August 5, 2011

DOCKET
08-AFC-13C
DATE AUG 05 2011
RECD. AUG 05 2011

Craig Hoffman
Project Manager
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814

Patrick C. Jackson
600 Darwood Avenue
San Dimas, CA 91773

Re: Calico Solar Project Amendment (CSPA) (08-AFC-13C)
Applicant's Response to Patrick C. Jackson Data Request Set 1 (No. 13)

Dear Messrs. Hoffman and Jackson:

Pursuant to Calico Solar's June 6, 2011 letter responding to Patrick C. Jackson Data Request Set 1 (No. 1-13) dated May 16, 2011 and Calico Solar's Updated Schedule docketed on July 27, 2011, Calico Solar hereby submits additional information in response to Mr. Jackson's Data Request.

TECHNICAL AREA: PUBLIC HEALTH AND SAFETY
Data Request 13. Please provide a soil study showing the level of arsenic in the Project soils.

Response: Soil samples were randomly collected from the Calico Solar Project site at varying depths on July 5, 6, 11, 12 and 22, 2011. The results of testing these soil samples for arsenic are included in the following reports, which are included with this submittal.

1. July 25, 2011 Laboratory Report (No. 11G066)
2. August 1, 2011 Laboratory Report (No. 11G119)
3. August 2, 2011 Laboratory Report (No. 11G188)

I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.

Sincerely,

Daniel J. O'Shea
On behalf of Calico Solar, LLC

Attachment 1

TABLE OF CONTENTS

CLIENT: **TETRA TECH EC, INC**

PROJECT: **CALICO**

SDG: **11G066**

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 07-25-2011
EMAX Batch No.: 11G066

Attn: Lisa Bienkowski

Tetra Tech EC, Inc
17885 Von Karman Ave., #500
Irvine, CA 92614

Subject: Laboratory Report
Project: Calico

Enclosed is the Laboratory report for samples received on 07/11/11.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
070511-56-AS-5	G066-01	07/05/11	SOIL	ARSENIC
070511-56-AS-10	G066-02	07/05/11	SOIL	ARSENIC
070511-58-AS-5	G066-03	07/05/11	SOIL	ARSENIC
070511-58-AS-10	G066-04	07/05/11	SOIL	ARSENIC
070611-50-AS-5	G066-05	07/06/11	SOIL	ARSENIC
070611-53-AS-10	G066-06	07/06/11	SOIL	ARSENIC
070611-52-AS-20	G066-07	07/06/11	SOIL	ARSENIC

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

for

Caspar J. Pang
Laboratory Director

EMAX certifies that the results included in this report meets all NELAC & DOD requirements unless noted in the Case Narrative.

NELAC Accredited Certificate Number 02116CA
L-A-B Accredited Certificate Number L2278 Testing

TT. 1115

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: See BOB Masetter
SAMPLE STORAGE
EMAX CONTROL NO. * 11G066
PROJECT CODE:

CLIENT: CALICO SOLAR (CK ROAD SOLAR)
PROJECT: CALICO, CA
COORDINATOR: Keith Heffelfinger
TEL: 480-353-0982 FAX: EMAIL: Keith@Kroadpower.com
SEND REPORT TO: Keith Heffelfinger
COMPANY: CALICO - KRUAD
ADDRESS: 15550 S. 5th Ave #121
Phoenix, AZ 85045
EMAX PM:

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

ANALYSIS REQUIRED: ARSENIC (TOTAL METALS)

TAT:
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☒ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____days
- ☐

LAB	SAMPLE ID / CLIENT	LOCATION	DATE	TIME	CONTAINER NO.	CONTAINER SIZE	CONTAINER TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	COMMENTS
1	070511-56-AS-5	B-56	7/5/11	11:40A	2	4oz	Glass	SS		X	
2	070511-56-AS-10	B-56		11:51				SS		X	
3	070511-58-AS-5	B-58		14:36				SS		X	
4	070511-58-AS-10	B-58		14:55				SS		X	
5											
6	070611-50-AS-5	B-50	7-6-11	7:25	2	4oz	Glass	SS		X	
7	070611-53-AS-10	B-53	7-6-11	8:35				SS		X	
8	070611-52-AS-20	B-52	7-6-11	10:20				SS		X	
9											
10											

Instructions
Analyze FOR TOTAL metals - Arsenic ONLY
email Results: Keith@Kroadpower.com
Send hard copy Results to: Keith Heffelfinger 15550 S. 5th Ave #121 Phoenix, AZ 85045

Cooler #	Temp. (°C)	Sample #s
1	Room Temp	

SAMPLER
COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
	7/8/11	11:10	
	7/8/11	12:45	FedEx 797285015065
	7/11/11	11:30	

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 11G066
☐ EMAX Courier		Recepient I Patel
☐ Client Delivery		Date 7-11-11
☑ Third Party Fed-ex	7972 8501 5065	Time 11:30 A

COC Inspection

☑ Client Name	☐ Client PM/FC	NO ☐ Sampler Name	☑ Sampling Date/Time/Location	☑ Sample ID	☐ Matrix
☐ Address	☑ Tel # / Fax #	☐ Courier Signature	☑ Analysis Required	☐ Preservative (if any)	☐ PAT
Safety Issues	☑ None	☐ High concentrations expected	☐ Superfund Site samples	☐ Rad screening required	

Comments:

Packaging Inspection

Container	☑ Cooler	☑ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☐ Bubble Pack	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☑ BOX
Temperatures (Cool, ≤6 °C but not frozen)	☑ Cooler 1 RT °C	☐ Cooler 2_____ °C	☐ Cooler 3_____ °C	☐ Cooler 4_____ °C	☐ Cooler 5_____ °C
	☐ Cooler 6_____ °C	☐ Cooler 7_____ °C	☐ Cooler 8_____ °C	☐ Cooler 9_____ °C	☐ Cooler 10_____ °C

Thermometer: *A - S/N 101541371* *B - S/N 101541382*

Comments: ☐ **PM was informed on non-compliant coolers immediately.**

Note: **pH holding time requirement is 15 mins. Samples for pH analysis are received beyond 15 minutes from sampling time.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code
03	006	ID: 070511-SB-10	B3	R5, R6
		Time 14:36		
		Date 7/5/11		

REVIEWS

Sample Labeling [signature] Date 7-11-11

SRF [signature] Date 7-11-11

PM RK Date 7/11/11

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
A4	_____
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
B4	_____
C1	Wrong container
C2	Broken container
C3	Leaking container
C4	_____

Code	Description-Sample Management
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label
E1	Insuficient preservative
E2	Improper preservation
F1	Insufficient Sample
F2	Bubble is> 6mm
G1	Temperature is out of range
G2	Out of Holding Time
G3	>20 % solid particle
H1	_____
H2	_____

Code	Description-Project Management
R1	Hold sample(s), wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	Inform client
R6	proceed w/analysis using properly labeled container

From: (602) 682-3300
Scott Estergard
TetraTech
4801 E Washington St
Suite 260
Phoenix, AZ 85034

Origin ID: INWA

FedEx Express

J112011042302251

Ship Date: 08JUL11
ActWgt: 26.0 LB
CAD: 1002735161INET3180

Dims: 26 X 14 X 15 IN

Delivery Address Bar Code

Ref # 100-SWW-727803
Invoice #
PO #
Dept #

11 GT066
7-11-11
11:30 Am

SHIP TO: (310) 618-8889 X 117

BILL SENDER

Rina Kato
EMAX Laboratories, Inc.
1835 W 205TH ST

TORRANCE, CA 90501

TRK# 7972 8501 5065
0201

MON - 11 JUL A1
STANDARD OVERNIGHT
ASR
90501
CA-US
LAX

QZ AVXA

50FG2/F556/F5F4

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH EC, INC.

