

Attn: Eric Aust, Architect  
62 Balboa Coves  
Newport Beach, CA  
949-637-5220

May 30, 2018

**Project: Balboa Coves**  
Newport Beach, CA  
92663

## BALBOA COVES

### Study of all four (4) coves for dredging & replenishing

#### Introduction:

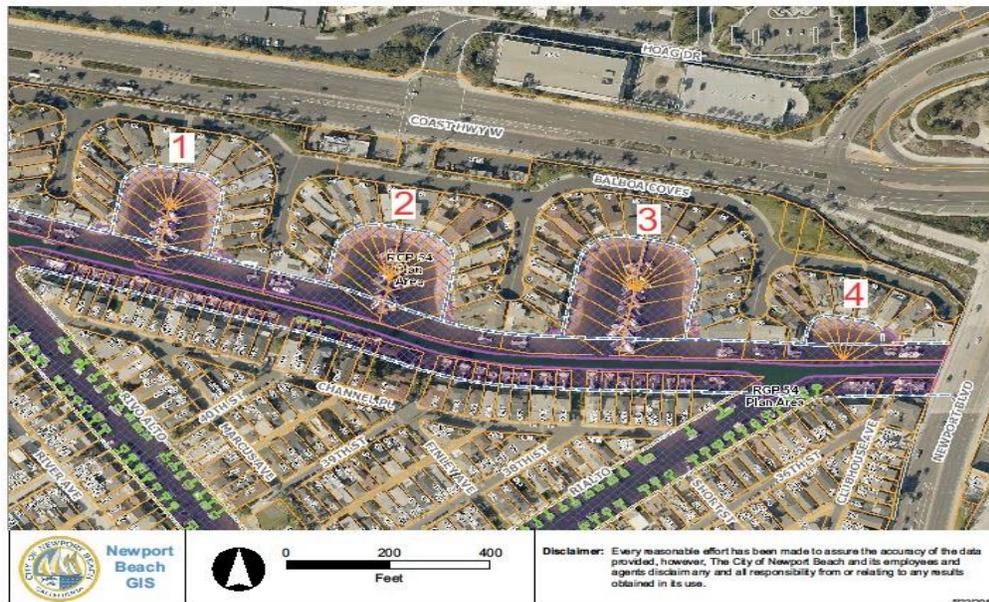
Associated Pacific Constructors is pleased to present the findings at all four (4) coves at Balboa Coves located at Newport Beach, CA. The work performed in for this project involves hydrographic surveys, topographic surveys, and grain size analysis samples on all the coves.

#### Description:

The common goal between all the coves is to give all residents a nice clean sand positioned at a natural slope. After performing the work mentioned above, Associated Pacific Constructors has studied each cove individually, but obtaining different results for each one.

APC recommends dredging each cove as needed (see findings down below), proposing both offshore disposal and Harbor Disposal, and replenish all coves with natural clean material from inside the Newport Beach Harbor. We have located a property which has agreed on hauling their sand for our replenishment purpose. Each of these coves is then described in this document below:

#### Location Map:



**Findings:**

**Cove #1:**

APC findings suggest:

- Approximately the first 0.5' to 1' of material down from existing mudline should be dredged to remove and dispose, taking away material not considered good and leaving room for importing good sand.
- The elevation of dredging & replenishment will be to -2 MLLW considering the lowest predicted tide for the year.
- Replenishment material will be placed between 1:5 and 1:8 slopes, near sand natural slope, to minimize material movement from the top to the bottom of the cove. Final grooming should be applied to imported material.
- Estimated profiles suggest that the quantities to be dredged are 1,445 cu yds. and to be imported are 1,210 cu yds.
- Grain Size analysis test results indicates that material to be dredged is suitable for in-harbor disposal only.

**Cove #2:**

APC findings suggest:

- Approximately the first 1.5' of material down from existing mudline should be dredged to remove and dispose, taking away material not considered good and leaving room for importing good sand.
- The elevation of dredging & replenishment will be to -2 MLLW considering the lowest predicted tide for the year.
- Replenishment material will be placed between 1:4 and 1:8 slopes, near sand natural slope, to minimize material movement from the top to the bottom of the cove. Final grooming should be applied to imported material.
- Estimated profiles suggest that the quantities to be dredged are 1,562 cu yds. and to be imported are 1,313 cu yds.
- Grain Size analysis test results indicates that material to be dredged is suitable for in-harbor disposal only.

**Cove #3:**

APC findings suggest:

- Approximately the first 1.5' of material down from existing mudline should be dredged to remove and dispose, taking away material not considered good and leaving room for importing good sand.
- The elevation of dredging & replenishment will be to -2 MLLW considering the lowest predicted tide for the year.

- Replenishment material will be placed between 1:6 and 1:9 slopes, near sand natural slope, to minimize material movement from the top to the bottom of the cove. Final grooming should be applied to imported material.
- Estimated profiles suggest that the quantities to be dredge are 1,695 cu yds. and to be imported are 1,077 cu yds.
- Grain Size analysis test results indicates that material to be dredged is suitable for in-harbor disposal only.

#### Cove #4:

APC findings suggest:

- Approximately the first 1.5' of material down from existing mudline should be dredged to remove and dispose, taking away material not considered good and leaving room for importing good sand.
- The elevation of dredging & replenishment will be to -2 MLLW considering the lowest predicted tide for the year.
- Replenishment material will be placed between 1:8 and 1:10 slopes, near sand natural slope, to minimize material movement from the top to the bottom of the cove. Final grooming should be applied to imported material.
- Estimated profiles suggest that the quantities to be dredge are 1,633 cu yds. and to be imported are 725 cu yds.
- Grain Size analysis test results indicates that material to be dredged is suitable for offshore disposal.

**Our study estimates that total volume to be dredged between all four (4) coves is to be 5,335 cu yds. and volume of replenishment is to be 4,325 cu yds.**

#### Dredging & disposal:

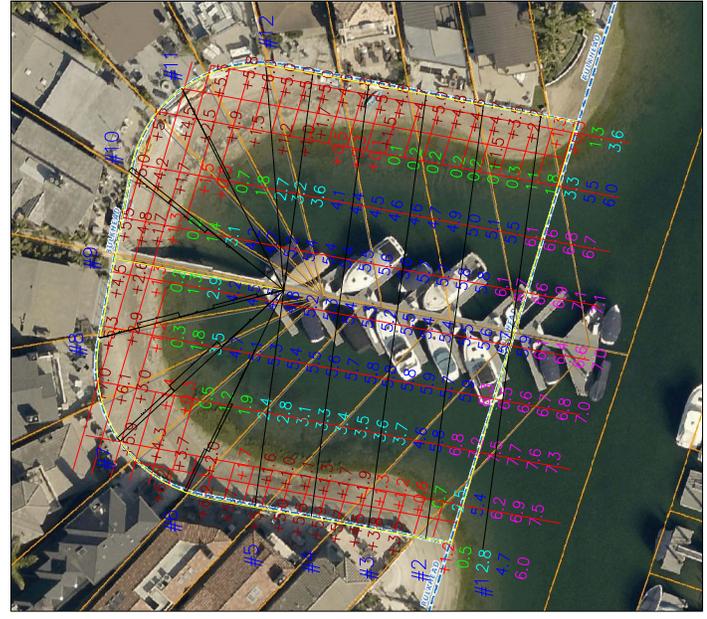
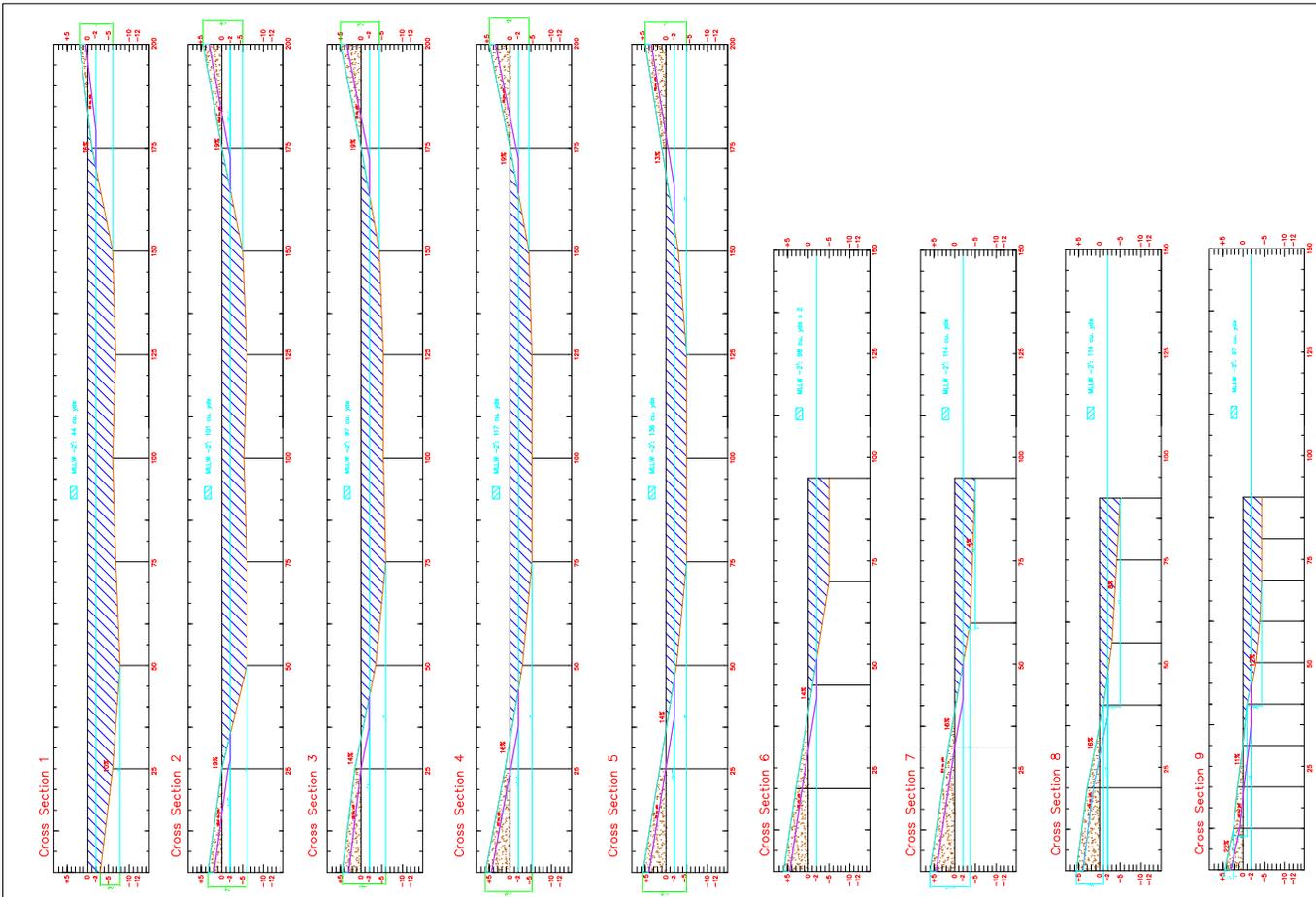
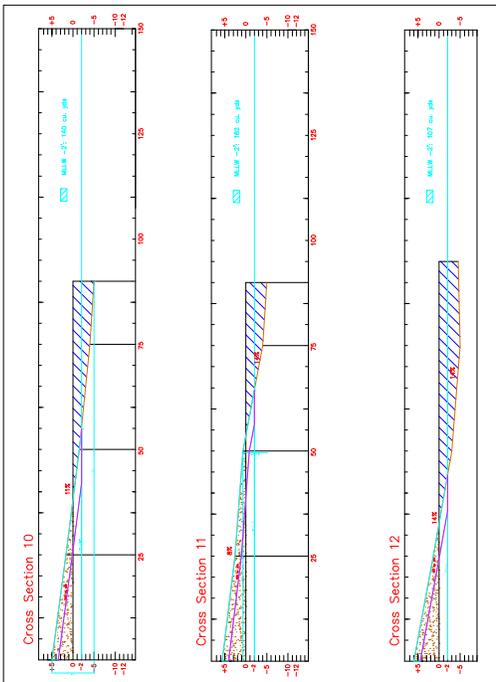
Grain Size analysis indicates if material can have offshore or In-Harbor Disposal, being the limit on 80% of sand content in the sample. If a test result has over 80% of sand content, it is considered "Good Sand" and it could not be disposed offshore, only inside the Harbor. Based on this information, offshore disposal can only be proposed for Cove #4. All other coves have a grain size content of over 80% of sand, which indicates In-Harbor Disposal is the only option.

