

## Supplemental Report 1

August 18, 2009

Additional requested analyses are reported as a stand-alone report.

Mike Flack  
AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

<b>DOCKET</b>
<b>08-AFC-2</b>

DATE	08/18/09
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RECD.	08/20/09
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Subject: **CalScience Work Order No.: 09-08-0434**  
**Client Reference: Beacon Solar / 10056-014-400**

Dear Client:

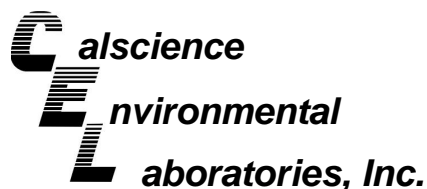
Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 8/6/2009 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

CalScience Environmental  
Laboratories, Inc.  
Vikas Patel  
Project Manager



## Analytical Report



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: 08/06/09  
Work Order No: 09-08-0434  
Preparation: EPA 3005A Filt.  
Method: EPA 6010B  
Units: mg/L

Project: Beacon Solar / 10056-014-400

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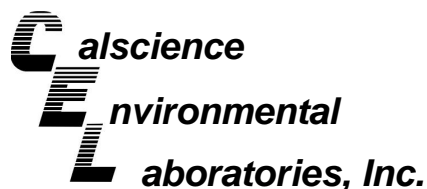
Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Arciero #33	09-08-0434-1-P	08/05/09 12:30	Aqueous	ICP 5300	08/11/09	08/13/09 12:35	090811LA3F

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aluminum	ND	0.0500	1		Potassium	12.4	0.500	1	
Calcium	206	0.100	1		Sodium	247	0.500	1	
Iron	ND	0.100	1		Strontium	0.937	0.0300	1	
Magnesium	25.9	0.100	1		Boron	6.82	0.0200	1	
Manganese	0.0669	0.00500	1		Silicon	22.0	0.0500	1	

Method Blank	097-01-003-9,635	N/A	Aqueous	ICP 5300	08/11/09	08/13/09 16:36	090811LA3F
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aluminum	ND	0.0500	1		Potassium	ND	0.500	1	
Calcium	ND	0.100	1		Sodium	ND	0.500	1	
Iron	ND	0.100	1		Strontium	ND	0.0300	1	
Magnesium	ND	0.100	1		Boron	ND	0.0200	1	
Manganese	ND	0.00500	1		Silicon	ND	0.0500	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: 08/06/09  
Work Order No: 09-08-0434  
Preparation: EPA 3010A Total  
Method: EPA 6010B  
Units: mg/L

Project: Beacon Solar / 10056-014-400

Page 2 of 2

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Arciero #33	09-08-0434-1-R	08/05/09 12:30	Aqueous	ICP 5300	08/11/09	08/13/09 12:38	090811LA3A

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aluminum	0.0724	0.0500	1		Potassium	13.1	0.500	1	
Calcium	204	0.100	1		Sodium	252	0.500	1	
Iron	15.1	0.100	1		Strontium	0.946	0.0300	1	
Magnesium	26.9	0.100	1		Boron	7.07	0.0200	1	
Manganese	0.219	0.00500	1		Silicon	24.6	0.0500	1	

Method Blank	097-01-003-9,631	N/A	Aqueous	ICP 5300	08/11/09	08/13/09 16:36	090811LA3A
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aluminum	ND	0.0500	1		Potassium	ND	0.500	1	
Calcium	ND	0.100	1		Sodium	ND	0.500	1	
Iron	ND	0.100	1		Strontium	ND	0.0300	1	
Magnesium	ND	0.100	1		Boron	ND	0.0200	1	
Manganese	ND	0.00500	1		Silicon	ND	0.0500	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

## Analytical Report



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: 08/06/09  
Work Order No: 09-08-0434  
Preparation: EPA 3005A Filt. / EPA 7470A Filt.  
Method: EPA 6020 / EPA 7470A  
Units: mg/L

Project: Beacon Solar / 10056-014-400

Page 1 of 2

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Arciero #33	09-08-0434-1-P	08/05/09 12:30	Aqueous	ICP/MS 03	08/11/09	08/14/09 14:17	090811L02F

Comment(s): -Mercury was analyzed on 8/10/2009 11:58:33 AM with batch 090807L05F

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.00100	1		Molybdenum	0.00195	0.00100	1	
Arsenic	ND	0.00100	1		Nickel	0.00209	0.00100	1	
Barium	0.0102	0.00100	1		Selenium	0.00491	0.00100	1	
Beryllium	ND	0.00100	1		Silver	ND	0.00100	1	
Cadmium	ND	0.00100	1		Thallium	ND	0.00100	1	
Chromium	0.00151	0.00100	1		Vanadium	ND	0.00100	1	
Cobalt	ND	0.00100	1		Zinc	ND	0.00500	1	
Copper	0.00104	0.00100	1		Lead	ND	0.00100	1	

Arciero #33	09-08-0434-1	08/05/09 12:30	Aqueous	Mercury	08/07/09	08/10/09 11:58	090807L05F
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Comment(s): -Mercury was analyzed on 8/11/2009 2:55:06 PM with batch 090810L07

Parameter	Result	RL	DF	Qual
Mercury	ND	0.000500	1	

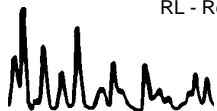
Method Blank	096-06-003-2,284	N/A	Aqueous	ICP/MS 03	08/11/09	08/11/09 20:30	090811L02F
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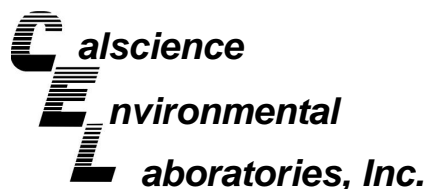
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.00100	1		Lead	ND	0.00100	1	
Arsenic	ND	0.00100	1		Molybdenum	ND	0.00100	1	
Barium	ND	0.00100	1		Nickel	ND	0.00100	1	
Beryllium	ND	0.00100	1		Selenium	ND	0.00100	1	
Cadmium	ND	0.00100	1		Silver	ND	0.00100	1	
Chromium	ND	0.00100	1		Thallium	ND	0.00100	1	
Cobalt	ND	0.00100	1		Vanadium	ND	0.00100	1	
Copper	ND	0.00100	1		Zinc	ND	0.00500	1	

Method Blank	099-04-008-4,260	N/A	Aqueous	Mercury	08/07/09	08/10/09 11:31	090807L05F
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Parameter	Result	RL	DF	Qual
Mercury	ND	0.000500	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





## Analytical Report



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: 08/06/09  
Work Order No: 09-08-0434  
Preparation: EPA 3020A Total / EPA 7470A Total  
Method: EPA 6020 / EPA 7470A  
Units: mg/L

Project: Beacon Solar / 10056-014-400

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Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Arciero #33	09-08-0434-1-Q	08/05/09 12:30	Aqueous	ICP/MS 03	08/11/09	08/14/09 14:20	090811L02

Comment(s): -Mercury was analyzed on 8/11/2009 2:55:06 PM with batch 090810L07

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.00100	1		Zinc	0.196	0.00500	1	
Arsenic	0.00160	0.00100	1		Mercury	ND	0.000500	1	
Barium	0.0520	0.00100	1		Molybdenum	0.00165	0.00100	1	
Beryllium	ND	0.00100	1		Nickel	0.00196	0.00100	1	
Cadmium	ND	0.00100	1		Selenium	0.00482	0.00100	1	
Chromium	0.00285	0.00100	1		Silver	ND	0.00100	1	
Cobalt	ND	0.00100	1		Thallium	ND	0.00100	1	
Copper	0.00307	0.00100	1		Vanadium	0.00201	0.00100	1	
Lead	0.00118	0.00100	1						

Method Blank	096-06-003-2,275	N/A	Aqueous	ICP/MS 03	08/11/09	08/11/09 20:33	090811L02
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.00100	1		Lead	ND	0.00100	1	
Arsenic	ND	0.00100	1		Molybdenum	ND	0.00100	1	
Barium	ND	0.00100	1		Nickel	ND	0.00100	1	
Beryllium	ND	0.00100	1		Selenium	ND	0.00100	1	
Cadmium	ND	0.00100	1		Silver	ND	0.00100	1	
Chromium	ND	0.00100	1		Thallium	ND	0.00100	1	
Cobalt	ND	0.00100	1		Vanadium	ND	0.00100	1	
Copper	ND	0.00100	1		Zinc	ND	0.00500	1	

Method Blank	099-04-008-4,263	N/A	Aqueous	Mercury	08/10/09	08/11/09 14:01	090810L07
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Parameter	Result	RL	DF	Qual
Mercury	ND	0.000500	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

## Analytical Report



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: 08/06/09  
Work Order No: 09-08-0434

Project: Beacon Solar / 10056-014-400

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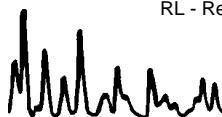
Client Sample Number	Lab Sample Number	Date Collected	Matrix
Arciero #33	09-08-0434-1	08/05/09	Aqueous

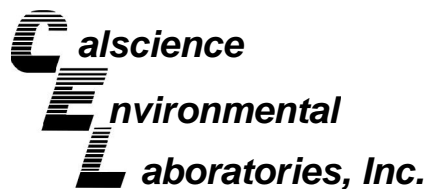
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Fluoride	0.20	0.10	1		mg/L	N/A	08/06/09	EPA 300.0
Chloride	220	10	10		mg/L	N/A	08/06/09	EPA 300.0
Nitrite (as N)	ND	0.10	1		mg/L	N/A	08/06/09	EPA 300.0
Nitrate (as N)	1.2	0.10	1		mg/L	N/A	08/06/09	EPA 300.0
Sulfate	530	10	10		mg/L	N/A	08/06/09	EPA 300.0
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	08/06/09	EPA 7199

Method Blank				N/A				Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Fluoride	ND	0.10	1		mg/L	N/A	08/06/09	EPA 300.0
Chloride	ND	1.0	1		mg/L	N/A	08/06/09	EPA 300.0
Nitrite (as N)	ND	0.10	1		mg/L	N/A	08/06/09	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	08/06/09	EPA 300.0
Sulfate	ND	1.0	1		mg/L	N/A	08/06/09	EPA 300.0
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	08/06/09	EPA 7199

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





## Quality Control - Spike/Spike Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

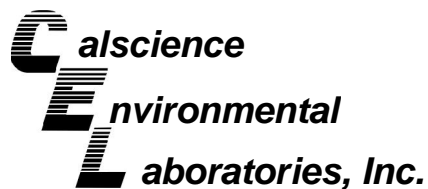
Date Received: 08/06/09  
Work Order No: 09-08-0434  
Preparation: EPA 3010A Total  
Method: EPA 6010B

