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September 7, 2016

Ms. Michelle Rogow
On-Scene Coordinator
U.S. Environmental Protection Agency Region 9
2445 North Palm Drive
Signal Hill, CA 90755

Subject: Report Emergency Response (ER) – Plains Pipeline Refugio Oil Spill Emergency Response, Goleta, Santa Barbara County, California
Technical Direction Document (TDD) No.: 0003/1302-T3-R9-15-05-0002
Document Control No.: 0057-08-AAJI
Work Order No.: 20409.012.002.0057.00

Dear Ms. Rogow:

Under TDD No. 0003/1302-T3-R9-15-05-0002, the U.S. Environmental Protection Agency tasked the Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) to support EPA's Emergency Response (ER) at the Plains Pipeline Refugio Oil Spill near Goleta, Santa Barbara County, California (the Site). The ER was initiated in response to the release of oil from a buried pipeline owned by Plains Pipeline LLC (Plains). Oil from the release site flowed overland and through storm drains, reaching the ocean and creating an oil slick several miles long and affecting multiple beaches along the southern California Coast.

This letter report provides a brief summary of the ER, but primarily discusses the Site description and on-shore ER activities for the period of time the START was on site. **Attachment A** provides the figures for this letter report. **Attachment B** provides a photographic log of Site conditions and ER activities.

SITE DESCRIPTION AND HISTORY

The Release Site is located approximately 250 feet north of Highway 101, approximately one mile east of Refugio State Beach, near the City of Goleta, Santa Barbara County, California (see **Figure 1**). The Release Site's geographic coordinates are 34° 27' 44.9" North latitude and 120° 05' 13.4" West longitude. The Release Site is located on undeveloped ranch lands, surrounded by ranch lands, oil production fields, and the Refugio State Park. The closest residence is approximately one half mile to the northwest of the Release Site.

The release emanated from pipeline 901, which is a 24-inch buried pipeline owned by Plains Pipeline L.P. of Houston, Texas. According to Plains, Line 901 flows from Las Flores Canyon to Gaviota, transporting crude oil from several off-shore platforms, as well as on-shore production facilities. According to the Refugio Response official website, the pipeline was constructed in 1987, and was most recently tested using an internal caliper tool in May 2015, according to the *Preliminary Factual Report: Plains Pipeline LP, Failure on Line 901; United States Department of Transportation, Pipeline and Hazardous Materials Safety Administration, February, 2016.*

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Based on START observations at the Release Site, there was no landslide or other obvious external factor that caused the failure of the pipeline. The U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials and Safety Administration (PHMSA) identified the cause of the release as due to "external corrosion" in their February 2016 report (PHMSA, 2016). Oil saturated the backfill and burst from the soil, pooling along a depression in the hillside before flowing to a storm drain about 80 feet to the southwest. The oil flowed into the storm drain, emerging 175 feet further to the southwest, at the base of the hill, north of California Highway 101. The oil then followed the storm drain under Highway 101, briefly emerging in a culvert between the highway and the Union Pacific Railway adjacent to the south. The oil emerged south of the Union Pacific Railway and flowed overland approximately 250 feet to the Pacific Ocean.

Incident and Response

On May 19, 2015, at approximately 1130 hours (hrs), a Plains employee noticed an anomaly in the pressure of Line 901 and shut it down. At 1140 hrs, Santa Barbara County Fire Department responded to a report of a foul, petroleum odor at Refugio State Beach. Fire Department personnel identified the point where oil was flowing into the ocean, and followed the oil to the release point. Plains personnel arrived at the site at approximately 1330 hrs.

At 1245 hrs on May, 19, 2015, EPA received notification from the California Governor's Office of Emergency Services (CAOES), who forwarded a report from San Barbara County Fire Department of an oil spill in the Pacific Ocean, of an oil spill ¾ of a mile west of Refugio State Beach. Subsequent follow up reports from OES At 1509 hrs, EPA received notification from the National Response Center (NRC) who was contacted at 1456 hrs by Plains All American Pipeline of a 500 barrel oil spill from a pipeline (onshore) was discovered at 1330 hrs. EPA deployed OSCs Michelle Rogow and Maggie Walden in response to this incident. At 1700 hrs, On-Scene Coordinator (OSC) Bret Moxley directed the START to mobilize to the Site to assist OSC Michelle Rogow with the response. The START arrived on site at 1900 hrs and checked into the Incident Command at Refugio State Beach. Plains had hired Clean Seas, LLC. (Clean Seas) to conduct off-shore operations, Patriot Environmental Services (Patriot) to conduct beach removal operations, and Pacific Petroleum California, Inc. (Pacific Petroleum) to conduct removal operations at the Release Site.

The Incident Command moved to the Santa Barbara County Office of Emergency Management (SBOEM) early the following morning. A UC structure was adopted, including the following entities:

- Responsible Party – Plains Pipeline LLC
- United States Coast Guard
- United States Environmental Protection Agency
- California Department of Fish and Wildlife, Office of Spill Prevention and Response (OSPR)
- Santa Barbara County Office of Emergency Management (OEM)

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In addition, the following provided support to the UC:

- United States National Oceanic and Atmospheric Administration (NOAA)
- United States Department of Fish and Wildlife
- State of California Parks Department
- Santa Barbara County Environmental Health
- State of California Regional Water Quality Control Board
- Santa Ynez Band of Chumash Indians
- Barbareno, Coastal, and Southern Owl Chumash Clans

At the peak of the response activities, around May 29, 2015, there were over 1,400 persons deployed, as well as 18 vessels, 2 helicopters, and five Shoreline Cleanup Assessment Techniques (SCAT) teams. By the end of the response, the RP's contractors had deployed over 7,000 feet of boom, and recovered approximately 14,267 gallons of oil. In addition, 795 cubic yards of oiled vegetation, 960 cubic yards of oiled sand from area beaches, 930 cubic yards of oiled debris, and 5,568 cubic yards of oiled soil were removed from sites in the affected area, based on the last published Incident Status Report, (http://www.refugioresponse.com/go/doc/7258/2523746/).

The volume of oil release from Line 901 is estimated by Plains to be 142,000 gallons, with an estimated 21,000 gallons of oil reaching the Pacific Ocean. Response monitoring and sampling activities continued into May 2016, with tar-ball sampling comparative analyses (http://www.refugioresponse.com/go/doc/7258/2588430/).

EMERGENCY RESPONSE ACTIVITIES

Emergency response activities were conducted from May 19, 2015 through June 11, 2015. Emergency Response Operations were divided into three sections: on-shore, beach, and off-shore operations. On-shore operations included assessment and removal activities from the rupture point to the bluff above the beach. Beach operations included the area from the bluff into the tidal zone from approximately one mile north of the release point to beaches as far south as Huntington Beach, which is approximately 140 miles southeast of the point where oil first entered the Pacific Ocean. Offshore operations included air and sea reconnaissance, as well as skimming and boom removal where visible oil was present. Additional information about the response effort can be found at OSC.org and http://www.refugioresponse.com/.

START ACTIVITIES

The START arrived on site on the evening of May 19, 2015 and conducted a brief photo survey of the affected beaches south of the release point (see **Figure 2** and **Photos 1 - 3**). The START then reported to the Incident Command, which was initially established at Refugio State Beach. The START collected information regarding the size of release, responsible party, as well as responding agencies and representative contractors on-scene and reported to EPA OSC Rogow, who was en route to the site.

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At the time START arrived on site, Patriot, Clean Seas, and Pacific Petroleum were on site conducting planning and cleanup activities. There were four skimmers, two ships towing boom, and a helicopter directing off shore operations. Activities on shore were limited to removing the large pool of oil accumulated near the release site using vacuum trucks.

On May 20, 2015, the START reported to the morning Operations Briefing, then began mapping out the on-shore pathway from the point where it impacted the ocean (confluence point) to the release site (**Photos 4 through 13**). The START utilized a Multi-RAE Pro 5-gas meter and an Ultra-RAE to determine volatile organic compounds and benzene concentrations in the breathable atmosphere for health and safety purposes. The START collected photographs and global positioning system (GPS) data to document the conditions.

The START hiked along the beach, crisscrossing the bluff until reaching the oiled surface at the confluence point (**Photo 4**). The START mapped key points along the pathway, from the beach bluff (**Photos 4 - 6**), to the Union Pacific railway (**Photos 7 - 9**), to the Highway 101 storm drains (**Photos 10 and 11**), to the slope below the pipeline release point (**Photos 12 and 13**).

From May 20 to June 26, 2015, OSC Rogow tasked START with two objectives: to assist the EPA Incident Commander with document reviewing, and to provide oversight of the on-shore oil removal activities being conducted by Plains and its contractors. In addition, START was tasked to open and manage a FlexViewer site on OSC.org, and provide sampling assistance as needed to EPA personnel. On June 26, 2015, Plains completed soil removal activities, and OSC Maggie Waldon relieved the START from site activities.

Sampling Assistance

On May 25, 2015, the START assisted EPA toxicologist, Ned Black, with the collection of 10 marine water samples. The samples were collected from various depths off shore and were submitted to the EPA Region 9 Richmond lab for analysis for Total Petroleum Hydrocarbons (TPH) by EPA Method 8015M, Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270C, Volatile Organic Compounds (VOCs) by EPA Method 8260B, Polychlorinated Aromatic Compounds (PAHs) by EPA Method 8270 SIMS, and Metals by EPA Method 6010/7470. The START processed the samples and entered them into the SCRIBE database, and delivered the samples to the Richmond Laboratory. The raw results are included in **Appendix C**.

Data Collection

Multiple interrelated systems comprised the approach to data collection at the Refugio Oil Spill Response; sampling information was handled using Scribe software and SCRIBE.net, photos and site documents were handled using the EPAOSC.org website and OSC.net, and spatial data were offered within the EPAOSC.org website using ArcGIS Viewer for Flex.

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Plains' technical contractor, Center for Toxicology and Environmental Health, LLC. (CTEH), reported site data in accordance with the Document and Data Management Plan (approved on 5-24-2015), and the Common Operating Platform Information Management and Data Sharing Plan (approved 5-26-2015). START teamed with CTEH to integrate,display, and archive geospatial data collected by Plains, including near real-time sampling and monitoring data. These data were transferred to a SCRIBE format to EPAOSC.org to provide an online repository for data generated during the Refugio Oil Spill Response. A hyperlink within the EPAOSC.org website provided access to the Viewer, providing relevant base layers, site features, sampling locations, and photos captured at the Site.

Plan Review

The START provided technical assistance to the UC by reviewing, commenting on, and providing guidance documents for, the preparation of various plans. The plan structure is presented in Figure 3. START provided technical assistance in generating the following documents:

- Quality Assurance Project Plan (6-2-2015),
- Forensic Analysis Sampling Plan (6-3-2015),
- Phase II Guidelines for Terrestrial, Marine Water, and Shoreline Habitat Cleanup Endpoints (6-2-2015),
- Phase II Guidelines for Terrestrial, Marine Water, and Shoreline Habitat Cleanup Endpoints, Amendment A (6-3-2015),
- Remedial Plan for Section 4 (5-30-2015),
- Removal Assessment Soil Sampling Analysis Plan (5-31-2016),
- Seep Oil/Sheen Sampling Plan (6-2-2015),
- Waste Management Plan (5-21-2015),
- Waste Segregation and Quantification Plan (5-19-2015),
- Emergency Response Sampling and Analysis Plan (5-21-2015),
- Cleanup Signoff Guidelines Phase I (5-22-2015),
- Confirmation Soil Sampling and Analysis Plan – Pipeline Excavation Area (6-2-2015),
- Excavation and Verification Plan (5-21-2015),
- Document and Data Management Plan (5-24-2015),
- Common Operating Platform Information Management and Data Sharing Plan (5-26-2015)

On-Shore Removal Operations

Plains and its contractors performed all of the on-shore cleanup activities with oversight provided by a number of stake-holder agencies, including EPA. The initial phases of site cleanup were underway when the START arrived on site on May 19, 2015: Pacific Petroleum began removing pooled oil at the Release Site; this activity continued under 24-hour operations until the pooled oil was removed. Waste disposal is addressed in the Waste Management Plan (approved on May 21, 2015) and the Waste Segregation and Quantification Plan (approved on May 19, 2015).

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Once free oil was removed from the release site, Plains began excavating impacted soils near the berm, however, operations in and around the pipeline location did not begin until all stakeholder agencies could observe the pipeline excavation. The average excavation in the pooled-oil area was about two feet below ground surface (bgs).

On May 22, 2015, Plains excavated Line 901, including the release point. Plains first exposed a tap valve downstream of the release point on the pipeline to pump the contents still remaining in the line. The START collected eleven 40 milliliter (mL) volumes of product using a 1-liter disposable bailer. START, transferred three of these to the State of California Department of Fish and Wildlife for analysis. The remaining eight VOA vials were placed in a cooler and locked in the EPA mobile command post until they were transferred to a NOAA representative on June 3, 2015. Although Plains and other parties collected several liters of sample at this time, the START sample, P1, was the only remaining sample with an intact chain of custody by the time the UC decided to utilize a reference standard of Line 901 product to compare with oil collected during recovery efforts. The use and data quality objectives for this sample are described in the Forensic Analysis Sampling and Analysis Plan, which was approved by the UC on June 2, 2015. The START did not perform any analyses of this sample; all aliquots were transferred to State and Federal agencies.

The excavation of the impacted area at the release site was stalled by the lack of an approved confirmation sampling plan and thresholds for backfill material. The Confirmation Soil Sampling and Analysis Plan was approved by the UC on June 3, 2015, after input from State and local agencies about acceptable sampling, analyses, and removal thresholds. CTEH collected background and confirmation samples on June 4, 2015. At this point, OSC Donn Zuroski directed the START not to collect split samples. Backfill sampling occurred on June 10, 2015.

Plains began pressure washing the culvert/storm drain pathways on May 26, 2015. Pressure washing was performed by applying hot water in the up-gradient portion of operations and collecting the effluent with a vacuum truck. The determination of successful remediation was based on visual presence/absence of oil on surfaces. Visually impacted soil was loaded into roll-off bins and removed from the site per the Waste Plan.

Pressure washing continued from the transition from Highway 101 to the Union Pacific Railroad through May 30, 2015. On May 31, 2015, Plains began preparation for removing oil and impacted soil from Section 4, the area between the Union Pacific railroad and the bluff. Work began by grubbing oiled vegetation from the site. By June 6, 2015, the UC reported approximately 660 cubic yards of oiled vegetation were removed, most of which came from Section 4.

Soil removal occurred slowly in Section 4, due to logistical and cultural sensitivity issues. Plains lifted excavation equipment and roll off bins across the Union Pacific railroad, which remained in active use during operations, using a crane, and excavated portions of the railroad ballast to allow clearance for vacuum hoses (Photo 18). Train spotters were utilized during all operations to ensure the health and safety of all workers. All work in Section 4 was performed under the oversight of

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cultural observers to ensure that Native artifacts and/or culturally sensitive areas were not disturbed. Each excavator bucket of soil was screened by local cultural observers for artifacts.

Plains completed removal of visual oil up to the bluff on June 16, and CTEH collected confirmation samples on June 16-17, 2015. EPA did not direct START to collect split samples. Due to the difficulty of working on the bluff area, oil cleanup in that portion of the site would be performed pursuant to a yet-prepared planning document under the subsequent Cleanup action.

On June 24, 2015, OSC Waldon directed START to return to the site to perform oversight duties of additional removal and confirmation sampling. The work included scraping approximately 0.5 to 2 feet of soil from delineated areas and the collection of composite confirmation samples. The excavation work was completed on June 26, 2015; OSC Waldon demobilized START after a site walk on June 26, 2015.

TRANSITIONAL ACTIVITIES

The UC drafted a Transition Plan on June 11, 2015 to begin transitioning from an Emergency Response to a Cleanup Work Plan. The START provided initial technical input on the plan, but did not review the final document. Continuing cleanup and Natural Resource Damage Assessment activities continued through May, 2016 and monitoring activities continue as triggered by the Work Plan are continuing.

SUMMARY

The EPA Region 9 Superfund Emergency Response Office tasked START to respond to the Plains Pipeline Refugio Oil Spill on May 19, 2015. The spill emanated from a buried pipeline near the town of Goleta, Santa Barbara County, California. The spill travelled approximately 800 feet, along storm drains, culverts, and natural drainage, and emptied into the Pacific Ocean. The Unified Command estimates approximately 142,000 gallons of oil were released during the spill, and approximately 21,000 gallons of oil reached the Pacific Ocean.

EPA tasked START to respond and provide technical assistance to the incident, as needed. START arrived on site on the evening of May 19, 2015, and remained on site through June 26, 2015. The START provided review and technical assistance to the preparation of planning documents throughout the response, as well as conducted oversight of on-shore recovery activities. START assisted the UC with the collection of a forensic sample from the pipeline, as well as EPA toxicologists with the collection of stratified seawater samples from the impacted area.

If you have any questions or comments regarding this report, please contact WESTON START at (818) 350-7300.

Very truly yours,
WESTON SOLUTIONS, INC.

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Ben Castellana
START Project Manager

Attachments:
A – Figures
B – Photographic Log
C – Marine Water Sample Results

cc: START DCN File

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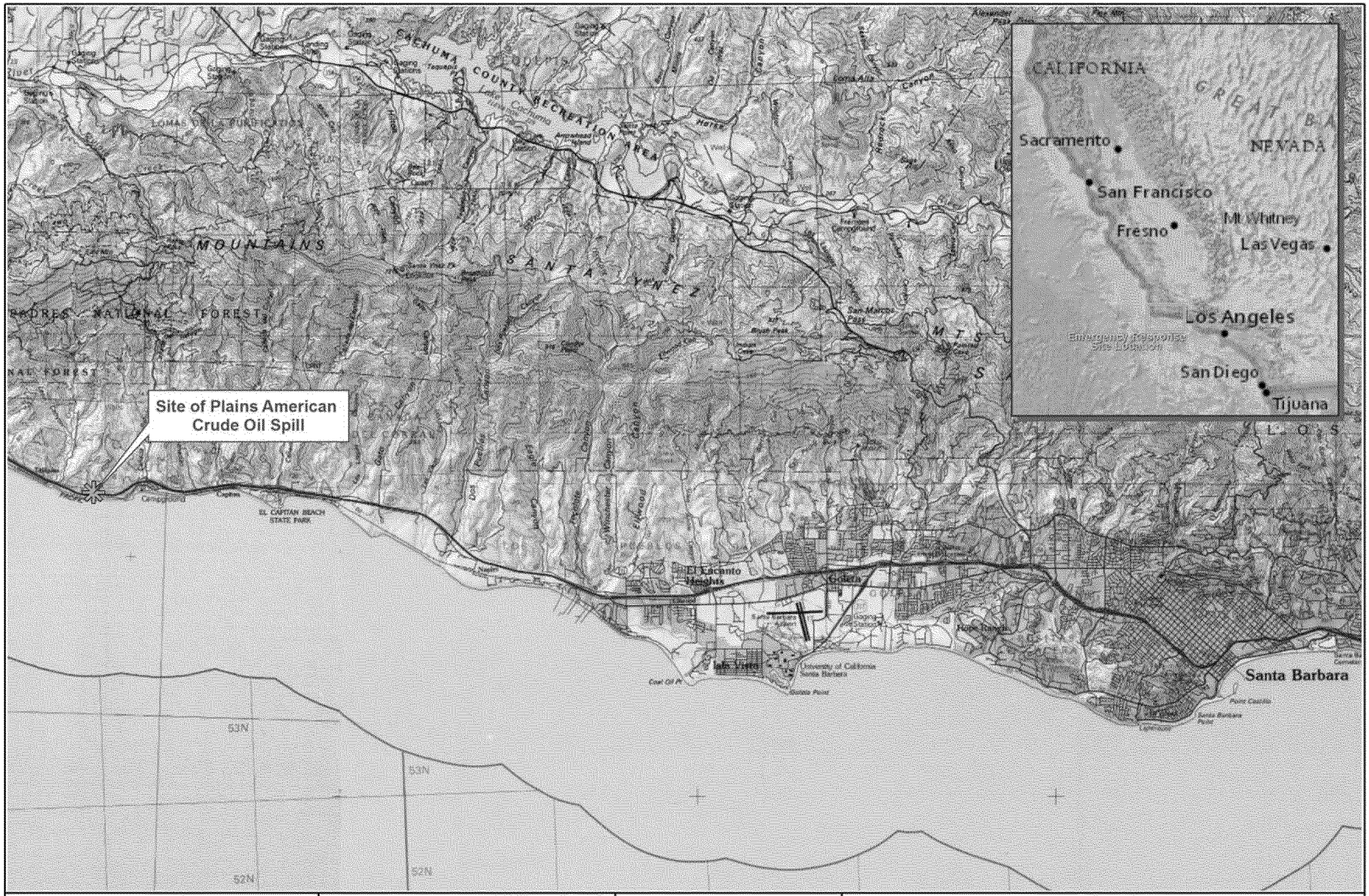
ATTACHMENT A
FIGURES



0 Miles 5

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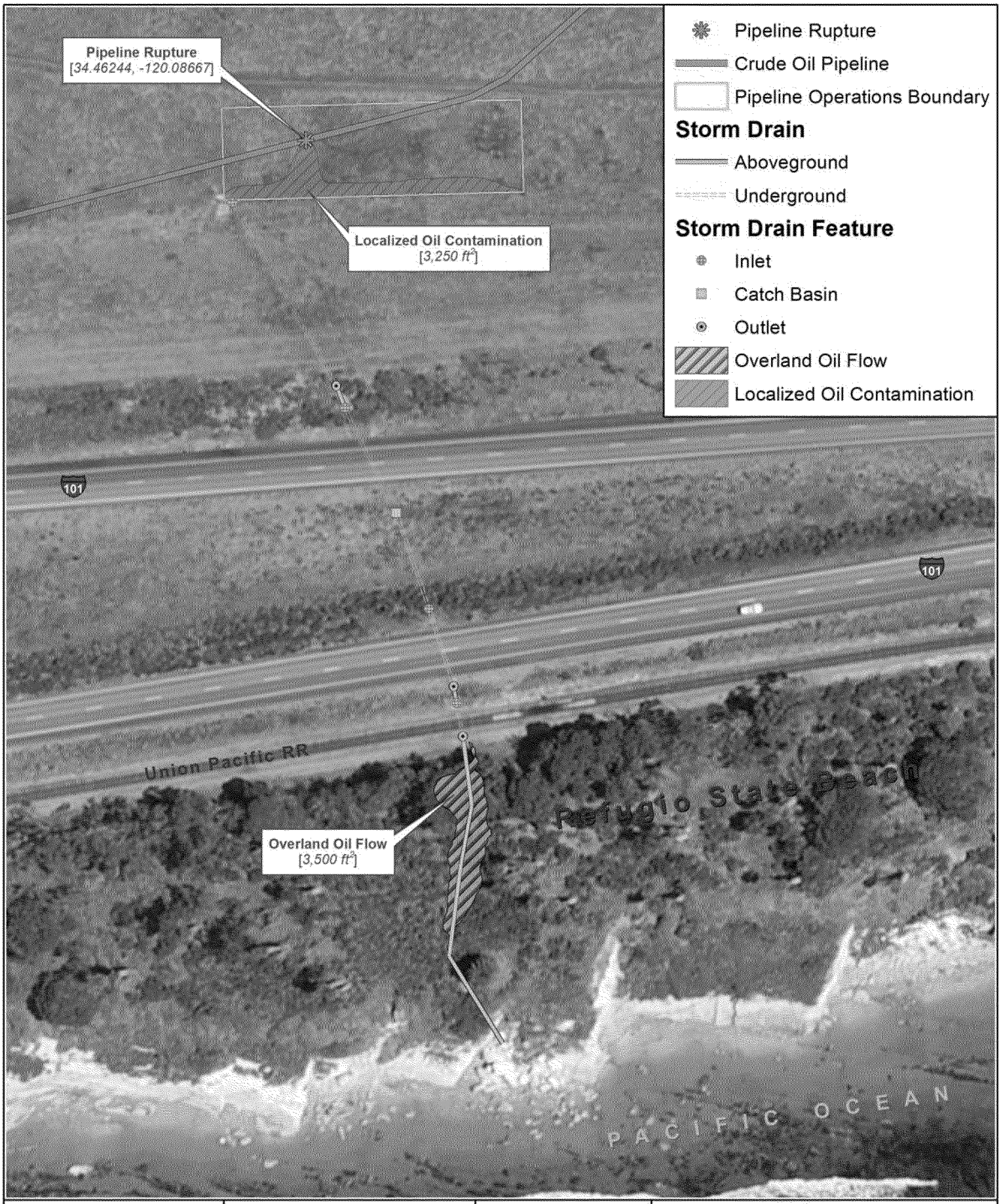
Southwest

FIGURE 1
SITE LOCATION MAP
Plains All-American Pipeline Refugio Oil Spill
Goleta, Santa Barbara County, CA

Contract: EP-S5-13-02; **TDD:** 0003/1302-T3-R9-15-05-0002

Document Control Number: 0057-08-AAJI



0 Scale in Feet 150

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FIGURE 2
SITE LAYOUT MAP
Plains All-American Pipeline
Refugio Oil Spill
Goleta, Santa Barbara County, CA

Contract: EP-S5-13-02; **TDD:** 0003/1302-T3-R9-15-05-0002

Document Control Number: 0057-08-AAJI

Refugio Incident Plains All American Pipeline Oil Spill Sampling Plan Flow Diagram

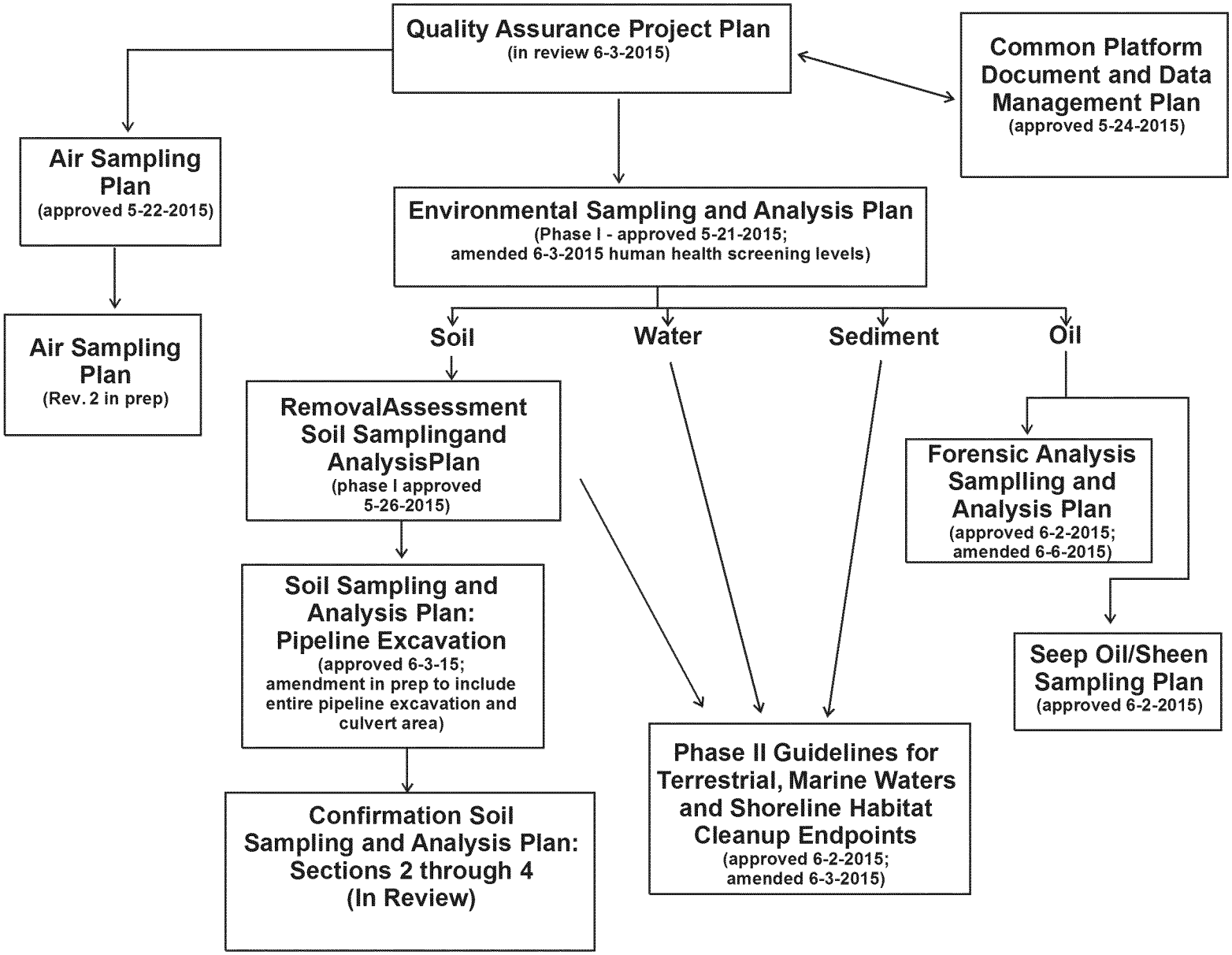

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FIGURE 3:
SAMPLING and ANALYSIS PLANS
Plains All-American Pipeline Refugio Oil Spill
Goleta, Santa Barbara County, CA

ATTACHMENT B
PHOTOGRAPHIC LOG

PHOTOGRAPH LOG

Project Name: Plains American Refugio Oil Spill ER	Site Location: Goleta, Santa Barbara Co., California	Project No. 20409.012.003.0057.00

Photo No.	Date:
1	May 19, 2015

Direction Photo Taken:

West

Description:

Oiled beach between Refugio and El Capitan state parks

Photo No.	Date:
2	May 19, 2015

Direction Photo Taken:

West

Description:

Boom deployed offshore with oil sheen visible in most of the field of view.

PHOTOGRAPH LOG

Project Name: Plains American Refugio Oil Spill ER	Site Location: Goleta, Santa Barbara Co., California	Project No. 20409.012.003.0057.00

Photo No.	Date:
3	May 20, 2015

Direction Photo Taken:

West

Description:

Oiled Pelican on Refugio State Beach, south of the confluence point where the oil entered the Pacific Ocean.

Photo No.	Date:
4	May 20, 2015

Direction Photo Taken:

Northeast

Description:

The confluence point where oil poured off the bluff, onto the beach, and into the Pacific Ocean.

PHOTOGRAPH LOG

Project Name: Plains American Refugio Oil Spill ER	Site Location: Goleta, Santa Barbara Co., California	Project No. 20409.012.003.0057.00

Photo No.	Date:
5	May 20, 2015

Direction Photo Taken:

West

Description:

Oiled rocks on Refugio State Beach near the confluence point.

Photo No.	Date:
6	May 20, 2015

Direction Photo Taken:

Northwest

Description:

The heavily vegetated area above the bluff (confluence point) and below the Union Pacific Railroad.

PHOTOGRAPH LOG

Project Name: Plains American Refugio Oil Spill ER	Site Location: Goleta, Santa Barbara Co., California	Project No. 20409.012.003.0057.00

Photo No.	Date:
7	May 20, 2015

Direction Photo Taken:

North

Description:

The storm drain outfall below the Union Pacific Railroad.

Photo No.	Date:
8	May 20, 2015

Direction Photo Taken:

West

Description:

The exposed pathway between the Highway 101 and Union Pacific Railroad storm drains.

PHOTOGRAPH LOG

Project Name: Plains American Refugio Oil Spill ER	Site Location: Goleta, Santa Barbara Co., California	Project No. 20409.012.003.0057.00

Photo No.	Date:
9	May 20, 2015

Direction Photo Taken:

Northeast

Description:

Another view of where the flow of oil is exposed between Highway 101 and the Union Pacific Railroad.

Photo No.	Date:
10	May 20, 2015

Direction Photo Taken:

North

Description:

A START member checking the VOC levels above the drain cover between the west- and east-bound lanes of Highway 101. The drain cover is several feet above the storm drain where the oil flowed under Highway 101.

PHOTOGRAPH LOG

Project Name: Plains American Refugio Oil Spill ER	Site Location: Goleta, Santa Barbara Co., California	Project No. 20409.012.003.0057.00

Photo No.	Date:
11	May 20, 2015

Direction Photo Taken:

West

Description:

The storm drain path north (up gradient) of Highway 101. This is the outfall of a pipe that connects to a storm drain about 40 feet from the break point.

Photo No.	Date:
12	May 20, 2015

Direction Photo Taken:

Southwest

Description:

Pacific Petroleum (Plains contractor) removing pooled oil at the release point using a vacuum truck during 24-hour operations.

PHOTOGRAPH LOG

Project Name: Plains American Refugio Oil Spill ER	Site Location: Goleta, Santa Barbara Co., California	Project No. 20409.012.003.0057.00

Photo No. 13

Date: May 21, 2015

Direction Photo Taken:

West

Description:

View of the unexcavated release area where oil pooled against the berm in the far end of the photo. Oil flowed through a drainage pipe exposed near the back of the vacuum truck, which flows to the culvert in Photo 11.

Photo No. 14

Date: May 21, 2015

Direction Photo Taken:

West

Description:

Staging area for the roll-off bins north of the site.

PHOTOGRAPH LOG

Project Name: Plains American Refugio Oil Spill ER	Site Location: Goleta, Santa Barbara Co., California	Project No. 20409.012.003.0057.00

Photo No.	Date:
15	May 24, 2015

Direction Photo Taken:

Southeast

Description:

Soil excavation and sand bagging around the area where oil pooled (see Photos 12 and 13) at the release area.

Photo No.	Date:
16	May 24, 2015

Direction Photo Taken:

Southwest

Description:

Exposing and shoring the pipeline break area.

PHOTOGRAPH LOG

Project Name: Plains American Refugio Oil Spill ER	Site Location: Goleta, Santa Barbara Co., California	Project No. 20409.012.003.0057.00

Photo No. 17

Date: May 30, 2015

Direction Photo Taken:

West

Description:

The removed section of Line 901 being readied for transportation.

Photo No. 18

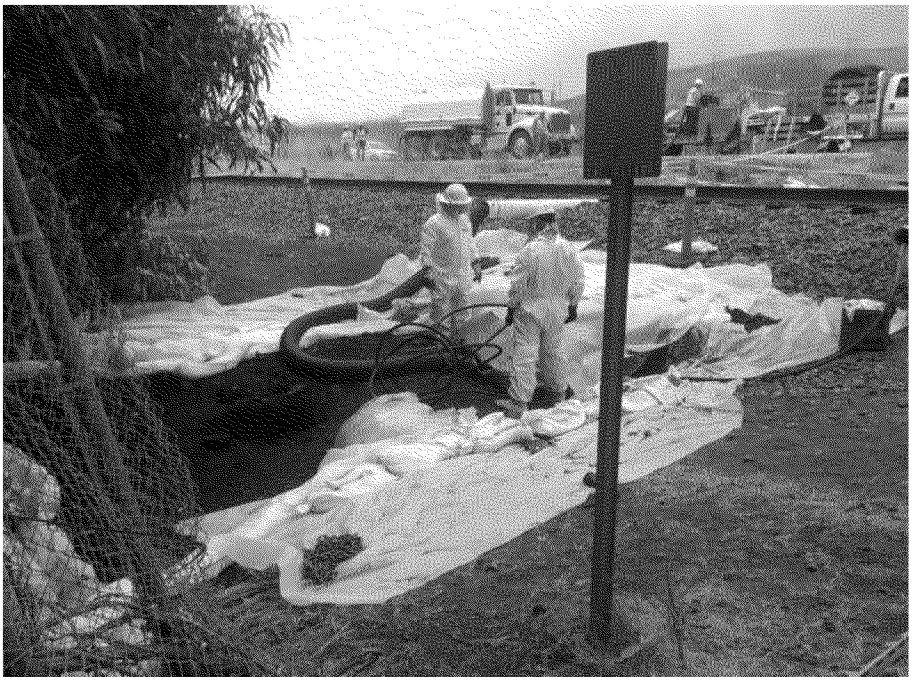
Date: May 30, 2015

Direction Photo Taken:

North

Description:

Pressure washing the storm drains under the Union Pacific Railroad.



PHOTOGRAPH LOG

Project Name: Plains American Refugio Oil Spill ER	Site Location: Goleta, Santa Barbara Co., California	Project No. 20409.012.003.0057.00

Photo No. 19

Date: May 30, 2015

Direction Photo Taken:

Southeast

Description:

New pipeline being lifted for installation.

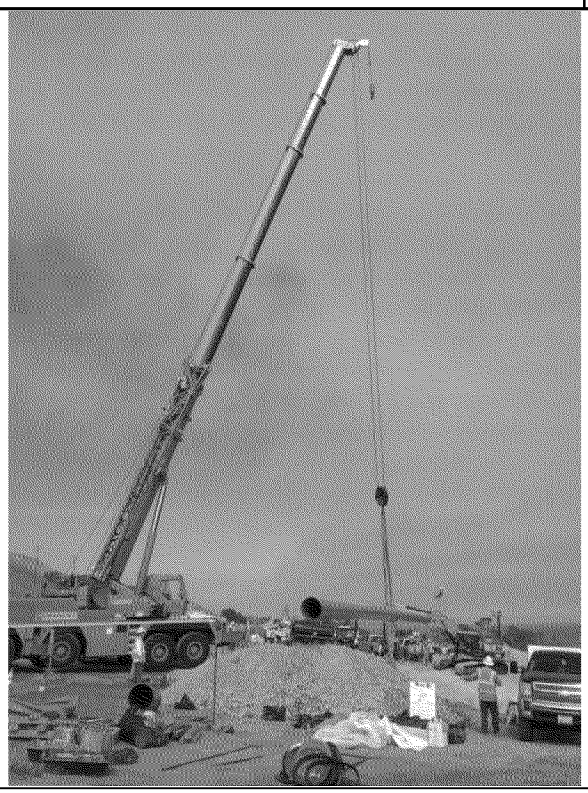


Photo No. 20

Date: June 16, 2015

Direction Photo Taken:

West

Description:

Excavation of the area above the bluffs (see Photo 6).

PHOTOGRAPH LOG

Project Name: Plains American Refugio Oil Spill ER	Site Location: Goleta, Santa Barbara Co., California	Project No. 20409.012.003.0057.00

Photo No.	Date:
21	June 17, 2015

Direction Photo Taken:

West

Description:

The release area showing the supported pipeline and extended soil removal area.