Availability and disposal locations inside the Harbor will dictate when the project could be done, and it should be advised by the City of Newport Beach prior scheduling any work.



**Beach Replenishment:**

Associated Pacific Constructors has located a property inside the harbor that may have the required amount of Cu. Yds. necessary to satisfy the replenishment of all four (4) coves. Communications with the owner was established to develop a preliminary study at the property, and where he agreed on exporting material from his property for this project. If APC is chosen to perform this work, further surveys & studies will be developed to confirm that the property can indeed provide all necessary required material. If the property does not provide all material needed, we will work in conjunction with the City of Newport Beach to locate alternative sources to exporting good material



**NOTES:**

- AREAS ARE APPROXIMATES IN THIS DRAWING
- ESTIMATED DREDGING VOLUME: 1,445 CU YDS
- DREDGING ELEVATION UP TO -2' MLLW.

**STATUS: COMPLETED**

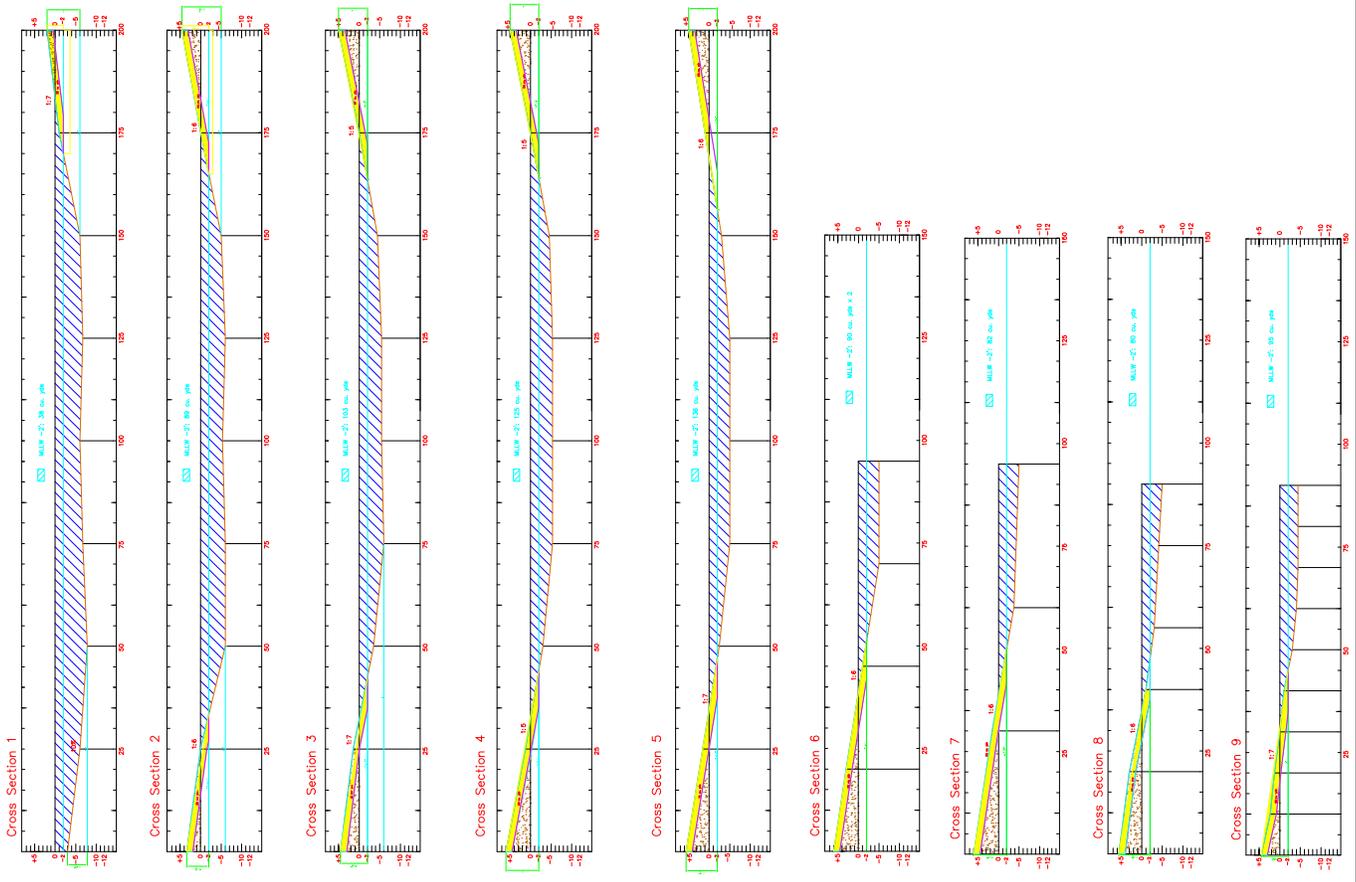
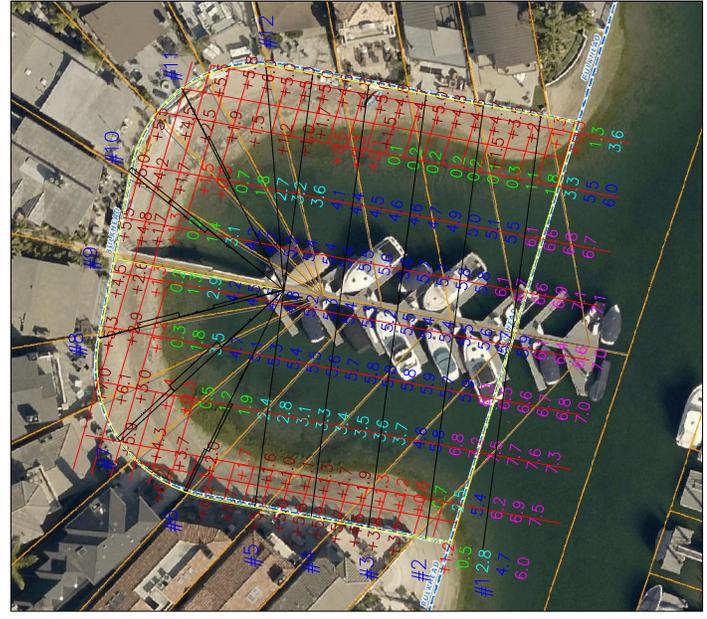
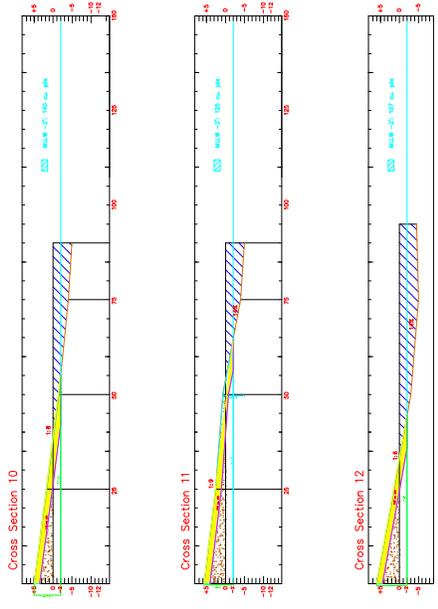
**SCALE:** ERIC AUST

