2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

Additional Laboratory Comments:

Conformance/Non-Conformance Summary:

Samples were properly preserved and received in good condition on 06/13/06. Analyses were performed within method required holding times. There were no anomalies noted at sample log-in. Please note: The % recovery for the surrogate on sample HA1-060706 was below the laboratory historical limits. There was insufficient sample volume to re-extract. Surrogate % recoveries were outside QC criteria due to sample dilution/matrix. All QC results were within acceptable limits. Initial and Continuing Calibration requirements were met.

Silica-gel clean-up was performed on samples for DRO analysis.

See Data Qualifiers and Definitions at end of this report for further explanation.

As you review this data package, please call me if you require any additional information at # 1-800-765-0980.
Oregon Certification Number: TN200001

The Chain(s) of Custody, 7 pages, are included and are an integral part of this report.

Report Approved By:

Sandra McMillin
Senior Project Manager

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPF1612-01 (TB-2-060606 - Water) Sampled: 06/06/06 14:45									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		ug/L	0.290	1.00	1	06/19/06 23:17	SW846 8260B	6063351
Ethylbenzene	ND		ug/L	0.340	1.00	1	06/19/06 23:17	SW846 8260B	6063351
Methyl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/19/06 23:17	SW846 8260B	6063351
Toluene	ND		ug/L	0.280	1.00	1	06/19/06 23:17	SW846 8260B	6063351
Xylenes, total	ND		ug/L	0.820	2.00	1	06/19/06 23:17	SW846 8260B	6063351
Ethanol	ND		ug/L	45.1	100	1	06/19/06 23:17	SW846 8260B	6063351
Surr: 1,2-Dichloroethane-d4 (70-130%)	*97 %*					*1*	*06/19/06 23:17*	*SW846 8260B*	*6063351*
Surr: Dibromofluoromethane (79-122%)	*100 %*					*1*	*06/19/06 23:17*	*SW846 8260B*	*6063351*
Surr: Toluene-d8 (78-121%)	*103 %*					*1*	*06/19/06 23:17*	*SW846 8260B*	*6063351*
Surr: 4-Bromofluorobenzene (78-126%)	*111 %*					*1*	*06/19/06 23:17*	*SW846 8260B*	*6063351*
Purgeable Petroleum Hydrocarbons									
GRO as Gasoline	ND		ug/L	40.0	100	1	06/19/06 19:00	NWTPH-Gx	6063711
Surr: a,a,a-Trifluorotoluene (63-134%)	*84 %*					*1*	*06/19/06 19:00*	*NWTPH-Gx*	*6063711*
ample ID: NPF1612-02 (W4-060606 - Ground Water) Sampled: 06/06/06 14:45									
lected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**1230**		ug/L	2.90	10.0	10	06/20/06 21:02	SW846 8260B	6063351
Ethylbenzene	**1010**		ug/L	3.40	10.0	10	06/20/06 21:02	SW846 8260B	6063351
Methyl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/20/06 00:15	SW846 8260B	6063351
Toluene	**18.4**		ug/L	0.280	1.00	1	06/20/06 00:15	SW846 8260B	6063351
Xylenes, total	**67.4**		ug/L	0.820	2.00	1	06/20/06 00:15	SW846 8260B	6063351
Ethanol	ND		ug/L	45.1	100	1	06/20/06 00:15	SW846 8260B	6063351
urr: 1,2-Dichloroethane-d4 (70-130%)	*91 %*					*1*	*06/20/06 00:15*	*SW846 8260B*	*6063351*
Surr: Dibromofluoromethane (79-122%)	*97 %*					*1*	*06/20/06 00:15*	*SW846 8260B*	*6063351*
urr: Toluene-d8 (78-121%)	*105 %*					*1*	*06/20/06 00:15*	*SW846 8260B*	*6063351*
urr: 4-Bromofluorobenzene (78-126%)	*103 %*					*1*	*06/20/06 00:15*	*SW846 8260B*	*6063351*
Extractable Petroleum Hydrocarbons									
Diesel	**4620**	QSG	ug/L	76.0	200	2	06/23/06 12:28	NWTPH-Dx	6062451
Motor Oil	**411**	QSG	ug/L	76.0	200	2	06/23/06 12:28	NWTPH-Dx	6062451
Surr: o-Terphenyl (51-142%)	*62 %*					*2*	*06/23/06 12:28*	*NWTPH-Dx*	*6062451*
Purgeable Petroleum Hydrocarbons									
GRO as Gasoline	**9180**		ug/L	800	2000	20	06/20/06 09:48	NWTPH-Gx	6063796
Surr: a,a,a-Trifluorotoluene (63-134%)	*101 %*					*1*	*06/20/06 09:48*	*NWTPH-Gx*	*6063796*
Sample ID: NPF1612-03 (HA11-060706 - Ground Water) Sampled: 06/07/06 08:10									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**662**		ug/L	2.90	10.0	10	06/20/06 21:31	SW846 8260B	6063351
Ethylbenzene	**443**		ug/L	3.40	10.0	10	06/20/06 21:31	SW846 8260B	6063351
Methyl tert-Butyl Ether	**0.880**	J	ug/L	0.320	1.00	1	06/20/06 00:44	SW846 8260B	6063351
ene	**17.0**		ug/L	0.280	1.00	1	06/20/06 00:44	SW846 8260B	6063351
enes, total	**1420**		ug/L	8.20	20.0	10	06/20/06 21:31	SW846 8260B	6063351

Client Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
Attn Jennifer Guthmiller

Work Order: NPF1612
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13041.01
Received: 06/13/06 07:50

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPF1612-03 (HA11-060706 - Ground Water) - cont. Sampled: 06/07/06 08:10									
Volatile Organic Compounds by EPA Method 8260B - cont.									
Ethanol	ND		ug/L	45.1	100	1	06/20/06 00:44	SW846 8260B	6063351
Surr: 1,2-Dichloroethane-d4 (70-130%)	*90 %*					*1*	*06/20/06 00:44*	*SW846 8260B*	*6063351*
Surr: Dibromofluoromethane (79-122%)	*97 %*					*1*	*06/20/06 00:44*	*SW846 8260B*	*6063351*
Surr: Toluene-d8 (78-121%)	*106 %*					*1*	*06/20/06 00:44*	*SW846 8260B*	*6063351*
Surr: 4-Bromofluorobenzene (78-126%)	*103 %*					*1*	*06/20/06 00:44*	*SW846 8260B*	*6063351*
Extractable Petroleum Hydrocarbons									
Diesel	**3320**	QSG	ug/L	73.8	194	2	06/23/06 17:48	NWTPH-Dx	6062451
Motor Oil	**147**	QSG, J	ug/L	73.8	194	2	06/23/06 17:48	NWTPH-Dx	6062451
Surr: o-Terphenyl (51-142%)	*38 %*	*Z*				*2*	*06/23/06 17:48*	*NWTPH-Dx*	*6062451*
Purgeable Petroleum Hydrocarbons									
GRO as Gasoline	**8760**		ug/L	400	1000	10	06/20/06 10:22	NWTPH-Gx	6063796
Surr: a,a,a-Trifluorotoluene (63-134%)	*93 %*					*1*	*06/20/06 10:22*	*NWTPH-Gx*	*6063796*
Sample ID: NPF1612-04 (HA3-060706 - Ground Water) Sampled: 06/07/06 08:40									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**80.8**		ug/L	0.290	1.00	1	06/20/06 22:59	SW846 8260B	6063351
Ethylbenzene	**0.620**	J	ug/L	0.340	1.00	1	06/20/06 22:59	SW846 8260B	6063351
Methyl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/20/06 22:59	SW846 8260B	6063351
Toluene	**6.59**		ug/L	0.280	1.00	1	06/20/06 22:59	SW846 8260B	6063351
Xylenes, total	**0.880**	J	ug/L	0.820	2.00	1	06/20/06 22:59	SW846 8260B	6063351
Ethanol	ND		ug/L	45.1	100	1	06/20/06 22:59	SW846 8260B	6063351
Surr: 1,2-Dichloroethane-d4 (70-130%)	*103 %*					*1*	*06/20/06 22:59*	*SW846 8260B*	*6063351*
Surr: Dibromofluoromethane (79-122%)	*104 %*					*1*	*06/20/06 22:59*	*SW846 8260B*	*6063351*
Surr: Toluene-d8 (78-121%)	*103 %*					*1*	*06/20/06 22:59*	*SW846 8260B*	*6063351*
Surr: 4-Bromofluorobenzene (78-126%)	*110 %*					*1*	*06/20/06 22:59*	*SW846 8260B*	*6063351*
Extractable Petroleum Hydrocarbons									
Diesel	**755**	QSG	ug/L	63.3	167	1	06/23/06 00:29	NWTPH-Dx	6062451
Motor Oil	**470**	QSG	ug/L	63.3	167	1	06/23/06 00:29	NWTPH-Dx	6062451
Surr: o-Terphenyl (51-142%)	*51 %*					*1*	*06/23/06 00:29*	*NWTPH-Dx*	*6062451*
Purgeable Petroleum Hydrocarbons									
GRO as Gasoline	**531**		ug/L	40.0	100	1	06/19/06 21:17	NWTPH-Gx	6063711
Surr: a,a,a-Trifluorotoluene (63-134%)	*108 %*					*1*	*06/19/06 21:17*	*NWTPH-Gx*	*6063711*
Sample ID: NPF1612-05 (HA12-060706 - Ground Water) Sampled: 06/07/06 08:00									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		ug/L	0.290	1.00	1	06/20/06 23:29	SW846 8260B	6063351
Ethylbenzene	ND		ug/L	0.340	1.00	1	06/20/06 23:29	SW846 8260B	6063351
Methyl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/20/06 23:29	SW846 8260B	6063351
Toluene	ND		ug/L	0.280	1.00	1	06/20/06 23:29	SW846 8260B	6063351
Xylenes, total	ND		ug/L	0.820	2.00	1	06/20/06 23:29	SW846 8260B	6063351

ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

ent Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
n Jennifer Guthmiller

Work Order: NPF1612
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13041.01
Received: 06/13/06 07:50

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
ple ID: NPF1612-05 (HA12-060706 - Ground Water) - cont. Sampled: 06/07/06 08:00									
Volatile Organic Compounds by EPA Method 8260B - cont.									
thanol	ND		ug/L	45.1	100	1	06/20/06 23:29	SW846 8260B	6063351
1,2-Dichloroethane-d4 (70-130%)	*101 %*					*1*	*06/20/06 23:29*	*SW846 8260B*	*6063351*
rr: Dibromofluoromethane (79-122%)	*103 %*					*1*	*06/20/06 23:29*	*SW846 8260B*	*6063351*
rr: Toluene-d8 (78-121%)	*117 %*					*1*	*06/20/06 23:29*	*SW846 8260B*	*6063351*
4-Bromofluorobenzene (78-126%)	*109 %*					*1*	*06/20/06 23:29*	*SW846 8260B*	*6063351*
Extractable Petroleum Hydrocarbons									
iesel	**165**	QSG	ug/L	36.2	95.2	1	06/23/06 01:19	NWTPH-Dx	6062451
r Oil	**70.1**	QSG, J	ug/L	36.2	95.2	1	06/23/06 01:19	NWTPH-Dx	6062451
rr: o-Terphenyl (51-142%)	*76 %*					*1*	*06/23/06 01:19*	*NWTPH-Dx*	*6062451*
rgeable Petroleum Hydrocarbons									
as Gasoline	ND		ug/L	40.0	100	1	06/19/06 21:51	NWTPH-Gx	6063711
rr: a,a,a-Trifluorotoluene (63-134%)	*84 %*					*1*	*06/19/06 21:51*	*NWTPH-Gx*	*6063711*
le ID: NPF1612-06 (HA7-060706 - Ground Water) Sampled: 06/07/06 08:30									
d Volatile Organic Compounds by EPA Method 8260B									
enzene	**0.480**	J	ug/L	0.290	1.00	1	06/20/06 02:13	SW846 8260B	6063351
lbenzene	ND		ug/L	0.340	1.00	1	06/20/06 02:13	SW846 8260B	6063351
yl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/20/06 02:13	SW846 8260B	6063351
oluene	ND		ug/L	0.280	1.00	1	06/20/06 02:13	SW846 8260B	6063351
ylenes, total	ND		ug/L	0.820	2.00	1	06/20/06 02:13	SW846 8260B	6063351
ol	ND		ug/L	45.1	100	1	06/20/06 02:13	SW846 8260B	6063351
1,2-Dichloroethane-d4 (70-130%)	*91 %*					*1*	*06/20/06 02:13*	*SW846 8260B*	*6063351*
rr: Dibromofluoromethane (79-122%)	*98 %*					*1*	*06/20/06 02:13*	*SW846 8260B*	*6063351*
Toluene-d8 (78-121%)	*114 %*					*1*	*06/20/06 02:13*	*SW846 8260B*	*6063351*
4-Bromofluorobenzene (78-126%)	*111 %*					*1*	*06/20/06 02:13*	*SW846 8260B*	*6063351*
xtractable Petroleum Hydrocarbons									
l	**14700**	QSG	ug/L	364	957	10	06/23/06 12:46	NWTPH-Dx	6062451
r Oil	**1610**	QSG	ug/L	364	957	10	06/23/06 12:46	NWTPH-Dx	6062451
rr: o-Terphenyl (51-142%)	*	*Z3*				*10*	*06/23/06 12:46*	*NWTPH-Dx*	*6062451*
eable Petroleum Hydrocarbons									
as Gasoline	ND		ug/L	40.0	100	1	06/19/06 22:24	NWTPH-Gx	6063711
rr: a,a,a-Trifluorotoluene (63-134%)	*84 %*					*1*	*06/19/06 22:24*	*NWTPH-Gx*	*6063711*
ple ID: NPF1612-07 (HA6-060706 - Ground Water) Sampled: 06/07/06 09:20									
lected Volatile Organic Compounds by EPA Method 8260B									
nzene	**345**		ug/L	5.80	20.0	20	06/20/06 22:01	SW846 8260B	6063351
benzene	**1040**		ug/L	6.80	20.0	20	06/20/06 22:01	SW846 8260B	6063351
yl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/20/06 02:42	SW846 8260B	6063351
lu	**189**		ug/L	0.280	1.00	1	06/20/06 02:42	SW846 8260B	6063351
total	**2900**		ug/L	16.4	40.0	20	06/20/06 22:01	SW846 8260B	6063351

Client Acton Mickelson Environmental, Inc. (13785)
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El Dorado Hills, CA 95762
Attn Jennifer Guthmiller

Work Order: NPF1612
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13041.01
Received: 06/13/06 07:50

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPF1612-07 (HA6-060706 - Ground Water) - cont. Sampled: 06/07/06 09:20									
Volatile Organic Compounds by EPA Method 8260B - cont.									
Ethanol	ND		ug/L	45.1	100	1	06/20/06 02:42	SW846 8260B	6063351
Surr: 1,2-Dichloroethane-d4 (70-130%)	*95 %*					*1*	*06/20/06 02:42*	*SW846 8260B*	*6063351*
Surr: Dibromofluoromethane (79-122%)	*100 %*					*1*	*06/20/06 02:42*	*SW846 8260B*	*6063351*
Surr: Toluene-d8 (78-121%)	*106 %*					*1*	*06/20/06 02:42*	*SW846 8260B*	*6063351*
Surr: 4-Bromofluorobenzene (78-126%)	*98 %*					*1*	*06/20/06 02:42*	*SW846 8260B*	*6063351*
Extractable Petroleum Hydrocarbons									
Diesel	**3700**	QSG	ug/L	72.4	190	2	06/23/06 18:05	NWTPH-Dx	6062451
Motor Oil	**106**	QSG, J	ug/L	72.4	190	2	06/23/06 18:05	NWTPH-Dx	6062451
Surr: o-Terphenyl (51-142%)	*45 %*	*Z*				*2*	*06/23/06 18:05*	*NWTPH-Dx*	*6062451*
Purgeable Petroleum Hydrocarbons									
GRO as Gasoline	**18600**		ug/L	800	2000	20	06/20/06 10:56	NWTPH-Gx	6063796
Surr: a,a,a-Trifluorotoluene (63-134%)	*108 %*					*1*	*06/20/06 10:56*	*NWTPH-Gx*	*6063796*
Sample ID: NPF1612-08 (D4-060706 - Ground Water) Sampled: 06/07/06 09:30									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		ug/L	0.290	1.00	1	06/20/06 23:58	SW846 8260B	6063351
Ethylbenzene	ND		ug/L	0.340	1.00	1	06/20/06 23:58	SW846 8260B	6063351
Methyl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/20/06 23:58	SW846 8260B	6063351
Toluene	ND		ug/L	0.280	1.00	1	06/20/06 23:58	SW846 8260B	6063351
Xylenes, total	ND		ug/L	0.820	2.00	1	06/20/06 23:58	SW846 8260B	6063351
Ethanol	ND		ug/L	45.1	100	1	06/20/06 23:58	SW846 8260B	6063351
Surr: 1,2-Dichloroethane-d4 (70-130%)	*102 %*					*1*	*06/20/06 23:58*	*SW846 8260B*	*6063351*
Surr: Dibromofluoromethane (79-122%)	*104 %*					*1*	*06/20/06 23:58*	*SW846 8260B*	*6063351*
Surr: Toluene-d8 (78-121%)	*103 %*					*1*	*06/20/06 23:58*	*SW846 8260B*	*6063351*
Surr: 4-Bromofluorobenzene (78-126%)	*105 %*					*1*	*06/20/06 23:58*	*SW846 8260B*	*6063351*
Extractable Petroleum Hydrocarbons									
Diesel	**2760**	QSG	ug/L	35.8	94.3	1	06/23/06 02:08	NWTPH-Dx	6062451
Motor Oil	**2840**	QSG	ug/L	35.8	94.3	1	06/23/06 02:08	NWTPH-Dx	6062451
Surr: o-Terphenyl (51-142%)	*56 %*					*1*	*06/23/06 02:08*	*NWTPH-Dx*	*6062451*
Purgeable Petroleum Hydrocarbons									
GRO as Gasoline	**101**		ug/L	40.0	100	1	06/19/06 23:32	NWTPH-Gx	6063711
Surr: a,a,a-Trifluorotoluene (63-134%)	*89 %*					*1*	*06/19/06 23:32*	*NWTPH-Gx*	*6063711*
Sample ID: NPF1612-09 (HA14-060706 - Ground Water) Sampled: 06/07/06 10:30									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		ug/L	0.290	1.00	1	06/21/06 00:27	SW846 8260B	6063351
Ethylbenzene	**0.560**	J	ug/L	0.340	1.00	1	06/21/06 00:27	SW846 8260B	6063351
Methyl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/21/06 00:27	SW846 8260B	6063351
Toluene	ND		ug/L	0.280	1.00	1	06/21/06 00:27	SW846 8260B	6063351
Xylenes, total	ND		ug/L	0.820	2.00	1	06/21/06 00:27	SW846 8260B	6063351

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Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPF1612-09 (HA14-060706 - Ground Water) - cont. Sampled: 06/07/06 10:30									
Volatile Organic Compounds by EPA Method 8260B - cont.									
Ethanol	ND		ug/L	45.1	100	1	06/21/06 00:27	SW846 8260B	6063351
Surr: 1,2-Dichloroethane-d4 (70-130%)	*102 %*					*1*	*06/21/06 00:27*	*SW846 8260B*	*6063351*
Surr: Dibromofluoromethane (79-122%)	*105 %*					*1*	*06/21/06 00:27*	*SW846 8260B*	*6063351*
Surr: Toluene-d8 (78-121%)	*113 %*					*1*	*06/21/06 00:27*	*SW846 8260B*	*6063351*
Surr: 4-Bromofluorobenzene (78-126%)	*106 %*					*1*	*06/21/06 00:27*	*SW846 8260B*	*6063351*
Purgeable Petroleum Hydrocarbons									
GRO as Gasoline	ND		ug/L	40.0	100	1	06/20/06 00:06	NWTPH-Gx	6063711
Surr: a,a,a-Trifluorotoluene (63-134%)	*86 %*					*1*	*06/20/06 00:06*	*NWTPH-Gx*	*6063711*
Sample ID: NPF1612-10 (HA13-060706 - Ground Water) Sampled: 06/07/06 11:00									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		ug/L	0.290	1.00	1	06/21/06 00:56	SW846 8260B	6063351
Ethylbenzene	ND		ug/L	0.340	1.00	1	06/21/06 00:56	SW846 8260B	6063351
Methyl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/21/06 00:56	SW846 8260B	6063351
luene	ND		ug/L	0.280	1.00	1	06/21/06 00:56	SW846 8260B	6063351
ylenes, total	ND		ug/L	0.820	2.00	1	06/21/06 00:56	SW846 8260B	6063351
Ethanol	ND		ug/L	45.1	100	1	06/21/06 00:56	SW846 8260B	6063351
Surr: 1,2-Dichloroethane-d4 (70-130%)	*104 %*					*1*	*06/21/06 00:56*	*SW846 8260B*	*6063351*
Surr: Dibromofluoromethane (79-122%)	*104 %*					*1*	*06/21/06 00:56*	*SW846 8260B*	*6063351*
Surr: Toluene-d8 (78-121%)	*116 %*					*1*	*06/21/06 00:56*	*SW846 8260B*	*6063351*
Surr: 4-Bromofluorobenzene (78-126%)	*105 %*					*1*	*06/21/06 00:56*	*SW846 8260B*	*6063351*
Extractable Petroleum Hydrocarbons									
Diesel	**163**	QSG	ug/L	36.4	95.7	1	06/23/06 02:25	NWTPH-Dx	6062451
Motor Oil	**329**	QSG	ug/L	36.4	95.7	1	06/23/06 02:25	NWTPH-Dx	6062451
Surr: o-Terphenyl (51-142%)	*83 %*					*1*	*06/23/06 02:25*	*NWTPH-Dx*	*6062451*
Purgeable Petroleum Hydrocarbons									
GRO as Gasoline	ND		ug/L	40.0	100	1	06/20/06 00:41	NWTPH-Gx	6063711
Surr: a,a,a-Trifluorotoluene (63-134%)	*85 %*					*1*	*06/20/06 00:41*	*NWTPH-Gx*	*6063711*
Sample ID: NPF1612-11 (HA5-060706 - Ground Water) Sampled: 06/07/06 11:15									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**0.570**	J	ug/L	0.290	1.00	1	06/21/06 01:26	SW846 8260B	6063351
Ethylbenzene	ND		ug/L	0.340	1.00	1	06/21/06 01:26	SW846 8260B	6063351
Methyl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/21/06 01:26	SW846 8260B	6063351
Toluene	ND		ug/L	0.280	1.00	1	06/21/06 01:26	SW846 8260B	6063351
Xylenes, total	ND		ug/L	0.820	2.00	1	06/21/06 01:26	SW846 8260B	6063351
Ethanol	ND		ug/L	45.1	100	1	06/21/06 01:26	SW846 8260B	6063351
Surr: 1,2-Dichloroethane-d4 (70-130%)	*105 %*					*1*	*06/21/06 01:26*	*SW846 8260B*	*6063351*
Surr: Dibromofluoromethane (79-122%)	*105 %*					*1*	*06/21/06 01:26*	*SW846 8260B*	*6063351*
: Toluene-d8 (78-121%)	*118 %*					*1*	*06/21/06 01:26*	*SW846 8260B*	*6063351*
surr: 4-Bromofluorobenzene (78-126%)	*106 %*					*1*	*06/21/06 01:26*	*SW846 8260B*	*6063351*

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPF1612-11 (HA5-060706 - Ground Water) - cont. Sampled: 06/07/06 11:15									
Extractable Petroleum Hydrocarbons									
Diesel	**205**	QSG	ug/L	36.2	95.2	1	06/23/06 02:41	NWTPH-Dx	6062451
Motor Oil	**171**	QSG	ug/L	36.2	95.2	1	06/23/06 02:41	NWTPH-Dx	6062451
Surr: o-Terphenyl (51-142%)	*75 %*					*1*	*06/23/06 02:41*	*NWTPH-Dx*	*6062451*
Purgeable Petroleum Hydrocarbons									
GRO as Gasoline	**173**		ug/L	40.0	100	1	06/20/06 01:15	NWTPH-Gx	6063711
Surr: a,a,a-Trifluorotoluene (63-134%)	*80 %*					*1*	*06/20/06 01:15*	*NWTPH-Gx*	*6063711*
Sample ID: NPF1612-12 (HA10-060706 - Ground Water) Sampled: 06/07/06 12:05									
Extractable Petroleum Hydrocarbons									
Diesel	**999**	QSG	ug/L	35.8	94.3	1	06/23/06 08:39	NWTPH-Dx	6062537
Motor Oil	**97.5**	QSG	ug/L	35.8	94.3	1	06/23/06 08:39	NWTPH-Dx	6062537
Surr: o-Terphenyl (51-142%)	*69 %*					*1*	*06/23/06 08:39*	*NWTPH-Dx*	*6062537*
Sample ID: NPF1612-13 (W1-060706 - Ground Water) Sampled: 06/07/06 13:45									
lected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**8680**		ug/L	29.0	100	100	06/20/06 22:30	SW846 8260B	6063351
Ethylbenzene	**726**		ug/L	34.0	100	100	06/20/06 22:30	SW846 8260B	6063351
Methyl tert-Butyl Ether	**48.5**		ug/L	0.320	1.00	1	06/19/06 23:46	SW846 8260B	6063351
Toluene	**6260**		ug/L	28.0	100	100	06/20/06 22:30	SW846 8260B	6063351
Xylenes, total	**8240**		ug/L	82.0	200	100	06/20/06 22:30	SW846 8260B	6063351
Ethanol	**134**		ug/L	45.1	100	1	06/19/06 23:46	SW846 8260B	6063351
Surr: 1,2-Dichloroethane-d4 (70-130%)	*110 %*					*1*	*06/19/06 23:46*	*SW846 8260B*	*6063351*
Surr: Dibromofluoromethane (79-122%)	*106 %*					*1*	*06/19/06 23:46*	*SW846 8260B*	*6063351*
Surr: Toluene-d8 (78-121%)	*95 %*					*1*	*06/19/06 23:46*	*SW846 8260B*	*6063351*
Surr: 4-Bromofluorobenzene (78-126%)	*126 %*					*1*	*06/19/06 23:46*	*SW846 8260B*	*6063351*
Extractable Petroleum Hydrocarbons									
Diesel	**7500**	QSG	ug/L	71.4	188	2	06/23/06 11:08	NWTPH-Dx	6062537
Motor Oil	**337**	QSG	ug/L	71.4	188	2	06/23/06 11:08	NWTPH-Dx	6062537
Surr: o-Terphenyl (51-142%)	*122 %*					*2*	*06/23/06 11:08*	*NWTPH-Dx*	*6062537*
Purgeable Petroleum Hydrocarbons									
GRO as Gasoline	**69500**		ug/L	2000	5000	50	06/20/06 11:30	NWTPH-Gx	6063796
Surr: a,a,a-Trifluorotoluene (63-134%)	*77 %*					*1*	*06/20/06 11:30*	*NWTPH-Gx*	*6063796*
Sample ID: NPF1612-14 (D6-060706 - Ground Water) Sampled: 06/07/06 14:30									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**22.2**		ug/L	0.290	1.00	1	06/21/06 01:55	SW846 8260B	6063351
Ethylbenzene	**0.580**	J	ug/L	0.340	1.00	1	06/21/06 01:55	SW846 8260B	6063351
Methyl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/21/06 01:55	SW846 8260B	6063351
Toluene	**0.960**	J	ug/L	0.280	1.00	1	06/21/06 01:55	SW846 8260B	6063351
enes, total	ND		ug/L	0.820	2.00	1	06/21/06 01:55	SW846 8260B	6063351
thanol	ND		ug/L	45.1	100	1	06/21/06 01:55	SW846 8260B	6063351

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPF1612-14 (D6-060706 - Ground Water) - cont. Sampled: 06/07/06 14:30									
Selected Volatile Organic Compounds by EPA Method 8260B - cont.									
Surr: 1,2-Dichloroethane-d4 (70-130%)	*106 %*					*1*	*06/21/06 01:55*	*SW846 8260B*	*6063351*
Surr: Dibromofluoromethane (79-122%)	*108 %*					*1*	*06/21/06 01:55*	*SW846 8260B*	*6063351*
Surr: Toluene-d8 (78-121%)	*115 %*					*1*	*06/21/06 01:55*	*SW846 8260B*	*6063351*
Surr: 4-Bromofluorobenzene (78-126%)	*106 %*					*1*	*06/21/06 01:55*	*SW846 8260B*	*6063351*
Extractable Petroleum Hydrocarbons									
Diesel	**1580**	QSG	ug/L	36.2	95.2	1	06/23/06 09:16	NWTPH-Dx	6062537
Motor Oil	**1050**	QSG	ug/L	36.2	95.2	1	06/23/06 09:16	NWTPH-Dx	6062537
Surr: o-Terphenyl (51-142%)	*66 %*					*1*	*06/23/06 09:16*	*NWTPH-Dx*	*6062537*
Purgeable Petroleum Hydrocarbons									
GRO as Gasoline	**342**		ug/L	40.0	100	1	06/20/06 02:23	NWTPH-Gx	6063711
Surr: a,a,a-Trifluorotoluene (63-134%)	*122 %*					*1*	*06/20/06 02:23*	*NWTPH-Gx*	*6063711*
Sample ID: NPF1612-15 (D7-060706 - Ground Water) Sampled: 06/07/06 15:05									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**70.4**		ug/L	0.290	1.00	1	06/21/06 02:24	SW846 8260B	6063351
Ethylbenzene	ND		ug/L	0.340	1.00	1	06/21/06 02:24	SW846 8260B	6063351
Methyl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/21/06 02:24	SW846 8260B	6063351
Toluene	**2.94**		ug/L	0.280	1.00	1	06/21/06 02:24	SW846 8260B	6063351
Xylenes, total	ND		ug/L	0.820	2.00	1	06/21/06 02:24	SW846 8260B	6063351
Ethanol	ND		ug/L	45.1	100	1	06/21/06 02:24	SW846 8260B	6063351
Surr: 1,2-Dichloroethane-d4 (70-130%)	*103 %*					*1*	*06/21/06 02:24*	*SW846 8260B*	*6063351*
Surr: Dibromofluoromethane (79-122%)	*105 %*					*1*	*06/21/06 02:24*	*SW846 8260B*	*6063351*
Surr: Toluene-d8 (78-121%)	*111 %*					*1*	*06/21/06 02:24*	*SW846 8260B*	*6063351*
Surr: 4-Bromofluorobenzene (78-126%)	*103 %*					*1*	*06/21/06 02:24*	*SW846 8260B*	*6063351*
Extractable Petroleum Hydrocarbons									
Diesel	**3760**	QSG	ug/L	362	952	10	06/23/06 09:34	NWTPH-Dx	6062537
Motor Oil	**9490**	QSG	ug/L	362	952	10	06/23/06 09:34	NWTPH-Dx	6062537
Surr: o-Terphenyl (51-142%)	*	*Z3*				*10*	*06/23/06 09:34*	*NWTPH-Dx*	*6062537*
Purgeable Petroleum Hydrocarbons									
GRO as Gasoline	**281**		ug/L	40.0	100	1	06/20/06 02:56	NWTPH-Gx	6063711
Surr: a,a,a-Trifluorotoluene (63-134%)	*89 %*					*1*	*06/20/06 02:56*	*NWTPH-Gx*	*6063711*
Sample ID: NPF1612-16 (HA1-060706 - Ground Water) Sampled: 06/07/06 15:30									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		ug/L	0.290	1.00	1	06/21/06 02:54	SW846 8260B	6063351
Ethylbenzene	ND		ug/L	0.340	1.00	1	06/21/06 02:54	SW846 8260B	6063351
Methyl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/21/06 02:54	SW846 8260B	6063351
Toluene	ND		ug/L	0.280	1.00	1	06/21/06 02:54	SW846 8260B	6063351
Xylenes, total	ND		ug/L	0.820	2.00	1	06/21/06 02:54	SW846 8260B	6063351
Ethanol	ND		ug/L	45.1	100	1	06/21/06 02:54	SW846 8260B	6063351

ent Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
n Jennifer Guthmiller

Work Order: NPF1612
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13041.01
Received: 06/13/06 07:50

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
ple ID: NPF1612-16 (HA1-060706 - Ground Water) - cont. Sampled: 06/07/06 15:30									
Selected Volatile Organic Compounds by EPA Method 8260B - cont.									
1,2-Dichloroethane-d4 (70-130%)	*104 %*					*1*	*06/21/06 02:54*	*SW846 8260B*	*6063351*
Dibromofluoromethane (79-122%)	*106 %*					*1*	*06/21/06 02:54*	*SW846 8260B*	*6063351*
rr: Toluene-d8 (78-121%)	*113 %*					*1*	*06/21/06 02:54*	*SW846 8260B*	*6063351*
4-Bromofluorobenzene (78-126%)	*104 %*					*1*	*06/21/06 02:54*	*SW846 8260B*	*6063351*
ractable Petroleum Hydrocarbons									
iesel	ND	QSG, S10	ug/L	35.8	94.3	1	06/23/06 09:53	NWTPH-Dx	6062537
r Oil	**92.7**	QSG, S10, J	ug/L	35.8	94.3	1	06/23/06 09:53	NWTPH-Dx	6062537
o-Terphenyl (51-142%)	*48 %*	*Z6*				*1*	*06/23/06 09:53*	*NWTPH-Dx*	*6062537*
urgeable Petroleum Hydrocarbons									
as Gasoline	ND		ug/L	40.0	100	1	06/20/06 03:31	NWTPH-Gx	6063711
a,a,a-Trifluorotoluene (63-134%)	*85 %*					*1*	*06/20/06 03:31*	*NWTPH-Gx*	*6063711*
ample ID: NPF1612-17 (DUPE-1-060706 - Water) Sampled: 06/07/06									
d Volatile Organic Compounds by EPA Method 8260B									
	ND		ug/L	0.290	1.00	1	06/21/06 03:23	SW846 8260B	6063351
thylbenzene	ND		ug/L	0.340	1.00	1	06/21/06 03:23	SW846 8260B	6063351
yl tert-Butyl Ether	ND		ug/L	0.320	1.00	1	06/21/06 03:23	SW846 8260B	6063351
ene	ND		ug/L	0.280	1.00	1	06/21/06 03:23	SW846 8260B	6063351
ylenes, total	ND		ug/L	0.820	2.00	1	06/21/06 03:23	SW846 8260B	6063351
hanol	ND		ug/L	45.1	100	1	06/21/06 03:23	SW846 8260B	6063351
1,2-Dichloroethane-d4 (70-130%)	*105 %*					*1*	*06/21/06 03:23*	*SW846 8260B*	*6063351*
Dibromofluoromethane (79-122%)	*107 %*					*1*	*06/21/06 03:23*	*SW846 8260B*	*6063351*
rr: Toluene-d8 (78-121%)	*116 %*					*1*	*06/21/06 03:23*	*SW846 8260B*	*6063351*
4-Bromofluorobenzene (78-126%)	*102 %*					*1*	*06/21/06 03:23*	*SW846 8260B*	*6063351*
xtractable Petroleum Hydrocarbons									
iesel	ND	QSG	ug/L	36.2	95.2	1	06/23/06 02:57	NWTPH-Dx	6062451
r Oil	**125**	QSG	ug/L	36.2	95.2	1	06/23/06 02:57	NWTPH-Dx	6062451
o-Terphenyl (51-142%)	*71 %*					*1*	*06/23/06 02:57*	*NWTPH-Dx*	*6062451*
urgeable Petroleum Hydrocarbons									
as Gasoline	ND		ug/L	40.0	100	1	06/20/06 04:05	NWTPH-Gx	6063711
a,a,a-Trifluorotoluene (63-134%)	*86 %*					*1*	*06/20/06 04:05*	*NWTPH-Gx*	*6063711*

ent	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
n	Jennifer Guthmiller	Received:	06/13/06 07:50

SAMPLE EXTRACTION DATA

arameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
actable Petroleum Hydrocarbons							
WTPH-Dx	6062451	NPF1612-02	1000.00	1.00	06/13/06 13:48	CEC	EPA 3510C
NWTPH-Dx	6062451	NPF1612-02RE1	1000.00	1.00	06/13/06 13:48	CEC	EPA 3510C
WTPH-Dx	6062451	NPF1612-03	1030.00	1.00	06/13/06 13:48	CEC	EPA 3510C
WTPH-Dx	6062451	NPF1612-03RE1	1030.00	1.00	06/13/06 13:48	CEC	EPA 3510C
NWTPH-Dx	6062451	NPF1612-04	600.00	1.00	06/13/06 13:48	CEC	EPA 3510C
NWTPH-Dx	6062451	NPF1612-05	1050.00	1.00	06/13/06 13:48	CEC	EPA 3510C
WTPH-Dx	6062451	NPF1612-06	1045.00	1.00	06/13/06 13:48	CEC	EPA 3510C
WTPH-Dx	6062451	NPF1612-06RE1	1045.00	1.00	06/13/06 13:48	CEC	EPA 3510C
NWTPH-Dx	6062451	NPF1612-07	1050.00	1.00	06/13/06 13:48	CEC	EPA 3510C
WTPH-Dx	6062451	NPF1612-07RE1	1050.00	1.00	06/13/06 13:48	CEC	EPA 3510C
WTPH-Dx	6062451	NPF1612-08	1060.00	1.00	06/13/06 13:48	CEC	EPA 3510C
NWTPH-Dx	6062451	NPF1612-10	1045.00	1.00	06/13/06 13:48	CEC	EPA 3510C
NWTPH-Dx	6062451	NPF1612-11	1050.00	1.00	06/13/06 13:48	CEC	EPA 3510C
WTPH-Dx	6062537	NPF1612-12	1060.00	1.00	06/14/06 11:35	CEC	EPA 3510C
NWTPH-Dx	6062537	NPF1612-13	1065.00	1.00	06/14/06 11:35	CEC	EPA 3510C
NWTPH-Dx	6062537	NPF1612-13RE1	1065.00	1.00	06/14/06 11:35	CEC	EPA 3510C
PH-Dx	6062537	NPF1612-14	1050.00	1.00	06/14/06 11:35	CEC	EPA 3510C
PH-Dx	6062537	NPF1612-15	1050.00	1.00	06/14/06 11:35	CEC	EPA 3510C
NWTPH-Dx	6062537	NPF1612-16	1060.00	1.00	06/14/06 11:35	CEC	EPA 3510C
WTPH-Dx	6062451	NPF1612-17	1050.00	1.00	06/13/06 13:48	CEC	EPA 3510C

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B						
6063351-BLK1						
Benzene	<0.290		ug/L	6063351	6063351-BLK1	06/19/06 22:48
Ethylbenzene	<0.340		ug/L	6063351	6063351-BLK1	06/19/06 22:48
Methyl tert-Butyl Ether	<0.320		ug/L	6063351	6063351-BLK1	06/19/06 22:48
Toluene	<0.280		ug/L	6063351	6063351-BLK1	06/19/06 22:48
Xylenes, total	<0.820		ug/L	6063351	6063351-BLK1	06/19/06 22:48
Ethanol	<45.1		ug/L	6063351	6063351-BLK1	06/19/06 22:48
Surrogate: 1,2-Dichloroethane-d4	97%			6063351	6063351-BLK1	06/19/06 22:48
Surrogate: 1,2-Dichloroethane-d4	97%			6063351	6063351-BLK1	06/19/06 22:48
Surrogate: Dibromofluoromethane	99%			6063351	6063351-BLK1	06/19/06 22:48
Surrogate: Dibromofluoromethane	99%			6063351	6063351-BLK1	06/19/06 22:48
Surrogate: Toluene-d8	103%			6063351	6063351-BLK1	06/19/06 22:48
Surrogate: Toluene-d8	103%			6063351	6063351-BLK1	06/19/06 22:48
Surrogate: 4-Bromofluorobenzene	118%			6063351	6063351-BLK1	06/19/06 22:48
Surrogate: 4-Bromofluorobenzene	118%			6063351	6063351-BLK1	06/19/06 22:48
6063351-BLK2						
Benzene	<0.290		ug/L	6063351	6063351-BLK2	06/20/06 20:33
Ethylbenzene	<0.340		ug/L	6063351	6063351-BLK2	06/20/06 20:33
Methyl tert-Butyl Ether	<0.320		ug/L	6063351	6063351-BLK2	06/20/06 20:33
Toluene	<0.280		ug/L	6063351	6063351-BLK2	06/20/06 20:33
Xylenes, total	<0.820		ug/L	6063351	6063351-BLK2	06/20/06 20:33
Ethanol	<45.1		ug/L	6063351	6063351-BLK2	06/20/06 20:33
Surrogate: 1,2-Dichloroethane-d4	101%			6063351	6063351-BLK2	06/20/06 20:33
Surrogate: 1,2-Dichloroethane-d4	101%			6063351	6063351-BLK2	06/20/06 20:33
Surrogate: Dibromofluoromethane	103%			6063351	6063351-BLK2	06/20/06 20:33
Surrogate: Dibromofluoromethane	103%			6063351	6063351-BLK2	06/20/06 20:33
Surrogate: Toluene-d8	103%			6063351	6063351-BLK2	06/20/06 20:33
Surrogate: Toluene-d8	103%			6063351	6063351-BLK2	06/20/06 20:33
Surrogate: 4-Bromofluorobenzene	110%			6063351	6063351-BLK2	06/20/06 20:33
Surrogate: 4-Bromofluorobenzene	110%			6063351	6063351-BLK2	06/20/06 20:33
Extractable Petroleum Hydrocarbons						
6062451-BLK2						
Diesel	<38.0		ug/L	6062451	6062451-BLK2	06/23/06 17:32
Motor Oil	<38.0		ug/L	6062451	6062451-BLK2	06/23/06 17:32
Surrogate: o-Terphenyl	60%			6062451	6062451-BLK2	06/23/06 17:32
6062537-BLK1						
Diesel	<38.0		ug/L	6062537	6062537-BLK1	06/23/06 08:02
Motor Oil	<38.0		ug/L	6062537	6062537-BLK1	06/23/06 08:02
Surrogate: o-Terphenyl	61%			6062537	6062537-BLK1	06/23/06 08:02

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

PROJECT QUALITY CONTROL DATA
Blank - Cont.

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Purgeable Petroleum Hydrocarbons						
6063711-BLK1						
GRO as Gasoline	<40.0		ug/L	6063711	6063711-BLK1	06/19/06 18:27
Surrogate: a,a,a-Trifluorotoluene	83%			6063711	6063711-BLK1	06/19/06 18:27
6063796-BLK1						
GRO as Gasoline	<40.0		ug/L	6063796	6063796-BLK1	06/20/06 09:08
Surrogate: a,a,a-Trifluorotoluene	85%			6063796	6063796-BLK1	06/20/06 09:08

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B								
6063351-BS1								
Benzene	50.0	48.0		ug/L	96%	78 - 122	6063351	06/19/06 21:49
Ethylbenzene	50.0	55.8		ug/L	112%	82 - 122	6063351	06/19/06 21:49
Methyl tert-Butyl Ether	50.0	52.1		ug/L	104%	65 - 144	6063351	06/19/06 21:49
Toluene	50.0	53.7		ug/L	107%	80 - 120	6063351	06/19/06 21:49
Xylenes, total	150	169		ug/L	113%	81 - 125	6063351	06/19/06 21:49
Ethanol	5000	4170		ug/L	83%	33 - 160	6063351	06/19/06 21:49
Surrogate: 1,2-Dichloroethane-d4	50.0	52.8			106%	70 - 130	6063351	06/19/06 21:49
Surrogate: 1,2-Dichloroethane-d4	50.0	52.8			106%	70 - 130	6063351	06/19/06 21:49
Surrogate: Dibromofluoromethane	50.0	52.8			106%	79 - 122	6063351	06/19/06 21:49
Surrogate: Dibromofluoromethane	50.0	52.8			106%	79 - 122	6063351	06/19/06 21:49
Surrogate: Toluene-d8	50.0	55.8			112%	78 - 121	6063351	06/19/06 21:49
Surrogate: Toluene-d8	50.0	55.8			112%	78 - 121	6063351	06/19/06 21:49
Surrogate: 4-Bromofluorobenzene	50.0	54.1			108%	78 - 126	6063351	06/19/06 21:49
Surrogate: 4-Bromofluorobenzene	50.0	54.1			108%	78 - 126	6063351	06/19/06 21:49
6063351-BS2								
Benzene	50.0	50.2		ug/L	100%	78 - 122	6063351	06/20/06 19:34
Ethylbenzene	50.0	57.7		ug/L	115%	82 - 122	6063351	06/20/06 19:34
Methyl tert-Butyl Ether	50.0	57.2		ug/L	114%	65 - 144	6063351	06/20/06 19:34
Toluene	50.0	56.2		ug/L	112%	80 - 120	6063351	06/20/06 19:34
Xylenes, total	150	174		ug/L	116%	81 - 125	6063351	06/20/06 19:34
Ethanol	5000	5030		ug/L	101%	33 - 160	6063351	06/20/06 19:34
Surrogate: 1,2-Dichloroethane-d4	50.0	52.9			106%	70 - 130	6063351	06/20/06 19:34
Surrogate: 1,2-Dichloroethane-d4	50.0	52.9			106%	70 - 130	6063351	06/20/06 19:34
Surrogate: Dibromofluoromethane	50.0	52.2			104%	79 - 122	6063351	06/20/06 19:34
Surrogate: Dibromofluoromethane	50.0	52.2			104%	79 - 122	6063351	06/20/06 19:34
Surrogate: Toluene-d8	50.0	54.3			109%	78 - 121	6063351	06/20/06 19:34
Surrogate: Toluene-d8	50.0	54.3			109%	78 - 121	6063351	06/20/06 19:34
Surrogate: 4-Bromofluorobenzene	50.0	53.1			106%	78 - 126	6063351	06/20/06 19:34
Surrogate: 4-Bromofluorobenzene	50.0	53.1			106%	78 - 126	6063351	06/20/06 19:34
Extractable Petroleum Hydrocarbons								
6062451-BS1								
Diesel	1000	756		ug/L	76%	56 - 116	6062451	06/22/06 23:40
Surrogate: o-Terphenyl	20.0	15.8			79%	51 - 142	6062451	06/22/06 23:40
6062537-BS1								
Diesel	1000	915		ug/L	92%	56 - 116	6062537	06/23/06 08:21
Surrogate: o-Terphenyl	20.0	16.3			82%	51 - 142	6062537	06/23/06 08:21
eable Petroleum Hydrocarbons								
6063711-BS1								

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

PROJECT QUALITY CONTROL DATA
LCS - Cont.

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Purgeable Petroleum Hydrocarbons								
6063711-BS1								
GRO as Gasoline	1000	1040		ug/L	104%	66 - 132	6063711	06/20/06 05:47
Surrogate: a,a,a-Trifluorotoluene	30.0	27.1			90%	63 - 134	6063711	06/20/06 05:47
6063796-BS1								
GRO as Gasoline	1000	1020	MNR1	ug/L	102%	66 - 132	6063796	06/20/06 12:38
Surrogate: a,a,a-Trifluorotoluene	30.0	27.3			91%	63 - 134	6063796	06/20/06 12:38

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

PROJECT QUALITY CONTROL DATA

LCS Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Purgeable Petroleum Hydrocarbons												
6063711-BSD1												
GRO as Gasoline		1020		ug/L	1000	102%	66 - 132	2	36	6063711		06/20/06 06:21
Surrogate: a,a,a-Trifluorotoluene		27.3		ug/L	30.0	91%	63 - 134			6063711		06/20/06 06:21

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B										
6063351-MS1										
Benzene	8680	2840	MHA	ug/L	50.0	-11700%	74 - 133	6063351	NPF1612-13	06/20/06 04:09
Ethylbenzene	726	987	MHA	ug/L	50.0	522%	74 - 134	6063351	NPF1612-13	06/20/06 04:09
Methyl tert-Butyl Ether	48.5	104		ug/L	50.0	111%	58 - 151	6063351	NPF1612-13	06/20/06 04:09
Toluene	6260	2220	MHA	ug/L	50.0	-8080%	73 - 133	6063351	NPF1612-13	06/20/06 04:09
Xylenes, total	8240	3730	MHA	ug/L	150	-3010%	68 - 139	6063351	NPF1612-13	06/20/06 04:09
Ethanol	134	4860		ug/L	5000	95%	28 - 166	6063351	NPF1612-13	06/20/06 04:09
Surrogate: 1,2-Dichloroethane-d4		55.1		ug/L	50.0	110%	70 - 130	6063351	NPF1612-13	06/20/06 04:09
Surrogate: 1,2-Dichloroethane-d4		55.1		ug/L	50.0	110%	70 - 130	6063351	NPF1612-13	06/20/06 04:09
Surrogate: Dibromofluoromethane		53.6		ug/L	50.0	107%	79 - 122	6063351	NPF1612-13	06/20/06 04:09
Surrogate: Dibromofluoromethane		53.6		ug/L	50.0	107%	79 - 122	6063351	NPF1612-13	06/20/06 04:09
Surrogate: Toluene-d8		46.7		ug/L	50.0	93%	78 - 121	6063351	NPF1612-13	06/20/06 04:09
Surrogate: Toluene-d8		46.7		ug/L	50.0	93%	78 - 121	6063351	NPF1612-13	06/20/06 04:09
Surrogate: 4-Bromofluorobenzene		61.0		ug/L	50.0	122%	78 - 126	6063351	NPF1612-13	06/20/06 04:09
rogate: 4-Bromofluorobenzene		61.0		ug/L	50.0	122%	78 - 126	6063351	NPF1612-13	06/20/06 04:09

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

PROJECT QUALITY CONTROL DATA

Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B												
6063351-MSD1												
Benzene	8680	2520	MHA	ug/L	50.0	-12300%	74 - 133	12	19	6063351	NPF1612-13	06/20/06 04:39
Ethylbenzene	726	895	MHA	ug/L	50.0	338%	74 - 134	10	21	6063351	NPF1612-13	06/20/06 04:39
Methyl tert-Butyl Ether	48.5	106		ug/L	50.0	115%	58 - 151	2	28	6063351	NPF1612-13	06/20/06 04:39
Toluene	6260	1960	MHA	ug/L	50.0	-8600%	73 - 133	12	20	6063351	NPF1612-13	06/20/06 04:39
Xylenes, total	8240	3260	MHA	ug/L	150	-3320%	68 - 139	13	23	6063351	NPF1612-13	06/20/06 04:39
Ethanol	134	5030		ug/L	5000	98%	28 - 166	3	47	6063351	NPF1612-13	06/20/06 04:39
Surrogate: 1,2-Dichloroethane-d4		51.3		ug/L	50.0	103%	70 - 130			6063351	NPF1612-13	06/20/06 04:39
Surrogate: 1,2-Dichloroethane-d4		51.3		ug/L	50.0	103%	70 - 130			6063351	NPF1612-13	06/20/06 04:39
Surrogate: Dibromofluoromethane		51.6		ug/L	50.0	103%	79 - 122			6063351	NPF1612-13	06/20/06 04:39
Surrogate: Dibromofluoromethane		51.6		ug/L	50.0	103%	79 - 122			6063351	NPF1612-13	06/20/06 04:39
Surrogate: Toluene-d8		46.8		ug/L	50.0	94%	78 - 121			6063351	NPF1612-13	06/20/06 04:39
Surrogate: Toluene-d8		46.8		ug/L	50.0	94%	78 - 121			6063351	NPF1612-13	06/20/06 04:39
Surrogate: 4-Bromofluorobenzene		61.6		ug/L	50.0	123%	78 - 126			6063351	NPF1612-13	06/20/06 04:39
Surrogate: 4-Bromofluorobenzene		61.6		ug/L	50.0	123%	78 - 126			6063351	NPF1612-13	06/20/06 04:39

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

CERTIFICATION SUMMARY

TestAmerica - Nashville, TN

Method	Matrix	AIHA	Nelac	Oregon
NA	Water			
NWTPH-Dx	Water	N/A	X	X
NWTPH-Gx	Water	N/A	X	X
SW846 8260B	Water	N/A	X	X

(ent	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
/ n	Jennifer Guthmiller	Received:	06/13/06 07:50

NELAC CERTIFICATION SUMMARY

TestAmerica Analytical - Nashville does not hold NELAC certifications for the following analytes included in this report

Method	Matrix	Analyte

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPF1612
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13041.01
Attn	Jennifer Guthmiller	Received:	06/13/06 07:50

DATA QUALIFIERS AND DEFINITIONS

J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike.
QSG	Silica Gel clean-up performed on extracts.
S10	Insufficient sample available for reanalysis.
Z	Due to sample matrix effects, the surrogate recovery was below the acceptance limits.
Z3	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
Z6	Surrogate recovery was below acceptance limits.

METHOD MODIFICATION NOTES

ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM

BC#

NPF1612

Cooler Received/Opened On 6/13/06 7:50

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 9543

Fed-Ex UPS Velocity DHL Route Off-street Misc.

2. Temperature of representative sample or temperature blank when opened: 5-8 Degrees Celsius (indicate IR Gun ID#)

NA A00466 A00750 A01124 100190 101282 102594

3. Were custody seals on outside of cooler?..... YES...NO...NA

a. If yes, how many and where:_____

4. Were the seals intact, signed, and dated correctly?..... YES...NO...NA

5. Were custody papers inside cooler?..... YES...NO...NA

I certify that I opened the cooler and answered questions 1-5 (intial)..... SR

6. Were custody seals on containers: YES NO and Intact YES NO NA

were these signed, and dated correctly?..... YES...NO...NA

7. What kind of packing material used? Bubblewrap Peanuts Vermiculite Foam Insert

Plastic bag Paper Other_____ None

8. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)?..... YES...NO...NA

10. Were all container labels complete (#, date, signed, pres., etc)?..... YES...NO...NA

11. Did all container labels and tags agree with custody papers?..... YES...NO...NA

12. a. Were VOA vials received?..... YES...NO...NA

b. Was there any observable head space present in any VOA vial?..... YES...NO...NA

I certify that I unloaded the cooler and answered questions 6-12 (intial)..... SR

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used..... YES...NO...NA

If preservation in-house was needed, record standard ID of preservative used here_____

14. Was residual chlorine present?..... YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (intial)..... SR

15. Were custody papers properly filled out (ink, signed, etc)?..... YES...NO...NA

16. Did you sign the custody papers in the appropriate place?..... YES...NO...NA

17. Were correct containers used for the analysis requested?..... YES...NO...NA

18. Was sufficient amount of sample sent in each container?..... YES...NO...NA

I certify that I entered this project into LIMS and answered questions 15-18 (intial)..... SR

I certify that I attached a label with the unique LIMS number to each container (intial)..... SR

19. Were there Non-Conformance issues at login YES NO Was a PIPE generated YES NO #_____

BIS = Broken in shipment

ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM

BC#

Cooler Received/Opened On June 13, 2006 @ 0750

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 9554

(Fedex) UPS Velocity DHL Route Off-street Misc.

2. Temperature of representative sample or temperature blank when opened: 1.5 Degrees Celsius (indicate IR Gun ID#)

NA A00466 (A00750) A01124 100190 101282 Raynger ST

3. Were custody seals on outside of cooler?..... YES...NO...NA

a. If yes, how many and where:_____

4. Were the seals intact, signed, and dated correctly?..... YES....NO...NA

5. Were custody papers inside cooler?..... YES...NO...NA

I certify that I opened the cooler and answered questions 1-5 (intial)..... JM

6. Were custody seals on containers: YES NO and Intact YES NO NA

were these signed, and dated correctly?..... YES...NO...NA

7. What kind of packing material used? Bubble Wrap Peanuts Vermiculite Foam Insert

Plastic bag Paper Other_____ None

8. Cooling process: Ice Ice pack Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)?..... YES...NO...NA

10. Were all container labels complete (#, date, signed, pres., etc)?..... YES...NO...NA

11. Did all container labels and tags agree with custody papers?..... YES...NO...NA

12. a. Were VOA vials received?..... YES...NO...NA

b. Was there any observable head space present in any VOA vial?..... YES...NO...NA

I certify that I unloaded the cooler and answered questions 6-12 (intial)..... MP

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used..... YES...NO...NA

If preservation in-house was needed, record standard ID of preservative used here_____

14. Was residual chlorine present?..... YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (intial)..... MP

15. Were custody papers properly filled out (ink, signed, etc)?..... YES...NO...NA

16. Did you sign the custody papers in the appropriate place?..... YES...NO...NA

17. Were correct containers used for the analysis requested?..... YES...NO...NA

18. Was sufficient amount of sample sent in each container?..... YES...NO...NA

I certify that I entered this project into LIMS and answered questions 15-18 (intial)..... MP

I certify that I attached a label with the unique LIMS number to each container (intial)..... MP

19. Were there Non-Conformance issues at login YES NO Was a PIPE generated YES NO #_____

BIS = Broken in shipment

ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM

BC#

Cooler Received/Opened On: 6/13/2006 7:50

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 9598

FED-EX

Temperature of representative sample or temperature blank when opened: 5.2 Degrees Celsius
(Indicate IR Gun ID#)

101507

3. Were custody seals on outside of cooler?..... YES...(NO)...NA

a. If yes, how many and where:_____

4. Were the seals intact, signed, and dated correctly?..... YES...NO...(NA)

5. Were custody papers inside cooler?..... YES...NO...NA

I certify that I opened the cooler and answered questions 1-5 (intial)..... WS

6. Were custody seals on containers: YES NO and Intact YES NO NA

were these signed, and dated correctly?..... YES...NO...NA

7. What kind of packing material used? Bubblewrap Peanuts Vermiculite Foam Insert

Plastic bag Paper Other_____ None

8. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)?..... YES...NO...NA

10. Were all container labels complete (#, date, signed, pres., etc)?..... YES...NO...NA

11. Did all container labels and tags agree with custody papers?..... YES...NO...NA

12. a. Were VOA vials received?..... YES...NO...NA

b. Was there any observable head space present in any VOA vial?..... YES...NO...NA

I certify that I unloaded the cooler and answered questions 6-12 (intial)..... _____

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used..... YES...NO...NA

If preservation in-house was needed, record standard ID of preservative used here_____

14. Was residual chlorine present?..... YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (intial)..... _____

15. Were custody papers properly filled out (ink, signed, etc)?..... YES...NO...NA

16. Did you sign the custody papers in the appropriate place?..... YES...NO...NA

17. Were correct containers used for the analysis requested?..... YES...NO...NA

18. Was sufficient amount of sample sent in each container?..... YES...NO...NA

I certify that I entered this project into LIMS and answered questions 15-18 (intial)..... _____

I certify that I attached a label with the unique LIMS number to each container (intial)..... _____

19. Were there Non-Conformance issues at login YES NO Was a PIPE generated YES NO #_____

BIS = Broken in shipment

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division
COOLER RECEIPT FORM

BC#

Cooler Received/Opened On 6/13/06 7:50

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 9587

(Fed-Ex) UPS Velocity DHL Route Off-street Misc.

2. Temperature of representative sample or temperature blank when opened: 5.4 Degrees Celsius
(indicate IR Gun ID#)

NA A00466 A00750 A01124 100190 101282 (102594)

3. Were custody seals on outside of cooler?..... YES...(NO)...NA

a. If yes, how many and where:_____

4. Were the seals intact, signed, and dated correctly?..... YES...NO...(NA)

5. Were custody papers inside cooler?..... YES...(NO)...NA

I certify that I opened the cooler and answered questions 1-5 (intial)..... JR

6. Were custody seals on containers: YES (NO) and Intact YES NO (NA)

were these signed, and dated correctly?..... YES...NO...(NA)

7. What kind of packing material used? Bubblewrap Peanuts Vermiculite Foam Insert

Plastic bag Paper Other_____ None

8. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)?..... (YES).NO...NA

10. Were all container labels complete (#, date, signed, pres., etc)?..... YES...NO...NA

11. Did all container labels and tags agree with custody papers?..... YES...NO...NA

12. a. Were VOA vials received?..... YES...(NO)...NA

b. Was there any observable head space present in any VOA vial?..... YES...NO...(NA)

I certify that I unloaded the cooler and answered questions 6-12 (intial)..... _____

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...(NA)

b. Did the bottle labels indicate that the correct preservatives were used..... (YES).NO...NA

If preservation in-house was needed, record standard ID of preservative used here_____

14. Was residual chlorine present?..... YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (intial)..... _____

15. Were custody papers properly filled out (ink, signed, etc)?..... (YES)...NO...NA

16. Did you sign the custody papers in the appropriate place?..... (YES)...NO...NA

17. Were correct containers used for the analysis requested?..... (YES)...NO...NA

18. Was sufficient amount of sample sent in each container?..... (YES)...NO...NA

I certify that I entered this project into LIMS and answered questions 15-18 (intial)..... _____

I certify that I attached a label with the unique LIMS number to each container (intial)..... _____

19. Were there Non-Conformance issues at login YES (NO) Was a PIPE generated YES (NO) #_____

BIS = Broken in shipment
Cooler Receipt Form

Revised 3/9/06

TESTAMERICA
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM

BC#

Cooler Received/Opened On: 6/13/06@7:50

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 9602

Fed-Ex

Temperature of representative sample or temperature blank when opened: 6.0 **Degrees Celsius**
(indicate IR Gun ID#)

101282

3. Were custody seals on outside of cooler?..... YES...(NO)...NA

   a. If yes, how many and where:_____

4. Were the seals intact, signed, and dated correctly?..... YES....NO...(NA)

5. Were custody papers inside cooler?..... YES....NO...NA

I certify that I opened the cooler and answered questions 1-5 (intial)..... _____

6. Were custody seals on containers: YES (NO) and Intact YES NO NA

   were these signed, and dated correctly?..... YES...NO...NA

7. What kind of packing material used? Bubblewrap Peanuts Vermiculite Foam Insert

   Plastic bag Paper Other_____ None

8. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)?..... YES...NO...NA

10. Were all container labels complete (#, date, signed, pres., etc)?..... YES...NO...NA

11. Did all container labels and tags agree with custody papers?..... YES...NO...NA

12. a. Were VOA vials received?..... YES...NO...NA

    b. Was there any observable head space present in any VOA vial?..... YES...NO...NA

I certify that I unloaded the cooler and answered questions 6-12 (intial)..... _____

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...NA

    b. Did the bottle labels indicate that the correct preservatives were used..... YES...NO...NA

    If preservation in-house was needed, record standard ID of preservative used here_____

14. Was residual chlorine present?..... YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (intial)..... _____

15. Were custody papers properly filled out (ink, signed, etc)?..... YES....NO...NA

16. Did you sign the custody papers in the appropriate place?..... YES....NO...NA

17. Were correct containers used for the analysis requested?..... YES...NO...NA

18. Was sufficient amount of sample sent in each container?..... YES...NO...NA

I certify that I entered this project into LIMS and answered questions 15-18 (intial)..... _____

I certify that I attached a label with the unique LIMS number to each container (intial)..... _____

19. Were there Non-Conformance issues at login YES NO Was a PIPE generated YES NO #_____

BIS = Broken in shipment

Acton - Mickelson • Environmental, Inc.