Photo No.	Date:
22	June 25, 2015

Direction Photo Taken:

West

Description:

Soil excavation near the bluff terminus, with a flight of pelicans in the background.

PHOTOGRAPH LOG

Project Name: Plains American Refugio Oil Spill ER	Site Location: Goleta, Santa Barbara Co., California	Project No. 20409.012.003.0057.00

Photo No.	Date:
23	June 26, 2015

Direction Photo Taken:

Southwest

Description:

A CTEH technician collecting confirmation samples from the wall of the excavation. The soil in this area contains sintered glass and debris consistent with 20th Century burn dump activity.

ATTACHMENT C
MARINE WATER SAMPLE RESULTS

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
15-05-2135-1	A15017	Aqueous	Metals	Antimony	113	%REC	0.015	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-36-0
15-05-2135-1	A15017	Aqueous	Metals	Antimony	115	%REC	0.015	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-36-0
15-05-2135-1	A15017	Aqueous	Metals	Arsenic	118	%REC	0.01	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-38-2
15-05-2135-1	A15017	Aqueous	Metals	Arsenic	121	%REC	0.01	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-38-2
15-05-2135-1	A15017	Aqueous	Metals	Barium	102	%REC	0.01	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-39-3
15-05-2135-1	A15017	Aqueous	Metals	Barium	99	%REC	0.01	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-39-3
15-05-2135-1	A15017	Aqueous	Metals	Beryllium	105	%REC	0.01	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-41-7
15-05-2135-1	A15017	Aqueous	Metals	Beryllium	105	%REC	0.01	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-41-7
15-05-2135-1	A15017	Aqueous	Metals	Cadmium	98	%REC	0.01	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-43-9
15-05-2135-1	A15017	Aqueous	Metals	Cadmium	100	%REC	0.01	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-43-9
15-05-2135-1	A15017	Aqueous	Metals	Chromium	94	%REC	0.01	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-47-3
15-05-2135-1	A15017	Aqueous	Metals	Chromium	95	%REC	0.01	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-47-3
15-05-2135-1	A15017	Aqueous	Metals	Cobalt	96	%REC	0.01	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-48-4
15-05-2135-1	A15017	Aqueous	Metals	Cobalt	93	%REC	0.01	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-48-4
15-05-2135-1	A15017	Aqueous	Metals	Copper	110	%REC	0.01	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-50-8
15-05-2135-1	A15017	Aqueous	Metals	Copper	107	%REC	0.01	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-50-8
15-05-2135-1	A15017	Aqueous	Metals	Lead	90	%REC	0.01	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7439-92-1
15-05-2135-1	A15017	Aqueous	Metals	Lead	93	%REC	0.01	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7439-92-1
15-05-2135-1	A15017	Aqueous	Metals	Molybdenum	97	%REC	0.01	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7439-98-7
15-05-2135-1	A15017	Aqueous	Metals	Molybdenum	99	%REC	0.01	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7439-98-7
15-05-2135-1	A15017	Aqueous	Metals	Nickel	96	%REC	0.01	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-02-0
15-05-2135-1	A15017	Aqueous	Metals	Nickel	95	%REC	0.01	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-02-0
15-05-2135-1	A15017	Aqueous	Metals	Selenium	124	%REC	0.015	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7782-49-2
15-05-2135-1	A15017	Aqueous	Metals	Selenium	121	%REC	0.015	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7782-49-2
15-05-2135-1	A15017	Aqueous	Metals	Silver	126	%REC	0.005	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-22-4
15-05-2135-1	A15017	Aqueous	Metals	Silver	122	%REC	0.005	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-22-4
15-05-2135-1	A15017	Aqueous	Metals	Thallium	82	%REC	0.015	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-28-0
15-05-2135-1	A15017	Aqueous	Metals	Thallium	79	%REC	0.015	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-28-0
15-05-2135-1	A15017	Aqueous	Metals	Vanadium	106	%REC	0.01	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-62-2
15-05-2135-1	A15017	Aqueous	Metals	Vanadium	108	%REC	0.01	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-62-2
15-05-2135-1	A15017	Aqueous	Metals	Zinc	113	%REC	0.01	15-05-2049	MSD	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-66-6
15-05-2135-1	A15017	Aqueous	Metals	Zinc	113	%REC	0.01	15-05-2049	MS	6/3/2015	No	5/28/2015	5/28/2015	5/29/2015	1	EPA 6010B	EPA 3010A Total	7440-66-6
D001-B	A15017		EPA/600/R	EC 50	21	%		B15E112		5/26/2015 9:30	No	##########	5/26/2015 9:30		1505050-07	Toxicity, Sea Urchin Fertilization		NA
D001-B	A15017	Sea Water	PAHs	1,2,4-Trichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	120-82-1
D001-B	A15017	Sea Water	PAHs	1,2-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	95-50-1
D001-B	A15017	Sea Water	PAHs	1,3-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	541-73-1
D001-B	A15017	Sea Water	PAHs	1,4-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	106-46-7
D001-B	A15017	Sea Water	PAHs	1-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	90-12-0
D001-B	A15017	Sea Water	PAHs	2,4,5-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	95-95-4
D001-B	A15017	Sea Water	PAHs	2,4,6-Tribromo	104	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	118-79-6
D001-B	A15017	Sea Water	PAHs	2,4,6-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	88-06-2
D001-B	A15017	Sea Water	PAHs	2,4-Dichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	120-83-2
D001-B	A15017	Sea Water	PAHs	2,4-Dimethylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	105-67-9
D001-B	A15017	Sea Water	PAHs	2,4-Dinitrophenol		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	51-28-5
D001-B	A15017	Sea Water	PAHs	2,4-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	121-14-2
D001-B	A15017	Sea Water	PAHs	2,6-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	606-20-2
D001-B	A15017	Sea Water	PAHs	2-Chloronaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	91-58-7
D001-B	A15017	Sea Water	PAHs	2-Chlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	95-57-8
D001-B	A15017	Sea Water	PAHs	2-Fluorobiphen	76	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	321-60-8
D001-B	A15017	Sea Water	PAHs	2-Fluoropheno	62	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	367-12-4
D001-B	A15017	Sea Water	PAHs	2-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	91-57-6
D001-B	A15017	Sea Water	PAHs	2-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	95-48-7
D001-B	A15017	Sea Water	PAHs	2-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	88-74-4
D001-B	A15017	Sea Water	PAHs	2-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	88-75-5
D001-B	A15017	Sea Water	PAHs	3,3'-Dichlorobenzidine		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	91-94-1
D001-B	A15017	Sea Water	PAHs	3/4-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	65794-96-9
D001-B	A15017	Sea Water	PAHs	3-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	99-09-2
D001-B	A15017	Sea Water	PAHs	4,6-Dinitro-2-Methylph		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	534-52-1

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D001-B	A15017	Sea Water	PAHs	4-Bromophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	101-55-3
D001-B	A15017	Sea Water	PAHs	4-Chloro-3-Methylphen		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	59-50-7
D001-B	A15017	Sea Water	PAHs	4-Chloroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	106-47-8
D001-B	A15017	Sea Water	PAHs	4-Chlorophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	7005-72-3
D001-B	A15017	Sea Water	PAHs	4-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	100-01-6
D001-B	A15017	Sea Water	PAHs	4-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	100-02-7
D001-B	A15017	Sea Water	PAHs	Acenaphthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	83-32-9
D001-B	A15017	Sea Water	PAHs	Acenaphthylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	208-96-8
D001-B	A15017	Sea Water	PAHs	Aniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	62-53-3
D001-B	A15017	Sea Water	PAHs	Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	120-12-7
D001-B	A15017	Sea Water	PAHs	Azobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	103-33-3
D001-B	A15017	Sea Water	PAHs	Benzidine		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	92-87-5
D001-B	A15017	Sea Water	PAHs	Benzo (a) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	56-55-3
D001-B	A15017	Sea Water	PAHs	Benzo (a) Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	50-32-8
D001-B	A15017	Sea Water	PAHs	Benzo (b) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	205-99-2
D001-B	A15017	Sea Water	PAHs	Benzo (g,h,i) Perylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	191-24-2
D001-B	A15017	Sea Water	PAHs	Benzo (k) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	207-08-9
D001-B	A15017	Sea Water	PAHs	Benzoic Acid		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	65-85-0
D001-B	A15017	Sea Water	PAHs	Benzyl Alcohol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	100-51-6
D001-B	A15017	Sea Water	PAHs	Bis(2-Chloroethoxy) Me		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	111-91-1
D001-B	A15017	Sea Water	PAHs	Bis(2-Chloroethyl) Ethe		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	111-44-4
D001-B	A15017	Sea Water	PAHs	Bis(2-Chloroisopropyl) E		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	39638-32-9
D001-B	A15017	Sea Water	PAHs	Bis(2-Ethylhexyl) Phtha		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	117-81-7
D001-B	A15017	Sea Water	PAHs	Butyl Benzyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	85-68-7
D001-B	A15017	Sea Water	PAHs	Chrysene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	218-01-9
D001-B	A15017	Sea Water	PAHs	Dibenz (a,h) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	53-70-3
D001-B	A15017	Sea Water	PAHs	Dibenzofuran		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	132-64-9
D001-B	A15017	Sea Water	PAHs	Diethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	84-66-2
D001-B	A15017	Sea Water	PAHs	Dimethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	131-11-3
D001-B	A15017	Sea Water	PAHs	Di-n-Butyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	84-74-2
D001-B	A15017	Sea Water	PAHs	Di-n-Octyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	117-84-0
D001-B	A15017	Sea Water	PAHs	Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	206-44-0
D001-B	A15017	Sea Water	PAHs	Fluorene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	86-73-7
D001-B	A15017	Sea Water	PAHs	Hexachloro-1,3-Butadie		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	87-68-3
D001-B	A15017	Sea Water	PAHs	Hexachlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	118-74-1
D001-B	A15017	Sea Water	PAHs	Hexachlorocyclopentad		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	77-47-4
D001-B	A15017	Sea Water	PAHs	Hexachloroethane		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	67-72-1
D001-B	A15017	Sea Water	PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	193-39-5
D001-B	A15017	Sea Water	PAHs	Isophorone		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	78-59-1
D001-B	A15017	Sea Water	PAHs	Naphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	91-20-3
D001-B	A15017	Sea Water	PAHs	Nitrobenzene		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	98-95-3
D001-B	A15017	Sea Water	PAHs	Nitrobenzene-d	89	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	4165-60-0
D001-B	A15017	Sea Water	PAHs	N-Nitrosodimethylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	62-75-9
D001-B	A15017	Sea Water	PAHs	N-Nitroso-di-n-propylam		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	621-64-7
D001-B	A15017	Sea Water	PAHs	N-Nitrosodiphenylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	86-30-6
D001-B	A15017	Sea Water	PAHs	Pentachlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	87-86-5
D001-B	A15017	Sea Water	PAHs	Phenanthrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	85-01-8
D001-B	A15017	Sea Water	PAHs	Phenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	108-95-2
D001-B	A15017	Sea Water	PAHs	Phenol-d6	45	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	13127-88-3
D001-B	A15017	Sea Water	PAHs	p-Terphenyl-d1	94	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	1718-51-0
D001-B	A15017	Sea Water	PAHs	Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	129-00-0
D001-B	A15017	Sea Water	PAHs	Pyridine		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8270C	EPA 3510C	110-86-1
D001-B	A15017	Sea Water	SIM PAHs	1-Methylnaphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	90-12-0
D001-B	A15017	Sea Water	SIM PAHs	2-Fluorobiphen	88	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	321-60-8
D001-B	A15017	Sea Water	SIM PAHs	2-Methylnaphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	91-57-6
D001-B	A15017	Sea Water	SIM PAHs	Acenaphthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	83-32-9
D001-B	A15017	Sea Water	SIM PAHs	Acenaphthylene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	208-96-8
D001-B	A15017	Sea Water	SIM PAHs	Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	120-12-7

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D001-B	A15017	Sea Water	SIM PAHs	Benzo (a) Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	56-55-3
D001-B	A15017	Sea Water	SIM PAHs	Benzo (a) Pyrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	50-32-8
D001-B	A15017	Sea Water	SIM PAHs	Benzo (b) Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	205-99-2
D001-B	A15017	Sea Water	SIM PAHs	Benzo (g,h,i) Perylene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	191-24-2
D001-B	A15017	Sea Water	SIM PAHs	Benzo (k) Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	207-08-9
D001-B	A15017	Sea Water	SIM PAHs	Chrysene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	218-01-9
D001-B	A15017	Sea Water	SIM PAHs	Dibenz (a,h) Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	53-70-3
D001-B	A15017	Sea Water	SIM PAHs	Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	206-44-0
D001-B	A15017	Sea Water	SIM PAHs	Fluorene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	86-73-7
D001-B	A15017	Sea Water	SIM PAHs	Indeno (1,2,3-c,d) Pyrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	193-39-5
D001-B	A15017	Sea Water	SIM PAHs	Naphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	91-20-3
D001-B	A15017	Sea Water	SIM PAHs	Nitrobenzene-d	105	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	4165-60-0
D001-B	A15017	Sea Water	SIM PAHs	Phenanthrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	85-01-8
D001-B	A15017	Sea Water	SIM PAHs	p-Terphenyl-d1	84	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	1718-51-0
D001-B	A15017	Sea Water	SIM PAHs	Pyrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	7	EPA 8270C SIM	EPA 3510C	129-00-0
D001-B	A15017	Sea Water	TPH	1,4-Bromofluo	78	%REC		15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	7	EPA 8015B (M)	EPA 5030C	460-00-4
D001-B	A15017	Sea Water	TPH	n-Octacosane	97	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8015B (M)	EPA 3510C	630-02-4
D001-B	A15017	Sea Water	TPH	n-Octacosane	97	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8015B (M)	EPA 3510C	630-02-4
D001-B	A15017	Sea Water	TPH-dro	TPH as Diesel		ug/L	100	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8015B (M)	EPA 3510C	68334-30-5
D001-B	A15017	Sea Water	TPH-gro	TPH as Gasoline		ug/L	100	15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	7	EPA 8015B (M)	EPA 5030C	8006-61-9
D001-B	A15017	Sea Water	TPH-oro	TPH as Motor Oil		ug/L	500	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	7	EPA 8015B (M)	EPA 3510C	
D001-B	A15017	Sea Water	VOCs	1,1,1,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	630-20-6
D001-B	A15017	Sea Water	VOCs	1,1,1-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	71-55-6
D001-B	A15017	Sea Water	VOCs	1,1,2,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	79-34-5
D001-B	A15017	Sea Water	VOCs	1,1,2-Trichloro-1,2,2-Tr		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	76-13-1
D001-B	A15017	Sea Water	VOCs	1,1,2-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	79-00-5
D001-B	A15017	Sea Water	VOCs	1,1-Dichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	75-34-3
D001-B	A15017	Sea Water	VOCs	1,1-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	75-35-4
D001-B	A15017	Sea Water	VOCs	1,1-Dichloropropene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	563-58-6
D001-B	A15017	Sea Water	VOCs	1,2,3-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	87-61-6
D001-B	A15017	Sea Water	VOCs	1,2,3-Trichloropropane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	96-18-4
D001-B	A15017	Sea Water	VOCs	1,2,4-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	120-82-1
D001-B	A15017	Sea Water	VOCs	1,2,4-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	95-63-6
D001-B	A15017	Sea Water	VOCs	1,2-Dibromo-3-Chlorop		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	96-12-8
D001-B	A15017	Sea Water	VOCs	1,2-Dibromoethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	106-93-4
D001-B	A15017	Sea Water	VOCs	1,2-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	95-50-1
D001-B	A15017	Sea Water	VOCs	1,2-Dichloroethane		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	107-06-2
D001-B	A15017	Sea Water	VOCs	1,2-Dichloroeth	110	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	17060-07-0
D001-B	A15017	Sea Water	VOCs	1,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	78-87-5
D001-B	A15017	Sea Water	VOCs	1,3,5-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	108-67-8
D001-B	A15017	Sea Water	VOCs	1,3-Butadiene		ug/L	25	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	106-99-0
D001-B	A15017	Sea Water	VOCs	1,3-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	541-73-1
D001-B	A15017	Sea Water	VOCs	1,3-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	142-28-9
D001-B	A15017	Sea Water	VOCs	1,4-Bromofluo	93	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	460-00-4
D001-B	A15017	Sea Water	VOCs	1,4-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	106-46-7
D001-B	A15017	Sea Water	VOCs	1,4-Dioxane		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	123-91-1
D001-B	A15017	Sea Water	VOCs	2,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	594-20-7
D001-B	A15017	Sea Water	VOCs	2-Butanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	78-93-3
D001-B	A15017	Sea Water	VOCs	2-Chloroethyl Vinyl Ethe		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	110-75-8
D001-B	A15017	Sea Water	VOCs	2-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	95-49-8
D001-B	A15017	Sea Water	VOCs	2-Hexanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	591-78-6
D001-B	A15017	Sea Water	VOCs	4-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	106-43-4
D001-B	A15017	Sea Water	VOCs	4-Methyl-2-Pentanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	108-10-1
D001-B	A15017	Sea Water	VOCs	Acetone		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	67-64-1
D001-B	A15017	Sea Water	VOCs	Acetonitrile		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	75-05-8
D001-B	A15017	Sea Water	VOCs	Acrolein		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	107-02-8
D001-B	A15017	Sea Water	VOCs	Acrylonitrile		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	107-13-1
D001-B	A15017	Sea Water	VOCs	Benzene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	71-43-2

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D001-B	A15017	Sea Water	VOCs	Bromobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	108-86-1
D001-B	A15017	Sea Water	VOCs	Bromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	74-97-5
D001-B	A15017	Sea Water	VOCs	Bromodichloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	75-27-4
D001-B	A15017	Sea Water	VOCs	Bromoform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	75-25-2
D001-B	A15017	Sea Water	VOCs	Bromomethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	74-83-9
D001-B	A15017	Sea Water	VOCs	c-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	156-59-2
D001-B	A15017	Sea Water	VOCs	c-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	10061-01-5
D001-B	A15017	Sea Water	VOCs	Carbon Disulfide		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	75-15-0
D001-B	A15017	Sea Water	VOCs	Carbon Tetrachloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	56-23-5
D001-B	A15017	Sea Water	VOCs	Chlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	108-90-7
D001-B	A15017	Sea Water	VOCs	Chloroethane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	75-00-3
D001-B	A15017	Sea Water	VOCs	Chloroform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	67-66-3
D001-B	A15017	Sea Water	VOCs	Chloromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	74-87-3
D001-B	A15017	Sea Water	VOCs	Cyclohexane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	110-82-7
D001-B	A15017	Sea Water	VOCs	Dibromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	124-48-1
D001-B	A15017	Sea Water	VOCs	Dibromofluoro	109	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	1868-53-7
D001-B	A15017	Sea Water	VOCs	Dibromomethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	74-95-3
D001-B	A15017	Sea Water	VOCs	Dichlorodifluorometha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	75-71-8
D001-B	A15017	Sea Water	VOCs	Diethyl Ether		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	60-29-7
D001-B	A15017	Sea Water	VOCs	Diisopropyl Ether (DIPE		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	108-20-3
D001-B	A15017	Sea Water	VOCs	Ethanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	64-17-5
D001-B	A15017	Sea Water	VOCs	Ethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	100-41-4
D001-B	A15017	Sea Water	VOCs	Ethyl-t-Butyl Ether (ETB		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	637-92-3
D001-B	A15017	Sea Water	VOCs	Hexachloro-1,3-Butadie		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	87-68-3
D001-B	A15017	Sea Water	VOCs	Hexane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	110-54-3
D001-B	A15017	Sea Water	VOCs	Iodomethane		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	74-88-4
D001-B	A15017	Sea Water	VOCs	Isopropanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	67-63-0
D001-B	A15017	Sea Water	VOCs	Isopropylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	98-82-8
D001-B	A15017	Sea Water	VOCs	Methylene Chloride		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	75-09-2
D001-B	A15017	Sea Water	VOCs	Methyl-t-Butyl Ether (M		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	1634-04-4
D001-B	A15017	Sea Water	VOCs	Naphthalene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	91-20-3
D001-B	A15017	Sea Water	VOCs	n-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	104-51-8
D001-B	A15017	Sea Water	VOCs	n-Propylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	103-65-1
D001-B	A15017	Sea Water	VOCs	o-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	95-47-6
D001-B	A15017	Sea Water	VOCs	p/m-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	179601-23-1
D001-B	A15017	Sea Water	VOCs	p-Isopropyltoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	99-87-6
D001-B	A15017	Sea Water	VOCs	sec-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	135-98-8
D001-B	A15017	Sea Water	VOCs	Styrene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	100-42-5
D001-B	A15017	Sea Water	VOCs	t-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	156-60-5
D001-B	A15017	Sea Water	VOCs	t-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	10061-02-6
D001-B	A15017	Sea Water	VOCs	t-1,4-Dichloro-2-Butene		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	764-41-0
D001-B	A15017	Sea Water	VOCs	Tert-Amyl-Methyl Ether		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	994-05-8
D001-B	A15017	Sea Water	VOCs	Tert-Butyl Alcohol (TBA		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	75-65-0
D001-B	A15017	Sea Water	VOCs	tert-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	98-06-6
D001-B	A15017	Sea Water	VOCs	Tetrachloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	127-18-4
D001-B	A15017	Sea Water	VOCs	Tetrahydrofuran		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	109-99-9
D001-B	A15017	Sea Water	VOCs	Thiophene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	110-02-1
D001-B	A15017	Sea Water	VOCs	Toluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	108-88-3
D001-B	A15017	Sea Water	VOCs	Toluene-d8	102	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	2037-26-5
D001-B	A15017	Sea Water	VOCs	Trichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	79-01-6
D001-B	A15017	Sea Water	VOCs	Trichlorofluoromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	75-69-4
D001-B	A15017	Sea Water	VOCs	Vinyl Acetate		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	108-05-4
D001-B	A15017	Sea Water	VOCs	Vinyl Chloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	7	EPA 8260B	EPA 5030C	75-01-4
D001-S	A15017		EPA/600/R	EC 50	21	%		B15E112		5/26/2015 9:30	No	###########	5/26/2015 9:30		1505050-08	Toxicity, Sea Urchin Fertilization		NA
D001-S	A15017	Sea Water	PAHs	1,2,4-Trichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	120-82-1
D001-S	A15017	Sea Water	PAHs	1,2-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	95-50-1
D001-S	A15017	Sea Water	PAHs	1,3-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	541-73-1
D001-S	A15017	Sea Water	PAHs	1,4-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	106-46-7

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D001-S	A15017	Sea Water	PAHs	1-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	90-12-0
D001-S	A15017	Sea Water	PAHs	2,4,5-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	95-95-4
D001-S	A15017	Sea Water	PAHs	2,4,6-Tribromo	109	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	118-79-6
D001-S	A15017	Sea Water	PAHs	2,4,6-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	88-06-2
D001-S	A15017	Sea Water	PAHs	2,4-Dichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	120-83-2
D001-S	A15017	Sea Water	PAHs	2,4-Dimethylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	105-67-9
D001-S	A15017	Sea Water	PAHs	2,4-Dinitrophenol		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	51-28-5
D001-S	A15017	Sea Water	PAHs	2,4-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	121-14-2
D001-S	A15017	Sea Water	PAHs	2,6-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	606-20-2
D001-S	A15017	Sea Water	PAHs	2-Chloronaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	91-58-7
D001-S	A15017	Sea Water	PAHs	2-Chlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	95-57-8
D001-S	A15017	Sea Water	PAHs	2-Fluorobiphen	78	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	321-60-8
D001-S	A15017	Sea Water	PAHs	2-Fluorophenol	68	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	367-12-4
D001-S	A15017	Sea Water	PAHs	2-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	91-57-6
D001-S	A15017	Sea Water	PAHs	2-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	95-48-7
D001-S	A15017	Sea Water	PAHs	2-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	88-74-4
D001-S	A15017	Sea Water	PAHs	2-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	88-75-5
D001-S	A15017	Sea Water	PAHs	3,3'-Dichlorobenzidine		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	91-94-1
D001-S	A15017	Sea Water	PAHs	3/4-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	65794-96-9
D001-S	A15017	Sea Water	PAHs	3-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	99-09-2
D001-S	A15017	Sea Water	PAHs	4,6-Dinitro-2-Methylph		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	534-52-1
D001-S	A15017	Sea Water	PAHs	4-Bromophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	101-55-3
D001-S	A15017	Sea Water	PAHs	4-Chloro-3-Methylphen		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	59-50-7
D001-S	A15017	Sea Water	PAHs	4-Chloroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	106-47-8
D001-S	A15017	Sea Water	PAHs	4-Chlorophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	7005-72-3
D001-S	A15017	Sea Water	PAHs	4-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	100-01-6
D001-S	A15017	Sea Water	PAHs	4-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	100-02-7
D001-S	A15017	Sea Water	PAHs	Acenaphthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	83-32-9
D001-S	A15017	Sea Water	PAHs	Acenaphthylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	208-96-8
D001-S	A15017	Sea Water	PAHs	Aniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	62-53-3
D001-S	A15017	Sea Water	PAHs	Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	120-12-7
D001-S	A15017	Sea Water	PAHs	Azobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	103-33-3
D001-S	A15017	Sea Water	PAHs	Benzidine		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	92-87-5
D001-S	A15017	Sea Water	PAHs	Benzo (a) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	56-55-3
D001-S	A15017	Sea Water	PAHs	Benzo (a) Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	50-32-8
D001-S	A15017	Sea Water	PAHs	Benzo (b) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	205-99-2
D001-S	A15017	Sea Water	PAHs	Benzo (g,h,i) Perylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	191-24-2
D001-S	A15017	Sea Water	PAHs	Benzo (k) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	207-08-9
D001-S	A15017	Sea Water	PAHs	Benzoic Acid		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	65-85-0
D001-S	A15017	Sea Water	PAHs	Benzyl Alcohol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	100-51-6
D001-S	A15017	Sea Water	PAHs	Bis(2-Chloroethoxy) Me		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	111-91-1
D001-S	A15017	Sea Water	PAHs	Bis(2-Chloroethyl) Ethe		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	111-44-4
D001-S	A15017	Sea Water	PAHs	Bis(2-Chloroisopropyl) E		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	39638-32-9
D001-S	A15017	Sea Water	PAHs	Bis(2-Ethylhexyl) Phtha		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	117-81-7
D001-S	A15017	Sea Water	PAHs	Butyl Benzyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	85-68-7
D001-S	A15017	Sea Water	PAHs	Chrysene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	218-01-9
D001-S	A15017	Sea Water	PAHs	Dibenz (a,h) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	53-70-3
D001-S	A15017	Sea Water	PAHs	Dibenzofuran		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	132-64-9
D001-S	A15017	Sea Water	PAHs	Diethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	84-66-2
D001-S	A15017	Sea Water	PAHs	Dimethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	131-11-3
D001-S	A15017	Sea Water	PAHs	Di-n-Butyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	84-74-2
D001-S	A15017	Sea Water	PAHs	Di-n-Octyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	117-84-0
D001-S	A15017	Sea Water	PAHs	Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	206-44-0
D001-S	A15017	Sea Water	PAHs	Fluorene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	86-73-7
D001-S	A15017	Sea Water	PAHs	Hexachloro-1,3-Butadie		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	87-68-3
D001-S	A15017	Sea Water	PAHs	Hexachlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	118-74-1
D001-S	A15017	Sea Water	PAHs	Hexachlorocyclopentad		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	77-47-4
D001-S	A15017	Sea Water	PAHs	Hexachloroethane		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	67-72-1

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D001-S	A15017	Sea Water	PAHs	Indeno (1,2,3-c,d) Pyre		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	193-39-5
D001-S	A15017	Sea Water	PAHs	Isophorone		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	78-59-1
D001-S	A15017	Sea Water	PAHs	Naphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	91-20-3
D001-S	A15017	Sea Water	PAHs	Nitrobenzene		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	98-95-3
D001-S	A15017	Sea Water	PAHs	Nitrobenzene-d	95	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	4165-60-0
D001-S	A15017	Sea Water	PAHs	N-Nitrosodimethylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	62-75-9
D001-S	A15017	Sea Water	PAHs	N-Nitroso-di-n-propylam		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	621-64-7
D001-S	A15017	Sea Water	PAHs	N-Nitrosodiphenylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	86-30-6
D001-S	A15017	Sea Water	PAHs	Pentachlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	87-86-5
D001-S	A15017	Sea Water	PAHs	Phenanthrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	85-01-8
D001-S	A15017	Sea Water	PAHs	Phenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	108-95-2
D001-S	A15017	Sea Water	PAHs	Phenol-d6	50	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	13127-88-3
D001-S	A15017	Sea Water	PAHs	p-Terphenyl-d1	100	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	1718-51-0
D001-S	A15017	Sea Water	PAHs	Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	129-00-0
D001-S	A15017	Sea Water	PAHs	Pyridine		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8270C	EPA 3510C	110-86-1
D001-S	A15017	Sea Water	SIM PAHs	1-Methylnaphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	90-12-0
D001-S	A15017	Sea Water	SIM PAHs	2-Fluorobiphen	88	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	321-60-8
D001-S	A15017	Sea Water	SIM PAHs	2-Methylnaphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	91-57-6
D001-S	A15017	Sea Water	SIM PAHs	Acenaphthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	83-32-9
D001-S	A15017	Sea Water	SIM PAHs	Acenaphthylene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	208-96-8
D001-S	A15017	Sea Water	SIM PAHs	Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	120-12-7
D001-S	A15017	Sea Water	SIM PAHs	Benzo (a) Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	56-55-3
D001-S	A15017	Sea Water	SIM PAHs	Benzo (a) Pyrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	50-32-8
D001-S	A15017	Sea Water	SIM PAHs	Benzo (b) Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	205-99-2
D001-S	A15017	Sea Water	SIM PAHs	Benzo (g,h,i) Perylene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	191-24-2
D001-S	A15017	Sea Water	SIM PAHs	Benzo (k) Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	207-08-9
D001-S	A15017	Sea Water	SIM PAHs	Chrysene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	218-01-9
D001-S	A15017	Sea Water	SIM PAHs	Dibenz (a,h) Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	53-70-3
D001-S	A15017	Sea Water	SIM PAHs	Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	206-44-0
D001-S	A15017	Sea Water	SIM PAHs	Fluorene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	86-73-7
D001-S	A15017	Sea Water	SIM PAHs	Indeno (1,2,3-c,d) Pyre		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	193-39-5
D001-S	A15017	Sea Water	SIM PAHs	Naphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	91-20-3
D001-S	A15017	Sea Water	SIM PAHs	Nitrobenzene-d	106	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	4165-60-0
D001-S	A15017	Sea Water	SIM PAHs	Phenanthrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	85-01-8
D001-S	A15017	Sea Water	SIM PAHs	p-Terphenyl-d1	84	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	1718-51-0
D001-S	A15017	Sea Water	SIM PAHs	Pyrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	8	EPA 8270C SIM	EPA 3510C	129-00-0
D001-S	A15017	Sea Water	TPH	1,4-Bromofluo	74	%REC		15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	8	EPA 8015B (M)	EPA 5030C	460-00-4
D001-S	A15017	Sea Water	TPH	n-Octacosane	94	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8015B (M)	EPA 3510C	630-02-4
D001-S	A15017	Sea Water	TPH	n-Octacosane	94	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8015B (M)	EPA 3510C	630-02-4
D001-S	A15017	Sea Water	TPH-dro	TPH as Diesel		ug/L	100	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8015B (M)	EPA 3510C	68334-30-5
D001-S	A15017	Sea Water	TPH-gro	TPH as Gasoline		ug/L	100	15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	8	EPA 8015B (M)	EPA 5030C	8006-61-9
D001-S	A15017	Sea Water	TPH-oro	TPH as Motor Oil		ug/L	500	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	8	EPA 8015B (M)	EPA 3510C	
D001-S	A15017	Sea Water	VOCs	1,1,1,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	630-20-6
D001-S	A15017	Sea Water	VOCs	1,1,1-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	71-55-6
D001-S	A15017	Sea Water	VOCs	1,1,2,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	79-34-5
D001-S	A15017	Sea Water	VOCs	1,1,2-Trichloro-1,2,2-Tr		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	76-13-1
D001-S	A15017	Sea Water	VOCs	1,1,2-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	79-00-5
D001-S	A15017	Sea Water	VOCs	1,1-Dichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	75-34-3
D001-S	A15017	Sea Water	VOCs	1,1-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	75-35-4
D001-S	A15017	Sea Water	VOCs	1,1-Dichloropropene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	563-58-6
D001-S	A15017	Sea Water	VOCs	1,2,3-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	87-61-6
D001-S	A15017	Sea Water	VOCs	1,2,3-Trichloropropane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	96-18-4
D001-S	A15017	Sea Water	VOCs	1,2,4-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	120-82-1
D001-S	A15017	Sea Water	VOCs	1,2,4-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	95-63-6
D001-S	A15017	Sea Water	VOCs	1,2-Dibromo-3-Chlorop		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	96-12-8
D001-S	A15017	Sea Water	VOCs	1,2-Dibromoethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	106-93-4
D001-S	A15017	Sea Water	VOCs	1,2-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	95-50-1
D001-S	A15017	Sea Water	VOCs	1,2-Dichloroethane		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	107-06-2

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D001-S	A15017	Sea Water	VOCs	1,2-Dichloroeth	110	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	17060-07-0
D001-S	A15017	Sea Water	VOCs	1,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	78-87-5
D001-S	A15017	Sea Water	VOCs	1,3,5-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	108-67-8
D001-S	A15017	Sea Water	VOCs	1,3-Butadiene		ug/L	25	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	106-99-0
D001-S	A15017	Sea Water	VOCs	1,3-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	541-73-1
D001-S	A15017	Sea Water	VOCs	1,3-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	142-28-9
D001-S	A15017	Sea Water	VOCs	1,4-Bromofluo	94	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	460-00-4
D001-S	A15017	Sea Water	VOCs	1,4-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	106-46-7
D001-S	A15017	Sea Water	VOCs	1,4-Dioxane		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	123-91-1
D001-S	A15017	Sea Water	VOCs	2,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	594-20-7
D001-S	A15017	Sea Water	VOCs	2-Butanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	78-93-3
D001-S	A15017	Sea Water	VOCs	2-Chloroethyl Vinyl Ethe		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	110-75-8
D001-S	A15017	Sea Water	VOCs	2-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	95-49-8
D001-S	A15017	Sea Water	VOCs	2-Hexanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	591-78-6
D001-S	A15017	Sea Water	VOCs	4-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	106-43-4
D001-S	A15017	Sea Water	VOCs	4-Methyl-2-Pentanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	108-10-1
D001-S	A15017	Sea Water	VOCs	Acetone		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	67-64-1
D001-S	A15017	Sea Water	VOCs	Acetonitrile		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	75-05-8
D001-S	A15017	Sea Water	VOCs	Acrolein		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	107-02-8
D001-S	A15017	Sea Water	VOCs	Acrylonitrile		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	107-13-1
D001-S	A15017	Sea Water	VOCs	Benzene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	71-43-2
D001-S	A15017	Sea Water	VOCs	Bromobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	108-86-1
D001-S	A15017	Sea Water	VOCs	Bromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	74-97-5
D001-S	A15017	Sea Water	VOCs	Bromodichloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	75-27-4
D001-S	A15017	Sea Water	VOCs	Bromoform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	75-25-2
D001-S	A15017	Sea Water	VOCs	Bromomethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	74-83-9
D001-S	A15017	Sea Water	VOCs	c-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	156-59-2
D001-S	A15017	Sea Water	VOCs	c-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	10061-01-5
D001-S	A15017	Sea Water	VOCs	Carbon Disulfide		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	75-15-0
D001-S	A15017	Sea Water	VOCs	Carbon Tetrachloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	56-23-5
D001-S	A15017	Sea Water	VOCs	Chlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	108-90-7
D001-S	A15017	Sea Water	VOCs	Chloroethane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	75-00-3
D001-S	A15017	Sea Water	VOCs	Chloroform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	67-66-3
D001-S	A15017	Sea Water	VOCs	Chloromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	74-87-3
D001-S	A15017	Sea Water	VOCs	Cyclohexane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	110-82-7
D001-S	A15017	Sea Water	VOCs	Dibromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	124-48-1
D001-S	A15017	Sea Water	VOCs	Dibromofluoro	110	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	1868-53-7
D001-S	A15017	Sea Water	VOCs	Dibromomethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	74-95-3
D001-S	A15017	Sea Water	VOCs	Dichlorodifluorometha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	75-71-8
D001-S	A15017	Sea Water	VOCs	Diethyl Ether		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	60-29-7
D001-S	A15017	Sea Water	VOCs	Diisopropyl Ether (DIPE		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	108-20-3
D001-S	A15017	Sea Water	VOCs	Ethanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	64-17-5
D001-S	A15017	Sea Water	VOCs	Ethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	100-41-4
D001-S	A15017	Sea Water	VOCs	Ethyl-t-Butyl Ether (ETB		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	637-92-3
D001-S	A15017	Sea Water	VOCs	Hexachloro-1,3-Butadie		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	87-68-3
D001-S	A15017	Sea Water	VOCs	Hexane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	110-54-3
D001-S	A15017	Sea Water	VOCs	Iodomethane		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	74-88-4
D001-S	A15017	Sea Water	VOCs	Isopropanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	67-63-0
D001-S	A15017	Sea Water	VOCs	Isopropylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	98-82-8
D001-S	A15017	Sea Water	VOCs	Methylene Chloride		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	75-09-2
D001-S	A15017	Sea Water	VOCs	Methyl-t-Butyl Ether (M		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	1634-04-4
D001-S	A15017	Sea Water	VOCs	Naphthalene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	91-20-3
D001-S	A15017	Sea Water	VOCs	n-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	104-51-8
D001-S	A15017	Sea Water	VOCs	n-Propylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	103-65-1
D001-S	A15017	Sea Water	VOCs	o-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	95-47-6
D001-S	A15017	Sea Water	VOCs	p/m-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	179601-23-1
D001-S	A15017	Sea Water	VOCs	p-Isopropyltoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	99-87-6
D001-S	A15017	Sea Water	VOCs	sec-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	135-98-8

