

Steve Laffem  
Division Director  
Safety, Health & Env. Affairs  
Rocketdyne Propulsion & Power

The Boeing Company  
6633 Canoga Avenue  
P.O. Box 7922  
Canoga Park, CA 91309-7922

CERTIFIED MAIL

November 12, 2004  
In reply refer to 2004RC3152



Regional Water Quality Control Board  
Los Angeles Region  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, CA 90013

Attention: Information Technology Unit

Reference: Compliance File CI-6027 and NPDES No. CA0001309

Subject: 3<sup>rd</sup> Quarter 2004 (July, August, September 2004) NPDES  
Monitoring Report Submittal – Santa Susana Field Laboratory

Dear Sir/Madam,

The Boeing Company, Rocketdyne (Rocketdyne) hereby submits the enclosed discharge monitoring report (DMR) for the Santa Susana Field Laboratory (SSFL) for the 3<sup>rd</sup> Quarter 2004. This DMR is provided for the outfalls authorized by NPDES Permit No. CA0001309 revised July 1, 2004.

**DISCHARGE STATUS**

Precipitation during the 3<sup>rd</sup> quarter 2004 is shown on Table A-1, Appendix A. Due to dry weather during the 3<sup>rd</sup> quarter 2004, there were no discharges from the Outfall 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, or 018. There was no discharge associated with the domestic sewage treatment plants (STPs) Outfalls 015, 016, 017 as the STP wastes were shipped off site and appropriately managed. There was no discharge associated with the Bravo (Outfall 013) or APTF (Outfall 014) Test Stands. There was discharge associated with activity at the Alfa Test Stand (Outfall 012). Monitoring data collected at Outfall 012 after the August 20<sup>th</sup> 2004 effective date of the above referenced permit is summarized in Appendix C.

**LIQUID WASTE SHIPMENTS**

The liquid waste shipments for the 3<sup>rd</sup> quarter 2004 are summarized in Table B-1, provided as Appendix B. This summary is provided as required under the NPDES permit (CA0001309).

**DISCHARGE ANALYSES, DATA VALIDATION**

All analyses of sampled discharge were conducted at a laboratory certified for such analysis by the appropriate agency in accordance with current EPA guidelines, procedures, or as specified in the monitoring program. Data validation was performed on the analytical results, and all quality control elements were found to be within acceptable limits for all analytical methods reported with the exception of three individual results for outfall 012. The result for Naphthalene on 9/9/04 was qualified do to a low surrogate recovery. The non-detect result for n-Nitrosodimethylamine (NDMA) was rejected

RWQCB (2004RC)  
November 11, 2004  
Page 2

because the low surrogate recovery could not confirm the presence or absence of the constituent. The 9/29/04 pH result was qualified due to the exceedance of the 24 hour hold time. Boeing has requested that the Lab review these results and implement corrective actions to prevent a reoccurrence. Complete copies of the analytical data and the subsequent data validation are located in Appendix D.

#### **SUMMARY OF NON-COMPLIANCE**

Boeing has no issues of non-compliance to report for the 3<sup>rd</sup> quarter 2004.

#### **FACILITY CONTACT**

If there are any questions regarding this report or its enclosures, you may contact Mr. Bill McIlvaine of Rocketdyne at (818) 586-9228.

#### **CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violation.

Executed on the 12th of November 2004 at the Boeing Company, Rocketdyne, Santa Susana Field Laboratory Facility.

Sincerely,



Steve Lafflam  
Division Director  
Safety, Health and Environmental Affairs

WM:bjc  
Enclosure

Appendices:      A      3<sup>rd</sup> Quarter 2004 Rainfall Data Summary/Flow Data  
                          B      Liquid Waste Shipment Summary Table  
                          C      Discharge Monitoring Data Summary Table-Outfall 012  
                          D      Analytical Data

cc:    Robert Marshall, California State University – Northridge, Library  
      Dale Redfield, Simi Valley Library  
      Lynn Light, Platt Branch, Los Angeles Library

SHEA-100824



APPENDIX A

3<sup>rd</sup> QUARTER 2004 RAINFALL DATA SUMMARY/FLOW DATA

TABLE A-1  
 THE BOEING COMPANY-ROCKETDYNE  
 NPDES PERMIT NUMBER  
 CA0001309  
 DAILY RAINFALL SUMMARY  
 July 2004

Station: AREA4  
 Parameter: Rain  
 Month/Year: July 2004

Day	HOUR OF DAY																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

D A Y O F T H E M O N T H



TABLE A-2  
 THE BOEING COMPANY-ROCKETDYNE  
 NPDES PERMIT NUMBER  
 CA0001309  
 DAILY RAINFALL SUMMARY  
 August 2004

Station: AREA4  
 Parameter: Rain  
 Month/Year: August 2004

Day	HOUR OF DAY																							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

D A Y O F T H E M O N T H

TABLE A-3  
 THE BOEING COMPANY-ROCKETDYNE  
 NPDES PERMIT NUMBER  
 CA0001309  
 DAILY RAINFALL SUMMARY  
 September 2004

Station: AREA4  
 Parameter: Rain  
 Month/Year: September 2004

Day	HOUR OF DAY																																			
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23												
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

D A Y O F T H E M O N T H

APPENDIX B

LIQUID WASTE SHIPMENTS SUMMARY TABLES

**TAB 1-1**  
**THE BOEING COMPANY - ROCKETDYNE**  
**NPDES PERMIT CA0001309**  
**LIQUID WASTE SHIPMENTS**  
**JULY 2004**

DATE SHIPPED	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
7/2/2004	WASTE WATER FROM AREA III SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/2/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
7/7/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/7/2004	WASTE WATER FROM AREA III SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/12/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
7/12/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/12/2004	WASTE WATER FROM AREA III SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/14/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
7/14/2004	WASTE WATER FROM AREA III SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/15/2004	Waste Oil / Water (N/R)	27	LBS.	ONYX ENVIRONMENTAL SERVICES	ONYX ENVIRONMENTAL SERVICES
	Waste Mixed Solvents	256	LBS.	1704 WEST FIRST ST AZUSA, CA	1704 WEST FIRST ST AZUSA, CA
	Waste MMH/ NTO / IPA	50	LBS.		
	Waste Hydrogen Peroxide Soln 10-20	28	LBS.		
	Waste H2O2, aqueous (20-40%)	42	LBS.		
	Waste Trace MMH in Water	236	LBS.		
	Waste Corr Liq Acid Inorg Bulk Mixed Acids w/HF	272	LBS.		
	Waste Mixed Acids - no metals	3374	LBS.		
	Waste 301 Alkaline Cleaning Soln, KOH, NaOH	3136	LBS.		
	Waste Antifreeze (N/R)	71	LBS.		
	Waste Oil / Water (N/R)	462	LBS.		
	Waste Oil / Water (N/R)	14	LBS.		
	Waste Water / Oil (N/R)	259	LBS.		
	Waste Labpac Ox Liq.	60	LBS.		
	Waste Labpac Ox Solid	5	LBS.		
	Waste Labpac Mercury Thiocyanate	1	LBS.		
	Waste Labpac Corr Liq, Acidic Inorg	40	LBS.		
	Waste Labpac Corr Liq, Basic, Inorg	5	LBS.		
7/15/2004	Waste Labpac Corr Liq, Basic, Org	5	LBS.	ONYX ENVIRONMENTAL SERVICES	ONYX ENVIRONMENTAL SERVICES

TAB. 1  
 THE BOEING COMPANY - ROCKETDYNE  
 NPDES PERMIT CA0001309  
 LIQUID WASTE SHIPMENTS  
 JULY 2004

DATE SHIPPED	TYPE OF LIQUID	QTY.	UNITS.	TRANSPORTER	DESTINATION
	Waste Labpac Corr Solid Acidic, Inorg	5	LBS.	1704 WEST FIRST ST AZUSA, CA	1704 WEST FIRST ST AZUSA, CA
	Waste Loosepac Non- RCRA Liquid	100	LBS.		
	Waste Mineral Oil	313	LBS.		
	Waste Oil	373	LBS.		
	Waste Oil	335	LBS.		
7/19/2004	WASTE WATER FROM AREA III SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
7/19/2004	WASTE WATER FROM AREA III SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/23/2004	WASTE WATER FROM AREA III SEWAGE TREATMENT PLANT	10000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/23/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
7/26/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
7/26/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
7/28/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
7/28/2004	WASTE WATER FROM AREA III SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus

TAB -2  
 THE BOEING COMPANY - ROCKETDYNE  
 NPDES PERMIT CA0001309  
 LIQUID WASTE SHIPMENTS  
 AUGUST 2004

DATE SHIPPED	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
8/2/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/2/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/4/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/4/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/9/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/9/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/11/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/11/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/11/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/16/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/16/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/18/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/18/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/23/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/23/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/25/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson

TAB 1-2  
 THE BOEING COMPANY - ROCKETDYNE  
 NPDES PERMIT CA0001309  
 LIQUID WASTE SHIPMENTS  
 AUGUST 2004

DATE SHIPPED	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
8/25/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/25/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
8/30/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
8/30/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus

TAB 1-3  
**THE BOEING COMPANY - ROCKETDYNE**  
**NPDES PERMIT CA0001309**  
**LIQUID WASTE SHIPMENTS**  
**SEPTEMBER 2004**

DATE SHIPPED	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
9/1/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/1/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/3/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/3/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/8/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/8/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/9/2004	B/1301 non-haz rinse water	4800	GAL	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.
9/13/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/13/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/14/2004	Alfa Kerosene Oil, Water Bulk	5160	LBS.	ONYX ENVIRONMENTAL SERVICES 1704 WEST FIRST ST AZUSA, CA	ONYX ENVIRONMENTAL SERVICES 1704 WEST FIRST ST AZUSA, CA
9/15/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/15/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/15/2004	Waste Oil / Water (N/R)	47	LBS.	ONYX ENVIRONMENTAL SERVICES 1704 WEST FIRST ST AZUSA, CA	ONYX ENVIRONMENTAL SERVICES 1704 WEST FIRST ST AZUSA, CA
9/16/2004	Southwest non-haz water form B/4055 cooling pit	2950	GAL	MP ENVIRONMENTAL SERVICES INC. 3400 MANOR ST., BAKERSFIELD, CA.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.
9/20/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/20/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC.	LACSD Carson



TABI -3  
 THE BOEING COMPANY - ROCKETDYNE  
 NPDES PERMIT CA0001309  
 LIQUID WASTE SHIPMENTS  
 SEPTEMBER 2004

DATE SHIPPED	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
				4120 BANDINI BLVD. LOS ANGELES, CA.	
9/22/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	10000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/22/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/24/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/24/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/27/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson
9/27/2004	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/29/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Saugus
9/29/2004	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	GAL.	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA.	LACSD Carson

APPENDIX C

SUMMARY TABLES, DISCHARGE MONITORING DATA  
OUTFALL 012

**THE BOEING COMPANY - ROCKETDYNE  
SANTA SUSANA FIELD LAB  
NPDES PERMIT CA0001309  
OUTFALL - 012  
ALFA TEST STAND  
20 AUGUST 2004 - 31 AUGUST 2004**

		SAMPLE DATE
ANALYTE	UNITS	8/21/2004
<b>MISC</b>		
Temperature	°F	76
Flow (volume discharged)	gallons	55,000*
Ammonia-N	mg/l	0.84
Biochemical Oxygen Demand (BOD 5 day)	mg/l	6.0
Oil & Grease	mg/l	2.1 DNQ
pH	pH Units	7.96
Total Dissolved Solids	mg/l	400
Total Settleable Solids	ml/l/hr	ND<0.10
Total Suspended Solids	mg/l	24
Turbidity	NTU	38
<b>PERCHLORATE</b>		
Perchlorate	ug/l	ND<4.0
<b>SEMI VOLATILES</b>		
Naphthalene	ug/l	73
N-Nitrosodimethylamine (NDMA)	ug/l	ND<20
<b>TPH</b>		
EFH (C13 - C22)	mg/l	4.5
GRO (C4 - C12)	mg/l	1.5
TRPH	mg/l	12
<b>VOLATILES</b>		
1,2,3-Trichloropropane	ug/l	ND<10
Ethylene dibromide (EDB)	ug/l	ND<2.0
1,4-Dioxane	ug/l	ND<1.0
Di-isopropyl ether (DIPE)	ug/l	ND<5.0
Methyl tertiary butyl ether (MTBE)	ug/l	ND<5.0
Tertiary butyl alcohol (TBA)	ug/l	ND<25

**Notes:**

\* = estimated flow volume based on run time

NTU = nephelometric turbidity units

mg/l = milligrams per liter

ug/l = micrograms per liter

ml/l/hr = milliliter per liter per hour

EFH = extractable fuel hydrocarbons by Method 8015

GRO = gasoline range organics by Method 8015

TRPH = total recoverable petroleum hydrocarbons by Method 418.1

ND< = Non Detect analyte was not detected above the Laboratory Method Detection Limit (MDL). The MDL is the value shown

DNQ = Detected, but not quantified

**THE BOEING COMPANY - ROCKETDYNE**  
**SANTA SUSANA FIELD LAB**  
**NPDES PERMIT CA0001309**  
**OUTFALL - 012**  
**ALFA TEST STAND**  
**1 SEPTEMBER 2004 - 30 SEPTEMBER 2004**

ANALYTE	UNITS	SAMPLE DATE				
		9/2/2004	9/9/2004	9/15/2004	9/24/2004	9/29/2004
<b>MISC</b>						
Temperature	°F	90.9	85.5	85.2	81.5	81.9
Flow (volume discharged)	gallons	55,000*	55,000*	55,000*	55,000*	55,000*
Ammonia-N	mg/l	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
Biochemical Oxygen Demand (BOD 5 day)	mg/l	2.7	1.6 DNQ	2.5	2.8	1.8 DNQ
Oil & Grease	mg/l	4.8 DNQ	<5.0	1.8 DNQ	<5.0	0.95 DNQ
pH	pH Units	8.28	8.03	7.99	8.09	8.27 J (h)
Total Dissolved Solids	mg/l	340	330	310	330	350
Total Settleable Solids	ml/l/hr	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
Total Suspended Solids	mg/l	14	20	17	120	20
Turbidity	NTU	29	39	35	27	25
<b>PERCHLORATE</b>						
Perchlorate	ug/l	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
<b>SEMI VOLATILES</b>						
Naphthalene	ug/l	37.8	18.4 J (s)	32.3	20.9	28.4
N-Nitrosodimethylamine (NDMA)	ug/l	ND<20.0	ND<19 R (s)	ND<20.0	ND<20.0	ND<20.0
<b>TPH</b>						
EFH (C13 - C22)	mg/l	2.2	0.97	1.2	1.0	1.1
GRO (C4 - C12)	mg/l	0.70	0.20	0.90	0.28	1.2
TRPH	mg/l	10	1.4	5.9	5.1	5.0
<b>VOLATILES</b>						
1,2,3-Trichloropropane	ug/l	ND<10	ND<10	ND<10	ND<10	ND<10
Ethylene dibromide (EDB)	ug/l	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,4-Dioxane	ug/l	1.6	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Di-isopropyl ether (DIPE)	ug/l	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Methyl tertiary butyl ether (MTBE)	ug/l	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Tertiary butyl alcohol (TBA)	ug/l	ND<25	ND<25	ND<25	ND<25	ND<25

**Notes:**

\* = estimated flow volume based on run time

NTU = nephelometric turbidity units

mg/l = milligrams per liter

ug/l = micrograms per liter

ml/l/hr = milliliter per liter per hour

EFH = extractable fuel hydrocarbons by Method 8015

GRO = gasoline range organics by Method 8015

TRPH = total recoverable petroleum hydrocarbons by Method 418.1

J = estimated value

ND< = Non Detect analyte was not detected above the Laboratory Method Detection Limit (MDL). The MDL is the value shown

R = sample results are rejected. The presence or absence of the analyte cannot be verified.

DNQ = Detected, but not quantified

(s) = qualifier due to surrogates phenol-d6 and p-terphenol-d14 recovery below 10%

(h) = qualifier due to holding time exceedance of 24 hours

## APPENDIX D

### ANALYTICAL LABORATORY REPORTS AND CHAIN-OF-CUSTODY



# DATA VALIDATION REPORT

## **NPDES Monitoring**

ANALYSIS: VOLATILES

SAMPLE DELIVERY GROUP: INH1290

Prepared by

AMEC Denver Operations  
550 South Wadsworth Boulevard, Suite 500  
Lakewood, Colorado 80226

## 1. INTRODUCTION

Task Order Title: NPDES Monitoring  
Contract Task Order #: 313150011  
SDG#: INH1290  
Project Manager: B. McIlvaine  
Matrix: Water  
Analysis: Volatiles  
QC Level: Level IV  
No. of Samples: 1  
No. of Reanalyses/Dilutions: 0  
Reviewer: K. Shadowlight  
Date of Review: October 4, 2004

The samples listed in Table 1 were validated based on the guidelines outlined in the *AMEC Data Validation Procedure for Levels C and D Volatile Organics (DVP-2, Rev. 2)* and the *National Functional Guidelines For Organic Data Review (2/94)*. Any deviations from these procedures are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the Form I as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

**Table 1. Sample identification**

Client ID	EPA ID	Lab No.	Matrix	Method
Outfall 012	Outfall 012	INH1290-1	water	8260B/SIM



## 2. DATA VALIDATION FINDINGS

### 2.1 SAMPLE MANAGEMENT

The following are findings associated with sample management:

#### 2.1.1 Sample Preservation, Handling, and Transport

The sample in this SDG was received at both laboratories within the temperature limits of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . No sample receipt information was recorded on the COC, however, laboratory sample receipt checklists from both laboratories (see below) noted that the sample was received intact and without headspace. No qualifications were required.

#### 2.1.2 Chain of Custody

The COCs were signed by field and laboratory personnel and accounted for the analyses presented in this SDG. The 8260 analysis was subcontracted to Del Mar Analytical in Phoenix Arizona. The transfer COC was signed and dated by the appropriate laboratory personnel. There was no information regarding custody seals on the cooler. No qualifications were required.

#### 2.1.3 Holding Times

The sample was analyzed within 14 days of collection. No qualifications were required.

### 2.2 GC/MS TUNING

The ion abundance windows shown on the quantitation report were consistent with those specified in the EPA Method 8260B. All ion abundances were within the established windows and were therefore acceptable. The sample and associated QC were analyzed within 12 hours of the BFB injection times. The Form Vs were verified from the raw data and no discrepancies between the summary forms and the raw data were noted. No qualifications were required.

### 2.3 CALIBRATION

One initial calibration, dated 08/29/04, was associated with this SDG. The average RRF for 1,4-dioxane was  $\geq 0.05$  and the %RSD was  $\leq 15\%$ . One continuing calibration, dated 08/31/04, was associated with this SDG. The RRF for 1,4-dioxane was  $\geq 0.05$  and the %D was  $\leq 20\%$ .

The %RSD and average RRF for 1,4-dioxane in the initial calibration, and the %D and RRF for 1,4-dioxane in the continuing calibration were recalculated from the raw data, and no calculation or transcription errors were found. No qualifications were required.

## 2.4 BLANKS

One water method blank was associated with this SDG. Target compound 1,4-dioxane was not reported in the method blank. The method blank raw data showed no evidence of a false negative. No qualifications were required.

## 2.5 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

One water blank spike was associated with this SDG. The laboratory analyzed a blank spike/blank spike duplicate pair with this SDG; however, the blank spike was also used as the continuing calibration verification standard (CCV). As a single analysis cannot be reported as both a CCV and an LCS, the reviewer chose to report the blank spike analysis as the CCV, and the blank spike duplicate analysis was treated as a single LCS. The recovery was recalculated from the raw data and no calculation or transcription errors were found. No qualifications were required.

## 2.6 SURROGATE RECOVERY

The sample and QC were fortified with dibromofluoromethane. The surrogate was within the laboratory QC limits of 80-135%. The surrogate recovery for this sample was recalculated from the raw data and no calculation or transcription errors were found. No qualifications were required.

## 2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MS/MSD analyses were not performed for this SDG. No qualifications were required.

## 2.8 FIELD QC SAMPLES

Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site sample. Following are findings associated with field QC samples:

### 2.8.1 Trip Blanks

There was not a trip blank associated with this SDG. No qualifications were required.

### 2.8.2 Field Blanks and Equipment Rinsates

There were no field QC samples associated with this SDG. No qualifications were required.

### 2.8.3 Field Duplicates

There were no field duplicate samples associated with this SDG. Field duplicate samples are required at a rate of 10% per matrix for site samples only and may not be present in every data package. No qualifications were required.

## 2.9 INTERNAL STANDARDS PERFORMANCE

Internal standard area counts and retention times for this SDG were within the control limits established by the continuing calibration standards, of +100%/-50% for internal standard areas and  $\pm 0.50$  minutes for retention times. A representative number of internal standard areas and retention times were verified from the raw data, and no calculation or transcription errors were noted. No qualifications were required.

## 2.10 COMPOUND IDENTIFICATION

Target compound identification was verified at a Level IV data validation. The laboratory analyzed for target compound 1,4-dioxane by SW-846 Method 8260B using the single ion monitoring mode (SIM). Chromatograms, retention times, and spectra for the sample and QC were examined and no target compound identification problems were noted. No qualifications were required.

## 2.11 COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS

Compound quantification is verified at a Level IV data validation. The reporting limits were supported by the lowest concentrations of the initial calibration standards and by the undated MDL supplied by the laboratory. As 1,4-dioxane was not detected in the sample, compound quantitation was verified by recalculating blank spike and surrogate recoveries from the raw data. No calculation or transcription errors were noted. No qualifications were required.

## 2.12 TENTATIVELY IDENTIFIED COMPOUNDS

The laboratory did not provide TICs for this SDG. No qualifications were required.

## 2.13 SYSTEM PERFORMANCE

A review of the chromatograms and other raw data showed no identifiable problems with system performance. No qualifications were required.



# Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-329  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-104  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-968  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-085  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-362

MWH-Pasadena/Boeing  
 500 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04  
 Received: 08/21/04

## DRAFT: 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water) - cont.									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4H3105	0.49	1.0	ND	1	08/31/04	08/31/04	u
Surrogate: Dibromofluoromethane (80-135%)					104 %				

Rev  
 Qual  
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LEVEL IV

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE





550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80226  
303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Volatiles by Method 624  
QC Level: V<sup>1</sup>  
SDG: INH1290  
Matrix: Water  
No. of Samples: 2  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: October 3, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012, Trip Blank

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by both field and laboratory personnel. According to the case narrative for this SDG, the samples were received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding the custody seals on the coolers.</p> <p>The samples were analyzed within 14 days of sample collection.</p>	No qualifications were required.
4. <u>Method Blanks</u>	Two method blanks were analyzed with this SDG. There were no target compounds reported in either of the method blanks.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike/blank spike duplicate pair and one blank spike were analyzed with this SDG. The recoveries for all target compounds were within the laboratory QC limits for the blank spikes and the RPDs were within QC limits for the blank spike/blank spike duplicate pair.	No qualifications were required.
6. <u>Surrogates</u>	Surrogate recoveries for both sample analyses were within the laboratory QC limits.	No qualifications were required.

	Findings	Qualifications
7. <u>MS/MSDs</u> Outfall 012	Sample Outfall 012 was analyzed as the MS/MSD pair for this SDG. The recoveries and RPDs for the target compounds were within the laboratory QC limits.	None.
8. <u>Field QC Samples</u>  TB: Trip Blank ER: None FB: None FD: None	There were no target compounds reported in the trip blank.	None.
9. <u>Other</u>	No TICs were reported by the laboratory for the samples in this SDG.	None.
<u>Comments</u>	None	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



IWH-Pasadena/Boeing  
 500 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04  
 Received: 08/21/04

## DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD.	4H31009	0.32	2.0	ND	1	08/31/04	08/31/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD.	4H31009	0.32	5.0	ND	1	08/31/04	08/31/04	
1,2,3-Trichloropropane	EPA 624 MOD.	4H31009	0.85	10	ND	1	08/31/04	08/31/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD.	4H31009	0.25	5.0	ND	1	08/31/04	08/31/04	
tert-Butanol (TBA)	EPA 624 MOD.	4H31009	3.1	25	ND	1	08/31/04	08/31/04	
Surrogate: Dibromofluoromethane (80-120%)					98 %				
Surrogate: Toluene-d8 (80-120%)					103 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					103 %				
<b>Sample ID: INH1290-02 (DRAFT: Trip Blank - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD.	4I03020	0.32	2.0	ND	1	09/03/04	09/03/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD.	4I03020	0.32	5.0	ND	1	09/03/04	09/03/04	
1,2,3-Trichloropropane	EPA 624 MOD.	4I03020	0.85	10	ND	1	09/03/04	09/03/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD.	4I03020	0.25	5.0	ND	1	09/03/04	09/03/04	
Butanol (TBA)	EPA 624 MOD.	4I03020	3.1	25	ND	1	09/03/04	09/03/04	
Surrogate: Dibromofluoromethane (80-120%)					99 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					95 %				

AMEC VALIDATED  
**LEVEL V**

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE





550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026  
303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M  
QC Level: V<sup>1</sup>  
SDG: INH1290  
Matrix: Water  
No. of Samples: 1  
Dilutions/Reanalyses: 0  
Date Reviewed: October 3, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.</p> <p>According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.</p>	No qualifications were required.
3. <u>Method Blanks</u>	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was <25%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.

	Findings	Qualifications
6. <u>MS/MSDs</u> None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. <u>Field QC Samples</u>  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. <u>Other</u>	The laboratory analyzed for n-alkane range C13-C22.  The sample was analyzed at a 4× dilution in order to report target compound EFH (C13-C22) within linear range of the calibration. The sample result and reporting limit were appropriately adjusted for the dilution.	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



# Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-329  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-104  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-968  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-085  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-362

MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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## DRAFT: EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water) - cont.									
Reporting Units: mg/l									
EFH (C13 - C22)	EPA 8015B	4H24061	0.33	2.0	4.5	3.88	08/24/04	08/26/04	Qual
Surrogate: n-Octacosane (45-125%)					91 %				

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 LEVEL V

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 DATA SUBJECT TO CHANGE



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303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Volatile Fuel Hydrocarbons by GC/EPA Method 8015M  
QC Level: V<sup>1</sup>  
SDG: INH1290  
Matrix: Water  
No. of Samples: 2  
Dilutions/Reanalyses: 0  
Date Reviewed: October 3, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012, Trip Blank

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the samples were received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.</p> <p>According to the sample result summary forms, the samples were analyzed within 14 days of collection.</p>	No qualifications were required.
3. <u>Method Blanks</u>	One water method blank was analyzed with this SDG. Target compound GRO (C8-C12) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike was analyzed with this SDG. The recovery of GRO (C4-C12) was within the laboratory QC limits of 70-135%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the samples were within the laboratory established QC limits of 60-135%.	No qualifications were required.
6. <u>MS/MSDs</u> None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.

	Findings	Qualifications
7. <u>Field QC Samples</u>  TB: Trip Blank FB: None ER: None Field Duplicates: None	Target compound GRO (C4-C12) was not reported in the trip blank.	No qualifications were required.
8. <u>Other</u>	The laboratory analyzed for gasoline range organics (C4-C12).  Sample Outfall 012 was analyzed at a 10× dilution in order to report target compound GRO (C4-C12) within linear range of the calibration. The sample result and reporting limit were appropriately adjusted for the dilution.	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatograms and quantitation reports were performed by the reviewer.	None.

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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-329;  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1041  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9681  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

WH-Pasadena/Boeing  
 500 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04  
 Received: 08/21/04

## DRAFT: VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water) - cont.									
Reporting Units: ug/l									
GRO (C4 - C12)	EPA 8015 Mod.	4H30005	500	1000	1500	10	08/30/04	08/30/04	Rev Qual / Final Code
Surrogate: 4-BFB (FID) (60-135%)					90 %				
Sample ID: INH1290-02 (DRAFT: Trip Blank - Water)									
Reporting Units: ug/l									
GRO (C4 - C12)	EPA 8015 Mod.	4H30005	50	100	ND	1	08/30/04	08/30/04	u
Surrogate: 4-BFB (FID) (60-135%)					94 %				

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LEVEL V

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303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Semivolatiles by EPA Method 625  
QC Level: V<sup>1</sup>  
SDG: INH1290  
Matrix: Water  
No. of Samples: 1  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: October 3, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by both the field and laboratory personnel. No sample receipt information was recorded on the COC; however, a laboratory sample receipt checklist noted that the sample containers were received intact and that custody seals were not present on the cooler. The cooler temperature was recorded at 6°C, within the temperature limits of 4 ±2°C.</p> <p>According to the extraction and analysis dates on the sample result form, the sample was extracted within seven days of sample collection and analyzed within 40 days of extraction.</p>	No qualifications were required.
4. <u>Method Blanks</u>	One water method blank were extracted and analyzed with this SDG. NDMA and naphthalene were not reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One water LCS/LCSD pair was extracted and analyzed with this SDG. The recoveries and RPDs for target compounds NDMA and naphthalene were within the laboratory QC limits.	No qualifications were required.

	Findings	Qualifications
6. <u>Surrogates</u>	The surrogate recoveries were within the laboratory QC limits.	No qualifications were required.
7. <u>MS/MSDs</u>	There were no MS/MSD analyses associated with this SDG. Evaluation of method accuracy and precision was based on the blank spike/blank spike duplicate results.	No qualifications were required.
8. <u>Field QC Samples</u> ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	No qualifications were required.
9. <u>Other</u>	The water sample results were adjusted for sample volume.  TICs were not reported by the laboratory for this SDG.	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None

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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-324  
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-104  
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-964  
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-084  
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-362

dena/Boeing  
ake Avenue, Suite 1200  
A 91101  
Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04  
Received: 08/21/04

## DRAFT: ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
INH1290-01 (DRAFT: Outfall 012 - Water)									
ng Units: ug/l									
	EPA 625	4H24040	4.5	10	73	0.971	08/24/04	08/31/04	Rev Qual Run to u
	EPA 625	4H24040	3.7	20	ND	0.971	08/24/04	08/31/04	
					62 %				
					68 %				
					101 %				
					83 %				
					78 %				
					118 %				

# LEVEL V

REPORT  
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The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



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303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M  
QC Level: V<sup>1</sup>  
SDG: INH1290  
Matrix: Water  
No. of Samples: 1  
Dilutions/Reanalyses: 0  
Date Reviewed: October 3, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.</p> <p>According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.</p>	No qualifications were required.
3. <u>Method Blanks</u>	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was <25%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.

	Findings	Qualifications
6. <u>MS/MSDs</u> None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. <u>Field QC Samples</u>  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. <u>Other</u>	The laboratory analyzed for n-alkane range C13-C22.  The sample was analyzed at a 4× dilution in order to report target compound EFH (C13-C22) within linear range of the calibration. The sample result and reporting limit were appropriately adjusted for the dilution.	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None.

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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-324  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-104  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-964  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-081  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-362

TWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
 Report Number: INH1290

Sampled: 08/21/04  
 Received: 08/21/04

## DRAFT: ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: ug/l									
Naphthalene	EPA 625	4H24040	4.5	10	73	0.971	08/24/04	08/31/04	
N-Nitrosodimethylamine	EPA 625	4H24040	3.7	20	ND	0.971	08/24/04	08/31/04	
Surrogate: 2-Fluorophenol (35-120%)					62 %				
Surrogate: Phenol-d6 (45-120%)					68 %				
Surrogate: 2,4,6-Tribromophenol (50-125%)					101 %				
Surrogate: Nitrobenzene-d5 (45-120%)					83 %				
Surrogate: 2-Fluorobiphenyl (45-120%)					78 %				
Surrogate: Terphenyl-d14 (45-135%)					118 %				

Handwritten notes: "Qual" and "Rm" with a vertical line and a checkmark.

**LEVEL V**

DRAFT REPORT  
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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1044  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9681  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0857  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3627

IWH-Pasadena/Boeing  
 500 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04  
 Received: 08/21/04

**DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD.	4H31009	0.32	2.0	ND	1	08/31/04	08/31/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD.	4H31009	0.32	5.0	ND	1	08/31/04	08/31/04	↓
1,2,3-Trichloropropane	EPA 624 MOD.	4H31009	0.85	10	ND	1	08/31/04	08/31/04	↓
Di-isopropyl Ether (DIPE)	EPA 624 MOD.	4H31009	0.25	5.0	ND	1	08/31/04	08/31/04	↓
tert-Butanol (TBA)	EPA 624 MOD.	4H31009	3.1	25	ND	1	08/31/04	08/31/04	↓
Surrogate: Dibromofluoromethane (80-120%)					98 %				
Surrogate: Toluene-d8 (80-120%)					103 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					103 %				
<b>Sample ID: INH1290-02 (DRAFT: Trip Blank - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD.	4I03020	0.32	2.0	ND	1	09/03/04	09/03/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD.	4I03020	0.32	5.0	ND	1	09/03/04	09/03/04	↓
1,2,3-Trichloropropane	EPA 624 MOD.	4I03020	0.85	10	ND	1	09/03/04	09/03/04	↓
Di-isopropyl Ether (DIPE)	EPA 624 MOD.	4I03020	0.25	5.0	ND	1	09/03/04	09/03/04	↓
Butanol (TBA)	EPA 624 MOD.	4I03020	3.1	25	ND	1	09/03/04	09/03/04	↓
Surrogate: Dibromofluoromethane (80-120%)					99 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					95 %				

AMEC VALIDATED  
**LEVEL V**

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE

	Findings	Qualifications
5. <u>LCS/BS</u>	All recoveries were within the laboratory-established control limits. The LCS is not applicable to total settleable solids or pH.  No LCS for turbidity was listed; however, the reviewer checked the raw data to confirm that a calibration check sample had been analyzed.	No qualifications were required.
6. <u>Duplicates</u> None	None	Not applicable
7. <u>MS/MSDs</u> None	None	Not applicable
10. <u>Other</u>	Oil and grease reported below the reporting limit was qualified by the laboratory as "J."	Oil and grease was qualified as estimated, "J."
11. <u>Field QC Samples</u> None	None	Not applicable
<u>Comments</u>	None	None.

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303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: General Minerals  
QC Level: V<sup>1</sup>  
SDG: INH1290  
Matrix: Water  
No. of Samples: 1  
Date Reviewed: September 30, 2004  
Reviewer: P. Meeks  
Reference: USEPA *Contract Laboratory Program National Functional Guidelines For Inorganic Data Review (2/94)*, EPA Methods 150.1, 160.2, 160.5, 180.1, 350.2, 405.1, 413.1, 418.1, and SM2540C  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The sample was received within the temperature limits of 4°±2°C. The COC accounted for the sample and analyses presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28-day analytical holding time for ammonia, total recoverable hydrocarbons, and oil and grease, the seven-day holding time for total suspended solids and total dissolved solids, the 48-hour holding time for biological oxygen demand, turbidity, and total settleable solids, and the 24-hour holding time for pH were met.	No qualifications were required.
3. <u>Method Blanks</u>	No detects were reported in any of the method blanks. The method blank is not applicable to total settleable solids or pH.	No qualifications were required.



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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3292  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1044  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9685  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3620

WH-Pasadena/Boeing  
 100 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04  
 Received: 08/21/04

## DRAFT: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: mg/l									
Total Recoverable Hydrocarbons	EPA 418.1	4H25069	0.31	1.0	12	1	08/25/04	08/25/04	Ray Peral Peral

REC VALID

LEVEL V

DRAFT REPORT  
 DRAFT REPORT  
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TWH-Pasadena/Boeing  
 500 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04  
 Received: 08/21/04

**DRAFT: INORGANICS**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water) - cont.									
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4H30095	0.30	0.50	0.84	1	08/30/04	08/30/04	
Biochemical Oxygen Demand	EPA 405.1	4H21041	0.59	2.0	6.0	1	08/21/04	08/26/04	
Oil & Grease	EPA 413.1	4H24051	0.94	5.0	2.1	1	08/24/04	08/24/04	J J
Total Dissolved Solids	SM2540C	4H24094	10	10	400	1	08/24/04	08/24/04	
Total Suspended Solids	EPA 160.2	4H23056	10	10	24	1	08/23/04	08/23/04	
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	4H21059	0.10	0.10	ND	1	08/21/04	08/21/04	U
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: NTU									
Turbidity	EPA 180.1	4H21051	0.20	1.0	38	1	08/21/04	08/21/04	
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: pH Units									
	EPA 150.1	4H21049	N/A	NA	7.96	1	08/21/04	08/21/04	
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4H23025	0.80	4.0	ND	1	08/23/04	08/24/04	*

\* Analysis not validated

AMEC VALIDATED

LEVEL V

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026  
303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Perchlorate by 314.0  
QC Level: V<sup>1</sup>  
SDG: INH1290  
Matrix: Water  
No. of Samples: 1  
Date Reviewed: September 30, 2004  
Reviewer: P. Meeks  
Reference: USEPA Contract Laboratory Program National Functional Guidelines For  
*Inorganic Data Review (2/94)*  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The sample was received within the temperature limits of 4°±2°C. The COC accounted for the sample and analysis presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28-day perchlorate analytical holding time was met.	No qualifications were required.
3. <u>Method Blanks</u>	Perchlorate was not detected in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	The recovery was within the laboratory-established control limits of 85-115%.	No qualifications were required.
6. <u>Duplicates</u> None	None	Not applicable
7. <u>MS/MSDs</u> None	None	Not applicable
10. <u>Other</u>	None	Not applicable
11. <u>Field QC Samples</u> None	None	Not applicable
<u>Comments</u>	A cursory review of the perchlorate chromatograms was performed and no false negative was noted.	Not applicable

<sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-329  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-104  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-968  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-085  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-362

TWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
 Report Number: INH1290

Sampled: 08/21/04  
 Received: 08/21/04

## DRAFT: INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water) - cont. Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4H30095	0.30	0.50	0.84	1	08/30/04	08/30/04	* J
Biochemical Oxygen Demand	EPA 405.1	4H21041	0.59	2.0	6.0	1	08/21/04	08/26/04	
Oil & Grease	EPA 413.1	4H24051	0.94	5.0	2.1	1	08/24/04	08/24/04	
Total Dissolved Solids	SM2540C	4H24094	10	10	400	1	08/24/04	08/24/04	
Total Suspended Solids	EPA 160.2	4H23056	10	10	24	1	08/23/04	08/23/04	
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water) Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	4H21059	0.10	0.10	ND	1	08/21/04	08/21/04	
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water) Reporting Units: NTU									
Turbidity	EPA 180.1	4H21051	0.20	1.0	38	1	08/21/04	08/21/04	
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water) Reporting Units: pH Units									
	EPA 150.1	4H21049	N/A	NA	7.96	1	08/21/04	08/21/04	
Sample ID: INH1290-01 (DRAFT: Outfall 012 - Water) Reporting Units: ug/l									
Perchlorate	EPA 314.0	4H23025	0.80	4.0	ND	1	08/23/04	08/24/04	U

\* Analysis not validated

ALL VALIDATED

LEVEL V

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80226  
303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: 1,4-Dioxane by Method 8260B SIM  
QC Level: V<sup>1</sup>  
SDG: INI0174  
Matrix: Water  
No. of Samples: 1  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: November 2, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The 1,4-dioxane analysis was subcontracted to Del Mar Analytical in Phoenix. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. According to the case narrative for this SDG, the sample was received intact, and the cooler temperature was above the temperature limits of <math>4 \pm 2^{\circ}\text{C}</math>, at <math>9^{\circ}\text{C}</math> at Del Mar Analytical; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The cooler was received within the temperature limits at Del Mar in Phoenix. There was no information regarding the custody seals on the cooler.</p> <p>The sample was analyzed within 14 days of sample collection.</p>	No qualifications were required.
4. <u>Method Blanks</u>	One method blank was analyzed with this SDG. 1,4-Dioxane was not reported in the method blank.	No qualifications were required.

	Findings	Qualifications
5. <u>LCS/BS</u>	One blank spike/ blank spike duplicate pair was analyzed with this SDG. The recoveries and RPD for 1,4-dioxane were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	The surrogate was recovered within the laboratory QC limits.	No qualifications were required.
7. <u>MS/MSDs</u>	There were no MS/MSD analyses associated with this SDG.	None.
8. <u>Field QC Samples</u>  TB: None ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	None.
9. <u>Other</u>	No TICs were reported by the laboratory for this SDG.	None.
<u>Comments</u>	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-32  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-

Del Mar Analytical - Irvine  
 17461 Derian Ave. Suite 100  
 Irvine, CA 92614  
 Attention: Michele Harper

Project ID: INI0174

Report Number: PNI0133

Sampled: 09/02/04  
 Received: 09/04/04

## 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PNI0133-01 (INI0174-01 - Water)									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4I0706	0.49	1.0	1.6	1	09/07/04	09/07/04	Per Qml / Qual
Surrogate: Dibromofluoromethane (80-135%)					102 %				

# LEVEL V

Del Mar Analytical - Phoenix  
 Tonda Waugh For Ken Baker  
 Project Manager

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Volatiles by Method 624  
QC Level: V<sup>1</sup>  
SDG: INI0174  
Matrix: Water  
No. of Samples: 2  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: November 3, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012, Trip Blank

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by both field and laboratory personnel. According to the case narrative for this SDG, the samples were received intact. The cooler temperature was above the temperature limits of 4°C ±2°C, at 9°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. There was no information regarding custody seals on the cooler.</p> <p>The samples were analyzed within 14 days of sample collection.</p>	No qualifications were required.
4. <u>Method Blanks</u>	One method blank was analyzed with this SDG. There were no target compounds reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike was analyzed with this SDG. The recoveries for all target compounds were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	Surrogate recoveries for both sample analyses were within the laboratory QC limits.	No qualifications were required.

	Findings	Qualifications
7. <u>MS/MSDs</u>	There were no MS/MSD analyses associated with this SDG.	None.
8. <u>Field QC Samples</u>  TB: Trip Blank ER: None FB: None FD: None	There were no target compounds reported in the trip blank.	None.
9. <u>Other</u>	No TICs were reported by the laboratory for the samples in this SDG.	None.
<u>Comments</u>	None	None.

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1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 260-329  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-968  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-085  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-362

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0174

Sampled: 09/02/04  
 Received: 09/02/04

## DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/02/04				
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I13030	0.32	2.0	ND	1	09/13/04	09/14/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I13030	0.32	5.0	ND	1	09/13/04	09/14/04	u
1,2,3-Trichloropropane	EPA 624 MOD	4I13030	0.85	10	ND	1	09/13/04	09/14/04	u
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I13030	0.25	5.0	ND	1	09/13/04	09/14/04	u
tert-Butanol (TBA)	EPA 624 MOD	4I13030	3.1	25	ND	1	09/13/04	09/14/04	u
Surrogate: Dibromofluoromethane (80-120%)					84 %				
Surrogate: Toluene-d8 (80-120%)					104 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					98 %				
Sample ID: INI0174-02 (DRAFT: Trip Blank - Water)					Sampled: 09/02/04				
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I13017	0.32	2.0	ND	1	09/13/04	09/13/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I13017	0.32	5.0	ND	1	09/13/04	09/13/04	u
1,2,3-Trichloropropane	EPA 624 MOD	4I13017	0.85	10	ND	1	09/13/04	09/13/04	u
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I13017	0.25	5.0	ND	1	09/13/04	09/13/04	u
tert-Butanol (TBA)	EPA 624 MOD	4I13017	3.1	25	ND	1	09/13/04	09/13/04	u
Surrogate: Dibromofluoromethane (80-120%)					106 %				
Surrogate: Toluene-d8 (80-120%)					100 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					94 %				

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# LEVEL V

DRAFT REPORT  
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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Semivolatiles by EPA Method 625  
QC Level: V<sup>1</sup>  
SDG: INI0174  
Matrix: Water  
No. of Samples: 1  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: November 3, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The semivolatiles were subcontracted to Star Analytical. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. No sample receipt information was recorded on the COC; however, the transfer COC noted that the sample containers were received intact and that custody seals were present on the cooler. The cooler temperature was above the temperature limits of <math>4 \pm 2^{\circ}\text{C}</math>, at <math>9^{\circ}\text{C}</math> at Del Mar Analytical; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The cooler was received within the temperature limits at Star Analytical.</p> <p>According to the extraction and analysis dates on the sample result form, the sample was extracted within seven days of sample collection and analyzed within 40 days of extraction.</p>	No qualifications were required.
4. <u>Method Blanks</u>	One water method blank was extracted and analyzed with this SDG. NDMA and naphthalene were not reported in the method blank.	No qualifications were required.

	Findings	Qualifications
5. <u>LCS/BS</u>	One water LCS/LCSD pair was extracted and analyzed with this SDG. The recoveries and RPDs for target compounds NDMA and naphthalene were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	Two of the three acid surrogate recoveries were below QC limits; however, only the base neutral (BN) surrogates are evaluated for these target compounds. The BN surrogate recoveries were within the laboratory QC limits.	No qualifications were required.
7. <u>MS/MSDs</u>	There were no MS/MSD analyses associated with this SDG. Evaluation of method accuracy and precision was based on the blank spike/blank spike duplicate results.	No qualifications were required.
8. <u>Field QC Samples</u> ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	No qualifications were required.
9. <u>Other</u>	TICs were not reported by the laboratory for this SDG.	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-32-  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-10-  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-96-  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-08-  
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MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0174

Sampled: 09/02/04  
 Received: 09/02/04

## DRAFT: Semivolatile Organic Compounds by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water) - cont.					Sampled: 09/02/04					Rev DWA
Reporting Units: ug/L										
Naphthalene	EPA 625	V4I0802	1.31	10.0	37.8	1	09/07/04	09/16/04	u	
N-Nitrosodimethylamine	EPA 625	V4I0802	1.37	20.0	ND	1	09/07/04	09/16/04	u	
Surrogate: 2-FP (40.8-88.4%)					36.2 %				S-04	
Surrogate: Phenol-d6 (31.7-86.6%)					35.7 %					
Surrogate: 2,4,6-TBP (58-109%)					50.0 %				S-04	
Surrogate: Nitrobenzene-d5 (47.1-99.2%)					79.6 %					
Surrogate: 2-FBP (44.7-89.6%)					74.2 %					
Surrogate: p-Terphenyl-d14 (45.7-117%)					91.7 %					

# LEVEL V

AFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M  
QC Level: V<sup>1</sup>  
SDG: INI0174  
Matrix: Water  
No. of Samples: 1  
Dilutions/Reanalyses: 0  
Date Reviewed: November 2, 2004  
Reviewer: M. Pokorny  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012 (INI0174-01)

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature above the limits of <math>4^{\circ}\text{C} \pm 2^{\circ}\text{C}</math> at <math>9^{\circ}\text{C}</math>; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. No custody seal information was provided by the laboratory.</p> <p>According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.</p>	No qualifications were required.
3. <u>Method Blanks</u>	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was $\leq 25\%$ .	No qualifications were required.

	Findings	Qualifications
5. <u>Surrogates</u>	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.
6. <u>MS/MSDs</u> None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. <u>Field QC Samples</u>  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. <u>Other</u>	The laboratory analyzed for n-alkane range C13-C22.	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatograms and quantitation reports was performed by the reviewer.	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-0222 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
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WH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0174

Sampled: 09/02/04  
 Received: 09/02/04

## DRAFT: EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	Reason Code		
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water) - cont.					Sampled: 09/02/04						REV	
Reporting Units: mg/l												
EFH (C13 - C22)	EPA 8015B	4I03069	0.082	0.50	2.2	0.952	09/03/04	09/10/04	QUAL			
Surrogate: n-Octacosane (45-125%)					73 %							

**AMEC VALIDATED**

**LEVEL V**

DRAFT REPORT  
 PRELIMINARY REPORT  
 SUBJECT TO CHANGE

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303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Volatile Fuel Hydrocarbons by GC/EPA Method 8015M  
QC Level: V<sup>1</sup>  
SDG: INI0174  
Matrix: Water  
No. of Samples: 2  
Dilutions/Reanalyses: 0  
Date Reviewed: November 2, 2004  
Reviewer: M. Pokorny  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012 (INI0174-01), Trip Blank (INI0174-02)

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the samples were received intact, with a cooler temperature above the limits of 4°C ± 2°C at 9°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. No custody seal information was provided by the laboratory.</p> <p>According to the sample result summary forms, the samples were analyzed within 14 days of collection.</p>	No qualifications were required.
3. <u>Method Blanks</u>	One water method blank was analyzed with this SDG. Target compound GRO (C4-C12) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike was analyzed with this SDG. The recovery of GRO (C4-C12) were within the laboratory QC limits of 70-135%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recoveries for the samples were within the laboratory established QC limits of 60-135%.	No qualifications were required.



	Findings	Qualifications
6. <u>MS/MSDs</u> None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. <u>Field QC Samples</u>  TB: Trip Blank FB: None ER: None Field Duplicates: None	Target compound GRO (C4-C12) was not reported in the trip blank.	No qualifications were required.
8. <u>Other</u>	The laboratory analyzed for gasoline range organics (C4-C12).  Sample Outfall 012 was reanalyzed and reported at a 2X dilution. A notation on the raw data indicated the dilution was performed for "post QC purposes only".	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatograms and quantitation reports was performed by the reviewer.	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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WH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0174

Sampled: 09/02/04  
 Received: 09/02/04

## DRAFT: VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifier	QUAL	COD		
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water) - cont.					Sampled: 09/02/04							REV	
Reporting Units: mg/l													
GRO (C4 - C12)	EPA 8015 Mod.	4I10008	0.10	0.20	0.70	2	09/10/04	09/10/04	J	*			
Surrogate: 4-BFB (FID) (60-135%)					94 %								
Sample ID: INI0174-02 (DRAFT: Trip Blank - Water)					Sampled: 09/02/04								
Reporting Units: mg/l													
GRO (C4 - C12)	EPA 8015 Mod.	4I10008	0.050	0.10	ND	1	09/10/04	09/10/04	U				
Surrogate: 4-BFB (FID) (60-135%)					82 %								

*Raw  
 MC 11-11-04*

**AMEC VALIDATED**

**LEVEL V**

DRAFT REPORT  
 FINAL REPORT  
 DATA SUBJECT TO CHANGE

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: General Minerals  
QC Level: V<sup>1</sup>  
SDG: INI0174  
Matrix: Water  
No. of Samples: 1  
Date Reviewed: November 3, 2004  
Reviewer: A. Lang  
Reference: USEPA Contract Laboratory Program National Functional Guidelines For  
*Inorganic Data Review (2/94)*  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The sample was received outside the temperature limits of $4^{\circ}\pm 2^{\circ}\text{C}$ , at $9^{\circ}\text{C}$ ; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The COC matched the sample and accounted for the analyses presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The analytical holding times were met for all analyses.	No qualifications were required.
3. <u>Method Blanks</u>	There were no detects in the method blanks.	No qualifications were required.
5. <u>LCS/BS</u>	The recoveries were within the laboratory-established control limits.	No qualifications were required.
6. <u>Duplicates</u>	A duplicate was performed for TDS only. The RPD was within the laboratory-established control limits.	No qualifications were required.
7. <u>MS/MSDs</u>	None	None
10. <u>Other</u>	Oil and Grease reported below the reporting limit was qualified as estimated, "J," by the laboratory.	None

	Findings	Qualifications
11. <u>Field QC Samples</u>	None	None
<u>Comments</u>	None	None.

<sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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WH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0174

Sampled: 09/02/04  
 Received: 09/02/04

## DRAFT: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/02/04				
Reporting Units: mg/l									
Total Recoverable Hydrocarbons	EPA 418.1	4103070	0.31	1.0	10	1	09/03/04	09/03/04	

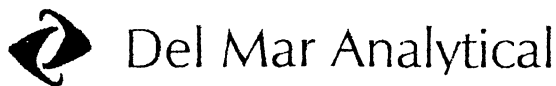
*Handwritten signature: Bronwyn Kelly*  
*Handwritten initials: B.K.*

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**LEVEL V**

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE

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WH-Pasadena/Boeing  
 500 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
 Report Number: INI0174

Sampled: 09/02/04  
 Received: 09/02/04

**DRAFT: INORGANICS**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/02/04				
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4I07084	0.30	0.50	ND	1	09/07/04	09/07/04	u
Biochemical Oxygen Demand	EPA 405.1	4I03065	0.59	2.0	2.7	1	09/03/04	09/08/04	u
Oil & Grease	EPA 413.1	4I07068	0.94	5.0	4.8	1	09/07/04	09/07/04	J
Total Dissolved Solids	SM2540C	4I09084	10	10	340	1	09/08/04	09/08/04	J
Total Suspended Solids	EPA 160.2	4I03068	10	10	14	1	09/03/04	09/03/04	
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/02/04				
Reporting Units: ml/l/hr									
Total Settleable Solids	EPA 160.5	4I03067	0.10	0.10	ND	1	09/03/04	09/03/04	u
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/02/04				
Reporting Units: NTU									
Turbidity	EPA 180.1	4I03095	0.20	1.0	29	1	09/03/04	09/03/04	
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/02/04				
Reporting Units: pH Units									
pH	EPA 150.1	4I03066	N/A	NA	8.28	1	09/03/04	09/03/04	
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/02/04				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4I08050	0.80	4.0	ND	1	09/08/04	09/08/04	* u

*See sheet  
Data Code*

*\* Analysis not validated*

**AMEC VALIDATED**

**LEVEL V**

*11/2/04*

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE

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DATA VALIDATION



PEER REVIEW

AMEC Pkg ID#: T711WC14		
Analysis: perchlorate	Reviewer: A. Lang	Rev Date: November 5, 2004
SDG#: INI0174	2nd Rev:	2nd Rev Date:
Matrix: Water	Tech edit:	Tech edit Date:
Rev Type: transcription	Synectics Approval:	Approval Date:
QC Level: Level V	Data Entry: <i>[Signature]</i>	Entry Date: <i>11/8/04</i>
# Samples: 1	Verification: <i>[Signature]</i>	Ver Date: <i>11/8/04</i>
# RE/DL:	Ship:	Ship Date:

Check List Items:

Writeup:

- Qualifications in text match Synectics/Form Is
- Spell check
- Pagination, appropriate headers/footers
- Correct project site name/manager on cover and introduction pages

Form Is:

- "U" / "J" lab codes carried over/present in Synectics
- Appropriate qual codes used
- Form I/Synectics IDs match sample ID table

Other:

- "AMEC Validated" Stamp on Form Is
- QC Level Stamp on Form Is, Level \_\_\_\_
- Contract Compliance Screen

Required Edits/Changes:

*Rev 1 / section 1 text*

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## DATA ASSESSMENT FORM

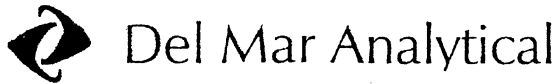
Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Perchlorate by 314.0  
QC Level: V<sup>1</sup>  
SDG: INI0174  
Matrix: Water  
No. of Samples: 1  
Date Reviewed: November 3, 2004  
Reviewer: A. Lang  
Reference: USEPA Contract Laboratory Program National Functional Guidelines For  
*Inorganic Data Review (2/94)*  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The sample was received outside the temperature limits of 4°±2°C, at 9°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The COC accounted for the sample and analysis presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28-day perchlorate analytical holding time was met.	No qualifications were required.
3. <u>Method Blanks</u>	Perchlorate was not detected in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	The recovery was within the laboratory-established control limits of 85-115%.	No qualifications were required.
6. <u>Duplicates</u> None	None	Not applicable
7. <u>MS/MSDs</u> None	None	Not applicable
10. <u>Other</u>	None	Not applicable
11. <u>Field QC Samples</u> None	None	Not applicable
<u>Comments</u>	A cursory review of the perchlorate chromatograms was performed and no false negative was noted.	Not applicable

<sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.