Chain of Custody and Analysis Request Form

~~Geotracker Global ID~~ PO# 4507265171

Standard TAT ☒ | RUSH TAT ☐ 24 hr. TAT ☐ 48 hr. TAT ☐ 72 hr. TAT ☐ 5 day TAT

Page 1 of 2 | Chain of Custody 3360

Send Results to:
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
(916) 939-7550, FAX (916) 939-7570
Attn.: Jennifer Guthmiller

- ☐ Preliminary Fax Result
- ☒ Sample Receipt/ Log-In Confirmation
- ☒ Electronic Data Deliverables (jshaal@amecinc.net)
- ☐ Geotracker EDF
- ☒ Raw Data Deliverables
- ☐ Call with Verbal Results

NPF1612
06/27/06 23:59

Lab ID (LAB USE ONLY)	Field Point ID	Sample ID	Date Collected	Time Collected	Matrix	Container	Number of Containers	Preservative	8260B BTEX, MTBE	8260B Ethanol	NWTPHGx	NWTPHDx (dtd)						Comments
	QAQC	TB-2-060606	6/6/06	1445	RW	V	2	HC	X	X	X						01	d = diesel o = Heavy Range Or
	W4	W4-060606	6/6/06	1445	GW	GB V	1 6	HC HC	X	X	X	X					02	
	HA11	HA11-060706	6/7/06	0810	GW	GB V	1 6	HC HC	X	X	X	X					03	
	HA3	HA3-060706	6/7/06	0840	GW	GB V	1 6	HC HC	X	X	X	X					04	limited sample quantity for NW dilute if neces
	HA12	HA12-060706	6/7/06	0800	GW	GB V	1 6	HC HC	X	X	X	X					05	
	HA7	HA7-060706	6/7/06	0830	GW	GB V	1 6	HC HC	X	X	X	X					06	
	HA6	HA6-060706	6/7/06	0920	GW	GB V	1 6	HC HC	X	X	X	X					07	
	D4	D4-060706	6/7/06	0930	GW	GB V	1 6	HC HC	X	X	X	X					08	
	HA14	HA14-060706	6/7/06	1030	GW	V	6	HC	X	X	X						09	
	HA13	HA13-060706	6/7/06	1100	GW	GB V	1 6	HC HC	X	X	X	X					10	

	Signature	Date	Time	Signature	Date	Time
Relinquished by:		6/8/06	1313	Relinquished by: Stacy Tonkin	6/12/06	1542
Received by:	Tom Blankfort	6/8/06	1313	Received by:	6/13/06	750
Relinquished by:				Relinquished by:		
Received by:				Received by:		

Matrix: W - Water; DW - Drinking Water; SW - Surface Water; GW - Ground Water; WW - Waste Water; RW - Reagent Water; S - Soil; SE - Sediment; SV - Soil Vapor; AA - Ambient Air; WS - Waste (Solid); O - Other
Container: GB - Glass Bottle (Amber); V - 40 ml VOA Vial; BT, ST, PT - Brass, Steel, and Plastic Tube; P - Polythethylene; GJ - Glass Jar, SC - Summa Canister; TD - Tedlar
Preservative: C - Cold; HS - Sulfuric Acid; HC - Hydrochloric Acid; HN - Nitric Acid; Na - Sodium Hydroxide; O - Other

Project Name and Location: Former Renton Terminal #46-080
Project Number: 13042.03 Receiving Lab: Test America
Sampled by: Brian A. Richardson (BAR) (Print Name) (Signature)

9.7 w/o

ORIGINAL – Laboratory (Return with Report) YELLOW - Laboratory PINK - Originator

Actor Mickelson • Environmental, Inc.

Chain of Custody and Analysis Request Form

Geotracker Global ID PO# 4507265171

☒ Standard TAT ☐ RUSH TAT ☐ 24 hr. TAT ☐ 48 hr. TAT ☐ 72 hr. TAT ☐ 5 day TAT

Page 2 of 2 | Chain of Custody 5353

Send Results to:
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
(916) 939-7550, FAX (916) 939-7570
Attn.: Jennifer Guthmiller

- ☐ Preliminary Fax Result
- ☒ Sample Receipt/ Log-In Confirmation
- ☒ Electronic Data Deliverables to: jshaal@amcinc.net
- ☐ Geotracker EDF
- ☒ Raw Data Deliverables
- ☐ Call with Verbal Results

Lab ID (LAB USE ONLY)	Field Point ID	Sample ID	Date Collected	Time Collected	Matrix	Container	Number of Containers	Preservative	Requested Analysis: 8260B BTEX MTBE	8260B Ethanol	NWTPHGx	NWTPHDx (ext)						Comments
	HA5	HA5-060706	6/7/06	1115	GW	GB V	1 4	HC HC	X	X	X	X	NWTPHDx				11	d = diesel o = Heavy Range O
	HA10	HA10-060706	6/7/06	1205	GW	GB ~~V~~	1 ~~4~~	HC ~~HC~~				X					12	
	W1	W1-060706	6/7/06	1345	GW	GB V	1 6	HC HC	X	X	X	X					13	
	D6	D6-060706	6/7/06	1430	GW	GB V	1 4	HC HC	X	X	X	X					14	
	D7	D7-060706	6/7/06	1505	GW	GB V	1 4	HC HC	X	X	X	X					15	
	HA1	HA1-060706	6/7/06	1530	GW	GB V	1 4	HC HC	X	X	X	X					16	
	QAQC	DUPE-1-060706	6/7/06	—	GW	GB V	1 4	HC HC	X	X	X	X						

Signature	Date	Time
Relinquished by:	6/8/06	1313
Received by: Tom Blankenship	6/8/06	1313
Relinquished by:		
Received by:		

Signature	Date	Time
Relinquished by: Brandy Tonkin	6/12/06	1542
Received by:	6/13/06	750
Relinquished by:		
Received by:		

Matrix: W - Water; DW - Drinking Water; SW - Surface Water; GW - Ground Water; WW - Waste Water; RW - Reagent Water; S - Soil; SE - Sediment; SV - Soil Vapor; AA - Ambient Air; WS - Waste (Solid); O - Other
Container: GB - Glass Bottle (Amber); V - 40 ml VOA Vial; BT, ST, PT - Brass, Steel, and Plastic Tube; P - Polythethylene; GJ - Glass Jar, SC - Summa Canister; TD - Tedlar
Preservative: C - Cold; HS - Sulfuric Acid; HC - Hydrochloric Acid; HN - Nitric Acid; Na - Sodium Hydroxide; O - Other

Project Name and Location: Former Renton Terminal # 46-080
Project Number: 13034.03 - Receiving Lab: Test America
Sampled by: Brian Richardson (BAR)
Print Name Signature

9.7 w/o

ORIGINAL – Laboratory (Return with Report) YELLOW - Laboratory PINK - Originator

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

November 09, 2006

Client: Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
Attn: Jennifer Guthmiller

Work Order: NPJ3797
Project Name: (06) Former Renton Terminal #46-080
Project Nbr: 13042.01
P/O Nbr: 4507265171
Date Received: 10/27/06

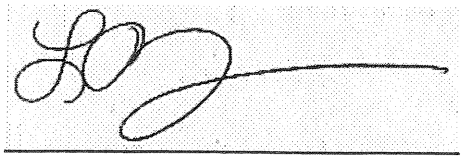
SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
D-7-102406	NPJ3797-01	10/24/06 11:40
B-2-102306	NPJ3797-02	10/23/06 15:30
B-5-102306	NPJ3797-03	10/23/06 16:00
HA-1-102406	NPJ3797-04	10/24/06 08:30
HA-11-102406	NPJ3797-05	10/24/06 09:00
HA-10-102406	NPJ3797-06	10/24/06 09:15
HA-9-102406	NPJ3797-07	10/24/06 09:30
HA-2-102406	NPJ3797-08	10/24/06 09:45
B-2-102306-TB	NPJ3797-09	10/23/06 15:00
HA-4-102406	NPJ3797-10	10/24/06 10:00
W-3-102406	NPJ3797-11	10/24/06 10:40
W-4-102406	NPJ3797-12	10/24/06 11:15
HA-14-102406	NPJ3797-13	10/24/06 12:10
HA-13-102406	NPJ3797-14	10/24/06 12:20
HA-5-102406	NPJ3797-15	10/24/06 12:30
HA-7-102406	NPJ3797-16	10/24/06 12:45
HA-12-102406	NPJ3797-17	10/24/06 13:45
HA-6-102406	NPJ3797-18	10/24/06 13:15
DUPE-2-102406	NPJ3797-19	10/24/06 00:01
B-1-102406	NPJ3797-20	10/24/06 14:15

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Oregon Certification Number: TN200001

The Chain(s) of Custody, 9 pages, are included and are an integral part of this report.

Report Approved By:



2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

Leah R. Klingensmith

Senior Project Management

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPJ3797-01 (D-7-102406 - Ground Water) Sampled: 10/24/06 11:40									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**6.98**		ug/L	0.310	1.00	1	11/04/06 18:55	SW846 8260B	6106133
Ethylbenzene	ND		ug/L	0.230	1.00	1	11/04/06 18:55	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/04/06 18:55	SW846 8260B	6106133
Toluene	**0.630**	J	ug/L	0.220	1.00	1	11/04/06 18:55	SW846 8260B	6106133
Xylenes, total	ND		ug/L	0.440	3.00	1	11/04/06 18:55	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/04/06 18:55	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*98 %*					*1*	*11/04/06 18:55*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*105 %*					*1*	*11/04/06 18:55*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*112 %*					*1*	*11/04/06 18:55*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*96 %*					*1*	*11/04/06 18:55*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**913**	QSG, J	ug/L	356	962	10	11/05/06 01:51	NWTPH-Dx	6105647
Motor Oil	**37200**	QSG	ug/L	356	962	10	11/05/06 01:51	NWTPH-Dx	6105647
Surr: o-Terphenyl (33-147%)	*	*Z3*				*10*	*11/05/06 01:51*	*NWTPH-Dx*	*6105647*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**56.2**	J	ug/L	2.00	100	1	11/03/06 16:52	NWTPH-Gx	6110644
Surr: a,a,a-Trifluorotoluene (63-134%)	*107 %*					*1*	*11/03/06 16:52*	*NWTPH-Gx*	*6110644*
Sample ID: NPJ3797-02 (B-2-102306 - Ground Water) Sampled: 10/23/06 15:30									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**7120**		ug/L	31.0	100	100	11/05/06 03:48	SW846 8260B	6106133
Ethylbenzene	**289**		ug/L	2.30	10.0	10	11/05/06 03:20	SW846 8260B	6106133
Methyl tert-Butyl Ether	**22.1**		ug/L	0.310	1.00	1	11/05/06 02:52	SW846 8260B	6106133
Toluene	**179**		ug/L	0.220	1.00	1	11/05/06 02:52	SW846 8260B	6106133
Xylenes, total	**5280**		ug/L	4.40	30.0	10	11/05/06 03:20	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/05/06 02:52	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*107 %*					*1*	*11/05/06 02:52*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*98 %*					*1*	*11/05/06 02:52*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*96 %*					*1*	*11/05/06 02:52*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*86 %*					*1*	*11/05/06 02:52*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**10700**	QSG	ug/L	180	485	5	11/06/06 09:51	NWTPH-Dx	6105647
Motor Oil	ND	QSG	ug/L	180	485	5	11/06/06 09:51	NWTPH-Dx	6105647
Surr: o-Terphenyl (33-147%)	*76 %*					*5*	*11/06/06 09:51*	*NWTPH-Dx*	*6105647*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**47000**		ug/L	100	5000	50	11/03/06 17:18	NWTPH-Gx	6110644
Surr: a,a,a-Trifluorotoluene (63-134%)	*115 %*					*50*	*11/03/06 17:18*	*NWTPH-Gx*	*6110644*
Sample ID: NPJ3797-03 (B-5-102306 - Ground Water) Sampled: 10/23/06 16:00									
Selected Volatile Organic Compounds by EPA Method 8260B									

Client Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
Attn Jennifer Guthmiller

Work Order: NPJ3797
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13042.01
Received: 10/27/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPJ3797-03 (B-5-102306 - Ground Water) - cont. Sampled: 10/23/06 16:00									
Selected Volatile Organic Compounds by EPA Method 8260B - cont.									
Benzene	**1950**		ug/L	15.5	50.0	50	11/05/06 04:45	SW846 8260B	6106133
Ethylbenzene	**372**		ug/L	11.5	50.0	50	11/05/06 04:45	SW846 8260B	6106133
Methyl tert-Butyl Ether	**0.770**	J	ug/L	0.310	1.00	1	11/05/06 04:17	SW846 8260B	6106133
Toluene	**23.8**		ug/L	0.220	1.00	1	11/05/06 04:17	SW846 8260B	6106133
Xylenes, total	**904**		ug/L	22.0	150	50	11/05/06 04:45	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/05/06 04:17	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*85 %*					*1*	*11/05/06 04:17*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*98 %*					*1*	*11/05/06 04:17*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*96 %*					*1*	*11/05/06 04:17*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*89 %*					*1*	*11/05/06 04:17*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**6440**	QSG	ug/L	70.5	190	2	11/06/06 10:10	NWTPH-Dx	6105647
Motor Oil	**605**	QSG	ug/L	70.5	190	2	11/06/06 10:10	NWTPH-Dx	6105647
Surr: o-Terphenyl (33-147%)	*91 %*					*2*	*11/06/06 10:10*	*NWTPH-Dx*	*6105647*
.rgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**9010**		ug/L	40.0	2000	20	10/31/06 16:15	NWTPH-Gx	6106208
Surr: a,a,a-Trifluorotoluene (63-134%)	*84 %*					*20*	*10/31/06 16:15*	*NWTPH-Gx*	*6106208*
Sample ID: NPJ3797-04 (HA-1-102406 - Ground Water) Sampled: 10/24/06 08:30									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		ug/L	0.310	1.00	1	11/04/06 19:23	SW846 8260B	6106133
Ethylbenzene	ND		ug/L	0.230	1.00	1	11/04/06 19:23	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/04/06 19:23	SW846 8260B	6106133
Toluene	ND		ug/L	0.220	1.00	1	11/04/06 19:23	SW846 8260B	6106133
Xylenes, total	ND		ug/L	0.440	3.00	1	11/04/06 19:23	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/04/06 19:23	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*98 %*					*1*	*11/04/06 19:23*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*104 %*					*1*	*11/04/06 19:23*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*113 %*					*1*	*11/04/06 19:23*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*92 %*					*1*	*11/04/06 19:23*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**877**	QSG	ug/L	35.2	95.2	1	11/06/06 10:28	NWTPH-Dx	6105647
Motor Oil	**1090**	QSG	ug/L	35.2	95.2	1	11/06/06 10:28	NWTPH-Dx	6105647
Surr: o-Terphenyl (33-147%)	*59 %*					*1*	*11/06/06 10:28*	*NWTPH-Dx*	*6105647*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**10.9**	J	ug/L	2.00	100	1	10/29/06 01:25	NWTPH-Gx	6105679
Surr: a,a,a-Trifluorotoluene (63-134%)	*65 %*					*1*	*10/29/06 01:25*	*NWTPH-Gx*	*6105679*
nple ID: NPJ3797-05 (HA-11-102406 - Ground Water) Sampled: 10/24/06 09:00									
lected Volatile Organic Compounds by EPA Method 8260B									

Client: Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
Attn: Jennifer Guthmiller

Work Order: NPJ3797
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13042.01
Received: 10/27/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPJ3797-05 (HA-11-102406 - Ground Water) - cont. Sampled: 10/24/06 09:00									
Selected Volatile Organic Compounds by EPA Method 8260B - cont.									
Benzene	**1510**		ug/L	6.20	20.0	20	11/05/06 05:41	SW846 8260B	6106133
Ethylbenzene	**385**		ug/L	4.60	20.0	20	11/05/06 05:41	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/05/06 05:13	SW846 8260B	6106133
Toluene	**12.2**		ug/L	0.220	1.00	1	11/05/06 05:13	SW846 8260B	6106133
Xylenes, total	**710**		ug/L	8.80	60.0	20	11/05/06 05:41	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/05/06 05:13	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*84 %*					*1*	*11/05/06 05:13*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*97 %*					*1*	*11/05/06 05:13*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*103 %*					*1*	*11/05/06 05:13*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*87 %*					*1*	*11/05/06 05:13*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**3560**	QSG	ug/L	74.0	200	1	11/05/06 03:14	NWTPH-Dx	6105647
Motor Oil	**1370**	QSG	ug/L	74.0	200	1	11/05/06 03:14	NWTPH-Dx	6105647
Surr: o-Terphenyl (33-147%)	*34 %*					*1*	*11/05/06 03:14*	*NWTPH-Dx*	*6105647*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**7410**		ug/L	20.0	1000	10	10/29/06 01:40	NWTPH-Gx	6105679
Surr: a,a,a-Trifluorotoluene (63-134%)	*106 %*					*10*	*10/29/06 01:40*	*NWTPH-Gx*	*6105679*
Sample ID: NPJ3797-06 (HA-10-102406 - Ground Water) Sampled: 10/24/06 09:15									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**36.2**		ug/L	0.310	1.00	1	11/04/06 19:51	SW846 8260B	6106133
Ethylbenzene	**47.4**		ug/L	0.230	1.00	1	11/04/06 19:51	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/04/06 19:51	SW846 8260B	6106133
Toluene	ND		ug/L	0.220	1.00	1	11/04/06 19:51	SW846 8260B	6106133
Xylenes, total	**99.4**		ug/L	0.440	3.00	1	11/04/06 19:51	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/04/06 19:51	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*94 %*					*1*	*11/04/06 19:51*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*100 %*					*1*	*11/04/06 19:51*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*97 %*					*1*	*11/04/06 19:51*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*93 %*					*1*	*11/04/06 19:51*	*SW846 8260B*	*6106133*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**2280**		ug/L	2.00	100	1	10/29/06 01:55	NWTPH-Gx	6105679
Surr: a,a,a-Trifluorotoluene (63-134%)	*78 %*					*1*	*10/29/06 01:55*	*NWTPH-Gx*	*6105679*
Sample ID: NPJ3797-07 (HA-9-102406 - Ground Water) Sampled: 10/24/06 09:30									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**248**		ug/L	3.10	10.0	10	11/05/06 06:37	SW846 8260B	6106133
Ethylbenzene	**580**		ug/L	2.30	10.0	10	11/05/06 06:37	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/05/06 06:09	SW846 8260B	6106133
Toluene	**2.58**		ug/L	0.220	1.00	1	11/05/06 06:09	SW846 8260B	6106133
Xylenes, total	**8.43**		ug/L	0.440	3.00	1	11/05/06 06:09	SW846 8260B	6106133

ent	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
n	Jennifer Guthmiller	Received:	10/27/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
ple ID: NPJ3797-07 (HA-9-102406 - Ground Water) - cont. Sampled: 10/24/06 09:30									
olatile Organic Compounds by EPA Method 8260B - cont.									
thanol	ND		ug/L	62.0	100	1	11/05/06 06:09	SW846 8260B	6106133
1,2-Dichloroethane-d4 (62-142%)	*83 %*					*1*	*11/05/06 06:09*	*SW846 8260B*	*6106133*
Dibromofluoromethane (78-123%)	*98 %*					*1*	*11/05/06 06:09*	*SW846 8260B*	*6106133*
rr: Toluene-d8 (79-120%)	*94 %*					*1*	*11/05/06 06:09*	*SW846 8260B*	*6106133*
4-Bromofluorobenzene (75-133%)	*89 %*					*1*	*11/05/06 06:09*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
iesel	**3080**	QSG	ug/L	52.9	143	1	11/05/06 03:34	NWTPH-Dx	6105647
r Oil	**248**	QSG	ug/L	52.9	143	1	11/05/06 03:34	NWTPH-Dx	6105647
o-Terphenyl (33-147%)	*51 %*					*1*	*11/05/06 03:34*	*NWTPH-Dx*	*6105647*
urgeable Petroleum Hydrocarbons									
(C4-C12)	**7050**		ug/L	2.00	100	1	10/29/06 02:10	NWTPH-Gx	6105679
a,a,a-Trifluorotoluene (63-134%)	*130 %*					*1*	*10/29/06 02:10*	*NWTPH-Gx*	*6105679*
ID: NPJ3797-08 (HA-2-102406 - Ground Water) Sampled: 10/24/06 09:45									
cted Volatile Organic Compounds by EPA Method 8260B									
enzene	**4890**		ug/L	31.0	100	100	11/05/06 08:01	SW846 8260B	6106133
lbenzene	**794**		ug/L	2.30	10.0	10	11/05/06 07:33	SW846 8260B	6106133
yl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/05/06 07:05	SW846 8260B	6106133
luene	**1480**		ug/L	2.20	10.0	10	11/05/06 07:33	SW846 8260B	6106133
ylenes, total	**5610**		ug/L	4.40	30.0	10	11/05/06 07:33	SW846 8260B	6106133
ol	ND		ug/L	62.0	100	1	11/05/06 07:05	SW846 8260B	6106133
1,2-Dichloroethane-d4 (62-142%)	*89 %*					*1*	*11/05/06 07:05*	*SW846 8260B*	*6106133*
rr: Dibromofluoromethane (78-123%)	*99 %*					*1*	*11/05/06 07:05*	*SW846 8260B*	*6106133*
Toluene-d8 (79-120%)	*99 %*					*1*	*11/05/06 07:05*	*SW846 8260B*	*6106133*
4-Bromofluorobenzene (75-133%)	*91 %*					*1*	*11/05/06 07:05*	*SW846 8260B*	*6106133*
urgeable Petroleum Hydrocarbons									
(C4-C12)	**31700**		ug/L	20.0	1000	10	10/29/06 02:25	NWTPH-Gx	6105679
a,a,a-Trifluorotoluene (63-134%)	*74 %*					*10*	*10/29/06 02:25*	*NWTPH-Gx*	*6105679*
mple ID: NPJ3797-09 (B-2-102306-TB - Ground Water) Sampled: 10/23/06 15:00									
cted Volatile Organic Compounds by EPA Method 8260B									
nzene	ND		ug/L	0.310	1.00	1	11/04/06 20:19	SW846 8260B	6106133
hylbenzene	ND		ug/L	0.230	1.00	1	11/04/06 20:19	SW846 8260B	6106133
yl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/04/06 20:19	SW846 8260B	6106133
ne	ND		ug/L	0.220	1.00	1	11/04/06 20:19	SW846 8260B	6106133
lenes, total	ND		ug/L	0.440	3.00	1	11/04/06 20:19	SW846 8260B	6106133
hanol	ND		ug/L	62.0	100	1	11/04/06 20:19	SW846 8260B	6106133
1,2-Dichloroethane-d4 (62-142%)	*95 %*					*1*	*11/04/06 20:19*	*SW846 8260B*	*6106133*
Dibromofluoromethane (78-123%)	*104 %*					*1*	*11/04/06 20:19*	*SW846 8260B*	*6106133*
ene-d8 (79-120%)	*110 %*					*1*	*11/04/06 20:19*	*SW846 8260B*	*6106133*
4-Bromofluorobenzene (75-133%)	*87 %*					*1*	*11/04/06 20:19*	*SW846 8260B*	*6106133*

Client Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
Attn Jennifer Guthmiller

Work Order: NPJ3797
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13042.01
Received: 10/27/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPJ3797-09 (B-2-102306-TB - Ground Water) - cont. Sampled: 10/23/06 15:00									
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**9.85**	J	ug/L	2.00	100	1	10/30/06 06:54	NWTPH-Gx	6105788
Surr: a,a,a-Trifluorotoluene (63-134%)	*81 %*					*1*	*10/30/06 06:54*	*NWTPH-Gx*	*6105788*
Sample ID: NPJ3797-10 (HA-4-102406 - Ground Water) Sampled: 10/24/06 10:00									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**60.6**		ug/L	0.310	1.00	1	11/05/06 20:34	SW846 8260B	6106133
Ethylbenzene	**2.92**		ug/L	0.230	1.00	1	11/05/06 20:34	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/05/06 20:34	SW846 8260B	6106133
Toluene	**21.0**		ug/L	0.220	1.00	1	11/05/06 20:34	SW846 8260B	6106133
Xylenes, total	**19.2**		ug/L	0.440	3.00	1	11/05/06 20:34	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/05/06 20:34	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*102 %*					*1*	*11/05/06 20:34*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*95 %*					*1*	*11/05/06 20:34*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*101 %*					*1*	*11/05/06 20:34*	*SW846 8260B*	*6106133*
: 4-Bromofluorobenzene (75-133%)	*108 %*					*1*	*11/05/06 20:34*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**325**	QSG	ug/L	74.0	200	1	11/05/06 03:55	NWTPH-Dx	6105647
Motor Oil	**672**	QSG	ug/L	74.0	200	1	11/05/06 03:55	NWTPH-Dx	6105647
Surr: o-Terphenyl (33-147%)	*44 %*					*1*	*11/05/06 03:55*	*NWTPH-Dx*	*6105647*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**275**		ug/L	2.00	100	1	11/04/06 12:44	NWTPH-Gx	6110934
Surr: a,a,a-Trifluorotoluene (63-134%)	*115 %*					*1*	*11/04/06 12:44*	*NWTPH-Gx*	*6110934*
Sample ID: NPJ3797-11 (W-3-102406 - Ground Water) Sampled: 10/24/06 10:40									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**933**		ug/L	6.20	20.0	20	11/07/06 20:04	SW846 8260B	6106133
Ethylbenzene	**293**		ug/L	4.60	20.0	20	11/07/06 20:04	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/07/06 19:36	SW846 8260B	6106133
Toluene	**21.3**		ug/L	0.220	1.00	1	11/07/06 19:36	SW846 8260B	6106133
Xylenes, total	**638**		ug/L	8.80	60.0	20	11/07/06 20:04	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/07/06 19:36	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*100 %*					*1*	*11/07/06 19:36*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*95 %*					*1*	*11/07/06 19:36*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*94 %*					*1*	*11/07/06 19:36*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*93 %*					*1*	*11/07/06 19:36*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**2300**	QSG	ug/L	35.2	95.2	1	11/05/06 04:56	NWTPH-Dx	6105647
Motor Oil	ND	QSG	ug/L	35.2	95.2	1	11/05/06 04:56	NWTPH-Dx	6105647
o-Terphenyl (33-147%)	*64 %*					*1*	*11/05/06 04:56*	*NWTPH-Dx*	*6105647*
Purgeable Petroleum Hydrocarbons									

Client: Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
Attn: Jennifer Guthmiller

Work Order: NPJ3797
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13042.01
Received: 10/27/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPJ3797-11RE1 (W-3-102406 - Ground Water) - cont. Sampled: 10/24/06 10:40									
Purgeable Petroleum Hydrocarbons - cont.									
GRO (C4-C12)	**12200**		ug/L	20.0	1000	10	11/04/06 13:08	NWTPH-Gx	6110934
Surr: a,a,a-Trifluorotoluene (63-134%)	*110 %*					*10*	*11/04/06 13:08*	*NWTPH-Gx*	*6110934*
Sample ID: NPJ3797-12 (W-4-102406 - Ground Water) Sampled: 10/24/06 11:15									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**1520**		ug/L	15.5	50.0	50	11/07/06 21:00	SW846 8260B	6106133
Ethylbenzene	**1490**		ug/L	11.5	50.0	50	11/07/06 21:00	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/07/06 20:32	SW846 8260B	6106133
Toluene	**8.34**		ug/L	0.220	1.00	1	11/07/06 20:32	SW846 8260B	6106133
Xylenes, total	**18.9**		ug/L	0.440	3.00	1	11/07/06 20:32	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/07/06 20:32	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*94 %*					*1*	*11/07/06 20:32*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*93 %*					*1*	*11/07/06 20:32*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*90 %*					*1*	*11/07/06 20:32*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*100 %*					*1*	*11/07/06 20:32*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**5570**	QSG	ug/L	70.5	190	2	11/06/06 10:46	NWTPH-Dx	6105647
Motor Oil	ND	QSG	ug/L	70.5	190	2	11/06/06 10:46	NWTPH-Dx	6105647
Surr: o-Terphenyl (33-147%)	*64 %*					*2*	*11/06/06 10:46*	*NWTPH-Dx*	*6105647*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**17200**		ug/L	20.0	1000	10	11/04/06 13:31	NWTPH-Gx	6110934
Surr: a,a,a-Trifluorotoluene (63-134%)	*108 %*					*10*	*11/04/06 13:31*	*NWTPH-Gx*	*6110934*
Sample ID: NPJ3797-13 (HA-14-102406 - Ground Water) Sampled: 10/24/06 12:10									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**12.3**		ug/L	0.310	1.00	1	11/04/06 21:16	SW846 8260B	6106133
Ethylbenzene	**9.60**		ug/L	0.230	1.00	1	11/04/06 21:16	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/04/06 21:16	SW846 8260B	6106133
Toluene	**2.06**		ug/L	0.220	1.00	1	11/04/06 21:16	SW846 8260B	6106133
Xylenes, total	**1.42**	J	ug/L	0.440	3.00	1	11/04/06 21:16	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/04/06 21:16	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*99 %*					*1*	*11/04/06 21:16*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*106 %*					*1*	*11/04/06 21:16*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*109 %*					*1*	*11/04/06 21:16*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*88 %*					*1*	*11/04/06 21:16*	*SW846 8260B*	*6106133*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**288**		ug/L	2.00	100	1	11/04/06 13:55	NWTPH-Gx	6110934
Surr: a,a,a-Trifluorotoluene (63-134%)	*105 %*					*1*	*11/04/06 13:55*	*NWTPH-Gx*	*6110934*
ple ID: NPJ3797-14 (HA-13-102406 - Ground Water) Sampled: 10/24/06 12:20									
Selected Volatile Organic Compounds by EPA Method 8260B									

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPJ3797-14 (HA-13-102406 - Ground Water) - cont. Sampled: 10/24/06 12:20									
Selected Volatile Organic Compounds by EPA Method 8260B - cont.									
Benzene	**7.34**		ug/L	0.310	1.00	1	11/05/06 01:56	SW846 8260B	6106133
Ethylbenzene	**0.770**	J	ug/L	0.230	1.00	1	11/05/06 01:56	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/05/06 01:56	SW846 8260B	6106133
Toluene	**1.83**		ug/L	0.220	1.00	1	11/05/06 01:56	SW846 8260B	6106133
Xylenes, total	**0.750**	J	ug/L	0.440	3.00	1	11/05/06 01:56	SW846 8260B	6106133
Naphthol	ND		ug/L	62.0	100	1	11/05/06 01:56	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*98 %*					*1*	*11/05/06 01:56*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*106 %*					*1*	*11/05/06 01:56*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*110 %*					*1*	*11/05/06 01:56*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*86 %*					*1*	*11/05/06 01:56*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	ND	QSG	ug/L	37.8	102	1	11/05/06 05:37	NWTPH-Dx	6105647
Motor Oil	ND	QSG	ug/L	37.8	102	1	11/05/06 05:37	NWTPH-Dx	6105647
Surr: o-Terphenyl (33-147%)	*80 %*					*1*	*11/05/06 05:37*	*NWTPH-Dx*	*6105647*
Volatile Petroleum Hydrocarbons									
GRO (C4-C12)	**100**		ug/L	2.00	100	1	11/03/06 19:31	NWTPH-Gx	6110644
Surr: a,a,a-Trifluorotoluene (63-134%)	*109 %*					*1*	*11/03/06 19:31*	*NWTPH-Gx*	*6110644*
Sample ID: NPJ3797-15 (HA-5-102406 - Ground Water) Sampled: 10/24/06 12:30									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**22.7**		ug/L	0.310	1.00	1	11/04/06 21:44	SW846 8260B	6106133
Ethylbenzene	**1.72**		ug/L	0.230	1.00	1	11/04/06 21:44	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/04/06 21:44	SW846 8260B	6106133
Toluene	**3.42**		ug/L	0.220	1.00	1	11/04/06 21:44	SW846 8260B	6106133
Xylenes, total	**2.92**	J	ug/L	0.440	3.00	1	11/04/06 21:44	SW846 8260B	6106133
Naphthol	ND		ug/L	62.0	100	1	11/04/06 21:44	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*98 %*					*1*	*11/04/06 21:44*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*105 %*					*1*	*11/04/06 21:44*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*102 %*					*1*	*11/04/06 21:44*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*88 %*					*1*	*11/04/06 21:44*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**178**	QSG	ug/L	35.8	94.3	1	11/04/06 07:00	NWTPH-Dx	6105648
Motor Oil	ND	QSG	ug/L	35.8	94.3	1	11/04/06 07:00	NWTPH-Dx	6105648
o-Terphenyl (51-142%)	*65 %*					*1*	*11/04/06 07:00*	*NWTPH-Dx*	*6105648*
Volatile Petroleum Hydrocarbons									
GRO (C4-C12)	**303**		ug/L	2.00	100	1	11/03/06 19:57	NWTPH-Gx	6110644
a,a,a-Trifluorotoluene (63-134%)	*103 %*					*1*	*11/03/06 19:57*	*NWTPH-Gx*	*6110644*

Client Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
Attn Jennifer Guthmiller

Work Order: NPJ3797
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13042.01
Received: 10/27/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPJ3797-16 (HA-7-102406 - Ground Water) Sampled: 10/24/06 12:45									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**46.9**		ug/L	0.310	1.00	1	11/04/06 22:12	SW846 8260B	6106133
Ethylbenzene	**7.86**		ug/L	0.230	1.00	1	11/04/06 22:12	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/04/06 22:12	SW846 8260B	6106133
Toluene	**4.32**		ug/L	0.220	1.00	1	11/04/06 22:12	SW846 8260B	6106133
Xylenes, total	**23.5**		ug/L	0.440	3.00	1	11/04/06 22:12	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/04/06 22:12	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*96 %*					*1*	*11/04/06 22:12*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*105 %*					*1*	*11/04/06 22:12*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*105 %*					*1*	*11/04/06 22:12*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*88 %*					*1*	*11/04/06 22:12*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**1040**	QSG	ug/L	36.2	95.2	1	11/04/06 07:20	NWTPH-Dx	6105648
Motor Oil	**408**	QSG	ug/L	36.2	95.2	1	11/04/06 07:20	NWTPH-Dx	6105648
Surr: o-Terphenyl (51-142%)	*47 %*	*Z*				*1*	*11/04/06 07:20*	*NWTPH-Dx*	*6105648*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**537**		ug/L	2.00	100	1	11/03/06 20:24	NWTPH-Gx	6110644
Surr: a,a,a-Trifluorotoluene (63-134%)	*107 %*					*1*	*11/03/06 20:24*	*NWTPH-Gx*	*6110644*
Sample ID: NPJ3797-17 (HA-12-102406 - Ground Water) Sampled: 10/24/06 13:45									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**4.85**		ug/L	0.310	1.00	1	11/05/06 02:24	SW846 8260B	6106133
Ethylbenzene	**0.860**	J	ug/L	0.230	1.00	1	11/05/06 02:24	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/05/06 02:24	SW846 8260B	6106133
Toluene	**1.60**		ug/L	0.220	1.00	1	11/05/06 02:24	SW846 8260B	6106133
Xylenes, total	**0.870**	J	ug/L	0.440	3.00	1	11/05/06 02:24	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/05/06 02:24	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*97 %*					*1*	*11/05/06 02:24*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*105 %*					*1*	*11/05/06 02:24*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*113 %*					*1*	*11/05/06 02:24*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*89 %*					*1*	*11/05/06 02:24*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**103**	QSG	ug/L	35.8	94.3	1	11/04/06 07:40	NWTPH-Dx	6105648
Motor Oil	**564**	QSG	ug/L	35.8	94.3	1	11/04/06 07:40	NWTPH-Dx	6105648
Surr: o-Terphenyl (51-142%)	*59 %*					*1*	*11/04/06 07:40*	*NWTPH-Dx*	*6105648*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**58.2**	J	ug/L	2.00	100	1	11/03/06 20:50	NWTPH-Gx	6110644
Surr: a,a,a-Trifluorotoluene (63-134%)	*105 %*					*1*	*11/03/06 20:50*	*NWTPH-Gx*	*6110644*

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPJ3797-18 (HA-6-102406 - Ground Water) Sampled: 10/24/06 13:15									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**422**		ug/L	3.10	10.0	10	11/05/06 21:30	SW846 8260B	6106133
Ethylbenzene	**948**		ug/L	2.30	10.0	10	11/05/06 21:30	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/05/06 21:02	SW846 8260B	6106133
Toluene	**172**		ug/L	0.220	1.00	1	11/05/06 21:02	SW846 8260B	6106133
Xylenes, total	**2570**		ug/L	4.40	30.0	10	11/05/06 21:30	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/05/06 21:02	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*102 %*					*1*	*11/05/06 21:02*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*96 %*					*1*	*11/05/06 21:02*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*83 %*					*1*	*11/05/06 21:02*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*98 %*					*1*	*11/05/06 21:02*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**2670**	QSG	ug/L	71.4	188	2	11/04/06 15:03	NWTPH-Dx	6105648
Motor Oil	ND	QSG	ug/L	71.4	188	2	11/04/06 15:03	NWTPH-Dx	6105648
Surr: o-Terphenyl (51-142%)	*32 %*	*Z*				*2*	*11/04/06 15:03*	*NWTPH-Dx*	*6105648*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**19000**		ug/L	20.0	1000	10	11/04/06 14:18	NWTPH-Gx	6110934
Surr: a,a,a-Trifluorotoluene (63-134%)	*110 %*					*10*	*11/04/06 14:18*	*NWTPH-Gx*	*6110934*
Sample ID: NPJ3797-19 (DUPE-2-102406 - Ground Water) Sampled: 10/24/06 00:01									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**877**		ug/L	3.10	10.0	10	11/05/06 22:26	SW846 8260B	6106133
Ethylbenzene	**301**		ug/L	2.30	10.0	10	11/05/06 22:26	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/05/06 21:58	SW846 8260B	6106133
Toluene	**18.3**		ug/L	0.220	1.00	1	11/05/06 21:58	SW846 8260B	6106133
Xylenes, total	**535**		ug/L	0.440	3.00	1	11/05/06 21:58	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/05/06 21:58	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*93 %*					*1*	*11/05/06 21:58*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*94 %*					*1*	*11/05/06 21:58*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*87 %*					*1*	*11/05/06 21:58*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*99 %*					*1*	*11/05/06 21:58*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**2050**	QSG	ug/L	36.9	97.1	1	11/04/06 08:20	NWTPH-Dx	6105648
Motor Oil	ND	QSG	ug/L	36.9	97.1	1	11/04/06 08:20	NWTPH-Dx	6105648
Surr: o-Terphenyl (51-142%)	*58 %*					*1*	*11/04/06 08:20*	*NWTPH-Dx*	*6105648*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**9520**		ug/L	20.0	1000	10	10/31/06 16:30	NWTPH-Gx	6106208
Surr: a,a,a-Trifluorotoluene (63-134%)	*115 %*					*10*	*10/31/06 16:30*	*NWTPH-Gx*	*6106208*
Sample ID: NPJ3797-20 (B-1-102406 - Ground Water) Sampled: 10/24/06 14:15									
Selected Volatile Organic Compounds by EPA Method 8260B									

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPJ3797-20 (B-1-102406 - Ground Water) - cont. Sampled: 10/24/06 14:15									
Selected Volatile Organic Compounds by EPA Method 8260B - cont.									
Benzene	**363**		ug/L	3.10	10.0	10	11/05/06 23:22	SW846 8260B	6106133
Ethylbenzene	**113**		ug/L	0.230	1.00	1	11/05/06 22:54	SW846 8260B	6106133
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/05/06 22:54	SW846 8260B	6106133
Toluene	**6.65**		ug/L	0.220	1.00	1	11/05/06 22:54	SW846 8260B	6106133
Xylenes, total	**26.8**		ug/L	0.440	3.00	1	11/05/06 22:54	SW846 8260B	6106133
Ethanol	ND		ug/L	62.0	100	1	11/05/06 22:54	SW846 8260B	6106133
Surr: 1,2-Dichloroethane-d4 (62-142%)	*90 %*					*1*	*11/05/06 22:54*	*SW846 8260B*	*6106133*
Surr: Dibromofluoromethane (78-123%)	*94 %*					*1*	*11/05/06 22:54*	*SW846 8260B*	*6106133*
Surr: Toluene-d8 (79-120%)	*95 %*					*1*	*11/05/06 22:54*	*SW846 8260B*	*6106133*
Surr: 4-Bromofluorobenzene (75-133%)	*106 %*					*1*	*11/05/06 22:54*	*SW846 8260B*	*6106133*
Extractable Petroleum Hydrocarbons									
Diesel	**884**	QSG	ug/L	35.8	94.3	1	11/04/06 08:40	NWTPH-Dx	6105648
Motor Oil	**800**	QSG	ug/L	35.8	94.3	1	11/04/06 08:40	NWTPH-Dx	6105648
Surr: o-Terphenyl (51-142%)	*54 %*					*1*	*11/04/06 08:40*	*NWTPH-Dx*	*6105648*
geable Petroleum Hydrocarbons									
GRO (C4-C12)	**3770**		ug/L	2.00	100	1	11/03/06 21:43	NWTPH-Gx	6110644
Surr: a,a,a-Trifluorotoluene (63-134%)	*107 %*					*1*	*11/03/06 21:43*	*NWTPH-Gx*	*6110644*

Client Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
Attn Jennifer Guthmiller

Work Order: NPJ3797
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13042.01
Received: 10/27/06 08:00

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
Extractable Petroleum Hydrocarbons							
NWTPH-Dx	6105647	NPJ3797-01	1040.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105647	NPJ3797-02	1030.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105647	NPJ3797-02RE1	1030.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105647	NPJ3797-03	1050.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105647	NPJ3797-03RE1	1050.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105647	NPJ3797-04	1050.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105647	NPJ3797-04RE1	1050.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105647	NPJ3797-05	500.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105647	NPJ3797-07	700.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105647	NPJ3797-10	500.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105647	NPJ3797-11	1050.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105647	NPJ3797-12	1050.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105647	NPJ3797-12RE1	1050.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105647	NPJ3797-14	980.00	1.00	10/30/06 15:00	CEC	EPA 3510C
NWTPH-Dx	6105648	NPJ3797-15	1060.00	1.00	10/31/06 09:25	KLG	EPA 3510C
NWTPH-Dx	6105648	NPJ3797-16	1050.00	1.00	10/31/06 09:25	KLG	EPA 3510C
NWTPH-Dx	6105648	NPJ3797-17	1060.00	1.00	10/31/06 09:25	KLG	EPA 3510C
NWTPH-Dx	6105648	NPJ3797-18	1065.00	1.00	10/31/06 09:25	KLG	EPA 3510C
NWTPH-Dx	6105648	NPJ3797-18RE1	1065.00	1.00	10/31/06 09:25	KLG	EPA 3510C
NWTPH-Dx	6105648	NPJ3797-19	1030.00	1.00	10/31/06 09:25	KLG	EPA 3510C
NWTPH-Dx	6105648	NPJ3797-20	1060.00	1.00	10/31/06 09:25	KLG	EPA 3510C

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B						
6106133-BLK1						
Benzene	<0.310		ug/L	6106133	6106133-BLK1	11/04/06 14:14
Ethylbenzene	<0.230		ug/L	6106133	6106133-BLK1	11/04/06 14:14
Methyl tert-Butyl Ether	<0.310		ug/L	6106133	6106133-BLK1	11/04/06 14:14
Toluene	<0.220		ug/L	6106133	6106133-BLK1	11/04/06 14:14
Xylenes, total	<0.440		ug/L	6106133	6106133-BLK1	11/04/06 14:14
Ethanol	<62.0		ug/L	6106133	6106133-BLK1	11/04/06 14:14
Surrogate: 1,2-Dichloroethane-d4	96%			6106133	6106133-BLK1	11/04/06 14:14
Surrogate: 1,2-Dichloroethane-d4	96%			6106133	6106133-BLK1	11/04/06 14:14
Surrogate: Dibromofluoromethane	105%			6106133	6106133-BLK1	11/04/06 14:14
Surrogate: Dibromofluoromethane	105%			6106133	6106133-BLK1	11/04/06 14:14
Surrogate: Toluene-d8	110%			6106133	6106133-BLK1	11/04/06 14:14
Surrogate: Toluene-d8	110%			6106133	6106133-BLK1	11/04/06 14:14
Surrogate: 4-Bromofluorobenzene	83%			6106133	6106133-BLK1	11/04/06 14:14
Surrogate: 4-Bromofluorobenzene	83%			6106133	6106133-BLK1	11/04/06 14:14
6106133-BLK2						
Benzene	<0.310		ug/L	6106133	6106133-BLK2	11/05/06 01:28
Ethylbenzene	<0.230		ug/L	6106133	6106133-BLK2	11/05/06 01:28
Methyl tert-Butyl Ether	<0.310		ug/L	6106133	6106133-BLK2	11/05/06 01:28
Toluene	<0.220		ug/L	6106133	6106133-BLK2	11/05/06 01:28
Xylenes, total	<0.440		ug/L	6106133	6106133-BLK2	11/05/06 01:28
Ethanol	<62.0		ug/L	6106133	6106133-BLK2	11/05/06 01:28
Surrogate: 1,2-Dichloroethane-d4	96%			6106133	6106133-BLK2	11/05/06 01:28
Surrogate: 1,2-Dichloroethane-d4	96%			6106133	6106133-BLK2	11/05/06 01:28
Surrogate: Dibromofluoromethane	105%			6106133	6106133-BLK2	11/05/06 01:28
Surrogate: Dibromofluoromethane	105%			6106133	6106133-BLK2	11/05/06 01:28
Surrogate: Toluene-d8	124%	Z10		6106133	6106133-BLK2	11/05/06 01:28
Surrogate: Toluene-d8	124%	Z10		6106133	6106133-BLK2	11/05/06 01:28
Surrogate: 4-Bromofluorobenzene	86%			6106133	6106133-BLK2	11/05/06 01:28
Surrogate: 4-Bromofluorobenzene	86%			6106133	6106133-BLK2	11/05/06 01:28
6106133-BLK3						
Benzene	<0.310		ug/L	6106133	6106133-BLK3	11/05/06 20:05
Ethylbenzene	<0.230		ug/L	6106133	6106133-BLK3	11/05/06 20:05
Methyl tert-Butyl Ether	<0.310		ug/L	6106133	6106133-BLK3	11/05/06 20:05
Toluene	<0.220		ug/L	6106133	6106133-BLK3	11/05/06 20:05
Xylenes, total	<0.440		ug/L	6106133	6106133-BLK3	11/05/06 20:05
Ethanol	<62.0		ug/L	6106133	6106133-BLK3	11/05/06 20:05
Surrogate: 1,2-Dichloroethane-d4	75%			6106133	6106133-BLK3	11/05/06 20:05
Surrogate: 1,2-Dichloroethane-d4	75%			6106133	6106133-BLK3	11/05/06 20:05
Surrogate: Dibromofluoromethane	71%	Z10		6106133	6106133-BLK3	11/05/06 20:05
Surrogate: Dibromofluoromethane	71%	Z10		6106133	6106133-BLK3	11/05/06 20:05

ent	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
n	Jennifer Guthmiller	Received:	10/27/06 08:00

PROJECT QUALITY CONTROL DATA
Blank - Cont.

te	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
tile Organic Compounds by EPA Method 8260B						
106133-BLK3						
gate: Toluene-d8	92%			6106133	6106133-BLK3	11/05/06 20:05
gate: Toluene-d8	92%			6106133	6106133-BLK3	11/05/06 20:05
rrogate: 4-Bromofluorobenzene	100%			6106133	6106133-BLK3	11/05/06 20:05
rrogate: 4-Bromofluorobenzene	100%			6106133	6106133-BLK3	11/05/06 20:05
106133-BLK4						
benzene	<0.310		ug/L	6106133	6106133-BLK4	11/07/06 18:40
benzene	<0.230		ug/L	6106133	6106133-BLK4	11/07/06 18:40
yl tert-Butyl Ether	<0.310		ug/L	6106133	6106133-BLK4	11/07/06 18:40
oluene	<0.220		ug/L	6106133	6106133-BLK4	11/07/06 18:40
nes, total	<0.440		ug/L	6106133	6106133-BLK4	11/07/06 18:40
ol	<62.0		ug/L	6106133	6106133-BLK4	11/07/06 18:40
rrogate: 1,2-Dichloroethane-d4	102%			6106133	6106133-BLK4	11/07/06 18:40
rrogate: 1,2-Dichloroethane-d4	102%			6106133	6106133-BLK4	11/07/06 18:40
Dibromofluoromethane	98%			6106133	6106133-BLK4	11/07/06 18:40
Dibromofluoromethane	98%			6106133	6106133-BLK4	11/07/06 18:40
rrogate: Toluene-d8	96%			6106133	6106133-BLK4	11/07/06 18:40
gate: Toluene-d8	96%			6106133	6106133-BLK4	11/07/06 18:40
gate: 4-Bromofluorobenzene	107%			6106133	6106133-BLK4	11/07/06 18:40
rrogate: 4-Bromofluorobenzene	107%			6106133	6106133-BLK4	11/07/06 18:40
actable Petroleum Hydrocarbons						
05647-BLK1						
iesel	<37.0		ug/L	6105647	6105647-BLK1	11/05/06 01:10
Oil	<37.0		ug/L	6105647	6105647-BLK1	11/05/06 01:10
gate: o-Terphenyl	107%			6105647	6105647-BLK1	11/05/06 01:10
05648-BLK1						
l	<38.0		ug/L	6105648	6105648-BLK1	11/04/06 06:19
er Oil	<38.0		ug/L	6105648	6105648-BLK1	11/04/06 06:19
rogate: o-Terphenyl	84%			6105648	6105648-BLK1	11/04/06 06:19
eable Petroleum Hydrocarbons						
05679-BLK1						
(C4-C12)	5.82	J	ug/L	6105679	6105679-BLK1	10/28/06 13:36
ate: a,a,a-Trifluorotoluene	81%			6105679	6105679-BLK1	10/28/06 13:36
05679-BLK2						
(C4-C12)	12.5	J	ug/L	6105679	6105679-BLK2	10/28/06 14:04
ate: a,a,a-Trifluorotoluene	105%			6105679	6105679-BLK2	10/28/06 14:04
-BLK1						

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

PROJECT QUALITY CONTROL DATA
Blank - Cont.

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Purgeable Petroleum Hydrocarbons						
6105788-BLK1						
GRO (C4-C12)	7.95	J	ug/L	6105788	6105788-BLK1	10/29/06 23:54
Surrogate: a,a,a-Trifluorotoluene	87%			6105788	6105788-BLK1	10/29/06 23:54
6105788-BLK2						
GRO (C4-C12)	7.06	J	ug/L	6105788	6105788-BLK2	10/30/06 00:09
Surrogate: a,a,a-Trifluorotoluene	108%			6105788	6105788-BLK2	10/30/06 00:09
6106208-BLK1						
GRO (C4-C12)	8.76	J	ug/L	6106208	6106208-BLK1	10/31/06 13:05
Surrogate: a,a,a-Trifluorotoluene	92%			6106208	6106208-BLK1	10/31/06 13:05
6106208-BLK2						
GRO (C4-C12)	5.62	J	ug/L	6106208	6106208-BLK2	10/31/06 13:35
Surrogate: a,a,a-Trifluorotoluene	111%			6106208	6106208-BLK2	10/31/06 13:35
6110644-BLK1						
GRO (C4-C12)	8.25	J	ug/L	6110644	6110644-BLK1	11/03/06 16:25
Surrogate: a,a,a-Trifluorotoluene	108%			6110644	6110644-BLK1	11/03/06 16:25
6110934-BLK1						
GRO (C4-C12)	11.4	J	ug/L	6110934	6110934-BLK1	11/04/06 11:39
Surrogate: a,a,a-Trifluorotoluene	114%			6110934	6110934-BLK1	11/04/06 11:39

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B								
6106133-BS1								
Benzene	50.0	48.1	MNR1	ug/L	96%	80 - 118	6106133	11/04/06 13:18
Ethylbenzene	50.0	54.2	MNR1	ug/L	108%	73 - 134	6106133	11/04/06 13:18
Methyl tert-Butyl Ether	50.0	40.8	MNR1	ug/L	82%	69 - 122	6106133	11/04/06 13:18
Toluene	50.0	55.1	MNR1	ug/L	110%	78 - 122	6106133	11/04/06 13:18
Xylenes, total	150	165	MNR1	ug/L	110%	82 - 127	6106133	11/04/06 13:18
Ethanol	5000	6370	MNR1	ug/L	127%	41 - 166	6106133	11/04/06 13:18
Surrogate: 1,2-Dichloroethane-d4	50.0	45.9			92%	62 - 142	6106133	11/04/06 13:18
Surrogate: 1,2-Dichloroethane-d4	50.0	45.9			92%	62 - 142	6106133	11/04/06 13:18
Surrogate: Dibromofluoromethane	50.0	53.2			106%	78 - 123	6106133	11/04/06 13:18
Surrogate: Dibromofluoromethane	50.0	53.2			106%	78 - 123	6106133	11/04/06 13:18
Surrogate: Toluene-d8	50.0	53.2			106%	79 - 120	6106133	11/04/06 13:18
Surrogate: Toluene-d8	50.0	53.2			106%	79 - 120	6106133	11/04/06 13:18
Surrogate: 4-Bromofluorobenzene	50.0	39.5			79%	75 - 133	6106133	11/04/06 13:18
Surrogate: 4-Bromofluorobenzene	50.0	39.5			79%	75 - 133	6106133	11/04/06 13:18
6106133-BS2								
Benzene	50.0	45.7	MNR1	ug/L	91%	80 - 118	6106133	11/05/06 00:32
Ethylbenzene	50.0	48.8	MNR1	ug/L	98%	73 - 134	6106133	11/05/06 00:32
Methyl tert-Butyl Ether	50.0	43.0	MNR1	ug/L	86%	69 - 122	6106133	11/05/06 00:32
Toluene	50.0	52.0	MNR1	ug/L	104%	78 - 122	6106133	11/05/06 00:32
Xylenes, total	150	149	MNR1	ug/L	99%	82 - 127	6106133	11/05/06 00:32
Ethanol	5000	8610	L, MNR1	ug/L	172%	41 - 166	6106133	11/05/06 00:32
Surrogate: 1,2-Dichloroethane-d4	50.0	47.1			94%	62 - 142	6106133	11/05/06 00:32
Surrogate: 1,2-Dichloroethane-d4	50.0	47.1			94%	62 - 142	6106133	11/05/06 00:32
Surrogate: Dibromofluoromethane	50.0	53.0			106%	78 - 123	6106133	11/05/06 00:32
Surrogate: Dibromofluoromethane	50.0	53.0			106%	78 - 123	6106133	11/05/06 00:32
Surrogate: Toluene-d8	50.0	53.8			108%	79 - 120	6106133	11/05/06 00:32
Surrogate: Toluene-d8	50.0	53.8			108%	79 - 120	6106133	11/05/06 00:32
Surrogate: 4-Bromofluorobenzene	50.0	38.6			77%	75 - 133	6106133	11/05/06 00:32
Surrogate: 4-Bromofluorobenzene	50.0	38.6			77%	75 - 133	6106133	11/05/06 00:32
6106133-BS3								
Benzene	50.0	48.8	MNR1	ug/L	98%	80 - 118	6106133	11/05/06 19:09
Ethylbenzene	50.0	50.6	MNR1	ug/L	101%	73 - 134	6106133	11/05/06 19:09
Methyl tert-Butyl Ether	50.0	52.5	MNR1	ug/L	105%	69 - 122	6106133	11/05/06 19:09
Toluene	50.0	53.3	MNR1	ug/L	107%	78 - 122	6106133	11/05/06 19:09
Xylenes, total	150	149	MNR1	ug/L	99%	82 - 127	6106133	11/05/06 19:09
Ethanol	5000	4460	MNR1	ug/L	89%	41 - 166	6106133	11/05/06 19:09
Surrogate: 1,2-Dichloroethane-d4	50.0	50.5			101%	62 - 142	6106133	11/05/06 19:09
Surrogate: 1,2-Dichloroethane-d4	50.0	50.5			101%	62 - 142	6106133	11/05/06 19:09
Surrogate: Dibromofluoromethane	50.0	50.8			102%	78 - 123	6106133	11/05/06 19:09
Surrogate: Dibromofluoromethane	50.0	50.8			102%	78 - 123	6106133	11/05/06 19:09

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

PROJECT QUALITY CONTROL DATA
LCS - Cont.

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B								
6106133-BS3								
Surrogate: Toluene-d8	50.0	52.2			104%	79 - 120	6106133	11/05/06 19:09
Surrogate: Toluene-d8	50.0	52.2			104%	79 - 120	6106133	11/05/06 19:09
Surrogate: 4-Bromofluorobenzene	50.0	48.3			97%	75 - 133	6106133	11/05/06 19:09
Surrogate: 4-Bromofluorobenzene	50.0	48.3			97%	75 - 133	6106133	11/05/06 19:09
6106133-BS4								
Benzene	50.0	45.8	MNR1	ug/L	92%	80 - 118	6106133	11/07/06 17:44
Ethylbenzene	50.0	44.5	MNR1	ug/L	89%	73 - 134	6106133	11/07/06 17:44
Methyl tert-Butyl Ether	50.0	51.8	MNR1	ug/L	104%	69 - 122	6106133	11/07/06 17:44
Toluene	50.0	47.6	MNR1	ug/L	95%	78 - 122	6106133	11/07/06 17:44
Xylenes, total	150	134	MNR1	ug/L	89%	82 - 127	6106133	11/07/06 17:44
Ethanol	5000	5630	MNR1	ug/L	113%	41 - 166	6106133	11/07/06 17:44
Surrogate: 1,2-Dichloroethane-d4	50.0	48.0			96%	62 - 142	6106133	11/07/06 17:44
Surrogate: 1,2-Dichloroethane-d4	50.0	48.0			96%	62 - 142	6106133	11/07/06 17:44
ogate: Dibromofluoromethane	50.0	49.0			98%	78 - 123	6106133	11/07/06 17:44
rrogate: Dibromofluoromethane	50.0	49.0			98%	78 - 123	6106133	11/07/06 17:44
Surrogate: Toluene-d8	50.0	48.0			96%	79 - 120	6106133	11/07/06 17:44
Surrogate: Toluene-d8	50.0	48.0			96%	79 - 120	6106133	11/07/06 17:44
Surrogate: 4-Bromofluorobenzene	50.0	44.9			90%	75 - 133	6106133	11/07/06 17:44
Surrogate: 4-Bromofluorobenzene	50.0	44.9			90%	75 - 133	6106133	11/07/06 17:44
Extractable Petroleum Hydrocarbons								
6105647-BS1								
Diesel	1000	538		ug/L	54%	35 - 122	6105647	11/06/06 09:33
Surrogate: o-Terphenyl	20.0	9.16			46%	33 - 147	6105647	11/06/06 09:33
6105648-BS1								
Diesel	1000	621		ug/L	62%	56 - 116	6105648	11/04/06 06:40
Surrogate: o-Terphenyl	20.0	15.4			77%	51 - 142	6105648	11/04/06 06:40
Purgeable Petroleum Hydrocarbons								
105679-BS2								
GRO (C4-C12)	1000	715	A-01, L2	ug/L	72%	74 - 121	6105679	10/29/06 04:12
Surrogate: a,a,a-Trifluorotoluene	30.0	32.4			108%	63 - 134	6105679	10/29/06 04:12
105788-BS2								
GRO (C4-C12)	1000	709	A-01, L2	ug/L	71%	74 - 121	6105788	10/30/06 08:54
Surrogate: a,a,a-Trifluorotoluene	30.0	26.8			89%	63 - 134	6105788	10/30/06 08:54
106208-BS3								
(C4-C12)	1000	800		ug/L	80%	74 - 121	6106208	11/01/06 02:24
ogate: a,a,a-Trifluorotoluene	30.0	26.5			88%	63 - 134	6106208	11/01/06 02:24

Client Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
Attn Jennifer Guthmiller

Work Order: NPJ3797
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13042.01
Received: 10/27/06 08:00

PROJECT QUALITY CONTROL DATA
LCS - Cont.

