1]	<0.040 [1]	<0.0040	<0.0080 [1]	0.0040
Endrin ketone	<0.020 [1]	<0.040 [1]	<0.0040	<0.0080 [1]	0.0040
Heptachlor	<0.010 [1]	<0.020 [1]	<0.0020	<0.0040 [1]	0.0020
Heptachlor epoxide	<0.010 [1]	<0.020 [1]	<0.0020	<0.0040 [1]	0.0020
Methoxychlor	<0.10 [1]	<0.20 [1]	<0.020	<0.040 [1]	0.020
Toxaphene	<0.50 [1]	<1.0 [1]	<0.10	<0.20 [1]	0.10

<u>Surrogates</u>				<u>%REC Limits</u>
Decachlorobiphenyl	82% [1]	74% [1]	72%	84% [1] 36-124
Tetrachloro-meta-xylene	115% [1]	113% [1]	81%	126% [1] 14-130

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** World Oil Marketing Company  
**Project No:** 092-VAR-2H21.01  
**Project Name:** WO #52  
**Method:** Organochlorine Pesticides by GC EPA 8081A

**AA Project No:** A2917147  
**Date Received:** 11/05/21  
**Date Reported:** 11/15/21  
**Units:** mg/kg

<b>Date Sampled:</b>	11/03/21	11/03/21	
<b>Date Prepared:</b>	11/10/21	11/10/21	
<b>Date Analyzed:</b>	11/11/21	11/11/21	
<b>AA ID No:</b>	1K05001-09	1K05001-10	
<b>Client ID No:</b>	APX-SB-9-2'	APX-SB-10-2'	
<b>Matrix:</b>	Soil	Soil	
<b>Dilution Factor:</b>	10	10	MRL

### 8081A OCPs (EPA 8081A)

4,4'-DDD	<0.040 [1]	<0.040 [1]	0.0040
4,4'-DDE	<0.040 [1]	<0.040 [1]	0.0040
4,4'-DDT	<0.040 [1]	<0.040 [1]	0.0040
Aldrin	<0.020 [1]	<0.020 [1]	0.0020
beta-BHC	<0.020 [1]	<0.020 [1]	0.0020
delta-BHC	<0.020 [1]	<0.020 [1]	0.0020
alpha-BHC	<0.020 [1]	<0.020 [1]	0.0020
gamma-BHC (Lindane)	<0.040 [1]	<0.040 [1]	0.0040
gamma-Chlordane	<0.040 [1]	<0.040 [1]	0.0040
alpha-Chlordane	<0.040 [1]	<0.040 [1]	0.0040
Chlordane	<0.20 [1]	<0.20 [1]	0.020
Dieldrin	<0.020 [1]	<0.020 [1]	0.0020
Endosulfan I	<0.020 [1]	<0.020 [1]	0.0020
Endosulfan II	<0.040 [1]	<0.040 [1]	0.0040
Endosulfan sulfate	<0.040 [1]	<0.040 [1]	0.0040
Endrin	<0.040 [1]	<0.040 [1]	0.0040
Endrin aldehyde	<0.040 [1]	<0.040 [1]	0.0040
Endrin ketone	<0.040 [1]	<0.040 [1]	0.0040
Heptachlor	<0.020 [1]	<0.020 [1]	0.0020
Heptachlor epoxide	<0.020 [1]	<0.020 [1]	0.0020
Methoxychlor	<0.20 [1]	<0.20 [1]	0.020
Toxaphene	<1.0 [1]	<1.0 [1]	0.10

<b>Surrogates</b>			<b>%REC Limits</b>
Decachlorobiphenyl	65% [1]	68% [1]	36-124
Tetrachloro-meta-xylene	112% [1]	113% [1]	14-130

**Viorel Vasile**  
Operations Manager

LABORATORY ANALYSIS RESULTS

**Client:** World Oil Marketing Company  
**Project No:** 092-VAR-2H21.01  
**Project Name:** WO #52  
**Method:** Total Metals by ICP Atomic Emission Spectroscopy

