



TOLL FREE 1-888-682-5897 FDOH ID: E84925

CERTIFICATE OF ANALYSIS

Client:

HOWCO Environmental Services

3701 Central Ave. St. Petersburg, FL 33713

Attention:

Richard Dillen

Phone Number:

727-328-7403

Fax Number:

727-328-7782

Project Name:

Processed Oil

Project Number:

Batch 3773, Batch 071

Project Location:

St. Petersburg, FL

Sampled By:

R.D. / HES

Date Sampled:

02/08/11 09:00

Date Received:

02/08/11 14:45

Date Reported: Lab. Report #: 02/11/11 020811-013

Project Description

P.O. # 46581

The analytical results for the samples identified in this report were submitted for analysis as outlined by the attached Chain of Custody. The results for the quality control samples were reviewed and found to meet the acceptance criteria for precision and accuracy or properly flagged. Unless noted in this report or a case narrative, all data in this analytical report is in compliance with NELAC standards.

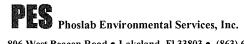
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Notes: Sample results reported at the Method Detection Limit.(MDL)

Approved By: David PomellaDavid Pomella, Laboratory Director

If you have any questions, the above name should be contacted at 863-682-5897 = 8:00 A.M. - 5:00 PM M-F

PES Report: 6
Data Qualifier: 1
COC: 1
Sample Log-In: 1
Total Pages: 9





FDOH ID: E84925

CASE NARRATIVE

Lab. Report #: 020811-013

Project Name: Processed Oil - Batch 3773, Batch 071

I. Sample Receiving Notes

Samples listed on the Chain of Custody #020811-013 were received with containers intact, and at the proper temperature for the requested analyses.

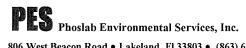
II. Analytical Data Notes

The analyses were performed in accordance with Phoslab Environmental Services SOP's and industry-standard methodologies in compliance with FDEP/NELAC criteria. There were no notable problems encountered in the analytical process.

III, Quality Control Notes

There were not significant quality control anomalies associated with this work order.

COC: 020811-013 Page 2 of 6



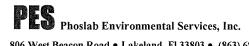


FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 8082

Sample ID: Sample Description/Matrix: Sample Date: Preparation Date: Analysis starting Date/Time: Method: Batch: Dilution: Initials:		02/09/11 02/09/11 EPA 8082 020811 0.2g/10 ml	Comp Oil 09:00 12:43	02/08/11 02/09/11 02/09/11 EPA 8082 020811 0.2g/10 ml	Batch 071 / Grab Oil 02/08/11 09:00 02/09/11 02/09/11 13:37 EPA 8082 020811 0.2g/10 ml			
Initials:		XH		XH				
Analytes:	Cas No.	Results	Units	Results	Units	MDL	PQL	
Aroclor-1016	12674-11-2	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00	
Aroclor-1221	11104-28-2	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00	
Aroclor-1232	11141-16-5	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00	
Aroclor-1242	53469-21-9	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00	
Aroclor-1248	12672-29-6	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00	
Aroclor-1254	11097-69-1	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00	
Aroclor-1260	11096-82-5	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00	
Surrogate:		% Recovery	Limits	% Recovery	Limits			
TCMX		88	70-130	107	70-130			
Decachlorobip	Decachlorobiphenyl		70-130	114	70-130			

COC: 020811-013 Page 3 of 6





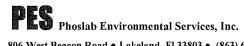
FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 6010B Metals

Sample ID: 020811-33a 020811-34a Sample Description/Matrix: Batch 3773 / Comp Oil Batch 071 / Grab Oil Sample Date: 02/08/11 09:00 02/08/11 09:00 Preparation Date/Method: 02/11/11 3050A 02/11/11 3050A Analysis Date/Time: 02/11/11 14:58 02/11/11 14:58 Method: EPA 6010B EPA 6010B Batch: 021111A-S628 021111A-S628 Initials: MS/SN MS/SN

Analytes:	Cas No.	Results	Units	Dilution	Results	Units	Dilution	MDL	PQL
Arsenic (As)	7440-38-2	0.19 U	mg/Kg	1 x	0.19 U	mg/Kg	1x	0.19	0.25
Cadmium Cd)	7440-43-9	0.07 U	mg/Kg	1 x	0.07 U	mg/Kg	1x	0.07	0.25
Chromium (Cr)	7440-47-3	0.06 I	mg/Kg	1x	0.04 U	mg/Kg	1x	0.04	0.25
Lead (Pb)	7439-92-1	6.42	mg/Kg	1 x	4.83	mg/Kg	1x	0.16	0.25

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TOLL FREE 1-888-682-5897 FDOH ID: E84925

QUALITY CONTROL DATA EPA 8082

SPIKE DATA

Analysis starting Date/Time: 02/08/11 21:34

Batch: 020811 Initials: XH

		% Recover:	QA/QC	RPD		
Parameter	LCS MS		MSD	LIMITS	0-20	Flags
Aroclor-1016	116	119	124	70-130	4	
Aroclor-1260	122	120	126	70-130	5	

LAB BLANK

Analysis starting Date/Time: 02/08/11 20:40

Batch: 020811 Initials: XH

Analytes:	Results	Units
Aroclor-1016	2.0 U	mg/Kg
Aroclor-1221	2.0 U	mg/Kg
Aroclor-1232	2.0 U	mg/Kg
Aroclor-1242	2.0 U	mg/K.g
Aroclor-1248	2.0 U	mg/Kg
Aroclor-1254	2.0 U	mg/Kg
Aroclor-1260	2.0 U	mg/Kg

Surrogate:	% Recovery	Limits
TCMX	124	70-130
Decachlorobiphenyl	125	70-130

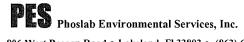
MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

U = Compound analyzed but not detected to the level shown

COC: 020811-013 Page 5 of 6





FDOH ID: E84925

QUALITY CONTROL DATA EPA 6010B Metals

SPIKE DATA

 Analysis Date/Time:
 02/11/11 14:58

 Batch:
 021111A-S628

Initials: SN/MS

	mg/K	% Recovery						
Parameter	Spike @	Spike	Spike Dup	RPD	Spike	Spike Dup	Range	Flag
Arsenic (As)	50.0	47.0	48.4	3.0	94	97	80-120	
Cadmium (Cd)	50.0	48.6	49.7	2.2	97	99	80-120	
Chromium (Cr)	50.0	47.0	48.3	2.7	94	97	80-120	
Lead (Pb)	50.0	46.0	47.3	3.0	92	95	80-120	

LAB BLANK

 Analysis Date/Time:
 02/11/11 14:58

 Batch:
 021111A-S628

 Initials:
 SN/MS

Results	Units
0.19 U	mg/Kg
0.07 U	mg/Kg
0.04 U	mg/Kg
0.16 U	mg/Kg
	0.19 U 0.07 U 0.04 U

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

U = Compound analyzed but not detected to the level shown

COC: 020811-013 Page 6 of 6

DATA QUALIFIER CODES

SYMBOL MEANING

- A Value reported is the arithmetic mean (average) of two or more determinations. This code shall be used if the reported value is the average of results for two or more discrete and separate samples. These samples shall have been processed and analyzed independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate.
- H Value based on field kit determination; results may not be accurate. This code shall be used if a field screening test (i.e., field gas chromatograph data, immunoassay, vendor-supplied field kit, etc.) was used to generate the value and the field kit or method has not been recognized by the Department as equivalent to laboratory methods.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value. A "J" value shall be accompanied by a narrative justification for its use. Where possible, the organization shall report whether the actual value is less than or greater than the reported value. A "J" value shall not be used as a substitute for K, L, M, T, V or Y, however, if additional reasons exist for identifying the value as estimate (e.g., matrix spiked failed to meet acceptance criteria), the "J" code may be added to a K, L, M, T, V, or Y. The following are some examples of narrative descriptions that may accompany a "J" code:
 - No known quality control criteria exist for the component;
 - The reported value failed to meet the established quality control criteria for either precision or accuracy (the specific failure must be identified);
 - The sample matrix interfered with the ability to make any accurate determination;
 - The data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample).
 - The field calibration verification did not meet calibration acceptance criteria.
- K Off-scale low. Actual value is known to be less than the value given. This code shall be used if:
 - The value is less than the lowest calibration standard and the calibration curve is known to be nonlinear; or
 - 2. The value is known to be less than the reported value based on sample size, dilution.
 - This code shall not be used to report values that are less than the laboratory practical quantitation limit or laboratory method detection limit.
- L Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range or highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- M When reporting chemical analyses: presence of material is verified but not quantified; the actual value is less than the value given. The reported value shall be the laboratory practical quantitation limit. This code shall be used if the level is too low to permit accurate quantification, but the estimated concentration is greater than the method detection limit. If the value is less than the method detection limit use "T" below.
- N Presumptive evidence of presence of material. This qualifier shall be used if:
 - 1. The component has been tentatively identified based on mass spectral library search; or
 - 2. There is an indication that the analyte is present, but quality control requirements for confirmation were not met (i.e., presence of analyte was not confirmed by alternative procedures).
- O Sampled, but analysis lost or not performed.
- Q Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
- Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component **was not** detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).
- V Indicates that the analyte was detected in both the sample and the associated method blank. Note: the value in the blank shall not be subtracted from associated samples.
- Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- ? Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- Not currently accredited for this analyte.
- ! Not within scope of method.

Environmental Services Phoslab

510.118060

Fax: 863-683-3279

Phone: 863-682-5897

806 West Beacon Road

Lakeland, Florida 33803-2847

FDOH ID#: E84925

FDEP CompQAP No: 870308G

Chain of Custody Record

Lab. No. 16:30 Time ット REQUESTED DUE DATE Date 3 Equipment ID No. Form Title: Chain of Custody Record Ref: DEP Form #: 62-770.900(2) Sampling CompQAP No.: A STOR - FACILITY Approval Date: 2110 Remarks Effective Date: 8//2004 O = Other (specify)FDEP Facility No.: Accepted by / Affiliation Project Name: O = Other (specify)W = Water (Blanks)Sampling Kit No. 18595 #Od S = Sulfuric acid + ice05.01 Time Preservatives (see codes) Analyses Requested <= Total Number of Containers SW = Surface Water Date Processes OIL NO: N = Nitric acid + icePhosLab, Inc./Containers 6008 ; Relinquished by / Affiliation Cooler No.(s) / Temperature(s) (°C) YES: Containers As SO = SoilNumber of I = Ice onlyEvidence Sample(s): SE = SedimentProject Manager: Project Location: Project Name: Time | Composite | (see codes) Matrix 710 Project #: 200 H = Hydrochloric acid + iceGW = GroundwaterConto Item No. Grab or Ortes Zip: 3 3 767 218/11 09:00 218/1109.00 Sampled by [Print Name(s)] / Affiliation Phone: 127-437-405 9Fax: L'EMMS Sampled ETERSBUNG FL Address: 3701 Central Date HOWCO A = AirShipment Method Via: Via: PRESERVATIVE CODES: Sampler(s) Signature(s) Additional Comments: Field ID No. B#3133 MATRIX CODES: B# 071 Company: Out: Returned: Item

Sample Log-in Checklist

Shipping Method:			>	Date/Tim	ne of Red	ceipt: 👓	0800 (1	1:45	
Coole	r Ched	ck							
	T		ce in co	ooler		Cus	stody Sea	ıl	7
Cooler	#	Yes/	No	If No Temp.	Yes				
***		/		7 doc				Not Intact	
Therm	omete	r ID: _	CON	00/5	36				
				a cooler is ab he affected co					
1)	Custo	dy Sea	al on Bo	ttles present	Yes	No	<u> </u>		
2)	Heads Bubbl Loose	space e > 5m caps	(Volatile nm	containers s) NA Yes Yes	– – – N	0 ×			
3)				cluded		No			
4)				less than 2					
Coole	rs Unp	acked	/Checke	d by	yue	_ Da	te: 02	1180	·n B-3773
Client		Lo	200	2	Р	roject: _	Proces	sed O	B-3773 170-8
					С	OC #: _	3050	3/1-0/3	<u>`</u>
				Improper 9	Sample I	list			

Bottle #	Out of Hold	Improper Containers	Seal Intact	Loose Cap	Damaged Bottle	Damaged Cap	pH>2	Sample Volume	Action





FDOH ID: E84925

CERTIFICATE OF ANALYSIS

Client: HOWCO Environmental Services

3701 Central Ave.

St. Petersburg, FL 33713

Attention: Richard Dillen
Phone Number: 727-328-7403
Fax Number: 727-328-7782
Project Name: Processed Oil

roject Name: Processed Oi

Project Number: Batch 3781, Batch 074 AST P.O. # 46589

Project Location:St. Petersburg, FLSampled By:R.D. / HES

 Date Sampled:
 02/25/11
 10:00

 Date Received:
 02/28/11
 09:47

 Date Reported:
 03/02/11

 Lab. Report #:
 022811-003

Project Description

The analytical results for the samples identified in this report were submitted for analysis as outlined by the attached Chain of Custody. The results for the quality control samples were reviewed and found to meet the acceptance criteria for precision and accuracy or properly flagged. Unless noted in this report or a case narrative, all data in this analytical report is in compliance with NELAC standards.

This report may not be reproduced in part without the permission of PES.

Notes: Sample results reported at the Method Detection Limit.(MDL)

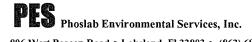
Approved By: Megan Skeen

Megan Skeen, Quality Assurance officer

If you have any questions, the above name should be contacted at $863-682-5897 \quad 8:00 \text{ A.M.} - 5:00 \text{ PM} \quad \text{M-F}$

PES Report:
Data Qualifier:
COC:
Sample Log-In:
Total Pages:

COC: 022811-003 Page 1 of 6





FDOH ID: E84925

CASE NARRATIVE

Lab. Report #:

022811-003

Project Name:

Processed Oil - Batch 3781, Batch 074 AST

I. Sample Receiving Notes

Samples listed on the Chain of Custody # 022811-003 were received with containers intact, and at the proper temperature for the requested analyses.

II. Analytical Data Notes

The analyses were performed in accordance with Phoslab Environmental Services SOP's and industry-standard methodologies in compliance with FDEP/NELAC criteria. There were no notable problems encountered in the analytical process.

III, Quality Control Notes

There were not significant quality control anomalies associated with this work order.

COC: 022811-003 Page 2 of 6



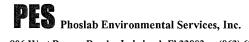
806 West Beacon Road • Lakeland, Fl 33803 • (863) 682-5897 • Fax: (863) 683-3279

TOLL FREE 1-888-682-5897 FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 8082

Sample ID: Sample Description/Matrix: Sample Date: Preparation Date: Analysis starting Date/Time: Method: Batch: Dilution: Initials:		022811-03a Batch 3781 / 02/25/11 02/28/11 03/01/11 EPA 8082 022811 0.2g/10 ml	Grab Oil 10:00 3:32	022811-04a Batch 074-AST / Grab Oil 02/25/11 09:47 02/28/11 03/01/11 4:26 EPA 8082 022811 0.2g/10 ml XH				
Aroclor-1016 12 Aroclor-1221 11 Aroclor-1232 11 Aroclor-1242 53 Aroclor-1248 12	as No. 2674-11-2 104-28-2 141-16-5 2469-21-9 2672-29-6 097-69-1	Results 2.0 U	Units mg/kg mg/kg mg/kg mg/kg	Results 2.0 U	Units mg/kg mg/kg mg/kg mg/kg	MDL 2.00 2.00 2.00 2.00 2.00 2.00	PQL 5.00 5.00 5.00 5.00 5.00	
	096-82-5	2.0 U 2.0 U % Recovery 76 74	mg/kg mg/kg Limits 70-130 70-130	2.0 U 2.0 U % Recovery 74 71	mg/kg mg/kg Limits 70-130 70-130	2.00 2.00	5.00 5.00	

COC: 022811-003 Page 3 of 6





FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 6010B Metals

Sample ID: 022811-03b 022811-04b

Sample Description/Matrix: Batch 3781 / Grab Oil Batch 074-AST / Grab Oil

Sample Date: 02/25/11 10:00 02/25/11 09:47 Preparation Date/Method: 03/01/11 3050A 03/01/11 3050A Analysis Date/Time: 03/01/11 15:10 03/01/11 15:10 Method: EPA 6010B EPA 6010B Batch: 030111A-S638 030111A-S638 Initials: MS/SN MS/SN

Analytes:	Cas No.	Results	Units	Dilution	Results	Units	Dilution	MDL	PQL
Arsenic (As)	7440-38-2	0.19 U	mg/Kg	1x	0.19 U	mg/Kg	1x	0.19	0.25
Cadmium Cd)	7440-43-9	0.07 U	mg/Kg	1x	0.07 U	mg/Kg	1x	0.07	0.25
Chromium (Cr)	7440-47-3	0.29	mg/Kg	lx	0.15 I	mg/Kg	1x	0.04	0.25
Lead (Pb)	7439-92-1	3.44	mg/Kg	1x	4.79	mg/Kg	1x	0.16	0.25

COC: 022811-003 Page 4 of 6





TOLL FREE 1-888-682-5897 FDOH ID: E84925

QUALITY CONTROL DATA EPA 8082

SPIKE DATA

Analysis starting Date/Time: 03/01/11 0:49

Batch: 022811 Initials: XH

		% Recover	QA/QC	RPD		
Parameter	LCS	MS	MSD	LIMITS	0-20	Flags
Aroclor-1016	93	92	92	70-130	0	
Aroclor-1260	98	96	97	70-130	l	