**DESIGNER:** ASSOCIATED PACIFIC CONSTRUCTORS

**SITE:** BALBOA COVES NEWPORT BEACH, CA 92663

**TITLE:** COVE 1 - DREDGING PROFILES

<b>SCALE:</b> N.T.S.	<b>DATE:</b> 5-8-18	<b>DRAWN BY:</b> AC	<b>CHECKED:</b> JT
<b>PROJECT NUMBER:</b> 998-059.200	<b>DRAWING NUMBER:</b> 1	<b>REVISION:</b>	

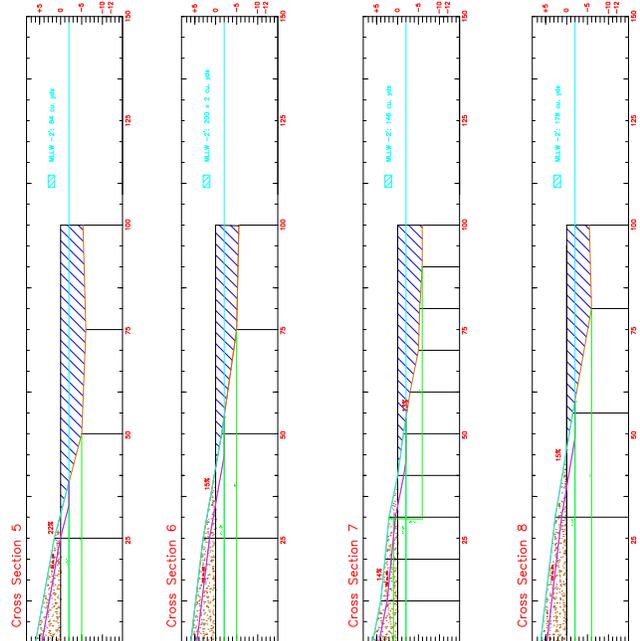
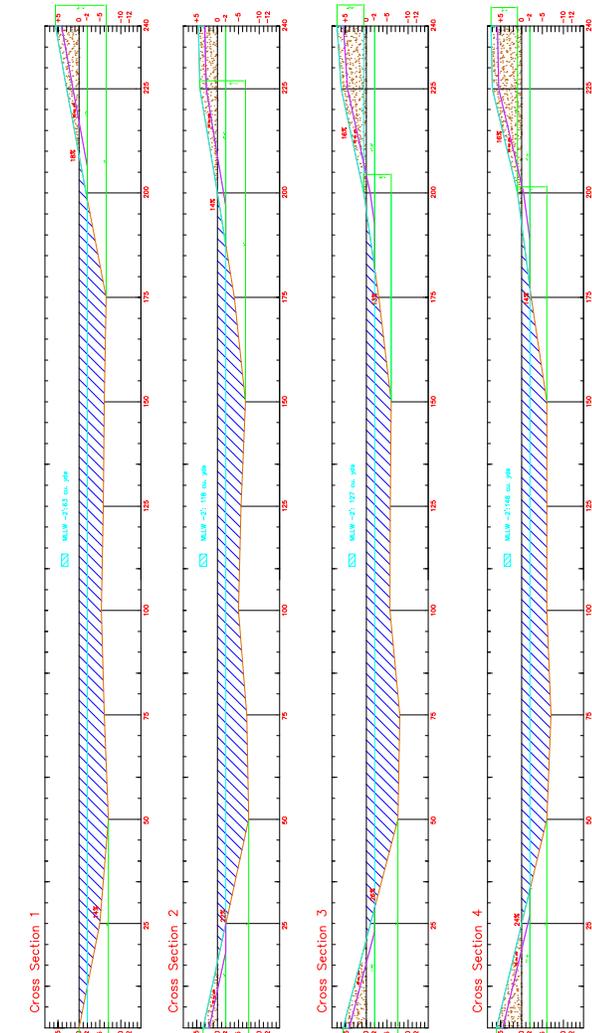
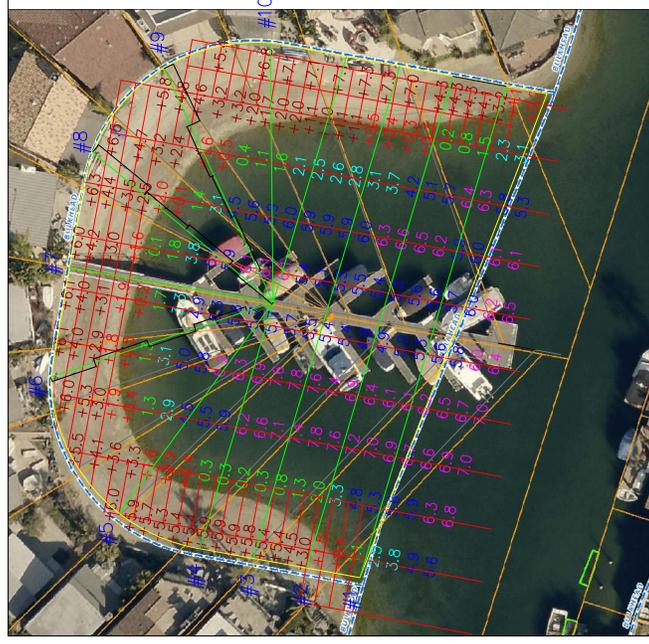
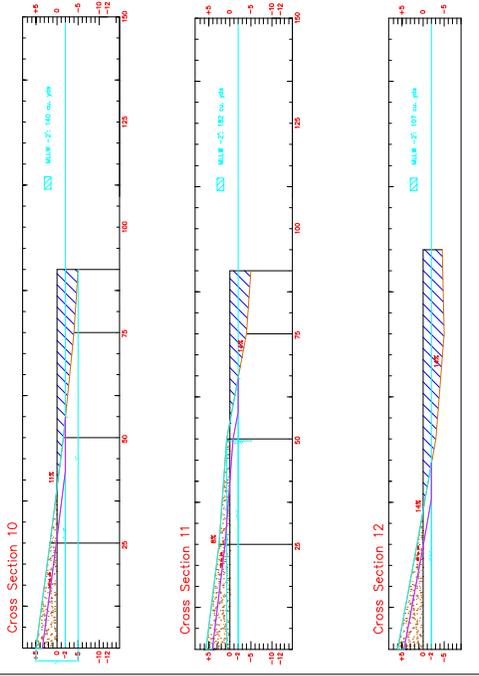


**NOTES**

- AREAS ARE APPROXIMATES IN THIS DRAWING
- ESTIMATED IMPORTED VOLUME: 1,210 CU YDS
- REPLEISHMENT ELEVATION UP TO -2 MLLW.

**STATUS COMPLETED**

<b>CLIENT:</b>	ERIC AUST		
<b>DESIGNER:</b>	ASSOCIATED PACIFIC CONSTRUCTORS		
<b>SITE:</b>	BALBOA COVES NEWPORT BEACH, CA 92663		
<b>TITLE:</b>	COVE 1 - REPLEISHMENT PROFILES		
<b>SCALE:</b>	<b>DATE:</b>	<b>DRAWN BY:</b>	<b>CHECKED:</b>
N.T.S.	5-8-18	AC	JT
<b>PROJECT NUMBER:</b>	<b>DRAWING NUMBER:</b>	<b>SHEET NUMBER:</b>	<b>TOTAL SHEETS:</b>
998-059,200	1	1	1



NOTES

- AREAS ARE APPROXIMATES IN THIS DRAWING
- ESTIMATED DREDGING VOLUME: 1,562 CU YDS
- DREDGING ELEVATION UP TO -2 MLLW.