Project Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-08-0853-1	Aqueous	ICP 5300	08/11/09	08/12/09	090811SA3

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Aluminum	115	126	73-145	6	0-16	
Calcium	4X	4X	77-113	4X	0-11	Q
Iron	4X	4X	65-149	4X	0-21	Q
Magnesium	4X	4X	56-140	4X	0-11	Q
Manganese	4X	4X	86-116	4X	0-7	Q
Potassium	130	137	83-131	3	0-7	3
Sodium	4X	4X	73-127	4X	0-9	Q
Strontium	4X	4X	81-123	4X	0-6	Q
Boron	105	109	81-135	1	0-7	
Silicon	4X	4X	24-180	4X	0-15	Q

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: 08/06/09  
Work Order No: 09-08-0434  
Preparation: EPA 3020A Total  
Method: EPA 6020

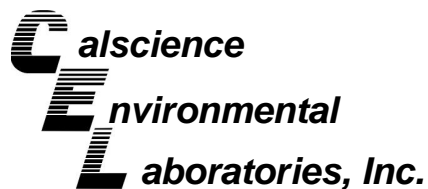
Project Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-08-0865-2	Aqueous	ICP/MS 03	08/11/09	08/11/09	090811S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Antimony	62	60	85-133	2	0-11	3
Arsenic	82	82	73-127	0	0-11	
Barium	4X	4X	74-128	4X	0-10	Q
Beryllium	110	105	56-122	5	0-11	
Cadmium	104	103	84-114	1	0-8	
Chromium	107	101	73-133	5	0-11	
Cobalt	105	106	79-121	1	0-10	
Copper	105	105	72-108	0	0-10	
Lead	107	110	79-121	3	0-10	
Molybdenum	75	76	83-137	1	0-10	3
Nickel	104	105	68-122	1	0-10	
Selenium	74	72	59-125	3	0-12	
Silver	107	106	68-128	1	0-14	
Thallium	101	104	73-121	3	0-11	
Vanadium	110	104	77-137	4	0-15	
Zinc	0	0	43-145	2	0-39	3

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - PDS / PDSD



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

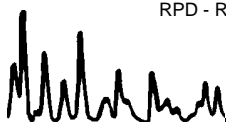
Date Received 08/06/09  
Work Order No: 09-08-0434  
Preparation: EPA 3020A Total  
Method: EPA 6020

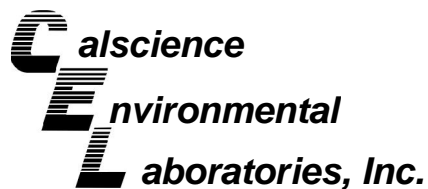
Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number
09-08-0865-2	Aqueous	ICP/MS 03	08/11/09	08/11/09	090811S02

Parameter	PDS %REC	PDS %REC	%REC CL	RPD	RPD CL	Qualifiers
Antimony	110	106	75-125	3	0-11	
Arsenic	92	89	75-125	4	0-11	
Barium	4X	4X	75-125	4X	0-10	Q
Beryllium	106	101	75-125	5	0-11	
Cadmium	99	96	75-125	3	0-8	
Chromium	97	93	75-125	4	0-11	
Cobalt	102	99	75-125	3	0-10	
Copper	98	96	75-125	1	0-10	
Lead	104	104	75-125	0	0-10	
Molybdenum	99	97	75-125	2	0-10	
Nickel	98	95	75-125	2	0-10	
Selenium	79	77	75-125	2	0-12	
Silver	104	102	75-125	2	0-14	
Thallium	98	100	75-125	2	0-11	
Vanadium	100	95	75-125	4	0-15	
Zinc	0	0	75-125	2	0-39	5

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - Spike/Spike Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

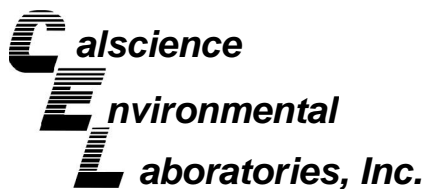
Date Received: 08/06/09  
Work Order No: 09-08-0434  
Preparation: EPA 7470A Total  
Method: EPA 7470A

Project Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-08-0737-1	Aqueous	Mercury	08/07/09	08/10/09	090807S05

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	102	95	57-141	7	0-10	

RPD - Relative Percent Difference , CL - Control Limit



**Quality Control - Spike/Spike Duplicate**



AECOM Environment  
 1220 Avenida Acaso  
 Camarillo, CA 93012-8738

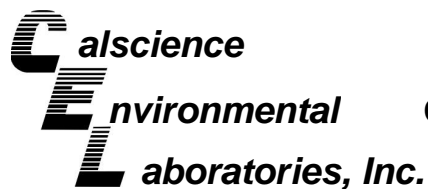
Date Received: 08/06/09  
 Work Order No: 09-08-0434  
 Preparation: EPA 7470A Total  
 Method: EPA 7470A

Project Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-08-0743-14	Aqueous	Mercury	08/10/09	08/11/09	090810S07

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	105	110	57-141	4	0-10	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received:  
Work Order No:

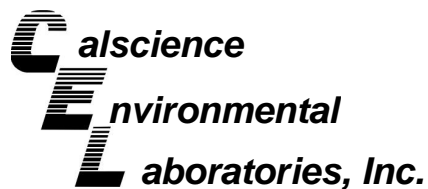
N/A  
09-08-0434

Project: Beacon Solar / 10056-014-400

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>MS% REC</u>	<u>MSD % REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	EPA 7199	09-08-0431-1	08/06/09	N/A	93	93	70-130	0	0-25	
Fluoride	EPA 300.0	09-08-0398-1	08/06/09	N/A	92	92	80-120	0	0-20	
Chloride	EPA 300.0	09-08-0398-1	08/06/09	N/A	4X	4X	80-120	4X	0-20	Q
Nitrite (as N)	EPA 300.0	09-08-0398-1	08/06/09	N/A	99	99	80-120	0	0-20	
Nitrate (as N)	EPA 300.0	09-08-0398-1	08/06/09	N/A	99	99	80-120	0	0-20	
Sulfate	EPA 300.0	09-08-0398-1	08/06/09	N/A	4X	4X	80-120	4X	0-20	Q

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

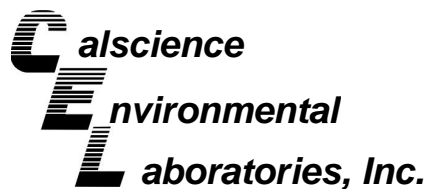
Date Received: N/A  
Work Order No: 09-08-0434  
Preparation: EPA 3010A Total  
Method: EPA 6010B

Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-003-9,631	Aqueous	ICP 5300	08/11/09	08/13/09	090811LA3A

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aluminum	97	97	80-120	0	0-20	
Calcium	101	102	80-120	1	0-20	
Iron	107	108	80-120	1	0-20	
Magnesium	106	107	80-120	1	0-20	
Manganese	103	103	80-120	0	0-20	
Potassium	95	97	80-120	2	0-20	
Sodium	101	103	80-120	2	0-20	
Strontium	101	103	80-120	2	0-20	
Boron	88	89	80-120	2	0-20	
Silicon	99	96	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

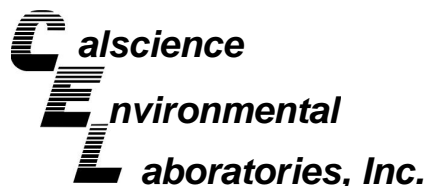
Date Received: N/A  
Work Order No: 09-08-0434  
Preparation: EPA 3005A Filt.  
Method: EPA 6010B

Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-003-9,635	Aqueous	ICP 5300	08/11/09	08/13/09	090811LA3F

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aluminum	97	97	80-120	0	0-20	
Calcium	101	102	80-120	1	0-20	
Iron	107	108	80-120	1	0-20	
Magnesium	106	107	80-120	1	0-20	
Manganese	103	103	80-120	0	0-20	
Potassium	95	97	80-120	2	0-20	
Sodium	101	103	80-120	2	0-20	
Strontium	101	103	80-120	2	0-20	
Boron	88	89	80-120	2	0-20	
Silicon	99	96	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: N/A  
Work Order No: 09-08-0434  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
096-06-003-2,275	Aqueous	ICP/MS 03	08/11/09	08/11/09	090811L02		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Antimony	94	97	80-120	73-127	3	0-20	
Arsenic	99	101	80-120	73-127	2	0-20	
Barium	98	99	80-120	73-127	1	0-20	
Beryllium	118	115	80-120	73-127	2	0-20	
Cadmium	101	102	80-120	73-127	1	0-20	
Chromium	102	100	80-120	73-127	2	0-20	
Cobalt	100	100	80-120	73-127	0	0-20	
Copper	103	104	80-120	73-127	1	0-20	
Lead	99	99	80-120	73-127	1	0-20	
Molybdenum	99	99	80-120	73-127	0	0-20	
Nickel	98	100	80-120	73-127	2	0-20	
Selenium	97	96	80-120	73-127	1	0-20	
Silver	95	96	80-120	73-127	2	0-20	
Thallium	94	94	80-120	73-127	1	0-20	
Vanadium	105	103	80-120	73-127	2	0-20	
Zinc	102	102	80-120	73-127	1	0-20	

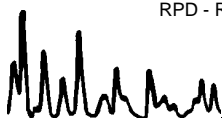
Total number of LCS compounds : 16

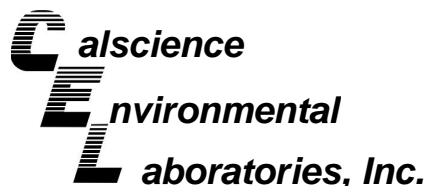
Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: N/A  
Work Order No: 09-08-0434  
Preparation: EPA 3005A Filt.  
Method: EPA 6020

Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
096-06-003-2,284	Aqueous	ICP/MS 03	08/11/09	08/11/09	090811L02F		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Antimony	94	97	80-120	73-127	3	0-20	
Arsenic	99	101	80-120	73-127	2	0-20	
Barium	98	99	80-120	73-127	1	0-20	
Beryllium	118	115	80-120	73-127	2	0-20	
Cadmium	101	102	80-120	73-127	1	0-20	
Chromium	102	100	80-120	73-127	2	0-20	
Cobalt	100	100	80-120	73-127	0	0-20	
Copper	103	104	80-120	73-127	1	0-20	
Lead	99	99	80-120	73-127	1	0-20	
Molybdenum	99	99	80-120	73-127	0	0-20	
Nickel	98	100	80-120	73-127	2	0-20	
Selenium	97	96	80-120	73-127	1	0-20	
Silver	95	96	80-120	73-127	2	0-20	
Thallium	94	94	80-120	73-127	1	0-20	
Vanadium	105	103	80-120	73-127	2	0-20	
Zinc	102	102	80-120	73-127	1	0-20	