LAB BLANK

Analysis starting Date/Time: 02/28/11 23:55

Batch: 022811 Initials: XH

Results	Units
2.0 U	mg/Kg
% Recovery	Limits
	2.0 U 2.0 U 2.0 U 2.0 U 2.0 U 2.0 U 2.0 U 2.0 U

TCMX 122 70-130
Decachlorobiphenyl 111 70-130

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

U = Compound analyzed but not detected to the level shown



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TOLL FREE 1-888-682-5897 FDOH ID: E84925

QUALITY CONTROL DATA EPA 6010B Metals

SPIKE DATA

 Analysis Date/Time:
 03/01/11 15:10

 Batch:
 030111A-S638

 Initials:
 SN/MS

Parameter	mg/Kg Found			mg/Kg Found % Recovery			% Recovery				
	Spike @	Spike	Spike Dup	RPD	Spike	Spike Dup	Range	Flag			
Arsenic (As)	50.0	51.0	51.7	1.4	102	103	80-120				
Cadmium (Cd)	50.0	48.6	50.1	3.0	97	100	80-120				
Chromium (Cr)	50.0	42.4	43.0	1.4	85	86	80-120				
Lead (Pb)	50.0	42.0	42.8	1.8	84	86	80-120				

LAB BLANK

 Analysis Date/Time:
 03/01/11 15:10

 Batch:
 030111A-S638

 Initials:
 SN/MS

Analytes:	Results	Units
Arsenic (As)	0.19 U	mg/Kg
Cadmium Cd)	0.07 U	mg/Kg
Chromium (Cr)	0.04 U	mg/Kg
Lead (Pb)	0.16 U	mg/Kg

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

U = Compound analyzed but not detected to the level shown

COC: 022811-003 Page 6 of 6

DATA QUALIFIER CODES

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 - No known quality control criteria exist for the component;
 - The reported value failed to meet the established quality control criteria for either precision or accuracy (the specific failure must be identified);
 - The sample matrix interfered with the ability to make any accurate determination;
 - The data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample).
 - The field calibration verification did not meet calibration acceptance criteria.
- K Off-scale low. Actual value is known to be less than the value given. This code shall be used if:
 - The value is less than the lowest calibration standard and the calibration curve is known to be nonlinear; or
 - 2. The value is known to be less than the reported value based on sample size, dilution.
 - This code shall not be used to report values that are less than the laboratory practical quantitation limit or laboratory method detection limit.
- L Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range or highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- When reporting chemical analyses: presence of material is verified but not quantified; the actual value is less than the value given. The reported value shall be the laboratory practical quantitation limit. This code shall be used if the level is too low to permit accurate quantification, but the estimated concentration is greater than the method detection limit. If the value is less than the method detection limit use "T" below.
- N Presumptive evidence of presence of material. This qualifier shall be used if:
 - 1. The component has been tentatively identified based on mass spectral library search; or
 - 2. There is an indication that the analyte is present, but quality control requirements for confirmation were not met (i.e., presence of analyte was not confirmed by alternative procedures).
- O Sampled, but analysis lost or not performed.
- Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
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- Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- ? Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- Not currently accredited for this analyte.
- Not within scope of method.

Environmental Services

233811.003

806 West Beacon Road

Lakeland, Florida 33803-2847

Phone: 863-682-5897 Fax: 863-683-3279 FDEP CompQAP No: 870308G

FDOH ID#: E84925

Chain of Custody Record

10:20 Lab. No. Time Jo REQUESTED DUE DATE Date Equipment ID No. Form Title: Chain of Custody Record Ref: DEP Form #: 62-770.900(2) Sampling CompQAP No.: Approval Date: Remarks Effective Date: 8//2004 O = Other (specify)FDEP Facility No.: Accepted by / Affiliation Project Name: O = Other (specify)W = Water (Blanks)Sampling Kit No. 68594 #Od S = Sulfuric acid + iceTime Preservatives (see codes) 63. Analyses Requested Total Number of Containers SO = Soil SW = Surface WaterDate PROCESSED BIL NO: N = Nitric acid + icePhosLab, Inc./Containers PCB's X Relinquished by / Affiliation Cooler No.(s) / Temperature(s) (°C) Containers 45 YES: Number of Phone: 127 439-4059 Fax: 320-7782 Evidence Sample(s): I = Ice onlyGW = Groundwater SE = Sediment Project Manager: Project Location: Project Name: Time | Composite | (see codes) | 200 Project #: Matrix 210 H = Hydrochloric acid + iceVINO COSOI Grab or Sup? Item No. ST-VETENTAUNG FC Zip: 33713 HOWCO EML SERV. DicLEM B#0 74-AST 2125/11 10000 Address: 3)01 Central Ave Sampled by [Print Name(s)] / Affiliation | Picmmb Dict Sampled 2/25/11 Date A = AirShipment Method Via: Via: PRESERVATIVE CODES: Sampler(s) Signature(s) Additional Comments: Field ID No. 343381 MATRIX CODES: Company: Out: Returned: Item No.

Sample Log-in Checklist

Shipping I	Method: _	VE	5	Date/Tim	ne of Red	ceipt: 🗪	28/1 09	:47
Cooler C	heck							
		lce in c	ooler		Cus	stody Sea	al	1
Cooler #	Yes/	No	If No Temp.	Yes	No	Intact	Not Intact	
	1		200					
Thermom	eter ID: _	TEN	-0015					'
			a cooler is ab he affected co					
1) Cu	stody Sea	al on Bo	ttles present	Yes	No	\times		
He Bul Loc	adspace bble > 5m ose caps	(Volatile nm	Yes	_ _ N _ N	o ×	<u>-</u>		
			cluded					
							pH Strip Lot:	
Coolers U	Inpacked,	/Checke	d by:				2811 2013 311-003	
			Improper S	Sample I	_ist			

Bottle #	Out of Hold	Improper Containers	Seal Intact	Loose Cap	Damaged Bottle	Damaged Cap	pH>2	Sample Volume	Action





TOLL FREE 1-888-682-5897 FDOH ID: E84925

CERTIFICATE OF ANALYSIS

Client:

HOWCO Environmental Services

3701 Central Ave. St. Petersburg, FL 33713

Attention:

Richard Dillen

Phone Number:

727-328-7403

Fax Number:

727-328-7782

Project Name:

Processed Oil

Project Number:

Batch 3786, Batch 076

O

Project Location:

St. Petersburg, FL R.D. / HES

Sampled By: Date Sampled:

03/10/11 09:30

Date Received:

03/10/11 12:00

Date Reported:

03/14/11

Lab. Report #:

031011-004

Project Description

P.O. # 46593

The analytical results for the samples identified in this report were submitted for analysis as outlined by the attached Chain of Custody. The results for the quality control samples were reviewed and found to meet the acceptance criteria for precision and accuracy or properly flagged. Unless noted in this report or a case narrative, all data in this analytical report is in compliance with NELAC standards.

This report may not be reproduced in part without the permission of PES.

Notes: Sample results reported at the Method Detection Limit.(MDL)

Approved By: Megan Skeen

Megan Skeen, Quality Assurance officer

If you have any questions, the above name should be contacted at $863-682-5897 \quad 8:00 \text{ A.M.} - 5:00 \text{ PM} \quad \text{M-F}$

PES Report: Data Qualifier:

Total Pages:

6

COC: Sample Log-In:





FDOH ID: E84925

CASE NARRATIVE

Lab. Report #:

031011-004

Project Name:

Processed Oil - Batch 3786, Batch 076

I. Sample Receiving Notes

Samples listed on the Chain of Custody # 031011-004 were received with containers intact, and at the proper temperature for the requested analyses.

II. Analytical Data Notes

The analyses were performed in accordance with Phoslab Environmental Services SOP's and industry-standard methodologies in compliance with FDEP/NELAC criteria. There were no notable problems encountered in the analytical process.

III, Quality Control Notes

There were not significant quality control anomalies associated with this work order.

COC: 031011-004 Page 2 of 6



806 West Beacon Road • Lakeland, Fl 33803 • (863) 682-5897 • Fax: (863) 683-3279

TOLL FREE 1-888-682-5897 FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 8082

Sample ID:		031011-04		031011-05			
Sample Descr	iption/Matrix:	Batch 3786 /	Grab Oil	Batch 076 /	Grab Oil		
Sample Date:		03/10/11	09:30	03/10/11 09:30			
Preparation I	Date:	03/10/11		03/10/11			
Analysis start	ing Date/Time:	03/10/11	20:00	03/10/11	20:54		
Method:		EPA 8082		EPA 8082			
Batch:		031011		031011			
Dilution:		0.2g/10 ml		0.2g/10 ml			
Initials:		XH		XH			
Analytes:	Cas No.	Results	Units	Results	Units	MDL	PQL
Aroclor-1016	12674-11-2	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1221	11104-28-2	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1232	11141-16-5	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1242	53469-21-9	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1248	12672-29-6	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1254	11097-69-1	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1260	11096-82-5	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Surrogate:		% Recovery	Limits	% Recovery	Limits		
TCMX		95	70-130	97	70-130		
Decachlorobip	henyl	89	70-130	88	70-130		



806 West Beacon Road • Lakeland, Fl 33803 • (863) 682-5897 • Fax: (863) 683-3279 **TOLL FREE 1-888-682-5897**

FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 6010B Metals

Sample ID: 031011-04 031011-05 Sample Description/Matrix: Batch 3786 / Grab Oil Batch 076 / Grab Oil Sample Date: 03/10/11 09:30 03/10/11 09:30 Preparation Date/Method: 03/11/11 3050A 03/11/11 3050A 13:09 13:09 Analysis Date/Time: 03/14/11 03/14/11 Method: EPA 6010B EPA 6010B Batch: 031411B-S643 031411B-S643 MS/SN MS/SN Initials:

Cas No. Results Units Dilution Results Units Dilution MDL **PQL** Analytes: 7440-38-2 0.19 U 0.19 U 0.19 0.25 Arsenic (As) mg/Kg mg/Kg 1x 1x

7440-43-9 Cadmium Cd) 0.07 U mg/Kg 1 x 0.07 U mg/Kg 0.07 0.25 1 x Chromium (Cr) 7440-47-3 0.12 I 0.11 I 0.04 0.25 mg/Kg 1 x mg/Kg 1 x Lead (Pb) 7439-92-1 1.44 6.15 0.16 0.25 mg/Kg mg/Kg 1 x 1 x

COC: 031011-004 Page 4 of 6



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TOLL FREE 1-888-682-5897 FDOH ID: E84925

QUALITY CONTROL DATA EPA 8082

SPIKE DATA

Analysis starting Date/Time: 03/10/11 17:18

Batch: 031011 Initials: XH

		% Recover:	y	QA/QC	RPD	
Parameter	LCS	MS	MSD	LIMITS	0-20	Flags
Aroclor-1016	99	98	95	70-130	3	
Aroclor-1260	104	104	101	70-130	3	

LAB BLANK

Analysis starting Date/Time: 03/10/11 16:24

Batch: 031011 Initials: XH

Analytes:	Results	Units
Aroclor-1016	2.0 U	mg/Kg
Aroclor-1221	2.0 U	mg/Kg
Aroclor-1232	2.0 U	mg/Kg
Aroclor-1242	2.0 U	mg/Kg
Aroclor-1248	2.0 U	mg/Kg
Aroclor-1254	2.0 U	mg/Kg
Aroclor-1260	2.0 U	mg/Kg

Surrogate:	% Recovery	Limits
TCMX	118	70-130
Decachlorobiphenyl	123	70-130

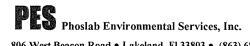
MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

U = Compound analyzed but not detected to the level shown

COC: 031011-004 Page 5 of 6





TOLL FREE 1-888-682-5897 FDOH ID: E84925

QUALITY CONTROL DATA EPA 6010B Metals

SPIKE DATA

 Analysis Date/Time:
 03/14/11 13:09

 Batch:
 031411B-S643

 Initials:
 SN/MS

	mg/K	g Found			% R	ecovery		
Parameter	Spike @	Spike	Spike Dup	RPD	Spike	Spike Dup	Range	Flag
Arsenic (As)	50.0	52.4	52.8	0.7	105	106	80-120	
Cadmium (Cd)	50.0	48.2	48.5	0.6	96	97	80-120	
Chromium (Cr)	50.0	53.3	53.8	(),9	107	108	80-120	
Lead (Pb)	50.0	53.7	54.2	(),9	107	108	80-120	

LAB BLANK

 Analysis Date/Time:
 03/14/11 13:09

 Batch:
 031411B-S643

 Initials:
 SN/MS

Analytes:	Results	Units
Arsenic (As)	0.19 U	mg/Kg
Cadmium Cd)	0.07 U	mg/Kg
Chromium (Cr)	0.04 U	mg/Kg
Lead (Pb)	0.16 U	mg/Kg

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

U = Compound analyzed but not detected to the level shown

COC: 031011-004 Page 6 of 6

DATA QUALIFIER CODES

SYMBOL MEANING

- A Value reported is the arithmetic mean (average) of two or more determinations. This code shall be used if the reported value is the average of results for two or more discrete and separate samples. These samples shall have been processed and analyzed independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate.
- H Value based on field kit determination; results may not be accurate. This code shall be used if a field screening test (i.e., field gas chromatograph data, immunoassay, vendor-supplied field kit, etc.) was used to generate the value and the field kit or method has not been recognized by the Department as equivalent to laboratory methods.
- 1 The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value. A "J" value shall be accompanied by a narrative justification for its use. Where possible, the organization shall report whether the actual value is less than or greater than the reported value. A "J" value shall not be used as a substitute for K, L, M, T, V or Y, however, if additional reasons exist for identifying the value as estimate (e.g., matrix spiked failed to meet acceptance criteria), the "J" code may be added to a K, L, M, T, V, or Y. The following are some examples of narrative descriptions that may accompany a "J" code:
 - No known quality control criteria exist for the component;
 - The reported value failed to meet the established quality control criteria for either precision or accuracy (the specific failure must be identified);
 - The sample matrix interfered with the ability to make any accurate determination;
 - The data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample).
 - The field calibration verification did not meet calibration acceptance criteria.
- K Off-scale low. Actual value is known to be less than the value given. This code shall be used if:
 - 1. The value is less than the lowest calibration standard and the calibration curve is known to be non-linear; or
 - 2. The value is known to be less than the reported value based on sample size, dilution.

This code shall not be used to report values that are less than the laboratory practical quantitation limit or laboratory method detection limit.

- L Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range or highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- M When reporting chemical analyses: presence of material is verified but not quantified; the actual value is less than the value given. The reported value shall be the laboratory practical quantitation limit. This code shall be used if the level is too low to permit accurate quantification, but the estimated concentration is greater than the method detection limit. If the value is less than the method detection limit use "T" below.
- N Presumptive evidence of presence of material. This qualifier shall be used if:
 - 1. The component has been tentatively identified based on mass spectral library search; or
 - 2. There is an indication that the analyte is present, but quality control requirements for confirmation were not met (i.e., presence of analyte was not confirmed by alternative procedures).
- O Sampled, but analysis lost or not performed.
- Q Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
- U Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component **was not** detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).
- V Indicates that the analyte was detected in both the sample and the associated method blank. Note: the value in the blank shall not be subtracted from associated samples.
- Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- ? Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- * Not currently accredited for this analyte.
- Not within scope of method.



Chain of Custody Record

Lakeland, Florida 33803-2847 806 West Beacon Road

Phone: 863-682-5897

FDEP CompQAP No: 870308G Fax: 863-683-3279

MATRIX CODES: Item No. Sampler(s) Signature(s) Sampled by [Print Name(s)] / Affiliation
Rickard Dictem Additional Comments: Returned: Company: Phone: 727-437-4059 Address Out: 34076 Field ID No FIENDUNG Shipment Method 101 CEMTRAL HOWCO A = AirVia: Via: 3/10/11 09:30 3110111 00-10 CARD Date Sampled Fax: 3 12-F (Zip: 33 GW = Groundwater Time Composite Item No GNO Grab or Evidence Sample(s): Cooler No.(s) / Temperature(s) (°C) Project Manager: Project Name: Project Location: Project #: (see codes) 210 Matrix SE = Sediment016 Relinquished by / Affiliation Number of Containers hosLab, Inc./Containers SO = Soil SW = Surface WaterYES: A PROCESSED BIL **Total Number of Containers** PCB's X Preservatives (see codes) Analyses Requested Date 10:45 12:00 W = Water (Blanks)PO# 46593 Time Sampling Kit No. Accepted by / Affiliation O = Other (specify)Sampling CompQAP No.: Project Name: Form Title: Chain of Custody Record FDEP Facility No.: Ref: DEP Form #: 62-770.900(2) Effective Date: 8//2004 REQUESTED DUE DATE Approval Date: Equipment ID No. 114111 FDOH ID#: E84925 Date of 10:45 (2,00 Time ab. No.