STATUS: COMPLETED

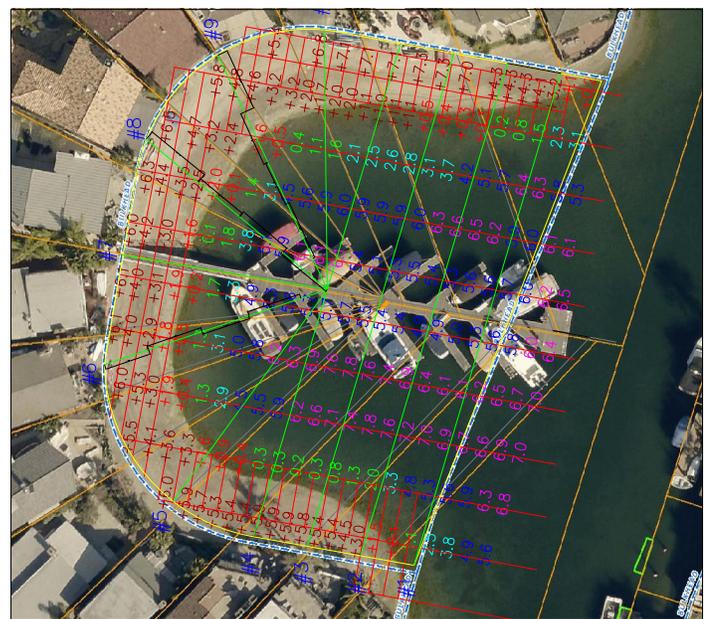
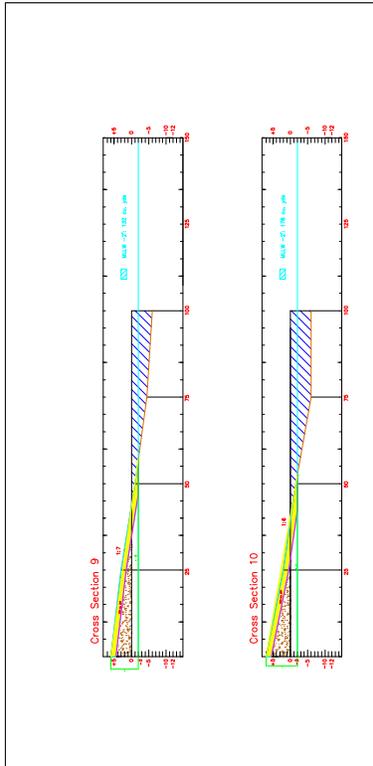
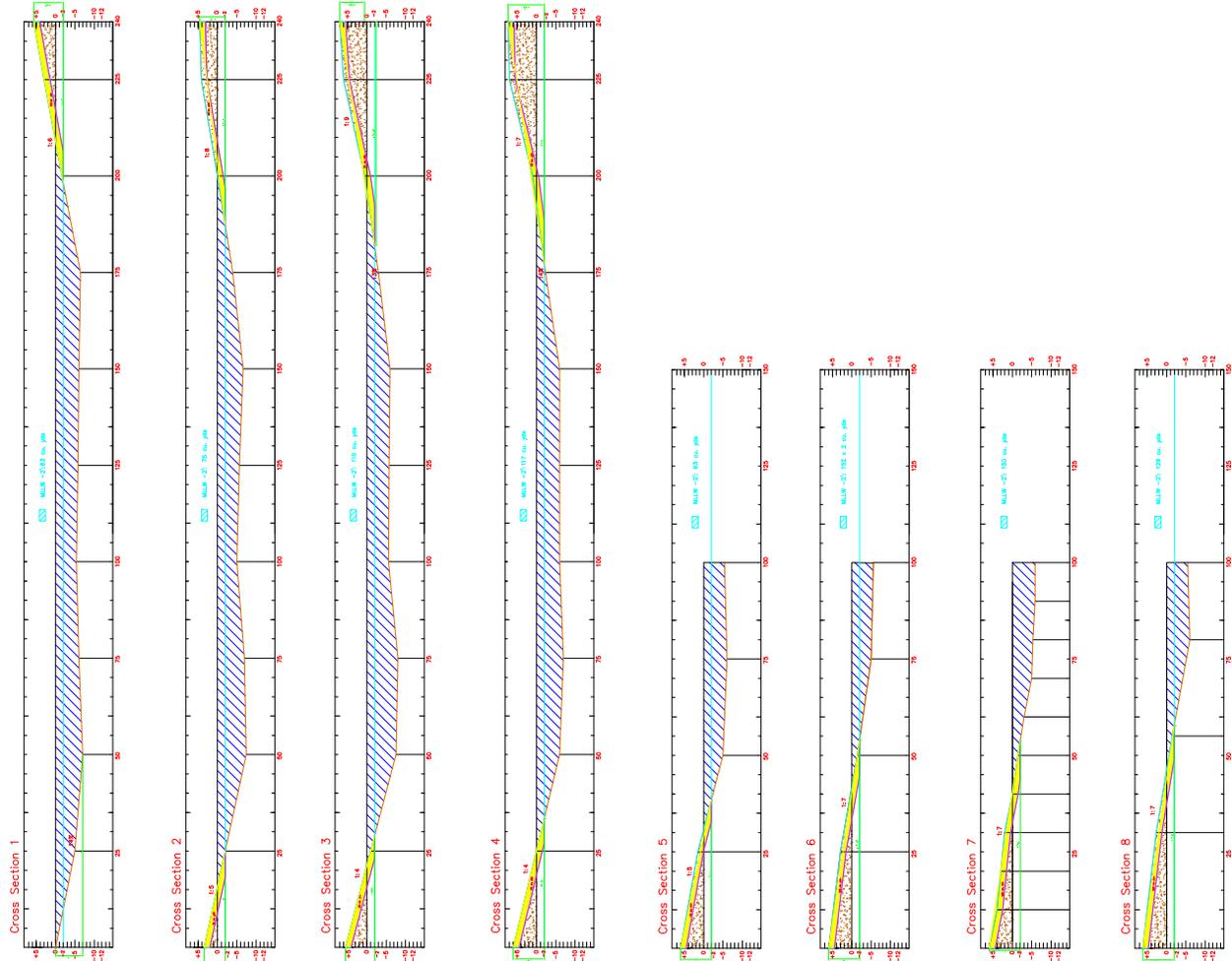
SCALE: ERIC AUST

DESIGNER: ASSOCIATED PACIFIC CONSTRUCTORS

SITE: BALBOA COVES NEWPORT BEACH, CA 92663

TITLE: COVE 2 - DREDGING PROFILES

SCALE:	DATE:	DRAWN BY:	CHECKED:
N.T.S.	5-8-18	AG	JT
PROJECT NUMBER:	DRAWING NUMBER:	REVISION	
998-059.200	1		



NOTES

- AREAS ARE APPROXIMATES IN THIS DRAWING
- ESTIMATED IMPORTED VOLUME: 1,313 CU YDS
- REPLEISHMENT ELEVATION UP TO -2 MLLW.

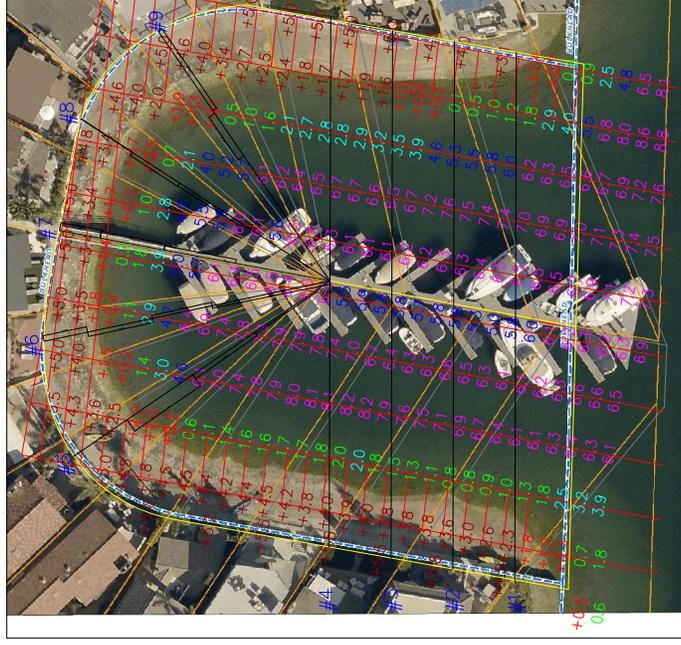
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CLIENT: ERIC AUST  
 DESIGNER: ASSOCIATED PACIFIC CONSTRUCTORS

SITE: BALBOA COVES NEWPORT BEACH, CA 92663

TITLE: COVE 2 - REPLEISHMENT PROFILES

SCALE: N.T.S.	DATE: 5-8-18	DRAWN BY: AC	CHECKED: JT
PROJECT NUMBER: 998-059.200	DRAWING NUMBER: 1	REVISION	



**NOTES:**

- AREAS ARE APPROXIMATES IN THIS DRAWING
- ESTIMATED DREDGING VOLUME: 1,696 CU YDS
- DREDGING ELEVATION UP TO -2 MLLW.