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Purgeable Petroleum Hydrocarbons								
6106208-BS4								
GRO (C4-C12)	1000	891		ug/L	89%	74 - 121	6106208	11/01/06 02:39
Surrogate: a,a,a-Trifluorotoluene	30.0	36.6			122%	63 - 134	6106208	11/01/06 02:39
6110644-BS1								
GRO (C4-C12)	1000	1040		ug/L	104%	74 - 121	6110644	11/04/06 02:08
Surrogate: a,a,a-Trifluorotoluene	30.0	33.5			112%	63 - 134	6110644	11/04/06 02:08
6110934-BS2								
GRO (C4-C12)	1000	950		ug/L	95%	74 - 121	6110934	11/04/06 15:21
Surrogate: a,a,a-Trifluorotoluene	30.0	33.2			111%	63 - 134	6110934	11/04/06 15:21

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

PROJECT QUALITY CONTROL DATA

LCS Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Purgeable Petroleum Hydrocarbons												
6105679-BSD2												
GRO (C4-C12)		882		ug/L	1000	88%	74 - 121	21	33	6105679		10/29/06 04:27
Surrogate: a,a,a-Trifluorotoluene		21.8		ug/L	30.0	73%	63 - 134			6105679		10/29/06 04:27
5105788-BSD2												
GRO (C4-C12)		770		ug/L	1000	77%	74 - 121	8	33	6105788		10/30/06 09:09
Surrogate: a,a,a-Trifluorotoluene		33.2		ug/L	30.0	111%	63 - 134			6105788		10/30/06 09:09

C nt	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
/	Jennifer Guthmiller	Received:	10/27/06 08:00

PROJECT QUALITY CONTROL DATA
Matrix Spike

nalyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
eable Petroleum Hydrocarbons										
105679-MS2										
RO (C4-C12)	10.9	952		ug/L	1000	94%	57 - 150	6105679	NPJ3797-04	10/29/06 03:11
gate: a,a,a-Trifluorotoluene		33.0		ug/L	30.0	110%	63 - 134	6105679	NPJ3797-04	10/29/06 03:11
105788-MS2										
(C4-C12)	0.891	896		ug/L	1000	90%	57 - 150	6105788	NPJ3630-20	10/30/06 07:54
gate: a,a,a-Trifluorotoluene		26.3		ug/L	30.0	88%	63 - 134	6105788	NPJ3630-20	10/30/06 07:54
644-MS1										
(C4-C12)	56.2	1330		ug/L	1000	127%	57 - 150	6110644	NPJ3797-01	11/04/06 02:34
rrogate: a,a,a-Trifluorotoluene		38.7		ug/L	30.0	129%	63 - 134	6110644	NPJ3797-01	11/04/06 02:34

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

PROJECT QUALITY CONTROL DATA

Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Purgeable Petroleum Hydrocarbons												
6105679-MSD2												
GRO (C4-C12)	10.9	957		ug/L	1000	95%	57 - 150	0.5	33	6105679	NPJ3797-04	10/29/06 03:26
Surrogate: a,a,a-Trifluorotoluene		21.9		ug/L	30.0	73%	63 - 134			6105679	NPJ3797-04	10/29/06 03:26
6105788-MSD2												
GRO (C4-C12)	0.891	1040		ug/L	1000	104%	57 - 150	15	33	6105788	NPJ3630-20	10/30/06 08:09
Surrogate: a,a,a-Trifluorotoluene		33.6		ug/L	30.0	112%	63 - 134			6105788	NPJ3630-20	10/30/06 08:09
6110644-MSD1												
GRO (C4-C12)	56.2	1190		ug/L	1000	113%	57 - 150	11	33	6110644	NPJ3797-01	11/04/06 10:20
Surrogate: a,a,a-Trifluorotoluene		39.1		ug/L	30.0	130%	63 - 134			6110644	NPJ3797-01	11/04/06 10:20

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

CERTIFICATION SUMMARY

TestAmerica - Nashville, TN

Method	Matrix	AIHA	Nelac	Oregon
NWTPH-Dx	Water	N/A	X	X
NWTPH-Gx	Water	N/A	X	X
SW846 8260B	Water	N/A	X	X

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

NELAC CERTIFICATION SUMMARY

TestAmerica Analytical - Nashville does not hold NELAC certifications for the following analytes included in this report

Method	Matrix	Analyte
NWTPH-Gx	Water	GRO (C4-C12)

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3797
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/27/06 08:00

DATA QUALIFIERS AND DEFINITIONS

A-01	Analyte recovery was outside the laboratory historical limits but within method QC guidelines. No effect on data.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
L2	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was below acceptance limits.
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike.
QSG	Silica Gel clean-up performed on extracts.
Z	Due to sample matrix effects, the surrogate recovery was below the acceptance limits.
Z10	Surrogate outside laboratory historical limits but within method guidelines. No effect on data.
Z3	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

METHOD MODIFICATION NOTES

TESTAMERICA
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM

BC# NPJ3797

Cooler Received/Opened On 10/27/2006 @ 0800

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 4630

(Fed-Ex) UPS Velocity DHL Route Off-street Misc.

2. Temperature of representative sample or temperature blank when opened: 3.3 Degrees Celsius
(indicate IR Gun ID#)

NA A00466 A00750 A01124 100190 101282 (Raynger ST)

3. Were custody seals on outside of cooler?..... YES...(NO)...NA

a. If yes, how many and where: NA

4. Were the seals intact, signed, and dated correctly?..... YES....NO...(NA)

5. Were custody papers inside cooler?..... YES...(NO)...NA

I certify that I opened the cooler and answered questions 1-5 (intial)..... MS

6. Were custody seals on containers: YES (NO) and Intact YES NO (NA)

were these signed, and dated correctly?..... YES...NO...(NA)

7. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite (Foam Insert)

Plastic bag Paper Other_____ None

8. Cooling process: (Ice) (Ice-pack) Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)?..... (YES)...NO...NA 10/27/06

10. Were all container labels complete (#, date, signed, pres., etc)?..... (YES)...NO...NA

11. Did all container labels and tags agree with custody papers?..... (YES)...NO...NA

12. a. Were VOA vials received?..... (YES)...NO...NA

b. Was there any observable head space present in any VOA vial?..... YES...(NO)...NA

I certify that I unloaded the cooler and answered questions 6-12 (intial)..... MS

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...(NA)

b. Did the bottle labels indicate that the correct preservatives were used..... (YES)...NO...NA

If preservation in-house was needed, record standard ID of preservative used here_____

14. Was residual chlorine present?..... YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (intial)..... MS

15. Were custody papers properly filled out (ink, signed, etc)?..... (YES)...NO...NA

16. Did you sign the custody papers in the appropriate place?..... (YES)...NO...NA

17. Were correct containers used for the analysis requested?..... (YES)...NO...NA

18. Was sufficient amount of sample sent in each container?..... (YES)...NO...NA

I certify that I entered this project into LIMS and answered questions 15-18 (intial)..... MS

I certify that I attached a label with the unique LIMS number to each container (intial)..... MS

TESTAMERICA
ANALYTICAL TESTING CORPORATION

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM BC#

Cooler Received/Opened On 10/27/06 8:00

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 4684

(Fed-Ex) UPS Velocity DHL Route Off-street Misc.

2. Temperature of representative sample or temperature blank when opened: 4.0 Degrees Celsius (indicate IR Gun ID#)

NA A00466 A00750 A01124 100190 101282 (102594)

3. Were custody seals on outside of cooler?..... YES...(NO)...NA

a. If yes, how many and where:_____

4. Were the seals intact, signed, and dated correctly?..... YES....NO...(NA)

5. Were custody papers inside cooler?..... YES...(NO)...NA

I certify that I opened the cooler and answered questions 1-5 (intial)..... SR

6. Were custody seals on containers: YES (NO) and Intact YES NO (NA)

were these signed, and dated correctly?..... YES...NO...(NA)

7. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite Foam Insert

Plastic bag Paper Other_____ None

8. Cooling process: Ice (Ice-pack) Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)?..... (YES)...NO...NA

10. Were all container labels complete (#, date, signed, pres., etc)?..... (YES)...NO...NA

11. Did all container labels and tags agree with custody papers?..... (YES)...NO...NA

12. a. Were VOA vials received?..... YES...(NO)...NA

b. Was there any observable head space present in any VOA vial?..... YES...(NO)...NA

I certify that I unloaded the cooler and answered questions 6-12 (intial)..... _____

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used..... YES...NO...NA

If preservation in-house was needed, record standard ID of preservative used here_____

14. Was residual chlorine present?..... YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (intial)..... _____

15. Were custody papers properly filled out (ink, signed, etc)?..... YES....NO...NA

16. Did you sign the custody papers in the appropriate place?..... YES....NO...NA

17. Were correct containers used for the analysis requested?..... YES...NO...NA

18. Was sufficient amount of sample sent in each container?..... YES...NO...NA

I certify that I entered this project into LIMS and answered questions 15-18 (intial)..... _____

I certify that I attached a label with the unique LIMS number to each container (intial)..... _____

19. Were there Non-Conformance issues at login YES NO Was a PIPE generated YES NO #_____

See 4630

BIS = Broken in shipment

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM **BC#**

Cooler Received/Opened On 10/27/06 0800

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 4710

(Fed-Ex) UPS Velocity DHL Route Off-street Misc.

2. Temperature of representative sample or temperature blank when opened: 3.8 Degrees Celsius
(indicate IR Gun ID#)

NA A00466 A00750 A01124 100190 101282 (Raynger ST)

3. Were custody seals on outside of cooler?..... YES...NO...NA

a. If yes, how many and where:_____

4. Were the seals intact, signed, and dated correctly?..... YES...NO...NA

5. Were custody papers inside cooler?..... YES...NO...NA

I certify that I opened the cooler and answered questions 1-5 (intial)..... IP

6. Were custody seals on containers: YES (NO) and Intact YES NO (NA)

were these signed, and dated correctly?..... YES...NO...(NA)

7. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite Foam Insert

Plastic bag Paper Other_____ None

8. Cooling process: Ice (Ice-pack) Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)?..... (YES)...NO...NA

10. Were all container labels complete (#, date, signed, pres., etc)?..... (YES)...NO...NA

11. Did all container labels and tags agree with custody papers?..... (YES)...NO...NA

12. a. Were VOA vials received?..... YES...(NO)...NA

b. Was there any observable head space present in any VOA vial?..... YES...NO...(NA)

I certify that I unloaded the cooler and answered questions 6-12 (intial)..... IP

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used..... YES...NO...NA

If preservation in-house was needed, record standard ID of preservative used here_____

14. Was residual chlorine present?..... YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (intial)..... _____

15. Were custody papers properly filled out (ink, signed, etc)?..... YES...NO...NA

16. Did you sign the custody papers in the appropriate place?..... YES...NO...NA

17. Were correct containers used for the analysis requested?..... YES...NO...NA

18. Was sufficient amount of sample sent in each container?..... YES...NO...NA

I certify that I entered this project into LIMS and answered questions 15-18 (intial)..... _____

I certify that I attached a label with the unique LIMS number to each container (intial)..... _____

19. Were there Non-Conformance issues at login YES NO Was a PIPE generated YES NO #_____

See 4630

BIS = Broken in shipment

TESTAMERICA
ANALYTICAL TESTING CORPORATION

Nashville Division
COOLER RECEIPT FORM

BC#

Cooler Received/Opened On 10/27/06 @ 08:00

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 4618

(Fed-Ex) UPS Velocity DHL Route Off-street Misc.

2. Temperature of representative sample or temperature blank when opened: 3.0 Degrees Celsius
(indicate IR Gun ID#)

NA (A00466) A00750 A01124 100190 101282 10594 Raynger ST

3. Were custody seals on outside of cooler?..... YES...(NO)...NA

a. If yes, how many and where:_____

4. Were the seals intact, signed, and dated correctly?..... YES....NO...(NA)

5. Were custody papers inside cooler?..... (YES)...NO...NA

I certify that I opened the cooler and answered questions 1-5 (intial)..... (W)

6. Were custody seals on containers: YES (NO) and Intact YES NO (NA)

were these signed, and dated correctly?..... YES...NO...(NA)

7. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite Foam Insert

Plastic bag Paper Other_____ None

8. Cooling process: Ice (Ice-pack) Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)?..... (YES)...NO...NA

10. Were all container labels complete (#, date, signed, pres., etc)?..... (YES)...NO...NA

11. Did all container labels and tags agree with custody papers?..... (YES)...NO...NA

12. a. Were VOA vials received?..... YES...(NO)...NA

b. Was there any observable head space present in any VOA vial?..... YES...NO...(NA)

I certify that I unloaded the cooler and answered questions 6-12 (intial)..... [signature]

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used..... YES...NO...NA

If preservation in-house was needed, record standard ID of preservative used here_____

14. Was residual chlorine present?..... YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (intial)..... _____

15. Were custody papers properly filled out (ink, signed, etc)?..... YES....NO...NA

16. Did you sign the custody papers in the appropriate place?..... YES....NO...NA

17. Were correct containers used for the analysis requested?..... YES...NO...NA

18. Was sufficient amount of sample sent in each container?..... YES...NO...NA

I certify that I entered this project into LIMS and answered questions 15-18 (intial)..... _____

I certify that I attached a label with the unique LIMS number to each container (intial)..... _____

19. Were there Non-Conformance issues at login YES NO Was a PIPE generated YES NO #_____

See 4630

BIS = Broken in shipment

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM BC#

Cooler Received/Opened On: 10/27/2006 8:00

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 4662

FED-EX

Temperature of representative sample or temperature blank when opened: 4.0 Degrees Celsius

(indicate IR Gun ID#)

101507

3. Were custody seals on outside of cooler?..... YES...(NO)...NA

   a. If yes, how many and where:_____

4. Were the seals intact, signed, and dated correctly?..... YES....NO...(NA)

5. Were custody papers inside cooler?..... YES...(NO)...NA

I certify that I opened the cooler and answered questions 1-5 (intial)..... WR

6. Were custody seals on containers: YES (NO) and Intact YES NO (NA)

   were these signed, and dated correctly?..... YES...NO...(NA)

7. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite Foam Insert

   Plastic bag Paper Other_____ None

8. Cooling process: Ice (Ice-pack) Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)?..... (YES)...NO...NA

10. Were all container labels complete (#, date, signed, pres., etc)?..... (YES)...NO...NA

11. Did all container labels and tags agree with custody papers?..... (YES)...NO...NA

12. a. Were VOA vials received?..... YES...(NO)...NA

    b. Was there any observable head space present in any VOA vial?..... YES...NO...(NA)

I certify that I unloaded the cooler and answered questions 6-12 (intial)..... WR

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...NA

    b. Did the bottle labels indicate that the correct preservatives were used..... YES...NO...NA

    If preservation in-house was needed, record standard ID of preservative used here_____

14. Was residual chlorine present?..... YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (intial)..... _____

15. Were custody papers properly filled out (ink, signed, etc)?..... YES....NO...NA

16. Did you sign the custody papers in the appropriate place?..... YES....NO...NA

17. Were correct containers used for the analysis requested?..... YES...NO...NA

18. Was sufficient amount of sample sent in each container?..... YES...NO...NA

I certify that I entered this project into LIMS and answered questions 15-18 (intial)..... _____

I certify that I attached a label with the unique LIMS number to each container (intial)..... _____

19. Were there Non-Conformance issues at login YES NO Was a PIPE generated YES NO #_____

See 4630

BIS = Broken in shipment
Cooler Receipt Form

Revised 3/9/06

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM

BC#

Cooler Received/Opened On 10/27/06 8:00

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 4721

(Fed-Ex) UPS Velocity DHL Route Off-street Misc.

2. Temperature of representative sample or temperature blank when opened: 2.4 Degrees Celsius
(indicate IR Gun ID#)

NA A00466 A00750 A01124 100190 101282 (102594)

3. Were custody seals on outside of cooler?..... YES...(NO)...NA

a. If yes, how many and where:_____

4. Were the seals intact, signed, and dated correctly?..... YES....NO...(NA)

5. Were custody papers inside cooler?..... YES....NO...NA

I certify that I opened the cooler and answered questions 1-5 (intial)..... JR

6. Were custody seals on containers: YES (NO) and Intact YES NO (NA)

were these signed, and dated correctly?..... YES...NO...(NA)

7. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite Foam Insert

Plastic bag Paper Other_____ None

8. Cooling process: Ice (Ice-pack) Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)?..... (YES)...NO...NA

10. Were all container labels complete (#, date, signed, pres., etc)?..... (YES)...NO...NA

11. Did all container labels and tags agree with custody papers?..... (YES)...NO...NA

12. a. Were VOA vials received?..... YES...(NO)...NA

b. Was there any observable head space present in any VOA vial?..... YES...NO...(NA)

I certify that I unloaded the cooler and answered questions 6-12 (intial)..... _____

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used..... YES...NO...NA

If preservation in-house was needed, record standard ID of preservative used here_____

14. Was residual chlorine present?..... YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (intial)..... _____

15. Were custody papers properly filled out (ink, signed, etc)?..... YES....NO...NA

16. Did you sign the custody papers in the appropriate place?..... YES....NO...NA

17. Were correct containers used for the analysis requested?..... YES...NO...NA

18. Was sufficient amount of sample sent in each container?..... YES...NO...NA

I certify that I entered this project into LIMS and answered questions 15-18 (intial)..... _____

I certify that I attached a label with the unique LIMS number to each container (intial)..... _____

19. Were there Non-Conformance issues at login YES NO Was a PIPE generated YES NO #_____

See 4630

BIS = Broken in shipment

Acton • Mickelson • Environmental, Inc.

Chain of Custody and Analysis Request Form

Geotracker Global ID ____________

☒ Standard TAT ☐ RUSH TAT ☐ 24 hr. TAT ☐ 48 hr. TAT ☐ 5 day TAT

Page 1 of 3 | Chain of Custody 5290

NPJ3797
11/10/06 23:59

Send Results to:
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
(916) 939-7550, FAX (916) 939-7570
Attn.: JENNIFER GUTHMILLER

- ☐ Preliminary Fax Result
- ☒ Sample Receipt/ Log-In Confirmation
- ☒ Electronic Data Deliverables
- ☐ Geotracker EDF
- ☒ Raw Data Deliverables
- ☐ Call with Verbal Results

Requested Analysis: 8260B BTEX, MTBE, ET; NW TPHGx; NW TPH Dx; TEMPERATURE

Lab ID (LAB USE ONLY)	Field Point ID	Sample ID	Date Collected	Time Collected	Matrix	Container	Number of Containers	Preservative	8260B BTEX MTBE ET	NW TPHGx	NW TPH Dx							TEMPERATURE	Comments
	D-7	D-7-102406	10/24/06	1840	GW	V / GB	6 / 2	HC / HC	X	X	X	NPJ 3797-01							
	B-2	B-2-102306	10/23/06	1530	GW	V / GB	6 / 2	HC / HC	X	X	X				02				ET = Ethanol
	B-5	B-5-102306	10/23/06	1600	GW	V / GB	6 / 2	HC / HC	X	X	X				03				
	HA-1	HA-1-102406	10/24/06	0850	GW	V / GB	6 / 2	HC / HC	X	X	X				04				
	HA-11	HA-11-102406	10/24/06	0900	GW	V / GB	4 / 1	HC / HC	X	X	X				05				Limited sample quantity ~500mL in Am
	HA-10	HA-10-102406	10/24/06	0915	GW	V	5	HC	X	X					06				Limited Sample Quantity
	HA-9	HA-9-102406	10/24/06	0930	GW	V / GB	6 / 1	HC / HC	X	X	X				07				Limited Sample Quantity ~750mL in Amber
	HA-2	HA-2-102406	10/24/06	0945	GW	V	6	HC	X	X					08				Limited Sample Quantity
	QAQC	B-2-102306-TB	10/23/06	1500	RW	V	4	HC	X	X					09				
	QAQC	TEMP BLANK	10/23/06	1500	RW	O	1	—										X	1 per cooler

Signature	Date	Time	Signature	Date	Time
Relinquished by: [signature]	10/25/06	1340	Relinquished by: [signature]	10/26/06	14:08
Received by: [signature]	10/25/06	1340	Received by: [signature]	10/27/06	0200
Relinquished by:			Relinquished by:		3.3 °C
Received by:			Received by:		

Matrix: W - Water; DW - Drinking Water; SW - Surface Water; GW - Ground Water; WW - Waste Water; RW - Reagent Water; S - Soil; SE - Sediment; SV - Soil Vapor; AA - Ambient Air; WS - Waste (Solid); O - Other
Container: GB - Glass Bottle (Amber); V - 40 ml VOA Vial; BT, ST, PT - Brass, Steel, and Plastic Tube; P - Polythethylene; GJ - Glass Jar, SC - Summa Canister; TD - Tedlar
Preservative: C - Cold; HS - Sulfuric Acid; HC - Hydrochloric Acid; HN - Nitric Acid; Na - Sodium Hydroxide; O - Other

Project Name and Location: Former Mobil Renton Terminal
Project Number: 13042.01
Receiving Lab: ____________
Sampled by: Brian Richardson (Print Name) [signature] (Signature)

ORIGINAL – Laboratory (Return with Report) YELLOW - Laboratory PINK - Originator

Acto... • Mickelson • Environmental, Inc.

Chain of Custody and Analysis Request Form

Geotracker Global ID _____

Standard TAT ☒ | RUSH TAT ☐ 24 hr. TAT ☐ 48 hr. TAT ☐ 72 hr. TAT ☐ 5 day TAT

Chain of Custody 5292

Send Results to:
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
(916) 939-7550, FAX (916) 939-7570
Attn.: JENNIFER GUTAMILLER

- ☐ Preliminary Fax Result
- ☒ Sample Receipt/ Log-In Confirmation
- ☒ Electronic Data Deliverables
- ☐ Geotracker EDF
- ☒ Raw Data Deliverables
- ☐ Call with Verbal Results

Lab ID (LAB USE ONLY)	Field Point ID	Sample ID	Date Collected	Time Collected	Matrix	Container	Number of Containers	Preservative	Requested Analysis: 8260B BTEX, MTBE, ET	NW TPH-g/BTEX	NW TPH-Dx								Comments
	HA-4	HA-4-102406	10/24/06	1000	GW	V GB	6 1	HC HC	X	X	X	NPJ 3797-10							Limited Sample Quantity ~50mL in Amber
	W-3	W-3-102406	10/24/06	1040	GW	V GB	6 2	HC HC	X	X	X							11	ET = Ethanol
	W-4	W-4-102406	10/24/06	1115	GW	V GB	6 2	HC HC	X	X	X							12	
	HA-14	HA-14-102406	10/24/06	1210	GW	V	6	HC	X	X								13	Limited Sample Quantity
	HA-13	HA-13-102406	10/24/06	1220	GW	V GB	6 1	HC HC	X	X	X							14	Limited Sample Quantity
	HA-5	HA-5-102406	10/24/06	1230	GW	V GB	6 2	HC HC	X	X	X							15	
	HA-7	HA-7-102406	10/24/06	1245	GW	V GB	6 2	HC HC	X	X	X							16	
	HA-12	HA-12-102406	10/24/06	1345	GW	V GB	6 2	HC HC	X	X	X							17	Limited Sample Quantity ~150mL in 2 Amber
	HA-6	HA-6-102406	10/24/06	1315	GW	V GB	6 2	HC HC	X	X	X							18	
	QAQC	DUPE-2-102406	10/24/06	—	GW	V GB	6 2	HC HC	X	X	X							19	

Signature	Date	Time	Signature	Date	Time
Relinquished by: Carl LT	10/25/06	1340	Relinquished by: Cathy Crumbaker	10/26/06	14:00
Received by: [signature]	10/25/06	1340	Received by: [signature]	10/27/06	0900
Relinquished by:			Relinquished by:		
Received by:			Received by:		

Matrix: W - Water; DW - Drinking Water; SW - Surface Water; GW - Ground Water; WW - Waste Water; RW - Reagent Water; S - Soil; SE - Sediment; SV - Soil Vapor; AA - Ambient Air; WS - Waste (Solid); O - Other
Container: GB - Glass Bottle (Amber); V - 40 ml VOA Vial; BT, ST, PT - Brass, Steel, and Plastic Tube; P - Polythethylene; GJ - Glass Jar, SC - Summa Canister; TD - Tedlar
Preservative: C - Cold; HS - Sulfuric Acid; HC - Hydrochloric Acid; HN - Nitric Acid; Na - Sodium Hydroxide; O - Other

Project Name and Location: Former Mobil Renton Terminal
Project Number: 13042.01
Receiving Lab: _____
Sampled by: Brian Richardson (Print Name) [signature] (Signature)

ORIGINAL – Laboratory (Return with Report) YELLOW - Laboratory PINK - Originator

Acto.. • Mickelson • Environmental, Inc.

Chain of Custody and Analysis Request Form

Geotracker Global ID _____

☒ Standard TAT ☐ RUSH TAT ☐ 24 hr. TAT ☐ 48 hr. TAT ☐ 72 hr. TAT ☐ 5 day TAT

Page 3 of 3 | Chain of Custody 5291

Send Results to:
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
(916) 939-7550, FAX (916) 939-7570
Attn.: Jennifer Guthmiller

- ☐ Preliminary Fax Result
- ☒ Sample Receipt/ Log-In Confirmation
- ☒ Electronic Data Deliverables
- ☐ Geotracker EDF
- ☒ Raw Data Deliverables
- ☐ Call with Verbal Results

Lab ID (LAB USE ONLY)	Field Point ID	Sample ID	Date Collected	Time Collected	Matrix	Container	Number of Containers	Preservative	Requested Analysis: 8260B BTEX, MTBE + ET	NW TPHG	NW TPHD	Comments
	B-1	B-1-102406	10/24/06	1415	GW	V GB	6 2	HC HC	X	X	X	NR3797-26
												ET = Ethanol

Signature	Date	Time	Signature	Date	Time
Relinquished by: David Jung	10/25/06	1340	Relinquished by: Cathy Crumble	10/24/06	14:00
Received by: [signature]	10/25/06	1340	Received by: [signature]	10/27/06	08:00
Relinquished by:			Relinquished by:		
Received by:			Received by:		

Matrix: W - Water; DW - Drinking Water; SW - Surface Water; GW - Ground Water; WW - Waste Water; RW - Reagent Water; S - Soil; SE - Sediment; SV - Soil Vapor; AA - Ambient Air; WS - Waste (Solid); O - Other
Container: GB - Glass Bottle (Amber); V - 40 ml VOA Vial; BT, ST, PT - Brass, Steel, and Plastic Tube; P - Polythethylene; GJ - Glass Jar, SC - Summa Canister; TD - Tedlar
Preservative: C - Cold; HS - Sulfuric Acid; HC - Hydrochloric Acid; HN - Nitric Acid; Na - Sodium Hydroxide; O - Other

Project Name and Location: Former Mobil Renton Terminal
Project Number: 13042.01 Receiving Lab: _____
Sampled by: Brian Richardson (Print Name) [signature] (Signature)

ORIGINAL – Laboratory (Return with Report) YELLOW - Laboratory PINK - Originator

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

November 08, 2006

Client: Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
Attn: Jennifer Guthmiller

Work Order: NPJ3345
Project Name: (06) Former Renton Terminal #46-080
Project Nbr: 13042.01
P/O Nbr: 4507265171
Date Received: 10/25/06

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
W-1-102306	NPJ3345-01	10/23/06 12:25
W-2-102306	NPJ3345-02	10/23/06 12:45
B-6-102306	NPJ3345-03	10/23/06 13:15
D-6-102306	NPJ3345-04	10/23/06 13:40
DUPE-1-102306	NPJ3345-05	10/23/06 00:01
W-1-102306-TB	NPJ3345-06	10/23/06 09:00

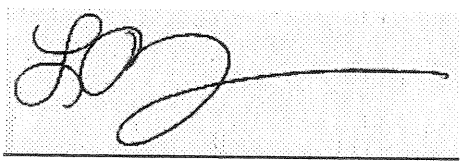
An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Oregon Certification Number: TN200001

The Chain(s) of Custody, 3 pages, are included and are an integral part of this report.

These results relate only to the items tested. This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By:



Leah R. Klingensmith
Senior Project Management

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3345
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/25/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPJ3345-01 (W-1-102306 - Ground Water) Sampled: 10/23/06 12:25									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**14500**		ug/L	62.0	200	200	11/02/06 01:02	SW846 8260B	6106005
Ethylbenzene	**2420**		ug/L	4.60	20.0	20	11/02/06 00:37	SW846 8260B	6106005
Methyl tert-Butyl Ether	**33.6**		ug/L	0.310	1.00	1	11/02/06 00:12	SW846 8260B	6106005
Toluene	**8400**		ug/L	44.0	200	200	11/02/06 01:02	SW846 8260B	6106005
Xylenes, total	**20800**		ug/L	88.0	600	200	11/02/06 01:02	SW846 8260B	6106005
Ethanol	ND		ug/L	62.0	100	1	11/02/06 00:12	SW846 8260B	6106005
Surr: 1,2-Dichloroethane-d4 (62-142%)	*134 %*					*1*	*11/02/06 00:12*	*SW846 8260B*	*6106005*
Surr: Dibromofluoromethane (78-123%)	*85 %*					*1*	*11/02/06 00:12*	*SW846 8260B*	*6106005*
Surr: Toluene-d8 (79-120%)	*78 %*	*Z10*				*1*	*11/02/06 00:12*	*SW846 8260B*	*6106005*
Surr: 4-Bromofluorobenzene (75-133%)	*116 %*					*1*	*11/02/06 00:12*	*SW846 8260B*	*6106005*
Extractable Petroleum Hydrocarbons									
Diesel	**9070**	QSG	ug/L	183	481	5	10/28/06 16:47	NWTPH-Dx	6104946
Motor Oil	ND	QSG	ug/L	183	481	5	10/28/06 16:47	NWTPH-Dx	6104946
Surr: o-Terphenyl (51-142%)	*68 %*					*5*	*10/28/06 16:47*	*NWTPH-Dx*	*6104946*
rgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**91700**		ug/L	100	5000	50	10/29/06 11:51	NWTPH-Gx	6105805
Surr: a,a,a-Trifluorotoluene (63-134%)	*121 %*					*50*	*10/29/06 11:51*	*NWTPH-Gx*	*6105805*
Sample ID: NPJ3345-02 (W-2-102306 - Ground Water) Sampled: 10/23/06 12:45									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	**12500**		ug/L	62.0	200	200	11/02/06 02:17	SW846 8260B	6106005
Ethylbenzene	**1710**		ug/L	4.60	20.0	20	11/02/06 01:52	SW846 8260B	6106005
Methyl tert-Butyl Ether	**21.7**		ug/L	0.310	1.00	1	11/02/06 01:26	SW846 8260B	6106005
Toluene	**3470**		ug/L	4.40	20.0	20	11/02/06 01:52	SW846 8260B	6106005
Xylenes, total	**8220**		ug/L	8.80	60.0	20	11/02/06 01:52	SW846 8260B	6106005
Ethanol	ND		ug/L	62.0	100	1	11/02/06 01:26	SW846 8260B	6106005
Surr: 1,2-Dichloroethane-d4 (62-142%)	*125 %*					*1*	*11/02/06 01:26*	*SW846 8260B*	*6106005*
Surr: Dibromofluoromethane (78-123%)	*98 %*					*1*	*11/02/06 01:26*	*SW846 8260B*	*6106005*
Surr: Toluene-d8 (79-120%)	*96 %*					*1*	*11/02/06 01:26*	*SW846 8260B*	*6106005*
Surr: 4-Bromofluorobenzene (75-133%)	*119 %*					*1*	*11/02/06 01:26*	*SW846 8260B*	*6106005*
Extractable Petroleum Hydrocarbons									
Diesel	**5800**	QSG	ug/L	183	481	5	10/28/06 17:05	NWTPH-Dx	6104946
Motor Oil	ND	QSG	ug/L	183	481	5	10/28/06 17:05	NWTPH-Dx	6104946
Surr: o-Terphenyl (51-142%)	*78 %*					*5*	*10/28/06 17:05*	*NWTPH-Dx*	*6104946*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**53000**		ug/L	100	5000	50	10/29/06 12:06	NWTPH-Gx	6105805
Surr: a,a,a-Trifluorotoluene (63-134%)	*70 %*					*50*	*10/29/06 12:06*	*NWTPH-Gx*	*6105805*
Sample ID: NPJ3345-03 (B-6-102306 - Ground Water) Sampled: 10/23/06 13:15									
cted Volatile Organic Compounds by EPA Method 8260B									

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ent Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
n Jennifer Guthmiller

Work Order: NPJ3345
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13042.01
Received: 10/25/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
ıple ID: NPJ3345-03 (B-6-102306 - Ground Water) - cont. Sampled: 10/23/06 13:15									
Selected Volatile Organic Compounds by EPA Method 8260B - cont.									
lenzene	**2660**		ug/L	31.0	100	100	11/02/06 03:31	SW846 8260B	6106005
lbenzene	**566**		ug/L	2.30	10.0	10	11/02/06 03:07	SW846 8260B	6106005
...yl tert-Butyl Ether	**0.780**	J	ug/L	0.310	1.00	1	11/02/06 02:42	SW846 8260B	6106005
oluene	**5280**		ug/L	22.0	100	100	11/02/06 03:31	SW846 8260B	6106005
nes, total	**4650**		ug/L	4.40	30.0	10	11/02/06 03:07	SW846 8260B	6106005
nol	ND		ug/L	62.0	100	1	11/02/06 02:42	SW846 8260B	6106005
rr: 1,2-Dichloroethane-d4 (62-142%)	*124 %*					*1*	*11/02/06 02:42*	*SW846 8260B*	*6106005*
rr: Dibromofluoromethane (78-123%)	*102 %*					*1*	*11/02/06 02:42*	*SW846 8260B*	*6106005*
Toluene-d8 (79-120%)	*102 %*					*1*	*11/02/06 02:42*	*SW846 8260B*	*6106005*
rr: 4-Bromofluorobenzene (75-133%)	*112 %*					*1*	*11/02/06 02:42*	*SW846 8260B*	*6106005*
ractable Petroleum Hydrocarbons									
el	**7050**	QSG	ug/L	369	971	10	10/27/06 20:32	NWTPH-Dx	6104946
lotor Oil	**371**	QSG, J	ug/L	369	971	10	10/27/06 20:32	NWTPH-Dx	6104946
rr: o-Terphenyl (51-142%)	*	*Z3*				*10*	*10/27/06 20:32*	*NWTPH-Dx*	*6104946*
ole Petroleum Hydrocarbons									
RO (C4-C12)	**37400**		ug/L	40.0	2000	20	10/29/06 12:21	NWTPH-Gx	6105805
rr: a,a,a-Trifluorotoluene (63-134%)	*109 %*					*20*	*10/29/06 12:21*	*NWTPH-Gx*	*6105805*
ıple ID: NPJ3345-04 (D-6-102306 - Ground Water) Sampled: 10/23/06 13:40									
elected Volatile Organic Compounds by EPA Method 8260B									
ene	**111**		ug/L	0.310	1.00	1	11/01/06 23:47	SW846 8260B	6106005
lbenzene	**4.97**		ug/L	0.230	1.00	1	11/01/06 23:47	SW846 8260B	6106005
ethyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/01/06 23:47	SW846 8260B	6106005
oluene	**19.0**		ug/L	0.220	1.00	1	11/01/06 23:47	SW846 8260B	6106005
nes, total	**22.7**		ug/L	0.440	3.00	1	11/01/06 23:47	SW846 8260B	6106005
...ol	ND		ug/L	62.0	100	1	11/01/06 23:47	SW846 8260B	6106005
rr: 1,2-Dichloroethane-d4 (62-142%)	*119 %*					*1*	*11/01/06 23:47*	*SW846 8260B*	*6106005*
Dibromofluoromethane (78-123%)	*103 %*					*1*	*11/01/06 23:47*	*SW846 8260B*	*6106005*
Toluene-d8 (79-120%)	*100 %*					*1*	*11/01/06 23:47*	*SW846 8260B*	*6106005*
rr: 4-Bromofluorobenzene (75-133%)	*97 %*					*1*	*11/01/06 23:47*	*SW846 8260B*	*6106005*
actable Petroleum Hydrocarbons									
...l	**1490**	QSG	ug/L	373	980	10	10/27/06 20:50	NWTPH-Dx	6104946
otor Oil	**4160**	QSG	ug/L	373	980	10	10/27/06 20:50	NWTPH-Dx	6104946
o-Terphenyl (51-142%)	*	*Z3*				*10*	*10/27/06 20:50*	*NWTPH-Dx*	*6104946*
geable Petroleum Hydrocarbons									
RO (C4-C12)	**445**		ug/L	2.00	100	1	10/29/06 12:36	NWTPH-Gx	6105805
a,a,a-Trifluorotoluene (63-134%)	*70 %*					*1*	*10/29/06 12:36*	*NWTPH-Gx*	*6105805*
m...le ID: NPJ3345-05 (DUPE-1-102306 - Ground Water) Sampled: 10/23/06 00:01									
...d Volatile Organic Compounds by EPA Method 8260B									

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Client Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
Attn Jennifer Guthmiller

Work Order: NPJ3345
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13042.01
Received: 10/25/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPJ3345-05 (DUPE-1-102306 - Ground Water) - cont. Sampled: 10/23/06 00:01									
Selected Volatile Organic Compounds by EPA Method 8260B - cont.									
Benzene	**12000**		ug/L	62.0	200	200	11/02/06 04:46	SW846 8260B	6106005
Ethylbenzene	**1650**		ug/L	4.60	20.0	20	11/02/06 04:21	SW846 8260B	6106005
Methyl tert-Butyl Ether	**18.4**		ug/L	0.310	1.00	1	11/02/06 03:56	SW846 8260B	6106005
Toluene	**2840**		ug/L	4.40	20.0	20	11/02/06 04:21	SW846 8260B	6106005
Xylenes, total	**7420**		ug/L	8.80	60.0	20	11/02/06 04:21	SW846 8260B	6106005
Ethanol	ND		ug/L	62.0	100	1	11/02/06 03:56	SW846 8260B	6106005
Surr: 1,2-Dichloroethane-d4 (62-142%)	*123 %*					*1*	*11/02/06 03:56*	*SW846 8260B*	*6106005*
Surr: Dibromofluoromethane (78-123%)	*100 %*					*1*	*11/02/06 03:56*	*SW846 8260B*	*6106005*
Surr: Toluene-d8 (79-120%)	*99 %*					*1*	*11/02/06 03:56*	*SW846 8260B*	*6106005*
Surr: 4-Bromofluorobenzene (75-133%)	*121 %*					*1*	*11/02/06 03:56*	*SW846 8260B*	*6106005*
Extractable Petroleum Hydrocarbons									
Diesel	**5890**	QSG	ug/L	183	481	5	10/28/06 17:24	NWTPH-Dx	6104946
Motor Oil	ND	QSG	ug/L	183	481	5	10/28/06 17:24	NWTPH-Dx	6104946
Surr: o-Terphenyl (51-142%)	*66 %*					*5*	*10/28/06 17:24*	*NWTPH-Dx*	*6104946*
rgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**60800**		ug/L	40.0	2000	20	10/28/06 20:51	NWTPH-Gx	6105679
Surr: a,a,a-Trifluorotoluene (63-134%)	*78 %*					*20*	*10/28/06 20:51*	*NWTPH-Gx*	*6105679*
Sample ID: NPJ3345-06 (W-1-102306-TB - Ground Water) Sampled: 10/23/06 09:00									
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		ug/L	0.310	1.00	1	11/01/06 23:22	SW846 8260B	6106005
Ethylbenzene	ND		ug/L	0.230	1.00	1	11/01/06 23:22	SW846 8260B	6106005
Methyl tert-Butyl Ether	ND		ug/L	0.310	1.00	1	11/01/06 23:22	SW846 8260B	6106005
Toluene	ND		ug/L	0.220	1.00	1	11/01/06 23:22	SW846 8260B	6106005
Xylenes, total	ND		ug/L	0.440	3.00	1	11/01/06 23:22	SW846 8260B	6106005
Ethanol	ND		ug/L	62.0	100	1	11/01/06 23:22	SW846 8260B	6106005
Surr: 1,2-Dichloroethane-d4 (62-142%)	*118 %*					*1*	*11/01/06 23:22*	*SW846 8260B*	*6106005*
Surr: Dibromofluoromethane (78-123%)	*101 %*					*1*	*11/01/06 23:22*	*SW846 8260B*	*6106005*
Surr: Toluene-d8 (79-120%)	*106 %*					*1*	*11/01/06 23:22*	*SW846 8260B*	*6106005*
Surr: 4-Bromofluorobenzene (75-133%)	*104 %*					*1*	*11/01/06 23:22*	*SW846 8260B*	*6106005*
Purgeable Petroleum Hydrocarbons									
GRO (C4-C12)	**9.68**	J	ug/L	2.00	100	1	10/28/06 21:06	NWTPH-Gx	6105679
Surr: a,a,a-Trifluorotoluene (63-134%)	*108 %*					*1*	*10/28/06 21:06*	*NWTPH-Gx*	*6105679*

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Client Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
Attn Jennifer Guthmiller

Work Order: NPJ3345
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13042.01
Received: 10/25/06 08:00

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
Extractable Petroleum Hydrocarbons							
NWTPH-Dx	6104946	NPJ3345-01	1040.00	1.00	10/25/06 14:00	SHJ	EPA 3510C
NWTPH-Dx	6104946	NPJ3345-02	1040.00	1.00	10/25/06 14:00	SHJ	EPA 3510C
NWTPH-Dx	6104946	NPJ3345-03	1030.00	1.00	10/25/06 14:00	SHJ	EPA 3510C
NWTPH-Dx	6104946	NPJ3345-04	1020.00	1.00	10/25/06 14:00	SHJ	EPA 3510C
NWTPH-Dx	6104946	NPJ3345-05	1040.00	1.00	10/25/06 14:00	SHJ	EPA 3510C

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(ent	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3345
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
. n	Jennifer Guthmiller	Received:	10/25/06 08:00

PROJECT QUALITY CONTROL DATA
Blank

..n te	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
ɛiected Volatile Organic Compounds by EPA Method 8260B						
106005-BLK1						
B :ene	<0.310		ug/L	6106005	6106005-BLK1	11/01/06 22:57
E _ lbenzene	<0.230		ug/L	6106005	6106005-BLK1	11/01/06 22:57
Methyl tert-Butyl Ether	<0.310		ug/L	6106005	6106005-BLK1	11/01/06 22:57
T ene	<0.220		ug/L	6106005	6106005-BLK1	11/01/06 22:57
X nes, total	<0.440		ug/L	6106005	6106005-BLK1	11/01/06 22:57
Ethanol	<62.0		ug/L	6106005	6106005-BLK1	11/01/06 22:57
urrogate: 1,2-Dichloroethane-d4	116%			6106005	6106005-BLK1	11/01/06 22:57
u gate: 1,2-Dichloroethane-d4	116%			6106005	6106005-BLK1	11/01/06 22:57
u rogate: Dibromofluoromethane	101%			6106005	6106005-BLK1	11/01/06 22:57
urrogate: Dibromofluoromethane	101%			6106005	6106005-BLK1	11/01/06 22:57
u gate: Toluene-d8	106%			6106005	6106005-BLK1	11/01/06 22:57
u gate: Toluene-d8	106%			6106005	6106005-BLK1	11/01/06 22:57
urrogate: 4-Bromofluorobenzene	95%			6106005	6106005-BLK1	11/01/06 22:57
u gate: 4-Bromofluorobenzene	95%			6106005	6106005-BLK1	11/01/06 22:57
xtractable Petroleum Hydrocarbons						
104946-BLK1						
: l	<38.0		ug/L	6104946	6104946-BLK1	10/27/06 14:08
L r Oil	<38.0		ug/L	6104946	6104946-BLK1	10/27/06 14:08
rrogate: o-Terphenyl	71%			6104946	6104946-BLK1	10/27/06 14:08
eable Petroleum Hydrocarbons						
05679-BLK1						
PO (C4-C12)	5.82	J	ug/L	6105679	6105679-BLK1	10/28/06 13:36
gate: a,a,a-Trifluorotoluene	81%			6105679	6105679-BLK1	10/28/06 13:36
05679-BLK2						
(C4-C12)	12.5	J	ug/L	6105679	6105679-BLK2	10/28/06 14:04
gate: a,a,a-Trifluorotoluene	105%			6105679	6105679-BLK2	10/28/06 14:04
05805-BLK1						
(C4-C12)	8.27	J	ug/L	6105805	6105805-BLK1	10/29/06 09:50
rogate: a,a,a-Trifluorotoluene	75%			6105805	6105805-BLK1	10/29/06 09:50
805-BLK2						
(C4-C12)	12.6	J	ug/L	6105805	6105805-BLK2	10/29/06 10:21
rogate: a,a,a-Trifluorotoluene	109%			6105805	6105805-BLK2	10/29/06 10:21

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Client: Acton Mickelson Environmental, Inc. (13785)
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
Attn: Jennifer Guthmiller

Work Order: NPJ3345
Project Name: (06) Former Renton Terminal #46-080
Project Number: 13042.01
Received: 10/25/06 08:00

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B								
6106005-BS1								
Benzene	50.0	48.4		ug/L	97%	80 - 118	6106005	11/01/06 22:07
Ethylbenzene	50.0	47.1		ug/L	94%	73 - 134	6106005	11/01/06 22:07
Methyl tert-Butyl Ether	50.0	44.6		ug/L	89%	69 - 122	6106005	11/01/06 22:07
Toluene	50.0	46.1		ug/L	92%	78 - 122	6106005	11/01/06 22:07
Xylenes, total	150	141		ug/L	94%	82 - 127	6106005	11/01/06 22:07
Ethanol	5000	7810		ug/L	156%	41 - 166	6106005	11/01/06 22:07
Surrogate: 1,2-Dichloroethane-d4	50.0	56.6			113%	62 - 142	6106005	11/01/06 22:07
Surrogate: 1,2-Dichloroethane-d4	50.0	56.6			113%	62 - 142	6106005	11/01/06 22:07
Surrogate: Dibromofluoromethane	50.0	51.5			103%	78 - 123	6106005	11/01/06 22:07
Surrogate: Dibromofluoromethane	50.0	51.5			103%	78 - 123	6106005	11/01/06 22:07
Surrogate: Toluene-d8	50.0	52.7			105%	79 - 120	6106005	11/01/06 22:07
Surrogate: Toluene-d8	50.0	52.7			105%	79 - 120	6106005	11/01/06 22:07
Surrogate: 4-Bromofluorobenzene	50.0	44.2			88%	75 - 133	6106005	11/01/06 22:07
Surrogate: 4-Bromofluorobenzene	50.0	44.2			88%	75 - 133	6106005	11/01/06 22:07
Extractable Petroleum Hydrocarbons								
6104946-BS1								
Diesel	1000	878		ug/L	88%	56 - 116	6104946	10/27/06 14:27
Surrogate: o-Terphenyl	20.0	16.9			84%	51 - 142	6104946	10/27/06 14:27
Purgeable Petroleum Hydrocarbons								
6105679-BS2								
GRO (C4-C12)	1000	715	A-01, L2	ug/L	72%	74 - 121	6105679	10/29/06 04:12
Surrogate: a,a,a-Trifluorotoluene	30.0	32.4			108%	63 - 134	6105679	10/29/06 04:12
6105805-BS1								
GRO (C4-C12)	1000	824		ug/L	82%	74 - 121	6105805	10/29/06 14:47
Surrogate: a,a,a-Trifluorotoluene	30.0	21.8			73%	63 - 134	6105805	10/29/06 14:47

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Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3345
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/25/06 08:00

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Purgeable Petroleum Hydrocarbons												
6105679-BSD2												
GRO (C4-C12)		882		ug/L	1000	88%	74 - 121	21	33	6105679		10/29/06 04:27
Surrogate: a,a,a-Trifluorotoluene		21.8		ug/L	30.0	73%	63 - 134			6105679		10/29/06 04:27
6105805-BSD1												
GRO (C4-C12)		1050		ug/L	1000	105%	74 - 121	24	33	6105805		10/29/06 15:02
Surrogate: a,a,a-Trifluorotoluene		34.5		ug/L	30.0	115%	63 - 134			6105805		10/29/06 15:02

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Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3345
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/25/06 08:00

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
Purgeable Petroleum Hydrocarbons										
6105679-MS2										
GRO (C4-C12)	10.9	952		ug/L	1000	94%	57 - 150	6105679	NPJ3797-04	10/29/06 03:11
Surrogate: a,a,a-Trifluorotoluene		33.0		ug/L	30.0	110%	63 - 134	6105679	NPJ3797-04	10/29/06 03:11

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3345
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/25/06 08:00

PROJECT QUALITY CONTROL DATA

Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Purgeable Petroleum Hydrocarbons												
6105679-MSD2												
GRO (C4-C12)	10.9	957		ug/L	1000	95%	57 - 150	0.5	33	6105679	NPJ3797-04	10/29/06 03:26
Surrogate: a,a,a-Trifluorotoluene		21.9		ug/L	30.0	73%	63 - 134			6105679	NPJ3797-04	10/29/06 03:26

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

(ent	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3345
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
/ n	Jennifer Guthmiller	Received:	10/25/06 08:00

CERTIFICATION SUMMARY

[America - Nashville, TN

Method	Matrix	AIHA	Nelac	Oregon
NWTPH-Dx	Water	N/A	X	X
NWTPH-Gx	Water	N/A	X	X
SW846 8260B	Water	N/A	X	X

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3345
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/25/06 08:00

NELAC CERTIFICATION SUMMARY

TestAmerica Analytical - Nashville does not hold NELAC certifications for the following analytes included in this report

Method	Matrix	Analyte
NWTPH-Gx	Water	GRO (C4-C12)

Client	Acton Mickelson Environmental, Inc. (13785)	Work Order:	NPJ3345
	5175 Hillsdale Circle, Suite 100	Project Name:	(06) Former Renton Terminal #46-080
	El Dorado Hills, CA 95762	Project Number:	13042.01
Attn	Jennifer Guthmiller	Received:	10/25/06 08:00

DATA QUALIFIERS AND DEFINITIONS

A-01	The surrogate recovery was outside the laboratory historical limits but within method QC guidelines.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
L2	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was below acceptance limits.
QSG	Silica Gel clean-up performed on extracts.
Z10	Surrogate outside laboratory historical limits but within method guidelines. No effect on data.
Z3	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

METHOD MODIFICATION NOTES

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM

BC#

NPJ3345

Cooler Received/Opened On 10/25/06 8:00

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 3230

(Fed-Ex) UPS Velocity DHL Route Off-street Misc.

2. Temperature of representative sample or temperature blank when opened: 4.4 Degrees Celsius
(indicate IR Gun ID#)

NA A00466 A00750 A01124 100190 101282 (102594)

3. Were custody seals on outside of cooler?..... YES...(NO)...NA

a. If yes, how many and where:_____

4. Were the seals intact, signed, and dated correctly?..... YES...NO...(NA)

5. Were custody papers inside cooler?..... YES...NO...NA

I certify that I opened the cooler and answered questions 1-5 (intial)..... JR

6. Were custody seals on containers: YES (NO) and Intact YES NO (NA)

were these signed, and dated correctly?..... YES...NO...NA

7. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite (Foam Insert)

Plastic bag Paper Other_____ None

8. Cooling process: (Ice) (Ice-pack) Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)?..... (YES)...NO...NA

10. Were all container labels complete (#, date, signed, pres., etc)?..... (YES)...NO...NA

11. Did all container labels and tags agree with custody papers?..... (YES)...NO...NA

12. a. Were VOA vials received?..... (YES)...NO...NA

b. Was there any observable head space present in any VOA vial?..... YES...(NO)...NA

I certify that I unloaded the cooler and answered questions 6-12 (intial)..... JR

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...(NA)

b. Did the bottle labels indicate that the correct preservatives were used..... YES...NO...NA

If preservation in-house was needed, record standard ID of preservative used here_____

14. Was residual chlorine present?..... YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (intial)..... JR

15. Were custody papers properly filled out (ink, signed, etc)?..... (YES)...NO...NA

16. Did you sign the custody papers in the appropriate place?..... (YES)...NO...NA

17. Were correct containers used for the analysis requested?..... (YES)...NO...NA

18. Was sufficient amount of sample sent in each container?..... (YES)...NO...NA

I certify that I entered this project into LIMS and answered questions 15-18 (intial)..... JR

I certify that I attached a label with the unique LIMS number to each container (intial)..... JR

19. Were there Non-Conformance issues at login YES (NO) Was a PIPE generated YES NO #_____

BIS = Broken in shipment

ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM

BC#

Cooler Received/Opened On: October 25, 2006 @ 08:00

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 3218

(Fed-Ex) UPS Velocity DHL Route Off-street Misc.

2. Temperature of representative sample or temperature blank when opened: -0.5 Degrees Celsius (indicate IR Gun ID#)

NA A00466 A00750 (A01124) 100190 101282 Raynger ST

3. Were custody seals on outside of cooler?..... YES...(NO)...NA

a. If yes, how many and where:_____

4. Were the seals intact, signed, and dated correctly?..... YES...NO...(NA)

5. Were custody papers inside cooler?..... YES...NO...NA

I certify that I opened the cooler and answered questions 1-5 (intial)..... HW

6. Were custody seals on containers: YES (NO) and Intact YES NO (NA)

were these signed, and dated correctly?..... YES...NO...NA

7. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite (Foam Insert)

Plastic bag Paper Other_____ None

8. Cooling process: (Ice) (Ice-pack) Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)?..... (YES)...NO...NA

10. Were all container labels complete (#, date, signed, pres., etc)?..... (YES)...NO...NA

11. Did all container labels and tags agree with custody papers?..... (YES)...NO...NA

12. a. Were VOA vials received?..... (YES)...NO...NA

b. Was there any observable head space present in any VOA vial?..... YES...(NO)...NA

I certify that I unloaded the cooler and answered questions 6-12 (intial)..... X

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...(NA)

b. Did the bottle labels indicate that the correct preservatives were used..... (YES)...NO...NA

If preservation in-house was needed, record standard ID of preservative used here_____

14. Was residual chlorine present?..... YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (intial)..... JR

15. Were custody papers properly filled out (ink, signed, etc)?..... (YES)...NO...NA

16. Did you sign the custody papers in the appropriate place?..... (YES)...NO...NA

17. Were correct containers used for the analysis requested?..... (YES)...NO...NA

18. Was sufficient amount of sample sent in each container?..... (YES)...NO...NA

I certify that I entered this project into LIMS and answered questions 15-18 (intial)..... JR

I certify that I attached a label with the unique LIMS number to each container (intial)..... JR

19. Were there Non-Conformance issues at login YES (NO) Was a PIPE generated YES NO #_____

BIS = Broken in shipment

Acton • Mickelson • Environmental, Inc.

Chain of Custody and Analysis Request Form

☒ Standard TAT ☐ RUSH TAT ☐ 24 hr. TAT ☐ 48 hr. TAT ☐ 72 hr. TAT ☐ 5 day TAT

Page 1 of 1 | Chain of Custody 5289

Geotracker Global ID ____________

Send Results to:
5175 Hillsdale Circle, Suite 100
El Dorado Hills, CA 95762
(916) 939-7550, FAX (916) 939-7570
Attn.: Jennifer Guthmiller

☐ Preliminary Fax Result
☒ Sample Receipt/ Log-In Confirmation
☒ Electronic Data Deliverables
☐ Geotracker EDF
☒ Raw Data Deliverables
☐ Call with Verbal Results

Requested Analysis: 8260B BTEX, MTBE, ET; NW TPHGx; NWTPHDx; Temperature

Lab ID (LAB USE ONLY)	Field Point ID	Sample ID	Date Collected	Time Collected	Matrix	Container	Number of Containers	Preservative	8260B BTEX, MTBE, ET	NW TPHGx	NWTPHDx						Temperature	Comments
	W-1	W-1-102306	10/23/06	1225	GW	V GB	6 2	HC HC	X	X	X	NPJ3345-1						ET = ETHANOL
	W-2	W-2-102306	10/23/06	1245	GW	V GB	6 2	HC HC	X	X	X					2		
	B-6	B-6-102306	10/23/06	1315	GW	V GB	6 2	HC HC	X	X	X					3		
	D-6	D-6-102306	10/23/06	1340	GW	V GB	6 2	HC HC	X	X	X					4		
	QAQC	TEMP BLANK	10/23/06	0900	RW	P	1	—									X	
	QAQC	DUPE-1-102306	10/23/06	—	GW	V GB	6 2	HC HC	X	X	X	X				5		
	QAQC	W-1-102306-TB	10/23/06	0900	RW	V	4	HC	X	X						6		

NPJ3345
11/08/06 23:59

Signature	Date	Time	Signature	Date	Time
Relinquished by: [signature]	10-23-06	1500	Relinquished by: Cathy Gamble	10/24/06	12:00
Received by: [signature]	10/23/06	1500	Received by: [signature] 10/25/06 8:00 4.4°C		
Relinquished by:			Relinquished by:		
Received by:			Received by:		

Matrix: W - Water; DW - Drinking Water; SW - Surface Water; GW - Ground Water; WW - Waste Water; RW - Reagent Water; S - Soil; SE - Sediment; SV - Soil Vapor; AA - Ambient Air; WS - Waste (Solid); O - Other
Container: GB - Glass Bottle (Amber); V - 40 ml VOA Vial; BT, ST, PT - Brass, Steel, and Plastic Tube; P - Polythethylene; GJ - Glass Jar, SC - Summa Canister; TD - Tedlar
Preservative: C - Cold; HS - Sulfuric Acid; HC - Hydrochloric Acid; HN - Nitric Acid; Na - Sodium Hydroxide; O - Other

Project Name and Location: Former Mobil Renton Terminal
Project Number: 13042.01 Receiving Lab: ____________
Sampled by: Brian Richardson (BAR) [signature]
Print Name Signature

ORIGINAL – Laboratory (Return with Report) YELLOW - Laboratory PINK - Originator

@ Lab 1617 0.0°C

APPENDIX D

Data Validation Reports

DATA VALIDATION REPORT

Project Name:	Former Renton Terminal #46-080
Project Location:	2423 Lind Avenue, Renton, Washington
Project Number:	13042.01
Project Activity:	Annual Ground Water Monitoring, 2006
Laboratories:	TestAmerica Analytical, Nashville, Tennessee
Sample Deliverable Group:	NPF1179
Sample Date:	6/6/06
Sample Matrix Types:	Water
Samples:	See attached Table 1.
Qualified Data:	See attached Table 2.
Report Date Final:	11/30/06
Review By:	G. M. Willis

Guidance documents include:

1. U.S. EPA, January 2005, *US EPA Contract Laboratory Program, National Functional Guidelines for Superfund Organic Methods Review, Draft Final*, USEPA-540-R-04-009.
2. U.S. EPA, October 1999, *US EPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review*, EPA 540/R-99/008.
3. U.S. EPA, July 2002, *US EPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*, EPA 540/R-01/008.

ABBREVIATIONS USED IN THIS REPORT

BTEX	benzene, toluene, ethylbenzene, xylenes
EQL	estimated quantitation limit
GRO	gasoline range organics
LCS	laboratory control sample
MDL	method detection limit
MRL	method reporting limit
MS/MSD	matrix spike/matrix spike duplicate
MTBE	methyl tertiary butyl ether
NA	not analyzed
QAP	quality assurance plan
RL	reporting limit
RPD	relative percent difference
°C	degrees Celsius
%REC	percent recovery

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1179
Sample Date: 6/6/06
Report Date Final: 11/30/06

ORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use. A portion of the data has been qualified due to method blank contamination and surrogate spike recovery.

Completeness: The analytical results are within typical ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY. REMARKS:
Several samples had limited quantities available and not all analyses were performed.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, REMARKS:
No exceptions noted. Sample log indicates samples were received at 5.8 and 6°C, and intact.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS:
No exceptions noted. Samples for NWTPH-DX diesel and motor oil were prepared by silica gel cleanup as specified.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No. Samples	No. Exceptions	Note
NWTPH-Gx (GRO)	Water	9	0	Used MDL
NWTPH-Dx (diesel, motor oil)	Water	7	0	Used MDL
8260B (BTEX, MTBE)	Water	9	0	Used MDL

Sample HA10-060606 was not submitted for TPH-Dx analysis.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1179
Sample Date: 6/6/06
Report Date Final: 11/30/06

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
NWTPH-Gx (GRO)	9	4
NWTPH-Dx (diesel, motor oil)	7	0
8260B (BTEX, MTBE)	9	0

REMARKS:
Initial analysis was within holding time. Reanalysis for the required dilution was one day past holding time. Samples were adequately preserved; no data was affected or qualified.

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	A
NWTPH-Dx (diesel, motor oil)	A
8260B (BTEX, MTBE)	A

A - Acceptable – all criteria met.
P - Provisional – some criteria not met; data useable. See remarks.
U - Unacceptable - criteria not met; data unusable. See remarks.

REMARKS:
None.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1179
Sample Date: 6/6/06
Report Date Final: 11/30/06

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	A
NWTPH-Dx (diesel, motor oil)	P
8260B (BTEX, MTBE)	A

A - Acceptable - no contaminants greater than minimum detection limits; no interference with sample results.
P - Provisional - contaminants present but minimal interference with sample results.
U - Unacceptable - gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Method blanks were contaminated as shown below:
Motor oil was detected in the method blank at 69.0 µg/l. Five samples had detections that were less than five times the contaminant level and were qualified "u", undetected.

VI. SURROGATE SPIKE RESULTS (water only)

Method Analysis	No. Samples	No. Samples "J"	No. Samples "R"
NWTPH-Gx (GRO)	9	3	0
NWTPH-Dx (diesel, motor oil)	7	0	0
8260B (BTEX, MTBE)	9	0	0

REMARKS:
The %REC for the surrogate a,a,a-trifluorotoluene was greater than acceptable criteria in three samples. Positive detections were affected and qualified "j".

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1179
Sample Date: 6/6/06
Report Date Final: 11/30/06

VII. MATRIX SPIKE RESULTS (water only)

Method Analysis	No. Compounds	No. out of Criteria	No. <10% Recovery
NWTPH-Gx (GRO)	NA	0	0
NWTPH-Dx (diesel, motor oil)	NA	0	0
8260B (BTEX, MTBE)	6	3	3

REMARKS:
MS was not performed for diesel, motor oil, or GRO. Results for benzene, ethylbenzene, and xylenes had extremely low %REC due to sample matrix effects. LCS/LCSD data was considered for data validation purposes.

VIII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No. Compounds	No. out of Criteria
NWTPH-Gx (GRO)	NA	0
NWTPH-Dx (diesel, motor oil)	NA	0
8260B (BTEX, MTBE)	6	3

REMARKS:
MSD was not performed for diesel, motor oil, or GRO. Results for benzene, ethylbenzene, and xylenes had extremely low %REC due to sample matrix effects. LCS/LCSD data was considered for data validation purposes.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1179
Sample Date: 6/6/06
Report Date Final: 11/30/06

IX. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	NA
NWTPH-Dx (diesel, motor oil)	NA
8260B (BTEX, MTBE)	NA

A - Acceptable - the same compounds were identified in the primary and duplicate samples with minor differences in concentration.
P - Provisional - the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
U - Unacceptable - differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:
No field duplicates were collected in this sample group.

X. TRIP BLANK SAMPLE RESULTS (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	A
8260B (BTEX, MTBE)	A

A - Acceptable - No contaminants greater than minimum detection limits; no interference with sample results.
P - Provisional - Contaminants present but minimal interference with sample results.
U - Unacceptable - Gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Trip blanks were contaminated as shown below:
None.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1179
Sample Date: 6/6/06
Report Date Final: 11/30/06

XI. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

XII. SUMMARY OF QUALIFIED DATA

Data that have been assigned qualifiers as part of this review are listed on the attached Table 2.