**AA Project No:** A2917147  
**Date Received:** 11/05/21  
**Date Reported:** 11/15/21

AA I.D. No.	Client I.D. No.	Sampled	Prepared	Analyzed	Dilution	Result	Units	MRL
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Arsenic Total EPA 6010B (EPA 6010B)

1K05001-01	APX-SB-1-2'	11/03/21	11/10/21	11/11/21	1	5.9	mg/kg	0.5
1K05001-02	APX-SB-2-2'	11/03/21	11/10/21	11/11/21	1	7.0	mg/kg	0.5
1K05001-03	APX-SB-3-2'	11/03/21	11/10/21	11/11/21	1	4.1	mg/kg	0.5
1K05001-04	APX-SB-4-2'	11/03/21	11/10/21	11/11/21	1	6.6	mg/kg	0.5
1K05001-05	APX-SB-5-2'	11/03/21	11/10/21	11/11/21	1	4.4	mg/kg	0.5
1K05001-06	APX-SB-6-2'	11/03/21	11/10/21	11/11/21	1	1.0	mg/kg	0.5
1K05001-07	APX-SB-7-2'	11/03/21	11/10/21	11/11/21	1	2.0	mg/kg	0.5
1K05001-08	APX-SB-8-2'	11/03/21	11/10/21	11/11/21	1	2.7	mg/kg	0.5
1K05001-09	APX-SB-9-2'	11/03/21	11/10/21	11/11/21	1	5.0	mg/kg	0.5
1K05001-10	APX-SB-10-2'	11/03/21	11/10/21	11/11/21	1	5.3	mg/kg	0.5

Lead Total EPA 6010B (EPA 6010B)

1K05001-01	APX-SB-1-2'	11/03/21	11/10/21	11/11/21	1	17	mg/kg	3
1K05001-02	APX-SB-2-2'	11/03/21	11/10/21	11/11/21	1	10	mg/kg	3
1K05001-03	APX-SB-3-2'	11/03/21	11/10/21	11/11/21	1	64	mg/kg	3
1K05001-04	APX-SB-4-2'	11/03/21	11/10/21	11/11/21	1	10	mg/kg	3
1K05001-05	APX-SB-5-2'	11/03/21	11/10/21	11/11/21	1	22	mg/kg	3
1K05001-06	APX-SB-6-2'	11/03/21	11/10/21	11/11/21	1	15	mg/kg	3
1K05001-07	APX-SB-7-2'	11/03/21	11/10/21	11/11/21	1	<3.0	mg/kg	3
1K05001-08	APX-SB-8-2'	11/03/21	11/10/21	11/11/21	1	12	mg/kg	3
1K05001-09	APX-SB-9-2'	11/03/21	11/10/21	11/11/21	1	13	mg/kg	3
1K05001-10	APX-SB-10-2'	11/03/21	11/10/21	11/11/21	1	14	mg/kg	3

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## LABORATORY ANALYSIS RESULTS

**Client:** World Oil Marketing Company  
**Project No:** 092-VAR-2H21.01  
**Project Name:** WO #52  
**Method:** Total Metals CAM 17

**AA Project No:** A2917147  
**Date Received:** 11/05/21  
**Date Reported:** 11/15/21  
**Units:** mg/kg

<b>Date Sampled:</b>	11/03/21	11/03/21	11/03/21	11/03/21
<b>Date Prepared:</b>	11/11/21	11/11/21	11/11/21	11/11/21
<b>Date Analyzed:</b>	11/11/21	11/11/21	11/11/21	11/11/21
<b>AA ID No:</b>	1K05001-01	1K05001-02	1K05001-03	1K05001-04
<b>Client ID No:</b>	APX-SB-1-2'	APX-SB-2-2'	APX-SB-3-2'	APX-SB-4-2'
<b>Matrix:</b>	Soil	Soil	Soil	Soil
<b>Dilution Factor:</b>	1	1	1	1
				MRL

### Mercury Total EPA 7470A/7471A (EPA 7471A)

Mercury	0.15	0.072	0.066	0.082	0.020
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Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** World Oil Marketing Company  
**Project No:** 092-VAR-2H21.01  
**Project Name:** WO #52  
**Method:** Total Metals CAM 17