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WH-Pasadena/Boeing  
 500 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0174

Sampled: 09/02/04  
 Received: 09/02/04

**DRAFT: INORGANICS**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	Signature	
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/02/04						
Reporting Units: mg/l											
Ammonia-N (Distilled)	EPA 350.2	4I07084	0.30	0.50	ND	1	09/07/04	09/07/04		* ↓ ✓ u	
Biochemical Oxygen Demand	EPA 405.1	4I03065	0.59	2.0	2.7	1	09/03/04	09/08/04			
Oil & Grease	EPA 413.1	4I07068	0.94	5.0	4.8	1	09/07/04	09/07/04	J		
Total Dissolved Solids	SM2540C	4I09084	10	10	340	1	09/08/04	09/08/04			
Total Suspended Solids	EPA 160.2	4I03068	10	10	14	1	09/03/04	09/03/04			
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/02/04						
Reporting Units: ml/l/hr											
Total Settleable Solids	EPA 160.5	4I03067	0.10	0.10	ND	1	09/03/04	09/03/04			
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/02/04						
Reporting Units: NTU											
Turbidity	EPA 180.1	4I03095	0.20	1.0	29	1	09/03/04	09/03/04			
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/02/04						
Reporting Units: pH Units											
pH	EPA 150.1	4I03066	N/A	NA	8.28	1	09/03/04	09/03/04			
Sample ID: INI0174-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/02/04						
Reporting Units: ug/l											
Perchlorate	EPA 314.0	4I08050	0.80	4.0	ND	1	09/08/04	09/08/04			

\* Analysis not validated

**LEVEL V**

**AMEC VALIDATED**

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: 1,4-Dioxane by Method 8260B SIM  
QC Level: V<sup>1</sup>  
SDG: INI0560  
Matrix: Water  
No. of Samples: 1  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: November 2, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The 1,4-dioxane analysis was subcontracted to Del Mar Analytical in Phoenix. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. According to the case narrative for this SDG, the sample was received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding the custody seals on the cooler.</p> <p>The sample was analyzed within 14 days of sample collection.</p>	
4. <u>Method Blanks</u>	One method blank was analyzed with this SDG. 1,4-Dioxane was not reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike/ blank spike duplicate pair was analyzed with this SDG. The recoveries and RPD for 1,4-dioxane were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	The surrogate was recovered within the laboratory QC limits.	No qualifications were required.

	Findings	Qualifications
7. <u>MS/MSDs</u>	There were no MS/MSD analyses associated with this SDG.	None.
8. <u>Field QC Samples</u>  TB: None ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	None.
9. <u>Other</u>	No TICs were reported by the laboratory for this SDG.	None.
<u>Comments</u>	None	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Del Mar Analytical - Irvine 461 Derian Ave. Suite 100 Irvine, CA 92614 Attention: Michele Harper	Project ID: INI0560  Report Number: PNI0352	Sampled: 09/09/04 Received: 09/14/04
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## 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PNI0352-01 (INI0560-01 - Water)									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P411414	0.49	1.0	ND	1	09/14/04	09/14/04	U
Surrogate: Dibromofluoromethane (80-135%)					127%				

Per Qual  
PNA  
LX

# LEVEL V

Del Mar Analytical - Phoenix  
 J. Baker  
 Project Manager

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Volatiles by Method 624  
QC Level: V<sup>1</sup>  
SDG: INI0560  
Matrix: Water  
No. of Samples: 2  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: November 3, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012, Trip Blank

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by both field and laboratory personnel. According to the case narrative for this SDG, the samples were received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding custody seals on the cooler.</p> <p>The samples were analyzed within 14 days of sample collection.</p>	No qualifications were required.
4. <u>Method Blanks</u>	One method blank was analyzed with this SDG. There were no target compounds reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike was analyzed with this SDG. The recoveries for all target compounds were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	Surrogate recoveries for both sample analyses were within the laboratory QC limits.	No qualifications were required.
7. <u>MS/MSDs</u>	There were no MS/MSD analyses associated with this SDG.	None.

	Findings	Qualifications
8. <u>Field QC Samples</u> TB: Trip Blank ER: None FB: None FD: None	There were no target compounds reported in the trip blank.	None.
9. <u>Other</u>	No TICs were reported by the laboratory for the samples in this SDG.	None.
<u>Comments</u>	None	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

**DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/09/04				
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I17021	0.32	2.0	ND	1	09/17/04	09/17/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I17021	0.32	5.0	ND	1	09/17/04	09/17/04	u
1,2,3-Trichloropropane	EPA 624 MOD	4I17021	0.85	10	ND	1	09/17/04	09/17/04	u
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I17021	0.25	5.0	ND	1	09/17/04	09/17/04	u
tert-Butanol (TBA)	EPA 624 MOD	4I17021	3.1	25	ND	1	09/17/04	09/17/04	u
Surrogate: Dibromofluoromethane (80-120%)					94 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					98 %				
Sample ID: INI0560-02 (DRAFT: Trip Blank - Water)					Sampled: 09/09/04				
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I17021	0.32	2.0	ND	1	09/17/04	09/17/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I17021	0.32	5.0	ND	1	09/17/04	09/17/04	u
1,2,3-Trichloropropane	EPA 624 MOD	4I17021	0.85	10	ND	1	09/17/04	09/17/04	u
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I17021	0.25	5.0	ND	1	09/17/04	09/17/04	u
tert-Butanol (TBA)	EPA 624 MOD	4I17021	3.1	25	ND	1	09/17/04	09/17/04	u
Surrogate: Dibromofluoromethane (80-120%)					104 %				
Surrogate: Toluene-d8 (80-120%)					102 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					104 %				

UNVALIDATED

**LEVEL V**

1 FT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE



# DATA VALIDATION REPORT

## NPDES Monitoring

ANALYSIS: SEMIVOLATILES

SAMPLE DELIVERY GROUP: INI0560

Prepared by

AMEC—Denver Operations  
550 South Wadsworth Boulevard, Suite 500  
Lakewood, Colorado 80226



## 1. INTRODUCTION

Task Order Title: NPDES Monitoring  
Contract Task Order #: 313150010  
Sample Delivery Group #: INI0560  
Project Manager: B. McIlvaine  
Matrix: Water  
Analysis: Semivolatiles  
QC Level: Level IV  
No. of Samples: 1  
Reanalyses/Dilutions: 0  
Reviewer: K. Shadowlight  
Date of Review: November 02, 2004

The samples listed in Table 1 were validated based on the guidelines outlined in *the AMEC Data Validation Procedure for Levels C and D Semivolatile Organics (DVP-3, Rev. 2)*, *EPA Method 1625C*, and *the National Functional Guidelines For Organic Data Review (2/94)*. Any deviations from these procedures and guidelines are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the Form I as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

**Table 1. Sample identification**

Client ID	North Creek Analytical ID	Del Mar ID	Matrix	COC Method
Outfall 012	B4I0406-01	INI0560-01	water	625

## 2. DATA VALIDATION FINDINGS

### 2.1 SAMPLE MANAGEMENT

Following are findings associated with sample management:

#### 2.1.1 Sample Preservation, Handling, and Transport

The sample in this SDG was received at Del Mar Analytical Laboratory within the temperature limits of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . The semivolatile analysis was subcontracted to North Creek Analytical and the transfer COC noted that the sample was received within the temperature limits of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . The sample containers were received intact and in good condition. No qualifications were required.

#### 2.1.2 Chain of Custody

The COC from the field to Del Mar Laboratory was signed by both field and laboratory personnel and the transfer COC from Del Mar Analytical to North Creek Analytical was signed by personnel from both laboratories. The COC did not indicate whether custody seals were present and intact on the cooler upon receipt at either of the laboratories. No qualifications were required.

#### 2.1.3 Holding Times

The sample was extracted within the holding time of seven days from the date of collection and analyzed within 40 days of extraction. No qualifications were required.

### 2.2 GC/MS TUNING

The DFTPP tunes met the criteria specified in Method 625, and the sample was analyzed within 12 hours of the DFTPP injection time. No qualifications were required.

### 2.3 CALIBRATION

The initial calibration associated with this SDG was analyzed 09/22/04, and the continuing calibration associated with the sample analysis was analyzed 09/24/04. The average RRFs in the initial calibration were  $\geq 0.05$  for target compounds n-nitrosodimethylamine (NDMA) and naphthalene, and the %RSDs were within the method QC limit of  $\leq 35\%$ . The RRFs in the continuing calibration were  $\geq 0.05$ , and the %Ds were within the method QC limit of  $\leq 20\%$  for both target compounds. A representative number of %RSDs for the initial calibration and %Ds for the continuing calibration were checked from the raw data, and no calculation or transcription errors were noted. No qualifications were required.

## 2.4 BLANKS

One method blank (4I16041-BLK) was extracted and analyzed with this SDG. There were no detects for naphthalene or NDMA in the method blank. Review of the method blank raw data revealed no false negatives. No qualifications were required.

## 2.5 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

One LCS/LCSD (4I16041-BS1/BS1) was extracted and analyzed with the samples of this SDG. The recoveries for naphthalene, the only spike compound, were within the control limits of 25-133% and the RPD was  $\leq 30\%$ . A representative number of recoveries were calculated from the raw data, and no transcription or calculation errors were noted. No qualifications were required.

## 2.6 SURROGATE RECOVERY

Surrogates phenol-d6 and p-terphenyl-d14 were recovered below 10% in sample Outfall 012; therefore, the detect for naphthalene was qualified as estimated, "J," and the nondetect for NDMA was rejected, "R," in the sample. Two additional acid surrogates were recovered below QC limits but  $\geq 10\%$ . The remaining sample surrogate recoveries were within the laboratory-established QC limits. A representative number of recoveries were calculated from the raw data, and no transcription or calculation errors were noted. No further qualifications were required.

## 2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MS/MSD analyses were not performed for this SDG. Evaluation of method accuracy and precision was based on the LCS/LCSD results. No qualifications were required.

## 2.8 FIELD QC SAMPLES

Following are findings associated with field QC:

### 2.8.1 Field Blanks and Equipment Rinsates

The sample in this SDG had no associated field blank or equipment rinsate samples. No evaluation of possible field contamination was performed. No qualifications were required.

### 2.8.2 Field Duplicates

There were no field duplicate pairs associated with this SDG. Qualifications are not routinely assigned based on field duplicate results.

## 2.9 INTERNAL STANDARDS

The internal standard area counts were within the method control limits established by the continuing calibration standards: -50%/+100% for internal standard areas and  $\pm 30$  seconds for retention times. A representative number of area recoveries were calculated from the raw data, and no transcription or calculation errors were noted. No qualifications were required.

## 2.10 COMPOUND IDENTIFICATION

The laboratory analyzed for target compounds naphthalene and NDMA by Method 625. Review of the raw data did not indicate any compound identification problems. No qualifications were required.

## 2.11 COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS

Compound quantitation was verified from the raw data; however, a calculation error was noted for the naphthalene detect in sample Outfall 012. The result for naphthalene was edited on the result summary by the reviewer to reflect the recalculated result. The reporting limits for naphthalene and NDMA were supported by the low level of the initial calibration and the method detection limit study (MDL). Results were reported in  $\mu\text{g/L}$  (ppb). The reviewer noted the laboratory did not adjust the reporting limits to reflect the sample volume extracted. Reporting limits were manually corrected by the reviewer. No further qualifications were required.



Spokane 11822 E. 1st Avenue, Spokane Valley, WA 99206-5302  
 509.924.8200 fax 509.924.8290  
 Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
 503.906.9200 fax 503.906.9210  
 Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588  
 Anchorage 2000 W. International Airport Road, Suite A10, Anchorage, AK 99502-1119  
 907.563.9200 fax 907.563.9210

Del Mar Analytical - Irvine Project: Michele Harper  
 17461 Derian Avenue, Suite 100 Project Number: INI0560  
 Irvine, CA/USA 92614-5817 Project Manager: Michele Harper Amended Report  
 Issued: 10/26/04 16:38

**Acid and Base/Neutral Extractables by EPA Method 625  
 North Creek Analytical - Bothell**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
INI0560-01 (B410406-01) Water Sampled: 09/09/04 13:55 Received: 09/16/04 09:15										
Naphthalene	18.4	15.7	0.941	ug/l	1	4116041	09/16/04	09/24/04	EPA 625	J
N-Nitrosodimethylamine	ND	1.56	19.0	"	"	"	"	"	"	R
Surrogate: 2-FBP	60.3 %		49-122							
Surrogate: 2-FP	13.7 %		20-111							
Surrogate: Nitrobenzene-d5	66.0 %		50-120							
Surrogate: Phenol-d6	0.0399 %		12-120							
Surrogate: p-Terphenyl-d14	3.68 %		10-138							
Surrogate: 2,4,6-TBP	12.9 %		22-131							

*Re 11/03/04*

North Creek Analytical - Bothell

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

*Sandra Yakamavich*

Sandra Yakamavich, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026  
303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M  
QC Level: V<sup>1</sup>  
SDG: INI0560  
Matrix: Water  
No. of Samples: 1  
Dilutions/Reanalyses: 0  
Date Reviewed: November 2, 2004  
Reviewer: M. Pokorny  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012 (INI0560-01)

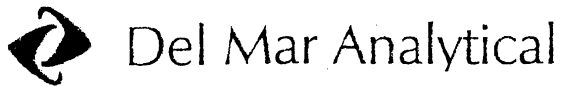
### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.</p> <p>According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.</p>	No qualifications were required.
3. <u>Method Blanks</u>	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was ≤25%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.

	Findings	Qualifications
6. <u>MS/MSDs</u> None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. <u>Field QC Samples</u>  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. <u>Other</u>	The laboratory analyzed for n-alkane range C13-C22.	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatograms and quantitation reports was performed by the reviewer.	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.





17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

AWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0560	Sampled: 09/09/04 Received: 09/09/04
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**DRAFT: EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Analyzed	Date Analyzed	Data Qualifiers	
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water) - cont.					Sampled: 09/09/04					REV QUAL
Reporting Units: mg/l										
EFH (C13 - C22)	EPA 8015B	4I13058	0.082	0.50	0.97	1.01	09/13/04	09/15/04	QUAL	
Surrogate: n-Octacosane (45-125%)					90 %					QUA1 CCD

**AMEC VALIDATED**

**LEVEL V**

DRAFT REPORT  
 AFT REPORT  
 DATA SUBJECT TO CHANGE



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303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Volatile Fuel Hydrocarbons by GC/EPA Method 8015M  
QC Level: V<sup>1</sup>  
SDG: INI0560  
Matrix: Water  
No. of Samples: 2  
Dilutions/Reanalyses: 0  
Date Reviewed: November 2, 2004  
Reviewer: M. Pokorny  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012 (INI0560-01), Trip Blank (INI0560-02)

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the samples were received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.</p> <p>According to the sample result summary forms, the samples were analyzed within 14 days of collection.</p>	No qualifications were required.
3. <u>Method Blanks</u>	One water method blank was analyzed with this SDG. Target compound GRO (C4-C12) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike was analyzed with this SDG. The recovery of GRO (C4-C12) was within the laboratory QC limits of 70-135%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recoveries for the samples were within the laboratory established QC limits of 60-135%.	No qualifications were required.
6. <u>MS/MSDs</u> None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.

	Findings	Qualifications
7. <u>Field QC Samples</u>  TB: Trip Blank FB: None ER: None Field Duplicates: None	Target compound GRO (C4-C12) was not reported in the trip blank.	No qualifications were required.
8. <u>Other</u>	The laboratory analyzed for gasoline range organics (C4-C12).	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatograms and quantitation reports was performed by the reviewer.	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

## DRAFT: VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers		
									REV	QUAL	
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water) - cont.					Sampled: 09/09/04					REV	QUAL
Reporting Units: mg/l											
GRO (C4 - C12)	EPA 8015 Mod.	4I16006	0.050	0.10	0.20	1	09/16/04	09/16/04			
Surrogate: 4-BFB (FID) (60-135%)					107 %						
Sample ID: INI0560-02 (DRAFT: Trip Blank - Water)					Sampled: 09/09/04						
Reporting Units: mg/l											
GRO (C4 - C12)	EPA 8015 Mod.	4I16006	0.050	0.10	ND	1	09/16/04	09/16/04	U		
Surrogate: 4-BFB (FID) (60-135%)					86 %						

**AMEC VALIDATED**

**LEVEL V**

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: General Minerals  
QC Level: V<sup>1</sup>  
SDG: INI0560  
Matrix: Water  
No. of Samples: 1  
Date Reviewed: November 3, 2004  
Reviewer: A. Lang  
Reference: USEPA Contract Laboratory Program National Functional Guidelines For  
*Inorganic Data Review (2/94)*  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The samples were received within the temperature limits of $4^{\circ}\pm 2^{\circ}\text{C}$ . The COC matched the sample and accounted for the analyses presented in this SDG. According to the case narrative for this SDG, the samples were received intact. There was no information regarding custody seals. The analytical holding times were met for all the analyses.	No qualifications were required.
3. <u>Method Blanks</u>	There were no detects in the method blanks.	No qualifications were required.
5. <u>LCS/BS</u>	The recoveries were within the laboratory-established control limits.	No qualifications were required.
6. <u>Duplicates</u>	None	None
7. <u>MS/MSDs</u>	None	None
10. <u>Other</u>	Biological oxygen demand reported below the reporting limit was qualified as estimated, "J," by the laboratory.	None
11. <u>Field QC Samples</u>	None	None

	Findings	Qualifications
<u>Comments</u>	None	None.

<sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

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 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
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1WH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

**DRAFT: INORGANICS**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/09/04				
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4I15091	0.30	0.50	ND	1	09/15/04	09/15/04	U
Biochemical Oxygen Demand	EPA 405.1	4I10075	0.59	2.0	1.6	1	09/10/04	09/15/04	J
Oil & Grease	EPA 413.1	4I15083	0.94	5.0	ND	1	09/15/04	09/15/04	U
Total Dissolved Solids	SM2540C	4I10097	10	10	330	1	09/10/04	09/10/04	
Total Suspended Solids	EPA 160.2	4I10076	10	10	20	1	09/10/04	09/10/04	
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/09/04				
Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	4I10077	0.10	0.10	ND	1	09/10/04	09/10/04	U
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/09/04				
Reporting Units: NTU									
Turbidity	EPA 180.1	4I10086	0.20	1.0	39	1	09/10/04	09/10/04	
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/09/04				
Reporting Units: pH Units									
pH	EPA 150.1	4I10047	N/A	NA	8.03	1	09/10/04	09/10/04	
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/09/04				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4I13037	0.80	4.0	ND	1	09/13/04	09/13/04	U*

Bronwyn Kelly

*\* Analysis not validated*

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**LEVEL V**

DRAFT REPORT  
 DRAFT REPORT  
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11/2/04



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 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
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AWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

## DRAFT: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/09/04				
Reporting Units: mg/l									
Total Recoverable Hydrocarbons	EPA 418.1	4I17090	0.31	1.0	1.4	1	09/17/04	09/17/04	

*Handwritten notes:*  
 Rev-2/04  
 Amend Code

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**LEVEL V**

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303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Perchlorate by 314.0  
QC Level: V<sup>1</sup>  
SDG: INI0560  
Matrix: Water  
No. of Samples: 1  
Date Reviewed: November 3, 2004  
Reviewer: A. Lang  
Reference: USEPA Contract Laboratory Program National Functional Guidelines For  
*Inorganic Data Review (2/94)*  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The sample was received within the temperature limits of 4°±2°C. The COC accounted for the sample and analysis presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28-day perchlorate analytical holding time was met.	No qualifications were required.
3. <u>Method Blanks</u>	Perchlorate was not detected in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	The recovery was within the laboratory-established control limits of 85-115%.	No qualifications were required.
6. <u>Duplicates</u> None	None	Not applicable
7. <u>MS/MSDs</u> None	None	Not applicable
10. <u>Other</u>	None	Not applicable
11. <u>Field QC Samples</u> None	None	Not applicable
<u>Comments</u>	A cursory review of the perchlorate chromatograms was performed and no false negative was noted.	Not applicable

<sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



# Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

IWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
 Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

## DRAFT: INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/09/04					
Reporting Units: mg/l										
Ammonia-N (Distilled)	EPA 350.2	4I15091	0.30	0.50	ND	1	09/15/04	09/15/04		
Biochemical Oxygen Demand	EPA 405.1	4I10075	0.59	2.0	1.6	1	09/10/04	09/15/04	J	
Oil & Grease	EPA 413.1	4I15083	0.94	5.0	ND	1	09/15/04	09/15/04		
Total Dissolved Solids	SM2540C	4I10097	10	10	330	1	09/10/04	09/10/04		
Total Suspended Solids	EPA 160.2	4I10076	10	10	20	1	09/10/04	09/10/04		
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/09/04					
Reporting Units: ml/hr										
Total Settleable Solids	EPA 160.5	4I10077	0.10	0.10	ND	1	09/10/04	09/10/04		
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/09/04					
Reporting Units: NTU										
Turbidity	EPA 180.1	4I10086	0.20	1.0	39	1	09/10/04	09/10/04		
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/09/04					
Reporting Units: pH Units										
pH	EPA 150.1	4I10047	N/A	NA	8.03	1	09/10/04	09/10/04		
Sample ID: INI0560-01 (DRAFT: Outfall 012 - Water)					Sampled: 09/09/04					
Reporting Units: ug/l										
Perchlorate	EPA 314.0	4I13037	0.80	4.0	ND	1	09/13/04	09/13/04	u	

*Handwritten notes:*  
 Qualifiers: J, u  
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### AMEC VALIDATED

### LEVEL V

*X analysis not validated*

DRAFT REPORT  
 INITIAL REPORT  
 DATA SUBJECT TO CHANGE



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80226  
303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: 1,4-Dioxane by Method 8260B SIM  
QC Level: V<sup>1</sup>  
SDG: INI0927  
Matrix: Water  
No. of Samples: 1  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: October 29, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The 1,4-dioxane analysis was subcontracted to Del Mar Analytical in Phoenix. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. According to the case narrative for this SDG, the sample was received intact and the cooler temperature was above the temperature limits of 4°C ±2°C at 18°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The samples were received within temperature limits at Phoenix. There was no information regarding the custody seals on the cooler.</p> <p>The sample was analyzed within 14 days of sample collection.</p>	No qualifications were required.
4. <u>Method Blanks</u>	One method blank was analyzed with this SDG. Target compound 1,4-dioxane was not reported in the method blank.	No qualifications were required.

	Findings	Qualifications
5. <u>LCS/BS</u>	One blank spike/ blank spike duplicate pair was analyzed with this SDG. The recoveries and RPD for 1,4-dioxane were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	The surrogate was recovered above the laboratory QC limits.	As 1,4-dioxane was not reported in the sample, no qualifications were required for the elevated recovery.
7. <u>MS/MSDs</u>	There were no MS/MSD analyses associated with this SDG.	None.
8. <u>Field QC Samples</u>  TB: None ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	None.
9. <u>Other</u>	No TICs were reported by the laboratory for this SDG.	None.
<u>Comments</u>	None	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-32  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-10  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-9596 FAX (858) 505-96  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-3043 FAX (480) 785-06  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-30

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
 Received: 09/15/04

**DRAFT: 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water) - cont.									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4I2316	0.49	1.0	ND	1	09/23/04	09/23/04	<div style="display: flex; justify-content: space-between;"> <span>Qual</span> <span>Qua</span> </div> <div style="display: flex; justify-content: space-between;"> <span>u</span> <span>LA</span> </div> <div style="display: flex; justify-content: space-between;"> <span>z</span> <span>z</span> </div>
Surrogate: Dibromofluoromethane (80-135%)					156 %				

*Raw 1  
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RESULTS VALIDATED  
**LEVEL V**

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80226  
303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Volatiles by Method 624  
QC Level: V<sup>1</sup>  
SDG: INI0927  
Matrix: Water  
No. of Samples: 2  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: October 29, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012, Trip Blank

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by both field and laboratory personnel. According to the case narrative for this SDG, the samples were received intact and the cooler temperature was above the temperature limits of 4°C ±2°C at 18°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. There was no information regarding the custody seals on the cooler.</p> <p>The samples were analyzed within 14 days of sample collection.</p>	No qualifications were required.
4. <u>Method Blanks</u>	One method blank was analyzed with this SDG. There were no target compounds reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike was analyzed with this SDG. The recoveries for all target compounds were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	Surrogate recoveries for both sample analyses were within the laboratory QC limits.	No qualifications were required.

	Findings	Qualifications
7. <u>MS/MSDs</u>	There were no MS/MSD analyses associated with this SDG.	None.
8. <u>Field QC Samples</u>  TB: Trip Blank ER: None FB: None FD: None	There were no target compounds reported in the trip blank.	None.
9. <u>Other</u>	No TICs were reported by the laboratory for the samples in this SDG.	None.
<u>Comments</u>	None	None.

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# Del Mar Analytical

1/461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-321  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1010  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-3596 FAX (858) 505-9661  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0808  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3620

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
 Received: 09/15/04

## DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I24024	0.32	2.0	ND	1	09/24/04	09/24/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I24024	0.32	5.0	ND	1	09/24/04	09/24/04	u
1,2,3-Trichloropropane	EPA 624 MOD	4I24024	0.85	10	ND	1	09/24/04	09/24/04	u
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I24024	0.25	5.0	ND	1	09/24/04	09/24/04	u
tert-Butanol (TBA)	EPA 624 MOD	4I24024	3.1	25	ND	1	09/24/04	09/24/04	u
Surrogate: Dibromofluoromethane (80-120%)					115 %				
Surrogate: Toluene-d8 (80-120%)					107 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					105 %				
<b>Sample ID: INI0927-02 (DRAFT: Trip Blank - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I24024	0.32	2.0	ND	1	09/24/04	09/24/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I24024	0.32	5.0	ND	1	09/24/04	09/24/04	u
1,2,3-Trichloropropane	EPA 624 MOD	4I24024	0.85	10	ND	1	09/24/04	09/24/04	u
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I24024	0.25	5.0	ND	1	09/24/04	09/24/04	u
tert-Butanol (TBA)	EPA 624 MOD	4I24024	3.1	25	ND	1	09/24/04	09/24/04	u
Surrogate: Dibromofluoromethane (80-120%)					108 %				
Surrogate: Toluene-d8 (80-120%)					107 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					102 %				

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LEVEL V

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE





550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026  
303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Semivolatiles by EPA Method 625  
QC Level: V<sup>1</sup>  
SDG: INI0927  
Matrix: Water  
No. of Samples: 1  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: October 29, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The semivolatiles were subcontracted to Star Analytical. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. No sample receipt information was recorded on the COC; however, the transfer COC noted that the sample containers were received intact and that custody seals were not present on the cooler. The cooler temperature was above the temperature limits of <math>4 \pm 2^{\circ}\text{C}</math>, at <math>18^{\circ}\text{C}</math> at Del Mar Analytical; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The samples were received within the temperature limits at Star Analytical.</p> <p>According to the extraction and analysis dates on the sample result form, the sample was extracted within seven days of sample collection and analyzed within 40 days of extraction.</p>	No qualifications were required.
4. <u>Method Blanks</u>	One water method blank was extracted and analyzed with this SDG. NDMA and naphthalene were not reported in the method blank.	No qualifications were required.

	Findings	Qualifications
5. <u>LCS/BS</u>	One water LCS/LCSD pair was extracted and analyzed with this SDG. The recoveries and RPDs for target compounds NDMA and naphthalene were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	The surrogate recoveries were within the laboratory QC limits.	No qualifications were required.
7. <u>MS/MSDs</u>	There were no MS/MSD analyses associated with this SDG. Evaluation of method accuracy and precision was based on the blank spike/blank spike duplicate results.	No qualifications were required.
8. <u>Field QC Samples</u> ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	No qualifications were required.
9. <u>Other</u>	TICs were not reported by the laboratory for this SDG.	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None

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MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
Received: 09/15/04

**DRAFT: Semivolatile Organic Compounds by EPA Method 625**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water) - cont.									
Reporting Units: ug/L									
Naphthalene	EPA 625	V4I2115	1.31	10.0	32.3	1	09/21/04	09/23/04	u
N-Nitrosodimethylamine	EPA 625	V4I2115	1.37	20.0	ND	1	09/21/04	09/23/04	u
Surrogate: 2-FP (40.8-88.4%)					51.5 %				
Surrogate: Phenol-d6 (31.7-86.6%)					41.8 %				
Surrogate: 2,4,6-TBP (58-109%)					81.0 %				
Surrogate: Nitrobenzene-d5 (47.1-99.2%)					68.7 %				
Surrogate: 2-FBP (44.7-89.6%)					67.3 %				
Surrogate: p-Terphenyl-d14 (45.7-117%)					82.9 %				

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**LEVEL V**

DRAFT REPORT  
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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M  
QC Level: V<sup>1</sup>  
SDG: INI0927  
Matrix: Water  
No. of Samples: 1  
Dilutions/Reanalyses: 0  
Date Reviewed: October 29, 2004  
Reviewer: M. Pokorny  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012 (INI0927-01)

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature above the limits of 4°C ± 2°C at 18°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. No custody seal information was provided by the laboratory.</p> <p>According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.</p>	No qualifications were required.
3. <u>Method Blanks</u>	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was <25%.	No qualifications were required.

	Findings	Qualifications
5. <u>Surrogates</u>	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.
6. <u>MS/MSDs</u> None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. <u>Field QC Samples</u>  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. <u>Other</u>	The laboratory analyzed for n-alkane range C13-C22.	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatograms and quantitation reports were performed by the reviewer.	None.

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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-3596 FAX (858) 505-9689  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

4WH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
 Received: 09/15/04

## DRAFT: EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
									REV	QUAL
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water) - cont.										
Reporting Units: mg/l										
EFH (C13 - C22)	EPA 8015B	4I19040	0.082	0.50	1.2	0.962	09/19/04	09/24/04		
Surrogate: n-Octacosane (45-125%)					87 %					

# LEVEL V

## AMEC VALIDATED

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Volatile Fuel Hydrocarbons by GC/EPA Method 8015M  
QC Level: V<sup>1</sup>  
SDG: INI0927  
Matrix: Water  
No. of Samples: 2  
Dilutions/Reanalyses: 0  
Date Reviewed: October 29, 2004  
Reviewer: M. Pokorny  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012 (INI0927-01), Trip Blank

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the samples were received intact, with a cooler temperature above the limits of 4°C ± 2°C at 18°C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. No custody seal information was provided by the laboratory.</p> <p>According to the sample result summary forms, the samples were analyzed within 14 days of collection.</p>	No qualifications were required.
3. <u>Method Blanks</u>	Two water method blanks were analyzed with this SDG. Target compound GRO (C4-C12) was not reported in the method blanks.	No qualifications were required.
4. <u>LCS/BS</u>	Two water blank spikes were analyzed with this SDG. The recoveries of GRO (C4-C12) were within the laboratory QC limits of 70-135%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the samples were within the laboratory established QC limits of 60-135%.	No qualifications were required.

	Findings	Qualifications
6. <u>MS/MSDs</u> None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. <u>Field QC Samples</u>  TB: Trip Blank FB: None ER: None Field Duplicates: None	Target compound GRO (C4-C12) was not reported in the trip blank.	No qualifications were required.
8. <u>Other</u>	The laboratory analyzed for gasoline range organics (C4-C12).	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatograms and quantitation reports were performed by the reviewer.	None.

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 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

WH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
 Report Number: INI0927

Sampled: 09/15/04  
 Received: 09/15/04

## DRAFT: VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
									REV QUAL	QUA COD
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water) - cont. Reporting Units: mg/l										
GRO (C4 - C12)	EPA 8015 Mod.	4I28034	0.050	0.10	0.90 90 %	1	09/28/04	09/28/04	J	X
Surrogate: 4-BFB (FID) (60-135%)										
Sample ID: INI0927-02 (DRAFT: Trip Blank - Water) Reporting Units: mg/l										
GRO (C4 - C12)	EPA 8015 Mod.	4I27006	0.050	0.10	ND 84 %	1	09/27/04	09/27/04	U	
Surrogate: 4-BFB (FID) (60-135%)										

*Rev 1  
 JAC 11-11-04*

# LEVEL V

## AMEC VALIDATED

DRAFT REPORT  
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550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026  
303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: General Minerals  
QC Level: V<sup>1</sup>  
SDG: INI0927  
Matrix: Water  
No. of Samples: 1  
Date Reviewed: November 3, 2004  
Reviewer: A. Lang  
Reference: USEPA Contract Laboratory Program National Functional Guidelines For  
*Inorganic Data Review (2/94)*  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The sample was received outside the temperature limits of $4^{\circ}\pm 2^{\circ}\text{C}$ , at $18^{\circ}\text{C}$ ; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The COC matched the sample and accounted for the analyses presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The analytical holding times were met for all analyses.	No qualifications were required.
3. <u>Method Blanks</u>	There were no detects in the method blanks.	No qualifications were required.
5. <u>LCS/BS</u>	The recoveries were within the laboratory-established control limits.	No qualifications were required
6. <u>Duplicates</u>	A duplicate was performed for turbidity only. The RPD was within the laboratory-established control limits.	No qualifications were required.
7. <u>MS/MSDs</u>	None	None
10. <u>Other</u>	Biological oxygen demand reported below the reporting limit was qualified as estimated, "J," by the laboratory.	None

	Findings	Qualifications
11. <u>Field QC Samples</u>	None	None
<u>Comments</u>	None	None.

<sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

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AWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
 Received: 09/15/04

**DRAFT: INORGANICS**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4I23096	0.30	0.50	ND	1	09/23/04	09/23/04	u
Biochemical Oxygen Demand	EPA 405.1	4I16100	0.012	0.040	2.5	1	09/16/04	09/21/04	
Oil & Grease	EPA 413.1	4I20075	0.94	5.0	1.8	1	09/20/04	09/20/04	J J
Total Dissolved Solids	SM2540C	4I17133	10	10	310	1	09/17/04	09/17/04	
Total Suspended Solids	EPA 160.2	4I16102	10	10	17	1	09/16/04	09/16/04	
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: ml/l/hr									
Total Settleable Solids	EPA 160.5	4I16097	0.10	0.10	ND	1	09/16/04	09/16/04	u
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: NTU									
Turbidity	EPA 180.1	4I16095	0.20	1.0	35	1	09/16/04	09/16/04	
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: pH Units									
pH	EPA 150.1	4I16049	N/A	NA	7.99	1	09/16/04	09/16/04	
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4I16047	0.80	4.0	ND	1	09/16/04	09/16/04	*

Spec. Sheet  
 A. J. J.

**AMEC VALIDATED**

**LEVEL V**

\* analysis not validated

DRAFT REPORT  
 AFT REPORT  
 DATA SUBJECT TO CHANGE

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IWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
 Received: 09/15/04

## DRAFT: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Analyzed	Date Data	Qualifiers
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: mg/l									
Total Recoverable Hydrocarbons	EPA 418.1	4117090	0.31	1.0	5.9	1	09/17/04	09/17/04	

*Handwritten:* Alfa Outfall  
 A. H. Ingle

**AMEC VALIDATED**

**LEVEL V**

DRAFT REPORT  
 NOT FOR REPORT  
 DATA SUBJECT TO CHANGE



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026  
303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Perchlorate by 314.0  
QC Level: V<sup>1</sup>  
SDG: INI0927  
Matrix: Water  
No. of Samples: 1  
Date Reviewed: November 3, 2004  
Reviewer: A. Lang  
Reference: USEPA Contract Laboratory Program National Functional Guidelines For  
*Inorganic Data Review (2/94)*  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The sample was received outside the temperature limits of 4°±2°C, at 18 °C; however, the samples were transported directly to the laboratory from the field, and had not completely cooled in transit. The COC accounted for the sample and analysis presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28-day perchlorate analytical holding time was met.	No qualifications were required.
3. <u>Method Blanks</u>	Perchlorate was not detected in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	The recovery was within the laboratory-established control limits of 85-115%.	No qualifications were required.
6. <u>Duplicates</u> None	None	Not applicable
7. <u>MS/MSDs</u> Outfall 012	The recoveries were within the laboratory-established control limits of 80-120%.	No qualifications were required.
10. <u>Other</u>	None	Not applicable
11. <u>Field QC Samples</u> None	None	Not applicable
<u>Comments</u>	A cursory review of the perchlorate chromatograms was performed and no false negative was noted.	Not applicable

<sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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IWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
 Received: 09/15/04

**DRAFT: INORGANICS**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4I23096	0.30	0.50	ND	1	09/23/04	09/23/04	
Biochemical Oxygen Demand	EPA 405.1	4I16100	0.012	0.040	2.5	1	09/16/04	09/21/04	
Oil & Grease	EPA 413.1	4I20075	0.94	5.0	1.8	1	09/20/04	09/20/04	J
Total Dissolved Solids	SM2540C	4I17133	10	10	310	1	09/17/04	09/17/04	
Total Suspended Solids	EPA 160.2	4I16102	10	10	17	1	09/16/04	09/16/04	
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	4I16097	0.10	0.10	ND	1	09/16/04	09/16/04	
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: NTU									
Turbidity	EPA 180.1	4I16095	0.20	1.0	35	1	09/16/04	09/16/04	
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: pH Units									
pH	EPA 150.1	4I16049	N/A	NA	7.99	1	09/16/04	09/16/04	
Sample ID: INI0927-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4I16047	0.80	4.0	ND	1	09/16/04	09/16/04	

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**AMEC VALIDATED**

**LEVEL V**

*Analysis not Validated*

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: 1,4-Dioxane by Method 8260B SIM  
QC Level: V<sup>1</sup>  
SDG: INI1518  
Matrix: Water  
No. of Samples: 1  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: October 29, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The 1,4-dioxane analysis was subcontracted to Del Mar Analytical in Phoenix. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. According to the case narrative for this SDG, the sample was received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding the custody seals on the cooler.</p> <p>The sample was analyzed within 14 days of sample collection.</p>	No qualifications were required.
4. <u>Method Blanks</u>	One method blank was analyzed with this SDG. Target compounds 1,4-dioxane was not reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike/ blank spike duplicate pair was analyzed with this SDG. The recoveries and RPD for 1,4-dioxane were within the laboratory QC limits.	No qualifications were required.



	Findings	Qualifications
6. <u>Surrogates</u>	The surrogate recovery for the sample analysis was within the laboratory QC limits.	No qualifications were required.
7. <u>MS/MSDs</u>	There were no MS/MSD analyses associated with this SDG.	None.
8. <u>Field QC Samples</u>  TB: None ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	None.
9. <u>Other</u>	No TICs were reported by the laboratory for this SDG.	None.
<u>Comments</u>	None	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
 Report Number: INI1518

Sampled: 09/24/04  
 Received: 09/24/04

**DRAFT: 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water) - cont.									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4I2801	0.49	1.0	ND	1	09/28/04	09/28/04	11
Surrogate: Dibromofluoromethane (80-135%)					104 %				

Key Qual | Qual code

UNVALIDATED  
**LEVEL V**

**RAFT REPORT**  
**DRAFT REPORT**  
 DATA SUBJECT TO CHANGE

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Volatiles by Method 624  
QC Level: V<sup>1</sup>  
SDG: INI1518  
Matrix: Water  
No. of Samples: 2  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: October 29, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012, Trip Blank

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by both field and laboratory personnel. According to the case narrative for this SDG, the samples were received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding the custody seals on the coolers.</p> <p>The samples were analyzed within 14 days of sample collection.</p>	No qualifications were required.
4. <u>Method Blanks</u>	One method blank was analyzed with this SDG. There were no target compounds reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike was analyzed with this SDG. The recoveries for all target compounds were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	Surrogate recoveries for both sample analyses were within the laboratory QC limits.	No qualifications were required.
7. <u>MS/MSDs</u>	There were no MS/MSD analyses associated with this SDG.	None.

	Findings	Qualifications
8. <u>Field QC Samples</u>  TB: Trip Blank ER: None FB: None FD: None	There were no target compounds reported in the trip blank.	None.
9. <u>Other</u>	No TICs were reported by the laboratory for the samples in this SDG.	None.
<u>Comments</u>	None	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



FWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1518

Sampled: 09/24/04  
 Received: 09/24/04

**DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J03010	0.32	2.0	ND	1	10/03/04	10/03/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J03010	0.32	5.0	ND	1	10/03/04	10/03/04	↓
1,2,3-Trichloropropane	EPA 624 MOD	4J03010	0.85	10	ND	1	10/03/04	10/03/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J03010	0.25	5.0	ND	1	10/03/04	10/03/04	
tert-Butanol (TBA)	EPA 624 MOD	4J03010	3.1	25	ND	1	10/03/04	10/03/04	
Surrogate: Dibromofluoromethane (80-120%)					97%				
Surrogate: Toluene-d8 (80-120%)					99%				
Surrogate: 4-Bromofluorobenzene (80-120%)					102%				
<b>Sample ID: INI1518-02 (DRAFT: TRIP BLANK - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J03010	0.32	2.0	ND	1	10/03/04	10/03/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J03010	0.32	5.0	ND	1	10/03/04	10/03/04	↓
1,2,3-Trichloropropane	EPA 624 MOD	4J03010	0.85	10	ND	1	10/03/04	10/03/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J03010	0.25	5.0	ND	1	10/03/04	10/03/04	
t-Butanol (TBA)	EPA 624 MOD	4J03010	3.1	25	ND	1	10/03/04	10/03/04	
Surrogate: Dibromofluoromethane (80-120%)					98%				
Surrogate: Toluene-d8 (80-120%)					98%				
Surrogate: 4-Bromofluorobenzene (80-120%)					109%				

**LEVEL V**

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE



# DATA VALIDATION REPORT

## NPDES Monitoring

ANALYSIS: SEMIVOLATILES

SAMPLE DELIVERY GROUP: INI1518

Prepared by

AMEC—Denver Operations  
550 South Wadsworth Boulevard, Suite 500  
Lakewood, Colorado 80226

## 1. INTRODUCTION

Task Order Title: NPDES Monitoring  
Contract Task Order #: 313150010  
Sample Delivery Group #: INI1518  
Project Manager: B. McIlvaine  
Matrix: Water  
Analysis: Semivolatiles  
QC Level: Level IV  
No. of Samples: 1  
Reanalyses/Dilutions: 0  
Reviewer: K. Shadowlight  
Date of Review: November 02, 2004

The samples listed in Table 1 were validated based on the guidelines outlined in *the AMEC Data Validation Procedure for Levels C and D Semivolatile Organics (DVP-3, Rev. 2)*, *EPA Method 1625C*, and the *National Functional Guidelines For Organic Data Review (2/94)*. Any deviations from these procedures and guidelines are documented herein. Qualifiers were applied in cases where the data did not meet the required QC criteria or where special consideration by the data user is required. Data qualifiers were placed on Form Is with the associated qualification codes. Analytes that were rejected for any reason are denoted on the Form I as having only the "R" data qualifier and associated qualification code(s) denoting the reason for rejection. Any additional problems with the data that may have resulted in an estimated value were not denoted by a qualification code since the data had already been rejected.

**Table 1. Sample identification**

Client ID	Star Analytical ID	Del Mar ID	Matrix	COC Method
Outfall 012	V409273-01	INI1518-01	water	625



## 2. DATA VALIDATION FINDINGS

### 2.1 SAMPLE MANAGEMENT

Following are findings associated with sample management:

#### 2.1.1 Sample Preservation, Handling, and Transport

The sample in this SDG was received at Del Mar Analytical Laboratory within the temperature limits of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . The semivolatile analysis was subcontracted to Star Analytical and the transfer COC noted that the sample was received within the temperature limits of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . The sample containers were received intact and in good condition. No qualifications were required.

#### 2.1.2 Chain of Custody

The COC from the field to Del Mar Laboratory was signed by both field and laboratory personnel and the transfer COC from Del Mar Analytical to Star Analytical was signed by personnel from both laboratories. The COC did not indicate whether custody seals were present and intact on the cooler upon receipt at either of the laboratories. No qualifications were required.

#### 2.1.3 Holding Times

The sample was extracted within the holding time of seven days from the date of collection and analyzed within 40 days of extraction. No qualifications were required.

### 2.2 GC/MS TUNING

The DFTPP tunes met the criteria specified in Method 625, and the samples were analyzed within 12 hours of the DFTPP injection time. No qualifications were required.

### 2.3 CALIBRATION

The initial calibration associated with this SDG was analyzed 10/05/04, and the continuing calibration associated with all sample analysis was analyzed 10/06/04. The average RRFs in the initial calibration were  $\geq 0.05$  for target compounds n-nitrosodimethylamine (NDMA) and naphthalene, and the %RSDs were within the method QC limit of  $\leq 35\%$ . The RRFs in the continuing calibration were  $\geq 0.05$ , and the %Ds were within the method QC limit of  $\leq 20\%$  for both target compounds. A representative number of %RSDs for the initial calibration and %Ds for the continuing calibration were checked from the raw data, and no calculation or transcription errors were noted. No qualifications were required.

## 2.4 BLANKS

One method blank (V4J0501-BLK1) was extracted and analyzed with this SDG. There were no detects for naphthalene or NDMA in the method blank. Review of the method blank raw data revealed no false negatives. No qualifications were required.

## 2.5 BLANK SPIKES AND LABORATORY CONTROL SAMPLES

One LCS/LCSD (V4J0501-BS1/BS1) was extracted and analyzed with the samples of this SDG. The recoveries and RPDs for naphthalene and NDMA were within the laboratory QC limits. A representative number of recoveries were calculated from the raw data, and no transcription or calculation errors were noted. No qualifications were required.

## 2.6 SURROGATE RECOVERY

The sample surrogate recoveries were within the laboratory-established QC limits. A representative number of recoveries were calculated from the raw data, and no transcription or calculation errors were noted. No qualifications were required.

## 2.7 MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MS/MSD analyses were not performed for this SDG. Evaluation of method accuracy and precision was based on the LCS/LCSD results. No qualifications were required.

## 2.8 FIELD QC SAMPLES

Following are findings associated with field QC:

### 2.8.1 Field Blanks and Equipment Rinsates

The sample in this SDG had no associated field blank or equipment rinsate samples. No qualifications were required.

### 2.8.2 Field Duplicates

There were no field duplicate pairs associated with this SDG; however, the laboratory performed a duplicate analysis of sample Outfall 012 and the calculated RPD naphthalene was within the QC limits of  $\leq 30\%$ . Qualifications are not routinely assigned based on field duplicate results.

## 2.9 INTERNAL STANDARDS

The internal standard area counts were within the control limits established by the continuing calibration standards: +100/-50% for internal standard areas and  $\pm 30$  seconds for retention times. A representative number of area recoveries were calculated from the raw data, and no transcription or calculation errors were noted. No qualifications were required.

## 2.10 COMPOUND IDENTIFICATION

The laboratory analyzed for target compounds naphthalene and NDMA by Method 625. Review of the raw data did not indicate any compound identification problems. No qualifications were required.

## 2.11 COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS

Compound quantitation was verified from the raw data, and no calculation errors were noted. The reporting limits for naphthalene and NDMA were supported by the low level of the initial calibration and the method detection limit study (MDL). Results were reported in  $\mu\text{g/L}$  (ppb). No qualifications were required.



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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-329  
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MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1518

Sampled: 09/24/04  
 Received: 09/24/04

## DRAFT: Semivolatile Organic Compounds by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water) - cont.									
Reporting Units: ug/L									
Naphthalene	EPA 625	V4J0501	1.31	10.0	20.9	1	09/30/04	10/06/04	u
N-Nitrosodimethylamine	EPA 625	V4J0501	1.37	20.0	ND	1	09/30/04	10/06/04	u
Surrogate: 2-FP (40.8-88.4%)					46.8 %				
Surrogate: Phenol-d6 (31.7-86.6%)					39.6 %				
Surrogate: 2,4,6-TBP (58-109%)					87.5 %				
Surrogate: Nitrobenzene-d5 (47.1-99.2%)					58.0 %				
Surrogate: 2-FBP (44.7-89.6%)					51.4 %				
Surrogate: p-Terphenyl-d14 (45.7-117%)					74.9 %				

ANALYSIS VALIDATED  
 LEVEL IV

**DRAFT REPORT**  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE



550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026  
303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M  
QC Level: V<sup>1</sup>  
SDG: INI1518  
Matrix: Water  
No. of Samples: 1  
Dilutions/Reanalyses: 0  
Date Reviewed: November 2, 2004  
Reviewer: M. Pokorny  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012 (INI1518-01)

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.</p> <p>According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.</p>	No qualifications were required.
3. <u>Method Blanks</u>	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was ≤25%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.

	Findings	Qualifications
6. <u>MS/MSDs</u> None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. <u>Field QC Samples</u>  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. <u>Other</u>	The laboratory analyzed for n-alkane range C13-C22.	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatograms and quantitation reports was performed by the reviewer.	None.

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<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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TWH-Pasadena/Boeing  
 500 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: IN11518

Sampled: 09/24/04  
 Received: 09/24/04

## DRAFT: EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IN11518-01 (DRAFT: Outfall 012 - Water) - cont.										
Reporting Units: mg/l										
EFH (C13 - C22)	EPA 8015B	4I28066	0.082	0.50	1.0	0.962	09/28/04	09/30/04	RD QUAL	
Surrogate: n-Octacosane (45-125%)					91 %					QUA COO

**AMEC VALIDATED**

**LEVEL V**

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 AFT REPORT  
 DATA SUBJECT TO CHANGE

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Volatile Fuel Hydrocarbons by GC/EPA Method 8015M  
QC Level: V<sup>1</sup>  
SDG: INI1518  
Matrix: Water  
No. of Samples: 2  
Dilutions/Reanalyses: 0  
Date Reviewed: November 2, 2004  
Reviewer: M. Pokorny  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012 (INI1518-01), Trip Blank (INI1518-02)

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the samples were received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.</p> <p>According to the sample result summary forms, the samples were analyzed within 14 days of collection.</p>	No qualifications were required.
3. <u>Method Blanks</u>	Two water method blanks were analyzed with this SDG. Target compound GRO (C4-C12) was not reported in the method blanks.	No qualifications were required.
4. <u>LCS/BS</u>	Two water blank spikes were analyzed with this SDG. The recoveries of GRO (C4-C12) were within the laboratory QC limits of 70-135%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the samples were within the laboratory established QC limits of 60-135%.	No qualifications were required.
6. <u>MS/MSDs</u> None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.



	Findings	Qualifications
7. <u>Field QC Samples</u>  TB: Trip Blank FB: None ER: None Field Duplicates: None	Target compound GRO (C4-C12) was not reported in the trip blank.	No qualifications were required.
8. <u>Other</u>	The laboratory analyzed for gasoline range organics (C4-C12).	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatograms and quantitation reports was performed by the reviewer.	None.

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1WH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1518

Sampled: 09/24/04  
 Received: 09/24/04

## DRAFT: VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
									REV	QUAL
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water) - cont.										
Reporting Units: mg/l										
GRO (C4 - C12)	EPA 8015 Mod.	4J08013	0.050	0.10	0.28	1	10/08/04	10/08/04		
Surrogate: 4-BFB (FID) (60-135%)					92 %					
Sample ID: INI1518-02 (DRAFT: TRIP BLANK - Water)										
Reporting Units: mg/l										
GRO (C4 - C12)	EPA 8015 Mod.	4J04011	0.050	0.10	ND	1	10/04/04	10/04/04	U	
Surrogate: 4-BFB (FID) (60-135%)					97 %					

**AMEC VALIDATED**

**LEVEL V**

DRAFT REPORT  
 AFT REPORT  
 DATA SUBJECT TO CHANGE



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303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: General Minerals  
QC Level: V<sup>1</sup>  
SDG: INI1518  
Matrix: Water  
No. of Samples: 1  
Date Reviewed: November 3, 2004  
Reviewer: A. Lang  
Reference: USEPA Contract Laboratory Program National Functional Guidelines For  
*Inorganic Data Review (2/94)*  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The sample was received within the temperature limits of 4°±2°C. The COC matched the sample and accounted for the analyses presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The analytical holding times were met for all the analyses.	No qualifications were required.
3. <u>Method Blanks</u>	Oil & Grease was detected in the method blank at 1.10 µg/L, but it was not detected in the site sample. There were no detects in the remaining method blanks.	No qualifications were required.
5. <u>LCS/BS</u>	The recoveries were within the laboratory-established control limits.	No qualifications were required.
6. <u>Duplicates</u>	Duplicate analyses were performed for turbidity and pH only. The RPDs were within the laboratory-established control limits.	No qualifications were required.
7. <u>MS/MSDs</u>	A matrix spike was performed for ammonia only. The spike recovery was within the laboratory-established control limits.	No qualifications were required.
10. <u>Other</u>	None	None

	Findings	Qualifications
11. <u>Field QC Samples</u>	None	None
<u>Comments</u>	None	None.

<sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

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# Del Mar Analytical

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IWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1518

Sampled: 09/24/04  
 Received: 09/24/04

## DRAFT: INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4128067	0.30	0.50	ND	1	09/28/04	09/28/04	u
Biochemical Oxygen Demand	EPA 405.1	4124083	0.59	2.0	2.8	1	09/24/04	09/29/04	
Oil & Grease	EPA 413.1	4130073	0.94	5.0	ND	1	09/30/04	09/30/04	u
Total Dissolved Solids	SM2540C	4128091	10	10	330	1	09/28/04	09/28/04	
Total Suspended Solids	EPA 160.2	4127082	10	10	120	1	09/27/04	09/27/04	
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: ml/l/hr									
Total Settleable Solids	EPA 160.5	4124107	0.10	0.10	ND	1	09/24/04	09/24/04	u
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: NTU									
Turbidity	EPA 180.1	4125045	0.20	1.0	27	1	09/25/04	09/25/04	
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: pH Units									
pH	EPA 150.1	4125039	N/A	NA	8.09	1	09/25/04	09/25/04	
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4125033	0.80	4.0	ND	1	09/25/04	09/25/04	*

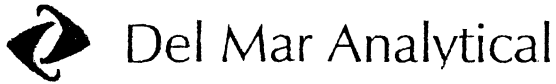
*Handwritten notes:*  
 Alfa Outfall  
 A. and B. code

*Handwritten note:* \* Analysis not validated

**AMEC VALIDATED**

**LEVEL V**

DRAFT REPORT  
 AFT REPORT  
 DATA SUBJECT TO CHANGE



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1WH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
 Report Number: INI1518

Sampled: 09/24/04  
 Received: 09/24/04

**DRAFT: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: mg/l									
Total Recoverable Hydrocarbons	EPA 418.1	4J01062	0.31	1.0	5.1	1	10/01/04	10/01/04	

*See End  
 Qual Code*

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**LEVEL V**

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE



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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Perchlorate by 314.0  
QC Level: V<sup>1</sup>  
SDG: INI1518  
Matrix: Water  
No. of Samples: 1  
Date Reviewed: November 3, 2004  
Reviewer: A. Lang  
Reference: USEPA Contract Laboratory Program National Functional Guidelines For  
*Inorganic Data Review (2/94)*  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The sample was received within the temperature limits of 4°±2°C. The COC accounted for the sample and analysis presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28-day perchlorate analytical holding time was met.	No qualifications were required.
3. <u>Method Blanks</u>	Perchlorate was not detected in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	The recovery was within the laboratory-established control limits of 85-115%.	No qualifications were required.
6. <u>Duplicates</u> None	None	Not applicable
7. <u>MS/MSDs</u> None	None	Not applicable
10. <u>Other</u>	None	Not applicable
11. <u>Field QC Samples</u> None	None	Not applicable
<u>Comments</u>	A cursory review of the perchlorate chromatograms was performed and no false negative was noted.	Not applicable

<sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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WH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1518

Sampled: 09/24/04  
 Received: 09/24/04

**DRAFT: INORGANICS**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4I28067	0.30	0.50	ND	1	09/28/04	09/28/04	
Biochemical Oxygen Demand	EPA 405.1	4I24083	0.59	2.0	2.8	1	09/24/04	09/29/04	
Oil & Grease	EPA 413.1	4I30073	0.94	5.0	ND	1	09/30/04	09/30/04	
Total Dissolved Solids	SM2540C	4I28091	10	10	330	1	09/28/04	09/28/04	
Total Suspended Solids	EPA 160.2	4I27082	10	10	120	1	09/27/04	09/27/04	
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	4I24107	0.10	0.10	ND	1	09/24/04	09/24/04	
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: NTU									
Turbidity	EPA 180.1	4I25045	0.20	1.0	27	1	09/25/04	09/25/04	
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: pH Units									
pH	EPA 150.1	4I25039	N/A	NA	8.09	1	09/25/04	09/25/04	
Sample ID: INI1518-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4I25033	0.80	4.0	ND	1	09/25/04	09/25/04	

*Low level*  
*Final table*



*X Analysis not validated*

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**LEVEL V**

DRAFT REPORT  
 INITIAL REPORT  
 DATA SUBJECT TO CHANGE

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: 1,4-Dioxane by Method 8260B SIM  
QC Level: V<sup>1</sup>  
SDG: INI1882  
Matrix: Water  
No. of Samples: 1  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: November 2, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The 1,4-dioxane analysis was subcontracted to Del Mar Analytical in Phoenix. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. According to the case narrative for this SDG, the sample was received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding the custody seals on the cooler.</p> <p>The sample was analyzed within 14 days of sample collection.</p>	
4. <u>Method Blanks</u>	One method blank was analyzed with this SDG. 1,4-Dioxane was not reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike/ blank spike duplicate pair was analyzed with this SDG. The recoveries and RPD for 1,4-dioxane were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	The surrogate was recovered within the laboratory QC limits.	No qualifications were required.