CALICO

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

SDG#: 11G066

7000

CASE NARRATIVE

Client : TETRA TECH EC, INC.

Project : CALICO

SDG : 11G066

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

A total of seven (7) soil samples were received on 07/11/11 for Arsenic analysis, Method 3050B/6010B in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Initial Calibration was established as prescribed by the method and was verified using a secondary source. Interference checks were performed and results were within required limits. Continuing calibration verifications and continuing calibration blanks were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for IPG021SL/C were all within QC limits.

Matrix QC Sample
No matrix QC sample was designated for this SDG. Analytical spike and serial dilution were analyzed for matrix interference evaluation. Results were within method acceptance criteria.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
ARSENIC BY TRACE ICP

Client : TETRA TECH EC, INC.
Project : CALICO

SDG NO. : 11G066
Instrument ID : T-ID8

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPG021SB	1	NA	07/13/1119:21	07/13/1111:45	ID8G008098	ID8G008096	IPG021S	Method Blank
LCS1S	IPG021SL	1	NA	07/13/1119:24	07/13/1111:45	ID8G008099	ID8G008096	IPG021S	Lab Control Sample (LCS)
LCD1S	IPG021SC	1	NA	07/13/1119:27	07/13/1111:45	ID8G008100	ID8G008096	IPG021S	LCS Duplicate
129178-50-0003AS	G038-01A	0.943	6.5	07/13/1119:30	07/13/1111:45	ID8G008101	ID8G008096	IPG021S	Analytical Spike Sample
129178-50-0003	G038-01	0.943	6.5	07/13/1119:32	07/13/1111:45	ID8G008102	ID8G008096	IPG021S	Field Sample
129178-50-0003DL	G038-01J	4.72	6.5	07/13/1119:35	07/13/1111:45	ID8G008103	ID8G008096	IPG021S	Diluted Sample
070511-56-AS-5	G066-01R	0.971	3.1	07/13/1119:55	07/13/1111:45	ID8G008110	ID8G008108	IPG021S	Field Sample
070511-56-AS-10	G066-02R	0.962	3.3	07/13/1119:58	07/13/1111:45	ID8G008111	ID8G008108	IPG021S	Field Sample
070511-58-AS-5	G066-03R	0.980	3.3	07/13/1120:01	07/13/1111:45	ID8G008112	ID8G008108	IPG021S	Field Sample
070511-58-AS-10	G066-04R	0.943	3.8	07/13/1120:04	07/13/1111:45	ID8G008113	ID8G008108	IPG021S	Field Sample
070611-50-AS-5	G066-05R	0.990	3.7	07/13/1120:07	07/13/1111:45	ID8G008114	ID8G008108	IPG021S	Field Sample
070611-53-AS-10	G066-06R	0.971	2.9	07/13/1120:10	07/13/1111:45	ID8G008115	ID8G008108	IPG021S	Field Sample
070611-52-AS-20	G066-07R	0.926	4.4	07/13/1120:13	07/13/1111:45	ID8G008116	ID8G008108	IPG021S	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/05/11 11:40
Project	: CALICO	Date Received:	07/11/11
SDG NO.	: 11G066	Date Extracted:	07/13/11 11:45
Sample ID:	070511-56-AS-5	Date Analyzed:	07/13/11 19:55
Lab Samp ID:	G066-01R	Dilution Factor:	0.971
Lab File ID:	ID8G008110	Matrix :	SOIL
Ext Btch ID:	IPG021S	% Moisture :	3.1
Calib. Ref.:	ID8G008108	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	3.99	1.00	0.401

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/05/11 11:51
Project	: CALICO	Date Received:	07/11/11
SDG NO.	: 11G066	Date Extracted:	07/13/11 11:45
Sample ID:	070511-56-AS-10	Date Analyzed:	07/13/11 19:58
Lab Samp ID:	G066-02R	Dilution Factor:	0.962
Lab File ID:	ID8G008111	Matrix :	SOIL
Ext Btch ID:	IPG021S	% Moisture :	3.3
Calib. Ref.:	ID8G008108	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	4.31	0.995	0.398

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/05/11 14:36
Project	: CALICO	Date Received:	07/11/11
SDG NO.	: 11G066	Date Extracted:	07/13/11 11:45
Sample ID:	070511-58-AS-5	Date Analyzed:	07/13/11 20:01
Lab Samp ID:	G066-03R	Dilution Factor:	0.980
Lab File ID:	ID8G008112	Matrix :	SOIL
Ext Btch ID:	IPG021S	% Moisture :	3.3
Calib. Ref.:	ID8G008108	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	5.11	1.01	0.405

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/05/11 14:55
Project	: CALICO	Date Received:	07/11/11
SDG NO.	: 11G066	Date Extracted:	07/13/11 11:45
Sample ID:	070511-58-AS-10	Date Analyzed:	07/13/11 20:04
Lab Samp ID:	G066-04R	Dilution Factor:	0.943
Lab File ID:	ID8G008113	Matrix :	SOIL
Ext Btch ID:	IPG021S	% Moisture :	3.8
Calib. Ref.:	ID8G008108	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	13.2	0.980	0.392

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/06/11 07:25
Project	: CALICO	Date Received:	07/11/11
SDG NO.	: 11G066	Date Extracted:	07/13/11 11:45
Sample ID:	070611-50-AS-5	Date Analyzed:	07/13/11 20:07
Lab Samp ID:	G066-05R	Dilution Factor:	0.990
Lab File ID:	ID8G008114	Matrix :	SOIL
Ext Btch ID:	IPG021S	% Moisture :	3.7
Calib. Ref.:	ID8G008108	*Instrument ID* :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	9.84	1.03	0.411

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/06/11 08:35
Project	: CALICO	Date Received:	07/11/11
SDG NO.	: 11G066	Date Extracted:	07/13/11 11:45
Sample ID:	070611-53-AS-10	Date Analyzed:	07/13/11 20:10
Lab Samp ID:	G066-06R	Dilution Factor:	0.971
Lab File ID:	ID8G008115	Matrix :	SOIL
Ext Btch ID:	IPG021S	% Moisture :	2.9
Calib. Ref.:	ID8G008108	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	8.97	1.00	0.400

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/06/11 10:20
Project	: CALICO	Date Received:	07/11/11
SDG NO.	: 11G066	Date Extracted:	07/13/11 11:45
Sample ID:	070611-52-AS-20	Date Analyzed:	07/13/11 20:13
Lab Samp ID:	G066-07R	Dilution Factor:	0.926
Lab File ID:	ID8G008116	Matrix :	SOIL
Ext Btch ID:	IPG021S	% Moisture :	4.4
Calib. Ref.:	ID8G008108	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	8.51	0.969	0.387

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	NA
Project	: CALICO	Date Received:	07/13/11
SDG NO.	: 11G066	Date Extracted:	07/13/11 11:45
Sample ID:	MBLK1S	Date Analyzed:	07/13/11 19:21
Lab Samp ID:	IPG021SB	Dilution Factor:	1
Lab File ID:	ID8G008098	Matrix :	SOIL
Ext Btch ID:	IPG021S	% Moisture :	NA
Calib. Ref.:	ID8G008096	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	ND	1.00	0.400