**AA Project No:** A2917147  
**Date Received:** 11/05/21  
**Date Reported:** 11/15/21  
**Units:** mg/kg

<b>Date Sampled:</b>	11/03/21	11/03/21	11/03/21	11/03/21
<b>Date Prepared:</b>	11/11/21	11/11/21	11/11/21	11/11/21
<b>Date Analyzed:</b>	11/11/21	11/11/21	11/11/21	11/11/21
<b>AA ID No:</b>	1K05001-05	1K05001-06	1K05001-07	1K05001-08
<b>Client ID No:</b>	APX-SB-5-2'	APX-SB-6-2'	APX-SB-7-2'	APX-SB-8-2'
<b>Matrix:</b>	Soil	Soil	Soil	Soil
<b>Dilution Factor:</b>	1	1	1	1
				MRL

### Mercury Total EPA 7470A/7471A (EPA 7471A)

Mercury	0.11	0.17	0.18	0.046	0.020
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**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** World Oil Marketing Company  
**Project No:** 092-VAR-2H21.01  
**Project Name:** WO #52  
**Method:** Total Metals CAM 17

**AA Project No:** A2917147  
**Date Received:** 11/05/21  
**Date Reported:** 11/15/21  
**Units:** mg/kg

<b>Date Sampled:</b>	11/03/21	11/03/21
<b>Date Prepared:</b>	11/11/21	11/11/21
<b>Date Analyzed:</b>	11/11/21	11/11/21
<b>AA ID No:</b>	1K05001-09	1K05001-10
<b>Client ID No:</b>	APX-SB-9-2'	APX-SB-10-2'
<b>Matrix:</b>	Soil	Soil
<b>Dilution Factor:</b>	1	1
		MRL

### Mercury Total EPA 7470A/7471A (EPA 7471A)

Mercury	0.089	0.079	0.020
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Operations Manager



## LABORATORY ANALYSIS RESULTS

Client: World Oil Marketing Company  
Project No: 092-VAR-2H21.01  
Project Name: WO #52

AA Project No: A2917147  
Date Received: 11/05/21  
Date Reported: 11/15/21

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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### Organochlorine Pesticides by GC EPA 8081A - Quality Control

Batch B1K1023 - EPA 3550B

#### Blank (B1K1023-BLK1)

Prepared: 11/10/21 Analyzed: 11/11/21

4,4'-DDD	<0.0040	0.0040	mg/kg							
4,4'-DDE	<0.0040	0.0040	mg/kg							
4,4'-DDT	<0.0040	0.0040	mg/kg							
Aldrin	<0.0020	0.0020	mg/kg							
beta-BHC	<0.0020	0.0020	mg/kg							
delta-BHC	<0.0020	0.0020	mg/kg							
alpha-BHC	<0.0020	0.0020	mg/kg							
gamma-BHC (Lindane)	<0.0040	0.0040	mg/kg							
gamma-Chlordane	<0.0040	0.0040	mg/kg							
alpha-Chlordane	<0.0040	0.0040	mg/kg							
Chlordane	<0.020	0.020	mg/kg							
Dieldrin	<0.0020	0.0020	mg/kg							
Endosulfan I	<0.0020	0.0020	mg/kg							
Endosulfan II	<0.0040	0.0040	mg/kg							
Endosulfan sulfate	<0.0040	0.0040	mg/kg							
Endrin	<0.0040	0.0040	mg/kg							
Endrin aldehyde	<0.0040	0.0040	mg/kg							
Endrin ketone	<0.0040	0.0040	mg/kg							
Heptachlor	<0.0020	0.0020	mg/kg							
Heptachlor epoxide	<0.0020	0.0020	mg/kg							
Methoxychlor	<0.020	0.020	mg/kg							
Toxaphene	<0.10	0.10	mg/kg							