DATA VALIDATION REPORT

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1179
Sample Date: 6/6/06
Report Date Final: 11/30/06

TABLE 1
SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Location	Sample ID	Sample Date	Matrix	Type	Lab ID	Receipt Date	ID on COC
B5	B5-060606	6/6/06	water	Normal Environmental Sample	NPF1179-01	6/8/06	B-5-060606
B6	B6-060606	6/6/06	water	Normal Environmental Sample	NPF1179-02	6/8/06	B-6-060606
W2	W2-060606	6/6/06	water	Normal Environmental Sample	NPF1179-03	6/8/06	W-2-060606
B1	B1-060606	6/6/06	water	Normal Environmental Sample	NPF1179-04	6/8/06	B-1-060606
HA10	HA10-060606	6/6/06	water	Normal Environmental Sample	NPF1179-05	6/8/06	HA-10-060606
HA2	HA2-060606	6/6/06	water	Normal Environmental Sample	NPF1179-06	6/8/06	HA-2-060606
HA9	HA9-060606	6/6/06	water	Normal Environmental Sample	NPF1179-07	6/8/06	HA-9-060606
W3	W3-060606	6/6/06	water	Normal Environmental Sample	NPF1179-08	6/8/06	W-3-060606
	TB-1-060606	6/6/06	water	Trip Blank	NPF1179-09	6/8/06	TB-1-060606

DATA VALIDATION REPORT
Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1179
Sample Date: 6/6/06
Report Date Final: 11/30/06

TABLE 2
SUMMARY OF QUALIFIED DATA

Sample ID	Lab ID	Method	Analysis Date	Chemical	Result	Units	Detect Flag	Lab Qualifier	Review Qualifier	MDL	MRL
B5-060606	NPF1179-01	NWTPH-Gx	6/20/06	GRO	4540	µg/l	Y		j	40	100
B1-060606	NPF1179-04	NWTPH-Gx	6/20/06	GRO	3330	µg/l	Y		j	40	100
HA9-060606	NPF1179-07	NWTPH-Gx	6/20/06	GRO	3750	µg/l	Y		j	40	100
B5-060606	NPF1179-01	NWTPH-Dx	6/18/06	motor oil	271	µg/l	Y		u	35.7	93.9
W2-060606	NPF1179-03	NWTPH-Dx	6/18/06	motor oil	283	µg/l	Y	J	u	178	469
HA2-060606	NPF1179-06	NWTPH-Dx	6/18/06	motor oil	313	µg/l	Y	J	u	178	469
HA9-060606	NPF1179-07	NWTPH-Dx	6/18/06	motor oil	337	µg/l	Y		u	35.7	93.9
W3-060606	NPF1179-08	NWTPH-Dx	6/18/06	motor oil	153	µg/l	Y		u	35.7	93.9

DATA VALIDATION REPORT

Project Name:	Former Renton Terminal #46-080
Project Location:	2423 Lind Avenue, Renton, Washington
Project Number:	13042.01
Project Activity:	Annual Ground Water Monitoring, 2006
Laboratories:	TestAmerica Analytical, Nashville, Tennessee
Sample Deliverable Group:	NPF1612
Sample Date:	6/6/06 & 6/7/06
Sample Matrix Types:	Water
Samples:	See attached Table 1.
Qualified Data:	See attached Table 2.
Report Date Final:	11/30/06
Review By:	G. M. Willis

Guidance documents include:

1. U.S. EPA, January 2005, *US EPA Contract Laboratory Program, National Functional Guidelines for Superfund Organic Methods Review, Draft Final*, USEPA-540-R-04-009.
2. U.S. EPA, October 1999, *US EPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review*, EPA 540/R-99/008.
3. U.S. EPA, July 2002, *US EPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*, EPA 540/R-01/008.

ABBREVIATIONS USED IN THIS REPORT

BTEX	benzene, toluene, ethylbenzene, xylenes
EQL	estimated quantitation limit
GRO	gasoline range organics
LCS	laboratory control sample
MDL	method detection limit
MRL	method reporting limit
MS/MSD	matrix spike/matrix spike duplicate
MTBE	methyl tertiary butyl ether
NA	not analyzed
QAP	quality assurance plan
RL	reporting limit
RPD	relative percent difference
°C	degrees Celsius
%REC	percent recovery

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1612
Sample Date: 6/6/06 & 6/7/06
Report Date Final: 11/30/06

ORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use. A portion of the data has been qualified due to surrogate spike recovery.

Completeness: The analytical results are within typical ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY. REMARKS:
Several samples had limited quantities available and not all analyses were performed.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, REMARKS:
No exceptions noted. Sample log indicates samples were received at 6°C and intact.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS:
No exceptions noted. Samples for NWTPH-DX diesel and motor oil were prepared by silica gel cleanup as specified.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No. Samples	No. Exceptions	Note
NWTPH-Gx (GRO)	Water	16	0	Used MDL
NWTPH-Dx (diesel, motor oil)	Water	15	0	Used MDL
8260B (BTEX, MTBE)	Water	16	0	Used MDL

REMARKS:
HA14-060706 was not submitted for NWTPH-DX.
HA10-060706 was submitted for NWTPH-Dx only.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1612
Sample Date: 6/6/06 & 6/7/06
Report Date Final: 11/30/06

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
NWTPH-Gx (GRO)	16	0
NWTPH-Dx (diesel, motor oil)	15	0
8260B (BTEX, MTBE)	16	0

REMARKS:
None.

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	A
NWTPH-Dx (diesel, motor oil)	A
8260B (BTEX, MTBE)	A

A - Acceptable – all criteria met.
P - Provisional – some criteria not met; data useable. See remarks.
U - Unacceptable - criteria not met; data unusable. See remarks.

REMARKS:
None.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1612
Sample Date: 6/6/06 & 6/7/06
Report Date Final: 11/30/06

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	A
NWTPH-Dx (diesel, motor oil)	A
8260B (BTEX, MTBE)	A

A - Acceptable - no contaminants greater than minimum detection limits; no interference with sample results.
P - Provisional - contaminants present but minimal interference with sample results.
U - Unacceptable - gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Method blanks were contaminated as shown below:
None.

VI. SURROGATE SPIKE RESULTS (water only)

Method Analysis	No. Samples	No. Samples "J"	No. Samples "R"
NWTPH-Gx (GRO)	16	2	0
NWTPH-Dx (diesel, motor oil)	15	0	0
8260B (BTEX, MTBE)	16	0	0

REMARKS:
The %REC for the surrogate o-terphenyl less than acceptable criteria in three samples. Positive detections in two samples for diesel were affected and qualified "j".

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1612
Sample Date: 6/6/06 & 6/7/06
Report Date Final: 11/30/06

VII. MATRIX SPIKE RESULTS (water only)

Method Analysis	No. Compounds	No. out of Criteria	No. <10% Recovery
NWTPH-Gx (GRO)	NA	0	0
NWTPH-Dx (diesel, motor oil)	NA	0	0
8260B (BTEX, MTBE)	6	3	0

REMARKS:
MS was not performed for diesel, motor oil, or GRO. Results for benzene, toluene and xylenes, total, had extremely low %REC due to sample matrix effects. LCS/LCSD data was to validate data.

VIII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No. Compounds	No. out of Criteria
NWTPH-Gx (GRO)	NA	0
NWTPH-Dx (diesel, motor oil)	NA	0
8260B (BTEX, MTBE)	6	3

REMARKS:
MS was not performed for diesel, motor oil, or GRO. Results for benzene, toluene and xylenes, total, had extremely low %REC due to sample matrix effects. LCS/LCSD data was to validate data.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1612
Sample Date: 6/6/06 & 6/7/06
Report Date Final: 11/30/06

IX. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	A
NWTPH-Dx (diesel, motor oil)	A
8260B (BTEX, MTBE)	A

A - Acceptable - the same compounds were identified in the primary and duplicate samples with minor differences in concentration.
P - Provisional - the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
U - Unacceptable - differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:
Original Sample ID: HA1-060706
Duplicate Sample ID: DUPE-1-060706
None.

X. TRIP BLANK SAMPLE RESULTS (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	A
8260B (BTEX, MTBE)	A

A - Acceptable - No contaminants greater than minimum detection limits; no interference with sample results.
P - Provisional - Contaminants present but minimal interference with sample results.
U - Unacceptable - Gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Trip blanks were contaminated as shown below:
None.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1612
Sample Date: 6/6/06 & 6/7/06
Report Date Final: 11/30/06

XI. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

XII. SUMMARY OF QUALIFIED DATA

Data that have been assigned qualifiers as part of this review are listed on the attached Table 2.

DATA VALIDATION REPORT

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1612
Sample Date: 6/6/06 & 6/7/06
Report Date Final: 11/30/06

TABLE 1
SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Location	Sample ID	Sample Date	Matrix	Type	Lab ID	Receipt Date	ID on COC
TB-2	TB-2-060606	6/6/06	water	Trip Blank	NPF1612-01	6/13/06	TB-2-060606
W4	W4-060606	6/6/06	water	Normal Environmental Sample	NPF1612-02	6/13/06	W4-060606
HA11	HA11-060706	6/7/06	water	Normal Environmental Sample	NPF1612-03	6/13/06	HA11-060706
HA3	HA3-060706	6/7/06	water	Normal Environmental Sample	NPF1612-04	6/13/06	HA3-060706
HA12	HA12-060706	6/7/06	water	Normal Environmental Sample	NPF1612-05	6/13/06	HA12-060706
HA7	HA7-060706	6/7/06	water	Normal Environmental Sample	NPF1612-06	6/13/06	HA7-060706
HA-6	HA6-060706	6/7/06	water	Normal Environmental Sample	NPF1612-07	6/13/06	HA6-060706
D4	D4-060706	6/7/06	water	Normal Environmental Sample	NPF1612-08	6/13/06	D4-060706
HA14	HA14-060706	6/7/06	water	Normal Environmental Sample	NPF1612-09	6/13/06	HA14-060706
HA13	HA13-060706	6/7/06	water	Normal Environmental Sample	NPF1612-10	6/13/06	HA13-060706
HA5	HA5-060706	6/7/06	water	Normal Environmental Sample	NPF1612-11	6/13/06	HA5-060706
HA10	HA10-060706	6/7/06	water	Normal Environmental Sample	NPF1612-12	6/13/06	HA10-060706
W1	W1-060706	6/7/06	water	Normal Environmental Sample	NPF1612-13	6/13/06	W1-060706
D6	D6-060706	6/7/06	water	Normal Environmental Sample	NPF1612-14	6/13/06	D6-060706
D7	D7-060706	6/7/06	water	Normal Environmental Sample	NPF1612-15	6/13/06	D7-060706
HA1	HA1-060706	6/7/06	water	Normal Environmental Sample	NPF1612-16	6/13/06	HA1-060706
HA1	DUPE-1-060706	6/7/06	water	Field Duplicate	NPF1612-17	6/13/06	DUPE-1-060706

DATA VALIDATION REPORT

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPF1612
Sample Date: 6/6/06 & 6/7/06
Report Date Final: 11/30/06

TABLE 2
SUMMARY OF QUALIFIED DATA

Sample ID	Lab ID	Method	Analysis Date	Chemical	Result	Units	Detect Flag	Lab Qualifier	Review Qualifier	MDL	MRL
HA11-060706	NPF1612-03	NWPTH-Dx	6/23/06	Diesel	3320	µg/L	Y		j	73.8	194
HA6-060706	NPF1612-07	NWPTH-Dx	6/23/06	Diesel	3700	µg/L	Y		j	72.4	190

DATA VALIDATION REPORT

Project Name:	Former Renton Terminal #46-080
Project Location:	2423 Lind Avenue, Renton, Washington
Project Number:	13042.01
Project Activity:	Annual Ground Water Monitoring, 2006
Laboratories:	TestAmerica Analytical, Nashville, Tennessee
Sample Deliverable Group:	NPJ3797
Sample Date:	10/23/06 & 10/24/06
Sample Matrix Types:	Water (organic only)
Samples:	See attached Table 1.
Qualified Data:	See attached Table 2.
Report Date Final:	1/16/07
Review By:	G. M. Willis

Guidance documents include:

1. U.S. EPA, January 2005, *US EPA Contract Laboratory Program, National Functional Guidelines for Superfund Organic Methods Review, Draft Final*, USEPA-540-R-04-009.
2. U.S. EPA, October 1999, *US EPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review*, EPA 540/R-99/008.
3. U.S. EPA, July 2002, *US EPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*, EPA 540/R-01/008.

ABBREVIATIONS USED IN THIS REPORT

BTEX	benzene, toluene, ethylbenzene, xylenes
EQL	estimated quantitation limit
GRO	gasoline range organics
LCS	laboratory control sample
MDL	method detection limit
MRL	method reporting limit
MS/MSD	matrix spike/matrix spike duplicate
MTBE	methyl tertiary butyl ether
NA	not analyzed
RL	reporting limit
RPD	relative percent difference
°C	degrees Celsius
%REC	percent recovery

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3797
Sample Date: 10/23/06 & 10/24/06
Report Date Final: 1/16/07

ORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use. A portion of the results have been qualified due to method blank contamination, trip blank contamination, and surrogate spike recoveries.

Completeness: The analytical results are within typical ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY. REMARKS:
Several samples had limited quantities available and not all analyses were performed.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, REMARKS:
No exceptions noted. Sample log indicates samples were received cold and intact.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS:
No exceptions noted. Samples for NWTPH-DX diesel and motor oil were prepared by silica gel cleanup as specified.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No. Samples	No. Exceptions	Note
NWTPH-Gx (GRO)	Water	20	0	Used MDL
NWTPH-Dx (diesel, motor oil)	Water	16	0	Used MDL
8260B (BTEX, MTBE, ethanol)	Water	20	0	Used MDL

REMARKS:
Samples HA10-102406, HA2-102406 and HA14-102406 were not submitted for NWTPH-Dx.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3797
Sample Date: 10/23/06 & 10/24/06
Report Date Final: 1/16/07

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
NWTPH-Gx (GRO)	20	0
NWTPH-Dx (diesel, motor oil)	16	0
8260B (BTEX, MTBE, ethanol)	20	0

REMARKS:
None.

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	A
NWTPH-Dx (diesel, motor oil)	A
8260B (BTEX, MTBE, ethanol)	A

A - Acceptable – all criteria met.
P - Provisional – some criteria not met; data useable. See remarks.
U - Unacceptable - criteria not met; data unusable. See remarks.

REMARKS:
The %REC for GRO in two out of six QA/QC samples was slightly lower than acceptable criteria. Samples were not affected or qualified.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3797
Sample Date: 10/23/06 & 10/24/06
Report Date Final: 1/16/07

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	P
NWTPH-Dx (diesel, motor oil)	A
8260B (BTEX, MTBE, ethanol)	A

A - Acceptable - no contaminants greater than minimum detection limits; no interference with sample results.
P - Provisional - contaminants present but minimal interference with sample results.
U - Unacceptable - gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Method blanks were contaminated as shown below:
The method blank for GRO was performed eight times. GRO was detected in all of the method blank samples between 5.62 and 12.5 µg/l. Three samples had detections that were less than five times the blank results. Those samples were qualified "u", undetected.

VI. SURROGATE SPIKE RESULTS (water only)

Method Analysis	No. Samples	No. Samples "J"	No. Samples "R"
NWTPH-Gx (GRO)	20	0	0
NWTPH-Dx (diesel, motor oil)	16	2	0
8260B (BTEX, MTBE, ethanol)	20	0	0

REMARKS:
The %REC for the surrogate o-terphenyl, the analyte that represents diesel and motor oil, was less than acceptable criteria in two samples. The positive detections for diesel in two samples and the positive detection for motor oil in one sample were qualified "j", estimated. The non-detect result for one sample was qualified "uj", estimated non-detected.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3797
Sample Date: 10/23/06 & 10/24/06
Report Date Final: 1/16/07

VII. MATRIX SPIKE RESULTS (water only)

Method Analysis	No. Compounds	No. out of Criteria	No. <10% Recovery
NWTPH-Gx (GRO)	1	0	0
NWTPH-Dx (diesel, motor oil)	NA	NA	0
8260B (BTEX, MTBE, ethanol)	NA	NA	0

REMARKS:
MS was not performed for diesel, motor oil, BTEX or MTBE, due to insufficient sample volume.

VIII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No. Compounds	No. out of Criteria
NWTPH-Gx (GRO)	1	0
NWTPH-Dx (diesel, motor oil)	NA	NA
8260B (BTEX, MTBE, ethanol)	NA	NA

REMARKS:
MS was not performed for diesel, motor oil, BTEX or MTBE, due to insufficient sample volume.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3797
Sample Date: 10/23/06 & 10/24/06
Report Date Final: 1/16/07

IX. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	A
NWTPH-Dx (diesel, motor oil)	A
8260B (BTEX, MTBE, ethanol)	A

A - Acceptable - the same compounds were identified in the primary and duplicate samples with minor differences in concentration.
P - Provisional - the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
U - Unacceptable - differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:
Primary Sample ID: W3-102306 (NPJ3739-11)
Duplicate Sample ID: DUPE-2-102406 (NPJ3797-19)

None.

X. TRIP BLANK SAMPLE RESULTS (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	P
8260B (BTEX, MTBE, ethanol)	A

A - Acceptable - No contaminants greater than minimum detection limits; no interference with sample results.
P - Provisional - Contaminants present but minimal interference with sample results.
U - Unacceptable - Gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Trip blanks were contaminated as shown below:
GRO contamination was detected in the trip blank at 9.85 µg/l. Similar levels of GRO were detected in the method blanks. Samples with less than five times the detection in the trip blank or method blank were qualified "u", undetected. See section V., page 4.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3797
Sample Date: 10/23/06 & 10/24/06
Report Date Final: 1/16/07

XI. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

XII. SUMMARY OF QUALIFIED DATA

Data that have been assigned qualifiers as part of this review are listed on the attached Table 2.

DATA VALIDATION REPORT

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3797
Sample Date: 10/23/06 & 10/24/06
Report Date Final: 1/16/07

TABLE 1
SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Location	Sample ID	Sample Date	Matrix	Type	Lab ID	Receipt Date	ID on COC
D7	D7-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-01	10/27/06	D-7-102406
B2	B2-102306	10/23/06	water	Normal Environmental Sample	NPJ3797-02	10/27/06	B-2-102306
B5	B5-102306	10/23/06	water	Normal Environmental Sample	NPJ3797-03	10/27/06	B-5-102306
HA1	HA1-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-04	10/27/06	HA-1-102406
HA11	HA11-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-05	10/27/06	HA-11-102406
HA10	HA10-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-06	10/27/06	HA-10-102406
HA9	HA9-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-07	10/27/06	HA-9-102406
HA2	HA2-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-08	10/27/06	HA-2-102406
B2	B2-102306-TB	10/23/06	water	Trip Blank	NPJ3797-09	10/27/06	B-2-102306-TB
HA4	HA4-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-10	10/27/06	HA-4-102406
W3	W3-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-11	10/27/06	W-3-102406
W4	W4-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-12	10/27/06	W-4-102406
HA14	HA14-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-13	10/27/06	HA-14-102406
HA13	HA13-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-14	10/27/06	HA-13-102406
HA5	HA5-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-15	10/27/06	HA-5-102406
HA7	HA7-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-16	10/27/06	HA-7-102406
HA12	HA12-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-17	10/27/06	HA-12-102406

DATA VALIDATION REPORT

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3797
Sample Date: 10/23/06 & 10/24/06
Report Date Final: 1/16/07

Location	Sample ID	Sample Date	Matrix	Type	Lab ID	Receipt Date	ID on COC
HA6	HA6-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-18	10/27/06	HA-6-102406
W3	DUPE-2-102406	10/24/06	water	Field Duplicate	NPJ3797-19	10/27/06	DUPE-2-102406
B1	B1-102406	10/24/06	water	Normal Environmental Sample	NPJ3797-20	10/27/06	B-1-102406

DATA VALIDATION REPORT
Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3797
Sample Date: 10/23/06 & 10/24/06
Report Date Final: 1/16/07

TABLE 2
SUMMARY OF QUALIFIED DATA

Sample ID	Lab ID	Method	Analysis Date	Chemical	Result	Units	Detect Flag	Lab Qualifier	Review Qualifier	MDL	MRL
D-7-102406	NPJ3797-01	NWTPH-Gx	11/3/06	GRO	56.2	µg/l	Y	J	u	2.00	100
HA-1-102406	NPJ3797-04	NWTPH-Gx	10/29/06	GRO	10.9	µg/l	Y	J	u	2.00	100
HA-12-102406	NPJ3797-17	NWTPH-Gx	11/3/06	GRO	58.2	µg/l	Y	J	u	2.00	100
HA-7-102406	NPJ3797-16	NWTPH-Dx	11/4/06	diesel	1040	µg/l	Y		j	36.2	95.2
HA-7-102406	NPJ3797-16	NWTPH-Dx	11/4/06	motor oil	408	µg/l	Y		j	36.2	95.2
HA-6-102406	NPJ3797-18	NWTPH-Dx	11/4/06	diesel	2670	µg/l	Y		j	71.4	188
HA-6-102406	NPJ3797-18	NWTPH-Dx	11/4/06	motor oil	ND	µg/l	N		uj	71.4	188

DATA VALIDATION REPORT

Project Name:	Former Renton Terminal #46-080
Project Location:	2423 Lind Avenue, Renton, Washington
Project Number:	13042.01
Project Activity:	Annual Ground Water Monitoring, 2006
Laboratories:	TestAmerica Analytical, Nashville, Tennessee
Sample Deliverable Group:	NPJ3345
Sample Date:	10/23/06
Sample Matrix Types:	Water (organic only)
Samples:	See attached Table 1.
Qualified Data:	None.
Report Date Final:	1/16/07
Review By:	G. M. Willis

Guidance documents include:

1. U.S. EPA, January 2005, *US EPA Contract Laboratory Program, National Functional Guidelines for Superfund Organic Methods Review, Draft Final*, USEPA-540-R-04-009.
2. U.S. EPA, October 1999, *US EPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review*, EPA 540/R-99/008.
3. U.S. EPA, July 2002, *US EPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*, EPA 540/R-01/008.

ABBREVIATIONS USED IN THIS REPORT

BTEX	benzene, toluene, ethylbenzene, xylenes
EQL	estimated quantitation limit
GRO	gasoline range organics
LCS	laboratory control sample
MDL	method detection limit
MRL	method reporting limit
MS/MSD	matrix spike/matrix spike duplicate
MTBE	methyl tertiary butyl ether
NA	not analyzed
RL	reporting limit
RPD	relative percent difference
°C	degrees Celsius
%REC	percent recovery

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3345
Sample Date: 10/23/06
Report Date Final: 1/16/07

ORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use.

Completeness: The analytical results are within typical ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY. REMARKS:
No exceptions noted.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, REMARKS:
No exceptions noted. Sample log indicates samples were received cold and intact.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS:
No exceptions noted. Samples for NWTPH-DX diesel and motor oil were prepared by silica gel cleanup as specified.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No. Samples	No. Exceptions	Note
NWTPH-Gx (GRO)	Water	6	0	Used MDL
NWTPH-Dx (diesel, motor oil)	Water	5	0	Used MDL
8260B (BTEX, MTBE, ethanol)	Water	6	0	Used MDL

REMARKS:
None.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3345
Sample Date: 10/23/06
Report Date Final: 1/16/07

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
NWTPH-Gx (GRO)	6	0
NWTPH-Dx (diesel, motor oil)	5	0
8260B (BTEX, MTBE, ethanol)	6	0

REMARKS:
None.

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	A
NWTPH-Dx (diesel, motor oil)	A
8260B (BTEX, MTBE, ethanol)	A

A - Acceptable – all criteria met.
P - Provisional – some criteria not met; data useable. See remarks.
U - Unacceptable - criteria not met; data unusable. See remarks.

REMARKS:
None.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3345
Sample Date: 10/23/06
Report Date Final: 1/16/07

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	A
NWTPH-Dx (diesel, motor oil)	A
8260B (BTEX, MTBE, ethanol)	A

A - Acceptable - no contaminants greater than minimum detection limits; no interference with sample results.
P - Provisional - contaminants present but minimal interference with sample results.
U - Unacceptable - gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Method blanks were contaminated as shown below:
GRO was detected in each of the four the method blanks with detections between 5.82 and 12.6 µg/l. All results were greater than five times the blank results; no samples were affected or qualified.

VI. SURROGATE SPIKE RESULTS (water only)

Method Analysis	No. Samples	No. Samples "J"	No. Samples "R"
NWTPH-Gx (GRO)	6	0	0
NWTPH-Dx (diesel, motor oil)	5	0	0
8260B (BTEX, MTBE, ethanol)	6	0	0

REMARKS:
None.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3345
Sample Date: 10/23/06
Report Date Final: 1/16/07

VII. MATRIX SPIKE RESULTS (water only)

Method Analysis	No. Compounds	No. out of Criteria	No. <10% Recovery
NWTPH-Gx (GRO)	1	0	0
NWTPH-Dx (diesel, motor oil)	NA		0
8260B (BTEX, MTBE, ethanol)	NA		0

REMARKS:
MS was not performed for diesel, motor oil, BTEX or MTBE.

VIII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No. Compounds	No. out of Criteria
NWTPH-Gx (GRO)	1	0
NWTPH-Dx (diesel, motor oil)	NA	
8260B (BTEX, MTBE, ethanol)	NA	

REMARKS:
MSD was not performed for diesel, motor oil, BTEX or MTBE.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3345
Sample Date: 10/23/06
Report Date Final: 1/16/07

IX. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	A
NWTPH-Dx (diesel, motor oil)	A
8260B (BTEX, MTBE, ethanol)	A

A - Acceptable - the same compounds were identified in the primary and duplicate samples with minor differences in concentration.
P - Provisional - the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
U - Unacceptable - differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:

Primary Sample ID: W-2-102306 (NPJ3345-02)
Duplicate Sample ID: DUPE-1-102306 (NPJ3345-05)

None.

X. TRIP BLANK SAMPLE RESULTS (water only)

Method Analysis	Result
NWTPH-Gx (GRO)	A
8260B (BTEX, MTBE, ethanol)	A

A - Acceptable - No contaminants greater than minimum detection limits; no interference with sample results.
P - Provisional - Contaminants present but minimal interference with sample results.
U - Unacceptable - Gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Trip blanks were contaminated as shown below:
GRO was detected in the trip blank at 9.68 µg/l. All samples had detections greater than five times the contaminant level; no samples were affected or qualified.

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3345
Sample Date: 10/23/06
Report Date Final: 1/16/07

XI. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

XII. SUMMARY OF QUALIFIED DATA

No data were qualified in this portion of the review.

DATA VALIDATION REPORT

Project Name: Former Renton Terminal #46-080
Project Number: 13042.01
Sample Deliverable Group: NPJ3345
Sample Date: 10/23/06
Report Date Final: 1/16/07

TABLE 1
SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Location	Sample ID	Sample Date	Matrix	Type	Lab ID	Receipt Date	ID on COC
W1	W1-102306	10/23/06	water	Normal Environmental Sample	NPJ3345-01	10/25/06	W-1-102306
W2	W2-102306	10/23/06	water	Normal Environmental Sample	NPJ3345-02	10/25/06	W-2-102306
B6	B6-102306	10/23/06	water	Normal Environmental Sample	NPJ3345-03	10/25/06	B-6-102306
D6	D6-102306	10/23/06	water	Normal Environmental Sample	NPJ3345-04	10/25/06	D-6-102306
W2	DUPE-1-102306	10/23/06	water	Field Duplicate	NPJ3345-05	10/25/06	DUPE-1-102306
W1	W1-102306-TB	10/23/06	water	Trip Blank	NPJ3345-06	10/25/06	W-1-102306-TB

Stantec Consulting Corporation
12034 134th CT NE Suite 102
Redmond, WA 98052
Tel: (425) 298-1000
Fax: (425) 298-1020

DATE: September 15, 2009

CONOCOPHILLIPS OPERATIONS AND MAINTENANCE REPORT

ConocoPhillips Facility No.: 3485	Address: 2423 Lind Avenue SW, Renton, Washington
ConocoPhillips Project Manager:	Myron Smith / (RM&R 3485)
Consulting Co. / Contact Person:	Stantec / Jeffrey S. Thompson,
Consultant Project No.:	212301444
Primary Agency / Regulatory ID No.:	Ecology Identifier No. 2070

System Type: Dual Phase Extraction and Groundwater Pump & Treat

WORK PERFORMED THIS QUARTER [Second– 2009]:

Introduction

This status report provides a summary of remediation activities conducted from April through June 2009, at the ConocoPhillips bulk petroleum distribution terminal in Renton, Washington (the site). Remediation activities conducted at the site and documented in this report are related to the 14,800-gallon petroleum product release, which occurred in November 2002. The petroleum release was reported to the Washington State Department of Ecology (Ecology) on November 14, 2002. Washington Ecology's file number for this site is 2070.

Site Description

The site is an active bulk petroleum distribution terminal located at 2423 Lind Avenue SW in Renton, Washington. There are currently seven above ground product storage tanks located in the tank farm at the site (Figure 1), which store premium and regular unleaded gasoline, diesel fuel, and ethanol. Smaller gasoline and diesel additive tanks are also located in the tank farm. Each product tank is surrounded by concrete block walls which are approximately 3 feet high. The entire tank area is surrounded by an earthen containment berm which provides secondary surface spill containment. Surface drainage in the tank area is controlled by a series of gate valves in the concrete containment walls, which are capable of directing flow to a sump in the western portion of the tank area. A large portion of the surface drainage water infiltrates through the earthen material surrounding the tanks and recharges the shallow groundwater table.

Summary of Routine Operations and Maintenance Activities

- On April 7, 2009, Stantec personnel were onsite to perform a remediation system vapor check, record operational parameters and inspect system air compressor that was down upon personnel arrival. The Soil Vapor Extraction (SVE) system was operational upon arrival. The Water Treatment System (WTS) system was down; no alarms registered. Upon inspection, it was discovered that air was not allocated to groundwater system wells due to air compressor malfunction. Stantec personnel inspected system hoses, added oil to SVE blower, changed system filters in knock out (K.O.) drum, and performed tank farm inspection of system pump and treat wells. Upon site walk, system wells outside of terminal compound (HW-1E, and HW-1W) were inspected and required new pressure gauges. System compressor and blower information was recorded for required additional maintenance. The SVE and Water Treatment systems were operational upon departure.

- On April 14, 2009, Stantec personnel were onsite to perform a remediation system vapor check, and record operational parameters. The SVE system was operational upon arrival, parameters were recorded and vapor readings checked between carbon filtration vessels. The WTS was down upon arrival due to an air compressor malfunction. Stantec personnel informed the project manager of parameter readings and recorded additional air compressor part information to schedule maintenance visit. The SVE system only operational upon departure.

- On April 16, 2009, Stantec personnel were onsite to perform system repairs on air compressor, install new regulators on wells HW-1E and HW-1W, and replace camlocks on wells LAI-4, LAI-9 and RW-2. The SVE system was operational upon arrival. The WTS system compressor was down upon arrival. Remediation system was shutdown for repairs on air compressor including installation of a new pressure switch and lubrication of compressor components. After repairs were made, system was reset and integrity of repairs checked. No leaks were noted on system well repairs. Upon inspection of air compressor, personnel noticed compressor failure to cycle and smoke emissions from motor housing. An additional site visit was scheduled to perform further repairs required. The SVE system only was operational upon departure.

- On April 21, 2009, Stantec personnel were onsite to perform monthly operations and maintenance activities. The monthly maintenance activities included recording operation parameters, checking the knock out drum filter, collection of SVE Influent, Total Influent, Mid 1, Mid 2, and Total Effluent vapor samples and collection of Influent, Air Stripper Effluent, Mid 1, and Effluent water samples. The vapor readings were within permit parameters, and the SVE system was operational upon arrival. The WTS system air compressor continued to fail to cycle. The compressor was reset and failed to restart. Additional repairs were required. The SVE system was operational upon departure. Air and water permit compliance samples were collected.

- On April 24, 2009, Stantec personnel were onsite to perform a remediation system vapor check and record operational parameters. The SVE system was operational upon arrival, parameters were recorded and vapor readings checked between carbon filtration vessels. Additional duties included recording detailed air compressor information for repairs and component replacement from Ingersoll-Rand. The SVE system only was operational upon departure.

- On April 28, 2009, Stantec personnel were onsite to perform oversight of Ingersoll-Rand personnel in repairs of compressor operations. The compressor components were removed which included belts and motor for inspection and repair. Electrical troubleshooting diagnosed the system compressor as requiring a new motor. Upon inspection, the necessity for compressor motor enclosure and replacing the 160 pounds per square inch (psi) hose with

standard 220 psi hose were additional improvements to be made. The WTS system was down upon departure awaiting new motor and hose replacement. The SVE system parameters were recorded.

- On April 30, 2009, Stantec personnel were onsite to perform vapor system check, perform transfer pump repairs, and conduct carbon grab sample on the SVE system. A vapor check was conducted, and repairs were performed on transfer pump. A flange/impeller was replaced and a leak test conducted on the transfer pump. No additional repairs were required due to no leakage. The project manager was notified of successful repairs and pump status. The SVE system only was operational upon departure.

- On May 5, 2009, Stantec personnel were onsite to perform bi-weekly remediation system vapor check and record system containment berm measurements. Additional operations and maintenance activities included conducting a site walk of the WTE pumps in the tank farm and recording the air compressor serial number. Vapor readings were within permit parameters. The SVE system was operational upon arrival and departure.

- On May 6, 2009, Stantec personnel were onsite to perform a remediation system vapor check, record operational parameters, perform site walk in tank farm, and notate tank farm containment berm wall measurements. The SVE system only was operational upon arrival and departure.

- On May 12, 2009, Stantec personnel were onsite to perform a remediation system vapor check and record operational parameters. The SVE system was inspected and upon investigation several SVE hoses required replacement including the connection between SVE carbon vessel 1 and 2 and the well-field influent hose on WTS portion of system. All required hose components were photo documented for part replacement. Vapor readings were taken and within permit parameters, though an additional air emission test was required for the site. Inspection of wells in tank farm revealed LAI-9 to be leaking at where water influent from fells flex hose connects to a fernco coupler. A second person is required for repairs due to unsafe weight and awkward lifting required of repair junction. The SVE system only was operational upon departure.

- On May 15, 2009, Stantec personnel were onsite to perform a remediation system vapor check and record operational parameters. Additional duties included preparation for the upcoming SVE system carbon vessel change out. The SVE system only was operational upon departure.

- On May 19, 2009, Stantec personnel were onsite to perform SVE carbon vessel maintenance activities. Stantec personnel performed system maintenance including SVE vessel cycling. The carbon vessel change out resulted with a new (pure) vessel in position three, vessel 3 moved to position two, and vessel 2 cycled into position one. Upon carbon change out completion, vapor readings were recorded and a site walk conducted in the tank farm. Tank farm vacuum measurements were recorded and water line fernco repairs conducted. The SVE system only was operational upon departure.

- On May 21, 2009, Stantec personnel were onsite to perform monthly operations and maintenance activities. The monthly maintenance activities included recording operation parameters, checking the knock out drum filter, collection of SVE Influent, Total Influent, Mid 1, Mid 2, and Total Effluent vapor sample only. Vapor readings were within permit parameters. The SVE system was operational upon arrival. The WTS air compressor is still awaiting repairs and offline. Additional duties included sampling of SVE carbon vessels for laboratory analysis. The system was shutdown for sampling and reset upon completion. Personnel took additional

safety precautions when working from heights by using a ladder and proper safety harness equipment. The SVE system only was operational upon departure.

- On May 26, 2009, Stantec personnel were onsite to perform a remediation system vapor check and record operational parameters. Additional duties performed included inspection of pre-filter knock out (KO) drum, system hose line inspection, and collection of tank farm well readings. The SVE system only was operational upon departure.

- On May 29, 2009, Stantec personnel were onsite to perform a remediation system vapor check and record operational parameters. The SVE system only was operational upon arrival and departure.

- On June 1, 2009, Stantec personnel were onsite to perform a remediation system vapor check and record operational parameters. Additional duties performed included site walk in tank farm, inspection and notation of hose system hose lines requiring replacement, photo documentation of necessary part repairs, and supply preparation for upcoming air compressor maintenance. The compressed air line located running from the compressor into system berm was damaged from heat and weather exposure. A recommendation was made for replacement to a higher rated pressure rated line during scheduled Ingersoll-Rand maintenance visit. The SVE system only was operational upon arrival and departure.

- On June 4, 2009, Stantec personnel were onsite to perform a remediation system vapor check and record operational parameters. Upon personnel arrival, SVE system was down due to power surge. The SVE system was reset. Additional duties performed included fernco hose repairs. Upon investigation, the hoses were damaged due to weather on the SVE vapor lines running between carbon vessels 1, 2, and 3. The WTS system remained off line pending totalizer replacement, air stripper cleaning, new compressed air line, and compressor motor replacement by Ingersoll-Rand. The SVE system only was operational upon departure.

- On June 8, 2009, Stantec personnel were onsite to perform a remediation system vapor check and record operational parameters. Additional duties performed included site walk in tank farm and SVE carbon vessel change out preparation. Upon arrival, SVE system was down due to an oil water separator (OWS) batch tank high level alarm. The system was reset and operational vapor parameters recorded. SVE vapor hoses were noted in need of replacement. A meeting was conducted with terminal operators to confirm availability for carbon vessels change out on June 23, 2009. The SVE system only was operational upon departure.

- On June 12, 2009, Stantec personnel were onsite to perform a remediation system vapor check and record operational parameters. Additional duties included tank farm site walk and system well vacuum inspection. The SVE system only was operational upon departure.

- On June 15, 2009, Stantec personnel were onsite to perform a remediation system vapor check and record operational parameters. Additional duties included performing repairs on SVE hose lines running between carbon vessels 2 and 3. The system was shutdown during repairs. The SVE system was reset and integrity of repairs tested. Additional hose line replacement will be required. Specifications for hose replacement were recorded and supplies to be ordered. The SVE system only was operational upon departure.

- On June 18, 2009, Stantec personnel were onsite to perform remediation system vapor check and record operational parameters. Additional duties included recording lengths and specifications for the system hose line replacement. The hoses requiring replacement include: compressor compressed air line, SVE well lines, and associated fittings for installation.

Personnel noted key safety issues related to hose whip potential; whip checks will be added as a precaution. Personnel photo documented system component repairs and conducted a thorough site walk noting necessary winterizing maintenance. The SVE system only was operational upon departure.

- On June 22, 2009, Stantec personnel were onsite to perform remediation system vapor check and record operational parameters. Additional duties included SVE carbon vessel change out and replacement of the 3-inch diameter SVE hoses. Upon arrival, personnel performed lock-out tag-out procedures on the system for upcoming work. Stantec provided oversight for Cowlitz Clean Sweep (CCS) who performed the carbon change-ut. Duties included vacuuming out the five existing SVE carbon vessels and filling with prime carbon. Upon vehicle inspection during safety tailgate meeting, Stantec discovered a shortage of 3,000 pounds of carbon provided by CCS. The Project Manager and Alan Swift from CCS were immediately notified of this discrepancy. An additional site visit was further scheduled for June 24, 2009, in order to pick up carbon waste and change out remaining two vessels. The three in line SVE vessels were vacuumed, labeled, and filled with fresh carbon. The SVE system was reset and operational upon departure.

- On June 24, 2009, Stantec personnel were onsite to perform oversight of carbon change out on two remaining SVE carbon vessels. Stantec oversaw CCS and Siemens Environmental work activities; comply with safety standards, and labeled vessels appropriately. The SVE system only was operational upon departure.

- On June 25, 2009, Stantec personnel were onsite to onsite to perform monthly operations and maintenance activities. The monthly maintenance activities included recording operation parameters, checking the knock out drum filter, collection of SVE Influent, Total Influent, Mid 1, Mid 2, and Total Effluent vapor sample only. Vapor readings were within permit parameters. The SVE system was operational upon arrival. The WTE system air compressor was stillin need of repairs and remained offline. Additional duties performed included a tank farm site walk and system well inspection. System wells LAI-9, LAI-4, and RW-2 require further hose replacement and maintenance. The SVE system only was operational upon departure.

- On June 30, 2009, Stantec personnel were onsite to perform remediation system vapor check and record operational parameters. Additional duties included spent SVE carbon waste pickup oversight of CCS. A system site walk was conducted including inspection and labeling of SVE carbon super sacks prior to removal. The SVE system only was operational upon departure.

Remediation Components

Remediation of the November 2002 gasoline release was initiated on November 17, 2002. Since the initiation of remedial efforts, a combination of methods have been utilized in the vicinity of Tank 2 including surface water and groundwater/liquid phase hydrocarbon (LPH) pumping using diaphragm pumps, LPH removal using hand bailing methods, groundwater/LPH pumping using down hole pneumatic pumps and SVE/LPH volatilization using a dual phase vacuum extraction (DPVE) system. The groundwater treatment components of the remediation system were initially situated inside the tank farm containment area and were relocated to a location outside the tank farm containment area during first quarter 2005. System modifications and improvements were completed and coincided with the system relocation. The current process and instrumentation diagram configuration of the remediation system at the site is provided in Figure 2.

Dual Phase Vacuum Extraction (DPVE) System

The DPVE component was installed and activated in February 2003. The oxidizer unit was modified from thermal mode to catalytic mode in November 2003 since the catalytic oxidizer would operate with greater efficiency at a lower combustion temperature and require less supplemental fuel (propane).

Based on influent concentrations, the catalytic oxidizer was removed and replaced with a positive displacement blower and three 2,000-pound vapor phase carbon vessels in series in November 2006. The DPVE system utilizes a positive displacement blower to apply a vacuum to six vertical recovery wells (labeled LAIx-4, LAIx-5, LAIx-7, LAIx-8, LAIx-9, and RWx-2).

The treated vapors from the DPVE and the air stripper are discharged in accordance with the modified Notice of Construction (NOC) No. 9648 issued by the Puget Sound Clean Air Agency (PSCAA).

The DPVE system was in operation from February 13, 2009 through March 2009. The DPVE system had been turned off till February when damages to system from freezing temperatures in December 2008 could be resolved and the remediation system could operate safely. DPVE system operation parameters are included in Table 1. Field notes are provided in Appendix A.

Groundwater Extraction System

During the reporting period, dedicated down hole pneumatic pumps were operating at wells LAIx-4, LAIx-5, LAIx-6, LAIx-7, LAIx-8, LAIx-9, RWx-2, HWx-1E, and HWx-1W. The groundwater extraction (GWE) system consists of an oil/water separator, product holding tank, batch tank, air stripper, settling tank, particulate filter, and two 1000-pound granular activated carbon filtration vessels in series. Treated groundwater is discharged to the sanitary sewer under the limits of King County Wastewater Discharge Authorization No. 4057-02.

The GWE system was in operation through April 21 2009. The GWE WTS system was down the remainder of the Second Quarter, and requires a motor replacement on the system air compressor. During the operational period, the GWE system was shut down only periodically for equipment repair. GWE system operational parameters are included in Table 1. Field notes are provided in Appendix A.

Vapor System Sampling

Air samples were collected by Stantec from the DPVE influent and air stripper effluent as well as the Total Influent, Mid 1, Mid 2, and Effluent sampling ports of the vapor phase carbon vessels on April 21, May 21, and June 25, 2009.

Samples were collected in 1-liter Tedlar™ bags. Samples were screened for volatile organic compounds (VOCs) using a portable photo-ionization detector (PID) meter. Samples were taken to Test America in Bothell, WA under chain-of-custody documentation. Vapor samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) by the United States Environmental Protection Agency (EPA) Method 8021B and total petroleum hydrocarbons as gasoline (TPH-G) by NWTPH-Gx modified Method. Influent and effluent analytical results are summarized in Table 2. Analytical reports are provided in Appendix B.

Groundwater Treatment System Sampling

The wastewater discharge permit in effect for the treatment system requires that semiannual samples be collected and results reported annually. Water samples were collected only on April 21, 2009 due to

air compressor component repairs. Samples were collected from the oil water separator effluent, the air stripper effluent, between the water treatment carbon vessels, and at the system effluent.

Samples are submitted to Lancaster Laboratories for analysis of TPH-G per Ecology Method NWTPH-Gx, diesel (TPH-D) and heavy-oil (TPH-O) range hydrocarbons per Ecology Method NWTPH-Dx with an acid/silica gel cleanup and BTEX per USEPA Method 8021B. Analytical results are summarized in Table 3. The laboratory analytical reports are provided in Appendix B.

LPH Removal

No measurable product was recovered by the oil water separator between April and June 2009.

Dissolved Phase Gasoline Removal

During April 2009, approximately 1,830 gallons of groundwater were treated and discharged to the sanitary sewer. This estimate is based on totalizer meter readings taken on April 21 (2,005,630 gallons). No groundwater was treated or discharged during the remainder of the second quarter during off line period.

Analytical results from the influent sampling port after the oil water separator indicated a TPH-G concentration of 105 milligrams per liter (mg/L) on April 21, 2009. Based on a total volume of 1,830 gallons of water, it is estimated that 0.22 pounds (lbs) of gasoline were removed by the groundwater recovery system during second quarter 2009, due to limited run time. Assuming a conversion rate of 6.17 lbs of gasoline per gallon, an estimated 0 gallons of gasoline were removed during second quarter 2009.

Vapor Phase Gasoline Removal

Hour-meter readings for the DPVE system indicated that the system operated approximately 14,046 hours (58.5 days) between April and June 2009 and a total of 13,277.1 hours (1,320 days) since system start up on February 12, 2003. Periodic influent vapor sampling of the DPVE system indicates that the DPVE system has removed approximately 39 lbs (6 gallons) of gasoline between April and June 2009 (Table 4).

Total Volume of Gasoline Removed

Based on the above information, approximately 12,813.92 gallons of gasoline have been recovered since the initial release of 14,800 gallons of super-unleaded gasoline on November 13, 2002. The total volume of gasoline recovered is comprised of the following:

RECOVERY METHOD	GALLONS OF RECOVERED GASOLINE
Recovery Efforts Prior to October 2008: (as reported in previous status reports)	12,774.92
LPH Recovery (Apr. – Jun., 2009)	0
Dissolved Phase Recovery (Apr. – Jun., 2009)	0.22
Vapor Phase Recovery (Apr. – Jun., 2009)	6
Estimated Total Gasoline Recovered	12,813.92

Remediation System Effectiveness

The DPVE remediation system has continued to be effective in removing hydrocarbon mass from the recovery wells around Tank 2. The influent benzene and TPH-G water levels are plotted in attached Graph 1 and 2, respectively, and show a consistent influent concentration level. The influent benzene and TPH-G vapor levels are plotted in attached Graph 3 and 4, respectively, and show a consistent influent concentration level.

Permit Compliance

A wastewater discharge authorization (No. 4057-02) was issued on June 1, 2008, by King County Wastewater Treatment Division. The permit limits the daily water discharge from the remediation system to 8,000 gallons per day and requires that the discharged water meet concentration limits of 130 ug/L for benzene, 1,500 ug/L for toluene, and 1,400 ug/L for ethylbenzene. Water sampling was conducted on October 13 and November 10, 2008. The results of the sampling (Table 3) indicate that the system has not exceeded any of the regulatory threshold limits for the reported constituents during this period.

An air discharge Notice of Construction (NC # 9648) was issued on June 29, 2007, by Puget Sound Clean Air Agency. The permit limits the air flow to 400 cubic feet per minute (CFM) and requires that the discharged air meet concentration limits of 30 parts per million by volume (ppmV) of TPH-G. Vapor sampling of the treatment system was conducted on October 13 and November 10, 2008. The results of the sampling (Table 2) indicate that the system has not exceeded any of the regulatory threshold limits for the reported constituents during this period.

Based on the results for both the water and vapor sampling, the DPVE system operated within compliance of the water and air discharge permits.

WORK PROPOSED FOR NEXT QUARTER [Third – 2009]:

- Repair and replace WTS air compressor motor and belts.
- Continue to monitor the system operational performance and perform routine operations and maintenance activities on a weekly basis.
- Collect influent and effluent vapor and water sample.
- Monitor SVE carbon for additional change out
- Repair manifold leaks and hose degradation

ATTACHMENTS:

FIGURE 1	Site Plan
FIGURE 2	Groundwater Treatment System Process and Instrumentation Diagram
TABLE 1	Dual Phase Extraction System Operator Log Sheet Summary
TABLE 2	Vapor Analytical Results-Remediation System
TABLE 3	Groundwater Treatments Analytical Results
TABLE 4	Estimated DPVE Mass Removal Summary
GRAPH 1	Benzene Influent Vapor Levels
GRAPH 2	TPH-g Influent Vapor Levels
GRAPH 3	Benzene Influent Water Levels
GRAPH 4	TPH-g Influent Water Levels
Attachment A:	Remediation System Operational Logs
Attachment B:	Remediation System Laboratory Analytical Reports

Prepared By:

J. Rankin for M. Tolley

Matt Tolley
Staff Scientist

Reviewed By:

Jeffrey S. Thompson, LG, L.E.G.
Principal Geologist

FIGURES

LEGEND

- FOUND CASED MONU. OR MONU. AS NOTED
- SET 1/2" REBAR W/CAP #14471 OR AS NOTED
- SET TACK IN LEAD PLUG
- MEAS. MEASURED
- CALC. CALCULATED
- FH FIRE HYDRANT
- AERIAL PANEL POINT
- UTILITY POLE
- MH STORM DRAIN MANHOLE
- MH MANHOLE
- CB CATCH BASIN
- TW TOP WALL
- GR GRADE
- G GUTTER
- TC TOP CURB
- LIGHT
- FENCE LINE
- SIGN
- WATER VALVE
- I.E. INVERT ELEVATION
- MONITORING WELL
- 4" DIAMETER VERTICAL RECOVERY WELL (ACTIVELY PUMPING)
- HORIZONTAL GROUNDWATER EXTRACTION TRENCH
- 4" DIAMETER VERTICAL RECOVERY WELL (INACTIVE- NOT PUMPING)
- STORMWATER RETENTION CONTAINMENT BERM

Note

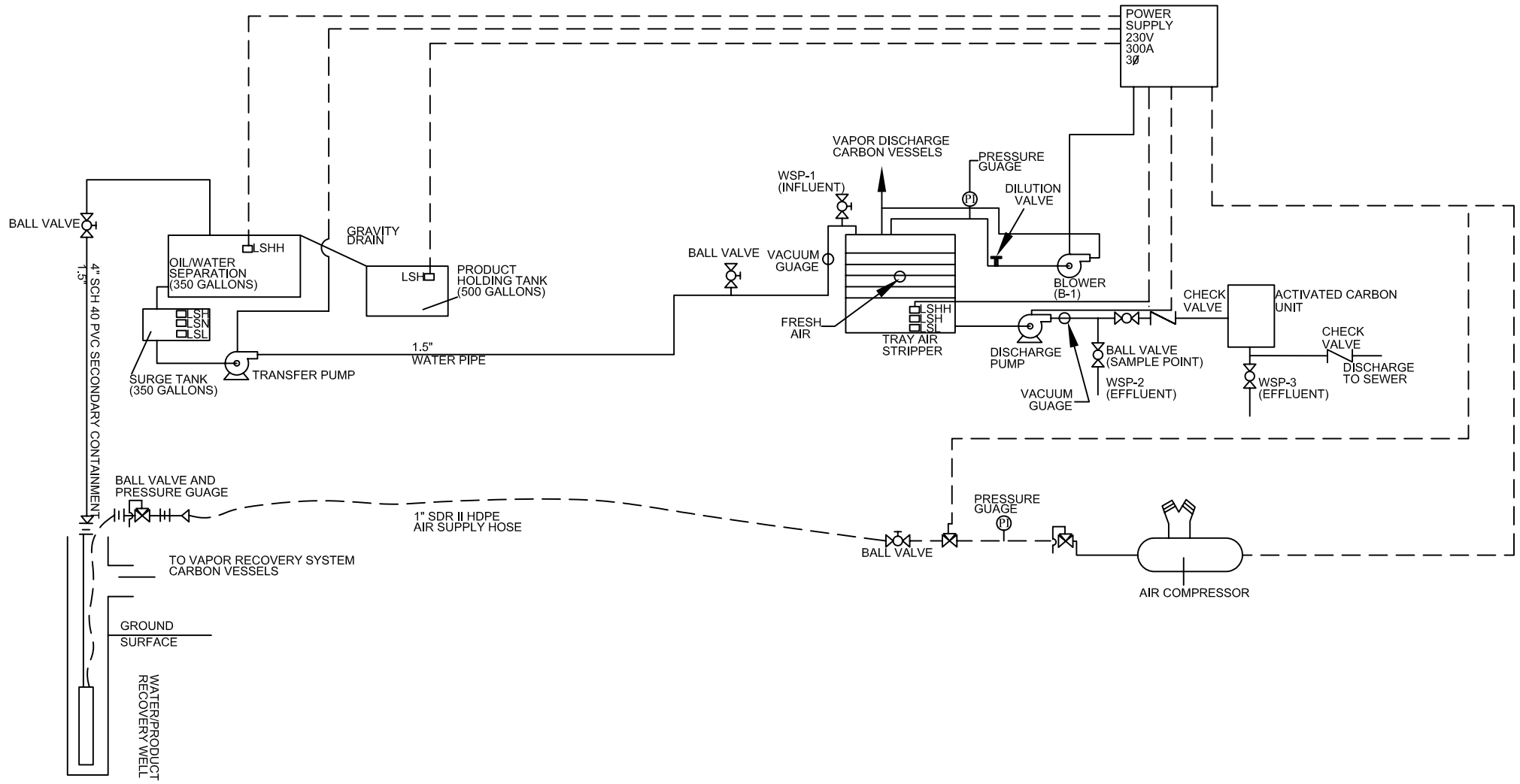
1. Updated from Matrix Technologies, Inc Drawing 10015-P-15, Dated 11/01/91.

0 80 160

Scale in Feet

Stantec 12034 134th AVE NE REDMOND, WASHINGTON PHONE: 425.372.1600 / FAX: 425.372.1650	FOR: ConocoPhillips FACILITY #3485 (RM&R 3485) 2423 LIND AVE SW RENTON, WASHINGTON	**SITE PLAN**		FIGURE: **1**
	JOB NUMBER: 212301542	DRAWN BY: DJH	CHECKED BY: MT	APPROVED BY: WBE / DATE: 9/4/09

FILEPATH:K:\1-CLIENTS\ConocoPhillips\01CP\3485-2009\SITE PLAN(FIG1)3485_909.dwg|dheller|Sep 08, 2009 at 12:31|Layout: F2-SP



NOT TO SCALE

Stantec
12034 134th AVE NE
REDMOND, WASHINGTON
PHONE: 425.372.1600 / FAX: 425.372.1650

FOR: ConocoPhillips
FACILITY #3485 (RM&R 3485)
2423 LIND AVE SW
RENTON, WASHINGTON

GROUNDWATER TREATMENT SYSTEM PROCESS AND INSTRUMENTATION DIAGRAM

FIGURE: 2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
01CP.03485.70	DJH	MT	JT	9/4/09

FILEPATH:K:\1-CLIENTS\ConocoPhillips\01CP\3485-2009\MAT T\FIG.2-3485_909.dwg|dheller|Sep 08, 2009 at 12:47|Layout: F2-INSTRUMENT

TABLES

TABLE 1
DUAL PHASE EXTRACTION SYSTEM
OPERATOR LOG SHEET SUMMARY
CONOCOPHILLIPS RENTON TERMINAL

Soil Vapor System							Groundwater Treatment System						
				Total VOCs (ppm w/ PID)									
Date	Vapor Hour Meter	Total Vacuum Reading (in. H2O)	Total Flowrate (cfm)	Influent	Effluent	Laboratory Sample Collected? (Y/N)	Water Discharge Flowmeter (gallons)	Gallons Discharged since last visit	Cummulative Gallons	GW System Operational on Arrival	GW System Operational on Departure	Sample Collected	GW Comments
02/12/03	21593.5	94	300	NA	NA	N		0	0				
02/13/03	21609.5	96	270	200	0.0	Y		0	0				
02/19/03	21758.2	22	300	NA	NA	N		0	0				
02/20/03	21781.8	23.8	306	690	0.0	N		0	0				
02/21/02	21804.1	18	330	823	0.0	N		0	0				
02/22/03	21835.1	18	318	NA	NA	N		0	0				
02/23/03	21841.4	18	306	NA	NA	N		0	0				
02/24/03	21875.0	22	306	942	0.0	Y		0	0				
02/25/03	21899.4	26	305	1628	0.0	N		0	0				
02/26/03	21915.8	23	300	2000	0.0	N		0	0				
02/27/03	21926.1	20	300	2000	17.0	N		0	0				
02/28/03	21949.6	25	300	2000	0.0	N		0	0				
03/02/03	21994.2	27	306	1975	0.0	N		0	0				
03/02/03	22010.4	26	310	1029	1.9	N		0	0				
03/03/03	22022.1	26	300	988	0.0	N		0	0				
03/04/03	22047.8	32	300	1220	0.0	N		0	0				
03/05/03	22073.7	35	300	1062	0.0	N		0	0				
03/06/03	22096.6	35	300	844	0.0	N		0	0				
03/07/03	22118.4	36	300	831	0.0	N		0	0				
03/08/03	22148.8	38	300	740	0.0	N		0	0				
03/18/03	22187.2	52	290	NA	NA	N		0	0				
03/19/03	22211.3	38	290	1046	0.0	N		0	0				
03/20/03	22234.5	43	290	NA	NA	N		0	0				
03/26/03	22309.8	35	290	625	0.0	N		0	0				
03/27/03	22325.7	34	310	NA	NA	N		0	0				
03/28/03	22355.0	30	310	NA	NA	N		0	0				
03/31/03	22428.0	30	290	NA	NA	N		0	0				
04/01/03	22452.8	32	290	NA	NA	N		0	0				
04/02/03	22474.2	30	290	NA	NA	N		0	0				
04/03/03	22496.3	32	290	NA	NA	N		0	0				
04/04/03	22512.0	32	290	462	0.0	N		0	0				
04/08/03	22609.8	46	288	NA	NA	N		0	0				
04/11/03	22678.5	44	290	745	0.0	N		0	0				
04/15/03	22773.8	40	290	NA	NA	N		0	0				
04/17/03	22822.6	40	290	801	0.0	Y		0	0				
04/22/03	22941.8	42	295	1065	0.0	N		0	0				
04/25/03	23012.3	42	290	877	0.0	N		0	0				
04/29/03	23109.6	38	284	NA	NA	N		0	0				
05/02/03	23155.0	NO	NO	NO	NO	NO		0	0				
05/09/03	23200.7	27	285	1140	0.0	N		0	0				
05/13/03	23286.8	24	290	NA	NA	N		0	0				
05/16/03	23361.1	34	290	1192	0.0	N		0	0				
05/19/03	23389.1	30	290	NA	NA	N		0	0				
05/20/03	23407.9	30	290	NA	NA	N		0	0				
05/22/03	23464.7	40	260	4860	0.0	N		0	0				
05/23/03	23483.9	40	285	NA	NA	N		0	0				
05/28/03	23598.4	26	290	NA	NA	N	0	0	0				
06/13/03	23694.4	30	290	NA	NA	N	0	0	0	Yes			
06/18/03	23753.6	20	280	NA	NA	N	0	0	0	Yes			
06/20/03	23802.0	39	290	1479	0.0	Y	0	0	0	No			Shut off pumps for 2 days
06/27/03								0	0	No			High level alarm
07/03/03	24020.1	28	270	NA	NA	N	0	0	0	Yes			
07/07/03	NA	26	290	1099	0-2.5	N	3,340	0	3,340	No			High level alarm
07/11/03	24039.5	24	270	1099	0.0	N	6,440	0	6,440	Yes			
07/14/03	24111.8	27	270	NA	NA	N	6,440	0	6,440	Yes			
07/16/03	24157.6	32	270	NA	NA	N	6,440	0	6,440	No			Need new flow meter

TABLE 1
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OPERATOR LOG SHEET SUMMARY
CONOCOPHILLIPS RENTON TERMINAL

Soil Vapor System							Groundwater Treatment System						
				Total VOCs (ppm w/ PID)									
Date	Vapor Hour Meter	Total Vacuum Reading (in. H2O)	Total Flowrate (cfm)	Influent	Effluent	Laboratory Sample Collected? (Y/N)	Water Discharge Flowmeter (gallons)	Gallons Discharged since last visit	Cummulative Gallons	GW System Operational on Arrival	GW System Operational on Departure	Sample Collected	GW Comments
07/18/03	24196.4	34	270	NA	NA	N	0	0	6,440	No			High level alarm
07/21/03	24272.1	33	270	1115	0.0	N	2,509	0	8,949	Yes			
07/24/03	24279.3	26	270	977	0.6	N	2,509	0	8,949	No			High level alarm
07/28/03	24372.9	33	270	NA	NA	N	2,509	0	8,949	Yes			
07/31/03	24375.5	28	270	1215	0.0	N	2,509	0	8,949	No			High level alarm
08/05/03	24493.9	40	270	NA	NA	N	2,509	0	8,949	No			
08/07/03	24539.9	44	270	NA	NA	Y	3,576	0	10,016	Yes			
08/11/03	24632.5	46	270	NA	NA	N	4,642	0	11,082				
08/15/03	24733.4	42	270	967	0.0	N	4,840	0	11,280	No			
08/22/03	24894.7	47	270	NA	NA	N	9,279	0	15,719	Yes			
08/26/03	24894.7	47	270	NA	NA	N	9,279	0	15,719	No			Restarted that day
09/02/03	25102.3	32	270	NA	NA	N	12,535	0	18,975	No			
09/05/03	25170.1	47	270	NA	NA	N	12,535	0	18,975	Yes			
09/11/03	25312.7	75	270	NA	NA	N	14,197	0	20,637	Yes			
09/18/03	25484.4	60	270	1943	0.0	N	14,197	0	20,637	No			
09/28/03							2,850	0	20,637	Yes			
10/01/03	25687.1	26	280	1300-1350	0.0	N	2,858	0	23,495	Yes			
10/17/03	26041.6	35	280	779	0.0	N	2,858	0	23,495	No			High level alarm
10/22/03								0	23,495	No			Release from batch tank, down for 10 days
10/24/03	26198.6	NO	NO	NO	NO	N	8,020	0	28,657	No			High level alarm, sytem down until 10/24
10/28/03	26201.9	20	270	>250	1.0	N	9,524	0	30,161	No			
10/29/03	26225.0	20	270	NA	NA	N	11,278	0	31,915	No			Down for 24 hrs to replace pump
11/04/03	26325.7	20	270	107	1.5	N	11,278	0	31,915	No			
11/21/03	26464.2	26	185	85.9	5.0	Y	12,851	0	33,488	No			
11/25/03	26482.2	5	190	NA	NA	N	15,260	0	35,897	No			Down for 1 week
12/01/03								0	35,897	No			
12/03/03	26486.8	27	185	NA	NA	N	17,357	0	37,994	No			
12/12/03	26696.3	24	216	38	30.0	N	20,471	0	41,108	Yes			
12/15/03								0	41,108	No			Bipass OW separator, GW pumped directly to sparge tank
12/16/03	26789.8	25	180	NA	NA	N	20,673	0	41,310	Yes			
12/17/03								0	41,310	Yes			
12/18/03			270	23.8	3.9	Yes	30,124	0	50,761	Yes			
12/19/03								0	50,761	No			Shut down for 4 days
12/23/03	27000.0						39,668	0	60,305	No			Down from 23 to 31st
01/09/04	27289.3	35	290	NA	NA	No	39,668	0	60,305	No			Frozen PVC pipe repair. System down since 12/19
01/16/04							39,668	0	60,305	No			GW system still off, install Active Carbon Vessels, failed pump
01/23/04	27460.1	20	270	NA	NA	No	44,350	0	64,987	Yes		Yes	Turned GW system on after repairs to pump
01/26/04	27531.1	20	270	NA	NA	No	44,500	0	65,137	Yes		No	Trouble with influentpump
01/27/04	27550.7	20	270	NA	NA	No	46,710	0	67,347	No		No	Trouble with influent pump
01/30/04	27621.6	20	270	NA	NA	No	46,810	0	67,447	No		No	replaced flow meter and started system
02/04/04							6,140	6,140	73,587	No	Yes	No	High level alarm in sparge tank, but system was restarted
02/05/04	27758.1	23	270.0	7.6	0.6	Yes	13,113	6,973	80,559	Yes	Yes	Yes	
02/09/04	27804.0	22	270	306	0.6	No	14,845	1,732	82,292	No	Yes	No	Power shutdown
02/10/04	27818.9	24	288	15.4	0.1	No	22,216	7,371	89,663	No	Yes	No	
02/16/04	27877.5	24	279	NA	NA	No	41,032	18,816	108,479	No	Yes	No	High level alarm in sparge tank
02/24/04	28062.7	24	270	90.8	40.3	No	67,156	26,124	134,603	Yes	Yes	No	
03/02/04	28217.9	24	270	50.5	1.3	No	91,069	23,913	158,516	Yes	Yes	No	Attempted to route GW thru oil/h2o separator but pump cracked during freeze in J
03/16/04	28563.4	24	270	44.7	0.7	Yes	130,663	39,594	198,110	No	Yes	Yes	
03/22/04	28702.2	24	270	NA	NA	No	132,558	1,894	200,004	No	Yes	No	shut down to convert to boh loader LAI-4. Start OW separator. New transfer pum
03/30/04	28788.5	24	306	NA	NA	No	136,691	4,134	204,138	No	Yes	No	High alarm on transfer tank. Incorrect rotation wiring, electrician fixed
04/02/04	28826.5	24	298	NA	NA	No	138,393	1,702	205,840	No	Yes	No	High alarm on stripper
04/05/04	28904.5	24	270	73.4	0.1	No	139,515	1,122	206,962	No	Yes	No	High alarm on stripper
04/12/04	29037.6	24	270	104	1.4	No	152,600	13,085	220,047	Yes	Yes	No	
04/19/04	29137.3	24	288	58.4	3.2	No	159,037	6,437	226,484	Yes	Yes	No	
05/03/04	29467.6	24	288	59.7	0.5	No	169,903	10,866	237,349	Yes	Yes	No	
05/07/04							171,146	1,244	238,593	N	N	N	Bad indicator light
05/17/04	29470.0								238,593	N	Y	N	System has been down for 10 days. Both systems turned on.
06/22/04				NA	NA	No		0	238,593	No	No	No	Both system down on arrival. Bad high level alarm in OW separator
06/28/04	30035.8	24	316	NA	NA	No	176,120	4,974	243,566	Yes	Yes	No	