PRESERVATIVE CODES:

H = Hydrochloric acid + ice

I = Ice only

N = Nitric acid + ice

S = Sulfuric acid + ice

O = Other (specify)

Sample Log-in Checklist

Shipp	ing N	/lethod: _	VE.	5	Date/Tim	e of Red	ceipt: _	3/01/ (2	(00)	
Coole	er Ch	eck								
	Ice in cooler Custody Seal									
Coole	r #	Yes	No	If No Temp.	Yes	No	Intact	Not Intact		
				Elac						
Thern	nome	eter ID: _	TEN.	-0015	L					
				a cooler is ab				is damaged r Sample List"		
1)	Cus	stody Sea	al on Bo	ttles present	Yes	No				
2)	Hea Bul Loc	adspace oble > 5n ose caps	(Volatile nm	Yes Yes	_ _ N _ N	o ×	_ _			
3)				cluded					-	
4)	Aci	d preser	ved: pH	less than 2	Yes	No	<u>a)(a</u>	pH Strip Lot:	-	
Coolers Unpacked/Checked by: Description Project: Nocessed Oil B-3786 Client: COC #: 03(01) - 004										
	Improper Sample List									

Bottle #	Out of Hold	Improper Containers	Seal Intact	Loose Cap	Damaged Bottle	Damaged Cap	pH>2	Sample Volume	Action





TOLL FREE 1-888-682-5897 FDOH ID: E84925

CERTIFICATE OF ANALYSIS

Client: HOWCO Environmental Services

3701 Central Ave.

St. Petersburg, FL 33713

Attention: Richard Dillen
Phone Number: 727-328-7403
Fax Number: 727-328-7782
Project Name: Processed Oil

Project Number: Batch 3798, 077-AST P.O. # 44846

Project Location: St. Petersburg, FL Sampled By: R.D. / HES

Date Sampled: 04/05/11

Date Received: 04/05/11 14:00

 Date Reported:
 04/08/11

 Lab. Report #:
 04/0511-015

Project Description

The analytical results for the samples identified in this report were submitted for analysis as outlined by the attached Chain of Custody. The results for the quality control samples were reviewed and found to meet the acceptance criteria for precision and accuracy or properly flagged. Unless noted in this report or a case narrative, all data in this analytical report is in compliance with NELAC standards.

This report may not be reproduced in part without the permission of PES.

Notes: Sample results reported at the Method Detection Limit.(MDL)

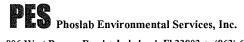
Approved By: Steve Nasr Steve Nasr, Projects Manager

If you have any questions, the above name should be contacted

at 863-682-5897 8:00 A.M. - 5:00 PM M-F

PES Report:
Data Qualifier:
COC:
Sample Log-In:
Total Pages:

COC: 040511-015 Page 1 of 6





TOLL FREE 1-888-682-5897 FDOH ID: E84925

CASE NARRATIVE

Lab. Report #: 040511-015

Project Name: Processed Oil - Batch 3798, 077-AST

I. Sample Receiving Notes

Samples listed on the Chain of Custody #040511-015 were received with containers intact, and at the proper temperature for the requested analyses.

II. Analytical Data Notes

The analyses were performed in accordance with Phoslab Environmental Services SOP's and industry-standard methodologies in compliance with FDEP/NELAC criteria. There were no notable problems encountered in the analytical process.

III, Quality Control Notes

There were not significant quality control anomalies associated with this work order.

COC: 040511-015 Page 2 of 6





FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 8082

Sample ID:	iption/Matrix:	040511-48 Batch 077-A	ST / Grab Oil	040511-49 Batch 3798	/ Grah Oil		
Sample Date:	-		10:30		11:00		
Preparation I		04/05/11		04/05/11			
Analysis start	ing Date/Time:	04/06/11	4:01	04/06/11	4:55		
Method:		EPA 8082		EPA 8082			
Batch:		040511		040511			
Dilution:		0.2g/10 ml		0.2g/10 ml			
Initials:		XH		XH			
Analytes:	Cas No.	Results	Units	Results	Units	MDL	PQL
Aroclor-1016	12674-11-2	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1221	11104-28-2	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1232	11141-16-5	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1242	53469-21-9	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1248	12672-29-6	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1254	11097-69-1	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1260	11096-82-5	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Surrogate:		% Recovery	Limits	% Recovery	Limits		
TCMX		89	70-130	88	70-130		
Decachlorobip	henyl	72	70-130	71	70-130		

COC: 040511-015 Page 3 of 6

7439-92-1

Lead (Pb)



0.25

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TOLL FREE 1-888-682-5897

FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 6010B Metals

040511-48 Sample ID: 040511-49 Sample Description/Matrix: Batch 077-AST / Grab Oil Batch 3798 / Grab Oil 04/05/11 11:00 Sample Date: 04/05/11 10:30 Preparation Date/Method: 3050A 3050A 04/07/11 04/07/11 Analysis Date/Time: 12:05 04/08/11 12:05 04/08/11 Method: EPA 6010B EPA 6010B Batch: 040811A-S650 040811A-S650 Initials: MS/SN MS/SN

mg/Kg

3.24

Cas No. Analytes: Results Units Dilution Results Units Dilution MDL **PQL** Arsenic (As) 7440-38-2 0.19 U mg/Kg 1x 0.19 U mg/Kg 0.19 0.25 1x 7440-43-9 0.07 U 0.07 U mg/Kg 0.07 0.25 Cadmium Cd) mg/Kg 1x 1 x Chromium (Cr) 7440-47-3 0.19 I mg/Kg 1x 0.38 mg/Kg 1 x 0.04 0.25

1 x

mg/Kg

1x

0.16

14.9

COC: 040511-015 Page 4 of 6





TOLL FREE 1-888-682-5897

FDOH ID: E84925

QUALITY CONTROL DATA EPA 8082

85

92

RPD

0-20

1

3

70-130

70-130

Flags

SPIKE DATA

Analysis starting Date/Time:

04/06/11 1:18

Batch:

040511

Initials:

ΧH

		% Recover	y	QA/QC
Parameter	LCS	MS	MSD	LIMITS

86

94

108

86

95

70-130

0:24

Aroclor-1260

LAB BLANK

Aroclor-1016

Analysis starting Date/Time: 04/06/11

Batch: 040511 Initials: XH

Analytes: Results Units Aroclor-1016 2.0 U mg/Kg Aroclor-1221 2.0 U mg/Kg Aroclor-1232 2.0 U mg/Kg Aroclor-1242 2.0 U mg/Kg Aroclor-1248 2.0 U mg/Kg Aroclor-1254 2.0 U mg/Kg Aroclor-1260 2.0 U mg/Kg Surrogate: % Recovery Limits **TCMX** 103 70-130

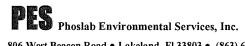
MS = Matrix Spike

Decachlorobiphenyl

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

U = Compound analyzed but not detected to the level shown





TOLL FREE 1-888-682-5897

FDOH ID: E84925

QUALITY CONTROL DATA EPA 6010B Metals

SPIKE DATA

Analysis Date/Time: 04/08/11 12:05 **Batch:** 040811A-S650

Initials: SN/MS

	mg/K	g Found			% R	ecovery		
Parameter	Spike @	Spike	Spike Dup	RPD	Spike	Spike Dup	Range	Flag
Arsenic (As)	50.0	52.2	50.1	4.0	104	100	80-120	
Cadmium (Cd)	50.0	53.6	51.6	3.8	107	103	80-120	
Chromium (Cr)	50.0	49.3	47.0	4.7	99	94	80-120	
Lead (Pb)	50.0	50.5	48.4	4.4	101	97	80-120	

LAB BLANK

 Analysis Date/Time:
 04/08/11 12:05

 Batch:
 040811A-S650

 Initials:
 SN/MS

Results	Units
0.19 U	mg/Kg
0.07 U	mg/Kg
0.04 U	mg/Kg
0.16 U	mg/Kg
	0.07 U 0.04 U

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

U = Compound analyzed but not detected to the level shown

COC: 040511-015 Page 6 of 6

DATA QUALIFIER CODES

SYMBOL MEANING

- A Value reported is the arithmetic mean (average) of two or more determinations. This code shall be used if the reported value is the average of results for two or more discrete and separate samples. These samples shall have been processed and analyzed independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate.
- H Value based on field kit determination; results may not be accurate. This code shall be used if a field screening test (i.e., field gas chromatograph data, immunoassay, vendor-supplied field kit, etc.) was used to generate the value and the field kit or method has not been recognized by the Department as equivalent to laboratory methods.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value. A "J" value shall be accompanied by a narrative justification for its use. Where possible, the organization shall report whether the actual value is less than or greater than the reported value. A "J" value shall not be used as a substitute for K, L, M, T, V or Y, however, if additional reasons exist for identifying the value as estimate (e.g., matrix spiked failed to meet acceptance criteria), the "J" code may be added to a K, L, M, T, V, or Y. The following are some examples of narrative descriptions that may accompany a "J" code:
 - No known quality control criteria exist for the component;
 - The reported value failed to meet the established quality control criteria for either precision or accuracy (the specific failure must be identified);
 - The sample matrix interfered with the ability to make any accurate determination;
 - The data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample).
 - The field calibration verification did not meet calibration acceptance criteria.
- K Off-scale low. Actual value is known to be less than the value given. This code shall be used if:
 - The value is less than the lowest calibration standard and the calibration curve is known to be nonlinear; or
 - 2. The value is known to be less than the reported value based on sample size, dilution.

This code shall not be used to report values that are less than the laboratory practical quantitation limit or laboratory method detection limit.

- L Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range or highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- When reporting chemical analyses: presence of material is verified but not quantified; the actual value is less than the value given. The reported value shall be the laboratory practical quantitation limit. This code shall be used if the level is too low to permit accurate quantification, but the estimated concentration is greater than the method detection limit. If the value is less than the method detection limit use "T" below.
- N Presumptive evidence of presence of material. This qualifier shall be used if:
 - 1. The component has been tentatively identified based on mass spectral library search; or
 - 2. There is an indication that the analyte is present, but quality control requirements for confirmation were not met (i.e., presence of analyte was not confirmed by alternative procedures).
- O Sampled, but analysis lost or not performed.
- Q Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
- Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
- U Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component **was not** detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).
- V Indicates that the analyte was detected in both the sample and the associated method blank. Note: the value in the blank shall not be subtracted from associated samples.
- Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- ? Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- Not currently accredited for this analyte.
- ! Not within scope of method.



Chain of Custody Record

806 West Beacon Road Lakeland, Florida 33803-2847 Phone: 863-682-5897 Fax: 863-683-3279 FDEP CompQAP No: 870308G

Environmental Services		Chain of Custody Record		FDOH ID#: E8492
r	Project Name:		PO# 44846	Page l of l
MON CO CAN SEEN	Project #:		Re	Ref: DEP Form #: 62-770.900(2)
Address: 3701 CENTRAL AVE.	Project Manager:		Fo	Form Title: Chain of Custody Record
5- PETERSBURG FLZip:337	Project Location:		Ef	Effective Date: 8//2004
650A-ten-tet	Evidence Sample(s):	(s): YES: NO:	E	FDEP Facility No.:
d by [Print Name(s)] / Aff		Preservatives (see codes)		Project Name:
RICHARD DICCEM		\	Sa	Sampling CompQAP No.:
Sampler(s) Signature(s)		Analyses Requested	d	Approval Date:
Me		3		REQUESTED DUE DATE
Item Sampled Gr	Grab or Matrix Nun	Number of		11/4/14
Field ID No. Date Time	(see codes)	A C		Remarks Lab. No
3 4077-ASHISIU 10:30 G	GAMB Bic 0	2 8 86		84 118010
	/			
P# 3108 MS/11 11:00 C'	GRAS BIL	\$ Xb		5
				7
Shipment Method		<= Total Number of Containers		
Out: / / Via: Iter	Item No. Relinquish	Relinquished by / Affiliation Date Ti	Time Accepted by /	by / Affiliatiop Date Time
Returned: / / Via:		PhosLab, Inc./Containers	1	1 1600
Additional Comments:	with	4/5/1/12/09	of the lu	3/5/11/2/60
		11.2. A. W. 12.	80	11 1 4 NI Va
				1
	Cooler No.(s) / Temperature(s) (°C)	Sampling Kit No.	Equipment ID No.
		o o		
Air GW =	Groundwater $SE = Sediment$	SO = Soil SW = Surface Water W =	= Water (Blanks) O	= Other (specify)
PRESERVATIVE CODES: $H = Hydrochloric acid + ice$	ic acid + ice $I = Ice only$	ly $N = Nitric acid + ice$ $S = Sulfuric acid + ice$	d + ice O = Other (specify)	specify)

Sample Log-in Checklist

Shipp	ing N	/lethod: _	X.F.	S	Date/Tim	ne of Red	ceipt: 🤍	02/((5	<i>Co:</i> -
Coole	r Ch	ieck							
			ice in co	ooler		Cu	stody Sea		
Cooler	#	Yes	No	If No Temp.	Yes	No	Intact	Not Intact	
		V		2 4°C					
**************************************									_
Therm	nome	eter ID: _	181	-0015	15				
				a cooler is ab he affected co					
1) Custody Seal on Bottles present Yes No _									
2)	Condition of Sample containers Headspace (Volatiles) Bubble > 5mm Loose caps Yes Broken Containers Yes No								
3)				cluded					
4)	Ac	id preser	ved: pH	less than 2	Yes	No	$\frac{\omega}{\omega}$	pH Strip Lot: _	
Coole	ers U	Jnpacked L	d/Checke	ed by:	ejus	Project:	ete: OYOS	1720 210-17	B-077 WT B-3798
				lmproper					-

Bottle #	Out of Hold	Improper Containers	Seal Intact	Loose Cap	Damaged Bottle	Damaged Cap	pH>2	Sample Volume	Action





TOLL FREE 1-888-682-5897

FDOH ID: E84925

CERTIFICATE OF ANALYSIS

Client:

HOWCO Environmental Services

3701 Central Ave.

St. Petersburg, FL 33713

Attention:

Richard Dillen

Phone Number:

727-328-7403

Fax Number:

727-328-7782

Project Name:

Processed Oil

Project Number:

Batch 083

Project Location:

Astor - FL

Sampled By:

R.D. / HES

Date Sampled: Date Received: 06/30/11 08:00 06/30/11 12:30

Date Reported:

07/05/11

Lab. Report #:

063011-011

Project Description

P.O. # 62036

The analytical results for the samples identified in this report were submitted for analysis as outlined by the attached Chain of Custody. The results for the quality control samples were reviewed and found to meet the acceptance criteria for precision and accuracy or properly flagged. Unless noted in this report or a case narrative, all data in this analytical report is in compliance with NELAC standards.

This report may not be reproduced in part without the permission of PES.

Notes: Sample results reported at the Method Detection Limit.(MD

Approved By: David Pomella David Pomella, Laboratory Director

Approved By: Megan Skeen

Megan Skeen, Quality Assurance officer

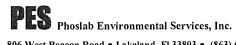
If you have any questions, the above name should be contacted at 863-682-5897 8:00 A.M. - 5:00 PM M-F

PES Report: Data Qualifier:

Sample Log-In: **Total Pages:** 13

COC: 063011-011

Page 1 of 10





FDOH ID: E84925

CASE NARRATIVE

Lab. Report #: 063011-011

Project Name: Processed Oil Batch 083

I. Sample Receiving Notes

Samples listed on the Chain of Custody # 063011-011 were received with containers intact, and at the proper temperature for the requested analyses.

II. Analytical Data Notes

The analyses were performed in accordance with Phoslab Environmental Services SOP's and industry-standard methodologies in compliance with FDEP/NELAC criteria. There were no notable problems encountered in the analytical process.

III, Quality Control Notes

There were not significant quality control anomalies associated with this work order.