Surrogate: Decachlorobiphenyl 0.00510

mg/kg 0.00500

102 36-124

Surrogate: Tetrachloro-meta-xylene 0.00276

mg/kg 0.00500

55.2 14-130

#### LCS (B1K1023-BS1)

Prepared: 11/10/21 Analyzed: 11/11/21

4,4'-DDD	<b>0.00538</b>	0.0040	mg/kg	0.00500		108	78-109
4,4'-DDE	<b>0.00465</b>	0.0040	mg/kg	0.00500		93.0	58-120
4,4'-DDT	<b>0.00534</b>	0.0040	mg/kg	0.00500		107	52-116
Aldrin	<b>0.00438</b>	0.0020	mg/kg	0.00500		87.6	55-101
beta-BHC	<b>0.00480</b>	0.0020	mg/kg	0.00500		96.0	70-122
delta-BHC	<b>0.00511</b>	0.0020	mg/kg	0.00500		102	64-114

Viorel Vasile  
Operations Manager

LABORATORY ANALYSIS RESULTS

Client: World Oil Marketing Company  
Project No: 092-VAR-2H21.01  
Project Name: WO #52

AA Project No: A2917147  
Date Received: 11/05/21  
Date Reported: 11/15/21

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD RPD	RPD Limit	Notes
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**Organochlorine Pesticides by GC EPA 8081A - Quality Control**

Batch B1K1023 - EPA 3550B

**LCS (B1K1023-BS1) Continued**

Prepared: 11/10/21 Analyzed: 11/11/21

alpha-BHC	<b>0.00407</b>	0.0020	mg/kg	0.00500	81.4	56-102				
gamma-BHC (Lindane)	<b>0.00446</b>	0.0040	mg/kg	0.00500	89.3	62-105				
gamma-Chlordane	<b>0.00473</b>	0.0040	mg/kg	0.00500	94.6	72-108				
alpha-Chlordane	<b>0.00480</b>	0.0040	mg/kg	0.00500	96.0	73-109				
Dieldrin	<b>0.00491</b>	0.0020	mg/kg	0.00500	98.1	63-108				
Endosulfan I	<b>0.00500</b>	0.0020	mg/kg	0.00500	100	69-107				
Endosulfan II	<b>0.00547</b>	0.0040	mg/kg	0.00500	109	60-140				
Endosulfan sulfate	<b>0.00551</b>	0.0040	mg/kg	0.00500	110	61-117				
Endrin	<b>0.00525</b>	0.0040	mg/kg	0.00500	105	72-121				
Endrin aldehyde	<b>0.00610</b>	0.0040	mg/kg	0.00500	122	57-112				QL-03
Endrin ketone	<b>0.00541</b>	0.0040	mg/kg	0.00500	108	64-101				QL-04
Heptachlor	<b>0.00412</b>	0.0020	mg/kg	0.00500	82.4	60-140				
Heptachlor epoxide	<b>0.00493</b>	0.0020	mg/kg	0.00500	98.6	60-140				
Methoxychlor	<b>0.00560</b>	0.020	mg/kg	0.00500	112	60-123				

Surrogate: Decachlorobiphenyl 0.00499

mg/kg 0.00500 99.8 36-124

Surrogate: Tetrachloro-meta-xylene 0.00298

mg/kg 0.00500 59.6 14-130

**LCS Dup (B1K1023-BSD1)**

Prepared: 11/10/21 Analyzed: 11/11/21

4,4'-DDD	<b>0.00602</b>	0.0040	mg/kg	0.00500	120	78-109	11.1	40	QL-03
4,4'-DDE	<b>0.00588</b>	0.0040	mg/kg	0.00500	118	58-120	23.4	40	
4,4'-DDT	<b>0.00601</b>	0.0040	mg/kg	0.00500	120	52-116	11.9	40	QL-03
Aldrin	<b>0.00436</b>	0.0020	mg/kg	0.00500	87.2	55-101	0.478	40	
beta-BHC	<b>0.00534</b>	0.0020	mg/kg	0.00500	107	70-122	10.8	40	
delta-BHC	<b>0.00570</b>	0.0020	mg/kg	0.00500	114	64-114	11.0	40	
alpha-BHC	<b>0.00405</b>	0.0020	mg/kg	0.00500	81.1	56-102	0.404	40	
gamma-BHC (Lindane)	<b>0.00459</b>	0.0040	mg/kg	0.00500	91.7	62-105	2.70	40	
gamma-Chlordane	<b>0.00517</b>	0.0040	mg/kg	0.00500	103	72-108	8.87	40	
alpha-Chlordane	<b>0.00524</b>	0.0040	mg/kg	0.00500	105	73-109	8.77	40	
Dieldrin	<b>0.00526</b>	0.0020	mg/kg	0.00500	105	63-108	7.01	40	
Endosulfan I	<b>0.00545</b>	0.0020	mg/kg	0.00500	109	69-107	8.59	40	QL-03
Endosulfan II	<b>0.00606</b>	0.0040	mg/kg	0.00500	121	60-140	10.3	40	
Endosulfan sulfate	<b>0.00622</b>	0.0040	mg/kg	0.00500	124	61-117	12.2	40	QL-03