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Soil Vapor System							Groundwater Treatment System						
				Total VOCs (ppm w/ PID)									
Date	Vapor Hour Meter	Total Vacuum Reading (in. H2O)	Total Flowrate (cfm)	Influent	Effluent	Laboratory Sample Collected? (Y/N)	Water Discharge Flowmeter (gallons)	Gallons Discharged since last visit	Cummulative Gallons	GW System Operational on Arrival	GW System Operational on Departure	Sample Collected	GW Comments
07/01/04							176,145	25	243,592	No	Yes	No	
07/02/04	30131.1	24	290	206	10.7	Yes	176,930	785	244,377				
07/08/04	30233.8	30	316	NA	NA	No	178,473	1,543	245,920	No	Yes	No	High alarm, convert pumps to bottom load on LAI-4,7,8,9
07/14/04	30260.9	24	290	NA	NA	No	178,863	390	246,310	No	Yes	No	High Level alarm
07/21/04	30428.4	26	290	247	0.0	No	179,658	795	247,105	No	Yes	No	High level alarm
08/16/04	30465.7	26	290	NA	NA	No	179,756	98	247,203	No	Yes	No	loss of power, change Warrick switch
08/18/04	30502.4	26	290	503	33.6	No	182,626	2,870	250,073	No	Yes	No	High level alarm in project tank - purged water in tank
08/20/04	30510.5	27	290	633	20.3	Yes	184,399	1,773	251,846	No	Yes	No	Burner would not activate, entire system shut down
08/23/04	30511.2	24	288	180	2.7	No	184,410	11	251,857	No	Yes	No	Drained water in product holding tank, burner down.
08/25/04	30525.3	26	290	NA	NA	No	185,860	1,450	253,307	No	Yes	No	H2Oil onsite, replace actuator on propane line
09/02/04	30721.2	28	290	121	3.7	No	194,495	8,635	261,942	No	Yes	No	High level alarm at stripper sump
09/08/04	30859.4	26	290	298	0.8	No	199,688	5,193	267,135	Yes	Yes	No	
09/16/04	31051.1	31	290	430	0.0	nO	206,632	6,944	274,079	nO	Yes	No	
09/21/04	31065.2						208,543	1,911	275,990				Release from batch tank, GW and SVE systems down
10/19/04	31065.2	24	288	77.6	0.7	No	208,543	1,911	275,990	No	No	No	Turn SVE system on
10/21/04	31112.4	24	288	NA	NA	No	208,660	117	276,107	No	Yes	No	Turn GW system on (down since release)
11/05/04	31326.5	24	288	NA	NA	No	215,444	6,784	282,891	No	Yes	No	Both systems down for 3 days, no propane
11/08/04	31344.9	24	288	NA	NA	No	215,488	44	282,935	No	Yes	No	
11/12/04	31389.5	28	279	NA	NA	No	215,488	0	282,935	No	Yes		
11/18/04							215,488		282,935				H2Oil onsite to determine low effluent water volume
12/22/04	31818.3	24	310	62.5	0.0	Yes	245,010	29,521	544,353	No	Yes	Yes	high level alarm in sparge tank, manually lower level. Change to top loaders on pumps, system down first 2 weeks of month
12/30/04	31958.6	24	322	NA	NA	No	246,520	1,511	784,903	No	Yes	No	change carbon in filter
01/03/05	31958.6						246,520	0	784,903	No	No	No	Shut both systems down due to freezing weather
01/13/05		20	203	NA	NA	No	246,770	250	785,153	No	Yes	No	Turn system on after temperatures drop (system down for 10 days)
01/18/05	32099.2	20	310	NA	NA	No	251,276	4,506	789,659	Yes	Yes	No	
01/29/05	32340.2	20	NA	NA	NA	Yes	254,476	3,200	792,859	No	Yes	No	Compressor shut down.
01/31/05	32371.8	20	NA	NA	NA	Yes	258,600	4,124	796,983	Yes	Yes	No	High level alarm in sparge tank
02/02/05	32379.2	20	NA	NA	NA	No	259,860	1,260	798,243	No	Yes	No	Both system down on arrival. Bad high level alarm in sparge tank
02/07/05							261,880	2,020	800,263				Both systems down on arrival. Shut systems down for relocation
03/15/05	32608.1	24	168	NA	NA	No	273,012	11,132	811,395	No	Yes	No	Complete system relocation, start both systems up
03/31/05	32992.0						303,837	30,825	842,220				
04/20/05	33562.0	22	150	NA	NA	No	342,370	38,533	880,753	Yes	Yes	No	
05/05/05	33749.0	24	140	NA	NA	No	347,230	4,860	885,613	No	Yes	No	
06/08/05	34145.0	30	30	NA	NA	No	397,300	50,070	935,683	No	Yes	No	
07/29/05	34930.0	20	50	NA	NA	No	430,825	33,525	969,208	No	Yes	No	
09/12/05	35499.8	NA	NA	NA	NA	No	436,900	6,075	975,283	No	No	No	System shutdown between August 22 and beginning of September for maintenance. System has not operated since.
09/27/05	35627.2	15	NA	NA	NA	No	448,560	11,660	986,943	No	Yes	No (collected	System operates for a short amount of time after alarms are reset, due to air stripper high level
10/31/05	36078.5	27	200 (est)	166	10.3	Yes	490,300	41,740	1,028,683	Yes	Yes	No	System operating intermittenly due to air stripper high level alarm (resolved on 11/
11/30/05	36713.4	28	200 (est)	NA	NA	Yes	567,212	76,912	1,105,595	No	No	No	SVE system is operating and GW ext. system down due to iron fouling in AS.
12/29/05	37148.4	28	170	NA	NA	Yes	668,000	100,788	1,206,383	No	Yes	Yes	Air Stripper sump high level
01/31/06	37336.7	30	170	0.4	1.8	Yes	688,017	20,017	1,226,400	No	Yes	No	Ash treatment in carbon vessel prevents operation of system. Cleaned some carbon and restarted, operating intermittently . GWET system was not
02/23/06	37662.0	27	168	90	2.5	Yes	721,540	33,523	1,259,923	Yes	Yes	Yes	
03/30/06	38445.3	28	168	5	4.0	No	807,390	85,850	1,345,773	No	No	No	GWET system was not operational for vapor sampling
04/28/06	39078.4	NA	168 (est)	7.2	0.6	No	866,120	58,730	1,404,503	No	Yes	No	
06/07/06	39484.0	NA	168 (est)	42	2.0	No	895,860	29,740	1,434,243	No	Yes	No	
06/22/06	39509.0	NA	162 (est)	42	2.0	No	896,730	870	1,435,113	No	No	No	System is down pending the installation of a chemical feed system.
07/31/06	39552.1	NA	162(est)	42	2.0	No	897,715	985	1,436,098	No	Yes	No	System was restarted after chemical feed system was installed.
08/03/06	39624.1	NA	162(est)	42	2.0	No	912,671	14,956	1,451,054	No	Yes	Yes	VES hour meter malfunctioning. Vapor hour meter estimated to have run 72 hour

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				Total VOCs (ppm w/ PID)									
Date	Vapor Hour Meter	Total Vacuum Reading (in. H2O)	Total Flowrate (cfm)	Influent	Effluent	Laboratory Sample Collected? (Y/N)	Water Discharge Flowmeter (gallons)	Gallons Discharged since last visit	Cummulative Gallons	GW System Operational on Arrival	GW System Operational on Departure	Sample Collected	GW Comments
09/27/06	39854.6	28	162(est)	414	11.4	Yes	973,184	60,513	1,511,567	No	No	Yes	
10/20/06	39981.2	28	162(est)	414	11.4	No	997,030	23,846	1,535,413	No	No	No	System shut down pending installation of settling tank.
11/30/06	39981.2	28	162(est)	414	11.4	No	997,030	0	1,535,413	No	No	No	System shut down pending installation of settling tank.
12/31/06	39981.2	28	162(est)	414	11.4	No	997,030	0	1,535,413	No	No	No	System shut down pending installation of settling tank.
01/31/07	40094.2	42	162(est)	230	0.0	Yes	1,024,554	27,524	1,562,937	Yes	Yes	Yes	New settling tank and VES system installed. New hour meter on VES side
02/27/07	40335.4	40	162(est)	230	0.0	No	1,079,212	54,658	1,617,595	No	No	No	System shutdown on February 12, 2007 until carbon changeout is completed
03/31/07	40336.4	40	162(est)	0	0.0	No	1,079,212	0	1,617,595	No	No	No	System shut down pending carbon changeout and polisher vessel installation.
4/31/07	40339.2	40	162(est)	230	0.0	No	1,081,063	1,851	1,619,446	No	No	No	System shut down due to excessive backpressure from polish carbon.
06/01/07	40729.5	40	308	316	0.0	Yes	1,111,144	30,081	1,649,527	Yes	Yes	Yes	Polish carbon, berm extension, and air flow meter installed.
06/29/07	41210.4	40	308	305	0.0	Yes	1,135,256	24,112	1,673,639	No	Yes	Yes	Vapor Phase carbon changed out on 6/29/07 and system restarted
07/31/07	41619.7	40	308	364	0.0	Yes	1,174,767	39,511	1,713,150	Yes	Yes	Yes	Changed out VP carbon on July 30th. Started pulling through carbons
08/30/07	42075.9	30	219	476	11.5	Yes	1,214,892	40,125	1,753,275	Yes	Yes	Yes	Changed out VP carbon on August 25.
09/27/07	42437.9	40	210	2300	2.0	Yes	1,297,272	82,380	1,835,655	Yes	Yes	Yes	Added an additional vapor phase carbon vessel, cleaned OWS and settling tank
10/31/07	42801.9	30	196	300	0.0	Yes	1,343,932	46,660	1,882,315	Yes	Yes	Yes	Changed out VP carbon on Oct. 4th
11/28/07	43185.9	40	190	210	0.1	Yes	1,393,020	49,088	1,931,403	Yes	Yes	Yes	Changed out VP carbon on Nov. 16th
12/18/07	43635.8	40	168	52.2	0.3	Yes	1,492,914	99,894	2,031,297	Yes	Yes	Yes	
01/16/08	44282.8	40	154	20.1	0.0	Yes	1,616,578	123,664	2,154,961	Yes	Yes	Yes	Changed LP carbon 1/15/08
02/27/08	44982.8	25	210	76	0.0	Yes	1,684,448	67,870	2,222,831	Yes	Yes	Yes	Samples taken on 2/14/08
03/19/08	45482.8	25	203	269	0.0	Yes	1,716,265	31,817	2,254,648	Yes	Yes	Yes	Replaced compressor and compressor motor
04/09/08	45914.2	25	210	50.6	0.0	Yes	1,764,596	48,331	2,302,979	Yes	Yes	Yes	
05/21/08	46908.2	58	168	87.4	0.0	Yes	1,805,858	41,262	2,344,241	No	No	No	GW system off
06/25/08	47746.6	80	154	68.7	0.3	Yes	1,805,858	0	2,344,241	No	No	No	GW system off
07/29/08	48561.6	85	175	129	0.1	Yes	NA	NA	2,344,241	No	No	No	GW system off
08/13/08	48920.2	80	182	186	0.4	Yes	NA	NA	2,344,241	No	No	No	GW system off
09/18/08	49496.7	82	182	122	1.5	Yes	NA	NA	2,344,241	No	No	No	GW system off
10/02/08	49515.3	42	210	289	0.0	No	1,817,250	11,392	2,355,633	Yes	Yes	No	GW system back on
10/06/08	49542.7	27	224	320	0.0	No	1,821,420	4,170	2,359,803	No	Yes	No	OWS batch product HL signal from SVE
10/10/08	49636.0	30	224	243	0.0	No	1,832,400	10,980	2,370,783	Yes	Yes	No	
10/13/08	49711.5	30	224	222	0.0	Yes	1,838,250	5,850	2,376,633	Yes	Yes	Yes	
10/16/08	49782.9	30	224	214	0.0	No	1,843,180	4,930	2,381,563	Yes	Yes	No	
10/20/08	49878.5	30	224	252	1.8	No	1,854,610	11,430	2,392,993	Yes	Yes	No	
10/23/08	49947.0	30	224	268	2.1	No	1,861,770	7,160	2,400,153	Yes	Yes	No	
10/27/08	50044.9	30	224	226	2.7	No	1,871,210	9,440	2,409,593	Yes	Yes	No	
10/30/08	50113.3	30	224	222	3.2	No	1,877,730	6,520	2,416,113	Yes	Yes	No	Changed out VP carbon on Oct. 30th
11/10/08	50234.7	30	210	44	0.2	Yes	1,892,230	14,500	2,430,613	No	Yes	Yes	OWS batch product HL signal from SVE
11/18/08	50386.0	30	210	23.4	1.0	No	1,922,290	30,060	2,460,673	No	Yes	No	Stripper or settling tank H/L
11/24/08	50431.8	30	210	13.8	0.2	No	1,930,870	8,580	2,469,253	No	Yes	No	OWS batch product HL signal from SVE; Stripper or settling tank H/L
12/08/08	50717.8	30	210	12.1	4.5	No	1,968,130	37,260	2,506,513	No	Yes	No	Compressor belt failure
02/25/09	50902.4	35	200	15.5	5.3	Yes	1,980,230	12,100	2,518,613	Yes	Yes	Yes	System was down in January due to weather related damages to components
03/03/09	51045.5	35	200	14.4	3.6	No	1,985,660	5,430	2,524,043	Yes	Yes	No	
03/12/09	51115.3	40	210	21.9	0.6	No	1,988,440	2,780	2,526,823	Yes	Yes	No	
03/26/09	51329.6	15	NA	NA	NA	No	2,003,890	15,450	2,542,273	Yes	Yes	Yes	SVE Blower belt failure.
03/30/09	51330.9	35	210	16.5	1.0	Yes	2,004,140	250	2,542,523	Yes	Yes	No	System was on; compressor not pressurized.
04/21/09	51519.4	34	210	63.1	5.3	Yes	2,005,630	1,490	2,544,013	No	Yes	Yes	System air compressor off line upon arrival, unable to reset
05/21/09	52565.9	30	210	2.0	1.7	Yes	--	--	--	--	--	--	System air compressor needs new motor, system off line
06/25/09	53258.3	32	196	15.0	0.0	Yes	--	--	--	--	--	--	System air compressor needs new motor, system off line

Notes:

inH20 = Inches of water
efm = effluent flow meter
ppm = parts per million
PID = Photoionization Detector
added to hour meter as of 8-6-08 as meter was reset = 8771.8
VOCs = Volatile Organic Carbon
cfm = cubic feet per minute

TABLE 1
DUAL PHASE EXTRACTION SYSTEM
OPERATOR LOG SHEET SUMMARY
CONOCOPHILLIPS RENTON TERMINAL

Soil Vapor System							Groundwater Treatment System						
				Total VOCs (ppm w/ PID)									
Date	Vapor Hour Meter	Total Vacuum Reading (in. H2O)	Total Flowrate (cfm)	Influent	Effluent	Laboratory Sample Collected? (Y/N)	Water Discharge Flowmeter (gallons)	Gallons Discharged since last visit	Cummulative Gallons	GW System Operational on Arrival	GW System Operational on Departure	Sample Collected	GW Comments

GW = ground water

TABLE 2
VAPOR ANALYTICAL RESULTS - REMEDIATION SYSTEM
CONOCOPHILLIPS RENTON TERMINAL RM&R #3485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene		Toluene		Ethylbenzene		Xylenes, total		TPH-g		TPH-d	
		mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV
Total	02/13/03	9.162	NA	14.379	NA	0.598	NA	NA	NA	708.44	NA	NA	NA
Influent	02/24/03	62.322	NA	226.05	NA	17.387	NA	NA	NA	1,859.64	NA	867.83	NA
	04/08/03	28.845	NA	106.65	NA	10.811	NA	NA	NA	1,124.3	NA	524.69	NA
	06/20/03	84	NA	189	NA	17.1	NA	93.5	NA	1,860	NA	NA	NA
	07/11/03	80.5	NA	101	NA	17.5	NA	81.6	NA	1,900	NA	NA	NA
	08/07/03	63.5	NA	111	NA	6.61	NA	31.4	NA	1,170	NA	NA	NA
	10/15/03	43.2	NA	91.5	NA	6.51	NA	34.1	NA	779	NA	NA	NA
	12/18/03	14.8	NA	64.4	NA	9.27	NA	54.8	NA	497	NA	NA	NA
	02/05/04	3.45	NA	6.8	NA	0.924	NA	6.7	NA	46	NA	NA	NA
	03/16/04	7.81	NA	15.5	NA	1.96	NA	15.6	NA	252	NA	NA	NA
	07/02/04	23.5	NA	68.5	NA	5.61	NA	57.6	NA	927	NA	NA	NA
	08/20/04	69.7	NA	181	NA	13.8	NA	93.7	NA	2,130	NA	NA	NA
	12/22/04	5.76	1.77	14.3	3.74	1.67	0.378	12.5	2.83	162	**38.2**	NA	NA
	06/08/05	5.08	1.57	11.7	3.05	1.05	0.238	9.96	2.26	167	**39.4**	NA	NA
	09/30/05	<2	NA	<3	NA	<2	NA	<3	NA	94	NA	NA	NA
	10/31/05	NA	8	NA	30	NA	3	NA	20	NA	**190**	NA	NA
	11/30/05	<2	<0.5	<3	<0.8	<2	<0.4	<3	<0.7	3.3	<1.0	NA	NA
	12/29/05	NA	4	NA	9	NA	0.7	NA	6	NA	**30**	NA	NA
	01/31/06	<2	<0.5	<3	<0.8	<2	<0.4	<3	<0.7	<3.5	<1.0	NA	NA
	02/23/06	20	7	50	10	3	0.7	40	9	100	29	NA	NA
	03/30/06	<2	<0.5	<3	<0.8	<2	<0.4	<3	<0.7	7.2	2	NA	NA
	06/09/06	10	4	30	9	2	0.5	30	6	160	**46**	NA	NA
	09/12/06	10	4	90	20	9	2	90	20	600	**170**	NA	NA
	01/31/07	40	10	60	20	2	0.5	10	3	120	**34**	NA	NA
	05/11/07	20	5	30	8	<2	<0.4	10	3	130	**36**	NA	NA
	06/21/07	3	1	20	5	<2	<0.4	9	2	180	**50**	NA	NA
	07/31/07	25.3	7.81	74.3	19.4	7.85	1.78	69	15.6	1,370	**323**	NA	NA
	08/22/07	47.6	14.7	114	29.8	<1	<0.454	84.8	19.2	2,190	**515**	NA	NA
	09/27/07	99.6	30.7	275	72	23	5.21	179	40.5	3,670	**865**	NA	NA

TABLE 2
VAPOR ANALYTICAL RESULTS - REMEDIATION SYSTEM
CONOCOPHILLIPS RENTON TERMINAL RM&R #3485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene		Toluene		Ethylbenzene		Xylenes, total		TPH-g		TPH-d	
		mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV
Total	10/25/07	55.2	17	126	33	7.82	1.77	80.5	18.3	1,300	**306**	NA	NA
Influent	11/28/07	58.2	17.9	98.1	25.6	4.29	0.974	44.8	10.2	426	**100**	NA	NA
	12/18/07	6.43	1.98	8.51	2.22	0.461	0.105	7.49	1.7	104	24.4	NA	NA
	01/16/08	3.33	1.03	8.51	2.22	0.666	0.151	5.93	1.34	113	26.6	NA	NA
	02/14/08	1.79	0.551	4.14	1.08	0.454	0.103	5.35	1.21	42.8	10.1	NA	NA
	03/19/08	47.0	14.5	88.6	23.1	4.77	1.08	42.1	9.54	501	**118**	NA	NA
	04/09/08	21	6.47	34.6	9.05	1.84	0.418	25.5	5.77	232	**54.6**	NA	NA
	05/21/08	4.31	1.33	11.6	3.02	0.889	0.202	11.1	2.52	203	**47.9**	NA	NA
	06/25/08	8.2	2.53	23.1	6.03	1.57	0.356	17.8	4.04	260	**61.4**	NA	NA
	07/29/08	11.5	3.54	43.2	11.3	2.77	0.629	35.2	7.99	667	**157**	NA	NA
	08/13/08	13.8	4.26	60.3	15.8	3.76	0.853	44.3	10	765	**180**	NA	NA
	09/18/08	11.3	3.48	35.4	9.25	2.96	0.672	30.9	7.01	628	**148**	NA	NA
	10/13/08	18.6	5.73	54.1	14.1	4.50	1.02	41.3	9.37	336	**79.3**	NA	NA
	11/10/08	4.88	1.50	14.6	3.82	1.47	0.334	14.6	3.32	123	28.9	NA	NA
	12/15/08	System down unable to sample											
	01/13/09	System down unable to sample											
	02/25/09	1.77	0.546	3.45	0.902	0.138	0.0313	1.83	0.414	55.8	13.1	NA	NA
	03/30/09	2.17	0.668	5.36	1.4	0.384	0.0871	4.24	0.961	54.2	12.8	NA	NA
	04/21/09	8.40	2.59	14.5	3.79	0.487	0.111	6.32	1.43	71.2	16.8	NA	NA
	05/21/09	0.282	0.0869	0.483	0.126	<0.100	<0.0227	0.204	0.0464	20.4	4.81	NA	NA
	06/25/09	1.13	0.349	2.72	0.71	0.103	0.0233	2.66	0.602	54.6	12.9	NA	NA

TABLE 2
VAPOR ANALYTICAL RESULTS - REMEDIATION SYSTEM
CONOCOPHILLIPS RENTON TERMINAL RM&R #3485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene		Toluene		Ethylbenzene		Xylenes, total		TPH-g		TPH-d	
		mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV
Midpoint	07/31/07	<0.100	<0.0308	0.736	0.192	0.152	0.0346	1.95	0.442	18	4.13	NA	NA
1	08/22/07	166	51.1	3.54	0.926	<1.00	<0.227	4.42	1	3,160	**746**	NA	NA
	08/30/07	0.179	0.055	1.5	0.393	0.276	0.0625	2.86	0.648	5.44	5.44	NA	NA
	10/25/07	<.100	<0.0308	0.591	0.154	0.111	0.0251	1.41	0.319	10.8	2.54	NA	NA
	11/28/07	0.186	0.0573	1.05	0.274	0.129	0.0292	1.56	0.354	10.8	2.55	NA	NA
	12/18/07	<0.100	<0.0308	0.433	0.113	<0.100	<0.0227	1	0.228	<10	<2.36	NA	NA
	01/16/08	<0.100	<0.0308	0.488	0.127	<0.100	<0.0227	0.592	0.134	<10	<2.36	NA	NA
	02/14/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	03/19/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	0.219	0.0496	<10	<2.36	NA	NA
	04/09/08	<0.100	<0.0308	0.4	0.104	<0.100	<0.0227	0.754	0.171	<10	<2.36	NA	NA
	05/21/08	22.5	6.92	0.251	0.0655	<0.100	<0.0227	0.376	0.0853	<10	<2.36	NA	NA
	06/25/08	9.37	2.89	33.5	8.76	<0.100	<0.0227	<0.200	<0.0454	93.3	22	NA	NA
	07/29/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	0.227	0.0515	<10	<2.36	NA	NA
	08/13/08	28.3	8.71	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	148	34.9	NA	NA
	09/18/08	11.3	3.5	39.7	10.4	<0.100	<0.0227	<0.200	<0.0454	388	91.5	NA	NA
	10/13/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	11/10/08	1.86	0.574	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	12/15/08	System down unable to sample											
	01/13/09	System down unable to sample											
	02/25/09	3.68	1.13	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	20.2	4.76	NA	NA
	03/30/09	1.23	0.38	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	04/21/09	7.87	2.43	0.280	0.0731	<0.100	<0.0227	<0.200	<0.0454	62.3	14.7	NA	NA
	05/21/09	7.57	2.33	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	22	5.18	NA	NA
	06/25/09	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA

TABLE 2
VAPOR ANALYTICAL RESULTS - REMEDIATION SYSTEM
CONOCOPHILLIPS RENTON TERMINAL RM&R #3485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene		Toluene		Ethylbenzene		Xylenes, total		TPH-g		TPH-d	
		mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV
Midpoint	11/28/07	0.258	0.0794	0.772	0.202	<0.100	<0.0227	1.62	0.367	12.9	3.05	NA	NA
2	12/18/07	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	01/16/08	0.140	0.0433	0.425	0.111	<0.100	<0.0227	0.379	0.0860	<10	<2.36	NA	NA
	02/14/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	03/19/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	04/09/08	<0.100	<0.0308	0.127	0.0332	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	05/21/08	0.198	0.0609	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	06/25/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	07/29/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	0.313	0.071	<10	<2.36	NA	NA
	08/13/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	09/18/08	0.107	0.0329	<0.100	<0.0261	<0.100	<0.0227	0.394	0.0893	<10	<2.36	NA	NA
	10/13/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	11/10/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	0.216	0.0489	<10	<2.36	NA	NA
	12/15/08	System down unable to sample											
	01/13/09	System down unable to sample											
	02/25/09	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	03/30/09	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	04/21/09	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	05/21/09	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	06/25/09	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA

TABLE 2
VAPOR ANALYTICAL RESULTS - REMEDIATION SYSTEM
CONOCOPHILLIPS RENTON TERMINAL RM&R #3485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene		Toluene		Ethylbenzene		Xylenes, total		TPH-g		TPH-d	
		mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV
AS	11/28/07	<.100	<0.0308	0.206	0.0539	<0.100	<0.0227	0.239	0.0541	<10	<2.36	NA	NA
Effluent	12/18/07	82.5	25.4	102	26.8	4.29	0.973	75.8	17.2	765	**180**	NA	NA
	02/14/08	259	79.7	381	99.5	27.3	6.20	246	55.7	3840	**904**	NA	NA
	03/19/08	115	35.3	181	47.3	9.51	2.16	83.0	18.8	933	**220**	NA	NA
	04/09/08	21.8	6.72	35.8	9.36	1.86	0.422	24.3	5.51	205	**48.4**	NA	NA
AS off	05/21/08	--	--	--	--	--	--	--	--	--	--	NA	NA
	06/25/08	--	--	--	--	--	--	--	--	--	--	NA	NA
	07/29/08	--	--	--	--	--	--	--	--	--	--	NA	NA
	08/13/08	--	--	--	--	--	--	--	--	--	--	NA	NA
	09/18/08	--	--	--	--	--	--	--	--	--	--	NA	NA
AS on	10/13/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	11/10/08	46.4	14.3	41.0	10.7	0.870	0.197	69.1	15.7	263	**62.0**	NA	NA
	12/15/08	System down unable to sample											
	01/13/09	System down unable to sample											
	02/25/09	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	03/30/09	315	97.1	494	129	21.5	4.87	165	37.5	2160	508	NA	NA
	04/21/09	3.69	1.14	6.79	1.77	0.262	0.0595	3.65	0.827	30.3	7.14	NA	NA
	05/21/09					Sytem down unable to sample							
	06/25/09					Sytem down unable to sample							

TABLE 2
VAPOR ANALYTICAL RESULTS - REMEDIATION SYSTEM
CONOCOPHILLIPS RENTON TERMINAL RM&R #3485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene		Toluene		Ethylbenzene		Xylenes, total		TPH-g		TPH-d	
		mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV
SVE	08/22/07	210	64.6	418	109	41.2	9.35	332	75.3	10200	**2400**	NA	NA
Influent	12/18/07	8.32	2.57	13.4	3.51	1.17	0.265	13	2.96	323	**76.1**	NA	NA
	01/16/08	8.12	2.50	23.1	6.03	1.42	0.323	12.0	2.71	286	**67.4**	NA	NA
	02/14/08	28.6	8.82	118	30.7	20.4	4.63	222	50.3	1900	**448**	NA	NA
	03/19/08	45.2	13.9	145	38.0	15.3	3.47	169	38.3	2860	**675**	NA	NA
	04/09/08	50.8	15.6	110	28.6	7.36	1.67	97.9	22.2	1840	**433**	NA	NA
	05/21/08	38.9	12	86.7	22.6	6.77	1.53	57.5	13	1870	**441**	NA	NA
	06/25/08	55.2	17	10.7	144	37.6	2.42	130.0	29.5	2680	**632**	NA	NA
	07/29/08	52.6	16.2	311	81.3	25.9	5.88	252.0	57.2	5680	**1340**	NA	NA
	08/13/08	449	139	504	132	164	37.3	393.0	89.2	9330	**2200**	NA	NA
	09/18/08	69.6	21.4	181	47.4	9.95	2.26	134.0	30.4	3030	**713**	NA	NA
	10/13/08	3.88	1.19	11.1	2.90	0.829	0.188	7.23	1.64	1640	**387**	NA	NA
	11/10/08	18.1	5.59	51.2	13.4	5.18	1.17	47.9	10.9	669	**158**	NA	NA
	12/15/08	System down unable to sample											
	01/13/09	System down unable to sample											
	02/25/09	3.83	1.18	7.61	1.99	0.262	0.0593	3.76	0.852	174	**40.9**	NA	NA
	03/30/09	3.33	1.03	7.9	2.06	0.589	0.134	6.43	1.46	97.1	22.9	NA	NA
	04/21/09	3.46	1.07	8.38	2.19	0.563	0.128	5.28	1.2	82.0	19.3	NA	NA
	05/21/09	0.996	0.307	2.35	0.615	0.120	0.0273	1.77	0.401	43.8	10.3	NA	NA
	06/25/09	5.62	1.73	12.3	3.21	0.47	0.107	11.1	2.52	278	**65.5**	NA	NA

TABLE 2
VAPOR ANALYTICAL RESULTS - REMEDIATION SYSTEM
CONOCOPHILLIPS RENTON TERMINAL RM&R #3485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene		Toluene		Ethylbenzene		Xylenes, total		TPH-g		TPH-d	
		mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV
Effluent	02/13/03	<0.002	NA	0.002	NA	<0.001	NA	NA	NA	0.023	NA	NA	NA
	02/24/03	NA	0.3	NA	1.4	NA	0.3	NA	NA	NA	NA	NA	NA
	04/08/03	<0.002	NA	<0.001	NA	<0.001	NA	NA	NA	0.022	NA	<0.013	NA
	06/20/03	0.064	NA	<0.026	NA	<0.023	NA	<0.045	NA	<2.36	NA	NA	NA
	07/11/03	0.641	NA	0.086	NA	<0.023	NA	<0.045	NA	<2.36	NA	NA	NA
	08/07/03	<0.031	NA	0.089	NA	<0.023	NA	0.067	NA	<2.36	NA	NA	NA
	10/15/03	<0.0308	NA	<0.026	NA	<0.023	NA	<0.045	NA	<2.36	NA	NA	NA
	12/18/03	<0.100	NA	<0.100	NA	<0.100	NA	<0.200	NA	<10	NA	NA	NA
	02/05/04	<0.100	NA	0.359	NA	<0.100	NA	0.338	NA	<10	NA	NA	NA
	03/16/04	0.156	NA	0.134	NA	<0.100	NA	<0.200	NA	<10	NA	NA	NA
	07/02/04	0.358	NA	0.436	NA	<0.100	NA	0.397	NA	21.2	NA	NA	NA
	12/22/04	<0.100	<0.031	0.146	0.038	<0.100	<0.023	<0.200	<0.045	<10	2.36	NA	NA
	06/08/05	<0.447	0.138	0.731	0.191	<0.100	<0.023	<0.425	0.096	<11.2	2.63	NA	NA
	09/30/05	<2	NA	<3	NA	<2	NA	<3	NA	9.4	NA	NA	NA
	10/31/05	NA	<0.5	NA	1	NA	<0.4	NA	<0.7	NA	11	NA	NA
	11/30/05	<2	<0.5	<3	<0.8	<2	<0.4	<3	<0.7	18.3	1.8	NA	NA
	12/29/05	NA	<0.5	NA	<0.8	NA	<0.4	NA	<0.7	NA	3.9	NA	NA
	01/31/06	<2	<0.5	<3	<0.8	<2	<0.4	<3	<0.7	<3.5	<1.0	NA	NA
	02/23/06	<2	<0.5	<3	<0.8	<2	<0.4	<3	<0.7	3.8	1.1	NA	NA
	03/30/06	<2	<0.5	<3	<0.8	<2	<0.4	<3	<0.7	13	3.7	NA	NA

TABLE 2
VAPOR ANALYTICAL RESULTS - REMEDIATION SYSTEM
CONOCOPHILLIPS RENTON TERMINAL RM&R #3485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene		Toluene		Ethylbenzene		Xylenes, total		TPH-g		TPH-d	
		mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV	mg/m3	ppmV
Effluent	06/09/06	<2	<0.5	<3	<0.8	<2	<0.4	<3	<0.7	3.8	1.1	NA	NA
	09/12/06	<2	<0.5	<3	<0.8	<2	<0.4	<3	<0.7	35	10	NA	NA
	01/31/07	<2	<0.5	<3	<0.8	<2	<0.4	<3	<0.7	<3.5	<1.0	NA	NA
	05/11/07	<2	<0.5	<3	<0.8	<2	<0.4	<3	<0.7	8.1	2.3	NA	NA
	06/21/07	<2	<0.5	4	1	<2	<0.4	6	1	19	5.5	NA	NA
	07/31/07	<0.1	<0.0308	0.379	0.099	<0.1	<0.0227	0.954	0.216	10.3	2.43	NA	NA
	08/22/07	0.154	0.0475	0.77	0.201	0.149	0.0338	1.69	0.383	15.1	3.55	NA	NA
	09/27/07	0.523	0.161	1.96	0.511	0.167	0.0371	1.32	0.299	19.5	4.6	NA	NA
	10/25/07	<0.100	<0.0308	0.128	0.0344	<0.100	<0.0227	0.233	0.0528	<10.0	<2.36	NA	NA
	11/28/07	0.256	0.0789	1.57	0.41	0.208	0.0471	2.59	0.587	15.3	3.6	NA	NA
	12/18/07	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	01/16/08	<0.100	<0.0308	0.232	0.0607	<0.100	<0.0227	0.244	0.0553	<10	<2.36	NA	NA
	02/14/08	<0.100	<0.0308	0.104	0.0273	<0.100	<0.0227	0.269	0.0610	<10	<2.36	NA	NA
	03/19/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	04/09/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	05/21/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	06/25/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	0.266	0.0603	<10	<2.36	NA	NA
	07/29/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	0.367	0.0832	<10	<2.36	NA	NA
	08/13/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	09/18/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	10/13/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	11/10/08	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	12/15/08	System down unable to sample											
	01/13/09	System down unable to sample											
	02/25/09	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	03/30/09	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	04/21/09	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
	05/21/09	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	10.3	2.42	NA	NA
	06/25/09	<0.100	<0.0308	<0.100	<0.0261	<0.100	<0.0227	<0.200	<0.0454	<10	<2.36	NA	NA
Effluent Permit Limits											**30**		

Notes:
mg/m3 = milligram per cubic meter
ppmV = parts per million by volume
TPH-g = Total Petroleum Hydrocarbons as gasoline
TPH-d = Total Petroleum Hydrocarbons as diesel
NA = not applicable/not analyzed

TABLE 3
GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS
CONOCOPHILLIPS RENTON TERMINAL RM&R #03485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylenes (total) ug/l	TPH-g ug/l	TPH-d ug/l	TPH-o ug/l	Oil & Grease (HEM) mg/l	TPH (SGT-HEM) mg/l
Influent	07/07/03	**45,200**	**81,200**	**3,840**	21,700	33,100	3.47	0.63	NA	NA
	09/11/03	**37,500**	**76,700**	**2,810**	22,400	**320,000**	2.74	<0.500	NA	NA
	12/18/03	**4,060**	**14,500**	**1,690**	11,800	73,100	34.8	<10	NA	NA
	01/23/04	**389**	**3,900**	69	7,140	34,700	NA	NA	NA	NA
	02/05/04	**3,180**	**6,930**	783	5,350	40,000	NA	NA	NA	NA
	03/16/04	**5,530**	**9,480**	520	4,810	43,500	NA	NA	NA	NA
	07/02/04	3	11	4	104	967	1.37	<0.500	20.2	10.5
	12/22/04	**11,000**	**15,300**	1,100	8,030	79,300	NA	<5.00	<5.00	NA
	06/08/05	**28,300**	**36,500**	1,370	15,300	**173,000**	NA	NA	NA	NA
	09/30/05	**12,000**	**17,000**	720	10,000	81,000	2,800	530	NA	NA
	12/29/05	**11,000**	**26,000**	**2,100**	17,000	**160,000**	3,100	<200	NA	NA
	02/24/06	**11,000**	**25,000**	**1,800**	16,000	**160,000**	3,500	<480	NA	NA
	03/30/06	**7,400**	**16,000**	1,000	1,000	**110,000**	NA	NA	NA	NA
	09/12/06	**4,000**	**5,400**	200	4,100	36,000	NA	NA	NA	NA
	01/31/07	**14,000**	**27,000**	**1,800**	13,000	**160,000**	4,000	<480	NA	NA
	05/11/07	**15,000**	**24,000**	1,300	12,000	**140,000**	7,100	650	NA	NA
	06/21/07	**17,000**	**26,000**	720	13,000	**130,000**	41,000	<4700	NA	NA
	07/26/07	**7,400**	**8,900**	120	6,000	70,000	5,800	<960	NA	NA
	08/22/07	**3,800**	**4,300**	110	5,000	46,000	3,400	<500	NA	NA
	09/20/07	**5,800**	**11,000**	380	8,900	85,000	5,700	1,000	NA	NA
	10/25/07	**5,000**	**14,000**	1,200	13,000	**120,000**	29,000	11,000	NA	NA
	11/28/07	**6,000**	**10,000**	550	14,000	**110,000**	6,800	<940	NA	NA
	12/18/07	**4,900**	**8,900**	450	11,000	**100,000**	22,000	<4,900	NA	NA
	01/16/08	**6,500**	**12,000**	630	15,000	**130,000**	17,000	<4,800	NA	NA
	02/14/08	**6,200**	**12,000**	700	15,000	**130,000**	11,000	<2,400	NA	NA
	03/19/08	**6,000**	**12,000**	690	13,000	**130,000**	16,000	<2,400	NA	NA
	04/22/08	**12,000**	**25,000**	**1,400**	15,000	**150,000**	5,100	<1,900	NA	NA
	10/13/08	**9,900**	**16,000**	480	9,600	80,000	4,800	<470	NA	NA
	11/10/08	**2,100**	**3,200**	78	3,600	26,000	3,200	<330	NA	NA
	12/15/08	**System down unable to sample**								
	01/13/09	**System down unable to sample**								
	02/25/09	**18,000**	**30,000**	1,300	12,000	**142,000**	3,000	760	NA	NA
	03/26/09	**14,000**	**29,000**	**1,400**	11,000	81,500	980	<400	NA	NA

TABLE 3
GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS
CONOCOPHILLIPS RENTON TERMINAL RM&R #03485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylenes (total) ug/l	TPH-g ug/l	TPH-d ug/l	TPH-o ug/l	Oil & Grease (HEM) mg/l	TPH (SGT-HEM) mg/l
Influent	04/21/09	**15,000**	**27,000**	**1,600**	12,000	**105,000**	1,100	<400	NA	NA
	05/21/09	**System down unable to sample**								
	06/25/09	**System down unable to sample**								

TABLE 3
GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS
CONOCOPHILLIPS RENTON TERMINAL RM&R #03485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylenes (total) ug/l	TPH-g ug/l	TPH-d ug/l	TPH-o ug/l	Oil & Grease (HEM) mg/l	TPH (SGT-HEM) mg/l
Air Stripper Effluent	01/23/04	10.5	28.4	3.38	119	4,010	NA	NA	NA	NA
	02/05/04	24.7	39.9	9.38	76.9	2,370	NA	NA	NA	NA
	03/16/04	**244**	**483**	34.7	359	4,710	NA	NA	NA	NA
	07/02/04	<0.5	<0.5	0.513	1.57	104	0.324	<0.5	<5	<5
	12/22/04	2.32	5.27	1.54	10.7	529	NA	NA	<5	<5
	06/08/05	16.5	11.5	<5	7.89	97.9	NA	NA	NA	NA
	12/29/05	**280**	**640**	45	480	4,900	2,800	<100	NA	NA
	02/24/06	**210**	**450**	28	350	4,100	3,300	<520	NA	NA
	03/30/06	68	82	1	73	490	NA	NA	NA	NA
	09/12/06	14	16	0.4	20	230	NA	NA	NA	NA
	01/31/07	**510**	**930**	54	580	6,300	4,000	<480	NA	NA
	05/11/07	**1,100**	**1,600**	47	1,100	10,000	3,600	<480	NA	NA
	06/21/07	**4,000**	**5,500**	77	3,200	31,000	3,300	<510	NA	NA
	07/26/07	16	14	1	53	720	2,500	<510	NA	NA
	08/22/07	NA	NA	NA	NA	NA	2,600	<200	NA	NA
	09/20/07	**2,900**	**4,400**	42	4,800	36,000	1,700	<480	NA	NA
	10/25/07	**530**	**1,400**	79	1,300	12,000	2,700	<480	NA	NA
	11/28/07	56	110	3.6	190	2,500	3,800	<1,100	NA	NA
	12/18/08	25	34	0.8	140	1,900	4,000	<490	NA	NA
	01/16/08	**4,500**	**7,200**	120	10,000	82,000	6,700	<990	NA	NA
	02/14/08	**5,600**	**9,200**	140	7,100	64,000	5,200	<2,000	NA	NA
	03/19/08	110	**210**	8.1	150	1,800	3,200	<500	NA	NA
	04/22/08	15	24	0.9	45	630	3,600	<1000	NA	NA
	10/13/08	29	43	0.8	66	340	3,700	<470	NA	NA
	11/10/08	**580**	**780**	22	1,100	620	2,400	<330	NA	NA
	12/15/08	**System down unable to sample**								
	01/13/09	**System down unable to sample**								
	02/25/09	**240**	**350**	15	330	2,110	250	<380	NA	NA
	03/26/09	**5,200**	**9,000**	**430**	4,400	39,300	490	<430	NA	NA
	04/21/09	**280**	**5,700**	<1.0	2,800	19,700	820	<530	NA	NA
	05/21/09	**System down unable to sample**								
	06/25/09	**System down unable to sample**								

TABLE 3
GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS
CONOCOPHILLIPS RENTON TERMINAL RM&R #03485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylenes (total) ug/l	TPH-g ug/l	TPH-d ug/l	TPH-o ug/l	Oil & Grease (HEM) mg/l	TPH (SGT-HEM) mg/l
Carbon Mid Point	06/21/07	<0.2	<0.2	<0.2	<0.6	<50	NA	NA	NA	NA
	07/26/07	<0.5	<0.7	<0.8	<0.8	<50	NA	NA	NA	NA
	08/22/07	<0.2	<0.2	<0.2	<0.6	<50	NA	NA	NA	NA
	09/20/07	0.3	0.6	<0.2	0.7	NA	NA	NA	NA	NA
	10/25/07	<0.2	0.2	<0.2	<0.6	<50	NA	NA	NA	NA
	11/28/07	<0.2	<0.2	<0.2	<0.6	<50	NA	NA	NA	NA
	12/18/07	0.8	0.4	<0.2	1.6	85	NA	NA	NA	NA
	01/16/08	2.8	3.7	<0.2	7.6	120	NA	NA	NA	NA
	02/14/08	0.3	<0.2	<0.2	<0.6	<50	NA	NA	NA	NA
	03/19/08	0.9	0.3	<0.2	<0.6	<50	NA	NA	NA	NA
	04/22/08	1.1	0.3	<0.2	<0.6	<50	NA	NA	NA	NA
	10/13/08	<0.5	<0.7	<0.8	<0.8	<50	<75	<94	NA	NA
	11/10/08	<0.5	<0.7	<0.8	<0.8	<50	3,500	770	NA	NA
	12/15/08	**System down unable to sample**								
	01/13/09	**System down unable to sample**								
	02/25/09	21	12	<1.0	5	58	<82	<410	NA	NA
	03/26/09	20	7.9	<1.0	3.1	<50	<80	<400	NA	NA
	04/21/09	<1.0	1.9	<1.0	<1.0	63.5	<100			
	05/21/09	**System down unable to sample**								
	06/25/09	**System down unable to sample**								

TABLE 3
GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS
CONOCOPHILLIPS RENTON TERMINAL RM&R #03485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylenes (total) ug/l	TPH-g ug/l	TPH-d ug/l	TPH-o ug/l	Oil & Grease (HEM) mg/l	TPH (SGT-HEM) mg/l
Effluent	07/07/03	4.87	18.5	1.63	16.7	345	2.42	<0.500	NA	NA
	09/11/03	11.6	23.7	<5	68.7	2480	NA	NA	NA	NA
	12/18/03	**284**	**1,110**	135	1080	7550	22.1	<5	NA	NA
	01/23/04	<0.500	<0.500	<0.500	<1.00	<50.0	NA	NA	NA	NA
	02/05/04	<0.500	<0.500	<0.500	<1.00	<50.0	NA	NA	NA	NA
	03/16/04	<0.500	<0.500	<0.500	<1.00	<50.0	NA	NA	NA	NA
	07/02/04	<0.500	<0.500	<0.500	<1.00	<50.0	<0.250	<0.500	<5.00	<5.00
	12/22/04	<0.500	<0.500	<0.500	<1.00	<50.0	<0.250	<0.500	<5.00	<5.00
	09/30/05	3.1	0.4	<0.2	<0.6	<48	<75	<94	NA	NA
	12/29/05	93	**170**	7.3	120	1300	900	<100	NA	NA
	02/24/06	<0.5	<0.7	<0.8	<0.8	<48	<79	<98	NA	NA
	03/30/06	<0.5	<0.7	<0.8	<0.8	<48	NA	NA	NA	NA
	09/12/06	<0.2	0.3	<0.2	<0.6	<48	NA	NA	NA	NA
	01/31/07	**370**	**620**	30	500	4900	679	<100	NA	NA
	05/11/07	<0.2	<0.2	<0.2	<0.6	<50	<77	<97	NA	NA
	06/21/07	<0.2	<0.2	<0.2	<0.6	<50	<76	<95	NA	NA
	07/26/07	<0.5	<0.7	<0.8	<0.8	<50	<77	<96	NA	NA
	08/22/07	<0.2	<0.2	<0.2	<0.6	<50	<77	<97	NA	NA
	09/20/07	0.3	0.6	<0.2	0.9	<50	<78	<97	NA	NA
	10/25/07	<0.2	<0.2	<0.2	<0.6	<50	<79	<99	NA	NA
	11/28/07	<0.2	<0.2	<0.2	<0.6	<50	<82	<100	NA	NA
	12/18/07	<0.2	<0.2	<0.2	<0.6	<50	NA	NA	NA	NA
	01/16/08	<0.2	0.3	<0.2	0.7	<50	<78	<98	NA	NA
	02/14/08	<0.2	0.3	<0.2	0.6	<50	120	<96	NA	NA
	03/19/08	0.9	0.7	<0.2	0.9	<50	<77	<97	NA	NA

TABLE 3
GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS
CONOCOPHILLIPS RENTON TERMINAL RM&R #03485
2423 Lind Avenue SW, Renton, Washington

Location	Date	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylenes (total) ug/l	TPH-g ug/l	TPH-d ug/l	TPH-o ug/l	Oil & Grease (HEM) mg/l	TPH (SGT-HEM) mg/l
Effluent	04/22/08	<0.2	<0.2	<0.2	<0.6	<50	<78	<98	NA	NA
	10/13/08	<0.5	<0.7	<0.8	<0.8	<50	<75	<94	NA	NA
	11/10/08	<0.5	<0.7	<0.8	<0.8	<50	3,200	1,400	NA	NA
	12/15/08	**System down unable to sample**								
	01/13/09	**System down unable to sample**								
	02/25/09	<1.0	<1.0	<1.0	<1.0	<50.0	<76	<380	NA	NA
	03/26/09	<1.0	<1.0	<1.0	<1.0	<50.0	<80	<400	NA	NA
	04/21/09	<1.0	<1.0	<1.0	<1.0	<50.0	<100	<520	NA	NA
	05/21/09	**System down unable to sample**								
	06/25/09	**System down unable to sample**								
Effluent Permit Limits		**130**	**150**	**1400**		**100,000**	**100,000**	**100,000**		

Notes:
ug/l = micrograms per liter
mg/l = milligrams per liter
TPH-g = Total Petroleum Hydrocarbons as gasoline
TPH-d = Total Petroleum Hydrocarbons as diesel
TPH-o = Total Petroleum Hydrocarbons as oil
NA = not applicable/not analyzed
TPH-g = Ecology Method NWTPH-Gx
TPH-d = Ecology Method NWTPH-Dx with acid/silica gel cleanup
TPH-o = Ecology Method NWTPH-Dx with acid/silica gel cleanup
Oil/Grease Method = Ecology Method NWTPH-Dx with acid/silica gel cleanup
BTEX = USEPA Method 8021B
Bold = Above Effluent Permit Limits

TABLE 4
ESTIMATED DPVE MASS REMOVAL SUMMARY
CONOCOPHILLIPS RENTON TERMINAL

								Removal Rate						Mass Removed			
Date	Influent PID reading (ppm)	TPH-G&D (mg/m3)	Benzene (mg/m3)	Toluene (mg/m3)	Ethyl-benzene (mg/m3)	Xylenes (b) (mg/m3)	Flow Rate (scfm)	TPH (lbs/day)	Benzene (lbs/day)	Panel Hour Meter (hrs)	Duration of Operation (days)	TPH Monthly Removed (lbs)	Benzene Monthly Removed (lbs)	Total TPH (lbs)	Total Benzene (lbs)	Total TPH (Gallons)	Total Benzene (Gallons)
February-03	330	NC	NC	NC	NC	NC	300	0	NC	21591	0			0			
February-03	200	2842.15	30.22	55.95	2.68	11.03	300	77	1	21610	1	61	1	0	0	0	0
February-03	942	14716.94	205.57	879.55	77.83	375.14	300	397	6	21875	12	4396	61	4,396	61	687	10
April-03	NR	8897.86	95.15	414.97	48.39	278.44	290	232	2	22610	42	7110	76	11,506	137	1,798	21
April-03	801	12275.96	115.03	596.79	74.81	469.00	290	320	3	22823	51	2841	27	14,347	164	2,242	26
June-03	1479	7890.00	273.00	531.00	75.60	412.00	290	206	7	23802	92	8404	291	22,751	455	3,555	71
July-03	1099	8070.00	261.00	387.00	77.20	360.00	291	211	7	24040	102	2092	68	24,842	522	3,882	82
August-03	NR	4980.00	206.00	425.00	29.10	138.00	420	188	8	24540	123	3925	162	28,767	685	4,495	107
October-03	NR	3310.00	140.00	350.00	28.70	151.00	420	125	5	25993	183	7575	320	36,342	1,005	5,678	157
November-03	86	376.00	10.00	21.7	2.52	19.40	185	6	0.2	26464	203	123	3	36,465	1,009	5,698	158
December-03	23.8	497.00	14.80	64.4	9.27	54.80	270	12	0.4	27112 (c)	230	326	10	36,791	1,018	5,749	159
December-03	NR						270 (c)	12 (c)	0.4 (c)	27289	237	89	3	36,880	1,021	5,763	160
January-04	NR						290	12 (c)	0.4 (c)	27289	237	0	0	36,880	1,021	5,762	160
February-04	7.6	45.50	3.45	6.8	0.92	6.69	270	1.1	0.1	27758	257	22	2	36,902	1,023	5,766	160
March-04	45	252.00	7.81	15.5	1.96	15.60	270	6.1	0.2	28563	291	205	6	37,107	1,029	5,798	161
April-04	58	252.00	7.81	15.5	1.96	15.60	288	6.5	0.2	29137	314	156	5	37,263	1,034	5,822	162
May-04	NR	252.00	7.81	15.5	1.96	15.60	288	6.5	0.2	29137	314	0	0	37,263	1,034	5,822	162
June-04	NR	252.00	7.81	15.5	1.96	15.60	316	7.2	0.2	30036	352	268	8	37,532	1,042	5,864	163
July-04	NR	927.00	23.50	68.5	5.61	57.60	316	26.4	0.7	30131	356	104	3	37,636	1,045	5,881	163
December-04	63	162.00	5.76	14.3	1.67	12.50	310	4.5	0.2	31818	426	318	11	37,954	1,056	5,930	165
April-05	NR	162.00	5.76	14.3	1.67	12.50	150	2.2	0.1	33562	499	159	6	38,113	1,062	5,955	166
May-05	287	162.00	5.76	14.3	1.67	12.50	140	2.0	0.1	33749	507	16	1	38,129	1,062	5,958	166
June-05	40	167.00	5.08	11.7	1.05	9.96	300	4.5	0.1	34146	523	75	2	38,203	1,065	5,969	166
July-05	140	167.00	5.08	11.7	1.05	9.96	300	4.5	0.1	34930	556	147	4	38,350	1,069	5,992	167
September-05	140	167.00	5.08	11.7	1.05	9.96	300	4.5	0.1	35500	580	107	3	38,457	1,072	6,009	168
September-05	131	60	<2	<3	<2	<3	300	1.6	0.0	35627	585	9	0	38,466	1,072	6,010	168
October-05	166	715	26	113.0	13	87	200 est	12.9	0.5	36079	604	242	9	38,708	1,081	6,048	169
November-05	NA	715	26	113.0	13	87	200 est	12.9	0.5	36713	630	340	12	39,049	1,093	6,101	171
December-05	NA	113	13	33.9	3	26	170	1.7	0.2	37148	648	31	4	39,080	1,097	6,106	171
January-06	0.4	113	13	33.9	3	26	170	1.7	0.2	37337	656	14	2	39,093	1,098	6,108	172
February-06	90	100	20	37.7	3	39	168	1.5	0.3	37662	670	20	4	39,114	1,102	6,112	172
March-06	5	100	20	37.7	3	39	168	1.5	0.3	38445	702	49	10	39,163	1,112	6,119	174
April-06	7	100	20	37.7	3	39	168	1.5	0.3	39078	729	40	8	39,203	1,120	6,125	175
June-06	42	160	10	30.0	2	30	168	2.4	0.2	39484	746	41	3	39,244	1,123	6,132	175
June-06	42	100	20	33.9	2	26	168 est	1.5	0.3	39509	747	2	0	39,246	1,123	6,132	175
July-06	42	100	20	33.9	2	26	168 est	1.5	0.3	39552	749	4	1	39,249	1,124	6,133	176
August-06	42	100	20	33.9	2	26	168 est	1.5	0.3	39624	752	5	1	39,254	1,125	6,133	176
September-06	414	600	10	90.0	9	90	168 est	9.1	0.2	39854	762	91	2	39,345	1,126	6,148	176
October-06	414	600	10	90.0	9	90	168 est	9.1	0.2	39981	767	45	1	39,390	1,127	6,155	176
November-06	414	600	10	90.0	9	90	0	0.0	0.0	39981	767	0	0	39,390	1,127	6,155	176
December-06	414	600	10	90.0	9	90	0	0.0	0.0	39981	767	0	0	39,390	1,127	6,155	176
January-07	230	120	40	90.0	2	10	308 est	3.3	1.1	40095.2	772	16	5	39,406	1,132	6,157	177
February-07	230	120	40	90.0	2	10	308 est	3.3	1.1	40335.2	782	33	11	39,439	1,143	6,162	179
March-07	230	120	40	90.0	2	10	0	0.0	0.0	40335.2	782	0	0	39,439	1,143	6,162	179
April-07	230	120	40	90.0	2	10	308	3.3	1.1	40339.2	782	1	0	39,440	1,143	6,162	179
June-07	316	130	20	30.0	0	10	308	3.6	0.6	40729.5	798	59	9	39,498	1,153	6,172	180
June-07	305	180	3	20.0	0	9	308	5.0	0.1	41210.4	818	100	2	39,598	1,154	6,187	180
July-07	364	1370	25	74.3	8	69	308	38.0	0.7	41619.7	836	648	12	40,246	1,166	6,288	182
August-07	476	2760	64.7	150.0	11	80.0	219	54.4	1.3	42075.9	855	1034	24	41,280	1,190	6,450	186
September-07	2300	3670	99.6	275.0	23	179.0	210	69.4	1.9	42437.9	870	1046	28	42,326	1,219	6,613	190
October-07	300	1300	55.2	126.0	8	80.5	196	22.9	1.0	42801.9	885	348	15	42,674	1,234	6,668	193
November-07	210	426	58.2	98.1	4	44.8	190	7.3	1.0	43185.9	901	117	16	42,790	1,249	6,686	195
December-07	52.2	104	6.4	8.5	0.5	7.5	168	1.6	0.1	43635.8	920	29	2	42,820	1,251	6,691	196

TABLE 4
ESTIMATED DPVE MASS REMOVAL SUMMARY
CONOCOPHILLIPS RENTON TERMINAL

								Removal Rate						Mass Removed			
Date	Influent PID reading (ppm)	TPH-G&D (mg/m3)	Benzene (mg/m3)	Toluene (mg/m3)	Ethyl-benzene (mg/m3)	Xylenes (b) (mg/m3)	Flow Rate (scfm)	TPH (lbs/day)	Benzene (lbs/day)	Panel Hour Meter (hrs)	Duration of Operation (days)	TPH Monthly Removed (lbs)	Benzene Monthly Removed (lbs)	Total TPH (lbs)	Total Benzene (lbs)	Total TPH (Gallons)	Total Benzene (Gallons)
January-08	20.1	113	3.3	8.5	0.7	5.9	154	1.6	0.0	44282.8	946	42	1	42,862	1,253	6,697	196
February-08	76	42.8	1.79	4.1	0.454	5.35	196	0.8	0.0	44982.8	976	22	1	42,884	1,253	6,701	196
March-08	269	501	47.0	88.6	4.77	42.1	203	9.2	0.9	45482.8	996	191	18	43,075	1,271	6,730	199
April-08	50.6	232	21.0	34.6	1.84	25.5	210	4.4	0.4	45914.2	1014	79	7	43,154	1,278	6,743	200
May-08	87.4	203	4.3	11.6	0.89	11.1	168	3.1	0.1	46908.2	1056	127	3	43,281	1,281	6,763	200
June-08	68.7	260	8.2	23.1	1.57	17.8	154	3.6	0.1	47746.6	1091	126	4	43,407	1,285	6,782	201
July-08	129	667	11.5	43.2	2.77	35.2	175	10.5	0.2	48561.6	1125	357	6	43,763	1,291	6,838	202
August-08	186	765	13.8	60.3	3.76	44.3	182	12.5	0.2	48920.2	1140	187	3	43,951	1,295	6,867	202
September-08	122	628	11.3	35.4	2.96	30.9	182	10.3	0.2	49396.7	1160	204	4	44,155	1,298	6,899	203
October-08	222	336	18.6	54.1	4.50	41.3	224	6.8	0.4	49711.5	1173	89	5	44,244	1,303	6,913	204
November-08	44	123	5.0	14.6	1.47	14.6	210	2.3	0.1	50234.7	1194	51	2	44,294	1,305	6,921	204
December-09								System down unable to sample									
January-09								System down unable to sample									
February-09	15.5	55.8	1.8	3.5	0.14	1.8	200	1.0	0.0	50902.4	1222	28	1	44,322	1,306	6,925	204
March-09	16.5	54.2	2.2	5.4	0.38	4.2	210	1.0	0.0	51330.9	1240	18	1	44,341	1,307	6,928	204
April-09	63.1	71.2	8.4	14.5	0.49	6.3	210	1.3	0.2	51853.6	1262	29	3	44,370	1,310	6,933	205
May-09	2	20.4	0.3	0.5	<0.100	0.2	210	0.4	0.0	52565.9	1292	11	0	44,381	1,311	6,935	205
June-09	15	54.6	1.1	2.7	0.10	2.7	196	1.0	0.0	53258.3	1320	28	1	44,409	1,311	6,939	205