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D001-S	A15017	Sea Water	VOCs	Styrene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	100-42-5
D001-S	A15017	Sea Water	VOCs	t-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	156-60-5
D001-S	A15017	Sea Water	VOCs	t-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	10061-02-6
D001-S	A15017	Sea Water	VOCs	t-1,4-Dichloro-2-Butene		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	764-41-0
D001-S	A15017	Sea Water	VOCs	Tert-Amyl-Methyl Ether		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	994-05-8
D001-S	A15017	Sea Water	VOCs	Tert-Butyl Alcohol (TBA		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	75-65-0
D001-S	A15017	Sea Water	VOCs	tert-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	98-06-6
D001-S	A15017	Sea Water	VOCs	Tetrachloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	127-18-4
D001-S	A15017	Sea Water	VOCs	Tetrahydrofuran		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	109-99-9
D001-S	A15017	Sea Water	VOCs	Thiophene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	110-02-1
D001-S	A15017	Sea Water	VOCs	Toluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	108-88-3
D001-S	A15017	Sea Water	VOCs	Toluene-d8	101	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	2037-26-5
D001-S	A15017	Sea Water	VOCs	Trichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	79-01-6
D001-S	A15017	Sea Water	VOCs	Trichlorofluoromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	75-69-4
D001-S	A15017	Sea Water	VOCs	Vinyl Acetate		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	108-05-4
D001-S	A15017	Sea Water	VOCs	Vinyl Chloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	8	EPA 8260B	EPA 5030C	75-01-4
D002-B	A15017		EPA/600/R	EC 50	21	%		B15E112		5/26/2015 9:30	No	###########	5/26/2015 9:30		1505050-05	Toxicity, Sea Urchin Fertilization		NA
D002-B	A15017	Sea Water	PAHs	1,2,4-Trichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	120-82-1
D002-B	A15017	Sea Water	PAHs	1,2-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	95-50-1
D002-B	A15017	Sea Water	PAHs	1,3-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	541-73-1
D002-B	A15017	Sea Water	PAHs	1,4-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	106-46-7
D002-B	A15017	Sea Water	PAHs	1-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	90-12-0
D002-B	A15017	Sea Water	PAHs	2,4,5-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	95-95-4
D002-B	A15017	Sea Water	PAHs	2,4,6-Tribromo	107	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	118-79-6
D002-B	A15017	Sea Water	PAHs	2,4,6-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	88-06-2
D002-B	A15017	Sea Water	PAHs	2,4-Dichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	120-83-2
D002-B	A15017	Sea Water	PAHs	2,4-Dimethylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	105-67-9
D002-B	A15017	Sea Water	PAHs	2,4-Dinitrophenol		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	51-28-5
D002-B	A15017	Sea Water	PAHs	2,4-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	121-14-2
D002-B	A15017	Sea Water	PAHs	2,6-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	606-20-2
D002-B	A15017	Sea Water	PAHs	2-Chloronaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	91-58-7
D002-B	A15017	Sea Water	PAHs	2-Chlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	95-57-8
D002-B	A15017	Sea Water	PAHs	2-Fluorobiphen	78	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	321-60-8
D002-B	A15017	Sea Water	PAHs	2-Fluoropheno	63	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	367-12-4
D002-B	A15017	Sea Water	PAHs	2-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	91-57-6
D002-B	A15017	Sea Water	PAHs	2-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	95-48-7
D002-B	A15017	Sea Water	PAHs	2-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	88-74-4
D002-B	A15017	Sea Water	PAHs	2-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	88-75-5
D002-B	A15017	Sea Water	PAHs	3,3'-Dichlorobenzidine		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	91-94-1
D002-B	A15017	Sea Water	PAHs	3/4-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	65794-96-9
D002-B	A15017	Sea Water	PAHs	3-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	99-09-2
D002-B	A15017	Sea Water	PAHs	4,6-Dinitro-2-Methylph		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	534-52-1
D002-B	A15017	Sea Water	PAHs	4-Bromophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	101-55-3
D002-B	A15017	Sea Water	PAHs	4-Chloro-3-Methylphen		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	59-50-7
D002-B	A15017	Sea Water	PAHs	4-Chloroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	106-47-8
D002-B	A15017	Sea Water	PAHs	4-Chlorophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	7005-72-3
D002-B	A15017	Sea Water	PAHs	4-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	100-01-6
D002-B	A15017	Sea Water	PAHs	4-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	100-02-7
D002-B	A15017	Sea Water	PAHs	Acenaphthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	83-32-9
D002-B	A15017	Sea Water	PAHs	Acenaphthylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	208-96-8
D002-B	A15017	Sea Water	PAHs	Aniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	62-53-3
D002-B	A15017	Sea Water	PAHs	Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	120-12-7
D002-B	A15017	Sea Water	PAHs	Azobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	103-33-3
D002-B	A15017	Sea Water	PAHs	Benzidine		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	92-87-5
D002-B	A15017	Sea Water	PAHs	Benzo (a) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	56-55-3
D002-B	A15017	Sea Water	PAHs	Benzo (a) Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	50-32-8
D002-B	A15017	Sea Water	PAHs	Benzo (b) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	205-99-2
D002-B	A15017	Sea Water	PAHs	Benzo (g,h,i) Perylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	191-24-2

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D002-B	A15017	Sea Water	PAHs	Benzo (k) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	207-08-9
D002-B	A15017	Sea Water	PAHs	Benzoic Acid		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	65-85-0
D002-B	A15017	Sea Water	PAHs	Benzyl Alcohol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	100-51-6
D002-B	A15017	Sea Water	PAHs	Bis(2-Chloroethoxy) Me		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	111-91-1
D002-B	A15017	Sea Water	PAHs	Bis(2-Chloroethyl) Ether		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	111-44-4
D002-B	A15017	Sea Water	PAHs	Bis(2-Chloroisopropyl) E		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	39638-32-9
D002-B	A15017	Sea Water	PAHs	Bis(2-Ethylhexyl) Phtha		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	117-81-7
D002-B	A15017	Sea Water	PAHs	Butyl Benzyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	85-68-7
D002-B	A15017	Sea Water	PAHs	Chrysene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	218-01-9
D002-B	A15017	Sea Water	PAHs	Dibenz (a,h) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	53-70-3
D002-B	A15017	Sea Water	PAHs	Dibenzofuran		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	132-64-9
D002-B	A15017	Sea Water	PAHs	Diethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	84-66-2
D002-B	A15017	Sea Water	PAHs	Dimethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	131-11-3
D002-B	A15017	Sea Water	PAHs	Di-n-Butyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	84-74-2
D002-B	A15017	Sea Water	PAHs	Di-n-Octyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	117-84-0
D002-B	A15017	Sea Water	PAHs	Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	206-44-0
D002-B	A15017	Sea Water	PAHs	Fluorene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	86-73-7
D002-B	A15017	Sea Water	PAHs	Hexachloro-1,3-Butadie		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	87-68-3
D002-B	A15017	Sea Water	PAHs	Hexachlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	118-74-1
D002-B	A15017	Sea Water	PAHs	Hexachlorocyclopentad		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	77-47-4
D002-B	A15017	Sea Water	PAHs	Hexachloroethane		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	67-72-1
D002-B	A15017	Sea Water	PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	193-39-5
D002-B	A15017	Sea Water	PAHs	Isophorone		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	78-59-1
D002-B	A15017	Sea Water	PAHs	Naphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	91-20-3
D002-B	A15017	Sea Water	PAHs	Nitrobenzene		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	98-95-3
D002-B	A15017	Sea Water	PAHs	Nitrobenzene-d	93	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	4165-60-0
D002-B	A15017	Sea Water	PAHs	N-Nitrosodimethylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	62-75-9
D002-B	A15017	Sea Water	PAHs	N-Nitroso-di-n-propylam		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	621-64-7
D002-B	A15017	Sea Water	PAHs	N-Nitrosodiphenylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	86-30-6
D002-B	A15017	Sea Water	PAHs	Pentachlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	87-86-5
D002-B	A15017	Sea Water	PAHs	Phenanthrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	85-01-8
D002-B	A15017	Sea Water	PAHs	Phenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	108-95-2
D002-B	A15017	Sea Water	PAHs	Phenol-d6	45	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	13127-88-3
D002-B	A15017	Sea Water	PAHs	p-Terphenyl-d1	97	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	1718-51-0
D002-B	A15017	Sea Water	PAHs	Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	129-00-0
D002-B	A15017	Sea Water	PAHs	Pyridine		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8270C	EPA 3510C	110-86-1
D002-B	A15017	Sea Water	SIM PAHs	1-Methylnaphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	90-12-0
D002-B	A15017	Sea Water	SIM PAHs	2-Fluorobiphen	90	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	321-60-8
D002-B	A15017	Sea Water	SIM PAHs	2-Methylnaphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	91-57-6
D002-B	A15017	Sea Water	SIM PAHs	Acenaphthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	83-32-9
D002-B	A15017	Sea Water	SIM PAHs	Acenaphthylene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	208-96-8
D002-B	A15017	Sea Water	SIM PAHs	Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	120-12-7
D002-B	A15017	Sea Water	SIM PAHs	Benzo (a) Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	56-55-3
D002-B	A15017	Sea Water	SIM PAHs	Benzo (a) Pyrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	50-32-8
D002-B	A15017	Sea Water	SIM PAHs	Benzo (b) Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	205-99-2
D002-B	A15017	Sea Water	SIM PAHs	Benzo (g,h,i) Perylene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	191-24-2
D002-B	A15017	Sea Water	SIM PAHs	Benzo (k) Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	207-08-9
D002-B	A15017	Sea Water	SIM PAHs	Chrysene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	218-01-9
D002-B	A15017	Sea Water	SIM PAHs	Dibenz (a,h) Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	53-70-3
D002-B	A15017	Sea Water	SIM PAHs	Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	206-44-0
D002-B	A15017	Sea Water	SIM PAHs	Fluorene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	86-73-7
D002-B	A15017	Sea Water	SIM PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	193-39-5
D002-B	A15017	Sea Water	SIM PAHs	Naphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	91-20-3
D002-B	A15017	Sea Water	SIM PAHs	Nitrobenzene-d	110	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	4165-60-0
D002-B	A15017	Sea Water	SIM PAHs	Phenanthrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	85-01-8
D002-B	A15017	Sea Water	SIM PAHs	p-Terphenyl-d1	86	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	1718-51-0
D002-B	A15017	Sea Water	SIM PAHs	Pyrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	5	EPA 8270C SIM	EPA 3510C	129-00-0
D002-B	A15017	Sea Water	TPH	1,4-Bromofluo	81	%REC		15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	5	EPA 8015B (M)	EPA 5030C	460-00-4

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D002-B	A15017	Sea Water	TPH	n-Octacosane	91	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8015B (M)	EPA 3510C	630-02-4
D002-B	A15017	Sea Water	TPH	n-Octacosane	91	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8015B (M)	EPA 3510C	630-02-4
D002-B	A15017	Sea Water	TPH-dro	TPH as Diesel		ug/L	100	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8015B (M)	EPA 3510C	68334-30-5
D002-B	A15017	Sea Water	TPH-gro	TPH as Gasoline		ug/L	100	15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	5	EPA 8015B (M)	EPA 5030C	8006-61-9
D002-B	A15017	Sea Water	TPH-oro	TPH as Motor Oil		ug/L	500	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	5	EPA 8015B (M)	EPA 3510C	
D002-B	A15017	Sea Water	VOCs	1,1,1,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	630-20-6
D002-B	A15017	Sea Water	VOCs	1,1,1-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	71-55-6
D002-B	A15017	Sea Water	VOCs	1,1,2,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	79-34-5
D002-B	A15017	Sea Water	VOCs	1,1,2-Trichloro-1,2,2-Tr		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	76-13-1
D002-B	A15017	Sea Water	VOCs	1,1,2-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	79-00-5
D002-B	A15017	Sea Water	VOCs	1,1-Dichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	75-34-3
D002-B	A15017	Sea Water	VOCs	1,1-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	75-35-4
D002-B	A15017	Sea Water	VOCs	1,1-Dichloropropene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	563-58-6
D002-B	A15017	Sea Water	VOCs	1,2,3-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	87-61-6
D002-B	A15017	Sea Water	VOCs	1,2,3-Trichloropropane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	96-18-4
D002-B	A15017	Sea Water	VOCs	1,2,4-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	120-82-1
D002-B	A15017	Sea Water	VOCs	1,2,4-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	95-63-6
D002-B	A15017	Sea Water	VOCs	1,2-Dibromo-3-Chlorop		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	96-12-8
D002-B	A15017	Sea Water	VOCs	1,2-Dibromoethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	106-93-4
D002-B	A15017	Sea Water	VOCs	1,2-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	95-50-1
D002-B	A15017	Sea Water	VOCs	1,2-Dichloroethane		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	107-06-2
D002-B	A15017	Sea Water	VOCs	1,2-Dichloroeth	109	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	17060-07-0
D002-B	A15017	Sea Water	VOCs	1,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	78-87-5
D002-B	A15017	Sea Water	VOCs	1,3,5-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	108-67-8
D002-B	A15017	Sea Water	VOCs	1,3-Butadiene		ug/L	25	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	106-99-0
D002-B	A15017	Sea Water	VOCs	1,3-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	541-73-1
D002-B	A15017	Sea Water	VOCs	1,3-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	142-28-9
D002-B	A15017	Sea Water	VOCs	1,4-Bromofluo	91	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	460-00-4
D002-B	A15017	Sea Water	VOCs	1,4-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	106-46-7
D002-B	A15017	Sea Water	VOCs	1,4-Dioxane		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	123-91-1
D002-B	A15017	Sea Water	VOCs	2,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	594-20-7
D002-B	A15017	Sea Water	VOCs	2-Butanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	78-93-3
D002-B	A15017	Sea Water	VOCs	2-Chloroethyl Vinyl Ethe		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	110-75-8
D002-B	A15017	Sea Water	VOCs	2-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	95-49-8
D002-B	A15017	Sea Water	VOCs	2-Hexanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	591-78-6
D002-B	A15017	Sea Water	VOCs	4-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	106-43-4
D002-B	A15017	Sea Water	VOCs	4-Methyl-2-Pentanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	108-10-1
D002-B	A15017	Sea Water	VOCs	Acetone		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	67-64-1
D002-B	A15017	Sea Water	VOCs	Acetonitrile		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	75-05-8
D002-B	A15017	Sea Water	VOCs	Acrolein		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	107-02-8
D002-B	A15017	Sea Water	VOCs	Acrylonitrile		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	107-13-1
D002-B	A15017	Sea Water	VOCs	Benzene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	71-43-2
D002-B	A15017	Sea Water	VOCs	Bromobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	108-86-1
D002-B	A15017	Sea Water	VOCs	Bromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	74-97-5
D002-B	A15017	Sea Water	VOCs	Bromodichloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	75-27-4
D002-B	A15017	Sea Water	VOCs	Bromoform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	75-25-2
D002-B	A15017	Sea Water	VOCs	Bromomethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	74-83-9
D002-B	A15017	Sea Water	VOCs	c-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	156-59-2
D002-B	A15017	Sea Water	VOCs	c-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	10061-01-5
D002-B	A15017	Sea Water	VOCs	Carbon Disulfide		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	75-15-0
D002-B	A15017	Sea Water	VOCs	Carbon Tetrachloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	56-23-5
D002-B	A15017	Sea Water	VOCs	Chlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	108-90-7
D002-B	A15017	Sea Water	VOCs	Chloroethane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	75-00-3
D002-B	A15017	Sea Water	VOCs	Chloroform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	67-66-3
D002-B	A15017	Sea Water	VOCs	Chloromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	74-87-3
D002-B	A15017	Sea Water	VOCs	Cyclohexane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	110-82-7
D002-B	A15017	Sea Water	VOCs	Dibromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	124-48-1
D002-B	A15017	Sea Water	VOCs	Dibromofluoro	106	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	1868-53-7

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D002-B	A15017	Sea Water	VOCs	Dibromomethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	74-95-3
D002-B	A15017	Sea Water	VOCs	Dichlorodifluorometha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	75-71-8
D002-B	A15017	Sea Water	VOCs	Diethyl Ether		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	60-29-7
D002-B	A15017	Sea Water	VOCs	Diisopropyl Ether (DIPE		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	108-20-3
D002-B	A15017	Sea Water	VOCs	Ethanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	64-17-5
D002-B	A15017	Sea Water	VOCs	Ethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	100-41-4
D002-B	A15017	Sea Water	VOCs	Ethyl-t-Butyl Ether (ETB		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	637-92-3
D002-B	A15017	Sea Water	VOCs	Hexachloro-1,3-Butadie		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	87-68-3
D002-B	A15017	Sea Water	VOCs	Hexane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	110-54-3
D002-B	A15017	Sea Water	VOCs	Iodomethane		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	74-88-4
D002-B	A15017	Sea Water	VOCs	Isopropanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	67-63-0
D002-B	A15017	Sea Water	VOCs	Isopropylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	98-82-8
D002-B	A15017	Sea Water	VOCs	Methylene Chloride		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	75-09-2
D002-B	A15017	Sea Water	VOCs	Methyl-t-Butyl Ether (M		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	1634-04-4
D002-B	A15017	Sea Water	VOCs	Naphthalene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	91-20-3
D002-B	A15017	Sea Water	VOCs	n-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	104-51-8
D002-B	A15017	Sea Water	VOCs	n-Propylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	103-65-1
D002-B	A15017	Sea Water	VOCs	o-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	95-47-6
D002-B	A15017	Sea Water	VOCs	p/m-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	179601-23-1
D002-B	A15017	Sea Water	VOCs	p-Isopropyltoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	99-87-6
D002-B	A15017	Sea Water	VOCs	sec-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	135-98-8
D002-B	A15017	Sea Water	VOCs	Styrene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	100-42-5
D002-B	A15017	Sea Water	VOCs	t-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	156-60-5
D002-B	A15017	Sea Water	VOCs	t-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	10061-02-6
D002-B	A15017	Sea Water	VOCs	t-1,4-Dichloro-2-Butene		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	764-41-0
D002-B	A15017	Sea Water	VOCs	Tert-Amyl-Methyl Ether		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	994-05-8
D002-B	A15017	Sea Water	VOCs	Tert-Butyl Alcohol (TBA		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	75-65-0
D002-B	A15017	Sea Water	VOCs	tert-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	98-06-6
D002-B	A15017	Sea Water	VOCs	Tetrachloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	127-18-4
D002-B	A15017	Sea Water	VOCs	Tetrahydrofuran		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	109-99-9
D002-B	A15017	Sea Water	VOCs	Thiophene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	110-02-1
D002-B	A15017	Sea Water	VOCs	Toluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	108-88-3
D002-B	A15017	Sea Water	VOCs	Toluene-d8	100	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	2037-26-5
D002-B	A15017	Sea Water	VOCs	Trichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	79-01-6
D002-B	A15017	Sea Water	VOCs	Trichlorofluoromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	75-69-4
D002-B	A15017	Sea Water	VOCs	Vinyl Acetate		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	108-05-4
D002-B	A15017	Sea Water	VOCs	Vinyl Chloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	5	EPA 8260B	EPA 5030C	75-01-4
D002-S	A15017		EPA/600/R	EC 50	21	%		B15E112		5/26/2015 9:30	No	###########	5/26/2015 9:30		1505050-06	Toxicity, Sea Urchin Fertilization		NA
D002-S	A15017	Sea Water	PAHs	1,2,4-Trichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	120-82-1
D002-S	A15017	Sea Water	PAHs	1,2-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	95-50-1
D002-S	A15017	Sea Water	PAHs	1,3-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	541-73-1
D002-S	A15017	Sea Water	PAHs	1,4-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	106-46-7
D002-S	A15017	Sea Water	PAHs	1-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	90-12-0
D002-S	A15017	Sea Water	PAHs	2,4,5-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	95-95-4
D002-S	A15017	Sea Water	PAHs	2,4,6-Tribromo	104	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	118-79-6
D002-S	A15017	Sea Water	PAHs	2,4,6-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	88-06-2
D002-S	A15017	Sea Water	PAHs	2,4-Dichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	120-83-2
D002-S	A15017	Sea Water	PAHs	2,4-Dimethylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	105-67-9
D002-S	A15017	Sea Water	PAHs	2,4-Dinitrophenol		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	51-28-5
D002-S	A15017	Sea Water	PAHs	2,4-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	121-14-2
D002-S	A15017	Sea Water	PAHs	2,6-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	606-20-2
D002-S	A15017	Sea Water	PAHs	2-Chloronaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	91-58-7
D002-S	A15017	Sea Water	PAHs	2-Chlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	95-57-8
D002-S	A15017	Sea Water	PAHs	2-Fluorobiphen	78	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	321-60-8
D002-S	A15017	Sea Water	PAHs	2-Fluorophenol	67	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	367-12-4
D002-S	A15017	Sea Water	PAHs	2-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	91-57-6
D002-S	A15017	Sea Water	PAHs	2-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	95-48-7
D002-S	A15017	Sea Water	PAHs	2-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	88-74-4

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D002-S	A15017	Sea Water	PAHs	2-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	88-75-5
D002-S	A15017	Sea Water	PAHs	3,3'-Dichlorobenzidine		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	91-94-1
D002-S	A15017	Sea Water	PAHs	3/4-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	65794-96-9
D002-S	A15017	Sea Water	PAHs	3-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	99-09-2
D002-S	A15017	Sea Water	PAHs	4,6-Dinitro-2-Methylph		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	534-52-1
D002-S	A15017	Sea Water	PAHs	4-Bromophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	101-55-3
D002-S	A15017	Sea Water	PAHs	4-Chloro-3-Methylphen		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	59-50-7
D002-S	A15017	Sea Water	PAHs	4-Chloroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	106-47-8
D002-S	A15017	Sea Water	PAHs	4-Chlorophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	7005-72-3
D002-S	A15017	Sea Water	PAHs	4-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	100-01-6
D002-S	A15017	Sea Water	PAHs	4-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	100-02-7
D002-S	A15017	Sea Water	PAHs	Acenaphthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	83-32-9
D002-S	A15017	Sea Water	PAHs	Acenaphthylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	208-96-8
D002-S	A15017	Sea Water	PAHs	Aniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	62-53-3
D002-S	A15017	Sea Water	PAHs	Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	120-12-7
D002-S	A15017	Sea Water	PAHs	Azobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	103-33-3
D002-S	A15017	Sea Water	PAHs	Benzidine		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	92-87-5
D002-S	A15017	Sea Water	PAHs	Benzo (a) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	56-55-3
D002-S	A15017	Sea Water	PAHs	Benzo (a) Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	50-32-8
D002-S	A15017	Sea Water	PAHs	Benzo (b) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	205-99-2
D002-S	A15017	Sea Water	PAHs	Benzo (g,h,i) Perylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	191-24-2
D002-S	A15017	Sea Water	PAHs	Benzo (k) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	207-08-9
D002-S	A15017	Sea Water	PAHs	Benzoic Acid		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	65-85-0
D002-S	A15017	Sea Water	PAHs	Benzyl Alcohol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	100-51-6
D002-S	A15017	Sea Water	PAHs	Bis(2-Chloroethoxy) Me		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	111-91-1
D002-S	A15017	Sea Water	PAHs	Bis(2-Chloroethyl) Ethe		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	111-44-4
D002-S	A15017	Sea Water	PAHs	Bis(2-Chloroisopropyl) E		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	39638-32-9
D002-S	A15017	Sea Water	PAHs	Bis(2-Ethylhexyl) Phtha		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	117-81-7
D002-S	A15017	Sea Water	PAHs	Butyl Benzyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	85-68-7
D002-S	A15017	Sea Water	PAHs	Chrysene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	218-01-9
D002-S	A15017	Sea Water	PAHs	Dibenz (a,h) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	53-70-3
D002-S	A15017	Sea Water	PAHs	Dibenzofuran		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	132-64-9
D002-S	A15017	Sea Water	PAHs	Diethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	84-66-2
D002-S	A15017	Sea Water	PAHs	Dimethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	131-11-3
D002-S	A15017	Sea Water	PAHs	Di-n-Butyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	84-74-2
D002-S	A15017	Sea Water	PAHs	Di-n-Octyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	117-84-0
D002-S	A15017	Sea Water	PAHs	Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	206-44-0
D002-S	A15017	Sea Water	PAHs	Fluorene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	86-73-7
D002-S	A15017	Sea Water	PAHs	Hexachloro-1,3-Butadie		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	87-68-3
D002-S	A15017	Sea Water	PAHs	Hexachlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	118-74-1
D002-S	A15017	Sea Water	PAHs	Hexachlorocyclopentad		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	77-47-4
D002-S	A15017	Sea Water	PAHs	Hexachloroethane		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	67-72-1
D002-S	A15017	Sea Water	PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	193-39-5
D002-S	A15017	Sea Water	PAHs	Isophorone		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	78-59-1
D002-S	A15017	Sea Water	PAHs	Naphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	91-20-3
D002-S	A15017	Sea Water	PAHs	Nitrobenzene		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	98-95-3
D002-S	A15017	Sea Water	PAHs	Nitrobenzene-d	93	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	4165-60-0
D002-S	A15017	Sea Water	PAHs	N-Nitrosodimethylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	62-75-9
D002-S	A15017	Sea Water	PAHs	N-Nitroso-di-n-propylam		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	621-64-7
D002-S	A15017	Sea Water	PAHs	N-Nitrosodiphenylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	86-30-6
D002-S	A15017	Sea Water	PAHs	Pentachlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	87-86-5
D002-S	A15017	Sea Water	PAHs	Phenanthrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	85-01-8
D002-S	A15017	Sea Water	PAHs	Phenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	108-95-2
D002-S	A15017	Sea Water	PAHs	Phenol-d6	47	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	13127-88-3
D002-S	A15017	Sea Water	PAHs	p-Terphenyl-d1	95	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	1718-51-0
D002-S	A15017	Sea Water	PAHs	Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	129-00-0
D002-S	A15017	Sea Water	PAHs	Pyridine		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8270C	EPA 3510C	110-86-1
D002-S	A15017	Sea Water	SIM PAHs	1-Methylnaphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	90-12-0

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D002-S	A15017	Sea Water	SIM PAHs	2-Fluorobiphen	87	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	321-60-8
D002-S	A15017	Sea Water	SIM PAHs	2-Methylnaphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	91-57-6
D002-S	A15017	Sea Water	SIM PAHs	Acenaphthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	83-32-9
D002-S	A15017	Sea Water	SIM PAHs	Acenaphthylene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	208-96-8
D002-S	A15017	Sea Water	SIM PAHs	Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	120-12-7
D002-S	A15017	Sea Water	SIM PAHs	Benzo (a) Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	56-55-3
D002-S	A15017	Sea Water	SIM PAHs	Benzo (a) Pyrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	50-32-8
D002-S	A15017	Sea Water	SIM PAHs	Benzo (b) Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	205-99-2
D002-S	A15017	Sea Water	SIM PAHs	Benzo (g,h,i) Perylene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	191-24-2
D002-S	A15017	Sea Water	SIM PAHs	Benzo (k) Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	207-08-9
D002-S	A15017	Sea Water	SIM PAHs	Chrysene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	218-01-9
D002-S	A15017	Sea Water	SIM PAHs	Dibenz (a,h) Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	53-70-3
D002-S	A15017	Sea Water	SIM PAHs	Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	206-44-0
D002-S	A15017	Sea Water	SIM PAHs	Fluorene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	86-73-7
D002-S	A15017	Sea Water	SIM PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	193-39-5
D002-S	A15017	Sea Water	SIM PAHs	Naphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	91-20-3
D002-S	A15017	Sea Water	SIM PAHs	Nitrobenzene-d	104	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	4165-60-0
D002-S	A15017	Sea Water	SIM PAHs	Phenanthrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	85-01-8
D002-S	A15017	Sea Water	SIM PAHs	p-Terphenyl-d1	83	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	1718-51-0
D002-S	A15017	Sea Water	SIM PAHs	Pyrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	6	EPA 8270C SIM	EPA 3510C	129-00-0
D002-S	A15017	Sea Water	TPH	1,4-Bromofluo	79	%REC		15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	6	EPA 8015B (M)	EPA 5030C	460-00-4
D002-S	A15017	Sea Water	TPH	n-Octacosane	91	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8015B (M)	EPA 3510C	630-02-4
D002-S	A15017	Sea Water	TPH	n-Octacosane	91	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8015B (M)	EPA 3510C	630-02-4
D002-S	A15017	Sea Water	TPH-dro	TPH as Diesel		ug/L	100	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8015B (M)	EPA 3510C	68334-30-5
D002-S	A15017	Sea Water	TPH-gro	TPH as Gasoline		ug/L	100	15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	6	EPA 8015B (M)	EPA 5030C	8006-61-9
D002-S	A15017	Sea Water	TPH-oro	TPH as Motor Oil		ug/L	500	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	6	EPA 8015B (M)	EPA 3510C	
D002-S	A15017	Sea Water	VOCs	1,1,1,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	630-20-6
D002-S	A15017	Sea Water	VOCs	1,1,1-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	71-55-6
D002-S	A15017	Sea Water	VOCs	1,1,2,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	79-34-5
D002-S	A15017	Sea Water	VOCs	1,1,2-Trichloro-1,2,2-Tr		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	76-13-1
D002-S	A15017	Sea Water	VOCs	1,1,2-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	79-00-5
D002-S	A15017	Sea Water	VOCs	1,1-Dichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	75-34-3
D002-S	A15017	Sea Water	VOCs	1,1-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	75-35-4
D002-S	A15017	Sea Water	VOCs	1,1-Dichloropropene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	563-58-6
D002-S	A15017	Sea Water	VOCs	1,2,3-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	87-61-6
D002-S	A15017	Sea Water	VOCs	1,2,3-Trichloropropane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	96-18-4
D002-S	A15017	Sea Water	VOCs	1,2,4-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	120-82-1
D002-S	A15017	Sea Water	VOCs	1,2,4-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	95-63-6
D002-S	A15017	Sea Water	VOCs	1,2-Dibromo-3-Chlorop		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	96-12-8
D002-S	A15017	Sea Water	VOCs	1,2-Dibromoethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	106-93-4
D002-S	A15017	Sea Water	VOCs	1,2-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	95-50-1
D002-S	A15017	Sea Water	VOCs	1,2-Dichloroethane		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	107-06-2
D002-S	A15017	Sea Water	VOCs	1,2-Dichloroeth	110	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	17060-07-0
D002-S	A15017	Sea Water	VOCs	1,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	78-87-5
D002-S	A15017	Sea Water	VOCs	1,3,5-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	108-67-8
D002-S	A15017	Sea Water	VOCs	1,3-Butadiene		ug/L	25	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	106-99-0
D002-S	A15017	Sea Water	VOCs	1,3-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	541-73-1
D002-S	A15017	Sea Water	VOCs	1,3-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	142-28-9
D002-S	A15017	Sea Water	VOCs	1,4-Bromofluo	94	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	460-00-4
D002-S	A15017	Sea Water	VOCs	1,4-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	106-46-7
D002-S	A15017	Sea Water	VOCs	1,4-Dioxane		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	123-91-1
D002-S	A15017	Sea Water	VOCs	2,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	594-20-7
D002-S	A15017	Sea Water	VOCs	2-Butanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	78-93-3
D002-S	A15017	Sea Water	VOCs	2-Chloroethyl Vinyl Ethe		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	110-75-8
D002-S	A15017	Sea Water	VOCs	2-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	95-49-8
D002-S	A15017	Sea Water	VOCs	2-Hexanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	591-78-6
D002-S	A15017	Sea Water	VOCs	4-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	106-43-4
D002-S	A15017	Sea Water	VOCs	4-Methyl-2-Pentanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	108-10-1

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D002-S	A15017	Sea Water	VOCs	Acetone		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	67-64-1
D002-S	A15017	Sea Water	VOCs	Acetonitrile		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	75-05-8
D002-S	A15017	Sea Water	VOCs	Acrolein		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	107-02-8
D002-S	A15017	Sea Water	VOCs	Acrylonitrile		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	107-13-1
D002-S	A15017	Sea Water	VOCs	Benzene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	71-43-2
D002-S	A15017	Sea Water	VOCs	Bromobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	108-86-1
D002-S	A15017	Sea Water	VOCs	Bromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	74-97-5
D002-S	A15017	Sea Water	VOCs	Bromodichloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	75-27-4
D002-S	A15017	Sea Water	VOCs	Bromoform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	75-25-2
D002-S	A15017	Sea Water	VOCs	Bromomethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	74-83-9
D002-S	A15017	Sea Water	VOCs	c-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	156-59-2
D002-S	A15017	Sea Water	VOCs	c-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	10061-01-5
D002-S	A15017	Sea Water	VOCs	Carbon Disulfide		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	75-15-0
D002-S	A15017	Sea Water	VOCs	Carbon Tetrachloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	56-23-5
D002-S	A15017	Sea Water	VOCs	Chlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	108-90-7
D002-S	A15017	Sea Water	VOCs	Chloroethane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	75-00-3
D002-S	A15017	Sea Water	VOCs	Chloroform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	67-66-3
D002-S	A15017	Sea Water	VOCs	Chloromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	74-87-3
D002-S	A15017	Sea Water	VOCs	Cyclohexane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	110-82-7
D002-S	A15017	Sea Water	VOCs	Dibromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	124-48-1
D002-S	A15017	Sea Water	VOCs	Dibromofluoro	108	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	1868-53-7
D002-S	A15017	Sea Water	VOCs	Dibromomethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	74-95-3
D002-S	A15017	Sea Water	VOCs	Dichlorodifluorometha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	75-71-8
D002-S	A15017	Sea Water	VOCs	Diethyl Ether		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	60-29-7
D002-S	A15017	Sea Water	VOCs	Diisopropyl Ether (DIPE		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	108-20-3
D002-S	A15017	Sea Water	VOCs	Ethanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	64-17-5
D002-S	A15017	Sea Water	VOCs	Ethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	100-41-4
D002-S	A15017	Sea Water	VOCs	Ethyl-t-Butyl Ether (ETB		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	637-92-3
D002-S	A15017	Sea Water	VOCs	Hexachloro-1,3-Butadie		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	87-68-3
D002-S	A15017	Sea Water	VOCs	Hexane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	110-54-3
D002-S	A15017	Sea Water	VOCs	Iodomethane		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	74-88-4
D002-S	A15017	Sea Water	VOCs	Isopropanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	67-63-0
D002-S	A15017	Sea Water	VOCs	Isopropylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	98-82-8
D002-S	A15017	Sea Water	VOCs	Methylene Chloride		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	75-09-2
D002-S	A15017	Sea Water	VOCs	Methyl-t-Butyl Ether (M		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	1634-04-4
D002-S	A15017	Sea Water	VOCs	Naphthalene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	91-20-3
D002-S	A15017	Sea Water	VOCs	n-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	104-51-8
D002-S	A15017	Sea Water	VOCs	n-Propylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	103-65-1
D002-S	A15017	Sea Water	VOCs	o-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	95-47-6
D002-S	A15017	Sea Water	VOCs	p/m-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	179601-23-1
D002-S	A15017	Sea Water	VOCs	p-Isopropyltoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	99-87-6
D002-S	A15017	Sea Water	VOCs	sec-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	135-98-8
D002-S	A15017	Sea Water	VOCs	Styrene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	100-42-5
D002-S	A15017	Sea Water	VOCs	t-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	156-60-5
D002-S	A15017	Sea Water	VOCs	t-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	10061-02-6
D002-S	A15017	Sea Water	VOCs	t-1,4-Dichloro-2-Butene		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	764-41-0
D002-S	A15017	Sea Water	VOCs	Tert-Amyl-Methyl Ether		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	994-05-8
D002-S	A15017	Sea Water	VOCs	Tert-Butyl Alcohol (TBA		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	75-65-0
D002-S	A15017	Sea Water	VOCs	tert-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	98-06-6
D002-S	A15017	Sea Water	VOCs	Tetrachloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	127-18-4
D002-S	A15017	Sea Water	VOCs	Tetrahydrofuran		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	109-99-9
D002-S	A15017	Sea Water	VOCs	Thiophene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	110-02-1
D002-S	A15017	Sea Water	VOCs	Toluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	108-88-3
D002-S	A15017	Sea Water	VOCs	Toluene-d8	102	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	2037-26-5
D002-S	A15017	Sea Water	VOCs	Trichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	79-01-6
D002-S	A15017	Sea Water	VOCs	Trichlorofluoromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	75-69-4
D002-S	A15017	Sea Water	VOCs	Vinyl Acetate		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	108-05-4
D002-S	A15017	Sea Water	VOCs	Vinyl Chloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	6	EPA 8260B	EPA 5030C	75-01-4