Viorel Vasile  
Operations Manager



## LABORATORY ANALYSIS RESULTS

Client: World Oil Marketing Company  
Project No: 092-VAR-2H21.01  
Project Name: WO #52

AA Project No: A2917147  
Date Received: 11/05/21  
Date Reported: 11/15/21

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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### Organochlorine Pesticides by GC EPA 8081A - Quality Control

Batch B1K1023 - EPA 3550B

#### LCS Dup (B1K1023-BSD1) Continued

Prepared: 11/10/21 Analyzed: 11/11/21

Endrin	0.00581	0.0040	mg/kg	0.00500	116	72-121	10.1	40	
Endrin aldehyde	0.00551	0.0040	mg/kg	0.00500	110	57-112	10.2	40	
Endrin ketone	0.00603	0.0040	mg/kg	0.00500	121	64-101	10.9	40	QL-04
Heptachlor	0.00417	0.0020	mg/kg	0.00500	83.5	60-140	1.25	40	
Heptachlor epoxide	0.00539	0.0020	mg/kg	0.00500	108	60-140	8.83	40	
Methoxychlor	0.00635	0.020	mg/kg	0.00500	127	60-123	12.5	40	QL-03
Surrogate: Decachlorobiphenyl	0.00554		mg/kg	0.00500	111	36-124			
Surrogate: Tetrachloro-meta-xylene	0.00274		mg/kg	0.00500	54.8	14-130			

### Total Metals by ICP Atomic Emission Spectroscopy - Quality Control

Batch B1K1019 - EPA 3050B

#### Blank (B1K1019-BLK1)

Prepared: 11/10/21 Analyzed: 11/11/21

Lead	<3.0	3.0	mg/kg
Arsenic	<0.50	0.50	mg/kg

#### LCS (B1K1019-BS1)

Prepared: 11/10/21 Analyzed: 11/11/21

Arsenic	52.4	0.50	mg/kg	50.0	105	80-120	20
Lead	51.4	3.0	mg/kg	50.0	103	80-120	20

#### LCS Dup (B1K1019-BSD1)

Prepared: 11/10/21 Analyzed: 11/11/21

Lead	51.5	3.0	mg/kg	50.0	103	80-120	0.350	20
Arsenic	53.0	0.50	mg/kg	50.0	106	80-120	1.04	20

#### Duplicate (B1K1019-DUP1)

Source: 1K05001-10 Prepared: 11/10/21 Analyzed: 11/11/21

Arsenic	5.20	0.50	mg/kg	5.27		1.34	40
Lead	16.9	3.0	mg/kg	13.5		22.3	40

#### Matrix Spike (B1K1019-MS1)

Source: 1K05001-07 Prepared: 11/10/21 Analyzed: 11/11/21

Arsenic	57.2	0.50	mg/kg	50.0	2.03	110	75-125	40
Lead	55.3	3.0	mg/kg	50.0	<3.0	111	75-125	40

#### Matrix Spike Dup (B1K1019-MSD1)

Source: 1K05001-07 Prepared: 11/10/21 Analyzed: 11/11/21

Lead	50.6	3.0	mg/kg	50.0	<3.0	101	75-125	8.92	40
Arsenic	56.6	0.50	mg/kg	50.0	2.03	109	75-125	1.04	40

### Total Metals CAM 17 - Quality Control

Viorel Vasile  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** World Oil Marketing Company  
**Project No:** 092-VAR-2H21.01  
**Project Name:** WO #52

