

Work Orders: 9A07018

Project: Irwindale SW Outfall Mon.

Attn: Edmond G. Suher

Client: AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Report Date: 2/07/2019

Received Date: 1/6/2019

Turnaround Time: Normal

Phones: (818) 841-9004

Fax: (818) 841-8013

P.O. #:

Billing Code:

ELAP-CA #1132 • EPA-UCMR #CA00211 • Guam-EPA #17-008R • ISO 17025 #L2457.01 • LACSD #10143 • NELAP-CA #04229CA •
NJ-DEP #CA015 • NV-DEP #NAC 445A • SCAQMD #93LA1006

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

Dear Edmond G. Suher,

Enclosed are the results of analyses for samples received 1/06/19 with the Chain-of-Custody document. The samples were received in good condition, at 4.1 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Reviewed by:



Brandon Gee
Operations Manager/Senior PM



AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Project Number: Irwindale SW Outfall Mon.

Project Manager: Edmond G. Suher

Reported:
02/07/2019 08:51

Sample Summary

Sample Name	Sampled By	Lab ID	Matrix	Sampled	Qualifiers
SGR-077	ES/AH	9A07018-01	Water	01/06/19 02:34	
BDW-027A	ES/AH	9A07018-02	Water	01/06/19 03:36	
SAWPW-074A	ES/AH	9A07018-03	Water	01/06/19 04:26	
Trip Blank	ES/AH	9A07018-04	Water	01/06/19 00:00	

Analyses Accreditation Summary

Analyte	CAS #	Not By NELAP	By ANAB
EPA 625.1 in Water			
Naphthalene	91-20-3	✓	
Acenaphthylene	208-96-8	✓	
Acenaphthene	83-32-9	✓	
Fluorene	86-73-7	✓	
Phenanthrene	85-01-8	✓	
Anthracene	120-12-7	✓	
Fluoranthene	206-44-0	✓	
Pyrene	129-00-0	✓	
Benzo (a) anthracene	56-55-3	✓	
Chrysene	218-01-9	✓	
Benzo (b) fluoranthene	205-99-2	✓	
Benzo (k) fluoranthene	207-08-9	✓	
Benzo (a) pyrene	50-32-8	✓	
Indeno (1,2,3-cd) pyrene	193-39-5	✓	
Dibenzo (a,h) anthracene	53-70-3	✓	
Benzo (g,h,i) perylene	191-24-2	✓	
1,3-Dimethyl-2-nitrobenzene	81-20-9	✓	
Perylene-d12	1520-96-3	✓	
SM 9221F in Water			
E. coli		✓	



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Certificate of Analysis

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Reported:

02/07/2019 08:51

Project Manager: Edmond G. Suher

Sample Results

Sample: SGR-077

Sampled: 01/06/19 2:34 by ES/AH

9A07018-01 (Water)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Anions by IC, EPA Method 300.0							
Method: EPA 300.0	Batch ID: W9A0672	Instr: LC12	Prepared: 01/12/19 15:19	Analyst: jan			
Chloride, Total	3.4	0.10	0.50	mg/l	1	01/15/19 05:00	
Sulfate as SO ₄	3.0	0.10	0.50	mg/l	1	01/15/19 05:00	
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods							
Method: EPA 160.4	Batch ID: W9A0383	Instr: FURN01	Prepared: 01/08/19 11:24	Analyst: sar			
Volatile Suspended Solids	ND	3.1	5.0	mg/l	1	01/08/19 13:30	
Method: EPA 180.1	Batch ID: W9A0268	Instr: TURB01	Prepared: 01/07/19 10:02	Analyst: anb			
Turbidity	8.3	0.024	0.10	NTU	1	01/07/19 11:44	
Method: EPA 335.4	Batch ID: W9A0370	Instr: AA01	Prepared: 01/08/19 10:07	Analyst: MAT			
Cyanide, Total	ND	2.7	5.0	ug/l	1	01/09/19 14:58	
Method: EPA 350.1	Batch ID: W9A0666	Instr: AA06	Prepared: 01/12/19 11:29	Analyst: mcs			
Ammonia as N	0.42	0.048	0.10	mg/l	1	01/15/19 18:47	
Method: EPA 351.2	Batch ID: W9A0407	Instr: AA06	Prepared: 01/08/19 13:41	Analyst: mcs			
TKN	0.60	0.050	0.10	mg/l	1	01/10/19 13:36	
Method: EPA 353.2	Batch ID: W9A0267	Instr: AA01	Prepared: 01/07/19 12:08	Analyst: het			
NO ₂ +NO ₃ as N	420	83	200	ug/l	1	01/07/19 14:28	
Method: EPA 410.4	Batch ID: W9A0933	Instr: UVVIS04	Prepared: 01/16/19 11:05	Analyst: ymt			
Chemical Oxygen Demand	15	0.73	5.0	mg/l	1	01/25/19 10:15	
Method: EPA 420.4	Batch ID: W9A1219	Instr: AA03	Prepared: 01/22/19 10:14	Analyst: mcs			
Phenolics	ND	0.0042	0.010	mg/l	1	02/02/19 10:32	
Method: SM 2320B	Batch ID: W9A0328	Instr: PH01	Prepared: 01/07/19 18:45	Analyst: anb			
Alkalinity as CaCO ₃	29	0.56	2.0	mg/l	1	01/11/19 15:58	
Method: SM 2510B	Batch ID: W9A0547	Instr: PH01	Prepared: 01/10/19 09:59	Analyst: anb			
Specific Conductance (EC)	78	0.23	2.0	umhos/cm	1	01/10/19 14:24	
Method: SM 2540C	Batch ID: W9A0384	Instr: OVEN01	Prepared: 01/08/19 11:25	Analyst: mcs			
Total Dissolved Solids	54	4.0	10	mg/l	1	01/10/19 14:32	
Method: SM 2540D	Batch ID: W9A0385	Instr: OVEN11	Prepared: 01/08/19 11:26	Analyst: sar			
Total Suspended Solids	7		5	mg/l	1	01/08/19 13:30	
Method: SM 4500O-G	Batch ID: W9A0272	Instr: PH13	Prepared: 01/07/19 10:11	Analyst: sar			
Dissolved Oxygen	10.5	0.500	1.00	mg/l	1	01/07/19 10:18	*
Method: SM 5210B	Batch ID: W9A0270	Instr: PH13	Prepared: 01/07/19 10:08	Analyst: sar			
Biochemical Oxygen Demand	8.6	2.0	2.0	mg/l	1	01/12/19 13:18	
Method: SM 5540C	Batch ID: W9A0273	Instr: UVVIS04	Prepared: 01/07/19 10:22	Analyst: nll			
MBAS	0.047	0.019	0.050	mg/l	1	01/07/19 14:48	J
Hexavalent Chromium by IC							
Method: EPA 218.6	Batch ID: W9A0797	Instr: LC13	Prepared: 01/15/19 09:12	Analyst: pjs			
Chromium 6+	0.10	0.0048	0.020	ug/l	1	01/15/19 15:55	

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FINAL REPORT

Project Number: Irwindale SW Outfall Mon.

Reported:

02/07/2019 08:51

Project Manager: Edmond G. Suher

Sample Results

(Continued)

Sample: SGR-077

Sampled: 01/06/19 2:34 by ES/AH

9A07018-01 (Water)

(Continued)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Hexavalent Chromium by IC (Continued)							
Method: EPA 218.6	Batch ID: W9A0797	Instr: LC13	Prepared: 01/15/19 09:12	Analyst: pjs			
Method: EPA 218.6	Batch ID: W9A0935	Instr: LC13	Prepared: 01/16/19 11:20	Analyst: pjs			
Chromium 6+, Dissolved	0.20	0.0096	0.040	ug/l	2	01/16/19 14:46	
Hydrocarbons by GC/FID							
Method: EPA 8015B	Batch ID: W9A0456	Instr: GC04	Prepared: 01/09/19 08:52	Analyst: ars			
Diesel Range Organics	0.30	0.024	0.10	mg/l	1	01/23/19 06:18	
Oil Range Organics	0.93	0.33	0.50	mg/l	1	01/23/19 06:18	
Surrogate(s)							
n-Tetracosane	101%	Conc: 0.253	64-155				
						01/23/19 06:18	
Mercury - Low Level by CVAFS							
Method: EPA 1631E	Batch ID: W9A0284	Instr: HG02	Prepared: 01/06/19 14:50	Analyst: map			
Mercury, Dissolved	4.0	0.31	0.50	ng/l	1	01/07/19 16:40	
Mercury, Total	4.5	0.31	0.50	ng/l	1	01/07/19 16:40	
Metals by EPA 200 Series Methods							
Method: EPA 200.7	Batch ID: [CALC]	Instr: [CALC]	Prepared: 01/08/19 10:01	Analyst: mtt			
Calcium Hardness as CaCO3	24.8		0.250	mg/l	1	01/16/19 20:25	
Method: EPA 200.7	Batch ID: W9A0366	Instr: ICP03	Prepared: 01/08/19 10:01	Analyst: mtt			
Calcium, Total	9.93	0.0160	0.100	mg/l	1	01/16/19 20:25	
Method: EPA 200.7	Batch ID: W9A0754	Instr: ICP03	Prepared: 01/14/19 16:53	Analyst: mtt			
Phosphorus, Dissolved	0.13	0.012	0.020	mg/l	1	01/17/19 14:31	
Phosphorus, Total	0.15	0.012	0.020	mg/l	1	01/17/19 14:34	
Method: EPA 200.8	Batch ID: W9A0365	Instr: ICPMS05	Prepared: 01/08/19 09:57	Analyst: jea			
Aluminum, Dissolved	46	1.3	5.0	ug/l	1	01/15/19 17:08	
Aluminum, Total	240	1.3	5.0	ug/l	1	01/15/19 17:09	
Antimony, Dissolved	6.1	0.045	0.50	ug/l	1	01/15/19 14:22	
Antimony, Total	6.7	0.045	0.50	ug/l	1	01/15/19 14:26	
Arsenic, Dissolved	0.60	0.074	0.40	ug/l	1	01/15/19 14:22	
Arsenic, Total	0.71	0.074	0.40	ug/l	1	01/15/19 14:26	
Cadmium, Dissolved	ND	0.041	0.10	ug/l	1	01/15/19 14:22	
Cadmium, Total	ND	0.041	0.10	ug/l	1	01/15/19 14:26	
Chromium, Dissolved	0.25	0.035	0.20	ug/l	1	01/15/19 14:22	
Chromium, Total	0.64	0.035	0.20	ug/l	1	01/15/19 14:26	
Copper, Dissolved	4.6	0.13	0.50	ug/l	1	01/15/19 14:22	
Copper, Total	6.0	0.13	0.50	ug/l	1	01/15/19 14:26	
Iron, Dissolved	47	0.91	20	ug/l	1	01/15/19 14:22	
Iron, Total	290	0.91	20	ug/l	1	01/15/19 14:26	
Lead, Dissolved	0.13	0.031	0.20	ug/l	1	01/15/19 14:22	J

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Certificate of Analysis

FINAL REPORT

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02/07/2019 08:51

Project Manager: Edmond G. Suher

Sample Results

(Continued)

Sample: SGR-077

Sampled: 01/06/19 2:34 by ES/AH

9A07018-01 (Water)

(Continued)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
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Metals by EPA 200 Series Methods (Continued)

Method: EPA 200.8	Batch ID: W9A0365	Instr: ICPMS04	Prepared: 01/08/19 09:57	Analyst: rrl	
Lead, Total	0.70	0.031	0.20 ug/l	1	01/15/19 14:26
Nickel, Dissolved	1.0	0.045	0.80 ug/l	1	01/15/19 14:22
Nickel, Total	1.3	0.045	0.80 ug/l	1	01/15/19 14:26
Zinc, Dissolved	41	0.94	5.0 ug/l	1	01/15/19 14:22
Zinc, Total	55	0.94	5.0 ug/l	1	01/15/19 14:26

Microbiological Parameters by Standard Methods

Method: SM 9221F	Batch ID: W9A0968	Instr: _ANALYST	Prepared: 01/06/19 09:20		Analyst: slh
E. coli		170	18	MPN/100ml	10
					01/12/19 13:31