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D011-B	A15017		EPA/600/R	EC 50	21	%		B15E112		5/26/2015 9:30	No	###########	5/26/2015 9:30		1505050-03	Toxicity, Sea Urchin Fertilization		NA
D011-B	A15017	Sea Water	PAHs	1,2,4-Trichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	120-82-1
D011-B	A15017	Sea Water	PAHs	1,2-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	95-50-1
D011-B	A15017	Sea Water	PAHs	1,3-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	541-73-1
D011-B	A15017	Sea Water	PAHs	1,4-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	106-46-7
D011-B	A15017	Sea Water	PAHs	1-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	90-12-0
D011-B	A15017	Sea Water	PAHs	2,4,5-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	95-95-4
D011-B	A15017	Sea Water	PAHs	2,4,6-Tribromo	99	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	118-79-6
D011-B	A15017	Sea Water	PAHs	2,4,6-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	88-06-2
D011-B	A15017	Sea Water	PAHs	2,4-Dichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	120-83-2
D011-B	A15017	Sea Water	PAHs	2,4-Dimethylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	105-67-9
D011-B	A15017	Sea Water	PAHs	2,4-Dinitrophenol		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	51-28-5
D011-B	A15017	Sea Water	PAHs	2,4-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	121-14-2
D011-B	A15017	Sea Water	PAHs	2,6-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	606-20-2
D011-B	A15017	Sea Water	PAHs	2-Chloronaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	91-58-7
D011-B	A15017	Sea Water	PAHs	2-Chlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	95-57-8
D011-B	A15017	Sea Water	PAHs	2-Fluorobiphen	74	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	321-60-8
D011-B	A15017	Sea Water	PAHs	2-Fluorophenol	63	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	367-12-4
D011-B	A15017	Sea Water	PAHs	2-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	91-57-6
D011-B	A15017	Sea Water	PAHs	2-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	95-48-7
D011-B	A15017	Sea Water	PAHs	2-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	88-74-4
D011-B	A15017	Sea Water	PAHs	2-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	88-75-5
D011-B	A15017	Sea Water	PAHs	3,3'-Dichlorobenzidine		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	91-94-1
D011-B	A15017	Sea Water	PAHs	3/4-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	65794-96-9
D011-B	A15017	Sea Water	PAHs	3-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	99-09-2
D011-B	A15017	Sea Water	PAHs	4,6-Dinitro-2-Methylph		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	534-52-1
D011-B	A15017	Sea Water	PAHs	4-Bromophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	101-55-3
D011-B	A15017	Sea Water	PAHs	4-Chloro-3-Methylphen		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	59-50-7
D011-B	A15017	Sea Water	PAHs	4-Chloroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	106-47-8
D011-B	A15017	Sea Water	PAHs	4-Chlorophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	7005-72-3
D011-B	A15017	Sea Water	PAHs	4-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	100-01-6
D011-B	A15017	Sea Water	PAHs	4-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	100-02-7
D011-B	A15017	Sea Water	PAHs	Acenaphthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	83-32-9
D011-B	A15017	Sea Water	PAHs	Acenaphthylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	208-96-8
D011-B	A15017	Sea Water	PAHs	Aniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	62-53-3
D011-B	A15017	Sea Water	PAHs	Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	120-12-7
D011-B	A15017	Sea Water	PAHs	Azobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	103-33-3
D011-B	A15017	Sea Water	PAHs	Benzidine		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	92-87-5
D011-B	A15017	Sea Water	PAHs	Benzo (a) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	56-55-3
D011-B	A15017	Sea Water	PAHs	Benzo (a) Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	50-32-8
D011-B	A15017	Sea Water	PAHs	Benzo (b) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	205-99-2
D011-B	A15017	Sea Water	PAHs	Benzo (g,h,i) Perylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	191-24-2
D011-B	A15017	Sea Water	PAHs	Benzo (k) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	207-08-9
D011-B	A15017	Sea Water	PAHs	Benzoic Acid		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	65-85-0
D011-B	A15017	Sea Water	PAHs	Benzyl Alcohol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	100-51-6
D011-B	A15017	Sea Water	PAHs	Bis(2-Chloroethoxy) Me		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	111-91-1
D011-B	A15017	Sea Water	PAHs	Bis(2-Chloroethyl) Ethe		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	111-44-4
D011-B	A15017	Sea Water	PAHs	Bis(2-Chloroisopropyl) E		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	39638-32-9
D011-B	A15017	Sea Water	PAHs	Bis(2-Ethylhexyl) Phtha		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	117-81-7
D011-B	A15017	Sea Water	PAHs	Butyl Benzyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	85-68-7
D011-B	A15017	Sea Water	PAHs	Chrysene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	218-01-9
D011-B	A15017	Sea Water	PAHs	Dibenz (a,h) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	53-70-3
D011-B	A15017	Sea Water	PAHs	Dibenzofuran		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	132-64-9
D011-B	A15017	Sea Water	PAHs	Diethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	84-66-2
D011-B	A15017	Sea Water	PAHs	Dimethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	131-11-3
D011-B	A15017	Sea Water	PAHs	Di-n-Butyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	84-74-2
D011-B	A15017	Sea Water	PAHs	Di-n-Octyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	117-84-0
D011-B	A15017	Sea Water	PAHs	Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	206-44-0

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D011-B	A15017	Sea Water	PAHs	Fluorene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	86-73-7
D011-B	A15017	Sea Water	PAHs	Hexachloro-1,3-Butadie		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	87-68-3
D011-B	A15017	Sea Water	PAHs	Hexachlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	118-74-1
D011-B	A15017	Sea Water	PAHs	Hexachlorocyclopentad		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	77-47-4
D011-B	A15017	Sea Water	PAHs	Hexachloroethane		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	67-72-1
D011-B	A15017	Sea Water	PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	193-39-5
D011-B	A15017	Sea Water	PAHs	Isophorone		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	78-59-1
D011-B	A15017	Sea Water	PAHs	Naphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	91-20-3
D011-B	A15017	Sea Water	PAHs	Nitrobenzene		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	98-95-3
D011-B	A15017	Sea Water	PAHs	Nitrobenzene-d	91	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	4165-60-0
D011-B	A15017	Sea Water	PAHs	N-Nitrosodimethylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	62-75-9
D011-B	A15017	Sea Water	PAHs	N-Nitroso-di-n-propylam		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	621-64-7
D011-B	A15017	Sea Water	PAHs	N-Nitrosodiphenylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	86-30-6
D011-B	A15017	Sea Water	PAHs	Pentachlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	87-86-5
D011-B	A15017	Sea Water	PAHs	Phenanthrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	85-01-8
D011-B	A15017	Sea Water	PAHs	Phenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	108-95-2
D011-B	A15017	Sea Water	PAHs	Phenol-d6	46	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	13127-88-3
D011-B	A15017	Sea Water	PAHs	p-Terphenyl-d1	92	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	1718-51-0
D011-B	A15017	Sea Water	PAHs	Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	129-00-0
D011-B	A15017	Sea Water	PAHs	Pyridine		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8270C	EPA 3510C	110-86-1
D011-B	A15017	Sea Water	SIM PAHs	1-Methylnaphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	90-12-0
D011-B	A15017	Sea Water	SIM PAHs	2-Fluorobiphen	47	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	321-60-8
D011-B	A15017	Sea Water	SIM PAHs	2-Methylnaphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	91-57-6
D011-B	A15017	Sea Water	SIM PAHs	Acenaphthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	83-32-9
D011-B	A15017	Sea Water	SIM PAHs	Acenaphthylene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	208-96-8
D011-B	A15017	Sea Water	SIM PAHs	Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	120-12-7
D011-B	A15017	Sea Water	SIM PAHs	Benzo (a) Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	56-55-3
D011-B	A15017	Sea Water	SIM PAHs	Benzo (a) Pyrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	50-32-8
D011-B	A15017	Sea Water	SIM PAHs	Benzo (b) Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	205-99-2
D011-B	A15017	Sea Water	SIM PAHs	Benzo (g,h,i) Perylene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	191-24-2
D011-B	A15017	Sea Water	SIM PAHs	Benzo (k) Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	207-08-9
D011-B	A15017	Sea Water	SIM PAHs	Chrysene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	218-01-9
D011-B	A15017	Sea Water	SIM PAHs	Dibenz (a,h) Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	53-70-3
D011-B	A15017	Sea Water	SIM PAHs	Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	206-44-0
D011-B	A15017	Sea Water	SIM PAHs	Fluorene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	86-73-7
D011-B	A15017	Sea Water	SIM PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	193-39-5
D011-B	A15017	Sea Water	SIM PAHs	Naphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	91-20-3
D011-B	A15017	Sea Water	SIM PAHs	Nitrobenzene-d	55	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	4165-60-0
D011-B	A15017	Sea Water	SIM PAHs	Phenanthrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	85-01-8
D011-B	A15017	Sea Water	SIM PAHs	p-Terphenyl-d1	47	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	1718-51-0
D011-B	A15017	Sea Water	SIM PAHs	Pyrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	3	EPA 8270C SIM	EPA 3510C	129-00-0
D011-B	A15017	Sea Water	TPH	1,4-Bromofluo	75	%REC		15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	3	EPA 8015B (M)	EPA 5030C	460-00-4
D011-B	A15017	Sea Water	TPH	n-Octacosane	86	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8015B (M)	EPA 3510C	630-02-4
D011-B	A15017	Sea Water	TPH	n-Octacosane	86	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8015B (M)	EPA 3510C	630-02-4
D011-B	A15017	Sea Water	TPH-dro	TPH as Diesel		ug/L	100	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8015B (M)	EPA 3510C	68334-30-5
D011-B	A15017	Sea Water	TPH-gro	TPH as Gasoline		ug/L	100	15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	3	EPA 8015B (M)	EPA 5030C	8006-61-9
D011-B	A15017	Sea Water	TPH-oro	TPH as Motor Oil		ug/L	500	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	3	EPA 8015B (M)	EPA 3510C	
D011-B	A15017	Sea Water	VOCs	1,1,1,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	630-20-6
D011-B	A15017	Sea Water	VOCs	1,1,1-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	71-55-6
D011-B	A15017	Sea Water	VOCs	1,1,2,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	79-34-5
D011-B	A15017	Sea Water	VOCs	1,1,2-Trichloro-1,2,2-Tr		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	76-13-1
D011-B	A15017	Sea Water	VOCs	1,1,2-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	79-00-5
D011-B	A15017	Sea Water	VOCs	1,1-Dichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	75-34-3
D011-B	A15017	Sea Water	VOCs	1,1-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	75-35-4
D011-B	A15017	Sea Water	VOCs	1,1-Dichloropropene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	563-58-6
D011-B	A15017	Sea Water	VOCs	1,2,3-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	87-61-6
D011-B	A15017	Sea Water	VOCs	1,2,3-Trichloropropane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	96-18-4
D011-B	A15017	Sea Water	VOCs	1,2,4-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	120-82-1

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D011-B	A15017	Sea Water	VOCs	1,2,4-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	95-63-6
D011-B	A15017	Sea Water	VOCs	1,2-Dibromo-3-Chlorop		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	96-12-8
D011-B	A15017	Sea Water	VOCs	1,2-Dibromoethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	106-93-4
D011-B	A15017	Sea Water	VOCs	1,2-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	95-50-1
D011-B	A15017	Sea Water	VOCs	1,2-Dichloroethane		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	107-06-2
D011-B	A15017	Sea Water	VOCs	1,2-Dichloroeth	109	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	17060-07-0
D011-B	A15017	Sea Water	VOCs	1,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	78-87-5
D011-B	A15017	Sea Water	VOCs	1,3,5-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	108-67-8
D011-B	A15017	Sea Water	VOCs	1,3-Butadiene		ug/L	25	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	106-99-0
D011-B	A15017	Sea Water	VOCs	1,3-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	541-73-1
D011-B	A15017	Sea Water	VOCs	1,3-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	142-28-9
D011-B	A15017	Sea Water	VOCs	1,4-Bromofluo	95	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	460-00-4
D011-B	A15017	Sea Water	VOCs	1,4-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	106-46-7
D011-B	A15017	Sea Water	VOCs	1,4-Dioxane		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	123-91-1
D011-B	A15017	Sea Water	VOCs	2,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	594-20-7
D011-B	A15017	Sea Water	VOCs	2-Butanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	78-93-3
D011-B	A15017	Sea Water	VOCs	2-Chloroethyl Vinyl Ethe		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	110-75-8
D011-B	A15017	Sea Water	VOCs	2-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	95-49-8
D011-B	A15017	Sea Water	VOCs	2-Hexanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	591-78-6
D011-B	A15017	Sea Water	VOCs	4-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	106-43-4
D011-B	A15017	Sea Water	VOCs	4-Methyl-2-Pentanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	108-10-1
D011-B	A15017	Sea Water	VOCs	Acetone		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	67-64-1
D011-B	A15017	Sea Water	VOCs	Acetonitrile		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	75-05-8
D011-B	A15017	Sea Water	VOCs	Acrolein		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	107-02-8
D011-B	A15017	Sea Water	VOCs	Acrylonitrile		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	107-13-1
D011-B	A15017	Sea Water	VOCs	Benzene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	71-43-2
D011-B	A15017	Sea Water	VOCs	Bromobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	108-86-1
D011-B	A15017	Sea Water	VOCs	Bromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	74-97-5
D011-B	A15017	Sea Water	VOCs	Bromodichloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	75-27-4
D011-B	A15017	Sea Water	VOCs	Bromoform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	75-25-2
D011-B	A15017	Sea Water	VOCs	Bromomethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	74-83-9
D011-B	A15017	Sea Water	VOCs	c-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	156-59-2
D011-B	A15017	Sea Water	VOCs	c-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	10061-01-5
D011-B	A15017	Sea Water	VOCs	Carbon Disulfide		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	75-15-0
D011-B	A15017	Sea Water	VOCs	Carbon Tetrachloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	56-23-5
D011-B	A15017	Sea Water	VOCs	Chlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	108-90-7
D011-B	A15017	Sea Water	VOCs	Chloroethane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	75-00-3
D011-B	A15017	Sea Water	VOCs	Chloroform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	67-66-3
D011-B	A15017	Sea Water	VOCs	Chloromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	74-87-3
D011-B	A15017	Sea Water	VOCs	Cyclohexane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	110-82-7
D011-B	A15017	Sea Water	VOCs	Dibromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	124-48-1
D011-B	A15017	Sea Water	VOCs	Dibromofluoro	110	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	1868-53-7
D011-B	A15017	Sea Water	VOCs	Dibromomethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	74-95-3
D011-B	A15017	Sea Water	VOCs	Dichlorodifluorometha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	75-71-8
D011-B	A15017	Sea Water	VOCs	Diethyl Ether		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	60-29-7
D011-B	A15017	Sea Water	VOCs	Diisopropyl Ether (DIPE		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	108-20-3
D011-B	A15017	Sea Water	VOCs	Ethanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	64-17-5
D011-B	A15017	Sea Water	VOCs	Ethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	100-41-4
D011-B	A15017	Sea Water	VOCs	Ethyl-t-Butyl Ether (ETB		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	637-92-3
D011-B	A15017	Sea Water	VOCs	Hexachloro-1,3-Butadie		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	87-68-3
D011-B	A15017	Sea Water	VOCs	Hexane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	110-54-3
D011-B	A15017	Sea Water	VOCs	Iodomethane		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	74-88-4
D011-B	A15017	Sea Water	VOCs	Isopropanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	67-63-0
D011-B	A15017	Sea Water	VOCs	Isopropylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	98-82-8
D011-B	A15017	Sea Water	VOCs	Methylene Chloride		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	75-09-2
D011-B	A15017	Sea Water	VOCs	Methyl-t-Butyl Ether (M		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	1634-04-4
D011-B	A15017	Sea Water	VOCs	Naphthalene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	91-20-3
D011-B	A15017	Sea Water	VOCs	n-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	104-51-8

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D011-B	A15017	Sea Water	VOCs	n-Propylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	103-65-1
D011-B	A15017	Sea Water	VOCs	o-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	95-47-6
D011-B	A15017	Sea Water	VOCs	p/m-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	179601-23-1
D011-B	A15017	Sea Water	VOCs	p-Isopropyltoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	99-87-6
D011-B	A15017	Sea Water	VOCs	sec-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	135-98-8
D011-B	A15017	Sea Water	VOCs	Styrene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	100-42-5
D011-B	A15017	Sea Water	VOCs	t-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	156-60-5
D011-B	A15017	Sea Water	VOCs	t-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	10061-02-6
D011-B	A15017	Sea Water	VOCs	t-1,4-Dichloro-2-Butene		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	764-41-0
D011-B	A15017	Sea Water	VOCs	Tert-Amyl-Methyl Ether		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	994-05-8
D011-B	A15017	Sea Water	VOCs	Tert-Butyl Alcohol (TBA		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	75-65-0
D011-B	A15017	Sea Water	VOCs	tert-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	98-06-6
D011-B	A15017	Sea Water	VOCs	Tetrachloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	127-18-4
D011-B	A15017	Sea Water	VOCs	Tetrahydrofuran		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	109-99-9
D011-B	A15017	Sea Water	VOCs	Thiophene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	110-02-1
D011-B	A15017	Sea Water	VOCs	Toluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	108-88-3
D011-B	A15017	Sea Water	VOCs	Toluene-d8	101	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	2037-26-5
D011-B	A15017	Sea Water	VOCs	Trichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	79-01-6
D011-B	A15017	Sea Water	VOCs	Trichlorofluoromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	75-69-4
D011-B	A15017	Sea Water	VOCs	Vinyl Acetate		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	108-05-4
D011-B	A15017	Sea Water	VOCs	Vinyl Chloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	3	EPA 8260B	EPA 5030C	75-01-4
D011-S	A15017		EPA/600/R	EC 50	21	%		B15E112		5/26/2015 9:30	No	###########	5/26/2015 9:30		1505050-04	Toxicity, Sea Urchin Fertilization		NA
D011-S	A15017	Sea Water	PAHs	1,2,4-Trichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	120-82-1
D011-S	A15017	Sea Water	PAHs	1,2-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	95-50-1
D011-S	A15017	Sea Water	PAHs	1,3-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	541-73-1
D011-S	A15017	Sea Water	PAHs	1,4-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	106-46-7
D011-S	A15017	Sea Water	PAHs	1-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	90-12-0
D011-S	A15017	Sea Water	PAHs	2,4,5-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	95-95-4
D011-S	A15017	Sea Water	PAHs	2,4,6-Tribromo	108	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	118-79-6
D011-S	A15017	Sea Water	PAHs	2,4,6-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	88-06-2
D011-S	A15017	Sea Water	PAHs	2,4-Dichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	120-83-2
D011-S	A15017	Sea Water	PAHs	2,4-Dimethylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	105-67-9
D011-S	A15017	Sea Water	PAHs	2,4-Dinitrophenol		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	51-28-5
D011-S	A15017	Sea Water	PAHs	2,4-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	121-14-2
D011-S	A15017	Sea Water	PAHs	2,6-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	606-20-2
D011-S	A15017	Sea Water	PAHs	2-Chloronaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	91-58-7
D011-S	A15017	Sea Water	PAHs	2-Chlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	95-57-8
D011-S	A15017	Sea Water	PAHs	2-Fluorobiphen	77	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	321-60-8
D011-S	A15017	Sea Water	PAHs	2-Fluorophenol	68	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	367-12-4
D011-S	A15017	Sea Water	PAHs	2-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	91-57-6
D011-S	A15017	Sea Water	PAHs	2-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	95-48-7
D011-S	A15017	Sea Water	PAHs	2-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	88-74-4
D011-S	A15017	Sea Water	PAHs	2-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	88-75-5
D011-S	A15017	Sea Water	PAHs	3,3'-Dichlorobenzidine		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	91-94-1
D011-S	A15017	Sea Water	PAHs	3/4-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	65794-96-9
D011-S	A15017	Sea Water	PAHs	3-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	99-09-2
D011-S	A15017	Sea Water	PAHs	4,6-Dinitro-2-Methylph		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	534-52-1
D011-S	A15017	Sea Water	PAHs	4-Bromophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	101-55-3
D011-S	A15017	Sea Water	PAHs	4-Chloro-3-Methylphen		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	59-50-7
D011-S	A15017	Sea Water	PAHs	4-Chloroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	106-47-8
D011-S	A15017	Sea Water	PAHs	4-Chlorophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	7005-72-3
D011-S	A15017	Sea Water	PAHs	4-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	100-01-6
D011-S	A15017	Sea Water	PAHs	4-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	100-02-7
D011-S	A15017	Sea Water	PAHs	Acenaphthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	83-32-9
D011-S	A15017	Sea Water	PAHs	Acenaphthylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	208-96-8
D011-S	A15017	Sea Water	PAHs	Aniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	62-53-3
D011-S	A15017	Sea Water	PAHs	Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	120-12-7
D011-S	A15017	Sea Water	PAHs	Azobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	103-33-3

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D011-S	A15017	Sea Water	PAHs	Benzidine		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	92-87-5
D011-S	A15017	Sea Water	PAHs	Benzo (a) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	56-55-3
D011-S	A15017	Sea Water	PAHs	Benzo (a) Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	50-32-8
D011-S	A15017	Sea Water	PAHs	Benzo (b) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	205-99-2
D011-S	A15017	Sea Water	PAHs	Benzo (g,h,i) Perylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	191-24-2
D011-S	A15017	Sea Water	PAHs	Benzo (k) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	207-08-9
D011-S	A15017	Sea Water	PAHs	Benzoic Acid		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	65-85-0
D011-S	A15017	Sea Water	PAHs	Benzyl Alcohol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	100-51-6
D011-S	A15017	Sea Water	PAHs	Bis(2-Chloroethoxy) Me		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	111-91-1
D011-S	A15017	Sea Water	PAHs	Bis(2-Chloroethyl) Ethe		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	111-44-4
D011-S	A15017	Sea Water	PAHs	Bis(2-Chloroisopropyl) E		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	39638-32-9
D011-S	A15017	Sea Water	PAHs	Bis(2-Ethylhexyl) Phtha		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	117-81-7
D011-S	A15017	Sea Water	PAHs	Butyl Benzyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	85-68-7
D011-S	A15017	Sea Water	PAHs	Chrysene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	218-01-9
D011-S	A15017	Sea Water	PAHs	Dibenz (a,h) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	53-70-3
D011-S	A15017	Sea Water	PAHs	Dibenzofuran		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	132-64-9
D011-S	A15017	Sea Water	PAHs	Diethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	84-66-2
D011-S	A15017	Sea Water	PAHs	Dimethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	131-11-3
D011-S	A15017	Sea Water	PAHs	Di-n-Butyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	84-74-2
D011-S	A15017	Sea Water	PAHs	Di-n-Octyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	117-84-0
D011-S	A15017	Sea Water	PAHs	Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	206-44-0
D011-S	A15017	Sea Water	PAHs	Fluorene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	86-73-7
D011-S	A15017	Sea Water	PAHs	Hexachloro-1,3-Butadie		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	87-68-3
D011-S	A15017	Sea Water	PAHs	Hexachlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	118-74-1
D011-S	A15017	Sea Water	PAHs	Hexachlorocyclopentad		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	77-47-4
D011-S	A15017	Sea Water	PAHs	Hexachloroethane		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	67-72-1
D011-S	A15017	Sea Water	PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	193-39-5
D011-S	A15017	Sea Water	PAHs	Isophorone		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	78-59-1
D011-S	A15017	Sea Water	PAHs	Naphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	91-20-3
D011-S	A15017	Sea Water	PAHs	Nitrobenzene		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	98-95-3
D011-S	A15017	Sea Water	PAHs	Nitrobenzene-d	97	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	4165-60-0
D011-S	A15017	Sea Water	PAHs	N-Nitrosodimethylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	62-75-9
D011-S	A15017	Sea Water	PAHs	N-Nitroso-di-n-propylam		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	621-64-7
D011-S	A15017	Sea Water	PAHs	N-Nitrosodiphenylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	86-30-6
D011-S	A15017	Sea Water	PAHs	Pentachlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	87-86-5
D011-S	A15017	Sea Water	PAHs	Phenanthrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	85-01-8
D011-S	A15017	Sea Water	PAHs	Phenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	108-95-2
D011-S	A15017	Sea Water	PAHs	Phenol-d6	49	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	13127-88-3
D011-S	A15017	Sea Water	PAHs	p-Terphenyl-d1	100	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	1718-51-0
D011-S	A15017	Sea Water	PAHs	Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	129-00-0
D011-S	A15017	Sea Water	PAHs	Pyridine		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8270C	EPA 3510C	110-86-1
D011-S	A15017	Sea Water	SIM PAHs	1-Methylnaphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	90-12-0
D011-S	A15017	Sea Water	SIM PAHs	2-Fluorobiphen	92	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	321-60-8
D011-S	A15017	Sea Water	SIM PAHs	2-Methylnaphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	91-57-6
D011-S	A15017	Sea Water	SIM PAHs	Acenaphthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	83-32-9
D011-S	A15017	Sea Water	SIM PAHs	Acenaphthylene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	208-96-8
D011-S	A15017	Sea Water	SIM PAHs	Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	120-12-7
D011-S	A15017	Sea Water	SIM PAHs	Benzo (a) Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	56-55-3
D011-S	A15017	Sea Water	SIM PAHs	Benzo (a) Pyrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	50-32-8
D011-S	A15017	Sea Water	SIM PAHs	Benzo (b) Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	205-99-2
D011-S	A15017	Sea Water	SIM PAHs	Benzo (g,h,i) Perylene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	191-24-2
D011-S	A15017	Sea Water	SIM PAHs	Benzo (k) Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	207-08-9
D011-S	A15017	Sea Water	SIM PAHs	Chrysene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	218-01-9
D011-S	A15017	Sea Water	SIM PAHs	Dibenz (a,h) Anthracene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	53-70-3
D011-S	A15017	Sea Water	SIM PAHs	Fluoranthene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	206-44-0
D011-S	A15017	Sea Water	SIM PAHs	Fluorene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	86-73-7
D011-S	A15017	Sea Water	SIM PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	193-39-5
D011-S	A15017	Sea Water	SIM PAHs	Naphthalene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	91-20-3

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D011-S	A15017	Sea Water	SIM PAHs	Nitrobenzene-d	110	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	4165-60-0
D011-S	A15017	Sea Water	SIM PAHs	Phenanthrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	85-01-8
D011-S	A15017	Sea Water	SIM PAHs	p-Terphenyl-d1	86	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	1718-51-0
D011-S	A15017	Sea Water	SIM PAHs	Pyrene		ug/L	0.2	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	4	EPA 8270C SIM	EPA 3510C	129-00-0
D011-S	A15017	Sea Water	TPH	1,4-Bromofluo	81	%REC		15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	4	EPA 8015B (M)	EPA 5030C	460-00-4
D011-S	A15017	Sea Water	TPH	n-Octacosane	83	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8015B (M)	EPA 3510C	630-02-4
D011-S	A15017	Sea Water	TPH	n-Octacosane	83	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8015B (M)	EPA 3510C	630-02-4
D011-S	A15017	Sea Water	TPH-dro	TPH as Diesel		ug/L	100	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8015B (M)	EPA 3510C	68334-30-5
D011-S	A15017	Sea Water	TPH-gro	TPH as Gasoline		ug/L	100	15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	4	EPA 8015B (M)	EPA 5030C	8006-61-9
D011-S	A15017	Sea Water	TPH-oro	TPH as Motor Oil		ug/L	500	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	4	EPA 8015B (M)	EPA 3510C	
D011-S	A15017	Sea Water	VOCs	1,1,1,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	630-20-6
D011-S	A15017	Sea Water	VOCs	1,1,1-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	71-55-6
D011-S	A15017	Sea Water	VOCs	1,1,2,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	79-34-5
D011-S	A15017	Sea Water	VOCs	1,1,2-Trichloro-1,2,2-Tr		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	76-13-1
D011-S	A15017	Sea Water	VOCs	1,1,2-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	79-00-5
D011-S	A15017	Sea Water	VOCs	1,1-Dichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	75-34-3
D011-S	A15017	Sea Water	VOCs	1,1-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	75-35-4
D011-S	A15017	Sea Water	VOCs	1,1-Dichloropropene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	563-58-6
D011-S	A15017	Sea Water	VOCs	1,2,3-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	87-61-6
D011-S	A15017	Sea Water	VOCs	1,2,3-Trichloropropane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	96-18-4
D011-S	A15017	Sea Water	VOCs	1,2,4-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	120-82-1
D011-S	A15017	Sea Water	VOCs	1,2,4-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	95-63-6
D011-S	A15017	Sea Water	VOCs	1,2-Dibromo-3-Chlorop		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	96-12-8
D011-S	A15017	Sea Water	VOCs	1,2-Dibromoethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	106-93-4
D011-S	A15017	Sea Water	VOCs	1,2-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	95-50-1
D011-S	A15017	Sea Water	VOCs	1,2-Dichloroethane		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	107-06-2
D011-S	A15017	Sea Water	VOCs	1,2-Dichloroeth	107	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	17060-07-0
D011-S	A15017	Sea Water	VOCs	1,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	78-87-5
D011-S	A15017	Sea Water	VOCs	1,3,5-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	108-67-8
D011-S	A15017	Sea Water	VOCs	1,3-Butadiene		ug/L	25	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	106-99-0
D011-S	A15017	Sea Water	VOCs	1,3-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	541-73-1
D011-S	A15017	Sea Water	VOCs	1,3-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	142-28-9
D011-S	A15017	Sea Water	VOCs	1,4-Bromofluo	95	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	460-00-4
D011-S	A15017	Sea Water	VOCs	1,4-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	106-46-7
D011-S	A15017	Sea Water	VOCs	1,4-Dioxane		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	123-91-1
D011-S	A15017	Sea Water	VOCs	2,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	594-20-7
D011-S	A15017	Sea Water	VOCs	2-Butanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	78-93-3
D011-S	A15017	Sea Water	VOCs	2-Chloroethyl Vinyl Ethe		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	110-75-8
D011-S	A15017	Sea Water	VOCs	2-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	95-49-8
D011-S	A15017	Sea Water	VOCs	2-Hexanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	591-78-6
D011-S	A15017	Sea Water	VOCs	4-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	106-43-4
D011-S	A15017	Sea Water	VOCs	4-Methyl-2-Pentanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	108-10-1
D011-S	A15017	Sea Water	VOCs	Acetone		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	67-64-1
D011-S	A15017	Sea Water	VOCs	Acetonitrile		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	75-05-8
D011-S	A15017	Sea Water	VOCs	Acrolein		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	107-02-8
D011-S	A15017	Sea Water	VOCs	Acrylonitrile		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	107-13-1
D011-S	A15017	Sea Water	VOCs	Benzene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	71-43-2
D011-S	A15017	Sea Water	VOCs	Bromobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	108-86-1
D011-S	A15017	Sea Water	VOCs	Bromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	74-97-5
D011-S	A15017	Sea Water	VOCs	Bromodichloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	75-27-4
D011-S	A15017	Sea Water	VOCs	Bromoform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	75-25-2
D011-S	A15017	Sea Water	VOCs	Bromomethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	74-83-9
D011-S	A15017	Sea Water	VOCs	c-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	156-59-2
D011-S	A15017	Sea Water	VOCs	c-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	10061-01-5
D011-S	A15017	Sea Water	VOCs	Carbon Disulfide		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	75-15-0
D011-S	A15017	Sea Water	VOCs	Carbon Tetrachloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	56-23-5
D011-S	A15017	Sea Water	VOCs	Chlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	108-90-7
D011-S	A15017	Sea Water	VOCs	Chloroethane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	75-00-3

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D011-S	A15017	Sea Water	VOCs	Chloroform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	67-66-3
D011-S	A15017	Sea Water	VOCs	Chloromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	74-87-3
D011-S	A15017	Sea Water	VOCs	Cyclohexane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	110-82-7
D011-S	A15017	Sea Water	VOCs	Dibromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	124-48-1
D011-S	A15017	Sea Water	VOCs	Dibromofluoro	106	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	1868-53-7
D011-S	A15017	Sea Water	VOCs	Dibromomethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	74-95-3
D011-S	A15017	Sea Water	VOCs	Dichlorodifluorometha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	75-71-8
D011-S	A15017	Sea Water	VOCs	Diethyl Ether		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	60-29-7
D011-S	A15017	Sea Water	VOCs	Diisopropyl Ether (DIPE		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	108-20-3
D011-S	A15017	Sea Water	VOCs	Ethanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	64-17-5
D011-S	A15017	Sea Water	VOCs	Ethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	100-41-4
D011-S	A15017	Sea Water	VOCs	Ethyl-t-Butyl Ether (ETB		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	637-92-3
D011-S	A15017	Sea Water	VOCs	Hexachloro-1,3-Butadie		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	87-68-3
D011-S	A15017	Sea Water	VOCs	Hexane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	110-54-3
D011-S	A15017	Sea Water	VOCs	Iodomethane		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	74-88-4
D011-S	A15017	Sea Water	VOCs	Isopropanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	67-63-0
D011-S	A15017	Sea Water	VOCs	Isopropylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	98-82-8
D011-S	A15017	Sea Water	VOCs	Methylene Chloride		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	75-09-2
D011-S	A15017	Sea Water	VOCs	Methyl-t-Butyl Ether (M		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	1634-04-4
D011-S	A15017	Sea Water	VOCs	Naphthalene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	91-20-3
D011-S	A15017	Sea Water	VOCs	n-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	104-51-8
D011-S	A15017	Sea Water	VOCs	n-Propylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	103-65-1
D011-S	A15017	Sea Water	VOCs	o-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	95-47-6
D011-S	A15017	Sea Water	VOCs	p/m-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	179601-23-1
D011-S	A15017	Sea Water	VOCs	p-Isopropyltoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	99-87-6
D011-S	A15017	Sea Water	VOCs	sec-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	135-98-8
D011-S	A15017	Sea Water	VOCs	Styrene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	100-42-5
D011-S	A15017	Sea Water	VOCs	t-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	156-60-5
D011-S	A15017	Sea Water	VOCs	t-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	10061-02-6
D011-S	A15017	Sea Water	VOCs	t-1,4-Dichloro-2-Butene		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	764-41-0
D011-S	A15017	Sea Water	VOCs	Tert-Amyl-Methyl Ether		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	994-05-8
D011-S	A15017	Sea Water	VOCs	Tert-Butyl Alcohol (TBA		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	75-65-0
D011-S	A15017	Sea Water	VOCs	tert-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	98-06-6
D011-S	A15017	Sea Water	VOCs	Tetrachloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	127-18-4
D011-S	A15017	Sea Water	VOCs	Tetrahydrofuran		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	109-99-9
D011-S	A15017	Sea Water	VOCs	Thiophene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	110-02-1
D011-S	A15017	Sea Water	VOCs	Toluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	108-88-3
D011-S	A15017	Sea Water	VOCs	Toluene-d8	101	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	2037-26-5
D011-S	A15017	Sea Water	VOCs	Trichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	79-01-6
D011-S	A15017	Sea Water	VOCs	Trichlorofluoromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	75-69-4
D011-S	A15017	Sea Water	VOCs	Vinyl Acetate		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	108-05-4
D011-S	A15017	Sea Water	VOCs	Vinyl Chloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	4	EPA 8260B	EPA 5030C	75-01-4
D012-B	A15017		EPA/600/R	EC 50	21	%		B15E112		5/26/2015 9:30	No	###########	5/26/2015 9:30		1505050-01	Toxicity, Sea Urchin Fertilization		NA
D012-B	A15017	Sea Water	PAHs	1,2,4-Trichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	120-82-1
D012-B	A15017	Sea Water	PAHs	1,2-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	95-50-1
D012-B	A15017	Sea Water	PAHs	1,3-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	541-73-1
D012-B	A15017	Sea Water	PAHs	1,4-Dichlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	106-46-7
D012-B	A15017	Sea Water	PAHs	1-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	90-12-0
D012-B	A15017	Sea Water	PAHs	2,4,5-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	95-95-4
D012-B	A15017	Sea Water	PAHs	2,4,6-Tribromo	109	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	118-79-6
D012-B	A15017	Sea Water	PAHs	2,4,6-Trichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	88-06-2
D012-B	A15017	Sea Water	PAHs	2,4-Dichlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	120-83-2
D012-B	A15017	Sea Water	PAHs	2,4-Dimethylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	105-67-9
D012-B	A15017	Sea Water	PAHs	2,4-Dinitrophenol		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	51-28-5
D012-B	A15017	Sea Water	PAHs	2,4-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	121-14-2
D012-B	A15017	Sea Water	PAHs	2,6-Dinitrotoluene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	606-20-2
D012-B	A15017	Sea Water	PAHs	2-Chloronaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	91-58-7
D012-B	A15017	Sea Water	PAHs	2-Chlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	95-57-8

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D012-B	A15017	Sea Water	PAHs	2-Fluorobiphen	86	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	321-60-8
D012-B	A15017	Sea Water	PAHs	2-Fluorophenol	68	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	367-12-4
D012-B	A15017	Sea Water	PAHs	2-Methylnaphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	91-57-6
D012-B	A15017	Sea Water	PAHs	2-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	95-48-7
D012-B	A15017	Sea Water	PAHs	2-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	88-74-4
D012-B	A15017	Sea Water	PAHs	2-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	88-75-5
D012-B	A15017	Sea Water	PAHs	3,3'-Dichlorobenzidine		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	91-94-1
D012-B	A15017	Sea Water	PAHs	3/4-Methylphenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	65794-96-9
D012-B	A15017	Sea Water	PAHs	3-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	99-09-2
D012-B	A15017	Sea Water	PAHs	4,6-Dinitro-2-Methylph		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	534-52-1
D012-B	A15017	Sea Water	PAHs	4-Bromophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	101-55-3
D012-B	A15017	Sea Water	PAHs	4-Chloro-3-Methylphen		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	59-50-7
D012-B	A15017	Sea Water	PAHs	4-Chloroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	106-47-8
D012-B	A15017	Sea Water	PAHs	4-Chlorophenyl-Phenyl		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	7005-72-3
D012-B	A15017	Sea Water	PAHs	4-Nitroaniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	100-01-6
D012-B	A15017	Sea Water	PAHs	4-Nitrophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	100-02-7
D012-B	A15017	Sea Water	PAHs	Acenaphthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	83-32-9
D012-B	A15017	Sea Water	PAHs	Acenaphthylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	208-96-8
D012-B	A15017	Sea Water	PAHs	Aniline		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	62-53-3
D012-B	A15017	Sea Water	PAHs	Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	120-12-7
D012-B	A15017	Sea Water	PAHs	Azobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	103-33-3
D012-B	A15017	Sea Water	PAHs	Benzidine		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	92-87-5
D012-B	A15017	Sea Water	PAHs	Benzo (a) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	56-55-3
D012-B	A15017	Sea Water	PAHs	Benzo (a) Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	50-32-8
D012-B	A15017	Sea Water	PAHs	Benzo (b) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	205-99-2
D012-B	A15017	Sea Water	PAHs	Benzo (g,h,i) Perylene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	191-24-2
D012-B	A15017	Sea Water	PAHs	Benzo (k) Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	207-08-9
D012-B	A15017	Sea Water	PAHs	Benzoic Acid		ug/L	49	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	65-85-0
D012-B	A15017	Sea Water	PAHs	Benzyl Alcohol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	100-51-6
D012-B	A15017	Sea Water	PAHs	Bis(2-Chloroethoxy) Me		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	111-91-1
D012-B	A15017	Sea Water	PAHs	Bis(2-Chloroethyl) Ethe		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	111-44-4
D012-B	A15017	Sea Water	PAHs	Bis(2-Chloroisopropyl) E		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	39638-32-9
D012-B	A15017	Sea Water	PAHs	Bis(2-Ethylhexyl) Phtha		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	117-81-7
D012-B	A15017	Sea Water	PAHs	Butyl Benzyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	85-68-7
D012-B	A15017	Sea Water	PAHs	Chrysene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	218-01-9
D012-B	A15017	Sea Water	PAHs	Dibenz (a,h) Anthracene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	53-70-3
D012-B	A15017	Sea Water	PAHs	Dibenzofuran		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	132-64-9
D012-B	A15017	Sea Water	PAHs	Diethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	84-66-2
D012-B	A15017	Sea Water	PAHs	Dimethyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	131-11-3
D012-B	A15017	Sea Water	PAHs	Di-n-Butyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	84-74-2
D012-B	A15017	Sea Water	PAHs	Di-n-Octyl Phthalate		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	117-84-0
D012-B	A15017	Sea Water	PAHs	Fluoranthene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	206-44-0
D012-B	A15017	Sea Water	PAHs	Fluorene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	86-73-7
D012-B	A15017	Sea Water	PAHs	Hexachloro-1,3-Butadie		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	87-68-3
D012-B	A15017	Sea Water	PAHs	Hexachlorobenzene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	118-74-1
D012-B	A15017	Sea Water	PAHs	Hexachlorocyclopentad		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	77-47-4
D012-B	A15017	Sea Water	PAHs	Hexachloroethane		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	67-72-1
D012-B	A15017	Sea Water	PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	193-39-5
D012-B	A15017	Sea Water	PAHs	Isophorone		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	78-59-1
D012-B	A15017	Sea Water	PAHs	Naphthalene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	91-20-3
D012-B	A15017	Sea Water	PAHs	Nitrobenzene		ug/L	25	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	98-95-3
D012-B	A15017	Sea Water	PAHs	Nitrobenzene-d	99	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	4165-60-0
D012-B	A15017	Sea Water	PAHs	N-Nitrosodimethylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	62-75-9
D012-B	A15017	Sea Water	PAHs	N-Nitroso-di-n-propylam		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	621-64-7
D012-B	A15017	Sea Water	PAHs	N-Nitrosodiphenylamin		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	86-30-6
D012-B	A15017	Sea Water	PAHs	Pentachlorophenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	87-86-5
D012-B	A15017	Sea Water	PAHs	Phenanthrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	85-01-8
D012-B	A15017	Sea Water	PAHs	Phenol		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	108-95-2