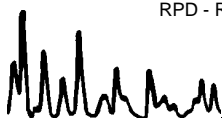
Total number of LCS compounds : 16

Total number of ME compounds : 0

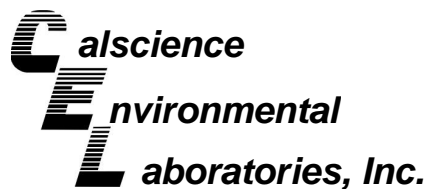
Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit







## Quality Control - LCS/LCS Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

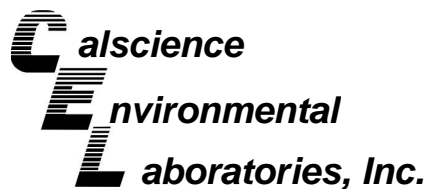
Date Received: N/A  
Work Order No: 09-08-0434  
Preparation: EPA 7470A Filt.  
Method: EPA 7470A

Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-04-008-4,260	Aqueous	Mercury	08/07/09	08/10/09	090807L05F

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	94	93	85-121	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

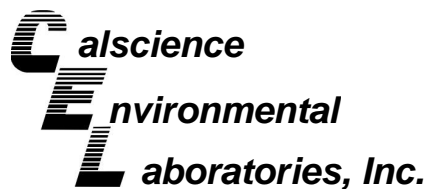
Date Received: N/A  
Work Order No: 09-08-0434  
Preparation: EPA 7470A Total  
Method: EPA 7470A

Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-04-008-4,263	Aqueous	Mercury	08/10/09	08/11/09	090810L07

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	102	102	85-121	0	0-10	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received:  
Work Order No:

N/A  
09-08-0434

Project: Beacon Solar / 10056-014-400

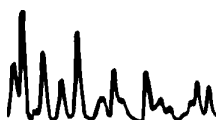
Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control</u> Sample ID	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Analyzed</u>	<u>LCS %</u> <u>REC</u>	<u>LCSD %</u> <u>REC</u>	<u>%REC</u> <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	<u>Qual</u>
Chromium, Hexavalent	EPA 7199	099-05-123-2,408	N/A	08/06/09	95	95	80-120	0	0-20	
Fluoride	EPA 300.0	099-12-906-382	N/A	08/06/09	92	92	90-110	0	0-15	
Chloride	EPA 300.0	099-12-906-382	N/A	08/06/09	100	101	90-110	1	0-15	
Nitrite (as N)	EPA 300.0	099-12-906-382	N/A	08/06/09	101	101	90-110	0	0-15	
Nitrate (as N)	EPA 300.0	099-12-906-382	N/A	08/06/09	97	98	90-110	1	0-15	
Sulfate	EPA 300.0	099-12-906-382	N/A	08/06/09	99	99	90-110	1	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 09-08-0434

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



0434

**AECOM**  
 AECOM Environment  
 1220 Avenida Acaso  
 Camarillo, CA 93012-8738  
 Phone (805) 388-3775  
 Fax (805) 388-3577

Cal Science

SITE BSEP DATE 8/5 PAGE 1 OF 1

LINE ITEM	SAMPLE NO.	DATE	TIME	ANALYTICAL METHODS												MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	TURN-AROUND TIME	
				8260B / 5035 Volatile Organics	8260B BTEX / MTBE / Oxygenates	8015 Diesel / Gasoline / Full Range	8081A Pesticides / 8041A	8081A Pesticides / 8041A	8081A Pesticides / 8041A	SVOCs	Top. Toxic Halogens / 5100	PLB's 8052	Herbicides 8151A	Meths (Lab Filed)	Meths, Gross Alpha					Hex. Chrom.
1.	Arciero #33	8/5/09	1230	X	X	X	X	X	X	X	X	X	X	X	X	X	X	W	3	TPS-24 hr Every thing like STD
2.	QCTB	8/5/09		X	X	X	X	X	X	X	X	X	X	X	X	X	X	W	2	Please Analyze TPS immediately Hold other samples Questions ask Mike Flack
3.																				Glass + Plastic
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				

MATRIX S - Soil CONTAINER G - Glass Bottle PRESERVATIVES: All samples are preserved on ice. Water samples are preserved as indicated on the sample labels.

TYPE: W - Water P - Plastic O - Other

RELINQUISHED BY: [Signature] SIGNATURE: Jan Stone COMPANY: AECOM Environment DATE: 8/5/09 TIME: 0430

RECEIVED BY: [Signature] SIGNATURE: SIGNATURE: SIGNATURE: COMPANY: FedEx DATE: DATE: DATE: TIME: TIME: TIME: TIME: 1000

RELINQUISHED BY: SIGNATURE: SIGNATURE: SIGNATURE: COMPANY: FedEx DATE: DATE: DATE: TIME: TIME: TIME: TIME: 1000

RECEIVED BY: FedEx 970340091254 SIGNATURE: [Signature] SIGNATURE: SIGNATURE: COMPANY: CEL DATE: 8/6/09 TIME: 1000

TEMPERATURE BLANK EACH COOLER:  YES  NO

TOTAL NUMBER OF CONTAINERS: 33 METHOD OF SHIPMENT: FedEx SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:

DISTRIBUTION: White and Canary = Laboratory Pink = AECOM Environment

Serial No. 1557

**SUMMARY OF WATER QUALITY PARAMETERS  
OFFSITE WELL SAMPLING  
KOEHN LAKE  
BEACON SOLAR ENERGY PROJECT**

CHEMICAL GROUP	ANALYTE <sup>1</sup>	ANALYTICAL METHOD
<b>Volatile Organic Compounds (VOCs)</b>	Volatile Organic Compounds	USEPA 8260B
<b>Semivolatile Organic Compounds (SVOCs)</b>	Semivolatile Organic Compounds	USEPA 8270C
<b>Petroleum Hydrocarbons</b>	Gasoline Range Organics (GRO)	USEPA 8015B
	Diesel Range Organics (DRO)	USEPA 8015B
	Oil Range Organics (ORO) - Motor Oil	USEPA 8015B
<b>Organochlorine Pesticides</b>	OCPs	USEPA 8081A
<b>Organophosphorous Pesticides</b>	OPPs	USEPA 8141A
<b>Chlorinated Herbicides</b>	Chlorinated Herbicides	USEPA 8151A
<b>Polychlorinated Biphenyls</b>	PCBs	USEPA 8082
<b>METALS (Including Major Anions)</b>	Dissolved, Al, B, Ca, Fe, K, Mg., Mn, Na, Sr (Major Cations) Will Add Si.	USEPA 6010 B
	Total, Al, B, Ca, Fe, K, Mg., Mn, Na, Sr (Major Cations) Will Add Si.	USEPA 6010 B
	Dissolved CCR Title 22 Metals, Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Mo, Ni, Se, Ag, Tl, V, Zn	USEPA 6020/7420A
	Total CCR Title 22 Metals, Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Mo, Ni, Se, Ag, Tl, V, Zn	USEPA 6020/7420A
	Chromium, Hexavalent (USEPA 7199)	USEPA 7199
	Reactive Silica (MWH LABS)	SM 4500-SiO2 C
<b>MAJOR ANIONS</b>	Cl, F, NO3, NO2, SO4	USEPA 300.0
	Ammonia as NH3 (titration)	SM 4500-NH3
<b>GENERAL WATER CHEMISTRY</b>	Alkalinity Speciated	SM 2320B
	Biochemical Oxygen Demand (BOD)	SM 5210B
	Bicarbonate Alkalinity as HCO <sub>3</sub>	SM 2320B
	Carbonate Alkalinity as CaCO <sub>3</sub>	SM 2320B
	Hardness, Total as CaCO <sub>3</sub> (USEPA 200.7)	SM 2340C
	Hydroxide Alkalinity as Ca CO <sub>3</sub>	SM 2320B
	Orthophosphate as Phosphate	USEPA 300.0
	Phosphate, Total as PO <sub>4</sub> (USEPA 365.3)	SM 4500 P B/E
	Sulfide, Soluble	SM 4500 S2-D
	Sulfide, Total	SM 4500 S2-D
	Total Dissolved Solids (TDS)	SM 2540C
	Total Organic Carbon (TOC)	SM 5310C
Total Suspended Solids (TSS)	SM 2540D	
Total Settleable Solids	SM 2540F	
<b>OTHER ANALYTES</b>	Cyanide (total)	SM 4500-CN-E
	Cyanide Free (amenable)	SM 4500-CN-G
	Total Toxic Organic Halogens (TOX) (WECK)	SM 5310D
	Reactive Silica as SiO <sub>2</sub>	SM 4500-SiO <sub>2</sub> -C
	Silica	USEPA/ML 200.7
	Silt Density Index (PTS LABS)	ASTM D4189
	Gross Alpha (WECK)	USEPA 900
		<b>TOTAL</b>

# SAMPLE RECEIPT FORM

Cooler 1 of 2

CLIENT: ABCOM

DATE: 8/6/09

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 3.9 °C - 0.2°C (CF) = 2.7 °C  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature:  Air  Filter  Metals Only  PCBs Only Initial: JP

**CUSTODY SEALS INTACT:**

Cooler  \_\_\_\_\_  No (Not Intact)  Not Present  N/A Initial: JP

Sample  \_\_\_\_\_  No (Not Intact)  Not Present Initial: RN

<b>SAMPLE CONDITION:</b>	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> COC not relinquished. <input type="checkbox"/> No date relinquished. <input type="checkbox"/> No time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**

**Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve  EnCores®  TerraCores®  \_\_\_\_\_

**Water:**  VOA  VOAh  VOAna<sub>2</sub>  125AGB  125AGBh  125AGBp  1AGB  1AGBna<sub>2</sub>  1AGBs

500AGB  500AGJ  500AGJs  250AGB  250CGB  250CGBs  1PB  500PB  500PBna

250PB  250PBn  125PB  125PBzanna  100PJ  100PJna<sub>2</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

**Air:**  Tedlar®  Summa®  \_\_\_\_\_ **Other:**  \_\_\_\_\_ **Checked/Labeled by:** RN

**Container:** C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop **Reviewed by:** JP

**Preservative:** h: HCL n: HNO<sub>3</sub> na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> Na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> zanna: ZnAc<sub>2</sub>+NaOH f: Field-filtered **Scanned by:** RN