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Method: EPA 625.1	Batch ID: W9A0611	Instr: GCMS15	Prepared: 01/11/19 08:47	Analyst: EFC			
Acenaphthene	ND	11	120	ng/l	5	01/24/19 13:57	M-02, M-04
Acenaphthylene	ND	13	120	ng/l	5	01/24/19 13:57	M-02, M-04
Anthracene	ND	23	120	ng/l	5	01/24/19 13:57	M-02, M-04
Benzo (a) anthracene	ND	20	120	ng/l	5	01/24/19 13:57	M-02, M-04
Benzo (a) pyrene	ND	14	120	ng/l	5	01/24/19 13:57	M-02, M-04
Benzo (b) fluoranthene	ND	40	120	ng/l	5	01/24/19 13:57	M-02, M-04
Benzo (g,h,i) perylene	ND	22	120	ng/l	5	01/24/19 13:57	M-02, M-04
Benzo (k) fluoranthene	ND	13	120	ng/l	5	01/24/19 13:57	M-02, M-04
Chrysene	ND	13	120	ng/l	5	01/24/19 13:57	M-02, M-04
Dibenzo (a,h) anthracene	ND	30	120	ng/l	5	01/24/19 13:57	M-02, M-04
Fluoranthene	ND	32	120	ng/l	5	01/24/19 13:57	M-02, M-04
Fluorene	ND	19	120	ng/l	5	01/24/19 13:57	M-02, M-04
Indeno (1,2,3-cd) pyrene	ND	25	120	ng/l	5	01/24/19 13:57	M-02, M-04
Naphthalene	ND	2.6	25	ng/l	1	01/24/19 13:57	
Phenanthrene	ND	24	120	ng/l	5	01/24/19 13:57	M-02, M-04
Pyrene	ND	17	120	ng/l	5	01/24/19 13:57	M-02, M-04

Surrogate(s)

1,3-Dimethyl-2-nitrobenzene	84%	Conc: 419	50-150			01/24/19 13:57	M-02, M-04
Perylene-d12	49%	Conc: 243	50-150			01/24/19 13:57	M-02, M-04, S-GC



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02/07/2019 08:51

Sample Results

(Continued)

Sample: BDW-027A

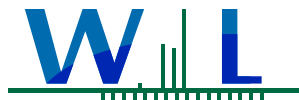
Sampled: 01/06/19 3:36 by ES/AH

9A07018-02 (Water)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Anions by IC, EPA Method 300.0							
Method: EPA 300.0	Batch ID: W9A0672	Instr: LC12	Prepared: 01/12/19 15:19	Analyst: jan			
Chloride, Total	13	0.10	0.50	mg/l	1	01/15/19 05:00	
Sulfate as SO4	10	0.10	0.50	mg/l	1	01/15/19 05:00	
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods							
Method: EPA 160.4	Batch ID: W9A0383	Instr: FURN01	Prepared: 01/08/19 11:24	Analyst: sar			
Volatile Suspended Solids	ND	3.1	5.0	mg/l	1	01/08/19 13:30	
Method: EPA 180.1	Batch ID: W9A0268	Instr: TURB01	Prepared: 01/07/19 10:02	Analyst: anb			
Turbidity	4.3	0.024	0.10	NTU	1	01/07/19 11:44	
Method: EPA 335.4	Batch ID: W9A0370	Instr: AA01	Prepared: 01/08/19 10:07	Analyst: MAT			
Cyanide, Total	ND	2.7	5.0	ug/l	1	01/09/19 14:59	
Method: EPA 350.1	Batch ID: W9A0666	Instr: AA06	Prepared: 01/12/19 11:29	Analyst: mcs			
Ammonia as N	0.46	0.048	0.10	mg/l	1	01/15/19 18:47	
Method: EPA 351.2	Batch ID: W9A0407	Instr: AA06	Prepared: 01/08/19 13:41	Analyst: mcs			
TKN	0.65	0.050	0.10	mg/l	1	01/10/19 13:36	
Method: EPA 353.2	Batch ID: W9A0267	Instr: AA01	Prepared: 01/07/19 12:08	Analyst: het			
NO2+NO3 as N	920	83	200	ug/l	1	01/07/19 14:29	
Method: EPA 410.4	Batch ID: W9A0933	Instr: UVVIS04	Prepared: 01/16/19 11:05	Analyst: ymt			
Chemical Oxygen Demand	18	0.73	5.0	mg/l	1	01/25/19 10:15	
Method: EPA 420.4	Batch ID: W9A1219	Instr: AA03	Prepared: 01/22/19 10:14	Analyst: mcs			
Phenolics	ND	0.0042	0.010	mg/l	1	02/02/19 10:32	
Method: SM 2320B	Batch ID: W9A0328	Instr: PH01	Prepared: 01/07/19 18:45	Analyst: anb			
Alkalinity as CaCO3	70	0.56	2.0	mg/l	1	01/11/19 15:58	
Method: SM 2510B	Batch ID: W9A0547	Instr: PH01	Prepared: 01/10/19 09:59	Analyst: anb			
Specific Conductance (EC)	200	0.23	2.0	umhos/cm	1	01/10/19 14:24	
Method: SM 2540C	Batch ID: W9A0384	Instr: OVEN01	Prepared: 01/08/19 11:25	Analyst: mcs			
Total Dissolved Solids	120	4.0	10	mg/l	1	01/10/19 14:32	
Method: SM 2540D	Batch ID: W9A0385	Instr: OVEN11	Prepared: 01/08/19 11:26	Analyst: sar			
Total Suspended Solids	4		5	mg/l	1	01/08/19 13:30	J
Method: SM 4500O-G	Batch ID: W9A0272	Instr: PH13	Prepared: 01/07/19 10:11	Analyst: sar			
Dissolved Oxygen	10.0	0.500	1.00	mg/l	1	01/07/19 10:18	*
Method: SM 5210B	Batch ID: W9A0270	Instr: PH13	Prepared: 01/07/19 10:08	Analyst: sar			
Biochemical Oxygen Demand	12	2.0	2.0	mg/l	1	01/12/19 13:21	
Method: SM 5540C	Batch ID: W9A0273	Instr: UVVIS04	Prepared: 01/07/19 10:22	Analyst: nll			
MBAS	0.21	0.019	0.050	mg/l	1	01/07/19 14:48	
Hexavalent Chromium by IC							
Method: EPA 218.6	Batch ID: W9A0797	Instr: LC13	Prepared: 01/15/19 09:12	Analyst: pjs			
Chromium 6+	0.32	0.0048	0.020	ug/l	1	01/15/19 16:06	

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Sample Results

(Continued)

Sample: BDW-027A

Sampled: 01/06/19 3:36 by ES/AH

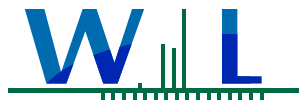
9A07018-02 (Water)

(Continued)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Hexavalent Chromium by IC (Continued)							
Method: EPA 218.6	Batch ID: W9A0797	Instr: LC13	Prepared: 01/15/19 09:12	Analyst: pjs			
Method: EPA 218.6	Batch ID: W9A0935	Instr: LC13	Prepared: 01/16/19 11:20	Analyst: pjs			
Chromium 6+, Dissolved	0.39	0.0048	0.020	ug/l	1	01/16/19 14:58	
Hydrocarbons by GC/FID							
Method: EPA 8015B	Batch ID: W9A0456	Instr: GC04	Prepared: 01/09/19 08:52	Analyst: ars			
Diesel Range Organics	0.36	0.024	0.10	mg/l	1	01/23/19 06:52	
Oil Range Organics	0.49	0.33	0.50	mg/l	1	01/23/19 06:52	J
Surrogate(s)							
n-Tetracosane	100%	Conc: 0.249	64-155				
						01/23/19 06:52	
Mercury - Low Level by CVAFS							
Method: EPA 1631E	Batch ID: W9A0284	Instr: HG02	Prepared: 01/06/19 14:50	Analyst: map			
Mercury, Dissolved	4.3	0.31	0.50	ng/l	1	01/07/19 16:40	
Mercury, Total	7.0	0.31	0.50	ng/l	1	01/07/19 16:40	
Metals by EPA 200 Series Methods							
Method: EPA 200.7	Batch ID: [CALC]	Instr: [CALC]	Prepared: 01/08/19 10:01	Analyst: mtt			
Calcium Hardness as CaCO3	58.3		0.250	mg/l	1	01/16/19 20:28	
Method: EPA 200.7	Batch ID: W9A0366	Instr: ICP03	Prepared: 01/08/19 10:01	Analyst: mtt			
Calcium, Total	23.3	0.0160	0.100	mg/l	1	01/16/19 20:28	
Method: EPA 200.7	Batch ID: W9A0754	Instr: ICP03	Prepared: 01/14/19 16:53	Analyst: mtt			
Phosphorus, Dissolved	0.050	0.012	0.020	mg/l	1	01/17/19 15:45	
Phosphorus, Total	0.14	0.012	0.020	mg/l	1	01/17/19 15:48	
Method: EPA 200.8	Batch ID: W9A0365	Instr: ICPMS05	Prepared: 01/08/19 09:57	Analyst: jea			
Aluminum, Dissolved	20	1.3	5.0	ug/l	1	01/15/19 17:10	
Aluminum, Total	76	1.3	5.0	ug/l	1	01/15/19 17:12	
Antimony, Dissolved	1.0	0.045	0.50	ug/l	1	01/15/19 14:43	
Antimony, Total	1.1	0.045	0.50	ug/l	1	01/15/19 14:47	
Arsenic, Dissolved	1.4	0.074	0.40	ug/l	1	01/15/19 14:43	
Arsenic, Total	1.4	0.074	0.40	ug/l	1	01/15/19 14:47	
Cadmium, Dissolved	0.12	0.041	0.10	ug/l	1	01/15/19 14:43	
Cadmium, Total	0.15	0.041	0.10	ug/l	1	01/15/19 14:47	
Chromium, Dissolved	0.52	0.035	0.20	ug/l	1	01/15/19 14:43	
Chromium, Total	0.74	0.035	0.20	ug/l	1	01/15/19 14:47	
Copper, Dissolved	8.2	0.13	0.50	ug/l	1	01/15/19 14:43	
Copper, Total	8.7	0.13	0.50	ug/l	1	01/15/19 14:47	
Iron, Dissolved	39	0.91	20	ug/l	1	01/15/19 14:43	
Iron, Total	130	0.91	20	ug/l	1	01/15/19 14:47	
Lead, Dissolved	0.26	0.031	0.20	ug/l	1	01/15/19 14:43	

9A07018

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WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: Irwindale SW Outfall Mon.