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D012-B	A15017	Sea Water	PAHs	Phenol-d6	50	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	13127-88-3
D012-B	A15017	Sea Water	PAHs	p-Terphenyl-d1	97	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	1718-51-0
D012-B	A15017	Sea Water	PAHs	Pyrene		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	129-00-0
D012-B	A15017	Sea Water	PAHs	Pyridine		ug/L	9.8	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8270C	EPA 3510C	110-86-1
D012-B	A15017	Sea Water	SIM PAHs	1-Methylnaphthalene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	90-12-0
D012-B	A15017	Sea Water	SIM PAHs	2-Fluorobiphen	88	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	321-60-8
D012-B	A15017	Sea Water	SIM PAHs	2-Methylnaphthalene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	91-57-6
D012-B	A15017	Sea Water	SIM PAHs	Acenaphthene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	83-32-9
D012-B	A15017	Sea Water	SIM PAHs	Acenaphthylene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	208-96-8
D012-B	A15017	Sea Water	SIM PAHs	Anthracene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	120-12-7
D012-B	A15017	Sea Water	SIM PAHs	Benzo (a) Anthracene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	56-55-3
D012-B	A15017	Sea Water	SIM PAHs	Benzo (a) Pyrene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	50-32-8
D012-B	A15017	Sea Water	SIM PAHs	Benzo (b) Fluoranthene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	205-99-2
D012-B	A15017	Sea Water	SIM PAHs	Benzo (g,h,i) Perylene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	191-24-2
D012-B	A15017	Sea Water	SIM PAHs	Benzo (k) Fluoranthene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	207-08-9
D012-B	A15017	Sea Water	SIM PAHs	Chrysene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	218-01-9
D012-B	A15017	Sea Water	SIM PAHs	Dibenz (a,h) Anthracene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	53-70-3
D012-B	A15017	Sea Water	SIM PAHs	Fluoranthene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	206-44-0
D012-B	A15017	Sea Water	SIM PAHs	Fluorene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	86-73-7
D012-B	A15017	Sea Water	SIM PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	193-39-5
D012-B	A15017	Sea Water	SIM PAHs	Naphthalene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	91-20-3
D012-B	A15017	Sea Water	SIM PAHs	Nitrobenzene-d	105	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	4165-60-0
D012-B	A15017	Sea Water	SIM PAHs	Phenanthrene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	85-01-8
D012-B	A15017	Sea Water	SIM PAHs	p-Terphenyl-d1	84	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	1718-51-0
D012-B	A15017	Sea Water	SIM PAHs	Pyrene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	1	EPA 8270C SIM	EPA 3510C	129-00-0
D012-B	A15017	Sea Water	TPH	1,4-Bromofluo	77	%REC		15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	1	EPA 8015B (M)	EPA 5030C	460-00-4
D012-B	A15017	Sea Water	TPH	n-Octacosane	94	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8015B (M)	EPA 3510C	630-02-4
D012-B	A15017	Sea Water	TPH	n-Octacosane	94	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8015B (M)	EPA 3510C	630-02-4
D012-B	A15017	Sea Water	TPH-dro	TPH as Diesel		ug/L	100	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8015B (M)	EPA 3510C	68334-30-5
D012-B	A15017	Sea Water	TPH-gro	TPH as Gasoline		ug/L	100	15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	1	EPA 8015B (M)	EPA 5030C	8006-61-9
D012-B	A15017	Sea Water	TPH-oro	TPH as Motor Oil		ug/L	500	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	1	EPA 8015B (M)	EPA 3510C	
D012-B	A15017	Sea Water	VOCs	1,1,1,2-Tetrach	101	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	630-20-6
D012-B	A15017	Sea Water	VOCs	1,1,1,2-Tetrach	102	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	630-20-6
D012-B	A15017	Sea Water	VOCs	1,1,1,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	630-20-6
D012-B	A15017	Sea Water	VOCs	1,1,1-Trichloro	105	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	71-55-6
D012-B	A15017	Sea Water	VOCs	1,1,1-Trichloro	104	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	71-55-6
D012-B	A15017	Sea Water	VOCs	1,1,1-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	71-55-6
D012-B	A15017	Sea Water	VOCs	1,1,2,2-Tetrach	96	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	79-34-5
D012-B	A15017	Sea Water	VOCs	1,1,2,2-Tetrach	93	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	79-34-5
D012-B	A15017	Sea Water	VOCs	1,1,2,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	79-34-5
D012-B	A15017	Sea Water	VOCs	1,1,2-Trichloro	89	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	76-13-1
D012-B	A15017	Sea Water	VOCs	1,1,2-Trichloro	92	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	76-13-1
D012-B	A15017	Sea Water	VOCs	1,1,2-Trichloro-1,2,2-Tr		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	76-13-1
D012-B	A15017	Sea Water	VOCs	1,1,2-Trichloro	100	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	79-00-5
D012-B	A15017	Sea Water	VOCs	1,1,2-Trichloro	96	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	79-00-5
D012-B	A15017	Sea Water	VOCs	1,1,2-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	79-00-5
D012-B	A15017	Sea Water	VOCs	1,1-Dichloroeth	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-34-3
D012-B	A15017	Sea Water	VOCs	1,1-Dichloroeth	98	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-34-3
D012-B	A15017	Sea Water	VOCs	1,1-Dichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-34-3
D012-B	A15017	Sea Water	VOCs	1,1-Dichloroeth	89	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-35-4
D012-B	A15017	Sea Water	VOCs	1,1-Dichloroeth	93	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-35-4
D012-B	A15017	Sea Water	VOCs	1,1-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-35-4
D012-B	A15017	Sea Water	VOCs	1,1-Dichloropro	103	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	563-58-6
D012-B	A15017	Sea Water	VOCs	1,1-Dichloropro	104	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	563-58-6
D012-B	A15017	Sea Water	VOCs	1,1-Dichloropropene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	563-58-6
D012-B	A15017	Sea Water	VOCs	1,2,3-Trichloro	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	87-61-6
D012-B	A15017	Sea Water	VOCs	1,2,3-Trichloro	101	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	87-61-6
D012-B	A15017	Sea Water	VOCs	1,2,3-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	87-61-6

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D012-B	A15017	Sea Water	VOCs	1,2,3-Trichloro	101	%REC	5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	96-18-4
D012-B	A15017	Sea Water	VOCs	1,2,3-Trichloro	93	%REC	5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	96-18-4
D012-B	A15017	Sea Water	VOCs	1,2,3-Trichloropropane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	96-18-4
D012-B	A15017	Sea Water	VOCs	1,2,4-Trichloro	101	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	120-82-1
D012-B	A15017	Sea Water	VOCs	1,2,4-Trichloro	102	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	120-82-1
D012-B	A15017	Sea Water	VOCs	1,2,4-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	120-82-1
D012-B	A15017	Sea Water	VOCs	1,2,4-Trimethy	106	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	95-63-6
D012-B	A15017	Sea Water	VOCs	1,2,4-Trimethy	100	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	95-63-6
D012-B	A15017	Sea Water	VOCs	1,2,4-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	95-63-6
D012-B	A15017	Sea Water	VOCs	1,2-Dibromo-3	96	%REC	5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	96-12-8
D012-B	A15017	Sea Water	VOCs	1,2-Dibromo-3	91	%REC	5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	96-12-8
D012-B	A15017	Sea Water	VOCs	1,2-Dibromo-3-Chlorop		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	96-12-8
D012-B	A15017	Sea Water	VOCs	1,2-Dibromoet	98	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	106-93-4
D012-B	A15017	Sea Water	VOCs	1,2-Dibromoet	99	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	106-93-4
D012-B	A15017	Sea Water	VOCs	1,2-Dibromoethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	106-93-4
D012-B	A15017	Sea Water	VOCs	1,2-Dichlorobe	96	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	95-50-1
D012-B	A15017	Sea Water	VOCs	1,2-Dichlorobe	97	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	95-50-1
D012-B	A15017	Sea Water	VOCs	1,2-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	95-50-1
D012-B	A15017	Sea Water	VOCs	1,2-Dichloroeth	97	%REC	0.5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	107-06-2
D012-B	A15017	Sea Water	VOCs	1,2-Dichloroeth	102	%REC	0.5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	107-06-2
D012-B	A15017	Sea Water	VOCs	1,2-Dichloroethane		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	107-06-2
D012-B	A15017	Sea Water	VOCs	1,2-Dichloroeth	109	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	17060-07-0
D012-B	A15017	Sea Water	VOCs	1,2-Dichloropro	96	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	78-87-5
D012-B	A15017	Sea Water	VOCs	1,2-Dichloropro	93	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	78-87-5
D012-B	A15017	Sea Water	VOCs	1,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	78-87-5
D012-B	A15017	Sea Water	VOCs	1,3,5-Trimethy	112	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-67-8
D012-B	A15017	Sea Water	VOCs	1,3,5-Trimethy	109	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-67-8
D012-B	A15017	Sea Water	VOCs	1,3,5-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-67-8
D012-B	A15017	Sea Water	VOCs	1,3-Butadiene	96	%REC	25	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	106-99-0
D012-B	A15017	Sea Water	VOCs	1,3-Butadiene	74	%REC	25	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	106-99-0
D012-B	A15017	Sea Water	VOCs	1,3-Butadiene		ug/L	25	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	106-99-0
D012-B	A15017	Sea Water	VOCs	1,3-Dichlorobe	101	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	541-73-1
D012-B	A15017	Sea Water	VOCs	1,3-Dichlorobe	100	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	541-73-1
D012-B	A15017	Sea Water	VOCs	1,3-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	541-73-1
D012-B	A15017	Sea Water	VOCs	1,3-Dichloropro	97	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	142-28-9
D012-B	A15017	Sea Water	VOCs	1,3-Dichloropro	95	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	142-28-9
D012-B	A15017	Sea Water	VOCs	1,3-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	142-28-9
D012-B	A15017	Sea Water	VOCs	1,4-Bromofluo	92	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	460-00-4
D012-B	A15017	Sea Water	VOCs	1,4-Dichlorobe	96	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	106-46-7
D012-B	A15017	Sea Water	VOCs	1,4-Dichlorobe	95	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	106-46-7
D012-B	A15017	Sea Water	VOCs	1,4-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	106-46-7
D012-B	A15017	Sea Water	VOCs	1,4-Dioxane	78	%REC	50	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	123-91-1
D012-B	A15017	Sea Water	VOCs	1,4-Dioxane	87	%REC	50	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	123-91-1
D012-B	A15017	Sea Water	VOCs	1,4-Dioxane		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	123-91-1
D012-B	A15017	Sea Water	VOCs	2,2-Dichloropro	104	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	594-20-7
D012-B	A15017	Sea Water	VOCs	2,2-Dichloropro	105	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	594-20-7
D012-B	A15017	Sea Water	VOCs	2,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	594-20-7
D012-B	A15017	Sea Water	VOCs	2-Butanone	73	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	78-93-3
D012-B	A15017	Sea Water	VOCs	2-Butanone	83	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	78-93-3
D012-B	A15017	Sea Water	VOCs	2-Butanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	78-93-3
D012-B	A15017	Sea Water	VOCs	2-Chloroethyl V	28	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	110-75-8
D012-B	A15017	Sea Water	VOCs	2-Chloroethyl V	29	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	110-75-8
D012-B	A15017	Sea Water	VOCs	2-Chloroethyl Vinyl Ethe		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	110-75-8
D012-B	A15017	Sea Water	VOCs	2-Chlorotoluen	107	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	95-49-8
D012-B	A15017	Sea Water	VOCs	2-Chlorotoluen	108	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	95-49-8
D012-B	A15017	Sea Water	VOCs	2-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	95-49-8
D012-B	A15017	Sea Water	VOCs	2-Hexanone	85	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	591-78-6
D012-B	A15017	Sea Water	VOCs	2-Hexanone	92	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	591-78-6

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D012-B	A15017	Sea Water	VOCs	2-Hexanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	591-78-6
D012-B	A15017	Sea Water	VOCs	4-Chlorotoluen	99	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	106-43-4
D012-B	A15017	Sea Water	VOCs	4-Chlorotoluen	104	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	106-43-4
D012-B	A15017	Sea Water	VOCs	4-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	106-43-4
D012-B	A15017	Sea Water	VOCs	4-Methyl-2-Pen	88	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-10-1
D012-B	A15017	Sea Water	VOCs	4-Methyl-2-Pen	89	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-10-1
D012-B	A15017	Sea Water	VOCs	4-Methyl-2-Pentanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-10-1
D012-B	A15017	Sea Water	VOCs	Acetone	63	%REC	20	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	67-64-1
D012-B	A15017	Sea Water	VOCs	Acetone	64	%REC	20	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	67-64-1
D012-B	A15017	Sea Water	VOCs	Acetone		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	67-64-1
D012-B	A15017	Sea Water	VOCs	Acetonitrile	69	%REC	50	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-05-8
D012-B	A15017	Sea Water	VOCs	Acetonitrile	91	%REC	50	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-05-8
D012-B	A15017	Sea Water	VOCs	Acetonitrile		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-05-8
D012-B	A15017	Sea Water	VOCs	Acrolein	85	%REC	50	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	107-02-8
D012-B	A15017	Sea Water	VOCs	Acrolein	77	%REC	50	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	107-02-8
D012-B	A15017	Sea Water	VOCs	Acrolein		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	107-02-8
D012-B	A15017	Sea Water	VOCs	Acrylonitrile	99	%REC	20	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	107-13-1
D012-B	A15017	Sea Water	VOCs	Acrylonitrile	90	%REC	20	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	107-13-1
D012-B	A15017	Sea Water	VOCs	Acrylonitrile		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	107-13-1
D012-B	A15017	Sea Water	VOCs	Benzene	98	%REC	0.5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	71-43-2
D012-B	A15017	Sea Water	VOCs	Benzene	99	%REC	0.5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	71-43-2
D012-B	A15017	Sea Water	VOCs	Benzene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	71-43-2
D012-B	A15017	Sea Water	VOCs	Bromobenzene	103	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-86-1
D012-B	A15017	Sea Water	VOCs	Bromobenzene	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-86-1
D012-B	A15017	Sea Water	VOCs	Bromobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-86-1
D012-B	A15017	Sea Water	VOCs	Bromochlorom	94	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-97-5
D012-B	A15017	Sea Water	VOCs	Bromochlorom	97	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-97-5
D012-B	A15017	Sea Water	VOCs	Bromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-97-5
D012-B	A15017	Sea Water	VOCs	Bromodichloro	101	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-27-4
D012-B	A15017	Sea Water	VOCs	Bromodichloro	103	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-27-4
D012-B	A15017	Sea Water	VOCs	Bromodichloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-27-4
D012-B	A15017	Sea Water	VOCs	Bromoform	94	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-25-2
D012-B	A15017	Sea Water	VOCs	Bromoform	99	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-25-2
D012-B	A15017	Sea Water	VOCs	Bromoform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-25-2
D012-B	A15017	Sea Water	VOCs	Bromomethane	89	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-83-9
D012-B	A15017	Sea Water	VOCs	Bromomethane	85	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-83-9
D012-B	A15017	Sea Water	VOCs	Bromomethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-83-9
D012-B	A15017	Sea Water	VOCs	c-1,2-Dichloroe	97	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	156-59-2
D012-B	A15017	Sea Water	VOCs	c-1,2-Dichloroe	96	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	156-59-2
D012-B	A15017	Sea Water	VOCs	c-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	156-59-2
D012-B	A15017	Sea Water	VOCs	c-1,3-Dichlorop	97	%REC	0.5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	10061-01-5
D012-B	A15017	Sea Water	VOCs	c-1,3-Dichlorop	92	%REC	0.5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	10061-01-5
D012-B	A15017	Sea Water	VOCs	c-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	10061-01-5
D012-B	A15017	Sea Water	VOCs	Carbon Disulfid	99	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-15-0
D012-B	A15017	Sea Water	VOCs	Carbon Disulfid	106	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-15-0
D012-B	A15017	Sea Water	VOCs	Carbon Disulfide		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-15-0
D012-B	A15017	Sea Water	VOCs	Carbon Tetrach	108	%REC	0.5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	56-23-5
D012-B	A15017	Sea Water	VOCs	Carbon Tetrach	107	%REC	0.5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	56-23-5
D012-B	A15017	Sea Water	VOCs	Carbon Tetrachloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	56-23-5
D012-B	A15017	Sea Water	VOCs	Chlorobenzene	100	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-90-7
D012-B	A15017	Sea Water	VOCs	Chlorobenzene	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-90-7
D012-B	A15017	Sea Water	VOCs	Chlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-90-7
D012-B	A15017	Sea Water	VOCs	Chloroethane	98	%REC	5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-00-3
D012-B	A15017	Sea Water	VOCs	Chloroethane	100	%REC	5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-00-3
D012-B	A15017	Sea Water	VOCs	Chloroethane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-00-3
D012-B	A15017	Sea Water	VOCs	Chloroform	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	67-66-3
D012-B	A15017	Sea Water	VOCs	Chloroform	103	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	67-66-3
D012-B	A15017	Sea Water	VOCs	Chloroform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	67-66-3

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D012-B	A15017	Sea Water	VOCs	Chloromethane	88	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-87-3
D012-B	A15017	Sea Water	VOCs	Chloromethane	87	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-87-3
D012-B	A15017	Sea Water	VOCs	Chloromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-87-3
D012-B	A15017	Sea Water	VOCs	Cyclohexane	98	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	110-82-7
D012-B	A15017	Sea Water	VOCs	Cyclohexane	99	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	110-82-7
D012-B	A15017	Sea Water	VOCs	Cyclohexane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	110-82-7
D012-B	A15017	Sea Water	VOCs	Dibromochlorc	100	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	124-48-1
D012-B	A15017	Sea Water	VOCs	Dibromochlorc	105	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	124-48-1
D012-B	A15017	Sea Water	VOCs	Dibromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	124-48-1
D012-B	A15017	Sea Water	VOCs	Dibromofluoro	108	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	1868-53-7
D012-B	A15017	Sea Water	VOCs	Dibromometha	96	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-95-3
D012-B	A15017	Sea Water	VOCs	Dibromometha	98	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-95-3
D012-B	A15017	Sea Water	VOCs	Dibromomethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-95-3
D012-B	A15017	Sea Water	VOCs	Dichlorodifluor	101	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-71-8
D012-B	A15017	Sea Water	VOCs	Dichlorodifluor	108	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-71-8
D012-B	A15017	Sea Water	VOCs	Dichlorodifluorometha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-71-8
D012-B	A15017	Sea Water	VOCs	Diethyl Ether	93	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	60-29-7
D012-B	A15017	Sea Water	VOCs	Diethyl Ether	85	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	60-29-7
D012-B	A15017	Sea Water	VOCs	Diethyl Ether		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	60-29-7
D012-B	A15017	Sea Water	VOCs	Diisopropyl Eth	99	%REC	2	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-20-3
D012-B	A15017	Sea Water	VOCs	Diisopropyl Eth	96	%REC	2	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-20-3
D012-B	A15017	Sea Water	VOCs	Diisopropyl Ether (DIPE		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-20-3
D012-B	A15017	Sea Water	VOCs	Ethanol	87	%REC	100	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	64-17-5
D012-B	A15017	Sea Water	VOCs	Ethanol	93	%REC	100	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	64-17-5
D012-B	A15017	Sea Water	VOCs	Ethanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	64-17-5
D012-B	A15017	Sea Water	VOCs	Ethylbenzene	107	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	100-41-4
D012-B	A15017	Sea Water	VOCs	Ethylbenzene	106	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	100-41-4
D012-B	A15017	Sea Water	VOCs	Ethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	100-41-4
D012-B	A15017	Sea Water	VOCs	Ethyl-t-Butyl Et	94	%REC	2	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	637-92-3
D012-B	A15017	Sea Water	VOCs	Ethyl-t-Butyl Et	88	%REC	2	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	637-92-3
D012-B	A15017	Sea Water	VOCs	Ethyl-t-Butyl Ether (ETB		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	637-92-3
D012-B	A15017	Sea Water	VOCs	Hexachloro-1,3	104	%REC	20	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	87-68-3
D012-B	A15017	Sea Water	VOCs	Hexachloro-1,3	101	%REC	20	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	87-68-3
D012-B	A15017	Sea Water	VOCs	Hexachloro-1,3-Butadie		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	87-68-3
D012-B	A15017	Sea Water	VOCs	Hexane	98	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	110-54-3
D012-B	A15017	Sea Water	VOCs	Hexane	101	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	110-54-3
D012-B	A15017	Sea Water	VOCs	Hexane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	110-54-3
D012-B	A15017	Sea Water	VOCs	Iodomethane	86	%REC	20	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-88-4
D012-B	A15017	Sea Water	VOCs	Iodomethane	93	%REC	20	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-88-4
D012-B	A15017	Sea Water	VOCs	Iodomethane		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	74-88-4
D012-B	A15017	Sea Water	VOCs	Isopropanol	98	%REC	100	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	67-63-0
D012-B	A15017	Sea Water	VOCs	Isopropanol	92	%REC	100	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	67-63-0
D012-B	A15017	Sea Water	VOCs	Isopropanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	67-63-0
D012-B	A15017	Sea Water	VOCs	Isopropylbenze	114	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	98-82-8
D012-B	A15017	Sea Water	VOCs	Isopropylbenze	110	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	98-82-8
D012-B	A15017	Sea Water	VOCs	Isopropylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	98-82-8
D012-B	A15017	Sea Water	VOCs	Methylene Chl	97	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-09-2
D012-B	A15017	Sea Water	VOCs	Methylene Chl	92	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-09-2
D012-B	A15017	Sea Water	VOCs	Methylene Chloride		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-09-2
D012-B	A15017	Sea Water	VOCs	Methyl-t-Butyl	87	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	1634-04-4
D012-B	A15017	Sea Water	VOCs	Methyl-t-Butyl	94	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	1634-04-4
D012-B	A15017	Sea Water	VOCs	Methyl-t-Butyl Ether (M		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	1634-04-4
D012-B	A15017	Sea Water	VOCs	Naphthalene	94	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	91-20-3
D012-B	A15017	Sea Water	VOCs	Naphthalene	95	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	91-20-3
D012-B	A15017	Sea Water	VOCs	Naphthalene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	91-20-3
D012-B	A15017	Sea Water	VOCs	n-Butylbenzene	116	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	104-51-8
D012-B	A15017	Sea Water	VOCs	n-Butylbenzene	111	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	104-51-8
D012-B	A15017	Sea Water	VOCs	n-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	104-51-8

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D012-B	A15017	Sea Water	VOCs	n-Propylbenzen	110	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	103-65-1
D012-B	A15017	Sea Water	VOCs	n-Propylbenzen	113	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	103-65-1
D012-B	A15017	Sea Water	VOCs	n-Propylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	103-65-1
D012-B	A15017	Sea Water	VOCs	o-Xylene	109	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	95-47-6
D012-B	A15017	Sea Water	VOCs	o-Xylene	109	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	95-47-6
D012-B	A15017	Sea Water	VOCs	o-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	95-47-6
D012-B	A15017	Sea Water	VOCs	p/m-Xylene	107	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	179601-23-1
D012-B	A15017	Sea Water	VOCs	p/m-Xylene	109	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	179601-23-1
D012-B	A15017	Sea Water	VOCs	p/m-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	179601-23-1
D012-B	A15017	Sea Water	VOCs	p-Isopropyltolu	111	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	99-87-6
D012-B	A15017	Sea Water	VOCs	p-Isopropyltolu	106	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	99-87-6
D012-B	A15017	Sea Water	VOCs	p-Isopropyltoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	99-87-6
D012-B	A15017	Sea Water	VOCs	sec-Butylbenze	105	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	135-98-8
D012-B	A15017	Sea Water	VOCs	sec-Butylbenze	112	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	135-98-8
D012-B	A15017	Sea Water	VOCs	sec-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	135-98-8
D012-B	A15017	Sea Water	VOCs	Styrene	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	100-42-5
D012-B	A15017	Sea Water	VOCs	Styrene	74	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	100-42-5
D012-B	A15017	Sea Water	VOCs	Styrene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	100-42-5
D012-B	A15017	Sea Water	VOCs	t-1,2-Dichloroe	107	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	156-60-5
D012-B	A15017	Sea Water	VOCs	t-1,2-Dichloroe	105	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	156-60-5
D012-B	A15017	Sea Water	VOCs	t-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	156-60-5
D012-B	A15017	Sea Water	VOCs	t-1,3-Dichlorop	96	%REC	0.5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	10061-02-6
D012-B	A15017	Sea Water	VOCs	t-1,3-Dichlorop	92	%REC	0.5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	10061-02-6
D012-B	A15017	Sea Water	VOCs	t-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	10061-02-6
D012-B	A15017	Sea Water	VOCs	t-1,4-Dichloro-	106	%REC	20	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	764-41-0
D012-B	A15017	Sea Water	VOCs	t-1,4-Dichloro-	94	%REC	20	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	764-41-0
D012-B	A15017	Sea Water	VOCs	t-1,4-Dichloro-2-Butene		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	764-41-0
D012-B	A15017	Sea Water	VOCs	Tert-Amyl-Met	97	%REC	2	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	994-05-8
D012-B	A15017	Sea Water	VOCs	Tert-Amyl-Met	93	%REC	2	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	994-05-8
D012-B	A15017	Sea Water	VOCs	Tert-Amyl-Methyl Ether		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	994-05-8
D012-B	A15017	Sea Water	VOCs	Tert-Butyl Alco	96	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-65-0
D012-B	A15017	Sea Water	VOCs	Tert-Butyl Alco	86	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-65-0
D012-B	A15017	Sea Water	VOCs	Tert-Butyl Alcohol (TBA		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-65-0
D012-B	A15017	Sea Water	VOCs	tert-Butylbenze	106	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	98-06-6
D012-B	A15017	Sea Water	VOCs	tert-Butylbenze	103	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	98-06-6
D012-B	A15017	Sea Water	VOCs	tert-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	98-06-6
D012-B	A15017	Sea Water	VOCs	Tetrachloroeth	104	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	127-18-4
D012-B	A15017	Sea Water	VOCs	Tetrachloroeth	100	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	127-18-4
D012-B	A15017	Sea Water	VOCs	Tetrachloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	127-18-4
D012-B	A15017	Sea Water	VOCs	Tetrahydrofura	87	%REC	20	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	109-99-9
D012-B	A15017	Sea Water	VOCs	Tetrahydrofura	83	%REC	20	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	109-99-9
D012-B	A15017	Sea Water	VOCs	Tetrahydrofuran		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	109-99-9
D012-B	A15017	Sea Water	VOCs	Thiophene	99	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	110-02-1
D012-B	A15017	Sea Water	VOCs	Thiophene	102	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	110-02-1
D012-B	A15017	Sea Water	VOCs	Thiophene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	110-02-1
D012-B	A15017	Sea Water	VOCs	Toluene	101	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-88-3
D012-B	A15017	Sea Water	VOCs	Toluene	102	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-88-3
D012-B	A15017	Sea Water	VOCs	Toluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-88-3
D012-B	A15017	Sea Water	VOCs	Toluene-d8	100	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	2037-26-5
D012-B	A15017	Sea Water	VOCs	Trichloroethen	103	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	79-01-6
D012-B	A15017	Sea Water	VOCs	Trichloroethen	99	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	79-01-6
D012-B	A15017	Sea Water	VOCs	Trichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	79-01-6
D012-B	A15017	Sea Water	VOCs	Trichlorofluoro	106	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-69-4
D012-B	A15017	Sea Water	VOCs	Trichlorofluoro	105	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-69-4
D012-B	A15017	Sea Water	VOCs	Trichlorofluoromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-69-4
D012-B	A15017	Sea Water	VOCs	Vinyl Acetate	86	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-05-4
D012-B	A15017	Sea Water	VOCs	Vinyl Acetate	94	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-05-4
D012-B	A15017	Sea Water	VOCs	Vinyl Acetate		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	108-05-4

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D012-B	A15017	Sea Water	VOCs	Vinyl Chloride	96	%REC	0.5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-01-4
D012-B	A15017	Sea Water	VOCs	Vinyl Chloride	101	%REC	0.5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-01-4
D012-B	A15017	Sea Water	VOCs	Vinyl Chloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/2/2015	1	EPA 8260B	EPA 5030C	75-01-4
D012-S	A15017		EPA/600/R	EC 50	21	%		B15E112		5/26/2015 9:30	No	###########	5/26/2015 9:30		1505050-02	Toxicity, Sea Urchin Fertilization		NA
D012-S	A15017	Sea Water	PAHs	1,2,4-Trichlorobenzene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	120-82-1
D012-S	A15017	Sea Water	PAHs	1,2-Dichlorobenzene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	95-50-1
D012-S	A15017	Sea Water	PAHs	1,3-Dichlorobenzene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	541-73-1
D012-S	A15017	Sea Water	PAHs	1,4-Dichlorobenzene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	106-46-7
D012-S	A15017	Sea Water	PAHs	1-Methylnaphthalene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	90-12-0
D012-S	A15017	Sea Water	PAHs	2,4,5-Trichlorophenol		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	95-95-4
D012-S	A15017	Sea Water	PAHs	2,4,6-Tribromo	101	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	118-79-6
D012-S	A15017	Sea Water	PAHs	2,4,6-Trichlorophenol		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	88-06-2
D012-S	A15017	Sea Water	PAHs	2,4-Dichlorophenol		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	120-83-2
D012-S	A15017	Sea Water	PAHs	2,4-Dimethylphenol		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	105-67-9
D012-S	A15017	Sea Water	PAHs	2,4-Dinitrophenol		ug/L	48	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	51-28-5
D012-S	A15017	Sea Water	PAHs	2,4-Dinitrotoluene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	121-14-2
D012-S	A15017	Sea Water	PAHs	2,6-Dinitrotoluene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	606-20-2
D012-S	A15017	Sea Water	PAHs	2-Chloronaphthalene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	91-58-7
D012-S	A15017	Sea Water	PAHs	2-Chlorophenol		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	95-57-8
D012-S	A15017	Sea Water	PAHs	2-Fluorobiphen	80	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	321-60-8
D012-S	A15017	Sea Water	PAHs	2-Fluorophenol	62	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	367-12-4
D012-S	A15017	Sea Water	PAHs	2-Methylnaphthalene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	91-57-6
D012-S	A15017	Sea Water	PAHs	2-Methylphenol		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	95-48-7
D012-S	A15017	Sea Water	PAHs	2-Nitroaniline		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	88-74-4
D012-S	A15017	Sea Water	PAHs	2-Nitrophenol		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	88-75-5
D012-S	A15017	Sea Water	PAHs	3,3'-Dichlorobenzidine		ug/L	24	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	91-94-1
D012-S	A15017	Sea Water	PAHs	3/4-Methylphenol		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	65794-96-9
D012-S	A15017	Sea Water	PAHs	3-Nitroaniline		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	99-09-2
D012-S	A15017	Sea Water	PAHs	4,6-Dinitro-2-Methylph		ug/L	48	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	534-52-1
D012-S	A15017	Sea Water	PAHs	4-Bromophenyl-Phenyl		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	101-55-3
D012-S	A15017	Sea Water	PAHs	4-Chloro-3-Methylphen		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	59-50-7
D012-S	A15017	Sea Water	PAHs	4-Chloroaniline		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	106-47-8
D012-S	A15017	Sea Water	PAHs	4-Chlorophenyl-Phenyl		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	7005-72-3
D012-S	A15017	Sea Water	PAHs	4-Nitroaniline		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	100-01-6
D012-S	A15017	Sea Water	PAHs	4-Nitrophenol		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	100-02-7
D012-S	A15017	Sea Water	PAHs	Acenaphthene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	83-32-9
D012-S	A15017	Sea Water	PAHs	Acenaphthylene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	208-96-8
D012-S	A15017	Sea Water	PAHs	Aniline		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	62-53-3
D012-S	A15017	Sea Water	PAHs	Anthracene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	120-12-7
D012-S	A15017	Sea Water	PAHs	Azobenzene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	103-33-3
D012-S	A15017	Sea Water	PAHs	Benzidine		ug/L	48	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	92-87-5
D012-S	A15017	Sea Water	PAHs	Benzo (a) Anthracene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	56-55-3
D012-S	A15017	Sea Water	PAHs	Benzo (a) Pyrene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	50-32-8
D012-S	A15017	Sea Water	PAHs	Benzo (b) Fluoranthene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	205-99-2
D012-S	A15017	Sea Water	PAHs	Benzo (g,h,i) Perylene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	191-24-2
D012-S	A15017	Sea Water	PAHs	Benzo (k) Fluoranthene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	207-08-9
D012-S	A15017	Sea Water	PAHs	Benzoic Acid		ug/L	48	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	65-85-0
D012-S	A15017	Sea Water	PAHs	Benzyl Alcohol		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	100-51-6
D012-S	A15017	Sea Water	PAHs	Bis(2-Chloroethoxy) Me		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	111-91-1
D012-S	A15017	Sea Water	PAHs	Bis(2-Chloroethyl) Ethe		ug/L	24	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	111-44-4
D012-S	A15017	Sea Water	PAHs	Bis(2-Chloroisopropyl) E		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	39638-32-9
D012-S	A15017	Sea Water	PAHs	Bis(2-Ethylhexyl) Phtha		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	117-81-7
D012-S	A15017	Sea Water	PAHs	Butyl Benzyl Phthalate		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	85-68-7
D012-S	A15017	Sea Water	PAHs	Chrysene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	218-01-9
D012-S	A15017	Sea Water	PAHs	Dibenz (a,h) Anthracene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	53-70-3
D012-S	A15017	Sea Water	PAHs	Dibenzofuran		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	132-64-9
D012-S	A15017	Sea Water	PAHs	Diethyl Phthalate		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	84-66-2
D012-S	A15017	Sea Water	PAHs	Dimethyl Phthalate		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	131-11-3