COC: 063011-011 Page 2 of 10





FDOH ID: E84925

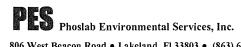
CERTIFICATE OF ANALYSIS EPA 6010B Metals

Sample ID: 06301-26a

Sample Description/Matrix: Batch 083 Grab Oil Sample Date: 06/30/11 08:00 Preparation Date/Method: 07/05/11 3050A Analysis Date/Time: 07/05/11 12:07 Method: EPA 6010B Batch No. 070511A-S801 Initials: MS/SN

Analytes:	Cas No.	Results	Units	Dilution	MDL	PQL
Arsenic (As)	7440-38-2	0.19 U	mg/Kg	l x	0.19	0.25
Cadmium (Cd)	7440-43-9	0.07 U	mg/Kg	lx	0.07	0.25
Chromium (Cr)	7440-47-3	0.11 I	mg/Kg	1 x	0.04	0.25
Lead (Pb)	7439-92-1	8.83	mg/Kg	1 x	0.16	0.25

COC: 063011-011 Page 3 of 10





TOLL FREE 1-888-682-5897 FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 8082

Sample ID:		06301-26b			
Sample Descr	iption/Matrix:	Batch 083	Grab Oil		
Sample Date:	-	06/30/11	08:00		
Preparation D	Pate:	07/01/11			
Analysis start	ing Date/Time:	07/01/11	10:10		
Method:	•	EPA 8082			
Batch:		063011			
Dilution:		0.2g/10 ml			
Initials:		XH			
Analytes:	Cas No.	Results	Units	MDL	PQL
Aroclor-1016	12674-11-2	2.0 U	mg/kg	2.00	5.00
Aroclor-1221	11104-28-2	2.0 U	mg/kg	2.00	5.00
Aroclor-1232	11141-16-5	2.0 U	mg/kg	2.00	5.00
Aroclor-1242	53469-21-9	2.0 U	mg/kg	2.00	5.00
Aroclor-1248	12672-29-6	2.0 U	mg/kg	2.00	5.00
Aroclor-1254	11097-69-1	2.0 U	mg/kg	2.00	5.00
Aroclor-1260	11096-82-5	2.0 U	mg/kg	2.00	5.00
Surrogate:		% Recovery	Limits		
TCMX		90	70-130		
Decachlorobip	henyl	84	70-130		

COC: 063011-011 Page 4 of 10





TOLL FREE 1-888-682-5897 FDOH ID: E84925

> **CERTIFICATE OF ANALYSIS** TOTAL HALIDES by 9253/5050

06301-26b Sample ID:

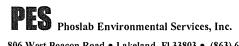
Sample Description/Matrix: Batch 083 Grab Oil Sample Date: 06/30/11 08:00 Preparation Date/Method: 07/05/11 5050 Analysis Date/Time: 14:30 07/05/11 Method: 9253 / 5050 Bomb Prep

Batch No. TX-238 Initials: lx

MS

Analytes: Results Units Dilution MDL PQL TX230 U mg/Kg 1x 230 500

COC: 063011-011 Page 5 of 10





TOLL FREE 1-888-682-5897

FDOH ID: E84925

Initials:

CERTIFICATE OF ANALYSIS General Analytes (Wet Chemistry)

 Sample Date/Time:
 06/30/11
 08:00

 Preparation Date:
 07/01/11
 12:35

 Analysis Date/Time:
 07/01/11
 12:35

 Method:
 EPA 1010
 Flash Point

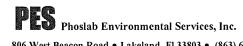
 Analytes:
 Flash Point
 89

Sample

Sample IDDescriptionResultsUnitsStart /End Temp.063011-26cBatch 083160°F80°F - 160F

XS

COC: 063011-011 Page 6 of 10





T&LL FREE 1-888-682-5897

FDOH ID: E84925

QUALITY CONTROL DATA EPA 8082

SPIKE DATA

Analysis starting Date/Time: 06/30/11 23:51

Batch: 063011 Initials: XH

		% Recover:	y	QA/QC	RPD	
Parameter	LCS	MS	MSD	LIMITS	0-20	Flags
Aroclor-1016	78	73	74	70-130	1	
Aroclor-1260	88	84	85	70-130	l	

LAB BLANK

Analysis starting Date/Time: 06/30/11 22:57

Batch: 063011 Initials: XH

Analytes:	Results	Units
Aroclor-1016	2.0 U	mg/Kg
Aroclor-1221	2.0 U	mg/Kg
Aroclor-1232	2.0 U	mg/Kg
Aroclor-1242	2.0 U	mg/Kg
Aroclor-1248	2.0 U	mg/Kg
Aroclor-1254	2.0 U	mg/Kg
Aroclor-1260	2.0 U	mg/Kg

Surrogate:	% Recovery	Limits
TCMX	107	70-130
Decachlorobiphenyl	126	70-130

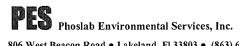
MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

U = Compound analyzed but not detected to the level shown

COC: 063011-011 Page 7 of 10





TOLL FREE 1-888-682-5897

FDOH ID: E84925

QUALITY CONTROL DATA EPA 6010B Metals

SPIKE DATA

Analysis Date/Time:

07/05/11 12:07

Batch:

070511A-S801

Initials: MS/SN

	mg/Kg Found				% Recovery		
Analytes:	Spike @	Spike	Spike Dup	RPD	Spike	Spike Dup	Range
Arsenic (As)	50.0	49.1	50.0	1.8	98	100	80 - 120
Cadmium (Cd)	50.0	47.4	48.3	2.0	95	97	80 - 120
Chromium (Cr)	50.0	50.8	51.7	1.8	102	103	80 - 120
Lead (Pb)	50.0	49.3	50.3	2.0	99	101	80 - 120

LAB BLANK

 Analysis Date/Time:
 07/05/11 12:07

 Batch:
 070511A-S801

 Initials:
 MS/SN

Analytes:	Results	Units
Arsenic (As)	0.19 U	mg/Kg
Cadmium Cd)	0.07 U	mg/Kg
Chromium (Cr)	0.04 U	mg/Kg
Lead (Pb)	0.16 U	mg/Kg

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

U = Compound analyzed but not detected to the level shown

COC: 063011-011 Page 8 of 10





TOLL FREE 1-888-682-5897

FDOH ID: E84925

QUALITY CONTROL DATA TOTAL HALIDES by 9253/5050

SPIKE DATA

Analysis Date/Time:

07/05/11

14:30

Batch No.

TX-238

Initals:

MS

% Recovery mg/Kg Found Spike Spike Flag % Recov Limits Analyte Spike @ Total Halides MS 606 625 103 75-125 Total Halides MSD 606 584 96 75-125

LAB BLANK

Analysis Date/Time:

07/05/11 14:30

Batch No. TX-238 Initals: MS

Analytes: Total Halides Results 230 U

Units mg/Kg

LCS = Laboratory Control Standard

MS = Matrix Spike

U = Compound analyzed but not detected to the level shown

COC: 063011-011 Page 9 of 10





TOLL FREE 1-888-682-5897 FDOH ID: E84925

QUALITY CONTROL DATA EPA 1010

Analysis Date/Time: 07/01/77 Batch: FP = 089 Initials: XS

Analytes:StandardResultsUnitsIgnitiability (Flash Point)169160Deg. F

COC: 063011-011 Page 10 of 10

DATA QUALIFIER CODES

SYMBOL MEANING

- A Value reported is the arithmetic mean (average) of two or more determinations. This code shall be used if the reported value is the average of results for two or more discrete and separate samples. These samples shall have been processed and analyzed independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate.
- H Value based on field kit determination; results may not be accurate. This code shall be used if a field screening test (i.e., field gas chromatograph data, immunoassay, vendor-supplied field kit, etc.) was used to generate the value and the field kit or method has not been recognized by the Department as equivalent to laboratory methods.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value. A "J" value shall be accompanied by a narrative justification for its use. Where possible, the organization shall report whether the actual value is less than or greater than the reported value. A "J" value shall not be used as a substitute for K, L, M, T, V or Y, however, if additional reasons exist for identifying the value as estimate (e.g., matrix spiked failed to meet acceptance criteria), the "J" code may be added to a K, L, M, T, V, or Y. The following are some examples of narrative descriptions that may accompany a "J" code:
 - No known quality control criteria exist for the component;
 - The reported value failed to meet the established quality control criteria for either precision or accuracy (the specific failure must be identified);
 - The sample matrix interfered with the ability to make any accurate determination;
 - The data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample).
 - The field calibration verification did not meet calibration acceptance criteria.
- K Off-scale low. Actual value is known to be less than the value given. This code shall be used if:
 - 1. The value is less than the lowest calibration standard and the calibration curve is known to be non-linear; or
 - 2. The value is known to be less than the reported value based on sample size, dilution.
 - This code shall not be used to report values that are less than the laboratory practical quantitation limit or laboratory method detection limit.
- L Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range or highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- M When reporting chemical analyses: presence of material is verified but not quantified; the actual value is less than the value given. The reported value shall be the laboratory practical quantitation limit. This code shall be used if the level is too low to permit accurate quantification, but the estimated concentration is greater than the method detection limit. If the value is less than the method detection limit use "T" below.
- N Presumptive evidence of presence of material. This qualifier shall be used if:
 - 1. The component has been tentatively identified based on mass spectral library search; or
 - 2. There is an indication that the analyte is present, but quality control requirements for confirmation were not met (i.e., presence of analyte was not confirmed by alternative procedures).
- O Sampled, but analysis lost or not performed.
- Q Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
- Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component **was not** detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).
- V Indicates that the analyte was detected in both the sample and the associated method blank. Note: the value in the blank shall not be subtracted from associated samples.
- Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- ? Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- * Not currently accredited for this analyte.
- ! Not within scope of method.

Phoslab Environmental Services

Chain of Custody Record

C63611,011 FDEP CompQAP No: 870308G

806 West Beacon Road

Phone: 863-682-5897 Fax: 863-683-3279

Lakeland, Florida 33803-2847

FDOH ID#: E84925 Lab. No. Time Jo REQUESTED DUE DATE Date Equipment ID No. Form Title: Chain of Custody Record 06301 Ref: DEP Form #: 62-770.900(2) Sampling CompQAP No.: Approval Date: Remarks Effective Date: 8//2004 FDEP Facility No.: Accepted by / Affiliation Project Name: PO# 62036 Sampling Kit No. Time Preservatives (see codes) Analyses Requested Total Number of Containers ASTOR- TEORISA Date Processed OI NO: /PhosLab, Inc./Containers Relinquished by / Affiliation Cooler No.(s) / Temperature(s) (°C) Number of S YES: Fax: 320- 7702 Evidence Sample(s): Project Manager: Project Location: Project Name: (see codes) Project #: Matrix Composite GRAD Grab or Item No. ST. PETENSAUNG FLZip: 33713 HOWCO EMV. SEPL. Address: 3701 CENTRAL AVE. 6/30lu 08:00 Time Sampled by [Print Name(s)] / Affiliation Sampled Date Phone: 127-437-4059 Shipment Method Via: Via: Sampler(s) Signature(s) Additional Comments: Field ID No. 3#08 Company: Out: Returned: Item No.

O = Other (specify)

W = Water (Blanks)

SW = Surface Water

SO = Soil

SE = Sediment

GW = Groundwater

A = Air

MATRIX CODES:

PRESERVATIVE CODES:

O = Other (specify)

S = Sulfuric acid + ice

N = Nitric acid + ice

H = Hydrochloric acid + ice I = Ice only

Sample Log-in Checklist

Shipp	Shipping Method: Date/Time of Receipt: (2:30							·30	
Cooler Check									
Ice in cooler Custody Seal									
Coole									
				200		- 1.0	microt	1 TOT III GOT	
		7.510							
Thern	nome	ter ID: _	Lar	-0015		-			
				a cooler is ab the affected co					
1)	Cust	tody Se	al on Bo	ttles present	Yes	No	\times		
2)	Head Bubl Loos	dspace ble > 5n se caps	(Volatile nm	Yes Yes	_ _ _ N	o <u>×</u>	- -		
3)				cluded					
4)	Acid	preserv	ved: pH	less than 2	Yes	No	NA	pH Strip Lot:	
Coole Client	ers Un	packed	/Checke	ed by:				1001/ 2011-B	,-083
					С	OC #:	0000	000	
				Immunancy	Lalama	int			

Improper Sample List

Bottle #	Out of Hold	Improper Containers	Seal Intact	Loose Cap	Damaged Bottle	Damaged Cap	pH>2	Sample Volume	Action





TOLL FREE 1-888-682-5897

FDOH ID: E84925

CERTIFICATE OF ANALYSIS

Client:

HOWCO Environmental Services

3701 Central Ave. St. Petersburg, FL 33713

Attention:

Richard Dillen

Phone Number: Fax Number:

727-328-7403 727-328-7782

Project Name: **Project Number:** Processed Oil Batch 3845 and 086-Ast

P.O. # 62076

Project Location:

Florida R.D. / HES

Sampled By: Date Sampled:

07/21/11 10:00 07/21/11 15:01

Date Received: Date Reported:

08/10/11

Lab. Report #:

072111-011A (Replaces Lab Report ID# 072111-011)

Project Description

The analytical results for the samples identified in this report were submitted for analysis as outlined by the attached Chain of Custody. The results for the quality control samples were reviewed and found to meet the acceptance criteria for precision and accuracy or properly flagged. Unless noted in this report or a case narrative, all data in this analytical report is in compliance with NELAC standards.

This report may not be reproduced in part without the permission of PES.

Notes: Sample results reported at the Method Detection Limit.(MDL)

Approved By: David Pomella David Pomella, Laboratory Director

Approved By: Megan Skeen

Megan Skeen, Quality Assurance officer

If you have any questions, the above name should be contacted at 863-682-5897 8:00 A.M. - 5:00 PM M-F

PES Report: Data Qualifier:

COC: Sample Log-In: Total Pages:





FDOH ID: E84925

CASE NARRATIVE

Lab. Report #:

072111-011A

Project Name:

Processed Oil Batch 3845 and 086-AST

I. Sample Receiving Notes

Samples listed on the Chain of Custody # 072111-011 were received with containers intact, and at the proper temperature for the requested analyses.

At client's request, Lab sample ID# 072111.22 was reanalyzed for TX.

II. Analytical Data Notes

The analyses were performed in accordance with Phoslab Environmental Services SOP's and industry-standard methodologies in compliance with FDEP/NELAC criteria. There were no notable problems encountered in the analytical process.

III, Quality Control Notes

There were not significant quality control anomalies associated with this work order.

COC: 072111-011 Page 2 of 10





FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 6010B Metals

Sample ID: 072111-22a

Sample Description/Matrix: Batch 3845 Grab Oil Sample Date: 07/21/11 10:00 Preparation Date/Method: 07/27/11 3050A Analysis Date/Time: 07/27/11 13:36 Method: EPA 6010B Batch No. 072711A-S807 Initials: SN

Analytes:	Cas No.	Results	Units	Dilution	MDL	PQL
Arsenic (As)	7440-38-2	0.19 U	mg/Kg	1 x	0.19	0.25
Cadmium (Cd)	7440-43-9	0.07 U	mg/Kg	1 x	0.07	0.25
Chromium (Cr)	7440-47-3	0.07 I	mg/Kg	1x	0.04	0.25
Lead (Pb)	7439-92-1	19.0	mg/Kg	1x	0.16	0.25

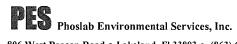
Sample ID: 072111-23a

Sample Description/Matrix: Batch 086 Ast / Grab Oil Sample Date: 07/21/11 10:00 Preparation Date/Method: 07/27/11 3050A 13:36 Analysis Date/Time: 07/27/11 Method: EPA 6010B Batch No. 072711A-S807

Initials: SN

Analytes:	Cas No.	Results	Units	Dilution	MDL	PQL
Arsenic (As)	7440-38-2	0.19 U	mg/Kg	1x	0.19	0.25
Cadmium (Cd)	7440-43-9	0.07 U	mg/Kg	1x	0.07	0.25
Chromium (Cr)	7440-47-3	0.04 U	mg/Kg	1x	0.04	0.25
Lead (Pb)	7439-92-1	8.40	mg/Kg	1x	0.16	0.25

COC: 072111-011 Page 3 of 10





TOLL FREE 1-888-682-5897 FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 8082

Sample ID:	072111-22a
Sample Description/Matrix:	Batch 3845 Grab Oil
Sample Date:	07/21/11 10:00
Preparation Date:	07/25/11
Analysis starting Date/Time:	07/25/11 15:02
Method:	EPA 8082
Batch:	072511
Dilution:	0.2g/10 ml
Initials:	XH

Analytes:	Cas No.	Results	Units	MDL	PQL
Aroclor-1016	12674-11-2	2.0 U	mg/kg	2.00	5.00
Aroclor-1221	11104-28-2	2.0 U	mg/kg	2.00	5.00
Aroclor-1232	11141-16-5	2.0 U	mg/kg	2.00	5.00
Aroclor-1242	53469-21-9	2.0 U	mg/kg	2.00	5.00
Aroclor-1248	12672-29-6	2.0 U	mg/kg	2.00	5.00
Aroclor-1254	11097-69-1	2.0 U	mg/kg	2.00	5.00
Aroclor-1260	11096-82-5	2.0 U	mg/kg	2.00	5.00

Surrogate:	% Recovery	Limits
TCMX	85	70-130
Decachlorobiphenyl	79	70-130

Sample ID:	072111-23a
------------	------------

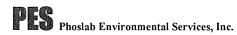
Sample Description/Matrix: Batch 086 Ast / Grab Oil Sample Date: 07/21/11 10:00 **Preparation Date:** 07/25/11 07/25/11 Analysis starting Date/Time: 15:56 Method: EPA 8082 Batch: 072511 Dilution:

0.2g/10 ml Initials: XH

Analytes:	Cas No.	Results	Units	MDL	PQL
Aroclor-1016	12674-11-2	2.0 U	mg/kg	2.00	5.00
Aroclor-1221	11104-28-2	2.0 U	mg/kg	2.00	5.00
Aroclor-1232	11141-16-5	2.0 U	mg/kg	2.00	5.00
Aroclor-1242	53469-21-9	2.0 U	mg/kg	2.00	5.00
Aroclor-1248	12672-29-6	2.0 U	mg/kg	2.00	5.00
Aroclor-1254	11097-69-1	2.0 U	mg/kg	2.00	5.00
Aroclor-1260	11096-82-5	2.0 U	mg/kg	2.00	5.00

Surrogate:	% Recovery	Limits
TCMX	77	70-130
Decachlorobiphenyl	71	70-130

COC: 072111-011 Page 4 of 10





TOLL FREE 1-888-682-5897 FDOH ID: E84925

CERTIFICATE OF ANALYSIS TOTAL HALIDES by 9253/5050

Sample ID: 072111-22a

Sample Description/Matrix: Batch 3845 Grab Oil Sample Date: 07/21/11 10:00

 Preparation Date/Method:
 08/09/11
 5050

 Analysis Date/Time:
 08/09/11
 16:30

 Method:
 9253 / 5050
 Bomb Prep

Batch No. TX-241 Initials: SN/MS

 Analytes:
 Results
 Units
 Dilution
 MDL
 PQL

 TX
 855
 mg/Kg
 1x
 230
 500

Sample ID: 072111-23a

 Sample Description/Matrix:
 Batch 086 Ast / Grab Oil

 Sample Date:
 07/21/11
 10:00

 Preparation Date/Method:
 08/04/11
 5050

 Analysis Date/Time:
 08/04/11
 15:45

 Method:
 9253 / 5050 Bomb Prep

Batch No. TX-240 Initials: SN/MS

 Analytes:
 Results
 Units
 Dilution
 MDL
 PQL

 TX
 579
 mg/Kg
 1x
 230
 500

COC: 072111-011 Page 5 of 10





TOLL FREE 1-888-682-5897

FDOH ID: E84925

CERTIFICATE OF ANALYSIS General Analytes (Wet Chemistry)

Sample Date/Time: 07/21/11 10:00

Preparation Date: 07/19/11

 Analysis Date/Time:
 07/19/11
 10:35

 Method:
 EPA 1010

 Analytes:
 Flash Point

 Batch:
 FP - 092

 Initials:
 XS

Sample

Sample IDDescriptionResultsUnitsStart /End Temp.072111-22bBatch 3845>180°F75°F - >180F

Sample Date/Time: 07/21/11 10:00

Preparation Date: 07/19/11

 Analysis Date/Time:
 07/19/11
 11:00

 Method:
 EPA 1010

 Analytes:
 Flack Point

 Analytes:
 Flash Point

 Batch:
 FP - 092

 Initials:
 XS

Sample

 Sample ID
 Description
 Results
 Units
 Start /End Temp.