	Findings	Qualifications
7. <u>MS/MSDs</u>	There were no MS/MSD analyses associated with this SDG.	None.
8. <u>Field QC Samples</u>  TB: None ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	None.
9. <u>Other</u>	No TICs were reported by the laboratory for this SDG.	None.
<u>Comments</u>	None	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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Del Mar Analytical - Irvine  
 1461 Derian Ave. Suite 100  
 Irvine, CA 92614  
 Attention: Michele Harper

Project ID: INI1882

Report Number: PNJ0024

Sampled: 09/29/04

Received: 10/02/04

**1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PNJ0024-01 (INI1882-01 - Water)									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4J0202	N/A	1.0	ND	1	10/02/04	10/02/04	u
Surrogate: Dibromofluoromethane (80-135%)					105 %				

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 Pust  
 Pua  
 Gd

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LEVEL V

Del Mar Analytical - Phoenix  
 Ken Baker  
 Project Manager

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Volatiles by Method 624  
QC Level: V<sup>1</sup>  
SDG: INI1882  
Matrix: Water  
No. of Samples: 2  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: November 3, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012, Trip Blank

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by both field and laboratory personnel. According to the case narrative for this SDG, the samples were received intact and the cooler temperature was within the temperature limits of 4°C ±2°C. There was no information regarding custody seals on the cooler.</p> <p>The samples were analyzed within 14 days of sample collection.</p>	No qualifications were required.
4. <u>Method Blanks</u>	One method blank was analyzed with this SDG. There were no target compounds reported in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	One blank spike was analyzed with this SDG. The recoveries for all target compounds were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	Surrogate recoveries for both sample analyses were within the laboratory QC limits.	No qualifications were required.
7. <u>MS/MSDs</u>	There were no MS/MSD analyses associated with this SDG.	None.

	Findings	Qualifications
8. <u>Field QC Samples</u> TB: Trip Blank ER: None FB: None FD: None	There were no target compounds reported in the trip blank.	None.
9. <u>Other</u>	No TICs were reported by the laboratory for the samples in this SDG.	None.
<u>Comments</u>	None	None.

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1882

Sampled: 09/29/04  
 Received: 09/30/04

## DRAFT: VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J06029	0.32	2.0	ND	1	10/06/04	10/07/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J06029	0.32	5.0	ND	1	10/06/04	10/07/04	↓
1,2,3-Trichloropropane	EPA 624 MOD	4J06029	0.85	10	ND	1	10/06/04	10/07/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J06029	0.25	5.0	ND	1	10/06/04	10/07/04	
tert-Butanol (TBA)	EPA 624 MOD	4J06029	3.1	25	ND	1	10/06/04	10/07/04	
Surrogate: Dibromofluoromethane (80-120%)					108 %				
Surrogate: Toluene-d8 (80-120%)					102 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					105 %				
Sample ID: INI1882-02 (DRAFT: Trip Blank - Water)									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J06029	0.32	2.0	ND	1	10/06/04	10/07/04	u
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J06029	0.32	5.0	ND	1	10/06/04	10/07/04	↓
1,2,3-Trichloropropane	EPA 624 MOD	4J06029	0.85	10	ND	1	10/06/04	10/07/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J06029	0.25	5.0	ND	1	10/06/04	10/07/04	
tert-Butanol (TBA)	EPA 624 MOD	4J06029	3.1	25	ND	1	10/06/04	10/07/04	
Surrogate: Dibromofluoromethane (80-120%)					106 %				
Surrogate: Toluene-d8 (80-120%)					97 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					106 %				

LEVEL V

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550 South Wadsworth Boulevard, Suite 500, Lakewood, CO 80026  
303.935.6505, Fax 303.935.6575

## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Semivolatiles by EPA Method 625  
QC Level: V<sup>1</sup>  
SDG: INI1882  
Matrix: Water  
No. of Samples: 1  
No. of Reanalyses/Dilutions: 0  
Date Reviewed: November 3, 2004  
Reviewer: K. Shadowlight  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The semivolatiles were subcontracted to Star Analytical. The COC from the field was signed by both field and laboratory personnel and the transfer COC was signed by personnel from both laboratories. No sample receipt information was recorded on the COC; however, the transfer COC noted that the sample containers were received intact and that custody seals were not present on the cooler. The cooler temperature was within the temperature limits of <math>4 \pm 2^{\circ}\text{C}</math> at both laboratories.</p> <p>According to the extraction and analysis dates on the sample result form, the sample was extracted within seven days of sample collection and analyzed within 40 days of extraction.</p>	Due to the nonvolatile nature of the analytes, no qualifications were required.
4. <u>Method Blanks</u>	One water method blank was extracted and analyzed with this SDG. NDMA and naphthalene were not reported in the method blank.	No qualifications were required.

	Findings	Qualifications
5. <u>LCS/BS</u>	One water LCS/LCSD pair was extracted and analyzed with this SDG. The recoveries and RPDs for target compounds NDMA and naphthalene were within the laboratory QC limits.	No qualifications were required.
6. <u>Surrogates</u>	The surrogate recoveries were within the laboratory QC limits.	No qualifications were required.
7. <u>MS/MSDs</u>	A matrix spike was performed for sample Outfall 012. The recoveries were within the control limits of 70-130%.	No qualifications were required.
8. <u>Field QC Samples</u> ER: None FB: None FD: None	There were no field QC samples associated with this SDG.	No qualifications were required.
9. <u>Other</u>	TICs were not reported by the laboratory for this SDG.	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None

<sup>1</sup> Level V Validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.





MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1882

Sampled: 09/29/04  
 Received: 09/30/04

## DRAFT: Semivolatile Organic Compounds by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) - cont.									
Reporting Units: ug/L									
Naphthalene	EPA 625	V4J0615	1.31	10.0	28.4	1	10/06/04	10/07/04	u
N-Nitrosodimethylamine	EPA 625	V4J0615	1.37	20.0	ND	1	10/06/04	10/07/04	u
Surrogate: 2-FP (40.8-88.4%)					53.0 %				
Surrogate: Phenol-d6 (31.7-86.6%)					46.6 %				
Surrogate: 2,4,6-TBP (58-109%)					93.5 %				
Surrogate: Nitrobenzene-d5 (47.1-99.2%)					74.4 %				
Surrogate: 2-FBP (44.7-89.6%)					67.3 %				
Surrogate: p-Terphenyl-d14 (45.7-117%)					81.9 %				

Handwritten notes: "Qual" and "u" with a vertical line separating them.

LEVEL V

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Extractable Fuel Hydrocarbons by GC/EPA Method 8015M  
QC Level: V<sup>1</sup>  
SDG: INI1882  
Matrix: Water  
No. of Samples: 1  
Dilutions/Reanalyses: 0  
Date Reviewed: November 2, 2004  
Reviewer: M. Pokorny  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012 (INI1882-01)

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the sample was received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.</p> <p>According to the sample result summary form, the sample was extracted within seven days of collection, and analyzed within 40 days of extraction.</p>	No qualifications were required.
3. <u>Method Blanks</u>	One water method blank was extracted and analyzed with this SDG. Target compound EFH (C13-C22) was not reported in the method blank.	No qualifications were required.
4. <u>LCS/BS</u>	One water blank spike/blank spike duplicate pair was extracted and analyzed with this SDG. The laboratory reported only a total of the hydrocarbon ranges (from spiked diesel). The total recoveries were within the laboratory-established control limits of 40-125% and the RPD was ≤25%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the sample was within the laboratory established QC limits of 45-125%.	No qualifications were required.

	Findings	Qualifications
6. <u>MS/MSDs</u> None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.
7. <u>Field QC Samples</u>  FB: None ER: None Field Duplicates: None	None.	No qualifications were required.
8. <u>Other</u>	The laboratory analyzed for n-alkane range C13-C22.	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatogram and quantitation report was performed by the reviewer.	None.

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 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1882

Sampled: 09/29/04  
 Received: 09/30/04

## DRAFT: EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
									REV	QUAL CODE
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) - cont.										
Reporting Units: mg/l										
EFH (C13 - C22)	EPA 8015B	4J01040	0.082	0.50	1.1	0.971	10/01/04	10/05/04		
Surrogate: n-Octacosane (45-125%)					84 %					

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**LEVEL V**

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 DATA SUBJECT TO CHANGE

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## DATA ASSESSMENT FORM

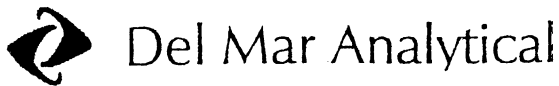
Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Volatile Fuel Hydrocarbons by GC/EPA Method 8015M  
QC Level: V<sup>1</sup>  
SDG: INI1882  
Matrix: Water  
No. of Samples: 2  
Dilutions/Reanalyses: 0  
Date Reviewed: November 2, 2004  
Reviewer: M. Pokorny  
Reference: National Functional Guidelines for Organic Data Review (2/94)  
Samples Reviewed: Outfall 012 (INI1882-01), Trip Blank (INI1882-02)

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	<p>The COC was signed by field and laboratory personnel. The laboratory's case narrative noted that the samples were received intact, with a cooler temperature within the limits of 4°C ± 2°C. No custody seal information was provided by the laboratory.</p> <p>According to the sample result summary forms, the samples were analyzed within 14 days of collection.</p>	No qualifications were required.
3. <u>Method Blanks</u>	Two water method blanks were analyzed with this SDG. Target compound GRO (C4-C12) was not reported in the method blanks.	No qualifications were required.
4. <u>LCS/BS</u>	Two water blank spikes were analyzed with this SDG. The recoveries of GRO (C4-C12) was within the laboratory QC limits of 70-135%.	No qualifications were required.
5. <u>Surrogates</u>	The surrogate recovery for the samples were within the laboratory established QC limits of 60-135%.	No qualifications were required.
6. <u>MS/MSDs</u> None	No MS/MSD analyses were performed in association with this SDG.	No qualifications were required.

	Findings	Qualifications
7. <u>Field QC Samples</u>  TB: Trip Blank FB: None ER: None Field Duplicates: None	Target compound GRO (C4-C12) was not reported in the trip blank.	No qualifications were required.
8. <u>Other</u>	The laboratory analyzed for gasoline range organics (C4-C12).  Sample Outfall 012 was analyzed only at a 10× dilution. The laboratory was basing dilutions on sample petroleum odor.  The sample result and reporting limit were appropriately adjusted for the dilution.	No qualifications were required.
<u>Comments</u>	A cursory review of the sample chromatograms and quantitation reports were performed by the reviewer.	None.

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MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
 Report Number: INI1882

Sampled: 09/29/04  
 Received: 09/30/04

**DRAFT: VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	QUAL
									REV	QUAL
									QUAL	CDI
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) - cont.										
Reporting Units: mg/l										
GRO (C4 - C12)	EPA 8015 Mod.	4J07125	0.50	1.0	1.2	10	10/07/04	10/07/04		
Surrogate: 4-BFB (FID) (60-135%)					102 %					
Sample ID: INI1882-02 (DRAFT: Trip Blank - Water)										
Reporting Units: mg/l										
GRO (C4 - C12)	EPA 8015 Mod.	4J07007	0.050	0.10	ND	1	10/07/04	10/07/04		U
Surrogate: 4-BFB (FID) (60-135%)					95 %					

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**LEVEL V**

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: General Minerals  
QC Level: V<sup>1</sup>  
SDG: INI1882  
Matrix: Water  
No. of Samples: 1  
Date Reviewed: November 3, 2004  
Reviewer: A. Lang  
Reference: USEPA Contract Laboratory Program National Functional Guidelines For  
*Inorganic Data Review (2/94)*  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The sample was received within the temperature limits of $4^{\circ}\pm 2^{\circ}\text{C}$ , at $4^{\circ}\text{C}$ . The COC matched the sample and accounted for the analyses presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The analytical holding times were met for all analyses except pH, which was analyzed outside the 24 hour holding time.	The pH result was qualified "J."
3. <u>Method Blanks</u>	There were no detects in the method blanks.	No qualifications were required.
5. <u>LCS/BS</u>	The recoveries were within the laboratory-established control limits.	No qualifications were required.
6. <u>Duplicates</u>	None	None
7. <u>MS/MSDs</u>	None	None
10. <u>Other</u>	Biological oxygen demand and oil and grease reported below the reporting limit was qualified as estimated, "J," by the laboratory.	None



	Findings	Qualifications
11. <u>Field QC Samples</u>	None	None
<u>Comments</u>	None	None.

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MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1882

Sampled: 09/29/04  
 Received: 09/30/04

## DRAFT: INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4J05066	0.30	0.50	ND	1	10/05/04	10/05/04	
Biochemical Oxygen Demand	EPA 405.1	4J01058	0.59	2.0	1.8	1	10/01/04	10/06/04	J
Oil & Grease	EPA 413.1	4J05067	0.94	5.0	0.95	1	10/05/04	10/05/04	J
Total Dissolved Solids	SM2540C	4J05065	10	10	350	1	10/05/04	10/05/04	
Total Suspended Solids	EPA 160.2	4I30104	10	10	20	1	09/30/04	09/30/04	
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	4J01059	0.10	0.10	ND	1	10/01/04	10/01/04	U
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) Reporting Units: NTU									
Turbidity	EPA 180.1	4J01064	0.20	1.0	25	1	10/01/04	10/01/04	
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) Reporting Units: pH Units									
	EPA 150.1	4J01049	N/A	NA	8.27	1	10/01/04	10/01/04	J H
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) Reporting Units: ug/l									
Perchlorate	EPA 314.0	4I30050	0.80	4.0	ND	1	09/30/04	09/30/04	A

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**LEVEL V**

*\* analysis not validated*

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WH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1882

Sampled: 09/29/04  
 Received: 09/30/04

## DRAFT: TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water)									
Reporting Units: mg/l									
Total Recoverable Hydrocarbons	EPA 418.1	4J01062	0.31	1.0	5.0	1	10/01/04	10/01/04	

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## DATA ASSESSMENT FORM

Project Title: NPDES Monitoring  
Project Manager: B. McIlvaine  
Analysis/Method: Perchlorate by 314.0  
QC Level: V<sup>1</sup>  
SDG: INI1882  
Matrix: Water  
No. of Samples: 1  
Date Reviewed: November 3, 2004  
Reviewer: A. Lang  
Reference: USEPA Contract Laboratory Program National Functional Guidelines For  
*Inorganic Data Review (2/94)*  
Samples Reviewed: Outfall 012

### Data Validation Findings

	Findings	Qualifications
1. <u>Sample Management</u>	The sample was received within the temperature limits of 4°±2°C, at 4°C. The COC matched the sample and accounted for the analysis presented in this SDG. According to the case narrative for this SDG, the sample was received intact. There was no information regarding custody seals. The 28 day analytical holding time for perchlorate was met.	No qualifications were required.
3. <u>Method Blanks</u>	Perchlorate was not detected in the method blank.	No qualifications were required.
5. <u>LCS/BS</u>	The recovery was within the laboratory-established control limits of 85-115%.	No qualifications were required.
6. <u>Duplicates</u>	None	Not applicable
7. <u>MS/MSDs</u> Outfall 012	A matrix spike was analyzed on sample the sample in this SDG. The recovery was within the control limits of 80-120%.	None
10. <u>Other</u>	None	Not applicable
11. <u>Field QC Samples</u>	None	Not applicable

	Findings	Qualifications
<u>Comments</u>	None	Not applicable

<sup>1</sup> Level V validation consists of cursory review of the summary forms only. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.



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 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

MWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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**DRAFT: INORGANICS**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4J05066	0.30	0.50	ND	1	10/05/04	10/05/04	
Biochemical Oxygen Demand	EPA 405.1	4J01058	0.59	2.0	1.8	1	10/01/04	10/06/04	J
Oil & Grease	EPA 413.1	4J05067	0.94	5.0	0.95	1	10/05/04	10/05/04	J
Total Dissolved Solids	SM2540C	4J05065	10	10	350	1	10/05/04	10/05/04	
Total Suspended Solids	EPA 160.2	4I30104	10	10	20	1	09/30/04	09/30/04	
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	4J01059	0.10	0.10	ND	1	10/01/04	10/01/04	
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) Reporting Units: NTU									
Turbidity	EPA 180.1	4J01064	0.20	1.0	25	1	10/01/04	10/01/04	
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) Reporting Units: pH Units									
	EPA 150.1	4J01049	N/A	NA	8.27	1	10/01/04	10/01/04	
Sample ID: INI1882-01 (DRAFT: Outfall 012 - Water) Reporting Units: ug/l									
Perchlorate	EPA 314.0	4I30050	0.80	4.0	ND	1	09/30/04	09/30/04	u

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*\* Analysis not validated*

**AMEC VALIDATED**

**LEVEL V**

AFT REPORT  
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**LABORATORY REPORT**

Prepared For: MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Brownwyn Kelly

Project: Alfa Outfall 012 - During Test

Sampled: 08/21/04  
Received: 08/21/04  
Issued: 10/12/04 16:55

NELAP #01108CA CA ELAP #1197 CSDLAC #10117

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.  
This entire report was reviewed and approved for release.*

**SAMPLE CROSS REFERENCE**

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
INH1290-01	Outfall 012	Water
INH1290-02	Trip Blank	Water

Reviewed By:

Del Mar Analytical, Irvine  
Michelle Harper  
Project Manager





NH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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CORRECTIVE ACTION REPORT

Department: Extractions

Date: 08/30/2004

Method: EPA 625

Matrix: Water

QC Batch: 4H24040

Identification and Definition of Problem:

The percent recoveries for Benzidine, Hexachlorocyclopentadiene, Hexachloroethane, and 2,4-Dimethylphenol in the LCS and/or LCSD were below method acceptance limits. The target compounds for this sample, however, are N-Nitrosodimethylamine and Naphthalene and therefore this corrective action does not apply.

Determination of the Cause of the Problem:

A definitive cause for the QC failure has not been determined.

Corrective Action Taken:

All results reported for these compounds are potentially biased low and can be considered estimates only.

Quality Assurance Approval: \_\_\_\_\_

Michele Harper

Date: 10/12/2004 04:19 PM

Del Mar Analytical, Irvine  
Michele Harper  
Project Manager



WH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	Sampled: 08/21/04
300 North Lake Avenue, Suite 1200	Report Number: INH1290	Received: 08/21/04
Pasadena, CA 91101		
Attention: Brownwyn Kelly		

**TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (Outfall 012 - Water)									
Reporting Units: mg/l									
Total Recoverable Hydrocarbons	EPA 418.1	4H25069	0.31	1.0	12	1	08/25/04	08/25/04	

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Shele Harper  
Project Manager



WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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**EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INH1290-01 (Outfall 012 - Water) - cont.</b>									
Reporting Units: mg/l									
EFH (C13 - C22)	EPA 8015B	4H24061	0.33	2.0	4.5	3.88	08/24/04	08/26/04	
Surrogate: n-Octacosane (45-125%)					91 %				

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Hele Harper  
Project Manager



WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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**VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INH1290-01 (Outfall 012 - Water) - cont.</b>									
Reporting Units: ug/l									
GRO (C4 - C12)	EPA 8015 Mod.	4H30005	500	1000	1500	10	08/30/04	08/30/04	
Surrogate: 4-BFB (FID) (60-135%)					90 %				
<b>Sample ID: INH1290-02 (Trip Blank - Water)</b>									
Reporting Units: ug/l									
GRO (C4 - C12)	EPA 8015 Mod.	4H30005	50	100	ND	1	08/30/04	08/30/04	
Surrogate: 4-BFB (FID) (60-135%)					94 %				

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WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INH1290  
Pasadena, CA 91101  
Attention: Brownwyn Kelly

Sampled: 08/21/04  
Received: 08/21/04

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INH1290-01 (Outfall 012 - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD.	4H31009	0.32	2.0	ND	1	08/31/04	08/31/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD.	4H31009	0.32	5.0	ND	1	08/31/04	08/31/04	
1,2,3-Trichloropropane	EPA 624 MOD.	4H31009	0.85	10	ND	1	08/31/04	08/31/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD.	4H31009	0.25	5.0	ND	1	08/31/04	08/31/04	
tert-Butanol (TBA)	EPA 624 MOD.	4H31009	3.1	25	ND	1	08/31/04	08/31/04	
Surrogate: Dibromofluoromethane (80-120%)									98 %
Surrogate: Toluene-d8 (80-120%)									103 %
Surrogate: 4-Bromofluorobenzene (80-120%)									103 %
<b>Sample ID: INH1290-02 (Trip Blank - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD.	4I03020	0.32	2.0	ND	1	09/03/04	09/03/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD.	4I03020	0.32	5.0	ND	1	09/03/04	09/03/04	
1,2,3-Trichloropropane	EPA 624 MOD.	4I03020	0.85	10	ND	1	09/03/04	09/03/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD.	4I03020	0.25	5.0	ND	1	09/03/04	09/03/04	
tert-Butanol (TBA)	EPA 624 MOD.	4I03020	3.1	25	ND	1	09/03/04	09/03/04	
Surrogate: Dibromofluoromethane (80-120%)									99 %
Surrogate: Toluene-d8 (80-120%)									101 %
Surrogate: 4-Bromofluorobenzene (80-120%)									95 %

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WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INH1290-01 (Outfall 012 - Water)									
Reporting Units: ug/l									
Naphthalene	EPA 625	4H24040	4.5	10	73	0.971	08/24/04	08/31/04	
N-Nitrosodimethylamine	EPA 625	4H24040	3.7	20	ND	0.971	08/24/04	08/31/04	
Surrogate: 2-Fluorophenol (35-120%)					62 %				
Surrogate: Phenol-d6 (45-120%)					68 %				
Surrogate: 2,4,6-Tribromophenol (50-125%)					101 %				
Surrogate: Nitrobenzene-d5 (45-120%)					83 %				
Surrogate: 2-Fluorobiphenyl (45-120%)					78 %				
Surrogate: Terphenyl-d14 (45-135%)					118 %				

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Project Manager



WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INH1290-01 (Outfall 012 - Water) - cont.</b>									
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4H30095	0.30	0.50	0.84	1	08/30/04	08/30/04	
Biochemical Oxygen Demand	EPA 405.1	4H21041	0.59	2.0	6.0	1	08/21/04	08/26/04	
Oil & Grease	EPA 413.1	4H24051	0.94	5.0	2.1	1	08/24/04	08/24/04	J
Total Dissolved Solids	SM2540C	4H24094	10	10	400	1	08/24/04	08/24/04	
Total Suspended Solids	EPA 160.2	4H23056	10	10	24	1	08/23/04	08/23/04	
<b>Sample ID: INH1290-01 (Outfall 012 - Water)</b>									
Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	4H21059	0.10	0.10	ND	1	08/21/04	08/21/04	
<b>Sample ID: INH1290-01 (Outfall 012 - Water)</b>									
Reporting Units: NTU									
Turbidity	EPA 180.1	4H21051	0.20	1.0	38	1	08/21/04	08/21/04	
<b>Sample ID: INH1290-01 (Outfall 012 - Water)</b>									
Reporting Units: pH Units									
pH	EPA 150.1	4H21049	N/A	NA	7.96	1	08/21/04	08/21/04	
<b>Sample ID: INH1290-01 (Outfall 012 - Water)</b>									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4H23025	0.80	4.0	ND	1	08/23/04	08/24/04	

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WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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**1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INH1290-01 (Outfall 012 - Water) - cont.</b>									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4H3105	0.49	1.0	ND	1	08/31/04	08/31/04	
Surrogate: Dibromofluoromethane (80-135%)					104 %				

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Michelle Harper  
Project Manager

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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

WH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

## SHORT HOLD TIME DETAIL REPORT

Sample ID: Outfall 012 (INH1290-01) - Water	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
EPA 150.1	1	08/21/2004 12:00	08/21/2004 15:05	08/21/2004 15:00	08/21/2004 16:15
EPA 160.5	2	08/21/2004 12:00	08/21/2004 15:05	08/21/2004 16:08	08/21/2004 16:08
EPA 180.1	2	08/21/2004 12:00	08/21/2004 15:05	08/21/2004 15:30	08/21/2004 16:00
EPA 405.1	2	08/21/2004 12:00	08/21/2004 15:05	08/21/2004 16:00	08/26/2004 12:30

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WH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
Report Number: INH1290

Sampled: 08/21/04  
Received: 08/21/04

METHOD BLANK/QC DATA

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4H25069 Extracted: 08/25/04</b>											
<b>Blank Analyzed: 08/25/04 (4H25069-BLK1)</b>											
Total Recoverable Hydrocarbons	ND	1.0	0.31	mg/l							
<b>LCS Analyzed: 08/25/04 (4H25069-BS1)</b>											
Total Recoverable Hydrocarbons	4.62	1.0	0.31	mg/l	5.00		92	65-120			M-NR1
<b>LCS Dup Analyzed: 08/25/04 (4H25069-BSD1)</b>											
Total Recoverable Hydrocarbons	4.21	1.0	0.31	mg/l	5.00		84	65-120	9	20	

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WH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	
300 North Lake Avenue, Suite 1200		Sampled: 08/21/04
Pasadena, CA 91101	Report Number: INH1290	Received: 08/21/04
Attention: Brownwyn Kelly		

METHOD BLANK/QC DATA

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4H24061 Extracted: 08/24/04</b>										
<b>Blank Analyzed: 08/25/04 (4H24061-BLK1)</b>										
EFH (C13 - C22)	ND	0.50	0.082	mg/l						
EFH (C13 - C40)	ND	0.50	0.082	mg/l						
Surrogate: n-Octacosane	0.222			mg/l	0.200		111 45-125			
<b>LCS Analyzed: 08/25/04 (4H24061-BS1)</b>										
EFH (C13 - C40)	0.618	0.50	0.082	mg/l	0.775		80 40-115			M-NR1
Surrogate: n-Octacosane	0.240			mg/l	0.200		120 45-125			
<b>LCS Dup Analyzed: 08/25/04 (4H24061-BSD1)</b>										
EFH (C13 - C40)	0.529	0.50	0.082	mg/l	0.775		68 40-115	16	25	
Surrogate: n-Octacosane	0.206			mg/l	0.200		103 45-125			

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.WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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## METHOD BLANK/QC DATA

### VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4H30005 Extracted: 08/30/04</b>											
<b>Blank Analyzed: 08/30/04 (4H30005-BLK1)</b>											
GRO (C4 - C12)	ND	100	50	ug/l							
Surrogate: 4-BFB (FID)	9.91			ug/l	10.0		99	60-135			
<b>LCS Analyzed: 08/30/04 (4H30005-BS1)</b>											
GRO (C4 - C12)	205	100	50	ug/l	220		93	70-135			
Surrogate: 4-BFB (FID)	11.0			ug/l	10.0		110	60-135			
<b>Matrix Spike Analyzed: 08/30/04 (4H30005-MS1)</b>											
						<b>Source: INH1541-03</b>					
GRO (C4 - C12)	211	100	50	ug/l	220	ND	96	60-135			
Surrogate: 4-BFB (FID)	10.4			ug/l	10.0		104	60-135			
<b>Matrix Spike Dup Analyzed: 08/30/04 (4H30005-MSD1)</b>											
						<b>Source: INH1541-03</b>					
GRO (C4 - C12)	210	100	50	ug/l	220	ND	95	60-135	1	20	
Surrogate: 4-BFB (FID)	10.2			ug/l	10.0		102	60-135			

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 Michele Harper  
 Project Manager

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WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4H31009 Extracted: 08/31/04</b>										
<b>Blank Analyzed: 08/31/04 (4H31009-BLK1)</b>										
Acetone	ND	10	4.5	ug/l						
Benzene	ND	2.0	0.28	ug/l						
Bromobenzene	ND	5.0	0.27	ug/l						
Bromochloromethane	ND	5.0	0.32	ug/l						
Bromodichloromethane	ND	2.0	0.30	ug/l						
Bromoform	ND	5.0	0.32	ug/l						
Bromomethane	ND	5.0	0.34	ug/l						
2-Butanone (MEK)	ND	10	3.8	ug/l						
n-Butylbenzene	ND	5.0	0.17	ug/l						
n-Butylbenzene	ND	5.0	0.25	ug/l						
Butylbenzene	ND	5.0	0.22	ug/l						
Carbon tetrachloride	ND	5.0	0.28	ug/l						
Chlorobenzene	ND	2.0	0.36	ug/l						
Chloroethane	ND	5.0	0.33	ug/l						
Chloroform	ND	2.0	0.33	ug/l						
Chloromethane	ND	5.0	0.30	ug/l						
2-Chlorotoluene	ND	5.0	0.28	ug/l						
4-Chlorotoluene	ND	5.0	0.29	ug/l						
Dibromochloromethane	ND	2.0	0.28	ug/l						
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l						
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l						
Dibromomethane	ND	2.0	0.36	ug/l						
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l						
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l						
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l						
Dichlorodifluoromethane	ND	5.0	0.79	ug/l						
1,1-Dichloroethane	ND	2.0	0.27	ug/l						
1,2-Dichloroethane	ND	2.0	0.28	ug/l						
1,1-Dichloroethene	ND	5.0	0.32	ug/l						
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l						
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l						
1,2-Dichloropropane	ND	2.0	0.35	ug/l						
1,3-Dichloropropane	ND	2.0	0.30	ug/l						
2,2-Dichloropropane	ND	2.0	0.29	ug/l						
1,1-Dichloropropene	ND	2.0	0.28	ug/l						

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Shele Harper  
Project Manager



WH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	
300 North Lake Avenue, Suite 1200		Sampled: 08/21/04
Pasadena, CA 91101	Report Number: INH1290	Received: 08/21/04
Attention: Brownwyn Kelly		

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD RPD	Limit	Data Qualifiers
<b>Batch: 4H31009 Extracted: 08/31/04</b>											
<b>Blank Analyzed: 08/31/04 (4H31009-BLK1)</b>											
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
2-Hexanone	ND	10	2.6	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.48	ug/l							
4-Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.14	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.85	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
o-Xylene	ND	2.0	0.24	ug/l							
m,p-Xylenes	ND	2.0	0.52	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
tert-Butanol (TBA)	ND	25	3.1	ug/l							
Surrogate: Dibromofluoromethane	24.2			ug/l	25.0		97	80-120			

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INH1290  
Pasadena, CA 91101  
Attention: Brownwyn Kelly Sampled: 08/21/04  
Received: 08/21/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Batch: 4H31009, Blank Analyzed: 08/31/04, and LCS Analyzed: 08/31/04.

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager



WH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04  
Received: 08/21/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting			Spike Level	Source		%REC Limits	RPD	RPD Limit	Data Qualifiers
		Limit	MDL	Units		Result	%REC				
<b>Batch: 4H31009 Extracted: 08/31/04</b>											
<b>LCS Analyzed: 08/31/04 (4H31009-BS1)</b>											
1,3-Dichloropropane	21.7	2.0	0.30	ug/l	25.0	87	70-130				
2,2-Dichloropropane	22.4	2.0	0.29	ug/l	25.0	90	65-150				
1,1-Dichloropropene	24.1	2.0	0.28	ug/l	25.0	96	75-130				
cis-1,3-Dichloropropene	23.8	2.0	0.22	ug/l	25.0	95	75-130				
trans-1,3-Dichloropropene	22.6	2.0	0.24	ug/l	25.0	90	75-135				
Ethylbenzene	24.7	2.0	0.25	ug/l	25.0	99	80-120				
Hexachlorobutadiene	23.9	5.0	0.38	ug/l	25.0	96	65-140				
2-Hexanone	16.9	10	2.6	ug/l	25.0	68	40-140				
Isopropylbenzene	25.9	2.0	0.25	ug/l	25.0	104	75-125				
Isopropyltoluene	24.8	2.0	0.28	ug/l	25.0	99	75-125				
o-Tolylene chloride	21.2	5.0	0.48	ug/l	25.0	85	60-135				
4-Methyl-2-pentanone (MIBK)	17.4	10	2.5	ug/l	25.0	70	40-140				
Methyl-tert-butyl Ether (MTBE)	23.2	5.0	0.32	ug/l	25.0	93	55-145				
Naphthalene	20.1	5.0	0.41	ug/l	25.0	80	50-145				
n-Propylbenzene	25.5	2.0	0.14	ug/l	25.0	102	75-130				
Styrene	26.2	2.0	0.16	ug/l	25.0	105	80-135				
1,1,1,2-Tetrachloroethane	24.4	5.0	0.27	ug/l	25.0	98	70-145				
1,1,1,2,2-Tetrachloroethane	20.0	2.0	0.24	ug/l	25.0	80	60-135				
Tetrachloroethene	25.2	2.0	0.32	ug/l	25.0	101	75-125				
Toluene	23.3	2.0	0.36	ug/l	25.0	93	75-120				
1,2,3-Trichlorobenzene	22.7	5.0	0.45	ug/l	25.0	91	65-135				
1,2,4-Trichlorobenzene	24.2	5.0	0.48	ug/l	25.0	97	70-140				
1,1,1-Trichloroethane	24.7	2.0	0.30	ug/l	25.0	99	75-140				
1,1,2-Trichloroethane	21.7	2.0	0.30	ug/l	25.0	87	70-125				
Trichloroethene	24.7	2.0	0.26	ug/l	25.0	99	80-120				
Trichlorofluoromethane	24.3	5.0	0.34	ug/l	25.0	97	65-145				
1,2,3-Trichloropropane	19.4	10	0.85	ug/l	25.0	78	60-130				
1,2,4-Trimethylbenzene	25.3	2.0	0.23	ug/l	25.0	101	75-125				
1,3,5-Trimethylbenzene	25.2	2.0	0.26	ug/l	25.0	101	75-125				
Vinyl chloride	24.6	5.0	0.26	ug/l	25.0	98	50-130				
o-Xylene	24.3	2.0	0.24	ug/l	25.0	97	75-125				
m,p-Xylenes	49.4	2.0	0.52	ug/l	50.0	99	75-120				
Di-isopropyl Ether (DIPE)	24.8	5.0	0.25	ug/l	25.0	99	65-135				
Ethyl tert-Butyl Ether (ETBE)	23.8	5.0	0.28	ug/l	25.0	95	60-140				
tert-Amyl Methyl Ether (TAME)	23.2	5.0	0.33	ug/l	25.0	93	60-140				

Del Mar Analytical, Irvine  
Dele Harper  
Project Manager





Table with 3 columns: Client/Address (WH-Pasadena/Boeing, 300 North Lake Avenue, Suite 1200, Pasadena, CA 91101, Attention: Brownwyn Kelly), Project ID (Alfa Outfall 012 - During Test), Report Number (INH1290), and Sampling Dates (Sampled: 08/21/04, Received: 08/21/04)

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Main data table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for LCS Analyzed (08/31/04) and Matrix Spike Analyzed (08/31/04).

Del Mar Analytical, Irvine
Shele Harper
Project Manager

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WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4H31009 Extracted: 08/31/04</b>											
<b>Matrix Spike Analyzed: 08/31/04 (4H31009-MS1)</b>						<b>Source: INH1290-01</b>					
trans-1,2-Dichloroethene	28.1	2.0	0.27	ug/l	25.0	ND	112	65-135			
1,2-Dichloropropane	27.4	2.0	0.35	ug/l	25.0	ND	110	65-130			
1,3-Dichloropropane	24.6	2.0	0.30	ug/l	25.0	ND	98	65-140			
2,2-Dichloropropane	27.1	2.0	0.29	ug/l	25.0	ND	108	60-150			
1,1-Dichloropropene	27.7	2.0	0.28	ug/l	25.0	ND	111	65-140			
cis-1,3-Dichloropropene	28.4	2.0	0.22	ug/l	25.0	ND	114	70-140			
trans-1,3-Dichloropropene	26.6	2.0	0.24	ug/l	25.0	ND	106	70-140			
Ethylbenzene	28.7	2.0	0.25	ug/l	25.0	0.63	112	70-130			
Hexachlorobutadiene	24.7	5.0	0.38	ug/l	25.0	ND	99	65-140			
Hexanone	21.1	10	2.6	ug/l	25.0	ND	84	20-145			
Propylbenzene	28.1	2.0	0.25	ug/l	25.0	ND	112	70-130			
p-Isopropyltoluene	25.7	2.0	0.28	ug/l	25.0	ND	103	70-130			
Methylene chloride	25.1	5.0	0.48	ug/l	25.0	0.64	98	60-135			
4-Methyl-2-pentanone (MIBK)	20.9	10	2.5	ug/l	25.0	ND	84	40-145			
Methyl-tert-butyl Ether (MTBE)	26.9	5.0	0.32	ug/l	25.0	ND	108	50-155			
Naphthalene	90.3	5.0	0.41	ug/l	25.0	74	65	50-150			
n-Propylbenzene	27.7	2.0	0.14	ug/l	25.0	0.25	110	70-135			
Styrene	26.9	2.0	0.16	ug/l	25.0	ND	108	55-145			
1,1,1,2-Tetrachloroethane	28.1	5.0	0.27	ug/l	25.0	ND	112	70-145			
1,1,2,2-Tetrachloroethane	22.4	2.0	0.24	ug/l	25.0	ND	90	60-145			
Tetrachloroethene	28.7	2.0	0.32	ug/l	25.0	ND	115	70-130			
Toluene	29.6	2.0	0.36	ug/l	25.0	2.6	108	70-120			
1,2,3-Trichlorobenzene	25.2	5.0	0.45	ug/l	25.0	ND	101	60-140			
1,2,4-Trichlorobenzene	26.3	5.0	0.48	ug/l	25.0	ND	105	60-140			
1,1,1-Trichloroethane	29.0	2.0	0.30	ug/l	25.0	ND	116	75-140			
1,1,2-Trichloroethane	25.3	2.0	0.30	ug/l	25.0	ND	101	60-135			
Trichloroethene	29.1	2.0	0.26	ug/l	25.0	0.85	113	70-125			
Trichlorofluoromethane	27.6	5.0	0.34	ug/l	25.0	ND	110	55-145			
1,2,3-Trichloropropane	20.8	10	0.85	ug/l	25.0	ND	83	55-140			
1,2,4-Trimethylbenzene	26.4	2.0	0.23	ug/l	25.0	1.0	102	60-125			
1,3,5-Trimethylbenzene	26.1	2.0	0.26	ug/l	25.0	0.38	103	70-130			
Vinyl chloride	28.2	5.0	0.26	ug/l	25.0	ND	113	40-135			
o-Xylene	27.7	2.0	0.24	ug/l	25.0	0.67	108	65-125			
m,p-Xylenes	56.3	2.0	0.52	ug/l	50.0	1.0	111	65-130			
Di-isopropyl Ether (DIPE)	28.6	5.0	0.25	ug/l	25.0	ND	114	65-140			

Del Mar Analytical, Irvine  
Michelle Harper  
Project Manager



WH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INH1290

Sampled: 08/21/04

Received: 08/21/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sub-sections for Matrix Spike Analyzed and Matrix Spike Dup Analyzed.

Del Mar Analytical, Irvine
Hele Harper
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INH1290  
Pasadena, CA 91101  
Attention: Brownwyn Kelly  
Sampled: 08/21/04  
Received: 08/21/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of 40 analytes and their corresponding values.

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INH1290  
Pasadena, CA 91101  
Attention: Brownwyn Kelly  
Sampled: 08/21/04  
Received: 08/21/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes data for Matrix Spike Dup Analyzed: 08/31/04 (4H31009-MSD1) and Source: INH1290-01.

Batch: 4I03020 Extracted: 09/03/04

Blank Analyzed: 09/03/04 (4I03020-BLK1)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units. Lists various organic compounds and their detection results for the blank sample.

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INH1290  
Pasadena, CA 91101  
Attention: Brownwyn Kelly  
Sampled: 08/21/04  
Received: 08/21/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of analytes such as 1,4-Dichlorobenzene, Dichlorodifluoromethane, etc., with their respective results and limits.

Del Mar Analytical, Irvine  
Heather Harper  
Project Manager



WH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test
Report Number: INH1290

Sampled: 08/21/04
Received: 08/21/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Batch: 4I03020, Blank Analyzed: 09/03/04, and LCS Analyzed: 09/03/04.

Del Mar Analytical, Irvine
Michelle Harper
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INH1290
Pasadena, CA 91101 Attention: Brownwyn Kelly
Sampled: 08/21/04
Received: 08/21/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes batch information: Batch: 4I03020 Extracted: 09/03/04 and LCS Analyzed: 09/03/04 (4I03020-BS1).

Del Mar Analytical, Irvine
Shele Harper
Project Manager

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WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INH1290
Pasadena, CA 91101 Sampled: 08/21/04
Attention: Brownwyn Kelly Received: 08/21/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for LCS Analyzed (09/03/04) and Matrix Spike Analyzed (09/03/04).

Del Mar Analytical, Irvine
Shele Harper
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Table with 3 columns: Lab/Address (WH-Pasadena/Boeing, 300 North Lake Avenue, Suite 1200, Pasadena, CA 91101, Attention: Brownwyn Kelly), Project ID (Alfa Outfall 012 - During Test), Report Number (INH1290), and Dates (Sampled: 08/21/04, Received: 08/21/04)

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Main data table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sub-headers for Batch: 4I03020 and Matrix Spike Analyzed: 09/03/04.

Del Mar Analytical, Irvine
Shele Harper
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INH1290
Pasadena, CA 91101 Attention: Brownwyn Kelly
Sampled: 08/21/04
Received: 08/21/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Matrix Spike Analyzed and Matrix Spike Dup Analyzed.

Del Mar Analytical, Irvine
Shele Harper
Project Manager



Table with project details: WH-Pasadena/Boeing, Project ID: Alfa Outfall 012 - During Test, Report Number: INH1290, Sampled: 08/21/04, Received: 08/21/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Main data table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sub-headers for Batch: 4I03020 and Matrix Spike Dup Analyzed: 09/03/04.

Del Mar Analytical, Irvine
Michelle Harper
Project Manager



WH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
Report Number: INH1290

Sampled: 08/21/04  
Received: 08/21/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	Data Qualifiers
<b>Batch: 4I03020 Extracted: 09/03/04</b>										
<b>Matrix Spike Dup Analyzed: 09/03/04 (4I03020-MSD1)</b>					<b>Source: INH1484-14</b>					
1,2,3-Trichlorobenzene	23.6	5.0	0.45	ug/l	25.0	ND	94	60-140	2	20
1,2,4-Trichlorobenzene	24.7	5.0	0.48	ug/l	25.0	ND	99	60-140	2	20
1,1,1-Trichloroethane	26.0	2.0	0.30	ug/l	25.0	ND	104	75-140	4	20
1,1,2-Trichloroethane	25.4	2.0	0.30	ug/l	25.0	ND	102	60-135	2	25
Trichloroethene	22.8	2.0	0.26	ug/l	25.0	ND	91	70-125	1	20
Trichlorofluoromethane	28.1	5.0	0.34	ug/l	25.0	ND	112	55-145	2	25
1,2,3-Trichloropropane	23.2	10	0.85	ug/l	25.0	ND	93	55-140	2	30
1,2,4-Trimethylbenzene	26.3	2.0	0.23	ug/l	25.0	ND	105	60-125	2	25
1,3,5-Trimethylbenzene	26.3	2.0	0.26	ug/l	25.0	ND	105	70-130	2	20
vinyl chloride	29.1	5.0	0.26	ug/l	25.0	0.27	115	40-135	2	30
styrene	25.5	2.0	0.24	ug/l	25.0	ND	102	65-125	4	20
m,p-Xylenes	50.9	2.0	0.52	ug/l	50.0	ND	102	65-130	4	25
Di-isopropyl Ether (DIPE)	25.8	5.0	0.25	ug/l	25.0	ND	103	65-140	3	25
Ethyl tert-Butyl Ether (ETBE)	23.8	5.0	0.28	ug/l	25.0	ND	95	60-140	3	25
tert-Amyl Methyl Ether (TAME)	23.6	5.0	0.33	ug/l	25.0	ND	94	55-145	3	30
tert-Butanol (TBA)	153	25	3.1	ug/l	125	ND	122	65-145	3	25
Surrogate: Dibromofluoromethane	26.0			ug/l	25.0		104	80-120		
Surrogate: Toluene-d8	25.6			ug/l	25.0		102	80-120		
Surrogate: 4-Bromofluorobenzene	24.4			ug/l	25.0		98	80-120		

Del Mar Analytical, Irvine  
Michelle Harper  
Project Manager



WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	Data Limit	Qualifiers
<b>Batch: 4H24040 Extracted: 08/24/04</b>											
<b>Blank Analyzed: 08/27/04 (4H24040-BLK1)</b>											
Acenaphthene	ND	10	4.3	ug/l							
Acenaphthylene	ND	10	3.2	ug/l							
Aniline	ND	10	2.9	ug/l							
Anthracene	ND	10	3.2	ug/l							
Benzidine	ND	20	5.2	ug/l							
Benzoic acid	ND	20	2.6	ug/l							
Benzo(a)anthracene	ND	10	3.7	ug/l							
Benzo(b)fluoranthene	ND	10	2.7	ug/l							
Benzo(k)fluoranthene	ND	10	3.4	ug/l							
Benzo(g,h,i)perylene	ND	10	5.3	ug/l							
Benzo(a)pyrene	ND	10	3.5	ug/l							
Benzyl alcohol	ND	20	2.5	ug/l							
Bis(2-chloroethoxy)methane	ND	10	3.9	ug/l							
Bis(2-chloroethyl)ether	ND	10	4.4	ug/l							
Bis(2-chloroisopropyl)ether	ND	10	4.6	ug/l							
Bis(2-ethylhexyl)phthalate	ND	50	5.2	ug/l							
4-Bromophenyl phenyl ether	ND	10	4.6	ug/l							
Butyl benzyl phthalate	ND	20	3.5	ug/l							
4-Chloroaniline	ND	10	6.0	ug/l							
2-Chloronaphthalene	ND	10	4.0	ug/l							
4-Chloro-3-methylphenol	ND	20	3.5	ug/l							
2-Chlorophenol	ND	10	4.2	ug/l							
4-Chlorophenyl phenyl ether	ND	10	3.0	ug/l							
Chrysene	ND	10	2.8	ug/l							
Dibenz(a,h)anthracene	ND	20	4.7	ug/l							
Dibenzofuran	ND	10	2.6	ug/l							
Di-n-butyl phthalate	ND	20	2.8	ug/l							
1,3-Dichlorobenzene	ND	10	4.1	ug/l							
1,4-Dichlorobenzene	ND	10	3.9	ug/l							
1,2-Dichlorobenzene	ND	10	4.5	ug/l							
3,3-Dichlorobenzidine	ND	20	11	ug/l							
2,4-Dichlorophenol	ND	10	4.1	ug/l							
Diethyl phthalate	ND	10	3.1	ug/l							
2,4-Dimethylphenol	ND	20	4.4	ug/l							
Dimethyl phthalate	ND	10	3.6	ug/l							

Del Mar Analytical, Irvine  
Michelle Harper  
Project Manager



Table with 3 columns: Address (VH-Pasadena/Boeing, 300 North Lake Avenue, Suite 1200, Pasadena, CA 91101, Attention: Brownwyn Kelly), Project ID (Alfa Outfall 012 - During Test), Report Number (INH1290), Sampled (08/21/04), Received (08/21/04)

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Table with 12 columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of analytes such as 4,6-Dinitro-2-methylphenol, 2,4-Dinitrophenol, etc., and a surrogate 2-Fluorophenol.

Del Mar Analytical, Irvine
Michelle Harper
Project Manager

WH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Brownwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
Report Number: INH1290

Sampled: 08/21/04  
Received: 08/21/04

**METHOD BLANK/QC DATA**
**ACID & BASE/NEUTRALS BY GC/MS (EPA 625)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4H24040 Extracted: 08/24/04</b>										
<b>Blank Analyzed: 08/27/04 (4H24040-BLK1)</b>										
Surrogate: Phenol-d6	130			ug/l	200		65		45-120	
Surrogate: 2,4,6-Tribromophenol	116			ug/l	200		58		50-125	
Surrogate: Nitrobenzene-d5	67.9			ug/l	100		68		45-120	
Surrogate: 2-Fluorobiphenyl	71.1			ug/l	100		71		45-120	
Surrogate: Terphenyl-d14	104			ug/l	100		104		45-135	
<b>LCS Analyzed: 08/27/04 (4H24040-BS1)</b>										
Acenaphthene	89.3	10	4.3	ug/l	100		89		55-120	
Acenaphthylene	83.3	10	3.2	ug/l	100		83		55-120	
Aniline	80.4	10	2.9	ug/l	100		80		30-120	
Acenaphthene	101	10	3.2	ug/l	100		101		60-120	
Benzenzidine	ND	20	5.2	ug/l	100				20-180	L2
Benzoic acid	53.4	20	2.6	ug/l	100		53		30-125	
Benzo(a)anthracene	109	10	3.7	ug/l	100		109		65-120	
Benzo(b)fluoranthene	101	10	2.7	ug/l	100		101		50-125	
Benzo(k)fluoranthene	121	10	3.4	ug/l	100		121		50-125	
Benzo(g,h,i)perylene	103	10	5.3	ug/l	100		103		35-160	
Benzo(a)pyrene	105	10	3.5	ug/l	100		105		55-125	
Benzyl alcohol	93.0	20	2.5	ug/l	100		93		40-130	
Bis(2-chloroethoxy)methane	96.8	10	3.9	ug/l	100		97		55-120	
Bis(2-chloroethyl)ether	93.5	10	4.4	ug/l	100		94		50-120	
Bis(2-chloroisopropyl)ether	103	10	4.6	ug/l	100		103		50-120	
Bis(2-ethylhexyl)phthalate	108	50	5.2	ug/l	100		108		65-125	
4-Bromophenyl phenyl ether	102	10	4.6	ug/l	100		102		55-125	
Butyl benzyl phthalate	107	20	3.5	ug/l	100		107		60-125	
4-Chloroaniline	77.3	10	6.0	ug/l	100		77		55-120	
2-Chloronaphthalene	88.6	10	4.0	ug/l	100		89		60-120	
4-Chloro-3-methylphenol	85.0	20	3.5	ug/l	100		85		60-120	
2-Chlorophenol	80.7	10	4.2	ug/l	100		81		45-120	
4-Chlorophenyl phenyl ether	89.2	10	3.0	ug/l	100		89		55-120	
Chrysene	112	10	2.8	ug/l	100		112		65-120	
Dibenz(a,h)anthracene	83.9	20	4.7	ug/l	100		84		40-160	
Dibenzofuran	91.8	10	2.6	ug/l	100		92		60-120	
Di-n-butyl phthalate	103	20	2.8	ug/l	100		103		65-125	
1,3-Dichlorobenzene	44.2	10	4.1	ug/l	100		44		40-120	
1,4-Dichlorobenzene	47.5	10	3.9	ug/l	100		48		40-120	

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WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INH1290  
Pasadena, CA 91101  
Attention: Brownwyn Kelly  
Sampled: 08/21/04  
Received: 08/21/04

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sub-headers for Batch: 4H24040 and LCS Analyzed: 08/27/04.

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Project Manager



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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

WH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	Sampled: 08/21/04
300 North Lake Avenue, Suite 1200	Report Number: INH1290	Received: 08/21/04
Pasadena, CA 91101		
Attention: Brownwyn Kelly		

## METHOD BLANK/QC DATA

### ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4H24040 Extracted: 08/24/04</b>											
<b>LCS Analyzed: 08/27/04 (4H24040-BS1)</b>											
1,2,4-Trichlorobenzene	61.9	10	4.4	ug/l	100		62	50-120			
2,4,5-Trichlorophenol	86.7	20	3.6	ug/l	100		87	60-120			
2,4,6-Trichlorophenol	88.3	20	4.1	ug/l	100		88	60-120			
1,2-Diphenylhydrazine/Azobenzene	118	20	5.0	ug/l	100		118	60-120			
N-Nitrosodimethylamine	97.0	20	3.7	ug/l	100		97	40-120			
Surrogate: 2-Fluorophenol	156			ug/l	200		78	35-120			
Surrogate: Phenol-d6	171			ug/l	200		86	45-120			
Surrogate: 2,4,6-Tribromophenol	171			ug/l	200		86	50-125			
Surrogate: Nitrobenzene-d5	92.5			ug/l	100		92	45-120			
Surrogate: 2-Fluorobiphenyl	87.3			ug/l	100		87	45-120			
Surrogate: Terphenyl-d14	104			ug/l	100		104	45-135			
<b>LCS Dup Analyzed: 08/27/04 (4H24040-BSD1)</b>											
Acenaphthene	85.7	10	4.3	ug/l	100		86	55-120	4	20	
Acenaphthylene	81.7	10	3.2	ug/l	100		82	55-120	2	20	
Aniline	67.3	10	2.9	ug/l	100		67	30-120	18	25	
Anthracene	97.1	10	3.2	ug/l	100		97	60-120	4	20	
Benzidine	ND	20	5.2	ug/l	100			20-180		35	L2
Benzoic acid	65.0	20	2.6	ug/l	100		65	30-125	20	30	
Benzo(a)anthracene	108	10	3.7	ug/l	100		108	65-120	1	20	
Benzo(b)fluoranthene	107	10	2.7	ug/l	100		107	50-125	6	25	
Benzo(k)fluoranthene	119	10	3.4	ug/l	100		119	50-125	2	20	
Benzo(g,h,i)perylene	81.9	10	5.3	ug/l	100		82	35-160	23	25	
Benzo(a)pyrene	103	10	3.5	ug/l	100		103	55-125	2	25	
Benzyl alcohol	87.1	20	2.5	ug/l	100		87	40-130	7	20	
Bis(2-chloroethoxy)methane	88.0	10	3.9	ug/l	100		88	55-120	10	20	
Bis(2-chloroethyl)ether	88.3	10	4.4	ug/l	100		88	50-120	6	20	
Bis(2-chloroisopropyl)ether	94.3	10	4.6	ug/l	100		94	50-120	9	20	
Bis(2-ethylhexyl)phthalate	102	50	5.2	ug/l	100		102	65-125	6	20	
4-Bromophenyl phenyl ether	96.6	10	4.6	ug/l	100		97	55-125	5	25	
Butyl benzyl phthalate	95.9	20	3.5	ug/l	100		96	60-125	11	20	
4-Chloroaniline	71.5	10	6.0	ug/l	100		72	55-120	8	25	
2-Chloronaphthalene	86.1	10	4.0	ug/l	100		86	60-120	3	20	
4-Chloro-3-methylphenol	81.6	20	3.5	ug/l	100		82	60-120	4	25	
2-Chlorophenol	74.1	10	4.2	ug/l	100		74	45-120	9	25	
4-Chlorophenyl phenyl ether	86.7	10	3.0	ug/l	100		87	55-120	3	20	

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 Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INH1290  
Pasadena, CA 91101  
Attention: Brownwyn Kelly  
Sampled: 08/21/04  
Received: 08/21/04

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes batch information: Batch: 4H24040 Extracted: 08/24/04 and LCS Dup Analyzed: 08/27/04 (4H24040-BSD1).