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D012-S	A15017	Sea Water	PAHs	Di-n-Butyl Phthalate		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	84-74-2
D012-S	A15017	Sea Water	PAHs	Di-n-Octyl Phthalate		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	117-84-0
D012-S	A15017	Sea Water	PAHs	Fluoranthene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	206-44-0
D012-S	A15017	Sea Water	PAHs	Fluorene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	86-73-7
D012-S	A15017	Sea Water	PAHs	Hexachloro-1,3-Butadie		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	87-68-3
D012-S	A15017	Sea Water	PAHs	Hexachlorobenzene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	118-74-1
D012-S	A15017	Sea Water	PAHs	Hexachlorocyclopentad		ug/L	24	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	77-47-4
D012-S	A15017	Sea Water	PAHs	Hexachloroethane		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	67-72-1
D012-S	A15017	Sea Water	PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	193-39-5
D012-S	A15017	Sea Water	PAHs	Isophorone		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	78-59-1
D012-S	A15017	Sea Water	PAHs	Naphthalene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	91-20-3
D012-S	A15017	Sea Water	PAHs	Nitrobenzene		ug/L	24	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	98-95-3
D012-S	A15017	Sea Water	PAHs	Nitrobenzene-d	92	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	4165-60-0
D012-S	A15017	Sea Water	PAHs	N-Nitrosodimethylamin		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	62-75-9
D012-S	A15017	Sea Water	PAHs	N-Nitroso-di-n-propylam		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	621-64-7
D012-S	A15017	Sea Water	PAHs	N-Nitrosodiphenylamin		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	86-30-6
D012-S	A15017	Sea Water	PAHs	Pentachlorophenol		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	87-86-5
D012-S	A15017	Sea Water	PAHs	Phenanthrene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	85-01-8
D012-S	A15017	Sea Water	PAHs	Phenol		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	108-95-2
D012-S	A15017	Sea Water	PAHs	Phenol-d6	44	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	13127-88-3
D012-S	A15017	Sea Water	PAHs	p-Terphenyl-d1	94	%REC		15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	1718-51-0
D012-S	A15017	Sea Water	PAHs	Pyrene		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	129-00-0
D012-S	A15017	Sea Water	PAHs	Pyridine		ug/L	9.5	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8270C	EPA 3510C	110-86-1
D012-S	A15017	Sea Water	SIM PAHs	1-Methylnaphthalene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	90-12-0
D012-S	A15017	Sea Water	SIM PAHs	2-Fluorobiphen	85	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	321-60-8
D012-S	A15017	Sea Water	SIM PAHs	2-Methylnaphthalene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	91-57-6
D012-S	A15017	Sea Water	SIM PAHs	Acenaphthene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	83-32-9
D012-S	A15017	Sea Water	SIM PAHs	Acenaphthylene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	208-96-8
D012-S	A15017	Sea Water	SIM PAHs	Anthracene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	120-12-7
D012-S	A15017	Sea Water	SIM PAHs	Benzo (a) Anthracene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	56-55-3
D012-S	A15017	Sea Water	SIM PAHs	Benzo (a) Pyrene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	50-32-8
D012-S	A15017	Sea Water	SIM PAHs	Benzo (b) Fluoranthene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	205-99-2
D012-S	A15017	Sea Water	SIM PAHs	Benzo (g,h,i) Perylene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	191-24-2
D012-S	A15017	Sea Water	SIM PAHs	Benzo (k) Fluoranthene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	207-08-9
D012-S	A15017	Sea Water	SIM PAHs	Chrysene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	218-01-9
D012-S	A15017	Sea Water	SIM PAHs	Dibenz (a,h) Anthracene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	53-70-3
D012-S	A15017	Sea Water	SIM PAHs	Fluoranthene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	206-44-0
D012-S	A15017	Sea Water	SIM PAHs	Fluorene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	86-73-7
D012-S	A15017	Sea Water	SIM PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	193-39-5
D012-S	A15017	Sea Water	SIM PAHs	Naphthalene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	91-20-3
D012-S	A15017	Sea Water	SIM PAHs	Nitrobenzene-d	101	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	4165-60-0
D012-S	A15017	Sea Water	SIM PAHs	Phenanthrene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	85-01-8
D012-S	A15017	Sea Water	SIM PAHs	p-Terphenyl-d1	81	%REC		15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	1718-51-0
D012-S	A15017	Sea Water	SIM PAHs	Pyrene		ug/L	0.19	15-05-2049		5/29/2015	No	5/25/2015	5/27/2015	5/28/2015	2	EPA 8270C SIM	EPA 3510C	129-00-0
D012-S	A15017	Sea Water	TPH	1,4-Bromofluo	79	%REC		15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	2	EPA 8015B (M)	EPA 5030C	460-00-4
D012-S	A15017	Sea Water	TPH	n-Octacosane	74	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8015B (M)	EPA 3510C	630-02-4
D012-S	A15017	Sea Water	TPH	n-Octacosane	74	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8015B (M)	EPA 3510C	630-02-4
D012-S	A15017	Sea Water	TPH-dro	TPH as Diesel		ug/L	100	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8015B (M)	EPA 3510C	68334-30-5
D012-S	A15017	Sea Water	TPH-gro	TPH as Gasoline		ug/L	100	15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	2	EPA 8015B (M)	EPA 5030C	8006-61-9
D012-S	A15017	Sea Water	TPH-oro	TPH as Motor Oil		ug/L	500	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	2	EPA 8015B (M)	EPA 3510C	
D012-S	A15017	Sea Water	VOCs	1,1,1,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	630-20-6
D012-S	A15017	Sea Water	VOCs	1,1,1-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	71-55-6
D012-S	A15017	Sea Water	VOCs	1,1,2,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	79-34-5
D012-S	A15017	Sea Water	VOCs	1,1,2-Trichloro-1,2,2-Tr		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	76-13-1
D012-S	A15017	Sea Water	VOCs	1,1,2-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	79-00-5
D012-S	A15017	Sea Water	VOCs	1,1-Dichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	75-34-3
D012-S	A15017	Sea Water	VOCs	1,1-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	75-35-4
D012-S	A15017	Sea Water	VOCs	1,1-Dichloropropene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	563-58-6

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D012-S	A15017	Sea Water	VOCs	1,2,3-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	87-61-6
D012-S	A15017	Sea Water	VOCs	1,2,3-Trichloropropane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	96-18-4
D012-S	A15017	Sea Water	VOCs	1,2,4-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	120-82-1
D012-S	A15017	Sea Water	VOCs	1,2,4-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	95-63-6
D012-S	A15017	Sea Water	VOCs	1,2-Dibromo-3-Chlorop		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	96-12-8
D012-S	A15017	Sea Water	VOCs	1,2-Dibromoethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	106-93-4
D012-S	A15017	Sea Water	VOCs	1,2-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	95-50-1
D012-S	A15017	Sea Water	VOCs	1,2-Dichloroethane		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	107-06-2
D012-S	A15017	Sea Water	VOCs	1,2-Dichloroeth	108	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	17060-07-0
D012-S	A15017	Sea Water	VOCs	1,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	78-87-5
D012-S	A15017	Sea Water	VOCs	1,3,5-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	108-67-8
D012-S	A15017	Sea Water	VOCs	1,3-Butadiene		ug/L	25	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	106-99-0
D012-S	A15017	Sea Water	VOCs	1,3-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	541-73-1
D012-S	A15017	Sea Water	VOCs	1,3-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	142-28-9
D012-S	A15017	Sea Water	VOCs	1,4-Bromofluo	93	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	460-00-4
D012-S	A15017	Sea Water	VOCs	1,4-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	106-46-7
D012-S	A15017	Sea Water	VOCs	1,4-Dioxane		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	123-91-1
D012-S	A15017	Sea Water	VOCs	2,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	594-20-7
D012-S	A15017	Sea Water	VOCs	2-Butanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	78-93-3
D012-S	A15017	Sea Water	VOCs	2-Chloroethyl Vinyl Ethe		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	110-75-8
D012-S	A15017	Sea Water	VOCs	2-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	95-49-8
D012-S	A15017	Sea Water	VOCs	2-Hexanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	591-78-6
D012-S	A15017	Sea Water	VOCs	4-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	106-43-4
D012-S	A15017	Sea Water	VOCs	4-Methyl-2-Pentanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	108-10-1
D012-S	A15017	Sea Water	VOCs	Acetone		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	67-64-1
D012-S	A15017	Sea Water	VOCs	Acetonitrile		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	75-05-8
D012-S	A15017	Sea Water	VOCs	Acrolein		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	107-02-8
D012-S	A15017	Sea Water	VOCs	Acrylonitrile		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	107-13-1
D012-S	A15017	Sea Water	VOCs	Benzene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	71-43-2
D012-S	A15017	Sea Water	VOCs	Bromobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	108-86-1
D012-S	A15017	Sea Water	VOCs	Bromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	74-97-5
D012-S	A15017	Sea Water	VOCs	Bromodichloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	75-27-4
D012-S	A15017	Sea Water	VOCs	Bromoform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	75-25-2
D012-S	A15017	Sea Water	VOCs	Bromomethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	74-83-9
D012-S	A15017	Sea Water	VOCs	c-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	156-59-2
D012-S	A15017	Sea Water	VOCs	c-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	10061-01-5
D012-S	A15017	Sea Water	VOCs	Carbon Disulfide		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	75-15-0
D012-S	A15017	Sea Water	VOCs	Carbon Tetrachloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	56-23-5
D012-S	A15017	Sea Water	VOCs	Chlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	108-90-7
D012-S	A15017	Sea Water	VOCs	Chloroethane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	75-00-3
D012-S	A15017	Sea Water	VOCs	Chloroform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	67-66-3
D012-S	A15017	Sea Water	VOCs	Chloromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	74-87-3
D012-S	A15017	Sea Water	VOCs	Cyclohexane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	110-82-7
D012-S	A15017	Sea Water	VOCs	Dibromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	124-48-1
D012-S	A15017	Sea Water	VOCs	Dibromofluoro	107	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	1868-53-7
D012-S	A15017	Sea Water	VOCs	Dibromomethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	74-95-3
D012-S	A15017	Sea Water	VOCs	Dichlorodifluorometha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	75-71-8
D012-S	A15017	Sea Water	VOCs	Diethyl Ether		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	60-29-7
D012-S	A15017	Sea Water	VOCs	Diisopropyl Ether (DIPE		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	108-20-3
D012-S	A15017	Sea Water	VOCs	Ethanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	64-17-5
D012-S	A15017	Sea Water	VOCs	Ethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	100-41-4
D012-S	A15017	Sea Water	VOCs	Ethyl-t-Butyl Ether (ETB		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	637-92-3
D012-S	A15017	Sea Water	VOCs	Hexachloro-1,3-Butadie		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	87-68-3
D012-S	A15017	Sea Water	VOCs	Hexane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	110-54-3
D012-S	A15017	Sea Water	VOCs	Iodomethane		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	74-88-4
D012-S	A15017	Sea Water	VOCs	Isopropanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	67-63-0
D012-S	A15017	Sea Water	VOCs	Isopropylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	98-82-8
D012-S	A15017	Sea Water	VOCs	Methylene Chloride		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	75-09-2

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
D012-S	A15017	Sea Water	VOCs	Methyl-t-Butyl Ether (M		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	1634-04-4
D012-S	A15017	Sea Water	VOCs	Naphthalene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	91-20-3
D012-S	A15017	Sea Water	VOCs	n-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	104-51-8
D012-S	A15017	Sea Water	VOCs	n-Propylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	103-65-1
D012-S	A15017	Sea Water	VOCs	o-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	95-47-6
D012-S	A15017	Sea Water	VOCs	p/m-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	179601-23-1
D012-S	A15017	Sea Water	VOCs	p-Isopropyltoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	99-87-6
D012-S	A15017	Sea Water	VOCs	sec-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	135-98-8
D012-S	A15017	Sea Water	VOCs	Styrene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	100-42-5
D012-S	A15017	Sea Water	VOCs	t-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	156-60-5
D012-S	A15017	Sea Water	VOCs	t-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	10061-02-6
D012-S	A15017	Sea Water	VOCs	t-1,4-Dichloro-2-Butene		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	764-41-0
D012-S	A15017	Sea Water	VOCs	Tert-Amyl-Methyl Ether		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	994-05-8
D012-S	A15017	Sea Water	VOCs	Tert-Butyl Alcohol (TBA		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	75-65-0
D012-S	A15017	Sea Water	VOCs	tert-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	98-06-6
D012-S	A15017	Sea Water	VOCs	Tetrachloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	127-18-4
D012-S	A15017	Sea Water	VOCs	Tetrahydrofuran		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	109-99-9
D012-S	A15017	Sea Water	VOCs	Thiophene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	110-02-1
D012-S	A15017	Sea Water	VOCs	Toluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	108-88-3
D012-S	A15017	Sea Water	VOCs	Toluene-d8	100	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	2037-26-5
D012-S	A15017	Sea Water	VOCs	Trichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	79-01-6
D012-S	A15017	Sea Water	VOCs	Trichlorofluoromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	75-69-4
D012-S	A15017	Sea Water	VOCs	Vinyl Acetate		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	108-05-4
D012-S	A15017	Sea Water	VOCs	Vinyl Chloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	2	EPA 8260B	EPA 5030C	75-01-4
Laboratory Contr	A15017	Aqueous	Metals	Antimony	99	%REC	0.015	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-36-0
Laboratory Contr	A15017	Aqueous	Metals	Arsenic	98	%REC	0.01	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-38-2
Laboratory Contr	A15017	Aqueous	Metals	Barium	101	%REC	0.01	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-39-3
Laboratory Contr	A15017	Aqueous	Metals	Beryllium	98	%REC	0.01	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-41-7
Laboratory Contr	A15017	Aqueous	Metals	Cadmium	102	%REC	0.01	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-43-9
Laboratory Contr	A15017	Aqueous	Metals	Chromium	108	%REC	0.01	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-47-3
Laboratory Contr	A15017	Aqueous	Metals	Cobalt	108	%REC	0.01	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-48-4
Laboratory Contr	A15017	Aqueous	Metals	Copper	105	%REC	0.01	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-50-8
Laboratory Contr	A15017	Aqueous	Metals	Lead	105	%REC	0.01	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7439-92-1
Laboratory Contr	A15017	Aqueous	Metals	Mercury	96	%REC	0.0005	15-05-2049	LCS	6/1/2015	No			6/1/2015	7454	EPA 7470A	EPA 7470A Total	7439-97-6
Laboratory Contr	A15017	Aqueous	Metals	Molybdenum	99	%REC	0.01	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7439-98-7
Laboratory Contr	A15017	Aqueous	Metals	Nickel	110	%REC	0.01	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-02-0
Laboratory Contr	A15017	Aqueous	Metals	Selenium	96	%REC	0.015	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7782-49-2
Laboratory Contr	A15017	Aqueous	Metals	Silver	108	%REC	0.005	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-22-4
Laboratory Contr	A15017	Aqueous	Metals	Thallium	104	%REC	0.015	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-28-0
Laboratory Contr	A15017	Aqueous	Metals	Vanadium	103	%REC	0.01	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-62-2
Laboratory Contr	A15017	Aqueous	Metals	Zinc	99	%REC	0.01	15-05-2049	LCS	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-66-6
Laboratory Contr	A15017	Aqueous	PAHs	1,2,4-Trichloro	100	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	120-82-1
Laboratory Contr	A15017	Aqueous	PAHs	1,4-Dichlorobe	89	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	106-46-7
Laboratory Contr	A15017	Aqueous	PAHs	2,4-Dinitrotolu	93	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	121-14-2
Laboratory Contr	A15017	Aqueous	PAHs	2-Chlorophenc	88	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	95-57-8
Laboratory Contr	A15017	Aqueous	PAHs	4-Chloro-3-Me	90	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	59-50-7
Laboratory Contr	A15017	Aqueous	PAHs	4-Nitrophenol	43	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	100-02-7
Laboratory Contr	A15017	Aqueous	PAHs	Acenaphthene	97	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	83-32-9
Laboratory Contr	A15017	Aqueous	PAHs	Acenaphthylen	97	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	208-96-8
Laboratory Contr	A15017	Aqueous	PAHs	Butyl Benzyl Ph	100	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	85-68-7
Laboratory Contr	A15017	Aqueous	PAHs	Dimethyl Phtha	94	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	131-11-3
Laboratory Contr	A15017	Aqueous	PAHs	Fluorene	97	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	86-73-7
Laboratory Contr	A15017	Aqueous	PAHs	Naphthalene	95	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	91-20-3
Laboratory Contr	A15017	Aqueous	PAHs	N-Nitroso-di-n	81	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	621-64-7
Laboratory Contr	A15017	Aqueous	PAHs	Pentachloroph	92	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	87-86-5
Laboratory Contr	A15017	Aqueous	PAHs	Phenol	43	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	108-95-2
Laboratory Contr	A15017	Aqueous	PAHs	Pyrene	101	%REC	10	15-05-2049	LCS	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	129-00-0
Laboratory Contr	A15017	Aqueous	SIM PAHs	1-Methylnapht	103	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	90-12-0

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
Laboratory Contr	A15017	Aqueous	SIM PAHs	2-Methylnaph	112	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	91-57-6
Laboratory Contr	A15017	Aqueous	SIM PAHs	Acenaphthene	107	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	83-32-9
Laboratory Contr	A15017	Aqueous	SIM PAHs	Acenaphthylen	105	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	208-96-8
Laboratory Contr	A15017	Aqueous	SIM PAHs	Anthracene	106	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	120-12-7
Laboratory Contr	A15017	Aqueous	SIM PAHs	Benzo (a) Anth	100	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	56-55-3
Laboratory Contr	A15017	Aqueous	SIM PAHs	Benzo (a) Pyren	104	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	50-32-8
Laboratory Contr	A15017	Aqueous	SIM PAHs	Benzo (b) Fluo	98	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	205-99-2
Laboratory Contr	A15017	Aqueous	SIM PAHs	Benzo (g,h,i) Pe	112	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	191-24-2
Laboratory Contr	A15017	Aqueous	SIM PAHs	Benzo (k) Fluor	103	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	207-08-9
Laboratory Contr	A15017	Aqueous	SIM PAHs	Chrysene	106	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	218-01-9
Laboratory Contr	A15017	Aqueous	SIM PAHs	Dibenz (a,h) Ar	118	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	53-70-3
Laboratory Contr	A15017	Aqueous	SIM PAHs	Fluoranthene	104	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	206-44-0
Laboratory Contr	A15017	Aqueous	SIM PAHs	Fluorene	109	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	86-73-7
Laboratory Contr	A15017	Aqueous	SIM PAHs	Indeno (1,2,3-c	113	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	193-39-5
Laboratory Contr	A15017	Aqueous	SIM PAHs	Naphthalene	91	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	91-20-3
Laboratory Contr	A15017	Aqueous	SIM PAHs	Phenanthrene	106	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	85-01-8
Laboratory Contr	A15017	Aqueous	SIM PAHs	Pyrene	101	%REC	0.2	15-05-2049	LCS	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	129-00-0
Laboratory Contr	A15017	Aqueous	TPH-dro	TPH as Diesel	102	%REC	100	15-05-2049	LCS	5/30/2015	No			5/29/2015	283	EPA 8015B (M)	EPA 3510C	68334-30-5
Laboratory Contr	A15017	Aqueous	TPH-gro	TPH as Gasolin	89	%REC	100	15-05-2049	LCS	6/3/2015	No			6/3/2015	1108	EPA 8015B (M)	EPA 5030C	8006-61-9
Laboratory Contr	A15017	Aqueous	TPH-oro	TPH as Motor O	92	%REC	500	15-05-2049	LCS	5/30/2015	No			5/29/2015	92	EPA 8015B (M)	EPA 3510C	
Laboratory Contr	A15017	Aqueous	VOCs	1,1,1,2-Tetrach	105	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	630-20-6
Laboratory Contr	A15017	Aqueous	VOCs	1,1,1,2-Tetrach	121	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	630-20-6
Laboratory Contr	A15017	Aqueous	VOCs	1,1,1-Trichloro	115	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	71-55-6
Laboratory Contr	A15017	Aqueous	VOCs	1,1,1-Trichloro	101	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	71-55-6
Laboratory Contr	A15017	Aqueous	VOCs	1,1,2,2-Tetrach	111	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	79-34-5
Laboratory Contr	A15017	Aqueous	VOCs	1,1,2,2-Tetrach	101	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	79-34-5
Laboratory Contr	A15017	Aqueous	VOCs	1,1,2-Trichloro	89	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	76-13-1
Laboratory Contr	A15017	Aqueous	VOCs	1,1,2-Trichloro	106	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	76-13-1
Laboratory Contr	A15017	Aqueous	VOCs	1,1,2-Trichloro	117	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	79-00-5
Laboratory Contr	A15017	Aqueous	VOCs	1,1,2-Trichloro	103	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	79-00-5
Laboratory Contr	A15017	Aqueous	VOCs	1,1-Dichloroeth	102	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-34-3
Laboratory Contr	A15017	Aqueous	VOCs	1,1-Dichloroeth	109	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-34-3
Laboratory Contr	A15017	Aqueous	VOCs	1,1-Dichloroeth	102	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-35-4
Laboratory Contr	A15017	Aqueous	VOCs	1,1-Dichloroeth	88	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-35-4
Laboratory Contr	A15017	Aqueous	VOCs	1,1-Dichloropro	113	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	563-58-6
Laboratory Contr	A15017	Aqueous	VOCs	1,1-Dichloropro	103	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	563-58-6
Laboratory Contr	A15017	Aqueous	VOCs	1,2,3-Trichloro	121	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	87-61-6
Laboratory Contr	A15017	Aqueous	VOCs	1,2,3-Trichloro	101	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	87-61-6
Laboratory Contr	A15017	Aqueous	VOCs	1,2,3-Trichloro	115	%REC	5	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	96-18-4
Laboratory Contr	A15017	Aqueous	VOCs	1,2,3-Trichloro	101	%REC	5	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	96-18-4
Laboratory Contr	A15017	Aqueous	VOCs	1,2,4-Trichloro	125	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	120-82-1
Laboratory Contr	A15017	Aqueous	VOCs	1,2,4-Trichloro	100	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	120-82-1
Laboratory Contr	A15017	Aqueous	VOCs	1,2,4-Trimethy	105	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	95-63-6
Laboratory Contr	A15017	Aqueous	VOCs	1,2,4-Trimethy	121	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	95-63-6
Laboratory Contr	A15017	Aqueous	VOCs	1,2-Dibromo-3	97	%REC	5	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	96-12-8
Laboratory Contr	A15017	Aqueous	VOCs	1,2-Dibromo-3	108	%REC	5	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	96-12-8
Laboratory Contr	A15017	Aqueous	VOCs	1,2-Dibromoet	119	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	106-93-4
Laboratory Contr	A15017	Aqueous	VOCs	1,2-Dibromoet	107	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	106-93-4
Laboratory Contr	A15017	Aqueous	VOCs	1,2-Dichlorobe	99	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	95-50-1
Laboratory Contr	A15017	Aqueous	VOCs	1,2-Dichlorobe	114	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	95-50-1
Laboratory Contr	A15017	Aqueous	VOCs	1,2-Dichloroeth	101	%REC	0.5	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	107-06-2
Laboratory Contr	A15017	Aqueous	VOCs	1,2-Dichloroeth	115	%REC	0.5	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	107-06-2
Laboratory Contr	A15017	Aqueous	VOCs	1,2-Dichloropro	99	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	78-87-5
Laboratory Contr	A15017	Aqueous	VOCs	1,2-Dichloropro	108	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	78-87-5
Laboratory Contr	A15017	Aqueous	VOCs	1,3,5-Trimethy	110	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-67-8
Laboratory Contr	A15017	Aqueous	VOCs	1,3,5-Trimethy	124	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-67-8
Laboratory Contr	A15017	Aqueous	VOCs	1,3-Butadiene	98	%REC	25	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	106-99-0
Laboratory Contr	A15017	Aqueous	VOCs	1,3-Butadiene	96	%REC	25	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	106-99-0

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
Laboratory Contr	A15017	Aqueous	VOCs	1,3-Dichlorobe	116	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	541-73-1
Laboratory Contr	A15017	Aqueous	VOCs	1,3-Dichlorobe	100	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	541-73-1
Laboratory Contr	A15017	Aqueous	VOCs	1,3-Dichloropro	116	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	142-28-9
Laboratory Contr	A15017	Aqueous	VOCs	1,3-Dichloropro	103	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	142-28-9
Laboratory Contr	A15017	Aqueous	VOCs	1,4-Dichlorobe	113	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	106-46-7
Laboratory Contr	A15017	Aqueous	VOCs	1,4-Dichlorobe	96	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	106-46-7
Laboratory Contr	A15017	Aqueous	VOCs	1,4-Dioxane	110	%REC	50	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	123-91-1
Laboratory Contr	A15017	Aqueous	VOCs	1,4-Dioxane	103	%REC	50	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	123-91-1
Laboratory Contr	A15017	Aqueous	VOCs	2,2-Dichloropro	115	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	594-20-7
Laboratory Contr	A15017	Aqueous	VOCs	2,2-Dichloropro	100	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	594-20-7
Laboratory Contr	A15017	Aqueous	VOCs	2-Butanone	125	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	78-93-3
Laboratory Contr	A15017	Aqueous	VOCs	2-Butanone	91	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	78-93-3
Laboratory Contr	A15017	Aqueous	VOCs	2-Chloroethyl V	79	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	110-75-8
Laboratory Contr	A15017	Aqueous	VOCs	2-Chloroethyl V	87	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	110-75-8
Laboratory Contr	A15017	Aqueous	VOCs	2-Chlorotoluen	120	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	95-49-8
Laboratory Contr	A15017	Aqueous	VOCs	2-Chlorotoluen	105	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	95-49-8
Laboratory Contr	A15017	Aqueous	VOCs	2-Hexanone	116	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	591-78-6
Laboratory Contr	A15017	Aqueous	VOCs	2-Hexanone	98	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	591-78-6
Laboratory Contr	A15017	Aqueous	VOCs	4-Chlorotoluen	102	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	106-43-4
Laboratory Contr	A15017	Aqueous	VOCs	4-Chlorotoluen	117	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	106-43-4
Laboratory Contr	A15017	Aqueous	VOCs	4-Methyl-2-Pen	105	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-10-1
Laboratory Contr	A15017	Aqueous	VOCs	4-Methyl-2-Pen	96	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-10-1
Laboratory Contr	A15017	Aqueous	VOCs	Acetone	129	%REC	20	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	67-64-1
Laboratory Contr	A15017	Aqueous	VOCs	Acetone	70	%REC	20	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	67-64-1
Laboratory Contr	A15017	Aqueous	VOCs	Acetonitrile	96	%REC	50	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-05-8
Laboratory Contr	A15017	Aqueous	VOCs	Acetonitrile	66	%REC	50	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-05-8
Laboratory Contr	A15017	Aqueous	VOCs	Acrolein	94	%REC	50	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	107-02-8
Laboratory Contr	A15017	Aqueous	VOCs	Acrolein	106	%REC	50	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	107-02-8
Laboratory Contr	A15017	Aqueous	VOCs	Acrylonitrile	106	%REC	20	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	107-13-1
Laboratory Contr	A15017	Aqueous	VOCs	Acrylonitrile	110	%REC	20	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	107-13-1
Laboratory Contr	A15017	Aqueous	VOCs	Benzene	111	%REC	0.5	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	71-43-2
Laboratory Contr	A15017	Aqueous	VOCs	Benzene	101	%REC	0.5	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	71-43-2
Laboratory Contr	A15017	Aqueous	VOCs	Bromobenzene	104	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-86-1
Laboratory Contr	A15017	Aqueous	VOCs	Bromobenzene	115	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-86-1
Laboratory Contr	A15017	Aqueous	VOCs	Bromochlorom	112	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	74-97-5
Laboratory Contr	A15017	Aqueous	VOCs	Bromochlorom	105	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	74-97-5
Laboratory Contr	A15017	Aqueous	VOCs	Bromodichloro	116	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-27-4
Laboratory Contr	A15017	Aqueous	VOCs	Bromodichloro	103	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-27-4
Laboratory Contr	A15017	Aqueous	VOCs	Bromoform	103	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-25-2
Laboratory Contr	A15017	Aqueous	VOCs	Bromoform	119	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-25-2
Laboratory Contr	A15017	Aqueous	VOCs	Bromomethane	88	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	74-83-9
Laboratory Contr	A15017	Aqueous	VOCs	Bromomethane	96	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	74-83-9
Laboratory Contr	A15017	Aqueous	VOCs	c-1,2-Dichloroe	104	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	156-59-2
Laboratory Contr	A15017	Aqueous	VOCs	c-1,2-Dichloroe	111	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	156-59-2
Laboratory Contr	A15017	Aqueous	VOCs	c-1,3-Dichlorop	113	%REC	0.5	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	10061-01-5
Laboratory Contr	A15017	Aqueous	VOCs	c-1,3-Dichlorop	101	%REC	0.5	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	10061-01-5
Laboratory Contr	A15017	Aqueous	VOCs	Carbon Disulfid	116	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-15-0
Laboratory Contr	A15017	Aqueous	VOCs	Carbon Disulfid	108	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-15-0
Laboratory Contr	A15017	Aqueous	VOCs	Carbon Tetrach	103	%REC	0.5	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	56-23-5
Laboratory Contr	A15017	Aqueous	VOCs	Carbon Tetrach	118	%REC	0.5	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	56-23-5
Laboratory Contr	A15017	Aqueous	VOCs	Chlorobenzene	112	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-90-7
Laboratory Contr	A15017	Aqueous	VOCs	Chlorobenzene	100	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-90-7
Laboratory Contr	A15017	Aqueous	VOCs	Chloroethane	108	%REC	5	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-00-3
Laboratory Contr	A15017	Aqueous	VOCs	Chloroethane	100	%REC	5	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-00-3
Laboratory Contr	A15017	Aqueous	VOCs	Chloroform	115	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	67-66-3
Laboratory Contr	A15017	Aqueous	VOCs	Chloroform	104	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	67-66-3
Laboratory Contr	A15017	Aqueous	VOCs	Chloromethane	100	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	74-87-3
Laboratory Contr	A15017	Aqueous	VOCs	Chloromethane	89	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	74-87-3

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
Laboratory Contr	A15017	Aqueous	VOCs	Cyclohexane	101	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	110-82-7
Laboratory Contr	A15017	Aqueous	VOCs	Cyclohexane	109	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	110-82-7
Laboratory Contr	A15017	Aqueous	VOCs	Dibromochlorc	107	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	124-48-1
Laboratory Contr	A15017	Aqueous	VOCs	Dibromochlorc	122	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	124-48-1
Laboratory Contr	A15017	Aqueous	VOCs	Dibromometha	117	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	74-95-3
Laboratory Contr	A15017	Aqueous	VOCs	Dibromometha	106	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	74-95-3
Laboratory Contr	A15017	Aqueous	VOCs	Dichlorodifluor	112	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-71-8
Laboratory Contr	A15017	Aqueous	VOCs	Dichlorodifluor	103	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-71-8
Laboratory Contr	A15017	Aqueous	VOCs	Diethyl Ether	98	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	60-29-7
Laboratory Contr	A15017	Aqueous	VOCs	Diethyl Ether	102	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	60-29-7
Laboratory Contr	A15017	Aqueous	VOCs	Diisopropyl Eth	106	%REC	2	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-20-3
Laboratory Contr	A15017	Aqueous	VOCs	Diisopropyl Eth	113	%REC	2	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-20-3
Laboratory Contr	A15017	Aqueous	VOCs	Ethanol	105	%REC	100	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	64-17-5
Laboratory Contr	A15017	Aqueous	VOCs	Ethanol	109	%REC	100	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	64-17-5
Laboratory Contr	A15017	Aqueous	VOCs	Ethylbenzene	106	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	100-41-4
Laboratory Contr	A15017	Aqueous	VOCs	Ethylbenzene	118	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	100-41-4
Laboratory Contr	A15017	Aqueous	VOCs	Ethyl-t-Butyl Et	104	%REC	2	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	637-92-3
Laboratory Contr	A15017	Aqueous	VOCs	Ethyl-t-Butyl Et	111	%REC	2	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	637-92-3
Laboratory Contr	A15017	Aqueous	VOCs	Hexachloro-1,3	117	%REC	20	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	87-68-3
Laboratory Contr	A15017	Aqueous	VOCs	Hexachloro-1,3	97	%REC	20	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	87-68-3
Laboratory Contr	A15017	Aqueous	VOCs	Hexane	102	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	110-54-3
Laboratory Contr	A15017	Aqueous	VOCs	Hexane	111	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	110-54-3
Laboratory Contr	A15017	Aqueous	VOCs	Iodomethane	124	%REC	20	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	74-88-4
Laboratory Contr	A15017	Aqueous	VOCs	Iodomethane	119	%REC	20	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	74-88-4
Laboratory Contr	A15017	Aqueous	VOCs	Isopropanol	104	%REC	100	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	67-63-0
Laboratory Contr	A15017	Aqueous	VOCs	Isopropanol	110	%REC	100	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	67-63-0
Laboratory Contr	A15017	Aqueous	VOCs	Isopropylbenze	111	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	98-82-8
Laboratory Contr	A15017	Aqueous	VOCs	Isopropylbenze	126	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	98-82-8
Laboratory Contr	A15017	Aqueous	VOCs	Methylene Chl	103	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-09-2
Laboratory Contr	A15017	Aqueous	VOCs	Methylene Chl	111	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-09-2
Laboratory Contr	A15017	Aqueous	VOCs	Methyl-t-Butyl	100	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	1634-04-4
Laboratory Contr	A15017	Aqueous	VOCs	Methyl-t-Butyl	106	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	1634-04-4
Laboratory Contr	A15017	Aqueous	VOCs	Naphthalene	115	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	91-20-3
Laboratory Contr	A15017	Aqueous	VOCs	Naphthalene	104	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	91-20-3
Laboratory Contr	A15017	Aqueous	VOCs	n-Butylbenzene	107	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	104-51-8
Laboratory Contr	A15017	Aqueous	VOCs	n-Butylbenzene	130	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	104-51-8
Laboratory Contr	A15017	Aqueous	VOCs	n-Propylbenzen	123	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	103-65-1
Laboratory Contr	A15017	Aqueous	VOCs	n-Propylbenzen	107	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	103-65-1
Laboratory Contr	A15017	Aqueous	VOCs	o-Xylene	124	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	95-47-6
Laboratory Contr	A15017	Aqueous	VOCs	o-Xylene	109	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	95-47-6
Laboratory Contr	A15017	Aqueous	VOCs	p/m-Xylene	106	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	179601-23-1
Laboratory Contr	A15017	Aqueous	VOCs	p/m-Xylene	120	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	179601-23-1
Laboratory Contr	A15017	Aqueous	VOCs	p-Isopropyltolu	124	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	99-87-6
Laboratory Contr	A15017	Aqueous	VOCs	p-Isopropyltolu	106	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	99-87-6
Laboratory Contr	A15017	Aqueous	VOCs	sec-Butylbenze	121	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	135-98-8
Laboratory Contr	A15017	Aqueous	VOCs	sec-Butylbenze	105	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	135-98-8
Laboratory Contr	A15017	Aqueous	VOCs	Styrene	110	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	100-42-5
Laboratory Contr	A15017	Aqueous	VOCs	Styrene	122	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	100-42-5
Laboratory Contr	A15017	Aqueous	VOCs	t-1,2-Dichloroe	109	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	156-60-5
Laboratory Contr	A15017	Aqueous	VOCs	t-1,2-Dichloroe	115	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	156-60-5
Laboratory Contr	A15017	Aqueous	VOCs	t-1,3-Dichlorop	114	%REC	0.5	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	10061-02-6
Laboratory Contr	A15017	Aqueous	VOCs	t-1,3-Dichlorop	99	%REC	0.5	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	10061-02-6
Laboratory Contr	A15017	Aqueous	VOCs	t-1,4-Dichloro-	94	%REC	20	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	764-41-0
Laboratory Contr	A15017	Aqueous	VOCs	t-1,4-Dichloro-	119	%REC	20	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	764-41-0
Laboratory Contr	A15017	Aqueous	VOCs	Tert-Amyl-Met	112	%REC	2	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	994-05-8
Laboratory Contr	A15017	Aqueous	VOCs	Tert-Amyl-Met	101	%REC	2	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	994-05-8
Laboratory Contr	A15017	Aqueous	VOCs	Tert-Butyl Alco	103	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-65-0
Laboratory Contr	A15017	Aqueous	VOCs	Tert-Butyl Alco	113	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-65-0

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
Laboratory Contr	A15017	Aqueous	VOCs	tert-Butylbenze	103	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	98-06-6
Laboratory Contr	A15017	Aqueous	VOCs	tert-Butylbenze	116	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	98-06-6
Laboratory Contr	A15017	Aqueous	VOCs	Tetrachloroeth	105	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	127-18-4
Laboratory Contr	A15017	Aqueous	VOCs	Tetrachloroeth	122	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	127-18-4
Laboratory Contr	A15017	Aqueous	VOCs	Tetrahydrofura	105	%REC	20	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	109-99-9
Laboratory Contr	A15017	Aqueous	VOCs	Tetrahydrofura	100	%REC	20	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	109-99-9
Laboratory Contr	A15017	Aqueous	VOCs	Thiophene	104	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	110-02-1
Laboratory Contr	A15017	Aqueous	VOCs	Thiophene	115	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	110-02-1
Laboratory Contr	A15017	Aqueous	VOCs	Toluene	102	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-88-3
Laboratory Contr	A15017	Aqueous	VOCs	Toluene	112	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-88-3
Laboratory Contr	A15017	Aqueous	VOCs	Trichloroethen	101	%REC	1	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	79-01-6
Laboratory Contr	A15017	Aqueous	VOCs	Trichloroethen	113	%REC	1	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	79-01-6
Laboratory Contr	A15017	Aqueous	VOCs	Trichlorofluoro	101	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-69-4
Laboratory Contr	A15017	Aqueous	VOCs	Trichlorofluoro	112	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-69-4
Laboratory Contr	A15017	Aqueous	VOCs	Vinyl Acetate	99	%REC	10	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-05-4
Laboratory Contr	A15017	Aqueous	VOCs	Vinyl Acetate	102	%REC	10	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-05-4
Laboratory Contr	A15017	Aqueous	VOCs	Vinyl Chloride	106	%REC	0.5	15-05-2049	LCS	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-01-4
Laboratory Contr	A15017	Aqueous	VOCs	Vinyl Chloride	98	%REC	0.5	15-05-2049	LCS	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-01-4
Laboratory Contr	A15017	Aqueous	PAHs	1,2,4-Trichloro	99	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	120-82-1
Laboratory Contr	A15017	Aqueous	PAHs	1,4-Dichlorobe	89	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	106-46-7
Laboratory Contr	A15017	Aqueous	PAHs	2,4-Dinitrotolu	95	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	121-14-2
Laboratory Contr	A15017	Aqueous	PAHs	2-Chlorophenc	91	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	95-57-8
Laboratory Contr	A15017	Aqueous	PAHs	4-Chloro-3-Me	91	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	59-50-7
Laboratory Contr	A15017	Aqueous	PAHs	4-Nitrophenol	45	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	100-02-7
Laboratory Contr	A15017	Aqueous	PAHs	Acenaphthene	97	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	83-32-9
Laboratory Contr	A15017	Aqueous	PAHs	Acenaphthylen	97	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	208-96-8
Laboratory Contr	A15017	Aqueous	PAHs	Butyl Benzyl Ph	100	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	85-68-7
Laboratory Contr	A15017	Aqueous	PAHs	Dimethyl Phtha	95	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	131-11-3
Laboratory Contr	A15017	Aqueous	PAHs	Fluorene	98	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	86-73-7
Laboratory Contr	A15017	Aqueous	PAHs	Naphthalene	96	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	91-20-3
Laboratory Contr	A15017	Aqueous	PAHs	N-Nitroso-di-n	82	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	621-64-7
Laboratory Contr	A15017	Aqueous	PAHs	Pentachloroph	95	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	87-86-5
Laboratory Contr	A15017	Aqueous	PAHs	Phenol	44	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	108-95-2
Laboratory Contr	A15017	Aqueous	PAHs	Pyrene	99	%REC	10	15-05-2049	LCD	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	129-00-0
Laboratory Contr	A15017	Aqueous	SIM PAHs	1-Methylnapht	106	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	90-12-0
Laboratory Contr	A15017	Aqueous	SIM PAHs	2-Methylnapht	113	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	91-57-6
Laboratory Contr	A15017	Aqueous	SIM PAHs	Acenaphthene	108	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	83-32-9
Laboratory Contr	A15017	Aqueous	SIM PAHs	Acenaphthylen	103	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	208-96-8
Laboratory Contr	A15017	Aqueous	SIM PAHs	Anthracene	100	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	120-12-7
Laboratory Contr	A15017	Aqueous	SIM PAHs	Benzo (a) Anth	97	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	56-55-3
Laboratory Contr	A15017	Aqueous	SIM PAHs	Benzo (a) Pyren	100	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	50-32-8
Laboratory Contr	A15017	Aqueous	SIM PAHs	Benzo (b) Fluor	100	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	205-99-2
Laboratory Contr	A15017	Aqueous	SIM PAHs	Benzo (g,h,i) Pe	109	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	191-24-2
Laboratory Contr	A15017	Aqueous	SIM PAHs	Benzo (k) Fluor	98	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	207-08-9
Laboratory Contr	A15017	Aqueous	SIM PAHs	Chrysene	105	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	218-01-9
Laboratory Contr	A15017	Aqueous	SIM PAHs	Dibenz (a,h) Ar	116	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	53-70-3
Laboratory Contr	A15017	Aqueous	SIM PAHs	Fluoranthene	103	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	206-44-0
Laboratory Contr	A15017	Aqueous	SIM PAHs	Fluorene	109	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	86-73-7
Laboratory Contr	A15017	Aqueous	SIM PAHs	Indeno (1,2,3-c	110	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	193-39-5
Laboratory Contr	A15017	Aqueous	SIM PAHs	Naphthalene	95	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	91-20-3
Laboratory Contr	A15017	Aqueous	SIM PAHs	Phenanthrene	104	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	85-01-8
Laboratory Contr	A15017	Aqueous	SIM PAHs	Pyrene	99	%REC	0.2	15-05-2049	LCD	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	129-00-0
Laboratory Contr	A15017	Aqueous	TPH-dro	TPH as Diesel	91	%REC	100	15-05-2049	LCD	5/30/2015	No			5/29/2015	283	EPA 8015B (M)	EPA 3510C	68334-30-5
Laboratory Contr	A15017	Aqueous	TPH-oro	TPH as Motor O	95	%REC	500	15-05-2049	LCD	5/30/2015	No			5/29/2015	92	EPA 8015B (M)	EPA 3510C	
Method Blank	A15017	Aqueous	Metals	Antimony		mg/L	0.015	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-36-0
Method Blank	A15017	Aqueous	Metals	Arsenic		mg/L	0.01	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-38-2
Method Blank	A15017	Aqueous	Metals	Barium		mg/L	0.01	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-39-3
Method Blank	A15017	Aqueous	Metals	Beryllium		mg/L	0.01	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-41-7