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH EC, INC.
PROJECT: CALICO
SDG NO.: 11G066
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPG021SB	IPG021SL	IPG021SC		
LAB FILE ID:	ID8G008098	ID8G008099	ID8G008100		
DATIME EXTRCTD:	07/13/1111:45	07/13/1111:45	07/13/1111:45	DATE COLLECTED:	NA
DATIME ANALYZD:	07/13/1119:21	07/13/1119:24	07/13/1119:27	DATE RECEIVED:	07/13/11
PREP. BATCH:	IPG021S	IPG021S	IPG021S		
CALIB. REF:	ID8G008096	ID8G008096	ID8G008096		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Arsenic	ND	50	51.2	102	50	50.9	102	1	80-120	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: TETRA TECH EC, INC.
PROJECT: CALICO
BATCH NO.: 11G066
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	6.5
DILUTION FACTOR:	0.943	4.72		
SAMPLE ID:	129178-50-0003	129178-50-0003DL		
EMAX SAMP ID:	G038-01	G038-01J		
LAB FILE ID:	ID8G008102	ID8G008103		
DATE EXTRACTED:	07/13/1111:45	07/13/1111:45	DATE COLLECTED:	07/06/11 13:30
DATE ANALYZED:	07/13/1119:32	07/13/1119:35	DATE RECEIVED:	07/07/11
PREP. BATCH:	IPG021S	IPG021S		
CALIB. REF:	ID8G008096	ID8G008096		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Arsenic	1.85	ND	NA	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: TETRA TECH EC, INC.
PROJECT: CALICO
SDG NO.: 11G066
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: 6.5
DILTN FACTR: 0.943 0.943
SAMPLE ID: 129178-50-0003
CONTROL NO.: G038-01 G038-01A
LAB FILE ID: ID8G008102 ID8G008101
DATIME EXTRCTD: 07/13/1111:45 07/13/1111:45 DATE COLLECTED: 07/06/11 13:30
DATIME ANALYZD: 07/13/1119:32 07/13/1119:30 DATE RECEIVED: 07/07/11
PREP. BATCH: IPG021S IPG021S
CALIB. REF: ID8G008096 ID8G008096

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Arsenic	1.85	50.4	53.4	102	75-125

Attachment 2

TABLE OF CONTENTS

CLIENT: **TETRA TECH EC, INC**

PROJECT: **CALICO**

SDG: **11G119**

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 08-01-2011
EMAX Batch No.: 11G119

Attn: Lisa Bienkowski

Tetra Tech EC, Inc
17885 Von Karman Ave., #500
Irvine, CA 92614

Subject: *Laboratory Report*
Project: Calico

Enclosed is the Laboratory report for samples received on 07/19/11.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
1A	G119-01	07/11/11	SOIL	ARSENIC
1B	G119-02	07/11/11	SOIL	ARSENIC
2A	G119-03	07/12/11	SOIL	ARSENIC
2B	G119-04	07/12/11	SOIL	ARSENIC
3A	G119-05	07/11/11	SOIL	ARSENIC
3B	G119-06	07/11/11	SOIL	ARSENIC
4A	G119-07	07/11/11	SOIL	ARSENIC
4B	G119-08	07/11/11	SOIL	ARSENIC
5A	G119-09	07/12/11	SOIL	ARSENIC
5B	G119-10	07/12/11	SOIL	ARSENIC
6A	G119-11	07/11/11	SOIL	ARSENIC
6B	G119-12	07/11/11	SOIL	ARSENIC
7A	G119-13	07/12/11	SOIL	ARSENIC
7B	G119-14	07/12/11	SOIL	ARSENIC
8A	G119-15	07/11/11	SOIL	ARSENIC
8B	G119-16	07/11/11	SOIL	ARSENIC
9A	G119-17	07/12/11	SOIL	ARSENIC
9B	G119-18	07/12/11	SOIL	ARSENIC
10A	G119-19	07/12/11	SOIL	ARSENIC

Sample ID	Control #	Col Date	Matrix	Analysis
10B	G119-20	07/12/11	SOIL	ARSENIC

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Caspar J. Pang
Laboratory Director

EMAX certifies that the results included in this report meets all NELAC & DOD requirements unless noted in the Case Narrative.

NELAC Accredited Certificate Number 02116CA
L-A-B Accredited Certificate Number L2278 Testing

TT-1115-

TETRATECH
1230 Columbia Street, Suite 750
San Diego, CA 92101 (619) 234-8696

NUMBER 32457

CHAIN-OF-CUSTODY RECORD

PROJECT NAME	
PROJECT LOCATION	CALICO
SAMPLER NAME	D. ALMANZA
PROJECT CONTACT	~~S. Sudoko~~ Bob Mossetter
PURCHASE ORDER NO.	106-8077.01
PROJECT NO.	7949823367 94
AIRBILL NUMBER	970 2239600
PROJECT CONTACT PHONE NUMBER	~~949 809 5022~~
LABORATORY NAME	EMAX
LABORATORY ID (FOR LABORATORY)	11G119

	SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	ANALYSES REQUIRED: ARSENIC	COMMENTS
1	1A	7/11/11	1350	1	X		S	5	X	
2	1B	7/11/11	1351	1	X		S	5	X	
3	2A	7/12/11	1130	2	X		S	5	X	
4	2B	7/12/11	1140	2	X		S	5	X	
5	3A	7/11/11	1158	1	X		S	5	X	
6	3B	7/11/11	1256	1	X		S	5	X	
7	4A	7/11/11	1308	1	X		S	5	X	
8	4B	7/11/11	1327	1	X		S	5	X	
9	5A	7/12/11	1223	2	X		S	5	X	
10	5B	7/12/11	1228	2	X		S	5	X	

RELINQUISHED BY (Signature)	DATE 7-13-11	RECEIVED BY (Signature)	LABORATORY INSTRUCTIONS/COMMENTS
COMPANY	TIME 0915	COMPANY EMAX	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	COMPOSITE DESCRIPTION
COMPANY	TIME	COMPANY	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
COMPANY	TIME	COMPANY	TEMPERATURE: RT SAMPLE CONDITION: ☑ INTACT ☐ BROK COOLER SEAL: ☑ INTACT ☐ BROKEN

1002

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

TETRATECH
1230 Columbia Street, Suite 750
San Diego, CA 92101 (619) 234-8696

NUMBER 32458

CHAIN-OF-CUSTODY RECORD

PROJECT NAME	PURCHASE ORDER NO.	ANALYSES REQUIRED	LABORATORY NAME
			EMAX
PROJECT LOCATION: CALICO	PROJECT NO.: 106-8077.01		
SAMPLER NAME: D. ALMANZA	AIRBILL NUMBER: ~~770 223~~ 794982336744 (770 223 9600)		LABORATORY ID (FOR LABORATORY): 11G119
PROJECT CONTACT: ~~Bob Musselter~~ S. Sudduth	PROJECT CONTACT PHONE NUMBER: (424) 800-5022		

	SAMPLE ID	DATE COLLECTED	TIME COLLECTED	NO. OF CONTAINER	LEVEL 3	LEVEL 4	TYPE	TAT	ARSENIC	COMMENTS
11	6A	7/11/11	1452	2	X		S	5	X	
12	6B	7/11/11	1510	2	X		S	5	X	
13	7A	7/12/11	0708	2	X		S	5	X	
14	7B	7/12/11	0716	2	X		S	5	X	
15	8A	7/11/11	1040	1	X		S	5	X	
16	8B	7/11/11	1052	1	X		S	5	X	
17	9A	7/12/11	1000	2	X		S	5	X	
18	9B	7/12/11	1009	2	X		S	5	X	
19	10A	7/12/11	0825	2	X		S	5	X	
20	10B	7/12/11	0834	2	X		S	5	X	

RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	LABORATORY INSTRUCTIONS/COMMENTS
COMPANY	TIME 0915	COMPANY EMAX	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	COMPOSITE DESCRIPTION
COMPANY	TIME	COMPANY	
RELINQUISHED BY (Signature)	DATE	RECEIVED BY (Signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
COMPANY	TIME	COMPANY	TEMPERATURE: R1 SAMPLE CONDITION: ☐ INTACT ☐ BROI COOLER SEAL: ☐ INTACT ☐ BROKEN

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

1002A

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 11G119
☐ EMAX Courier		Recepient I PATEL
☐ Client Delivery		Date 7-19-11
☑ Third Party Fedex	7949 8233 6794	Time 0915

COC Inspection

☑ Client Name	☑ Client PM/FC	☑ Sampler Name	☑ Sampling Date/Time/Location	☑ Sample ID	☑ Matrix
☑ Address	☑ Tel # / Fax #	☐ Courier Signature	☑ Analysis Required	☐ Preservative (if any)	☑ TAT
Safety Issues	☑ None	☐ High concentrations expected	☐ Superfund Site samples	☐ Rad screening required	

Comments: COC Not Relinquished.

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☑ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☐ _____
Temperatures (Cool, ≤6 °C but not frozen)	☑ Cooler 1 4.1 °C	☐ Cooler 2_____ °C	☐ Cooler 3_____ °C	☐ Cooler 4_____ °C	☐ Cooler 5_____ °C
	☐ Cooler 6_____ °C	☐ Cooler 7_____ °C	☐ Cooler 8_____ °C	☐ Cooler 9_____ °C	☐ Cooler 10_____ °C
Thermometer:	*A - S/N 101541371*	*B - S/N 101541382*			

Comments: ☐ **PM was informed on non-compliant coolers immediately.**

Note: **pH holding time requirement is 15 mins. Samples for pH analysis are received beyond 15 minutes from sampling time.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling [signature] Date 7-19-11

SRF [signature] Date 7/19/11

PM RK Date 7/19/11

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
A4	_____
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
B4	_____
C1	Wrong container
C2	Broken container
C3	Leaking container
C4	_____

Code	Description-Sample Management
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label
E1	Insuficient preservative
E2	Improper preservation
F1	Insufficient Sample
F2	Bubble is> 6mm
G1	Temperature is out of range
G2	Out of Holding Time
G3	>20 % solid particle
H1	_____
H2	_____

Code	Description-Project Management
R1	*Hold sample(s); wait for further instructions*
R2	Proceed as indicated in COC
R3	Refer to *attached instruction*
R4	Cancel the analysis
R5	_____
R6	_____

1003

From: (619) 234-8696
Diego Almanza
Tetra Tech EC, Inc
1230 COLUMBIA ST
SUITE 750
SAN DIEGO, CA 92101

Origin ID: SDMA

FedEx Express

J1120110429022S

Ship Date: 18JUL11
ActWgt: 50.0 LB
CAD: 103060046/INET3180

Dims: 12 X 12 X 18 IN

Delivery Address Bar Code

Ref # 106-8077.01
Invoice #
PO #
Dept #

11 G119
7-19-11
0915

SHIP TO: (310) 618-8889

BILL SENDER

Sample Receiving
EMAX Laboratories
1835 W 205TH ST

TORRANCE, CA 90501

TUE - 19 JUL A1
PRIORITY OVERNIGHT

TRK# 7949 8233 6794
0201

90501
CA-US
LAX

QZ AVXA

50FG2/F556/F5F4

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic valueof the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Rina Kato

From: Rina Kato

Sent: Tuesday, July 19, 2011 3:14 PM

To: 'Bienkowski, Lisa'

Subject: Logins for SDG 11G119, Calico

Lisa,

Attached are the login documents for samples received this morning 7/19. Please note that the COC was not properly signed off on when samples were relinquished. Please review the attached and let me know if any changes/corrections are necessary.

Thanks,

Rina

Rina Kato
Project Manager
EMAX Laboratories, Inc.
1835 W 205th St.
Torrance, CA 90501
Phone: (310) 618-8889 x117
E-mail: rkato@emaxlabs.com

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH EC, INC.

CALICO

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

SDG#: 11G119

CASE NARRATIVE

Client : TETRA TECH EC, INC.

Project : CALICO

SDG : 11G119

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

A total of twenty (20) soil samples were received on 07/19/11 for Arsenic analysis, Method 3050B/6010B in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Initial Calibration was established as prescribed by the method and was verified using a secondary source. Interference checks were performed and results were within required limits. Continuing calibration verifications and continuing calibration blanks were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for IPG055SL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recoveries for G119-01M/S were within project QC limits.
In addition, analytical spike and serial dilution were analyzed for matrix interference evaluation. Results were within method acceptance criteria.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
ARSENIC BY TRACE ICP

Client : TETRA TECH EC, INC.
Project : CALICO

SDG NO. : 11G119
Instrument ID : T-ID8

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPG055SB	1	NA	07/28/1121:29	07/27/1111:57	ID8G023054	ID8G023052	IPG055S	Method Blank
LCS1S	IPG055SL	1	NA	07/28/1121:32	07/27/1111:57	ID8G023055	ID8G023052	IPG055S	Lab Control Sample (LCS)
LCD1S	IPG055SC	1	NA	07/28/1121:35	07/27/1111:57	ID8G023056	ID8G023052	IPG055S	LCS Duplicate
1AAS	G119-01A	0.926	2.2	07/28/1121:37	07/27/1111:57	ID8G023057	ID8G023052	IPG055S	Analytical Spike Sample
1A	G119-01	0.926	2.2	07/28/1121:40	07/27/1111:57	ID8G023058	ID8G023052	IPG055S	Field Sample
1ADL	G119-01J	4.63	2.2	07/28/1121:43	07/27/1111:57	IDBG023059	ID8G023052	IPG055S	Diluted Sample
1AMS	G119-01M	0.943	2.2	07/28/1121:45	07/27/1111:57	ID8G023060	ID8G023052	IPG055S	Matrix Spike Sample (MS)
1AMSD	G119-01S	0.926	2.2	07/28/1121:48	07/27/1111:57	ID8G023061	ID8G023052	IPG055S	MS Duplicate (MSD)
1B	G119-02	0.917	2.7	07/28/1121:51	07/27/1111:57	ID8G023062	ID8G023052	IPG055S	Field Sample
2A	G119-03	0.971	2.0	07/28/1122:02	07/27/1111:57	ID8G023066	ID8G023064	IPG055S	Field Sample
2B	G119-04W	0.917	7.6	07/29/1113:30	07/27/1111:57	ID8G024027	ID8G024020	IPG055S	Field Sample
3A	G119-05	0.962	0.7	07/28/1122:08	07/27/1111:57	ID8G023068	ID8G023064	IPG055S	Field Sample
3B	G119-06	0.971	0.8	07/28/1122:11	07/27/1111:57	ID8G023069	ID8G023064	IPG055S	Field Sample
4A	G119-07	0.962	2.3	07/28/1122:14	07/27/1111:57	ID8G023070	ID8G023064	IPG055S	Field Sample
4B	G119-08	0.926	1.1	07/28/1122:17	07/27/1111:57	ID8G023071	ID8G023064	IPG055S	Field Sample
5A	G119-09	0.926	1.1	07/28/1122:19	07/27/1111:57	ID8G023072	ID8G023064	IPG055S	Field Sample
5B	G119-10	0.980	14.0	07/28/1122:22	07/27/1111:57	ID8G023073	ID8G023064	IPG055S	Field Sample
6A	G119-11	0.943	0.5	07/28/1122:25	07/27/1111:57	ID8G023074	ID8G023064	IPG055S	Field Sample
6B	G119-12	0.990	0.9	07/28/1122:37	07/27/1111:57	ID8G023078	ID8G023076	IPG055S	Field Sample
7A	G119-13	0.980	1.1	07/28/1122:39	07/27/1111:57	ID8G023079	ID8G023076	IPG055S	Field Sample
7B	G119-14	0.980	2.2	07/28/1122:42	07/27/1111:57	ID8G023080	ID8G023076	IPG055S	Field Sample
8A	G119-15	0.926	0.5	07/28/1122:45	07/27/1111:57	ID8G023081	ID8G023076	IPG055S	Field Sample
8B	G119-16	0.952	1.2	07/28/1122:48	07/27/1111:57	ID8G023082	ID8G023076	IPG055S	Field Sample
9A	G119-17	0.962	0.4	07/28/1122:51	07/27/1111:57	ID8G023083	ID8G023076	IPG055S	Field Sample
9B	G119-18	0.952	1.7	07/28/1122:53	07/27/1111:57	ID8G023084	ID8G023076	IPG055S	Field Sample
10A	G119-19	0.926	1.1	07/28/1122:56	07/27/1111:57	ID8G023085	ID8G023076	IPG055S	Field Sample
10B	G119-20	0.943	1.5	07/28/1122:59	07/27/1111:57	ID8G023086	ID8G023076	IPG055S	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected	: 07/11/11 13:50
Project	: CALICO	Date Received	: 07/19/11
SDG NO.	: 11G119	Date Extracted	: 07/27/11 11:57
Sample ID	: 1A	Date Analyzed	: 07/28/11 21:40
Lab Samp ID	: G119-01	Dilution Factor	: 0.926
Lab File ID	: ID8G023058	Matrix	: SOIL
Ext Btch ID	: IPG055S	% Moisture	: 2.2
Calib. Ref.	: I08G023052	Instrument ID	: EMAXTIDB