Reported:

02/07/2019 08:51

Project Manager: Edmond G. Suher

Sample Results

(Continued)

Sample: BDW-027A

Sampled: 01/06/19 3:36 by ES/AH

9A07018-02 (Water)

(Continued)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
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Metals by EPA 200 Series Methods (Continued)

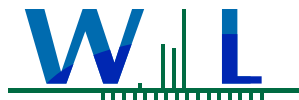
Method: EPA 200.8	Batch ID: W9A0365	Instr: ICPMS04	Prepared: 01/08/19 09:57	Analyst: rrl	
Lead, Total	0.87	0.031	0.20 ug/l	1	01/15/19 14:47
Nickel, Dissolved	3.4	0.045	0.80 ug/l	1	01/15/19 14:43
Nickel, Total	3.4	0.045	0.80 ug/l	1	01/15/19 14:47
Zinc, Dissolved	83	0.94	5.0 ug/l	1	01/15/19 14:43
Zinc, Total	92	0.94	5.0 ug/l	1	01/15/19 14:47

Microbiological Parameters by Standard Methods

Method: SM 9221F	Batch ID: W9A0968	Instr: _ANALYST	Prepared: 01/06/19 09:20	Analyst: slh	
E. coli	7000	18	MPN/100ml	10	01/12/19 13:31

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Method: EPA 625.1	Batch ID: W9A0611	Instr: GCMS15	Prepared: 01/11/19 08:47	Analyst: EFC			
Acenaphthene	ND	11	120	ng/l	5	01/24/19 14:25	M-02, M-04
Acenaphthylene	ND	13	120	ng/l	5	01/24/19 14:25	M-02, M-04
Anthracene	ND	23	120	ng/l	5	01/24/19 14:25	M-02, M-04
Benzo (a) anthracene	ND	20	120	ng/l	5	01/24/19 14:25	M-02, M-04
Benzo (a) pyrene	ND	14	120	ng/l	5	01/24/19 14:25	M-02, M-04
Benzo (b) fluoranthene	ND	40	120	ng/l	5	01/24/19 14:25	M-02, M-04
Benzo (g,h,i) perylene	ND	22	120	ng/l	5	01/24/19 14:25	M-02, M-04
Benzo (k) fluoranthene	ND	13	120	ng/l	5	01/24/19 14:25	M-02, M-04
Chrysene	ND	13	120	ng/l	5	01/24/19 14:25	M-02, M-04
Dibenzo (a,h) anthracene	ND	30	120	ng/l	5	01/24/19 14:25	M-02, M-04
Fluoranthene	ND	32	120	ng/l	5	01/24/19 14:25	M-02, M-04
Fluorene	ND	19	120	ng/l	5	01/24/19 14:25	M-02, M-04
Indeno (1,2,3-cd) pyrene	ND	25	120	ng/l	5	01/24/19 14:25	M-02, M-04
Naphthalene	ND	13	120	ng/l	5	01/24/19 14:25	M-02, M-04
Phenanthrene	ND	24	120	ng/l	5	01/24/19 14:25	M-02, M-04
Pyrene	ND	17	120	ng/l	5	01/24/19 14:25	M-02, M-04
Surrogate(s)							
1,3-Dimethyl-2-nitrobenzene	75%	Conc: 374	50-150			01/24/19 14:25	M-02, M-04
Perylene-d12	74%	Conc: 368	50-150			01/24/19 14:25	M-02, M-04



WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: Irwindale SW Outfall Mon.

Reported:

02/07/2019 08:51

Project Manager: Edmond G. Suher

Sample Results

(Continued)

Sample: SAWPW-074A

Sampled: 01/06/19 4:26 by ES/AH

9A07018-03 (Water)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Anions by IC, EPA Method 300.0							
Method: EPA 300.0	Batch ID: W9A0672	Instr: LC12	Prepared: 01/12/19 15:19	Analyst: jan			
Chloride, Total	2.5	0.10	0.50	mg/l	1	01/15/19 05:00	
Sulfate as SO ₄	2.2	0.10	0.50	mg/l	1	01/15/19 05:00	
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods							
Method: EPA 160.4	Batch ID: W9A0383	Instr: FURN01	Prepared: 01/08/19 11:24	Analyst: sar			
Volatile Suspended Solids	15	3.1	5.0	mg/l	1	01/08/19 13:30	
Method: EPA 180.1	Batch ID: W9A0268	Instr: TURB01	Prepared: 01/07/19 10:02	Analyst: anb			
Turbidity	6.9	0.024	0.10	NTU	1	01/07/19 11:44	
Method: EPA 335.4	Batch ID: W9A0370	Instr: AA01	Prepared: 01/08/19 10:07	Analyst: MAT			
Cyanide, Total	ND	2.7	5.0	ug/l	1	01/09/19 14:59	
Method: EPA 350.1	Batch ID: W9A0666	Instr: AA06	Prepared: 01/12/19 11:29	Analyst: mcs			
Ammonia as N	0.36	0.048	0.10	mg/l	1	01/15/19 18:47	
Method: EPA 351.2	Batch ID: W9A0407	Instr: AA06	Prepared: 01/08/19 13:41	Analyst: mcs			
TKN	0.98	0.050	0.10	mg/l	1	01/10/19 13:36	
Method: EPA 353.2	Batch ID: W9A0267	Instr: AA01	Prepared: 01/07/19 12:08	Analyst: het			
NO ₂ +NO ₃ as N	650	83	200	ug/l	1	01/07/19 14:30	
Method: EPA 410.4	Batch ID: W9A0933	Instr: UVVIS04	Prepared: 01/16/19 11:05	Analyst: ymt			
Chemical Oxygen Demand	36	0.73	5.0	mg/l	1	01/25/19 10:15	
Method: EPA 420.4	Batch ID: W9A1219	Instr: AA03	Prepared: 01/22/19 10:14	Analyst: mcs			
Phenolics	ND	0.0042	0.010	mg/l	1	02/02/19 10:32	
Method: SM 2320B	Batch ID: W9A0328	Instr: PH01	Prepared: 01/07/19 18:45	Analyst: anb			
Alkalinity as CaCO ₃	21	0.56	2.0	mg/l	1	01/11/19 15:58	
Method: SM 2510B	Batch ID: W9A0547	Instr: PH01	Prepared: 01/10/19 09:59	Analyst: anb			
Specific Conductance (EC)	56	0.23	2.0	umhos/cm	1	01/10/19 14:24	
Method: SM 2540C	Batch ID: W9A0384	Instr: OVEN01	Prepared: 01/08/19 11:25	Analyst: mcs			
Total Dissolved Solids	49	4.0	10	mg/l	1	01/10/19 14:32	
Method: SM 2540D	Batch ID: W9A0385	Instr: OVEN11	Prepared: 01/08/19 11:26	Analyst: sar			
Total Suspended Solids	31		5	mg/l	1	01/08/19 13:30	
Method: SM 4500O-G	Batch ID: W9A0272	Instr: PH13	Prepared: 01/07/19 10:11	Analyst: sar			
Dissolved Oxygen	11.3	0.500	1.00	mg/l	1	01/07/19 10:18	*
Method: SM 5210B	Batch ID: W9A0270	Instr: PH13	Prepared: 01/07/19 10:08	Analyst: sar			
Biochemical Oxygen Demand	12	2.0	2.0	mg/l	1	01/12/19 13:24	
Method: SM 5540C	Batch ID: W9A0273	Instr: UVVIS04	Prepared: 01/07/19 10:22	Analyst: nll			
MBAS	0.19	0.019	0.050	mg/l	1	01/07/19 14:48	
Hexavalent Chromium by IC							
Method: EPA 218.6	Batch ID: W9A0797	Instr: LC13	Prepared: 01/15/19 09:12	Analyst: pjs			
Chromium 6+	0.24	0.0048	0.020	ug/l	1	01/15/19 16:18	

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WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: Irwindale SW Outfall Mon.

Reported:

02/07/2019 08:51

Project Manager: Edmond G. Suher

Sample Results

(Continued)

Sample: SAWPW-074A

Sampled: 01/06/19 4:26 by ES/AH

9A07018-03 (Water)

(Continued)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Hexavalent Chromium by IC (Continued)							
Method: EPA 218.6	Batch ID: W9A0797	Instr: LC13	Prepared: 01/15/19 09:12	Analyst: pjs			
Method: EPA 218.6	Batch ID: W9A0935	Instr: LC13	Prepared: 01/16/19 11:20	Analyst: pjs			
Chromium 6+, Dissolved	2.5	0.024	0.10	ug/l	5	01/16/19 15:09	
Hydrocarbons by GC/FID							
Method: EPA 8015B	Batch ID: W9A0602	Instr: GC04	Prepared: 01/11/19 09:22	Analyst: ars			
Diesel Range Organics	0.25	0.048	0.20	mg/l	2	01/18/19 13:36	M-04
Oil Range Organics	0.67	0.66	1.0	mg/l	2	01/18/19 13:36	J, M-04
Surrogate(s)							
n-Tetracosane	104% Conc: 0.259	64-155				01/18/19 13:36	M-04
Mercury - Low Level by CVAFS							
Method: EPA 1631E	Batch ID: W9A0284	Instr: HG02	Prepared: 01/06/19 14:50	Analyst: map			
Mercury, Dissolved	5.1	0.31	0.50	ng/l	1	01/07/19 16:40	
Mercury, Total	12	1.5	2.5	ng/l	5	01/07/19 16:40	
Metals by EPA 200 Series Methods							
Method: EPA 200.7	Batch ID: [CALC]	Instr: [CALC]	Prepared: 01/08/19 10:01	Analyst: mtt			
Calcium Hardness as CaCO3	15.2		0.250	mg/l	1	01/16/19 20:31	
Method: EPA 200.7	Batch ID: W9A0366	Instr: ICP03	Prepared: 01/08/19 10:01	Analyst: mtt			
Calcium, Total	6.10	0.0160	0.100	mg/l	1	01/16/19 20:31	
Method: EPA 200.7	Batch ID: W9A0754	Instr: ICP03	Prepared: 01/14/19 16:53	Analyst: mtt			
Phosphorus, Dissolved	0.12	0.012	0.020	mg/l	1	01/17/19 15:51	
Phosphorus, Total	0.19	0.012	0.020	mg/l	1	01/17/19 14:54	
Method: EPA 200.8	Batch ID: W9A0365	Instr: ICPMS05	Prepared: 01/08/19 09:57	Analyst: jea			
Aluminum, Dissolved	22	1.3	5.0	ug/l	1	01/15/19 17:13	
Aluminum, Total	810	1.3	5.0	ug/l	1	01/15/19 17:14	
Antimony, Dissolved	0.64	0.045	0.50	ug/l	1	01/15/19 15:56	
Antimony, Total	1.3	0.045	0.50	ug/l	1	01/15/19 16:00	
Arsenic, Dissolved	0.69	0.074	0.40	ug/l	1	01/15/19 15:56	
Arsenic, Total	1.0	0.074	0.40	ug/l	1	01/15/19 16:00	
Cadmium, Dissolved	ND	0.041	0.10	ug/l	1	01/15/19 15:56	
Cadmium, Total	0.10	0.041	0.10	ug/l	1	01/15/19 16:00	
Chromium, Dissolved	0.38	0.035	0.20	ug/l	1	01/15/19 15:56	
Chromium, Total	1.8	0.035	0.20	ug/l	1	01/15/19 16:00	
Copper, Dissolved	14	0.13	0.50	ug/l	1	01/15/19 15:56	
Copper, Total	25	0.13	0.50	ug/l	1	01/15/19 16:00	
Iron, Dissolved	26	0.91	20	ug/l	1	01/15/19 15:56	
Iron, Total	1100	0.91	20	ug/l	1	01/15/19 16:00	
Lead, Dissolved	0.19	0.031	0.20	ug/l	1	01/15/19 15:56	J

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WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: Irwindale SW Outfall Mon.

Reported:

02/07/2019 08:51

Project Manager: Edmond G. Suher

Sample Results

(Continued)

Sample: SAWPW-074A

Sampled: 01/06/19 4:26 by ES/AH

9A07018-03 (Water)

(Continued)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
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Metals by EPA 200 Series Methods (Continued)

Method: EPA 200.8	Batch ID: W9A0365	Instr: ICPMS04	Prepared: 01/08/19 09:57	Analyst: rrl
Lead, Total	5.2	0.031	0.20 ug/l	1 01/15/19 16:00
Nickel, Dissolved	1.3	0.045	0.80 ug/l	1 01/15/19 15:56
Nickel, Total	3.0	0.045	0.80 ug/l	1 01/15/19 16:00
Zinc, Dissolved	30	0.94	5.0 ug/l	1 01/15/19 15:56
Zinc, Total	80	0.94	5.0 ug/l	1 01/15/19 16:00

Microbiological Parameters by Standard Methods

Method: SM 9221F	Batch ID: W9A0968	Instr: _ANALYST	Prepared: 01/06/19 09:20	Analyst: slh	
E. coli	700	18	MPN/100ml	10	01/12/19 13:31

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Method: EPA 625.1	Batch ID: W9A0611	Instr: GCMS15	Prepared: 01/11/19 08:47	Analyst: EFC			
Acenaphthene	ND	11	120	ng/l	5	01/24/19 14:53	M-02, M-04
Acenaphthylene	ND	13	120	ng/l	5	01/24/19 14:53	M-02, M-04
Anthracene	ND	23	120	ng/l	5	01/24/19 14:53	M-02, M-04
Benzo (a) anthracene	ND	20	120	ng/l	5	01/24/19 14:53	M-02, M-04
Benzo (a) pyrene	ND	14	120	ng/l	5	01/24/19 14:53	M-02, M-04
Benzo (b) fluoranthene	ND	40	120	ng/l	5	01/24/19 14:53	M-04, M-02
Benzo (g,h,i) perylene	34	22	120	ng/l	5	01/24/19 14:53	J, M-02, M-04
Benzo (k) fluoranthene	32	13	120	ng/l	5	01/24/19 14:53	J, M-02, M-04
Chrysene	ND	13	120	ng/l	5	01/24/19 14:53	M-02, M-04
Dibenzo (a,h) anthracene	ND	30	120	ng/l	5	01/24/19 14:53	M-02, M-04
Fluoranthene	ND	32	120	ng/l	5	01/24/19 14:53	M-02, M-04
Fluorene	ND	19	120	ng/l	5	01/24/19 14:53	M-04, M-02
Indeno (1,2,3-cd) pyrene	ND	25	120	ng/l	5	01/24/19 14:53	M-02, M-04
Naphthalene	ND	13	120	ng/l	5	01/24/19 14:53	M-02, M-04
Phenanthrene	ND	24	120	ng/l	5	01/24/19 14:53	M-02, M-04
Pyrene	ND	17	120	ng/l	5	01/24/19 14:53	M-02, M-04

Surrogate(s)

1,3-Dimethyl-2-nitrobenzene	66%	Conc: 329	50-150			01/24/19 14:53	M-02, M-04
Perylene-d12	63%	Conc: 315	50-150			01/24/19 14:53	M-02, M-04

Sample: Trip Blank

Sampled: 01/06/19 0:00 by ES/AH

9A07018-04 (Water)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
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Mercury - Low Level by CVAFS

Method: EPA 1631E	Batch ID: W9A0284	Instr: HG02	Prepared: 01/06/19 14:50	Analyst: map
Mercury, Dissolved	ND	0.31	0.50 ng/l	1 01/07/19 16:40
Mercury, Total	ND	0.31	0.50 ng/l	1 01/07/19 16:40

9A07018

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WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: Irwindale SW Outfall Mon.