 072111-23b
 Batch 086-Ast
 >185
 °F
 75°F - >185F

COC: 072111-011 Page 6 of 10





TOLL FREE 1-888-682-5897 FDOH ID: E84925

QUALITY CONTROL DATA EPA 8082

SPIKE DATA

Analysis starting Date/Time: 07/25/11 12:20

Batch: 072511 Initials: XH

		% Recovery				
Parameter	LCS	MS	MSD	LIMITS	0-20	Flags
Aroclor-1016	99	110	110	70-130	0	
Aroclor-1260	94	102	107	70-130	5	

LAB BLANK

Analysis starting Date/Time: 07/25/11 11:28

Batch: 072511 Initials: XH

Analytes:	Results	Units
Aroclor-1016	2.0 U	mg/Kg
Aroclor-1221	2.0 U	mg/Kg
Aroclor-1232	2.0 U	mg/Kg
Aroclor-1242	2.0 U	mg/Kg
Aroclor-1248	2.0 U	mg/Kg
Aroclor-1254	2.0 U	mg/Kg
Aroclor-1260	2.0 U	mg/Kg

Surrogate:	% Recovery	Limits
TCMX	124	70-130
Decachlorobiphenyl	124	70-130

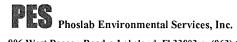
MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

U = Compound analyzed but not detected to the level shown

COC: 072111-011 Page 7 of 10





TOLL FREE 1-888-682-5897 FDOH ID: E84925

QUALITY CONTROL DATA Metals - EPA 6010B

SPIKE and LCS DATA

 Analysis Date/Time:
 07/27/11 13:36

 Batch:
 072711A-S807

 Initials:
 SN

 Parent Sample ID:
 072611-03

Recovery Limits: (80%-120%)

	LCS	Parent					MS	MSD
	Recovery:	Result:	Spike @	Spike	Spike dup		Recovery:	Recovery:
Parameter	%	mg/L	mg/L	mg/L	mg/L	RPD	%	%
Arsenic (As)	97.0	0.19 U	50.0	48.3	48.4	0.1	96.6	96.7
Cadmium (Cd)	104	0.07 U	50.0	50.4	50.2	1.0	101	100
Chromium (Cr)	101	0.32	50.0	50.0	50.0	0.0	99.4	99.4
Lead (Pb)	102	2.72	50.0	51.1	51.1	0.0	96.8	96.8

LAB BLANK

 Analysis Date/Time:
 07/27/11
 13:36

 Batch:
 072711A-S807

Initials: SN

Analytes:	Results	Units
Arsenic (As)	0.19 U	mg/Kg
Cadmium Cd)	0.07 U	mg/Kg
Chromium (Cr)	0.04 U	mg/Kg
Lead (Pb)	0.16 U	mg/Kg

U = Compound analyzed but not detected to the level shown

RPD = Relative Percent Difference

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

COC: 072111-011 Page 8 of 10





TOLL FREE 1-888-682-5897 FDOH ID: E84925

QUALITY CONTROL DATA TOTAL HALIDES by 9253/5050

SPIKE DATA

Analysis Date/Time: 08/04/11 15:45

Batch No. TX-240

Initals: MS/SN

% Recovery mg/Kg Found Spike

Analyte Spike @ Spike % Recov Limits Flag Total Halides MS 606 616 102 75-125 Total Halides MSD 606 623 103 75-125

LAB BLANK

Analysis Date/Time: 08/04/11 15:45

Batch No. TX-240 Initals: MS/SN

Analytes: Results Units
Total Halides 230 U mg/Kg

SPIKE DATA

Analysis Date/Time: 08/09/11 16:30

Batch No. TX-241 Initals: MS/SN

Analyte Spike (a) Spike % Recov Limits

Total Halides MS 606 605 100 75-125

Total Halides MSD 606 636 105 75-125

LAB BLANK

Analysis Date/Time: 08/09/11 16:30

Batch No. TX-241 Initals: MS/SN

Analytes: Results Units
Total Halides 230 U mg/Kg

LCS = Laboratory Control Standard

MS = Matrix Spike

U = Compound analyzed but not detected to the level shown

COC: 072111-011 Page 9 of 10





QUALITY CONTROL DATA EPA 1010

Analysis Date/Time: 07/19/11 10:00

Batch: FP - 092 Initials: XS

Analytes:StandardResultsUnitsIgnitiability (Flash Point)169167Deg. F

COC: 072111-011 Page 10 of 10

DATA QUALIFIER CODES

SYMBOL MEANING

- A Value reported is the arithmetic mean (average) of two or more determinations. This code shall be used if the reported value is the average of results for two or more discrete and separate samples. These samples shall have been processed and analyzed independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate.
- H Value based on field kit determination; results may not be accurate. This code shall be used if a field screening test (i.e., field gas chromatograph data, immunoassay, vendor-supplied field kit, etc.) was used to generate the value and the field kit or method has not been recognized by the Department as equivalent to laboratory methods.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- Estimated value. A "J" value shall be accompanied by a narrative justification for its use. Where possible, the organization shall report whether the actual value is less than or greater than the reported value. A "J" value shall not be used as a substitute for K, L, M, T, V or Y, however, if additional reasons exist for identifying the value as estimate (e.g., matrix spiked failed to meet acceptance criteria), the "J" code may be added to a K, L, M, T, V, or Y. The following are some examples of narrative descriptions that may accompany a "J" code:
 - No known quality control criteria exist for the component;
 - The reported value failed to meet the established quality control criteria for either precision or accuracy (the specific failure must be identified);
 - The sample matrix interfered with the ability to make any accurate determination;
 - The data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample).
 - The field calibration verification did not meet calibration acceptance criteria.
- K Off-scale low. Actual value is known to be less than the value given. This code shall be used if:
 - The value is less than the lowest calibration standard and the calibration curve is known to be nonlinear; or
 - 2. The value is known to be less than the reported value based on sample size, dilution.

This code shall not be used to report values that are less than the laboratory practical quantitation limit or laboratory method detection limit.

- L Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range or highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- M When reporting chemical analyses: presence of material is verified but not quantified; the actual value is less than the value given. The reported value shall be the laboratory practical quantitation limit. This code shall be used if the level is too low to permit accurate quantification, but the estimated concentration is greater than the method detection limit. If the value is less than the method detection limit use "T" below.
- N Presumptive evidence of presence of material. This qualifier shall be used if:
 - 1. The component has been tentatively identified based on mass spectral library search; or
 - 2. There is an indication that the analyte is present, but quality control requirements for confirmation were not met (i.e., presence of analyte was not confirmed by alternative procedures).
- O Sampled, but analysis lost or not performed.
- Q Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
- U Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).
- V Indicates that the analyte was detected in both the sample and the associated method blank. Note: the value in the blank shall not be subtracted from associated samples.
- Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- Pata are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- * Not currently accredited for this analyte.
- ! Not within scope of method.

Environmental Services Phoslab

Company:

Lakeland, Florida 33803-2847 Phone: 863-682-5897 806 West Beacon Road

Fax: 863-683-3279 FDEP CompQAP No: 870308G FDOH ID#: E84925 Lab. No. 10:5 Time 25% Jo REQUESTED DUE DATE 73 Date 4 Form Title: Chain of Custody Record Ref: DEP Form #: 62-770.900(2) Sampling CompQAP No.: Approval Date: コースしつ Remarks Effective Date: 8//2004 FDEP Facility No.: Affiliation Project Name: Accepted by Chain of Custody Record O72///, 01/ 3 Time Preservatives (see codes) 0 Analyses Requested Total Number of Containers 3/1/ Date PROCESSED OIL NO: PhosLab, Inc./Containers X Relinquished by / Affiliation YES: 54 II Number of Containers 7982 Evidence Sample(s): Project Manager: Project Location: Project Name: (see codes) Project #: Matrix Composite Orth ST-PETENSJUNG FLID: 33713 のであ Item No. Grab or HOWCO FMV. SEYV. Address: 3701 CENTAR AVE Phone: 117-437-4059 Fax: 32 1000 Time 2/21/4 10:00 Sampled by [Print Name(s)] / Affiliation (2) CH [PN) Sampled 34086-AST 2121/11 Date Shipment Method Via: Via: Sampler(s) Signature(s) Additional Comments:

Field ID No.

Item No. Equipment ID No.

Sampling Kit No.

Cooler No.(s) / Temperature(s) (°C)

O = Other (specify)

W = Water (Blanks)

SW = Surface Water

SO = Soil

SE = Sediment

GW = Groundwater

A = Air

MATRIX CODES:

Out:

Returned:

PRESERVATIVE CODES:

O = Other (specify)

S = Sulfuric acid + ice

N = Nitric acid + ice

H = Hydrochloric acid + ice I = Ice only

Sample Log-in Checklist

Shipping	g Method: _	YES	5	Date/Tim	ne of Rec	ceipt:	12111-15:	01
Cooler (Check							
		ice in co	ooler		Cu	stody Sea	I	
Cooler #	Yes	No	If No Temp.	Yes	No	Intact	Not Intact	
						-		
			-00/5		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	stadu oo ol	in domaged	
then ide	the temper	ature of ottles in t	a cooler is ab he affected co	ove 6°C ooler and	d note on	i "Impropei	r Sample List"	
1) C	ustody Se	al on Bo	ttles present	Yes	No	\geq		
· E	leadspace Bubble > 5r Joose caps	(Volatile mm			10 >	_		
3) (Chain of Cu	ustody in	cluded	Yes	No)		
							pH Strip Lot:	
Coolers Client:	s Unpacke	d/Check	ed by:	nen	Project: _	ate: 07: 40 ces 9 - 34 072	2111 sed Oel 845, 086	T24-
			Improper	Sample	lict			

Bottle #	Out of Hold	Improper Containers	Seal Intact	Loose Cap	Damaged Bottle	Damaged Cap	pH>2	Sample Volume	Action





FDOH ID: E84925

CERTIFICATE OF ANALYSIS

Client:

HOWCO Environmental Services

08:30

10:20

3701 Central Ave. St. Petersburg, FL 33713

Attention:

r:

Phone Number:

Fax Number: Project Name:

Project Number:

Project Location: Sampled By:

Date Sampled: Date Received:

Date Reported: Lab. Report #: Richard Dillen

727-328-7403 727-328-7782

Processed Oil

Batch 088

a a

Florida R.D. / HES

08/31/11 08/31/11

09/09/11

09/09/11 083111-007

Project Description

P.O. # 62112

The analytical results for the samples identified in this report were submitted for analysis as outlined by the attached Chain of Custody. The results for the quality control samples were reviewed and found to meet the acceptance criteria for precision and accuracy or properly flagged. Unless noted in this report or a case narrative, all data in this analytical report is in compliance with NELAC standards.

This report may not be reproduced in part without the permission of PES.

Notes: Sample results reported at the Method Detection Limit.(MDI

Approved By: David PomellaDavid Pomella, Laboratory Director

Approved By: Megan Skeen

Megan Skeen, Quality Assurance officer

If you have any questions, the above name should be contacted at 863-682-5897 8:00 A.M. - 5:00 PM M-F

PES Report:

1

Data Qualifier:

1

13

Sample Log-In:

In:

Total Pages:

COC: 083111-007

Page 1 of 10





CASE NARRATIVE

Lab. Report #:

083111-007

Project Name:

Processed Oil Batch 088

I. Sample Receiving Notes

Samples listed on the Chain of Custody # 083111-007 were received with containers intact, and at the proper temperature for the requested analyses.

II. Analytical Data Notes

The analyses were performed in accordance with Phoslab Environmental Services SOP's and industry-standard methodologies in compliance with FDEP/NELAC criteria. There were no notable problems encountered in the analytical process.

III, Quality Control Notes

There were not significant quality control anomalies associated with this work order.

COC: 083111-007 Page 2 of 10





FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 6010B Metals

Sample ID: 083111-13a Sample Description/Matrix: Batch 088 Grab Oil Sample Date: 08/31/11 08:30 Preparation Date/Method: 08/31/11 3050A Analysis Date/Time: 09/02/11 15:11 Method: EPA 6010B Batch No. 090211A-S820 Initials: SN

Analytes:	Cas No.	Results	Units	Dilution	MDL	PQL
Arsenic (As)	7440-38-2	0.73	mg/Kg	lx	0.19	0.25
Cadmium (Cd)	7440-43-9	0.07 U	mg/Kg	1x	0.07	0.25
Chromium (Cr)	7440-47-3	0.04 U	mg/Kg	lx	0.04	0.25
Lead (Pb)	7439-92-1	6.23	mg/Kg	1x	0.16	0.25

COC: 083111-007 Page 3 of 10





FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 8082

 Sample ID:
 083111-13b

 Sample Description/Matrix:
 Batch 088
 Grab Oil

 Sample Date:
 08/31/11
 08:30

 Preparation Date:
 08/31/11
 20:52

 Analysis starting Date/Time:
 08/31/11
 20:52

 Method:
 EPA 8082

 Batch:
 083111

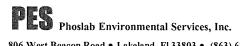
 Dilution:
 0.2g/10 ml

 Initials:
 XH

Analytes:	Cas No.	Results	Units	MDL	POL
Aroclor-1016	12674-11-2	2.0 U	mg/kg	2.00	5.00
Aroclor-1221	11104-28-2	2.0 U	mg/kg	2.00	5.00
Aroclor-1232	11141-16-5	2.0 U	mg/kg	2.00	5.00
Aroclor-1242	53469-21-9	2.0 U	mg/kg	2.00	5.00
Aroclor-1248	12672-29-6	2.0 U	mg/kg	2.00	5.00
Aroclor-1254	11097-69-1	2.0 U	mg/kg	2.00	5.00
Aroclor-1260	11096-82-5	2.0 U	mg/kg	2.00	5.00

Surrogate:	% Recovery	Limits
TCMX	86	70-130
Decachlorobiphenyl	89	70-130

COC: 083111-007 Page 4 of 10





TOLL FREE 1-888-682-5897 FDOH ID: E84925

CERTIFICATE OF ANALYSIS TOTAL HALIDES by 9253/5050

Sample ID: 083111-13b

 Sample Description/Matrix:
 Batch 088
 Grab Oil

 Sample Date:
 08/31/11
 08:30

 Preparation Date/Method:
 08/31/11
 5050

 Analysis Date/Time:
 08/31/11

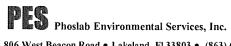
Method: 9253 / 5050 Bomb Prep

Batch No.TX-244Initials:SN/MS

 Analytes:
 Results
 Units
 Dilution
 MDL
 PQL

 TX
 332 l
 mg/Kg
 1x
 230
 500

COC: 083111-007 Page 5 of 10





FDOH ID: E84925

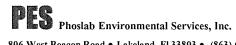
CERTIFICATE OF ANALYSIS General Analytes (Wet Chemistry)

Sample Date/Time: 08/31/11 08:30 **Preparation Date:** 08/31/11 Analysis Date/Time: 08/31/11 1:32 Method: EPA 1010 Analytes: Flash Point Batch: FP- 095 Initials: XS

Sample

Sample IDDescriptionResultsUnitsStart /End Temp.083111-13cBatch 088108°F72° F - 108 F

COC: 083111-007 Page 6 of 10





FDOH ID: E84925

QUALITY CONTROL DATA EPA 8082

SPIKE DATA

Analysis starting Date/Time: 08/31/11 18:10

Batch: 083111 Initials: XH

		% Recover	y	QA/QC	RPD	
Parameter	LCS	MS	MSD	LIMITS	0-20	Flags
Aroclor-1016	80	83	92	70-130	10	
Aroclor-1260	76	75	85	70-130	13	

LAB BLANK

Analysis starting Date/Time: 08/31/11 17:16 **Batch:** 083111

Batch: 0831 Initials: XH

Analytes:	Results	Units
Aroclor-1016	2.0 U	mg/Kg
Aroclor-1221	2.0 U	mg/Kg
Aroclor-1232	2.0 U	mg/Kg
Aroclor-1242	2.0 U	mg/Kg
Aroclor-1248	2.0 U	mg/Kg
Aroclor-1254	2.0 U	mg/Kg
Aroclor-1260	2.0 U	mg/Kg