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Michelle Harper  
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INH1290  
Pasadena, CA 91101  
Attention: Brownwyn Kelly  
Sampled: 08/21/04  
Received: 08/21/04

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4H24040 Extracted: 08/24/04</b>											
<b>LCS Dup Analyzed: 08/27/04 (4H24040-BSD1)</b>											
N-Nitrosodiphenylamine	86.7	10	4.0	ug/l	100		87	60-120	9	20	M-NR1
N-Nitroso-di-n-propylamine	87.6	10	3.6	ug/l	100		88	50-120	10	20	
Pentachlorophenol	89.3	20	4.0	ug/l	100		89	50-125	4	25	
Phenanthrene	97.0	10	3.3	ug/l	100		97	55-120	4	20	
Phenol	84.0	10	4.0	ug/l	100		84	45-120	8	25	
Pyrene	96.9	10	3.9	ug/l	100		97	50-120	12	25	
1,2,4-Trichlorobenzene	74.8	10	4.4	ug/l	100		75	50-120	19	20	
2,4,5-Trichlorophenol	87.1	20	3.6	ug/l	100		87	60-120	1	20	
2,4,6-Trichlorophenol	85.4	20	4.1	ug/l	100		85	60-120	3	20	
1,4-Diphenylhydrazine/Azobenzene	112	20	5.0	ug/l	100		112	60-120	5	25	
N-Nitrosodimethylamine	85.1	20	3.7	ug/l	100		85	40-120	13	20	
Surrogate: 2-Fluorophenol	142			ug/l	200		71	35-120			
Surrogate: Phenol-d6	159			ug/l	200		80	45-120			
Surrogate: 2,4,6-Tribromophenol	158			ug/l	200		79	50-125			
Surrogate: Nitrobenzene-d5	82.5			ug/l	100		82	45-120			
Surrogate: 2-Fluorobiphenyl	80.8			ug/l	100		81	45-120			
Surrogate: Terphenyl-d14	94.6			ug/l	100		95	45-135			

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WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4H21041 Extracted: 08/21/04</b>											
<b>Blank Analyzed: 08/26/04 (4H21041-BLK1)</b>											
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
<b>LCS Analyzed: 08/26/04 (4H21041-BS1)</b>											
Biochemical Oxygen Demand	194	100	30	mg/l	198		98	85-115			
<b>LCS Dup Analyzed: 08/26/04 (4H21041-BSD1)</b>											
Biochemical Oxygen Demand	192	100	30	mg/l	198		97	85-115	1	20	
<b>Batch: 4H21049 Extracted: 08/21/04</b>											
<b>Duplicate Analyzed: 08/21/04 (4H21049-DUP1)</b>											
	7.46	NA	N/A	pH Units		Source: INH1230-01 7.45			0	5	
<b>Batch: 4H21051 Extracted: 08/21/04</b>											
<b>Blank Analyzed: 08/21/04 (4H21051-BLK1)</b>											
Turbidity	ND	1.0	0.20	NTU							
<b>Duplicate Analyzed: 08/21/04 (4H21051-DUP1)</b>											
Turbidity	ND	1.0	0.20	NTU		Source: INH1234-01 ND				20	
<b>Batch: 4H23025 Extracted: 08/23/04</b>											
<b>Blank Analyzed: 08/23/04 (4H23025-BLK1)</b>											
Perchlorate	ND	4.0	0.80	ug/l							

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WH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	
300 North Lake Avenue, Suite 1200		Sampled: 08/21/04
Pasadena, CA 91101	Report Number: INH1290	Received: 08/21/04
Attention: Brownwyn Kelly		

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4H23025 Extracted: 08/23/04</b>											
<b>LCS Analyzed: 08/23/04 (4H23025-BS1)</b>											
Perchlorate	49.3	4.0	0.80	ug/l	50.0		99	85-115			
<b>Matrix Spike Analyzed: 08/23/04 (4H23025-MS1)</b>											
Perchlorate	54.7	4.0	0.80	ug/l	50.0	5.4	99	80-120			
<b>Matrix Spike Dup Analyzed: 08/23/04 (4H23025-MSD1)</b>											
Perchlorate	54.5	4.0	0.80	ug/l	50.0	5.4	98	80-120	0	20	
<b>Batch: 4H23056 Extracted: 08/23/04</b>											
<b>Blank Analyzed: 08/23/04 (4H23056-BLK1)</b>											
Total Suspended Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 08/23/04 (4H23056-BS1)</b>											
Total Suspended Solids	1050	10	10	mg/l	1000		105	85-115			
<b>Duplicate Analyzed: 08/23/04 (4H23056-DUP1)</b>											
Total Suspended Solids	ND	10	10	mg/l		ND				10	
<b>Batch: 4H24051 Extracted: 08/24/04</b>											
<b>Blank Analyzed: 08/24/04 (4H24051-BLK1)</b>											
Oil & Grease	ND	5.0	0.94	mg/l							
<b>LCS Analyzed: 08/24/04 (4H24051-BS1)</b>											
Oil & Grease	18.9	5.0	0.94	mg/l	20.0		94	65-120			M-NR1

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Michelle Harper  
Project Manager



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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
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WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4H24051 Extracted: 08/24/04</b>										
<b>LCS Dup Analyzed: 08/24/04 (4H24051-BSD1)</b>										
Oil & Grease	19.8	5.0	0.94	mg/l	20.0		99	65-120	5	20
<b>Batch: 4H24094 Extracted: 08/24/04</b>										
<b>Blank Analyzed: 08/24/04 (4H24094-BLK1)</b>										
Total Dissolved Solids	ND	10	10	mg/l						
<b>LCS Analyzed: 08/24/04 (4H24094-BS1)</b>										
Total Dissolved Solids	1040	20	20	mg/l	1000		104	90-110		
<b>Duplicate Analyzed: 08/24/04 (4H24094-DUP1)</b>										
Total Dissolved Solids	439	10	10	mg/l		Source: INH1316-01 450			2	10
<b>Batch: 4H30095 Extracted: 08/30/04</b>										
<b>Blank Analyzed: 08/30/04 (4H30095-BLK1)</b>										
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l						
<b>LCS Analyzed: 08/30/04 (4H30095-BS1)</b>										
Ammonia-N (Distilled)	10.1	0.50	0.30	mg/l	10.0		101	80-115		
<b>Matrix Spike Analyzed: 08/30/04 (4H30095-MS1)</b>										
Ammonia-N (Distilled)	12.0	0.50	0.30	mg/l	10.0	ND	120	70-120		
<b>Matrix Spike Dup Analyzed: 08/30/04 (4H30095-MSD1)</b>										
Ammonia-N (Distilled)	11.8	0.50	0.30	mg/l	10.0	ND	118	70-120	2	15

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The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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**METHOD BLANK/QC DATA**

**1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: P4H3105 Extracted: 08/31/04</b>											
<b>Blank Analyzed: 08/31/04 (P4H3105-BLK1)</b>											
1,4-Dioxane	ND	1.0	0.49	ug/l							
Surrogate: Dibromofluoromethane	1.01			ug/l	1.00		101	80-135			
<b>LCS Analyzed: 08/31/04 (P4H3105-BS1)</b>											
1,4-Dioxane	9.70	1.0	0.49	ug/l	10.0		97	70-130			
Surrogate: Dibromofluoromethane	1.03			ug/l	1.00		103	80-135			
<b>LCS Dup Analyzed: 08/31/04 (P4H3105-BSD1)</b>											
1,4-Dioxane	10.4	1.0	0.49	ug/l	10.0		104	70-130	7	20	
Surrogate: Dibromofluoromethane	1.06			ug/l	1.00		106	80-135			
<b>rix Spike Analyzed: 08/31/04 (P4H3105-MS1) Source: PNH0737-06</b>											
1,4-Dioxane	15.5	1.0	0.49	ug/l	10.0	3.7	118	70-130			
Surrogate: Dibromofluoromethane	0.940			ug/l	1.00		94	80-135			
<b>Matrix Spike Dup Analyzed: 08/31/04 (P4H3105-MSD1) Source: PNH0737-06</b>											
1,4-Dioxane	14.4	1.0	0.49	ug/l	10.0	3.7	107	70-130	7	20	
Surrogate: Dibromofluoromethane	0.930			ug/l	1.00		93	80-135			

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WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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**DATA QUALIFIERS AND DEFINITIONS**

- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of unknown quality.
- L2** Laboratory Control Sample recovery was below method control limits.
- M-NR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- R-2** The RPD exceeded the method control limit.
- R-7** LFB/LFBD RPD exceeded the method control limit. Recovery met acceptance criteria.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

**ADDITIONAL COMMENTS**

**For GRO (C4-C12):**

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

**For Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :**

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

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Shele Harper  
Project Manager



WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Brownwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INH1290	Sampled: 08/21/04 Received: 08/21/04
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**Certification Summary**

**Del Mar Analytical, Irvine**

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD.	Water	X	X
EPA 625	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

NV and NELAP provide analyte specific accreditations. Analyte specific information for Del Mar Analytical may be obtained by contacting the laboratory or visiting our website at [www.dmalabs.com](http://www.dmalabs.com).

**Contracted Laboratories**

**Del Mar Analytical - Phoenix** NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907  
9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed: EPA 8260B  
Samples: INH1290-01

**Del Mar Analytical, Irvine**  
Michelle Harper  
Project Manager



2852 Alton Ave., Irvine, CA 92626 Ph (949) 261-1022 Fax (949) 261-1228  
 1014 E. Cooley Dr., Suite A, Cotton, CA 92324 Ph (909) 370-4867 Fax (909) 370-1046  
 9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-8586 Fax (619) 505-9689  
 9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851  
 2520 E. Sunset Rd., Suite #3, Las Vegas, NV 89120 Ph (702) 798-3820 Fax (702) 798-3821

## SUBCONTRACT ORDER - PROJECT # INH1290

**SENDING LABORATORY:**

Del Mar Analytical, Irvine  
 2852 Alton Parkway  
 Irvine, CA 92606  
 Phone: (949) 261-1022  
 Fax: (949) 261-1228  
 Project Manager: Michele Harper

**RECEIVING LABORATORY:**

Del Mar Analytical - Phoenix  
 9830 S. 51st Street, Suite B-120  
 Phoenix, AZ 85044  
 Phone : (480) 785-0043  
 Fax: (480) 785-0851

Analysis	Expiration	Due	Comments
Sample ID: INH1290-01 Water	Sampled: 08/21/04 12:00		
Dioxane-8260B-out	09/04/04 12:00	09/01/04 12:00	Boeing-permit, sub to DMAP, J flags

**Containers Supplied:**  
 40 ml VOA w/HCL (INH1290-01K)  
 40 ml VOA w/HCL (INH1290-01L)  
 40 ml VOA w/HCL (INH1290-01M)

PNA 0664-01

SAMPLE INTEGRITY:			
All containers intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Sample labels/COC agree: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Samples Received On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Custody Seals Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Samples Preserved Properly: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Samples Received at (temp): <u>3.0C</u>	

<del>Released By</del>	<del>Date</del>	<del>Time</del>	<del>Received By</del>	<del>Date</del>	<del>Time</del>
	8-23-04	1700		8/24/04	
Released By	Date	Time	Received By	Date	Time
				8/24/04	10:10

JNH1290

**CHAIN OF CUSTODY FORM**

Del Mar Analytical Version 5/8/12/04

**Client Name/Address:**  
 MWH-Pasadena  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
**Project Manager:** Bronwyn Kelly  
**Sampler:** Pollock

**Project:**  
 Boeing-SSFL NPDES  
 During Test - Alfa Outfall 012  
**Project Number:**  
 MWH-  
**Phone Number:**  
 (626) 568-6691  
**Fax Number:**  
 (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Preservative	Bottle #	1,4-Dioxane-826B	Settleable Solids	8015-gas	8015-diesel/jet fuel	Oil & Grease (EPA 413.1)	624 (EDB, 1,2,3-TCF, MTBE, DPE, TBA)	BOD5(20 degrees C)	Perchlorate	Turbidity, TDS, TSS, pH	Ammonia-N, Titr. (350.2) w/ dist	TRPH, Total Rec. Petroleum Hydrocarbons (EPA 418.1)	625 Naphthalene +NDMA analysis
Outfall 012	W	1L Amber	1	HCL	1A					X							
Outfall 012 duplicate	W	1L Amber	1	HCL	1B					X							
Outfall 012	W	Plastic 1L Amber	1	HCL	2A											X	
Outfall 012 duplicate	W	Plastic 1L Amber	1	HCL	2B											X	
Outfall 012	W	VOAs	1	HCL	3A						X						
Outfall 012 duplicate	W	VOAs	2	HCL	3B, 3C						X						
Outfall 012	W	VOAs	1	HCL	4A			X									
Outfall 012 duplicate	W	VOAs	2	HCL	4B, 4C			X									
Outfall 012	W	VOAs	1	HCL	5A												
Outfall 012 duplicate	W	VOAs	2	HCL	5B, 5C			X									
Outfall 012	W	1L Amber	1	None	6A				X								
Outfall 012 duplicate	W	1L Amber	1	None	6B												X
Outfall 012	W	1L Amber	1	None	7A				X								
Outfall 012 duplicate	W	1L Amber	1	None	7B				X								
Outfall 012	W	500 ml Poly	1	H2SO4	8A								X				
Outfall 012	W	1L Poly	1	None	9A							X					
Outfall 012	W	1L Poly	1	None	10A								X				
Outfall 012	W	1L Poly	1	None	11A								X				
Trip Blank	W	VOAs	4	HCL	12A, 12B, 12C, 12D			X			X						

**Relinquished By:** [Signature] Date/Time: 8/21/04 1305  
**Relinquished By:** [Signature] Date/Time: 8/21/04 1305  
**Relinquished By:** [Signature] Date/Time: 8/21/04 1505  
**Relinquished By:** [Signature] Date/Time: 8/21/04 1505

**Received By:** [Signature] Date/Time: 8/21/04 1305  
**Received By:** [Signature] Date/Time: 8/21/04 1305  
**Received By:** [Signature] Date/Time: 8/21/04 1505  
**Received By:** [Signature] Date/Time: 8/21/04 1505

**Turnaround Time: (check)**  
 Same Day \_\_\_\_\_ 72 Hours \_\_\_\_\_  
 24 Hours \_\_\_\_\_ 5 days \_\_\_\_\_  
 48 hours \_\_\_\_\_ normal \_\_\_\_\_  
 Perchlorate Only 72 Hours \_\_\_\_\_  
 Metals Only 72 Hours \_\_\_\_\_

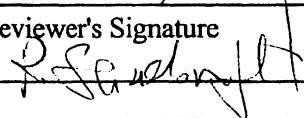
**Sample Integrity: (Check)** On Ice:  6°C  
 Intact:

**CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA**

AMEC Earth & Environmental  
 550 South Wadsworth Boulevard  
 Suite 500  
 Lakewood, CO 80226

Package ID T711VO3  
 Task Order 313150010  
 SDG No. INH1290  
 No. of Analyses 1

Laboratory Del Mar Analytical  
 Reviewer K. Shadowlight  
 Analysis/Method 1,4-dioxane by 8260B/SIM

Date: October 4, 2004  
 Reviewer's Signature  


<b>ACTION ITEMS<sup>a</sup></b>	
1. <b>Case Narrative</b>	
<b>Deficiencies</b>	
2. <b>Out of Scope</b>	
<b>Analyses</b>	
3. <b>Analyses Not Conducted</b>	
4. <b>Missing Hardcopy</b>	
<b>Deliverables</b>	
5. <b>Incorrect Hardcopy</b>	
<b>Deliverables</b>	
6. <b>Deviations from Analysis</b>	
Holding Times	
GC/MS Tune/Inst. Perform	
Calibrations	
Blanks	
Surrogates	
Matrix Spike/Dup LCS	
Field QC	
Internal Standard Performance	
Compound Identification and	
Quantitation	
System Performance	
<b>COMMENTS<sup>b</sup></b>	Acceptable as reviewed.
<small><sup>a</sup> Subcontracted analytical laboratory is not meeting contract and/or method requirements.</small> <small><sup>b</sup> Differences in protocol have been adopted by the laboratory but no action against the laboratory is required.</small>	



LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project: Alfa Outfall 012 - During Test

Sampled: 09/02/04  
Received: 09/02/04  
Issued: 11/08/04 15:18

NELAP #01108CA CA ELAP #1197 CSDLAC #10117

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain(s) of Custody, 4 pages, are included and are an integral part of this report.  
This entire report was reviewed and approved for release.*

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
INI0174-01	Outfall 012	Water
INI0174-02	Trip Blank	Water

Reviewed By:

Del Mar Analytical, Irvine  
Michelle Harper  
Project Manager



WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0174	Sampled: 09/02/04 Received: 09/02/04
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**TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (Outfall 012 - Water)					Sampled: 09/02/04				
Reporting Units: mg/l									
Total Recoverable Hydrocarbons	EPA 418.1	4I03070	0.31	1.0	10	1	09/03/04	09/03/04	

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0174	Sampled: 09/02/04 Received: 09/02/04
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**EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (Outfall 012 - Water) - cont.					Sampled: 09/02/04				
Reporting Units: mg/l									
EFH (C13 - C22)	EPA 8015B	4I03069	0.082	0.50	2.2	0.952	09/03/04	09/10/04	
Surrogate: n-Octacosane (45-125%)					73 %				

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager

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WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI0174  
Pasadena, CA 91101  
Attention: Bronwyn Kelly  
Sampled: 09/02/04  
Received: 09/02/04

**VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0174-01 (Outfall 012 - Water) - cont.</b>					<b>Sampled: 09/02/04</b>				
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	4I10008	0.10	0.20	0.70	2	09/10/04	09/10/04	
Surrogate: 4-BFB (FID) (60-135%)					94 %				
<b>Sample ID: INI0174-02 (Trip Blank - Water)</b>					<b>Sampled: 09/02/04</b>				
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	4I10008	0.050	0.10	ND	1	09/10/04	09/10/04	
Surrogate: 4-BFB (FID) (60-135%)					82 %				

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager

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H-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0174	Sampled: 09/02/04 Received: 09/02/04
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**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0174-01 (Outfall 012 - Water)</b>					<b>Sampled: 09/02/04</b>				
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I13030	0.32	2.0	ND	1	09/13/04	09/14/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I13030	0.32	5.0	ND	1	09/13/04	09/14/04	
1,2,3-Trichloropropane	EPA 624 MOD	4I13030	0.85	10	ND	1	09/13/04	09/14/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I13030	0.25	5.0	ND	1	09/13/04	09/14/04	
tert-Butanol (TBA)	EPA 624 MOD	4I13030	3.1	25	ND	1	09/13/04	09/14/04	
Surrogate: Dibromofluoromethane (80-120%)					84 %				
Surrogate: Toluene-d8 (80-120%)					104 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					98 %				
<b>Sample ID: INI0174-02 (Trip Blank - Water)</b>					<b>Sampled: 09/02/04</b>				
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I13017	0.32	2.0	ND	1	09/13/04	09/13/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I13017	0.32	5.0	ND	1	09/13/04	09/13/04	
1,2,3-Trichloropropane	EPA 624 MOD	4I13017	0.85	10	ND	1	09/13/04	09/13/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I13017	0.25	5.0	ND	1	09/13/04	09/13/04	
tert-Butanol (TBA)	EPA 624 MOD	4I13017	3.1	25	ND	1	09/13/04	09/13/04	
Surrogate: Dibromofluoromethane (80-120%)					106 %				
Surrogate: Toluene-d8 (80-120%)					100 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					94 %				

Del Mar Analytical, Irvine  
Dele Harper  
Project Manager

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WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI0174  
Pasadena, CA 91101  
Attention: Bronwyn Kelly  
Sampled: 09/02/04  
Received: 09/02/04

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (Outfall 012 - Water)					Sampled: 09/02/04				
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4I07084	0.30	0.50	ND	1	09/07/04	09/07/04	
Biochemical Oxygen Demand	EPA 405.1	4I03065	0.59	2.0	2.7	1	09/03/04	09/08/04	
Oil & Grease	EPA 413.1	4I07068	0.94	5.0	4.8	1	09/07/04	09/07/04	J
Total Dissolved Solids	SM2540C	4I09084	10	10	340	1	09/08/04	09/08/04	
Total Suspended Solids	EPA 160.2	4I03068	10	10	14	1	09/03/04	09/03/04	
Sample ID: INI0174-01 (Outfall 012 - Water)					Sampled: 09/02/04				
Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	4I03067	0.10	0.10	ND	1	09/03/04	09/03/04	
Sample ID: INI0174-01 (Outfall 012 - Water)					Sampled: 09/02/04				
Reporting Units: NTU									
Turbidity	EPA 180.1	4I03095	0.20	1.0	29	1	09/03/04	09/03/04	
Sample ID: INI0174-01 (Outfall 012 - Water)					Sampled: 09/02/04				
Reporting Units: pH Units									
pH	EPA 150.1	4I03066	N/A	NA	8.28	1	09/03/04	09/03/04	
Sample ID: INI0174-01 (Outfall 012 - Water)					Sampled: 09/02/04				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4I08050	0.80	4.0	ND	1	09/08/04	09/08/04	

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager

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WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0174	Sampled: 09/02/04 Received: 09/02/04
---	--	---

**1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0174-01 (Outfall 012 - Water) - cont.					Sampled: 09/02/04				
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4I0706	0.49	1.0	1.6	1	09/07/04	09/07/04	
Surrogate: Dibromofluoromethane (80-135%)					102 %				

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager

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WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0174	Sampled: 09/02/04 Received: 09/02/04
---	--	---

### Semivolatile Organic Compounds by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0174-01 (Outfall 012 - Water) - cont.</b>					<b>Sampled: 09/02/04</b>				
<b>Reporting Units: ug/L</b>									
Naphthalene	EPA 625	V4I0802	1.31	10.0	37.8	1	09/07/04	09/16/04	
N-Nitrosodimethylamine	EPA 625	V4I0802	1.37	20.0	ND	1	09/07/04	09/16/04	
Surrogate: 2-FP (40.8-88.4%)					36.2 %				S-04
Surrogate: Phenol-d6 (31.7-86.6%)					35.7 %				
Surrogate: 2,4,6-TBP (58-109%)					50.0 %				S-04
Surrogate: Nitrobenzene-d5 (47.1-99.2%)					79.6 %				
Surrogate: 2-FBP (44.7-89.6%)					74.2 %				
Surrogate: p-Terphenyl-d14 (45.7-117%)					91.7 %				

Del Mar Analytical, Irvine  
 Michele Harper  
 Project Manager

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WH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	Sampled: 09/02/04
500 North Lake Avenue, Suite 1200	Report Number: INI0174	Received: 09/02/04
Pasadena, CA 91101		
Attention: Bronwyn Kelly		

**SHORT HOLD TIME DETAIL REPORT**

Sample ID: Outfall 012 (INI0174-01) - Water	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
EPA 150.1	1	09/02/2004 14:40	09/02/2004 18:30	09/03/2004 06:00	09/03/2004 07:00
EPA 160.5	2	09/02/2004 14:40	09/02/2004 18:30	09/03/2004 18:45	09/03/2004 20:00
EPA 180.1	2	09/02/2004 14:40	09/02/2004 18:30	09/03/2004 13:30	09/03/2004 14:00
EPA 405.1	2	09/02/2004 14:40	09/02/2004 18:30	09/03/2004 21:28	09/08/2004 11:00

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



WH-Pasadena/Boeing  
500 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0174

Sampled: 09/02/04  
Received: 09/02/04

METHOD BLANK/QC DATA

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I03070 Extracted: 09/03/04</b>											
<b>Blank Analyzed: 09/03/04 (4I03070-BLK1)</b>											
Total Recoverable Hydrocarbons	ND	1.0	0.31	mg/l							
<b>LCS Analyzed: 09/03/04 (4I03070-BS1)</b>											
Total Recoverable Hydrocarbons	4.94	1.0	0.31	mg/l	5.00		99	65-120			M-NR1
<b>LCS Dup Analyzed: 09/03/04 (4I03070-BSD1)</b>											
Total Recoverable Hydrocarbons	4.72	1.0	0.31	mg/l	5.00		94	65-120	5	20	

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager

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V/H-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0174	Sampled: 09/02/04 Received: 09/02/04
--	--	---

### METHOD BLANK/QC DATA

#### EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I03069 Extracted: 09/03/04</b>											
<b>Blank Analyzed: 09/05/04 (4I03069-BLK1)</b>											
EFH (C13 - C22)	ND	0.50	0.082	mg/l							
EFH (C13 - C40)	ND	0.50	0.082	mg/l							
Surrogate: n-Octacosane	0.148			mg/l	0.200		74	45-125			
<b>LCS Analyzed: 09/05/04 (4I03069-BS1)</b>											
EFH (C13 - C40)	0.572	0.50	0.082	mg/l	0.775		74	40-115			M-NR1
Surrogate: n-Octacosane	0.176			mg/l	0.200		88	45-125			
<b>LCS Dup Analyzed: 09/05/04 (4I03069-BSD1)</b>											
EFH (C13 - C40)	0.531	0.50	0.082	mg/l	0.775		69	40-115	7	25	
Surrogate: n-Octacosane	0.155			mg/l	0.200		78	45-125			

Del Mar Analytical, Irvine  
 Michele Harper  
 Project Manager

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WH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	
500 North Lake Avenue, Suite 1200		Sampled: 09/02/04
Pasadena, CA 91101	Report Number: INI0174	Received: 09/02/04
Attention: Bronwyn Kelly		

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I10008 Extracted: 09/10/04</b>											
<b>Blank Analyzed: 09/10/04 (4I10008-BLK1)</b>											
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.00865			mg/l	0.0100		87	60-135			
<b>LCS Analyzed: 09/10/04 (4I10008-BS1)</b>											
GRO (C4 - C12)	0.198	0.10	0.050	mg/l	0.220		90	70-135			M-3
Surrogate: 4-BFB (FID)	0.0104			mg/l	0.0100		104	60-135			

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0174	Sampled: 09/02/04 Received: 09/02/04
---	--	---

**METHOD BLANK/QC DATA**

**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	Limit	Data Qualifiers
<b>Batch: 4I13017 Extracted: 09/13/04</b>											
<b>Blank Analyzed: 09/13/04 (4I13017-BLK1)</b>											
Acetone	ND	10	4.5	ug/l							
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.32	ug/l							
Bromomethane	ND	5.0	0.34	ug/l							
2-Butanone (MEK)	ND	10	3.8	ug/l							
n-Butylbenzene	ND	5.0	0.17	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.33	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.30	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.32	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.30	ug/l							
2,2-Dichloropropane	ND	2.0	0.29	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							

Del Mar Analytical, Irvine  
 Michele Harper  
 Project Manager



WH-Pasadena/Boeing  
500 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
Report Number: INI0174

Sampled: 09/02/04  
Received: 09/02/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I13017 Extracted: 09/13/04</b>										
<b>Blank Analyzed: 09/13/04 (4I13017-BLK1)</b>										
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l						
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l						
Ethylbenzene	ND	2.0	0.25	ug/l						
Hexachlorobutadiene	ND	5.0	0.38	ug/l						
2-Hexanone	ND	10	2.6	ug/l						
Isopropylbenzene	ND	2.0	0.25	ug/l						
p-Isopropyltoluene	ND	2.0	0.28	ug/l						
Methylene chloride	ND	5.0	0.48	ug/l						
4-Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l						
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l						
nthalene	ND	5.0	0.41	ug/l						
n-Propylbenzene	ND	2.0	0.14	ug/l						
Styrene	ND	2.0	0.16	ug/l						
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l						
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l						
Tetrachloroethene	ND	2.0	0.32	ug/l						
Toluene	ND	2.0	0.36	ug/l						
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l						
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l						
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l						
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l						
Trichloroethene	ND	2.0	0.26	ug/l						
Trichlorofluoromethane	ND	5.0	0.34	ug/l						
1,2,3-Trichloropropane	ND	10	0.85	ug/l						
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l						
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l						
Vinyl chloride	ND	5.0	0.26	ug/l						
o-Xylene	ND	2.0	0.24	ug/l						
m,p-Xylenes	ND	2.0	0.52	ug/l						
Xylenes, Total	ND	4.0	0.52	ug/l						
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l						
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l						
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l						
tert-Butanol (TBA)	ND	25	3.1	ug/l						
Surrogate: Dibromofluoromethane	25.8			ug/l	25.0		103		80-120	

Del Mar Analytical, Irvine  
Dele Harper  
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
500 North Lake Avenue, Suite 1200 Report Number: INI0174  
Pasadena, CA 91101  
Attention: Bronwyn Kelly Sampled: 09/02/04  
Received: 09/02/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	Data Qualifiers
<b>Batch: 4I13017 Extracted: 09/13/04</b>									
<b>Blank Analyzed: 09/13/04 (4I13017-BLK1)</b>									
Surrogate: Toluene-d8	24.4			ug/l	25.0		98 80-120		
Surrogate: 4-Bromofluorobenzene	23.0			ug/l	25.0		92 80-120		
<b>LCS Analyzed: 09/13/04 (4I13017-BS1)</b>									
Acetone	11.2	10	4.5	ug/l	25.0		45 30-120		
Benzene	23.4	2.0	0.28	ug/l	25.0		94 70-120		M-3
Bromobenzene	22.4	5.0	0.27	ug/l	25.0		90 80-120		
Bromochloromethane	23.8	5.0	0.32	ug/l	25.0		95 65-135		
Bromodichloromethane	23.6	2.0	0.30	ug/l	25.0		94 70-140		
Bromoform	18.7	5.0	0.32	ug/l	25.0		75 55-135		
Dimethylmethane	26.8	5.0	0.34	ug/l	25.0		107 60-140		
Butanone (MEK)	16.1	10	3.8	ug/l	25.0		64 40-135		
n-Butylbenzene	23.1	5.0	0.17	ug/l	25.0		92 75-130		
sec-Butylbenzene	22.7	5.0	0.25	ug/l	25.0		91 75-125		
tert-Butylbenzene	22.9	5.0	0.22	ug/l	25.0		92 75-125		
Carbon tetrachloride	25.1	5.0	0.28	ug/l	25.0		100 70-140		
Chlorobenzene	22.9	2.0	0.36	ug/l	25.0		92 80-125		
Chloroethane	25.2	5.0	0.33	ug/l	25.0		101 60-145		
Chloroform	24.5	2.0	0.33	ug/l	25.0		98 75-130		
Chloromethane	22.1	5.0	0.30	ug/l	25.0		88 40-145		
2-Chlorotoluene	22.5	5.0	0.28	ug/l	25.0		90 75-125		
4-Chlorotoluene	23.0	5.0	0.29	ug/l	25.0		92 75-125		
Dibromochloromethane	22.5	2.0	0.28	ug/l	25.0		90 65-145		
1,2-Dibromo-3-chloropropane	19.7	5.0	0.92	ug/l	25.0		79 50-135		
1,2-Dibromoethane (EDB)	21.4	2.0	0.32	ug/l	25.0		86 75-125		
Dibromomethane	21.5	2.0	0.36	ug/l	25.0		86 75-130		
1,2-Dichlorobenzene	22.6	2.0	0.32	ug/l	25.0		90 80-120		
1,3-Dichlorobenzene	22.6	2.0	0.35	ug/l	25.0		90 80-120		
1,4-Dichlorobenzene	22.7	2.0	0.37	ug/l	25.0		91 80-120		
Dichlorodifluoromethane	21.7	5.0	0.79	ug/l	25.0		87 10-160		
1,1-Dichloroethane	24.5	2.0	0.27	ug/l	25.0		98 70-135		
1,2-Dichloroethane	21.4	2.0	0.28	ug/l	25.0		86 60-150		
1,1-Dichloroethene	23.5	5.0	0.32	ug/l	25.0		94 75-135		
cis-1,2-Dichloroethene	24.0	2.0	0.32	ug/l	25.0		96 70-125		
trans-1,2-Dichloroethene	24.3	2.0	0.27	ug/l	25.0		97 70-130		
1,2-Dichloropropane	22.8	2.0	0.35	ug/l	25.0		91 70-120		

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



IWH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI0174  
Pasadena, CA 91101  
Attention: Bronwyn Kelly  
Sampled: 09/02/04  
Received: 09/02/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I13017 Extracted: 09/13/04</b>											
<b>LCS Analyzed: 09/13/04 (4I13017-BS1)</b>											
1,3-Dichloropropane	20.2	2.0	0.30	ug/l	25.0		81	70-130			
2,2-Dichloropropane	28.2	2.0	0.29	ug/l	25.0		113	65-150			
1,1-Dichloropropene	22.9	2.0	0.28	ug/l	25.0		92	75-130			
cis-1,3-Dichloropropene	23.6	2.0	0.22	ug/l	25.0		94	75-130			
trans-1,3-Dichloropropene	23.4	2.0	0.24	ug/l	25.0		94	75-135			
Ethylbenzene	23.0	2.0	0.25	ug/l	25.0		92	80-120			
Hexachlorobutadiene	22.1	5.0	0.38	ug/l	25.0		88	65-140			
2-Hexanone	15.6	10	2.6	ug/l	25.0		62	40-140			
Isopropylbenzene	23.8	2.0	0.25	ug/l	25.0		95	75-125			
n-Isopropyltoluene	22.3	2.0	0.28	ug/l	25.0		89	75-125			
ethylene chloride	23.4	5.0	0.48	ug/l	25.0		94	60-135			
1,1-Dimethyl-2-pentanone (MIBK)	17.0	10	2.5	ug/l	25.0		68	40-140			
Methyl-tert-butyl Ether (MTBE)	21.9	5.0	0.32	ug/l	25.0		88	55-145			
Naphthalene	20.1	5.0	0.41	ug/l	25.0		80	50-145			
n-Propylbenzene	22.7	2.0	0.14	ug/l	25.0		91	75-130			
Styrene	24.6	2.0	0.16	ug/l	25.0		98	80-135			
1,1,1,2-Tetrachloroethane	24.5	5.0	0.27	ug/l	25.0		98	70-145			
1,1,2,2-Tetrachloroethane	25.4	2.0	0.24	ug/l	25.0		102	60-135			
Tetrachloroethene	23.0	2.0	0.32	ug/l	25.0		92	75-125			
Toluene	23.8	2.0	0.36	ug/l	25.0		95	75-120			M-3
1,2,3-Trichlorobenzene	21.3	5.0	0.45	ug/l	25.0		85	65-135			
1,2,4-Trichlorobenzene	22.8	5.0	0.48	ug/l	25.0		91	70-140			
1,1,1-Trichloroethane	25.4	2.0	0.30	ug/l	25.0		102	75-140			
1,1,2-Trichloroethane	21.7	2.0	0.30	ug/l	25.0		87	70-125			
Trichloroethene	20.9	2.0	0.26	ug/l	25.0		84	80-120			
Trichlorofluoromethane	24.2	5.0	0.34	ug/l	25.0		97	65-145			
1,2,3-Trichloropropane	19.3	10	0.85	ug/l	25.0		77	60-130			
1,2,4-Trimethylbenzene	23.6	2.0	0.23	ug/l	25.0		94	75-125			
1,3,5-Trimethylbenzene	23.8	2.0	0.26	ug/l	25.0		95	75-125			
Vinyl chloride	21.5	5.0	0.26	ug/l	25.0		86	50-130			
o-Xylene	22.6	2.0	0.24	ug/l	25.0		90	75-125			
m,p-Xylenes	45.6	2.0	0.52	ug/l	50.0		91	75-120			
Di-isopropyl Ether (DIPE)	23.3	5.0	0.25	ug/l	25.0		93	65-135			
Ethyl tert-Butyl Ether (ETBE)	23.4	5.0	0.28	ug/l	25.0		94	60-140			
tert-Amyl Methyl Ether (TAME)	23.2	5.0	0.33	ug/l	25.0		93	60-140			

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI0174  
Pasadena, CA 91101 Attention: Bronwyn Kelly  
Sampled: 09/02/04  
Received: 09/02/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Batch: 4I13017, LCS Analyzed: 09/13/04, and Matrix Spike Analyzed: 09/13/04.

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
500 North Lake Avenue, Suite 1200 Report Number: INI0174
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/02/04
Received: 09/02/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of 40 analytes with their respective values.

Del Mar Analytical, Irvine
Hele Harper
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
500 North Lake Avenue, Suite 1200 Report Number: INI0174
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/02/04
Received: 09/02/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sub-sections for Matrix Spike Analyzed and Matrix Spike Dup Analyzed.

Del Mar Analytical, Irvine
Hele Harper
Project Manager





WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
500 North Lake Avenue, Suite 1200 Report Number: INI0174
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/02/04
Received: 09/02/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of 40 chemical compounds and their corresponding analytical data.

Del Mar Analytical, Irvine
Shele Harper
Project Manager



IWH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0174	Sampled: 09/02/04 Received: 09/02/04
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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
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Batch: 4I13017 Extracted: 09/13/04

Matrix Spike Dup Analyzed: 09/13/04 (4I13017-MSD1)

Source: INI0211-01

Surrogate: Toluene-d8	25.2			ug/l	25.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	24.3			ug/l	25.0		97	80-120			

Batch: 4I13030 Extracted: 09/13/04

Blank Analyzed: 09/13/04 (4I13030-BLK1)

Acetone	ND	10	4.5	ug/l							
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Dichloromethane	ND	2.0	0.30	ug/l							
Form	ND	5.0	0.32	ug/l							
Bromomethane	ND	5.0	0.34	ug/l							
2-Butanone (MEK)	ND	10	3.8	ug/l							
n-Butylbenzene	ND	5.0	0.17	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
tert-Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.33	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.30	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.32	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager



IWH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
500 North Lake Avenue, Suite 1200 Report Number: INI0174  
Pasadena, CA 91101  
Attention: Bronwyn Kelly  
Sampled: 09/02/04  
Received: 09/02/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I13030 Extracted: 09/13/04</b>											
<b>Blank Analyzed: 09/13/04 (4I13030-BLK1)</b>											
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.30	ug/l							
2,2-Dichloropropane	ND	2.0	0.29	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
2-Hexanone	ND	10	2.6	ug/l							
propylbenzene	ND	2.0	0.25	ug/l							
isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.48	ug/l							
4-Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.14	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.85	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
o-Xylene	ND	2.0	0.24	ug/l							
m,p-Xylenes	ND	2.0	0.52	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager

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WH-Pasadena/Boeing  
 500 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
 Report Number: INI0174

Sampled: 09/02/04  
 Received: 09/02/04

**METHOD BLANK/QC DATA**

**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I13030 Extracted: 09/13/04</b>											
<b>Blank Analyzed: 09/13/04 (4I13030-BLK1)</b>											
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	0.470	5.0	0.33	ug/l							J
tert-Butanol (TBA)	ND	25	3.1	ug/l							
Surrogate: Dibromofluoromethane	28.6			ug/l	25.0		114	80-120			
Surrogate: Toluene-d8	26.9			ug/l	25.0		108	80-120			
Surrogate: 4-Bromofluorobenzene	28.1			ug/l	25.0		112	80-120			
<b>LCS Analyzed: 09/13/04 (4I13030-BS1)</b>											
Acetone	27.8	10	4.5	ug/l	25.0		111	30-120			
Benzene	25.7	2.0	0.28	ug/l	25.0		103	70-120			
Bromobenzene	25.5	5.0	0.27	ug/l	25.0		102	80-120			
Bromochloromethane	28.8	5.0	0.32	ug/l	25.0		115	65-135			
Bromodichloromethane	28.7	2.0	0.30	ug/l	25.0		115	70-140			
Bromoform	30.6	5.0	0.32	ug/l	25.0		122	55-135			
Bromomethane	29.1	5.0	0.34	ug/l	25.0		116	60-140			
2-Butanone (MEK)	31.1	10	3.8	ug/l	25.0		124	40-135			
n-Butylbenzene	25.3	5.0	0.17	ug/l	25.0		101	75-130			
sec-Butylbenzene	24.6	5.0	0.25	ug/l	25.0		98	75-125			
tert-Butylbenzene	24.7	5.0	0.22	ug/l	25.0		99	75-125			
Carbon tetrachloride	28.4	5.0	0.28	ug/l	25.0		114	70-140			
Chlorobenzene	25.4	2.0	0.36	ug/l	25.0		102	80-125			
Chloroethane	26.9	5.0	0.33	ug/l	25.0		108	60-145			
Chloroform	27.8	2.0	0.33	ug/l	25.0		111	75-130			
Chloromethane	26.0	5.0	0.30	ug/l	25.0		104	40-145			
2-Chlorotoluene	24.4	5.0	0.28	ug/l	25.0		98	75-125			
4-Chlorotoluene	24.8	5.0	0.29	ug/l	25.0		99	75-125			
Dibromochloromethane	28.4	2.0	0.28	ug/l	25.0		114	65-145			
1,2-Dibromo-3-chloropropane	31.1	5.0	0.92	ug/l	25.0		124	50-135			
1,2-Dibromoethane (EDB)	28.3	2.0	0.32	ug/l	25.0		113	75-125			
Dibromomethane	29.8	2.0	0.36	ug/l	25.0		119	75-130			
1,2-Dichlorobenzene	25.4	2.0	0.32	ug/l	25.0		102	80-120			
1,3-Dichlorobenzene	24.6	2.0	0.35	ug/l	25.0		98	80-120			
1,4-Dichlorobenzene	25.1	2.0	0.37	ug/l	25.0		100	80-120			
Dichlorodifluoromethane	30.5	5.0	0.79	ug/l	25.0		122	10-160			
1,1-Dichloroethane	26.8	2.0	0.27	ug/l	25.0		107	70-135			

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 Michele Harper  
 Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI0174  
Pasadena, CA 91101  
Attention: Bronwyn Kelly  
Sampled: 09/02/04  
Received: 09/02/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I13030 Extracted: 09/13/04</b>											
<b>LCS Analyzed: 09/13/04 (4I13030-BS1)</b>											
1,2-Dichloroethane	30.5	2.0	0.28	ug/l	25.0		122	60-150			
1,1-Dichloroethene	26.6	5.0	0.32	ug/l	25.0		106	75-135			
cis-1,2-Dichloroethene	25.7	2.0	0.32	ug/l	25.0		103	70-125			
trans-1,2-Dichloroethene	26.8	2.0	0.27	ug/l	25.0		107	70-130			
1,2-Dichloropropane	26.2	2.0	0.35	ug/l	25.0		105	70-120			
1,3-Dichloropropane	27.9	2.0	0.30	ug/l	25.0		112	70-130			
2,2-Dichloropropane	26.9	2.0	0.29	ug/l	25.0		108	65-150			
1,1-Dichloropropene	26.2	2.0	0.28	ug/l	25.0		105	75-130			
cis-1,3-Dichloropropene	28.1	2.0	0.22	ug/l	25.0		112	75-130			
trans-1,3-Dichloropropene	29.6	2.0	0.24	ug/l	25.0		118	75-135			
o-Xylene	25.6	2.0	0.25	ug/l	25.0		102	80-120			
1,2-Dichlorobutadiene	25.0	5.0	0.38	ug/l	25.0		100	65-140			
2-Hexanone	32.4	10	2.6	ug/l	25.0		130	40-140			
Isopropylbenzene	24.9	2.0	0.25	ug/l	25.0		100	75-125			
p-Isopropyltoluene	24.5	2.0	0.28	ug/l	25.0		98	75-125			
Methylene chloride	25.4	5.0	0.48	ug/l	25.0		102	60-135			
4-Methyl-2-pentanone (MIBK)	31.0	10	2.5	ug/l	25.0		124	40-140			
Methyl-tert-butyl Ether (MTBE)	30.0	5.0	0.32	ug/l	25.0		120	55-145			
Naphthalene	28.0	5.0	0.41	ug/l	25.0		112	50-145			
n-Propylbenzene	24.7	2.0	0.14	ug/l	25.0		99	75-130			
Styrene	26.9	2.0	0.16	ug/l	25.0		108	80-135			
1,1,1,2-Tetrachloroethane	27.3	5.0	0.27	ug/l	25.0		109	70-145			
1,1,2,2-Tetrachloroethane	33.6	2.0	0.24	ug/l	25.0		134	60-135			
Tetrachloroethene	26.1	2.0	0.32	ug/l	25.0		104	75-125			
Toluene	25.8	2.0	0.36	ug/l	25.0		103	75-120			
1,2,3-Trichlorobenzene	27.9	5.0	0.45	ug/l	25.0		112	65-135			
1,2,4-Trichlorobenzene	27.4	5.0	0.48	ug/l	25.0		110	70-140			
1,1,1-Trichloroethane	27.8	2.0	0.30	ug/l	25.0		111	75-140			
1,1,2-Trichloroethane	28.0	2.0	0.30	ug/l	25.0		112	70-125			
Trichloroethene	26.4	2.0	0.26	ug/l	25.0		106	80-120			
Trichlorofluoromethane	28.1	5.0	0.34	ug/l	25.0		112	65-145			
1,2,3-Trichloropropane	27.8	10	0.85	ug/l	25.0		111	60-130			
1,2,4-Trimethylbenzene	25.2	2.0	0.23	ug/l	25.0		101	75-125			
1,3,5-Trimethylbenzene	25.3	2.0	0.26	ug/l	25.0		101	75-125			
Vinyl chloride	26.5	5.0	0.26	ug/l	25.0		106	50-130			

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Hele Harper  
Project Manager

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WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0174	Sampled: 09/02/04 Received: 09/02/04
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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I13030 Extracted: 09/13/04</b>											
<b>LCS Analyzed: 09/13/04 (4I13030-BS1)</b>											
o-Xylene	24.6	2.0	0.24	ug/l	25.0		98	75-125			
m,p-Xylenes	50.1	2.0	0.52	ug/l	50.0		100	75-120			
Di-isopropyl Ether (DIPE)	28.0	5.0	0.25	ug/l	25.0		112	65-135			
Ethyl tert-Butyl Ether (ETBE)	28.3	5.0	0.28	ug/l	25.0		113	60-140			
tert-Amyl Methyl Ether (TAME)	30.0	5.0	0.33	ug/l	25.0		120	60-140			
tert-Butanol (TBA)	121	25	3.1	ug/l	125		97	70-140			
Surrogate: Dibromofluoromethane	27.9			ug/l	25.0		112	80-120			
Surrogate: Toluene-d8	26.9			ug/l	25.0		108	80-120			
Surrogate: 4-Bromofluorobenzene	27.9			ug/l	25.0		112	80-120			
<b>Matrix Spike Analyzed: 09/13/04 (4I13030-MS1)</b>											
<b>Source: INI0162-05</b>											
Toluene	22.5	10	4.5	ug/l	25.0	ND	90	10-150			
Benzene	25.3	2.0	0.28	ug/l	25.0	ND	101	70-120			
Bromobenzene	24.5	5.0	0.27	ug/l	25.0	ND	98	65-130			
Bromochloromethane	24.4	5.0	0.32	ug/l	25.0	ND	98	65-140			
Bromodichloromethane	25.8	2.0	0.30	ug/l	25.0	ND	103	70-140			
Bromoform	23.8	5.0	0.32	ug/l	25.0	ND	95	55-140			
Bromomethane	29.0	5.0	0.34	ug/l	25.0	ND	116	50-145			
2-Butanone (MEK)	22.3	10	3.8	ug/l	25.0	ND	89	30-145			
n-Butylbenzene	27.6	5.0	0.17	ug/l	25.0	ND	110	70-140			
sec-Butylbenzene	26.5	5.0	0.25	ug/l	25.0	ND	106	70-130			
tert-Butylbenzene	26.5	5.0	0.22	ug/l	25.0	ND	106	70-130			
Carbon tetrachloride	28.8	5.0	0.28	ug/l	25.0	ND	115	70-145			
Chlorobenzene	25.4	2.0	0.36	ug/l	25.0	ND	102	80-125			
Chloroethane	26.7	5.0	0.33	ug/l	25.0	ND	107	50-145			
Chloroform	26.9	2.0	0.33	ug/l	25.0	ND	108	70-135			
Chloromethane	25.6	5.0	0.30	ug/l	25.0	ND	102	35-145			
2-Chlorotoluene	25.6	5.0	0.28	ug/l	25.0	ND	102	70-140			
4-Chlorotoluene	25.8	5.0	0.29	ug/l	25.0	ND	103	70-140			
Dibromochloromethane	24.0	2.0	0.28	ug/l	25.0	ND	96	65-145			
1,2-Dibromo-3-chloropropane	23.7	5.0	0.92	ug/l	25.0	ND	95	45-155			
1,2-Dibromoethane (EDB)	22.4	2.0	0.32	ug/l	25.0	ND	90	70-130			
Dibromomethane	23.5	2.0	0.36	ug/l	25.0	ND	94	65-140			
1,2-Dichlorobenzene	24.7	2.0	0.32	ug/l	25.0	ND	99	75-130			
1,3-Dichlorobenzene	25.0	2.0	0.35	ug/l	25.0	ND	100	75-130			
1,4-Dichlorobenzene	25.0	2.0	0.37	ug/l	25.0	ND	100	80-120			

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INI0174
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/02/04
Received: 09/02/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of 30 analytes and their corresponding values.

Del Mar Analytical, Irvine
Shele Harper
Project Manager

WH-Pasadena/Boeing  
500 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
Report Number: INI0174

Sampled: 09/02/04  
Received: 09/02/04

**METHOD BLANK/QC DATA**
**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I13030 Extracted: 09/13/04</b>											
<b>Matrix Spike Analyzed: 09/13/04 (4I13030-MS1)</b>						<b>Source: INI0162-05</b>					
1,3,5-Trimethylbenzene	26.6	2.0	0.26	ug/l	25.0	ND	106	70-130			
Vinyl chloride	26.8	5.0	0.26	ug/l	25.0	ND	107	40-135			
o-Xylene	25.4	2.0	0.24	ug/l	25.0	ND	102	65-125			
m,p-Xylenes	51.8	2.0	0.52	ug/l	50.0	ND	104	65-130			
Di-isopropyl Ether (DIPE)	25.8	5.0	0.25	ug/l	25.0	ND	103	65-140			
Ethyl tert-Butyl Ether (ETBE)	25.1	5.0	0.28	ug/l	25.0	ND	100	60-140			
tert-Amyl Methyl Ether (TAME)	25.0	5.0	0.33	ug/l	25.0	ND	100	55-145			
tert-Butanol (TBA)	135	25	3.1	ug/l	125	ND	108	65-145			
Surrogate: Dibromofluoromethane	26.1			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	26.6			ug/l	25.0		106	80-120			
Surrogate: 4-Bromofluorobenzene	27.0			ug/l	25.0		108	80-120			
<b>Matrix Spike Dup Analyzed: 09/13/04 (4I13030-MSD1)</b>						<b>Source: INI0162-05</b>					
Acetone	21.2	10	4.5	ug/l	25.0	ND	85	10-150	6	35	
Benzene	25.5	2.0	0.28	ug/l	25.0	ND	102	70-120	1	20	
Bromobenzene	24.2	5.0	0.27	ug/l	25.0	ND	97	65-130	1	20	
Bromochloromethane	22.8	5.0	0.32	ug/l	25.0	ND	91	65-140	7	25	
Bromodichloromethane	25.0	2.0	0.30	ug/l	25.0	ND	100	70-140	3	20	
Bromoform	22.2	5.0	0.32	ug/l	25.0	ND	89	55-140	7	25	
Bromomethane	29.3	5.0	0.34	ug/l	25.0	ND	117	50-145	1	25	
2-Butanone (MEK)	23.0	10	3.8	ug/l	25.0	ND	92	30-145	3	40	
n-Butylbenzene	27.7	5.0	0.17	ug/l	25.0	ND	111	70-140	0	20	
sec-Butylbenzene	26.8	5.0	0.25	ug/l	25.0	ND	107	70-130	1	20	
tert-Butylbenzene	26.8	5.0	0.22	ug/l	25.0	ND	107	70-130	1	20	
Carbon tetrachloride	29.4	5.0	0.28	ug/l	25.0	ND	118	70-145	2	25	
Chlorobenzene	25.1	2.0	0.36	ug/l	25.0	ND	100	80-125	1	20	
Chloroethane	28.0	5.0	0.33	ug/l	25.0	ND	112	50-145	5	25	
Chloroform	25.7	2.0	0.33	ug/l	25.0	ND	103	70-135	5	20	
Chloromethane	26.3	5.0	0.30	ug/l	25.0	ND	105	35-145	3	25	
2-Chlorotoluene	25.5	5.0	0.28	ug/l	25.0	ND	102	70-140	0	20	
4-Chlorotoluene	25.7	5.0	0.29	ug/l	25.0	ND	103	70-140	0	20	
Dibromochloromethane	22.9	2.0	0.28	ug/l	25.0	ND	92	65-145	5	25	
1,2-Dibromo-3-chloropropane	21.7	5.0	0.92	ug/l	25.0	ND	87	45-155	9	30	
1,2-Dibromoethane (EDB)	21.6	2.0	0.32	ug/l	25.0	ND	86	70-130	4	25	
Dibromomethane	23.0	2.0	0.36	ug/l	25.0	ND	92	65-140	2	25	
1,2-Dichlorobenzene	23.8	2.0	0.32	ug/l	25.0	ND	95	75-130	4	20	

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Shele Harper  
Project Manager





WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI0174  
Pasadena, CA 91101 Attention: Bronwyn Kelly  
Sampled: 09/02/04  
Received: 09/02/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of 40 analytes and their corresponding data points.