Reported:

02/07/2019 08:51

Project Manager: Edmond G. Suher



Sample Results

McCampbell Analytical, Inc. SUB_McCampbell Analytical, Inc.

Sample: SGR-077

Sampled: 01/06/19 2:34 by ES/AH

9A07018-01 (Water)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: SM 5310B

Batch ID: '[none]'

Prepared: 01/06/19 02:34

Analyst: _SUB

Total Organic Carbon (TOC) 4

0.3 mg/l 1



WECK LABORATORIES, INC.

AEI-CASC Consulting
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Project Number: Irwindale SW Outfall Mon.

Project Manager: Edmond G. Suher

Certificate of Analysis

FINAL REPORT

Reported:
02/07/2019 08:51



Sample Results

McCampbell Analytical, Inc. SUB_McCampbell Analytical, Inc.

(Continued)

Sample: BDW-027A
9A07018-02 (Water) Sampled: 01/06/19 3:36 by ES/AH

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: SM 5310B	Batch ID: '[none]'	Prepared: 01/06/19 03:36	Analyst: _SUB
Total Organic Carbon (TOC)	5	0.3 mg/l	1



WECK LABORATORIES, INC.

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Reported:

02/07/2019 08:51

Project Manager: Edmond G. Suher



Sample Results

McCampbell Analytical, Inc. SUB_McCampbell Analytical, Inc.

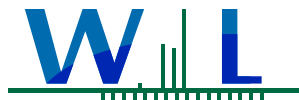
(Continued)

Sample: SAWPW-074A
9A07018-03 (Water) Sampled: 01/06/19 4:26 by ES/AH

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: SM 5310B	Batch ID: '[none]'	Prepared: 01/06/19 04:26	Analyst: _SUB
Total Organic Carbon (TOC)	7.3	0.3 mg/l	1



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Reported:

02/07/2019 08:51

Project Manager: Edmond G. Suher

Quality Control Results

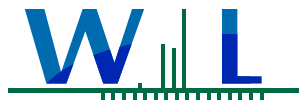
Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: '[none]' - SM 5310B										
BLK (BATCH-BLK1 (Water))	Source: TRUE				Prepared & Analyzed:					
Total Organic Carbon (TOC)	ND	0.1	mg/l		TRUE		0-0		0	
BS (BATCH-BS1 (Water))	Source: TRUE				Prepared & Analyzed:					
Total Organic Carbon (TOC)	ND	0.1	mg/l		TRUE		85-115		20	
MS (BATCH-MS1 (Water))	Source: TRUE				Prepared & Analyzed:					
Total Organic Carbon (TOC)	ND	0.1	mg/l		TRUE		76-115		20	
MSD (BATCH-MSD1 (Water))	Source: TRUE				Prepared & Analyzed:					
Total Organic Carbon (TOC)	ND	0.1	mg/l		TRUE		76-115		20	

Quality Control Results

Anions by IC, EPA Method 300.0

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W9A0672 - EPA 300.0											
Blank (W9A0672-BLK1)					Prepared: 01/12/19 Analyzed: 01/15/19						
Chloride, Total	ND	0.10	0.50	mg/l							
Sulfate as SO4	ND	0.10	0.50	mg/l							
LCS (W9A0672-BS1)					Prepared: 01/12/19 Analyzed: 01/15/19						
Chloride, Total	20.8	0.10	0.50	mg/l	20.0		104	90-110			
Sulfate as SO4	18.4	0.10	0.50	mg/l	20.0		92	90-110			
Matrix Spike (W9A0672-MS1)	Source: 9A07067-03				Prepared: 01/12/19 Analyzed: 01/15/19						
Chloride, Total	230	1.0	5.0	mg/l	200	24.9	103	76-118			
Sulfate as SO4	212	1.0	5.0	mg/l	200	30.2	91	78-111			
Matrix Spike Dup (W9A0672-MSD1)	Source: 9A07067-03				Prepared: 01/12/19 Analyzed: 01/15/19						
Chloride, Total	231	1.0	5.0	mg/l	200	24.9	103	76-118	0.4	20	
Sulfate as SO4	211	1.0	5.0	mg/l	200	30.2	91	78-111	0.2	20	



WECK LABORATORIES, INC.

AEI-CASC Consulting
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Certificate of Analysis

FINAL REPORT

Project Number: Irwindale SW Outfall Mon.

Reported:

02/07/2019 08:51

Project Manager: Edmond G. Suher

Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W9A0267 - EPA 353.2											
Blank (W9A0267-BLK1)					Prepared & Analyzed: 01/07/19						
NO2+NO3 as N	ND	83	200	ug/l							
Blank (W9A0267-BLK2)					Prepared: 01/07/19 Analyzed: 01/08/19						
NO2+NO3 as N	ND	83	200	ug/l							
LCS (W9A0267-BS1)					Prepared & Analyzed: 01/07/19						
NO2+NO3 as N	941	83	200	ug/l	1000		94	90-110			
LCS (W9A0267-BS2)					Prepared: 01/07/19 Analyzed: 01/08/19						
NO2+NO3 as N	953	83	200	ug/l	1000		95	90-110			
MRL Check (W9A0267-MRL1)					Prepared & Analyzed: 01/07/19						
NO2+NO3 as N	955	83	200	ug/l	1000		96	0-200			
MRL Check (W9A0267-MRL2)					Prepared & Analyzed: 01/07/19						
NO2+NO3 as N	968	83	200	ug/l	1000		97	0-200			
MRL Check (W9A0267-MRL3)					Prepared & Analyzed: 01/07/19						
NO2+NO3 as N	944	83	200	ug/l	1000		94	0-200			
MRL Check (W9A0267-MRL4)					Prepared & Analyzed: 01/07/19						
NO2+NO3 as N	973	83	200	ug/l	1000		97	0-200			
Matrix Spike (W9A0267-MS1)					Source: 9A07040-01 Prepared & Analyzed: 01/07/19						
NO2+NO3 as N	1940	83	200	ug/l	2000	ND	97	90-110			
Matrix Spike (W9A0267-MS2)					Source: 9A07032-21 Prepared: 01/07/19 Analyzed: 01/08/19						
NO2+NO3 as N	10100	170	400	ug/l	4000	6280	95	90-110			
Matrix Spike Dup (W9A0267-MSD1)					Source: 9A07040-01 Prepared & Analyzed: 01/07/19						
NO2+NO3 as N	1930	83	200	ug/l	2000	ND	96	90-110	0.5	20	
Matrix Spike Dup (W9A0267-MSD2)					Source: 9A07032-21 Prepared: 01/07/19 Analyzed: 01/08/19						
NO2+NO3 as N	10000	170	400	ug/l	4000	6280	94	90-110	0.6	20	
Batch: W9A0268 - EPA 180.1											
Blank (W9A0268-BLK1)					Prepared & Analyzed: 01/07/19						
Turbidity	ND	0.024	0.10	NTU							
LCS (W9A0268-BS1)					Prepared & Analyzed: 01/07/19						
Turbidity	10.0	0.024	0.10	NTU	10.0		100	90-110			
Duplicate (W9A0268-DUP1)					Source: 9A06018-01 Prepared & Analyzed: 01/07/19						
Turbidity	135	0.48	2.0	NTU		135			0.1	10	
Batch: W9A0270 - SM 5210B											
Blank (W9A0270-BLK1)					Prepared: 01/07/19 Analyzed: 01/12/19						
Biochemical Oxygen Demand	ND	2.0	2.0	mg/l							
Blank (W9A0270-BLK2)					Prepared: 01/07/19 Analyzed: 01/12/19						
Biochemical Oxygen Demand	ND	2.0	2.0	mg/l							
LCS (W9A0270-BS1)					Prepared: 01/07/19 Analyzed: 01/12/19						
Biochemical Oxygen Demand	214	2.0	2.0	mg/l	198		108	85-115			

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Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0270 - SM 5210B (Continued)											
Duplicate (W9A0270-DUP1)	Source: 9A07018-01					Prepared: 01/07/19 Analyzed: 01/12/19					
Biochemical Oxygen Demand	12.4	2.0	2.0	mg/l		8.61			36	20	R-02
Duplicate (W9A0270-DUP2)	Source: 9A07019-03					Prepared: 01/07/19 Analyzed: 01/12/19					
Biochemical Oxygen Demand	17.6	2.0	2.0	mg/l		15.4			13	20	
Batch: W9A0273 - SM 5540C											
Blank (W9A0273-BLK1)						Prepared & Analyzed: 01/07/19					
MBAS	ND	0.019	0.050	mg/l							
LCS (W9A0273-BS1)						Prepared & Analyzed: 01/07/19					
MBAS	0.197	0.019	0.050	mg/l	0.200		98	82-115			
Matrix Spike (W9A0273-MS1)	Source: 9A07018-03					Prepared & Analyzed: 01/07/19					
MBAS	0.410	0.019	0.050	mg/l	0.200	0.188	111	74-123			
Matrix Spike Dup (W9A0273-MSD1)	Source: 9A07018-03					Prepared & Analyzed: 01/07/19					
MBAS	0.396	0.019	0.050	mg/l	0.200	0.188	104	74-123	3	20	
Batch: W9A0328 - SM 2320B											
Blank (W9A0328-BLK1)						Prepared: 01/07/19 Analyzed: 01/11/19					
Alkalinity as CaCO3	0.770	0.56	2.0	mg/l							J
LCS (W9A0328-BS1)						Prepared: 01/07/19 Analyzed: 01/11/19					
Alkalinity as CaCO3	255	0.56	2.0	mg/l	250		102	94-108			
Duplicate (W9A0328-DUP1)	Source: 9A06018-01					Prepared: 01/07/19 Analyzed: 01/11/19					
Alkalinity as CaCO3	107	0.56	2.0	mg/l		107			0	15	
Batch: W9A0370 - EPA 335.4											
Blank (W9A0370-BLK1)						Prepared: 01/08/19 Analyzed: 01/09/19					
Cyanide, Total	ND	2.7	5.0	ug/l							
LCS (W9A0370-BS1)						Prepared: 01/08/19 Analyzed: 01/09/19					
Cyanide, Total	106	2.7	5.0	ug/l	100		106	90-110			
Matrix Spike (W9A0370-MS1)	Source: 8L31007-01					Prepared: 01/08/19 Analyzed: 01/09/19					
Cyanide, Total	132	2.7	5.0	ug/l	200	ND	66	90-110			MS-01
Matrix Spike (W9A0370-MS2)	Source: 8L31007-01					Prepared: 01/08/19 Analyzed: 01/30/19					
Cyanide, Total	650	14	25	ug/l	1000	ND	65	90-110			MS-03
Matrix Spike Dup (W9A0370-MSD1)	Source: 8L31007-01					Prepared: 01/08/19 Analyzed: 01/09/19					
Cyanide, Total	136	2.7	5.0	ug/l	200	ND	68	90-110	3	20	MS-01
Matrix Spike Dup (W9A0370-MSD2)	Source: 8L31007-01					Prepared: 01/08/19 Analyzed: 01/30/19					
Cyanide, Total	665	14	25	ug/l	1000	ND	66	90-110	2	20	MS-03
Batch: W9A0383 - EPA 160.4											
Blank (W9A0383-BLK1)						Prepared & Analyzed: 01/08/19					
Volatile Suspended Solids	ND	3.1	5.0	mg/l							
LCS (W9A0383-BS1)						Prepared & Analyzed: 01/08/19					
Volatile Suspended Solids	47	3.1	5.0	mg/l	43.4		108	90-110			