**SAMPLE RECEIPT FORM**

Cooler 2 of 2

CLIENT: AECOM

DATE: 8/6/09

**TEMPERATURE:** (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 4.8 °C - 0.2 °C (CF) = 4.6 °C  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature:  Air  Filter  Metals Only  PCBs Only Initial: JP

**CUSTODY SEALS INTACT:**

Cooler  \_\_\_\_\_  No (Not Intact)  Not Present  N/A Initial: JP

Sample  \_\_\_\_\_  No (Not Intact)  Not Present Initial: RN

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> COC not relinquished. <input type="checkbox"/> No date relinquished. <input type="checkbox"/> No time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <u>RN</u> <u>8-6-9</u>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**

**Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve  EnCores®  TerraCores®  \_\_\_\_\_

**Water:**  VOA  VOA<sup>1</sup>h  VOAna<sub>2</sub>  125AGB  125AGBh  125AGBp  1AGB  1AGBna<sub>2</sub>  1AGBs

500AGB  500AGJ  500AGJs  250AGB  250CGB  250CGBs  1PB  500PB  500PBna

250PB  250PBn  125PB  125PBz<sub>nna</sub>  100PJ  100PJna<sub>2</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

**Air:**  Tedlar®  Summa®  \_\_\_\_\_ **Other:**  \_\_\_\_\_ **Checked/Labeled by:** RN

**Container:** C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop **Reviewed by:** JP

**Preservative:** h: HCL n: HNO3 na<sub>2</sub>:Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> Na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> z<sub>nna</sub>: ZnAc<sub>2</sub>+NaOH f: Field-filtered **Scanned by:** RN





**Vikas Patel**

---

**From:** Flack, Mike [Mike.Flack@aecom.com]  
**Sent:** Friday, August 07, 2009 5:26 PM  
**To:** Vikas Patel  
**Cc:** Caceres-Schnell, Carmen; Stone, Ian  
**Subject:** RE: Beacon Solar / CEL 09-08-0434 - Final Report  
**Attachments:** Cal Science - Offsite Wells (6-24).pdf; Arciero Well No. 33 (8-6) TDS.pdf

Vik....

Please consider this authorization to run the following (please run on a 5 day turnaround)

- Dissolved Metals
- Total Metals
- EPA 300 Anions
- Chrome VI
- Reactive Silica
- Gross Alpha

Please report results to Ian Stone and Carmen Caceres-Schnell

Thank you

**Michael Flack, PG, CEG**  
AECOM Environment  
1220 Avenida Acaso  
Camarillo, California 93012-8738  
T 805.388.3775 extension - 243  
F 805.388.3577  
C 805.760.1840  
[mike.flack@aecom.com](mailto:mike.flack@aecom.com)

---

**From:** Vikas Patel [mailto:ViPatel@calscience.com]  
**Sent:** Thursday, August 06, 2009 5:29 PM  
**To:** Flack, Mike  
**Cc:** Stone, Ian  
**Subject:** Beacon Solar / CEL 09-08-0434 - Final Report

TDS results.

<<09-08-0434.pdf>>

Best regards,

Vik Patel  
Project Manager

Calscience Environmental Laboratories, Inc.  
7440 Lincoln Way  
Garden Grove, CA 92841-1427  
Phone: 714-895-5494 x211  
Fax: 714-894-7501

Email: [vipatel@calscience.com](mailto:vipatel@calscience.com)

*The difference is service*

Vikas Patel

---

**From:** Flack, Mike [Mike.Flack@aecom.com]  
**Sent:** Monday, August 10, 2009 10:33 AM  
**To:** Vikas Patel  
**Subject:** RE: Beacon Solar / CEL 09-08-0434 - Final Report

Vic

On vacation.....cancel the request for reactive silica...ok...on the surcharge for any rush request...

If additional questions...call ian or carmen schnell at camarillo number

thx

Sent from my Windows Mobile® phone.



Certificate of Analysis

**Report Date:** Tuesday, August 18, 2009  
**Received Date:** Tuesday, August 11, 2009  
**Received Time:** 3:21 pm  
**Turnaround Time:** 5 workdays

**Client:** Calscience Environmental Laboratories  
7440 Lincoln Way  
Garden Grove, CA 92841-1432

**Phones:** (714) 895-5494  
**Fax:** (714) 894-7501

**Attn:** Vikas Patel  
**Project:** 09-08-0434

**P.O. #:**

**Lab Sample ID:** 9H11056-01      **Sample ID:** Arciero #33      **Matrix:** Water  
**Sampled by:** Client      **Sampled:** 08/05/09 12:30

Analyte	Result	DL	RL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Gross Alpha .....	3.79			pCi/L	1	SM7110C	8/14/09	8/17/09 17:34	abd W9H0539	
Gross Alpha counting error (+/-) .....	0.977			pCi/L	1	SM7110C	8/14/09	8/17/09 17:34	abd W9H0539	
Gross Alpha MDA95 .....	0.343			pCi/L	1	SM7110C	8/14/09	8/17/09 17:34	abd W9H0539	



Certificate of Analysis

Quality Control Section

Radiological Parameters by APHA/EPA Methods - Quality Control

Batch W9H0539 - SM7110C

Blank (W9H0539-BLK1)

Prepared: 08/14/09 Analyzed: 08/17/09 17:34

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Gross Alpha .....		0.00		pCi/L					
Gross Alpha counting error (+/-) .....		0.632		pCi/L					
Gross Alpha MDA95 .....		0.343		pCi/L					

LCS (W9H0539-BS1)

Prepared: 08/14/09 Analyzed: 08/17/09 17:34

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Gross Alpha .....		18.2		pCi/L	18.0	101	70-130		

LCS Dup (W9H0539-BSD1)

Prepared: 08/14/09 Analyzed: 08/17/09 17:34

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Gross Alpha .....		17.6		pCi/L	18.0	97	70-130	4	30



## Certificate of Analysis

### Notes:

The Chain of Custody document is part of the analytical report.  
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services. The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).  
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002



**Authorized Signature**

Contact: Kim G Tu (Project Manager)

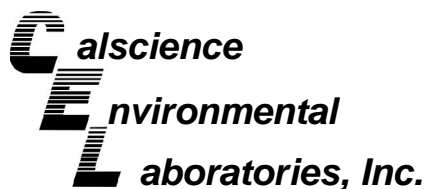


ELAP # 1132  
LACSD # 10143  
NELAC # 04229CA

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.*

### Flags for Data Qualifiers:

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
Dil	Dilution Factor
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity



## Supplemental Report 1

August 18, 2009

Additional requested analyses are reported as a stand-alone report.

Mike Flack  
AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Subject: **CalScience Work Order No.: 09-08-0595**  
**Client Reference: Beacon Solar / 10056-014-400**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 8/7/2009 and analyzed in accordance with the attached chain-of-custody.

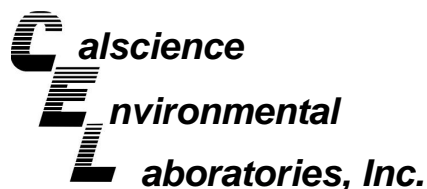
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in cursive script that reads 'Vikas Patel'.

CalScience Environmental  
Laboratories, Inc.  
Vikas Patel  
Project Manager



## Analytical Report



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: 08/07/09  
Work Order No: 09-08-0595  
Preparation: EPA 3005A Filt.  
Method: EPA 6010B  
Units: mg/L

Project: Beacon Solar / 10056-014-400

Page 1 of 2

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Well 58	09-08-0595-2-N	08/06/09 12:30	Aqueous	ICP 5300	08/11/09	08/13/09 12:41	090811LA3F

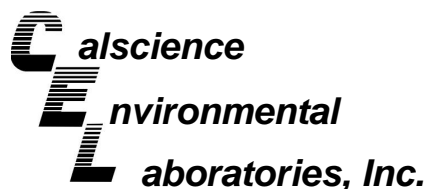
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aluminum	ND	0.0500	1		Potassium	6.01	0.500	1	
Calcium	173	0.100	1		Sodium	134	0.500	1	
Iron	ND	0.100	1		Strontium	2.52	0.0300	1	
Magnesium	56.3	0.100	1		Boron	0.390	0.0200	1	
Manganese	0.252	0.00500	1		Silicon	11.8	0.0500	1	

Method Blank	097-01-003-9,635	N/A	Aqueous	ICP 5300	08/11/09	08/13/09 16:36	090811LA3F
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aluminum	ND	0.0500	1		Potassium	ND	0.500	1	
Calcium	ND	0.100	1		Sodium	ND	0.500	1	
Iron	ND	0.100	1		Strontium	ND	0.0300	1	
Magnesium	ND	0.100	1		Boron	ND	0.0200	1	
Manganese	ND	0.00500	1		Silicon	ND	0.0500	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





## Analytical Report



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: 08/07/09  
Work Order No: 09-08-0595  
Preparation: EPA 3010A Total  
Method: EPA 6010B  
Units: mg/L

Project: Beacon Solar / 10056-014-400

Page 2 of 2

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Well 58	09-08-0595-2-O	08/06/09 12:30	Aqueous	ICP 5300	08/11/09	08/13/09 12:45	090811LA3A

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aluminum	ND	0.0500	1		Potassium	6.03	0.500	1	
Calcium	176	0.100	1		Sodium	135	0.500	1	
Iron	3.89	0.100	1		Strontium	2.58	0.0300	1	
Magnesium	55.2	0.100	1		Boron	0.369	0.0200	1	
Manganese	0.257	0.00500	1		Silicon	11.7	0.0500	1	

Method Blank	097-01-003-9,631	N/A	Aqueous	ICP 5300	08/11/09	08/13/09 16:36	090811LA3A
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aluminum	ND	0.0500	1		Potassium	ND	0.500	1	
Calcium	ND	0.100	1		Sodium	ND	0.500	1	
Iron	ND	0.100	1		Strontium	ND	0.0300	1	
Magnesium	ND	0.100	1		Boron	ND	0.0200	1	
Manganese	ND	0.00500	1		Silicon	ND	0.0500	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

## Analytical Report



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: 08/07/09  
Work Order No: 09-08-0595  
Preparation: EPA 3005A Filt. / EPA 7470A Filt.  
Method: EPA 6020 / EPA 7470A  
Units: mg/L

Project: Beacon Solar / 10056-014-400

Page 1 of 2

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Well 58	09-08-0595-2-N	08/06/09 12:30	Aqueous	ICP/MS 03	08/11/09	08/11/09 20:25	090811L02F