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Shele Harper  
Project Manager

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WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI0174  
Pasadena, CA 91101  
Attention: Bronwyn Kelly  
Sampled: 09/02/04  
Received: 09/02/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I13030 Extracted: 09/13/04</b>											
<b>Matrix Spike Dup Analyzed: 09/13/04 (4I13030-MSD1)</b>						<b>Source: INI0162-05</b>					
1,2,3-Trichloropropane	20.2	10	0.85	ug/l	25.0	ND	81	55-140	3	30	
1,2,4-Trimethylbenzene	23.7	2.0	0.23	ug/l	25.0	ND	95	60-125	7	25	
1,3,5-Trimethylbenzene	26.2	2.0	0.26	ug/l	25.0	ND	105	70-130	2	20	
Vinyl chloride	28.0	5.0	0.26	ug/l	25.0	ND	112	40-135	4	30	
o-Xylene	25.1	2.0	0.24	ug/l	25.0	ND	100	65-125	1	20	
m,p-Xylenes	51.5	2.0	0.52	ug/l	50.0	ND	103	65-130	1	25	
Di-isopropyl Ether (DIPE)	24.5	5.0	0.25	ug/l	25.0	ND	98	65-140	5	25	
Ethyl tert-Butyl Ether (ETBE)	23.7	5.0	0.28	ug/l	25.0	ND	95	60-140	6	25	
tert-Amyl Methyl Ether (TAME)	23.0	5.0	0.33	ug/l	25.0	ND	92	55-145	8	30	
tert-Butanol (TBA)	133	25	3.1	ug/l	125	ND	106	65-145	1	25	
Surrogate: Dibromofluoromethane	25.3			ug/l	25.0		101	80-120			
Surrogate: Toluene-d8	26.7			ug/l	25.0		107	80-120			
Surrogate: 4-Bromofluorobenzene	26.7			ug/l	25.0		107	80-120			

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Shele Harper  
Project Manager



IWH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0174	Sampled: 09/02/04 Received: 09/02/04
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**METHOD BLANK/QC DATA**

**INORGANICS**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I03065 Extracted: 09/03/04</b>											
<b>Blank Analyzed: 09/08/04 (4I03065-BLK1)</b>											
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
<b>LCS Analyzed: 09/08/04 (4I03065-BS1)</b>											
Biochemical Oxygen Demand	219	100	30	mg/l	198		111	85-115			
<b>LCS Dup Analyzed: 09/08/04 (4I03065-BSD1)</b>											
Biochemical Oxygen Demand	215	100	30	mg/l	198		109	85-115	2	20	
<b>Batch: 4I03066 Extracted: 09/03/04</b>											
<b>Duplicate Analyzed: 09/03/04 (4I03066-DUP1)</b>											
	8.40	NA	N/A	pH Units		Source: INI0166-01 8.38			0	5	
<b>Batch: 4I03068 Extracted: 09/03/04</b>											
<b>Blank Analyzed: 09/03/04 (4I03068-BLK1)</b>											
Total Suspended Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 09/03/04 (4I03068-BS1)</b>											
Total Suspended Solids	987	10	10	mg/l	1000		99	85-115			
<b>Duplicate Analyzed: 09/03/04 (4I03068-DUP1)</b>											
Total Suspended Solids	600	10	10	mg/l		Source: INI0163-01 600			0	10	
<b>Batch: 4I03095 Extracted: 09/03/04</b>											
<b>Blank Analyzed: 09/03/04 (4I03095-BLK1)</b>											
Turbidity	ND	1.0	0.20	NTU							

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WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0174	Sampled: 09/02/04 Received: 09/02/04
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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I03095 Extracted: 09/03/04</b>											
<b>Duplicate Analyzed: 09/03/04 (4I03095-DUP1)</b>					<b>Source: INI0128-01</b>						
Turbidity	2.45	1.0	0.20	NTU		2.3			6	20	
<b>Batch: 4I07068 Extracted: 09/07/04</b>											
<b>Blank Analyzed: 09/07/04 (4I07068-BLK1)</b>											
Oil & Grease	ND	5.0	0.94	mg/l							
<b>LCS Analyzed: 09/07/04 (4I07068-BS1)</b>											
Oil & Grease	18.7	5.0	0.94	mg/l	20.0		94	65-120			M-NR1
<b>LCS Dup Analyzed: 09/07/04 (4I07068-BSD1)</b>											
& Grease	17.9	5.0	0.94	mg/l	20.0		90	65-120	4	20	
<b>Batch: 4I07084 Extracted: 09/07/04</b>											
<b>Blank Analyzed: 09/07/04 (4I07084-BLK1)</b>											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
<b>LCS Analyzed: 09/07/04 (4I07084-BS1)</b>											
Ammonia-N (Distilled)	10.6	0.50	0.30	mg/l	10.0		106	80-115			
<b>Matrix Spike Analyzed: 09/07/04 (4I07084-MS1)</b>											
Ammonia-N (Distilled)	10.4	0.50	0.30	mg/l	10.0	ND	104	70-120			
<b>Matrix Spike Dup Analyzed: 09/07/04 (4I07084-MSD1)</b>											
Ammonia-N (Distilled)	10.4	0.50	0.30	mg/l	10.0	ND	104	70-120	0	15	

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



IWH-Pasadena/Boeing  
500 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0174

Sampled: 09/02/04  
Received: 09/02/04

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I08050 Extracted: 09/08/04</b>											
<b>Blank Analyzed: 09/08/04 (4I08050-BLK1)</b>											
Perchlorate	ND	4.0	0.80	ug/l							
<b>LCS Analyzed: 09/08/04 (4I08050-BS1)</b>											
Perchlorate	51.1	4.0	0.80	ug/l	50.0		102	85-115			
<b>Matrix Spike Analyzed: 09/08/04 (4I08050-MS1)</b>											
Perchlorate	58.6	4.0	0.80	ug/l	50.0	6.0	105	80-120			
<b>Matrix Spike Dup Analyzed: 09/08/04 (4I08050-MSD1)</b>											
Perchlorate	58.3	4.0	0.80	ug/l	50.0	6.0	105	80-120	1	20	
<b>Batch: 4I09084 Extracted: 09/08/04</b>											
<b>Blank Analyzed: 09/08/04 (4I09084-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 09/08/04 (4I09084-BS1)</b>											
Total Dissolved Solids	1000	10	10	mg/l	1000		100	90-110			
<b>Duplicate Analyzed: 09/08/04 (4I09084-DUP1)</b>											
Total Dissolved Solids	350	10	10	mg/l		340			3	10	

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0174	Sampled: 09/02/04 Received: 09/02/04
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METHOD BLANK/QC DATA

1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: P4I0706 Extracted: 09/07/04</b>											
<b>Blank Analyzed: 09/07/04 (P4I0706-BLK1)</b>											
1,4-Dioxane	ND	1.0	0.49	ug/l							
Surrogate: Dibromofluoromethane	1.00			ug/l	1.00		100	80-135			
<b>LCS Analyzed: 09/07/04 (P4I0706-BS1)</b>											
1,4-Dioxane	9.57	1.0	0.49	ug/l	10.0		96	70-130			
Surrogate: Dibromofluoromethane	0.950			ug/l	1.00		95	80-135			
<b>LCS Dup Analyzed: 09/07/04 (P4I0706-BSD1)</b>											
1,4-Dioxane	9.80	1.0	0.49	ug/l	10.0		98	70-130	2	20	
Surrogate: Dibromofluoromethane	0.990			ug/l	1.00		99	80-135			
<b>Matrix Spike Analyzed: 09/07/04 (P4I0706-MS1)</b>						<b>Source: PNI0131-01</b>					
1,4-Dioxane	21.0	1.0	0.49	ug/l	10.0	12	90	70-130			
Surrogate: Dibromofluoromethane	0.990			ug/l	1.00		99	80-135			
<b>Matrix Spike Dup Analyzed: 09/07/04 (P4I0706-MSD1)</b>						<b>Source: PNI0131-01</b>					
1,4-Dioxane	21.4	1.0	0.49	ug/l	10.0	12	94	70-130	2	20	
Surrogate: Dibromofluoromethane	1.04			ug/l	1.00		104	80-135			

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



WH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0174

Sampled: 09/02/04

Received: 09/02/04

METHOD BLANK/QC DATA

Semivolatile Organic Compounds by EPA Method 625

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: V4I0802 Extracted: 09/07/04</b>										
<b>Blank Analyzed: 09/16/04 (V4I0802-BLK1)</b>										
Naphthalene	ND	10.0	1.31	ug/L						
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L						
Surrogate: 2-FP	101			ug/L	200		51 40.8-88.4			
Surrogate: Phenol-d6	88.3			ug/L	200		44 31.7-86.6			
Surrogate: 2,4,6-TBP	150			ug/L	200		75 58-109			
Surrogate: Nitrobenzene-d5	80.0			ug/L	100		80 47.1-99.2			
Surrogate: 2-FBP	80.4			ug/L	100		80 44.7-89.6			
Surrogate: p-Terphenyl-d14	101			ug/L	100		101 45.7-117			
<b>LCS Analyzed: 09/16/04 (V4I0802-BS1)</b>										
Naphthalene	150	10.0	1.31	ug/L	200		75 42.8-96.5			
N-Nitrosodimethylamine	129	20.0	1.37	ug/L	200		65 14.1-97.3			
Surrogate: 2-FP	132			ug/L	200		66 40.8-88.4			
Surrogate: Phenol-d6	102			ug/L	200		51 31.7-86.6			
Surrogate: 2,4,6-TBP	180			ug/L	200		90 58-109			
Surrogate: Nitrobenzene-d5	79.0			ug/L	100		79 47.1-99.2			
Surrogate: 2-FBP	77.5			ug/L	100		78 44.7-89.6			
Surrogate: p-Terphenyl-d14	86.6			ug/L	100		87 45.7-117			
<b>LCS Dup Analyzed: 09/16/04 (V4I0802-BSD1)</b>										
Naphthalene	156	10.0	1.31	ug/L	200		78 42.8-96.5	4	15	
N-Nitrosodimethylamine	113	20.0	1.37	ug/L	200		57 14.1-97.3	13	32.5	
Surrogate: 2-FP	108			ug/L	200		54 40.8-88.4			
Surrogate: Phenol-d6	93.2			ug/L	200		47 31.7-86.6			
Surrogate: 2,4,6-TBP	190			ug/L	200		95 58-109			
Surrogate: Nitrobenzene-d5	80.2			ug/L	100		80 47.1-99.2			
Surrogate: 2-FBP	77.6			ug/L	100		78 44.7-89.6			
Surrogate: p-Terphenyl-d14	92.0			ug/L	100		92 45.7-117			

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager



WH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	Sampled: 09/02/04
500 North Lake Avenue, Suite 1200	Report Number: INI0174	Received: 09/02/04
Pasadena, CA 91101		
Attention: Bronwyn Kelly		

METHOD BLANK/QC DATA

Semivolatile Organic Compounds by EPA Method 625

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: V4I0802 Extracted: 09/07/04</b>											
<b>Duplicate Analyzed: 09/16/04 (V4I0802-DUP1)</b>					<b>Source: INI0174-01</b>						
Naphthalene	37.6	10.0	1.31	ug/L		37.8			1	30	
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L		ND				30	
Surrogate: 2-FP	65.1			ug/L	200		33	40.8-88.4			S-04
Surrogate: Phenol-d6	75.2			ug/L	200		38	31.7-86.6			
Surrogate: 2,4,6-TBP	107			ug/L	200		54	58-109			S-04
Surrogate: Nitrobenzene-d5	72.5			ug/L	100		73	47.1-99.2			
Surrogate: 2-FBP	67.9			ug/L	100		68	44.7-89.6			
Surrogate: p-Terphenyl-d14	80.8			ug/L	100		81	45.7-117			
<b>Matrix Spike Analyzed: 09/16/04 (V4I0802-MS1)</b>					<b>Source: V409027-01</b>						
Naphthalene	131	10.0	1.31	ug/L	200	ND	66	70-130			M-01
N-Nitrosodimethylamine	105	20.0	1.37	ug/L	200	ND	53	70-130			M-01
Surrogate: 2-FP	86.9			ug/L	200		43	40.8-88.4			
Surrogate: Phenol-d6	74.1			ug/L	200		37	31.7-86.6			
Surrogate: 2,4,6-TBP	101			ug/L	200		51	58-109			S-04
Surrogate: Nitrobenzene-d5	67.1			ug/L	100		67	47.1-99.2			
Surrogate: 2-FBP	66.7			ug/L	100		67	44.7-89.6			
Surrogate: p-Terphenyl-d14	75.1			ug/L	100		75	45.7-117			

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager





1WH-Pasadena/Boeing  
500 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0174

Sampled: 09/02/04  
Received: 09/02/04

**DATA QUALIFIERS AND DEFINITIONS**

- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of unknown quality.
- M-01** Spike recovery outside control limits due to sample matrix interference.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M-3** Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
- M-NR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- R** The RPD exceeded the method control limit due to sample matrix effects. The individual analyte QA/QC recoveries, however, were within acceptance limits.
- R-3** The RPD exceeded the method control limit due to sample matrix effects.
- S-04** The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

**ADDITIONAL COMMENTS**

**For GRO (C4-C12):**

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

**For Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :**

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager



1WH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	Sampled: 09/02/04
500 North Lake Avenue, Suite 1200	Report Number: INI0174	Received: 09/02/04
Pasadena, CA 91101		
Attention: Bronwyn Kelly		

**Certification Summary**

**Del Mar Analytical, Irvine**

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

*NV and NELAP provide analyte specific accreditations. Analyte specific information for Del Mar Analytical may be obtained by contacting the laboratory or visiting our website at [www.dmalabs.com](http://www.dmalabs.com).*

**Subcontracted Laboratories**

**Del Mar Analytical - Phoenix** NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907  
9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed: EPA 8260B  
Samples: INI0174-01

**Star Analytical, Inc.** CA ELAP Cert #1849  
14500 Trinity Boulevard, Suite 106 - Fort Worth, TX 76155

Method Performed: EPA 625  
Samples: INI0174-01

**Del Mar Analytical, Irvine**  
Shele Harper  
Project Manager



17461 Derian Ave. Suite 100, Irvine, CA 92614 Ph (949) 261-1022 Fax (949) 261-1228  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1048  
 9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9598 Fax (619) 505-9698  
 9630 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851  
 2520 E. Sunset Rd., Suite #3, Las Vegas, NV 89120 Ph (702) 798-3620 Fax (702) 798-3621

## SUBCONTRACT ORDER - PROJECT # INI0174

### SENDING LABORATORY:

Del Mar Analytical, Irvine  
 17461 Derian Avenue, Suite 100  
 Irvine, CA 92614  
 Phone: (949) 261-1022  
 Fax: (949) 261-1228  
 Project Manager: Michele Harper

### RECEIVING LABORATORY:

Del Mar Analytical - Phoenix  
 9830 S. 51st Street, Suite B-120  
 Phoenix, AZ 85044  
 Phone: (480) 785-0043  
 Fax: (480) 785-0851

Analysis	Expiration	Due	Comments
Sample ID: INI0174-01 Water	09/16/04 14:40	09/14/04 12:00	Boeing-permit, sub to DMAP, J flags
Dioxane-8260B-out			PNI 0133-01
<b>Containers Supplied:</b>			
40 ml VOA w/HCL (INI0174-01K)			
40 ml VOA w/HCL (INI0174-01L)			
40 ml VOA w/HCL (INI0174-01M)			

### SAMPLE INTEGRITY:

All containers intact:  Yes  No      Sample labels/COC agree:  Yes  No      Samples Received On Ice:  Yes  No  
 Custody Seals Present:  Yes  No      Samples Preserved Properly:  Yes  No      Samples Received at (temp): 2.4°C

Released By: [Signature] Date: 9-3-04 Time: 1700      Received By: Fed Ex Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Released By: Fed Ex Date: \_\_\_\_\_ Time: \_\_\_\_\_      Received By: Holly M. Bentley Date: 9404 Time: 0405



17461 Derian Ave. Suite 100, Irvine, CA 92614 Ph (949) 261-1022 Fax (949) 261-1228  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1046  
 9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9596 Fax (619) 505-8889  
 9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851  
 2520 E. Sunset Rd., Suite #3, Las Vegas, NV 89120 Ph (702) 798-3820 Fax (702) 798-3821

## SUBCONTRACT ORDER - PROJECT # INI0174

SENDING LABORATORY:	RECEIVING LABORATORY:
Del Mar Analytical, Irvine 17461 Derian Avenue. Suite 100 Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 261-1228 Project Manager: Michele Harper	Star Analytical, Inc.-SUB 14500 Trinity Boulevard, Suite 119 Fort Worth, TX 76155 Phone : (817) 571-6800 Fax:

Standard TAT is requested unless specific due date is requested => Due Date: 9/14/04 Initials: AK

Analysis	Expiration	Comments
Sample ID: INI0174-01 Water 625+NDMA+Hydrazine	Sampled: 09/02/04 14:40 09/09/04 14:40	Boeing, permit & PP (see project notes), J flags
Containers Supplied:		
1 L Amber (INI0174-01P)		✓ 625019-2
1 L Amber (INI0174-01Q)		

SAMPLE INTEGRITY:					
All containers intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Sample labels/COC agree:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Custody Seals Present:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Samples Preserved Properly:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
			Samples Received On Ice::	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
			Samples Received at (temp):	<u>55</u>	

<u>Va Bank</u>	<u>9.3.04</u>	<u>1700</u>	<u>Ken Huley</u>	<u>9/14/04</u>	<u>1100</u>
Released By	Date	Time	Received By	Date	Time
Released By	Date	Time	Received By	Date	Time

Star Analytica Sample Receipt Log

Del Mar - Irvine

- 1) Client Name \_\_\_\_\_
- 2) Seal(s) intact? Packaging intact?  Yes  No  N/A
- 3) Method of Receipt: Tracking # 79975577980  
 Star  Client  UPS  
 Fed Ex  Airborne  \_\_\_\_\_

9/26/09  
 Date & Time Received at/by Lab \_\_\_\_\_

- 5) Receipt Log Completed By \_\_\_\_\_
- 6) Ice used? Packing material used?  Yes  No  Yes  No  
 Cooler Temp. 5.5 °C  
 Sample Temp. 5.5 °C  
 from Temp. Blank?
- 7) Chain of Custody filled out properly?  Yes  No  N/A

8) Does information on custody/traffic reports agree with information on sample tags/labels?  
 Yes  No

9) Containers supplied by Lab?  Yes  No

10) Correct/appropriate containers used?  Yes  No

11) Containers intact?  Yes  No

12) Containers properly preserved?  Yes  No  N/A

13) Headspace in VOAs?  Yes  No  N/A

Container Qty(s) & Description(s)		Sample Number	Sample Letter(s)	Information collected from sample containers			Sample Control Comments
				Client Sample Identification	Sample Matrix	Sample Date	Sample Time
2-16 Amber (name)		01	A-B	INT074-01	L	9/26/09	11:40
<i>[Handwritten signature]</i>							
<i>[Handwritten signature]</i>							
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<i>[Handwritten signature]</i>							
<i>[Handwritten signature]</i>							

Additional Comments and/or Problems, Resolutions:

9/26/09 Date of Log-In  
V498049 Work Order Number  
 Page 1 of 1

# CHAIN OF CUSTODY FORM

Del Mar Analytical Version 5 8/12/04

Client Name/Address: MWH-Pasadena 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101		Project: Boeing-SSFL NPDES During Test - Alfa Outfall 012 Project Number: MWH-		ANALYSIS REQUIRED 1,4-Dioxane-8260B Settleable Solids 8015-gas 8015-diesel/jet fuel Oil & Grease (EPA 413.1) 624 (EDB, 1,2,3-TCP, MTBE, DPE, TBA) BOD5(20 degrees C) Perchlorate Turbidity, TDS, TSS, pH Ammonia-N, Titr. (350.2) w/ dist TRPH=Total Rec. Petroleum Hydrocarbons (EPA 418.1) 625 Naphthalene +NDMA analysis		INI0174
Project Manager: Bronwyn Kelly		Phone Number: (626) 568-6691 Fax Number: (626) 568-6515				
Sampler: <i>Pellegrini</i>						
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #
Outfall 012	W	1L Amber	1	9-2-04 14:40	HCl	1A
Outfall 012 duplicate	W	1L Amber	1		HCl	1B
Outfall 012	W	<i>Plastic Lamb</i>	1		HCl	2A
Outfall 012 duplicate	W	<i>Elastic Lamb</i>	1		HCl	2B
Outfall 012	W	VOAs	1		HCl	3A
Outfall 012 duplicate	W	VOAs	2		HCl	3B, 3C
Outfall 012	W	VOAs	1		HCl	4A
Outfall 012 duplicate	W	VOAs	2		HCl	4B, 4C
Outfall 012	W	VOAs	1		HCl	5A
Outfall 012 duplicate	W	VOAs	2		HCl	5B, 5C
Outfall 012	W	1L Amber	1		None	6A
Outfall 012 duplicate	W	1L Amber	1		None	6B
Outfall 012	W	1L Amber	1		None	7A
Outfall 012 duplicate	W	1L Amber	1		None	7B
Outfall 012	W	500 ml Poly	1		H2SO4	8A
Outfall 012	W	1L Poly	1		None	9A
Outfall 012	W	1L Poly	1		None	10A
Outfall 012	W	1L Poly	1		None	11A
Trip Blank	W	VOAs	4		HCl	12A, 12B, 12C, 12D

Relinquished By: <i>[Signature]</i> Date/Time: 9-2-04 15:10	Received By: <i>[Signature]</i> Date/Time: 9/2/04 15:10	Turnaround Time: (check) Same Day _____ 72 Hours _____ 24 Hours _____ 5 days _____ 48 hours _____ normal _____ Perchlorate Only 72 Hours _____ Metals Only 72 Hours _____
Relinquished By: <i>[Signature]</i> Date/Time: 9/2/04 1830	Received By: <i>[Signature]</i> Date/Time: 9/2/04 1830	Sample Integrity: (Check) Intact _____ On Ice _____

2



### LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project: Alfa Outfall 012 - During Test

Sampled: 09/09/04  
Received: 09/09/04  
Revised: 11/12/04 11:33

NELAP #01108CA CA ELAP #1197 CSDLAC #10117

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.*

*This entire report was reviewed and approved for release.*

#### CASE NARRATIVE

- SAMPLE RECEIPT: Samples were received intact, at 6°C, on ice and with chain of custody documentation.
- HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Del Mar Analytical Sample Acceptance Policy unless otherwise noted in the report.
- PRESERVATION: Samples requiring preservation were verified prior to sample analysis.
- QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.
- COMMENTS: Results that fall between the MDL and RL are 'J' flagged.
- SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report. The surrogate recoveries of 2-FP, Phenol-d6, p-Terphenl-d14, and 1,4,6-TBP for sample INI0560-01 were below the established control limits. The sample was not re-extracted due to insufficient sample volume. Also, the surrogate recovery for 2-FP in the Blank Spike for QC Batch 4I16041 was below the established control limit. The sample was not re-extracted due to insufficient sample volume.
- ADDITIONAL INFORMATION: The report was revised to correct the value reported for Naphthalene by EPA 625.

LABORATORY ID	CLIENT ID	MATRIX
INI0560-01	Outfall 012	Water
INI0560-02	Trip Blank	Water

Reviewed By:

Del Mar Analytical, Irvine  
Michele Harper  
Project Manager



# Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

## TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01 (Outfall 012 - Water)					Sampled: 09/09/04				
Reporting Units: mg/l									
Total Recoverable Hydrocarbons	EPA 418.1	4I17090	0.31	1.0	1.4	1	09/17/04	09/17/04	

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Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

**EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01 (Outfall 012 - Water) - cont.					Sampled: 09/09/04				
Reporting Units: mg/l									
EFH (C13 - C22)	EPA 8015B	4113058	0.082	0.50	0.97	1.01	09/13/04	09/15/04	
Surrogate: n-Octacosane (45-125%)					90 %				

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 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

## VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0560-01 (Outfall 012 - Water) - cont.</b>					<b>Sampled: 09/09/04</b>				
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	4116006	0.050	0.10	0.20	1	09/16/04	09/16/04	
Surrogate: 4-BFB (FID) (60-135%)					107 %				
<b>Sample ID: INI0560-02 (Trip Blank - Water)</b>					<b>Sampled: 09/09/04</b>				
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	4116006	0.050	0.10	ND	1	09/16/04	09/16/04	
Surrogate: 4-BFB (FID) (60-135%)					86 %				

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 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
 Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0560-01 (Outfall 012 - Water)</b>					<b>Sampled: 09/09/04</b>				
<b>Reporting Units: ug/l</b>									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4117021	0.32	2.0	ND	1	09/17/04	09/17/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4117021	0.32	5.0	ND	1	09/17/04	09/17/04	
1,2,3-Trichloropropane	EPA 624 MOD	4117021	0.85	10	ND	1	09/17/04	09/17/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4117021	0.25	5.0	ND	1	09/17/04	09/17/04	
tert-Butanol (TBA)	EPA 624 MOD	4117021	3.1	25	ND	1	09/17/04	09/17/04	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					94 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					101 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					98 %				
<b>Sample ID: INI0560-02 (Trip Blank - Water)</b>					<b>Sampled: 09/09/04</b>				
<b>Reporting Units: ug/l</b>									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4117021	0.32	2.0	ND	1	09/17/04	09/17/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4117021	0.32	5.0	ND	1	09/17/04	09/17/04	
1,2,3-Trichloropropane	EPA 624 MOD	4117021	0.85	10	ND	1	09/17/04	09/17/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4117021	0.25	5.0	ND	1	09/17/04	09/17/04	
tert-Butanol (TBA)	EPA 624 MOD	4117021	3.1	25	ND	1	09/17/04	09/17/04	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					104 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					102 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					104 %				

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 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
 Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

**INORGANICS**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0560-01 (Outfall 012 - Water)</b>					<b>Sampled: 09/09/04</b>				
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4I15091	0.30	0.50	ND	1	09/15/04	09/15/04	
Biochemical Oxygen Demand	EPA 405.1	4I10075	0.59	2.0	1.6	1	09/10/04	09/15/04	J
Oil & Grease	EPA 413.1	4I15083	0.94	5.0	ND	1	09/15/04	09/15/04	
Total Dissolved Solids	SM2540C	4I10097	10	10	330	1	09/10/04	09/10/04	
Total Suspended Solids	EPA 160.2	4I10076	10	10	20	1	09/10/04	09/10/04	
<b>Sample ID: INI0560-01 (Outfall 012 - Water)</b>					<b>Sampled: 09/09/04</b>				
Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	4I10077	0.10	0.10	ND	1	09/10/04	09/10/04	
<b>Sample ID: INI0560-01 (Outfall 012 - Water)</b>					<b>Sampled: 09/09/04</b>				
Reporting Units: NTU									
Turbidity	EPA 180.1	4I10086	0.20	1.0	39	1	09/10/04	09/10/04	
<b>Sample ID: INI0560-01 (Outfall 012 - Water)</b>					<b>Sampled: 09/09/04</b>				
Reporting Units: pH Units									
I	EPA 150.1	4I10047	N/A	NA	8.03	1	09/10/04	09/10/04	
<b>Sample ID: INI0560-01 (Outfall 012 - Water)</b>					<b>Sampled: 09/09/04</b>				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4I13037	0.80	4.0	ND	1	09/13/04	09/13/04	

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MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

## 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01 (Outfall 012 - Water) - cont.					Sampled: 09/09/04				
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4I1414	0.49	1.0	ND	1	09/14/04	09/14/04	
Surrogate: Dibromofluoromethane (80-135%)					127 %				

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Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

## Acid and Base/Neutral Extractables by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI0560-01RE1 (Outfall 012 - Water) - cont.					Sampled: 09/09/04				X
Reporting Units: ug/l									
Naphthalene	EPA 625	4I16041	0.941	10.0	18.4	0.952	09/16/04	09/24/04	
N-Nitrosodimethylamine	EPA 625	4I16041	1.56	20.0	ND	0.952	09/16/04	09/24/04	
Surrogate: 2-FBP (49-122%)					60.3 %				
Surrogate: 2-FP (20-111%)					13.7 %				
Surrogate: Nitrobenzene-d5 (50-120%)					66.0 %				
Surrogate: Phenol-d6 (12-120%)					0.0399 %				
Surrogate: p-Terphenyl-d14 (10-138%)					3.68 %				
Surrogate: 2,4,6-TBP (22-131%)					12.9 %				

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 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

## SHORT HOLD TIME DETAIL REPORT

Sample ID: Outfall 012 (INI0560-01) - Water	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
EPA 150.1	1	09/09/2004 13:55	09/09/2004 17:50	09/10/2004 06:30	09/10/2004 07:30
EPA 160.5	2	09/09/2004 13:55	09/09/2004 17:50	09/10/2004 14:00	09/10/2004 16:00
EPA 180.1	2	09/09/2004 13:55	09/09/2004 17:50	09/10/2004 13:30	09/10/2004 14:30
EPA 405.1	2	09/09/2004 13:55	09/09/2004 17:50	09/10/2004 13:00	09/15/2004 09:30

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1WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101 Report Number: INI1882  
Attention: Bronwyn Kelly  
Sampled: 09/29/04  
Received: 09/30/04

SHORT HOLD TIME DETAIL REPORT

Sample ID: Outfall 012 (INI1882-01) - Water	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
EPA 150.1	1	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 09:00	10/01/2004 10:00
EPA 160.5	2	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 13:00	10/01/2004 14:00
EPA 180.1	2	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 08:00	10/01/2004 08:50
EPA 405.1	2	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 13:10	10/06/2004 11:00

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Project Manager





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IWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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**METHOD BLANK/QC DATA**

**TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J01062 Extracted: 10/01/04</b>											
<b>Blank Analyzed: 10/01/04 (4J01062-BLK1)</b>											
Total Recoverable Hydrocarbons	ND	1.0	0.31	mg/l							
<b>LCS Analyzed: 10/01/04 (4J01062-BS1)</b>											
Total Recoverable Hydrocarbons	4.21	1.0	0.31	mg/l	5.00		84	65-120			M-NR1
<b>LCS Dup Analyzed: 10/01/04 (4J01062-BSD1)</b>											
Total Recoverable Hydrocarbons	4.46	1.0	0.31	mg/l	5.00		89	65-120	6	20	

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WH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	Sampled: 09/29/04
300 North Lake Avenue, Suite 1200	Report Number: INI1882	Received: 09/30/04
Pasadena, CA 91101		
Attention: Bronwyn Kelly		

**METHOD BLANK/QC DATA**

**EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J01040 Extracted: 10/01/04</b>											
<b>Blank Analyzed: 10/04/04 (4J01040-BLK1)</b>											
EFH (C13 - C22)	ND	0.50	0.082	mg/l							
EFH (C13 - C40)	ND	0.50	0.082	mg/l							
Surrogate: n-Octacosane	0.156			mg/l	0.200		78	45-125			
<b>LCS Analyzed: 10/04/04 (4J01040-BS1)</b>											
EFH (C13 - C40)	0.724	0.50	0.082	mg/l	0.775		93	40-115			M-NR1
Surrogate: n-Octacosane	0.201			mg/l	0.200		100	45-125			
<b>LCS Dup Analyzed: 10/04/04 (4J01040-BSD1)</b>											
EFH (C13 - C40)	0.615	0.50	0.082	mg/l	0.775		79	40-115	16	25	
Surrogate: n-Octacosane	0.162			mg/l	0.200		81	45-125			

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WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J07007 Extracted: 10/07/04</b>											
<b>Blank Analyzed: 10/07/04 (4J07007-BLK1)</b>											
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.0101			mg/l	0.0100		101	60-135			
<b>LCS Analyzed: 10/07/04 (4J07007-BS1)</b>											
GRO (C4 - C12)	0.233	0.10	0.050	mg/l	0.220		106	70-135			
Surrogate: 4-BFB (FID)	0.0127			mg/l	0.0100		127	60-135			
<b>Matrix Spike Analyzed: 10/07/04 (4J07007-MS1) Source: INI1679-04</b>											
GRO (C4 - C12)	0.264	0.10	0.050	mg/l	0.220	0.054	95	60-135			
Surrogate: 4-BFB (FID)	0.0120			mg/l	0.0100		120	60-135			
<b>Matrix Spike Dup Analyzed: 10/07/04 (4J07007-MSD1) Source: INI1679-04</b>											
GRO (C4 - C12)	0.273	0.10	0.050	mg/l	0.220	0.054	100	60-135	3	20	
Surrogate: 4-BFB (FID)	0.0127			mg/l	0.0100		127	60-135			
<b>Batch: 4J07125 Extracted: 10/07/04</b>											
<b>Blank Analyzed: 10/07/04 (4J07125-BLK1)</b>											
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.0112			mg/l	0.0100		112	60-135			
<b>LCS Analyzed: 10/07/04 (4J07125-BS1)</b>											
GRO (C4 - C12)	0.240	0.10	0.050	mg/l	0.220		109	70-135			
Surrogate: 4-BFB (FID)	0.0118			mg/l	0.0100		118	60-135			
<b>Matrix Spike Analyzed: 10/07/04 (4J07125-MS1) Source: INI1527-05</b>											
GRO (C4 - C12)	0.233	0.10	0.050	mg/l	0.220	ND	106	60-135			
Surrogate: 4-BFB (FID)	0.0118			mg/l	0.0100		118	60-135			

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1WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J07125 Extracted: 10/07/04</b>											
<b>Matrix Spike Dup Analyzed: 10/07/04 (4J07125-MSD1)</b>						<b>Source: INI1527-05</b>					
GRO (C4 - C12)	0.237	0.10	0.050	mg/l	0.220	ND	108	60-135	2	20	
Surrogate: 4-BFB (FID)	0.0118			mg/l	0.0100		118	60-135			

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1WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101 Report Number: INI1882  
Attention: Bronwyn Kelly Sampled: 09/29/04  
Received: 09/30/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J06029 Extracted: 10/06/04</b>										
<b>Blank Analyzed: 10/06/04 (4J06029-BLK1)</b>										
Acetone	ND	10	4.5	ug/l						
Benzene	ND	2.0	0.28	ug/l						
Bromobenzene	ND	5.0	0.27	ug/l						
Bromochloromethane	ND	5.0	0.32	ug/l						
Bromodichloromethane	ND	2.0	0.30	ug/l						
Bromoform	ND	5.0	0.32	ug/l						
Bromomethane	ND	5.0	0.34	ug/l						
2-Butanone (MEK)	ND	10	3.8	ug/l						
n-Butylbenzene	ND	5.0	0.17	ug/l						
sec-Butylbenzene	ND	5.0	0.25	ug/l						
Butylbenzene	ND	5.0	0.22	ug/l						
Carbon tetrachloride	ND	5.0	0.28	ug/l						
Chlorobenzene	ND	2.0	0.36	ug/l						
Chloroethane	ND	5.0	0.33	ug/l						
Chloroform	ND	2.0	0.33	ug/l						
Chloromethane	ND	5.0	0.30	ug/l						
2-Chlorotoluene	ND	5.0	0.28	ug/l						
4-Chlorotoluene	ND	5.0	0.29	ug/l						
Dibromochloromethane	ND	2.0	0.28	ug/l						
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l						
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l						
Dibromomethane	ND	2.0	0.36	ug/l						
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l						
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l						
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l						
Dichlorodifluoromethane	ND	5.0	0.79	ug/l						
1,1-Dichloroethane	ND	2.0	0.27	ug/l						
1,2-Dichloroethane	ND	2.0	0.28	ug/l						
1,1-Dichloroethene	ND	5.0	0.32	ug/l						
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l						
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l						
1,2-Dichloropropane	ND	2.0	0.35	ug/l						
1,3-Dichloropropane	ND	2.0	0.30	ug/l						
2,2-Dichloropropane	ND	2.0	0.29	ug/l						
1,1-Dichloropropene	ND	2.0	0.28	ug/l						

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**METHOD BLANK/QC DATA**

**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD RPD	Limit	Data Qualifiers
<b>Batch: 4J06029 Extracted: 10/06/04</b>											
<b>Blank Analyzed: 10/06/04 (4J06029-BLK1)</b>											
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
2-Hexanone	ND	10	2.6	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.48	ug/l							
4-Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
o-xthalene	ND	5.0	0.41	ug/l							
m-Propylbenzene	ND	2.0	0.14	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.85	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
o-Xylene	ND	2.0	0.24	ug/l							
m,p-Xylenes	ND	2.0	0.52	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
tert-Butanol (TBA)	ND	25	3.1	ug/l							
Surrogate: Dibromofluoromethane	26.3			ug/l	25.0		105			80-120	

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IWH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
500 North Lake Avenue, Suite 1200 Report Number: INI1882
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/29/04
Received: 09/30/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes data for Blank Analyzed (Surrogate: Toluene-d8, 4-Bromofluorobenzene) and LCS Analyzed (Acetone, Benzene, Bromobenzene, etc.).

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IWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD	Data Qualifiers
<b>Batch: 4J06029 Extracted: 10/06/04</b>											
<b>LCS Analyzed: 10/06/04 (4J06029-BS1)</b>											
1,3-Dichloropropane	24.8	2.0	0.30	ug/l	25.0		99	70-130			
2,2-Dichloropropane	26.0	2.0	0.29	ug/l	25.0		104	65-150			
1,1-Dichloropropene	24.6	2.0	0.28	ug/l	25.0		98	75-130			
cis-1,3-Dichloropropene	24.7	2.0	0.22	ug/l	25.0		99	75-130			
trans-1,3-Dichloropropene	25.6	2.0	0.24	ug/l	25.0		102	75-135			
Ethylbenzene	24.0	2.0	0.25	ug/l	25.0		96	80-120			
Hexachlorobutadiene	23.2	5.0	0.38	ug/l	25.0		93	65-140			
2-Hexanone	26.3	10	2.6	ug/l	25.0		105	40-140			
Isopropylbenzene	23.8	2.0	0.25	ug/l	25.0		95	75-125			
n-Isopropyltoluene	23.4	2.0	0.28	ug/l	25.0		94	75-125			
ylene chloride	25.3	5.0	0.48	ug/l	25.0		101	60-135			
Methyl-2-pentanone (MIBK)	27.0	10	2.5	ug/l	25.0		108	40-140			
Methyl-tert-butyl Ether (MTBE)	26.2	5.0	0.32	ug/l	25.0		105	55-145			
Naphthalene	23.7	5.0	0.41	ug/l	25.0		95	50-145			
n-Propylbenzene	23.6	2.0	0.14	ug/l	25.0		94	75-130			
Styrene	24.5	2.0	0.16	ug/l	25.0		98	80-135			
1,1,1,2-Tetrachloroethane	25.2	5.0	0.27	ug/l	25.0		101	70-145			
1,1,1,2,2-Tetrachloroethane	24.9	2.0	0.24	ug/l	25.0		100	60-135			
Tetrachloroethene	24.2	2.0	0.32	ug/l	25.0		97	75-125			
Toluene	24.0	2.0	0.36	ug/l	25.0		96	75-120			
1,2,3-Trichlorobenzene	23.9	5.0	0.45	ug/l	25.0		96	65-135			
1,2,4-Trichlorobenzene	24.1	5.0	0.48	ug/l	25.0		96	70-140			
1,1,1-Trichloroethane	25.6	2.0	0.30	ug/l	25.0		102	75-140			
1,1,2-Trichloroethane	24.5	2.0	0.30	ug/l	25.0		98	70-125			
Trichloroethene	24.0	2.0	0.26	ug/l	25.0		96	80-120			
Trichlorofluoromethane	26.9	5.0	0.34	ug/l	25.0		108	65-145			
1,2,3-Trichloropropane	24.5	10	0.85	ug/l	25.0		98	60-130			
1,2,4-Trimethylbenzene	23.6	2.0	0.23	ug/l	25.0		94	75-125			
1,3,5-Trimethylbenzene	23.8	2.0	0.26	ug/l	25.0		95	75-125			
Vinyl chloride	25.8	5.0	0.26	ug/l	25.0		103	50-130			
o-Xylene	23.2	2.0	0.24	ug/l	25.0		93	75-125			
m,p-Xylenes	47.2	2.0	0.52	ug/l	50.0		94	75-120			
Di-isopropyl Ether (DIPE)	25.9	5.0	0.25	ug/l	25.0		104	65-135			
Ethyl tert-Butyl Ether (ETBE)	25.4	5.0	0.28	ug/l	25.0		102	60-140			
tert-Amyl Methyl Ether (TAME)	26.4	5.0	0.33	ug/l	25.0		106	60-140			

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Project Manager





Table with 3 columns: Client/Address (WH-Pasadena/Boeing, 500 North Lake Avenue, Suite 1200, Pasadena, CA 91101, Attention: Bronwyn Kelly), Project ID (Alfa Outfall 012 - During Test), Report Number (INI1882), and Dates (Sampled: 09/29/04, Received: 09/30/04)

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Main data table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Batch: 4J06029, LCS Analyzed: 10/06/04, and Matrix Spike Analyzed: 10/06/04.

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WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INI1882
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/29/04
Received: 09/30/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of 40 chemical compounds and their corresponding analytical data.

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1WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INI1882
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/29/04
Received: 09/30/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Matrix Spike Analyzed and Matrix Spike Dup Analyzed.

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[WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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**METHOD BLANK/QC DATA**

**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J06029 Extracted: 10/06/04</b>											
<b>Matrix Spike Dup Analyzed: 10/06/04 (4J06029-MSD1)</b>						<b>Source: INJ0203-01</b>					
cis-1,2-Dichloroethene	23.3	2.0	0.32	ug/l	25.0	ND	93	65-130	0	20	
trans-1,2-Dichloroethene	24.3	2.0	0.27	ug/l	25.0	ND	97	65-135	0	20	
1,2-Dichloropropane	23.9	2.0	0.35	ug/l	25.0	ND	96	65-130	0	20	
1,3-Dichloropropane	24.0	2.0	0.30	ug/l	25.0	ND	96	65-140	1	25	
2,2-Dichloropropane	21.5	2.0	0.29	ug/l	25.0	ND	86	60-150	2	25	
1,1-Dichloropropene	23.8	2.0	0.28	ug/l	25.0	ND	95	65-140	1	20	
cis-1,3-Dichloropropene	24.1	2.0	0.22	ug/l	25.0	ND	96	70-140	1	20	
trans-1,3-Dichloropropene	24.8	2.0	0.24	ug/l	25.0	ND	99	70-140	0	25	
Ethylbenzene	23.0	2.0	0.25	ug/l	25.0	ND	92	70-130	2	20	
Hexachlorobutadiene	22.4	5.0	0.38	ug/l	25.0	ND	90	65-140	4	20	
exanone	25.8	10	2.6	ug/l	25.0	ND	103	20-145	2	35	
Isopropylbenzene	22.6	2.0	0.25	ug/l	25.0	ND	90	70-130	2	20	
p-Isopropyltoluene	22.2	2.0	0.28	ug/l	25.0	ND	89	70-130	2	20	
Methylene chloride	23.7	5.0	0.48	ug/l	25.0	ND	95	60-135	1	20	
4-Methyl-2-pentanone (MIBK)	26.6	10	2.5	ug/l	25.0	ND	106	40-145	3	35	
Methyl-tert-butyl Ether (MTBE)	35.0	5.0	0.32	ug/l	25.0	9.8	101	50-155	1	25	
Naphthalene	23.6	5.0	0.41	ug/l	25.0	ND	94	50-150	8	30	
n-Propylbenzene	22.3	2.0	0.14	ug/l	25.0	ND	89	70-135	2	20	
Styrene	10.1	2.0	0.16	ug/l	25.0	ND	40	55-145	64	30	M2, R-3
1,1,1,2-Tetrachloroethane	24.3	5.0	0.27	ug/l	25.0	ND	97	70-145	1	20	
1,1,2,2-Tetrachloroethane	25.0	2.0	0.24	ug/l	25.0	ND	100	60-145	4	30	
Tetrachloroethene	23.3	2.0	0.32	ug/l	25.0	ND	93	70-130	0	20	
Toluene	23.3	2.0	0.36	ug/l	25.0	ND	93	70-120	0	20	
1,2,3-Trichlorobenzene	23.7	5.0	0.45	ug/l	25.0	ND	95	60-140	10	20	
1,2,4-Trichlorobenzene	23.2	5.0	0.48	ug/l	25.0	ND	93	60-140	4	20	
1,1,1-Trichloroethane	24.2	2.0	0.30	ug/l	25.0	ND	97	75-140	1	20	
1,1,2-Trichloroethane	24.4	2.0	0.30	ug/l	25.0	ND	98	60-135	2	25	
Trichloroethene	23.6	2.0	0.26	ug/l	25.0	ND	94	70-125	0	20	
Trichlorofluoromethane	26.7	5.0	0.34	ug/l	25.0	ND	107	55-145	2	25	
1,2,3-Trichloropropane	24.0	10	0.85	ug/l	25.0	ND	96	55-140	2	30	
1,2,4-Trimethylbenzene	21.6	2.0	0.23	ug/l	25.0	ND	86	60-125	4	25	
1,3,5-Trimethylbenzene	22.0	2.0	0.26	ug/l	25.0	ND	88	70-130	4	20	
Vinyl chloride	26.2	5.0	0.26	ug/l	25.0	ND	105	40-135	0	30	
o-Xylene	22.5	2.0	0.24	ug/l	25.0	ND	90	65-125	0	20	
m,p-Xylenes	45.1	2.0	0.52	ug/l	50.0	ND	90	65-130	2	25	

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IWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J06029 Extracted: 10/06/04</b>											
<b>Matrix Spike Dup Analyzed: 10/06/04 (4J06029-MSD1)</b>						<b>Source: INJ0203-01</b>					
Di-isopropyl Ether (DIPE)	25.0	5.0	0.25	ug/l	25.0	ND	100	65-140	0	25	
Ethyl tert-Butyl Ether (ETBE)	25.0	5.0	0.28	ug/l	25.0	ND	100	60-140	1	25	
tert-Amyl Methyl Ether (TAME)	25.8	5.0	0.33	ug/l	25.0	ND	103	55-145	2	30	
Surrogate: Dibromofluoromethane	26.0			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	25.6			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	25.8			ug/l	25.0		103	80-120			

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IWH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I30050 Extracted: 09/30/04</b>											
<b>Blank Analyzed: 09/30/04 (4I30050-BLK1)</b>											
Perchlorate	ND	4.0	0.80	ug/l							
<b>LCS Analyzed: 09/30/04 (4I30050-BS1)</b>											
Perchlorate	51.4	4.0	0.80	ug/l	50.0		103	85-115			
<b>Matrix Spike Analyzed: 09/30/04 (4I30050-MS1)</b>											
						<b>Source: INI1819-01</b>					
Perchlorate	56.4	4.0	0.80	ug/l	50.0	5.4	102	80-120			
<b>Matrix Spike Dup Analyzed: 09/30/04 (4I30050-MSD1)</b>											
						<b>Source: INI1819-01</b>					
Perchlorate	57.7	4.0	0.80	ug/l	50.0	5.4	105	80-120	2	20	
<b>Batch: 4I30104 Extracted: 09/30/04</b>											
<b>Blank Analyzed: 09/30/04 (4I30104-BLK1)</b>											
Total Suspended Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 09/30/04 (4I30104-BS1)</b>											
Total Suspended Solids	1020	10	10	mg/l	1000		102	85-115			
<b>Duplicate Analyzed: 09/30/04 (4I30104-DUP1)</b>											
						<b>Source: INI1880-01</b>					
Total Suspended Solids	ND	10	10	mg/l		ND				10	
<b>Batch: 4J01049 Extracted: 10/01/04</b>											
<b>Duplicate Analyzed: 10/01/04 (4J01049-DUP1)</b>											
						<b>Source: INI1859-01</b>					
pH	5.80	NA	N/A	pH Units		5.82			0	5	

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J01058 Extracted: 10/01/04</b>											
<b>Blank Analyzed: 10/06/04 (4J01058-BLK1)</b>											
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
<b>LCS Analyzed: 10/06/04 (4J01058-BS1)</b>											
Biochemical Oxygen Demand	209	100	30	mg/l	198		106	85-115			
<b>LCS Dup Analyzed: 10/06/04 (4J01058-BSD1)</b>											
Biochemical Oxygen Demand	210	100	30	mg/l	198		106	85-115	1	20	
<b>Batch: 4J01064 Extracted: 10/01/04</b>											
<b>Blank Analyzed: 10/01/04 (4J01064-BLK1)</b>											
Turbidity	ND	1.0	0.20	NTU							
<b>Duplicate Analyzed: 10/01/04 (4J01064-DUP1)</b>											
Turbidity	ND	1.0	0.20	NTU		Source: INI1887-01	ND			20	
<b>Batch: 4J05065 Extracted: 10/05/04</b>											
<b>Blank Analyzed: 10/05/04 (4J05065-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 10/05/04 (4J05065-BS1)</b>											
Total Dissolved Solids	992	10	10	mg/l	1000		99	90-110			
<b>Duplicate Analyzed: 10/05/04 (4J05065-DUP1)</b>											
Total Dissolved Solids	424	10	10	mg/l		Source: INI1831-01	430		1	10	

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager



WH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1882

Sampled: 09/29/04  
Received: 09/30/04

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J05066 Extracted: 10/05/04</b>											
<b>Blank Analyzed: 10/05/04 (4J05066-BLK1)</b>											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
<b>LCS Analyzed: 10/05/04 (4J05066-BS1)</b>											
Ammonia-N (Distilled)	9.24	0.50	0.30	mg/l	10.0		92	80-115			
<b>LCS Dup Analyzed: 10/05/04 (4J05066-BSD1)</b>											
Ammonia-N (Distilled)	9.52	0.50	0.30	mg/l	10.0		95	80-115	3	15	
<b>Matrix Spike Analyzed: 10/05/04 (4J05066-MS1)</b>											
						<b>Source: INI1708-01</b>					
Ammonia-N (Distilled)	9.80	0.50	0.30	mg/l	10.0	ND	98	70-120			
<b>Matrix Spike Dup Analyzed: 10/05/04 (4J05066-MSD1)</b>											
						<b>Source: INI1708-01</b>					
Ammonia-N (Distilled)	9.80	0.50	0.30	mg/l	10.0	ND	98	70-120	0	15	
<b>Batch: 4J05067 Extracted: 10/05/04</b>											
<b>Blank Analyzed: 10/05/04 (4J05067-BLK1)</b>											
Oil & Grease	ND	5.0	0.94	mg/l							
<b>LCS Analyzed: 10/05/04 (4J05067-BS1)</b>											
Oil & Grease	19.3	5.0	0.94	mg/l	20.0		96	65-120			M-NR1
<b>LCS Dup Analyzed: 10/05/04 (4J05067-BSD1)</b>											
Oil & Grease	20.0	5.0	0.94	mg/l	20.0		100	65-120	4	20	

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1WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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METHOD BLANK/QC DATA

1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: P4J0202 Extracted: 10/02/04</b>											
<b>Blank Analyzed: 10/02/04 (P4J0202-BLK1)</b>											
1,4-Dioxane	ND	1.0	N/A	ug/l							
Surrogate: Dibromofluoromethane	1.05			ug/l	1.00		105	80-135			
<b>LCS Analyzed: 10/02/04 (P4J0202-BS1)</b>											
1,4-Dioxane	11.4	1.0	N/A	ug/l	10.0		114	70-130			
Surrogate: Dibromofluoromethane	1.00			ug/l	1.00		100	80-135			
<b>LCS Dup Analyzed: 10/02/04 (P4J0202-BSD1)</b>											
1,4-Dioxane	10.2	1.0	N/A	ug/l	10.0		102	70-130	11	20	
Surrogate: Dibromofluoromethane	1.04			ug/l	1.00		104	80-135			
<b>Matrix Spike Analyzed: 10/02/04 (P4J0202-MS1) Source: PNI0910-01</b>											
1,4-Dioxane	11.5	1.0	N/A	ug/l	10.0	ND	115	70-130			
Surrogate: Dibromofluoromethane	1.05			ug/l	1.00		105	80-135			
<b>Matrix Spike Dup Analyzed: 10/02/04 (P4J0202-MSD1) Source: PNI0910-01</b>											
1,4-Dioxane	10.8	1.0	N/A	ug/l	10.0	ND	108	70-130	6	20	
Surrogate: Dibromofluoromethane	1.02			ug/l	1.00		102	80-135			

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4WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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METHOD BLANK/QC DATA

Semivolatile Organic Compounds by EPA Method 625

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: V4J0615 Extracted: 10/06/04</b>											
<b>Blank Analyzed: 10/07/04 (V4J0615-BLK1)</b>											
Naphthalene	ND	10.0	1.31	ug/L							
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L							
Surrogate: 2-FP	106			ug/L	200		53	40.8-88.4			
Surrogate: Phenol-d6	94.7			ug/L	200		47	31.7-86.6			
Surrogate: 2,4,6-TBP	172			ug/L	200		86	58-109			
Surrogate: Nitrobenzene-d5	66.2			ug/L	100		66	47.1-99.2			
Surrogate: 2-FBP	64.6			ug/L	100		65	44.7-89.6			
Surrogate: p-Terphenyl-d14	76.1			ug/L	100		76	45.7-117			
<b>LCS Analyzed: 10/07/04 (V4J0615-BS1)</b>											
Naphthalene	132	10.0	1.31	ug/L	200		66	38.5-85.1			
N-Nitrosodimethylamine	110	20.0	1.37	ug/L	200		55	14.1-97.3			
Surrogate: 2-FP	106			ug/L	200		53	40.8-88.4			
Surrogate: Phenol-d6	102			ug/L	200		51	31.7-86.6			
Surrogate: 2,4,6-TBP	179			ug/L	200		90	58-109			
Surrogate: Nitrobenzene-d5	70.1			ug/L	100		70	47.1-99.2			
Surrogate: 2-FBP	66.7			ug/L	100		67	44.7-89.6			
Surrogate: p-Terphenyl-d14	82.0			ug/L	100		82	45.7-117			
<b>LCS Dup Analyzed: 10/07/04 (V4J0615-BSD1)</b>											
Naphthalene	131	10.0	1.31	ug/L	200		66	38.5-85.1	1	17.3	
N-Nitrosodimethylamine	95.6	20.0	1.37	ug/L	200		48	14.1-97.3	14	32.5	
Surrogate: 2-FP	99.1			ug/L	200		50	40.8-88.4			
Surrogate: Phenol-d6	96.8			ug/L	200		48	31.7-86.6			
Surrogate: 2,4,6-TBP	181			ug/L	200		91	58-109			
Surrogate: Nitrobenzene-d5	73.3			ug/L	100		73	47.1-99.2			
Surrogate: 2-FBP	68.4			ug/L	100		68	44.7-89.6			
Surrogate: p-Terphenyl-d14	80.3			ug/L	100		80	45.7-117			

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WH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	Sampled: 09/29/04
300 North Lake Avenue, Suite 1200	Report Number: INI1882	Received: 09/30/04
Pasadena, CA 91101		
Attention: Bronwyn Kelly		

METHOD BLANK/QC DATA

Semivolatile Organic Compounds by EPA Method 625

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: V4J0615 Extracted: 10/06/04</b>											
<b>Duplicate Analyzed: 10/07/04 (V4J0615-DUP1)</b>					<b>Source: V410018-01</b>						
Naphthalene	9.96	10.0	1.31	ug/L		9.06			9	30	Ja
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L		ND				30	
Surrogate: 2-FP	95.6			ug/L	200		48	40.8-88.4			
Surrogate: Phenol-d6	86.9			ug/L	200		43	31.7-86.6			
Surrogate: 2,4,6-TBP	157			ug/L	200		79	58-109			
Surrogate: Nitrobenzene-d5	71.8			ug/L	100		72	47.1-99.2			
Surrogate: 2-FBP	67.7			ug/L	100		68	44.7-89.6			
Surrogate: p-Terphenyl-d14	81.4			ug/L	100		81	45.7-117			
<b>Matrix Spike Analyzed: 10/07/04 (V4J0615-MS1)</b>					<b>Source: INI1882-01</b>						
Naphthalene	161	10.0	1.31	ug/L	200	28.4	66	70-130			A-04
N-Nitrosodimethylamine	85.6	20.0	1.37	ug/L	200	ND	43	70-130			A-04
Surrogate: 2-FP	99.5			ug/L	200		50	40.8-88.4			
Surrogate: Phenol-d6	98.1			ug/L	200		49	31.7-86.6			
Surrogate: 2,4,6-TBP	154			ug/L	200		77	58-109			
Surrogate: Nitrobenzene-d5	78.0			ug/L	100		78	47.1-99.2			
Surrogate: 2-FBP	70.2			ug/L	100		70	44.7-89.6			
Surrogate: p-Terphenyl-d14	78.3			ug/L	100		78	45.7-117			

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AWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1882

Sampled: 09/29/04  
Received: 09/30/04

### DATA QUALIFIERS AND DEFINITIONS

- A-04** The spike recovery for this QC sample is outside of established control limits. Review of associated QC indicates the recovery for this analyte does not negatively impact the usability of the data.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of unknown quality.
- Ja** The reported result is an estimated value. The reported result is above the Method Detection Limit but below the standard Reporting Limit.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M-3** Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
- M-NR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- R-3** The RPD exceeded the method control limit due to sample matrix effects.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

### ADDITIONAL COMMENTS

**For GRO (C4-C12):**

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

**or Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :**

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

**Del Mar Analytical, Irvine**  
Hele Harper  
Project Manager



IWH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI1882  
Pasadena, CA 91101  
Attention: Bronwyn Kelly  
Sampled: 09/29/04  
Received: 09/30/04

Certification Summary

Del Mar Analytical, Irvine

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

NV and NELAP provide analyte specific accreditations. Analyte specific information for Del Mar Analytical may be obtained by contacting the laboratory or visiting our website at [www.dmalabs.com](http://www.dmalabs.com).