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	2.71	0.947	0.379

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC. INC.	Date Collected:	07/11/11 13:51
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	1B	Date Analyzed:	07/28/11 21:51
Lab Samp ID:	G119-02	Dilution Factor:	0.917
Lab File ID:	ID8G023062	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	2.7
Calib. Ref.:	ID8G023052	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	3.04	0.942	0.377

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/12/11 11:30
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	2A	Date Analyzed:	07/28/11 22:02
Lab Samp ID:	G119-03	Dilution Factor:	0.971
Lab File ID:	ID8G023066	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	2.0
Calib. Ref.:	ID8G023064	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	3.58	0.991	0.396

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/12/11 11:40
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	2B	Date Analyzed:	07/29/11 13:30
Lab Samp ID:	G119-04W	Dilution Factor:	0.917
Lab File ID:	ID8G024027	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	7.6
Calib. Ref.:	ID8G024020	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	13.9	0.992	0.397

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/11/11 11:58
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	3A	Date Analyzed:	07/28/11 22:08
Lab Samp ID:	G119-05	Dilution Factor:	0.962
Lab File ID:	ID8G023068	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	0.7
Calib. Ref.:	ID8G023064	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	4.23	0.969	0.388

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/11/11 12:56
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: I1G119	Date Extracted:	07/27/11 11:57
Sample ID:	3B	Date Analyzed:	07/28/11 22:11
Lab Samp ID:	G119-06	Dilution Factor:	0.971
Lab File ID:	IDBG023069	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	0.8
Calib. Ref.:	ID8G023064	Instrument ID :	EMAXTI08

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	4.59	0.979	0.392

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/11/11 13:08
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	4A	Date Analyzed:	07/28/11 22:14
Lab Samp ID:	G119-07	Dilution Factor:	0.962
Lab File ID:	ID8G023070	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	2.3
Calib. Ref.:	ID8G023064	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	3.87	0.985	0.394

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/11/11 13:27
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	48	Date Analyzed:	07/28/11 22:17
Lab Samp ID:	G119-08	Dilution Factor:	0.926
Lab File ID:	ID8G023071	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	1.1
Calib. Ref.:	ID8G023064	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	3.45	0.936	0.375

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/12/11 12:23
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	5A	Date Analyzed:	07/28/11 22:19
Lab Samp ID:	G119-09	Dilution Factor:	0.926
Lab File ID:	ID8G023072	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	1.1
Calib. Ref.:	ID8G023064	Instrument ID :	EMAXTI08

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	6.75	0.936	0.375

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/12/11 12:28
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	5B	Date Analyzed:	07/28/11 22:22
Lab Samp ID:	G119-10	Dilution Factor:	0.980
Lab File ID:	ID8G023073	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	14.0
Calib. Ref.:	ID8G023064	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	24.7	1.14	0.456

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/11/11 14:52
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	6A	Date Analyzed:	07/28/11 22:25
Lab Samp ID:	G119-11	Dilution Factor:	0.943
Lab File ID:	ID8G023074	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	0.5
Calib. Ref.:	ID8G023064	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	2.77	0.948	0.379

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/11/11 15:10
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	6B	Date Analyzed:	07/28/11 22:37
Lab Samp ID:	G119-12	Dilution Factor:	0.990
Lab File ID:	ID8G023078	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	0.9
Calib. Ref.:	ID8G023076	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	3.43	0.999	0.400

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected	: 07/12/11 07:08
Project	: CALICO	Date Received	: 07/19/11
SDG NO.	: 11G119	Date Extracted	: 07/27/11 11:57
Sample ID	: 7A	Date Analyzed	: 07/28/11 22:39
Lab Samp ID	: G119-13	Dilution Factor	: 0.980
Lab File ID	: ID8G023079	Matrix	: SOIL
Ext Btch ID	: IPG055S	% Moisture	: 1.1
Calib. Ref.	: ID8G023076	Instrument ID	: EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	3.75	0.991	0.396

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/12/11 07:16
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	7B	Date Analyzed:	07/28/11 22:42
Lab Samp ID:	G119-14	Dilution Factor:	0.980
Lab File ID:	ID8G023080	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	2.2
Calib. Ref.:	ID8G023076	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	3.63	1.00	0.401

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/11/11 10:40
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	8A	Date Analyzed:	07/28/11 22:45
Lab Samp ID:	G119-15	Dilution Factor:	0.926
Lab File ID:	ID8G023081	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	0.5
Calib. Ref.:	ID8G023076	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	4.73	0.931	0.372

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected	: 07/11/11 10:52
Project	: CALICO	Date Received	: 07/19/11
SDG NO.	: 11G119	Date Extracted	: 07/27/11 11:57
Sample ID	: 8B	Date Analyzed	: 07/28/11 22:48
Lab Samp ID	: G119-16	Dilution Factor	: 0.952
Lab File ID	: ID8G023082	Matrix	: SOIL
Ext Btch ID	: IPG055S	% Moisture	: 1.2
Calib. Ref.	: ID8G023076	Instrument ID	: EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	5.97	0.964	0.385

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/12/11 10:00
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	9A	Date Analyzed:	07/28/11 22:51
Lab Samp ID:	G119-17	Dilution Factor:	0.962
Lab File ID:	ID8G023083	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	0.4
Calib. Ref.:	ID8G023076	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	2.80	0.966	0.386