Comment(s): -Mercury was analyzed on 8/11/2009 2:48:26 PM with batch 090810L07F

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.00100	1		Molybdenum	0.00451	0.00100	1	
Arsenic	ND	0.00100	1		Nickel	0.00261	0.00100	1	
Barium	0.118	0.00100	1		Selenium	ND	0.00100	1	
Beryllium	ND	0.00100	1		Silver	ND	0.00100	1	
Cadmium	ND	0.00100	1		Thallium	ND	0.00100	1	
Chromium	ND	0.00100	1		Vanadium	ND	0.00100	1	
Cobalt	ND	0.00100	1		Zinc	0.00652	0.00500	1	
Copper	ND	0.00100	1		Lead	ND	0.00100	1	

Well 58	09-08-0595-2	08/06/09 12:30	Aqueous	Mercury	08/10/09	08/11/09 14:48	090810L07F
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Comment(s): -Mercury was analyzed on 8/11/2009 7:35:23 PM with batch 090811L01

Parameter	Result	RL	DF	Qual
Mercury	ND	0.000500	1	

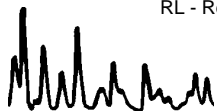
Method Blank	096-06-003-2,284	N/A	Aqueous	ICP/MS 03	08/11/09	08/11/09 20:30	090811L02F
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.00100	1		Lead	ND	0.00100	1	
Arsenic	ND	0.00100	1		Molybdenum	ND	0.00100	1	
Barium	ND	0.00100	1		Nickel	ND	0.00100	1	
Beryllium	ND	0.00100	1		Selenium	ND	0.00100	1	
Cadmium	ND	0.00100	1		Silver	ND	0.00100	1	
Chromium	ND	0.00100	1		Thallium	ND	0.00100	1	
Cobalt	ND	0.00100	1		Vanadium	ND	0.00100	1	
Copper	ND	0.00100	1		Zinc	ND	0.00500	1	

Method Blank	099-04-008-4,264	N/A	Aqueous	Mercury	08/10/09	08/11/09 14:01	090810L07F
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Parameter	Result	RL	DF	Qual
Mercury	ND	0.000500	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: 08/07/09  
Work Order No: 09-08-0595  
Preparation: EPA 3020A Total / EPA 7470A Total  
Method: EPA 6020 / EPA 7470A  
Units: mg/L

Project: Beacon Solar / 10056-014-400

Page 2 of 2

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Well 58	09-08-0595-2-O	08/06/09 12:30	Aqueous	ICP/MS 03	08/11/09	08/11/09 20:28	090811L02

Comment(s): -Mercury was analyzed on 8/11/2009 7:35:23 PM with batch 090811L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.00100	1		Zinc	0.0247	0.00500	1	
Arsenic	0.00188	0.00100	1		Mercury	ND	0.000500	1	
Barium	0.126	0.00100	1		Molybdenum	0.00470	0.00100	1	
Beryllium	ND	0.00100	1		Nickel	0.00258	0.00100	1	
Cadmium	ND	0.00100	1		Selenium	ND	0.00100	1	
Chromium	ND	0.00100	1		Silver	ND	0.00100	1	
Cobalt	ND	0.00100	1		Thallium	ND	0.00100	1	
Copper	0.0122	0.00100	1		Vanadium	ND	0.00100	1	
Lead	ND	0.00100	1						

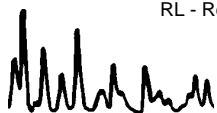
Method Blank	096-06-003-2,275	N/A	Aqueous	ICP/MS 03	08/11/09	08/11/09 20:33	090811L02
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.00100	1		Lead	ND	0.00100	1	
Arsenic	ND	0.00100	1		Molybdenum	ND	0.00100	1	
Barium	ND	0.00100	1		Nickel	ND	0.00100	1	
Beryllium	ND	0.00100	1		Selenium	ND	0.00100	1	
Cadmium	ND	0.00100	1		Silver	ND	0.00100	1	
Chromium	ND	0.00100	1		Thallium	ND	0.00100	1	
Cobalt	ND	0.00100	1		Vanadium	ND	0.00100	1	
Copper	ND	0.00100	1		Zinc	ND	0.00500	1	

Method Blank	099-04-008-4,266	N/A	Aqueous	Mercury	08/11/09	08/11/09 16:03	090811L01
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Parameter	Result	RL	DF	Qual
Mercury	ND	0.000500	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: 08/07/09  
Work Order No: 09-08-0595

Project: Beacon Solar / 10056-014-400

Page 1 of 1

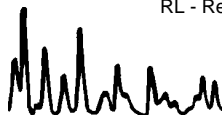
Client Sample Number	Lab Sample Number	Date Collected	Matrix
Well 58	09-08-0595-2	08/06/09	Aqueous

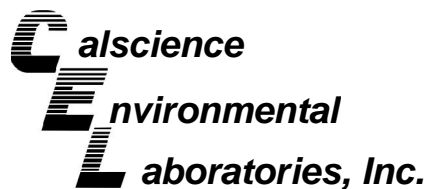
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Fluoride	0.32	0.10	1		mg/L	N/A	08/07/09	EPA 300.0
Chloride	470	10	10		mg/L	N/A	08/07/09	EPA 300.0
Nitrite (as N)	ND	0.10	1		mg/L	N/A	08/07/09	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	08/07/09	EPA 300.0
Sulfate	150	10	10		mg/L	N/A	08/07/09	EPA 300.0
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	08/07/09	EPA 7199

Method Blank				N/A	Aqueous			
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Fluoride	ND	0.10	1		mg/L	N/A	08/07/09	EPA 300.0
Chloride	ND	1.0	1		mg/L	N/A	08/07/09	EPA 300.0
Nitrite (as N)	ND	0.10	1		mg/L	N/A	08/07/09	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	08/07/09	EPA 300.0
Sulfate	ND	1.0	1		mg/L	N/A	08/07/09	EPA 300.0
Chromium, Hexavalent	ND	1.0	1		ug/L	N/A	08/13/09	EPA 7199

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





## Quality Control - Spike/Spike Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

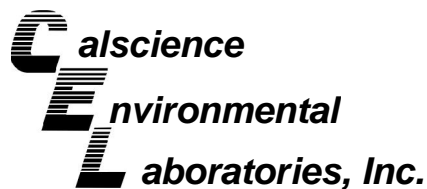
Date Received: 08/07/09  
Work Order No: 09-08-0595  
Preparation: EPA 3010A Total  
Method: EPA 6010B

Project Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-08-0853-1	Aqueous	ICP 5300	08/11/09	08/12/09	090811SA3

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Aluminum	115	126	73-145	6	0-16	
Calcium	4X	4X	77-113	4X	0-11	Q
Iron	4X	4X	65-149	4X	0-21	Q
Magnesium	4X	4X	56-140	4X	0-11	Q
Manganese	4X	4X	86-116	4X	0-7	Q
Potassium	130	137	83-131	3	0-7	3
Sodium	4X	4X	73-127	4X	0-9	Q
Strontium	4X	4X	81-123	4X	0-6	Q
Boron	105	109	81-135	1	0-7	
Silicon	4X	4X	24-180	4X	0-15	Q

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

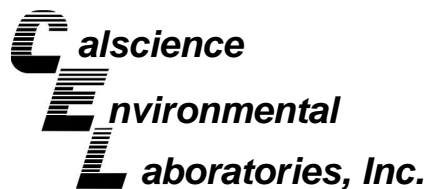
Date Received: 08/07/09  
Work Order No: 09-08-0595  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-08-0865-2	Aqueous	ICP/MS 03	08/11/09	08/11/09	090811S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Antimony	62	60	85-133	2	0-11	3
Arsenic	82	82	73-127	0	0-11	
Barium	4X	4X	74-128	4X	0-10	Q
Beryllium	110	105	56-122	5	0-11	
Cadmium	104	103	84-114	1	0-8	
Chromium	107	101	73-133	5	0-11	
Cobalt	105	106	79-121	1	0-10	
Copper	105	105	72-108	0	0-10	
Lead	107	110	79-121	3	0-10	
Molybdenum	75	76	83-137	1	0-10	3
Nickel	104	105	68-122	1	0-10	
Selenium	74	72	59-125	3	0-12	
Silver	107	106	68-128	1	0-14	
Thallium	101	104	73-121	3	0-11	
Vanadium	110	104	77-137	4	0-15	
Zinc	0	0	43-145	2	0-39	3

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - PDS / PDSD



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

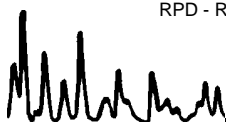
Date Received 08/07/09  
Work Order No: 09-08-0595  
Preparation: EPA 3020A Total  
Method: EPA 6020

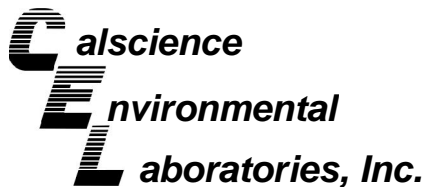
Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number
09-08-0865-2	Aqueous	ICP/MS 03	08/11/09	08/11/09	090811S02

Parameter	PDS %REC	PDS %REC	%REC CL	RPD	RPD CL	Qualifiers
Antimony	110	106	75-125	3	0-11	
Arsenic	92	89	75-125	4	0-11	
Barium	4X	4X	75-125	4X	0-10	Q
Beryllium	106	101	75-125	5	0-11	
Cadmium	99	96	75-125	3	0-8	
Chromium	97	93	75-125	4	0-11	
Cobalt	102	99	75-125	3	0-10	
Copper	98	96	75-125	1	0-10	
Lead	104	104	75-125	0	0-10	
Molybdenum	99	97	75-125	2	0-10	
Nickel	98	95	75-125	2	0-10	
Selenium	79	77	75-125	2	0-12	
Silver	104	102	75-125	2	0-14	
Thallium	98	100	75-125	2	0-11	
Vanadium	100	95	75-125	4	0-15	
Zinc	0	0	75-125	2	0-39	5

RPD - Relative Percent Difference , CL - Control Limit





**Quality Control - Spike/Spike Duplicate**



AECOM Environment  
 1220 Avenida Acaso  
 Camarillo, CA 93012-8738

Date Received: 08/07/09  
 Work Order No: 09-08-0595  
 Preparation: EPA 7470A Total  
 Method: EPA 7470A

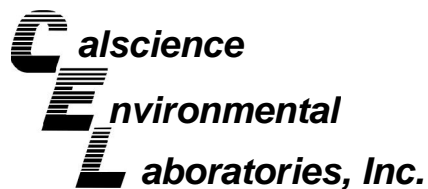
Project Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-08-0743-14	Aqueous	Mercury	08/10/09	08/11/09	090810S07