Surrogate:	% Recovery	Limits
TCMX	109	70-130
Decachlorobiphenyl	128	70-130

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

U = Compound analyzed but not detected to the level shown

COC: 083111-007 Page 7 of 10





FDOH ID: E84925

QUALITY CONTROL DATA Metals - EPA 6010B

SPIKE and LCS DATA

Analysis Date/Time: 09/02/11 15:11 **Batch:** 090211A-S820

Initials: SN

Parent Sample ID: 083111-S820

Recovery Limits: (80%-120%)

	LCS	Parent					MS	MSD
	Recovery:	Result:	Spike @	Spike	Spike dup		Recovery:	Recovery:
Parameter	%	mg/L	mg/L	mg/L	mg/L	RPD	%	%
Arsenic (As)	102	0.73	50.0	54.5	53.6	1.7	107	106
Cadmium (Cd)	106	0.07 U	50.0	53.0	52.3	1.3	106	105
Chromium (Cr)	98.0	0.04 U	50.0	49.5	48.9	1.3	99.1	97.8
Lead (Pb)	101	6.23	50.0	55.0	54.8	0.4	97.6	97.2

LAB BLANK

Analysis Date/Time: 09/02/11 15:11 **Batch:** 090211A-S820

Initials: SN

Analytes:	Results	Units
Arsenic (As)	0.19 U	mg/Kg
Cadmium Cd)	0.07 U	mg/Kg
Chromium (Cr)	0.04 U	mg/Kg
Lead (Pb)	0.16 U	mg/Kg

U = Compound analyzed but not detected to the level shown

RPD = Relative Percent Difference

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

COC: 083111-007 Page 8 of 10





FDOH ID: E84925

QUALITY CONTROL DATA TOTAL HALIDES by 9253/5050

SPIKE DATA

Analysis Date/Time: 08/30/11
Batch No. TX-244
Initals: MS/SN

% Recovery

		1	mg/Kg Found	Spike		
Analyte		Spike @	Spike	% Recov	Limits	Flag
Total Halides	MS	606	567	94	75-125	
Total Halides	MSD	606	566	93	75-125	

LAB BLANK

Analysis Date/Time: 08/30/11
Batch No. TX-244
Initals: MS/SN

Analytes:ResultsUnitsTotal Halides230 Umg/Kg

LCS = Laboratory Control Standard

MS = Matrix Spike

U = Compound analyzed but not detected to the level shown

COC: 083111-007





FDOH ID: E84925

QUALITY CONTROL DATA EPA 1010

Analysis Date/Time: 08/31/11 11:00

Batch: FP - 095 **Initials:** XS

Analytes:StandardResultsUnitsIgnitiability (Flash Point)169168Deg. F

COC: 083111-007 Page 10 of 10

DATA QUALIFIER CODES

SYMBOL MEANING

- A Value reported is the arithmetic mean (average) of two or more determinations. This code shall be used if the reported value is the average of results for two or more discrete and separate samples. These samples shall have been processed and analyzed independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate.
- H Value based on field kit determination; results may not be accurate. This code shall be used if a field screening test (i.e., field gas chromatograph data, immunoassay, vendor-supplied field kit, etc.) was used to generate the value and the field kit or method has not been recognized by the Department as equivalent to laboratory methods.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- Estimated value. A "J" value shall be accompanied by a narrative justification for its use. Where possible, the organization shall report whether the actual value is less than or greater than the reported value. A "J" value shall not be used as a substitute for K, L, M, T, V or Y, however, if additional reasons exist for identifying the value as estimate (e.g., matrix spiked failed to meet acceptance criteria), the "J" code may be added to a K, L, M, T, V, or Y. The following are some examples of narrative descriptions that may accompany a "J" code:
 - No known quality control criteria exist for the component;
 - The reported value failed to meet the established quality control criteria for either precision or accuracy (the specific failure must be identified);
 - The sample matrix interfered with the ability to make any accurate determination;
 - The data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample).
 - The field calibration verification did not meet calibration acceptance criteria.
- K Off-scale low. Actual value is known to be less than the value given. This code shall be used if:
 - The value is less than the lowest calibration standard and the calibration curve is known to be nonlinear; or
 - 2. The value is known to be less than the reported value based on sample size, dilution.
 - This code shall not be used to report values that are less than the laboratory practical quantitation limit or laboratory method detection limit.
- L Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range or highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- M When reporting chemical analyses: presence of material is verified but not quantified; the actual value is less than the value given. The reported value shall be the laboratory practical quantitation limit. This code shall be used if the level is too low to permit accurate quantification, but the estimated concentration is greater than the method detection limit. If the value is less than the method detection limit use "T" below.
- N Presumptive evidence of presence of material. This qualifier shall be used if:
 - 1. The component has been tentatively identified based on mass spectral library search; or
 - There is an indication that the analyte is present, but quality control requirements for confirmation were not met (i.e., presence of analyte was not confirmed by alternative procedures).
- O Sampled, but analysis lost or not performed.
- Q Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
- U Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component **was not** detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).
- V Indicates that the analyte was detected in both the sample and the associated method blank. Note: the value in the blank shall not be subtracted from associated samples.
- Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- ? Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- * Not currently accredited for this analyte.
- ! Not within scope of method.

Phoslab

806 West Beacon Road

Lakeland, Florida 33803-2847

Phone: 863-682-5897 Fax: 863-683-3279

FDOH ID#: E84925 FDEP CompQAP No: 870308G ab. No. Time Jo REQUESTED DUE DATE Date Equipment ID No. Form Title: Chain of Custody Record Ref: DEP Form #: 62-770.900(2) Sampling CompQAP No.: Approval Date: O = Other (specify)Effective Date: 8//2004 FDEP Facility No.: Accepted by / Affiliation Project Name: W = Water (Blanks)Sampling Kit No. Chain of Custody Record (32/1/ Time Preservatives (see codes) Analyses Requested <= Total Number of Containers SW = Surface Water813114 Processed Orl Date NO: hos Lab, Inc./Containers ASTOR Relinquished by / Affiliation Cooler No.(s) / Temperature(s) (° C) Number of Containers YES: SO = Soil7 12 Evidence Sample(s): SE = Sediment Project Location: Project Manager: Project Name: Composite (see codes) Matrix 710 Project #: GW = Groundwater Grom Grab or Item No. HOWED EMU, SONO TOI CENTING AVE 8131/11 08530 Time Sampled by [Print Name(s)] / Affiliation Sampled Date Phoslab Environmental Services A = AirShipment Method Via: Via: ETENSAULO Sampler(s) Signature(s) Additional Comments: Phone: 127-437 Field ID No. MATRIX CODES: B# 088 Company: Out: Returned: Address: Item No.

O = Other (specify)

S = Sulfuric acid + ice

N = Nitric acid + ice

I = Ice only

H = Hydrochloric acid + ice

PRESERVATIVE CODES:

Sample Log-in Checklist

Shipping Method:				Date/Tin	ne of Red	ceipt: K	31.16) 10:
Cooler Check								
		lce in co	ooler		Cus	stody Sea	ı	
Cooler #	Yes	No	If No Temp.	Yes	No	Intact	Not Intact	
			W.					
Thermom	eter ID:	M	2100					
Note: If the	e temper tify the bo	ature of ottles in t	a cooler is ab he affected co	ove 6º C ooler and	or a cus I note on	tody seal i "Improper	s damaged Sample List "	
1) Cu	stody Sea	al on Bo	ttles present	Yes	No			
He Bu Lo	ndition of adspace bble > 5n ose caps oken Con	(Volatile nm	containers s) N/N Yes Yes		0 1		(
3) Ch	ain of Cu	stody in	cluded	Yes	No			
4) Acid preserved: pH less than 2 Yes No pH Strip Lot:								
Coolers Unpacked/Checked by: Client: Project: Project: COC #: 083111.007								

Improper Sample List

Bottle #	Out of Hold	Improper Containers	Seal Intact	Loose Cap	Damaged Bottle	Damaged Cap	pH>2	Sample Volume	Action





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FDOH ID: E84925

CERTIFICATE OF ANALYSIS

Client:

HOWCO Environmental Services

3701 Central Ave. St. Petersburg, FL 33713

Attention:

Richard Dillen 727-328-7403

Phone Number: Fax Number:

727-328-7782 Processed Oil

Project Name: Project Number:

Batch 3861, Batch 091-Astor

P.O. # 62121

Project Location: Sampled By: Florida R.D. / HES

Sampled By: Date Sampled:

09/22/11

 Date Received:
 09/22/11
 12:30

 Date Reported:
 09/30/11
 Final Report

Lab. Report #:

092211-010

Project Description

The analytical results for the samples identified in this report were submitted for analysis as outlined by the attached Chain of Custody. The results for the quality control samples were reviewed and found to meet the acceptance criteria for precision and accuracy or properly flagged. Unless noted in this report or a case narrative, all data in this analytical report is in compliance with NELAC standards.

This report may not be reproduced in part without the permission of PES

Notes: Sample results reported at the Method Detection Limit.(MD

Approved By: David PomellaDavid Pomella, Laboratory Director

Approved By: Megan Skeen

Megan Skeen, Quality Assurance officer

If you have any questions, the above name should be contacted at 863-682-5897 - 8:00 A.M. - 5:00 PM M-F

PES Report: 10
Data Qualifier: 1
COC: 1
Sample Log-In: 1
Total Pages: 13





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CASE NARRATIVE

Lab. Report #: 092211-010

Project Name: Processed Oil Batch 3861, Batch 091-Astor

I. Sample Receiving Notes

Samples listed on the Chain of Custody #092211-010 were received with containers intact, and at the proper temperature for the requested analyses.

II. Analytical Data Notes

The analyses were performed in accordance with Phoslab Environmental Services SOP's and industry-standard methodologies in compliance with FDEP/NELAC criteria. There were no notable problems encountered in the analytical process.

III, Quality Control Notes

There were not significant quality control anomalies associated with this work order.

COC: 092211-010 Page 2 of 10





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FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 6010B Metals

Sample ID: Sample Description/Matrix: Sample Date:

Preparation Date/Method: Analysis Date/Time:

Method: Batch No. Initials: 092211-22a

Batch 3861 / Grab Oil 09/22/11 09:00 09/23/11 3050A 09/23/11 15:04

EPA 6010B 092311A-S827

SN

Analytes:	Cas No.	Results	Units	Dilution	MDL	PQL
Arsenic (As)	7440-38-2	0.19 U	mg/Kg	1 x	0.19	0.25
Cadmium (Cd)	7440-43-9	0.07 U	mg/Kg	1x	0.07	0.25
Chromium (Cr)	7440-47-3	0.24 I	mg/Kg	1x	0.04	0.25
Lead (Pb)	7439-92-1	3.04	mg/Kg	1x	0.16	0.25

Sample ID: 092211-23a Sample Description/Matrix: Batch 091-Astor / Grab Oil Sample Date: 09/22/11 10:00 Preparation Date/Method: 09/23/11 3050A Analysis Date/Time: 09/23/11 15:04 EPA 6010B Method: 092311A-S827 Batch No. Initials: SN

Analytes:	Cas No.	Results	Units	Dilution	MDL	PQL
Arsenic (As)	7440-38-2	0.19 U	mg/Kg	1x	0.19	0.25
Cadmium (Cd)	7440-43-9	0.07 U	mg/Kg	1x	0.07	0.25
Chromium (Cr)	7440-47-3	0.04 U	mg/Kg	1x	0.04	0.25
Lead (Pb)	7439-92-1	6.63	mg/Kg	1x	0.16	0.25

COC: 092211-010 Page 3 of 10





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TOLL FREE 1-888-682-5897 FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 8082

Sample ID:	092211-22b		
Sample Description/Matrix:	Batch 3861 / Grab Oi		
Sample Date:	09/22/11	09:00	
Preparation Date:	09/22/11		
Analysis starting Date/Time:	09/24/11	5:55	
Method:	EPA 8082		

 Method:
 EPA 8082

 Batch:
 092411

 Dilution:
 0.2g/10 ml

 Initials:
 XH

Analytes:	Cas No.	Results	Units	MDL	PQL
Aroclor-1016	12674-11-2	2.0 U	mg/kg	2.00	5.00
Aroclor-1221	11104-28-2	2.0 U	mg/kg	2.00	5.00
Aroclor-1232	11141-16-5	2.0 U	mg/kg	2.00	5.00
Aroclor-1242	53469-21-9	2.0 U	mg/kg	2.00	5.00
Aroclor-1248	12672-29-6	2.0 U	mg/kg	2.00	5.00
Aroclor-1254	11097-69-1	2.0 U	mg/kg	2.00	5.00
Aroclor-1260	11096-82-5	2.0 U	mg/kg	2.00	5.00

Surrogate:	% Recovery	Limits
TCMX	78	70-130
Decachlorobiphenyl	79	70-130

Sample ID: 092211-23b

Sample Description/Matrix: Batch 091-Astor / Grab Oil

Sample Date: 09/22/11 10:00

Preparation Date:09/22/11Analysis starting Date/Time:09/24/116:50

 Method:
 EPA 8082

 Batch:
 092411

 Dilution:
 0.2g/10 ml

 Initials:
 XH

Analytes:	Cas No.	Results	Units	MDL	PQL
Aroclor-1016	12674-11-2	2.0 U	mg/kg	2.00	5.00
Aroclor-1221	11104-28-2	2.0 U	mg/kg	2.00	5.00
Aroclor-1232	11141-16-5	2.0 U	mg/kg	2.00	5.00
Aroclor-1242	53469-21-9	2.0 U	mg/kg	2.00	5.00
Aroclor-1248	12672-29-6	2.0 U	mg/kg	2.00	5.00
Aroclor-1254	11097-69-1	2.0 U	mg/kg	2.00	5.00
Aroclor-1260	11096-82-5	2.0 U	mg/kg	2.00	5.00

Surrogate:	% Recovery	Limits
TCMX	87	70-130
Decachlorobiphenyl	76	70-130

COC: 092211-010 Page 4 of 10





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FDOH ID: E84925

CERTIFICATE OF ANALYSIS TOTAL HALIDES by 9253/5050

Sample ID: 092211-22b

 Sample Description/Matrix:
 Batch 3861 / Grab Oil

 Sample Date:
 09/22/11 09:00

 Preparation Date/Method:
 09/26/11 5050

 Analysis Date/Time:
 09/29/11 16:30

 Method:
 9253 / 5050 Bomb Prep

Batch No. TX-245 Initials: DP

 Analytes:
 Results
 Units
 Dilution
 MDL
 PQL

 TX
 356 I
 mg/Kg
 1x
 230
 500

Sample ID: 092211-23b

Sample Description/Matrix: Batch 091-Astor / Grab Oil

 Sample Date:
 09/22/11
 10:00

 Preparation Date/Method:
 09/26/11
 5050

 Analysis Date/Time:
 09/29/11
 16:30

 Method:
 9253 / 5050
 Bomb Prep

Batch No. TX-245 Initials: DP

 Analytes:
 Results
 Units
 Dilution
 MDL
 PQL

 TX
 230 U
 mg/Kg
 1x
 230
 500

COC: 092211-010 Page 5 of 10





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TOLL FREE 1-888-682-5897

FDOH ID: E84925

CERTIFICATE OF ANALYSIS General Analytes (Wet Chemistry)

 Sample Date/Time:
 09/22/11
 09:00

 Preparation Date:
 09/22/11

Analysis Date/Time: 09/22/11 2:30

Method:EPA 1010Analytes:Flash PointBatch:FP - 104Initials:XS

Sample

 Sample ID
 Description
 Results
 Units
 Start /End Temp.

 092211-22c
 Batch 3861
 >180
 °F
 80° F - >180 F

Sample Date/Time: 09/22/11 10:00

Preparation Date: 09/22/11

Analysis Date/Time: 09/22/11 2:00

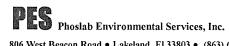
Method:EPA 1010Analytes:Flash PointBatch:FP-104Initials:XS

Sample

 Sample ID
 Description
 Results
 Units
 Start /End Temp.