STATUS: **COMPLETED**

CLIENT: ERIC AUST

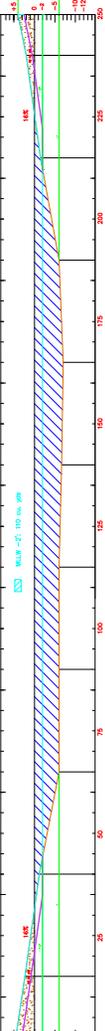
DESIGNER: ASSOCIATED PACIFIC CONSTRUCTORS

SITE: BALBOA COVES NEWPORT BEACH, CA 92663

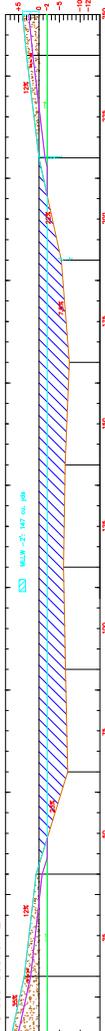
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SCALE: N.T.S.	DATE: 5-8-18	DRAWN BY: AC	CHECKED: JT
PROJECT NUMBER: 998-059.200	DRAWING NUMBER: 1	REVISION:	

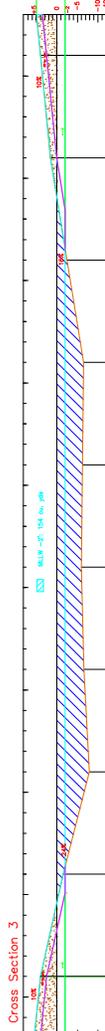
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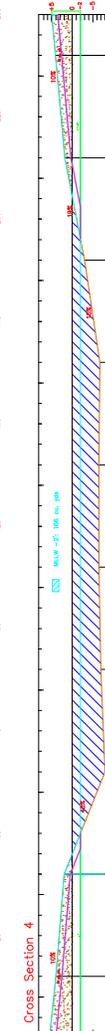
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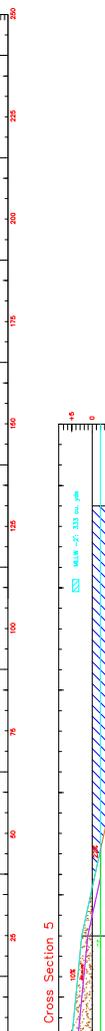
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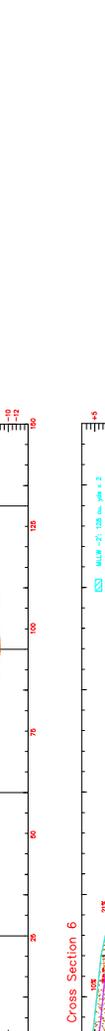
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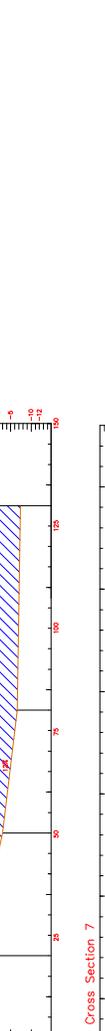
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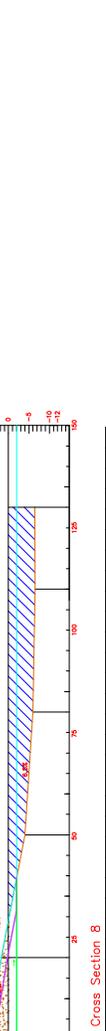
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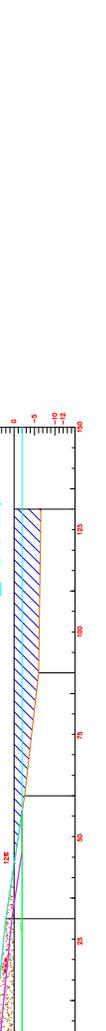
Cross Section 7



Cross Section 8

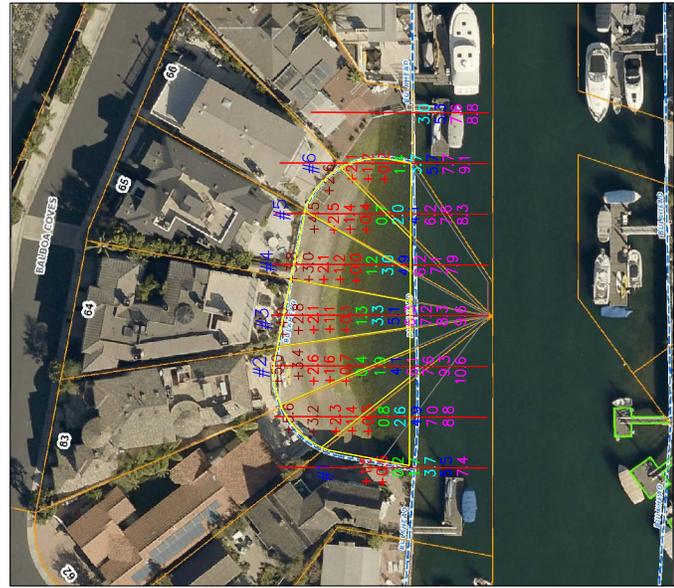
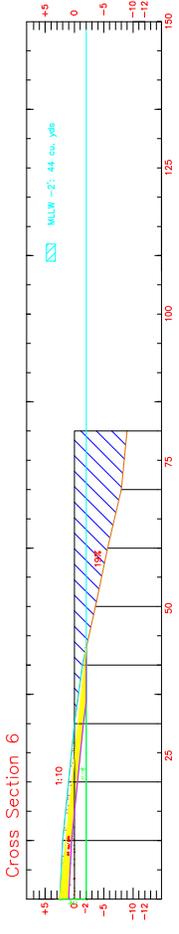
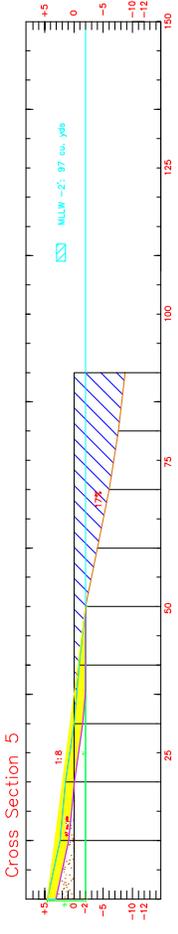
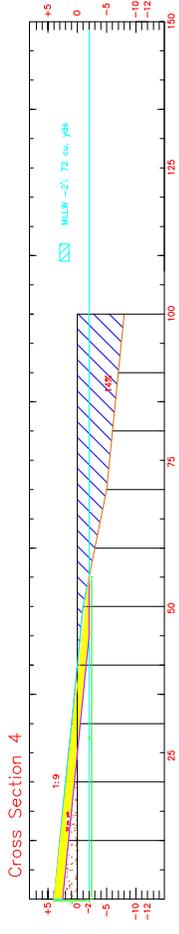
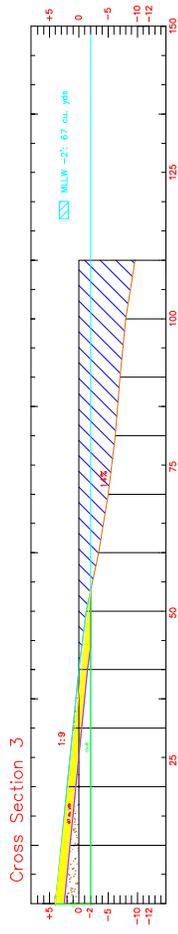
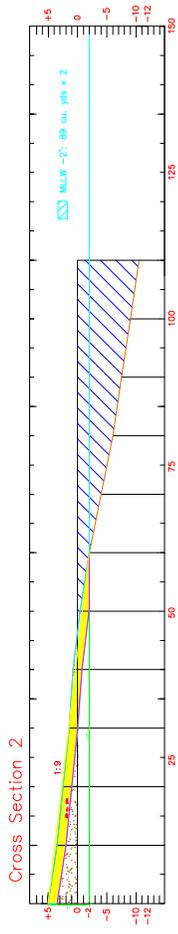
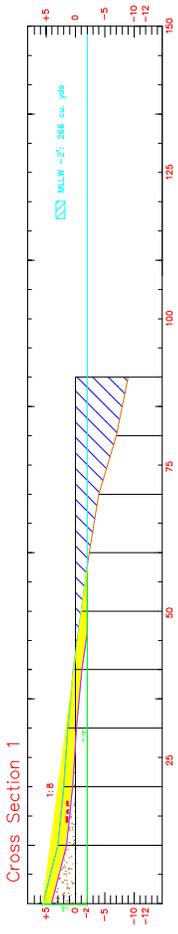


Cross Section 9









**Associated Pacific Constructors, Inc.**  
 • Offshore • Marshland • Onshore

**ADDRESS:**  
 2901 WEST COAST HWY  
 NEWPORT BEACH, CA  
 92663

**PHONE:**  
 949-258-4410

**WEBSITE:**  
 WWW.ASSOCIATEDPACIFIC.COM

**NOTES:**

- AREAS ARE APPROXIMATES IN THIS DRAWING
- ESTIMATED IMPORTED VOLUME: 725 CU YDS
- REPLENISHMENT ELEVATION UP TO -2 MLLW.

**STATUS: COMPLETED**

**SCALE:** ERIC AUST

**DESIGNER:** ASSOCIATED PACIFIC CONSTRUCTORS

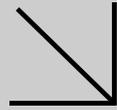
**SITE:** BALBOA COVES NEWPORT BEACH, CA 92663

**TITLE:** COVE 4 - REPLENISHMENT PROFILES

SCALE:	DATE:	DRAWN BY:	CHECKED:
N.T.S.	5-8-18	AC	JT
PROJECT NUMBER:	DRAWING NUMBER:	REVISION:	
998-059,200	1	1	



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**WORK ORDER NUMBER: 18-05-1110**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Associated Pacific Constructors, Inc.