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	105	110	57-141	4	0-10	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - Spike/Spike Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

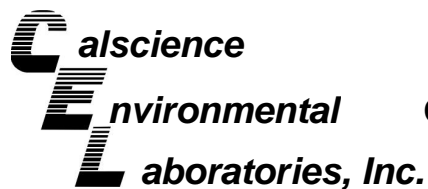
Date Received: 08/07/09  
Work Order No: 09-08-0595  
Preparation: EPA 7470A Total  
Method: EPA 7470A

Project Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-08-0865-5	Aqueous	Mercury	08/11/09	08/11/09	090811S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	100	101	57-141	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received:  
Work Order No:

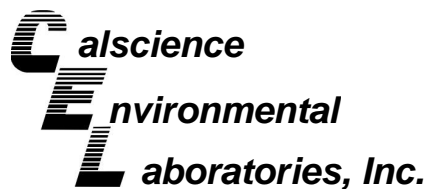
N/A  
09-08-0595

Project: Beacon Solar / 10056-014-400

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>MS% REC</u>	<u>MSD % REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	EPA 7199	Well 57	08/07/09	N/A	96	97	70-130	1	0-25	
Fluoride	EPA 300.0	Well 52	08/07/09	N/A	86	85	80-120	0	0-20	
Chloride	EPA 300.0	Well 52	08/07/09	N/A	91	91	80-120	0	0-20	
Nitrite (as N)	EPA 300.0	Well 52	08/07/09	N/A	99	99	80-120	0	0-20	
Nitrate (as N)	EPA 300.0	Well 52	08/07/09	N/A	88	89	80-120	0	0-20	
Sulfate	EPA 300.0	Well 52	08/07/09	N/A	89	89	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

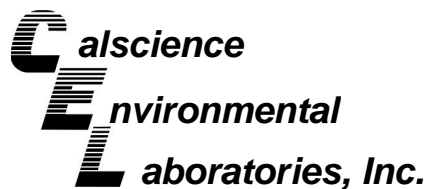
Date Received: N/A  
Work Order No: 09-08-0595  
Preparation: EPA 3010A Total  
Method: EPA 6010B

Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-003-9,631	Aqueous	ICP 5300	08/11/09	08/13/09	090811LA3A

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aluminum	97	97	80-120	0	0-20	
Calcium	101	102	80-120	1	0-20	
Iron	107	108	80-120	1	0-20	
Magnesium	106	107	80-120	1	0-20	
Manganese	103	103	80-120	0	0-20	
Potassium	95	97	80-120	2	0-20	
Sodium	101	103	80-120	2	0-20	
Strontium	101	103	80-120	2	0-20	
Boron	88	89	80-120	2	0-20	
Silicon	99	96	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

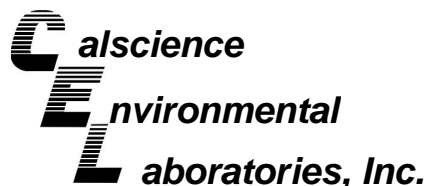
Date Received: N/A  
Work Order No: 09-08-0595  
Preparation: EPA 3005A Filt.  
Method: EPA 6010B

Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-003-9,635	Aqueous	ICP 5300	08/11/09	08/13/09	090811LA3F

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aluminum	97	97	80-120	0	0-20	
Calcium	101	102	80-120	1	0-20	
Iron	107	108	80-120	1	0-20	
Magnesium	106	107	80-120	1	0-20	
Manganese	103	103	80-120	0	0-20	
Potassium	95	97	80-120	2	0-20	
Sodium	101	103	80-120	2	0-20	
Strontium	101	103	80-120	2	0-20	
Boron	88	89	80-120	2	0-20	
Silicon	99	96	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: N/A  
Work Order No: 09-08-0595  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
096-06-003-2,275	Aqueous	ICP/MS 03	08/11/09	08/11/09	090811L02		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Antimony	94	97	80-120	73-127	3	0-20	
Arsenic	99	101	80-120	73-127	2	0-20	
Barium	98	99	80-120	73-127	1	0-20	
Beryllium	118	115	80-120	73-127	2	0-20	
Cadmium	101	102	80-120	73-127	1	0-20	
Chromium	102	100	80-120	73-127	2	0-20	
Cobalt	100	100	80-120	73-127	0	0-20	
Copper	103	104	80-120	73-127	1	0-20	
Lead	99	99	80-120	73-127	1	0-20	
Molybdenum	99	99	80-120	73-127	0	0-20	
Nickel	98	100	80-120	73-127	2	0-20	
Selenium	97	96	80-120	73-127	1	0-20	
Silver	95	96	80-120	73-127	2	0-20	
Thallium	94	94	80-120	73-127	1	0-20	
Vanadium	105	103	80-120	73-127	2	0-20	
Zinc	102	102	80-120	73-127	1	0-20	

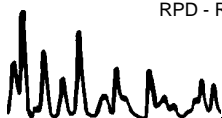
Total number of LCS compounds : 16

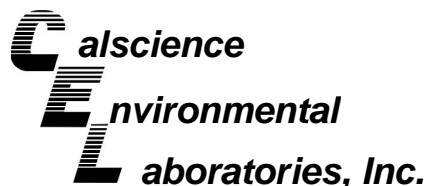
Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received: N/A  
Work Order No: 09-08-0595  
Preparation: EPA 3005A Filt.  
Method: EPA 6020

Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
096-06-003-2,284	Aqueous	ICP/MS 03	08/11/09	08/11/09	090811L02F		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Antimony	94	97	80-120	73-127	3	0-20	
Arsenic	99	101	80-120	73-127	2	0-20	
Barium	98	99	80-120	73-127	1	0-20	
Beryllium	118	115	80-120	73-127	2	0-20	
Cadmium	101	102	80-120	73-127	1	0-20	
Chromium	102	100	80-120	73-127	2	0-20	
Cobalt	100	100	80-120	73-127	0	0-20	
Copper	103	104	80-120	73-127	1	0-20	
Lead	99	99	80-120	73-127	1	0-20	
Molybdenum	99	99	80-120	73-127	0	0-20	
Nickel	98	100	80-120	73-127	2	0-20	
Selenium	97	96	80-120	73-127	1	0-20	
Silver	95	96	80-120	73-127	2	0-20	
Thallium	94	94	80-120	73-127	1	0-20	
Vanadium	105	103	80-120	73-127	2	0-20	
Zinc	102	102	80-120	73-127	1	0-20	

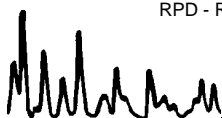
Total number of LCS compounds : 16

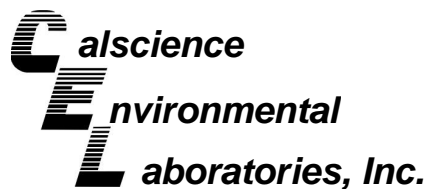
Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

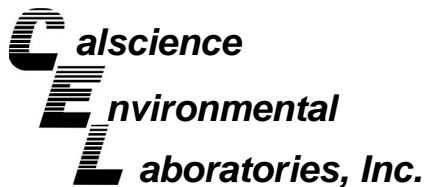
Date Received: N/A  
Work Order No: 09-08-0595  
Preparation: EPA 7470A Filt.  
Method: EPA 7470A

Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-04-008-4,264	Aqueous	Mercury	08/10/09	08/11/09	090810L07F

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	102	102	85-121	0	0-10	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AECOM Environment  
 1220 Avenida Acaso  
 Camarillo, CA 93012-8738

Date Received: N/A  
 Work Order No: 09-08-0595  
 Preparation: EPA 7470A Total  
 Method: EPA 7470A

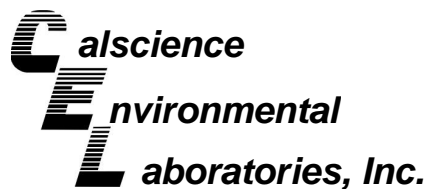
Project: Beacon Solar / 10056-014-400

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-04-008-4,266	Aqueous	Mercury	08/11/09	08/11/09	090811L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	99	98	85-121	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012-8738

Date Received:  
Work Order No:

N/A  
09-08-0595

Project: Beacon Solar / 10056-014-400

Matrix: Aqueous or Solid

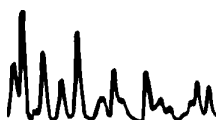
<u>Parameter</u>	<u>Method</u>	<u>Quality Control</u> Sample ID	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Analyzed</u>	<u>LCS %</u> <u>REC</u>	<u>LCSD %</u> <u>REC</u>	<u>%REC</u> <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	<u>Qual</u>
Chromium, Hexavalent	EPA 7199	099-05-123-2,414	N/A	08/13/09	97	96	80-120	1	0-20	
Fluoride	EPA 300.0	099-12-906-390	N/A	08/07/09	96	96	90-110	1	0-15	
Chloride	EPA 300.0	099-12-906-390	N/A	08/07/09	102	102	90-110	0	0-15	
Nitrite (as N)	EPA 300.0	099-12-906-390	N/A	08/07/09	100	101	90-110	0	0-15	
Nitrate (as N)	EPA 300.0	099-12-906-390	N/A	08/07/09	99	98	90-110	0	0-15	
Sulfate	EPA 300.0	099-12-906-390	N/A	08/07/09	99	99	90-110	0	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 09-08-0595
 

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<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.  Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



**AECOM**  
 AECOM Environment ANALYTICAL LAB: Calaveras  
 1220 Avenida Acaso  
 Camarillo, CA 93012-8738  
 Phone (805) 388-3775  
 Fax (805) 388-3577

SITE BSEP DATE 8/16/09 PAGE 1 OF 1

LINE ITEM	SAMPLE NO.	DATE	TIME	ANALYTICAL METHODS													MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	TURN-AROUND TIME	OBSERVATIONS/ COMMENTS	
				8260B / 5035 Volatile Organics	8260B BTEX / MTBE / Oxygenates	8015 Diesel / Gasoline / Full Range	8081A Pesticides / 18141B	CAM 17 Metals	TPH-CC (Range print)	TPH-D/mo	PTBS	Herbicides	SUDs	Di sulfide Tot sulfide	Hex Chrom	Arsenic, Alk, Pb, Cd, PCP						BOD
1.	Well 52	8/16/09	1415				X	X	X	X	X	X	X	X	X	X	X	X	X	WGP 15		TPS - 24-48hr Every Mon - 1 Else STD
2.	Well 58	8/16/09	1230				X	X	X	X	X	X	X	X	X	X	X	X	X	WGP 15		more samples were collected and will be picked up on Monday
3.	Well 59	8/16/09	1130				X	X	X	X	X	X	X	X	X	X	X	X	X	WGP 15		
4.	Well 57	8/16/09	1330				X	X	X	X	X	X	X	X	X	X	X	X	X	WGP 15		
5.																						
6.																						
7.																						
8.																						
9.																						
10.																						