Subcontracted Laboratories

el Mar Analytical - Phoenix NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907  
9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed: EPA 8260B  
Samples: INI1882-01

Star Analytical, Inc. CA ELAP Cert #1849  
14500 Trinity Boulevard, Suite 106 - Fort Worth, TX 76155

Method Performed: EPA 625  
Samples: INI1882-01

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager



17461 Derian Ave. Suite 100, Irvine, CA 92614 Ph (949) 261-1022 Fax (949) 261-1228  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1046  
 9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-8586 Fax (619) 505-8689  
 9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851  
 2520 E. Sunset Rd., Suite #3, Las Vegas, NV 89120 Ph (702) 796-3620 Fax (702) 796-3621

## SUBCONTRACT ORDER - PROJECT # INI1882

SENDING LABORATORY:	RECEIVING LABORATORY:
Del Mar Analytical, Irvine 17461 Derian Avenue, Suite 100 Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 261-1228 Project Manager: Michele Harper	Del Mar Analytical - Phoenix 9830 S. 51st Street, Suite B-120 Phoenix, AZ 85044 Phone : (480) 785-0043 Fax: (480) 785-0851

Analysis	Expiration	Due	Comments
Sample ID: INI1882-01	Water	Sampled: 09/29/04 14:00	
Dioxane-8260B-out	10/13/04 14:00	10/11/04 12:00	Boeing-permit, sub to DMAP, J flags
<b>Containers Supplied:</b> 40 ml VOA w/HCL (INI1882-01K) 40 ml VOA w/HCL (INI1882-01L) 40 ml VOA w/HCL (INI1882-01M)			

PN30024-01

SAMPLE INTEGRITY:					
All containers intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Sample labels/COC agree:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Custody Seals Present:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Samples Preserved Properly:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
			Samples Received On Ice::	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
			Samples Received at (temp):	4.20 C	

Released By: Stacy Yunawan      Date: 10-1-04      Time: 1700      Received By: Fed Ex      Date: \_\_\_\_\_      Time: \_\_\_\_\_  
 Released By: Fed Ex      Date: 10-2-04      Time: 0910      Received By: Holly M. B...      Date: 10-1-04      Time: 0910

JNH 1872

**CHAIN OF CUSTODY FORM**

Del Mar Analytical Version 5/8/12/04

Client Name/Address:				Project:				ANALYSIS REQUIRED												Field readings:	
MWH-Pasadena 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101  Project Manager: Bronwyn Kelly  Sampler:				Boeing-SSFL NPDES During Test - Outfall 012 Alpha Test Stand  Phone Number: (626) 568-6691 Fax Number: (626) 568-6515				ANALYSIS REQUIRED												Field readings:	
								Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Oil & Grease (EPA 413.1)	8015-gas	8015-diesel/jet fuel	1,4-Dioxane-8260B	TRPH <sub>T</sub> =Total Rec. Petroleum Hydrocarbons (EPA 418.1)	624 (EDB, 1,2,3-TCF, MTBE, DPE, TBA)	BOD5(20 degrees C)
Outfall 012	W	1L Amber	1	9-29-04	HCl	1A	X														Temp = 74.1 °F
Outfall 012 duplicate	W	1L Amber	1	9-29-04	HCl	1B	X														pH =
Outfall 012	W	VOAs	1		HCl	2A		X													JNH 1882
Outfall 012 duplicate	W	VOAs	2		HCl	2B, 2C		X													
Outfall 012	W	1L Amber	1		<del>None</del> HCl	3A		X													
Outfall 012 duplicate	W	1L Amber	1		<del>None</del> HCl	3B		X													
Outfall 012	W	VOAs	1		HCl	4A			X												
Outfall 012 duplicate	W	VOAs	2		HCl	4B, 4C		X													
Outfall 012	W	1L Amber	1		None	5A				X											
Outfall 012 duplicate	W	1L Amber	1		None	5B				X											
Outfall 012	W	VOAs	1		HCl	6A					X										
Outfall 012 duplicate	W	VOAs	2		HCl	6B, 6C					X										
Outfall 012	W	1L Poly	1		None	7A						X									
Outfall 012	W	1L Amber	1		None	8A							X								
Outfall 012 duplicate	W	1L Amber	1		None	8B							X								
Outfall 012	W	500ml Poly	1		H2SO4	9A								X							
Outfall 012	W	1L Poly	1	9-29-04	None	10A															
Outfall 012	W	1L Poly	1	9-29-04	None	11A															
Trip Blank	W	VOAs	6	9-29-04	HCl	12A, 12B, 12C, 12D, 12E, 12F		X				X									

Turn around Time: (check)  
 24 Hours \_\_\_\_\_ 5 Days \_\_\_\_\_  
 48 Hours \_\_\_\_\_ 10 Days \_\_\_\_\_  
 72 Hours \_\_\_\_\_ Normal \_\_\_\_\_  
 Perchlorate Only 72 Hours \_\_\_\_\_  
 Metals Only 72 Hours \_\_\_\_\_  
 Sample Integrity: (Check)  
 Intact \_\_\_\_\_ On Ice: \_\_\_\_\_

Received By: *Rick Buning* Date/Time: 9-30-04 09:55  
 Received By: *Stacy Annawan* Date/Time: 9/30/04 1550  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Relinquished By: *Rick Buning* Date/Time: 9-30-04 09:55  
 Relinquished By: *Stacy Annawan* Date/Time: 9/30/04 1550  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

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17461Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

**METHOD BLANK/QC DATA**

**TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 4I17090 Extracted: 09/17/04</u></b>											
<b>Blank Analyzed: 09/17/04 (4I17090-BLK1)</b>											
Total Recoverable Hydrocarbons	ND	1.0	0.31	mg/l							
<b>LCS Analyzed: 09/17/04 (4I17090-BS1)</b>											
Total Recoverable Hydrocarbons	4.06	1.0	0.31	mg/l	5.00		81	65-120			M-NR1
<b>LCS Dup Analyzed: 09/17/04 (4I17090-BSD1)</b>											
Total Recoverable Hydrocarbons	3.81	1.0	0.31	mg/l	5.00		76	65-120	6	20	

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 Michele Harper  
 Project Manager





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17461Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

## METHOD BLANK/QC DATA

### EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I13058 Extracted: 09/13/04</b>											
<b>Blank Analyzed: 09/14/04 (4I13058-BLK1)</b>											
EFH (C13 - C22)	ND	0.50	0.082	mg/l							
EFH (C13 - C40)	ND	0.50	0.082	mg/l							
Surrogate: n-Octacosane	0.143			mg/l	0.200		72	45-125			
<b>LCS Analyzed: 09/14/04 (4I13058-BS1)</b>											
EFH (C13 - C40)	0.533	0.50	0.082	mg/l	0.775		69	40-115			M-NRI
Surrogate: n-Octacosane	0.128			mg/l	0.200		64	45-125			
<b>LCS Dup Analyzed: 09/14/04 (4I13058-BSD1)</b>											
EFH (C13 - C40)	0.546	0.50	0.082	mg/l	0.775		70	40-115	2	25	
Surrogate: n-Octacosane	0.128			mg/l	0.200		64	45-125			

Del Mar Analytical, Irvine  
 Michele Harper  
 Project Manager

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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

## METHOD BLANK/QC DATA

### VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I16006 Extracted: 09/16/04</b>											
<b>Blank Analyzed: 09/16/04 (4I16006-BLK1)</b>											
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.00913			mg/l	0.0100		91	60-135			
<b>LCS Analyzed: 09/16/04 (4I16006-BS1)</b>											
GRO (C4 - C12)	0.218	0.10	0.050	mg/l	0.220		99	70-135			
Surrogate: 4-BFB (FID)	0.0106			mg/l	0.0100		106	60-135			
<b>Matrix Spike Analyzed: 09/16/04 (4I16006-MS1)</b>											
						<b>Source: INI0503-01</b>					
GRO (C4 - C12)	0.197	0.10	0.050	mg/l	0.220	ND	90	60-135			
Surrogate: 4-BFB (FID)	0.0104			mg/l	0.0100		104	60-135			
<b>Matrix Spike Dup Analyzed: 09/16/04 (4I16006-MSD1)</b>											
						<b>Source: INI0503-01</b>					
GRO (C4 - C12)	0.204	0.10	0.050	mg/l	0.220	ND	93	60-135	3	20	
Surrogate: 4-BFB (FID)	0.0105			mg/l	0.0100		105	60-135			

Del Mar Analytical, Irvine  
 Michele Harper  
 Project Manager

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 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

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Report Number: INI0560

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 Received: 09/09/04

**METHOD BLANK/QC DATA**

**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4117021 Extracted: 09/17/04</b>										
<b>Blank Analyzed: 09/17/04 (4117021-BLK1)</b>										
Acetone	ND	10	4.5	ug/l						
Benzene	ND	2.0	0.28	ug/l						
Bromobenzene	ND	5.0	0.27	ug/l						
Bromochloromethane	ND	5.0	0.32	ug/l						
Bromodichloromethane	ND	2.0	0.30	ug/l						
Bromoform	ND	5.0	0.32	ug/l						
Bromomethane	ND	5.0	0.34	ug/l						
2-Butanone (MEK)	ND	10	3.8	ug/l						
n-Butylbenzene	ND	5.0	0.17	ug/l						
o-Butylbenzene	ND	5.0	0.25	ug/l						
tert-Butylbenzene	ND	5.0	0.22	ug/l						
Carbon tetrachloride	ND	5.0	0.28	ug/l						
Chlorobenzene	ND	2.0	0.36	ug/l						
Chloroethane	ND	5.0	0.33	ug/l						
Chloroform	ND	2.0	0.33	ug/l						
Chloromethane	ND	5.0	0.30	ug/l						
2-Chlorotoluene	ND	5.0	0.28	ug/l						
4-Chlorotoluene	ND	5.0	0.29	ug/l						
Dibromochloromethane	ND	2.0	0.28	ug/l						
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l						
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l						
Dibromomethane	ND	2.0	0.36	ug/l						
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l						
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l						
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l						
Dichlorodifluoromethane	ND	5.0	0.79	ug/l						
1,1-Dichloroethane	ND	2.0	0.27	ug/l						
1,2-Dichloroethane	ND	2.0	0.28	ug/l						
1,1-Dichloroethene	ND	5.0	0.32	ug/l						
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l						
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l						
1,2-Dichloropropane	ND	2.0	0.35	ug/l						
1,3-Dichloropropane	ND	2.0	0.30	ug/l						
2,2-Dichloropropane	ND	2.0	0.29	ug/l						
1,1-Dichloropropene	ND	2.0	0.28	ug/l						

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 Michele Harper  
 Project Manager



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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of analytes such as cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, Ethylbenzene, etc., with their respective results and limits.

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Michele Harper
Project Manager



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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Batch: 4I17021, Blank Analyzed: 09/17/04, and LCS Analyzed: 09/17/04.

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Michele Harper
Project Manager



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300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
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Received: 09/09/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I17021 Extracted: 09/17/04</b>											
<b>LCS Analyzed: 09/17/04 (4I17021-BS1)</b>											
1,3-Dichloropropane	23.4	2.0	0.30	ug/l	25.0	94	70-130				
2,2-Dichloropropane	24.6	2.0	0.29	ug/l	25.0	98	65-150				
1,1-Dichloropropene	24.8	2.0	0.28	ug/l	25.0	99	75-130				
cis-1,3-Dichloropropene	24.4	2.0	0.22	ug/l	25.0	98	75-130				
trans-1,3-Dichloropropene	24.6	2.0	0.24	ug/l	25.0	98	75-135				
Ethylbenzene	24.9	2.0	0.25	ug/l	25.0	100	80-120				
Hexachlorobutadiene	24.6	5.0	0.38	ug/l	25.0	98	65-140				
2-Hexanone	21.9	10	2.6	ug/l	25.0	88	40-140				
Isopropylbenzene	24.7	2.0	0.25	ug/l	25.0	99	75-125				
Isopropyltoluene	24.0	2.0	0.28	ug/l	25.0	96	75-125				
Methylene chloride	23.8	5.0	0.48	ug/l	25.0	95	60-135				
4-Methyl-2-pentanone (MIBK)	22.0	10	2.5	ug/l	25.0	88	40-140				
Methyl-tert-butyl Ether (MTBE)	25.4	5.0	0.32	ug/l	25.0	102	55-145				
Naphthalene	23.2	5.0	0.41	ug/l	25.0	93	50-145				
n-Propylbenzene	25.1	2.0	0.14	ug/l	25.0	100	75-130				
Styrene	26.1	2.0	0.16	ug/l	25.0	104	80-135				
1,1,1,2-Tetrachloroethane	24.9	5.0	0.27	ug/l	25.0	100	70-145				
1,1,2,2-Tetrachloroethane	23.1	2.0	0.24	ug/l	25.0	92	60-135				
Tetrachloroethene	25.1	2.0	0.32	ug/l	25.0	100	75-125				
Toluene	25.1	2.0	0.36	ug/l	25.0	100	75-120				
1,2,3-Trichlorobenzene	24.0	5.0	0.45	ug/l	25.0	96	65-135				
1,2,4-Trichlorobenzene	24.8	5.0	0.48	ug/l	25.0	99	70-140				
1,1,1-Trichloroethane	25.4	2.0	0.30	ug/l	25.0	102	75-140				
1,1,2-Trichloroethane	23.8	2.0	0.30	ug/l	25.0	95	70-125				
Trichloroethene	24.8	2.0	0.26	ug/l	25.0	99	80-120				
Trichlorofluoromethane	25.5	5.0	0.34	ug/l	25.0	102	65-145				
1,2,3-Trichloropropane	22.7	10	0.85	ug/l	25.0	91	60-130				
1,2,4-Trimethylbenzene	24.7	2.0	0.23	ug/l	25.0	99	75-125				
1,3,5-Trimethylbenzene	24.9	2.0	0.26	ug/l	25.0	100	75-125				
Vinyl chloride	23.8	5.0	0.26	ug/l	25.0	95	50-130				
o-Xylene	24.0	2.0	0.24	ug/l	25.0	96	75-125				
m,p-Xylenes	50.4	2.0	0.52	ug/l	50.0	101	75-120				
Di-isopropyl Ether (DIPE)	25.3	5.0	0.25	ug/l	25.0	101	65-135				
Ethyl tert-Butyl Ether (ETBE)	25.0	5.0	0.28	ug/l	25.0	100	60-140				
tert-Amyl Methyl Ether (TAME)	25.4	5.0	0.33	ug/l	25.0	102	60-140				

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Michele Harper  
Project Manager



MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

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Report Number: INI0560

Sampled: 09/09/04
Received: 09/09/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte Result Reporting Limit MDL Units Spike Level Source Result %REC Limits RPD Limit Data Qualifiers

Batch: 4I17021 Extracted: 09/17/04

LCS Analyzed: 09/17/04 (4I17021-BS1)

Table with 10 columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC Limits, RPD Limit, Data Qualifiers. Rows include tert-Butanol (TBA), Surrogate: Dibromofluoromethane, Surrogate: Toluene-d8, Surrogate: 4-Bromofluorobenzene.

Matrix Spike Analyzed: 09/17/04 (4I17021-MS1)

Source: INI0501-04RE1

Table with 10 columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC Limits, RPD Limit, Data Qualifiers. Rows include Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, 2-Butanone (MEK), n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloroform, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, Dibromochloromethane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane (EDB), Dibromomethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, cis-1,2-Dichloroethene.

Del Mar Analytical, Irvine
Michele Harper
Project Manager



17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
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**METHOD BLANK/QC DATA**

**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD Limit	Data Qualifiers
<b>Batch: 4I17021 Extracted: 09/17/04</b>										
<b>Matrix Spike Analyzed: 09/17/04 (4I17021-MS1)</b>					<b>Source: INI0501-04RE1</b>					
trans-1,2-Dichloroethene	25.7	2.0	0.27	ug/l	25.0	ND	103	65-135		
1,2-Dichloropropane	26.1	2.0	0.35	ug/l	25.0	ND	104	65-130		
1,3-Dichloropropane	26.0	2.0	0.30	ug/l	25.0	ND	104	65-140		
2,2-Dichloropropane	23.2	2.0	0.29	ug/l	25.0	ND	93	60-150		
1,1-Dichloropropene	25.5	2.0	0.28	ug/l	25.0	ND	102	65-140		
cis-1,3-Dichloropropene	26.2	2.0	0.22	ug/l	25.0	ND	105	70-140		
trans-1,3-Dichloropropene	26.5	2.0	0.24	ug/l	25.0	ND	106	70-140		
Ethylbenzene	28.3	2.0	0.25	ug/l	25.0	2.0	105	70-130		
Hexachlorobutadiene	25.0	5.0	0.38	ug/l	25.0	ND	100	65-140		
Hexanone	30.6	10	2.6	ug/l	25.0	ND	122	20-145		
Isopropylbenzene	26.9	2.0	0.25	ug/l	25.0	0.90	104	70-130		
p-Isopropyltoluene	25.1	2.0	0.28	ug/l	25.0	0.38	99	70-130		
Methylene chloride	25.0	5.0	0.48	ug/l	25.0	ND	100	60-135		
4-Methyl-2-pentanone (MIBK)	30.6	10	2.5	ug/l	25.0	ND	122	40-145		
Methyl-tert-butyl Ether (MTBE)	31.0	5.0	0.32	ug/l	25.0	2.4	114	50-155		
Naphthalene	41.6	5.0	0.41	ug/l	25.0	11	122	50-150		
n-Propylbenzene	27.1	2.0	0.14	ug/l	25.0	1.8	101	70-135		
Styrene	27.6	2.0	0.16	ug/l	25.0	ND	110	55-145		
1,1,1,2-Tetrachloroethane	26.1	5.0	0.27	ug/l	25.0	ND	104	70-145		
1,1,2,2-Tetrachloroethane	29.1	2.0	0.24	ug/l	25.0	ND	116	60-145		
Tetrachloroethene	26.1	2.0	0.32	ug/l	25.0	ND	104	70-130		
Toluene	26.6	2.0	0.36	ug/l	25.0	0.92	103	70-120		
1,2,3-Trichlorobenzene	27.3	5.0	0.45	ug/l	25.0	ND	109	60-140		
1,2,4-Trichlorobenzene	26.8	5.0	0.48	ug/l	25.0	ND	107	60-140		
1,1,1-Trichloroethane	24.6	2.0	0.30	ug/l	25.0	ND	98	75-140		
1,1,2-Trichloroethane	27.5	2.0	0.30	ug/l	25.0	ND	110	60-135		
Trichloroethene	25.5	2.0	0.26	ug/l	25.0	ND	102	70-125		
Trichlorofluoromethane	25.0	5.0	0.34	ug/l	25.0	ND	100	55-145		
1,2,3-Trichloropropane	27.2	10	0.85	ug/l	25.0	ND	109	55-140		
1,2,4-Trimethylbenzene	48.9	2.0	0.23	ug/l	25.0	26	92	60-125		
1,3,5-Trimethylbenzene	38.1	2.0	0.26	ug/l	25.0	12	104	70-130		
Vinyl chloride	22.4	5.0	0.26	ug/l	25.0	ND	90	40-135		
o-Xylene	27.7	2.0	0.24	ug/l	25.0	2.4	101	65-125		
m,p-Xylenes	56.8	2.0	0.52	ug/l	50.0	4.4	105	65-130		
Di-isopropyl Ether (DIPE)	48.8	5.0	0.25	ug/l	25.0	26	91	65-140		

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 Michele Harper  
 Project Manager

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300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

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Received: 09/09/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Matrix Spike Analyzed and Matrix Spike Dup Analyzed.

Del Mar Analytical, Irvine
Michele Harper
Project Manager



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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of 40 analytes and their corresponding values.

Batch: 4I17021 Extracted: 09/17/04

Matrix Spike Dup Analyzed: 09/17/04 (4I17021-MSD1)

Source: INI0501-04RE1

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Michele Harper
Project Manager



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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I17021 Extracted: 09/17/04</b>											
<b>Matrix Spike Dup Analyzed: 09/17/04 (4I17021-MSD1)</b>						<b>Source: INI0501-04RE1</b>					
m,p-Xylenes	55.2	2.0	0.52	ug/l	50.0	4.4	102	65-130	3	25	
Di-isopropyl Ether (DIPE)	47.4	5.0	0.25	ug/l	25.0	26	86	65-140	3	25	
Ethyl tert-Butyl Ether (ETBE)	25.8	5.0	0.28	ug/l	25.0	ND	103	60-140	1	25	
tert-Amyl Methyl Ether (TAME)	27.2	5.0	0.33	ug/l	25.0	ND	109	55-145	1	30	
tert-Butanol (TBA)	160	25	3.1	ug/l	125	15	116	65-145	3	25	
Surrogate: Dibromofluoromethane	24.0			ug/l	25.0		96	80-120			
Surrogate: Toluene-d8	26.0			ug/l	25.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	25.4			ug/l	25.0		102	80-120			

Del Mar Analytical, Irvine  
Michele Harper  
Project Manager



# Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
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 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I10047 Extracted: 09/10/04</b>										
<b>Duplicate Analyzed: 09/10/04 (4I10047-DUP1)</b>										
pH	7.12	NA	N/A	pH Units		7.10		0	5	
<b>Source: INI0513-01</b>										
<b>Batch: 4I10075 Extracted: 09/10/04</b>										
<b>Blank Analyzed: 09/15/04 (4I10075-BLK1)</b>										
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l						
<b>LCS Analyzed: 09/15/04 (4I10075-BS1)</b>										
Biochemical Oxygen Demand	200	2.0	0.59	mg/l	198		101	85-115		
<b>CS Dup Analyzed: 09/15/04 (4I10075-BSD1)</b>										
Biochemical Oxygen Demand	200	2.0	0.59	mg/l	198		101	85-115	0	20
<b>Batch: 4I10076 Extracted: 09/10/04</b>										
<b>Blank Analyzed: 09/10/04 (4I10076-BLK1)</b>										
Total Suspended Solids	ND	10	10	mg/l						
<b>LCS Analyzed: 09/10/04 (4I10076-BS1)</b>										
Total Suspended Solids	1030	10	10	mg/l	1000		103	85-115		
<b>Duplicate Analyzed: 09/10/04 (4I10076-DUP1)</b>										
Total Suspended Solids	ND	10	10	mg/l		ND				10
<b>Source: INI0420-01</b>										
<b>Batch: 4I10086 Extracted: 09/10/04</b>										
<b>Blank Analyzed: 09/10/04 (4I10086-BLK1)</b>										
Turbidity	ND	1.0	0.20	NTU						

Del Mar Analytical, Irvine  
 Michele Harper  
 Project Manager



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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 4I10086 Extracted: 09/10/04</u></b>											
<b>Duplicate Analyzed: 09/10/04 (4I10086-DUP1)</b>						<b>Source: INI0530-01</b>					
Turbidity	0.490	1.0	0.20	NTU		0.46			6	20	J
<b><u>Batch: 4I10097 Extracted: 09/10/04</u></b>											
<b>Blank Analyzed: 09/10/04 (4I10097-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 09/10/04 (4I10097-BS1)</b>											
Total Dissolved Solids	996	10	10	mg/l	1000		100	90-110			
<b>Duplicate Analyzed: 09/10/04 (4I10097-DUP1)</b>						<b>Source: INI0540-01</b>					
Total Dissolved Solids	3370	10	10	mg/l		3400			1	10	
<b><u>Batch: 4I13037 Extracted: 09/13/04</u></b>											
<b>Blank Analyzed: 09/13/04 (4I13037-BLK1)</b>											
Perchlorate	ND	4.0	0.80	ug/l							
<b>LCS Analyzed: 09/13/04 (4I13037-BS1)</b>											
Perchlorate	55.2	4.0	0.80	ug/l	50.0		110	85-115			
<b>Matrix Spike Analyzed: 09/13/04 (4I13037-MS1)</b>						<b>Source: INI0575-01</b>					
Perchlorate	65.8	4.0	0.80	ug/l	50.0	10	112	80-120			
<b>Matrix Spike Dup Analyzed: 09/13/04 (4I13037-MSD1)</b>						<b>Source: INI0575-01</b>					
Perchlorate	65.9	4.0	0.80	ug/l	50.0	10	112	80-120	0	20	

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 Project Manager

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MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04

Received: 09/09/04

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I15083 Extracted: 09/15/04</b>											
<b>Blank Analyzed: 09/15/04 (4I15083-BLK1)</b>											
Oil & Grease	ND	5.0	0.94	mg/l							
<b>LCS Analyzed: 09/15/04 (4I15083-BS1)</b>											
Oil & Grease	16.7	5.0	0.94	mg/l	20.0		84	65-120			M-NR1
<b>LCS Dup Analyzed: 09/15/04 (4I15083-BSD1)</b>											
Oil & Grease	16.3	5.0	0.94	mg/l	20.0		82	65-120	2	20	
<b>Batch: 4I15091 Extracted: 09/15/04</b>											
<b>Blank Analyzed: 09/15/04 (4I15091-BLK1)</b>											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
<b>LCS Analyzed: 09/15/04 (4I15091-BS1)</b>											
Ammonia-N (Distilled)	9.52	0.50	0.30	mg/l	10.0		95	80-115			
<b>Matrix Spike Analyzed: 09/15/04 (4I15091-MS1)</b>											
Ammonia-N (Distilled)	8.96	0.50	0.30	mg/l	10.0	ND	90	70-120			
<b>Matrix Spike Dup Analyzed: 09/15/04 (4I15091-MSD1)</b>											
Ammonia-N (Distilled)	8.68	0.50	0.30	mg/l	10.0	ND	87	70-120	3	15	

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MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
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 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

## METHOD BLANK/QC DATA

### 1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: P4I1414 Extracted: 09/14/04</b>											
<b>Blank Analyzed: 09/14/04 (P4I1414-BLK1)</b>											
1,4-Dioxane	ND	1.0	0.49	ug/l							
Surrogate: Dibromofluoromethane	1.02			ug/l	1.00		102	80-135			
<b>LCS Analyzed: 09/14/04 (P4I1414-BS1)</b>											
1,4-Dioxane	10.0	1.0	0.49	ug/l	10.0		100	70-130			
Surrogate: Dibromofluoromethane	1.00			ug/l	1.00		100	80-135			
<b>LCS Dup Analyzed: 09/14/04 (P4I1414-BSD1)</b>											
1,4-Dioxane	9.82	1.0	0.49	ug/l	10.0		98	70-130	2	20	
Surrogate: Dibromofluoromethane	1.03			ug/l	1.00		103	80-135			
<b>Matrix Spike Analyzed: 09/14/04 (P4I1414-MS1) Source: PNI0306-03</b>											
1,4-Dioxane	10.8	1.0	0.49	ug/l	10.0	ND	108	70-130			
Surrogate: Dibromofluoromethane	1.07			ug/l	1.00		107	80-135			
<b>Matrix Spike Dup Analyzed: 09/14/04 (P4I1414-MSD1) Source: PNI0306-03</b>											
1,4-Dioxane	10.8	1.0	0.49	ug/l	10.0	ND	108	70-130	0	20	
Surrogate: Dibromofluoromethane	1.12			ug/l	1.00		112	80-135			

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MWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04
Received: 09/09/04

METHOD BLANK/QC DATA

Acid and Base/Neutral Extractables by EPA Method 625

Table with 12 columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Blank Analyzed, CS Analyzed, and LCS Dup Analyzed.

Del Mar Analytical, Irvine
Michele Harper
Project Manager





MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
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Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
Received: 09/09/04

### DATA QUALIFIERS AND DEFINITIONS

- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of unknown quality.
- M-NR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- X** See case narrative.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

### ADDITIONAL COMMENTS

**For GRO (C4-C12):**

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

**For Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :**

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

Del Mar Analytical, Irvine  
Michele Harper  
Project Manager



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MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
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 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0560

Sampled: 09/09/04  
 Received: 09/09/04

## Certification Summary

### Del Mar Analytical, Irvine

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

NV and NELAP provide analyte specific accreditations. Analyte specific information for Del Mar Analytical may be obtained by contacting the laboratory or visiting our website at [www.dmalabs.com](http://www.dmalabs.com).

### ibcontracted Laboratories

#### Del Mar Analytical - Phoenix NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907

9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed: EPA 8260B  
 Samples: INI0560-01

#### North Creek Analytical, Bothell- SUB NELAP Accreditation #01115CA and CA ELAP Cert #2294

11720 North Creek Pkwy., North, Ste. 400 - Bothell, WA 98011

Method Performed: EPA 625  
 Samples: INI0560-01RE1

Del Mar Analytical, Irvine  
 Michele Harper  
 Project Manager

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INI 0560

**CHAIN OF CUSTODY FORM**

Del Mar Analytical Version 5/8/12/04

Client Name/Address:		Project:		ANALYSIS REQUIRED															
MWH-Pasadena 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101		Boeing-SSFL NPDES During Test -- Alfa Outfall 012		1,4-Dioxane-8260B	Settleable Solids	8015-gas	8015-diesel/jet fuel	Oil & Grease (EPA 413.1)	624 (EDB, 1,2,3-TCF, MTBE, DPE, TBA)	BOD5(20 degrees C)	Perchlorate	Turbidity, TDS, TSS, pH	Ammonia-N, Titr. (350.2) w/ dist	TRPH=Total Rec. Petroleum Hydrocarbons (EPA 418.1)	625 Naphthalene +NDMA analysis				
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	1,4-Dioxane-8260B	Settleable Solids	8015-gas	8015-diesel/jet fuel	Oil & Grease (EPA 413.1)	624 (EDB, 1,2,3-TCF, MTBE, DPE, TBA)	BOD5(20 degrees C)	Perchlorate	Turbidity, TDS, TSS, pH	Ammonia-N, Titr. (350.2) w/ dist	TRPH=Total Rec. Petroleum Hydrocarbons (EPA 418.1)	625 Naphthalene +NDMA analysis	
Outfall 012	W	1L Amber	1	9-28-04 13:05	HCl	1A					X								
Outfall 012 duplicate	W	1L Amber	1		HCl	1B					X								
Outfall 012	W	1L Amber	1		HCl	2A											X		
Outfall 012 duplicate	W	1L Amber	1		HCl	2B											X		
Outfall 012	W	VOAs	1		HCl	3A						X							
Outfall 012 duplicate	W	VOAs	2		HCl	3B, 3C			X			X							
Outfall 012	W	VOAs	1		HCl	4A			X										
Outfall 012 duplicate	W	VOAs	2		HCl	4B, 4C			X										
Outfall 012	W	VOAs	1		HCl	5A		X											
Outfall 012 duplicate	W	VOAs	2		HCl	5B, 5C		X											
Outfall 012	W	1L Amber	1		None	6A												X	
Outfall 012 duplicate	W	1L Amber	1		None	6B												X	
Outfall 012	W	1L Amber	1		None	7A				X									
Outfall 012 duplicate	W	1L Amber	1		None	7B				X									
Outfall 012	W	500 ml Poly	1		H2S04	8A								X					
Outfall 012	W	1L Poly	1		None	9A							X						
Outfall 012	W	1L Poly	1		None	10A		X											
Outfall 012	W	1L Poly	1		None	11A								X	X				
Trip Blank	W	VOAs	43		HCl	12A, 12B, 12C, 12D			X			X							

Relinquished By *Ricardo* Date/Time: 9-28-04 - 14:20  
 Received By *Garzofalo* Date/Time: 9-28-04 1510

Relinquished By *Garzofalo* Date/Time: 9-28-04 1750  
 Received By *Garzofalo* Date/Time: 9-28-04 1750

Turnaround Time: (Check)  
 Same Day \_\_\_\_\_ 72 Hours \_\_\_\_\_  
 24 Hours \_\_\_\_\_ 5 days \_\_\_\_\_  
 48 hours \_\_\_\_\_ normal \_\_\_\_\_ X  
 Perchlorate Only 72 Hours \_\_\_\_\_  
 Metals Only 72 Hours \_\_\_\_\_  
 Sample Integrity: (Check)  
 Intact \_\_\_\_\_ On Ice: \_\_\_\_\_

*Garzofalo*



LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project: Alfa Outfall 012 - During Test

Sampled: 09/15/04  
Received: 09/15/04  
Issued: 11/08/04 15:54

NELAP #01108CA CA ELAP #1197 CSDLAC #10117

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.  
This entire report was reviewed and approved for release.*

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
INI0927-01	Outfall 012	Water
INI0927-02	Trip Blank	Water

Reviewed By:

Del Mar Analytical, Irvine  
Michelle Harper  
Project Manager



17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
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WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0927	Sampled: 09/15/04 Received: 09/15/04
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**TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0927-01 (Outfall 012 - Water)</b>									
<b>Reporting Units: mg/l</b>									
<b>Total Recoverable Hydrocarbons</b>	EPA 418.1	4117090	0.31	1.0	5.9	1	09/17/04	09/17/04	

Del Mar Analytical, Irvine  
 Michele Harper  
 Project Manager

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IWH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	Sampled: 09/15/04
300 North Lake Avenue, Suite 1200	Report Number: INI0927	Received: 09/15/04
Pasadena, CA 91101		
Attention: Bronwyn Kelly		

**EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0927-01 (Outfall 012 - Water) - cont.</b>									
Reporting Units: mg/l									
EFH (C13 - C22)	EPA 8015B	4I19040	0.082	0.50	1.2	0.962	09/19/04	09/24/04	
Surrogate: n-Octacosane (45-125%)					87 %				

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



AWH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI0927  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

**VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0927-01 (Outfall 012 - Water) - cont.</b>									
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	4I28034	0.050	0.10	0.90	1	09/28/04	09/28/04	
Surrogate: 4-BFB (FID) (60-135%)					90 %				
<b>Sample ID: INI0927-02 (Trip Blank - Water)</b>									
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	4I27006	0.050	0.10	ND	1	09/27/04	09/27/04	
Surrogate: 4-BFB (FID) (60-135%)					84 %				

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Shele Harper  
Project Manager





WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0927	Sampled: 09/15/04 Received: 09/15/04
---	--	---

**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0927-01 (Outfall 012 - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I24024	0.32	2.0	ND	1	09/24/04	09/24/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I24024	0.32	5.0	ND	1	09/24/04	09/24/04	
1,2,3-Trichloropropane	EPA 624 MOD	4I24024	0.85	10	ND	1	09/24/04	09/24/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I24024	0.25	5.0	ND	1	09/24/04	09/24/04	
tert-Butanol (TBA)	EPA 624 MOD	4I24024	3.1	25	ND	1	09/24/04	09/24/04	
Surrogate: Dibromofluoromethane (80-120%)					115 %				
Surrogate: Toluene-d8 (80-120%)					107 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					105 %				
<b>Sample ID: INI0927-02 (Trip Blank - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4I24024	0.32	2.0	ND	1	09/24/04	09/24/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4I24024	0.32	5.0	ND	1	09/24/04	09/24/04	
1,2,3-Trichloropropane	EPA 624 MOD	4I24024	0.85	10	ND	1	09/24/04	09/24/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4I24024	0.25	5.0	ND	1	09/24/04	09/24/04	
tert-Butanol (TBA)	EPA 624 MOD	4I24024	3.1	25	ND	1	09/24/04	09/24/04	
Surrogate: Dibromofluoromethane (80-120%)					108 %				
Surrogate: Toluene-d8 (80-120%)					107 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					102 %				

Del Mar Analytical, Irvine  
 Michele Harper  
 Project Manager



AWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
Received: 09/15/04

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0927-01 (Outfall 012 - Water)</b>									
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4I23096	0.30	0.50	ND	1	09/23/04	09/23/04	
Biochemical Oxygen Demand	EPA 405.1	4I16100	0.012	0.040	2.5	1	09/16/04	09/21/04	
Oil & Grease	EPA 413.1	4I20075	0.94	5.0	1.8	1	09/20/04	09/20/04	J
Total Dissolved Solids	SM2540C	4I17133	10	10	310	1	09/17/04	09/17/04	
Total Suspended Solids	EPA 160.2	4I16102	10	10	17	1	09/16/04	09/16/04	
<b>Sample ID: INI0927-01 (Outfall 012 - Water)</b>									
Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	4I16097	0.10	0.10	ND	1	09/16/04	09/16/04	
<b>Sample ID: INI0927-01 (Outfall 012 - Water)</b>									
Reporting Units: NTU									
Turbidity	EPA 180.1	4I16095	0.20	1.0	35	1	09/16/04	09/16/04	
<b>Sample ID: INI0927-01 (Outfall 012 - Water)</b>									
Reporting Units: pH Units									
pH	EPA 150.1	4I16049	N/A	NA	7.99	1	09/16/04	09/16/04	
<b>Sample ID: INI0927-01 (Outfall 012 - Water)</b>									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4I16047	0.80	4.0	ND	1	09/16/04	09/16/04	

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**1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0927-01 (Outfall 012 - Water) - cont.</b>									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4I2316	0.49	1.0	ND	1	09/23/04	09/23/04	
Surrogate: Dibromofluoromethane (80-135%)					156 %				ZZ

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Michelle Harper  
Project Manager





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Semivolatile Organic Compounds by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI0927-01 (Outfall 012 - Water) - cont.</b>									
<b>Reporting Units: ug/L</b>									
Naphthalene	EPA 625	V4I2115	1.31	10.0	32.3	1	09/21/04	09/23/04	
N-Nitrosodimethylamine	EPA 625	V4I2115	1.37	20.0	ND	1	09/21/04	09/23/04	
Surrogate: 2-FP (40.8-88.4%)					51.5 %				
Surrogate: Phenol-d6 (31.7-86.6%)					41.8 %				
Surrogate: 2,4,6-TBP (58-109%)					81.0 %				
Surrogate: Nitrobenzene-d5 (47.1-99.2%)					68.7 %				
Surrogate: 2-FBP (44.7-89.6%)					67.3 %				
Surrogate: p-Terphenyl-d14 (45.7-117%)					82.9 %				

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Shele Harper  
Project Manager



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**SHORT HOLD TIME DETAIL REPORT**

Sample ID: Outfall 012 (INI0927-01) - Water	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
EPA 150.1	1	09/15/2004 15:45	09/15/2004 18:25	09/16/2004 06:30	09/16/2004 07:30
EPA 160.5	2	09/15/2004 15:45	09/15/2004 18:25	09/16/2004 13:00	09/16/2004 14:30
EPA 180.1	2	09/15/2004 15:45	09/15/2004 18:25	09/16/2004 15:00	09/16/2004 16:00
EPA 405.1	2	09/15/2004 15:45	09/15/2004 18:25	09/16/2004 14:15	09/21/2004 11:00

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300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
Received: 09/15/04

**METHOD BLANK/QC DATA**

**TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I17090 Extracted: 09/17/04</b>											
<b>Blank Analyzed: 09/17/04 (4I17090-BLK1)</b>											
Total Recoverable Hydrocarbons	ND	1.0	0.31	mg/l							
<b>LCS Analyzed: 09/17/04 (4I17090-BS1)</b>											
Total Recoverable Hydrocarbons	4.06	1.0	0.31	mg/l	5.00		81	65-120			M-NR1
<b>LCS Dup Analyzed: 09/17/04 (4I17090-BSD1)</b>											
Total Recoverable Hydrocarbons	3.81	1.0	0.31	mg/l	5.00		76	65-120	6	20	

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VH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	
300 North Lake Avenue, Suite 1200		Sampled: 09/15/04
Pasadena, CA 91101	Report Number: INI0927	Received: 09/15/04
Attention: Bronwyn Kelly		

**METHOD BLANK/QC DATA**

**EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I19040 Extracted: 09/19/04</b>											
<b>Blank Analyzed: 09/20/04 (4I19040-BLK1)</b>											
EFH (C13 - C22)	ND	0.50	0.082	mg/l							
EFH (C13 - C40)	ND	0.50	0.082	mg/l							
Surrogate: n-Octacosane	0.147			mg/l	0.200		74	45-125			
<b>LCS Analyzed: 09/21/04 (4I19040-BS1)</b>											
EFH (C13 - C40)	0.465	0.50	0.082	mg/l	0.775		60	40-115			M-NR1 J
Surrogate: n-Octacosane	0.147			mg/l	0.200		74	45-125			
<b>LCS Dup Analyzed: 09/21/04 (4I19040-BSD1)</b>											
EFH (C13 - C40)	0.492	0.50	0.082	mg/l	0.775		63	40-115	6	25	J
Surrogate: n-Octacosane	0.0975			mg/l	0.200		49	45-125			

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WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI0927  
Pasadena, CA 91101  
Attention: Bronwyn Kelly Sampled: 09/15/04  
Received: 09/15/04

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Batch: 4I27006, Batch: 4I28034, and various analysis types like Blank Analyzed, LCS Analyzed, Matrix Spike Analyzed, and Matrix Spike Dup Analyzed.

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Shele Harper  
Project Manager



AWH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	Sampled: 09/15/04
300 North Lake Avenue, Suite 1200	Report Number: INI0927	Received: 09/15/04
Pasadena, CA 91101		
Attention: Bronwyn Kelly		

**METHOD BLANK/QC DATA**

**VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I28034 Extracted: 09/28/04</b>											
<b>Matrix Spike Dup Analyzed: 09/28/04 (4I28034-MSD1)</b>						<b>Source: INI1000-02</b>					
GRO (C4 - C12)	0.395	0.10	0.050	mg/l	0.220	0.19	93	60-135	0	20	
Surrogate: 4-BFB (FID)	0.0102			mg/l	0.0100		102	60-135			

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WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0927	Sampled: 09/15/04 Received: 09/15/04
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**METHOD BLANK/QC DATA**

**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting			Spike Level	Source Result	%REC			Data Qualifiers
		Limit	MDL	Units			%REC	RPD	RPD Limit	
<b>Batch: 4I24024 Extracted: 09/24/04</b>										
<b>Blank Analyzed: 09/24/04 (4I24024-BLK1)</b>										
Acetone	ND	10	4.5	ug/l						
Benzene	ND	2.0	0.28	ug/l						
Bromobenzene	ND	5.0	0.27	ug/l						
Bromochloromethane	ND	5.0	0.32	ug/l						
Bromodichloromethane	ND	2.0	0.30	ug/l						
Bromoform	ND	5.0	0.32	ug/l						
Bromomethane	ND	5.0	0.34	ug/l						
2-Butanone (MEK)	ND	10	3.8	ug/l						
n-Butylbenzene	ND	5.0	0.17	ug/l						
Butylbenzene	ND	5.0	0.25	ug/l						
Butylbenzene	ND	5.0	0.22	ug/l						
Carbon tetrachloride	ND	5.0	0.28	ug/l						
Chlorobenzene	ND	2.0	0.36	ug/l						
Chloroethane	ND	5.0	0.33	ug/l						
Chloroform	ND	2.0	0.33	ug/l						
Chloromethane	ND	5.0	0.30	ug/l						
2-Chlorotoluene	ND	5.0	0.28	ug/l						
4-Chlorotoluene	ND	5.0	0.29	ug/l						
Dibromochloromethane	ND	2.0	0.28	ug/l						
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l						
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l						
Dibromomethane	ND	2.0	0.36	ug/l						
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l						
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l						
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l						
Dichlorodifluoromethane	ND	5.0	0.79	ug/l						
1,1-Dichloroethane	ND	2.0	0.27	ug/l						
1,2-Dichloroethane	ND	2.0	0.28	ug/l						
1,1-Dichloroethene	ND	5.0	0.32	ug/l						
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l						
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l						
1,2-Dichloropropane	ND	2.0	0.35	ug/l						
1,3-Dichloropropane	ND	2.0	0.30	ug/l						
2,2-Dichloropropane	ND	2.0	0.29	ug/l						
1,1-Dichloropropene	ND	2.0	0.28	ug/l						

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 Michele Harper  
 Project Manager



AWH-Pasadena/Boeing
300 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04
Received: 09/15/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of analytes such as cis-1,3-Dichloropropene, Ethylbenzene, Hexachlorobutadiene, etc., with their respective results and limits.

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Catherine Harper
Project Manager



1WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INI0927
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/15/04
Received: 09/15/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sub-sections for Batch: 4I24024, Blank Analyzed: 09/24/04, and LCS Analyzed: 09/24/04.

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Michelle Harper
Project Manager



1WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI0927  
Pasadena, CA 91101 Attention: Bronwyn Kelly  
Sampled: 09/15/04  
Received: 09/15/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I24024 Extracted: 09/24/04</b>											
<b>LCS Analyzed: 09/24/04 (4I24024-BS1)</b>											
1,3-Dichloropropane	24.2	2.0	0.30	ug/l	25.0		97	70-130			
2,2-Dichloropropane	31.2	2.0	0.29	ug/l	25.0		125	65-150			
1,1-Dichloropropene	25.6	2.0	0.28	ug/l	25.0		102	75-130			
cis-1,3-Dichloropropene	24.8	2.0	0.22	ug/l	25.0		99	75-130			
trans-1,3-Dichloropropene	24.2	2.0	0.24	ug/l	25.0		97	75-135			
Ethylbenzene	26.4	2.0	0.25	ug/l	25.0		106	80-120			
Hexachlorobutadiene	24.9	5.0	0.38	ug/l	25.0		100	65-140			
2-Hexanone	24.8	10	2.6	ug/l	25.0		99	40-140			
Isopropylbenzene	24.8	2.0	0.25	ug/l	25.0		99	75-125			
propyltoluene	22.0	2.0	0.28	ug/l	25.0		88	75-125			
ethylene chloride	22.0	5.0	0.48	ug/l	25.0		88	60-135			
4-Methyl-2-pentanone (MIBK)	20.6	10	2.5	ug/l	25.0		82	40-140			
Methyl-tert-butyl Ether (MTBE)	27.0	5.0	0.32	ug/l	25.0		108	55-145			
Naphthalene	22.2	5.0	0.41	ug/l	25.0		89	50-145			
n-Propylbenzene	26.5	2.0	0.14	ug/l	25.0		106	75-130			
Styrene	24.2	2.0	0.16	ug/l	25.0		97	80-135			
1,1,1,2-Tetrachloroethane	23.9	5.0	0.27	ug/l	25.0		96	70-145			
1,1,2,2-Tetrachloroethane	26.2	2.0	0.24	ug/l	25.0		105	60-135			
Tetrachloroethene	25.4	2.0	0.32	ug/l	25.0		102	75-125			
Toluene	26.5	2.0	0.36	ug/l	25.0		106	75-120			
1,2,3-Trichlorobenzene	23.7	5.0	0.45	ug/l	25.0		95	65-135			
1,2,4-Trichlorobenzene	24.6	5.0	0.48	ug/l	25.0		98	70-140			
1,1,1-Trichloroethane	25.8	2.0	0.30	ug/l	25.0		103	75-140			
1,1,2-Trichloroethane	24.3	2.0	0.30	ug/l	25.0		97	70-125			
Trichloroethene	23.9	2.0	0.26	ug/l	25.0		96	80-120			
Trichlorofluoromethane	26.0	5.0	0.34	ug/l	25.0		104	65-145			
1,2,3-Trichloropropane	22.6	10	0.85	ug/l	25.0		90	60-130			
1,2,4-Trimethylbenzene	23.8	2.0	0.23	ug/l	25.0		95	75-125			
1,3,5-Trimethylbenzene	24.2	2.0	0.26	ug/l	25.0		97	75-125			
Vinyl chloride	23.3	5.0	0.26	ug/l	25.0		93	50-130			
o-Xylene	23.4	2.0	0.24	ug/l	25.0		94	75-125			
m,p-Xylenes	47.8	2.0	0.52	ug/l	50.0		96	75-120			
Di-isopropyl Ether (DIPE)	24.0	5.0	0.25	ug/l	25.0		96	65-135			
Ethyl tert-Butyl Ether (ETBE)	25.0	5.0	0.28	ug/l	25.0		100	60-140			
tert-Amyl Methyl Ether (TAME)	25.8	5.0	0.33	ug/l	25.0		103	60-140			

Mar Analytical, Irvine  
Michelle Harper  
Project Manager



1WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INI0927
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/15/04
Received: 09/15/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for LCS Analyzed and Matrix Spike Analyzed.

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Cecile Harper
Project Manager





AWH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI0927  
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Attention: Bronwyn Kelly  
Sampled: 09/15/04  
Received: 09/15/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of 40 analytes with their respective values and limits.

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Catherine Harper  
Project Manager



1WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INI0927
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/15/04
Received: 09/15/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sub-sections for Matrix Spike Analyzed and Matrix Spike Dup Analyzed.

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Michelle Harper
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INI0927
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/15/04
Received: 09/15/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of 40 chemical analytes and their corresponding test results.

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WH-Pasadena/Boeing  
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Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
Received: 09/15/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	Data Limit	Qualifiers
<b>Batch: 4I24024 Extracted: 09/24/04</b>											
<b>Matrix Spike Dup Analyzed: 09/24/04 (4I24024-MSD1)</b>						<b>Source: INI0919-06</b>					
m,p-Xylenes	49.9	2.0	0.52	ug/l	50.0	ND	100	65-130	6	25	
Di-isopropyl Ether (DIPE)	27.2	5.0	0.25	ug/l	25.0	ND	109	65-140	0	25	
Ethyl tert-Butyl Ether (ETBE)	28.2	5.0	0.28	ug/l	25.0	ND	113	60-140	1	25	
tert-Amyl Methyl Ether (TAME)	28.6	5.0	0.33	ug/l	25.0	ND	114	55-145	2	30	
tert-Butanol (TBA)	132	25	3.1	ug/l	125	ND	106	65-145	1	25	
Surrogate: Dibromofluoromethane	28.0			ug/l	25.0		112	80-120			
Surrogate: Toluene-d8	26.6			ug/l	25.0		106	80-120			
Surrogate: 4-Bromofluorobenzene	25.6			ug/l	25.0		102	80-120			

Del Mar Analytical, Irvine  
Suzanne Harper  
Project Manager



# Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
 9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

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 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
 Received: 09/15/04

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I16047 Extracted: 09/16/04</b>											
<b>Blank Analyzed: 09/16/04 (4I16047-BLK1)</b>											
Perchlorate	ND	4.0	0.80	ug/l							
<b>LCS Analyzed: 09/16/04 (4I16047-BS1)</b>											
Perchlorate	48.6	4.0	0.80	ug/l	50.0		97	85-115			
<b>Matrix Spike Analyzed: 09/16/04 (4I16047-MS1)</b>											
Perchlorate	48.9	4.0	0.80	ug/l	50.0	ND	98	80-120			
<b>Matrix Spike Dup Analyzed: 09/16/04 (4I16047-MSD1)</b>											
Perchlorate	48.3	4.0	0.80	ug/l	50.0	ND	97	80-120	1	20	
<b>Batch: 4I16049 Extracted: 09/16/04</b>											
<b>Duplicate Analyzed: 09/16/04 (4I16049-DUP1)</b>											
pH	7.40	NA	N/A	pH Units			7.39		0	5	
<b>Batch: 4I16095 Extracted: 09/16/04</b>											
<b>Blank Analyzed: 09/16/04 (4I16095-BLK1)</b>											
Turbidity	ND	1.0	0.20	NTU							
<b>Duplicate Analyzed: 09/16/04 (4I16095-DUP1)</b>											
Turbidity	35.2	1.0	0.20	NTU			35		1	20	
<b>Batch: 4I16100 Extracted: 09/16/04</b>											
<b>Blank Analyzed: 09/21/04 (4I16100-BLK1)</b>											
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							

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 Michele Harper  
 Project Manager

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WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI0927	Sampled: 09/15/04 Received: 09/15/04
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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I16100 Extracted: 09/16/04</b>											
<b>LCS Analyzed: 09/21/04 (4I16100-BS1)</b>											
Biochemical Oxygen Demand	200	100	30	mg/l	198		101	85-115			
<b>LCS Dup Analyzed: 09/21/04 (4I16100-BSD1)</b>											
Biochemical Oxygen Demand	199	100	30	mg/l	198		101	85-115	1	20	
<b>Batch: 4I16102 Extracted: 09/16/04</b>											
<b>Blank Analyzed: 09/16/04 (4I16102-BLK1)</b>											
Total Suspended Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 09/16/04 (4I16102-BS1)</b>											
Total Suspended Solids	983	10	10	mg/l	1000		98	85-115			
<b>Duplicate Analyzed: 09/16/04 (4I16102-DUP1)</b>											
Total Suspended Solids	20.0	10	10	mg/l		17			16	10	R-3
<b>Batch: 4I17133 Extracted: 09/17/04</b>											
<b>Blank Analyzed: 09/17/04 (4I17133-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 09/17/04 (4I17133-BS1)</b>											
Total Dissolved Solids	994	10	10	mg/l	1000		99	90-110			
<b>Duplicate Analyzed: 09/17/04 (4I17133-DUP1)</b>											
Total Dissolved Solids	726	10	10	mg/l		770			6	10	

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager



AWH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	
300 North Lake Avenue, Suite 1200		Sampled: 09/15/04
Pasadena, CA 91101	Report Number: INI0927	Received: 09/15/04
Attention: Bronwyn Kelly		

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I20075 Extracted: 09/20/04</b>											
<b>Blank Analyzed: 09/20/04 (4I20075-BLK1)</b>											
Oil & Grease	ND	5.0	0.94	mg/l							
<b>LCS Analyzed: 09/20/04 (4I20075-BS1)</b>											
Oil & Grease	18.4	5.0	0.94	mg/l	20.0		92	65-120			
<b>Matrix Spike Analyzed: 09/20/04 (4I20075-MS1)</b>											
						<b>Source: INI0888-01</b>					
Oil & Grease	36.9	10	2.0	mg/l	41.7	7.6	70	65-120			
<b>Matrix Spike Dup Analyzed: 09/20/04 (4I20075-MSD1)</b>											
						<b>Source: INI0888-01</b>					
Oil & Grease	43.1	10	2.0	mg/l	41.7	7.6	85	65-120	15	25	
<b>Batch: 4I23096 Extracted: 09/23/04</b>											
<b>Blank Analyzed: 09/23/04 (4I23096-BLK1)</b>											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
<b>LCS Analyzed: 09/23/04 (4I23096-BS1)</b>											
Ammonia-N (Distilled)	9.24	0.50	0.30	mg/l	10.0		92	80-115			
<b>Matrix Spike Analyzed: 09/23/04 (4I23096-MS1)</b>											
						<b>Source: INI1394-01</b>					
Ammonia-N (Distilled)	9.52	0.50	0.30	mg/l	10.0	ND	95	70-120			
<b>Matrix Spike Dup Analyzed: 09/23/04 (4I23096-MSD1)</b>											
						<b>Source: INI1394-01</b>					
Ammonia-N (Distilled)	9.52	0.50	0.30	mg/l	10.0	ND	95	70-120	0	15	

Del Mar Analytical, Irvine  
Cristina Harper  
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI0927  
Pasadena, CA 91101 Sampled: 09/15/04  
Attention: Bronwyn Kelly Received: 09/15/04

METHOD BLANK/QC DATA

1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: P4I2316 Extracted: 09/23/04</b>										
<b>Blank Analyzed: 09/23/04 (P4I2316-BLK1)</b>										
1,4-Dioxane	ND	1.0	0.49	ug/l						
Surrogate: Dibromofluoromethane	1.02			ug/l	1.00		102 80-135			
<b>LCS Analyzed: 09/23/04 (P4I2316-BS1)</b>										
1,4-Dioxane	8.24	1.0	0.49	ug/l	10.0		82 70-130			
Surrogate: Dibromofluoromethane	1.05			ug/l	1.00		105 80-135			
<b>LCS Dup Analyzed: 09/23/04 (P4I2316-BSD1)</b>										
1,4-Dioxane	9.08	1.0	0.49	ug/l	10.0		91 70-130	10	20	
Surrogate: Dibromofluoromethane	1.01			ug/l	1.00		101 80-135			
<b>Matrix Spike Analyzed: 09/23/04 (P4I2316-MS1) Source: PNI0571-01</b>										
1,4-Dioxane	9.55	1.0	0.49	ug/l	10.0	ND	96 70-130			
Surrogate: Dibromofluoromethane	1.14			ug/l	1.00		114 80-135			
<b>Matrix Spike Dup Analyzed: 09/23/04 (P4I2316-MSD1) Source: PNI0571-01</b>										
1,4-Dioxane	8.83	1.0	0.49	ug/l	10.0	ND	88 70-130	8	20	
Surrogate: Dibromofluoromethane	1.10			ug/l	1.00		110 80-135			

Del Mar Analytical, Irvine  
Catherine Harper  
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.