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Project Manager: Edmond G. Suher

Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0383 - EPA 160.4 (Continued)											
Duplicate (W9A0383-DUP1)	Source: 9A06018-03				Prepared & Analyzed: 01/08/19						
Volatile Suspended Solids	ND	3.1	5.0	mg/l		ND				15	
Duplicate (W9A0383-DUP2)	Source: 9A07099-03				Prepared & Analyzed: 01/08/19						
Volatile Suspended Solids	ND	3.1	5.0	mg/l		4.0			200	15	R-03
Batch: W9A0384 - SM 2540C											
Blank (W9A0384-BLK1)					Prepared: 01/08/19 Analyzed: 01/10/19						
Total Dissolved Solids	ND	4.0	10	mg/l							
LCS (W9A0384-BS1)					Prepared: 01/08/19 Analyzed: 01/10/19						
Total Dissolved Solids	831	4.0	10	mg/l		824	101	96-102			
Duplicate (W9A0384-DUP1)	Source: 9A06018-02				Prepared: 01/08/19 Analyzed: 01/10/19						
Total Dissolved Solids	1010	4.0	10	mg/l		975			3	10	
Duplicate (W9A0384-DUP2)	Source: 9A06018-14				Prepared: 01/08/19 Analyzed: 01/10/19						
Total Dissolved Solids	2820	4.0	10	mg/l		2940			4	10	
Batch: W9A0385 - SM 2540D											
Blank (W9A0385-BLK1)					Prepared & Analyzed: 01/08/19						
Total Suspended Solids	ND		5	mg/l							
LCS (W9A0385-BS1)					Prepared & Analyzed: 01/08/19						
Total Suspended Solids	67.0		5	mg/l		61.0	110	90-110			
Duplicate (W9A0385-DUP1)	Source: 9A06018-03				Prepared & Analyzed: 01/08/19						
Total Suspended Solids	4.00		5	mg/l		4.00			0	20	J
Duplicate (W9A0385-DUP2)	Source: 9A07099-03				Prepared & Analyzed: 01/08/19						
Total Suspended Solids	14.0		5	mg/l		13.0			7	20	
Batch: W9A0407 - EPA 351.2											
Blank (W9A0407-BLK1)					Prepared: 01/08/19 Analyzed: 01/10/19						
TKN	ND	0.050	0.10	mg/l							
Blank (W9A0407-BLK2)					Prepared: 01/08/19 Analyzed: 01/10/19						
TKN	ND	0.050	0.10	mg/l							
LCS (W9A0407-BS1)					Prepared: 01/08/19 Analyzed: 01/10/19						
TKN	0.984	0.050	0.10	mg/l		1.00	98	90-110			
LCS (W9A0407-BS2)					Prepared: 01/08/19 Analyzed: 01/10/19						
TKN	0.937	0.050	0.10	mg/l		1.00	94	90-110			
Duplicate (W9A0407-DUP1)	Source: 9A07096-01				Prepared: 01/08/19 Analyzed: 01/10/19						
TKN	0.501	0.050	0.10	mg/l		0.506			0.8	10	
Matrix Spike (W9A0407-MS1)	Source: 8L20063-15				Prepared: 01/08/19 Analyzed: 01/10/19						
TKN	1.21	0.050	0.10	mg/l		1.00	0.180	103	90-110		
Matrix Spike (W9A0407-MS2)	Source: 8L20063-16				Prepared: 01/08/19 Analyzed: 01/10/19						
TKN	1.21	0.050	0.10	mg/l		1.00	0.180	103	90-110		
Matrix Spike Dup (W9A0407-MSD1)	Source: 8L20063-15				Prepared: 01/08/19 Analyzed: 01/10/19						

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Project Manager: Edmond G. Suher

Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W9A0407 - EPA 351.2 (Continued)											
Matrix Spike Dup (W9A0407-MSD1)	Source: 8L20063-15				Prepared: 01/08/19		Analyzed: 01/10/19				
TKN	1.17	0.050	0.10	mg/l	1.00	0.180	99	90-110	4	10	
Matrix Spike Dup (W9A0407-MSD2)	Source: 8L20063-16				Prepared: 01/08/19		Analyzed: 01/10/19				
TKN	1.22	0.050	0.10	mg/l	1.00	0.180	104	90-110	0.8	10	
Batch: W9A0547 - SM 2510B											
Blank (W9A0547-BLK1)					Prepared & Analyzed: 01/10/19						
Specific Conductance (EC)	ND	0.23	2.0	umhos/cm							
LCS (W9A0547-BS1)					Prepared & Analyzed: 01/10/19						
Specific Conductance (EC)	295	0.23	2.0	umhos/cm	309		95	95-105			
Duplicate (W9A0547-DUP1)	Source: 9A07017-03				Prepared & Analyzed: 01/10/19						
Specific Conductance (EC)	66.3	0.23	2.0	umhos/cm		66.2			0.2	5	
Batch: W9A0666 - EPA 350.1											
Blank (W9A0666-BLK1)					Prepared: 01/12/19 Analyzed: 01/15/19						
Ammonia as N	ND	0.048	0.10	mg/l							
Blank (W9A0666-BLK2)					Prepared: 01/12/19 Analyzed: 01/15/19						
Ammonia as N	ND	0.048	0.10	mg/l							
LCS (W9A0666-BS1)					Prepared: 01/12/19 Analyzed: 01/15/19						
Ammonia as N	0.235	0.048	0.10	mg/l	0.250		94	90-110			
LCS (W9A0666-BS2)					Prepared: 01/12/19 Analyzed: 01/15/19						
Ammonia as N	0.231	0.048	0.10	mg/l	0.250		92	90-110			
Matrix Spike (W9A0666-MS1)	Source: 9A04001-01				Prepared: 01/12/19 Analyzed: 01/15/19						
Ammonia as N	0.239	0.048	0.10	mg/l	0.250	ND	96	90-110			
Matrix Spike (W9A0666-MS2)	Source: 9A07040-01				Prepared: 01/12/19 Analyzed: 01/15/19						
Ammonia as N	0.246	0.048	0.10	mg/l	0.250	ND	98	90-110			
Matrix Spike Dup (W9A0666-MSD1)	Source: 9A04001-01				Prepared: 01/12/19 Analyzed: 01/15/19						
Ammonia as N	0.239	0.048	0.10	mg/l	0.250	ND	96	90-110	0.05	15	
Matrix Spike Dup (W9A0666-MSD2)	Source: 9A07040-01				Prepared: 01/12/19 Analyzed: 01/15/19						
Ammonia as N	0.249	0.048	0.10	mg/l	0.250	ND	99	90-110	1	15	
Batch: W9A0933 - EPA 410.4											
Blank (W9A0933-BLK1)					Prepared: 01/16/19 Analyzed: 01/25/19						
Chemical Oxygen Demand	ND	0.73	5.0	mg/l							
LCS (W9A0933-BS1)					Prepared: 01/16/19 Analyzed: 01/25/19						
Chemical Oxygen Demand	922	0.73	5.0	mg/l	1000		92	90-110			
Duplicate (W9A0933-DUP1)	Source: 9A07017-02				Prepared: 01/16/19 Analyzed: 01/25/19						
Chemical Oxygen Demand	80.4	0.73	5.0	mg/l		78.5			2	15	
Matrix Spike (W9A0933-MS1)	Source: 9A07018-02				Prepared: 01/16/19 Analyzed: 01/25/19						
Chemical Oxygen Demand	215	2.9	20	mg/l	200	18.5	98	90-110			
Matrix Spike (W9A0933-MS2)	Source: 9A09126-01				Prepared: 01/16/19 Analyzed: 01/25/19						

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Quality Control Results

(Continued)

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W9A0933 - EPA 410.4 (Continued)											
Matrix Spike (W9A0933-MS2)			Source: 9A09126-01			Prepared: 01/16/19 Analyzed: 01/25/19					
Chemical Oxygen Demand	2730	2.9	20	mg/l	2000	690	102	90-110			
Matrix Spike Dup (W9A0933-MSD1)			Source: 9A07018-02			Prepared: 01/16/19 Analyzed: 01/25/19					
Chemical Oxygen Demand	214	2.9	20	mg/l	200	18.5	98	90-110	0.3	15	
Matrix Spike Dup (W9A0933-MSD2)			Source: 9A09126-01			Prepared: 01/16/19 Analyzed: 01/25/19					
Chemical Oxygen Demand	2690	2.9	20	mg/l	2000	690	100	90-110	2	15	
Batch: W9A1219 - EPA 420.4											
Blank (W9A1219-BLK1)			Prepared: 01/22/19 Analyzed: 02/02/19								
Phenolics	ND	0.0042	0.010	mg/l							
LCS (W9A1219-BS1)			Prepared: 01/22/19 Analyzed: 02/02/19								
Phenolics	0.0936	0.0042	0.010	mg/l	0.100		94	90-110			
Matrix Spike (W9A1219-MS1)			Source: 9A07018-01			Prepared: 01/22/19 Analyzed: 02/02/19					
Phenolics	0.239	0.0042	0.010	mg/l	0.250	ND	96	90-110			
Matrix Spike Dup (W9A1219-MSD1)			Source: 9A07018-01			Prepared: 01/22/19 Analyzed: 02/02/19					
Phenolics	0.241	0.0042	0.010	mg/l	0.250	ND	96	90-110	0.7	20	



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Quality Control Results

(Continued)

Hexavalent Chromium by IC

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0797 - EPA 218.6											
Blank (W9A0797-BLK1)					Prepared & Analyzed: 01/15/19						
Chromium 6+	ND	0.0048	0.020	ug/l							
LCS (W9A0797-BS1)					Prepared & Analyzed: 01/15/19						
Chromium 6+	4.79	0.0048	0.020	ug/l	5.00		96	90-110			
Matrix Spike (W9A0797-MS1)					Prepared & Analyzed: 01/15/19						
Chromium 6+	16.2	0.0048	0.020	ug/l	5.00	11.2	101	88-112			
Matrix Spike (W9A0797-MS2)					Prepared & Analyzed: 01/15/19						
Chromium 6+	5.85	0.0048	0.020	ug/l	5.00	0.758	102	88-112			
Matrix Spike Dup (W9A0797-MSD1)					Prepared & Analyzed: 01/15/19						
Chromium 6+	16.3	0.0048	0.020	ug/l	5.00	11.2	103	88-112	0.5	10	
Matrix Spike Dup (W9A0797-MSD2)					Prepared & Analyzed: 01/15/19						
Chromium 6+	5.66	0.0048	0.020	ug/l	5.00	0.758	98	88-112	3	10	
Batch: W9A0935 - EPA 218.6											
Blank (W9A0935-BLK1)					Prepared & Analyzed: 01/16/19						
Chromium 6+, Dissolved	ND	0.0048	0.020	ug/l							
LCS (W9A0935-BS1)					Prepared & Analyzed: 01/16/19						
Chromium 6+, Dissolved	5.03	0.0048	0.020	ug/l	5.00		101	90-110			
Matrix Spike (W9A0935-MS1)					Prepared & Analyzed: 01/16/19						
Chromium 6+, Dissolved	5.43	0.0048	0.020	ug/l	5.00	0.377	101	88-112			
Matrix Spike (W9A0935-MS2)					Prepared & Analyzed: 01/16/19						
Chromium 6+, Dissolved	5.37	0.0048	0.020	ug/l	5.00	0.199	103	88-112			
Matrix Spike Dup (W9A0935-MSD1)					Prepared & Analyzed: 01/16/19						
Chromium 6+, Dissolved	5.44	0.0048	0.020	ug/l	5.00	0.377	101	88-112	0.06	10	
Matrix Spike Dup (W9A0935-MSD2)					Prepared & Analyzed: 01/16/19						
Chromium 6+, Dissolved	5.36	0.0048	0.020	ug/l	5.00	0.199	103	88-112	0.2	10	