Notes:
TPH-G & D = Gasoline and Diesel Range Total Petroleum Hydrocarbons
ppmv = parts per million by volume
mg/m3 = milligrams per cubic meter (assuming 60 degrees F and 1 atmosphere of pressure)
mg/m3 concentration for TPH based on a molecular weight of 92 g/g-mol

NC = Not Collected
(a) Only TPH-G analyzed
(b) Combined total reported for m, p, and o-xylenes
(c) Extrapolated value
Analytical results prior to June 20, 2003 reported from TO-14/15 analysis using Suma canisters.
Analytical results from June 20, 2003 forward reported from NWTPH Modified Method analysis using tedlar bags.
est = Estimated

TABLE 5
GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS
CONOCOPHILLIPS RENTON TERMINAL RMR #03485
2423 Lind Avenue, Renton, WA

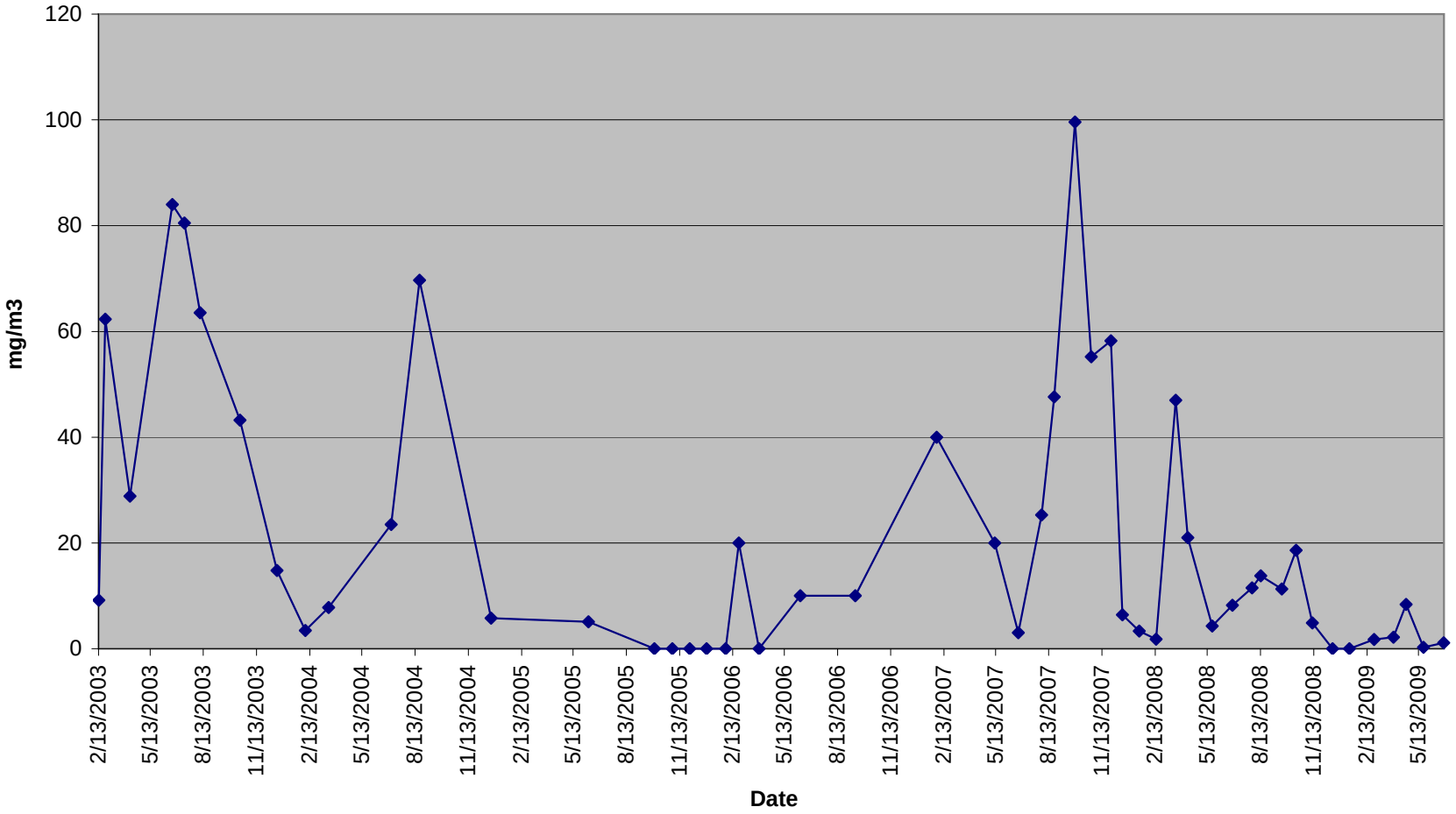
Date	Cumulative Discharge, gallons	Discharge between samplings, gallons	Influent Benzene Concentration, ug/liter	Effluent Benzene Concentration, ug/liter	Benzene Concentration Difference, ug/liter	Influent TPH-G Concentration, ug/liter	Effleuent TPH-G Concentration, ug/liter	TPH-G Concentration Difference, ug/liter	Benzene Removed, lbs	Cumulative Benzene Removed, lbs	Monthly TPH-G Removed, lbs	Cumulative TPH-G Removed, lbs
07/07/03	3,340	3,340	45,200	4.87	45,195	33,100	345	32,755	1.26	1.26	0.91	0.91
09/11/03	20,637	17,297	37,500	11.6	37,488	320,000	2480	317,520	5.40	6.66	45.73	46.64
12/18/03	50,761	30,124	4,060	284	3,776	73,100	7550	65,550	0.95	7.60	16.44	63.08
01/23/04	64,987	14,226	389	<0.500	389	34,700	<50.0	34,700	0.05	7.65	4.11	67.19
02/05/04	80,559	15,573	3,180	<0.500	3,180	40,000	<50.0	40,000	0.41	8.06	5.19	72.37
03/16/04	198,110	117,551	5,530	<0.500	5,530	43,500	<50.0	43,500	5.41	13.47	42.57	114.95
07/02/04	244,377	46,267	3	<0.500	3	967	<50.0	967	0.00	13.47	0.37	115.32
12/22/04	544,353	299,976	11,000	<0.500	11,000	79,300	<50.0	79,300	27.47	40.95	198.06	313.38
12/29/05	1,206,383	662,030	11,000	93	10,907	160,000	1300	158,700	60.12	101.07	874.76	1188.14
02/24/06	1,259,923	53,540	11,000	<0.5	11,000	160,000	<48	160,000	4.90	105.97	71.32	1259.47
03/30/06	1,345,773	85,850	7,400	<0.5	7,400	110,000	<48	110,000	5.29	111.26	78.63	1338.09
01/31/07	1,562,937	217,164	14,000	370	13,630	160,000	4900	155,100	24.64	135.91	280.44	1618.53
11/28/07	1,931,403	368,466	6,000	<0.2	6,000	110,000	<50	110,000	18.41	154.31	337.46	1955.99
12/18/07	2,031,297	99,895	4,900	<0.2	4,900	100,000	<50	100,000	4.08	158.39	83.17	2039.17
01/16/08	2,154,961	123,664	6,500	<0.2	6,500	130,000	<50	130,000	6.69	165.08	133.85	2173.02
03/19/08	2,254,648	99,687	6,000	0.9	5,999	130,000	<50	130,000	4.98	170.06	107.90	2280.92
10/13/08	2,376,633	121,986	9,900	<0.5	9,900	80,000	<50	80,000	10.05	180.11	81.25	2362.17
11/10/08	2,430,613	53,980	2,100	<0.5	2,100	26,000	<50	26,000	0.94	181.06	11.69	2373.85
02/25/09	2,518,613	88,000	18,000	<1.0	18,000	2,110	<50	2,110	13.19	194.25	1.55	2375.40
03/26/09	2,542,273	23,660	14,000	<1.0	14,000	39,300	<50	39,300	2.76	197.00	7.74	2383.14
04/21/09	2,544,013	1,740	15,000	<1.0	15,000	105,000	<50	105,000	0.22	197.22	1.52	2384.66
05/21/09	--	--	--	--	--	--	--	--	--	--	--	--
06/25/09	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

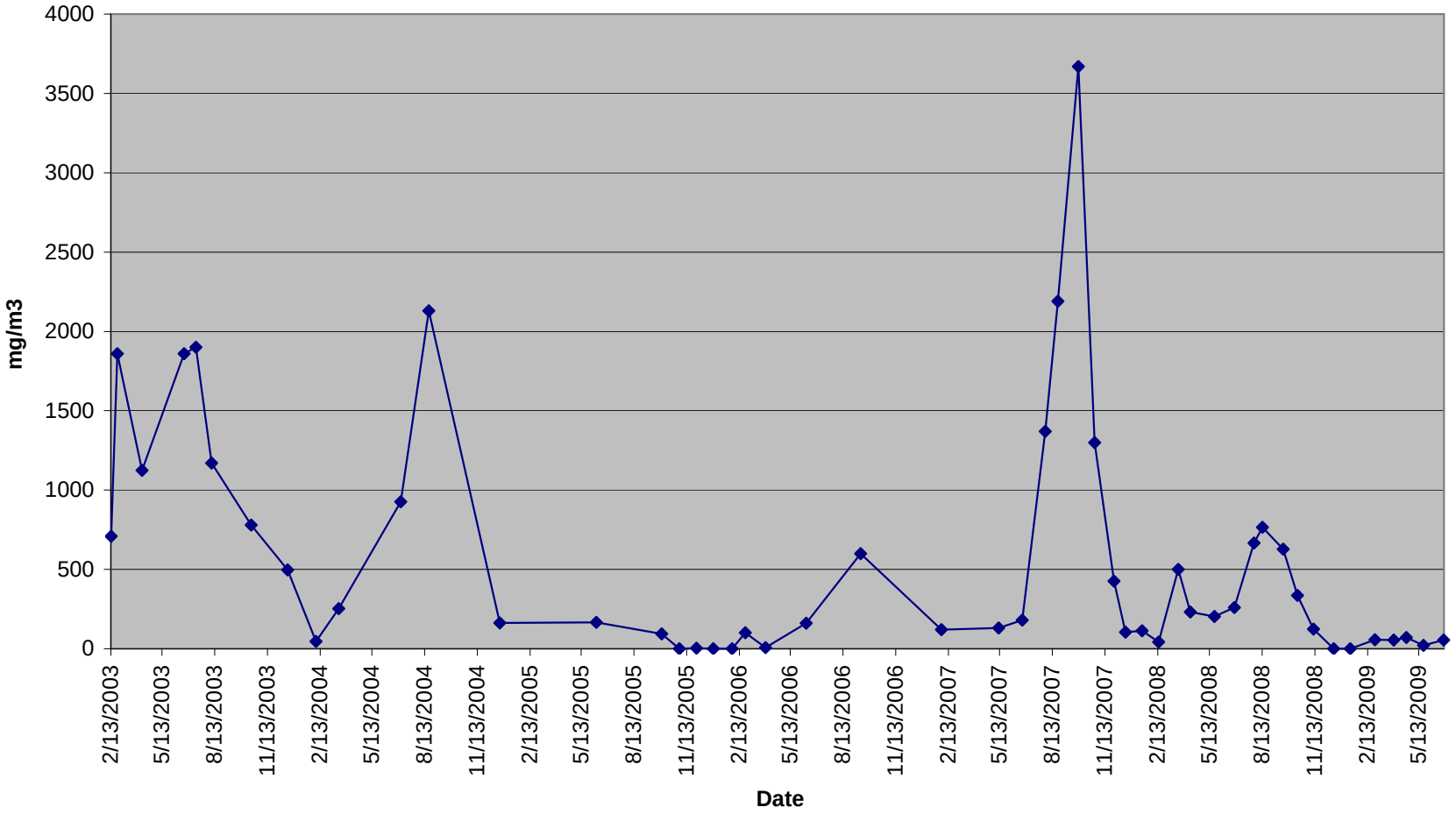
-- = Not Applicable, system down for repairs

GRAPHS

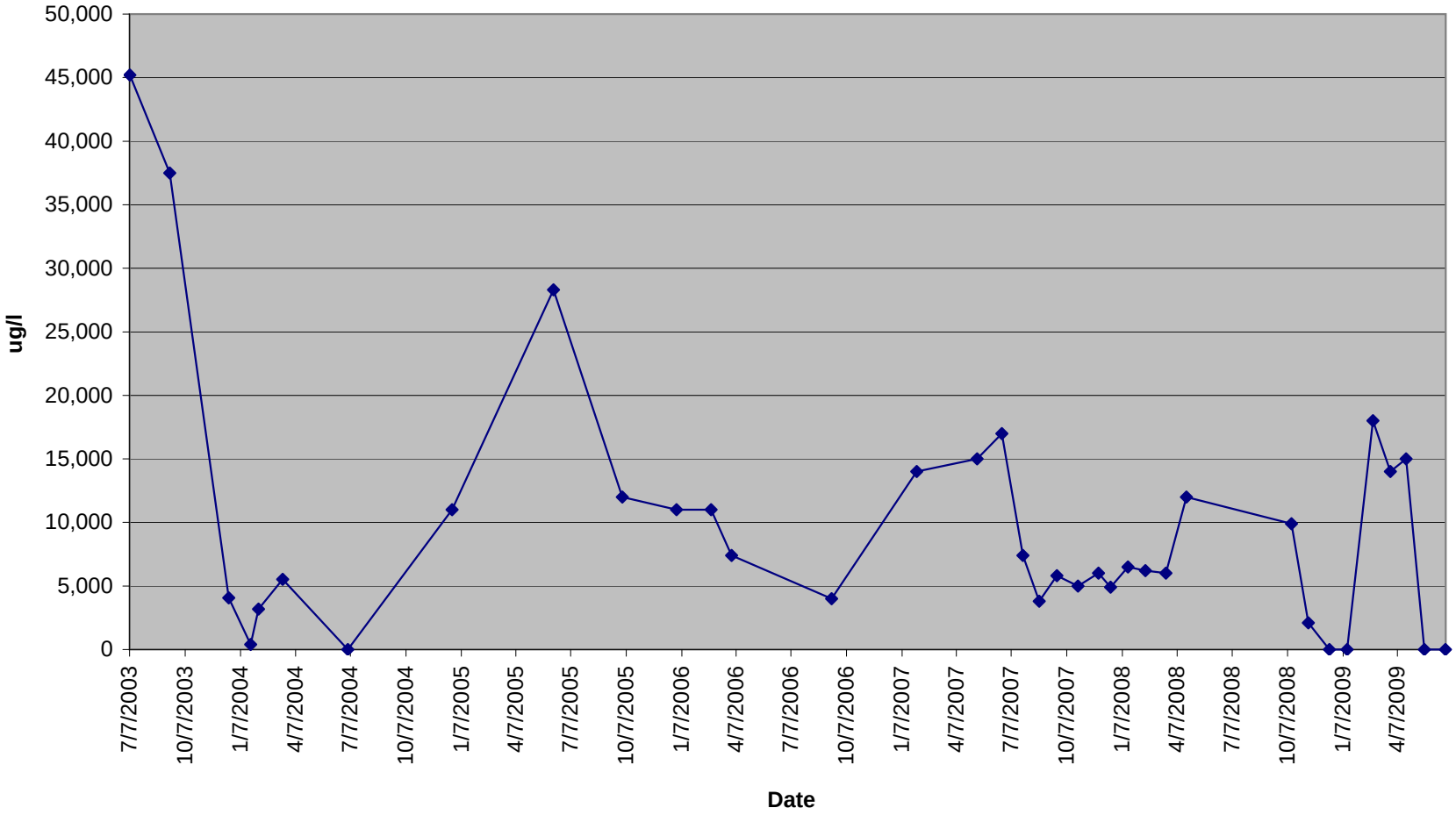
GRAPH 1
Benzene Influent Vapor Levels
ConocoPhillips Renton Terminal RM&R 3485



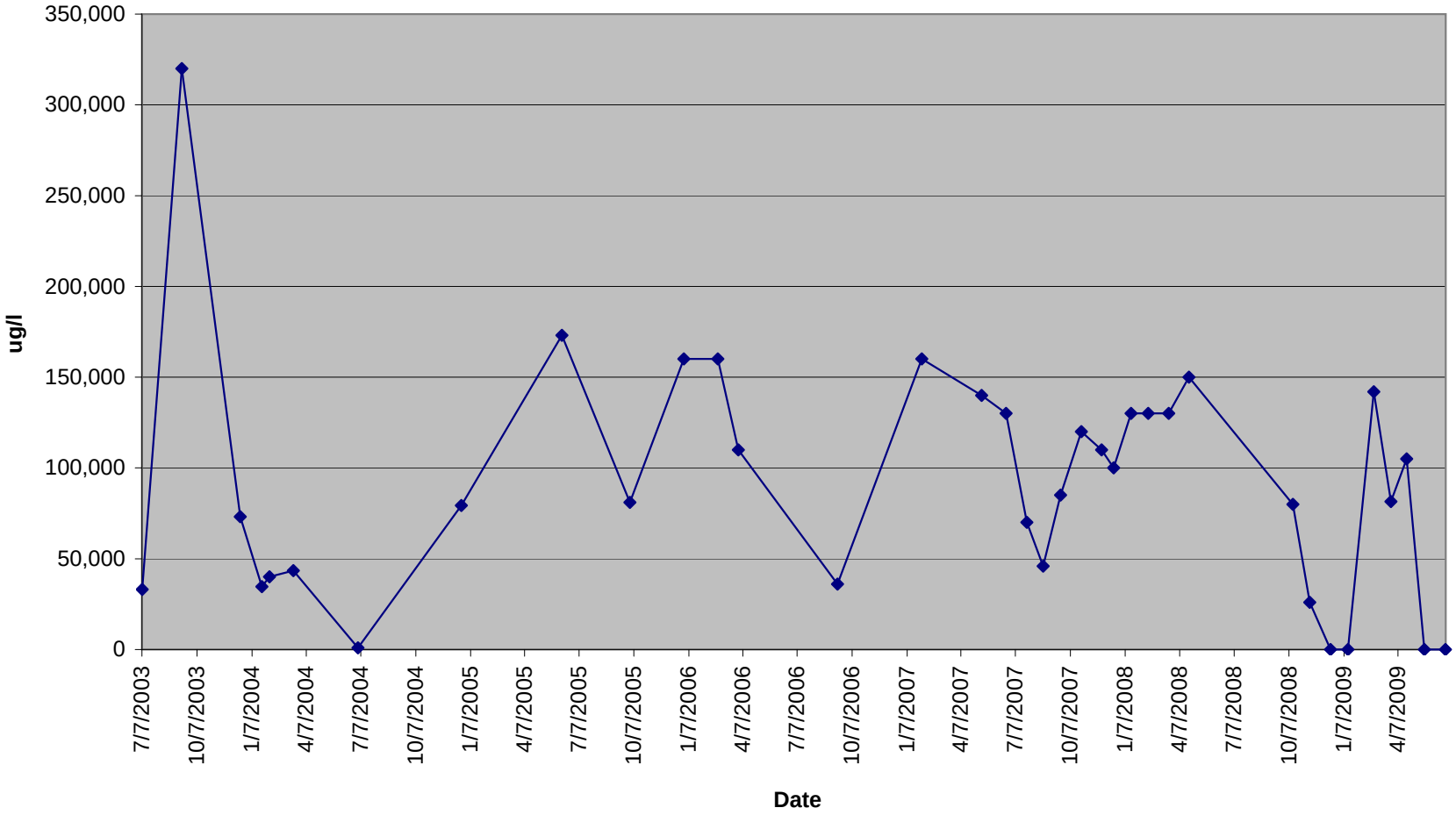
GRAPH 2
TPH-g Influent Vapor Levels
ConocoPhillips Renton Terminal RM&R 3485



GRAPH 3
Benzene Influent Water Levels
ConocoPhillips Renton Terminal RM&R 3485



GRAPH 4
TPH-g Influent Water Levels
ConocoPhillips Renton Terminal RM&R 3485



ATTACHMENT A
REMEDIATION SYSTEM OPERATIONAL LOGS

ConocoPhillips Company Facility Number 3485
2423 Lind Avenue SW
Renton, Washington

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 4/7/09 Time: 855 Inspected By: L. Rawlins

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES	Hoses Inspected (yes/no): YES Comments:	
Flow meters checked for operation and leaks	YES AS ECC leak	Tanks inspected for leaks, bio-growth	YES

SVE System — part ordered

Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	YES
If No, what alarms shut system down:			

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs) 2766.4 + [8771.8 8-6-08]	11538.2	Add/Change oil in SVE blower (yes/no)	ADDED
Influent Air Temperature	100	Maintain filter in KO Drum (yes/no)	YES/CHG
Total Vacuum Reading (in. H2O)	35	Check Float Switch in KO drum	YES/OK
Total Flowrate (scfm)	~210		
SVE VOCs (PID)(ppm)	VAPOR CHECK FOR CARBON		
Air stripper effluent VOCs (PID)(ppm)			
Influent total VOCs (PID)(ppm)	1.0		
Effluent total VOCs (PID)(ppm)	1.7		
BTWC1, BTWC2	9.3 // 2.9		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2	Leak / Y	—	25	
RW-3				
RW-7				
LAI-4	Leak / Y	—	25	
LAI-5	Y / Y	18	24	
LAI-6	N / Y	—	21	
LAI-7	Y / Y	23	50	
LAI-8	Y / N	30	—	
LAI-9	Leak / Y	—	30	
HW-1E	N / Y	NOGO	NOW	
HW-1W	N / Y	[illegible]	GAUGES	

Water Treatment System

Operating on Arrival (Yes/No):	~~YES~~ NO	Operating on Departure (Yes/No):	YES
If No, what alarms shut system down:			

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)	14938.6	Check pressure relief valve operation in air compressor (yes/no)	YES
Alarm Hours (in panel digital display)	NONE		
Air stripper vacuum (in H2O)	~15	Manually drain water in air compressor tank (yes/no)	YES
Pressure on Carbon vessel (psi)	18 // 8		
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	Need pressure WASHER
Pressure on filter housing (psi)	22 // 22	Change oil in air compressor (yes/no)	ADDED
Air stripper influent flow meter (gal)	397220	Check settling tank for sludge buildup (yes/no)	
Air stripper influent flow rate (gal/min)	17.1	Product in retention pond (yes/no)	NA
Air stripper effluent flow meter (gal)	200478	Air compressor selonoid valve operating (y/n)	YES
Air stripper effluent flow rate (gal/min)			

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	
Sample Time							

Water Samples	Total Inf	Post AS	Mid	Total Eff		King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH		
Sample Time						

General Comments (activities conducted changes to system, etc..):

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COP
Location: RENTON, WA

File No.
Project No.
Project No.
Date: 4.7-09
Page 1 of 2

SUNNY ~55°F

8:30 L. Rawlins on-site purpose: to check vapor readings on carbon drums and system. Checked in at office, personnel reported better communication is needed for any work planned for site

8:45 Called M. Talley and informed on-site. Put on PPE, review health and safety

8:55 Calibrate PID and begin system check

9:20 After completeing vapor check reset compressor which was down on water treatment side. No alarms ~~w~~ were off but no air being sent to wells. Got to pressure. Turned system off to check filters and oil.

SVE: Sutorbilt blower
legend series
model: GACMOPA
serial no.: S243503
cat no. 4MP
max rpm 3600
lubricant: Aeon PD
GARDNER DENVER
synthetic lubricant
part no. 28423

Compressor: lubricant: synthetic for 30HP
all season select
Ingersoll Rand

10:10 Oil checked in compressor, ok
SVE: added
filters: changed in knock-out
liq pre-filters: ok

10:20 Checking tank farm after system back on.

L Rawlins
J. Rawlins →

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COP
Location: Renton, WA

File No.
Project No.
Project No.
Date: 4-7-09
Page 2 of 2

10:50 Checked ~~off~~. wells outside of terminal fence HW-1E and HW-1W. Both need new ~~condensors~~ regulators and pressor gauges. Called M.T and R. Fetterly.
Remove P.P.E.
11:00 L. Rawlins -off site

L Rawlins
L. Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 4/14/09 Time: 11:40 Inspected By: L. Rawlins

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES	Hoses Inspected (yes/no): OK Comments:	
Flow meters checked for operation and leaks	YES off leak part order	Tanks inspected for leaks, bio-growth	NO

SVE System			
Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	YES
If No, what alarms shut system down:			

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs)	2936.3	Add/Change oil in SVE blower (yes/no)	OK
Influent Air Temperature	100	Maintain filter in KO Drum (yes/no)	OK
		Check Float Switch in KO drum	NOT THIS TRIP
Total Vacuum Reading (in. H2O)	30		
Total Flowrate (scfm)	210		
SVE VOCs (PID)(ppm)	3.3		
Air stripper effluent VOCs (PID)(ppm)			
Influent total VOCs (PID)(ppm)	1.0		
Effluent total VOCs (PID)(ppm)	3.0		
BTWC1, BTWC2	8.8 // 3.2		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2				
RW-3				
RW-7				
LAI-4				
LAI-5				
LAI-6				
LAI-7				
LAI-8				
LAI-9				
HW-1E				
HW-1W				

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	YES
If No, what alarms shut system down:	No alarm - compressor down - restarted		

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)	15108.8	Check pressure relief valve operation in air compressor (yes/no)	YES
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)	~15	Manually drain water in air compressor tank (yes/no)	YES
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft		
Pressure on filter housing (psi)		Clean Air Stripper (yes/no)	NEED PRESS WASHER
Air stripper influent flow meter (gal)	397489	Change oil in air compressor (yes/no)	OK
Air stripper influent flow rate (gal/min)		Check settling tank for sludge buildup (yes/no)	NOT NEEDED
Air stripper effluent flow meter (gal) leaking	200501	Product in retention pond (yes/no)	N/A
Air stripper effluent flow rate (gal/min)		Air compressor selonoid valve operating (y/n)	YES

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	
Sample Time							

Water Samples	Total Inf	Post AS	Mid	Total Eff	King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d. BTEX	TPHg&d. BTEX	TPHg. BTEX	TPHg&d. BTEX, PH	
Sample Time					

VAPOR CHECK ONLY

General Comments (activities conducted changes to system, etc..):

INGERSOL RAND COMPRESSOR CAT # 3Y1060
GRAINGER # 2475N7.551

Stantec

Project:
Contractor: 3485
Owner: COP
Location: ~~Renton, WA~~

File No.
Project No.
Project No.
Date: 4-14-09
Page 1 of 1

Cloudy / rainy ~

11:00 L. Rawlins on-site. Sign in discuss site with terminal personnel. Park vehicle by system, text T. Parise on-site. Put on PPE review HASP and safety. System overview - walk around.

11:40 Calibrate PID and get system vapor check on carbon drums. Compressor is down so WTS not functioning. No system alarms.

12:10 Called P.M gave readings and site overview.

12:45 Pack up equipment, remove P.P.E, sign out.

13:00 L. Rawlins - off site

L. Rawlins

L. Rawlins

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COP
Location: Renton, WA

File No.
Project No.
Project No.
Date: 4-16-09
Page 1 of 1

Partially cloudy ~ 50°F

8:05 L. Rawlins on-site. Called M. Tolley purpose: system repairs to compressor, regulators and camlocks. Sign in
8:15 Put on P.P.E review health and safety.
8:25 Checked system: compressor is down. Shut down entire system to begin work.
11:15 Finished replace/repair to kam locks in tank farm LA1-4, LA1-9 and RW-2 (2 KAMS) completed.
11:30 Heading to wells off site (outside fence) HW-1E and HW-1W to replace regulators. Had incorrect size, ran to Grainger and got correct part.
13:15 New regulators are on, going back inside fence to work on compressor and replace parts.
15:10 After locking out system, replaced pressure switch, lubricated and checked other components. Restarted system.
16:00 Checked all repairs - no leaks at kam-locks. Cleaned up work area and kept checking on compressor. After signing out at office noticed compressor not cycling. When tried to restart: slight smoke from right side motor (smaller diam side, facing back of unit). Will need further review. Leaving site.

L. Rawlins
L Rawlins

SITE OBSERVATION REPORT
3485

Stantec

Project:
Contractor: COP
Owner:
Location: Renton, WA

File No.
Project No.
Project No.
Date: April 21, 2009
Page 1 of 1

Sunny ~67°F

10:00 L. Rawlins on-site. Sign in, text M.T. Put on PPE. review HASP/safety. Purpose full O&M.
10:25 Begin set up and work. Started compressor.
11:15 Air Sampling completed, begin water sampling
12:30 Finished water samples; labeled and packed. Will take system and tank farm readings. During sampling compressor quit cycling and would not restart.
12:45 Got reading in tank farm for Vac only. Rechecked compressor will not restart
13:20 Signed out, removed PPE after loading equipment and samples. Text M.T. Leaving site.

L. Rawlins
L. Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 4/21/09 Time: 10:30 Inspected By: L. Rawlins

General Site Status			
Motor Control Center checked for switch status and that panels are closed	Yes	Hoses Inspected (yes/no): Yes Comments:	
Flow meters checked for operation and leaks	Yes eff leak	Tanks inspected for leaks, bio-growth	Yes/OK

SVE System			
Operating on Arrival (Yes/No):		Operating on Departure (Yes/No):	
If No, what alarms shut system down:			

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs)	11872.4 (3100.6 + [8771.8 8-6-08])	Add/Change oil in SVE blower (yes/no)	OK
Influent Air Temperature	125	Maintain filter in KO Drum (yes/no)	OK
Total Vacuum Reading (in. H2O)	34	Check Float Switch in KO drum	Yes
Total Flowrate (scfm)	~210		
SVE VOCs (PID)(ppm)	18.9		
Air stripper effluent VOCs (PID)(ppm)	18.3		
Influent total VOCs (PID)(ppm)	63.1		
Effluent total VOCs (PID)(ppm)	5.3		
BTWC1, BTWC2	9.4 // 4.0		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2	Y / Y	29	—	N/A
RW-3				
RW-7				
LAI-4	Y / Y	26	—	N/A
LAI-5	Y / Y	26	—	
LAI-6	N / Y	—	—	
LAI-7	Y / Y	25	—	
LAI-8	Y / N	30	—	
LAI-9	Y / Y	32	—	
HW-1E	N / Y	—	—	
HW-1W	N / Y	—	—	N/A

↳ Water side down @ time of reading

Water Treatment System			
Operating on Arrival (Yes/No):	No	Operating on Departure (Yes/No):	NO
If No, what alarms shut system down:	compressor down / restarted and it shut down		

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)	152728	Check pressure relief valve operation in air compressor (yes/no)	OK
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	Yes
Pressure on Carbon vessel (psi)	NOT OPERATING		
Storage tank oil level (water/product)	ft ft	Clean Air Stripper (yes/no)	NEED WASHER
Pressure on filter housing (psi)			
Air stripper influent flow meter (gal)	398164	Change oil in air compressor (yes/no)	OK
Air stripper influent flow rate (gal/min)	17.6	Check settling tank for sludge buildup (yes/no)	OK
Air stripper effluent flow meter (gal)	~21 w/leak	Product in retention pond (yes/no)	NA
Air stripper effluent flow rate (gal/min)	2005630	Air compressor selonoid valve operating (y/n)	

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	
Sample Time	11:00	10:53	10:50	10:48	10:45	10:40	

Water Samples	Total Inf	Post AS	Mid	Total Eff	King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d. BTEX	TPHg&d. BTEX	TPHg. BTEX	TPHg&d. BTEX, PH	
Sample Time	1200	11:40	11:30	11:20	

General Comments (activities conducted changes to system, etc..):

*Need more Attachment 11 forms for HASP.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: COP

INVOICE TO: RICK FATTERLY

REPORT TO: LINDA RAWLINS / RICK FATTERLY
ADDRESS: 12034 134th Ct NE
REDMOND, WA 98052
PHONE: 425-372-1600 FAX: 425-372-1650

P.O. NUMBER:

PROJECT NAME:

PROJECT NUMBER:

SAMPLED BY:

TURNAROUND REQUEST
in Business Days *
Organic & Inorganic Analyses: 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: TPH-G	REQUESTED ANALYSES: BTEX	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	TOT EFF	4/21/09 @ 10:40		X	X	AIR	1	3485	WA
2	MID 2	@ 10:45		X	X				
3	MID 1	@ 10:48		X	X				
4	TOT INF	@ 10:50		X	X				
5	AS EFF	@ 10:53		X	X				
6	SVE INF	4/21/09 @ 11:00		X	X	AIR	1	3485	WA
7									
8									
9									
10									

RELEASED BY:		DATE: 4-21-09	RECEIVED BY:		DATE: 4/21/09
PRINT NAME: LINDA RAWLINS	FIRM: STANTEC	TIME: 14:00	PRINT NAME:	FIRM: TA Spo	TIME: 14:00
RELEASED BY:		DATE:	RECEIVED BY:		DATE:
PRINT NAME:	FIRM:	TIME:	PRINT NAME:	FIRM:	TIME:

ADDITIONAL REMARKS:

TEMP:

PAGE OF

TAL-1000(0408)

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COR
Location: RENTON, WA

File No.
Project No.
Project No.
Date: 4/24/09
Page 1 of 1

SUNNY ~ 45°F

9:00 L. Rawlins onsite, sign in text M. Tolley. Purpose: Vapor check and get serial number for compressor. Put on PPE

9:10 Review HASP / Safety. Set up.
* Need more attch 11 on-site.

9:20 PID readings
~~B~~ EFF 2.9 ppm
Btwn 2+3 3.1 ppm
Btwn 1+2 5.5 ppm

compressor:
200 psi @ 650 F
RT-NOMD MT-20 F @ 200 PSI
CAT # 301060 YR 2008
CRN E7400.2C
SH 184 CAL 60
HP 149 2:1 SLF
32496499

on air intake:
model: 2475
SN: 80174476

9:50 Called Ingersoll-Rand: Repairman will meet me 8:00 am ~~M~~ Tues 428.09.

10:05 Remove P.P.E. Called M.T and signed out. Leaving site.

L. Rawlins
L. Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 4/28/09 Time: 10:35 Inspected By: L. Rawlins

General Site Status			
Motor Control Center checked for switch status and that panels are closed	yes / ok	Hoses Inspected (yes/no): yes / ok Comments:	
Flow meters checked for operation and leaks	effluent leak	Tanks inspected for leaks, bio-growth	yes/ok

SVE System			
Operating on Arrival (Yes/No):	yes	Operating on Departure (Yes/No):	yes
If No, what alarms shut system down:			

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs)	12038 (3266.2 + [8771.8 5-6-08])	Add/Change oil in SVE blower (yes/no)	ok
Influent Air Temperature	100°F	Maintain filter in KO Drum (yes/no)	ok
		Check Float Switch in KO drum yes	ok
Total Vacuum Reading (in. H2O)	34		
Total Flowrate (scfm)	210		
SVE VOCs (PID)(ppm)	CARBON VAPOR CHECK ONLY		
Air stripper effluent VOCs (PID)(ppm)			
Influent total VOCs (PID)(ppm)	1.3		
Effluent total VOCs (PID)(ppm)	2.7		
BTWC1, BTWC2	5.9 // 3.5		

Wells currently being extracted from				
Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2				
RW-3				
RW-7				
LAI-4				
LAI-5				
LAI-6				
LAI-7				
LAI-8				
LAI-9				
HW-1E				
HW-1W				

Water Treatment System			
Operating on Arrival (Yes/No):	No	Operating on Departure (Yes/No):	No
If No, what alarms shut system down:	compressor motor needs replaced.		

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)	154384	Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)			
Air stripper influent flow meter (gal)	398524	Change oil in air compressor (yes/no)	
Air stripper influent flow rate (gal/min)		Check settling tank for sludge buildup (yes/no)	
Air stripper effluent flow meter (gal)	2005970	Product in retention pond (yes/no)	
Air stripper effluent flow rate (gal/min)		Air compressor selonoid valve operating (y/n)	

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	
Sample Time							

Water Samples	Total Inf	Post AS	Mid	Total Eff		King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d. BTEX	TPHg&d. BTEX	TPHg. BTEX	TPHg&d. BTEX. PH		
Sample Time						

General Comments (activities conducted changes to system, etc..):

SITE OBSERVATION REPORT

Stantec

Project: 3485 | File No.
Contractor: | Project No.
Owner: COP | Project No.
Location: Renton, WA | Date: April 28, 2009
Page 1 of 1

Rainy ~56°F

7:35 L. Rawlins on-site. Purpose meet Ingersoll-Rand repair personnel for over-site. Check vapor and pump repair if weather allows. Check in at office, put on PPE review Hasp/safety.

8:30 Check on repair personnel 253-931-8600. Office says he left late and is enroute.

8:55 Ingersoll-Rand on-site. Terminal personnel (John) gave him (Fred) safety for site. At remediation compound I gave hasp/safety meeting.

9:30 Begin to look over initial worksite. Locked out/tagged out to work on electrical.

10:00 System needs a new motor. This motor should be enclosed. Hosing leaving compressor should also be replaced to with stand 200psi not 160 currently used. Should use copper or aluminum. Fred will get estimate and information

10:15 Compressor is off and lock out. Key is in HASP Binder onsite.

10:30 Fred leaving site. Will begin vapor check

10:50 Took system readings. Water treatment side is off. Call P.M.

11:30 Leaving site.

L. Rawlins

L Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 4/30/09 Time: 11:10 Inspected By: L. Rawlins

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES/OK	Hoses Inspected (yes/no): YES/OK Comments:	
Flow meters checked for operation and leaks	effluent leak	Tanks inspected for leaks, bio-growth	YES/OK

SVE System			
Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	YES
If No, what alarms shut system down:			

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs) 3315.1 + [8771.5 8-6-08]	12086.9	Add/Change oil in SVE blower (yes/no)?	OK
Influent Air Temperature	115	Maintain filter in KO Drum (yes/no)	OK
Total Vacuum Reading (in. H2O)	34	Check Float Switch in KO drum YES	OK
Total Flowrate (scfm)	210		
SVE VOCs (PID)(ppm)	5.6		
Air stripper effluent VOCs (PID)(ppm)	NOT OPERATING		
Influent total VOCs (PID)(ppm)	2.0		
Effluent total VOCs (PID)(ppm)	3.6		
BTWC1, BTWC2	7.3 // 4.7		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2				
RW-3				
RW-7				
LAI-4				
LAI-5				
LAI-6				
LAI-7				
LAI-8				
LAI-9				
HW-1E				
HW-1W				

Water Treatment System			
Operating on Arrival (Yes/No)?	NO	Operating on Departure (Yes/No)?	NO
If No, what alarms shut system down: Need compressor repair			

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)		Change oil in air compressor (yes/no)	
Air stripper influent flow meter (gal)		Check settling tank for sludge buildup (yes/no)	
Air stripper influent flow rate (gal/min)		Product in retention pond (yes/no)	
Air stripper effluent flow meter (gal)		Air compressor selonoid valve operating (y/n)	
Air stripper effluent flow rate (gal/min)			

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	
Sample Time							

Water Samples	Total Inf	Post AS	Mid	Total Eff		King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH		
Sample Time						

General Comments (activities conducted changes to system, etc..):

SITE OBSERVATION REPORT

3485

Stantec

Project:
Contractor: COP
Owner:
Location: Renton, WA

File No.
Project No.
Project No.
Date: April 30, 2009
Page 1 of of 1

Sunny ~57°F

10:30 L. Rawlins onsite. Purpose; pump repair, vapor/system check and carbon sampling. Signed in at office. Check in with P.M's CG and R.F. Put on PPE, review hasp and safety.

11:10 Begin set up. Begin with vapor check.

11:45 Vapor check complete. Set up for pump flange repair.

14:55 Put flange/impeller work is complete. Primed and checked, no apparent leakage. Called R. Fetterly and informed of vapor and pump status. Packing up tools. Loading tools needed for carbon sampling.

16:40 Finished carbon grab samples and 1 bag for CCS. Sign out at office. Remove P.P.E. Call P.M. Leave site.

17:00 OFF site.

L. Rawlins
L. Rawlins

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: COP

INVOICE TO:

REPORT TO: Rick.Fitterer@Stantec.com
ADDRESS: Linda.Rawlins@ " "
12034 134th Ct NE Suite 102
Redmond, WA 98052
PHONE: 425 3721600 FAX: 425 372 1650

P.O. NUMBER:

PROJECT NAME: 3485

PROJECT NUMBER:

SAMPLED BY: L. RAWLINS

TURNAROUND REQUEST

in Business Days *

Organic & Inorganic Analyses

10	7	5	4	3	2	1	<1
STD.							

Petroleum Hydrocarbon Analyses

X	4	3	2	1	<1
STD.					

OTHER Specify:

* *Turnaround Requests less than standard may incur Rush Charges.*

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: 8260 TCLP	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	CARBON GRAB	4/30/09 @1K:45		X	CARBON	2	3485	WA
2								
3								
4								
5								
6								
7								
8								
9								
10								

RELEASED BY: L Rawlins		DATE: 5.1.09	RECEIVED BY: Colette Weaver		DATE: 05.01.09
PRINT NAME: L. RAWLINS	FIRM: STANTEC	TIME: 0835	PRINT NAME: Colette Weaver	FIRM: TAL-Seattle	TIME: 0835
RELEASED BY:		DATE:	RECEIVED BY:		DATE:
PRINT NAME:	FIRM:	TIME:	PRINT NAME:	FIRM:	TIME:

ADDITIONAL REMARKS:

TEMP:

PAGE OF

TAL-1000(0408)

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor: COP
Owner:
Location: Renton, WA

File No.
Project No.
Project No.
Date: ~~Apr.~~ 5/4/09
Page 1 of 1

Cloudy ~ 67°F

12:30 L. Rawlins on-site. Called T. Parise purpose: Vapor check and take measorements of berm in tank area.

12:45 Pot on P.P.E. Review HASP/safety meeting.

13:00 Begin calibration and system readings.

14:00 Completed Vapor check. Going to tank farm get vac readings and berm/wall measorements * note s/N of compressor 080723009S

15:05 Finished vac readings and wall measorements and pictures around tanks 1, 2, 3 and tank 5. Starting to rain will check with PM to see if other tank areas are necessary. If so will get on 5-6-09.

15:10 Pack up equipment and check out at office.

15:20 Remove PPE and leave site after call T. Parise.

L Rawlins

L. Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 5-4-09 Time: 13:10 Inspected By: L. RAWLINS

General Site Status			
Motor Control Center checked for switch status and that panels are closed	Y / OK	Hoses Inspected (yes/no): YES / OK Comments:	
Flow meters checked for operation and leaks	leak all	Tanks inspected for leaks, bio-growth	NO

SVE System			
Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	YES

If No, what alarms shut system down:

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs)	3410.4 + [8771.8 8-6-08] = 12,182	Add/Change oil in SVE blower (yes/no)	
Influent Air Temperature	125 ~~225~~	Maintain filter in KO Drum (yes/no)	
Total Vacuum Reading (in. H2O)	28	Check Float Switch in KO drum	
Total Flowrate (scfm)	210		
SVE VOCs (PID)(ppm)	14.3		
Air stripper effluent VOCs (PID)(ppm)	—		
Influent total VOCs (PID)(ppm)	2.8		
Effluent total VOCs (PID)(ppm)	2.9		
BTWC1, BTWC2	10.4 // 8.0		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2		23		
RW-3		—		
RW-7		—		
LAI-4		20		
LAI-5		20		
LAI-6		—		
LAI-7		20		
LAI-8	line broken	24		
LAI-9		25		
HW-1E				
HW-1W				

Water Treatment System			
Operating on Arrival (Yes/No):		Operating on Departure (Yes/No):	

If No, what alarms shut system down: COMPRESSOR DOWN

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)		Change oil in air compressor (yes/no)	
Air stripper influent flow meter (gal)		Check settling tank for sludge buildup (yes/no)	
Air stripper influent flow rate (gal/min)		Product in retention pond (yes/no)	
Air stripper effluent flow meter (gal)		Air compressor selonoid valve operating (y/n)	
Air stripper effluent flow rate (gal/min)			

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX VAPOR	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	
Sample Time			CHECK ONLY				
Water Samples	Total Inf	Post AS	Mid	Total Eff			King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH			
Sample Time							

General Comments (activities conducted changes to system, etc..):

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COP
Location: Renton, WA

File No.
Project No.
Project No.
Date: May 6 2009
Page 1 of 1

Raining ~ 54°F

7:25 L. Rawlins on-site. Sign in at office. Text T.P., MT and CG on site. Put on P.P.E, review HASP/safety.

7:50 Begin set up and vapor check.

9:40 During visit walked tank farm and took measurement of walls that were not done 5-4-09. Checked out at office, remove P.P.E. Called M.T and T.P. Leaving site.

L. Rawlins
L. Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 5/6/09 Time: 8:05 Inspected By: L. Rawlins

General Site Status			
Motor Control Center checked for switch status and that panels are closed	Y / OK	Hoses inspected (yes/no): Comments:	YES OK
Flow meters checked for operation and leaks	will leak	Tanks inspected for leaks, bio-growth	

SVE System			
Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	YES
If No, what alarms shut system down:			

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs)	3453.3 / 12,225.1	Add/Change oil in SVE blower (yes/no)	OIC
Influent Air Temperature	+ 8771.8 8-6-08 / 100	Maintain filter in KO Drum (yes/no)	OIC
		Check Float Switch in KO drum	YOK
Total Vacuum Reading (in. H2O)	30		
Total Flowrate (scfm)	210		
SVE VOCs (PID)(ppm)	13		
Air stripper effluent VOCs (PID)(ppm)	—		
Influent total VOCs (PID)(ppm)	3.3		
Effluent total VOCs (PID)(ppm)	2.4		
BTWC1, BTWC2	5.1 // 4.8		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2				
RW-3	VAPOR			
RW-7				
LAI-4	CHECK			
LAI-5			ONLY	
LAI-6				
LAI-7				
LAI-8				
LAI-9				
HW-1E				
HW-1W				

Water Treatment System			
Operating on Arrival (Yes/No):	No	Operating on Departure (Yes/No):	No
If No, what alarms shut system down:	down for compressor repair		

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft / ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)			
Air stripper influent flow meter (gal)		Change oil in air compressor (yes/no)	
Air stripper influent flow rate (gal/min)		Check settling tank for sludge buildup (yes/no)	
Air stripper effluent flow meter (gal)		Product in retention pond (yes/no)	
Air stripper effluent flow rate (gal/min)		Air compressor selonoid valve operating (y/n)	

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	
Sample Time							
Water Samples	Total Inf	Post AS	Mid	Total Eff			King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH			
Sample Time							

General Comments (activities conducted changes to system, etc..):

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COP
Location: Renton, WA

File No.
Project No.
Project No.
Date: May 12, 2009
Page 1 of 1

Mostly Cloudy ~ 56°F

11:15 L. Rawlins on-site. Text M.T, T.P and C.G. Sign in at office. Discuss some spreadsheets for our emission the site needs.

11:50 Park at system, put on PPE, review HASP/safety. Porpose: Vapor check and system readings. Called P.M. Rick Fetterly to inform of conversation/ needs of site personnel.

12:15 Calibrate PID set up eqoipment and begin.

14:00 Put away equipment, cleaned up site and relabeled some hoses. On closer inspection several hoses on system could use replacement. Hose entering and leaving carbon #1 on Vapor side. Well Inf on wts. Photos taken for P.M

14:20 Finished walking tank area. LA1-9 hose is (SVE) cracking more. Water Inf from wells where flex hose connects to PVC (coupler/reducer ferrnco) has seperated, too stiff with water hose inside to manipulate into place will need to schedule a second person for short period of time. Photo documented all mentioned hoses. Called P.M. Signed out at office

14:30 Removing delineators and PPE
Text M.T. TP and CG off site

L. Rawlins
L. Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 5/12/09 Time: 12'5 Inspected By: L Rawlins

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES OIC	Hoses Inspected (yes/no): YES Comments: ON CARBON (VAPOR) LOOKING WORN	
Flow meters checked for operation and leaks	WTS EFF LEAK	Tanks inspected for leaks, bio-growth	

SVE System			
Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	YES

If No, what alarms shut system down:

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs) 3601.9 + [8771.8 8-6-08]	12,373.7	Add/Change oil in SVE blower (yes/no)	NO/OK
Influent Air Temperature	100	Maintain filter in KO Drum (yes/no)	NO/OK
		Check Float Switch in KO drum	Y/OK
Total Vacuum Reading (in. H2O)	30		
Total Flowrate (scfm)	210		
SVE VOCs (PID)(ppm)	7.3		
Air stripper effluent VOCs (PID)(ppm)	—		
Influent total VOCs (PID)(ppm)	1.4		
Effluent total VOCs (PID)(ppm)	1.8		
BTWC1, BTWC2	4.3//4.8		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2		24		
RW-3		—		
RW-7		—		
LAI-4		22		
LAI-5		20		
LAI-6		—		
LAI-7		20		
LAI-8		25		
LAI-9		27		
HW-1E		—		
HW-1W		—		

→ H_2O pump stuck
→ HOSE VAC SIDE CRACKS WIDENING

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	NO

If No, what alarms shut system down: WAITING MOTOR FOR COMPRESSOR

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)		Change oil in air compressor (yes/no)	
Air stripper influent flow meter (gal)		Check settling tank for sludge buildup (yes/no)	
Air stripper influent flow rate (gal/min)		Product in retention pond (yes/no)	
Air stripper effluent flow meter (gal)		Air compressor selonoid valve operating (y/n)	
Air stripper effluent flow rate (gal/min)			

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	
Sample Time							

Water Samples	Total Inf	Post AS	Mid	Total Eff		King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH		
Sample Time						

General Comments (activities conducted changes to system, etc..):

- PHOTOS OF HOSES

Kanaflex all weather tank truck drop hose WP 65psi

- TANK Farm walked lines SVE ok except note @ LAI-9 WTS flex hose meets PVC reduced is off need to reconnect. Stiff w/water hose inside need 2nd person.

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COR
Location: RENTON, WA

File No.
Project No.
Project No.
Date: MAY 15, 2009
Page 1 of 1

80% cloudy ~56°F

9:00 Arrived on-site L. Rawlins talked to T. Parise to inform. Signed in at office, talked with operator to set see about help with carbon tanks. Set up for Tuesday May 19. He is the only person onsite.

9:35 Put on PPE, review HASP and safety.

10:00 Set up equipment and begin sampling for vapor check.

10:30 Completed vapor check. Will finish packing up equipment, sign out, put away delineation and call M. Tolley. Sign out at office.

10:45 L. Rawlins offsite

L Rawlins
L. Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 5-15-09 Time: 9:40 Inspected By: L. Rawlins

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES/OK	Hoses Inspected (yes/no): YES / SEE NOTES 5-12-09 Comments:	
Flow meters checked for operation and leaks	EFF LEAK	Tanks inspected for leaks, bio-growth	YES

NEED PRESSURE WASHER FOR AIR STRIPPER

SVE System			
Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	YES
If No, what alarms shut system down:			

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs) 3671.3 + [8771.8 8-6-08]	12,443.1	Add/Change oil in SVE blower (yes/no)	NO
Influent Air Temperature	110°F	Maintain filter in KO Drum (yes/no)	NO
Total Vacuum Reading (in. H2O)	30	Check Float Switch in KO drum	NO
Total Flowrate (scfm)	210		
SVE VOCs (PID)(ppm)	6.8		
Air stripper effluent VOCs (PID)(ppm)	NOT OPERATING		
Influent total VOCs (PID)(ppm)	2.2		
Effluent total VOCs (PID)(ppm)	2.5		
BTWC1, BTWC2	4.5 // 5.6		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2				
RW-3	VAPOR			
RW-7				
LAI-4				
LAI-5	CHECK			
LAI-6				
LAI-7		VISIT		
LAI-8				
LAI-9		ON	CARBON	
HW-1E				
HW-1W				

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	NO
If No, what alarms shut system down:	DOWN AWAITING COMPRESSOR REPAIR		

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)		Change oil in air compressor (yes/no)	
Air stripper influent flow meter (gal)		Check settling tank for sludge buildup (yes/no)	
Air stripper influent flow rate (gal/min)		Product in retention pond (yes/no)	
Air stripper effluent flow meter (gal)		Air compressor selonoid valve operating (y/n)	
Air stripper effluent flow rate (gal/min)			

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	
Sample Time							

Water Samples	Total Inf	Post AS	Mid	Total Eff	King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH	
Sample Time					

General Comments (activities conducted changes to system, etc..):

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COP
Location: Renton, WA

File No.
Project No.
Project No.
Date: MAY 19, 2009
Page 1 of 1

Mostly cloudy ~ 56°F

10:15 L. Rawlins onsite. Text M.T and T.P, sign in at office. Put on PPE review HASP / safety.
Purpose: Carbon change-out.

11:00 Hoses disconnected after system was shut down. While waiting for forklift walking back to check on connections needed.

12:05 Completed carbon change out.
New vessel in position 3
old vessel 3 three in position 2
old vessel 2 in position 1.

12:10 Calibrate PID and take system and vapor readings.

12:50 Completed system reading and vapor check. Took tank farm wells vad readings.
Got hose that contains water hose reconnected to reducer ferro, may need to go in further, will keep a check each visit till another staff member can help to push further into position.

12:55 Packing up equipment, sign out and remove P.P.E

13:00 OFF site

L. Rawlins
L. Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 5-19-09 Time: 12:00 Inspected By: L. Rawlins

General Site Status			
Motor Control Center checked for switch status and that panels are closed	yes/ok	Hoses Inspected (yes/no): yes/see notes 5/12/09 Comments:	
Flow meters checked for operation and leaks	see previous	Tanks inspected for leaks, bio-growth	

SVE System			
Operating on Arrival (Yes/No):	yes	Operating on Departure (Yes/No):	yes
If No, what alarms shut system down:			

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs)	3768.5	Add/Change oil in SVE blower (yes/no)	NO / OK
Influent Air Temperature	+ [8771.8 8-6-08] 120	Maintain filter in KO Drum (yes/no)	NO / OK
		Check Float Switch in KO drum	NO yes/OK
Total Vacuum Reading (in. H2O)	30		
Total Flowrate (scfm)	210		
SVE VOCs (PID)(ppm)	10.8		
Air stripper effluent VOCs (PID)(ppm)	NOT OPERATING		
Influent total VOCs (PID)(ppm)	1.4		
Effluent total VOCs (PID)(ppm)	0.0		
BTWC1, BTWC2	4.0 // 0.7		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2		25		
RW-3		—		
RW-7		—		
LAI-4		21		
LAI-5		22		
LAI-6		—		
LAI-7		20		
LAI-8		25		
LAI-9		28		
HW-1E		—		
HW-1W		—		

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	NO
If No, what alarms shut system down:	see previous		

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)		Change oil in air compressor (yes/no)	
Air stripper influent flow meter (gal)		Check settling tank for sludge buildup (yes/no)	
Air stripper influent flow rate (gal/min)		Product in retention pond (yes/no)	
Air stripper effluent flow meter (gal)		Air compressor selonoid valve operating (y/n)	
Air stripper effluent flow rate (gal/min)			

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	
Sample Time							

Water Samples	Total Inf	Post AS	Mid	Total Eff		King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH		
Sample Time						

General Comments (activities conducted changes to system, etc..):

CARBON ON VAPOR SIDE CHANGED
NEW IN Position 3
3 into 2
2 into 1

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COP
Location: RENTON, WA

File No.
Project No.
Project No.
Date: MAY 21, 2009
Page 1 of 1

SUNNY ~ 58°F

8:40 L Rawlins on-site; Purpose Vapor check/sample and carbon vessel sample. Sign in at office, put on P.P.E and review HASP/safety. Call T.P and Project Mang (R.F)

9:25 Begin set up and sampling on vapor side

10:20 Vapor sampling complete and readings taken. Head to back lot for carbon ~~gk~~ vessel sampling.

11:30 Carbon grab completed, pack up equipment, remove delineation and take off PPE. Will drive to office to sign out.

11:45 off-site

L Rawlins
L. Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 5-21-09 Time: 9:30 Inspected By: L. RAWLINS

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES	Hoses Inspected (yes/no): YES/OK Comments:	
Flow meters checked for operation and leaks	SEE PREVIOUS	Tanks inspected for leaks, bio-growth	AS NEEDS PRESSURE WASHED
SVE System			
Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	YES
If No, what alarms shut system down:			

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs)	3812.9 [9271.8 8-6-08]	Add/Change oil in SVE blower (yes/no)	O/K
Influent Air Temperature	125	Maintain filter in KO Drum (yes/no)	
Total Vacuum Reading (in. H2O)	30	Check Float Switch in KO drum	NO
Total Flowrate (scfm)	210		
SVE VOCs (PID)(ppm)	5.3		
Air stripper effluent VOCs (PID)(ppm)	NOT OPERATING		
Influent total VOCs (PID)(ppm)	2.0		
Effluent total VOCs (PID)(ppm)	1.7		
BTWC1. BTWC2	9.9 // 2.3		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2				
RW-3				
RW-7				
LAI-4				
LAI-5				
LAI-6				
LAI-7				
LAI-8				
LAI-9				
HW-1E				
HW-1W				

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	NO
If No, what alarms shut system down:	DOWN AWAITING PARTS		

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)		Change oil in air compressor (yes/no)	
Air stripper influent flow meter (gal)		Check settling tank for sludge buildup (yes/no)	
Air stripper influent flow rate (gal/min)		Product in retention pond (yes/no)	
Air stripper effluent flow meter (gal)		Air compressor selonoid valve operating (y/n)	
Air stripper effluent flow rate (gal/min)			

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	
Sample Time	10:00		9:55	9:50	9:45	9:40	

Water Samples	Total Inf	Post AS	Mid	Total Eff	King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH	
Sample Time					

General Comments (activities conducted changes to system, etc..):

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: COP

REPORT TO: Rick.Fetterly@stantec.com
ADDRESS: linda.rawlins@ "
12034 134th Ct NE
REDMOND, WA 98052
PHONE: 425 3721600 FAX: 425 3721650

INVOICE TO: Rick Fetterly

P.O. NUMBER:

PROJECT NAME: 3485
PROJECT NUMBER: 212302155
SAMPLED BY: L. RAWLINS

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: TPH-G	BTEX	Oxygenates TCLP	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	Tot Eff	5/21/09 @ 9:40		X	X		AIR	1	3485	WA
2	Mid 2	" @ 9:45		X	X		"	1	"	"
3	Mid 1	" @ 9:50		X	X		"	1	"	"
4	Tot Inf	" @ 9:55		X	X		"	1	"	"
5	SVE Inf	5/21/09 @ 10:00		X	X		AIR	1	"	"
6	CARBON VOA'S	5/21/09 @ 10:30				X	CARBON	2	3485	WA
7										
8										
9										
10										

RELEASED BY: L. Rawlins
PRINT NAME: L. RAWLINS FIRM: STANTEC DATE: 5/21/09 TIME: 1305

RECEIVED BY: Colette Weaver
PRINT NAME: Colette Weaver FIRM: TAL-Seattle DATE: 05-21-09 TIME: 1305

RELEASED BY:
PRINT NAME: FIRM: DATE: TIME:

RECEIVED BY:
PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS:

TEMP:

PAGE OF

TAL-1000(0408)

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COR
Location: RENTON, WA

File No.
Project No.
Project No.
Date: MAY 26, 2009
Page 1 of 1

Cloudy ~ 70°F

12:40 L. Rawlins onsite, text Tammy P and signed in at office. Moved truck to remediation area set up delineation after putting on P.P.E. Review HASP and safety.

13:15 Calibrate PID and set up equipment.

13:55 Opened Knock-out drum - filter is o.k at this time. Finished vapor check.

14:00 Turning system back on after filter check. Will go take tank farm well readings and check lines.

14:05 Called P.M before going to tank farm to give vapor reading up date.

14:30 Going to sign-out at office. Remove delineation and P.P.E, text T.P.

14:35 L Rawlins off-site

L. Rawlins
L. Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 5-26-09 Time: 13:15 Inspected By: L. RAWLINS

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES / OK	Hoses Inspected (yes/no): YES Comments:	
Flow meters checked for operation and leaks	see previous	Tanks inspected for leaks, bio-growth	No

SVE System			
Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	YES
If No, what alarms shut system down:			

System Readings	
Hour Meter Reading (hrs)	3935.7 + [8771.8 8-6-09]
Influent Air Temperature	135°F
Total Vacuum Reading (in. H2O)	~30
Total Flowrate (scfm)	196
SVE VOCs (PID)(ppm)	9.6
Air stripper effluent VOCs (PID)(ppm)	NOT OPERATING
Influent total VOCs (PID)(ppm)	2.4
Effluent total VOCs (PID)(ppm)	0.3
BTWC1, BTWC2	20.1 // 4.5

Quarterly Maintenance Items	
Add/Change oil in SVE blower (yes/no)	NO/OK
Maintain filter in KO Drum (yes/no)	OK
Check Float Switch in KO drum	OK

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2	~~AIR~~	25	—	
RW-3				
RW-7				
LAI-4	AIR	22	—	
LAI-5	AIR	22	—	
LAI-6	—	—	—	
LAI-7	AIR	20	—	
LAI-8	—	—	—	
LAI-9	AIR	28	—	
HW-1E	—	—	—	
HW-1W	—	—	—	

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	NO
If No, what alarms shut system down:	DOWN PENDING REPAIR APPROVAL		

System Readings	
Hour Meter Reading (hrs)	
Alarm Hours (in panel digital display)	
Air stripper vacuum (in H2O)	
Pressure on Carbon vessel (psi)	
Storage tank oil level (water/product)	ft/ ft
Pressure on filter housing (psi)	
Air stripper influent flow meter (gal)	
Air stripper influent flow rate (gal/min)	
Air stripper effluent flow meter (gal)	
Air stripper effluent flow rate (gal/min)	

Monthly Maintenance Items	
Check pressure relief valve operation in air compressor (yes/no)	
Manually drain water in air compressor tank (yes/no)	
Clean Air Stripper (yes/no)	
Change oil in air compressor (yes/no)	
Check settling tank for sludge buildup (yes/no)	
Product in retention pond (yes/no)	
Air compressor selonoid valve operating (y/n)	

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	
Sample Time							

Water Samples	Total Inf	Post AS	Mid	Total Eff		King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH		
Sample Time						

General Comments (activities conducted changes to system, etc..):

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COP
Location: Renton, WA

File No.
Project No.
Project No.
Date: May 29 200
Page 1 of 1

Sunny ~ 75° F

9:00 L. Rawlins on-site Checked in at office and talked with personnel about site. Drove to compound area, put on P.P.E, placed delineators around truck and text T. Parise on-site.