**CLIENT:** AECOM/Beacon

**PROJECT NAME:** BSEP

**PROJECT MANAGER:** Mike Flack

**JOB #:** 10056-014-400

**COELT LOG CODE:** YES / NO  /

**SAMPLE SIGNATURE:** [Signature]

**MATRIX S - Soil** CONTAINER G - Glass Bottle  
 TYPE: W - Water P - Plastic  
 O - Other O - Other

**RELINQUISHED BY:** Jan Stone SIGNATURE [Signature]

**RECEIVED BY:** FedEx SIGNATURE [Signature]

**RELINQUISHED BY:** FedEx SIGNATURE [Signature]

**RECEIVED BY:** [Signature] SIGNATURE Noel Cowik

**PRESERVATIVES:**  
 All samples are preserved on ice.  YES  NO  
 Water samples are preserved as indicated on the sample labels.

**TEMPERATURE BLANK**  YES  NO  
**EACH COOLER**

**TOTAL NUMBER OF CONTAINERS:** 60

**METHOD OF SHIPMENT:** FedEx

**SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:**

**DISTRIBUTION:** White and Canary = Laboratory Pink = AECOM Environment **Serial No. 1558**

**SAMPLE RECEIPT FORM**

Cooler 1 of 4

CLIENT: AECOM

DATE: 08/07/09

**TEMPERATURE:** (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.8 °C - 0.2 °C (CF) = 1.6 °C  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature:  Air  Filter  Metals Only  PCBs Only Initial: JB

**CUSTODY SEALS INTACT:**

Cooler  \_\_\_\_\_  No (Not Intact)  Not Present  N/A Initial: JP

Sample  \_\_\_\_\_  No (Not Intact)  Not Present Initial: NC

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> COC not relinquished. <input type="checkbox"/> No date relinquished. <input type="checkbox"/> No time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**

**Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve  EnCores®  TerraCores®  \_\_\_\_\_

**Water:**  VOA  VOAh  VOAna<sub>2</sub>  125AGB  125AGBh  125AGBp  1AGB  1AGBna<sub>2</sub>  1AGBs

500AGB  500AGJ  500AGJs  250AGB  250CGB  250CGBs  1PB  500PB  500PBna

250PB  250PBn  125PB  125PBzanna  100PJ  100PJna<sub>2</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

**Air:**  Tedlar®  Summa®  \_\_\_\_\_ **Other:**  \_\_\_\_\_ **Checked/Labeled by:** NC

**Container:** C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop **Reviewed by:** JP

**Preservative:** h: HCL n: HNO<sub>3</sub> na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> Na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> zanna: ZnAc<sub>2</sub>+NaOH f: Field-filtered **Scanned by:** JP



WORK ORDER #: 09-08-0595

SAMPLE RECEIPT FORM

Cooler 2 of 4

CLIENT: AECOM

DATE: 08/07/09

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen)

Temperature 2.0°C - 0.2°C (CF) = 1.8°C [X] Blank [ ] Sample

- [ ] Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).
[ ] Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
[ ] Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: [ ] Air [ ] Filter [ ] Metals Only [ ] PCBs Only

Initial: [Signature]

CUSTODY SEALS INTACT:

- [X] Cooler [ ] \_\_\_\_\_ [ ] No (Not Intact) [ ] Not Present [ ] N/A
[ ] Sample [ ] \_\_\_\_\_ [ ] No (Not Intact) [X] Not Present

Initial: [Signature]
Initial: [Signature]

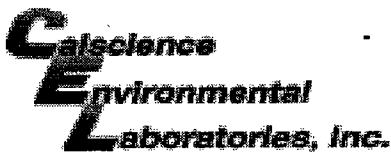
SAMPLE CONDITION:

Table with columns: Yes, No, N/A. Rows include Chain-Of-Custody (COC) document(s) received with samples, COC document(s) received complete, Sampler's name indicated on COC, Sample container label(s) consistent with COC, etc.

CONTAINER TYPE:

- Solid: [ ] 4ozCGJ [ ] 8ozCGJ [ ] 16ozCGJ [ ] Sleeve [ ] EnCores® [ ] TerraCores® [ ] \_\_\_\_\_
Water: [ ] VOA [ ] VOA h [ ] VOAna2 [ ] 125AGB [ ] 125AGBh [ ] 125AGBp [ ] 1AGB [X] 1AGBna2 [ ] 1AGBs
[ ] 500AGB [X] 500AGJ [ ] 500AGJs [ ] 250AGB [ ] 250CGB [ ] 250CGBs [X] 1PB [X] 500PB [ ] 500PBna
[X] 250PB [ ] 250PBn [X] 125PB [X] 125PBz nna [ ] 100PJ [ ] 100PJna2 [ ] \_\_\_\_\_ [ ] \_\_\_\_\_

Air: [ ] Tedlar® [ ] Summa® [ ] \_\_\_\_\_ Other: [ ] \_\_\_\_\_ Checked/Labeled by: [Signature]
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop Reviewed by: [Signature]
Preservative: h: HCL n: HNO3 na2: Na2S2O3 Na: NaOH p: H3PO4 s: H2SO4 z nna: ZnAc2+NaOH f: Field-filtered Scanned by: [Signature]



WORK ORDER #: 09-08-0595

SAMPLE RECEIPT FORM

Cooler 3 of 4

CLIENT: AECOM

DATE: 08/07/09

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 2.0°C - 0.2°C (CF) = 1.8°C [X] Blank [ ] Sample

- [ ] Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).
[ ] Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
[ ] Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: [ ] Air [ ] Filter [ ] Metals Only [ ] PCBs Only

Initial: [Signature]

CUSTODY SEALS INTACT:

- [X] Cooler [ ] \_\_\_\_\_ [ ] No (Not Intact) [ ] Not Present [ ] N/A
[ ] Sample [ ] \_\_\_\_\_ [ ] No (Not Intact) [X] Not Present

Initial: [Signature]
Initial: [Signature]

SAMPLE CONDITION:

Table with 4 columns: Question, Yes, No, N/A. Rows include Chain-Of-Custody (COC) document(s) received with samples, COC document(s) received complete, Sampler's name indicated on COC, etc.

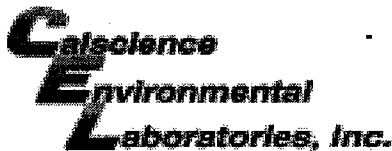
CONTAINER TYPE:

- Solid: [ ] 4ozCGJ [ ] 8ozCGJ [ ] 16ozCGJ [ ] Sleeve [ ] EnCores® [ ] TerraCores® [ ] \_\_\_\_\_
Water: [ ] VOA [ ] VOA h [ ] VOAna2 [ ] 125AGB [ ] 125AGBh [ ] 125AGBp [ ] 1AGB [X] 1AGBna2 [ ] 1AGBs
[ ] 500AGB [X] 500AGJ [ ] 500AGJs [ ] 250AGB [ ] 250CGB [ ] 250CGBs [X] 1PB [X] 500PB [ ] 500PBna
[X] 250PB [ ] 250PBn [X] 125PB [X] 125PBzanna [ ] 100PJ [ ] 100PJna2 [ ] \_\_\_\_\_ [ ] \_\_\_\_\_ [ ] \_\_\_\_\_

Air: [ ] Tedlar® [ ] Summa® [ ] \_\_\_\_\_ Other: [ ] \_\_\_\_\_ Checked/Labeled by: [Signature]

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop Reviewed by: [Signature]

Preservative: h: HCL n: HNO3 na2: Na2S2O3 Na: NaOH p: H3PO4 s: H2SO4 zanna: ZnAc2+NaOH f: Field-filtered Scanned by: [Signature]



WORK ORDER #: 09-08-0595

# SAMPLE RECEIPT FORM

Cooler 4 of 4

CLIENT: AECOM

DATE: 08/07/09

### TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 1.9 °C - 0.2°C (CF) = 1.7 °C  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature:  Air  Filter  Metals Only  PCBs Only

Initial: JP

### CUSTODY SEALS INTACT:

Cooler  \_\_\_\_\_  No (Not Intact)  Not Present  N/A

Initial: JP

Sample  \_\_\_\_\_  No (Not Intact)  Not Present

Initial: NC

### SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> COC not relinquished. <input type="checkbox"/> No date relinquished. <input type="checkbox"/> No time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### CONTAINER TYPE:

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve  EnCores®  TerraCores®  \_\_\_\_\_

Water:  VOA  VOAh  VOAna<sub>2</sub>  125AGB  125AGBh  125AGBp  1AGB  1AGBna<sub>2</sub>  1AGBs

500AGB  500AGJ  500AGJs  250AGB  250CGB  250CGBs  1PB  500PB  500PBna

250PB  250PBn  125PB  125PBz<sub>2</sub>na  100PJ  100PJna<sub>2</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Air:  Tedlar®  Summa®  \_\_\_\_\_ Other:  \_\_\_\_\_ Checked/Labeled by: NC

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop Reviewed by: JP

Preservative: h: HCL n: HNO3 na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> Na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> z<sub>2</sub>na: ZnAc<sub>2</sub>+NaOH f: Field-filtered Scanned by: NC

**Vikas Patel**

---

**From:** Caceres-Schnell, Carmen [Carmen.Caceres-Schnell@aecom.com]  
**Sent:** Monday, August 10, 2009 11:18 AM  
**To:** Vikas Patel  
**Cc:** Stone, Ian; Flack, Mike  
**Subject:** FW: Beacon Solar / CEL 09-08-0434 - Final Report

Vik ,

Please consider this authorization to run the following analysis on Well 58 (Lab ID 09-08-0595-2) collected on 08/06/09. Please run on a 5 day turnaround .

Dissolved Metals  
Total Metals  
EPA 300 Anions  
Chrome VI  
Reactive Silica  
Gross Alpha

Please report results to Ian Stone and myself.