**Client Project Name:** 998-059.200 BALBOA COVES

**Attention:** Jorge Tomas  
2901 West Coast Hwy  
Suite 374  
Newport Beach, CA 92663-4023

Approved for release on 05/25/2018 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order Number: 18-05-1110

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	3.1 ASTM D4464 (M) Particle Size Laser (Solid). . . . .	5
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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 05/11/18. They were assigned to Work Order 18-05-1110.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

## Sample Summary

---

Client: Associated Pacific Constructors, Inc. 2901 West Coast Hwy, Suite 374 Newport Beach, CA 92663-4023	Work Order: 18-05-1110 Project Name: 998-059.200 BALBOA COVES PO Number: Date/Time Received: 05/11/18 16:02 Number of Containers: 8
---	---

Attn: Jorge Tomas

---

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
BALBOA COVE #1-DREDGING	18-05-1110-1	04/30/18 13:10	1	Sediment

## Analytical Report

Associated Pacific Constructors, Inc.  
 2901 West Coast Hwy, Suite 374  
 Newport Beach, CA 92663-4023

Date Received: 05/11/18  
 Work Order: 18-05-1110  
 Preparation: N/A  
 Method: ASTM D4464 (M)  
 Units: %

Project: 998-059.200 BALBOA COVES

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BALBOA COVE #1-DREDGING	18-05-1110-1-AA	04/30/18 13:10	Sediment	LPSA 1	N/A	05/23/18 19:31	

Parameter	Result	Qualifiers
Clay (less than 0.00391mm)	0.63	
Silt (0.00391 to 0.0625mm)	4.89	
Total Silt and Clay (0 to 0.0625mm)	5.52	
Very Fine Sand (0.0625 to 0.125mm)	3.38	
Fine Sand (0.125 to 0.25mm)	14.50	
Medium Sand (0.25 to 0.5mm)	38.60	
Coarse Sand (0.5 to 1mm)	29.86	
Very Coarse Sand (1 to 2mm)	8.14	
Gravel (greater than 2mm)	ND	

94.48 % Sand


  
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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

**PARTICLE SIZE SUMMARY**  
(ASTM D422 / D4464M)

Associated Pacific Constructors, Inc.

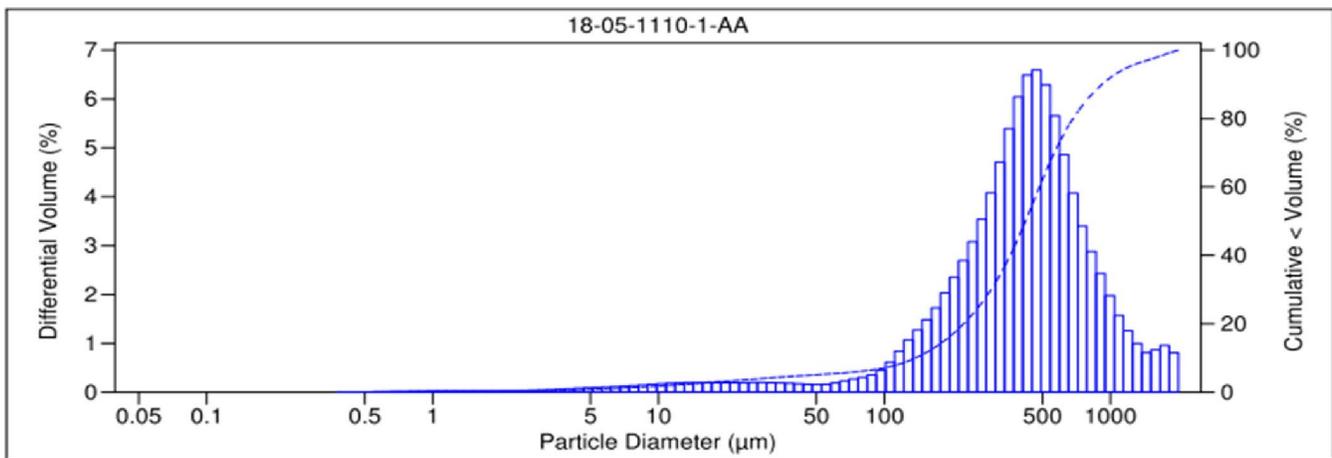
Date Sampled: 04/30/18  
 Date Received: 05/11/18  
 Work Order No: 18-05-1110  
 Date Analyzed: 05/23/18  
 Method: ASTM D4464M

Project: 998-059.200 BALBOA COVES

Page 1 of 8

Sample ID	Depth ft	Description	Mean Grain Size mm
BALBOA COVE #1-DREDGING		Medium Sand	0.490

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	8.14	29.86	38.60	14.50	3.38	4.89	0.63	5.52



V 3.0

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## Glossary of Terms and Qualifiers

Work Order: 18-05-1110

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
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 suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
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.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
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. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



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For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT

ASSOCIATED PACIFIC CONSTRUCTORS

2901 WEST COAST HIGHWAY, SUITE 374

CITY: NEWPORT BEACH STATE: CA ZIP: 92663

TEL: 949-258-4410 E-MAIL: JTOMAS@ASSOCIATEDPACIFIC.COM

TURNAROUND TIME (rush surcharges may apply to any TAT not STANDARD)

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF GLOBAL ID:

LOG CODE

SPECIAL INSTRUCTIONS:

Please provide individual analysis report for each sample.

LAB USE ONLY	SAMPLE ID	SAMPLING		NO. OF CONT.	MATRIX	Field Filled	Preserved	Unpreserved
		DATE	TIME					
1	BALBOA COVE #1 - DREDGING	4-30-2018	13:10	1	S	X		
2	BALBOA COVE #1 - REPLENISHMENT	5-11-2018	12:45	1	S	X		
3	BALBOA COVE #2 - DREDGING	4-30-2018	13:20	1	S	X		
4	BALBOA COVE #2 - REPLENISHMENT	5-11-2018	13:00	1	S	X		
5	BALBOA COVE #3 - DREDGING	4-30-2018	13:30	1	S	X		
6	BALBOA COVE #3 - REPLENISHMENT	5-11-2018	13:10	1	S	X		
7	BALBOA COVE #4 - DREDGING	4-30-2018	13:40	1	S	X		
8	BALBOA COVE #4 - REPLENISHMENT	5-11-2018	13:20	1	S	X		

Relinquished by: (Signature)

Received by: (Signature/Affiliation)

Date: 5/11/18 Time: 1602

Relinquished by: (Signature)

Received by: (Signature/Affiliation)

Date: Time:

Relinquished by: (Signature)

Received by: (Signature/Affiliation)

Date: Time:

# CHAIN OF CUSTODY RECORD

DATE: 5-11-2018

PAGE: 1 OF 1

WO # (LAB USE ONLY)  
**18-05-1110**

CLIENT PROJECT NAME / NUMBER

998-059.200 BALBOA COVES P.O. NO. 998-059.200

PROJECT CONTACT

JORGE TOMAS - 9492206387 - JTOMAS@ASSOCIATEDPACIFIC.COM

SAMPLER(S): (PRINT)

## REQUESTED ANALYSES

Please check box or fill in blank as needed.

ASTM D4464(M) Particle Size Laser

**SAMPLE RECEIPT CHECKLIST**

COOLER 1 OF 1

CLIENT: Associated Pacific Constructors

DATE: 05/11/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.1°C); Temperature (w/o CF): 3.7 °C (w/ CF): 3.8 °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

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: gwr

**CUSTODY SEAL:**

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: gwr

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1053

**SAMPLE CONDITION:**

Chain-of-Custody (COC) document(s) received with samples  Yes  No  N/A

COC document(s) received complete  Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC  Yes  No  N/A

Sample container label(s) consistent with COC  Yes  No  N/A

Sample container(s) intact and in good condition  Yes  No  N/A

Proper containers for analyses requested  Yes  No  N/A

Sufficient volume/mass for analyses requested  Yes  No  N/A

Samples received within holding time  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen  Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container  Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Acid/base preserved samples - pH within acceptable range  Yes  No  N/A

Container(s) for certain analysis free of headspace  Yes  No  N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation  Yes  No  N/A

**CONTAINER TYPE:**

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOA<sub>H</sub>  VOA<sub>na2</sub>  100PJ  100PJ<sub>na2</sub>  125AGB  125AGB<sub>h</sub>  125AGB<sub>p</sub>  125PB  125PB<sub>z</sub>na (pH\_9)

250AGB  250CGB  250CGBs (pH\_2)  250PB  250PB<sub>n</sub> (pH\_2)  500AGB  500AGJ  500AGJs (pH\_2)  500PB

1AGB  1AGB<sub>na2</sub>  1AGBs (pH\_2)  1AGBs (O&G)  1PB  1PB<sub>na</sub> (pH\_12)  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_)  EnCores® (\_\_\_\_)  TerraCores® (\_\_\_\_)  28oz PB (\_\_\_\_)

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

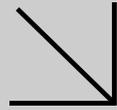
Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1053

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, z<sub>na</sub> = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 718



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Supplemental Report 1



**WORK ORDER NUMBER: 18-05-1110**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Associated Pacific Constructors, Inc.