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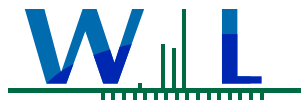
Project Manager: Edmond G. Suher

Quality Control Results

(Continued)

Hydrocarbons by GC/FID

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W9A0456 - EPA 8015B											
Blank (W9A0456-BLK1)						Prepared: 01/09/19 Analyzed: 01/22/19					
Diesel Range Organics	0.0691	0.024	0.10	mg/l							J
Oil Range Organics	ND	0.33	0.50	mg/l							
<i>Surrogate(s)</i>											
<i>n-Tetracosane</i>	0.261			mg/l	0.250		104	64-155			
LCS (W9A0456-BS1)						Prepared: 01/09/19 Analyzed: 01/22/19					
Diesel Range Organics	0.430	0.024	0.10	mg/l	0.500		86	56-136			
<i>Surrogate(s)</i>											
<i>n-Tetracosane</i>	0.273			mg/l	0.250		109	64-155			
Matrix Spike (W9A0456-MS1)						Source: 9A04001-01 Prepared: 01/09/19 Analyzed: 01/22/19					
Diesel Range Organics	0.447	0.024	0.10	mg/l	0.500	0.0636	77	70-130			
<i>Surrogate(s)</i>											
<i>n-Tetracosane</i>	0.267			mg/l	0.250		107	64-155			
Matrix Spike Dup (W9A0456-MSD1)						Source: 9A04001-01 Prepared: 01/09/19 Analyzed: 01/22/19					
Diesel Range Organics	0.426	0.024	0.10	mg/l	0.500	0.0636	72	70-130	5	25	
<i>Surrogate(s)</i>											
<i>n-Tetracosane</i>	0.243			mg/l	0.250		97	64-155			
Batch: W9A0602 - EPA 8015B											
Blank (W9A0602-BLK1)						Prepared: 01/11/19 Analyzed: 01/18/19					
Diesel Range Organics	0.0512	0.024	0.10	mg/l							J
Oil Range Organics	ND	0.33	0.50	mg/l							
<i>Surrogate(s)</i>											
<i>n-Tetracosane</i>	0.250			mg/l	0.250		100	64-155			
LCS (W9A0602-BS1)						Prepared: 01/11/19 Analyzed: 01/18/19					
Diesel Range Organics	0.392	0.024	0.10	mg/l	0.500		78	56-136			
<i>Surrogate(s)</i>											
<i>n-Tetracosane</i>	0.267			mg/l	0.250		107	64-155			
LCS Dup (W9A0602-BSD1)						Prepared: 01/11/19 Analyzed: 01/18/19					
Diesel Range Organics	0.410	0.024	0.10	mg/l	0.500		82	56-136	5	25	
<i>Surrogate(s)</i>											
<i>n-Tetracosane</i>	0.262			mg/l	0.250		105	64-155			



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Project Manager: Edmond G. Suher

Quality Control Results

(Continued)

Mercury - Low Level by CVAFS

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0284 - EPA 1631E											
Blank (W9A0284-BLK1)						Prepared & Analyzed: 01/07/19					
Mercury, Dissolved	ND	0.31	0.50	ng/l							
Mercury, Total	ND	0.31	0.50	ng/l							
Blank (W9A0284-BLK2)						Prepared & Analyzed: 01/07/19					
Mercury, Dissolved	ND	0.31	0.50	ng/l							
LCS (W9A0284-BS1)						Prepared & Analyzed: 01/07/19					
Mercury, Dissolved	4.80	0.31	0.50	ng/l	5.00		96	85-115			
Mercury, Total	4.80	0.31	0.50	ng/l	5.00		96	85-115			
LCS Dup (W9A0284-BSD1)						Prepared & Analyzed: 01/07/19					
Mercury, Dissolved	5.23	0.31	0.50	ng/l	5.00		105	85-115	9	20	
Mercury, Total	5.23	0.31	0.50	ng/l	5.00		105	85-115	9	20	
Matrix Spike (W9A0284-MS1)						Source: 9A07018-01					
Mercury, Total	9.37	0.31	0.50	ng/l	5.00	4.48	98	75-125			
Matrix Spike (W9A0284-MS2)						Source: 9A07018-02					
Mercury, Total	11.9	0.31	0.50	ng/l	5.00	7.03	97	75-125			
Matrix Spike Dup (W9A0284-MSD1)						Source: 9A07018-01					
Mercury, Total	9.62	0.31	0.50	ng/l	5.00	4.48	103	75-125	3	20	
Matrix Spike Dup (W9A0284-MSD2)						Source: 9A07018-02					
Mercury, Total	11.8	0.31	0.50	ng/l	5.00	7.03	95	75-125	0.8	20	

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Quality Control Results

(Continued)

Metals by EPA 200 Series Methods

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W9A0365 - EPA 200.8											
Blank (W9A0365-BLK1)						Prepared: 01/08/19 Analyzed: 01/15/19					
Aluminum, Dissolved	ND	1.3	5.0	ug/l							
Aluminum, Total	ND	1.3	5.0	ug/l							
Antimony, Dissolved	0.0573	0.045	0.50	ug/l							J
Antimony, Total	ND	0.045	0.50	ug/l							
Arsenic, Dissolved	ND	0.074	0.40	ug/l							
Arsenic, Total	ND	0.074	0.40	ug/l							
Cadmium, Dissolved	ND	0.041	0.10	ug/l							
Cadmium, Total	ND	0.041	0.10	ug/l							
Chromium, Dissolved	ND	0.035	0.20	ug/l							
Chromium, Total	0.0378	0.035	0.20	ug/l							J
Copper, Dissolved	ND	0.13	0.50	ug/l							
Copper, Total	ND	0.13	0.50	ug/l							
Iron, Dissolved	ND	0.91	20	ug/l							
Iron, Total	1.52	0.91	20	ug/l							J
Lead, Dissolved	ND	0.031	0.20	ug/l							
Lead, Total	ND	0.031	0.20	ug/l							
Nickel, Dissolved	0.0990	0.045	0.80	ug/l							J
Nickel, Total	ND	0.045	0.80	ug/l							
Zinc, Dissolved	ND	0.94	5.0	ug/l							
Zinc, Total	ND	0.94	5.0	ug/l							
LCS (W9A0365-BS1)						Prepared: 01/08/19 Analyzed: 01/15/19					
Aluminum, Dissolved	51.2	1.3	5.0	ug/l	49.9		103	85-115			
Aluminum, Total	51.2	1.3	5.0	ug/l	49.9		103	85-115			
Antimony, Dissolved	49.7	0.045	0.50	ug/l	49.9		100	85-115			
Antimony, Total	49.7	0.045	0.50	ug/l	49.9		100	85-115			
Arsenic, Dissolved	50.3	0.074	0.40	ug/l	49.9		101	85-115			
Arsenic, Total	50.3	0.074	0.40	ug/l	49.9		101	85-115			
Cadmium, Dissolved	50.2	0.041	0.10	ug/l	49.9		100	85-115			
Cadmium, Total	50.2	0.041	0.10	ug/l	49.9		100	85-115			
Chromium, Dissolved	48.6	0.035	0.20	ug/l	49.9		97	85-115			
Chromium, Total	48.6	0.035	0.20	ug/l	49.9		97	85-115			
Copper, Dissolved	51.0	0.13	0.50	ug/l	49.9		102	85-115			
Copper, Total	51.0	0.13	0.50	ug/l	49.9		102	85-115			
Iron, Dissolved	1060	0.91	20	ug/l	1050		101	85-115			
Iron, Total	1060	0.91	20	ug/l	1050		101	85-115			
Lead, Dissolved	50.4	0.031	0.20	ug/l	49.9		101	85-115			
Lead, Total	50.4	0.031	0.20	ug/l	49.9		101	85-115			
Nickel, Dissolved	50.1	0.045	0.80	ug/l	49.9		100	85-115			
Nickel, Total	50.1	0.045	0.80	ug/l	49.9		100	85-115			



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Project Manager: Edmond G. Suher

Quality Control Results

(Continued)

Metals by EPA 200 Series Methods (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0365 - EPA 200.8 (Continued)											
LCS (W9A0365-BS1)					Prepared: 01/08/19 Analyzed: 01/15/19						
Zinc, Dissolved	56.1	0.94	5.0	ug/l	49.9		112	85-115			
Zinc, Total	56.1	0.94	5.0	ug/l	49.9		112	85-115			
Matrix Spike (W9A0365-MS1)					Source: 9A07018-01 Prepared: 01/08/19 Analyzed: 01/15/19						
Aluminum, Total	296	1.3	5.0	ug/l	49.9	244	104	70-130			
Antimony, Total	56.1	0.045	0.50	ug/l	49.9	6.71	99	70-130			
Arsenic, Total	51.3	0.074	0.40	ug/l	49.9	0.709	101	70-130			
Cadmium, Total	49.1	0.041	0.10	ug/l	49.9	ND	98	70-130			
Chromium, Total	49.6	0.035	0.20	ug/l	49.9	0.641	98	70-130			
Copper, Total	56.0	0.13	0.50	ug/l	49.9	5.96	100	70-130			
Iron, Total	1360	0.91	20	ug/l	1050	292	102	70-130			
Lead, Total	49.7	0.031	0.20	ug/l	49.9	0.699	98	70-130			
Nickel, Total	50.8	0.045	0.80	ug/l	49.9	1.29	99	70-130			
Zinc, Total	110	0.94	5.0	ug/l	49.9	55.1	110	70-130			
Matrix Spike (W9A0365-MS2)					Source: 9A07018-02 Prepared: 01/08/19 Analyzed: 01/15/19						
Aluminum, Total	126	1.3	5.0	ug/l	49.9	75.9	101	70-130			
Antimony, Total	50.9	0.045	0.50	ug/l	49.9	1.07	100	70-130			
Arsenic, Total	51.4	0.074	0.40	ug/l	49.9	1.38	100	70-130			
Cadmium, Total	49.7	0.041	0.10	ug/l	49.9	0.153	99	70-130			
Chromium, Total	50.0	0.035	0.20	ug/l	49.9	0.744	99	70-130			
Copper, Total	58.8	0.13	0.50	ug/l	49.9	8.71	100	70-130			
Iron, Total	1210	0.91	20	ug/l	1050	126	103	70-130			
Lead, Total	50.5	0.031	0.20	ug/l	49.9	0.867	99	70-130			
Nickel, Total	53.1	0.045	0.80	ug/l	49.9	3.36	100	70-130			
Zinc, Total	148	0.94	5.0	ug/l	49.9	92.1	112	70-130			
Matrix Spike Dup (W9A0365-MSD1)					Source: 9A07018-01 Prepared: 01/08/19 Analyzed: 01/15/19						
Aluminum, Total	293	1.3	5.0	ug/l	49.9	244	97	70-130	1	30	
Antimony, Total	56.4	0.045	0.50	ug/l	49.9	6.71	99	70-130	0.5	30	
Arsenic, Total	51.9	0.074	0.40	ug/l	49.9	0.709	102	70-130	1	30	
Cadmium, Total	50.5	0.041	0.10	ug/l	49.9	ND	101	70-130	3	30	
Chromium, Total	50.0	0.035	0.20	ug/l	49.9	0.641	99	70-130	0.8	30	
Copper, Total	56.5	0.13	0.50	ug/l	49.9	5.96	101	70-130	0.8	30	
Iron, Total	1360	0.91	20	ug/l	1050	292	102	70-130	0.06	30	
Lead, Total	51.7	0.031	0.20	ug/l	49.9	0.699	102	70-130	4	30	
Nickel, Total	51.5	0.045	0.80	ug/l	49.9	1.29	101	70-130	1	30	
Zinc, Total	110	0.94	5.0	ug/l	49.9	55.1	110	70-130	0.002	30	
Matrix Spike Dup (W9A0365-MSD2)					Source: 9A07018-02 Prepared: 01/08/19 Analyzed: 01/15/19						
Aluminum, Total	125	1.3	5.0	ug/l	49.9	75.9	98	70-130	1	30	
Antimony, Total	50.5	0.045	0.50	ug/l	49.9	1.07	99	70-130	0.7	30	
Arsenic, Total	51.8	0.074	0.40	ug/l	49.9	1.38	101	70-130	0.9	30	