Thank you ,

*Carmen C. Schnell, P.G.*  
*Project Geologist, ISC Group, Southwest Region*  
*AECOM Environment*  
[carmen.caceres-schnell@aecom.com](mailto:carmen.caceres-schnell@aecom.com)

*AECOM*  
*1220 Avenida Acaso*  
*Camarillo, California 93012*  
*D 805.388.3775 Ext. 288*  
*F 805.388.3577*



**Vikas Patel**

---

**From:** Caceres-Schnell, Carmen [Carmen.Caceres-Schnell@aecom.com]  
**Sent:** Monday, August 10, 2009 12:46 PM  
**To:** Vikas Patel  
**Cc:** Stone, Ian; Flack, Mike; Philip Sanelle  
**Subject:** RE: Beacon Solar / CEL 09-08-0434 - Final Report

Vik,

Please cancel the Reactive Silica for Well 58 as well. Thank you for letting me know about this.

Carmen

-----Original Message-----

**From:** Vikas Patel [mailto:ViPatel@calscience.com]  
**Sent:** Monday, August 10, 2009 11:31 AM  
**To:** Caceres-Schnell, Carmen  
**Cc:** Stone, Ian; Flack, Mike; Philip Sanelle  
**Subject:** FW: Beacon Solar / CEL 09-08-0434 - Final Report

Carmen -

Mike Flack canceled the request for Reactive Silica analysis on sample Arciero #33 (Lab ID 09-08-0434-1) collected on 08/05/09.

FYI - Do you want us to subcontract the Reactive Silica analysis on Well 58 (Lab ID 09-08-0595-2) collected on 08/06/09?

Best regards,

Vik Patel  
Project Manager  
Calscience Environmental Laboratories, Inc.  
7440 Lincoln Way  
Garden Grove, CA 92841-1427  
Phone: 714-895-5494 x211  
Fax: 714-894-7501  
Email: [vipatel@calscience.com](mailto:vipatel@calscience.com)

-----Original Message-----

**From:** Flack, Mike [mailto:Mike.Flack@aecom.com]  
**Sent:** Monday, August 10, 2009 10:33 AM  
**To:** Vikas Patel  
**Subject:** RE: Beacon Solar / CEL 09-08-0434 - Final Report

Vic

On vacation.....cancel the request for reactive silica...ok...on the surcharge for any rush request...

If additional questions...call ian or carmen schnell at camarillo number

thx

Sent from my Windows Mobile(r) phone.



Certificate of Analysis

**Report Date:** Tuesday, August 18, 2009  
**Received Date:** Tuesday, August 11, 2009  
**Received Time:** 3:21 pm  
**Turnaround Time:** 5 workdays

**Client:** Calscience Environmental Laboratories  
7440 Lincoln Way  
Garden Grove, CA 92841-1432

**Phones:** (714) 895-5494  
**Fax:** (714) 894-7501

**Attn:** Vikas Patel  
**Project:** 09-08-0595

**P.O. #:**

<b>Lab Sample ID:</b> 9H11055-01	<b>Sample ID:</b> Well 58									<b>Matrix:</b> Water
<b>Sampled by:</b> Client	<b>Sampled:</b> 08/06/09 12:30									
Analyte	Result	DL	RL	Units	Dil	Method	Prepared	Analized	Batch	Qualifier
Gross Alpha .....	0.00			pCi/L	1	SM7110C	8/14/09	8/17/09 17:34	abd W9H0539	
Gross Alpha counting error (+/-) .....	0.660			pCi/L	1	SM7110C	8/14/09	8/17/09 17:34	abd W9H0539	
Gross Alpha MDA95 .....	0.343			pCi/L	1	SM7110C	8/14/09	8/17/09 17:34	abd W9H0539	



Certificate of Analysis

Quality Control Section

Radiological Parameters by APHA/EPA Methods - Quality Control

Batch W9H0539 - SM7110C

Blank (W9H0539-BLK1)					Prepared: 08/14/09 Analyzed: 08/17/09 17:34				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Gross Alpha .....		0.00		pCi/L					
Gross Alpha counting error (+/-) .....		0.632		pCi/L					
Gross Alpha MDA95 .....		0.343		pCi/L					
LCS (W9H0539-BS1)					Prepared: 08/14/09 Analyzed: 08/17/09 17:34				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Gross Alpha .....		18.2		pCi/L	18.0	101	70-130		
LCS Dup (W9H0539-BSD1)					Prepared: 08/14/09 Analyzed: 08/17/09 17:34				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Gross Alpha .....		17.6		pCi/L	18.0	97	70-130	4	30



## Certificate of Analysis

**Notes:**

The Chain of Custody document is part of the analytical report.  
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services. The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL). For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002



**Authorized Signature**

Contact: Kim G Tu (Project Manager)



ELAP # 1132  
LACSD # 10143  
NELAC # 04229CA

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.*

**Flags for Data Qualifiers:**

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
Dil	Dilution Factor
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity

**GROUNDWATER ANALYTICAL RESULTS  
(AUGUST 2009)  
BEACON SOLAR ENERGY PROJECT  
KERN COUNTY, CALIFORNIA**

Well Number	Depth to Water		Lab Analytical and Field Measured <sup>1</sup> Data											
	Date	feet-bgs <sup>2</sup>	TDS <sup>3</sup> (mg/L)	Fluoride	Chloride	Nitrite	Nitrate	Sulfate	Gross Alpha <sup>4</sup>	pH	Turbidity <sup>5</sup>	ORP <sup>6</sup>	EC <sup>7</sup>	DO <sup>8</sup>
<b>Arciero #33</b>	8/5/2009	253.7	<b>1420</b>	0.20	220	<0.10	1.2	530	3.79	7.43	35	137	0.22	4.3
<b>Well 52</b>	8/6/2009	NM <sup>9</sup>	522	--	--	--	--	--	--	7.51	0	-37	82.8	4.4
<b>Well 57</b>	8/6/2009	NM <sup>9</sup>	516	--	--	--	--	--	--	7.5	0	-36	84.1	1.7
<b>Well 58</b>	8/6/2009	NM <sup>9</sup>	<b>1210</b>	0.32	470	<0.10	<0.10	150	0.00	--	--	--	--	--
<b>Well 59</b>	8/6/2009	NM <sup>9</sup>	895	--	--	--	--	--	--	6.93	0	-48	0.145	3.2
<b>Well 61</b>	8/7/2009	NM <sup>9</sup>	482	--	--	--	--	--	--	7.93	0	92	69.4	4.4
<b>Well 63</b>	8/7/2009	NM <sup>9</sup>	514	--	--	--	--	--	--	7.3	0	119	74.1	2.6

**Notes:**

- 1 pH, Turbidity, ORP, EC, and DO were measured in the field with a Horiba.
- 2 bgs = below ground surface
- 3 TDS = Total Dissolved Solids (milligrams per liter)
- 4 Gross Alpha = Radionuclides (pico Curies per liter)
- 5 Turbidity is measured in NTUs
- 6 ORP = Oxidation-reduction potential (millivolts)
- 7 EC = Electric Conductivity (micromhos per centimeter)
- 8 DO = Dissolved oxygen
- 9 NM = Not measured. Well had a pump on it that did not allow the water level meter to be dropped down the well.

**Bold Values** Bold values indicate TDS results exceeding 1,000 mg/L.  
-- Analysis not run.

**LAB FILTERED METALS SAMPLING RESULTS  
(AUGUST 2009)  
BEACON SOLAR ENERGY PROJECT  
KERN COUNTY, CALIFORNIA**

Well Number	Date	Al	Ca	Fe	Mg	Mn	K	Na	Sr	B	Si	As	Ba	Cr	Cu	Mo	Ni	Se	V	Zn	Pb
Arciero #33	8/5/2009	<0.0500	206	<0.100	25.9	0.0669	12.4	247	0.937	6.82	22.0	<0.00100 <sup>2/1</sup>	0.0102	0.00151	0.00104	0.00195	0.00209	0.00491	<0.00100	<0.00500	<0.00100
Well 52	8/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well 57	8/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well 58	8/6/2009	<0.0500	173	<0.100	56.3	0.252	6.01	134	2.52	0.39	11.8	<0.00100	0.118	<0.00100	<0.00100	0.00451	0.00261	<0.00100	<0.00100	0.00652	<0.00100
Well 59	8/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well 61	8/7/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well 63	8/7/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Notes:**

Al = Aluminum  
 Ca = Calcium  
 Fe = Iron  
 Mg = Magnesium  
 Mn = Manganese  
 K = Sodium  
 Na = Sodium  
 Sr = Strontium  
 B = Boron  
 Si = Silicon

All Results reported in milligrams per liter  
 <0.00100 = Parameter not detected above the indicated reporting limit

**Methods:**

As = Arsenic  
 Ba = Barium  
 Cr = Chromium  
 Cu = Copper  
 Mo = Molybdenum  
 Ni = Nickel  
 Se = Selenium  
 V = Vanadium  
 Zn = Zinc  
 Pb = Lead  
 -- Analysis not run.

Samples were prepared using EPA Methods 3005A Filt./7470A Filt.  
 Samples were analyzed using EPA Methods 6010B/6020/7470A

**TOTAL METALS (UNFILTERED) SAMPLING RESULTS  
(AUGUST 2009)  
BEACON SOLAR ENERGY PROJECT  
KERN COUNTY, CALIFORNIA**

Well Number	Date	Al	Ca	Fe	Mg	Mn	K	Na	Sr	B	Si	As	Ba	Cr	Cu	Mo	Ni	Se	V	Zn	Pb
Arciero #33	8/5/2009	0.0724	204	15.1	26.9	0.219	13.1	252	0.946	7.07	24.6	0.0016	0.052	0.00285	0.00307	0.00165	0.00196	0.00482	0.00201	0.196	0.00118
Well 52	8/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well 57	8/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well 58	8/6/2009	<0.0500	176	3.89	55.2	0.257	6.03	135	2.58	0.369	11.7	0.00188	0.126	<0.00100	0.0122	0.0047	0.00258	<0.00100	<0.00100	0.0247	<0.00100
Well 59	8/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well 61	8/7/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Well 63	8/7/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Notes:**

Al = Aluminum  
Ca = Calcium  
Fe = Iron  
Mg = Magnesium  
Mn = Manganese  
K = Sodium  
Na = Sodium  
Sr = Strontium  
B = Boron  
Si = Silicon

All Results reported in milligrams per liter  
<0.00100 = Parameter not detected above the indicated reporting limit

**Methods:**

As = Arsenic  
Ba = Barium  
Cr = Chromium  
Cu = Copper  
Mo = Molybdenum  
Ni = Nickel  
Se = Selenium  
V = Vanadium  
Zn = Zinc  
Pb = Lead  
-- Analysis not run.

Samples were prepared using EPA Methods 3010A/3020A/7470A  
Samples were analyzed using EPA Methods 6010B/6020/7470A