**Client Project Name:** 998-059.200 BALBOA COVES

**Attention:** Jorge Tomas  
2901 West Coast Hwy  
Suite 374  
Newport Beach, CA 92663-4023

*Kathleen M. Burney* FOR

Approved for release on 05/25/2018 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



# Contents

Client Project Name: 998-059.200 BALBOA COVES  
Work Order Number: 18-05-1110

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3	Client Sample Data. . . . .	5
	3.1 ASTM D4464 (M) Particle Size Laser (Solid). . . . .	5
4	Particle Size Summary - 18-05-1110. . . . .	6
5	Glossary of Terms and Qualifiers. . . . .	14
6	Chain-of-Custody/Sample Receipt Form. . . . .	15

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 05/11/18. They were assigned to Work Order 18-05-1110.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

## Sample Summary

---

Client: Associated Pacific Constructors, Inc. 2901 West Coast Hwy, Suite 374 Newport Beach, CA 92663-4023	Work Order: 18-05-1110 Project Name: 998-059.200 BALBOA COVES PO Number: Date/Time Received: 05/11/18 16:02 Number of Containers: 8
Attn: Jorge Tomas	

---

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
BALBOA COVE #1-REPLENISHMENT	18-05-1110-2	05/11/18 12:45	1	Sediment



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## Analytical Report

Associated Pacific Constructors, Inc.  
2901 West Coast Hwy, Suite 374  
Newport Beach, CA 92663-4023

Date Received: 05/11/18  
Work Order: 18-05-1110  
Preparation: N/A  
Method: ASTM D4464 (M)  
Units: %

Project: 998-059.200 BALBOA COVES

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BALBOA COVE #1-REPLENISHMENT	18-05-1110-2-AA	05/11/18 12:45	Sediment	LPSA 1	N/A	05/23/18 19:38	

Parameter	Result	Qualifiers
Clay (less than 0.00391mm)	0.91	
Silt (0.00391 to 0.0625mm)	4.24	
Total Silt and Clay (0 to 0.0625mm)	5.15	
Very Fine Sand (0.0625 to 0.125mm)	7.71	
Fine Sand (0.125 to 0.25mm)	24.81	
Medium Sand (0.25 to 0.5mm)	41.39	
Coarse Sand (0.5 to 1mm)	19.80	
Very Coarse Sand (1 to 2mm)	1.15	
Gravel (greater than 2mm)	ND	

94.86 % Sand

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

**PARTICLE SIZE SUMMARY**  
(ASTM D422 / D4464M)

Associated Pacific Constructors, Inc.

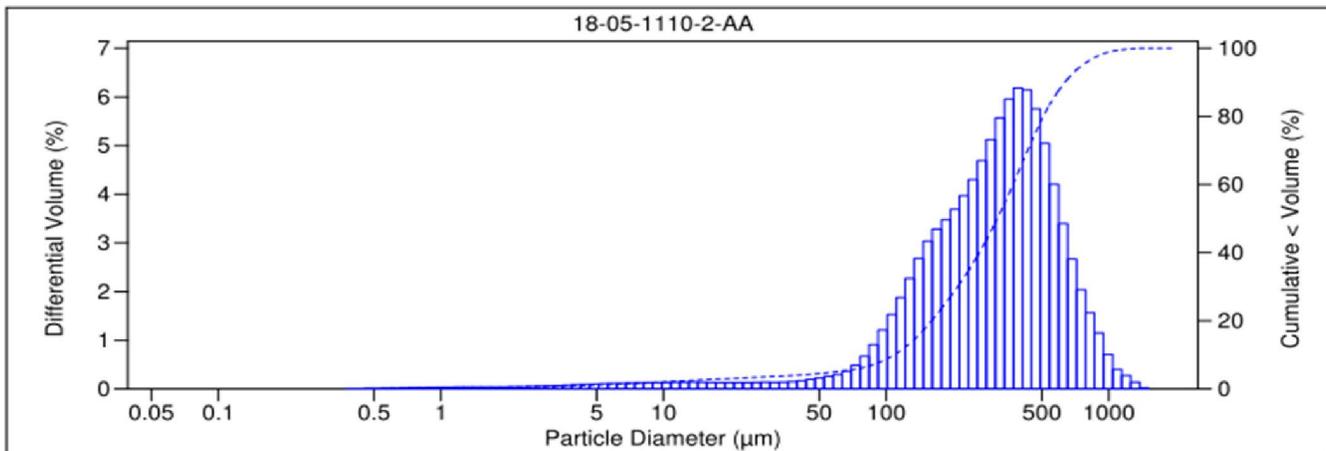
Date Sampled: 05/11/18  
 Date Received: 05/11/18  
 Work Order No: 18-05-1110  
 Date Analyzed: 05/23/18  
 Method: ASTM D4464M

Project: 998-059.200 BALBOA COVES

Page 2 of 8

Sample ID	Depth ft	Description	Mean Grain Size mm
BALBOA COVE #1-REPLENISHMENT		Medium Sand	0.348

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	1.15	19.80	41.39	24.81	7.71	4.24	0.91	5.15



V 3.0

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## Glossary of Terms and Qualifiers

Work Order: 18-05-1110

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
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 suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
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.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
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. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



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For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT

ASSOCIATED PACIFIC CONSTRUCTORS

2901 WEST COAST HIGHWAY, SUITE 374

CITY: NEWPORT BEACH STATE: CA ZIP: 92663

TEL: 949-258-4410 E-MAIL: JTOMAS@ASSOCIATEDPACIFIC.COM

TURNAROUND TIME (rush surcharges may apply to any TAT not STANDARD)

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF GLOBAL ID:

LOG CODE

SPECIAL INSTRUCTIONS:

Please provide individual analysis report for each sample.

LAB USE ONLY	SAMPLE ID	SAMPLING		NO. OF CONT.	MATRIX	Field Filled	Preserved	Unpreserved
		DATE	TIME					
1	BALBOA COVE #1 - DREDGING	4-30-2018	13:10	1	S	X		
2	BALBOA COVE #1 - REPLENISHMENT	5-11-2018	12:45	1	S	X		
3	BALBOA COVE #2 - DREDGING	4-30-2018	13:20	1	S	X		
4	BALBOA COVE #2 - REPLENISHMENT	5-11-2018	13:00	1	S	X		
5	BALBOA COVE #3 - DREDGING	4-30-2018	13:30	1	S	X		
6	BALBOA COVE #3 - REPLENISHMENT	5-11-2018	13:10	1	S	X		
7	BALBOA COVE #4 - DREDGING	4-30-2018	13:40	1	S	X		
8	BALBOA COVE #4 - REPLENISHMENT	5-11-2018	13:20	1	S	X		

ASTM D4464(M) Particle Size Laser

Requested Analyses

Please check box or fill in blank as needed.

Received by: (Signature/Affiliation) *[Signature]* Date: 5/11/18 Time: 1602

Received by: (Signature/Affiliation) *[Signature]* Date: Date: Time:

Received by: (Signature/Affiliation) *[Signature]* Date: Date: Time:

CHAIN OF CUSTODY RECORD

DATE: 5-11-2018

PAGE: 1 OF 1

WD # / LAB USE ONLY  
**18-05-1110**

CLIENT PROJECT NAME / NUMBER

998-059.200 BALBOA COVES P.O. NO. 998-059.200

PROJECT CONTACT

JORGE TOMAS - 9492206387 - JTOMAS@ASSOCIATEDPACIFIC.COM

SAMPLER(S): (PRINT)

REQUESTED ANALYSES

**SAMPLE RECEIPT CHECKLIST**

COOLER 1 OF 1

CLIENT: Associated Pacific Constructors

DATE: 05/11/2018

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.1°C); Temperature (w/o CF): 3.7 °C (w/ CF): 3.8 °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

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: gwr

**CUSTODY SEAL:**

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: gwr

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1053

**SAMPLE CONDITION:**

Chain-of-Custody (COC) document(s) received with samples  Yes  No  N/A

COC document(s) received complete  Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC  Yes  No  N/A

Sample container label(s) consistent with COC  Yes  No  N/A

Sample container(s) intact and in good condition  Yes  No  N/A

Proper containers for analyses requested  Yes  No  N/A

Sufficient volume/mass for analyses requested  Yes  No  N/A

Samples received within holding time  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen  Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container  Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Acid/base preserved samples - pH within acceptable range  Yes  No  N/A

Container(s) for certain analysis free of headspace  Yes  No  N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation  Yes  No  N/A

**CONTAINER TYPE:**

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOA<sub>h</sub>  VOA<sub>na2</sub>  100PJ  100PJ<sub>na2</sub>  125AGB  125AGB<sub>h</sub>  125AGB<sub>p</sub>  125PB  125PB<sub>z</sub>na (pH\_9)

250AGB  250CGB  250CGBs (pH\_2)  250PB  250PB<sub>n</sub> (pH\_2)  500AGB  500AGJ  500AGJs (pH\_2)  500PB

1AGB  1AGB<sub>na2</sub>  1AGBs (pH\_2)  1AGBs (O&G)  1PB  1PB<sub>na</sub> (pH\_12)  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_)  EnCores® (\_\_\_\_)  TerraCores® (\_\_\_\_)  28oz PB (\_\_\_\_)

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1053

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, z<sub>na</sub> = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 718



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Supplemental Report 2



**WORK ORDER NUMBER: 18-05-1110**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Associated Pacific Constructors, Inc.