9:15 Review HASP/Safety

10:10 Begin set up for vapor check.

10:30 System/vapor check complete. Sign out at office, remove delineation and PPE and call T. Parise.

10:45 Off-site

L. Rawlins
L Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 5/29/09 Time: 10:10 Inspected By: L. Rawlins

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES	Hoses inspected (yes/no): in system area Comments:	
Flow meters checked for operation and leaks	see previous notes	Tanks inspected for leaks, bio-growth	NO

SVE System			
Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	YES

If No, what alarms shut system down:

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs)	4004.3 [8771.8 + 5-6-08]	Add/Change oil in SVE blower (yes/no)	
Influent Air Temperature	140	Maintain filter in KO Drum (yes/no)	
Total Vacuum Reading (in. H2O)	30	Check Float Switch in KO drum	
Total Flowrate (scfm)	210		
SVE VOCs (PID)(ppm)	CARBON CHANGE		
Air stripper effluent VOCs (PID)(ppm)			
Influent total VOCs (PID)(ppm)	3.0		
Effluent total VOCs (PID)(ppm)	0.1		
BTWC1, BTWC2	13.8 // 3.0		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2				
RW-3				
RW-7				
LAI-4				
LAI-5				
LAI-6				
LAI-7				
LAI-8				
LAI-9				
HW-1E				
HW-1W				

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	NO

If No, what alarms shut system down: Pending repairs

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)		Change oil in air compressor (yes/no)	
Air stripper influent flow meter (gal)		Check settling tank for sludge buildup (yes/no)	
Air stripper influent flow rate (gal/min)		Product in retention pond (yes/no)	
Air stripper effluent flow meter (gal)		Air compressor selonoid valve operating (y/n)	
Air stripper effluent flow rate (gal/min)			

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	
Sample Time							

Water Samples	Total Inf	Post AS	Mid	Total Eff		King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH		
Sample Time						

General Comments (activities conducted changes to system, etc..):

Stantec

Project: 3485
Contractor:
Owner: COR
Location: Renton, WA

File No.
Project No.
Project No.
Date: June 1, 200
Page 1 of 1

SUNNY ~87°F

13:55 L. Rawlins on-site, check in at office, text P.M and T. Parise

14:20 Finished putting on PPE, setting up delineation and Hasp/safety review.

14:30 Calibrated PID, begin vapor readings

14:55 Called P.M with vapor readings. Heading into tank area for well readings and check.

15:30 Remove and pack equipment. Took photos of hoses that should be replaced, air compress delivery tube has significant bowing on berm from heat. Hoses on carbon vessel appear burnt from sun. Removing delineation and PPE. Will drive truck to office break from heat and sign out.

15:45 L. Rawlins off-site

L. Rawlins
L. Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 6/6/09 Time: 1430 Inspected By: L. Rawlins

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES	Hoses Inspected (yes/no): YES Comments: see previous effluent flow meter notations, SVE carbon heat damage	
Flow meters checked for operation and leaks	still waiting for effluent flowmeter	Tanks inspected for leaks, bio-growth	NO
SVE System			
Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	

If No, what alarms shut system down:

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs) 4080.9 + [8771.8 8-6-08]	12852.7	Add/Change oil in SVE blower (yes/no)	OK
Influent Air Temperature	150	Maintain filter in KO Drum (yes/no)	OK
Total Vacuum Reading (in. H2O)	30	Check Float Switch in KO drum YES	OK
Total Flowrate (scfm)	196		
SVE VOCs (PID)(ppm)	21		
Air stripper effluent VOCs (PID)(ppm)	WTS down		
Influent total VOCs (PID)(ppm)	4.8		
Effluent total VOCs (PID)(ppm)	0.1		
BTWC1, BTWC2	25.4 // 6.0		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2	AIR	26		
RW-3				
RW-7				
LAI-4	AIR	24		
LAI-5	AIR	24		
LAI-6	—	—		
LAI-7	AIR	20		
LAI-8	AIR	28		
LAI-9	AIR	29		
HW-1E	—	—		
HW-1W	—	—		

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	NO

If No, what alarms shut system down: PENDING PARTS / compressor: Motor + tubing and flowmeter

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)		Change oil in air compressor (yes/no)	
Air stripper influent flow meter (gal)		Check settling tank for sludge buildup (yes/no)	
Air stripper influent flow rate (gal/min)		Product in retention pond (yes/no)	
Air stripper effluent flow meter (gal)		Air compressor selonoid valve operating (y/n)	
Air stripper effluent flow rate (gal/min)			

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	
Sample Time							
Water Samples	Total Inf	Post AS	Mid	Total Eff			King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d. BTEX	TPHg&d. BTEX	TPHg. BTEX	TPHg&d. BTEX, PH			
Sample Time							

General Comments (activities conducted changes to system, etc..):

Compressed air line on berm is bowed from heat, from Ingersoll-Rand may want / have to change to higher rated psi

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor: COP
Owner:
Location: Renton, WA

File No.
Project No.
Project No.
Date: June 4 2009
Page 1 of 1

Sunny ~ 81°F

9:00 L. Rawlins and M. Tolley on-site. Call T. Panise. Sign in at office and get site update from terminal staff

9:20 Put on P.P.E. Delineate truck area and review HASP / safety. Walked site system area. Update M.T. on site.

9:45 Purpose: Found system down, restart system and check vapors. Place hose in ferneo.

9:55 Began readings, appear low after just restarting. Will hook up hose while system starts warm-up and will retake readings.

10:30 Prepping to place hose firmly in ferco.

10:50 Hose firmly in ferneo. Check rest of hoses. See previous notes, Carbon vapor hoses show heat/w damage, sticky to touch.

11:00 Recheck and recorded vapor readings. WTS. Still not operational; need motor for compressor, compressed air line, flow meter/totalizer. Need pressure washer to clean air stripper.

11:15 Showed M.T. shed on-site, need to inventory and clean out. Two drums of liquid carbon pre filters on site need to profile and remove.

11:30 Cleaning up delineation, remove P.P.E and drive truck to sign out at office

11:45 L. Rawlins and M. Tolley

L. Rawlins
L. Rawlins

Remediation System Operation Log
2423 Lind Ave. Renton WA

SECOR PN: 01CP.03485.45

Date: 6/4/09 Time: 940 Inspected By: L. Rawlins / M. Tolley

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES	Hoses Inspected (yes/no): yes / see notes Comments:	
Flow meters checked for operation and leaks	eff down still need repair	Tanks inspected for leaks, bio-growth	YES

SVE System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	YES
If No, what alarms shut system down:	No alarm		

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs)	4106.7 [8771.8 5-6-08]	Add/Change oil in SVE blower (yes/no)	OK
Influent Air Temperature	130	Maintain filter in KO Drum (yes/no)	OK
Total Vacuum Reading (in. H2O)	30	Check Float Switch in KO drum	NO
Total Flowrate (scfm)	116		
SVE VOCs (PID)(ppm)	—		
Air stripper effluent VOCs (PID)(ppm)	DOWN		
Influent total VOCs (PID)(ppm)	8.8		
Effluent total VOCs (PID)(ppm)	0.0		
BTWC1, BTWC2	6.6 ~~4.4~~ / 1.6		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2				
RW-3				
RW-7				
LAI-4		VAPOR		
LAI-5				
LAI-6				
LAI-7		CHECK ONLY		
LAI-8				
LAI-9				
HW-1E				
HW-1W				

**

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	NO
If No, what alarms shut system down:	Awaiting repair approval / parts		

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)			
Air stripper influent flow meter (gal)	VAPOR CHECK ONLY	Change oil in air compressor (yes/no)	
Air stripper influent flow rate (gal/min)		Check settling tank for sludge buildup (yes/no)	
Air stripper effluent flow meter (gal)		Product in retention pond (yes/no)	
Air stripper effluent flow rate (gal/min)		Air compressor selonoid valve operating (y/n)	

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	
Sample Time							

Water Samples	Total Inf	Post AS	Mid	Total Eff	King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d. BTEX	TPHg&d. BTEX	TPHg. BTEX	TPHg&d. BTEX. PH	
Sample Time					

General Comments (activities conducted changes to system, etc..):

* Need to profile liquid carbon prefilters
** Suspect vapor readings, were much higher 6/1/09

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 6/8/09 Time: 14:30 Inspected By: M. Tollett

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES, OK	Hoses Inspected (yes/no): Comments: SUN DAMAGE TO SVE LINES	
Flow meters checked for operation and leaks	ONA	Tanks inspected for leaks, bio-growth	YES

SVE System			
Operating on Arrival (Yes/No):		Operating on Departure (Yes/No):	
If No, what alarms shut system down:	OWS-BATCH HI LEVEL.		

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs)	4112.4	Add/Change oil in SVE blower (yes/no)	
		Maintain filter in KO Drum (yes/no)	
Influent Air Temperature	135	Check Float Switch in KO drum	YES
Total Vacuum Reading (in. H2O)	30		
Total Flowrate (scfm)	210		
SVE VOCs (PID)(ppm)			
Air stripper effluent VOCs (PID)(ppm)	NOT OPERATING		
Influent total VOCs (PID)(ppm)	17.1		
Effluent total VOCs (PID)(ppm)	0.0		
BTWC1, BTWC2	2.3 / 0.8		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2				
RW-3				
RW-7				
LAI-4				
LAI-5				
LAI-6		NM		
LAI-7				
LAI-8		NM		
LAI-9				
HW-1E				
HW-1W				

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	NO
If No, what alarms shut system down:	SYSTEM DOWN FOR REPAIRS (COMPRESSOR)		

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)	VAPOR CHECK	Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft		
Pressure on filter housing (psi)		Clean Air Stripper (yes/no)	
Air stripper influent flow meter (gal)		Change oil in air compressor (yes/no)	
Air stripper influent flow rate (gal/min)		Check settling tank for sludge buildup (yes/no)	
Air stripper effluent flow meter (gal)		Product in retention pond (yes/no)	
Air stripper effluent flow rate (gal/min)		Air compressor selonoid valve operating (y/n)	

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No.
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	9648
Sample Time	NC	NC	NC	NC	NC	NC	

Water Samples	Total Inf	Post AS	Mid	Total Eff		King County Metro Discharge Permit No.
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH		4057-01
Sample Time	NM	NM				

General Comments (activities conducted changes to system, etc..):

3" HOSE VE2 → VE3 HAS HOLES, NEEDS REPLACEMENT.

SITE OBSERVATION REPORT

Stantec

Project: 3485 RENTON TERMINAL
Contractor: CDP / STANTEC.
Owner: RENTON LLA
Location:

File No. ~~JUNE 8, 2009~~
Project No. ~~3485~~
Project No.
Date:
Page ____ of ____

13:30 MOB TO SITE
14:20 ARRIVE ON SITE, PPE, SIGN IN @ OFFICE, CALL-IN TO TP
14:30 HASP ✱ HEAT STRESS A CONCERN
✱ NEED MORE BLANK H&S FORMS
14:37 SYSTEM DOWN UPON ARRIVAL
14:45 CONFIRM ACCESS FOR CARBON C/OUT. 2 TIME REMOVAL. NEEDS AM & ONLY SIDE (ONE) OPERATION AVAILABLE THAT WEEKEND (20th)
14:50 RESET SYSTEM.
15:00 RECORD OPERATIONAL PARAMETERS
15:10 PID / VAPOR READINGS
15:25 DISCOVERED HOLES IN SVE2 - SVE3 3" HOSE LINE TAPED HOLES WITH ELECTRICAL TAPE FOR TEMPORARY FIX.
15:30 CALL RF with UPDATE & SYSTEM STATUS / NMI HOSE cc: REPAIR STATUS

15:35 NOTES
✱ CONFIRM ACCESS / SCHEDULE W/ CP TERMINAL FOR CARBON C/OUT (TENTATIVE 6/23/09)
✱ FILTER SAMPLE STILL REQUIRED. (WED)
✱ SOIL DRUMS & H_2O ON SITE.
✱ REPLACE SVE VESSEL HOSES W/ 3"
✱ REPLACE COMPRESSOR HOSES, WAITING FOR INGERSOLL RAND TECH.
✱ UPDATE SIGN.

15:45 CONFIRM SVE READINGS. READINGS ARE ACCURATE.
15:52 PHONE UPDATE WITH RF cc: SYSTEM STATUS.
↳ GOT OK TO ORDER HOSE REPLACEMENTS.
15:52 CALL-IN / INFORM RF cc: NEAR MISS INCIDENT W/ HOSE.
16:15 PACK-UP, REMOVE PPE
16:22 SIGN OUT @ OFFICE
16:30 OFF-SITE, MOB TO OFFICE / NM
17:20 HOME.

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 6/8/09 Time: 14:30 Inspected By: M. Tollett

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES, OK	Hoses Inspected (yes/no): Comments: SUN DAMAGE TO SVE LINES	
Flow meters checked for operation and leaks	ONA	Tanks inspected for leaks, bio-growth	YES

SVE System			
Operating on Arrival (Yes/No):		Operating on Departure (Yes/No):	
If No, what alarms shut system down:	OWS-BATCH HI LEVEL.		

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs)	4112.4	Add/Change oil in SVE blower (yes/no)	
		Maintain filter in KO Drum (yes/no)	
Influent Air Temperature	135	Check Float Switch in KO drum	YES
Total Vacuum Reading (in. H2O)	30		
Total Flowrate (scfm)	210		
SVE VOCs (PID)(ppm)			
Air stripper effluent VOCs (PID)(ppm)	NOT OPERATING		
Influent total VOCs (PID)(ppm)	17.1		
Effluent total VOCs (PID)(ppm)	0.0		
BTWC1, BTWC2	2.3 / 0.8		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2				
RW-3				
RW-7				
LAI-4				
LAI-5				
LAI-6		NM		
LAI-7				
LAI-8		NM		
LAI-9				
HW-1E				
HW-1W				

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	NO
If No, what alarms shut system down:	SYSTEM DOWN FOR REPAIRS (COMPRESSOR)		

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)	VAPOR CHECK	Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft		
Pressure on filter housing (psi)		Clean Air Stripper (yes/no)	
Air stripper influent flow meter (gal)		Change oil in air compressor (yes/no)	
Air stripper influent flow rate (gal/min)		Check settling tank for sludge buildup (yes/no)	
Air stripper effluent flow meter (gal)		Product in retention pond (yes/no)	
Air stripper effluent flow rate (gal/min)		Air compressor selonoid valve operating (y/n)	

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No.
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	9648
Sample Time	NC	NC	NC	NC	NC	NC	

Water Samples	Total Inf	Post AS	Mid	Total Eff		King County Metro Discharge Permit No.
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH		4057-01
Sample Time	NM	NM				

General Comments (activities conducted changes to system, etc..):

3" HOSE VE2 → VE3 HAS HOLES, NEEDS REPLACEMENT.

SITE OBSERVATION REPORT

Stantec

Project: 3485 RENTON TERMINAL
Contractor: CDP / STANTEC.
Owner: RENTON LLA
Location:

File No. ~~JUNE 8, 2009~~
Project No. ~~3485~~
Project No.
Date:
Page ____ of ____

13:30 MOB TO SITE
14:20 ARRIVE ON SITE, PPE, SIGN IN @ OFFICE, CALL-IN TO TP
14:30 HASP ✱ HEAT STRESS A CONCERN
✱ NEED MORE BLANK H&S FORMS
14:37 SYSTEM DOWN UPON ARRIVAL
14:45 CONFIRM ACCESS FOR CARBON C/OUT. 2 TIME REMOVAL. NEEDS AM & ONLY SIDE (ONE) OPERATION AVAILABLE THAT WEEKEND (20th)
14:50 RESET SYSTEM.
15:00 RECORD OPERATIONAL PARAMETERS
15:10 PID / VAPOR READINGS
15:25 DISCOVERED HOLES IN SVE2 - SVE3 3" HOSE LINE TAPED HOLES WITH ELECTRICAL TAPE FOR TEMPORARY FIX.
15:30 CALL RF with UPDATE & SYSTEM STATUS / NMI HOSE cc: REPAIR STATUS

15:35 NOTES
✱ CONFIRM ACCESS / SCHEDULE W/ CP TERMINAL FOR CARBON C/OUT (TENTATIVE 6/23/09)
✱ FILTER SAMPLE STILL REQUIRED. (WED)
✱ SOIL DRUMS & H_2O ON SITE.
✱ REPLACE SVE VESSEL HOSES W/ 3"
✱ REPLACE COMPRESSOR HOSES, WAITING FOR INGERSOLL RAND TECH.
✱ UPDATE SIGN.

15:45 CONFIRM SVE READINGS. READINGS ARE ACCURATE.
15:52 PHONE UPDATE WITH RF cc: SYSTEM STATUS.
↳ GOT OK TO ORDER HOSE REPLACEMENTS.
15:52 CALL-IN / INFORM RF cc: NEAR MISS INCIDENT W/ HOSE.
16:15 PACK-UP, REMOVE PPE
16:22 SIGN OUT @ OFFICE
16:30 OFF-SITE, MOB TO OFFICE / NM
17:20 HOME.

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave. Renton WA

SECOR PN: 01CP.03485.45

Date: 6/17/09 Time: 14:40 Inspected By: L. RAWLINS

General Site Status			
Motor Control Center checked for switch status and that panels are closed		Hoses Inspected (yes/no): _____ Comments: _____	
Flow meters checked for operation and leaks	OFF NW	Tanks inspected for leaks, bio-growth	NO

SVE System			
Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	YES

If No, what alarms shut system down:

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs) 4280.1 + [8-6-08 8771.7]	13051.9	Add/Change oil in SVE blower (yes/no)	WEEK OF 6-15-09
Influent Air Temperature	150	Maintain filter in KO Drum (yes/no)	
		Check Float Switch in KO drum	NO

System Readings	
Total Vacuum Reading (in. H2O)	33
Total Flowrate (scfm)	196
SVE VOCs (PID)(ppm)	51.2
Air stripper effluent VOCs (PID)(ppm)	NW
Influent total VOCs (PID)(ppm)	11.0
Effluent total VOCs (PID)(ppm)	0.0
BTWC1, BTWC2	13.9 // 4.8

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2	AIR	26		
RW-3				
RW-7				
LAI-4	AIR	24		
LAI-5	AIR	25		
LAI-6				
LAI-7	AIR	24	2	
LAI-8	AIR	28		
LAI-9	AIR	30		
HW-1E				
HW-1W				

ST. TO CRACK
CRACKING WORSENING

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	NO

If No, what alarms shut system down: SEE PREVIOUS NOTES

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)		Change oil in air compressor (yes/no)	
Air stripper influent flow meter (gal)		Check settling tank for sludge buildup (yes/no)	
Air stripper influent flow rate (gal/min)		Product in retention pond (yes/no)	
Air stripper effluent flow meter (gal)		Air compressor selonoid valve operating (y/n)	
Air stripper effluent flow rate (gal/min)			

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	TPHg. BTEX	
Sample Time							

Water Samples	Total Inf	Post AS	Mid	Total Eff		King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d. BTEX	TPHg&d. BTEX	TPHg. BTEX	TPHg&d. BTEX, PH		
Sample Time						

General Comments (activities conducted changes to system, etc..):

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COP
Location: RENTON, WA

File No.
Project No.
Project No.
Date: ~~MAY~~ JUNE 15, 2009
Page 1 of 1

Mostly Sunny ~77°F

13:30 L. Rawlins on-site, sign in at office and text R. Fetterly (PM), and M. Tolley. Move truck into position, put on P.P.E, set up delineation and review HASP/safety.

14:40 Completed hasp/safety, took photos of tires that impede access to carbon vessels. Calibrated PID and set up for vapor ~~samples~~ check.

14:45 * Need new gaskets 4" for carbon vessel hoses.

15:10 Completed vapor check. Taking system readings

15:20 Getting readings in tank farm and checking lines. * Hoses are 4" (all weather tank truck drop hose WP 65PSI; KANAFLEX)

15:40 Bad warping of compressed air line on berm.

16:00 After talking with P.M. and getting O.K. Turned off system, took hose off between carbon 2 and 3, cut off area with leak and put back on nipple and tightened clamp. Hose on other end did the same. Turned system back on. There is some air getting by as this is not the correct hose and is pierced too easily by clamp. Taped ~~end~~ around nipples and also over clamp for fix until new hose is received.

* SVE carbon hose
~ 4" to 1st
~ 15" (3) for rest of VE carbon.

16:30 Packing equipment. On Thurs. measure hoses for compressed air and SVE on wells where new hose is needed.

16:50 L. Rawlins off-site

L. Rawlins
L. Rawlins

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 6/18/09 Time: 8:40 Inspected By: L. Rawlins

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES/OIC	Hoses Inspected (yes/no): Comments:	
Flow meters checked for operation and leaks	eff waiting for replacement	Tanks inspected for leaks, bio-growth	NO

SVE System			
Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	YES

If No, what alarms shut system down:

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs)	4346.1 + [8771.8 8-6-08] 13117.9	Add/Change oil in SVE blower (yes/no)	NO OK change soon 6/22
Influent Air Temperature	130	Maintain filter in KO Drum (yes/no)	CHANGE
Total Vacuum Reading (in. H2O)	—	Check Float Switch in KO drum	NO
Total Flowrate (scfm)	196		
SVE VOCs (PID)(ppm)	—		
Air stripper effluent VOCs (PID)(ppm)	—		
Influent total VOCs (PID)(ppm)	10.6		
Effluent total VOCs (PID)(ppm)	0.1		
BTWC1, BTWC2	7.8 // 3.4		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)
RW-2				
RW-3				
RW-7				
LAI-4				
LAI-5				
LAI-6				
LAI-7				
LAI-8				
LAI-9				
HW-1E				
HW-1W				

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	NO

If No, what alarms shut system down:

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)		Change oil in air compressor (yes/no)	
Air stripper influent flow meter (gal)		Check settling tank for sludge buildup (yes/no)	
Air stripper influent flow rate (gal/min)		Product in retention pond (yes/no)	
Air stripper effluent flow meter (gal)		Air compressor selonoid valve operating (y/n)	
Air stripper effluent flow rate (gal/min)			

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	
Sample Time							

Water Samples	Total Inf	Post AS	Mid	Total Eff		King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH		
Sample Time						

General Comments (activities conducted changes to system, etc..):

- VAPOR CHECK VISIT FOR EFFLUENT + CARBON

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor: ~~COP~~
Owner:
Location: Renton, WA

File No.
Project No.
Project No.
Date: June 18, 2009
Page 1 of 2

Cloudy ~ 68.5°F

8:00 L. Rawlins on-site, Text P.M and M.T. Signed in at office and verified scheduled carbon ge change with operator. Move truck into position.

8:25 Put on PPE, set up delineation and review HASP/safety.

8:45 Begin; Purpose, vapor check and measure hoses a) compressed air line b) damaged hose c) any other hoses of concern found.

9:15 Vapor check complete. Temporarily woond tape around clamps of hose btwn carbon 2 + 3 heard a slight section, new hose arriving on Monday June 22, 2009. Checking SVE blower Appears good but could use oil change.

9:20 Begin set up for measuring hoses.

- compressed air line rough measurement is 71' line is soft curves from compressor to regulator at "trough" the red 3/4" hose is ~25' (200 psi rated)(rubber).

Wells SVE hoses:

LAI 8	~7.5'
LAI 9	~20.0'
LAI 4	hose appears o.k missing a clamp
LAI 7	o.k.
LAI 5	ok.
RW 2	ok RW2 has enough extra hose if cracking begins near nipple/clamp area, to adjust.

10:40 Talked to A. Larson about safety issues.

10:50 Walked compound again. Hose from Influent is beginning to crack. Mon 6/22/09 with a second person will get measurement. Also of other system compound hoses. →

L. Rawlins
L. Rawlins

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COR
Location: Renton, WA

File No.
Project No.
Project No.
Date: June 18, 2009
Page 2 of 2

11:10 Remove delineation ; R.B.E text p.m.
M.T and T.P. Sign out at office.
11:30 Off site L. Rawlins

L. Rawlins

Stantec

Project: 3485
Contractor:
Owner: COP
Location: RENTON, WA

File No.
Project No.
Project No.
Date: JUNE 22 2009
Page 1 of 2

Cloudy ~65

7:00 Onsite L. Rawlins and M. Tolley
7:15 Left site to pick up hoses at Grainer.
8:10 Back on-site review hasp/safety after putting on PPE. Text P.M.
8:15 Shut down power to system. Purpose today is carbon change and to replace hoses. Will also clean out storage shed. Begin working on hoses first.
9:10 Hillard (CCS) on-site, M.T. gave safety
9:30 Siemens on-site
@ 9:15 M.T. called in a near miss for sharps, band clamps when cut.
9:30 M.T gave hasp/safety review. Siemens set up truck and delineated area.
10:20 Begin first carbon vessel.
* Note: Called A. Swift from CCS, only 6,000 lbs of new carbon, should have been 9,000 lbs. Gives us only enough to fill 3 of the five vessels (1800 lbs each). My documentation shows 9,000. that L. Rawlins filled out.
10:45 Will bring carbon for remainder on June 24. All five vessels will be vac'd and packed
13:00 Three of the vessels have been vac'd out.
14:45 Left message with A. Swift. Siemens is saying not approved to take waste, need to talk to A.S. to verify. Details were supposedly complete.
15:00 Spent carbon will be picked up on Wed 6/24/09 when last two vessels are filled.
Throughout day M.T and I took turns overseeing while the other worked on hose connects 2) clean shed 3) replace filters on Knock-out drum.

L. Rawlins

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COR
Location: RENTON

File No.
Project No.
Project No.
Date: June 22, 2009
Page 2 of 2

Mostly cloudy ~76°

15:30 Three drums filled with new carbon. Two spare vessels were vac'd out
16:00 Started moving vessel back into position for fill 6/24/09.
~~16:20~~
16:30 System vessel being replaced.
16:55 Restarted system. CCS and Siemens off-site.
17:25 Taking test PID readings: Vac 30

eff	0.0
B2 & B3	0.0
B1 & 2	0.3
inf	25.6

Matt loading garbage from shed and taking to trash. Will clean up and load up trucks.
17:30 Heading to office to sign out.
17:55 LR MT off-site.

L. Rawlins
L Rawlins

SITE OBSERVATION REPORT

Stantec

Project: 3485
Contractor:
Owner: COP
Location: RENTON, WA

File No.
Project No.
Project No.
Date: June 25, 2009
Page 1 of 2

Cloudy ~ 62°F

7:10 L. Rawlins on-site. Text M. Tolley, C. Gdak and R. Fetterly (P.M) on-site. Purpose vapor samples and system check.

7:25 Honked horn, gate not opening. Now opening.

7:35 Pull truck by compound, put on PPE, set up delineators and review HASP/safety. Talk to M.T about carbon event 6-24-09 and Hillard from CCS.

8:10 Set up equipment and begin O+M/sampling.

9:00 Air sampling done and that equipment packed up. Taking system readings

9:05 Measuring hoses and take tank farm readings.

3" main SVE line from PVC on berm to KO drum (sample hose) ~61' -cracked

4" hose from KO to SVE ~36' -UV damage

LA1-9 3" ~29' cracked

LA1-4 added band clamp.

RW-2 hose in good shape, has ~36' spare section can use for replacement for LA1-9

* will discuss with P.M.

Found an unattach hose ~21' in length behind tank 2

LA1-8 ~7.5'

* Possible: RW-2 extra hose for LA1-9
unattached hose for LA1-8

9:45 Back in main area, readings and measurements complete. Will shut dow system and push hose further on nipple at SVE.

10:00 Will need help cannot pull hose and push at same time, too heavy. Going to office and sign out, after filling out COC.

L Rawlins
L. Rawlins

Stantec

Project: 3485
Contractor:
Owner: COP
Location: Renton, WA

File No.
Project No.
Project No.
Date: 6/25/09
Page 2 of 2

10:00 off-site heading to Lab.

L. Rawlins
L. Rawlins

Remediation System Operation Log
2423 Lind Ave, Renton WA

SECOR PN: 01CP.03485.45

Date: 6/25/09 Time: 8:10 Inspected By: L. Rawlins

General Site Status			
Motor Control Center checked for switch status and that panels are closed	YES / OK	Hoses inspected (yes/no): YES Comments:	
Flow meters checked for operation and leaks	EFF ON ORDER	Tanks inspected for leaks, bio-growth	NO

SVE System			
Operating on Arrival (Yes/No):	YES	Operating on Departure (Yes/No):	

If No, what alarms shut system down:

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs)	4505.3	Add/Change oil in SVE blower (yes/no)	NO/OK
Influent Air Temperature	+ [8771.8 8-6-08] 125	Maintain filter in KO Drum (yes/no)	YES
		Check Float Switch in KO drum	YES
Total Vacuum Reading (in. H2O)	32		
Total Flowrate (scfm)	196		
SVE VOCs (PID)(ppm)	69.6		
Air stripper effluent VOCs (PID)(ppm)	—		
Influent total VOCs (PID)(ppm)	15.0		
Effluent total VOCs (PID)(ppm)	0.0		
BTWC1, BTWC2	0.0 // 0.0		

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)	
RW-2	AIR	25			HOSE OK
RW-3					
RW-7					
LAI-4	AIR	27	—	—	ADDED CLAMP HOSE OK
LAI-5	AIR	23	—	—	HOSE OK
LAI-6	—	—	—	—	
LAI-7	AIR	27	—	—	HOSE OK
LAI-8	AIR	27	—	—	CRK ~~ORDER~~
LAI-9	AIR	28			CRK
HW-1E	—	—	—	—	
HW-1W	—	—	—	—	

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	

If No, what alarms shut system down: MOTOR AND FLOWMETER ON ORDER

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)		Change oil in air compressor (yes/no)	
Air stripper influent flow meter (gal)		Check settling tank for sludge buildup (yes/no)	
Air stripper influent flow rate (gal/min)		Product in retenuon pond (yes/no)	
Air stripper effluent flow meter (gal)		Air compressor selonoid valve operating (y/n)	
Air stripper effluent flow rate (gal/min)			

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No. 9648
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	
Sample Time	8:50		8:40	8:35	8:30	8:20	

Water Samples	Total Inf	Post AS	Mid	Total Eff		King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH		
Sample Time						

General Comments (activities conducted changes to system, etc..):

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: COP

REPORT TO: Rick.fetterly@stantec.com, lind.rawlins@"
ADDRESS: 12034 134th Ct NE, Redmond, WA 98052

PHONE: 425 372 1600 FAX: 425-372-1650

INVOICE TO:

P.O. NUMBER:

PROJECT NAME: 3485

PROJECT NUMBER: 212302155

SAMPLED BY: L. RAWLINS

TURNAROUND REQUEST

in Business Days *

Organic & Inorganic Analyses: [10] STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: [5] STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* *Turnaround Requests less than standard may incur Rush Charges.*

PRESERVATIVE

REQUESTED ANALYSES

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	8260 TPH-Gx	BTEX	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	Tot Eff	6/25/09 @ 8:20	X	X	AIR	1	3485	WA
2	MID 2	8:30	X	X				
3	MID 1	8:35	X	X				
4	Tot INF	8:40	X	X				
5	SVE INF	6/25/09 @ 8:50	X	X	AIR	1	3485	NA
6								
7								
8								
9								
10								

RELEASED BY: L. Rawlins — DATE: 6/25/09
PRINT NAME: L. RAWLINS — FIRM: STANTEC — TIME: 1010

RECEIVED BY: Colette Weaver — DATE: 06-25-09
PRINT NAME: Colette Weaver — FIRM: TAL-Seattle — TIME: 1010

RELEASED BY: — DATE:
PRINT NAME: — FIRM: — TIME:

RECEIVED BY: — DATE:
PRINT NAME: — FIRM: — TIME:

ADDITIONAL REMARKS:

TEMP:

PAGE OF

TAL-1000(0408)

SITE OBSERVATION REPORT

3465

Stantec

Project: COP/STANTEC
Contractor:
Owner: RENTON, WA
Location:

File No.
Project No.
Project No. JUNE 30, 2009
Date:
Page ____ of ____

11:30 MOB TO SITE FROM SITE 150F TACOMA
12:40 ARRIVE ON SITE, NOTIFY TP, LR, AND SITE PM.
12:50 PPE, SIGN-IN @ OFFICE. HASP.
13:00 call PM cc: SITE CLOSURE FOR HOLIDAY WEEKEND
13:20 SYSTEM INSPECTION, call FROM LR FOR CHECK-IN.
13:30 call Hilland From cc: CARBON P/UP NO-WORD FROM CCS ON pick-up DATE. 2nd WEEK July
13:40 RECORD SYSTEM PARAMETERS.
14:00 CHECK-IN W/ LR IN MONTOW TO CONFIRM H&S Hydrations, AND O&M schedule this week.

14:24 UNLOAD pump & EXTENSION CORD FOR TOTAL SUE VOC READING POST F.O. DRUM. NOTE GAUGE ON F.G. DRUM NOT SAMPLE LOCATION. NEEDS TO BE REMOVED.
14:30 CALL CR
14:35 INSPECT STORAGE UNIT. VAPOR READINGS Complete.
14:50 DISPOSE OF GARBAGE IN Storage Unit.
15:00 SIGN OUT @ OFFICE W/ JON.
15:15 CARBON P/UP MEETING
15:30 OFF SITE, NOTIFY LR/TP. EN ROUTE TO GRAINGER FOR Supplies For 3465, 1507, 3117 O&M's.
16:30 LEAVE GRAINGER, CALL R. Fetterly, J. Thompson, R. Lund, LR. en route home.
17:30 HOME/OFFICE.

ConocoPhillips - Renton Terminal
Remediation System Operation Log
2423 Lind Ave. Renton WA

SECOR PN: 01CP.03485.45

Date: 6/25/09 ; 6/30/09 Time: 8:10 ; 13:00 Inspected By: L. Rawlins ; MT

General Site Status			
Motor Control Center checked for switch status and that panels are closed YES	YES/OK	Hoses inspected (yes/no): YES ; YES Comments:	
Flow meters checked for operation and leaks	EFF ON ORDER	Tanks inspected for leaks, bio-growth	NO, NO

SVE System			
Operating on Arrival (Yes/No):	YES ; YES	Operating on Departure (Yes/No):	
If No, what alarms shut system down:			

System Readings		Quarterly Maintenance Items	
Hour Meter Reading (hrs) 4505.3	4690.6	Add/Change oil in SVE blower (yes/no)	NO/OK
Influent Air Temperature + [8771.8 / 86-05]	125, 148	Maintain filter in KO Drum (yes/no)	YES
		Check Float Switch in KO drum	YES

Wells currently being extracted from

Well	Extracting (air/water)	Vacuum (in H20)	Delivery Pressure	VOCs at well (PID)	
Total Vacuum Reading (in. H2O) 30	32	RW-2	AIR	25			HOSE OK
Total Flowrate (scfm) 210	196,	RW-3					
SVE VOCs (PID)(ppm) 78.7	69.6	RW-7					
Air stripper effluent VOCs (PID)(ppm) —	—	LAI-4	AIR	27	—	—	ADDED CLAMP
		LAI-5	AIR	23	—	—	HOSE OK HOSE OK
Influent total VOCs (PID)(ppm) 10.9	15.0	LAI-6	—	—	—	—	
		LAI-7	AIR	27	—	—	HOSE OK
Effluent total VOCs (PID)(ppm) 0.0	0.0	LAI-8	AIR	27	—	—	CRK ~~ORDER~~
		LAI-9	AIR	25			CRK
BTWC1, BTWC2 0.0 // 0.0	0.0 // 0.0	HW-1E	—	—	—	—	
		HW-1W	—	—	—	—	

Water Treatment System			
Operating on Arrival (Yes/No):	NO	Operating on Departure (Yes/No):	
If No, what alarms shut system down:	MOTOR AND FLOWMETER ON ORDER		

System Readings		Monthly Maintenance Items	
Hour Meter Reading (hrs)		Check pressure relief valve operation in air compressor (yes/no)	
Alarm Hours (in panel digital display)			
Air stripper vacuum (in H2O)		Manually drain water in air compressor tank (yes/no)	
Pressure on Carbon vessel (psi)			
Storage tank oil level (water/product)	ft/ ft	Clean Air Stripper (yes/no)	
Pressure on filter housing (psi)		Change oil in air compressor (yes/no)	
Air stripper influent flow meter (gal)		Check settling tank for sludge buildup (yes/no)	
Air stripper influent flow rate (gal/min)		Product in retention pond (yes/no)	
Air stripper effluent flow meter (gal)		Air compressor selonoid valve operating (y/n)	
Air stripper effluent flow rate (gal/min)			

Air Samples	SVE INF	AS EFF	Total Inf	Mid 1	Mid 2	Total Eff	PSCAA Discharge Permit No.
Analysis	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	TPHg, BTEX	9648
Sample Time	8:50		8:40	8:35	8:30	8:20	

Water Samples	Total Inf	Post AS	Mid	Total Eff		King County Metro Discharge Permit No. 4057-01
Analysis	TPHg&d, BTEX	TPHg&d, BTEX	TPHg, BTEX	TPHg&d, BTEX, PH		
Sample Time						

General Comments (activities conducted changes to system, etc..):

ATTACHMENT B
REMEDIATION SYSTEM LABORATORY AIR ANALYTICAL REPORTS

ConocoPhillips Company Facility Number 3485
2423 Lind Avenue SW
Renton, Washington

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

April 22, 2009

Linda Rawlins
Stantec
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)
Redmond, WA/USA 98073

RE: COP 3485

Enclosed are the results of analyses for samples received by the laboratory on 04/21/09 14:00. The following list is a summary of the Work Orders contained in this report, generated on 04/22/09 12:55.

If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
BSD0219	COP 3485	3485

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Linda Rawlins	04/22/09 12:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TOT EFF	BSD0219-01	Air	04/21/09 10:40	04/21/09 14:00
MID 2	BSD0219-02	Air	04/21/09 10:45	04/21/09 14:00
MID 1	BSD0219-03	Air	04/21/09 10:48	04/21/09 14:00
TOT INF	BSD0219-04	Air	04/21/09 10:50	04/21/09 14:00
AS EFF	BSD0219-05	Air	04/21/09 10:53	04/21/09 14:00
SVE INF	BSD0219-06	Air	04/21/09 11:00	04/21/09 14:00

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Linda Rawlins	04/22/09 12:55

Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B

TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSD0219-01 (TOT EFF)		**Air**			**Sampled: 04/21/09 10:40**					
Gasoline Range Hydrocarbons	NWTPH Modified	ND	-----	10.0	mg/m³ Air	1x	9D21044	04/21/09 14:52	04/21/09 18:37	
Gasoline Range Hydrocarbons (v/v)	"	ND	-----	2.36	ppmv	"	"	"	"	
Benzene (v/v)	"	ND	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	ND	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	ND	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	ND	-----	0.0454	"	"	"	"	"	
Benzene	"	ND	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	ND	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	ND	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	ND	-----	0.200	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			*79.8%*		*57 - 130 %*	"			"	
4-BFB (PID)			*99.4%*		*65 - 125 %*	"			"	
BSD0219-02 (MID 2)		**Air**			**Sampled: 04/21/09 10:45**					
Gasoline Range Hydrocarbons	NWTPH Modified	ND	-----	10.0	mg/m³ Air	1x	9D21044	04/21/09 14:52	04/21/09 19:38	
Gasoline Range Hydrocarbons (v/v)	"	ND	-----	2.36	ppmv	"	"	"	"	
Benzene (v/v)	"	ND	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	ND	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	ND	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	ND	-----	0.0454	"	"	"	"	"	
Benzene	"	ND	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	ND	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	ND	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	ND	-----	0.200	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			*77.9%*		*57 - 130 %*	"			"	
4-BFB (PID)			*99.4%*		*65 - 125 %*	"			"	
BSD0219-03 (MID 1)		**Air**			**Sampled: 04/21/09 10:48**					
Gasoline Range Hydrocarbons	NWTPH Modified	**62.3**	-----	10.0	mg/m³ Air	1x	9D21044	04/21/09 14:52	04/21/09 20:08	**Q1**
Gasoline Range Hydrocarbons (v/v)	"	**14.7**	-----	2.36	ppmv	"	"	"	"	**Q1**
Benzene (v/v)	"	**2.43**	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	**0.0731**	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	ND	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	ND	-----	0.0454	"	"	"	"	"	
Benzene	"	**7.87**	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	**0.280**	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	ND	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	ND	-----	0.200	"	"	"	"	"	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Linda Rawlins	04/22/09 12:55

Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B

TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSD0219-03 (MID 1)		**Air**			**Sampled: 04/21/09 10:48**					
Surrogate(s): 4-BFB (FID)			*86.4%*		*57 - 130 %*	*1x*			*04/21/09 20:08*	
4-BFB (PID)			*96.6%*		*65 - 125 %*	*"*			*"*	
BSD0219-04 (TOT INF)		**Air**			**Sampled: 04/21/09 10:50**					
Gasoline Range Hydrocarbons	NWTPH Modified	**71.2**	-----	10.0	mg/m³ Air	1x	9D21044	04/21/09 14:52	04/21/09 20:38	**QP**
Gasoline Range Hydrocarbons (v/v)	"	**16.8**	-----	2.36	ppmv	"	"	"	"	**QP**
Benzene (v/v)	"	**2.59**	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	**3.79**	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	**0.111**	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	**1.43**	-----	0.0454	"	"	"	"	"	
Benzene	"	**8.40**	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	**14.5**	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	**0.487**	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	**6.32**	-----	0.200	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			*79.8%*		*57 - 130 %*	*"*			*"*	
4-BFB (PID)			*99.6%*		*65 - 125 %*	*"*			*"*	
BSD0219-05 (AS EFF)		**Air**			**Sampled: 04/21/09 10:53**					
Gasoline Range Hydrocarbons	NWTPH Modified	**30.3**	-----	10.0	mg/m³ Air	1x	9D21044	04/21/09 14:52	04/21/09 22:39	**QP**
Gasoline Range Hydrocarbons (v/v)	"	**7.14**	-----	2.36	ppmv	"	"	"	"	**QP**
Benzene (v/v)	"	**1.14**	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	**1.77**	-----	0.0261	"	"	"	"	"	**B9**
Ethylbenzene (v/v)	"	**0.0595**	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	**0.827**	-----	0.0454	"	"	"	"	"	
Benzene	"	**3.69**	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	**6.79**	-----	0.100	"	"	"	"	"	**B9**
Ethylbenzene	"	**0.262**	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	**3.65**	-----	0.200	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			*78.8%*		*57 - 130 %*	*"*			*"*	
4-BFB (PID)			*102%*		*65 - 125 %*	*"*			*"*	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Linda Rawlins	04/22/09 12:55

Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B

TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSD0219-06 (SVE INF)		**Air**			**Sampled: 04/21/09 11:00**					
Gasoline Range Hydrocarbons	NWTPH Modified	**82.0**	-----	10.0	mg/m³ Air	1x	9D21044	04/21/09 14:52	04/21/09 23:09	
Gasoline Range Hydrocarbons (v/v)	"	**19.3**	-----	2.36	ppmv	"	"	"	"	
Benzene (v/v)	"	**1.07**	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	**2.19**	-----	0.0261	"	"	"	"	"	**B9**
Ethylbenzene (v/v)	"	**0.128**	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	**1.20**	-----	0.0454	"	"	"	"	"	
Benzene	"	**3.46**	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	**8.38**	-----	0.100	"	"	"	"	"	**B9**
Ethylbenzene	"	**0.563**	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	**5.28**	-----	0.200	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			*78.7%*		*57 - 130 %*	"			"	
4-BFB (PID)			*95.3%*		*65 - 125 %*	"			"	

TestAmerica Seattle

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SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Linda Rawlins	04/22/09 12:55

Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B - Laboratory Quality Control Results

TestAmerica Seattle

QC Batch: 9D21044 **Air Preparation Method: EPA 5030B (P/T)**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9D21044-BLK1)									**Extracted: 04/21/09 14:52**					
Gasoline Range Hydrocarbons	NWTPH Modified	ND	---	10.0	mg/m³ Air	1x	--	--	--	--	--	--	04/21/09 15:53	
Gasoline Range Hydrocarbons (v/v)	"	ND	---	2.36	ppmv	"	--	--	--	--	--	--	"	
Benzene (v/v)	"	ND	---	0.0308	"	"	--	--	--	--	--	--	"	
Toluene (v/v)	"	ND	---	0.0261	"	"	--	--	--	--	--	--	"	
Ethylbenzene (v/v)	"	ND	---	0.0227	"	"	--	--	--	--	--	--	"	
Xylenes, total (v/v)	"	ND	---	0.0454	"	"	--	--	--	--	--	--	"	
Benzene	"	ND	---	0.100	mg/m³ Air	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 81.4%*			*Limits: 57-130%*	"							*04/21/09 15:53*	
4-BFB (PID)		*98.2%*			*65-125%*	"							*"*	
LCS (9D21044-BS1)									**Extracted: 04/21/09 14:52**					
Gasoline Range Hydrocarbons	NWTPH Modified	118	---	10.0	mg/m³ Air	1x	--	100	118%	(42-137)	--	--	04/21/09 16:37	
Surrogate(s): 4-BFB (FID)		*Recovery: 83.9%*			*Limits: 57-130%*	"							*04/21/09 16:37*	
LCS (9D21044-BS2)									**Extracted: 04/21/09 14:52**					
Benzene	NWTPH Modified	1.96	---	0.100	mg/m³ Air	1x	--	2.00	98.2%	(40-150)	--	--	04/21/09 17:37	
Toluene	"	2.15	---	0.100	"	"	--	"	108%	"	--	--	"	
Ethylbenzene	"	2.04	---	0.100	"	"	--	"	102%	"	--	--	"	
Xylenes (total)	"	6.19	---	0.200	"	"	--	6.00	103%	(42-150)	--	--	"	
Surrogate(s): 4-BFB (PID)		*Recovery: 102%*			*Limits: 65-125%*	"							*04/21/09 17:37*	
LCS Dup (9D21044-BSD1)									**Extracted: 04/21/09 14:52**					
Gasoline Range Hydrocarbons	NWTPH Modified	98.4	---	10.0	mg/m³ Air	1x	--	100	98.4%	(42-137)	17.9%	(45)	04/21/09 17:07	
Surrogate(s): 4-BFB (FID)		*Recovery: 85.8%*			*Limits: 57-130%*	"							*04/21/09 17:07*	
LCS Dup (9D21044-BSD2)									**Extracted: 04/21/09 14:52**					
Benzene	NWTPH Modified	1.94	---	0.100	mg/m³ Air	1x	--	2.00	96.8%	(40-150)	1.40%	(35)	04/21/09 18:07	
Toluene	"	2.02	---	0.100	"	"	--	"	101%	"	6.30%	"	"	
Ethylbenzene	"	1.96	---	0.100	"	"	--	"	97.8%	"	4.16%	"	"	
Xylenes (total)	"	5.91	---	0.200	"	"	--	6.00	98.5%	(42-150)	4.69%	"	"	
Surrogate(s): 4-BFB (PID)		*Recovery: 103%*			*Limits: 65-125%*	"							*04/21/09 18:07*	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Linda Rawlins	04/22/09 12:55

Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B - Laboratory Quality Control Results

TestAmerica Seattle

QC Batch: 9D21044 **Air Preparation Method: EPA 5030B (P/T)**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (9D21044-DUP1)					**QC Source: BSD0219-01**				**Extracted: 04/21/09 14:52**					
Gasoline Range Hydrocarbons (v/v)	NWTPH Modified	ND	---	2.36	ppmv	1x	ND	--	--	--	NR	(30)	04/21/09 19:08	
Gasoline Range Hydrocarbons	"	ND	---	10.0	mg/m³ Air	"	ND	--	--	--	NR	(20)	"	
Benzene (v/v)	"	ND	---	0.0308	ppmv	"	ND	--	--	--	NR	(30)	"	
Toluene (v/v)	"	ND	---	0.0261	"	"	ND	--	--	--	NR	"	"	
Ethylbenzene (v/v)	"	ND	---	0.0227	"	"	ND	--	--	--	NR	"	"	
Xylenes, total (v/v)	"	ND	---	0.0454	"	"	ND	--	--	--	NR	"	"	
Benzene	"	ND	---	0.100	mg/m³ Air	"	ND	--	--	--	NR	"	"	
Toluene	"	ND	---	0.100	"	"	ND	--	--	--	NR	(25)	"	
Ethylbenzene	"	ND	---	0.100	"	"	ND	--	--	--	NR	(30)	"	
Xylenes (total)	"	ND	---	0.200	"	"	ND	--	--	--	NR	"	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 79.3%*			*Limits: 57-130%*	"							*04/21/09 19:08*	
4-BFB (PID)		*101%*			*65-125%*	"							"	

TestAmerica Seattle

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Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Linda Rawlins	04/22/09 12:55

CERTIFICATION SUMMARY

TestAmerica Seattle

Method	Matrix	Nelac	Washington
NWTPH Modified	Air		

Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Temperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) .

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Linda Rawlins	04/22/09 12:55

Notes and Definitions

Report Specific Notes:

B9	-	Analyte was detected in the associated calibration blank. Analyte concentration in the sample is greater than 10x the concentration found in the calibration blank.
Q1	-	Does not match typical pattern
QP	-	Hydrocarbon result partly due to individual peak(s) in quantitation range.

Laboratory Reporting Conventions:

DET	-	Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
ND	-	Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
NR/NA	-	Not Reported / Not Available
dry	-	Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
wet	-	Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
RPD	-	RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
MRL	-	METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
MDL*	-	METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
Dil	-	Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
Reporting Limits	-	Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
Electronic Signature	-	Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy.* Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave, Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: BAD0219

CLIENT: COP

REPORT TO: LINDA RAWLINS / RICK FETTERLY
ADDRESS: 12034 134th Ct NE
REDMOND, WA 98052
PHONE: 425-372-1600 FAX: 425-372-1650

INVOICE TO: RICK FETTERLY

P.O. NUMBER:

PROJECT NAME:

PROJECT NUMBER:

SAMPLED BY:

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: [X] 10 (STD.) 7 5 4 3 2 1 <1

Petroleum Hydrocarbon Analyses: 5 (STD.) 4 3 2 1 <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE / REQUESTED ANALYSES

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	TPH-G	BTEX											MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	TOT EFF	4/21/09 @ 10:40	X	X											AIR	1	3485	WA01
2	MID 2	↓ @ 10:45	X	X											↓	↓	↓	02
3	MID 1	↓ @ 10:48	X	X											↓	↓	↓	03
4	TOT INF	↓ @ 10:50	X	X											↓	↓	↓	04
5	AS EFF	↓ @ 10:53	X	X											↓	↓	↓	05
6	SVE INF	4/21/09 @ 11:00	X	X											AIR	1	3485	WA06
7																		
8																		
9																		
10																		

RELEASED BY: [signature] DATE: 4-21-09
PRINT NAME: LINDA RAWLINS FIRM: STANTEC TIME: 14:00

RECEIVED BY: Cathy Gamble [signature] DATE: 4/21/09
PRINT NAME: Cathy Gamble FIRM: TA Sea TIME: 14:00

RELEASED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

TEMP: 22.1 w/o

PAGE OF

TAL-1000(0408)

TAT: _____ Paperwork to PM – Date:_____ Time:_____ Non-Conformances?

Page Time & Initials:_____ Circle Y or (N)

(If Y, see other side)

TEST AMERICA SAMPLE RECEIPT CHECKLIST

Received By: (applies to temp at receipt)
Date: 4/21
Time: 14:00
Initials: CL

Logged-in By:
Date: 4/21
Time: 14:16
Initials: CL

Unpacked/Labeled By:
Date: 4/21
Time: 14:30
Initials: CL

Cooler ID: _____

Work Order No. 580219

Client: _____

Project: _____

Container Type:
____ Cooler
____ Box
____ None/Other _____

COC Seals:
____ Ship Container _____ Sign By
____ On Bottles _____ Date
____ None

Packing Material:
____ Bubble Bags ____ Styrofoam
____ Foam Packs
____ None/Other _____

Refrigerant:
____ Gel Ice Pack _____
____ Loose Ice _____
____ None/Other _____

Soil Stir Bars/Encores:
Placed in freezer #46:
Y or N or NA
Initial/date/time_____

Received Via: Bill#:
____ Fed Ex ____ Client
____ UPS ____ TA Courier
____ DHL ____ Mid Valley
____ Senvoy ____ TDP
____ GS ____ Other_____

Cooler Temperature (*IR*): 22.1 °C Plastic Glass (Frozen filters, Tedlars and aqueous Metals exempt)
(circle one)

Temperature Blank? _____°C or NA comments _____ Trip Blank? Y or N or NA

BP, OPLC,ARCO-Temperature monitoring every 15 minutes:
(initial/date/time):_____
Comments:_____

Sample Containers:		ID			ID
Intact?	Y or N		Metals Preserved?	Y or N or NA	
Provided by TA?	Y or N		Client QAPP Preserved?	Y or N or NA	
Correct Type?	Y or N		Adequate Volume? (for tests requested)	Y or N	
#Containers match COC?	Y or N		Water VOAs: Headspace?	Y or N or NA	
IDs/time/date match COC?	Y or N		Comments:		
Hold Times in hold?	Y or N				

PROJECT MANAGEMENT

Is the Chain of Custody complete? Y or N If N, circle the items that were incomplete

Comments,Problems_____

_____

_____

_____

Total access set up? Y or N
Has client been contacted regarding non-conformances? Y or N If Y, ____/____ Date Time

PM Initials: _____ Date: _____ Time: _____

(rev 5, 03/04/09)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

June 05, 2009

Rick Fetterly
Stantec
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)
Redmond, WA/USA 98073

RE: COP 3485

Enclosed are the results of analyses for samples received by the laboratory on 05/21/09 13:05. The following list is a summary of the Work Orders contained in this report, generated on 06/05/09 10:48.