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
Method Blank	A15017	Aqueous	Metals	Cadmium		mg/L	0.01	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-43-9
Method Blank	A15017	Aqueous	Metals	Chromium		mg/L	0.01	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-47-3
Method Blank	A15017	Aqueous	Metals	Cobalt		mg/L	0.01	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-48-4
Method Blank	A15017	Aqueous	Metals	Copper		mg/L	0.01	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-50-8
Method Blank	A15017	Aqueous	Metals	Lead		mg/L	0.01	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7439-92-1
Method Blank	A15017	Aqueous	Metals	Mercury		mg/L	0.0005	15-05-2049	MB	6/1/2015	No			6/1/2015	7454	EPA 7470A	EPA 7470A Total	7439-97-6
Method Blank	A15017	Aqueous	Metals	Molybdenum		mg/L	0.01	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7439-98-7
Method Blank	A15017	Aqueous	Metals	Nickel		mg/L	0.01	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-02-0
Method Blank	A15017	Aqueous	Metals	Selenium		mg/L	0.015	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7782-49-2
Method Blank	A15017	Aqueous	Metals	Silver		mg/L	0.005	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-22-4
Method Blank	A15017	Aqueous	Metals	Thallium		mg/L	0.015	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-28-0
Method Blank	A15017	Aqueous	Metals	Vanadium		mg/L	0.01	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-62-2
Method Blank	A15017	Aqueous	Metals	Zinc		mg/L	0.01	15-05-2049	MB	6/3/2015	No			5/29/2015	15116	EPA 6010B	EPA 3010A Total	7440-66-6
Method Blank	A15017	Aqueous	PAHs	1,2,4-Trichlorobenzene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	120-82-1
Method Blank	A15017	Aqueous	PAHs	1,2-Dichlorobenzene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	95-50-1
Method Blank	A15017	Aqueous	PAHs	1,3-Dichlorobenzene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	541-73-1
Method Blank	A15017	Aqueous	PAHs	1,4-Dichlorobenzene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	106-46-7
Method Blank	A15017	Aqueous	PAHs	1-Methylnaphthalene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	90-12-0
Method Blank	A15017	Aqueous	PAHs	2,4,5-Trichlorophenol		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	95-95-4
Method Blank	A15017	Aqueous	PAHs	2,4,6-Tribromo	100	%REC		15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	118-79-6
Method Blank	A15017	Aqueous	PAHs	2,4,6-Trichlorophenol		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	88-06-2
Method Blank	A15017	Aqueous	PAHs	2,4-Dichlorophenol		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	120-83-2
Method Blank	A15017	Aqueous	PAHs	2,4-Dimethylphenol		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	105-67-9
Method Blank	A15017	Aqueous	PAHs	2,4-Dinitrophenol		ug/L	50	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	51-28-5
Method Blank	A15017	Aqueous	PAHs	2,4-Dinitrotoluene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	121-14-2
Method Blank	A15017	Aqueous	PAHs	2,6-Dinitrotoluene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	606-20-2
Method Blank	A15017	Aqueous	PAHs	2-Chloronaphthalene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	91-58-7
Method Blank	A15017	Aqueous	PAHs	2-Chlorophenol		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	95-57-8
Method Blank	A15017	Aqueous	PAHs	2-Fluorobiphen	90	%REC		15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	321-60-8
Method Blank	A15017	Aqueous	PAHs	2-Fluoropheno	60	%REC		15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	367-12-4
Method Blank	A15017	Aqueous	PAHs	2-Methylnaphthalene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	91-57-6
Method Blank	A15017	Aqueous	PAHs	2-Methylphenol		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	95-48-7
Method Blank	A15017	Aqueous	PAHs	2-Nitroaniline		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	88-74-4
Method Blank	A15017	Aqueous	PAHs	2-Nitrophenol		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	88-75-5
Method Blank	A15017	Aqueous	PAHs	3,3'-Dichlorobenzidine		ug/L	25	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	91-94-1
Method Blank	A15017	Aqueous	PAHs	3/4-Methylphenol		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	65794-96-9
Method Blank	A15017	Aqueous	PAHs	3-Nitroaniline		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	99-09-2
Method Blank	A15017	Aqueous	PAHs	4,6-Dinitro-2-Methylph		ug/L	50	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	534-52-1
Method Blank	A15017	Aqueous	PAHs	4-Bromophenyl-Phenyl		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	101-55-3
Method Blank	A15017	Aqueous	PAHs	4-Chloro-3-Methylphen		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	59-50-7
Method Blank	A15017	Aqueous	PAHs	4-Chloroaniline		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	106-47-8
Method Blank	A15017	Aqueous	PAHs	4-Chlorophenyl-Phenyl		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	7005-72-3
Method Blank	A15017	Aqueous	PAHs	4-Nitroaniline		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	100-01-6
Method Blank	A15017	Aqueous	PAHs	4-Nitrophenol		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	100-02-7
Method Blank	A15017	Aqueous	PAHs	Acenaphthene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	83-32-9
Method Blank	A15017	Aqueous	PAHs	Acenaphthylene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	208-96-8
Method Blank	A15017	Aqueous	PAHs	Aniline		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	62-53-3
Method Blank	A15017	Aqueous	PAHs	Anthracene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	120-12-7
Method Blank	A15017	Aqueous	PAHs	Azobenzene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	103-33-3
Method Blank	A15017	Aqueous	PAHs	Benzidine		ug/L	50	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	92-87-5
Method Blank	A15017	Aqueous	PAHs	Benzo (a) Anthracene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	56-55-3
Method Blank	A15017	Aqueous	PAHs	Benzo (a) Pyrene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	50-32-8
Method Blank	A15017	Aqueous	PAHs	Benzo (b) Fluoranthene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	205-99-2
Method Blank	A15017	Aqueous	PAHs	Benzo (g,h,i) Perylene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	191-24-2
Method Blank	A15017	Aqueous	PAHs	Benzo (k) Fluoranthene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	207-08-9
Method Blank	A15017	Aqueous	PAHs	Benzoic Acid		ug/L	50	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	65-85-0
Method Blank	A15017	Aqueous	PAHs	Benzyl Alcohol		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	100-51-6
Method Blank	A15017	Aqueous	PAHs	Bis(2-Chloroethoxy) Me		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	111-91-1

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
Method Blank	A15017	Aqueous	PAHs	Bis(2-Chloroethyl) Ethe		ug/L	25	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	111-44-4
Method Blank	A15017	Aqueous	PAHs	Bis(2-Chloroisopropyl) E		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	39638-32-9
Method Blank	A15017	Aqueous	PAHs	Bis(2-Ethylhexyl) Phtha		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	117-81-7
Method Blank	A15017	Aqueous	PAHs	Butyl Benzyl Phthalate		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	85-68-7
Method Blank	A15017	Aqueous	PAHs	Chrysene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	218-01-9
Method Blank	A15017	Aqueous	PAHs	Dibenz (a,h) Anthracene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	53-70-3
Method Blank	A15017	Aqueous	PAHs	Dibenzofuran		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	132-64-9
Method Blank	A15017	Aqueous	PAHs	Diethyl Phthalate		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	84-66-2
Method Blank	A15017	Aqueous	PAHs	Dimethyl Phthalate		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	131-11-3
Method Blank	A15017	Aqueous	PAHs	Di-n-Butyl Phthalate		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	84-74-2
Method Blank	A15017	Aqueous	PAHs	Di-n-Octyl Phthalate		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	117-84-0
Method Blank	A15017	Aqueous	PAHs	Fluoranthene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	206-44-0
Method Blank	A15017	Aqueous	PAHs	Fluorene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	86-73-7
Method Blank	A15017	Aqueous	PAHs	Hexachloro-1,3-Butadie		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	87-68-3
Method Blank	A15017	Aqueous	PAHs	Hexachlorobenzene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	118-74-1
Method Blank	A15017	Aqueous	PAHs	Hexachlorocyclopentad		ug/L	25	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	77-47-4
Method Blank	A15017	Aqueous	PAHs	Hexachloroethane		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	67-72-1
Method Blank	A15017	Aqueous	PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	193-39-5
Method Blank	A15017	Aqueous	PAHs	Isophorone		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	78-59-1
Method Blank	A15017	Aqueous	PAHs	Naphthalene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	91-20-3
Method Blank	A15017	Aqueous	PAHs	Nitrobenzene		ug/L	25	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	98-95-3
Method Blank	A15017	Aqueous	PAHs	Nitrobenzene-d	94	%REC		15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	4165-60-0
Method Blank	A15017	Aqueous	PAHs	N-Nitrosodimethylamin		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	62-75-9
Method Blank	A15017	Aqueous	PAHs	N-Nitroso-di-n-propylam		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	621-64-7
Method Blank	A15017	Aqueous	PAHs	N-Nitrosodiphenylamin		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	86-30-6
Method Blank	A15017	Aqueous	PAHs	Pentachlorophenol		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	87-86-5
Method Blank	A15017	Aqueous	PAHs	Phenanthrene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	85-01-8
Method Blank	A15017	Aqueous	PAHs	Phenol		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	108-95-2
Method Blank	A15017	Aqueous	PAHs	Phenol-d6	37	%REC		15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	13127-88-3
Method Blank	A15017	Aqueous	PAHs	p-Terphenyl-d1	95	%REC		15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	1718-51-0
Method Blank	A15017	Aqueous	PAHs	Pyrene		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	129-00-0
Method Blank	A15017	Aqueous	PAHs	Pyridine		ug/L	10	15-05-2049	MB	6/1/2015	No			5/29/2015	4046	EPA 8270C	EPA 3510C	110-86-1
Method Blank	A15017	Aqueous	SIM PAHs	1-Methylnaphthalene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	90-12-0
Method Blank	A15017	Aqueous	SIM PAHs	2-Fluorobiphen	90	%REC		15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	321-60-8
Method Blank	A15017	Aqueous	SIM PAHs	2-Methylnaphthalene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	91-57-6
Method Blank	A15017	Aqueous	SIM PAHs	Acenaphthene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	83-32-9
Method Blank	A15017	Aqueous	SIM PAHs	Acenaphthylene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	208-96-8
Method Blank	A15017	Aqueous	SIM PAHs	Anthracene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	120-12-7
Method Blank	A15017	Aqueous	SIM PAHs	Benzo (a) Anthracene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	56-55-3
Method Blank	A15017	Aqueous	SIM PAHs	Benzo (a) Pyrene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	50-32-8
Method Blank	A15017	Aqueous	SIM PAHs	Benzo (b) Fluoranthene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	205-99-2
Method Blank	A15017	Aqueous	SIM PAHs	Benzo (g,h,i) Perylene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	191-24-2
Method Blank	A15017	Aqueous	SIM PAHs	Benzo (k) Fluoranthene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	207-08-9
Method Blank	A15017	Aqueous	SIM PAHs	Chrysene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	218-01-9
Method Blank	A15017	Aqueous	SIM PAHs	Dibenz (a,h) Anthracene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	53-70-3
Method Blank	A15017	Aqueous	SIM PAHs	Fluoranthene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	206-44-0
Method Blank	A15017	Aqueous	SIM PAHs	Fluorene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	86-73-7
Method Blank	A15017	Aqueous	SIM PAHs	Indeno (1,2,3-c,d) Pyren		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	193-39-5
Method Blank	A15017	Aqueous	SIM PAHs	Naphthalene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	91-20-3
Method Blank	A15017	Aqueous	SIM PAHs	Nitrobenzene-d	105	%REC		15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	4165-60-0
Method Blank	A15017	Aqueous	SIM PAHs	Phenanthrene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	85-01-8
Method Blank	A15017	Aqueous	SIM PAHs	p-Terphenyl-d1	85	%REC		15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	1718-51-0
Method Blank	A15017	Aqueous	SIM PAHs	Pyrene		ug/L	0.2	15-05-2049	MB	5/29/2015	No			5/28/2015	806	EPA 8270C SIM	EPA 3510C	129-00-0
Method Blank	A15017	Aqueous	TPH	1,4-Bromofluo	78	%REC		15-05-2049	MB	6/3/2015	No			6/3/2015	1108	EPA 8015B (M)	EPA 5030C	460-00-4
Method Blank	A15017	Aqueous	TPH	n-Octacosane	91	%REC		15-05-2049	MB	5/30/2015	No			5/29/2015	92	EPA 8015B (M)	EPA 3510C	630-02-4
Method Blank	A15017	Aqueous	TPH	n-Octacosane	91	%REC		15-05-2049	MB	5/30/2015	No			5/29/2015	283	EPA 8015B (M)	EPA 3510C	630-02-4
Method Blank	A15017	Aqueous	TPH-dro	TPH as Diesel		ug/L	100	15-05-2049	MB	5/30/2015	No			5/29/2015	283	EPA 8015B (M)	EPA 3510C	68334-30-5
Method Blank	A15017	Aqueous	TPH-gro	TPH as Gasoline		ug/L	100	15-05-2049	MB	6/3/2015	No			6/3/2015	1108	EPA 8015B (M)	EPA 5030C	8006-61-9

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
Method Blank	A15017	Aqueous	TPH-oro	TPH as Motor Oil		ug/L	500	15-05-2049	MB	5/30/2015	No			5/29/2015	92	EPA 8015B (M)	EPA 3510C	
Method Blank	A15017	Aqueous	VOCs	1,1,1,2-Tetrachloroetha		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	630-20-6
Method Blank	A15017	Aqueous	VOCs	1,1,1,2-Tetrachloroetha		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	630-20-6
Method Blank	A15017	Aqueous	VOCs	1,1,1-Trichloroethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	71-55-6
Method Blank	A15017	Aqueous	VOCs	1,1,1-Trichloroethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	71-55-6
Method Blank	A15017	Aqueous	VOCs	1,1,2,2-Tetrachloroetha		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	79-34-5
Method Blank	A15017	Aqueous	VOCs	1,1,2,2-Tetrachloroetha		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	79-34-5
Method Blank	A15017	Aqueous	VOCs	1,1,2-Trichloro-1,2,2-Tr		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	76-13-1
Method Blank	A15017	Aqueous	VOCs	1,1,2-Trichloro-1,2,2-Tr		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	76-13-1
Method Blank	A15017	Aqueous	VOCs	1,1,2-Trichloroethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	79-00-5
Method Blank	A15017	Aqueous	VOCs	1,1,2-Trichloroethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	79-00-5
Method Blank	A15017	Aqueous	VOCs	1,1-Dichloroethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-34-3
Method Blank	A15017	Aqueous	VOCs	1,1-Dichloroethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-34-3
Method Blank	A15017	Aqueous	VOCs	1,1-Dichloroethene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-35-4
Method Blank	A15017	Aqueous	VOCs	1,1-Dichloroethene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-35-4
Method Blank	A15017	Aqueous	VOCs	1,1-Dichloropropene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	563-58-6
Method Blank	A15017	Aqueous	VOCs	1,1-Dichloropropene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	563-58-6
Method Blank	A15017	Aqueous	VOCs	1,2,3-Trichlorobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	87-61-6
Method Blank	A15017	Aqueous	VOCs	1,2,3-Trichlorobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	87-61-6
Method Blank	A15017	Aqueous	VOCs	1,2,3-Trichloropropane		ug/L	5	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	96-18-4
Method Blank	A15017	Aqueous	VOCs	1,2,3-Trichloropropane		ug/L	5	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	96-18-4
Method Blank	A15017	Aqueous	VOCs	1,2,4-Trichlorobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	120-82-1
Method Blank	A15017	Aqueous	VOCs	1,2,4-Trichlorobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	120-82-1
Method Blank	A15017	Aqueous	VOCs	1,2,4-Trimethylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	95-63-6
Method Blank	A15017	Aqueous	VOCs	1,2,4-Trimethylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	95-63-6
Method Blank	A15017	Aqueous	VOCs	1,2-Dibromo-3-Chlorop		ug/L	5	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	96-12-8
Method Blank	A15017	Aqueous	VOCs	1,2-Dibromo-3-Chlorop		ug/L	5	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	96-12-8
Method Blank	A15017	Aqueous	VOCs	1,2-Dibromoethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	106-93-4
Method Blank	A15017	Aqueous	VOCs	1,2-Dibromoethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	106-93-4
Method Blank	A15017	Aqueous	VOCs	1,2-Dichlorobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	95-50-1
Method Blank	A15017	Aqueous	VOCs	1,2-Dichlorobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	95-50-1
Method Blank	A15017	Aqueous	VOCs	1,2-Dichloroethane		ug/L	0.5	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	107-06-2
Method Blank	A15017	Aqueous	VOCs	1,2-Dichloroethane		ug/L	0.5	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	107-06-2
Method Blank	A15017	Aqueous	VOCs	1,2-Dichloroeth	106	%REC		15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	17060-07-0
Method Blank	A15017	Aqueous	VOCs	1,2-Dichloroeth	104	%REC		15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	17060-07-0
Method Blank	A15017	Aqueous	VOCs	1,2-Dichloropropane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	78-87-5
Method Blank	A15017	Aqueous	VOCs	1,2-Dichloropropane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	78-87-5
Method Blank	A15017	Aqueous	VOCs	1,3,5-Trimethylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-67-8
Method Blank	A15017	Aqueous	VOCs	1,3,5-Trimethylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-67-8
Method Blank	A15017	Aqueous	VOCs	1,3-Butadiene		ug/L	25	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	106-99-0
Method Blank	A15017	Aqueous	VOCs	1,3-Butadiene		ug/L	25	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	106-99-0
Method Blank	A15017	Aqueous	VOCs	1,3-Dichlorobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	541-73-1
Method Blank	A15017	Aqueous	VOCs	1,3-Dichlorobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	541-73-1
Method Blank	A15017	Aqueous	VOCs	1,3-Dichloropropane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	142-28-9
Method Blank	A15017	Aqueous	VOCs	1,3-Dichloropropane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	142-28-9
Method Blank	A15017	Aqueous	VOCs	1,4-Bromofluo	92	%REC		15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	460-00-4
Method Blank	A15017	Aqueous	VOCs	1,4-Bromofluo	91	%REC		15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	460-00-4
Method Blank	A15017	Aqueous	VOCs	1,4-Dichlorobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	106-46-7
Method Blank	A15017	Aqueous	VOCs	1,4-Dichlorobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	106-46-7
Method Blank	A15017	Aqueous	VOCs	1,4-Dioxane		ug/L	50	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	123-91-1
Method Blank	A15017	Aqueous	VOCs	1,4-Dioxane		ug/L	50	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	123-91-1
Method Blank	A15017	Aqueous	VOCs	2,2-Dichloropropane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	594-20-7
Method Blank	A15017	Aqueous	VOCs	2,2-Dichloropropane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	594-20-7
Method Blank	A15017	Aqueous	VOCs	2-Butanone		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	78-93-3
Method Blank	A15017	Aqueous	VOCs	2-Butanone		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	78-93-3
Method Blank	A15017	Aqueous	VOCs	2-Chloroethyl Vinyl Ethe		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	110-75-8
Method Blank	A15017	Aqueous	VOCs	2-Chloroethyl Vinyl Ethe		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	110-75-8
Method Blank	A15017	Aqueous	VOCs	2-Chlorotoluene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	95-49-8

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
Method Blank	A15017	Aqueous	VOCs	2-Chlorotoluene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	95-49-8
Method Blank	A15017	Aqueous	VOCs	2-Hexanone		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	591-78-6
Method Blank	A15017	Aqueous	VOCs	2-Hexanone		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	591-78-6
Method Blank	A15017	Aqueous	VOCs	4-Chlorotoluene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	106-43-4
Method Blank	A15017	Aqueous	VOCs	4-Chlorotoluene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	106-43-4
Method Blank	A15017	Aqueous	VOCs	4-Methyl-2-Pentanone		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-10-1
Method Blank	A15017	Aqueous	VOCs	4-Methyl-2-Pentanone		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-10-1
Method Blank	A15017	Aqueous	VOCs	Acetone		ug/L	20	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	67-64-1
Method Blank	A15017	Aqueous	VOCs	Acetone		ug/L	20	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	67-64-1
Method Blank	A15017	Aqueous	VOCs	Acetonitrile		ug/L	50	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-05-8
Method Blank	A15017	Aqueous	VOCs	Acetonitrile		ug/L	50	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-05-8
Method Blank	A15017	Aqueous	VOCs	Acrolein		ug/L	50	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	107-02-8
Method Blank	A15017	Aqueous	VOCs	Acrolein		ug/L	50	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	107-02-8
Method Blank	A15017	Aqueous	VOCs	Acrylonitrile		ug/L	20	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	107-13-1
Method Blank	A15017	Aqueous	VOCs	Acrylonitrile		ug/L	20	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	107-13-1
Method Blank	A15017	Aqueous	VOCs	Benzene		ug/L	0.5	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	71-43-2
Method Blank	A15017	Aqueous	VOCs	Benzene		ug/L	0.5	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	71-43-2
Method Blank	A15017	Aqueous	VOCs	Bromobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-86-1
Method Blank	A15017	Aqueous	VOCs	Bromobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-86-1
Method Blank	A15017	Aqueous	VOCs	Bromochloromethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	74-97-5
Method Blank	A15017	Aqueous	VOCs	Bromochloromethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	74-97-5
Method Blank	A15017	Aqueous	VOCs	Bromodichloromethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-27-4
Method Blank	A15017	Aqueous	VOCs	Bromodichloromethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-27-4
Method Blank	A15017	Aqueous	VOCs	Bromoform		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-25-2
Method Blank	A15017	Aqueous	VOCs	Bromoform		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-25-2
Method Blank	A15017	Aqueous	VOCs	Bromomethane		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	74-83-9
Method Blank	A15017	Aqueous	VOCs	Bromomethane		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	74-83-9
Method Blank	A15017	Aqueous	VOCs	c-1,2-Dichloroethene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	156-59-2
Method Blank	A15017	Aqueous	VOCs	c-1,2-Dichloroethene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	156-59-2
Method Blank	A15017	Aqueous	VOCs	c-1,3-Dichloropropene		ug/L	0.5	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	10061-01-5
Method Blank	A15017	Aqueous	VOCs	c-1,3-Dichloropropene		ug/L	0.5	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	10061-01-5
Method Blank	A15017	Aqueous	VOCs	Carbon Disulfide		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-15-0
Method Blank	A15017	Aqueous	VOCs	Carbon Disulfide		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-15-0
Method Blank	A15017	Aqueous	VOCs	Carbon Tetrachloride		ug/L	0.5	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	56-23-5
Method Blank	A15017	Aqueous	VOCs	Carbon Tetrachloride		ug/L	0.5	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	56-23-5
Method Blank	A15017	Aqueous	VOCs	Chlorobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-90-7
Method Blank	A15017	Aqueous	VOCs	Chlorobenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-90-7
Method Blank	A15017	Aqueous	VOCs	Chloroethane		ug/L	5	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-00-3
Method Blank	A15017	Aqueous	VOCs	Chloroethane		ug/L	5	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-00-3
Method Blank	A15017	Aqueous	VOCs	Chloroform		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	67-66-3
Method Blank	A15017	Aqueous	VOCs	Chloroform		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	67-66-3
Method Blank	A15017	Aqueous	VOCs	Chloromethane		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	74-87-3
Method Blank	A15017	Aqueous	VOCs	Chloromethane		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	74-87-3
Method Blank	A15017	Aqueous	VOCs	Cyclohexane		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	110-82-7
Method Blank	A15017	Aqueous	VOCs	Cyclohexane		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	110-82-7
Method Blank	A15017	Aqueous	VOCs	Dibromochloromethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	124-48-1
Method Blank	A15017	Aqueous	VOCs	Dibromochloromethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	124-48-1
Method Blank	A15017	Aqueous	VOCs	Dibromofluoro	105	%REC		15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	1868-53-7
Method Blank	A15017	Aqueous	VOCs	Dibromofluoro	107	%REC		15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	1868-53-7
Method Blank	A15017	Aqueous	VOCs	Dibromomethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	74-95-3
Method Blank	A15017	Aqueous	VOCs	Dibromomethane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	74-95-3
Method Blank	A15017	Aqueous	VOCs	Dichlorodifluorometha		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-71-8
Method Blank	A15017	Aqueous	VOCs	Dichlorodifluorometha		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-71-8
Method Blank	A15017	Aqueous	VOCs	Diethyl Ether		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	60-29-7
Method Blank	A15017	Aqueous	VOCs	Diethyl Ether		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	60-29-7
Method Blank	A15017	Aqueous	VOCs	Diisopropyl Ether (DIPE		ug/L	2	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-20-3
Method Blank	A15017	Aqueous	VOCs	Diisopropyl Ether (DIPE		ug/L	2	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-20-3
Method Blank	A15017	Aqueous	VOCs	Ethanol		ug/L	100	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	64-17-5

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
Method Blank	A15017	Aqueous	VOCs	Ethanol		ug/L	100	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	64-17-5
Method Blank	A15017	Aqueous	VOCs	Ethylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	100-41-4
Method Blank	A15017	Aqueous	VOCs	Ethylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	100-41-4
Method Blank	A15017	Aqueous	VOCs	Ethyl-t-Butyl Ether (ETB		ug/L	2	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	637-92-3
Method Blank	A15017	Aqueous	VOCs	Ethyl-t-Butyl Ether (ETB		ug/L	2	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	637-92-3
Method Blank	A15017	Aqueous	VOCs	Hexachloro-1,3-Butadie		ug/L	20	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	87-68-3
Method Blank	A15017	Aqueous	VOCs	Hexachloro-1,3-Butadie		ug/L	20	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	87-68-3
Method Blank	A15017	Aqueous	VOCs	Hexane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	110-54-3
Method Blank	A15017	Aqueous	VOCs	Hexane		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	110-54-3
Method Blank	A15017	Aqueous	VOCs	Iodomethane		ug/L	20	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	74-88-4
Method Blank	A15017	Aqueous	VOCs	Iodomethane		ug/L	20	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	74-88-4
Method Blank	A15017	Aqueous	VOCs	Isopropanol		ug/L	100	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	67-63-0
Method Blank	A15017	Aqueous	VOCs	Isopropanol		ug/L	100	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	67-63-0
Method Blank	A15017	Aqueous	VOCs	Isopropylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	98-82-8
Method Blank	A15017	Aqueous	VOCs	Isopropylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	98-82-8
Method Blank	A15017	Aqueous	VOCs	Methylene Chloride		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-09-2
Method Blank	A15017	Aqueous	VOCs	Methylene Chloride		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-09-2
Method Blank	A15017	Aqueous	VOCs	Methyl-t-Butyl Ether (M		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	1634-04-4
Method Blank	A15017	Aqueous	VOCs	Methyl-t-Butyl Ether (M		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	1634-04-4
Method Blank	A15017	Aqueous	VOCs	Naphthalene		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	91-20-3
Method Blank	A15017	Aqueous	VOCs	Naphthalene		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	91-20-3
Method Blank	A15017	Aqueous	VOCs	n-Butylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	104-51-8
Method Blank	A15017	Aqueous	VOCs	n-Butylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	104-51-8
Method Blank	A15017	Aqueous	VOCs	n-Propylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	103-65-1
Method Blank	A15017	Aqueous	VOCs	n-Propylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	103-65-1
Method Blank	A15017	Aqueous	VOCs	o-Xylene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	95-47-6
Method Blank	A15017	Aqueous	VOCs	o-Xylene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	95-47-6
Method Blank	A15017	Aqueous	VOCs	p/m-Xylene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	179601-23-1
Method Blank	A15017	Aqueous	VOCs	p/m-Xylene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	179601-23-1
Method Blank	A15017	Aqueous	VOCs	p-Isopropyltoluene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	99-87-6
Method Blank	A15017	Aqueous	VOCs	p-Isopropyltoluene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	99-87-6
Method Blank	A15017	Aqueous	VOCs	sec-Butylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	135-98-8
Method Blank	A15017	Aqueous	VOCs	sec-Butylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	135-98-8
Method Blank	A15017	Aqueous	VOCs	Styrene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	100-42-5
Method Blank	A15017	Aqueous	VOCs	Styrene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	100-42-5
Method Blank	A15017	Aqueous	VOCs	t-1,2-Dichloroethene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	156-60-5
Method Blank	A15017	Aqueous	VOCs	t-1,2-Dichloroethene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	156-60-5
Method Blank	A15017	Aqueous	VOCs	t-1,3-Dichloropropene		ug/L	0.5	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	10061-02-6
Method Blank	A15017	Aqueous	VOCs	t-1,3-Dichloropropene		ug/L	0.5	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	10061-02-6
Method Blank	A15017	Aqueous	VOCs	t-1,4-Dichloro-2-Butene		ug/L	20	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	764-41-0
Method Blank	A15017	Aqueous	VOCs	t-1,4-Dichloro-2-Butene		ug/L	20	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	764-41-0
Method Blank	A15017	Aqueous	VOCs	Tert-Amyl-Methyl Ether		ug/L	2	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	994-05-8
Method Blank	A15017	Aqueous	VOCs	Tert-Amyl-Methyl Ether		ug/L	2	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	994-05-8
Method Blank	A15017	Aqueous	VOCs	Tert-Butyl Alcohol (TBA		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-65-0
Method Blank	A15017	Aqueous	VOCs	Tert-Butyl Alcohol (TBA		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-65-0
Method Blank	A15017	Aqueous	VOCs	tert-Butylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	98-06-6
Method Blank	A15017	Aqueous	VOCs	tert-Butylbenzene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	98-06-6
Method Blank	A15017	Aqueous	VOCs	Tetrachloroethene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	127-18-4
Method Blank	A15017	Aqueous	VOCs	Tetrachloroethene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	127-18-4
Method Blank	A15017	Aqueous	VOCs	Tetrahydrofuran		ug/L	20	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	109-99-9
Method Blank	A15017	Aqueous	VOCs	Tetrahydrofuran		ug/L	20	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	109-99-9
Method Blank	A15017	Aqueous	VOCs	Thiophene		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	110-02-1
Method Blank	A15017	Aqueous	VOCs	Thiophene		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	110-02-1
Method Blank	A15017	Aqueous	VOCs	Toluene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-88-3
Method Blank	A15017	Aqueous	VOCs	Toluene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-88-3
Method Blank	A15017	Aqueous	VOCs	Toluene-d8	99	%REC		15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	2037-26-5
Method Blank	A15017	Aqueous	VOCs	Toluene-d8	101	%REC		15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	2037-26-5
Method Blank	A15017	Aqueous	VOCs	Trichloroethene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	79-01-6

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
Method Blank	A15017	Aqueous	VOCs	Trichloroethene		ug/L	1	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	79-01-6
Method Blank	A15017	Aqueous	VOCs	Trichlorofluoromethane		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-69-4
Method Blank	A15017	Aqueous	VOCs	Trichlorofluoromethane		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-69-4
Method Blank	A15017	Aqueous	VOCs	Vinyl Acetate		ug/L	10	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	108-05-4
Method Blank	A15017	Aqueous	VOCs	Vinyl Acetate		ug/L	10	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	108-05-4
Method Blank	A15017	Aqueous	VOCs	Vinyl Chloride		ug/L	0.5	15-05-2049	MB	6/2/2015	No			6/2/2015	2121	EPA 8260B	EPA 5030C	75-01-4
Method Blank	A15017	Aqueous	VOCs	Vinyl Chloride		ug/L	0.5	15-05-2049	MB	6/2/2015	No			6/1/2015	2119	EPA 8260B	EPA 5030C	75-01-4
RFO-052515-001	A15017		EPA/600/R	EC 50	21	%		B15E112		5/26/2015 9:30	No	###########	5/26/2015 9:30		1505050-10	Toxicity, Sea Urchin Fertilization		NA
RFO-052515-001	A15017	Sea Water	Metals	Antimony		mg/L	0.015	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7440-36-0
RFO-052515-001	A15017	Sea Water	Metals	Arsenic		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7440-38-2
RFO-052515-001	A15017	Sea Water	Metals	Barium	0.0107	mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7440-39-3
RFO-052515-001	A15017	Sea Water	Metals	Beryllium		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7440-41-7
RFO-052515-001	A15017	Sea Water	Metals	Cadmium		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7440-43-9
RFO-052515-001	A15017	Sea Water	Metals	Chromium		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7440-47-3
RFO-052515-001	A15017	Sea Water	Metals	Cobalt		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7440-48-4
RFO-052515-001	A15017	Sea Water	Metals	Copper		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7440-50-8
RFO-052515-001	A15017	Sea Water	Metals	Lead		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7439-92-1
RFO-052515-001	A15017	Sea Water	Metals	Mercury	90	%REC	0.0005	15-05-2049	MSD	6/1/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 7470A	EPA 7470A Total	7439-97-6
RFO-052515-001	A15017	Sea Water	Metals	Mercury	90	%REC	0.0005	15-05-2049	MS	6/1/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 7470A	EPA 7470A Total	7439-97-6
RFO-052515-001	A15017	Sea Water	Metals	Mercury		mg/L	0.0005	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 7470A	EPA 7470A Total	7439-97-6
RFO-052515-001	A15017	Sea Water	Metals	Molybdenum	0.0178	mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7439-98-7
RFO-052515-001	A15017	Sea Water	Metals	Nickel		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7440-02-0
RFO-052515-001	A15017	Sea Water	Metals	Selenium		mg/L	0.015	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7782-49-2
RFO-052515-001	A15017	Sea Water	Metals	Silver		mg/L	0.005	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7440-22-4
RFO-052515-001	A15017	Sea Water	Metals	Thallium		mg/L	0.015	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7440-28-0
RFO-052515-001	A15017	Sea Water	Metals	Vanadium		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7440-62-2
RFO-052515-001	A15017	Sea Water	Metals	Zinc		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 6010B	EPA 3010A Total	7440-66-6
RFO-052515-001	A15017	Sea Water	TPH	1,4-Bromofluo	82	%REC		15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	9	EPA 8015B (M)	EPA 5030C	460-00-4
RFO-052515-001	A15017	Sea Water	TPH	n-Octacosane	86	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 8015B (M)	EPA 3510C	630-02-4
RFO-052515-001	A15017	Sea Water	TPH	n-Octacosane	86	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 8015B (M)	EPA 3510C	630-02-4
RFO-052515-001	A15017	Sea Water	TPH-dro	TPH as Diesel		ug/L	100	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 8015B (M)	EPA 3510C	68334-30-5
RFO-052515-001	A15017	Sea Water	TPH-gro	TPH as Gasoline		ug/L	100	15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	9	EPA 8015B (M)	EPA 5030C	8006-61-9
RFO-052515-001	A15017	Sea Water	TPH-oro	TPH as Motor Oil		ug/L	500	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	9	EPA 8015B (M)	EPA 3510C	
RFO-052515-001	A15017	Sea Water	VOCs	1,1,1,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	630-20-6
RFO-052515-001	A15017	Sea Water	VOCs	1,1,1-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	71-55-6
RFO-052515-001	A15017	Sea Water	VOCs	1,1,2,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	79-34-5
RFO-052515-001	A15017	Sea Water	VOCs	1,1,2-Trichloro-1,2,2-Tr		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	76-13-1
RFO-052515-001	A15017	Sea Water	VOCs	1,1,2-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	79-00-5
RFO-052515-001	A15017	Sea Water	VOCs	1,1-Dichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	75-34-3
RFO-052515-001	A15017	Sea Water	VOCs	1,1-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	75-35-4
RFO-052515-001	A15017	Sea Water	VOCs	1,1-Dichloropropene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	563-58-6
RFO-052515-001	A15017	Sea Water	VOCs	1,2,3-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	87-61-6
RFO-052515-001	A15017	Sea Water	VOCs	1,2,3-Trichloropropane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	96-18-4
RFO-052515-001	A15017	Sea Water	VOCs	1,2,4-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	120-82-1
RFO-052515-001	A15017	Sea Water	VOCs	1,2,4-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	95-63-6
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dibromo-3-Chlorop		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	96-12-8
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dibromoethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	106-93-4
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	95-50-1
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichloroethane		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	107-06-2
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichloroeth	108	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	17060-07-0
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	78-87-5
RFO-052515-001	A15017	Sea Water	VOCs	1,3,5-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	108-67-8
RFO-052515-001	A15017	Sea Water	VOCs	1,3-Butadiene		ug/L	25	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	106-99-0
RFO-052515-001	A15017	Sea Water	VOCs	1,3-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	541-73-1
RFO-052515-001	A15017	Sea Water	VOCs	1,3-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	142-28-9
RFO-052515-001	A15017	Sea Water	VOCs	1,4-Bromofluo	95	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	460-00-4
RFO-052515-001	A15017	Sea Water	VOCs	1,4-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	106-46-7
RFO-052515-001	A15017	Sea Water	VOCs	1,4-Dioxane		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	123-91-1