METHOD 30508/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected	: 07/12/11 10:09
Project	: CALICO	Date Received	: 07/19/11
SDG NO.	: 11G119	Date Extracted	: 07/27/11 11:57
Sample ID	: 9B	Date Analyzed	: 07/28/11 22:53
Lab Samp ID	: G119-18	Dilution Factor	: 0.952
Lab File ID	: ID8G023084	Matrix	: SOIL
Ext Btch ID	: IPG055S	% Moisture	: 1.7
Calib. Ref.	: ID8G023076	Instrument ID	: EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	2.80	0.968	0.387

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/12/11 08:25
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	10A	Date Analyzed:	07/28/11 22:56
Lab Samp ID:	G119-19	Dilution Factor:	0.926
Lab File ID:	ID8G023085	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	1.1
Calib. Ref.:	ID8G023076	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	2.90	0.936	0.375

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC. INC.	Date Collected:	07/12/11 08:34
Project	: CALICO	Date Received:	07/19/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	10B	Date Analyzed:	07/28/11 22:59
Lab Samp ID:	G119-20	Dilution Factor:	0.943
Lab File ID:	ID8G023086	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	1.5
Calib. Ref.:	ID8G023076	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	3.38	0.957	0.383

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	NA
Project	: CALICO	Date Received:	07/27/11
SDG NO.	: 11G119	Date Extracted:	07/27/11 11:57
Sample ID:	MBLK1S	Date Analyzed:	07/28/11 21:29
Lab Samp ID:	IPG055SB	Dilution Factor:	1
Lab File ID:	ID8G023054	Matrix :	SOIL
Ext Btch ID:	IPG055S	% Moisture :	NA
Calib. Ref.:	ID8G023052	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	ND	1.00	0.400

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH EC, INC.
PROJECT: CALICO
SDG NO.: 11G119
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1S
CONTROL NO.: IPG055SB IPG055SL IPG055SC
LAB FILE ID: ID8G023054 ID8G023055 ID8G023056
DATIME EXTRCTD: 07/27/1111:57 07/27/1111:57 07/27/1111:57 DATE COLLECTED: NA
DATIME ANALYZD: 07/28/1121:29 07/28/1121:32 07/28/1121:35 DATE RECEIVED: 07/27/11
PREP. BATCH: IPG055S IPG055S IPG055S
CALIB. REF: ID8G023052 ID8G023052 ID8G023052

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Arsenic	ND	50	51	102	50	50.5	101	1	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH EC, INC.
PROJECT: CALICO
SDG NO.: 11G119
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	2.2
DILTN FACTR:	0.926	0.943	0.926		
SAMPLE ID:	1A				
CONTROL NO.:	G119-01	G119-01M	G119-01S		
LAB FILE ID:	ID8G023058	ID8G023060	ID8G023061		
DATIME EXTRCTD:	07/27/1111:57	07/27/1111:57	07/27/1111:57	DATE COLLECTED:	07/11/11 13:50
DATIME ANALYZD:	07/28/1121:40	07/28/1121:45	07/28/1121:48	DATE RECEIVED:	07/19/11
PREP. BATCH:	IPG055S	IPG055S	IPG055S		
CALIB. REF:	ID8G023052	IDBG023052	ID8G023052		

ACCESSION:

PARAMETER	SMPL RSLT mg/kg	SPIKE AMT mg/kg	MS RSLT mg/kg	MS % REC	SPIKE AMT mg/kg	MSD RSLT mg/kg	MSD % REC	RPD %	QC LIMIT %	MAX RPD %
Arsenic	2.71	48.2	52.4	103	47.3	52.4	105	0	75-125	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: TETRA TECH EC, INC.
PROJECT: CALICO
BATCH NO.: 11G119
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	2.2
DILUTION FACTOR:	0.926	4.63		
SAMPLE ID:	1A	1ADL		
EMAX SAMP ID:	G119-01	G119-01J		
LAB FILE ID:	ID8G023058	ID8G023059		
DATE EXTRACTED:	07/27/1111:57	07/27/1111:57	DATE COLLECTED:	07/11/11 13:50
DATE ANALYZED:	07/28/1121:40	07/28/1121:43	DATE RECEIVED:	07/19/11
PREP. BATCH:	IPG055S	IPG055S		
CALIB. REF:	IDBG023052	ID8G023052		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Arsenic	2.71	3.28J	NA	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: TETRA TECH EC, INC.
PROJECT: CALICO
SDG NO.: 11G119
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	2.2
DILTN FACTR:	0.926	0.926		
SAMPLE ID:	1A			
CONTROL NO.:	G119-01	G119-01A		
LAB FILE ID:	ID8G023058	ID8G023057		
DATIME EXTRCTD:	07/27/1111:57	07/27/1111:57	DATE COLLECTED:	07/11/11 13:50
DATIME ANALYZD:	07/28/1121:40	07/28/1121:37	DATE RECEIVED:	07/19/11
PREP. BATCH:	IPG055S	IPG055S		
CALIB. REF:	ID8G023052	ID8G023052		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Arsenic	2.71	47.3	51.2	102	75-125

Attachment 3

TABLE OF CONTENTS

CLIENT: **TETRA TECH EC, INC**

PROJECT: **CALICO**

SDG: **11G188**

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 08-02-2011
EMAX Batch No.: 11G188

Attn: Lisa Bienkowski

Tetra Tech EC, Inc
17885 Von Karman Ave., #500
Irvine, CA 92614

Subject: Laboratory Report
Project: Calico

Enclosed is the Laboratory report for samples received on 07/27/11.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
072211-54-AS-5	G188-01	07/22/11	SOIL	ARSENIC
072211-54-AS-10	G188-02	07/22/11	SOIL	ARSENIC

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Caspar J. Pang
Laboratory Director

EMAX certifies that the results included in this report meets all NELAC & DOD requirements unless noted in the Case Narrative.

NELAC Accredited Certificate Number 02116CA
L-A-B Accredited Certificate Number L2278 Testing

TT-1115-

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: See Tetra Tech
SAMPLE STORAGE
EMAX CONTROL NO. * 11G188
PROJECT CODE:

CLIENT: KROAD SOLAR POWER, LLC
PROJECT: CALICO (c/o Tetra Tech)
COORDINATOR: BOB Mussetter / Roger Margotto
TEL. FAX EMAIL
SEND REPORT TO: BOB Mussetter / Roger Margotto
COMPANY: Tetra Tech
ADDRESS: Fort Collins, CO office
EMAX PM

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

ANALYSIS REQUIRED: Metals Total - Arsenic only

TAT:
- [X] Rush _____ hrs.
- [X] Rush 5 days
- [ ] 7 days
- [ ] 14 days
- [ ] 21 days
- [ ] 30 days
- [ ] _____ days
- [ ]

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	COMMENTS
1	072211-54-AS-5	B-54	7/22/11	16:50	1	8oz	Jar	SS		X	
2	072211-54-AS-10	B-54	7/22/11	17:35	1	8oz	Jar	SS		X	
3											
4											
5											
6											
7											
8											
9											
10											

Instructions: These are last (2) samples of Total (19) Arsenic samples collected at the CALICO project site. Make sure sample results are collated w/ other samples previously collected.