WH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
Received: 09/15/04

METHOD BLANK/QC DATA

Semivolatile Organic Compounds by EPA Method 625

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: V4I2115 Extracted: 09/21/04</b>											
<b>Blank Analyzed: 09/23/04 (V4I2115-BLK1)</b>											
Naphthalene	ND	10.0	1.31	ug/L							
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L							
Surrogate: 2-FP	75.9			ug/L	200		38	40.8-88.4			A-05
Surrogate: Phenol-d6	65.2			ug/L	200		33	31.7-86.6			
Surrogate: 2,4,6-TBP	126			ug/L	200		63	58-109			
Surrogate: Nitrobenzene-d5	53.3			ug/L	100		53	47.1-99.2			
Surrogate: 2-FBP	52.6			ug/L	100		53	44.7-89.6			
Surrogate: p-Terphenyl-d14	67.5			ug/L	100		68	45.7-117			
<b>CS Analyzed: 09/23/04 (V4I2115-BS1)</b>											
Naphthalene	99.7	10.0	1.31	ug/L	200		50	38.5-85.1			
N-Nitrosodimethylamine	101	20.0	1.37	ug/L	200		51	14.1-97.3			
Surrogate: 2-FP	93.7			ug/L	200		47	40.8-88.4			
Surrogate: Phenol-d6	74.6			ug/L	200		37	31.7-86.6			
Surrogate: 2,4,6-TBP	140			ug/L	200		70	58-109			
Surrogate: Nitrobenzene-d5	58.1			ug/L	100		58	47.1-99.2			
Surrogate: 2-FBP	60.1			ug/L	100		60	44.7-89.6			
Surrogate: p-Terphenyl-d14	67.0			ug/L	100		67	45.7-117			
<b>LCS Dup Analyzed: 09/23/04 (V4I2115-BSD1)</b>											
Naphthalene	95.0	10.0	1.31	ug/L	200		48	38.5-85.1	5	17.3	
N-Nitrosodimethylamine	97.5	20.0	1.37	ug/L	200		49	14.1-97.3	4	32.5	
Surrogate: 2-FP	89.7			ug/L	200		45	40.8-88.4			
Surrogate: Phenol-d6	72.7			ug/L	200		36	31.7-86.6			
Surrogate: 2,4,6-TBP	133			ug/L	200		67	58-109			
Surrogate: Nitrobenzene-d5	56.6			ug/L	100		57	47.1-99.2			
Surrogate: 2-FBP	57.7			ug/L	100		58	44.7-89.6			
Surrogate: p-Terphenyl-d14	63.8			ug/L	100		64	45.7-117			

Del Mar Analytical, Irvine  
Cristina Harper  
Project Manager



WH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
Received: 09/15/04

METHOD BLANK/QC DATA

Semivolatile Organic Compounds by EPA Method 625

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: V4I2115 Extracted: 09/21/04</b>										
<b>Duplicate Analyzed: 09/23/04 (V4I2115-DUP1)</b>					<b>Source: V409140-02</b>					
Naphthalene	ND	10.0	1.31	ug/L		ND			30	
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L		ND			30	
Surrogate: 2-FP	62.4			ug/L	200		31 40.8-88.4			A-05
Surrogate: Phenol-d6	65.4			ug/L	200		33 31.7-86.6			
Surrogate: 2,4,6-TBP	98.4			ug/L	200		49 58-109			A-05
Surrogate: Nitrobenzene-d5	53.4			ug/L	100		53 47.1-99.2			
Surrogate: 2-FBP	50.9			ug/L	100		51 44.7-89.6			
Surrogate: p-Terphenyl-d14	60.4			ug/L	100		60 45.7-117			
<b>Matrix Spike Analyzed: 09/23/04 (V4I2115-MS1)</b>					<b>Source: V409140-01</b>					
Naphthalene	74.7	10.0	1.31	ug/L	200	ND	37 70-130			A-04
N-Nitrosodimethylamine	93.2	20.0	1.37	ug/L	200	ND	47 70-130			A-04
Surrogate: 2-FP	80.0			ug/L	200		40 40.8-88.4			A-05
Surrogate: Phenol-d6	72.0			ug/L	200		36 31.7-86.6			
Surrogate: 2,4,6-TBP	57.4			ug/L	200		29 58-109			A-05
Surrogate: Nitrobenzene-d5	40.6			ug/L	100		41 47.1-99.2			A-05
Surrogate: 2-FBP	38.8			ug/L	100		39 44.7-89.6			A-05
Surrogate: p-Terphenyl-d14	41.5			ug/L	100		42 45.7-117			A-05

Del Mar Analytical, Irvine  
Suzanne Harper  
Project Manager



WH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
Received: 09/15/04

**DATA QUALIFIERS AND DEFINITIONS**

- A-04** The spike recovery for this QC sample is outside of established control limits. Review of associated QC indicates the recovery for this analyte does not negatively impact the usability of the data.
- A-05** The surrogate recovery for this sample is outside of established control limits. Review of associated QC indicates that the recovery of this surrogate does not negatively impact the usability of the data.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of unknown quality.
- M-NR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- R-3** The RPD exceeded the method control limit due to sample matrix effects.
- Z2** Surrogate recovery was above the acceptance limits. Data not impacted.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

**ADDITIONAL COMMENTS**

**For GRO (C4-C12):**

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

**or Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :**

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

Del Mar Analytical, Irvine  
Michele Harper  
Project Manager



AWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI0927

Sampled: 09/15/04  
Received: 09/15/04

**Certification Summary**

**Del Mar Analytical, Irvine**

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD	Water	X	X
EPA 625	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

NV and NELAP provide analyte specific accreditations. Analyte specific information for Del Mar Analytical may be obtained by contacting the laboratory or visiting our website at [www.dmalabs.com](http://www.dmalabs.com).

**Contracted Laboratories**

**Del Mar Analytical - Phoenix** NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907

9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed: EPA 8260B

Samples: INI0927-01

**Star Analytical, Inc.** CA ELAP Cert #1849

14500 Trinity Boulevard, Suite 106 - Fort Worth, TX 76155

Method Performed: EPA 625

Samples: INI0927-01

**Del Mar Analytical, Irvine**

Michele Harper  
Project Manager



17461 Denan Ave. Suite 100, Irvine, CA 92614 Ph (949) 261-1022 Fax (949) 261-1228  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1046  
 9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9596 Fax (619) 505-9689  
 9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851  
 2520 E. Sunset Rd., Suite #3, Las Vegas, NV 89120 Ph (702) 798-3620 Fax (702) 798-3621

## SUBCONTRACT ORDER - PROJECT # INI0927

**SENDING LABORATORY:**

Del Mar Analytical, Irvine  
 17461 Derian Avenue. Suite 100  
 Irvine, CA 92614  
 Phone: (949) 261-1022  
 Fax: (949) 261-1228  
 Project Manager: Michele Harper

**RECEIVING LABORATORY:**

Del Mar Analytical - Phoenix  
 9830 S. 51st Street, Suite B-120  
 Phoenix, AZ 85044  
 Phone : (480) 785-0043  
 Fax: (480) 785-0851

Analysis	Expiration	Due	Comments
Sample ID: INI0927-01    Water    Sampled: 09/15/04 15:45			
Dioxane-8260B-out	09/29/04 15:45	09/24/04 12:00	Boeing-permit, sub to DMAP, J flags <span style="float: right; font-family: cursive;">PNJ 0515-01</span>
<b>Containers Supplied:</b>			
40 ml VOA w/HCL (INI0927-01K)			
40 ml VOA w/HCL (INI0927-01L)			
40 ml VOA w/HCL (INI0927-01M)			

**SAMPLE INTEGRITY:**

All containers intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Sample labels/COC agree: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Samples Received On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Custody Seals Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Samples Preserved Properly: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Samples Received at (temp): <u>3.8°C</u>

Released By <i>Felby</i>	Date <i>9/17/04</i>	Time <i>0925</i>	Received By <i>[Signature]</i>	Date <i>9/17/04</i>	Time <i>0925</i>
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Page 1 of 1

INIO-127

**CHAIN OF CUSTODY FORM**

Del Mar Analytical Version 5 8/12/04

Client Name/Address:		Project:		ANALYSIS REQUIRED																
MWH-Pasadena 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Project Manager: Bronwyn Kelly Sampler: <i>P. Colloci</i>		Boeing-SSFL NPDES During Test -- Alfa Outfall 012 Project Number: MWH- Phone Number: (626) 568-6691 Fax Number: (626) 568-6515		1,4-Dioxane-8260B	Settleable Solids	8015-gas	8015-diesel/jet fuel	Oil & Grease (EPA 413.1)	624 (EDB, 1,2,3-TCF, MTBE, DPE, TBA)	BOD5(20 degrees C)	Perchlorate	Turbidity, TDS, TSS, pH	Ammonia-N, Titr. (350.2) w/ dist	TRPH=Total Rec. Petroleum Hydrocarbons (EPA 418.1)	625 Naphthalene +NDMA analysis					
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	1,4-Dioxane-8260B	Settleable Solids	8015-gas	8015-diesel/jet fuel	Oil & Grease (EPA 413.1)	624 (EDB, 1,2,3-TCF, MTBE, DPE, TBA)	BOD5(20 degrees C)	Perchlorate	Turbidity, TDS, TSS, pH	Ammonia-N, Titr. (350.2) w/ dist	TRPH=Total Rec. Petroleum Hydrocarbons (EPA 418.1)	625 Naphthalene +NDMA analysis		
Outfall 012	W	1L Amber	1	9-15-04 15:45	HCl	1A					X									
Outfall 012 duplicate	W	1L Amber	1		HCl	1B					X									
Outfall 012	W	Plastic 1L Amber	1		HCl	2A											X			
Outfall 012 duplicate	W	Plastic 1L Amber	1		HCl	2B											X			
Outfall 012	W	VOAS	1		HCl	3A						X								
Outfall 012 duplicate	W	VOAS	2		HCl	3B, 3C						X								
Outfall 012	W	VOAS	1		HCl	4A			X											
Outfall 012 duplicate	W	VOAS	2		HCl	4B, 4C			X											
Outfall 012	W	VOAS	1		HCl	5A														
Outfall 012 duplicate	W	VOAS	2		HCl	5B, 5C														
Outfall 012	W	1L Amber	1		None	6A												X		
Outfall 012 duplicate	W	1L Amber	1		None	6B												X		
Outfall 012	W	1L Amber	1		None	7A														
Outfall 012 duplicate	W	1L Amber	1		None	7B			X											
Outfall 012	W	500 ml Poly	1		H2SO4	8A											X			
Outfall 012	W	1L Poly	1		None HCl	9A														
Outfall 012	W	1L Poly	1		None HCl	10A														
Outfall 012	W	1L Poly	1		None HCl	11A														
Trip Blank	W	VOAS	3		HCl	12A, 12B, 12C, 12D			X			X								
Relinquished By	<i>[Signature]</i>			Date/Time	Received By		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time	
Relinquished By	<i>[Signature]</i>			9-15-04 16:06	<i>[Signature]</i>		9/15/04 16:06		9/15/04 16:06		9/15/04 16:06		9/15/04 16:06		9/15/04 16:06		9/15/04 16:06		9/15/04 16:06	
Relinquished By	<i>[Signature]</i>			9/15/04 18:25	<i>[Signature]</i>		9/15/04 18:25		9/15/04 18:25		9/15/04 18:25		9/15/04 18:25		9/15/04 18:25		9/15/04 18:25		9/15/04 18:25	

Turnaround Time: (check)  
 Same Day \_\_\_\_\_ 72 Hours \_\_\_\_\_  
 24 Hours \_\_\_\_\_ 5 days \_\_\_\_\_  
 48 hours \_\_\_\_\_ normal \_\_\_\_\_  
 Perchlorate Only 72 Hours \_\_\_\_\_  
 Metals Only 72 Hours \_\_\_\_\_

Sample Integrity: (Check) On Ice: \_\_\_\_\_  
 Intact \_\_\_\_\_

1825



17461 Derian Ave. Suite 100, Irvine, CA 92614 Ph (949) 261-1022 Fax (949) 261-1228  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4687 Fax (909) 370-1046  
 9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9596 Fax (619) 505-9689  
 9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851  
 2520 E. Sunset Rd., Suite #3, Las Vegas, NV 89120 Ph (702) 798-3620 Fax (702) 798-3621

## SUBCONTRACT ORDER - PROJECT # INI0927

SENDING LABORATORY:	RECEIVING LABORATORY:
Del Mar Analytical, Irvine 17461 Derian Avenue. Suite 100 Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 261-1228 Project Manager: Michele Harper	Star Analytical, Inc. 14500 Trinity Boulevard, Suite 106 Fort Worth, TX 76155 Phone : (817) 571-6800 Fax: (817) 267-5431

Standard TAT is requested unless specific due date is requested => Due Date: \_\_\_\_\_ Initials: \_\_\_\_\_

Analysis	Expiration	Comments
Sample ID: INI0927-01 Water 625+NDMA+Hydrazine	Sampled: 09/15/04 15:45 09/22/04 15:45	Boeing, permit & PP (see project notes), J flags <span style="float: right; font-family: cursive;">V409171-01</span>
Containers Supplied: 1 L Amber (INI0927-01Q)		

Fed-ct # 7902 76583122

### SAMPLE INTEGRITY:

All containers intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Sample labels/COC agree: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Samples Received On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Custody Seals Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Samples Preserved Properly: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Samples Received at (temp): <u>          </u>

	9/15/04 12:00		9/19/04 11:30
Released By	Date Time	Received By	Date Time

Released By	Date Time	Received By	Date Time
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Star Analytical Sample Receipt Log

880

Delmar - Irvine

- 1) Client Name \_\_\_\_\_
- 2) Seal(s) Intact? Packaging Intact?
  - Yes  No
  - No  N/A
- 3) Method of Receipt: Tracking # 7902 76583122
  - Star  Client  UPS
  - Fed Ex  Airborne
- 4) Date & Time Received at/by Lab 9/18/04 1130
- 5) Receipt Log Completed By A. DiVary
- 6) Ice used?  Yes  No
  - Packing material used?  Yes  No
  - Cooler Temp. 4 °C
  - Sample Temp. 4 °C
  - from Temp. Blank?
- 7) Chain of Custody filled out properly?  Yes  No  N/A
- 8) Does information on custody/traffic reports agree with information on sample tags/labels?  Yes  No
- 9) Containers supplied by Lab?  Yes  No
- 10) Correct/ Appropriate containers used?  Yes  No
- 11) Containers intact?  Yes  No
- 12) Containers properly preserved?  Yes  No  N/A
- 13) Headspace in VOAS?  Yes  No  N/A

Container Qty(s) & Description(s)		Sample Number	Sample Letter(s)	Information collected from sample containers				Sample Control Comments
Client Sample Identification	Sample Matrix	Sample Date	Sample Time					
1 - Amber Linn	01	A		INI 0907-01	Linn	9/15/04	1545	J-frag-lyst

Additional Comments and/or Problems, Resolutions:

Date of Log-in 9/20/04

Work Order Number 0409171

Page 1 of 1





# STAR ANALYTICAL

14500 Trinity Boulevard, Suite 108 • Fort Worth, Texas 76155  
(817) 571-8800 • Metro (817) 540-8882 • FAX (817) 287-5431



Del Mar Analytical - Irvine  
17461 Derian Avenue, Suite 100  
Irvine CA, 92614-5817

Project: subbed in  
Project Number: INI0927  
Project Manager: Michele Harper

Reported:  
10/19/04 10:48

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
INI0927-01	V409171-01	Liquid	09/15/04 15:45	09/18/04 11:30

Star Analytical, Inc.

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Anthony Dilday, Lab Director



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Project: subbed in  
Project Number: INI0927  
Project Manager: Michele Harper

Reported:  
10/19/04 10:48

## Semivolatile Organic Compounds by EPA Method 625 Star Analytical, Inc.

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
INI0927-01 (V409171-01) Liquid Sampled: 09/15/04 15:45 Received: 09/18/04 11:30											
Sampled by: Client Type: Grab Received: 09/18/04 11:30											
Naphthalene	32.3	1.31	10.0	ug/L	1	V4I2115	09/21/04 08:30	09/23/04 16:15	EPA 625	SD	
N-Nitrosodimethylamine	ND	1.37	20.0	"	"	"	"	"	"	"	
Surr: 2-FP		51.5 %		40.8-88.4		"	"	"	"	"	
Surr: Phenol-d6		41.8 %		31.7-86.6		"	"	"	"	"	
Surr: 2,4,6-TBP		81.0 %		58-109		"	"	"	"	"	
Surr: Nitrobenzene-d5		68.7 %		47.1-99.2		"	"	"	"	"	
Surr: 2-FBP		67.3 %		44.7-89.6		"	"	"	"	"	
Surr: p-Terphenyl-d14		82.9 %		45.7-117		"	"	"	"	"	



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Project: subbed in  
Project Number: INI0927  
Project Manager: Michele Harper

Reported:  
10/19/04 10:48

## Semivolatile Organic Compounds by EPA Method 625 - Quality Control Star Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch V4I2115 - EPA 3510C

#### Blank (V4I2115-BLK1)

Prepared: 09/21/04 Analyzed: 09/23/04

Naphthalene	ND	10.0	ug/L							
N-Nitrosodimethylamine	ND	20.0	"							
Surrogate: 2-FP	75.9		"	200		38.0	40.8-88.4			A-05
Surrogate: Phenol-d6	65.2		"	200		32.6	31.7-86.6			
Surrogate: 2,4,6-TBP	126		"	200		63.0	58-109			
Surrogate: Nitrobenzene-d5	53.3		"	100		53.3	47.1-99.2			
Surrogate: 2-FBP	52.6		"	100		52.6	44.7-89.6			
Surrogate: p-Terphenyl-d14	67.5		"	100		67.5	45.7-117			

#### LCS (V4I2115-BS1)

Prepared: 09/21/04 Analyzed: 09/23/04

Naphthalene	99.7	10.0	ug/L	200		49.8	38.5-85.1			
N-Nitrosodimethylamine	101	20.0	"	200		50.5	14.1-97.3			
Surrogate: 2-FP	93.7		"	200		46.8	40.8-88.4			
Surrogate: Phenol-d6	74.6		"	200		37.3	31.7-86.6			
Surrogate: 2,4,6-TBP	140		"	200		70.0	58-109			
Surrogate: Nitrobenzene-d5	58.1		"	100		58.1	47.1-99.2			
Surrogate: 2-FBP	60.1		"	100		60.1	44.7-89.6			
Surrogate: p-Terphenyl-d14	67.0		"	100		67.0	45.7-117			

#### LCS Dup (V4I2115-BSD1)

Prepared: 09/21/04 Analyzed: 09/23/04

Naphthalene	95.0	10.0	ug/L	200		47.5	38.5-85.1	4.83	17.3	
N-Nitrosodimethylamine	97.5	20.0	"	200		48.8	14.1-97.3	3.53	32.5	
Surrogate: 2-FP	89.7		"	200		44.8	40.8-88.4			
Surrogate: Phenol-d6	72.7		"	200		36.4	31.7-86.6			
Surrogate: 2,4,6-TBP	133		"	200		66.5	58-109			
Surrogate: Nitrobenzene-d5	56.6		"	100		56.6	47.1-99.2			
Surrogate: 2-FBP	57.7		"	100		57.7	44.7-89.6			
Surrogate: p-Terphenyl-d14	63.8		"	100		63.8	45.7-117			

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Project: subbed in  
Project Number: INI0927  
Project Manager: Michele Harper

Reported:  
10/19/04 10:48

## Semivolatile Organic Compounds by EPA Method 625 - Quality Control Star Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch V4I2115 - EPA 3510C

#### Duplicate (V4I2115-DUP1)

Source: V409140-02

Prepared: 09/21/04 Analyzed: 09/23/04

Naphthalene	ND	10.0	ug/L		ND				30	
N-Nitrosodimethylamine	ND	20.0	"		ND				30	
Surrogate: 2-FP	62.4		"	200		31.2	40.8-88.4			A-05
Surrogate: Phenol-d6	65.4		"	200		32.7	31.7-86.6			
Surrogate: 2,4,6-TBP	98.4		"	200		49.2	58-109			A-05
Surrogate: Nitrobenzene-d5	53.4		"	100		53.4	47.1-99.2			
Surrogate: 2-FBP	50.9		"	100		50.9	44.7-89.6			
Surrogate: p-Terphenyl-d14	60.4		"	100		60.4	45.7-117			

#### Matrix Spike (V4I2115-MS1)

Source: V409140-01

Prepared: 09/21/04 Analyzed: 09/23/04

Naphthalene	74.7	10.0	ug/L	200	ND	37.4	70-130			A-04
N-Nitrosodimethylamine	93.2	20.0	"	200	ND	46.6	70-130			A-04
Surrogate: 2-FP	80.0		"	200		40.0	40.8-88.4			A-05
Surrogate: Phenol-d6	72.0		"	200		36.0	31.7-86.6			
Surrogate: 2,4,6-TBP	57.4		"	200		28.7	58-109			A-05
Surrogate: Nitrobenzene-d5	40.6		"	100		40.6	47.1-99.2			A-05
Surrogate: 2-FBP	38.8		"	100		38.8	44.7-89.6			A-05
Surrogate: p-Terphenyl-d14	41.5		"	100		41.5	45.7-117			A-05



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Project: subbed in  
Project Number: INI0927  
Project Manager: Michele Harper

Reported:  
10/19/04 10:48

## Notes and Definitions

- A-04 The spike recovery for this QC sample is outside of established control limits. Review of associated QC indicates the recovery for this analyte does not negatively impact the usability of the data.
- A-05 The surrogate recovery for this sample is outside of established control limits. Review of associated QC indicates that the recovery of this surrogate does not negatively impact the usability of the data.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project: Alfa Outfall 012 - During Test

Sampled: 09/24/04  
Received: 09/24/04  
Issued: 11/08/04 16:19

NELAP #01108CA CA ELAP #1197 CSDLAC #10117

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain(s) of Custody, 5 pages, are included and are an integral part of this report.  
This entire report was reviewed and approved for release.*

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
INI1518-01	Outfall 012	Water
INI1518-02	TRIP BLANK	Water

Reviewed By:

Del Mar Analytical, Irvine  
Michelle Harper  
Project Manager



1WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1518	Sampled: 09/24/04 Received: 09/24/04
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**TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1518-01 (Outfall 012 - Water)</b>									
<b>Reporting Units: mg/l</b>									
<b>Total Recoverable Hydrocarbons</b>	EPA 418.1	4J01062	0.31	1.0	5.1	1	10/01/04	10/01/04	

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager

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WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1518	Sampled: 09/24/04 Received: 09/24/04
---	--	---

**EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1518-01 (Outfall 012 - Water) - cont.</b>									
<b>Reporting Units: mg/l</b>									
<b>EFH (C13 - C22)</b>	EPA 8015B	4I28066	0.082	0.50	<b>1.0</b>	0.962	09/28/04	09/30/04	
<i>Surrogate: n-Octacosane (45-125%)</i>					<i>91 %</i>				

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager





1WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1518	Sampled: 09/24/04 Received: 09/24/04
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**VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1518-01 (Outfall 012 - Water) - cont.</b>									
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	4J08013	0.050	0.10	0.28	1	10/08/04	10/08/04	
Surrogate: 4-BFB (FID) (60-135%)					92 %				
<b>Sample ID: INI1518-02 (TRIP BLANK - Water)</b>									
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	4J04011	0.050	0.10	ND	1	10/04/04	10/04/04	
Surrogate: 4-BFB (FID) (60-135%)					97 %				

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Dele Harper  
Project Manager

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1WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI1518  
Pasadena, CA 91101 Sampled: 09/24/04  
Attention: Bronwyn Kelly Received: 09/24/04

**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1518-01 (Outfall 012 - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J03010	0.32	2.0	ND	1	10/03/04	10/03/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J03010	0.32	5.0	ND	1	10/03/04	10/03/04	
1,2,3-Trichloropropane	EPA 624 MOD	4J03010	0.85	10	ND	1	10/03/04	10/03/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J03010	0.25	5.0	ND	1	10/03/04	10/03/04	
tert-Butanol (TBA)	EPA 624 MOD	4J03010	3.1	25	ND	1	10/03/04	10/03/04	
Surrogate: Dibromofluoromethane (80-120%)					97 %				
Surrogate: Toluene-d8 (80-120%)					99 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					102 %				
<b>Sample ID: INI1518-02 (TRIP BLANK - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J03010	0.32	2.0	ND	1	10/03/04	10/03/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J03010	0.32	5.0	ND	1	10/03/04	10/03/04	
1,2,3-Trichloropropane	EPA 624 MOD	4J03010	0.85	10	ND	1	10/03/04	10/03/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J03010	0.25	5.0	ND	1	10/03/04	10/03/04	
tert-Butanol (TBA)	EPA 624 MOD	4J03010	3.1	25	ND	1	10/03/04	10/03/04	
Surrogate: Dibromofluoromethane (80-120%)					98 %				
Surrogate: Toluene-d8 (80-120%)					98 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					109 %				

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Project Manager

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1WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
500 North Lake Avenue, Suite 1200 Report Number: INI1518  
Pasadena, CA 91101 Sampled: 09/24/04  
Attention: Bronwyn Kelly Received: 09/24/04

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1518-01 (Outfall 012 - Water)</b>									
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4I28067	0.30	0.50	ND	1	09/28/04	09/28/04	
Biochemical Oxygen Demand	EPA 405.1	4I24083	0.59	2.0	2.8	1	09/24/04	09/29/04	
Oil & Grease	EPA 413.1	4I30073	0.94	5.0	ND	1	09/30/04	09/30/04	
Total Dissolved Solids	SM2540C	4I28091	10	10	330	1	09/28/04	09/28/04	
Total Suspended Solids	EPA 160.2	4I27082	10	10	120	1	09/27/04	09/27/04	
<b>Sample ID: INI1518-01 (Outfall 012 - Water)</b>									
Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	4I24107	0.10	0.10	ND	1	09/24/04	09/24/04	
<b>Sample ID: INI1518-01 (Outfall 012 - Water)</b>									
Reporting Units: NTU									
Turbidity	EPA 180.1	4I25045	0.20	1.0	27	1	09/25/04	09/25/04	
<b>Sample ID: INI1518-01 (Outfall 012 - Water)</b>									
Reporting Units: pH Units									
pH	EPA 150.1	4I25039	N/A	NA	8.09	1	09/25/04	09/25/04	
<b>Sample ID: INI1518-01 (Outfall 012 - Water)</b>									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4I25033	0.80	4.0	ND	1	09/25/04	09/25/04	

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager



WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1518	Sampled: 09/24/04 Received: 09/24/04
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**1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1518-01 (Outfall 012 - Water) - cont.</b>									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4I2801	0.49	1.0	ND	1	09/28/04	09/28/04	
Surrogate: Dibromofluoromethane (80-135%)					104 %				

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager



WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1518	Sampled: 09/24/04 Received: 09/24/04
---	--	---

Semivolatile Organic Compounds by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1518-01 (Outfall 012 - Water) - cont.</b>									
Reporting Units: ug/L									
Naphthalene	EPA 625	V4J0501	1.31	10.0	20.9	1	09/30/04	10/06/04	
N-Nitrosodimethylamine	EPA 625	V4J0501	1.37	20.0	ND	1	09/30/04	10/06/04	
Surrogate: 2-FP (40.8-88.4%)					46.8 %				
Surrogate: Phenol-d6 (31.7-86.6%)					39.6 %				
Surrogate: 2,4,6-TBP (58-109%)					87.5 %				
Surrogate: Nitrobenzene-d5 (47.1-99.2%)					58.0 %				
Surrogate: 2-FBP (44.7-89.6%)					51.4 %				
Surrogate: p-Terphenyl-d14 (45.7-117%)					74.9 %				

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Hele Harper  
Project Manager

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IWH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test	Sampled: 09/24/04 Received: 09/24/04
Report Number: INI1518		

**SHORT HOLD TIME DETAIL REPORT**

Sample ID: Outfall 012 (INI1518-01) - Water	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
EPA 150.1	1	09/24/2004 14:18	09/24/2004 17:40	09/25/2004 10:30	09/25/2004 11:30
EPA 160.5	2	09/24/2004 14:18	09/24/2004 17:40	09/24/2004 20:10	09/24/2004 21:00
EPA 180.1	2	09/24/2004 14:18	09/24/2004 17:40	09/25/2004 12:30	09/25/2004 14:00
EPA 405.1	2	09/24/2004 14:18	09/24/2004 17:40	09/24/2004 18:45	09/29/2004 12:00

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Hele Harper  
Project Manager



1WH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	Sampled: 09/24/04
300 North Lake Avenue, Suite 1200	Report Number: INI1518	Received: 09/24/04
Pasadena, CA 91101		
Attention: Bronwyn Kelly		

**METHOD BLANK/QC DATA**

**TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J01062 Extracted: 10/01/04</b>											
<b>Blank Analyzed: 10/01/04 (4J01062-BLK1)</b>											
Total Recoverable Hydrocarbons	ND	1.0	0.31	mg/l							
<b>LCS Analyzed: 10/01/04 (4J01062-BS1)</b>											
Total Recoverable Hydrocarbons	4.21	1.0	0.31	mg/l	5.00		84	65-120			M-NR1
<b>LCS Dup Analyzed: 10/01/04 (4J01062-BSD1)</b>											
Total Recoverable Hydrocarbons	4.46	1.0	0.31	mg/l	5.00		89	65-120	6	20	

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Hele Harper  
Project Manager

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1WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1518	Sampled: 09/24/04 Received: 09/24/04
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METHOD BLANK/QC DATA

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I28066 Extracted: 09/28/04</b>										
<b>Blank Analyzed: 09/30/04 (4I28066-BLK1)</b>										
EFH (C13 - C22)	ND	0.50	0.082	mg/l						
EFH (C13 - C40)	ND	0.50	0.082	mg/l						
Surrogate: n-Octacosane	0.101			mg/l	0.200		50 45-125			
<b>LCS Analyzed: 09/30/04 (4I28066-BS1)</b>										
EFH (C13 - C40)	0.737	0.50	0.082	mg/l	0.775		95 40-115			M-NR1
Surrogate: n-Octacosane	0.125			mg/l	0.200		62 45-125			
<b>LCS Dup Analyzed: 09/30/04 (4I28066-BSD1)</b>										
EFH (C13 - C40)	0.703	0.50	0.082	mg/l	0.775		91 40-115	5	25	
Surrogate: n-Octacosane	0.125			mg/l	0.200		62 45-125			

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Hele Harper  
Project Manager

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1WH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
Report Number: INI1518

Sampled: 09/24/04  
Received: 09/24/04

**METHOD BLANK/QC DATA**
**VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J04011 Extracted: 10/04/04</b>											
<b>Blank Analyzed: 10/04/04 (4J04011-BLK1)</b>											
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.00901			mg/l	0.0100		90	60-135			
<b>LCS Analyzed: 10/04/04 (4J04011-BS1)</b>											
GRO (C4 - C12)	0.260	0.10	0.050	mg/l	0.220		118	70-135			
Surrogate: 4-BFB (FID)	0.0103			mg/l	0.0100		103	60-135			
<b>Matrix Spike Analyzed: 10/04/04 (4J04011-MS1)</b>											
						<b>Source: INI1420-03</b>					
GRO (C4 - C12)	0.347	0.10	0.050	mg/l	0.220	0.22	58	60-135			M2
Surrogate: 4-BFB (FID)	0.00839			mg/l	0.0100		84	60-135			
<b>Matrix Spike Dup Analyzed: 10/04/04 (4J04011-MSD1)</b>											
						<b>Source: INI1420-03</b>					
GRO (C4 - C12)	0.361	0.10	0.050	mg/l	0.220	0.22	64	60-135	4	20	
Surrogate: 4-BFB (FID)	0.00829			mg/l	0.0100		83	60-135			
<b>Batch: 4J08013 Extracted: 10/08/04</b>											
<b>Blank Analyzed: 10/08/04 (4J08013-BLK1)</b>											
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.00988			mg/l	0.0100		99	60-135			
<b>LCS Analyzed: 10/08/04 (4J08013-BS1)</b>											
GRO (C4 - C12)	0.251	0.10	0.050	mg/l	0.220		114	70-135			
Surrogate: 4-BFB (FID)	0.00985			mg/l	0.0100		98	60-135			
<b>Matrix Spike Analyzed: 10/08/04 (4J08013-MS1)</b>											
						<b>Source: INJ0015-01</b>					
GRO (C4 - C12)	0.263	0.10	0.050	mg/l	0.220	ND	120	60-135			
Surrogate: 4-BFB (FID)	0.00983			mg/l	0.0100		98	60-135			

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Hele Harper  
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WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1518	Sampled: 09/24/04 Received: 09/24/04
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**METHOD BLANK/QC DATA**

**VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J08013 Extracted: 10/08/04</b>											
<b>Matrix Spike Dup Analyzed: 10/08/04 (4J08013-MSD1)</b>						<b>Source: INJ0015-01</b>					
GRO (C4 - C12)	0.279	0.10	0.050	mg/l	0.220	ND	127	60-135	6	20	
Surrogate: 4-BFB (FID)	0.0115			mg/l	0.0100		115	60-135			

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1WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1518	Sampled: 09/24/04 Received: 09/24/04
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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J03010 Extracted: 10/03/04</b>										
<b>Blank Analyzed: 10/03/04 (4J03010-BLK1)</b>										
Acetone	ND	10	4.5	ug/l						
Benzene	ND	2.0	0.28	ug/l						
Bromobenzene	ND	5.0	0.27	ug/l						
Bromochloromethane	ND	5.0	0.32	ug/l						
Bromodichloromethane	ND	2.0	0.30	ug/l						
Bromoform	ND	5.0	0.32	ug/l						
Bromomethane	ND	5.0	0.34	ug/l						
2-Butanone (MEK)	ND	10	3.8	ug/l						
n-Butylbenzene	ND	5.0	0.17	ug/l						
sec-Butylbenzene	ND	5.0	0.25	ug/l						
Butylbenzene	ND	5.0	0.22	ug/l						
Carbon tetrachloride	ND	5.0	0.28	ug/l						
Chlorobenzene	ND	2.0	0.36	ug/l						
Chloroethane	ND	5.0	0.33	ug/l						
Chloroform	ND	2.0	0.33	ug/l						
Chloromethane	ND	5.0	0.30	ug/l						
2-Chlorotoluene	ND	5.0	0.28	ug/l						
4-Chlorotoluene	ND	5.0	0.29	ug/l						
Dibromochloromethane	ND	2.0	0.28	ug/l						
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l						
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l						
Dibromomethane	ND	2.0	0.36	ug/l						
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l						
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l						
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l						
Dichlorodifluoromethane	ND	5.0	0.79	ug/l						
1,1-Dichloroethane	ND	2.0	0.27	ug/l						
1,2-Dichloroethane	ND	2.0	0.28	ug/l						
1,1-Dichloroethene	ND	5.0	0.32	ug/l						
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l						
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l						
1,2-Dichloropropane	ND	2.0	0.35	ug/l						
1,3-Dichloropropane	ND	2.0	0.30	ug/l						
2,2-Dichloropropane	ND	2.0	0.29	ug/l						
1,1-Dichloropropene	ND	2.0	0.28	ug/l						

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Hele Harper  
Project Manager

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IWH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
500 North Lake Avenue, Suite 1200 Report Number: INI1518
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/24/04
Received: 09/24/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of analytes such as cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, Ethylbenzene, etc., with their respective results and limits.

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fWH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI1518  
Pasadena, CA 91101 Attention: Bronwyn Kelly  
Sampled: 09/24/04  
Received: 09/24/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Batch: 4J03010, Blank Analyzed: 10/03/04, and LCS Analyzed: 10/03/04.

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Hele Harper  
Project Manager



4WH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1518

Sampled: 09/24/04  
Received: 09/24/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J03010 Extracted: 10/03/04</b>										
<b>LCS Analyzed: 10/03/04 (4J03010-BS1)</b>										
1,3-Dichloropropane	26.8	2.0	0.30	ug/l	25.0	107	70-130			
2,2-Dichloropropane	26.5	2.0	0.29	ug/l	25.0	106	65-150			
1,1-Dichloropropene	25.2	2.0	0.28	ug/l	25.0	101	75-130			
cis-1,3-Dichloropropene	26.8	2.0	0.22	ug/l	25.0	107	75-130			
trans-1,3-Dichloropropene	28.1	2.0	0.24	ug/l	25.0	112	75-135			
Ethylbenzene	25.4	2.0	0.25	ug/l	25.0	102	80-120			
Hexachlorobutadiene	22.7	5.0	0.38	ug/l	25.0	91	65-140			
2-Hexanone	31.7	10	2.6	ug/l	25.0	127	40-140			
Isopropylbenzene	25.1	2.0	0.25	ug/l	25.0	100	75-125			
p-Isopropyltoluene	23.4	2.0	0.28	ug/l	25.0	94	75-125			
ethylene chloride	24.9	5.0	0.48	ug/l	25.0	100	60-135			
Methyl-2-pentanone (MIBK)	31.3	10	2.5	ug/l	25.0	125	40-140			
Methyl-tert-butyl Ether (MTBE)	29.4	5.0	0.32	ug/l	25.0	118	55-145			
Naphthalene	28.3	5.0	0.41	ug/l	25.0	113	50-145			
n-Propylbenzene	23.9	2.0	0.14	ug/l	25.0	96	75-130			
Styrene	27.2	2.0	0.16	ug/l	25.0	109	80-135			
1,1,1,2-Tetrachloroethane	25.2	5.0	0.27	ug/l	25.0	101	70-145			
1,1,2,2-Tetrachloroethane	29.5	2.0	0.24	ug/l	25.0	118	60-135			
Tetrachloroethene	25.9	2.0	0.32	ug/l	25.0	104	75-125			
Toluene	24.8	2.0	0.36	ug/l	25.0	99	75-120			
1,2,3-Trichlorobenzene	28.0	5.0	0.45	ug/l	25.0	112	65-135			
1,2,4-Trichlorobenzene	26.3	5.0	0.48	ug/l	25.0	105	70-140			
1,1,1-Trichloroethane	25.6	2.0	0.30	ug/l	25.0	102	75-140			
1,1,2-Trichloroethane	27.4	2.0	0.30	ug/l	25.0	110	70-125			
Trichloroethene	25.6	2.0	0.26	ug/l	25.0	102	80-120			
Trichlorofluoromethane	26.9	5.0	0.34	ug/l	25.0	108	65-145			
1,2,3-Trichloropropane	29.3	10	0.85	ug/l	25.0	117	60-130			
1,2,4-Trimethylbenzene	24.4	2.0	0.23	ug/l	25.0	98	75-125			
1,3,5-Trimethylbenzene	26.4	2.0	0.26	ug/l	25.0	106	75-125			
Vinyl chloride	23.9	5.0	0.26	ug/l	25.0	96	50-130			
o-Xylene	25.3	2.0	0.24	ug/l	25.0	101	75-125			
m,p-Xylenes	51.2	2.0	0.52	ug/l	50.0	102	75-120			
Di-isopropyl Ether (DIPE)	28.3	5.0	0.25	ug/l	25.0	113	65-135			
Ethyl tert-Butyl Ether (ETBE)	28.0	5.0	0.28	ug/l	25.0	112	60-140			
tert-Amyl Methyl Ether (TAME)	30.2	5.0	0.33	ug/l	25.0	121	60-140			

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Hele Harper  
Project Manager

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WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INI1518
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/24/04
Received: 09/24/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Batch: 4J03010, LCS Analyzed: 10/03/04, and Matrix Spike Analyzed: 10/03/04.

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Hele Harper
Project Manager



1WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INI1518
Pasadena, CA 91101 Attention: Bronwyn Kelly Sampled: 09/24/04
Received: 09/24/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of 40 analytes with their respective values and limits.

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Hele Harper
Project Manager

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4WH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

**METHOD BLANK/QC DATA**
**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J03010 Extracted: 10/03/04</b>											
<b>Matrix Spike Analyzed: 10/03/04 (4J03010-MS1)</b>						<b>Source: INI1601-01</b>					
Ethyl tert-Butyl Ether (ETBE)	27.6	5.0	0.28	ug/l	25.0	ND	110	60-140			
tert-Amyl Methyl Ether (TAME)	27.6	5.0	0.33	ug/l	25.0	ND	110	55-145			
tert-Butanol (TBA)	135	25	3.1	ug/l	125	ND	108	65-145			
Surrogate: Dibromofluoromethane	24.2			ug/l	25.0		97	80-120			
Surrogate: Toluene-d8	25.0			ug/l	25.0		100	80-120			
Surrogate: 4-Bromofluorobenzene	25.2			ug/l	25.0		101	80-120			
<b>Matrix Spike Dup Analyzed: 10/03/04 (4J03010-MSD1)</b>						<b>Source: INI1601-01</b>					
Acetone	29.3	10	4.5	ug/l	25.0	11	73	10-150	19	35	
Benzene	26.0	2.0	0.28	ug/l	25.0	ND	104	70-120	0	20	
mobenzene	24.9	5.0	0.27	ug/l	25.0	ND	100	65-130	8	20	
mochloromethane	29.2	5.0	0.32	ug/l	25.0	ND	117	65-140	8	25	
Bromodichloromethane	27.4	2.0	0.30	ug/l	25.0	ND	110	70-140	1	20	
Bromoform	24.5	5.0	0.32	ug/l	25.0	ND	98	55-140	2	25	
Bromomethane	28.0	5.0	0.34	ug/l	25.0	ND	112	50-145	4	25	
2-Butanone (MEK)	28.5	10	3.8	ug/l	25.0	ND	114	30-145	23	40	
n-Butylbenzene	24.1	5.0	0.17	ug/l	25.0	ND	96	70-140	15	20	
sec-Butylbenzene	23.9	5.0	0.25	ug/l	25.0	ND	96	70-130	10	20	
tert-Butylbenzene	24.9	5.0	0.22	ug/l	25.0	ND	100	70-130	5	20	
Carbon tetrachloride	27.6	5.0	0.28	ug/l	25.0	ND	110	70-145	0	25	
Chlorobenzene	24.4	2.0	0.36	ug/l	25.0	ND	98	80-125	5	20	
Chloroethane	26.4	5.0	0.33	ug/l	25.0	ND	106	50-145	2	25	
Chloroform	26.1	2.0	0.33	ug/l	25.0	ND	104	70-135	6	20	
Chloromethane	24.6	5.0	0.30	ug/l	25.0	ND	98	35-145	1	25	
2-Chlorotoluene	24.2	5.0	0.28	ug/l	25.0	ND	97	70-140	5	20	
4-Chlorotoluene	23.9	5.0	0.29	ug/l	25.0	ND	96	70-140	7	20	
Dibromochloromethane	29.0	2.0	0.28	ug/l	25.0	ND	116	65-145	6	25	
1,2-Dibromo-3-chloropropane	25.9	5.0	0.92	ug/l	25.0	ND	104	45-155	4	30	
1,2-Dibromoethane (EDB)	28.4	2.0	0.32	ug/l	25.0	ND	114	70-130	8	25	
Dibromomethane	28.8	2.0	0.36	ug/l	25.0	ND	115	65-140	9	25	
1,2-Dichlorobenzene	23.6	2.0	0.32	ug/l	25.0	ND	94	75-130	14	20	
1,3-Dichlorobenzene	24.1	2.0	0.35	ug/l	25.0	ND	96	75-130	4	20	
1,4-Dichlorobenzene	23.7	2.0	0.37	ug/l	25.0	ND	95	80-120	11	20	
Dichlorodifluoromethane	25.0	5.0	0.79	ug/l	25.0	ND	100	10-160	2	30	
1,1-Dichloroethane	26.0	2.0	0.27	ug/l	25.0	ND	104	65-135	1	20	
1,2-Dichloroethane	29.4	2.0	0.28	ug/l	25.0	1.5	112	60-150	3	20	

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 Michele Harper  
 Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INI1518
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/24/04
Received: 09/24/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of 40 chemical compounds and their corresponding analytical data.

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Hele Harper
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI1518  
Pasadena, CA 91101  
Attention: Bronwyn Kelly  
Sampled: 09/24/04  
Received: 09/24/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J03010 Extracted: 10/03/04</b>											
<b>Matrix Spike Dup Analyzed: 10/03/04 (4J03010-MSD1)</b>						<b>Source: INI1601-01</b>					
m,p-Xylenes	52.0	2.0	0.52	ug/l	50.0	ND	104	65-130	2	25	
Di-isopropyl Ether (DIPE)	27.9	5.0	0.25	ug/l	25.0	ND	112	65-140	2	25	
Ethyl tert-Butyl Ether (ETBE)	28.2	5.0	0.28	ug/l	25.0	ND	113	60-140	2	25	
tert-Amyl Methyl Ether (TAME)	29.5	5.0	0.33	ug/l	25.0	ND	118	55-145	7	30	
tert-Butanol (TBA)	128	25	3.1	ug/l	125	ND	102	65-145	5	25	
Surrogate: Dibromofluoromethane	24.8			ug/l	25.0		99	80-120			
Surrogate: Toluene-d8	26.5			ug/l	25.0		106	80-120			
Surrogate: 4-Bromofluorobenzene	25.1			ug/l	25.0		100	80-120			

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Hele Harper  
Project Manager



IWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1518	Sampled: 09/24/04 Received: 09/24/04
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**METHOD BLANK/QC DATA**

**INORGANICS**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I24083 Extracted: 09/24/04</b>											
<b>Blank Analyzed: 09/29/04 (4I24083-BLK1)</b>											
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
<b>LCS Analyzed: 09/29/04 (4I24083-BS1)</b>											
Biochemical Oxygen Demand	208	100	30	mg/l	198		105	85-115			
<b>LCS Dup Analyzed: 09/29/04 (4I24083-BSD1)</b>											
Biochemical Oxygen Demand	206	100	30	mg/l	198		104	85-115	1	20	
<b>Batch: 4I25033 Extracted: 09/25/04</b>											
<b>Blank Analyzed: 09/25/04 (4I25033-BLK1)</b>											
Perchlorate	ND	4.0	0.80	ug/l							
<b>LCS Analyzed: 09/25/04 (4I25033-BS1)</b>											
Perchlorate	51.6	4.0	0.80	ug/l	50.0		103	85-115			
<b>Matrix Spike Analyzed: 09/25/04 (4I25033-MS1)</b>											
Perchlorate	57.2	4.0	0.80	ug/l	50.0	3.2	108	80-120			
<b>Matrix Spike Dup Analyzed: 09/25/04 (4I25033-MSD1)</b>											
Perchlorate	59.0	4.0	0.80	ug/l	50.0	3.2	112	80-120	3	20	
<b>Batch: 4I25039 Extracted: 09/25/04</b>											
<b>Duplicate Analyzed: 09/25/04 (4I25039-DUP1)</b>											
pH	8.07	NA	N/A	pH Units		8.09			0	5	

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 Michele Harper  
 Project Manager



IWH-Pasadena/Boeing  
500 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
Report Number: INI1518

Sampled: 09/24/04  
Received: 09/24/04

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	Data Qualifiers
<b>Batch: 4I25045 Extracted: 09/25/04</b>										
<b>Blank Analyzed: 09/25/04 (4I25045-BLK1)</b>										
Turbidity	ND	1.0	0.20	NTU						
<b>Duplicate Analyzed: 09/25/04 (4I25045-DUP1)</b>										
Turbidity	27.9	1.0	0.20	NTU		27			3 20	
<b>Batch: 4I27082 Extracted: 09/27/04</b>										
<b>Blank Analyzed: 09/27/04 (4I27082-BLK1)</b>										
Total Suspended Solids	ND	10	10	mg/l						
<b>LCS Analyzed: 09/27/04 (4I27082-BS1)</b>										
l Suspended Solids	1070	10	10	mg/l	1000		107	85-115		
<b>Duplicate Analyzed: 09/27/04 (4I27082-DUP1)</b>										
Total Suspended Solids	ND	10	10	mg/l		ND				10
<b>Batch: 4I28067 Extracted: 09/28/04</b>										
<b>Blank Analyzed: 09/28/04 (4I28067-BLK1)</b>										
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l						
<b>LCS Analyzed: 09/28/04 (4I28067-BS1)</b>										
Ammonia-N (Distilled)	10.1	0.50	0.30	mg/l	10.0		101	80-115		
<b>Matrix Spike Analyzed: 09/28/04 (4I28067-MS1)</b>										
Ammonia-N (Distilled)	9.52	0.50	0.30	mg/l	10.0	ND	95	70-120		

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager



WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1518	Sampled: 09/24/04 Received: 09/24/04
---	--	---

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I28067 Extracted: 09/28/04</b>											
<b>Matrix Spike Dup Analyzed: 09/28/04 (4I28067-MSD1)</b>						<b>Source: INI1518-01</b>					
Ammonia-N (Distilled)	9.24	0.50	0.30	mg/l	10.0	ND	92	70-120	3	15	
<b>Batch: 4I28091 Extracted: 09/28/04</b>											
<b>Blank Analyzed: 09/28/04 (4I28091-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 09/28/04 (4I28091-BS1)</b>											
Total Dissolved Solids	1020	10	10	mg/l	1000		102	90-110			
<b>Duplicate Analyzed: 09/28/04 (4I28091-DUP1)</b>						<b>Source: INI1469-01</b>					
Total Dissolved Solids	972	10	10	mg/l		970			0	10	
<b>Batch: 4I30073 Extracted: 09/30/04</b>											
<b>Blank Analyzed: 09/30/04 (4I30073-BLK1)</b>											
Oil & Grease	1.10	5.0	0.94	mg/l							J
<b>LCS Analyzed: 09/30/04 (4I30073-BS1)</b>											
Oil & Grease	18.2	5.0	0.94	mg/l	20.0		91	65-120			M-NR1
<b>LCS Dup Analyzed: 09/30/04 (4I30073-BSD1)</b>											
Oil & Grease	18.7	5.0	0.94	mg/l	20.0		94	65-120	3	20	

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WH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	Sampled: 09/24/04
500 North Lake Avenue, Suite 1200	Report Number: INI1518	Received: 09/24/04
Pasadena, CA 91101		
Attention: Bronwyn Kelly		

METHOD BLANK/QC DATA

1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: P4I2801 Extracted: 09/28/04</b>											
<b>Blank Analyzed: 09/28/04 (P4I2801-BLK1)</b>											
1,4-Dioxane	ND	1.0	0.49	ug/l							
Surrogate: Dibromofluoromethane	1.10			ug/l	1.00		110	80-135			
<b>LCS Analyzed: 09/28/04 (P4I2801-BS1)</b>											
1,4-Dioxane	8.98	1.0	0.49	ug/l	10.0		90	70-130			
Surrogate: Dibromofluoromethane	1.11			ug/l	1.00		111	80-135			
<b>LCS Dup Analyzed: 09/28/04 (P4I2801-BSD1)</b>											
1,4-Dioxane	8.85	1.0	0.49	ug/l	10.0		88	70-130	1	20	
Surrogate: Dibromofluoromethane	1.02			ug/l	1.00		102	80-135			
<b>Matrix Spike Analyzed: 09/28/04 (P4I2801-MS1) Source: PNI0769-01</b>											
1,4-Dioxane	10.2	1.0	0.49	ug/l	10.0	1.1	91	70-130			
Surrogate: Dibromofluoromethane	1.07			ug/l	1.00		107	80-135			
<b>Matrix Spike Dup Analyzed: 09/28/04 (P4I2801-MSD1) Source: PNI0769-01</b>											
1,4-Dioxane	9.82	1.0	0.49	ug/l	10.0	1.1	87	70-130	4	20	
Surrogate: Dibromofluoromethane	1.16			ug/l	1.00		116	80-135			

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Project Manager



IWH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
500 North Lake Avenue, Suite 1200 Report Number: INI1518
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/24/04
Received: 09/24/04

METHOD BLANK/QC DATA

Semivolatile Organic Compounds by EPA Method 625

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Blank Analyzed, LCS Analyzed, and LCS Dup Analyzed.

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Hele Harper
Project Manager

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IWH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1518	Sampled: 09/24/04 Received: 09/24/04
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### METHOD BLANK/QC DATA

#### Semivolatile Organic Compounds by EPA Method 625

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: V4J0501 Extracted: 09/30/04</b>											
<b>Duplicate Analyzed: 10/06/04 (V4J0501-DUP1)</b>						<b>Source: INI1518-01</b>					
Naphthalene	18.4	10.0	1.31	ug/L		20.9			13	30	
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L		ND				30	
Surrogate: 2-FP	94.9			ug/L	200		47	40.8-88.4			
Surrogate: Phenol-d6	88.4			ug/L	200		44	31.7-86.6			
Surrogate: 2,4,6-TBP	180			ug/L	200		90	58-109			
Surrogate: Nitrobenzene-d5	60.7			ug/L	100		61	47.1-99.2			
Surrogate: 2-FBP	58.8			ug/L	100		59	44.7-89.6			
Surrogate: p-Terphenyl-d14	72.8			ug/L	100		73	45.7-117			
<b>Matrix Spike Analyzed: 10/06/04 (V4J0501-MS1)</b>						<b>Source: V409288-01</b>					
Naphthalene	91.7	10.0	1.31	ug/L	200	ND	46	70-130			A-04
Nitrosodimethylamine	60.0	20.0	1.37	ug/L	200	ND	30	70-130			A-04
Surrogate: 2-FP	61.0			ug/L	200		31	40.8-88.4			S-04
Surrogate: Phenol-d6	73.2			ug/L	200		37	31.7-86.6			
Surrogate: 2,4,6-TBP	204			ug/L	200		102	58-109			
Surrogate: Nitrobenzene-d5	49.3			ug/L	100		49	47.1-99.2			
Surrogate: 2-FBP	52.6			ug/L	100		53	44.7-89.6			
Surrogate: p-Terphenyl-d14	71.4			ug/L	100		71	45.7-117			

Del Mar Analytical, Irvine  
 Michele Harper  
 Project Manager

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WH-Pasadena/Boeing  
500 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

### DATA QUALIFIERS AND DEFINITIONS

- A-04** The spike recovery for this QC sample is outside of established control limits. Review of associated QC indicates the recovery for this analyte does not negatively impact the usability of the data.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of unknown quality.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M-NR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- S-04** The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

### ADDITIONAL COMMENTS

**For GRO (C4-C12):**

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

**For Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :**

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager



17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046  
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689  
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1518

Sampled: 09/24/04

Received: 09/24/04

Certification Summary

Del Mar Analytical, Irvine

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

NV and NELAP provide analyte specific accreditations. Analyte specific information for Del Mar Analytical may be obtained by contacting the laboratory or visiting our website at [www.dmalabs.com](http://www.dmalabs.com).