**AA Project No:** A2917147  
**Date Received:** 11/05/21  
**Date Reported:** 11/15/21

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
<b>Total Metals CAM 17 - Quality Control</b>										
<i>Batch B1K1117 - EPA 7471A Prep</i>										
<b>Blank (B1K1117-BLK1)</b> Prepared & Analyzed: 11/11/21										
Mercury	<0.020	0.020	mg/kg							
<b>LCS (B1K1117-BS1)</b> Prepared & Analyzed: 11/11/21										
Mercury	0.519	0.020	mg/kg	0.500		104	87-112			
<b>LCS Dup (B1K1117-BSD1)</b> Prepared & Analyzed: 11/11/21										
Mercury	0.532	0.020	mg/kg	0.500		106	87-112	2.38	25	
<b>Duplicate (B1K1117-DUP1)</b> Source: 1K05001-10 Prepared & Analyzed: 11/11/21										
Mercury	0.0634	0.020	mg/kg		0.0788			21.6	25	
<b>Duplicate (B1K1117-DUP2)</b> Source: 1J27012-01 Prepared & Analyzed: 11/11/21										
Mercury	6.54	0.40	mg/kg		6.24			4.73	25	
<b>Matrix Spike (B1K1117-MS1)</b> Source: 1K05001-07 Prepared & Analyzed: 11/11/21										
Mercury	0.790	0.020	mg/kg	0.500	0.178	122	77-123			
<b>Matrix Spike Dup (B1K1117-MSD1)</b> Source: 1K05001-07 Prepared & Analyzed: 11/11/21										
Mercury	0.715	0.020	mg/kg	0.500	0.178	107	77-123	9.97	25	

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** World Oil Marketing Company  
**Project No:** 092-VAR-2H21.01  
**Project Name:** WO #52

**AA Project No:** A2917147  
**Date Received:** 11/05/21  
**Date Reported:** 11/15/21

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**Special Notes**

- [1] = \*\* : The sample required dilution due to matrix interference
- [2] = QL-03 : The recovery for this analyte is outside of the acceptance control limits for the LCSD. The data was validated based on the acceptable recovery for this analyte in the LCS.
- [3] = QL-04 : The recovery for this analyte in the LCS and LCSD is marginally above the upper control limit. Since the analyte was not detected in any of the associated samples, the analytical results for this analyte are valid.

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**Viorel Vasile**  
Operations Manager



## AMERICAN ANALYTICS CHAIN-OF-CUSTODY RECORD

**9765 ETON AVE., CHATSWORTH, CA 91311**

Tel: 818-998-5547 FAX: 818-998-7258

Client: Apex Companies, LLC Project Name / No.: World Oil (W52) / 092-VAR-2H Sampler's Name: Michael Basiliaco  
Project Manager: Karl Bowers, P.G. Site Address: 299 W. Hillcrest Dr. Ste 220 Sampler's Signature: Michael Basiliaco  
Phone: (805) 432-5337 \*cell# City: Thousand Oaks P.O. No.:  
Fax: — State & Zip: CA 91360 Quote No.:

## TAT Turnaround Codes \*\*\*

- |  |   |
|--|---|
| <b>①</b> = Same Day Rush<br><b>②</b> = 24 Hour Rush<br><b>③</b> = 48 Hour Rush | <b>④</b> = 72 Hour Rush<br><b>⑤</b> = 5 Day Rush<br><b>X</b> = 10 Working Days (Standard TAT) |
|--|---|

**ANALYSIS REQUESTED (Test Name)**

**Special  
Instructions**

**For Laboratory Use**

**REVIEWED**

Date 1/15/24, Time 10:00 AM

TAT & Days Since

~~Relinquished by~~

Date \_\_\_\_\_

Time

Received by

Received by

Relinquished by

Date \_\_\_\_\_

Time

~~Received by~~

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Relinquished by

Page 5

Time

~~Received by~~

A.A. Project No.: □ 2917147 / 15-22861

Note: By relinquishing samples to American Analytics, client agrees to pay for the services requested on this chain of custody form and any additional client-requested analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 45 days following the submittal of the sample(s) to American Analytics.