Cooler #: R.T
Temp. (°C):
Sample #s:

SAMPLER
COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
	7/25/11	12:00	
	7/27/11	0930	

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 11G188
☐ EMAX Courier		Recepient J-LUNA
☐ Client Delivery		Date 7-27-11
☑ Third Party UPS		Time 0930

COC Inspection

☑ Client Name	☑ Client PM/FC	☐ Sampler Name NO	☑ Sampling Date/Time/Location	☐ Sample ID	☑ Matrix
☑ Address	☑ Tel # / Fax #	☐ Courier Signature	☐ Analysis Required	☐ Preservative (if any)	☐ TAT
Safety Issues	☑ None	☐ High concentrations expected	☐ Superfund Site samples	☐ Rad screening required	

Comments:

Packaging Inspection

Container	☐ Cooler	* ☑ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☐ _____
Temperatures (Cool, ≤6 °C but not frozen)	☐ Cooler 1_____ °C	☐ Cooler 2_____ °C	☐ Cooler 3_____ °C	☐ Cooler 4_____ °C	☐ Cooler 5_____ °C
	☐ Cooler 6_____ °C	☐ Cooler 7_____ °C	☐ Cooler 8_____ °C	☐ Cooler 9_____ °C	☐ Cooler 10_____ °C

Thermometer: ***A - S/N 101541371*** ***B - S/N 101541382***

Comments: ☐ **PM was informed on non-compliant coolers immediately.**

Note: **pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time .**

* ROOM TEMP

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code
01, 02			D2	R2

REVIEWS

Sample Labeling _____ Date 7/27/11

SRF _____ Date 7/27/11

PM RK Date 7/27/11

LEGEND:

Code	Description- Sample Management	Code	Description-Sample Management	Code	Description-Project Management
A1	Analysis is not indicated in COC	D1	Date and/or time is not indicated in COC	R1	Hold sample(s); wait for further instructions
A2	Analysis is not indicated in label	D2	Date and/or time is not indicated in label	R2	Proceed as indicated in COC
A3	Analysis is inconsistent in COC vis-à-vis label	D3	Date and/or time is inconsistent in COC vis-à-vis label	R3	Refer to attached instruction
A4	_____	E1	Insuficient preservative	R4	Cancel the analysis
B1	Sample ID is not indicated in COC	E2	Improper preservation	R5	_____
B2	Sample ID is not indicated in label	F1	Insufficient Sample	R6	_____
B3	Sample ID is inconsistent in COC vis-à-vis label	F2	Bubble is> 6mm		
B4	_____	G1	Temperature is out of range		
C1	Wrong container	G2	Out of Holding Time		
C2	Broken container	G3	>20 % solid particle		
C3	Leaking container	H1	_____		
C4	_____	H2	_____		

22-5555
gso.com

11G188

MAILBOXES AND MORE
(480) 460-2108
1334 E. CHANDLER BLVD. STE. 5
PHOENIX AZ 85048

12 LBS

1 OF 1

DWT: 12,9,7

SHIP TO:
ATTN: METAL LAB
(310) 618-8889
E MAX LABS RE: CALICO/TETRA TECH
1835 W. 205TH ST.
TORRANCE CA 90501

CA 908 9-02

UPS 2ND DAY AIR 2

TRACKING #: 1Z A2V 309 02 5431 6312

BILLING: P/P

REF 1:PM PKG ID 958
REF 2:FROM KEITH HEFFELFINGER

WS 14.0.21 Zebra ZP 460 18.0A 07/2011

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REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH EC, INC.

CALICO

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

SDG#: 11G188

CASE NARRATIVE

Client : TETRA TECH EC, INC.

Project : CALICO

SDG : 11G188

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

A total of two (2) soil samples were received on 07/27/11 for Arsenic analysis, Method 3050B/6010B in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Initial Calibration was established as prescribed by the method and was verified using a secondary source. Interference checks were performed and results were within required limits. Continuing calibration verifications and continuing calibration blanks were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for IPG058SL/C were all within QC limits.

Matrix QC Sample
No matrix QC sample was designated for this SDG. Analytical spike and serial dilution were analyzed for matrix interference evaluation. Results were within method acceptance criteria.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
ARSENIC BY TRACE ICP

Client : TETRA TECH EC, INC.
Project : CALICO

SDG NO. : 11G188
Instrument ID : T-ID8

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPG058SB	1	NA	07/28/1123:11	07/28/1113:42	ID8G023090	ID8G023088	IPG058S	Method Blank
LCS1S	IPG058SL	1	NA	07/28/1123:14	07/28/1113:42	ID8G023091	ID8G023088	IPG058S	Lab Control Sample (LCS)
LCD1S	IPG058SC	1	NA	07/28/1123:16	07/28/1113:42	ID8G023092	ID8G023088	IPG058S	LCS Duplicate
WRA-B12-2-18AS	G162-08A	0.990	1.3	07/28/1123:19	07/28/1113:42	ID8G023093	ID8G023088	IPG058S	Analytical Spike Sample
WRA-B12-2-18	G162-08	0.990	1.3	07/28/1123:22	07/28/1113:42	ID8G023094	ID8G023088	IPG058S	Field Sample
WRA-B12-2-18DL	G162-08J	4.95	1.3	07/28/1123:25	07/28/1113:42	ID8G023095	ID8G023088	IPG058S	Diluted Sample
072211-54-AS-5	G188-01	0.980	3.9	07/29/1100:14	07/28/1113:42	ID8G023112	ID8G023110	IPG058S	Field Sample
072211-54-AS-10	G188-02	0.980	4.2	07/29/1100:17	07/28/1113:42	ID8G023113	ID8G023110	IPG058S	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/22/11 16:50
Project	: CALICO	Date Received:	07/27/11
SDG NO.	: 11G188	Date Extracted:	07/28/11 13:42
Sample ID:	072211-54-AS-5	Date Analyzed:	07/29/11 00:14
Lab Samp ID:	G188-01	Dilution Factor:	0.980
Lab File ID:	ID8G023112	Matrix :	SOIL
Ext Btch ID:	IPG058S	% Moisture :	3.9
Calib. Ref.:	ID8G023110	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	21.3	1.02	0.408

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	07/22/11 17:35
Project	: CALICO	Date Received:	07/27/11
SDG NO.	: 11G188	Date Extracted:	07/28/11 13:42
Sample ID:	072211-54-AS-10	Date Analyzed:	07/29/11 00:17
Lab Samp ID:	G188-02	Dilution Factor:	0.980
Lab File ID:	ID8G023113	Matrix :	SOIL
Ext Btch ID:	IPG058S	% Moisture :	4.2
Calib. Ref.:	ID8G023110	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	10.1	1.02	0.409

METHOD 3050B/6010B
ARSENIC BY TRACE ICP

Client	: TETRA TECH EC, INC.	Date Collected:	NA
Project	: CALICO	Date Received:	07/28/11
SDG NO.	: 11G188	Date Extracted:	07/28/11 13:42
Sample ID:	MBLK1S	Date Analyzed:	07/28/11 23:11
Lab Samp ID:	IPG058SB	Dilution Factor:	1
Lab File ID:	ID8G023090	Matrix :	SOIL
Ext Btch ID:	IPG058S	% Moisture :	NA
Calib. Ref.:	ID8G023088	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Arsenic	ND	1.00	0.400