 092211-23c
 Batch 091-Astor
 100
 °F
 75° F - 100 F

COC: 092211-010 Page 6 of 10





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FDOH ID: E84925

QUALITY CONTROL DATA EPA 8082

SPIKE DATA

Analysis starting Date/Time: 09/24/11 3:13

Batch: 092411 Initials: XH

	% Recovery			QA/QC	RPD	
Parameter	LCS	MS	MSD	LIMITS	0-20	Flags
Aroclor-1016	99	101	102	70-130	1	
Aroclor-1260	95	94	95	70-130	I	

LAB BLANK

Analysis starting Date/Time: 09/24/11 2:19

Batch: 092411 Initials: XH

Analytes:	Results	Units
Aroclor-1016	2.0 U	mg/Kg
Aroclor-1221	2.0 U	mg/Kg
Aroclor-1232	2.0 U	mg/Kg
Aroclor-1242	2.0 U	mg/Kg
Aroclor-1248	2.0 U	mg/Kg
Aroclor-1254	2.0 U	mg/Kg
Aroclor-1260	2.0 U	mg/Kg

Surrogate:	% Recovery	Limits
TCMX	103	70-130
Decachlorobiphenvl	113	70-130

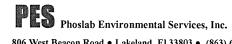
MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

U = Compound analyzed but not detected to the level shown

COC: 092211-010 Page 7 of 10





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FDOH ID: E84925

QUALITY CONTROL DATA Metals - EPA 6010B

SPIKE and LCS DATA

Analysis Date/Time: 09/23/11 15:04 **Batch:** 092311A-S827

Initials: SN
Parent Sample ID: 092111-02

Recovery Limits: (80%-120%)

	LCS	Parent					MS	MSD
	Recovery	Result	Spike @	Spike	Spike dup		Recovery	Recovery
Parameter	%	mg/Kg	mg/Kg	mg/Kg	mg/L	RPD	%	%
Arsenic (As)	98.3	0.19 U	50.0	48.1	48.7	1.2	96.2	97.3
Cadmium (Cd)	98.0	0.07 U	50.0	46.9	47.2	0.6	93.9	94.5
Chromium (Cr)	86.0	0.04 U	50.0	43.8	44.2	0.8	87.7	88.4
Lead (Pb)	100	0.82	50.0	51.2	51.6	0.8	101	102

LAB BLANK

 Analysis Date/Time:
 09/23/11 15:04

 Batch:
 092311A-S827

 Initials:
 SN

Analytes:	Results	Units
Arsenic (As)	0.19 U	mg/Kg
Cadmium Cd)	0.07 U	mg/Kg
Chromium (Cr)	0.04 U	mg/Kg
Lead (Pb)	0.16 U	mg/Kg

U = Compound analyzed but not detected to the level shown

RPD = Relative Percent Difference

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

COC: 092211-010 Page 8 of 10





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FDOH ID: E84925

QUALITY CONTROL DATA TOTAL HALIDES by 9253/5050

SPIKE DATA

Analysis Date/Time: 09/29/11 16:30

Batch No. TX-245 Initals: DP

				% Reco	overy
		ı	ng/Kg Found	Spike	
Analyte		Spike @	Spike	% Recov Li	mits Flag
Total Halides	MS	606	669	110 75-	-125
Total Halides	MSD	606	701	116 75-	-125

LAB BLANK

Analysis Date/Time: 09/29/11 16:30

Batch No. TX-245
Initals: DP

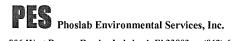
Analytes: Results Units
Total Halides 230 U mg/Kg

LCS = Laboratory Control Standard

MS = Matrix Spike

U = Compound analyzed but not detected to the level shown

COC: 092211-010 Page 9 of 10





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TOLL FREE 1-888-882-5897

FDOH ID: E84925

QUALITY CONTROL DATA EPA 1010

Analysis Date/Time: 09/22/11 1:00

Batch: FP - 104 Initials: XS

Analytes:StandardResultsUnitsIgnitiability (Flash Point)169166Deg. F

COC: 092211-010 Page 10 of 10

DATA QUALIFIER CODES

SYMBOL MEANING

- A Value reported is the arithmetic mean (average) of two or more determinations. This code shall be used if the reported value is the average of results for two or more discrete and separate samples. These samples shall have been processed and analyzed independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate.
- H Value based on field kit determination; results may not be accurate. This code shall be used if a field screening test (i.e., field gas chromatograph data, immunoassay, vendor-supplied field kit, etc.) was used to generate the value and the field kit or method has not been recognized by the Department as equivalent to laboratory methods.
- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value. A "J" value shall be accompanied by a narrative justification for its use. Where possible, the organization shall report whether the actual value is less than or greater than the reported value. A "J" value shall not be used as a substitute for K, L, M, T, V or Y, however, if additional reasons exist for identifying the value as estimate (e.g., matrix spiked failed to meet acceptance criteria), the "J" code may be added to a K, L, M, T, V, or Y. The following are some examples of narrative descriptions that may accompany a "J" code:
 - No known quality control criteria exist for the component;
 - The reported value failed to meet the established quality control criteria for either precision or accuracy (the specific failure must be identified);
 - The sample matrix interfered with the ability to make any accurate determination;
 - The data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample).
 - The field calibration verification did not meet calibration acceptance criteria.
- K Off-scale low. Actual value is known to be less than the value given. This code shall be used if:
 - 1. The value is less than the lowest calibration standard and the calibration curve is known to be non-linear; or
 - 2. The value is known to be less than the reported value based on sample size, dilution.
 - This code shall not be used to report values that are less than the laboratory practical quantitation limit or laboratory method detection limit.
- L Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range or highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- When reporting chemical analyses: presence of material is verified but not quantified; the actual value is less than the value given. The reported value shall be the laboratory practical quantitation limit. This code shall be used if the level is too low to permit accurate quantification, but the estimated concentration is greater than the method detection limit. If the value is less than the method detection limit use "T" below.
- N Presumptive evidence of presence of material. This qualifier shall be used if:
 - 1. The component has been tentatively identified based on mass spectral library search; or
 - 2. There is an indication that the analyte is present, but quality control requirements for confirmation were not met (i.e., presence of analyte was not confirmed by alternative procedures).
- O Sampled, but analysis lost or not performed.
- Q Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
- U Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component **was not** detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).
- V Indicates that the analyte was detected in both the sample and the associated method blank. Note: the value in the blank shall not be subtracted from associated samples.
- Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- ? Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- * Not currently accredited for this analyte.
- ! Not within scope of method.

Phoslab Environmental Services

200. 1 JACK

806 West Beacon Road

Lakeland, Florida 33803-2847

Phone: 863-682-5897 Fax: 863-683-3279 FDEP CompQAP No: 870308G

FDOH ID#: E84925

Chain of Custody Record

10:3 Lab. No. Time Jo REQUESTED DUE DATE Date form Title: Chain of Custody Record Ref: DEP Form #: 62-770.900(2) Sampling CompQAP No.: Approval Date: 127 Effective Date: 8//2004 FDEP Facility No.: Accepted by / Affiliation Project Name: PO# 62121 Time Preservatives (see codes) Analyses Requested Total Number of Containers 9122/11 Date PROCESSED OIL NO. /PhosLab, Inc./Containers Containers T CO X Relinquished by / Affiliation X 3 Phone: 121-437-4059 Fax: 328.7782 | Evidence Sample(s): Project Location: Project Manager: Project Name: Time | Composite (see codes) Matrix Project #: 210 210 6243 Grab or Item No. CAR St. PETENSOURCE FC Zip: 33713 COMPANY: HOWLO EMU SERV Address: 3 to 1 CENTI-AL AVE. 9122111 09:00 154091. Ass 9/22/1/10:00 Sampled by [Print Name(s)] / Affiliation | R. CHARD DICLEN Sampled Date Shipment Method Via: Via: Sampler(s) Signature(s) LICHARD Additional Comments: Field ID No. Out: Returned:

Equipment ID No.

Sampling Kit No.

O = Other (specify)

W = Water (Blanks)

SW = Surface Water

SO = S'oil

SE = Sediment

A = Air

MATRIX CODES:

Cooler-No(s) Temperature(s) (

O = Other (specify)

S = Sulfuric acid + ice

N = Nitric acid + ice

I = Ice only

H = Hydrochloric acid + iceGW = Groundwater

PRESERVATIVE CODES:

Sample Log-in Checklist

Shipping Method: Date/Time of Receipt:								
Cooler	Check							
		ce in co	ooler	T	Cus	stody Sea		
Cooler #	# Yes	No	If No Temp.	Yes	No	Intact	Not Intact	
			= 10C					
Thermo	ometer ID: _	180	-00/5	SC				
Note: If the temperature of a cooler is above 6° C or a custody seal is damaged then identify the bottles in the affected cooler and note on "Improper Sample List"								
1) (Custody Sea	al on Bo	ttles present	Yes	No	\times		
2) Condition of Sample containers Headspace (Volatiles) Bubble > 5mm Loose caps Yes Broken Containers Yes No No								
			cluded		No			
4) Acid preserved: pH less than 2 Yes No \(\frac{\mathcal{M}}{\phi} \) pH Strip Lot:								
Coolers Unpacked/Checked by: Date: 92211 Project: 1000 COC #: 92211 - 010								
Improper Comple Liet								

Improper Sample List

Bottle #	Out of Hold	Improper Containers	Seal Intact	Loose Cap	Damaged Bottle	Damaged Cap	pH>2	Sample Volume	Action



Analysis Request

For Summit Environmental





COC Analytical Parameters and Methods Page Order ID: 1123224 Please results on 11/10/11. Flashpoint, PCB's × As, Cd, Cr, Pb, TX × × Notes / Comments: Number of Containers none none Preservative SL=Sludge, A=Air S=Solid, L=Liquid, O=Oil 0 0 **Fime** Composite Grab G G Collected Date 12:00 15:00 Time 843 43rd Street South, St. Petersburg, FL 33711 Rush Requested: Collected √ if Ohio VAP Samples 11/02/11 10/31/11 RDILLEN@HOWCOUSA.COM Received by: roject Identification Processed Oil 62141 Project Address Quote Number PO Number Report To Time Time Sample Identification v to Receive Results by Fax 냅 3701 Central Avenue, St. Petersburg, ntoin Date Date **HOWCO Environmental Services** Batch# 095/Astor Received in Lab by: Batch# 3873 Richard Dillen Richard Dillen (727) - 437 - 4059ontact Person Tient Address Tient Fax No. lient Phone lient Name Sampled By #

Day(s)

Must be approved by Lab Manager

1160

110911

Summit Environmental Technologies, Inc. Cooler Receipt Form





Order ID: 1123224

COOLER

Client: How Co Env. Se	Orde	er ID:	
Date Received: 11 . 9 . 1 Time Rec	ceived: 094	Date op	pened: 1169 U
Number of Coolers/Boxes:/	N/A	Unpack	ked by: P-C
Shipper: FED EX UPS DHL Airborne	US Postal Walk-in	Pickup (Other:
Packaging: Peanuts Bubble Wrap	Paper Foam None	Other:	
Tape on cooler/box:	(Y	Ν	N/A
Custody Seals intact	Ÿ	(N	N/A
C-O-C in plastic	(Y	N	N/A
Coolant: IceBlue iceWaterNone_	Sample Te	mperature_	16. 2 °C
C-O-C filled out properly	(Ŷ	Ν	N/A
Samples in separate bags	(Y	Ν	N/A
Sample containers intact	/Y	Ν	N/A
*If no, list broken sample(s):			
Sample label(s) complete (ID, date, etc.)	(Y	Ν	N/A
Label(s) agree with C-O-C	CY	Ν	N/A
Correct containers used	(Y	Ν	N/A
Sufficient sample received	(Ý	N	N/A
Samples at correct pH? (list below)	Y	Ν	(NA
Bubbles absent from 40 mL vials**	Y	N	(N/A
** Samples with bubbles less than the size of	f a pea are acceptable	L.	
Client contact:	Date/T	ime <u>:</u>	
Comments:			
Sample ID	рН	San	nple ID pH



LABORATORY REPORT

Page 1/2

November 10, 2011

Client: HOWCO Env. Services
Address: 3701 Central Ave.
St. Petersburg, FL 33713

Date Collected: 11/02/2011
Date Received: 11/09/2011
Project #: Processed Oil
Client ID #: #3873
Laboratory ID #: 1123224-01
Matrix: Liquid

<u>Parameter</u> Arsenic	<u>Method</u> 6010	Results <1.0ppm	Date of Analysis 11/10/2011
Cadmium	6010	<0.1ppm	11/10/2011
Chromium	6010	<4.0ppm	11/10/2011
Flash Point	1010	163°F	11/09/2011
Lead	6010	22ppm	11/10/2011
PCB	8082	<1.0ppm	11/09/2011
TX	9076	<200ppm	11/09/2011

QA Manager William



LABORATORY REPORT

Page 2/2

November 10, 2011

Client: HOWCO Env. Services Address: 3701 Central Ave.

St. Petersburg, FL 33713

Date Collected: 10/31/2011
Date Received: 11/09/2011
Project #: Processed Oil
Client ID #: #095/Astor
Laboratory ID #: 1123224-02
Matrix: Liquid

<u>Parameter</u> Arsenic	<u>Method</u> 6010	Results <1.0ppm	Date of Analysis 11/10/2011
Cadmium	6010	<0.1ppm	11/10/2011
Chromium	6010	<4.0ppm	11/10/2011
Flash Point	1010	147°F	11/09/2011
Lead	6010	27ppm	11/10/2011
PCB	8082	<1.0ppm	11/09/2011
TX	9076	<200ppm	11/09/2011

QA Manager Allibas



Analysis Request / |||||||||||

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For Summit Environmental

Page Order ID: 1124316

Analytical Parameters and Methods Please results on 11/29/11. Flashpoint, PCB's × As, Cd, Cr, Pb, TX × Notes / Comments: Number of Containers none none Preservative SL=Sludge, A=Air S=Solid, L=Liquid, O=Oil 0 0 Lime Composite Crab O G Collected Date Time 13:30 13:30 843 43rd Street South, St. Petersburg, FL 33711 Collected if Ohio VAP Samples 11/22/11 11/22/11 RDILLEN@HOWCOUSA.COM Received by: roject Identification Processed Oil Project Address Quote Number PO Number > Report To 14:80 Time Sample Identification √ to Receive Results by Fax 3701 Central Avenue, St. Petersburg, FL 1111/11 Date **HOWCO Environmental Services** Batch# 097-Astor Batch# 3877 Richard Dillen Richard Dillen (727)-437-4059ontact Person Client Address Client Fax No. Client Phone Tient Name sampled By

Day(s)

Must be approved by Lab Manager

Rush Requested:

(dOO

Date

Regeived in Lab by:

Summit Environmental Technologies, Inc. Cooler Receipt Form





Order ID: 1124316

COOLER

Client:		Order ID:		
Date Received: Time	Received:	() ()	ed:	
Number of Coolers/Boxes:	N/A	Unpacked	by:	
Shipper: FED EX UPS DHL Airbo	rne US Postal	Walk-in Pickup Oth	r:	-
Packaging: Peanuts Bubble Wrag	Paper Foam	None Other:	surby alth	7
Tape on cooler/box:	(3)	N	N/A	
Custody Seals intact		N	N/A	
C-O-C in plastic	V	Ν , —	N/A	
Coolant: Ice Blue iceWaterN	one Sai	mple Temperature	<u>d</u> ∘c	
C-O-C filled out properly		N	N/A	
Samples in separate bags		N	N/A	
Sample containers intact	A	N	N/A	
*If no, list broken sample(s):				
Sample label(s) complete (ID, date, etc.)	(4)	Ν	N/A	
Label(s) agree with C-O-C		Ν	N/A	
Correct containers used	(Q	N	N/A	
Sufficient sample received	(4)	N	N/A	
Samples at correct pH? (list below)	Y	N	NA	
Bubbles absent from 40 mL vials**	Υ	N	N/A	
** Samples with bubbles less than the s	ze of a pea are ac	cceptable.	(0)	
Client contact:		Date/Time:		
Comments:				
Sample ID	рН	Samp	le ID	рН



LABORATORY REPORT

Page 1/2

Client: HOWCO Env. Services Address: 3701 Central Ave.

St. Petersburg, FL 33713

Date Collected: 11/22/2011
Date Received: 11/23/2011
Project #: Processed Oil
Client ID #: Batch# 3877
Laboratory ID #: 1124316-01
Matrix: Liquid

<u>Parameter</u> Arsenic	<u>Method</u> 6010	Results <1.0ppm	Date of Analysis 11/23/2011
Cadmium	6010	<0.1ppm	11/23/2011
Chromium	6010	<4.0ppm	11/23/2011
Flash Point	1010	>200°F	11/23/2011
Lead	6010	14ppm	11/23/2011
PCB	8082	<1.0ppm	11/23/2011
TX	9076	<200ppm	11/23/2011

QA Manager: W. Was



LABORATORY REPORT

Page 2/2

Client: HOWCO Env. Services Address: 3701 Central Ave.

St. Petersburg, FL 33713

Date Collected: 11/22/2011
Date Received: 11/23/2011
Project #: Processed Oil
Client ID #: Batch# 097-Astor
Laboratory ID #: 1124316-02
Matrix: Liquid

<u>Parameter</u> Arsenic	<u>Method</u> 6010	Results <1.0ppm	Date of Analysis 11/23/2011
Cadmium	6010	0.26ppm	11/23/2011
Chromium	6010	<4.0ppm	11/23/2011
Flash Point	1010	147°F	11/23/2011
Lead	6010	49ppm	11/23/2011
PCB	8082	<1.0ppm	11/23/2011
TX	9076	<200ppm	11/23/2011

QA Manager: KA XWAX





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TOLL FREE 1-888-682-5897

FDOH ID: E84925

CERTIFICATE OF ANALYSIS

Client:

HOWCO Environmental Services

3701 Central Ave.

St. Petersburg, FL 33713

Attention:

Richard Dillen

Phone Number:

727-328-7403

Fax Number:

727-328-7782

Project Name:

Processed Oil

Project Number:

Batch 3886, 3888, 098 Astor, 100 Astor

08:00

08:50

P.O. # 62178

Project Location:

Florida

Sampled By:

R.D. / HES

Date Sampled:

01/17/12

Date Received:

01/17/12

Date Reported:

01/20/12

Lab. Report #:

011712-004

Project Description

The analytical results for the samples identified in this report were submitted for analysis as outlined by the attached Chain of Custody. The results for the quality control samples were reviewed and found to meet the acceptance criteria for precision and accuracy or properly flagged. Unless noted in this report or a case narrative, all data in this analytical report is in compliance with NELAC standards.

This report may not be reproduced in part without the permission of PES.