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Project Manager: Edmond G. Suher

Quality Control Results

(Continued)

Metals by EPA 200 Series Methods (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0365 - EPA 200.8 (Continued)											
Matrix Spike Dup (W9A0365-MSD2)	Source: 9A07018-02				Prepared: 01/08/19		Analyzed: 01/15/19				
Cadmium, Total	49.3	0.041	0.10	ug/l	49.9	0.153	98	70-130	0.9	30	
Chromium, Total	49.9	0.035	0.20	ug/l	49.9	0.744	99	70-130	0.2	30	
Copper, Total	58.5	0.13	0.50	ug/l	49.9	8.71	100	70-130	0.5	30	
Iron, Total	1200	0.91	20	ug/l	1050	126	102	70-130	0.8	30	
Lead, Total	49.2	0.031	0.20	ug/l	49.9	0.867	97	70-130	3	30	
Nickel, Total	52.9	0.045	0.80	ug/l	49.9	3.36	99	70-130	0.4	30	
Zinc, Total	148	0.94	5.0	ug/l	49.9	92.1	111	70-130	0.3	30	
Batch: W9A0366 - EPA 200.7											
Blank (W9A0366-BLK1)					Prepared: 01/08/19		Analyzed: 01/16/19				
Calcium, Total	ND	0.0160	0.100	mg/l							
LCS (W9A0366-BS1)					Prepared: 01/08/19		Analyzed: 01/16/19				
Calcium, Total	48.6	0.0160	0.100	mg/l	50.0		97	85-115			
Matrix Spike (W9A0366-MS1)	Source: 9A07018-03				Prepared: 01/08/19		Analyzed: 01/16/19				
Calcium, Total	54.9	0.0160	0.100	mg/l	50.0	6.10	98	70-130			
Matrix Spike Dup (W9A0366-MSD1)	Source: 9A07018-03				Prepared: 01/08/19		Analyzed: 01/16/19				
Calcium, Total	55.4	0.0160	0.100	mg/l	50.0	6.10	99	70-130	0.9	30	
Batch: W9A0754 - EPA 200.7											
Blank (W9A0754-BLK1)					Prepared: 01/14/19		Analyzed: 01/17/19				
Phosphorus, Dissolved	ND	0.012	0.020	mg/l							
Phosphorus, Total	ND	0.012	0.020	mg/l							
Blank (W9A0754-BLK2)					Prepared: 01/14/19		Analyzed: 01/17/19				
Phosphorus, Dissolved	ND	0.012	0.020	mg/l							
Blank (W9A0754-BLK3)					Prepared: 01/14/19		Analyzed: 01/17/19				
Phosphorus, Dissolved	ND	0.012	0.020	mg/l							
LCS (W9A0754-BS1)					Prepared: 01/14/19		Analyzed: 01/17/19				
Phosphorus, Dissolved	1.01	0.012	0.020	mg/l	1.00		101	85-115			
Phosphorus, Total	1.01	0.012	0.020	mg/l	1.00		101	85-115			
Matrix Spike (W9A0754-MS1)	Source: 9A07019-03				Prepared: 01/14/19		Analyzed: 01/17/19				
Phosphorus, Dissolved	1.21	0.012	0.020	mg/l	1.00	0.139	107	70-130			
Phosphorus, Total	1.21	0.012	0.020	mg/l	1.00	0.185	103	70-130			
Matrix Spike (W9A0754-MS2)	Source: 9A07019-02				Prepared: 01/14/19		Analyzed: 01/17/19				
Phosphorus, Dissolved	1.40	0.012	0.020	mg/l	1.00	0.241	116	70-130			
Phosphorus, Total	1.40	0.012	0.020	mg/l	1.00	0.312	109	70-130			
Matrix Spike Dup (W9A0754-MSD1)	Source: 9A07019-03				Prepared: 01/14/19		Analyzed: 01/17/19				
Phosphorus, Dissolved	1.21	0.012	0.020	mg/l	1.00	0.139	107	70-130	0.2	30	
Phosphorus, Total	1.21	0.012	0.020	mg/l	1.00	0.185	103	70-130	0.2	30	
Matrix Spike Dup (W9A0754-MSD2)	Source: 9A07019-02				Prepared: 01/14/19		Analyzed: 01/17/19				
Phosphorus, Dissolved	1.40	0.012	0.020	mg/l	1.00	0.241	115	70-130	0.7	30	

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Quality Control Results

(Continued)

Metals by EPA 200 Series Methods (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
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Batch: W9A0754 - EPA 200.7 (Continued)

Matrix Spike Dup (W9A0754-MSD2)

Source: 9A07019-02

Prepared: 01/14/19 Analyzed: 01/17/19

Phosphorus, Total	1.40	0.012	0.020	mg/l	1.00	0.312	108	70-130	0.7	30	
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Quality Control Results

(Continued)

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
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Batch: W9A0968 - SM 9221F

Blank (W9A0968-BLK4)

Prepared: 01/09/19 Analyzed: 01/15/19

E. coli	ND		1.8	MPN/100ml							
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Blank (W9A0968-BLK7)

Prepared: 01/06/19 Analyzed: 01/12/19

E. coli	ND		1.8	MPN/100ml							
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Blank (W9A0968-BLK8)

Prepared: 01/06/19 Analyzed: 01/12/19

E. coli	ND		1.8	MPN/100ml							
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Quality Control Results

(Continued)

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
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Batch: W9A0611 - EPA 625.1

Blank (W9A0611-BLK1)

Prepared: 01/11/19 Analyzed: 01/23/19

1-Methylnaphthalene	ND	0.56	5.0	ng/l							
1-Methylphenanthrene	ND	0.98	5.0	ng/l							
2,6-Dimethylnaphthalene	ND	0.65	5.0	ng/l							
2-Methylnaphthalene	ND	0.82	5.0	ng/l							
Acenaphthene	ND	0.43	5.0	ng/l							
Acenaphthylene	ND	0.52	5.0	ng/l							
Anthracene	ND	0.91	5.0	ng/l							
Benzo (a) anthracene	ND	0.79	5.0	ng/l							
Benzo (a) pyrene	ND	0.58	5.0	ng/l							
Benzo (b) fluoranthene	ND	1.6	5.0	ng/l							
Benzo (e) pyrene	ND	0.95	5.0	ng/l							
Benzo (g,h,i) perylene	ND	0.90	5.0	ng/l							
Benzo (k) fluoranthene	ND	0.52	5.0	ng/l							
Biphenyl	ND	0.49	5.0	ng/l							
Chrysene	ND	0.52	5.0	ng/l							
Dibenzo (a,h) anthracene	ND	1.2	5.0	ng/l							
Fluoranthene	1.86	1.3	5.0	ng/l							J
Fluorene	ND	0.75	5.0	ng/l							
Indeno (1,2,3-cd) pyrene	ND	0.99	5.0	ng/l							
Naphthalene	ND	0.53	5.0	ng/l							
Perylene	ND	3.0	5.0	ng/l							
Phenanthrene	2.56	0.96	5.0	ng/l							J
Pyrene	ND	0.68	5.0	ng/l							

Surrogate(s)

1,3-Dimethyl-2-nitrobenzene	87.8			ng/l	100		88	50-150			
Perylene-d12	60.5			ng/l	100		61	50-150			

LCS (W9A0611-BS1)

Prepared: 01/11/19 Analyzed: 01/23/19

Acenaphthene	35.7	0.43	5.0	ng/l	50.0		71	50-150			
Acenaphthylene	36.9	0.52	5.0	ng/l	50.0		74	50-150			
Anthracene	34.9	0.91	5.0	ng/l	50.0		70	50-150			
Benzo (a) anthracene	34.3	0.79	5.0	ng/l	50.0		69	50-150			
Benzo (a) pyrene	31.8	0.58	5.0	ng/l	50.0		64	50-150			
Benzo (b) fluoranthene	32.6	1.6	5.0	ng/l	50.0		65	50-150			
Benzo (g,h,i) perylene	21.4	0.90	5.0	ng/l	50.0		43	50-150			Q-02
Benzo (k) fluoranthene	31.1	0.52	5.0	ng/l	50.0		62	50-150			
Chrysene	31.7	0.52	5.0	ng/l	50.0		63	50-150			
Dibenzo (a,h) anthracene	21.8	1.2	5.0	ng/l	50.0		44	50-150			BS-03
Fluoranthene	34.8	1.3	5.0	ng/l	50.0		70	50-150			
Fluorene	36.0	0.75	5.0	ng/l	50.0		72	50-150			



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Quality Control Results

(Continued)

Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0611 - EPA 625.1 (Continued)											
LCS (W9A0611-BS1)											
Prepared: 01/11/19 Analyzed: 01/23/19											
Indeno (1,2,3-cd) pyrene	25.0	0.99	5.0	ng/l	50.0		50	50-150			
Naphthalene	38.3	0.53	5.0	ng/l	50.0		77	50-150			
Phenanthrene	36.2	0.96	5.0	ng/l	50.0		72	50-150			
Pyrene	35.2	0.68	5.0	ng/l	50.0		70	50-150			
<i>Surrogate(s)</i>											
1,3-Dimethyl-2-nitrobenzene	96.9			ng/l	100		97	50-150			
Perylene-d12	58.1			ng/l	100		58	50-150			
LCS Dup (W9A0611-BSD1)											
Prepared: 01/11/19 Analyzed: 01/23/19											
Acenaphthene	37.7	0.43	5.0	ng/l	50.0		75	50-150	5	30	
Acenaphthylene	38.3	0.52	5.0	ng/l	50.0		77	50-150	4	30	
Anthracene	41.3	0.91	5.0	ng/l	50.0		83	50-150	17	30	
Benzo (a) anthracene	37.5	0.79	5.0	ng/l	50.0		75	50-150	9	30	
Benzo (a) pyrene	30.1	0.58	5.0	ng/l	50.0		60	50-150	5	30	
Benzo (b) fluoranthene	31.4	1.6	5.0	ng/l	50.0		63	50-150	4	30	
Benzo (g,h,i) perylene	18.9	0.90	5.0	ng/l	50.0		38	50-150	13	30	Q-02
Benzo (k) fluoranthene	30.9	0.52	5.0	ng/l	50.0		62	50-150	0.6	30	
Chrysene	34.7	0.52	5.0	ng/l	50.0		69	50-150	9	30	
Dibenzo (a,h) anthracene	18.4	1.2	5.0	ng/l	50.0		37	50-150	17	30	BS-03
Fluoranthene	41.6	1.3	5.0	ng/l	50.0		83	50-150	18	30	
Fluorene	40.1	0.75	5.0	ng/l	50.0		80	50-150	11	30	
Indeno (1,2,3-cd) pyrene	20.8	0.99	5.0	ng/l	50.0		42	50-150	18	30	BS-03
Naphthalene	36.3	0.53	5.0	ng/l	50.0		73	50-150	5	30	
Phenanthrene	41.3	0.96	5.0	ng/l	50.0		83	50-150	13	30	
Pyrene	41.7	0.68	5.0	ng/l	50.0		83	50-150	17	30	
<i>Surrogate(s)</i>											
1,3-Dimethyl-2-nitrobenzene	80.7			ng/l	100		81	50-150			
Perylene-d12	48.6			ng/l	100		49	50-150			S-11
Matrix Spike (W9A0611-MS1)											
Source: 9A07024-06				Prepared: 01/11/19 Analyzed: 01/24/19							
Acenaphthene	381	8.6	100	ng/l	500	ND	76	50-150			M-02, M-04
Acenaphthylene	416	10	100	ng/l	500	ND	83	50-150			M-02, M-04
Anthracene	409	18	100	ng/l	500	ND	82	50-150			M-02, M-04
Benzo (a) anthracene	308	16	100	ng/l	500	ND	62	50-150			M-02, M-04
Benzo (a) pyrene	300	12	100	ng/l	500	ND	60	50-150			M-04, M-02
Benzo (b) fluoranthene	313	32	100	ng/l	500	ND	63	50-150			M-02, M-04
Benzo (g,h,i) perylene	297	18	100	ng/l	500	25.9	54	50-150			M-02, M-04
Benzo (k) fluoranthene	269	10	100	ng/l	500	25.8	49	50-150			M-02, M-04, M-04, M-02, M-04
Chrysene	240	10	100	ng/l	500	ND	48	50-150			M-02, M-04, M-04, M-02, M-04
Dibenzo (a,h) anthracene	323	24	100	ng/l	500	ND	65	50-150			M-02, M-04
Fluoranthene	419	26	100	ng/l	500	ND	84	50-150			M-02, M-04

9A07018

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WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: Irwindale SW Outfall Mon.