Subcontracted Laboratories

Del Mar Analytical - Phoenix NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907  
9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed: EPA 8260B  
Samples: INI1518-01

Star Analytical, Inc. CA ELAP Cert #1849  
14500 Trinity Boulevard, Suite 106 - Fort Worth, TX 76155

Method Performed: EPA 625  
Samples: INI1518-01

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager



17461 Derian Ave. Suite 100, Irvine, CA 92614 Ph (949) 261-1022 Fax (949) 261-1228  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4867 Fax (909) 370-1046  
 9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9598 Fax (619) 505-9689  
 9630 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851  
 2520 E. Sunset Rd., Suite #3, Las Vegas, NV 89120 Ph (702) 798-3620 Fax (702) 798-3621

## SUBCONTRACT ORDER - PROJECT # INI1518

SENDING LABORATORY:	RECEIVING LABORATORY:
Del Mar Analytical, Irvine 17461 Derian Avenue, Suite 100 Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 261-1228 Project Manager: Michele Harper	Star Analytical, Inc. 14500 Trinity Boulevard, Suite 106 Fort Worth, TX 76155 Phone: (817) 571-6800 Fax: (817) 267-5431

Standard TAT is requested unless specific due date is requested => **Due Date:** \_\_\_\_\_ **Initials:** \_\_\_\_\_

Analysis	Expiration	Comments
<b>Sample ID:</b> INI1518-01 <b>Water</b> <b>Sampled:</b> 09/24/04 14:18 625+NDMA+Hydrazine 10/01/04 14:18		J flags, rpt NDMA & Naphthalene only.  <div style="text-align: right; font-size: 1.2em; font-family: cursive;">U409273-01</div>
<b>Containers Supplied:</b> 1 L Amber (INI1518-01D)		

SAMPLE INTEGRITY:					
All containers intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Sample labels/COC agree:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Custody Seals Present:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Samples Preserved Properly:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
			Samples Received On Ice::	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
			Samples Received at (temp):	+C	

	9/28/04	1700		9-29-04	0845
Released By	Date	Time	Received By	Date	Time





17461 Derian Ave. Suite 100, Irvine, CA 92614 Ph (949) 261-1022 Fax (949) 261-1228  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4867 Fax (909) 370-1046  
 9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9586 Fax (619) 505-9689  
 9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851  
 2520 E. Sunset Rd., Suite #3, Las Vegas, NV 89120 Ph (702) 798-3620 Fax (702) 798-3621

## SUBCONTRACT ORDER - PROJECT # INI1518

SENDING LABORATORY:	RECEIVING LABORATORY:
Del Mar Analytical, Irvine 17461 Derian Avenue. Suite 100 Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 261-1228 Project Manager: Michele Harper	Del Mar Analytical - Phoenix 9830 S. 51st Street, Suite B-120 Phoenix, AZ 85044 Phone: (480) 785-0043 Fax: (480) 785-0851

Analysis	Expiration	Due	Comments
Sample ID: INI1518-01 Water	Sampled: 09/24/04 14:18		
Dioxane-8260B-out	10/08/04 14:18	10/05/04 12:00	Boeing-permit, sub to DMAP, J flags
<b>Containers Supplied:</b>			
40 ml VOA w/HCL (INI1518-01K)			
40 ml VOA w/HCL (INI1518-01L)			
40 ml VOA w/HCL (INI1518-01M)			

PN10821-01

SAMPLE INTEGRITY:					
All containers intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Sample labels/COC agree:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Custody Seals Present:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Samples Preserved Properly:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
			Samples Received On Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
			Samples Received at (temp):	4-0-C	

<i>Staney Yumawan</i>	9-27-04 1700		
Released By	Date	Time	Received By
<i>FEDEX</i>		<i>Enter mail</i>	<i>ES</i>
Released By	Date	Time	Received By
			9/28/04 09:55

Client Name/Address: <b>MWH-Pasadena</b> 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101		Project: <b>Boeing-SSFL NPDES</b> <b>During Test -- Outfall 012</b> Alpha Test Stand		ANALYSIS REQUIRED										Field readings: Temp = pH =																		
Project Manager: <b>Bronwyn Kelly</b>		Phone Number: (626) 568-6691		Oil & Grease (EPA 413.1)		8015-gas		8015-diesel/jet fuel		1,4-Dioxane-8260B		TRPH <sub>1</sub> =Total Rec. Petroleum Hydrocarbons (EPA 418.1)		624 (EDB, 1,2,3-TCF, MTBE, DPE, TBA)		BOD(20 degrees C)		625 Naphthalene +NDMA analysis		Ammonia-N, Titr. (350.2) w/ dist		Perchlorate		Turbidity, TDS, TSS, $\rho$		Settleable Solids						
Fax Number: (626) 568-6515		Sampling Date/Time 9-24-04 14:55		Preservative HCl		Bottle # 1A		8015-gas		8015-diesel/jet fuel		1,4-Dioxane-8260B		TRPH <sub>1</sub> =Total Rec. Petroleum Hydrocarbons (EPA 418.1)		624 (EDB, 1,2,3-TCF, MTBE, DPE, TBA)		BOD(20 degrees C)		625 Naphthalene +NDMA analysis		Ammonia-N, Titr. (350.2) w/ dist		Perchlorate		Turbidity, TDS, TSS, $\rho$		Settleable Solids				
Sample Description		Sample Matrix	Container Type	# of Cont.	Date/Time	Preservative	Bottle #	Oil & Grease (EPA 413.1)	8015-gas	8015-diesel/jet fuel	1,4-Dioxane-8260B	TRPH <sub>1</sub> =Total Rec. Petroleum Hydrocarbons (EPA 418.1)	624 (EDB, 1,2,3-TCF, MTBE, DPE, TBA)	BOD(20 degrees C)	625 Naphthalene +NDMA analysis	Ammonia-N, Titr. (350.2) w/ dist	Perchlorate	Turbidity, TDS, TSS, $\rho$	Settleable Solids	Field readings: Temp =		pH =		Comments								
Outfall 012	W	1L Amber	1	9-24-04 14:55	HCl	1A	X																									
Outfall 012 duplicate	W	1L Amber	1		HCl	1B	X																									
Outfall 012	W	VOAs	1		HCl	2A		X																								
Outfall 012 duplicate	W	VOAs	2		HCl	2B, 2C		X																								
Outfall 012	W	1L Amber	1		None	3A			X																							
Outfall 012 duplicate	W	1L Amber	1		None	3B			X																							
Outfall 012	W	VOAs	1		HCl	4A				X																						
Outfall 012 duplicate	W	VOAs	2		HCl	4B, 4C				X																						
Outfall 012	W	1L Amber	1		None	5A					X																					
Outfall 012 duplicate	W	1L Amber	1		None	5B					X																					
Outfall 012	W	VOAs	1		HCl	6A						X																				
Outfall 012 duplicate	W	VOAs	2		HCl	6B, 6C						X																				
Outfall 012	W	1L Poly	1		None	7A							X																			
Outfall 012	W	1L Amber	1		None	8A								X																		
Outfall 012 duplicate	W	1L Amber	1		None	8B								X																		
Outfall 012	W	500ml Poly	1		H2S04	9A									X																	
Outfall 012	W	1L Poly	1		None	10A										X																
Outfall 012	W	1L Poly	1		None	11A											X															
Trip Blank	W	VOAs	6		HCl	12A, 12B, 12C, 12D, 12E, 12f				X																						
Relinquished By <i>Paula B...</i>	Date/Time: 9-24-04 14:55		Received By <i>P. DeLacy</i>		Date/Time: 9/24/04 14:55		Turn around Time: (check) 24 Hours _____ 5 Days _____ 48 Hours _____ 10 Days _____ 72 Hours _____ Normal _____ Perchlorate Only 72 Hours _____ Metals Only 72 Hours _____																									
Relinquished By <i>P. DeLacy</i>	Date/Time: 9/24/04 1740		Received By <i>P. DeLacy</i>		Date/Time: 9/24/04 1740		Sample Integrity? (Check) <input checked="" type="checkbox"/> Intact <input type="checkbox"/> On Ice: _____																									
Relinquished By <i>P. DeLacy</i>	Date/Time: 9/24/04 1740		Received By <i>P. DeLacy</i>		Date/Time: 9/24/04 1740		Sample Integrity? (Check) <input checked="" type="checkbox"/> Intact <input type="checkbox"/> On Ice: _____																									

Client Name/Address: <b>MWH-Pasadena</b> 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101		Project: <b>Boeing-SSFL NPDES</b> <b>During Test -- Outfall 012</b> Alpha Test Stand		ANALYSIS REQUIRED										Field readings: Temp = pH =			
Project Manager: Bronwyn Kelly		Phone Number: (626) 568-6691 Fax Number: (626) 568-6515		Oil & Grease (EPA 413.1)										Settleable Solids			
Sampler:		Sampling Date/Time 9/24/04		8015-gas										Turbidity, TDS, TSS, #			
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	8015-diesel/jet fuel	1,4-Dioxane-8260B	TRPH <sub>T</sub> =Total Rec. (EPA 418.1)	624 (EDB, 1,2,3-TCF, MTBE, DPE, TBA)	BOD5(20 degrees C)	625 Naphthalene +NDMA analysis	Ammonia-N, Tit. (350.2) w/ dist	Perchlorate	Comments		
Outfall 012	W	1L Amber	1	9/24/04	HCl	1A	X									INI 1518	
Outfall 012 duplicate	W	1L Amber	1		HCl	1B	X										
Outfall 012	W	VOAs	1		HCl	2A	X										
Outfall 012 duplicate	W	VOAs	2		HCl	2B, 2C	X										
Outfall 012	W	1L Amber	1		None	3A	X										
Outfall 012 duplicate	W	1L Amber	1		None	3B	X										
Outfall 012	W	VOAs	1		HCl	4A		X									
Outfall 012 duplicate	W	VOAs	2		HCl	4B, 4C	X										
Outfall 012	W	1L Amber	1		None	5A		X									
Outfall 012 duplicate	W	1L Amber	1		None	5B		X									
Outfall 012	W	VOAs	1		HCl	6A			X								
Outfall 012 duplicate	W	VOAs	2		HCl	6B, 6C			X								
Outfall 012	W	1L Poly	1		None	7A				X							
Outfall 012	W	1L Amber	1		None	8A					X						
Outfall 012 duplicate	W	1L Amber	1		None	8B					X						
Outfall 012	W	500ml Poly	1		H2SO4	9A						X					
Outfall 012	W	1L Poly	1		None	10A							X				
Outfall 012	W	1L Poly	1		None	11A								X			
Trip Blank	W	VOAs	6		HCl	12A, 12B, 12C, 12D, 12E, 12F	X								X		
Relinquished By	Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:		
Relinquished By	9/24/04 14:55		9/24/04 14:55		9/24/04 14:55		9/24/04 14:55		9/24/04 14:55		9/24/04 14:55		9/24/04 14:55		9/24/04 14:55		
Relinquished By	9/24/04 1740		9/24/04 1740		9/24/04 1740		9/24/04 1740		9/24/04 1740		9/24/04 1740		9/24/04 1740		9/24/04 1740		
Relinquished By	9/24/04 1740		9/24/04 1740		9/24/04 1740		9/24/04 1740		9/24/04 1740		9/24/04 1740		9/24/04 1740		9/24/04 1740		

Turn around Time: (check)  
 24 Hours \_\_\_\_\_ 5 Days \_\_\_\_\_  
 48 Hours \_\_\_\_\_ 10 Days \_\_\_\_\_  
 72 Hours \_\_\_\_\_ Normal \_\_\_\_\_  
 Perchlorate Only 72 Hours \_\_\_\_\_  
 Metals Only 72 Hours \_\_\_\_\_  
 Sample Integrity? (Check) Intact \_\_\_\_\_ On Ice \_\_\_\_\_

Signature: *[Handwritten Signature]*  
 Date: 9/24/04  
 Time: 14:55

Signature: *[Handwritten Signature]*  
 Date: 9/24/04  
 Time: 1740

Signature: *[Handwritten Signature]*  
 Date: 9/24/04  
 Time: 1740

Signature: *[Handwritten Signature]*  
 Date: 9/24/04  
 Time: 1740

Signature: *[Handwritten Signature]*  
 Date: 9/24/04  
 Time: 1740

Signature: *[Handwritten Signature]*  
 Date: 9/24/04  
 Time: 1740

Signature: *[Handwritten Signature]*  
 Date: 9/24/04  
 Time: 1740





# STAR ANALYTICAL

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Del Mar Analytical - Irvine  
17461 Derian Avenue, Suite 100  
Irvine CA, 92614-5817

Project: subbed in  
Project Number: INI1518  
Project Manager: Michele Harper

Reported:  
10/08/04 16:55

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
INI1518-01	V409273-01	Liquid	09/24/04 14:18	09/29/04 08:45

Star Analytical, Inc.

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Anthony Dilday, Lab Director



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Irvine CA, 92614-5817

Project: subbed in  
Project Number: INI1518  
Project Manager: Michele Harper

Reported:  
10/08/04 16:55

## Semivolatile Organic Compounds by EPA Method 625

Star Analytical, Inc.

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
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INI1518-01 (V409273-01) Liquid Sampled: 09/24/04 14:18 Received: 09/29/04 08:45

Sampled by: Client Type: Grab Received: 09/29/04 08:45

Naphthalene	20.9	1.31	10.0	ug/L	1	V4J0501	09/30/04 15:00	10/06/04 15:02	EPA 625	SD	
N-Nitrosodimethylamine	ND	1.37	20.0	"	"	"	"	"	"	"	
Surr: 2-FP		46.8 %		40.8-88.4		"	"	"	"	"	
Surr: Phenol-d6		39.6 %		31.7-86.6		"	"	"	"	"	
Surr: 2,4,6-TBP		87.5 %		58-109		"	"	"	"	"	
Surr: Nitrobenzene-d5		58.0 %		47.1-99.2		"	"	"	"	"	
Surr: 2-FBP		51.4 %		44.7-89.6		"	"	"	"	"	
Surr: p-Terphenyl-d14		74.9 %		45.7-117		"	"	"	"	"	



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Irvine CA, 92614-5817

Project: subbed in  
Project Number: INI1518  
Project Manager: Michele Harper

Reported:  
10/08/04 16:55

## Semivolatile Organic Compounds by EPA Method 625 - Quality Control Star Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch V4J0501 - EPA 3510C

#### Blank (V4J0501-BLK1)

Prepared: 09/30/04 Analyzed: 10/06/04

Naphthalene	ND	10.0	ug/L							
N-Nitrosodimethylamine	ND	20.0	"							
Surrogate: 2-FP	88.5		"	200		44.2	40.8-88.4			
Surrogate: Phenol-d6	76.9		"	200		38.4	31.7-86.6			
Surrogate: 2,4,6-TBP	179		"	200		89.5	58-109			
Surrogate: Nitrobenzene-d5	53.3		"	100		53.3	47.1-99.2			
Surrogate: 2-FBP	52.4		"	100		52.4	44.7-89.6			
Surrogate: p-Terphenyl-d14	73.0		"	100		73.0	45.7-117			

#### LCS (V4J0501-BS1)

Prepared: 09/30/04 Analyzed: 10/06/04

Naphthalene	103	10.0	ug/L	200		51.5	38.5-85.1			
N-Nitrosodimethylamine	87.3	20.0	"	200		43.6	14.1-97.3			
Surrogate: 2-FP	102		"	200		51.0	40.8-88.4			
Surrogate: Phenol-d6	91.7		"	200		45.8	31.7-86.6			
Surrogate: 2,4,6-TBP	191		"	200		95.5	58-109			
Surrogate: Nitrobenzene-d5	57.9		"	100		57.9	47.1-99.2			
Surrogate: 2-FBP	56.0		"	100		56.0	44.7-89.6			
Surrogate: p-Terphenyl-d14	66.3		"	100		66.3	45.7-117			

#### LCS Dup (V4J0501-BSD1)

Prepared: 09/30/04 Analyzed: 10/06/04

Naphthalene	105	10.0	ug/L	200		52.5	38.5-85.1	1.92	17.3	
N-Nitrosodimethylamine	94.9	20.0	"	200		47.4	14.1-97.3	8.34	32.5	
Surrogate: 2-FP	102		"	200		51.0	40.8-88.4			
Surrogate: Phenol-d6	91.4		"	200		45.7	31.7-86.6			
Surrogate: 2,4,6-TBP	182		"	200		91.0	58-109			
Surrogate: Nitrobenzene-d5	59.3		"	100		59.3	47.1-99.2			
Surrogate: 2-FBP	56.4		"	100		56.4	44.7-89.6			
Surrogate: p-Terphenyl-d14	67.0		"	100		67.0	45.7-117			

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Project: subbed in  
Project Number: INI1518  
Project Manager: Michele Harper

Reported:  
10/08/04 16:55

## Semivolatile Organic Compounds by EPA Method 625 - Quality Control Star Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch V4J0501 - EPA 3510C

#### Duplicate (V4J0501-DUP1)

Source: V409273-01

Prepared: 09/30/04 Analyzed: 10/06/04

Naphthalene	18.4	10.0	ug/L		20.9			12.7	30	
N-Nitrosodimethylamine	ND	20.0	"		ND				30	
Surrogate: 2-FP	94.9		"	200		47.4	40.8-88.4			
Surrogate: Phenol-d6	88.4		"	200		44.2	31.7-86.6			
Surrogate: 2,4,6-TBP	180		"	200		90.0	58-109			
Surrogate: Nitrobenzene-d5	60.7		"	100		60.7	47.1-99.2			
Surrogate: 2-FBP	58.8		"	100		58.8	44.7-89.6			
Surrogate: p-Terphenyl-d14	72.8		"	100		72.8	45.7-117			

#### Matrix Spike (V4J0501-MS1)

Source: V409288-01

Prepared: 09/30/04 Analyzed: 10/06/04

Naphthalene	91.7	10.0	ug/L	200	ND	45.8	70-130			A-04
N-Nitrosodimethylamine	60.0	20.0	"	200	ND	30.0	70-130			A-04
Surrogate: 2-FP	61.0		"	200		30.5	40.8-88.4			S-04
Surrogate: Phenol-d6	73.2		"	200		36.6	31.7-86.6			
Surrogate: 2,4,6-TBP	204		"	200		102	58-109			
Surrogate: Nitrobenzene-d5	49.3		"	100		49.3	47.1-99.2			
Surrogate: 2-FBP	52.6		"	100		52.6	44.7-89.6			
Surrogate: p-Terphenyl-d14	71.4		"	100		71.4	45.7-117			



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Del Mar Analytical - Irvine  
17461 Derian Avenue, Suite 100  
Irvine CA, 92614-5817

Project: subbed in  
Project Number: INI1518  
Project Manager: Michele Harper

Reported:  
10/08/04 16:55

## Notes and Definitions

- A-04 The spike recovery for this QC sample is outside of established control limits. Review of associated QC indicates the recovery for this analyte does not negatively impact the usability of the data.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project: Alfa Outfall 012 - During Test

Sampled: 09/29/04  
Received: 09/30/04  
Issued: 11/08/04 16:32

NELAP #01108CA CA ELAP #1197 CSDLAC #10117

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.  
This entire report was reviewed and approved for release.*

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
INI1882-01	Outfall 012	Water
INI1882-02	Trip Blank	Water

Reviewed By:

Del Mar Analytical, Irvine  
Michelle Harper  
Project Manager



WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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**TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1882-01 (Outfall 012 - Water)</b>									
<b>Reporting Units: mg/l</b>									
<b>Total Recoverable Hydrocarbons</b>	EPA 418.1	4J01062	0.31	1.0	5.0	1	10/01/04	10/01/04	

Del Mar Analytical, Irvine  
Shele Harper  
Project Manager

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1WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101 Report Number: INI1882  
Attention: Bronwyn Kelly  
Sampled: 09/29/04  
Received: 09/30/04

**EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INI1882-01 (Outfall 012 - Water) - cont.									
Reporting Units: mg/l									
EFH (C13 - C22)	EPA 8015B	4J01040	0.082	0.50	1.1	0.971	10/01/04	10/05/04	
Surrogate: n-Octacosane (45-125%)					84 %				

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Shele Harper  
Project Manager

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IWH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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**VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1882-01 (Outfall 012 - Water) - cont.</b>									
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	4J07125	0.50	1.0	1.2	10	10/07/04	10/07/04	
Surrogate: 4-BFB (FID) (60-135%)					102 %				
<b>Sample ID: INI1882-02 (Trip Blank - Water)</b>									
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	4J07007	0.050	0.10	ND	1	10/07/04	10/07/04	
Surrogate: 4-BFB (FID) (60-135%)					95 %				

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Project Manager

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WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI1882  
Pasadena, CA 91101  
Attention: Bronwyn Kelly  
Sampled: 09/29/04  
Received: 09/30/04

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1882-01 (Outfall 012 - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J06029	0.32	2.0	ND	1	10/06/04	10/07/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J06029	0.32	5.0	ND	1	10/06/04	10/07/04	
1,2,3-Trichloropropane	EPA 624 MOD	4J06029	0.85	10	ND	1	10/06/04	10/07/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J06029	0.25	5.0	ND	1	10/06/04	10/07/04	
tert-Butanol (TBA)	EPA 624 MOD	4J06029	3.1	25	ND	1	10/06/04	10/07/04	
Surrogate: Dibromofluoromethane (80-120%)					108 %				
Surrogate: Toluene-d8 (80-120%)					102 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					105 %				
<b>Sample ID: INI1882-02 (Trip Blank - Water)</b>									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624 MOD	4J06029	0.32	2.0	ND	1	10/06/04	10/07/04	
Methyl-tert-butyl Ether (MTBE)	EPA 624 MOD	4J06029	0.32	5.0	ND	1	10/06/04	10/07/04	
1,2,3-Trichloropropane	EPA 624 MOD	4J06029	0.85	10	ND	1	10/06/04	10/07/04	
Di-isopropyl Ether (DIPE)	EPA 624 MOD	4J06029	0.25	5.0	ND	1	10/06/04	10/07/04	
tert-Butanol (TBA)	EPA 624 MOD	4J06029	3.1	25	ND	1	10/06/04	10/07/04	
Surrogate: Dibromofluoromethane (80-120%)					106 %				
Surrogate: Toluene-d8 (80-120%)					97 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					106 %				

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager



WH-Pasadena/Boeing  
500 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1882

Sampled: 09/29/04  
Received: 09/30/04

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1882-01 (Outfall 012 - Water)</b>									
Reporting Units: mg/l									
Ammonia-N (Distilled)	EPA 350.2	4J05066	0.30	0.50	ND	1	10/05/04	10/05/04	
Biochemical Oxygen Demand	EPA 405.1	4J01058	0.59	2.0	1.8	1	10/01/04	10/06/04	J
Oil & Grease	EPA 413.1	4J05067	0.94	5.0	0.95	1	10/05/04	10/05/04	J
Total Dissolved Solids	SM2540C	4J05065	10	10	350	1	10/05/04	10/05/04	
Total Suspended Solids	EPA 160.2	4I30104	10	10	20	1	09/30/04	09/30/04	
<b>Sample ID: INI1882-01 (Outfall 012 - Water)</b>									
Reporting Units: ml/hr									
Total Settleable Solids	EPA 160.5	4J01059	0.10	0.10	ND	1	10/01/04	10/01/04	
<b>Sample ID: INI1882-01 (Outfall 012 - Water)</b>									
Reporting Units: NTU									
Turbidity	EPA 180.1	4J01064	0.20	1.0	25	1	10/01/04	10/01/04	
<b>Sample ID: INI1882-01 (Outfall 012 - Water)</b>									
Reporting Units: pH Units									
pH	EPA 150.1	4J01049	N/A	NA	8.27	1	10/01/04	10/01/04	
<b>Sample ID: INI1882-01 (Outfall 012 - Water)</b>									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	4I30050	0.80	4.0	ND	1	09/30/04	09/30/04	

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Hele Harper  
Project Manager



TWH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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**1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)**

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1882-01 (Outfall 012 - Water) - cont.</b>									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B	P4J0202	N/A	1.0	ND	1	10/02/04	10/02/04	
Surrogate: Dibromofluoromethane (80-135%)					105 %				

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Hele Harper  
Project Manager

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IWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1882

Sampled: 09/29/04  
Received: 09/30/04

Semivolatile Organic Compounds by EPA Method 625

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: INI1882-01 (Outfall 012 - Water) - cont.</b>									
<b>Reporting Units: ug/L</b>									
Naphthalene	EPA 625	V4J0615	1.31	10.0	28.4	1	10/06/04	10/07/04	
N-Nitrosodimethylamine	EPA 625	V4J0615	1.37	20.0	ND	1	10/06/04	10/07/04	
Surrogate: 2-FP (40.8-88.4%)					53.0 %				
Surrogate: Phenol-d6 (31.7-86.6%)					46.6 %				
Surrogate: 2,4,6-TBP (58-109%)					93.5 %				
Surrogate: Nitrobenzene-d5 (47.1-99.2%)					74.4 %				
Surrogate: 2-FBP (44.7-89.6%)					67.3 %				
Surrogate: p-Terphenyl-d14 (45.7-117%)					81.9 %				

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Project Manager

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1WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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**SHORT HOLD TIME DETAIL REPORT**

Sample ID: Outfall 012 (INI1882-01) - Water	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
EPA 150.1	1	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 09:00	10/01/2004 10:00
EPA 160.5	2	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 13:00	10/01/2004 14:00
EPA 180.1	2	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 08:00	10/01/2004 08:50
EPA 405.1	2	09/29/2004 14:00	09/30/2004 15:50	10/01/2004 13:10	10/06/2004 11:00

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Hele Harper  
Project Manager



IWH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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**METHOD BLANK/QC DATA**

**TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (EPA 418.1)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J01062 Extracted: 10/01/04</b>										
<b>Blank Analyzed: 10/01/04 (4J01062-BLK1)</b>										
Total Recoverable Hydrocarbons	ND	1.0	0.31	mg/l						
<b>LCS Analyzed: 10/01/04 (4J01062-BS1)</b>										
Total Recoverable Hydrocarbons	4.21	1.0	0.31	mg/l	5.00		84	65-120		M-NR1
<b>LCS Dup Analyzed: 10/01/04 (4J01062-BSD1)</b>										
Total Recoverable Hydrocarbons	4.46	1.0	0.31	mg/l	5.00		89	65-120	6	20

Del Mar Analytical, Irvine  
 Hele Harper  
 Project Manager



WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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METHOD BLANK/QC DATA

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J01040 Extracted: 10/01/04</b>											
<b>Blank Analyzed: 10/04/04 (4J01040-BLK1)</b>											
EFH (C13 - C22)	ND	0.50	0.082	mg/l							
EFH (C13 - C40)	ND	0.50	0.082	mg/l							
Surrogate: n-Octacosane	0.156			mg/l	0.200		78	45-125			
<b>LCS Analyzed: 10/04/04 (4J01040-BS1)</b>											
EFH (C13 - C40)	0.724	0.50	0.082	mg/l	0.775		93	40-115			M-NR1
Surrogate: n-Octacosane	0.201			mg/l	0.200		100	45-125			
<b>LCS Dup Analyzed: 10/04/04 (4J01040-BSD1)</b>											
EFH (C13 - C40)	0.615	0.50	0.082	mg/l	0.775		79	40-115	16	25	
Surrogate: n-Octacosane	0.162			mg/l	0.200		81	45-125			

Del Mar Analytical, Irvine  
Hele Harper  
Project Manager



WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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**METHOD BLANK/QC DATA**
**VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J07007 Extracted: 10/07/04</b>											
<b>Blank Analyzed: 10/07/04 (4J07007-BLK1)</b>											
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.0101			mg/l	0.0100		101	60-135			
<b>LCS Analyzed: 10/07/04 (4J07007-BS1)</b>											
GRO (C4 - C12)	0.233	0.10	0.050	mg/l	0.220		106	70-135			
Surrogate: 4-BFB (FID)	0.0127			mg/l	0.0100		127	60-135			
<b>Matrix Spike Analyzed: 10/07/04 (4J07007-MS1) Source: INI1679-04</b>											
GRO (C4 - C12)	0.264	0.10	0.050	mg/l	0.220	0.054	95	60-135			
Surrogate: 4-BFB (FID)	0.0120			mg/l	0.0100		120	60-135			
<b>Matrix Spike Dup Analyzed: 10/07/04 (4J07007-MSD1) Source: INI1679-04</b>											
GRO (C4 - C12)	0.273	0.10	0.050	mg/l	0.220	0.054	100	60-135	3	20	
Surrogate: 4-BFB (FID)	0.0127			mg/l	0.0100		127	60-135			
<b>Batch: 4J07125 Extracted: 10/07/04</b>											
<b>Blank Analyzed: 10/07/04 (4J07125-BLK1)</b>											
GRO (C4 - C12)	ND	0.10	0.050	mg/l							
Surrogate: 4-BFB (FID)	0.0112			mg/l	0.0100		112	60-135			
<b>LCS Analyzed: 10/07/04 (4J07125-BS1)</b>											
GRO (C4 - C12)	0.240	0.10	0.050	mg/l	0.220		109	70-135			
Surrogate: 4-BFB (FID)	0.0118			mg/l	0.0100		118	60-135			
<b>Matrix Spike Analyzed: 10/07/04 (4J07125-MS1) Source: INI1527-05</b>											
GRO (C4 - C12)	0.233	0.10	0.050	mg/l	0.220	ND	106	60-135			
Surrogate: 4-BFB (FID)	0.0118			mg/l	0.0100		118	60-135			

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Project Manager



1WH-Pasadena/Boeing 500 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J07125 Extracted: 10/07/04</b>											
<b>Matrix Spike Dup Analyzed: 10/07/04 (4J07125-MSD1)</b>						<b>Source: INI1527-05</b>					
GRO (C4 - C12)	0.237	0.10	0.050	mg/l	0.220	ND	108	60-135	2	20	
Surrogate: 4-BFB (FID)	0.0118			mg/l	0.0100		118	60-135			

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1WH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test  
Report Number: INI1882

Sampled: 09/29/04  
Received: 09/30/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J06029 Extracted: 10/06/04</b>										
<b>Blank Analyzed: 10/06/04 (4J06029-BLK1)</b>										
Acetone	ND	10	4.5	ug/l						
Benzene	ND	2.0	0.28	ug/l						
Bromobenzene	ND	5.0	0.27	ug/l						
Bromochloromethane	ND	5.0	0.32	ug/l						
Bromodichloromethane	ND	2.0	0.30	ug/l						
Bromoform	ND	5.0	0.32	ug/l						
Bromomethane	ND	5.0	0.34	ug/l						
2-Butanone (MEK)	ND	10	3.8	ug/l						
n-Butylbenzene	ND	5.0	0.17	ug/l						
sec-Butylbenzene	ND	5.0	0.25	ug/l						
tert-Butylbenzene	ND	5.0	0.22	ug/l						
Carbon tetrachloride	ND	5.0	0.28	ug/l						
Chlorobenzene	ND	2.0	0.36	ug/l						
Chloroethane	ND	5.0	0.33	ug/l						
Chloroform	ND	2.0	0.33	ug/l						
Chloromethane	ND	5.0	0.30	ug/l						
2-Chlorotoluene	ND	5.0	0.28	ug/l						
4-Chlorotoluene	ND	5.0	0.29	ug/l						
Dibromochloromethane	ND	2.0	0.28	ug/l						
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l						
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l						
Dibromomethane	ND	2.0	0.36	ug/l						
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l						
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l						
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l						
Dichlorodifluoromethane	ND	5.0	0.79	ug/l						
1,1-Dichloroethane	ND	2.0	0.27	ug/l						
1,2-Dichloroethane	ND	2.0	0.28	ug/l						
1,1-Dichloroethene	ND	5.0	0.32	ug/l						
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l						
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l						
1,2-Dichloropropane	ND	2.0	0.35	ug/l						
1,3-Dichloropropane	ND	2.0	0.30	ug/l						
2,2-Dichloropropane	ND	2.0	0.29	ug/l						
1,1-Dichloropropene	ND	2.0	0.28	ug/l						

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1WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test  Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J06029 Extracted: 10/06/04</b>											
<b>Blank Analyzed: 10/06/04 (4J06029-BLK1)</b>											
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
2-Hexanone	ND	10	2.6	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.48	ug/l							
4-Methyl-2-pentanone (MIBK)	ND	10	2.5	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
Phthalene	ND	5.0	0.41	ug/l							
o-Propylbenzene	ND	2.0	0.14	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.85	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
o-Xylene	ND	2.0	0.24	ug/l							
m,p-Xylenes	ND	2.0	0.52	ug/l							
Xylenes, Total	ND	4.0	0.52	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
tert-Butanol (TBA)	ND	25	3.1	ug/l							
Surrogate: Dibromofluoromethane	26.3			ug/l	25.0		105	80-120			

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IWH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
500 North Lake Avenue, Suite 1200 Report Number: INI1882
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/29/04
Received: 09/30/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes data for Blank Analyzed (10/06/04) and LCS Analyzed (10/06/04).

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Project Manager

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IWH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	Sampled: 09/29/04
300 North Lake Avenue, Suite 1200	Report Number: INI1882	Received: 09/30/04
Pasadena, CA 91101		
Attention: Bronwyn Kelly		

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J06029 Extracted: 10/06/04</b>											
<b>LCS Analyzed: 10/06/04 (4J06029-BS1)</b>											
1,3-Dichloropropane	24.8	2.0	0.30	ug/l	25.0	99	70-130				
2,2-Dichloropropane	26.0	2.0	0.29	ug/l	25.0	104	65-150				
1,1-Dichloropropene	24.6	2.0	0.28	ug/l	25.0	98	75-130				
cis-1,3-Dichloropropene	24.7	2.0	0.22	ug/l	25.0	99	75-130				
trans-1,3-Dichloropropene	25.6	2.0	0.24	ug/l	25.0	102	75-135				
Ethylbenzene	24.0	2.0	0.25	ug/l	25.0	96	80-120				
Hexachlorobutadiene	23.2	5.0	0.38	ug/l	25.0	93	65-140				
2-Hexanone	26.3	10	2.6	ug/l	25.0	105	40-140				
Isopropylbenzene	23.8	2.0	0.25	ug/l	25.0	95	75-125				
n-Isopropyltoluene	23.4	2.0	0.28	ug/l	25.0	94	75-125				
ethylene chloride	25.3	5.0	0.48	ug/l	25.0	101	60-135				
Methyl-2-pentanone (MIBK)	27.0	10	2.5	ug/l	25.0	108	40-140				
Methyl-tert-butyl Ether (MTBE)	26.2	5.0	0.32	ug/l	25.0	105	55-145				
Naphthalene	23.7	5.0	0.41	ug/l	25.0	95	50-145				
n-Propylbenzene	23.6	2.0	0.14	ug/l	25.0	94	75-130				
Styrene	24.5	2.0	0.16	ug/l	25.0	98	80-135				
1,1,1,2-Tetrachloroethane	25.2	5.0	0.27	ug/l	25.0	101	70-145				
1,1,2,2-Tetrachloroethane	24.9	2.0	0.24	ug/l	25.0	100	60-135				
Tetrachloroethene	24.2	2.0	0.32	ug/l	25.0	97	75-125				
Toluene	24.0	2.0	0.36	ug/l	25.0	96	75-120				
1,2,3-Trichlorobenzene	23.9	5.0	0.45	ug/l	25.0	96	65-135				
1,2,4-Trichlorobenzene	24.1	5.0	0.48	ug/l	25.0	96	70-140				
1,1,1-Trichloroethane	25.6	2.0	0.30	ug/l	25.0	102	75-140				
1,1,2-Trichloroethane	24.5	2.0	0.30	ug/l	25.0	98	70-125				
Trichloroethene	24.0	2.0	0.26	ug/l	25.0	96	80-120				
Trichlorofluoromethane	26.9	5.0	0.34	ug/l	25.0	108	65-145				
1,2,3-Trichloropropane	24.5	10	0.85	ug/l	25.0	98	60-130				
1,2,4-Trimethylbenzene	23.6	2.0	0.23	ug/l	25.0	94	75-125				
1,3,5-Trimethylbenzene	23.8	2.0	0.26	ug/l	25.0	95	75-125				
Vinyl chloride	25.8	5.0	0.26	ug/l	25.0	103	50-130				
o-Xylene	23.2	2.0	0.24	ug/l	25.0	93	75-125				
m,p-Xylenes	47.2	2.0	0.52	ug/l	50.0	94	75-120				
Di-isopropyl Ether (DIPE)	25.9	5.0	0.25	ug/l	25.0	104	65-135				
Ethyl tert-Butyl Ether (ETBE)	25.4	5.0	0.28	ug/l	25.0	102	60-140				
tert-Amyl Methyl Ether (TAME)	26.4	5.0	0.33	ug/l	25.0	106	60-140				

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Hele Harper  
Project Manager



WH-Pasadena/Boeing
500 North Lake Avenue, Suite 1200
Pasadena, CA 91101
Attention: Bronwyn Kelly

Project ID: Alfa Outfall 012 - During Test

Report Number: INI1882

Sampled: 09/29/04
Received: 09/30/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sections for Batch: 4J06029, LCS Analyzed: 10/06/04, and Matrix Spike Analyzed: 10/06/04.

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Hele Harper
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WH-Pasadena/Boeing  
 500 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

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Report Number: INI1882

Sampled: 09/29/04

Received: 09/30/04

**METHOD BLANK/QC DATA**

**VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J06029 Extracted: 10/06/04</b>											
<b>Matrix Spike Analyzed: 10/06/04 (4J06029-MS1)</b>						<b>Source: INJ0203-01</b>					
trans-1,2-Dichloroethene	24.3	2.0	0.27	ug/l	25.0	ND	97	65-135			
1,2-Dichloropropane	23.9	2.0	0.35	ug/l	25.0	ND	96	65-130			
1,3-Dichloropropane	23.7	2.0	0.30	ug/l	25.0	ND	95	65-140			
2,2-Dichloropropane	22.0	2.0	0.29	ug/l	25.0	ND	88	60-150			
1,1-Dichloropropene	24.0	2.0	0.28	ug/l	25.0	ND	96	65-140			
cis-1,3-Dichloropropene	23.9	2.0	0.22	ug/l	25.0	ND	96	70-140			
trans-1,3-Dichloropropene	24.8	2.0	0.24	ug/l	25.0	ND	99	70-140			
Ethylbenzene	23.4	2.0	0.25	ug/l	25.0	ND	94	70-130			
Hexachlorobutadiene	21.6	5.0	0.38	ug/l	25.0	ND	86	65-140			
?-Hexanone	25.4	10	2.6	ug/l	25.0	ND	102	20-145			
propylbenzene	23.1	2.0	0.25	ug/l	25.0	ND	92	70-130			
p-isopropyltoluene	22.6	2.0	0.28	ug/l	25.0	ND	90	70-130			
Methylene chloride	23.5	5.0	0.48	ug/l	25.0	ND	94	60-135			
4-Methyl-2-pentanone (MIBK)	25.8	10	2.5	ug/l	25.0	ND	103	40-145			
Methyl-tert-butyl Ether (MTBE)	34.6	5.0	0.32	ug/l	25.0	9.8	99	50-155			
Naphthalene	21.8	5.0	0.41	ug/l	25.0	ND	87	50-150			
n-Propylbenzene	22.8	2.0	0.14	ug/l	25.0	ND	91	70-135			
Styrene	19.5	2.0	0.16	ug/l	25.0	ND	78	55-145			
1,1,1,2-Tetrachloroethane	24.6	5.0	0.27	ug/l	25.0	ND	98	70-145			
1,1,2,2-Tetrachloroethane	24.0	2.0	0.24	ug/l	25.0	ND	96	60-145			
Tetrachloroethene	23.4	2.0	0.32	ug/l	25.0	ND	94	70-130			
Toluene	23.3	2.0	0.36	ug/l	25.0	ND	93	70-120			
1,2,3-Trichlorobenzene	21.5	5.0	0.45	ug/l	25.0	ND	86	60-140			
1,2,4-Trichlorobenzene	22.2	5.0	0.48	ug/l	25.0	ND	89	60-140			
1,1,1-Trichloroethane	24.5	2.0	0.30	ug/l	25.0	ND	98	75-140			
1,1,2-Trichloroethane	23.9	2.0	0.30	ug/l	25.0	ND	96	60-135			
Trichloroethene	23.6	2.0	0.26	ug/l	25.0	ND	94	70-125			
Trichlorofluoromethane	26.2	5.0	0.34	ug/l	25.0	ND	105	55-145			
1,2,3-Trichloropropane	23.6	10	0.85	ug/l	25.0	ND	94	55-140			
1,2,4-Trimethylbenzene	22.4	2.0	0.23	ug/l	25.0	ND	90	60-125			
1,3,5-Trimethylbenzene	22.8	2.0	0.26	ug/l	25.0	ND	91	70-130			
Vinyl chloride	26.3	5.0	0.26	ug/l	25.0	ND	105	40-135			
o-Xylene	22.4	2.0	0.24	ug/l	25.0	ND	90	65-125			
m,p-Xylenes	46.1	2.0	0.52	ug/l	50.0	ND	92	65-130			
Di-isopropyl Ether (DIPE)	25.0	5.0	0.25	ug/l	25.0	ND	100	65-140			

Del Mar Analytical, Irvine  
 Michele Harper  
 Project Manager





1WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INI1882
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/29/04
Received: 09/30/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes sub-sections for Matrix Spike Analyzed and Matrix Spike Dup Analyzed.

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Hele Harper
Project Manager



WH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test
300 North Lake Avenue, Suite 1200 Report Number: INI1882
Pasadena, CA 91101 Attention: Bronwyn Kelly
Sampled: 09/29/04
Received: 09/30/04

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Table with columns: Analyte, Result, Reporting Limit, MDL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a list of 30 chemical compounds and their corresponding test results.

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Project Manager

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1WH-Pasadena/Boeing 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101 Attention: Bronwyn Kelly	Project ID: Alfa Outfall 012 - During Test Report Number: INI1882	Sampled: 09/29/04 Received: 09/30/04
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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 624 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J06029 Extracted: 10/06/04</b>											
<b>Matrix Spike Dup Analyzed: 10/06/04 (4J06029-MSD1)</b>						<b>Source: INJ0203-01</b>					
Di-isopropyl Ether (DIPE)	25.0	5.0	0.25	ug/l	25.0	ND	100	65-140	0	25	
Ethyl tert-Butyl Ether (ETBE)	25.0	5.0	0.28	ug/l	25.0	ND	100	60-140	1	25	
tert-Amyl Methyl Ether (TAME)	25.8	5.0	0.33	ug/l	25.0	ND	103	55-145	2	30	
Surrogate: Dibromofluoromethane	26.0			ug/l	25.0		104	80-120			
Surrogate: Toluene-d8	25.6			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	25.8			ug/l	25.0		103	80-120			

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IWH-Pasadena/Boeing	Project ID: Alfa Outfall 012 - During Test	Sampled: 09/29/04
300 North Lake Avenue, Suite 1200	Report Number: INI1882	Received: 09/30/04
Pasadena, CA 91101		
Attention: Bronwyn Kelly		

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4I30050 Extracted: 09/30/04</b>											
<b>Blank Analyzed: 09/30/04 (4I30050-BLK1)</b>											
Perchlorate	ND	4.0	0.80	ug/l							
<b>LCS Analyzed: 09/30/04 (4I30050-BS1)</b>											
Perchlorate	51.4	4.0	0.80	ug/l	50.0		103	85-115			
<b>Matrix Spike Analyzed: 09/30/04 (4I30050-MS1)</b>											
						<b>Source: INI1819-01</b>					
Perchlorate	56.4	4.0	0.80	ug/l	50.0	5.4	102	80-120			
<b>Matrix Spike Dup Analyzed: 09/30/04 (4I30050-MSD1)</b>											
						<b>Source: INI1819-01</b>					
Perchlorate	57.7	4.0	0.80	ug/l	50.0	5.4	105	80-120	2	20	
<b>Batch: 4I30104 Extracted: 09/30/04</b>											
<b>Blank Analyzed: 09/30/04 (4I30104-BLK1)</b>											
Total Suspended Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 09/30/04 (4I30104-BS1)</b>											
Total Suspended Solids	1020	10	10	mg/l	1000		102	85-115			
<b>Duplicate Analyzed: 09/30/04 (4I30104-DUP1)</b>											
						<b>Source: INI1880-01</b>					
Total Suspended Solids	ND	10	10	mg/l		ND				10	
<b>Batch: 4J01049 Extracted: 10/01/04</b>											
<b>Duplicate Analyzed: 10/01/04 (4J01049-DUP1)</b>											
						<b>Source: INI1859-01</b>					
pH	5.80	NA	N/A	pH Units		5.82			0	5	

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J01058 Extracted: 10/01/04</b>											
<b>Blank Analyzed: 10/06/04 (4J01058-BLK1)</b>											
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
<b>LCS Analyzed: 10/06/04 (4J01058-BS1)</b>											
Biochemical Oxygen Demand	209	100	30	mg/l	198		106	85-115			
<b>LCS Dup Analyzed: 10/06/04 (4J01058-BSD1)</b>											
Biochemical Oxygen Demand	210	100	30	mg/l	198		106	85-115	1	20	
<b>Batch: 4J01064 Extracted: 10/01/04</b>											
<b>Blank Analyzed: 10/01/04 (4J01064-BLK1)</b>											
Turbidity	ND	1.0	0.20	NTU							
<b>Duplicate Analyzed: 10/01/04 (4J01064-DUP1)</b>											
Turbidity	ND	1.0	0.20	NTU		Source: INI1887-01	ND			20	
<b>Batch: 4J05065 Extracted: 10/05/04</b>											
<b>Blank Analyzed: 10/05/04 (4J05065-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 10/05/04 (4J05065-BS1)</b>											
Total Dissolved Solids	992	10	10	mg/l	1000		99	90-110			
<b>Duplicate Analyzed: 10/05/04 (4J05065-DUP1)</b>											
Total Dissolved Solids	424	10	10	mg/l		Source: INI1831-01	430		1	10	

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 4J05066 Extracted: 10/05/04</b>											
<b>Blank Analyzed: 10/05/04 (4J05066-BLK1)</b>											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
<b>LCS Analyzed: 10/05/04 (4J05066-BS1)</b>											
Ammonia-N (Distilled)	9.24	0.50	0.30	mg/l	10.0		92	80-115			
<b>LCS Dup Analyzed: 10/05/04 (4J05066-BSD1)</b>											
Ammonia-N (Distilled)	9.52	0.50	0.30	mg/l	10.0		95	80-115	3	15	
<b>Matrix Spike Analyzed: 10/05/04 (4J05066-MS1)</b>											
						<b>Source: INI1708-01</b>					
Ammonia-N (Distilled)	9.80	0.50	0.30	mg/l	10.0	ND	98	70-120			
<b>Matrix Spike Dup Analyzed: 10/05/04 (4J05066-MSD1)</b>											
						<b>Source: INI1708-01</b>					
Ammonia-N (Distilled)	9.80	0.50	0.30	mg/l	10.0	ND	98	70-120	0	15	
<b>Batch: 4J05067 Extracted: 10/05/04</b>											
<b>Blank Analyzed: 10/05/04 (4J05067-BLK1)</b>											
Oil & Grease	ND	5.0	0.94	mg/l							
<b>LCS Analyzed: 10/05/04 (4J05067-BS1)</b>											
Oil & Grease	19.3	5.0	0.94	mg/l	20.0		96	65-120			M-NR1
<b>LCS Dup Analyzed: 10/05/04 (4J05067-BSD1)</b>											
Oil & Grease	20.0	5.0	0.94	mg/l	20.0		100	65-120	4	20	

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METHOD BLANK/QC DATA

1,4-DIOXANE BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: P4J0202 Extracted: 10/02/04</b>											
<b>Blank Analyzed: 10/02/04 (P4J0202-BLK1)</b>											
1,4-Dioxane	ND	1.0	N/A	ug/l							
Surrogate: Dibromofluoromethane	1.05			ug/l	1.00		105	80-135			
<b>LCS Analyzed: 10/02/04 (P4J0202-BS1)</b>											
1,4-Dioxane	11.4	1.0	N/A	ug/l	10.0		114	70-130			
Surrogate: Dibromofluoromethane	1.00			ug/l	1.00		100	80-135			
<b>LCS Dup Analyzed: 10/02/04 (P4J0202-BSD1)</b>											
1,4-Dioxane	10.2	1.0	N/A	ug/l	10.0		102	70-130	11	20	
Surrogate: Dibromofluoromethane	1.04			ug/l	1.00		104	80-135			
<b>Matrix Spike Analyzed: 10/02/04 (P4J0202-MS1)</b>						<b>Source: PNI0910-01</b>					
1,4-Dioxane	11.5	1.0	N/A	ug/l	10.0	ND	115	70-130			
Surrogate: Dibromofluoromethane	1.05			ug/l	1.00		105	80-135			
<b>Matrix Spike Dup Analyzed: 10/02/04 (P4J0202-MSD1)</b>						<b>Source: PNI0910-01</b>					
1,4-Dioxane	10.8	1.0	N/A	ug/l	10.0	ND	108	70-130	6	20	
Surrogate: Dibromofluoromethane	1.02			ug/l	1.00		102	80-135			

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METHOD BLANK/QC DATA

Semivolatile Organic Compounds by EPA Method 625

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: V4J0615 Extracted: 10/06/04</b>										
<b>Blank Analyzed: 10/07/04 (V4J0615-BLK1)</b>										
Naphthalene	ND	10.0	1.31	ug/L						
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L						
Surrogate: 2-FP	106			ug/L	200	53	40.8-88.4			
Surrogate: Phenol-d6	94.7			ug/L	200	47	31.7-86.6			
Surrogate: 2,4,6-TBP	172			ug/L	200	86	58-109			
Surrogate: Nitrobenzene-d5	66.2			ug/L	100	66	47.1-99.2			
Surrogate: 2-FBP	64.6			ug/L	100	65	44.7-89.6			
Surrogate: p-Terphenyl-d14	76.1			ug/L	100	76	45.7-117			
<b>LCS Analyzed: 10/07/04 (V4J0615-BS1)</b>										
Naphthalene	132	10.0	1.31	ug/L	200	66	38.5-85.1			
N-Nitrosodimethylamine	110	20.0	1.37	ug/L	200	55	14.1-97.3			
Surrogate: 2-FP	106			ug/L	200	53	40.8-88.4			
Surrogate: Phenol-d6	102			ug/L	200	51	31.7-86.6			
Surrogate: 2,4,6-TBP	179			ug/L	200	90	58-109			
Surrogate: Nitrobenzene-d5	70.1			ug/L	100	70	47.1-99.2			
Surrogate: 2-FBP	66.7			ug/L	100	67	44.7-89.6			
Surrogate: p-Terphenyl-d14	82.0			ug/L	100	82	45.7-117			
<b>LCS Dup Analyzed: 10/07/04 (V4J0615-BSD1)</b>										
Naphthalene	131	10.0	1.31	ug/L	200	66	38.5-85.1	1	17.3	
N-Nitrosodimethylamine	95.6	20.0	1.37	ug/L	200	48	14.1-97.3	14	32.5	
Surrogate: 2-FP	99.1			ug/L	200	50	40.8-88.4			
Surrogate: Phenol-d6	96.8			ug/L	200	48	31.7-86.6			
Surrogate: 2,4,6-TBP	181			ug/L	200	91	58-109			
Surrogate: Nitrobenzene-d5	73.3			ug/L	100	73	47.1-99.2			
Surrogate: 2-FBP	68.4			ug/L	100	68	44.7-89.6			
Surrogate: p-Terphenyl-d14	80.3			ug/L	100	80	45.7-117			

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WH-Pasadena/Boeing  
500 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
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Received: 09/30/04

METHOD BLANK/QC DATA

Semivolatile Organic Compounds by EPA Method 625

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: V4J0615 Extracted: 10/06/04</b>											
<b>Duplicate Analyzed: 10/07/04 (V4J0615-DUP1)</b>						<b>Source: V410018-01</b>					
Naphthalene	9.96	10.0	1.31	ug/L		9.06			9	30	Ja
N-Nitrosodimethylamine	ND	20.0	1.37	ug/L		ND				30	
Surrogate: 2-FP	95.6			ug/L	200		48	40.8-88.4			
Surrogate: Phenol-d6	86.9			ug/L	200		43	31.7-86.6			
Surrogate: 2,4,6-TBP	157			ug/L	200		79	58-109			
Surrogate: Nitrobenzene-d5	71.8			ug/L	100		72	47.1-99.2			
Surrogate: 2-FBP	67.7			ug/L	100		68	44.7-89.6			
Surrogate: p-Terphenyl-d14	81.4			ug/L	100		81	45.7-117			
<b>Matrix Spike Analyzed: 10/07/04 (V4J0615-MS1)</b>						<b>Source: INI1882-01</b>					
Naphthalene	161	10.0	1.31	ug/L	200	28.4	66	70-130			A-04
N-Nitrosodimethylamine	85.6	20.0	1.37	ug/L	200	ND	43	70-130			A-04
Surrogate: 2-FP	99.5			ug/L	200		50	40.8-88.4			
Surrogate: Phenol-d6	98.1			ug/L	200		49	31.7-86.6			
Surrogate: 2,4,6-TBP	154			ug/L	200		77	58-109			
Surrogate: Nitrobenzene-d5	78.0			ug/L	100		78	47.1-99.2			
Surrogate: 2-FBP	70.2			ug/L	100		70	44.7-89.6			
Surrogate: p-Terphenyl-d14	78.3			ug/L	100		78	45.7-117			

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Report Number: INI1882

Sampled: 09/29/04  
Received: 09/30/04

### DATA QUALIFIERS AND DEFINITIONS

- A-04** The spike recovery for this QC sample is outside of established control limits. Review of associated QC indicates the recovery for this analyte does not negatively impact the usability of the data.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of unknown quality.
- Ja** The reported result is an estimated value. The reported result is above the Method Detection Limit but below the standard Reporting Limit.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M-3** Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
- M-NR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- R-3** The RPD exceeded the method control limit due to sample matrix effects.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

### ADDITIONAL COMMENTS

**For GRO (C4-C12):**

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

**or Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :**

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

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IWH-Pasadena/Boeing Project ID: Alfa Outfall 012 - During Test  
300 North Lake Avenue, Suite 1200 Report Number: INI1882  
Pasadena, CA 91101 Sampled: 09/29/04  
Attention: Bronwyn Kelly Received: 09/30/04

Certification Summary

Del Mar Analytical, Irvine

Method	Matrix	NELAP	CA
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 180.1	Water	X	X
EPA 314.0	Water	N/A	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 413.1	Water	X	X
EPA 418.1	Water	X	X
EPA 624 MOD	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
SM2540C	Water	X	X

NV and NELAP provide analyte specific accreditations. Analyte specific information for Del Mar Analytical may be obtained by contacting the laboratory or visiting our website at [www.dmalabs.com](http://www.dmalabs.com).

Subcontracted Laboratories

Del Mar Analytical - Phoenix NELAP Accreditation #01109CA, AZ DHS Licence #AZ0426 and NV Cert #AZ-907  
9830 S. 51st Street, Suite B-120 - Phoenix, AZ 85044

Method Performed: EPA 8260B  
Samples: INI1882-01

Star Analytical, Inc. CA ELAP Cert #1849  
14500 Trinity Boulevard, Suite 106 - Fort Worth, TX 76155

Method Performed: EPA 625  
Samples: INI1882-01

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Project Manager