**Client Project Name:** 998-059.200 BALBOA COVES

**Attention:** Jorge Tomas  
2901 West Coast Hwy  
Suite 374  
Newport Beach, CA 92663-4023

*Kathleen M. Burney* FOR

Approved for release on 05/25/2018 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



# Contents

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Work Order Number: 18-05-1110

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3	Client Sample Data. . . . .	5
	3.1 ASTM D4464 (M) Particle Size Laser (Solid). . . . .	5
4	Particle Size Summary - 18-05-1110. . . . .	6
5	Glossary of Terms and Qualifiers. . . . .	14
6	Chain-of-Custody/Sample Receipt Form. . . . .	15

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 05/11/18. They were assigned to Work Order 18-05-1110.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

## Sample Summary

Client: Associated Pacific Constructors, Inc. 2901 West Coast Hwy, Suite 374 Newport Beach, CA 92663-4023	Work Order: 18-05-1110 Project Name: 998-059.200 BALBOA COVES PO Number: Date/Time Received: 05/11/18 16:02 Number of Containers: 8
---	---

Attn: Jorge Tomas

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
BALBOA COVE #2-DREDGING	18-05-1110-3	04/30/18 13:20	1	Sediment

## Analytical Report

Associated Pacific Constructors, Inc.  
2901 West Coast Hwy, Suite 374  
Newport Beach, CA 92663-4023

Date Received: 05/11/18  
Work Order: 18-05-1110  
Preparation: N/A  
Method: ASTM D4464 (M)  
Units: %

Project: 998-059.200 BALBOA COVES

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>BALBOA COVE #2-DREDGING</b>	<b>18-05-1110-3-AA</b>	<b>04/30/18 13:20</b>	<b>Sediment</b>	<b>LPSA 1</b>	<b>N/A</b>	<b>05/23/18 19:44</b>	

<u>Parameter</u>	<u>Result</u>	<u>Qualifiers</u>
Clay (less than 0.00391mm)	1.94	
Silt (0.00391 to 0.0625mm)	15.64	
Total Silt and Clay (0 to 0.0625mm)	17.58	
Very Fine Sand (0.0625 to 0.125mm)	5.47	
Fine Sand (0.125 to 0.25mm)	19.37	
Medium Sand (0.25 to 0.5mm)	37.66	
Coarse Sand (0.5 to 1mm)	19.40	
Very Coarse Sand (1 to 2mm)	0.52	
Gravel (greater than 2mm)	ND	

82.45 % Sand

**PARTICLE SIZE SUMMARY**  
(ASTM D422 / D4464M)

Associated Pacific Constructors, Inc.

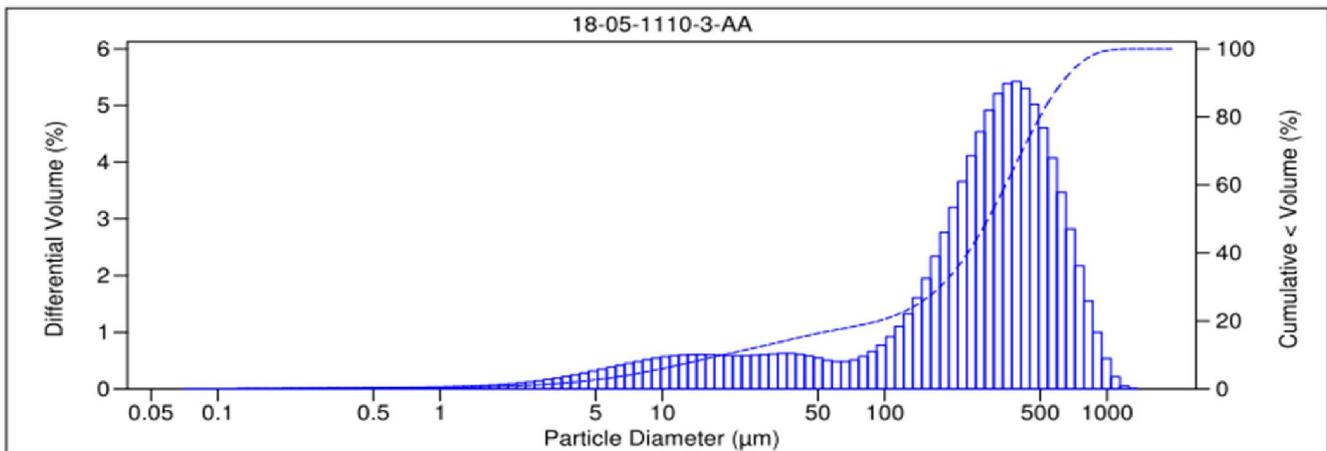
Date Sampled: 04/30/18  
 Date Received: 05/11/18  
 Work Order No: 18-05-1110  
 Date Analyzed: 05/23/18  
 Method: ASTM D4464M

Project: 998-059.200 BALBOA COVES

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Sample ID	Depth ft	Description	Mean Grain Size mm
BALBOA COVE #2-DREDGING		Medium Sand	0.314

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.52	19.40	37.66	19.37	5.47	15.64	1.94	17.58



V 3.0

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## Glossary of Terms and Qualifiers

Work Order: 18-05-1110

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
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 suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
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.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
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. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 896-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us.

LABORATORY CLIENT

ASSOCIATED PACIFIC CONSTRUCTORS

2901 WEST COAST HIGHWAY, SUITE 374

CITY: NEWPORT BEACH STATE: CA ZIP: 92663

TEL: 949-258-4410 E-MAIL: JTOMAS@ASSOCIATEDPACIFIC.COM

TURNAROUND TIME (rush surcharges may apply to any TAT not STANDARD)

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF GLOBAL ID:

LOG CODE

SPECIAL INSTRUCTIONS:

Please provide individual analysis report for each sample.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filled
		DATE	TIME					
1	BALBOA COVE #1 - DREDGING	4-30-2018	13:10	S	1			X
2	BALBOA COVE #1 - REPLENISHMENT	5-11-2018	12:45	S	1			X
3	BALBOA COVE #2 - DREDGING	4-30-2018	13:20	S	1			X
4	BALBOA COVE #2 - REPLENISHMENT	5-11-2018	13:00	S	1			X
5	BALBOA COVE #3 - DREDGING	4-30-2018	13:30	S	1			X
6	BALBOA COVE #3 - REPLENISHMENT	5-11-2018	13:10	S	1			X
7	BALBOA COVE #4 - DREDGING	4-30-2018	13:40	S	1			X
8	BALBOA COVE #4 - REPLENISHMENT	5-11-2018	13:20	S	1			X

Requested Analyses: ASTM D4464(M) Particle Size Laser

Please check box or fill in blank as needed.

Received by (Signature/Affiliation):  Date: 5/11/18 Time: 1602

Received by (Signature/Affiliation): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by (Signature/Affiliation): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

CHAIN OF CUSTODY RECORD

DATE: 5-11-2018

PAGE: 1 OF 1

WO # (LAB USE ONLY) 18-05-1110

CLIENT PROJECT NAME / NUMBER

998-059.200 BALBOA COVES P.O. NO. 998-059.200

PROJECT CONTACT

JORGE TOMAS - 9492206387 - JTOMAS@ASSOCIATEDPACIFIC.COM

SAMPLER(S): (PRINT)

REQUESTED ANALYSES

**SAMPLE RECEIPT CHECKLIST**

COOLER 1 OF 1

CLIENT: Associated Pacific Constructors

DATE: 05/11/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.1°C); Temperature (w/o CF): 3.7 °C (w/ CF): 3.8 °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

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: gwr

**CUSTODY SEAL:**

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: gwr

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1053

**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"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input type="checkbox"/>	<input checked="" 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 in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Acid/base preserved samples - pH within acceptable range	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Container(s) for certain analysis free of headspace	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOA<sub>h</sub>  VOA<sub>na2</sub>  100PJ  100PJ<sub>na2</sub>  125AGB  125AGB<sub>h</sub>  125AGB<sub>p</sub>  125PB  125PB<sub>z</sub>na (pH\_9)

250AGB  250CGB  250CGBs (pH\_2)  250PB  250PB<sub>n</sub> (pH\_2)  500AGB  500AGJ  500AGJs (pH\_2)  500PB

1AGB  1AGB<sub>na2</sub>  1AGBs (pH\_2)  1AGBs (O&G)  1PB  1PB<sub>na</sub> (pH\_12)  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_)  EnCores® (\_\_\_\_)  TerraCores® (\_\_\_\_)  28oz PB (\_\_\_\_)

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1053

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, z<sub>na</sub> = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 718



Cal  
science

Supplemental Report 3



**WORK ORDER NUMBER: 18-05-1110**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Associated Pacific Constructors, Inc.

**Client Project Name:** 998-059.200 BALBOA COVES

**Attention:** Jorge Tomas  
2901 West Coast Hwy  
Suite 374  
Newport Beach, CA 92663-4023

*Kathleen M. Burney* FOL

Approved for release on 05/25/2018 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order Number: 18-05-1110

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 05/11/18. They were assigned to Work Order 18-05-1110.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.