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
RFO-052515-001	A15017	Sea Water	VOCs	2,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	594-20-7
RFO-052515-001	A15017	Sea Water	VOCs	2-Butanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	78-93-3
RFO-052515-001	A15017	Sea Water	VOCs	2-Chloroethyl Vinyl Ethe		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	110-75-8
RFO-052515-001	A15017	Sea Water	VOCs	2-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	95-49-8
RFO-052515-001	A15017	Sea Water	VOCs	2-Hexanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	591-78-6
RFO-052515-001	A15017	Sea Water	VOCs	4-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	106-43-4
RFO-052515-001	A15017	Sea Water	VOCs	4-Methyl-2-Pentanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	108-10-1
RFO-052515-001	A15017	Sea Water	VOCs	Acetone		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	67-64-1
RFO-052515-001	A15017	Sea Water	VOCs	Acetonitrile		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	75-05-8
RFO-052515-001	A15017	Sea Water	VOCs	Acrolein		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	107-02-8
RFO-052515-001	A15017	Sea Water	VOCs	Acrylonitrile		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	107-13-1
RFO-052515-001	A15017	Sea Water	VOCs	Benzene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	71-43-2
RFO-052515-001	A15017	Sea Water	VOCs	Bromobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	108-86-1
RFO-052515-001	A15017	Sea Water	VOCs	Bromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	74-97-5
RFO-052515-001	A15017	Sea Water	VOCs	Bromodichloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	75-27-4
RFO-052515-001	A15017	Sea Water	VOCs	Bromoform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	75-25-2
RFO-052515-001	A15017	Sea Water	VOCs	Bromomethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	74-83-9
RFO-052515-001	A15017	Sea Water	VOCs	c-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	156-59-2
RFO-052515-001	A15017	Sea Water	VOCs	c-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	10061-01-5
RFO-052515-001	A15017	Sea Water	VOCs	Carbon Disulfide		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	75-15-0
RFO-052515-001	A15017	Sea Water	VOCs	Carbon Tetrachloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	56-23-5
RFO-052515-001	A15017	Sea Water	VOCs	Chlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	108-90-7
RFO-052515-001	A15017	Sea Water	VOCs	Chloroethane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	75-00-3
RFO-052515-001	A15017	Sea Water	VOCs	Chloroform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	67-66-3
RFO-052515-001	A15017	Sea Water	VOCs	Chloromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	74-87-3
RFO-052515-001	A15017	Sea Water	VOCs	Cyclohexane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	110-82-7
RFO-052515-001	A15017	Sea Water	VOCs	Dibromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	124-48-1
RFO-052515-001	A15017	Sea Water	VOCs	Dibromofluoro	107	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	1868-53-7
RFO-052515-001	A15017	Sea Water	VOCs	Dibromomethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	74-95-3
RFO-052515-001	A15017	Sea Water	VOCs	Dichlorodifluorometha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	75-71-8
RFO-052515-001	A15017	Sea Water	VOCs	Diethyl Ether		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	60-29-7
RFO-052515-001	A15017	Sea Water	VOCs	Diisopropyl Ether (DIPE		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	108-20-3
RFO-052515-001	A15017	Sea Water	VOCs	Ethanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	64-17-5
RFO-052515-001	A15017	Sea Water	VOCs	Ethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	100-41-4
RFO-052515-001	A15017	Sea Water	VOCs	Ethyl-t-Butyl Ether (ETB		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	637-92-3
RFO-052515-001	A15017	Sea Water	VOCs	Hexachloro-1,3-Butadie		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	87-68-3
RFO-052515-001	A15017	Sea Water	VOCs	Hexane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	110-54-3
RFO-052515-001	A15017	Sea Water	VOCs	Iodomethane		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	74-88-4
RFO-052515-001	A15017	Sea Water	VOCs	Isopropanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	67-63-0
RFO-052515-001	A15017	Sea Water	VOCs	Isopropylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	98-82-8
RFO-052515-001	A15017	Sea Water	VOCs	Methylene Chloride		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	75-09-2
RFO-052515-001	A15017	Sea Water	VOCs	Methyl-t-Butyl Ether (M		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	1634-04-4
RFO-052515-001	A15017	Sea Water	VOCs	Naphthalene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	91-20-3
RFO-052515-001	A15017	Sea Water	VOCs	n-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	104-51-8
RFO-052515-001	A15017	Sea Water	VOCs	n-Propylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	103-65-1
RFO-052515-001	A15017	Sea Water	VOCs	o-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	95-47-6
RFO-052515-001	A15017	Sea Water	VOCs	p/m-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	179601-23-1
RFO-052515-001	A15017	Sea Water	VOCs	p-Isopropyltoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	99-87-6
RFO-052515-001	A15017	Sea Water	VOCs	sec-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	135-98-8
RFO-052515-001	A15017	Sea Water	VOCs	Styrene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	100-42-5
RFO-052515-001	A15017	Sea Water	VOCs	t-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	156-60-5
RFO-052515-001	A15017	Sea Water	VOCs	t-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	10061-02-6
RFO-052515-001	A15017	Sea Water	VOCs	t-1,4-Dichloro-2-Butene		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	764-41-0
RFO-052515-001	A15017	Sea Water	VOCs	Tert-Amyl-Methyl Ether		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	994-05-8
RFO-052515-001	A15017	Sea Water	VOCs	Tert-Butyl Alcohol (TBA		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	75-65-0
RFO-052515-001	A15017	Sea Water	VOCs	tert-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	98-06-6
RFO-052515-001	A15017	Sea Water	VOCs	Tetrachloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	127-18-4
RFO-052515-001	A15017	Sea Water	VOCs	Tetrahydrofuran		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	109-99-9

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
RFO-052515-001	A15017	Sea Water	VOCs	Thiophene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	110-02-1
RFO-052515-001	A15017	Sea Water	VOCs	Toluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	108-88-3
RFO-052515-001	A15017	Sea Water	VOCs	Toluene-d8	101	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	2037-26-5
RFO-052515-001	A15017	Sea Water	VOCs	Trichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	79-01-6
RFO-052515-001	A15017	Sea Water	VOCs	Trichlorofluoromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	75-69-4
RFO-052515-001	A15017	Sea Water	VOCs	Vinyl Acetate		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	108-05-4
RFO-052515-001	A15017	Sea Water	VOCs	Vinyl Chloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	9	EPA 8260B	EPA 5030C	75-01-4
RFO-052515-001	A15017		EPA/600/R	EC 50	21	%		B15E112		5/26/2015 9:30	No	###########	5/26/2015 9:30		1505050-09	Toxicity, Sea Urchin Fertilization		NA
RFO-052515-001	A15017	Sea Water	Metals	Antimony		mg/L	0.015	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7440-36-0
RFO-052515-001	A15017	Sea Water	Metals	Arsenic		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7440-38-2
RFO-052515-001	A15017	Sea Water	Metals	Barium		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7440-39-3
RFO-052515-001	A15017	Sea Water	Metals	Beryllium		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7440-41-7
RFO-052515-001	A15017	Sea Water	Metals	Cadmium		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7440-43-9
RFO-052515-001	A15017	Sea Water	Metals	Chromium		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7440-47-3
RFO-052515-001	A15017	Sea Water	Metals	Cobalt		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7440-48-4
RFO-052515-001	A15017	Sea Water	Metals	Copper		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7440-50-8
RFO-052515-001	A15017	Sea Water	Metals	Lead		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7439-92-1
RFO-052515-001	A15017	Sea Water	Metals	Mercury		mg/L	0.0005	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 7470A	EPA 7470A Total	7439-97-6
RFO-052515-001	A15017	Sea Water	Metals	Molybdenum	0.015	mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7439-98-7
RFO-052515-001	A15017	Sea Water	Metals	Nickel		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7440-02-0
RFO-052515-001	A15017	Sea Water	Metals	Selenium		mg/L	0.015	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7782-49-2
RFO-052515-001	A15017	Sea Water	Metals	Silver		mg/L	0.005	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7440-22-4
RFO-052515-001	A15017	Sea Water	Metals	Thallium		mg/L	0.015	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7440-28-0
RFO-052515-001	A15017	Sea Water	Metals	Vanadium		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7440-62-2
RFO-052515-001	A15017	Sea Water	Metals	Zinc		mg/L	0.01	15-05-2049		6/1/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 6010B	EPA 3010A Total	7440-66-6
RFO-052515-001	A15017	Sea Water	TPH	1,4-Bromofluo	80	%REC		15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	10	EPA 8015B (M)	EPA 5030C	460-00-4
RFO-052515-001	A15017	Sea Water	TPH	n-Octacosane	92	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 8015B (M)	EPA 3510C	630-02-4
RFO-052515-001	A15017	Sea Water	TPH	n-Octacosane	92	%REC		15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 8015B (M)	EPA 3510C	630-02-4
RFO-052515-001	A15017	Sea Water	TPH-dro	TPH as Diesel		ug/L	100	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 8015B (M)	EPA 3510C	68334-30-5
RFO-052515-001	A15017	Sea Water	TPH-gro	TPH as Gasolin	76	%REC	100	15-05-2049	MS	6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	10	EPA 8015B (M)	EPA 5030C	8006-61-9
RFO-052515-001	A15017	Sea Water	TPH-gro	TPH as Gasolin	76	%REC	100	15-05-2049	MSD	6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	10	EPA 8015B (M)	EPA 5030C	8006-61-9
RFO-052515-001	A15017	Sea Water	TPH-gro	TPH as Gasoline		ug/L	100	15-05-2049		6/3/2015	No	5/25/2015	5/27/2015	6/3/2015	10	EPA 8015B (M)	EPA 5030C	8006-61-9
RFO-052515-001	A15017	Sea Water	TPH-oro	TPH as Motor Oil		ug/L	500	15-05-2049		5/30/2015	No	5/25/2015	5/27/2015	5/29/2015	10	EPA 8015B (M)	EPA 3510C	
RFO-052515-001	A15017	Sea Water	VOCs	1,1,1,2-Tetrach	105	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	630-20-6
RFO-052515-001	A15017	Sea Water	VOCs	1,1,1,2-Tetrach	108	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	630-20-6
RFO-052515-001	A15017	Sea Water	VOCs	1,1,1,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	630-20-6
RFO-052515-001	A15017	Sea Water	VOCs	1,1,1-Trichloro	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	71-55-6
RFO-052515-001	A15017	Sea Water	VOCs	1,1,1-Trichloro	102	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	71-55-6
RFO-052515-001	A15017	Sea Water	VOCs	1,1,1-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	71-55-6
RFO-052515-001	A15017	Sea Water	VOCs	1,1,2,2-Tetrach	102	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	79-34-5
RFO-052515-001	A15017	Sea Water	VOCs	1,1,2,2-Tetrach	103	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	79-34-5
RFO-052515-001	A15017	Sea Water	VOCs	1,1,2,2-Tetrachloroetha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	79-34-5
RFO-052515-001	A15017	Sea Water	VOCs	1,1,2-Trichloro	108	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	76-13-1
RFO-052515-001	A15017	Sea Water	VOCs	1,1,2-Trichloro	86	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	76-13-1
RFO-052515-001	A15017	Sea Water	VOCs	1,1,2-Trichloro-1,2,2-Tr		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	76-13-1
RFO-052515-001	A15017	Sea Water	VOCs	1,1,2-Trichloro	106	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	79-00-5
RFO-052515-001	A15017	Sea Water	VOCs	1,1,2-Trichloro	110	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	79-00-5
RFO-052515-001	A15017	Sea Water	VOCs	1,1,2-Trichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	79-00-5
RFO-052515-001	A15017	Sea Water	VOCs	1,1-Dichloroeth	100	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-34-3
RFO-052515-001	A15017	Sea Water	VOCs	1,1-Dichloroeth	97	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-34-3
RFO-052515-001	A15017	Sea Water	VOCs	1,1-Dichloroethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-34-3
RFO-052515-001	A15017	Sea Water	VOCs	1,1-Dichloroeth	106	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-35-4
RFO-052515-001	A15017	Sea Water	VOCs	1,1-Dichloroeth	87	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-35-4
RFO-052515-001	A15017	Sea Water	VOCs	1,1-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-35-4
RFO-052515-001	A15017	Sea Water	VOCs	1,1-Dichloropro	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	563-58-6
RFO-052515-001	A15017	Sea Water	VOCs	1,1-Dichloropro	99	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	563-58-6
RFO-052515-001	A15017	Sea Water	VOCs	1,1-Dichloropropene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	563-58-6
RFO-052515-001	A15017	Sea Water	VOCs	1,2,3-Trichloro	98	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	87-61-6

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
RFO-052515-001	A15017	Sea Water	VOCs	1,2,3-Trichloro	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	87-61-6
RFO-052515-001	A15017	Sea Water	VOCs	1,2,3-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	87-61-6
RFO-052515-001	A15017	Sea Water	VOCs	1,2,3-Trichloro	104	%REC	5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	96-18-4
RFO-052515-001	A15017	Sea Water	VOCs	1,2,3-Trichloro	107	%REC	5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	96-18-4
RFO-052515-001	A15017	Sea Water	VOCs	1,2,3-Trichloropropane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	96-18-4
RFO-052515-001	A15017	Sea Water	VOCs	1,2,4-Trichloro	94	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	120-82-1
RFO-052515-001	A15017	Sea Water	VOCs	1,2,4-Trichloro	91	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	120-82-1
RFO-052515-001	A15017	Sea Water	VOCs	1,2,4-Trichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	120-82-1
RFO-052515-001	A15017	Sea Water	VOCs	1,2,4-Trimethy	93	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	95-63-6
RFO-052515-001	A15017	Sea Water	VOCs	1,2,4-Trimethy	93	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	95-63-6
RFO-052515-001	A15017	Sea Water	VOCs	1,2,4-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	95-63-6
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dibromo-3	105	%REC	5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	96-12-8
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dibromo-3	106	%REC	5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	96-12-8
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dibromo-3-Chlorop		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	96-12-8
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dibromoet	109	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	106-93-4
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dibromoet	107	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	106-93-4
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dibromoethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	106-93-4
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichlorobe	98	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	95-50-1
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichlorobe	96	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	95-50-1
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	95-50-1
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichloroeth	107	%REC	0.5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	107-06-2
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichloroeth	103	%REC	0.5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	107-06-2
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichloroethane		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	107-06-2
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichloroeth	109	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	17060-07-0
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichloropro	99	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	78-87-5
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichloropro	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	78-87-5
RFO-052515-001	A15017	Sea Water	VOCs	1,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	78-87-5
RFO-052515-001	A15017	Sea Water	VOCs	1,3,5-Trimethy	102	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-67-8
RFO-052515-001	A15017	Sea Water	VOCs	1,3,5-Trimethy	99	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-67-8
RFO-052515-001	A15017	Sea Water	VOCs	1,3,5-Trimethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-67-8
RFO-052515-001	A15017	Sea Water	VOCs	1,3-Butadiene	63	%REC	25	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	106-99-0
RFO-052515-001	A15017	Sea Water	VOCs	1,3-Butadiene	54	%REC	25	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	106-99-0
RFO-052515-001	A15017	Sea Water	VOCs	1,3-Butadiene		ug/L	25	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	106-99-0
RFO-052515-001	A15017	Sea Water	VOCs	1,3-Dichlorobe	96	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	541-73-1
RFO-052515-001	A15017	Sea Water	VOCs	1,3-Dichlorobe	96	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	541-73-1
RFO-052515-001	A15017	Sea Water	VOCs	1,3-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	541-73-1
RFO-052515-001	A15017	Sea Water	VOCs	1,3-Dichloropro	108	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	142-28-9
RFO-052515-001	A15017	Sea Water	VOCs	1,3-Dichloropro	108	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	142-28-9
RFO-052515-001	A15017	Sea Water	VOCs	1,3-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	142-28-9
RFO-052515-001	A15017	Sea Water	VOCs	1,4-Bromofluo	91	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	460-00-4
RFO-052515-001	A15017	Sea Water	VOCs	1,4-Dichlorobe	91	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	106-46-7
RFO-052515-001	A15017	Sea Water	VOCs	1,4-Dichlorobe	93	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	106-46-7
RFO-052515-001	A15017	Sea Water	VOCs	1,4-Dichlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	106-46-7
RFO-052515-001	A15017	Sea Water	VOCs	1,4-Dioxane	99	%REC	50	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	123-91-1
RFO-052515-001	A15017	Sea Water	VOCs	1,4-Dioxane	103	%REC	50	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	123-91-1
RFO-052515-001	A15017	Sea Water	VOCs	1,4-Dioxane		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	123-91-1
RFO-052515-001	A15017	Sea Water	VOCs	2,2-Dichloropro	93	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	594-20-7
RFO-052515-001	A15017	Sea Water	VOCs	2,2-Dichloropro	93	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	594-20-7
RFO-052515-001	A15017	Sea Water	VOCs	2,2-Dichloropropane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	594-20-7
RFO-052515-001	A15017	Sea Water	VOCs	2-Butanone	101	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	78-93-3
RFO-052515-001	A15017	Sea Water	VOCs	2-Butanone	89	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	78-93-3
RFO-052515-001	A15017	Sea Water	VOCs	2-Butanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	78-93-3
RFO-052515-001	A15017	Sea Water	VOCs	2-Chloroethyl V	28	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	110-75-8
RFO-052515-001	A15017	Sea Water	VOCs	2-Chloroethyl V	27	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	110-75-8
RFO-052515-001	A15017	Sea Water	VOCs	2-Chloroethyl Vinyl Ethe		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	110-75-8
RFO-052515-001	A15017	Sea Water	VOCs	2-Chlorotoluen	104	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	95-49-8
RFO-052515-001	A15017	Sea Water	VOCs	2-Chlorotoluen	103	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	95-49-8
RFO-052515-001	A15017	Sea Water	VOCs	2-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	95-49-8

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
RFO-052515-001	A15017	Sea Water	VOCs	2-Hexanone	104	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	591-78-6
RFO-052515-001	A15017	Sea Water	VOCs	2-Hexanone	105	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	591-78-6
RFO-052515-001	A15017	Sea Water	VOCs	2-Hexanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	591-78-6
RFO-052515-001	A15017	Sea Water	VOCs	4-Chlorotoluen	97	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	106-43-4
RFO-052515-001	A15017	Sea Water	VOCs	4-Chlorotoluen	97	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	106-43-4
RFO-052515-001	A15017	Sea Water	VOCs	4-Chlorotoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	106-43-4
RFO-052515-001	A15017	Sea Water	VOCs	4-Methyl-2-Pen	103	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-10-1
RFO-052515-001	A15017	Sea Water	VOCs	4-Methyl-2-Pen	100	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-10-1
RFO-052515-001	A15017	Sea Water	VOCs	4-Methyl-2-Pentanone		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-10-1
RFO-052515-001	A15017	Sea Water	VOCs	Acetone	90	%REC	20	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	67-64-1
RFO-052515-001	A15017	Sea Water	VOCs	Acetone	101	%REC	20	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	67-64-1
RFO-052515-001	A15017	Sea Water	VOCs	Acetone		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	67-64-1
RFO-052515-001	A15017	Sea Water	VOCs	Acetonitrile	83	%REC	50	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-05-8
RFO-052515-001	A15017	Sea Water	VOCs	Acetonitrile	60	%REC	50	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-05-8
RFO-052515-001	A15017	Sea Water	VOCs	Acetonitrile		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-05-8
RFO-052515-001	A15017	Sea Water	VOCs	Acrolein	77	%REC	50	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	107-02-8
RFO-052515-001	A15017	Sea Water	VOCs	Acrolein	76	%REC	50	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	107-02-8
RFO-052515-001	A15017	Sea Water	VOCs	Acrolein		ug/L	50	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	107-02-8
RFO-052515-001	A15017	Sea Water	VOCs	Acrylonitrile	104	%REC	20	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	107-13-1
RFO-052515-001	A15017	Sea Water	VOCs	Acrylonitrile	101	%REC	20	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	107-13-1
RFO-052515-001	A15017	Sea Water	VOCs	Acrylonitrile		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	107-13-1
RFO-052515-001	A15017	Sea Water	VOCs	Benzene	98	%REC	0.5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	71-43-2
RFO-052515-001	A15017	Sea Water	VOCs	Benzene	101	%REC	0.5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	71-43-2
RFO-052515-001	A15017	Sea Water	VOCs	Benzene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	71-43-2
RFO-052515-001	A15017	Sea Water	VOCs	Bromobenzene	102	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-86-1
RFO-052515-001	A15017	Sea Water	VOCs	Bromobenzene	104	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-86-1
RFO-052515-001	A15017	Sea Water	VOCs	Bromobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-86-1
RFO-052515-001	A15017	Sea Water	VOCs	Bromochlorom	104	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-97-5
RFO-052515-001	A15017	Sea Water	VOCs	Bromochlorom	105	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-97-5
RFO-052515-001	A15017	Sea Water	VOCs	Bromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-97-5
RFO-052515-001	A15017	Sea Water	VOCs	Bromodichloro	105	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-27-4
RFO-052515-001	A15017	Sea Water	VOCs	Bromodichloro	109	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-27-4
RFO-052515-001	A15017	Sea Water	VOCs	Bromodichloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-27-4
RFO-052515-001	A15017	Sea Water	VOCs	Bromoform	108	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-25-2
RFO-052515-001	A15017	Sea Water	VOCs	Bromoform	106	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-25-2
RFO-052515-001	A15017	Sea Water	VOCs	Bromoform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-25-2
RFO-052515-001	A15017	Sea Water	VOCs	Bromomethane	84	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-83-9
RFO-052515-001	A15017	Sea Water	VOCs	Bromomethane	83	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-83-9
RFO-052515-001	A15017	Sea Water	VOCs	Bromomethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-83-9
RFO-052515-001	A15017	Sea Water	VOCs	c-1,2-Dichloroe	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	156-59-2
RFO-052515-001	A15017	Sea Water	VOCs	c-1,2-Dichloroe	102	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	156-59-2
RFO-052515-001	A15017	Sea Water	VOCs	c-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	156-59-2
RFO-052515-001	A15017	Sea Water	VOCs	c-1,3-Dichlorop	98	%REC	0.5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	10061-01-5
RFO-052515-001	A15017	Sea Water	VOCs	c-1,3-Dichlorop	101	%REC	0.5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	10061-01-5
RFO-052515-001	A15017	Sea Water	VOCs	c-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	10061-01-5
RFO-052515-001	A15017	Sea Water	VOCs	Carbon Disulfid	104	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-15-0
RFO-052515-001	A15017	Sea Water	VOCs	Carbon Disulfid	102	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-15-0
RFO-052515-001	A15017	Sea Water	VOCs	Carbon Disulfide		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-15-0
RFO-052515-001	A15017	Sea Water	VOCs	Carbon Tetrach	100	%REC	0.5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	56-23-5
RFO-052515-001	A15017	Sea Water	VOCs	Carbon Tetrach	104	%REC	0.5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	56-23-5
RFO-052515-001	A15017	Sea Water	VOCs	Carbon Tetrachloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	56-23-5
RFO-052515-001	A15017	Sea Water	VOCs	Chlorobenzene	100	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-90-7
RFO-052515-001	A15017	Sea Water	VOCs	Chlorobenzene	103	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-90-7
RFO-052515-001	A15017	Sea Water	VOCs	Chlorobenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-90-7
RFO-052515-001	A15017	Sea Water	VOCs	Chloroethane	95	%REC	5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-00-3
RFO-052515-001	A15017	Sea Water	VOCs	Chloroethane	93	%REC	5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-00-3
RFO-052515-001	A15017	Sea Water	VOCs	Chloroethane		ug/L	5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-00-3
RFO-052515-001	A15017	Sea Water	VOCs	Chloroform	102	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	67-66-3

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
RFO-052515-001	A15017	Sea Water	VOCs	Chloroform	106	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	67-66-3
RFO-052515-001	A15017	Sea Water	VOCs	Chloroform		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	67-66-3
RFO-052515-001	A15017	Sea Water	VOCs	Chloromethane	87	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-87-3
RFO-052515-001	A15017	Sea Water	VOCs	Chloromethane	87	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-87-3
RFO-052515-001	A15017	Sea Water	VOCs	Chloromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-87-3
RFO-052515-001	A15017	Sea Water	VOCs	Cyclohexane	97	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	110-82-7
RFO-052515-001	A15017	Sea Water	VOCs	Cyclohexane	96	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	110-82-7
RFO-052515-001	A15017	Sea Water	VOCs	Cyclohexane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	110-82-7
RFO-052515-001	A15017	Sea Water	VOCs	Dibromochlorc	112	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	124-48-1
RFO-052515-001	A15017	Sea Water	VOCs	Dibromochlorc	110	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	124-48-1
RFO-052515-001	A15017	Sea Water	VOCs	Dibromochloromethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	124-48-1
RFO-052515-001	A15017	Sea Water	VOCs	Dibromofluoro	107	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	1868-53-7
RFO-052515-001	A15017	Sea Water	VOCs	Dibromometha	106	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-95-3
RFO-052515-001	A15017	Sea Water	VOCs	Dibromometha	107	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-95-3
RFO-052515-001	A15017	Sea Water	VOCs	Dibromomethane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-95-3
RFO-052515-001	A15017	Sea Water	VOCs	Dichlorodifluor	99	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-71-8
RFO-052515-001	A15017	Sea Water	VOCs	Dichlorodifluor	101	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-71-8
RFO-052515-001	A15017	Sea Water	VOCs	Dichlorodifluorometha		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-71-8
RFO-052515-001	A15017	Sea Water	VOCs	Diethyl Ether	99	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	60-29-7
RFO-052515-001	A15017	Sea Water	VOCs	Diethyl Ether	97	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	60-29-7
RFO-052515-001	A15017	Sea Water	VOCs	Diethyl Ether		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	60-29-7
RFO-052515-001	A15017	Sea Water	VOCs	Diisopropyl Eth	103	%REC	2	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-20-3
RFO-052515-001	A15017	Sea Water	VOCs	Diisopropyl Eth	104	%REC	2	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-20-3
RFO-052515-001	A15017	Sea Water	VOCs	Diisopropyl Ether (DIPE		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-20-3
RFO-052515-001	A15017	Sea Water	VOCs	Ethanol	91	%REC	100	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	64-17-5
RFO-052515-001	A15017	Sea Water	VOCs	Ethanol	109	%REC	100	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	64-17-5
RFO-052515-001	A15017	Sea Water	VOCs	Ethanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	64-17-5
RFO-052515-001	A15017	Sea Water	VOCs	Ethylbenzene	106	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	100-41-4
RFO-052515-001	A15017	Sea Water	VOCs	Ethylbenzene	103	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	100-41-4
RFO-052515-001	A15017	Sea Water	VOCs	Ethylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	100-41-4
RFO-052515-001	A15017	Sea Water	VOCs	Ethyl-t-Butyl Et	101	%REC	2	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	637-92-3
RFO-052515-001	A15017	Sea Water	VOCs	Ethyl-t-Butyl Et	100	%REC	2	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	637-92-3
RFO-052515-001	A15017	Sea Water	VOCs	Ethyl-t-Butyl Ether (ETB		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	637-92-3
RFO-052515-001	A15017	Sea Water	VOCs	Hexachloro-1,3	93	%REC	20	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	87-68-3
RFO-052515-001	A15017	Sea Water	VOCs	Hexachloro-1,3	92	%REC	20	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	87-68-3
RFO-052515-001	A15017	Sea Water	VOCs	Hexachloro-1,3-Butadie		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	87-68-3
RFO-052515-001	A15017	Sea Water	VOCs	Hexane	97	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	110-54-3
RFO-052515-001	A15017	Sea Water	VOCs	Hexane	98	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	110-54-3
RFO-052515-001	A15017	Sea Water	VOCs	Hexane		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	110-54-3
RFO-052515-001	A15017	Sea Water	VOCs	Iodomethane	104	%REC	20	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-88-4
RFO-052515-001	A15017	Sea Water	VOCs	Iodomethane	108	%REC	20	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-88-4
RFO-052515-001	A15017	Sea Water	VOCs	Iodomethane		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	74-88-4
RFO-052515-001	A15017	Sea Water	VOCs	Isopropanol	102	%REC	100	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	67-63-0
RFO-052515-001	A15017	Sea Water	VOCs	Isopropanol	103	%REC	100	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	67-63-0
RFO-052515-001	A15017	Sea Water	VOCs	Isopropanol		ug/L	100	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	67-63-0
RFO-052515-001	A15017	Sea Water	VOCs	Isopropylbenze	110	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	98-82-8
RFO-052515-001	A15017	Sea Water	VOCs	Isopropylbenze	107	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	98-82-8
RFO-052515-001	A15017	Sea Water	VOCs	Isopropylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	98-82-8
RFO-052515-001	A15017	Sea Water	VOCs	Methylene Chl	100	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-09-2
RFO-052515-001	A15017	Sea Water	VOCs	Methylene Chl	99	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-09-2
RFO-052515-001	A15017	Sea Water	VOCs	Methylene Chloride		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-09-2
RFO-052515-001	A15017	Sea Water	VOCs	Methyl-t-Butyl	100	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	1634-04-4
RFO-052515-001	A15017	Sea Water	VOCs	Methyl-t-Butyl	102	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	1634-04-4
RFO-052515-001	A15017	Sea Water	VOCs	Methyl-t-Butyl Ether (M		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	1634-04-4
RFO-052515-001	A15017	Sea Water	VOCs	Naphthalene	97	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	91-20-3
RFO-052515-001	A15017	Sea Water	VOCs	Naphthalene	101	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	91-20-3
RFO-052515-001	A15017	Sea Water	VOCs	Naphthalene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	91-20-3
RFO-052515-001	A15017	Sea Water	VOCs	n-Butylbenzene	101	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	104-51-8

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
RFO-052515-001	A15017	Sea Water	VOCs	n-Butylbenzene	100	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	104-51-8
RFO-052515-001	A15017	Sea Water	VOCs	n-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	104-51-8
RFO-052515-001	A15017	Sea Water	VOCs	n-Propylbenzen	107	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	103-65-1
RFO-052515-001	A15017	Sea Water	VOCs	n-Propylbenzen	103	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	103-65-1
RFO-052515-001	A15017	Sea Water	VOCs	n-Propylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	103-65-1
RFO-052515-001	A15017	Sea Water	VOCs	o-Xylene	109	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	95-47-6
RFO-052515-001	A15017	Sea Water	VOCs	o-Xylene	108	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	95-47-6
RFO-052515-001	A15017	Sea Water	VOCs	o-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	95-47-6
RFO-052515-001	A15017	Sea Water	VOCs	p/m-Xylene	106	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	179601-23-1
RFO-052515-001	A15017	Sea Water	VOCs	p/m-Xylene	104	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	179601-23-1
RFO-052515-001	A15017	Sea Water	VOCs	p/m-Xylene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	179601-23-1
RFO-052515-001	A15017	Sea Water	VOCs	p-Isopropyltolu	101	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	99-87-6
RFO-052515-001	A15017	Sea Water	VOCs	p-Isopropyltolu	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	99-87-6
RFO-052515-001	A15017	Sea Water	VOCs	p-Isopropyltoluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	99-87-6
RFO-052515-001	A15017	Sea Water	VOCs	sec-Butylbenze	102	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	135-98-8
RFO-052515-001	A15017	Sea Water	VOCs	sec-Butylbenze	100	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	135-98-8
RFO-052515-001	A15017	Sea Water	VOCs	sec-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	135-98-8
RFO-052515-001	A15017	Sea Water	VOCs	Styrene	11	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	100-42-5
RFO-052515-001	A15017	Sea Water	VOCs	Styrene	24	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	100-42-5
RFO-052515-001	A15017	Sea Water	VOCs	Styrene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	100-42-5
RFO-052515-001	A15017	Sea Water	VOCs	t-1,2-Dichloroe	104	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	156-60-5
RFO-052515-001	A15017	Sea Water	VOCs	t-1,2-Dichloroe	104	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	156-60-5
RFO-052515-001	A15017	Sea Water	VOCs	t-1,2-Dichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	156-60-5
RFO-052515-001	A15017	Sea Water	VOCs	t-1,3-Dichlorop	98	%REC	0.5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	10061-02-6
RFO-052515-001	A15017	Sea Water	VOCs	t-1,3-Dichlorop	98	%REC	0.5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	10061-02-6
RFO-052515-001	A15017	Sea Water	VOCs	t-1,3-Dichloropropene		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	10061-02-6
RFO-052515-001	A15017	Sea Water	VOCs	t-1,4-Dichloro-	102	%REC	20	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	764-41-0
RFO-052515-001	A15017	Sea Water	VOCs	t-1,4-Dichloro-	99	%REC	20	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	764-41-0
RFO-052515-001	A15017	Sea Water	VOCs	t-1,4-Dichloro-2-Butene		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	764-41-0
RFO-052515-001	A15017	Sea Water	VOCs	Tert-Amyl-Met	102	%REC	2	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	994-05-8
RFO-052515-001	A15017	Sea Water	VOCs	Tert-Amyl-Met	106	%REC	2	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	994-05-8
RFO-052515-001	A15017	Sea Water	VOCs	Tert-Amyl-Methyl Ether		ug/L	2	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	994-05-8
RFO-052515-001	A15017	Sea Water	VOCs	Tert-Butyl Alco	109	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-65-0
RFO-052515-001	A15017	Sea Water	VOCs	Tert-Butyl Alco	101	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-65-0
RFO-052515-001	A15017	Sea Water	VOCs	Tert-Butyl Alcohol (TBA		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-65-0
RFO-052515-001	A15017	Sea Water	VOCs	tert-Butylbenze	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	98-06-6
RFO-052515-001	A15017	Sea Water	VOCs	tert-Butylbenze	99	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	98-06-6
RFO-052515-001	A15017	Sea Water	VOCs	tert-Butylbenzene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	98-06-6
RFO-052515-001	A15017	Sea Water	VOCs	Tetrachloroeth	99	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	127-18-4
RFO-052515-001	A15017	Sea Water	VOCs	Tetrachloroeth	100	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	127-18-4
RFO-052515-001	A15017	Sea Water	VOCs	Tetrachloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	127-18-4
RFO-052515-001	A15017	Sea Water	VOCs	Tetrahydrofura	97	%REC	20	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	109-99-9
RFO-052515-001	A15017	Sea Water	VOCs	Tetrahydrofura	96	%REC	20	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	109-99-9
RFO-052515-001	A15017	Sea Water	VOCs	Tetrahydrofuran		ug/L	20	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	109-99-9
RFO-052515-001	A15017	Sea Water	VOCs	Thiophene	103	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	110-02-1
RFO-052515-001	A15017	Sea Water	VOCs	Thiophene	103	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	110-02-1
RFO-052515-001	A15017	Sea Water	VOCs	Thiophene		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	110-02-1
RFO-052515-001	A15017	Sea Water	VOCs	Toluene	101	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-88-3
RFO-052515-001	A15017	Sea Water	VOCs	Toluene	103	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-88-3
RFO-052515-001	A15017	Sea Water	VOCs	Toluene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-88-3
RFO-052515-001	A15017	Sea Water	VOCs	Toluene-d8	100	%REC		15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	2037-26-5
RFO-052515-001	A15017	Sea Water	VOCs	Trichloroethen	101	%REC	1	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	79-01-6
RFO-052515-001	A15017	Sea Water	VOCs	Trichloroethen	98	%REC	1	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	79-01-6
RFO-052515-001	A15017	Sea Water	VOCs	Trichloroethene		ug/L	1	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	79-01-6
RFO-052515-001	A15017	Sea Water	VOCs	Trichlorofluoro	99	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-69-4
RFO-052515-001	A15017	Sea Water	VOCs	Trichlorofluoro	97	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-69-4
RFO-052515-001	A15017	Sea Water	VOCs	Trichlorofluoromethane		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-69-4
RFO-052515-001	A15017	Sea Water	VOCs	Vinyl Acetate	70	%REC	10	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-05-4

Plains American Refugio Oil Spill Marine Water Analyses performed by EPA Region 9 Laboratory

Sample #	Site #	Lab Matrix	Analysis	Analyte	Result	Units	MDL	Lab Batch No	QC Type	Date Analyzed	QA Flag	Date_Collected	Date_Received	Date_Extracted	Lab_Samp_No	Analytical_Met	Extraction_Method	CAS_NO
RFO-052515-001	A15017	Sea Water	VOCs	Vinyl Acetate	53	%REC	10	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-05-4
RFO-052515-001	A15017	Sea Water	VOCs	Vinyl Acetate		ug/L	10	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	108-05-4
RFO-052515-001	A15017	Sea Water	VOCs	Vinyl Chloride	93	%REC	0.5	15-05-2049	MSD	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-01-4
RFO-052515-001	A15017	Sea Water	VOCs	Vinyl Chloride	91	%REC	0.5	15-05-2049	MS	6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-01-4
RFO-052515-001	A15017	Sea Water	VOCs	Vinyl Chloride		ug/L	0.5	15-05-2049		6/2/2015	No	5/25/2015	5/27/2015	6/1/2015	10	EPA 8260B	EPA 5030C	75-01-4