Notes: Sample results reported at the Method Detection Limit.(MDI)

Approved By: David Pomella David Pomella, Laboratory Director

Approved By: Megan Skeen

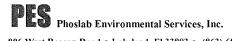
Megan Skeen, Quality Assurance officer

If you have any questions, the above name should be contacted at 863-682-5897 8:00 A.M. - 5:00 PM M-F

PES Report:

Data Qualifier: COC:

Sample Log-In: **Total Pages:**





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FDOH ID: E84925

CASE NARRATIVE

Lab. Report #:

011712-004

Project Name:

Processed Oil Batch 3886, 3888, 098 Astor, 100 Astor

I. Sample Receiving Notes

Samples listed on Chain of Custody #011712-004 were received with containers intact, and at the proper temperature for the requested analyses.

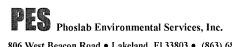
II. Analytical Data Notes

The analyses were performed in accordance with Phoslab Environmental Services SOP's and industry-standard methodologies in compliance with FDEP/NELAC criteria. There were no notable problems encountered in the analytical process.

III, Quality Control Notes

There were not significant quality control anomalies associated with this work order.

COC: 011712-004 Page 2 of 10





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FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 6010B Metals

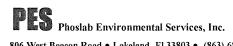
Sample ID:	011712-14b	011712-15b	
Sample Description/Matrix:	Batch 3886 / Grab Oil	Batch 3888 / Grab Oil	
Sample Date:	01/17/12 08:00	01/17/12 08:00	
Preparation Date/Method:	01/18/12 3050A	01/18/12 3050A	
Analysis Date/Time:	01/19/12 13:49	01/19/12 13:49	
Method:	EPA 6010B	EPA 6010B	
Batch No.	011912A-S858	011912A-S858	
Initials:	SN	SN	

Analytes:	Cas No.	Results	Units	Dilution	Results	Units	Dilution	MDL	PQL
Arsenic (As)	7440-38-2	0.19 U	mg/Kg	1 x	0.19 U	mg/Kg	1x	0.19	0.25
Cadmium (Cd)	7440-43-9	0.07 U	mg/Kg	1x	0.07 U	mg/Kg	lx	0.07	0.25
Chromium (Cr)	7440-47-3	0.04 U	mg/Kg	1x	0.04 U	mg/Kg	lx	0.04	0.25
Lead (Pb)	7439-92-1	3.41	mg/Kg	lx	6.11	mg/Kg	lx	0.16	0.25

Sample ID:	011712-16b	011712-17Ь
Sample Description/Matrix:	Batch 098 Astor / Grab Oil	Batch 100 Astor / Grab Oil
Sample Date:	01/17/12 08:00	01/17/12 08:00
Preparation Date/Method:	01/18/12 3050A	01/18/12 3050A
Analysis Date/Time:	01/19/12 13:49	01/19/12 13:49
Method:	EPA 6010B	EPA 6010B
Batch No.	011912A-S858	011912A-S858
Initials:	SN	SN

Analytes:	Cas No.	Results	Units	Dilution	Results	Units	Dilution	MDL	PQL
Arsenic (As)	7440-38-2	0.19 U	mg/Kg	1 x	0.19 U	mg/Kg	1x	0.19	0.25
Cadmium (Cd)	7440-43-9	0.07 U	mg/Kg	1x	0.07 U	mg/Kg	lx	0.07	0.25
Chromium (Cr)	7440-47-3	0.04 U	mg/Kg	lx	0.93	mg/Kg	lx	0.04	0.25
Lead (Pb)	7439-92-1	18.0	mg/Kg	1x	7.25	mg/Kg	lx	0.16	0.25

COC: 011712-004 Page 3 of 10





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FDOH ID: E84925

CERTIFICATE OF ANALYSIS EPA 8082

Sample ID: Sample Descrip Sample Date: Preparation Da Analysis startin Method: Batch: Dilution: Initials:	nte:	01/18/12	Grab Oil 08:00 13:07	01/18/12	Grab Oil 08:00 14:01		
Analytes:	Cas No.	Results	Units	Results	Units	MDL	PQL
Aroclor-1016	12674-11-2	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1221	11104-28-2	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1232	11141-16-5	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1242	53469-21-9	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1248	12672-29-6	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1254	11097-69-1	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1260	11096-82-5	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Surrogate:		% Recovery	Limits	% Recovery	Limits		
TCMX		80	70-130	82	70-130		
Decachlorobipho	enyl	75	70-130	76	70-130		
Sample ID: Sample Descrip Sample Date: Preparation Da Analysis startin Method: Batch: Dilution: Initials:	nte:	01/18/12	tor / Grab Oil 08:00 14:55	01/18/12	stor / Grab (08:00 15:49	Dil	
Analytes:	Cas No.	Results	Units	Results	Units	MDL	PQL
Aroclor-1016	12674-11-2	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1221	11104-28-2	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1232	11141-16-5	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1242	53469-21-9	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1248	12672-29-6	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1254	11097-69-1	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Aroclor-1260	11096-82-5	2.0 U	mg/kg	2.0 U	mg/kg	2.00	5.00
Surrogate:		% Recovery	Limits	% Recovery	Limits		
TCMX		89	70-130	95	70-130		
Decachlorobiphe	enyl	78	70-130	78	70-130		

COC: 011712-004 Page 4 of 10





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FDOH ID: E84925

CERTIFICATE OF ANALYSIS TOTAL HALIDES by 9253/5050

Sample ID: 011712-14b 011712-15b

Sample Description/Matrix: Batch 3886 / Grab Oil Batch 3888 / Grab Oil Sample Date: 01/17/12 08:00 01/17/12 08:00 Preparation Date/Method: 01/18/12 5050 01/18/12 5050 Analysis Date/Time: 01/18/12 11:30 01/18/12 11:30 9253 / 5050 Bomb Prep Method: 9253 / 5050 Bomb Prep

 Batch No.
 TX-251
 TX-251

 Initials:
 MS
 MS

Analytes: Results Units Dilution MDL Results Units Dilution PQL TX 230 U mg/Kg 1x331 I mg/Kg 230 1x 500

Sample ID: 011712-16b 011712-17b

Sample Description/Matrix: Batch 098 Astor / Grab Oil Batch 100 Astor / Grab Oil

 Sample Date:
 01/17/12
 08:00
 01/17/12
 08:00

 Preparation Date/Method:
 01/18/12
 5050
 01/18/12
 5050

 Analysis Date/Time:
 01/18/12
 11:30
 01/18/12
 11:30

 Method:
 9253 / 5050
 Bomb Prep
 9253 / 5050
 Bomb Prep

 Batch No.
 TX-251
 TX-251

 Initials:
 MS
 MS

Analytes: Results Units Dilution Results Units Dilution MDL PQL TX230 U mg/Kg 333 I 1xmg/Kg 1 x 230 500

COC: 011712-004 Page 5 of 10





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FDOH ID: E84925

CERTIFICATE OF ANALYSIS General Analytes (Wet Chemistry)

 Sample Date/Time:
 01/17/12
 08:00

 Preparation Date:
 01/18/12

 Analysis Date/Time:
 01/18/12

 Method:
 EPA 1010

 Analytes:
 Flash Point

 Batch:
 FP - 119

 Initials:
 XS

Sample ID	Description	Results	Units	Start /End Temp.
011712-146	Batch 3886	>200	°F	76° F - >200 F
011712-15b	Batch 3888	>200	°F	85° F - >200 F
011712-16b	Batch 098 Astor	120	°F	70° F - 120 F
011712-17Ь	Batch 100 Astor	122	°F	75° F - 122 F

COC: 011712-004 Page 6 of 10





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FDOH ID: E84925

QUALITY CONTROL DATA EPA 8082

SPIKE DATA

Analysis starting Date/Time: 01/17/12 20:59

Batch: 011712 Initials: XH

ъ.		% Recovery	QA/QC	RPD		
Parameter	LCS	MS	MSD	LIMITS	0-20	Elean
Aroclor-1016	114	111	111	70-130	0-20	Flags
Aroclor-1260	96	92	93	70-130	Ī	

LAB BLANK

Analysis starting Date/Time: 01/17/12 20:05
Batch: 011712

Batch: 011712
Initials: XH

Analytes: Aroclor-1016 Aroclor-1221 Aroclor-1232 Aroclor-1242 Aroclor-1248	Results 2.0 U 2.0 U 2.0 U 2.0 U	Units mg/Kg mg/Kg mg/Kg mg/Kg
Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260	2.0 U 2.0 U 2.0 U 2.0 U	0 0

Surrogate:	% Recovery	Limits
TCMX	93	70-130
Decachlorobiphenyl	99	70-130

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

U = Compound analyzed but not detected to the level shown

COC: 011712-004





FDOH ID: E84925

QUALITY CONTROL DATA Metals - EPA 6010B

SPIKE and LCS DATA

 Analysis Date/Time:
 01/19/12 13:49

 Batch:
 011912A-S858

 Initials:
 SN

Parent Sample ID: 011712-09

Recovery Limits: (80%-120%)

	LCS	Parent					MS	MSD
	Recovery	Result	Spike @	Spike	Spike dup		Recovery	Recovery
Parameter	%	mg/Kg	mg/Kg	mg/Kg	mg/L	RPD	%	%
Arsenic (As)	96.1	0.19 U	50.0	50.0	48.7	2.6	100	97.4
Cadmium (Cd)	103	0.07 U	50.0	51.6	50.6	1.9	103	101
Chromium (Cr)	101	0.04 U	50.0	51.6	49.7	3.6	103	99.5
Lead (Pb)	104	2.47	50.0	54.8	53.2	3.0	105	102

LAB BLANK

 Analysis Date/Time:
 01/19/12 13:49

 Batch:
 011912A-S858

 Initials:
 SN

Analytes:	Results	Units
Arsenic (As)	0.19 U	mg/Kg
Cadmium Cd)	0.07 U	mg/Kg
Chromium (Cr)	0.04 U	mg/Kg
Lead (Pb)	0.16 U	mg/Kg

U = Compound analyzed but not detected to the level shown

RPD = Relative Percent Difference

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

COC: 011712-004 Page 8 of 10





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FDOH ID: E84925

QUALITY CONTROL DATA TOTAL HALIDES by 9253/5050

SPIKE DATA

Analysis Date/Time:

01/18/12 11:30

Batch No.

TX-251

Initals:

MS

MS

MSD

% Recovery

Analyte Total Halides Total Halides Spike @ 606 606

Spike 658 629

mg/Kg Found

Spike % Recov Limits 109 75-125 104 75-125

Flag

LAB BLANK

Analysis Date/Time:

01/18/12 11:30 TX-251

Batch No. Initals:

MS

Analytes: Total Halides Results 230 U

Units mg/Kg

LCS = Laboratory Control Standard

MS = Matrix Spike

U = Compound analyzed but not detected to the level shown

COC: 011712-004 Page 9 of 10





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FDOH ID: E84925

QUALITY CONTROL DATA EPA 1010

Analysis Date/Time:

Ignitiability (Flash Point)

01/18/11

10:00

Batch:

FP - 119

Initials:

XS

Analytes:

Standard 81 Results Units 81 Deg. F

COC: 011712-004 Page 10 of 10

DATA QUALIFIER CODES

SYMBOL MEANING

- Value reported is the arithmetic mean (average) of two or more determinations. This code shall be used if the reported value is the average of results for two or more discrete and separate samples. These samples shall have been processed and analyzed independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate.
- Value based on field kit determination; results may not be accurate. This code shall be used if a field screening test (i.e., field gas chromatograph data, immunoassay, vendor-supplied field kit, etc.) was used to generate the value and the field kit or method has not been recognized by the Department as equivalent to laboratory methods.
- The reported value is between the laboratory method detection limit and the laboratory practical
- Estimated value. A "J" value shall be accompanied by a narrative justification for its use. Where possible, the organization shall report whether the actual value is less than or greater than the reported value. A "J" value shall not be used as a substitute for K, L, M, T, V or Y, however, if additional reasons exist for identifying the value as estimate (e.g., matrix spiked failed to meet acceptance criteria), the "J" code may be added to a K, L, M, T, V, or Y. The following are some examples of narrative descriptions that may accompany a "J" code:
 - No known quality control criteria exist for the component;
 - The reported value failed to meet the established quality control criteria for either precision or accuracy (the specific failure must be identified);
 - The sample matrix interfered with the ability to make any accurate determination;
 - The data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample).
 - The field calibration verification did not meet calibration acceptance criteria.
- Off-scale low. Actual value is known to be less than the value given. This code shall be used if:
 - The value is less than the lowest calibration standard and the calibration curve is known to be nonlinear; or
 - The value is known to be less than the reported value based on sample size, dilution.
 - This code shall not be used to report values that are less than the laboratory practical quantitation limit or laboratory method detection limit.
- Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range or highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- When reporting chemical analyses: presence of material is verified but not quantified; the actual value is less than the value given. The reported value shall be the laboratory practical quantitation limit. This code shall be used if the level is too low to permit accurate quantification, but the estimated concentration is greater than the method detection limit. If the value is less than the method detection limit use "T" below.
- Presumptive evidence of presence of material. This qualifier shall be used if:
 - The component has been tentatively identified based on mass spectral library search; or
 - There is an indication that the analyte is present, but quality control requirements for confirmation were not met (i.e., presence of analyte was not confirmed by alternative procedures).
- Sampled, but analysis lost or not performed.
- Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
- Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
- Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).
- Indicates that the analyte was detected in both the sample and the associated method blank. Note: the value in the blank shall not be subtracted from associated samples.
- The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- Not currently accredited for this analyte.
- Not within scope of method.

Phoslab Environmental Services

18° 21710

806 West Beacon Road

Lakeland, Florida 33803-2847

Phone: 863-682-5897 Fax: 863-683-3279 FDEP CompQAP No: 870308G

FDOH ID#: E84925

Chain of Custody Record

Lab. No. Time 8:50 REQUESTED DUE DATE Date Equipment ID No. Form Title: Chain of Custody Record Ref: DEP Form #: 62-770.900(2) Sampling CompQAP No.: Approval Date: 120 Remarks O = Other (specify)FDEP Facility No.: Accepted by / Affiliation Project Name: O = Other (specify)W = Water (Blanks)Sampling Kit No. PO# 621 子グ S = Sulfuric acid + iceTime Preservatives (see codes) Analyses Requested <= Total Number of Containers SW = Surface Water PROCESSEN OR Date NO: N = Nitric acid + ice/PhosLab, Inc./Containers 5,87d X Containers of Containers Relinquished by / Affiliation Cooler No.(s) / Temperature(s) (°C) YES: SO = SoilHoldence Sample(s): H = Hydrochloric acid + ice I = Ice onlySE = SedimentProject Location: Project Manager: Project Name: Time Composite (see codes) Matrix Project #: コノの 210 210 016 GW = Groundwater 1/17/12 08:00 CAM 11762 08:00 GRAD Grab or Item No. 8#098 ASTOR 1/17/12 08600 Gnita FC Zip: 33713 8#100 ASTOR 1/17112 00:00 6411) COMPANY: HOWLO ENU SERV. 3701 CENTUR AVE. 127-437-437-4359 Fax: 328 Sampled by [Print Name(s)] / Affiliation Ricker Sampled Date A = AirShipment Method Via: Via: ETERSBURG PRESERVATIVE CODES: Sampler(s) Signature(s) Additional Comments: 3#3888 Field ID No. 8#3886 MATRIX CODES: Out: Returned: Address: Phone: Item No.

Sample Log-in Checklist

Shipping Method:)	Date/Tim	ne of Red	ceipt:	17.126	8:5
Coole	Cooler Check								
		lce i	n coo	ler		Cus	stody Sea		
Cooler	# Ye			No Temp.	Yes	No	Intact	Not Intact	
			(amb					
Therm	nometer I	D:	imb)					
Note: then ic	If the tem dentify the	perature e bottles	of a of in the	cooler is abo	ove 6º C ooler and	or a cus note on	tody seal i " Imprope r	s damaged Sample List "	
1)	Custody	Seal on	Bottle	es present	Yes	No	X		
2)									
3)	Chain of	Custod	y inclu	ded	Yes _X	No	-		
4)	Acid pre	served:	pH les	s than 2	Yes	No	\times	pH Strip Lot:	-
Coole Client	rs Unpac	ked/Che	cked t	oy: <u>Dayr</u>	P C	_ Dat roject: <u>F</u> OC #:	e: 01.17 01171	6712 6500 0°1 600.6	

Improper Sample List

Bottle #	Out of	Improper	Seal Intact	Loose Cap	Damaged	Damaged	pH>2	Sample	Action
	Hold	Containers			Bottle	Cap		Volume	

HOWCO Environmental Services

Analytical data -Astor Facility

		Flashpoint, in F	Flashpoint, in F	Total Halogens, in ppm
Batch#	Date	HOWCO-Lab	P.E.S.	HOWCO-Lab (EPA-9075)
071	01/18/11	100	n/a	127
074	02/24/11	105	n/a	300
076	03/09/11	125	n/a	574
077	04/04/11	> 140	n/a	400
083	06/29/11	145	160	550
086	07/20/11	100	> 185	579
088	08/13/11	100	108	302
091	09/15/11	105	100	688
095	10/27/11	118	147	923
097	11/17/11	115	147	728
098	12/08/11	110	120	269

Total Halogens, in ppm P.E.S. (EPA-9253)

n/a

n/a

n/a

n/a

< 230

400

332

< 230

< 200

< 200

< 230