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH EC, INC.
PROJECT: CALICO
SDG NO.: 11G188
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPG058SB	IPG058SL	IPG058SC		
LAB FILE ID:	ID8G023090	ID8G023091	ID8G023092		
DATIME EXTRCTD:	07/28/1113:42	07/28/1113:42	07/28/1113:42	DATE COLLECTED:	NA
DATIME ANALYZD:	07/28/1123:11	07/28/1123:14	07/28/1123:16	DATE RECEIVED:	07/28/11
PREP. BATCH:	IPG058S	IPG058S	IPG058S		
CALIB. REF:	ID8G023088	ID8G023088	ID8G023088		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Arsenic	ND	50	53.1	106	50	52.2	104	2	80-120	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: TETRA TECH EC, INC.
PROJECT: CALICO
BATCH NO.: 11G188
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	1.3
DILUTION FACTOR:	0.990	4.95		
SAMPLE ID:	WRA-B12-2-18	WRA-B12-2-18DL		
EMAX SAMP ID:	G162-08	G162-08J		
LAB FILE ID:	ID8G023094	ID8G023095		
DATE EXTRACTED:	07/28/1113:42	07/28/1113:42	DATE COLLECTED:	07/21/11 06:55
DATE ANALYZED:	07/28/1123:22	07/28/1123:25	DATE RECEIVED:	07/22/11
PREP. BATCH:	IPG058S	IPG058S		
CALIB. REF:	ID8G023088	ID8G023088		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Arsenic	4.48	3.98J	NA	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: TETRA TECH EC, INC.
PROJECT: CALICO
SDG NO.: 11G188
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	1.3
DILTN FACTR:	0.990	0.990		
SAMPLE ID:	WRA-B12-2-18			
CONTROL NO.:	G162-08	G162-08A		
LAB FILE ID:	ID8G023094	ID8G023093		
DATIME EXTRCTD:	07/28/1113:42	07/28/1113:42	DATE COLLECTED:	07/21/11 06:55
DATIME ANALYZD:	07/28/1123:22	07/28/1123:19	DATE RECEIVED:	07/22/11
PREP. BATCH:	IPG058S	IPG058S		
CALIB. REF:	ID8G023088	ID8G023088		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Arsenic	4.48	50.2	56.6	104	75-125

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

FOR THE CALICO SOLAR PROJECT AMENDMENT

Docket No. 08-AFC-13C
PROOF OF SERVICE
(Revised 6/7/2011)

APPLICANT
Calico Solar, LLC
Daniel J. O'Shea
Managing Director
2600 10th Street, Suite 635
Berkeley, CA 94710
dano@kroadpower.com

CONSULTANT
URS Corporation
Angela Leiba
AFC Project Manager
4225 Executive Square, #1600
La Jolla, CA 92037
angela_leiba@URSCorp.com

APPLICANT'S COUNSEL
Allan J. Thompson
Attorney at Law
21 C Orinda Way #314
Orinda, CA 94563
allanori@comcast.net

Bingham McCutchen, LLP
Ella Foley Gannon, Partner
Three Embarcadero Center
San Francisco, CA 94111
e-mail service preferred
ella.gannon@bingham.com

INTERVENORS
Society for the Conservation of Bighorn Sheep
Bob Burke, Gary Thomas
1980 East Main St., #50
Barstow, CA 92311
e-mail service preferred
cameracoordinator@sheepsociety.com

*indicates change

Basin and Range Watch
Laura Cunningham,
Kevin Emmerich
P.O. Box 70
Beatty, NV 89003
e-mail service preferred
atomictoadranch@netzero.net

California Unions for Reliable Energy (CURE)
c/o: Tanya A. Gulesserian,
Marc D. Joseph
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard,
Ste. 1000
South San Francisco, CA 94080
e-mail service preferred
tgulesserian@adamsbroadwell.com

Patrick C. Jackson
600 Darwood Avenue
San Dimas, CA 91773
e-mail service preferred
ochsjack@earthlink.net

Sierra Club
Gloria D. Smith,
Travis Ritchie
85 Second Street, Second floor
San Francisco, CA 94105
e-mail service preferred
gloria.smith@sierraclub.org
travis.ritchie@sierraclub.org

Newberry Community Service District
c/o Wayne W. Weierbach
P.O. Box 206
Newberry Springs, CA 92365
e-mail service preferred
newberryCSD@gmail.com

Defenders of Wildlife
Kim Delfino, California Program Director
1303 J Street, Suite 270
Sacramento, California 95814
e-mail service preferred
kdelfino@defenders.org

Defenders of Wildlife
Jeff Aardahl, California Representative
46600 Old State Highway, Unit 13
Gualala, California 95445
e-mail service preferred
jaardahl@defenders.org

BNSF Railroad
Cynthia Lea Burch,
Helen B. Kim,
Anne Alexander
Katten Muchin Rosenman LLP
2029 Century Park East, Suite 2700
Los Angeles, CA 90067-3012
cynthia.burch@kattenlaw.com
helen.kim@kattenlaw.com
anne.alexander@kattenlaw.com

County of San Bernardino
Jean-Rene Basle, County Counsel
Bart W. Brizzee, Principal Assistant County Counsel
385 N. Arrowhead Avenue, 4th Fl.
San Bernardino, CA 92415-0140
bbrizzee@cc.sbcounty.gov

INTERESTED AGENCIES/ENTITIES/PERSONS

California ISO
e-recipient@caiso.com

BLM – Nevada State Office
Jim Stobaugh
P.O. Box 12000
Reno, NV 89520
jim_stobaugh@blm.gov

Bureau of Land Management
Rich Rotte, Project Manager
Barstow Field Office
2601 Barstow Road
Barstow, CA 92311
richard_rotte@blm.gov

California Department of
Fish & Game
Becky Jones
36431 41st Street East
Palmdale, CA 93552
dfgpalm@adelphia.net

County of San Bernardino
Ruth E. Stringer,
County Counsel
385 N. Arrowhead Avenue, 4th Floor
San Bernardino, CA 92415

BNSF Railroad
Steven A. Lamb
Katten Muchin Rosenman LLP
2029 Century Park East, Suite 2700
Los Angeles, CA 90067-3012
steven.lamb@kattenlaw.com

*indicates change

ENERGY COMMISSION

KAREN DOUGLAS
Commissioner and Presiding Member
kldougla@energy.state.ca.us

Galen Lemei
Adviser to Commissioner Douglas
glemei@energy.state.ca.us

ROBERT B. WEISENMILLER
Chairman and Associate Member
rweisenm@energy.state.ca.us

Eileen Allen
Adviser to Chairman Weisenmiller
eallen@energy.state.ca.us

Kourtney Vaccaro
Hearing Officer
kvaccaro@energy.state.ca.us

Kerry Willis
Staff Counsel
e-mail service preferred
kwillis@energy.state.ca.us

Stephen Adams
Co-Staff Counsel
e-mail service preferred
sadams@energy.state.ca.us

Craig Hoffman
Project Manager
e-mail service preferred
choffman@energy.state.ca.us

Jennifer Jennings
Public Adviser
e-mail service preferred
publicadviser@energy.state.ca.us

*Caryn Holmes
e-mail service preferred
cholmes@energy.state.ca.us

DECLARATION OF SERVICE

I, Marsha Curtis, declare that on August 5, 2011, I served by U.S. mail and filed copies of the attached

Applicant's Response to Patrick C. Jackson Data Request Set 1 (No. 13)

dated August 5, 2011. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: **[www.energy.ca.gov/sitingcases/calicosolar/compliance/index.html]**.

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(*Check all that Apply*)

FOR SERVICE TO ALL OTHER PARTIES:

__X__ sent electronically to all email addresses on the Proof of Service list;

____ by personal delivery;

__X__ by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

__X__ delivering an original paper copy and sending one electronic copy by e-mail to the address below (***preferred method***);

OR

____ depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-13C
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.