Reported:

02/07/2019 08:51

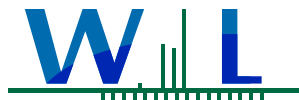
Project Manager: Edmond G. Suher

Quality Control Results

(Continued)

Semivolatile Organics - Low Level by Tandem GC/MS/MS (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W9A0611 - EPA 625.1 (Continued)											
Matrix Spike (W9A0611-MS1)			Source: 9A07024-06			Prepared: 01/11/19 Analyzed: 01/24/19					
Fluorene	414	15	100	ng/l	500	ND	83	50-150			M-02, M-04
Indeno (1,2,3-cd) pyrene	342	20	100	ng/l	500	ND	68	50-150			M-02, M-04
Naphthalene	387	11	100	ng/l	500	ND	77	50-150			M-02, M-04
Phenanthrene	454	19	100	ng/l	500	ND	91	50-150			M-02, M-04
Pyrene	361	14	100	ng/l	500	ND	72	50-150			M-02, M-04
<i>Surrogate(s)</i>											
1,3-Dimethyl-2-nitrobenzene	915			ng/l	1000		91	50-150			M-02, M-04
Perylene-d12	606			ng/l	1000		61	50-150			M-04, M-02
Matrix Spike Dup (W9A0611-MSD1)			Source: 9A07024-06			Prepared: 01/11/19 Analyzed: 01/24/19					
Acenaphthene	310	8.6	100	ng/l	500	ND	62	50-150	21	30	M-02, M-04
Acenaphthylene	349	10	100	ng/l	500	ND	70	50-150	18	30	M-02, M-04
Anthracene	321	18	100	ng/l	500	ND	64	50-150	24	30	M-02, M-04
Benzo (a) anthracene	300	16	100	ng/l	500	ND	60	50-150	3	30	M-02, M-04
Benzo (a) pyrene	292	12	100	ng/l	500	ND	58	50-150	3	30	M-02, M-04
Benzo (b) fluoranthene	309	32	100	ng/l	500	ND	62	50-150	1	30	M-02, M-04
Benzo (g,h,i) perylene	261	18	100	ng/l	500	25.9	47	50-150	13	30	M-02, M-04, Q-02
Benzo (k) fluoranthene	255	10	100	ng/l	500	25.8	46	50-150	5	30	M-04, MS-05, M-02, M-04
Chrysene	223	10	100	ng/l	500	ND	45	50-150	8	30	M-02, M-04
Dibenzo (a,h) anthracene	256	24	100	ng/l	500	ND	51	50-150	23	30	M-02, M-04
Fluoranthene	332	26	100	ng/l	500	ND	66	50-150	23	30	M-02, M-04
Fluorene	322	15	100	ng/l	500	ND	64	50-150	25	30	M-02, M-04
Indeno (1,2,3-cd) pyrene	273	20	100	ng/l	500	ND	55	50-150	23	30	M-02, M-04
Naphthalene	312	11	100	ng/l	500	ND	62	50-150	21	30	M-02, M-04
Phenanthrene	370	19	100	ng/l	500	ND	74	50-150	20	30	M-02, M-04
Pyrene	293	14	100	ng/l	500	ND	59	50-150	21	30	M-02, M-04
<i>Surrogate(s)</i>											
1,3-Dimethyl-2-nitrobenzene	849			ng/l	1000		85	50-150			M-02, M-04
Perylene-d12	606			ng/l	1000		61	50-150			M-02, M-04



WECK LABORATORIES, INC.

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505

Certificate of Analysis

FINAL REPORT

Project Number: Irwindale SW Outfall Mon.

Reported:

02/07/2019 08:51

Project Manager: Edmond G. Suher



Notes and Definitions

Item	Definition
*	The recommended holding time for this analysis is only 15 minutes. The sample was analyzed as soon as it was possible but it was received and analyzed past holding time.
BS-03	The recovery of this analyte in the BS/LCS was outside the control limits. The sample result was accepted based on another acceptable BS/LCS and/or MS and MSD that meet BS criteria.
J	Estimated conc. detected <MRL and >MDL.
M-02	Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.
M-04	Due to the nature of matrix interferences, sample extract was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
MS-01	The spike recovery for this QC sample is outside of established control limits possibly due to sample matrix interference.
MS-03	Multiple analyses indicate the percent recovery is out of acceptance limits due to a possible matrix effect.
MS-05	The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
Q-02	Low recovery of this analyte in the QC sample. The analysis of the low level standard produced acceptable recovery indicating that the sample result might be accurately reported as Not Detected.
R-02	The RPD was outside of QC acceptance limits due to possible matrix interference.
R-03	The RPD is not applicable for result below the reporting limit (either ND or J value).
S-11	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
S-GC	Surrogate recovery outside of control limits due to a possible matrix effect. The data was accepted based on valid recovery of the remaining surrogate.
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) and Detection Limit for Reporting (DLR)
MDA	Minimum Detectable Activity
NR	Not Reportable
TIC	Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)

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

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS 002.

[illegible]



Irwindale Project

WECK LABORATORIES, INC.

Analytical Laboratory Service - Since 1964

Analytical Service Quotation

Contact: Ed Suher
Client Name: AEI-CASC Consulting
Address: 2740 W. Magnolia Blvd., Ste.102
Burbank, CA 91505
Phone: (818) 841-9004
Fax: (818) 841-8013

Printed: 10/18/2017
Effective: 10/17/17
Expires: 06/30/18

Project: MS4 - Storm Water Monitoring 2017-2018

Code	Method	Qty	TAT * (workdays)	Unit Price	Extended Price
Water					
200.7 Hardness	_Varies	1	15	\$15.00	\$15.00
Alkalinity, total - SM 2320B	SM 2320B	1	15	\$5.00	\$5.00
Aluminum - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Aluminum, dissolved - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Ammonia-N - EPA 350.1	EPA 350.1	1	15	\$15.00	\$15.00
Antimony - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Antimony, dissolved - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Arsenic - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Arsenic, dissolved - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Biochemical Oxygen Demand - SM5210B	SM 5210B	1	15	\$40.00	\$40.00
Cadmium - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Cadmium, dissolved - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Chemical Oxygen Demand - EPA 410.4	EPA 410.4	1	15	\$20.00	\$20.00
Chloride - EPA 300.0	EPA 300.0	1	15	\$15.00	\$15.00
Chromium - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Chromium, dissolved - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Chromium, Hexavalent - EPA 218.6	EPA 218.6	1	15	\$35.00	\$35.00
Chromium, Hexavalent, dissolved - EPA 218.6	EPA 218.6	1	15	\$50.00	\$50.00
Copper - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Copper, dissolved - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Cyanide, Total - ASTM D 7511	ASTM D7511	1	15	\$40.00	\$40.00
Dissolved Oxygen - SM 4500O-G	SM 4500O-G	1	15	\$15.00	\$15.00
E.Coli Coliform by Enumeration SM9221 F	SM 9221F	1	15	\$20.00	\$20.00
Enterococcus - Enterolert	Enterolert	1	15	\$35.00	\$35.00
EPA 515.3 - Chlorinated Acid Herbicides	EPA 515.3	1	15	\$100.00	\$100.00
EPA 8015B - Diesel & Oil Range Organics (DRO/ORO)	EPA 8015D	1	15	\$45.00	\$45.00
Fecal Coliform by Enumeration SM9221E 3 dilutions	SM 9221E	1	15	\$25.00	\$25.00
Iron - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Iron, dissolved - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Lead - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Lead, dissolved - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
MBAS - SM 5540 C	SM 5540C	1	15	\$30.00	\$30.00
Mercury, Diss, low-level - EPA 1631E	EPA 1631E	1	15	\$100.00	\$100.00
Mercury, total, low-level - EPA 1631E	EPA 1631E	1	15	\$100.00	\$100.00
Nickel - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Nickel, dissolved - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Nitrite+Nitrate-N - EPA 300.0	EPA 300.0	1	15	\$15.00	\$15.00
PAHs low level in water by GC/MS/MS	GC/MS/MS	1	15	\$215.00	\$215.00
Phenolics in water - EPA 420.4	EPA 420.4	1	15	\$45.00	\$45.00
Phosphorus Dissolved - EPA 365.3	EPA 365.3	1	15	\$40.00	\$40.00

Bid Project: AEI-CASC Consulting - MS4 - Storm Water Monitoring 2017-2018

Page 1 of 2

Weck Laboratories, Inc. 14859 East Clark Avenue, City of Industry, CA 91745. Phone: (626) 336-2139 Fax: (626) 336 - 2634

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Irwindale cont'd

WECK LABORATORIES, INC.

Analytical Laboratory Service - Since 1964

Code	Method	Qty	TAT * (workdays)	Unit Price	Extended Price
Phosphorus, Total as P - EPA 365.1	EPA 365.1	1	15	\$30.00	\$30.00
Specific Conductance (EC) - SM 2510B	SM 2510B	1	15	\$25.00	\$25.00
Sulfate - EPA 300.0	EPA 300.0	1	15	\$15.00	\$15.00
Total Coliforms by Enumeration SM9221B 3 dil.	SM 9221B	1	15	\$45.00	\$45.00
Total Dissolved Solids - SM 2540C	SM 2540C	1	15	\$15.00	\$15.00
Total Kjeldahl Nitrogen by EPA 351.2	EPA 351.2	1	15	\$35.00	\$35.00
Total Organic Carbon - SM 5310C	SM 5310C	1	15	\$35.00	\$35.00
Total Suspended Solids - SM2540D	SM 2540D	1	15	\$15.00	\$15.00
Turbidity - EPA 180.1	EPA 180.1	1	15	\$10.00	\$10.00
Volatile Suspended Solids - 160.4	EPA 160.4	1	15	\$15.00	\$15.00
Zinc - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Zinc, dissolved - EPA 200.8	EPA 200.8	1	15	\$10.00	\$10.00
Additional Items (if requested or applicable, will be charged at listed rates)					
Afterhours - Holiday 10p before-8a after /hr/empl		1		\$400.00	\$400.00
Afterhours - Rain Event - Standby flat fee		1		\$300.00	\$300.00
Afterhours - Weekday 10p-8a /hour/employee		1		\$300.00	\$300.00
Afterhours - Weekday 6p-10p /hour/employee		1		\$200.00	\$200.00
Afterhours - Weekend 10p Fri-8a Mon /hr/empl		1		\$300.00	\$300.00
Extra per micro dilution		1		\$10.00	\$10.00
Filtration Fee		1		\$15.00	\$15.00

Bid Total: \$2,985.00

200.7 Hardness consists of:

Calcium - EPA 200.7

Marilyn Romero

Client Services Manager

* Subject to Capacity

Payment terms are NET 30 days from invoice date. New accounts require payment prior to the release of test results until a credit application has been approved. Weck Laboratories accepts credit card payments (VISA/Master Card, American Express). Credit application/credit card approval form and Weck Laboratories' terms & conditions can be found at www.wecklabs.com under Resources. Paperless reports (PDF) are included while mailed paper reports are available at additional cost

Method Reporting Limits (MRL) and Method Detection Limits (MDL) are based upon specified sample volume or weight. When matrix interferences are apparent, sample amounts may be reduced during the preparation step and/or may be diluted prior to analysis. This is done to reduce analytical interference and instrumental contamination and will result in elevated MRL/ MDL on the test report.