If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
BSE0224	COP 3485	212302155

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	212302155	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/05/09 10:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Tot Eff	BSE0224-01	Air	05/21/09 09:40	05/21/09 13:05
Mid 2	BSE0224-02	Air	05/21/09 09:45	05/21/09 13:05
Mid 1	BSE0224-03	Air	05/21/09 09:50	05/21/09 13:05
Tot Inf	BSE0224-04	Air	05/21/09 09:55	05/21/09 13:05
SVE Inf	BSE0224-05	Air	05/21/09 10:00	05/21/09 13:05
CARBON GRAB	BSE0224-06	Other dry	05/21/09 10:30	05/21/09 13:05

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	212302155	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/05/09 10:48

Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B

TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSE0224-01 (Tot Eff)		**Air**				**Sampled: 05/21/09 09:40**				
Gasoline Range Hydrocarbons	NWTPH Modified	**10.3**	-----	10.0	mg/m³ Air	1x	9E21032	05/21/09 13:46	05/21/09 20:17	
Gasoline Range Hydrocarbons (v/v)	"	**2.42**	-----	2.36	ppmv	"	"	"	"	
Benzene (v/v)	"	ND	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	ND	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	ND	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	ND	-----	0.0454	"	"	"	"	"	
Benzene	"	ND	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	ND	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	ND	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	ND	-----	0.200	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			*75.5%*		*57 - 130 %*	"			"	
4-BFB (PID)			*103%*		*65 - 125 %*	"			"	
BSE0224-02 (Mid 2)		**Air**				**Sampled: 05/21/09 09:45**				
Gasoline Range Hydrocarbons	NWTPH Modified	ND	-----	10.0	mg/m³ Air	1x	9E21032	05/21/09 13:46	05/21/09 22:17	
Gasoline Range Hydrocarbons (v/v)	"	ND	-----	2.36	ppmv	"	"	"	"	
Benzene (v/v)	"	ND	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	ND	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	ND	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	ND	-----	0.0454	"	"	"	"	"	
Benzene	"	ND	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	ND	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	ND	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	ND	-----	0.200	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			*81.6%*		*57 - 130 %*	"			"	
4-BFB (PID)			*104%*		*65 - 125 %*	"			"	
BSE0224-03 (Mid 1)		**Air**				**Sampled: 05/21/09 09:50**				
Gasoline Range Hydrocarbons	NWTPH Modified	**22.0**	-----	10.0	mg/m³ Air	1x	9E21032	05/21/09 13:46	05/21/09 22:48	
Gasoline Range Hydrocarbons (v/v)	"	**5.18**	-----	2.36	ppmv	"	"	"	"	
Benzene (v/v)	"	**2.33**	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	ND	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	ND	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	ND	-----	0.0454	"	"	"	"	"	
Benzene	"	**7.57**	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	ND	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	ND	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	ND	-----	0.200	"	"	"	"	"	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	212302155	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/05/09 10:48

Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B

TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSE0224-03 (Mid 1)		**Air**			**Sampled: 05/21/09 09:50**					
Surrogate(s): 4-BFB (FID)			*81.0%*		*57 - 130 %*	*1x*			*05/21/09 22:48*	
4-BFB (PID)			*103%*		*65 - 125 %*	*"*			*"*	
BSE0224-04 (Tot Inf)		**Air**			**Sampled: 05/21/09 09:55**					
Gasoline Range Hydrocarbons	NWTPH Modified	**20.4**	-----	10.0	mg/m³ Air	1x	9E21032	05/21/09 13:46	05/21/09 23:18	
Gasoline Range Hydrocarbons (v/v)	"	**4.81**	-----	2.36	ppmv	"	"	"	"	
Benzene (v/v)	"	**0.0869**	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	**0.126**	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	ND	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	**0.0464**	-----	0.0454	"	"	"	"	"	
Benzene	"	**0.282**	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	**0.483**	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	ND	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	**0.204**	-----	0.200	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			*83.5%*		*57 - 130 %*	*"*			*"*	
4-BFB (PID)			*102%*		*65 - 125 %*	*"*			*"*	
BSE0224-05 (SVE Inf)		**Air**			**Sampled: 05/21/09 10:00**					
Gasoline Range Hydrocarbons	NWTPH Modified	**43.8**	-----	10.0	mg/m³ Air	1x	9E21032	05/21/09 13:46	05/21/09 23:48	
Gasoline Range Hydrocarbons (v/v)	"	**10.3**	-----	2.36	ppmv	"	"	"	"	
Benzene (v/v)	"	**0.307**	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	**0.615**	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	**0.0273**	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	**0.401**	-----	0.0454	"	"	"	"	"	
Benzene	"	**0.996**	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	**2.35**	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	**0.120**	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	**1.77**	-----	0.200	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			*84.2%*		*57 - 130 %*	*"*			*"*	
4-BFB (PID)			*99.1%*		*65 - 125 %*	*"*			*"*	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	212302155	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/05/09 10:48

TCLP Volatile Organic Compounds by EPA Method 1311/8260B

TestAmerica Nashville

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSE0224-06 (CARBON GRAB)			**Other dry**				**Sampled: 05/21/09 10:30**			
Benzene	SW846 1311/8260B	ND	-----	0.0100	mg/L	1x	9054721	05/30/09 19:41	05/31/09 17:06	
Surrogate(s): *1,2-Dichloroethane-d4*			*106%*		*63 - 140 %*	"			"	
Dibromofluoromethane			*108%*		*73 - 131 %*	"			"	
Toluene-d8			*92%*		*80 - 120 %*	"			"	
4-Bromofluorobenzene			*100%*		*79 - 125 %*	"			"	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	212302155	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/05/09 10:48

Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B - Laboratory Quality Control Results

TestAmerica Seattle

QC Batch: 9E21032 **Air Preparation Method: EPA 5030B (P/T)**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9E21032-BLK1)									**Extracted: 05/21/09 13:46**					
Gasoline Range Hydrocarbons (v/v)	NWTPH Modified	ND	---	2.36	ppmv	1x	--	--	--	--	--	--	05/21/09 15:46	
Gasoline Range Hydrocarbons	"	ND	---	10.0	mg/m³ Air	"	--	--	--	--	--	--	"	
Benzene (v/v)	"	ND	---	0.0308	ppmv	"	--	--	--	--	--	--	"	
Toluene (v/v)	"	ND	---	0.0261	"	"	--	--	--	--	--	--	"	
Ethylbenzene (v/v)	"	ND	---	0.0227	"	"	--	--	--	--	--	--	"	
Xylenes, total (v/v)	"	ND	---	0.0454	"	"	--	--	--	--	--	--	"	
Benzene	"	ND	---	0.100	mg/m³ Air	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 76.4%*			*Limits: 57-130%*	"							*05/21/09 15:46*	
4-BFB (PID)		*99.2%*			*65-125%*	"							*"*	
LCS (9E21032-BS1)									**Extracted: 05/21/09 13:46**					
Gasoline Range Hydrocarbons	NWTPH Modified	93.2	---	10.0	mg/m³ Air	1x	--	100	93.2%	(42-137)	--	--	05/21/09 16:16	
Surrogate(s): 4-BFB (FID)		*Recovery: 82.7%*			*Limits: 57-130%*	"							*05/21/09 16:16*	
LCS (9E21032-BS2)									**Extracted: 05/21/09 13:46**					
Benzene	NWTPH Modified	1.52	---	0.100	mg/m³ Air	1x	--	2.00	75.9%	(40-150)	--	--	05/21/09 17:16	
Toluene	"	1.60	---	0.100	"	"	--	"	79.8%	"	--	--	"	
Ethylbenzene	"	1.56	---	0.100	"	"	--	"	78.2%	"	--	--	"	
Xylenes (total)	"	4.72	---	0.200	"	"	--	6.00	78.7%	(42-150)	--	--	"	
Surrogate(s): 4-BFB (PID)		*Recovery: 104%*			*Limits: 65-125%*	"							*05/21/09 17:16*	
LCS Dup (9E21032-BSD1)									**Extracted: 05/21/09 13:46**					
Gasoline Range Hydrocarbons	NWTPH Modified	95.6	---	10.0	mg/m³ Air	1x	--	100	95.6%	(42-137)	2.51%	(45)	05/21/09 16:46	
Surrogate(s): 4-BFB (FID)		*Recovery: 81.5%*			*Limits: 57-130%*	"							*05/21/09 16:46*	
LCS Dup (9E21032-BSD2)									**Extracted: 05/21/09 13:46**					
Benzene	NWTPH Modified	1.57	---	0.100	mg/m³ Air	1x	--	2.00	78.4%	(40-150)	3.30%	(35)	05/21/09 17:46	
Toluene	"	1.65	---	0.100	"	"	--	"	82.7%	"	3.57%	"	"	
Ethylbenzene	"	1.63	---	0.100	"	"	--	"	81.3%	"	3.91%	"	"	
Xylenes (total)	"	4.89	---	0.200	"	"	--	6.00	81.5%	(42-150)	3.45%	"	"	
Surrogate(s): 4-BFB (PID)		*Recovery: 104%*			*Limits: 65-125%*	"							*05/21/09 17:46*	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	212302155	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/05/09 10:48

Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B - Laboratory Quality Control Results

TestAmerica Seattle

QC Batch: 9E21032 **Air Preparation Method: EPA 5030B (P/T)**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (9E21032-DUP1)				**QC Source: BSE0223-01**				**Extracted: 05/21/09 13:46**						
Gasoline Range Hydrocarbons (v/v)	NWTPH Modified	3.25	---	2.36	ppmv	1x	3.57	--	--	--	9.29%	(30)	05/21/09 18:46	
Gasoline Range Hydrocarbons	"	13.8	---	10.0	mg/m³ Air	"	15.1	--	--	--	9.29%	(20)	"	
Benzene (v/v)	"	ND	---	0.0308	ppmv	"	ND	--	--	--	16.2%	(30)	"	
Toluene (v/v)	"	ND	---	0.0261	"	"	ND	--	--	--	NR	"	"	
Ethylbenzene (v/v)	"	ND	---	0.0227	"	"	ND	--	--	--	8.08%	"	"	
Xylenes, total (v/v)	"	0.0549	---	0.0454	"	"	0.0566	--	--	--	3.09%	"	"	
Benzene	"	ND	---	0.100	mg/m³ Air	"	ND	--	--	--	16.2%	"	"	
Toluene	"	ND	---	0.100	"	"	ND	--	--	--	NR	(25)	"	
Ethylbenzene	"	ND	---	0.100	"	"	ND	--	--	--	8.08%	(30)	"	
Xylenes (total)	"	0.242	---	0.200	"	"	0.250	--	--	--	3.09%	"	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 76.8%*			*Limits: 57-130%*	"							*05/21/09 18:46*	
4-BFB (PID)		*101%*			*65-125%*	"							"	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	212302155	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/05/09 10:48

TCLP Volatile Organic Compounds by EPA Method 1311/8260B - Laboratory Quality Control Results

TestAmerica Nashville

QC Batch: 9054721 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9054721-BLK1)							**Extracted: 05/30/09 19:41**							
Benzene	SW846 1311/8260B	ND	---	0.00100	mg/L	0.1x	--	--	--	--	--	--	05/31/09 11:39	
2-Butanone	"	ND	---	0.0250	"	"	--	--	--	--	--	--	"	
Carbon Tetrachloride	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Chlorobenzene	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Chloroform	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
1,2-Dichloroethane	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethene	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Tetrachloroethene	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Trichloroethene	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Vinyl chloride	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1,2-Dichloroethane-d4		*Recovery: 106%*			*Limits: 63-140%*	"							*05/31/09 11:39*	
Dibromofluoromethane		*107%*			*73-131%*	"							*"*	
Toluene-d8		*93%*			*80-120%*	"							*"*	
4-Bromofluorobenzene		*99%*			*79-125%*	"							*"*	
Blank (9054721-BLK2)							**Extracted: 05/30/09 19:41**							
Benzene	SW846 1311/8260B	ND	---	0.00100	mg/L	0.1x	--	--	--	--	--	--	05/31/09 12:06	
2-Butanone	"	ND	---	0.0250	"	"	--	--	--	--	--	--	"	
Carbon Tetrachloride	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Chlorobenzene	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Chloroform	"	0.00628	---	0.00100	"	"	--	--	--	--	--	--	"	B
1,2-Dichloroethane	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethene	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Tetrachloroethene	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Trichloroethene	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Vinyl chloride	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1,2-Dichloroethane-d4		*Recovery: 107%*			*Limits: 63-140%*	"							*05/31/09 12:06*	
Dibromofluoromethane		*108%*			*73-131%*	"							*"*	
Toluene-d8		*95%*			*80-120%*	"							*"*	
4-Bromofluorobenzene		*98%*			*79-125%*	"							*"*	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	212302155	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/05/09 10:48

TCLP Volatile Organic Compounds by EPA Method 1311/8260B - Laboratory Quality Control Results

TestAmerica Nashville

QC Batch: 9054721 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (9054721-BS1)							**Extracted: 05/30/09 19:41**							
Benzene	SW846 1311/8260B	56.5	---		ug/L	0.1x	--	50.0	113%	(80-128)	--	--	05/31/09 09:50	
2-Butanone	"	300	---		"	"	--	250	120%	(73-126)	--	--	"	
Carbon Tetrachloride	"	61.1	---		"	"	--	50.0	122%	(73-133)	--	--	"	
Chlorobenzene	"	50.6	---		"	"	--	"	101%	(80-120)	--	--	"	
Chloroform	"	53.9	---		"	"	--	"	108%	(83-126)	--	--	"	B
1,2-Dichloroethane	"	54.2	---		"	"	--	"	108%	(80-128)	--	--	"	
1,1-Dichloroethene	"	57.9	---		"	"	--	"	116%	(80-120)	--	--	"	
Tetrachloroethene	"	48.5	---		"	"	--	"	97%	(79-136)	--	--	"	
Trichloroethene	"	59.0	---		"	"	--	"	118%	(80-140)	--	--	"	
Vinyl chloride	"	49.8	---		"	"	--	"	100%	(52-138)	--	--	"	
Surrogate(s): 1,2-Dichloroethane-d4		*Recovery: 95%*			*Limits: 63-140%*	"							*05/31/09 09:50*	
Dibromofluoromethane		*105%*			*73-131%*	"							"	
Toluene-d8		*90%*			*80-120%*	"							"	
4-Bromofluorobenzene		*95%*			*79-125%*	"							"	
LCS Dup (9054721-BSD1)							**Extracted: 05/30/09 19:41**							
Benzene	SW846 1311/8260B	56.9	---		ug/L	0.1x	--	50.0	114%	(80-128)	0.6%	(24)	05/31/09 10:17	
2-Butanone	"	312	---		"	"	--	250	125%	(73-126)	4%	(33)	"	
Carbon Tetrachloride	"	61.3	---		"	"	--	50.0	123%	(73-133)	0.3%	(26)	"	
Chlorobenzene	"	50.4	---		"	"	--	"	101%	(80-120)	0.5%	(27)	"	
Chloroform	"	54.3	---		"	"	--	"	109%	(83-126)	0.8%	(25)	"	B
1,2-Dichloroethane	"	55.2	---		"	"	--	"	110%	(80-128)	2%	"	"	
1,1-Dichloroethene	"	57.5	---		"	"	--	"	115%	(80-120)	0.7%	(26)	"	
Tetrachloroethene	"	48.5	---		"	"	--	"	97%	(79-136)	0.02%	"	"	
Trichloroethene	"	59.6	---		"	"	--	"	119%	(80-140)	0.9%	"	"	
Vinyl chloride	"	50.2	---		"	"	--	"	100%	(52-138)	0.8%	(25)	"	
Surrogate(s): 1,2-Dichloroethane-d4		*Recovery: 96%*			*Limits: 63-140%*	"							*05/31/09 10:17*	
Dibromofluoromethane		*105%*			*73-131%*	"							"	
Toluene-d8		*89%*			*80-120%*	"							"	
4-Bromofluorobenzene		*95%*			*79-125%*	"							"	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	212302155	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/05/09 10:48

TCLP Volatile Organic Compounds by EPA Method 1311/8260B - Laboratory Quality Control Results

TestAmerica Nashville

QC Batch: 9054721 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (9054721-MS1)				**QC Source: NSE2253-01**				**Extracted: 05/30/09 19:41**						
Benzene	SW846 1311/8260B	0.554	---	0.0100	mg/L	1x	ND	0.500	111%	(68-153)	--	--	05/31/09 18:56	
2-Butanone	"	2.82	---	0.250	"	"	ND	2.50	113%	(46-147)	--	--	"	
Carbon Tetrachloride	"	0.626	---	0.0100	"	"	ND	0.500	125%	(67-155)	--	--	"	
Chlorobenzene	"	0.476	---	0.0100	"	"	ND	"	95%	(75-147)	--	--	"	
Chloroform	"	0.527	---	0.0100	"	"	0.00330	"	105%	(69-149)	--	--	"	B
1,2-Dichloroethane	"	0.518	---	0.0100	"	"	ND	"	104%	(68-150)	--	--	"	
1,1-Dichloroethene	"	0.572	---	0.0100	"	"	ND	"	114%	(68-142)	--	--	"	
Tetrachloroethene	"	0.482	---	0.0100	"	"	ND	"	96%	(61-176)	--	--	"	
Trichloroethene	"	0.590	---	0.0100	"	"	ND	"	118%	(74-152)	--	--	"	
Vinyl chloride	"	0.473	---	0.0100	"	"	ND	"	95%	(43-147)	--	--	"	
Surrogate(s): 1,2-Dichloroethane-d4		*Recovery: 95%*			*Limits: 63-140%*	"							*05/31/09 18:56*	
Dibromofluoromethane		*105%*			*73-131%*	"							"	
Toluene-d8		*87%*			*80-120%*	"							"	
4-Bromofluorobenzene		*97%*			*79-125%*	"							"	
Matrix Spike Dup (9054721-MSD1)				**QC Source: NSE2253-01**				**Extracted: 05/30/09 19:41**						
Benzene	SW846 1311/8260B	0.557	---	0.0100	mg/L	1x	ND	0.500	111%	(68-153)	0.6%	(24)	05/31/09 19:23	
2-Butanone	"	2.89	---	0.250	"	"	ND	2.50	116%	(46-147)	2%	(33)	"	
Carbon Tetrachloride	"	0.633	---	0.0100	"	"	ND	0.500	127%	(67-155)	1%	(26)	"	
Chlorobenzene	"	0.487	---	0.0100	"	"	ND	"	97%	(75-147)	2%	(27)	"	
Chloroform	"	0.526	---	0.0100	"	"	0.00330	"	104%	(69-149)	0.3%	(25)	"	B
1,2-Dichloroethane	"	0.516	---	0.0100	"	"	ND	"	103%	(68-150)	0.5%	"	"	
1,1-Dichloroethene	"	0.583	---	0.0100	"	"	ND	"	117%	(68-142)	2%	(26)	"	
Tetrachloroethene	"	0.498	---	0.0100	"	"	ND	"	100%	(61-176)	3%	"	"	
Trichloroethene	"	0.601	---	0.0100	"	"	ND	"	120%	(74-152)	2%	"	"	
Vinyl chloride	"	0.482	---	0.0100	"	"	ND	"	96%	(43-147)	2%	(25)	"	
Surrogate(s): 1,2-Dichloroethane-d4		*Recovery: 93%*			*Limits: 63-140%*	"							*05/31/09 19:23*	
Dibromofluoromethane		*104%*			*73-131%*	"							"	
Toluene-d8		*86%*			*80-120%*	"							"	
4-Bromofluorobenzene		*96%*			*79-125%*	"							"	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	212302155	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/05/09 10:48

CERTIFICATION SUMMARY

TestAmerica Seattle

Method	Matrix	Nelac	Washington
NWTPH Modified	Air		

Subcontracted Laboratories

TestAmerica Nashville NELAC Cert #E87358, Washington Cert #C1712

2960 Foster Creighton Drive - Nashville, TN 37204

Method Performed: SW846 1311/8260B

Samples: BSE0224-06

Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Temperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) .

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	212302155	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/05/09 10:48

Notes and Definitions

Report Specific Notes:

B - Analyte was detected in the associated Method Blank.

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR/NA - Not Reported / Not Available

dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.

wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.

RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy.* Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: BSE0224

CLIENT: COD

INVOICE TO: Rick Fetterly

REPORT TO: Rick.fetterly@stantec.com
ADDRESS: linda.rawlings@ "
12034 134th Ct NE
REDMOND, WA 98052

PHONE: 4253721600 FAX: 4253721650

P.O. NUMBER:

PROJECT NAME: 3485

PROJECT NUMBER: 212302155

SAMPLED BY: L. RAWLINGS

TURNAROUND REQUEST
in Business Days *

Organic & Inorganic Analyses: ~~10~~ STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* *Turnaround Requests less than standard may incur Rush Charges.*

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: TPH-G	BTEX	BENZENE TCLP	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	Tot Eff	5/21/09 @ 9:40		✓	X		AIR	1	3485	WA-01
2	Mid 2	@ 945		X	X			1		-02
3	Mid 1	@ 950		X	X			1		-03
4	Tot Inf	@ 955		X	X			1		-04
5	SVE Inf	5/21/09 @ 10:00		X	X		AIR	1		-05
6	CARBON GRAB	5/21/09 @ 10:30				X	CARBON	2	3485	WA-06
7										
8										
9										
10										

RELEASED BY: L. Rawlings — DATE: 5/21/09 — TIME: 1305
PRINT NAME: L. RAWLINGS — FIRM: STANTEC

RECEIVED BY: Colette Weaver — DATE: 05-21-09 — TIME: 1305
PRINT NAME: Colette Weaver — FIRM: TAL-Seattle

RELEASED BY: — DATE: — TIME:
PRINT NAME: — FIRM:

RECEIVED BY: — DATE: — TIME:
PRINT NAME: — FIRM:

ADDITIONAL REMARKS:

TEMP: 22.1°C

W/O

PAGE OF

TAL-1000(0408)

TAT: _____ Paperwork to PM – Date:_____ Time:_____ Non-Conformances?

Page Time & Initials:_____ Circle Y or N

(If Y, see other side)

TEST AMERICA SAMPLE RECEIPT CHECKLIST

Received By: (applies to temp at receipt)
Date: 05.21.09
Time: 1305
Initials: CW

Logged-in By:
Date: 05.21
Time: 1333
Initials: CW

Unpacked/Labeled By:
Date: 05.21
Time: 1337
Initials: CW

Cooler ID: _____

Work Order No. BSE0324
Client: _____
Project: _____

Container Type:
____ Cooler
____ Box
X None/Other plastic bag

COC Seals:
____ Ship Container _____ Sign By
____ On Bottles _____ Date
X None

Packing Material:
X Bubble Bags ____ Styrofoam
____ Foam Packs
____ None/Other _____

Refrigerant:
____ Gel Ice Pack _____
____ Loose Ice _____
X None/Other _____

Soil Stir Bars/Encores:
Placed in freezer #46:
Y or N or NA
Initial/date/time_____

Received Via: Bill#:
____ Fed Ex X Client
____ UPS ____ TA Courier
____ DHL ____ Mid Valley
____ Senvoy ____ TDP
____ GS ____ Other_____

Cooler Temperature (*IR*): 22.1 °C Plastic (Glass) (Frozen filters, Tedlars and aqueous Metals exempt)
(circle one)

Temperature Blank? _____°C or NA comments _____ Trip Blank? Y or N or NA

BP, OPLC,ARCO-Temperature monitoring every 15 minutes:
(initial/date/time):_____
Comments:_____

Sample Containers:		ID			ID
Intact?	(Y) or N	_____	Metals Preserved?	Y or N or NA	_____
Provided by TA?	(Y) or N	_____	Client QAPP Preserved?	Y or N or NA	_____
Correct Type?	(Y) or N	_____	Adequate Volume? (for tests requested)	(Y) or N	_____
#Containers match COC?	(Y) or N	_____	Water VOAs: Headspace?	Y or N or NA	_____
IDs/time/date match COC?	(Y) or N	_____	Comments:		
Hold Times in hold?	(Y) or N	_____	_____		

PROJECT MANAGEMENT

Is the Chain of Custody complete? Y or N If N, circle the items that were incomplete

Comments,Problems_____

_____

_____

_____

Total access set up? Y or N
Has client been contacted regarding non-conformances? Y or N If Y, ____/____ Date Time

PM Initials: _____ Date: _____ Time: _____

(rev 5, 03/04/09)

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SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

June 26, 2009

Rick Fetterly
Stantec
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)
Redmond, WA/USA 98073

RE: COP 3485

Enclosed are the results of analyses for samples received by the laboratory on 06/25/09 10:10. The following list is a summary of the Work Orders contained in this report, generated on 06/26/09 11:49.

If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
BSF0190	COP 3485	3485

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/26/09 11:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Tot Eff	BSF0190-01	Air	06/25/09 08:20	06/25/09 10:10
MID 2	BSF0190-02	Air	06/25/09 08:30	06/25/09 10:10
MID 1	BSF0190-03	Air	06/25/09 08:35	06/25/09 10:10
Tot INF	BSF0190-04	Air	06/25/09 08:40	06/25/09 10:10
SVE INF	BSF0190-05	Air	06/25/09 08:50	06/25/09 10:10

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/26/09 11:49

Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B

TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSF0190-01 (Tot Eff)		**Air**					**Sampled: 06/25/09 08:20**			
Gasoline Range Hydrocarbons	NWTPH Modified	ND	-----	10.0	mg/m³ Air	1x	9F25006	06/25/09 10:30	06/25/09 16:01	
Gasoline Range Hydrocarbons (v/v)	"	ND	-----	2.36	ppmv	"	"	"	"	
Benzene (v/v)	"	ND	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	ND	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	ND	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	ND	-----	0.0454	"	"	"	"	"	
Benzene	"	ND	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	ND	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	ND	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	ND	-----	0.200	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			*75.0%*		*57 - 130 %*	"			"	
4-BFB (PID)			*104%*		*65 - 125 %*	"			"	
BSF0190-02 (MID 2)		**Air**					**Sampled: 06/25/09 08:30**			
Gasoline Range Hydrocarbons	NWTPH Modified	ND	-----	10.0	mg/m³ Air	1x	9F25006	06/25/09 10:30	06/25/09 17:16	
Gasoline Range Hydrocarbons (v/v)	"	ND	-----	2.36	ppmv	"	"	"	"	
Benzene (v/v)	"	ND	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	ND	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	ND	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	ND	-----	0.0454	"	"	"	"	"	
Benzene	"	ND	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	ND	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	ND	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	ND	-----	0.200	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			*69.1%*		*57 - 130 %*	"			"	
4-BFB (PID)			*101%*		*65 - 125 %*	"			"	
BSF0190-03 (MID 1)		**Air**					**Sampled: 06/25/09 08:35**			
Gasoline Range Hydrocarbons	NWTPH Modified	ND	-----	10.0	mg/m³ Air	1x	9F25006	06/25/09 10:30	06/25/09 18:31	
Gasoline Range Hydrocarbons (v/v)	"	ND	-----	2.36	ppmv	"	"	"	"	
Benzene (v/v)	"	ND	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	ND	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	ND	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	ND	-----	0.0454	"	"	"	"	"	
Benzene	"	ND	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	ND	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	ND	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	ND	-----	0.200	"	"	"	"	"	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/26/09 11:49

Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B

TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSF0190-03 (MID 1)		**Air**			**Sampled: 06/25/09 08:35**					
Surrogate(s): 4-BFB (FID)			*73.9%*		*57 - 130 %*	*1x*			*06/25/09 18:31*	
4-BFB (PID)			*104%*		*65 - 125 %*	*"*			*"*	
BSF0190-04 (Tot INF)		**Air**			**Sampled: 06/25/09 08:40**					
Gasoline Range Hydrocarbons	NWTPH Modified	**54.6**	-----	10.0	mg/m³ Air	1x	9F25006	06/25/09 10:30	06/25/09 17:54	
Gasoline Range Hydrocarbons (v/v)	"	**12.9**	-----	2.36	ppmv	"	"	"	"	
Benzene (v/v)	"	**0.349**	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	**0.710**	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	**0.0233**	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	**0.602**	-----	0.0454	"	"	"	"	"	
Benzene	"	**1.13**	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	**2.72**	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	**0.103**	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	**2.66**	-----	0.200	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			*73.5%*		*57 - 130 %*	*"*			*"*	
4-BFB (PID)			*84.2%*		*65 - 125 %*	*"*			*"*	
BSF0190-05 (SVE INF)		**Air**			**Sampled: 06/25/09 08:50**					
Gasoline Range Hydrocarbons	NWTPH Modified	**278**	-----	10.0	mg/m³ Air	1x	9F25006	06/25/09 10:30	06/26/09 08:35	**A-01**
Gasoline Range Hydrocarbons (v/v)	"	**65.5**	-----	2.36	ppmv	"	"	"	"	**A-01**
Benzene (v/v)	"	**1.73**	-----	0.0308	"	"	"	"	"	
Toluene (v/v)	"	**3.21**	-----	0.0261	"	"	"	"	"	
Ethylbenzene (v/v)	"	**0.107**	-----	0.0227	"	"	"	"	"	
Xylenes, total (v/v)	"	**2.52**	-----	0.0454	"	"	"	"	"	
Benzene	"	**5.62**	-----	0.100	mg/m³ Air	"	"	"	"	
Toluene	"	**12.3**	-----	0.100	"	"	"	"	"	
Ethylbenzene	"	**0.470**	-----	0.100	"	"	"	"	"	
Xylenes (total)	"	**11.1**	-----	0.200	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)			*87.8%*		*57 - 130 %*	*"*			*"*	
4-BFB (PID)			*73.0%*		*65 - 125 %*	*"*			*"*	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/26/09 11:49

Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B - Laboratory Quality Control Results

TestAmerica Seattle

QC Batch: 9F25006 **Air Preparation Method: EPA 5030B (P/T)**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9F25006-BLK1)							**Extracted: 06/25/09 10:30**							
Gasoline Range Hydrocarbons	NWTPH Modified	ND	---	10.0	mg/m³ Air	1x	--	--	--	--	--	--	06/25/09 12:46	
Gasoline Range Hydrocarbons (v/v)	"	ND	---	2.36	ppmv	"	--	--	--	--	--	--	"	
Benzene (v/v)	"	ND	---	0.0308	"	"	--	--	--	--	--	--	"	
Toluene (v/v)	"	ND	---	0.0261	"	"	--	--	--	--	--	--	"	
Ethylbenzene (v/v)	"	ND	---	0.0227	"	"	--	--	--	--	--	--	"	
Xylenes, total (v/v)	"	ND	---	0.0454	"	"	--	--	--	--	--	--	"	
Benzene	"	ND	---	0.100	mg/m³ Air	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 77.6%*			*Limits: 57-130%*	"							*06/25/09 12:46*	
4-BFB (PID)		*101%*			*65-125%*	"							*"*	
LCS (9F25006-BS1)							**Extracted: 06/25/09 10:30**							
Gasoline Range Hydrocarbons	NWTPH Modified	95.4	---	10.0	mg/m³ Air	1x	--	100	95.4%	(42-137)	--	--	06/25/09 13:32	
Surrogate(s): 4-BFB (FID)		*Recovery: 83.9%*			*Limits: 57-130%*	"							*06/25/09 13:32*	
LCS (9F25006-BS2)							**Extracted: 06/25/09 10:30**							
Benzene	NWTPH Modified	1.54	---	0.100	mg/m³ Air	1x	--	2.00	77.1%	(40-150)	--	--	06/25/09 14:47	
Toluene	"	1.61	---	0.100	"	"	--	"	80.5%	"	--	--	"	
Ethylbenzene	"	1.58	---	0.100	"	"	--	"	79.2%	"	--	--	"	
Xylenes (total)	"	4.75	---	0.200	"	"	--	6.00	79.1%	(42-150)	--	--	"	
Surrogate(s): 4-BFB (PID)		*Recovery: 103%*			*Limits: 65-125%*	"							*06/25/09 14:47*	
LCS Dup (9F25006-BSD1)							**Extracted: 06/25/09 10:30**							
Gasoline Range Hydrocarbons	NWTPH Modified	75.6	---	10.0	mg/m³ Air	1x	--	100	75.6%	(42-137)	23.1%	(45)	06/25/09 14:09	
Surrogate(s): 4-BFB (FID)		*Recovery: 81.0%*			*Limits: 57-130%*	"							*06/25/09 14:09*	
LCS Dup (9F25006-BSD2)							**Extracted: 06/25/09 10:30**							
Benzene	NWTPH Modified	1.50	---	0.100	mg/m³ Air	1x	--	2.00	75.1%	(40-150)	2.60%	(35)	06/25/09 15:24	
Toluene	"	1.54	---	0.100	"	"	--	"	77.1%	"	4.30%	"	"	
Ethylbenzene	"	1.51	---	0.100	"	"	--	"	75.6%	"	4.59%	"	"	
Xylenes (total)	"	4.55	---	0.200	"	"	--	6.00	75.8%	(42-150)	4.28%	"	"	
Surrogate(s): 4-BFB (PID)		*Recovery: 103%*			*Limits: 65-125%*	"							*06/25/09 15:24*	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/26/09 11:49

Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B - Laboratory Quality Control Results

TestAmerica Seattle

QC Batch: 9F25006 **Air Preparation Method: EPA 5030B (P/T)**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (9F25006-DUP1)					**QC Source: BSF0190-01**				**Extracted: 06/25/09 10:30**					
Gasoline Range Hydrocarbons (v/v)	NWTPH Modified	ND	---	2.36	ppmv	1x	ND	--	--	--	NR	(30)	06/25/09 16:39	
Gasoline Range Hydrocarbons	"	ND	---	10.0	mg/m³ Air	"	ND	--	--	--	NR	(20)	"	
Benzene (v/v)	"	ND	---	0.0308	ppmv	"	ND	--	--	--	NR	(30)	"	
Toluene (v/v)	"	ND	---	0.0261	"	"	ND	--	--	--	NR	"	"	
Ethylbenzene (v/v)	"	ND	---	0.0227	"	"	ND	--	--	--	NR	"	"	
Xylenes, total (v/v)	"	ND	---	0.0454	"	"	ND	--	--	--	NR	"	"	
Benzene	"	ND	---	0.100	mg/m³ Air	"	ND	--	--	--	NR	"	"	
Toluene	"	ND	---	0.100	"	"	ND	--	--	--	NR	(25)	"	
Ethylbenzene	"	ND	---	0.100	"	"	ND	--	--	--	NR	(30)	"	
Xylenes (total)	"	ND	---	0.200	"	"	ND	--	--	--	NR	"	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 73.1%*			*Limits: 57-130%*	"							*06/25/09 16:39*	
4-BFB (PID)		*102%*			*65-125%*	"							"	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

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SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/26/09 11:49

CERTIFICATION SUMMARY

TestAmerica Seattle

Method	Matrix	Nelac	Washington
NWTPH Modified	Air		

Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Temperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) .

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

Stantec	Project Name:	**COP 3485**	
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number:	3485	Report Created:
Redmond, WA/USA 98073	Project Manager:	Rick Fetterly	06/26/09 11:49

Notes and Definitions

Report Specific Notes:

A-01 - Low bias for analyte recovery due to extensive coelution with the internal standard. The IS peak was not distinguishable and could not be manually integrated.

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR/NA - Not Reported / Not Available

dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.

wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.

RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy.* Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: BSF0190

CLIENT: COP

REPORT TO: Rick.fetterly@stantec.com
ADDRESS: lind.rawlins@ "
12034 134th Ct NE
Redmond, WA 98052

PHONE: 425 372 1600 FAX: 425-372-1650

INVOICE TO:

P.O. NUMBER:

PROJECT NAME: 3485

PROJECT NUMBER: 212302155

SAMPLED BY: L. RAWLINS

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: ~~10~~ STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: TPH-G	REQUESTED ANALYSES: BTEX	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	Tot Eff	6/25/09 @ 8:20		X	X	AIR	1	3485	WA-01
2	MID 2	8:30		X	X				-02
3	MID 1	8:35		X	X				-03
4	Tot INF	8:40		X	X				-04
5	SVE INF	6/25/09 @ 8:50		X	X	AIR	1	3485	NA -05
6									
7									
8									
9									
10									

RELEASED BY: L. Rawlins — DATE: 6/25/09
PRINT NAME: L. RAWLINS — FIRM: STANTEC — TIME: 1010

RECEIVED BY: Colette Weaver — DATE: 06-25-09
PRINT NAME: Colette Weaver — FIRM: TAL-Seattle — TIME: 1010

RELEASED BY: — DATE:
PRINT NAME: — FIRM: — TIME:

RECEIVED BY: — DATE:
PRINT NAME: — FIRM: — TIME:

ADDITIONAL REMARKS:

TEMP: 19.5C

WO PAGE OF

TAL-1000(0408)

TAT: _____ Paperwork to PM – Date:_____ Time:_____ Non-Conformances?

Page Time & Initials:_____ Circle Y or N

(If Y, see other side)

TEST AMERICA SAMPLE RECEIPT CHECKLIST

Received By: (applies to temp at receipt)	**Logged-in By:**	**Unpacked/ Labeled by:**	**Label Review by:**	***Cooler ID:*** _____
Date: 06.25.09	Date: 06.25	Date: 06.25	Date_____	Work Order No. BSF0190
Time: 1010	Time: 1017	Time: 1017	Time:_____	Client: _____
Initials: CW	Initials: CW	Initials: CW	Initials:_____	Project: _____

Container Type:
- 1 Cooler
- ____ Box
- X None/Other _____

COC Seals:
- ____ Ship Container _____Sign By
- ____ On Bottles _____ Date
- X None

Packing Material:
- ____ Bubble Bags ____ Styrofoam
- ____ Foam Packs
- X None/Other _____

Refrigerant:
- ____ Gel Ice Pack _____
- ____ Loose Ice _____
- X None/Other _____

Soil Stir Bars/Encores:
Placed in freezer #46:
Y or N or NA
Initial/date/time_____

Received Via: Bill#:
- ____ Fed Ex X Client
- ____ UPS ____ TA Courier
- ____ DHL ____ Mid Valley
- ____ Senvoy ____ TDP
- ____ GS ____ Other_____

Cooler Temperature (*IR*): 19.5 °C Plastic Glass (Frozen filters, Tedlars and aqueous Metals exempt)
(circle one)

Temperature Blank? _____°C or NA comments _____ Trip Blank? Y or N or NA

BP, OPLC,ARCO-Temperature monitoring every 15 minutes:
(initial/date/time):_____
Comments:_____

Sample Containers:		ID			ID
Intact?	Y or N	_____	Metals Preserved?	Y or N or NA	_____
Provided by TA?	Y or N	_____	Client QAPP Preserved?	Y or N or NA	_____
Correct Type?	Y or N	_____	Adequate Volume? (for tests requested)	Y or N	_____
#Containers match COC?	Y or N	_____	Water VOAs: Headspace?	Y or N or NA	_____
IDs/time/date match COC?	Y or N	_____	Comments:_____		
Hold Times in hold?	Y or N	_____	_____		

PROJECT MANAGEMENT

Is the Chain of Custody complete? Y or N If N, circle the items that were incomplete

Comments,Problems_____

_____

_____

_____

Total access set up? Y or N

(rev 6, 04/22/09)

ATTACHMENT C
REMEDIATION SYSTEM LABORATORY AQUEOUS ANALYTICAL REPORTS

ConocoPhillips Company Facility Number 3485
2423 Lind Avenue SW
Renton, Washington

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

Client: Stantec - Conoco Phillips
12034 134th Ct. NE Suite 102
Redmond, WA 98052

Project Name:	**Conoco Phillips Site# 03485**	SDG Number:	**CPWA0931**
		Date Received:	**4/21/2009 3:45:00PM**
Work Description:	**Site# 03485**	Date Reported:	**05/07/2009**

Enclosed are the analytical results for the sample(s) received by the laboratory on April 21, 2009. The results relate only to the samples included in this report. Unless otherwise instructed all samples with the exception of samples which are consumed during the analysis, such as microbiological samples, will be disposed of on or after August 3, 2009. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

If you have any question concerning the report, please feel free to contact me.

Respectfully submitted,

Pace Analytical Services, Inc.

Jenni Gross

Jennifer Gross

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

Pace Analytical Services, Inc.

Sample Summary

Project:	Conoco Phillips Site# 03485	SDG Number:	CPWA0931
Project Number:		Project Manager:	

Sample Identification:

Sample Description	Lab Sample ID	Collection Date/Time		Type
Influent	CPWA0931-001	04/21/2009	12:00	Water
Air Stripper	CPWA0931-002	04/21/2009	11:40	Water
Mid 1	CPWA0931-003	04/21/2009	11:30	Water
Effluent	CPWA0931-004	04/21/2009	11:20	Water
Trip Blank	CPWA0931-005	04/21/2009	11:20	Water

Comments:
Discrepancies:

1 of 6 VOA vials for ID: Airstripper and 1 of 3 VOA vials for ID: Trip Blank were out of EPA compliance for headspace. The client was notified of this discrepancy via email of the sample receipt.

Narrative Comments:

NWTPH-G (NWTPH Gas) Analysis of sample CPWA0931-001 yielded a concentration for gasoline range organics that exceeded the calibration range. Normally, the sample would be reanalyzed at a dilution, but because there was no more sample, a dilution could not be performed. Results were flagged accordingly. The sample also yielded out of control recoveries for the surrogates due to matrix interference.

Analysis of the CCV (CCV_C_GAS) yielded a high recovery for gasoline range organics. Sample CPWA0931-002 was a dilution that was reanalyzed out of hold. Because the results matched the original analysis, the diluted analysis was reported. Sample CPWA0931-004 was reanalyzed out of hold because of carryover in the original anlaysis. Carryover was confirmed. Because the CCV bias was high and no gasoline range organics were detected in sample CPWA0931-004, no further action was taken. Results were reported from the reanalysis. CPWA0931-003 was reanalyzed out of hold because of carryover in the original analysis. Carryover was confirmed. Reanalysis results were reported.

Pace Analytical Seattle Laboratory

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

Pace Analytical Services, Inc.

Test Request Summary

Project:	Conoco Phillips Site# 03485	SDG Number:	CPWA0931
Pace Project No.:		Project Manager:	

Samples	Methods									
Client Sample ID	8260B [1]	NWTPH-[2]	NWTPH-[3]	Subcon [4]						
Influent	X	X	X	X						
Air Stripper	X	X	X	X						
Mid 1	X	X	X	X						
Effluent	X	X	X	X						
Trip Blank	X		X	X						

Determinations:

[1] = 8260-1 VOAs BTEX+MTBE, in water

[2] = NWTPH DX + Silica Gel (Water)

[3] = NWTPH Gx (Water)

[4] = Subcon - Ethanol - Green Bay

Pace Analytical Seattle Laboratory

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

Pace Analytical Services, Inc.

Analytical Results

Project:	Conoco Phillips Site# 03485	SDG Number:	CPWA0931
Project Number:		Project Manager:	

Client Sample ID:	**Influent**	Matrix:	Water
Collected On:	4/21/09 12:00	Lab Sample ID:	CPWA0931-001
Received On:	4/21/09 15:45		

Analyte	Result	Units	DF	Detection Limit Threshold	Reporting Limit	QC Batch Group	Prepared	Analyzed	Qualifiers
Purgeable Organic Compounds by GC/MS				Methods (Preparation | Analysis): **5030B | 8260B**					
Benzene	**15**	mg/L	200		0.20	Q40234	05/01/2009	05/01/2009	
Ethylbenzene	**1.6**	mg/L	200		0.20	Q40234	05/01/2009	05/01/2009	
Methyl tert-butyl ether	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Toluene	**27**	mg/L	200		0.20	Q40234	05/01/2009	05/01/2009	
Xylenes, Total	**12**	mg/L	200		0.20	Q40234	05/01/2009	05/01/2009	
Surrogates:									
4-Bromofluorobenzene	110	% Rec	1		72-128	Q40151	04/23/2009	04/23/2009	
4-Bromofluorobenzene	104	% Rec	200		72-128	Q40234	05/01/2009	05/01/2009	
Dibromofluoromethane	95	% Rec	1		76-127	Q40151	04/23/2009	04/23/2009	
Dibromofluoromethane	106	% Rec	200		76-127	Q40234	05/01/2009	05/01/2009	
1,2-Dichloroethane-d4	45	% Rec	1		66-133	Q40151	04/23/2009	04/23/2009	*
1,2-Dichloroethane-d4	115	% Rec	200		66-133	Q40234	05/01/2009	05/01/2009	
Toluene-d8	69	% Rec	1		75-130	Q40151	04/23/2009	04/23/2009	*
Toluene-d8	98	% Rec	200		75-130	Q40234	05/01/2009	05/01/2009	
NWTPH Diesel				Methods (Preparation | Analysis): **3510C | NWTPH-D**					
Diesel Range Organics	**1.1**	mg/L	1		0.10	Q40117	04/22/2009	04/23/2009	
Oil Range Organics	ND	mg/L	1		0.51	Q40117	04/22/2009	04/23/2009	
Surrogates:									
o-Terphenyl	76	% Rec	1		50-150	Q40117	04/22/2009	04/23/2009	
NWTPH Gas				Methods (Preparation | Analysis): **5030B | NWTPH-G**					
Gasoline Range Organics	**105**	mg/L	1		0.0500	Q40244	05/04/2009	05/04/2009	
Surrogates:									
4-Bromofluorobenzene	161	% Rec	1		61-121	Q40244	05/04/2009	05/04/2009	*
Trifluorotoluene	76	% Rec	1		62-129	Q40244	05/04/2009	05/04/2009	

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Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

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Analytical Results

Project:	Conoco Phillips Site# 03485	SDG Number:	CPWA0931
Project Number:		Project Manager:	

Client Sample ID:	**Air Stripper**	Matrix:	Water
Collected On:	4/21/09 11:40	Lab Sample ID:	CPWA0931-002
Received On:	4/21/09 15:45		

Analyte	Result	Units	DF	Detection Limit Threshold	Reporting Limit	QC Batch Group	Prepared	Analyzed	Qualifiers
Purgeable Organic Compounds by GC/MS				Methods (Preparation | Analysis): **5030B | 8260B**					
Benzene	**3.5**	mg/L	50		0.050	Q40215	04/29/2009	04/29/2009	
Ethylbenzene	**0.28**	mg/L	50		0.050	Q40215	04/29/2009	04/29/2009	
Methyl tert-butyl ether	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Toluene	**5.7**	mg/L	50		0.050	Q40215	04/29/2009	04/29/2009	
Xylenes, Total	**2.8**	mg/L	50		0.050	Q40215	04/29/2009	04/29/2009	
Surrogates:									
4-Bromofluorobenzene	107	% Rec	1		72-128	Q40151	04/23/2009	04/23/2009	
4-Bromofluorobenzene	106	% Rec	50		72-128	Q40215	04/29/2009	04/29/2009	
Dibromofluoromethane	92	% Rec	1		76-127	Q40151	04/23/2009	04/23/2009	
Dibromofluoromethane	104	% Rec	50		76-127	Q40215	04/29/2009	04/29/2009	
1,2-Dichloroethane-d4	66	% Rec	1		66-133	Q40151	04/23/2009	04/23/2009	
1,2-Dichloroethane-d4	119	% Rec	50		66-133	Q40215	04/29/2009	04/29/2009	
Toluene-d8	93	% Rec	1		75-130	Q40151	04/23/2009	04/23/2009	
Toluene-d8	95	% Rec	50		75-130	Q40215	04/29/2009	04/29/2009	
NWTPH Diesel				Methods (Preparation | Analysis): **3510C | NWTPH-D**					
Diesel Range Organics	**0.82**	mg/L	1		0.11	Q40117	04/22/2009	04/23/2009	
Oil Range Organics	ND	mg/L	1		0.53	Q40117	04/22/2009	04/23/2009	
Surrogates:									
o-Terphenyl	75	% Rec	1		50-150	Q40117	04/22/2009	04/23/2009	
NWTPH Gas				Methods (Preparation | Analysis): **5030B | NWTPH-G**					
Gasoline Range Organics	**19.7**	mg/L	50		2.50	Q40249	05/05/2009	05/05/2009	
Surrogates:									
4-Bromofluorobenzene	97	% Rec	50		61-121	Q40249	05/05/2009	05/05/2009	
Trifluorotoluene	92	% Rec	50		62-129	Q40249	05/05/2009	05/05/2009	

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Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

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Analytical Results

Project:	Conoco Phillips Site# 03485	SDG Number:	CPWA0931
Project Number:		Project Manager:	

Client Sample ID:	**Mid 1**	Matrix:	Water
Collected On:	4/21/09 11:30	Lab Sample ID:	CPWA0931-003
Received On:	4/21/09 15:45		

Analyte	Result	Units	DF	Detection Limit Threshold	Reporting Limit	QC Batch Group	Prepared	Analyzed	Qualifiers
Purgeable Organic Compounds by GC/MS					Methods (Preparation | Analysis): **5030B | 8260B**				
Benzene	**0.0096**	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Ethylbenzene	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Methyl tert-butyl ether	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Toluene	**0.0019**	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Xylenes, Total	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Surrogates:									
4-Bromofluorobenzene	96	% Rec	1		72-128	Q40151	04/23/2009	04/23/2009	
Dibromofluoromethane	103	% Rec	1		76-127	Q40151	04/23/2009	04/23/2009	
1,2-Dichloroethane-d4	101	% Rec	1		66-133	Q40151	04/23/2009	04/23/2009	
Toluene-d8	96	% Rec	1		75-130	Q40151	04/23/2009	04/23/2009	
NWTPH Diesel					Methods (Preparation | Analysis): **3510C | NWTPH-D**				
Diesel Range Organics	ND	mg/L	1		0.10	Q40117	04/22/2009	04/23/2009	
Oil Range Organics	ND	mg/L	1		0.52	Q40117	04/22/2009	04/23/2009	
Surrogates:									
o-Terphenyl	68	% Rec	1		50-150	Q40117	04/22/2009	04/23/2009	
NWTPH Gas					Methods (Preparation | Analysis): **5030B | NWTPH-G**				
Gasoline Range Organics	**0.0635**	mg/L	1		0.0500	Q40249	05/05/2009	05/05/2009	
Surrogates:									
4-Bromofluorobenzene	97	% Rec	1		61-121	Q40249	05/05/2009	05/05/2009	
Trifluorotoluene	91	% Rec	1		62-129	Q40249	05/05/2009	05/05/2009	

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Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

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Analytical Results

Project:	Conoco Phillips Site# 03485	SDG Number:	CPWA0931
Project Number:		Project Manager:	

Client Sample ID:	**Effluent**	Matrix:	Water
Collected On:	4/21/09 11:20	Lab Sample ID:	CPWA0931-004
Received On:	4/21/09 15:45		

Analyte	Result	Units	DF	Detection Limit Threshold	Reporting Limit	QC Batch Group	Prepared	Analyzed	Qualifiers
Purgeable Organic Compounds by GC/MS				Methods (Preparation | Analysis): **5030B | 8260B**					
Benzene	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Ethylbenzene	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Methyl tert-butyl ether	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Toluene	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Xylenes, Total	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Surrogates:									
4-Bromofluorobenzene	97	% Rec	1		72-128	Q40151	04/23/2009	04/23/2009	
Dibromofluoromethane	105	% Rec	1		76-127	Q40151	04/23/2009	04/23/2009	
1,2-Dichloroethane-d4	102	% Rec	1		66-133	Q40151	04/23/2009	04/23/2009	
Toluene-d8	98	% Rec	1		75-130	Q40151	04/23/2009	04/23/2009	
NWTPH Diesel				Methods (Preparation | Analysis): **3510C | NWTPH-D**					
Diesel Range Organics	ND	mg/L	1		0.10	Q40117	04/22/2009	04/23/2009	
Oil Range Organics	ND	mg/L	1		0.52	Q40117	04/22/2009	04/23/2009	
Surrogates:									
o-Terphenyl	78	% Rec	1		50-150	Q40117	04/22/2009	04/23/2009	
NWTPH Gas				Methods (Preparation | Analysis): **5030B | NWTPH-G**					
Gasoline Range Organics	ND	mg/L	1		0.0500	Q40249	05/05/2009	05/06/2009	HA
Surrogates:									
4-Bromofluorobenzene	97	% Rec	1		61-121	Q40249	05/05/2009	05/06/2009	HA
Trifluorotoluene	91	% Rec	1		62-129	Q40249	05/05/2009	05/06/2009	HA

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Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

Project:	Conoco Phillips Site# 03485	SDG Number:	CPWA0931
Project Number:		Project Manager:	

Client Sample ID:	**Trip Blank**	Matrix:	Water
Collected On:	4/21/09 11:20	Lab Sample ID:	CPWA0931-005
Received On:	4/21/09 15:45		

Analyte	Result	Units	DF	Detection Limit Threshold	Reporting Limit	QC Batch Group	Prepared	Analyzed	Qualifiers
Purgeable Organic Compounds by GC/MS					Methods (Preparation | Analysis): **5030B | 8260B**				
Benzene	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Ethylbenzene	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Methyl tert-butyl ether	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Toluene	ND	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Xylenes, Total	**0.0028**	mg/L	1		0.0010	Q40151	04/23/2009	04/23/2009	
Surrogates:									
4-Bromofluorobenzene	95	% Rec	1		72-128	Q40151	04/23/2009	04/23/2009	
Dibromofluoromethane	106	% Rec	1		76-127	Q40151	04/23/2009	04/23/2009	
1,2-Dichloroethane-d4	103	% Rec	1		66-133	Q40151	04/23/2009	04/23/2009	
Toluene-d8	96	% Rec	1		75-130	Q40151	04/23/2009	04/23/2009	
NWTPH Gas					Methods (Preparation | Analysis): **5030B | NWTPH-G**				
Gasoline Range Organics	ND	mg/L	1		0.0500	Q40244	05/04/2009	05/04/2009	
Surrogates:									
4-Bromofluorobenzene	98	% Rec	1		61-121	Q40244	05/04/2009	05/04/2009	
Trifluorotoluene	92	% Rec	1		62-129	Q40244	05/04/2009	05/04/2009	

Pace Analytical Seattle Laboratory

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

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Quality Control Results

Project:	Conoco Phillips Site# 03485	SDG Number:	CPWA0931
Project Number:		Project Manager:	

QC Batch(es):	**Q40117**	Analysis Method:	**NWTPH-D**
QC Batch Method:	3510C (NWTPH)	Analysis Description:	NWTPH Diesel
Preparation Started:	04/22/2009		

Blank: B042209GSVWLD

Analyte	Blank Result	Units	DF	Detection Limit Threshold		Control Limit	Qualifiers
Diesel Range Organics	ND	mg/L	1			0.05	
Oil Range Organics	ND	mg/L	1			0.25	
Surrogates:					% Rec		
o-Terphenyl			1		74	50-150	

LCS: S042209GSVWLD
LCS Duplicate: SD042209GSVWLD

Analyte	Blank Spike Result	Units	DF	Spike Conc.	% Rec	Limits	RPD	RPD Limit	Qualifiers
Diesel Range Organics	3.4	mg/L	1	5.03	68	51-147			
	3.7			5.03	74	51-147	8	50	
Surrogates:									
o-Terphenyl			1		79	50-150			
					79	50-150			

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Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

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Quality Control Results

Project:	Conoco Phillips Site# 03485	SDG Number:	CPWA0931
Project Number:		Project Manager:	

QC Batch(es):	**Q40151**	Analysis Method:	**8260B**
QC Batch Method:	5030B-L	Analysis Description:	Purgeable Organic Compounds by GC/MS
Preparation Started:	04/23/2009		

Blank: B042309MVOWB1

Analyte	Blank Result	Units	DF	Detection Limit Threshold	Control Limit	Qualifiers
Benzene	ND	mg/L	1		0.0005	
Ethylbenzene	ND	mg/L	1		0.0005	
Methyl tert-butyl ether	ND	mg/L	1		0.0005	
Toluene	ND	mg/L	1		0.0005	
Xylenes, Total	ND	mg/L	1		0.0005	
Surrogates:				% Rec		
4-Bromofluorobenzene			1	98	72-128	
Dibromofluoromethane			1	105	76-127	
1,2-Dichloroethane-d4			1	104	66-133	
Toluene-d8			1	98	75-130	

LCS: S042309MVOWB1
LCS Duplicate: S042309MVOWB1D

Analyte	Blank Spike Result	Units	DF	Spike Conc.	% Rec	Limits	RPD	RPD Limit	Qualifiers
Benzene	0.0095	mg/L	1	0.0100	95	80-120			
	0.0090			0.0100	90	80-120	5	30	
Ethylbenzene	0.0091	mg/L	1	0.0100	91	75-125			
	0.0088			0.0100	88	75-125	3	30	
Methyl tert-butyl ether	0.0094	mg/L	1	0.0100	94	65-125			
	0.0090			0.0100	90	65-125	5	30	
Toluene	0.0092	mg/L	1	0.0100	92	75-120			
	0.0088			0.0100	88	75-120	4	30	
Xylenes, Total	0.027	mg/L	1	0.0300	90	75-130			
	0.026			0.0300	87	75-130	4	30	
Surrogates:									
4-Bromofluorobenzene			1		99	72-128			
					100	72-128			
Dibromofluoromethane			1		101	76-127			
					100	76-127			
1,2-Dichloroethane-d4			1		97	66-133			
					96	66-133			
Toluene-d8			1		99	75-130			
					99	75-130			

Pace Analytical Seattle Laboratory

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

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Quality Control Results

Project:	Conoco Phillips Site# 03485	SDG Number:	CPWA0931
Project Number:		Project Manager:	

QC Batch(es):	**Q40215**	Analysis Method:	**8260B**
QC Batch Method:	5030B-L	Analysis Description:	Purgeable Organic Compounds by GC/MS
Preparation Started:	04/29/2009		

Blank: B042909MVOWY1

Analyte	Blank Result	Units	DF	Detection Limit Threshold	Control Limit	Qualifiers
Benzene	ND	mg/L	1		0.0005	
Ethylbenzene	ND	mg/L	1		0.0005	
Methyl tert-butyl ether	ND	mg/L	1		0.0005	
Toluene	ND	mg/L	1		0.0005	
Xylenes, Total	ND	mg/L	1		0.0005	
Surrogates:				% Rec		
4-Bromofluorobenzene			1	108	72-128	
Dibromofluoromethane			1	107	76-127	
1,2-Dichloroethane-d4			1	119	66-133	
Toluene-d8			1	94	75-130	

LCS: S042909MVOWY1
LCS Duplicate: S042909MVOWY1D

Analyte	Blank Spike Result	Units	DF	Spike Conc.	% Rec	Limits	RPD	RPD Limit	Qualifiers
Benzene	0.0092	mg/L	1	0.0100	92	80-120			
	0.0090			0.0100	90	80-120	3	30	
Ethylbenzene	0.0088	mg/L	1	0.0100	88	75-125			
	0.0085			0.0100	85	75-125	3	30	
Methyl tert-butyl ether	0.010	mg/L	1	0.0100	102	65-125			
	0.0095			0.0100	95	65-125	7	30	
Toluene	0.0081	mg/L	1	0.0100	81	75-120			
	0.0082			0.0100	82	75-120	1	30	
Xylenes, Total	0.025	mg/L	1	0.0300	85	75-130			
	0.025			0.0300	84	75-130	1	30	
Surrogates:									
4-Bromofluorobenzene			1		106	72-128			
					105	72-128			
Dibromofluoromethane			1		110	76-127			
					107	76-127			
1,2-Dichloroethane-d4			1		116	66-133			
					117	66-133			
Toluene-d8			1		98	75-130			
					99	75-130			

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Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

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Quality Control Results

Project:	Conoco Phillips Site# 03485	SDG Number:	CPWA0931
Project Number:		Project Manager:	

QC Batch(es):	**Q40234**	Analysis Method:	**8260B**
QC Batch Method:	5030B-L	Analysis Description:	Purgeable Organic Compounds by GC/MS
Preparation Started:	05/01/2009		

Blank: B050109MVOWY1

Analyte	Blank Result	Units	DF	Detection Limit Threshold		Control Limit	Qualifiers
Benzene	ND	mg/L	1			0.0005	
Ethylbenzene	ND	mg/L	1			0.0005	
Methyl tert-butyl ether	ND	mg/L	1			0.0005	
Toluene	ND	mg/L	1			0.0005	
Xylenes, Total	ND	mg/L	1			0.0005	
Surrogates:					% Rec		
4-Bromofluorobenzene			1		107	72-128	
Dibromofluoromethane			1		105	76-127	
1,2-Dichloroethane-d4			1		114	66-133	
Toluene-d8			1		97	75-130	

LCS: S050109MVOWY1
LCS Duplicate: S050109MVOWY1D

Analyte	Blank Spike Result	Units	DF	Spike Conc.	% Rec	Limits	RPD	RPD Limit	Qualifiers
Benzene	0.0099	mg/L	1	0.0100	99	80-120			
	0.011			0.0100	106	80-120	7	30	
Ethylbenzene	0.0092	mg/L	1	0.0100	92	75-125			
	0.0094			0.0100	94	75-125	3	30	
Methyl tert-butyl ether	0.0094	mg/L	1	0.0100	94	65-125			
	0.010			0.0100	101	65-125	7	30	
Toluene	0.0088	mg/L	1	0.0100	88	75-120			
	0.0090			0.0100	90	75-120	2	30	
Xylenes, Total	0.028	mg/L	1	0.0300	94	75-130			
	0.029			0.0300	96	75-130	3	30	
Surrogates:									
4-Bromofluorobenzene			1		104	72-128			
					102	72-128			
Dibromofluoromethane			1		107	76-127			
					109	76-127			
1,2-Dichloroethane-d4			1		117	66-133			
					121	66-133			
Toluene-d8			1		99	75-130			
					96	75-130			

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Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

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Quality Control Results

Project:	Conoco Phillips Site# 03485	SDG Number:	CPWA0931
Project Number:		Project Manager:	

QC Batch(es):	**Q40244**	Analysis Method:	**NWTPH-G**
QC Batch Method:	5030B-GCVOA	Analysis Description:	NWTPH Gas
Preparation Started:	05/04/2009		

Blank: B050409GVOWS1

Analyte	Blank Result	Units	DF	Detection Limit Threshold		Control Limit	Qualifiers
Gasoline Range Organics	ND	mg/L	1			0.025	
Surrogates:					% Rec		
4-Bromofluorobenzene			1		96	61-121	
Trifluorotoluene			1		94	62-129	

LCS: S050409GVOWS1

Analyte	Blank Spike Result	Units	DF	Spike Conc.	% Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	0.325	mg/L	1	0.250	130	50-163	
Surrogates:							
4-Bromofluorobenzene			1		103	61-121	
Trifluorotoluene			1		100	62-129	

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Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

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Quality Control Results

Project:	Conoco Phillips Site# 03485	SDG Number:	CPWA0931
Project Number:		Project Manager:	

QC Batch(es):	**Q40249**	Analysis Method:	**NWTPH-G**
QC Batch Method:	5030B-GCVOA	Analysis Description:	NWTPH Gas
Preparation Started:	05/05/2009		

Blank: B050509GVOWS1

Analyte	Blank Result	Units	DF	Detection Limit Threshold		Control Limit	Qualifiers
Gasoline Range Organics	ND	mg/L	1			0.025	
Surrogates:					% Rec		
4-Bromofluorobenzene			1		95	61-121	
Trifluorotoluene			1		90	62-129	

LCS: S050509GVOWS1

Analyte	Blank Spike Result	Units	DF	Spike Conc.	% Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	0.309	mg/L	1	0.250	123	50-163	
Surrogates:							
4-Bromofluorobenzene			1		87	61-121	
Trifluorotoluene			1		86	62-129	

Matrix Spike: CPWA0931-004MS Parent Sample: CPWA0931-004

Analyte	Matrix Spike Result	Units	DF	Spike Conc.	Parent Result	% Rec	% Rec Limits	Qualifiers
Surrogates:								
4-Bromofluorobenzene			1			76	61-121	HA
Trifluorotoluene			1			73	62-129	HA

Sample Duplicate: CPWA0931-003D Parent Sample: CPWA0931-003

Analyte	Duplicate Result	Units	DF	Parent Result			RPD	RPD Limit	Qualifiers
Gasoline Range Organic	**0.0550**	mg/L	1	**0.0635**			14.3	30	HA
Surrogates:					% Rec				
4-Bromofluorobenzene			1		89	61-121			HA
Trifluorotoluene			1		77	62-129			HA

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
Phone: (206)767-5060
Fax: (206)767-5063

Pace Analytical Services, Inc.

Notes and Definitions

SDG No: **CPWA0931**

Report Specific Notes:

ND	The analyte of interest was not detected, to the limit of detection indicated
*	Recovery result outside established control limits
HA	Method analytical hold time exceeded

Laboratory Reporting Conventions:

DF	Dilution factor
Detection Limit Threshold	The project or method defined limit that defines the lower bound for estimated results. This may be the MDL or IDL or a project-specified value.
MDL	The project or method defined limit that defines the lower bound for estimated results. This may be the MDL or IDL or a project-specified value. Detection Limit Thresholds are listed on the report only if the data has been evaluated below the Reporting Limit. Results between the Reporting Limit and the Detection Limit Threshold are reported as estimated results.
IDL	Instrument Detection Limit. IDLs are in instrument basis units. Reported results for samples are normalized appropriately using the preparation and analysis steps performed.
Reporting Limit	The minimum detection limit for reporting unqualified results under routine laboratory operating conditions. Typically this is the PQL but it may be a different concentration on a project-specific basis.
QC Batch Group	Quality Control Batch Group. The entity that links analytical results and supporting quality control results.
% Rec	Percent recovery.
Limits	The upper and lower control limits for spike recoveries.
RPD	Relative Percent Difference. The relative difference between duplicate results (matrix spike, blank spike, or sample duplicate) expressed as a percentage.
RPD Limit	The maximum RPD allowed for a set of duplicate measurements (see RPD).
Spike conc.	The measured concentration, in sample basis units, of a spiked sample.
PQL	Practical Quantitation Limit. The quantitation limit achievable by the laboratory under routine operating conditions. The PQL will be normalized for deviations from these conditions such as dilutions, dry weight adjustment, etc.
LCS	Laboratory Control Sample

PACE ANALYTICAL SERVICES, INC. - SAMPLE CONFIRMATION LOG

Mtx	Sample ID (SDG-#)	VTSR	Collected On	Client ID	8260-1 VOAs BTEX+MTBE, in water	NWTPH DX + Silica Gel (Water)	NWTPH Gx (Water)	Subcon - Ethanol - Green Bay
WD	CPWA0931-**001**	04/21/2009 03:45 PM	04/21/2009 12:00 PM	Influent	IN	P-	IN	IN
WD	CPWA0931-**002**	04/21/2009 03:45 PM	04/21/2009 11:40 AM	Air Stripper	IN	P-	IN	IN
WD	CPWA0931-**003**	04/21/2009 03:45 PM	04/21/2009 11:30 AM	Mid 1	IN	P-	IN	IN
WD	CPWA0931-**004**	04/21/2009 03:45 PM	04/21/2009 11:20 AM	Effluent	IN	P-	IN	IN
WD	CPWA0931-**005**	04/21/2009 03:45 PM	04/21/2009 11:20 AM	Trip Blank	IN		IN	IN

Approved By: Jenni Gross **On:** 4/22/09

Notes:
1 OF 6 VOA VIALS FOR ID AIRSTRIPPER & 1 OF 3 VOA VIALS FOR TRIP BLANK WERE OUT OF EPA COMPLIANCE FOR HEADSPACE.

Samples identified with a '*' client has requested QC for

LEGEND: -:Started , +:Completed , IN:Logged In , P:Preparation , A:Analysis , X:Cancelled, PL:Pre-logged
Matrices: Water=WD

FORM LTL-PM-8.0

Chain Of Custody Record

PACE Analytical Laboratory
940 S. Harney Street, Seattle, WA 98108
(206) 767-5060

INVOICE REMITTANCE ADDRESS: Stantec, Attn: Chris Gdak, 12034 134th CT; Suite 102, Redmond, WA 98052

Purchase Order #:

ConocoPhillips AOC#: 3485

DATE: 4/21/09

PAGE: 1 of 1

SAMPLING COMPANY: Stantec Consulting Corporation	Valid Value ID:
ADDRESS: 12034 134th CT Redmond, WA 98052	
PROJECT CONTACT (Hardcopy or PDF Report to): Rick Fetterly rick.fetterly@stantec.com	
TELEPHONE: (503)691-2030	FAX:
E-MAIL: [illegible]@stantec.com; linda.[illegible]@stantec.com	
SAMPLER NAME(S) (Print):	CONSULTANT PROJECT NUMBER: 212301541
CONOCOPHILLIPS SITE NUMBER: 212302155	GLOBAL ID NO.:
SITE ADDRESS (Street and City): 2423 Lind Ave. SW, Renton, WA	ConocoPhillips Manager: Jim Trotter
EDF DELIVERABLE TO (RP or Designee):	PHONE NO.:
E-MAIL:	LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
☑ 14 DAYS ☐ 7 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

SPECIAL INSTRUCTIONS OR NOTES:

CHECK BOX IF EDD IS NEEDED ☑

REQUESTED ANALYSES

FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes

☑ [illegible]: 24 HOURS

☑

* Field Point name only required if different from Sample ID

LAB USE ONLY	Field Point Name	Sample ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	NWTPH-Gx	NWTPH-Dx with silica gel cleanup	BTEX	Ethanol	MTBE	TEMPERATURE ON RECEIPT C°	
		Influent	4/21/2009	1200	Water	7	X	X	X	X	X		(6) HCL preserved voa's and (1) 1 Liter HCL amber
		Air Stripper	4/21/2009	1140	Water	7	X	X	X	X	X		(6) HCL preserved voa's and (1) 1 Liter HCL amber
		Mid 1	4/21/2009	1130	Water	7	X	X	X	X	X		(6) HCL preserved voa's and (1) 1 Liter HCL amber
		Effluent	4/21/2009	1120	Water	7	X	X	X	X	X		(6) HCL preserved voa's and (1) 1 Liter HCL amber

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
L. Rawlins	4/21/09		Tony Frank	04/21/09	15:45

Cooler Receipt Form
Pace Analytical Services, Inc.

SDG: CPWA0931 Taken By: Client

Cooler: AAD995 Transferred: Pace

COC #:

Project: WA Conoco Phillips (Stantec - Conoco Phillips)

Date samples were received at the laboratory: **4/21/2009**

Date cooler was opened: **4/21/2009 1:45PM**

A. PRELIMINARY EXAMINATION PHASE:

1. Did cooler come with a shipping slip (airbill, etc.)? **NO**
   if YES, record carrier name and airbill number:
2. Were custody seals unbroken and intact at the date and time of arrival? **INTACT**
   Date On Custody Seal: **4/20/2009** Custody Seals Description: **one in front**
3. Were custody papers sealed in a plastic bag and taped inside to the lid? **YES**
4. Did you screen samples for radioactivity using the Geiger Counter? **NO**
5. Were custody papers filled out properly (ink, signed, etc.)? **YES**
6. Did you sign custody papers in the appropriate place? **YES**
7. If required, was enough cooling material present? **YES**
8. Have designated person initial here to acknowledge receipt of cooler: TJN

B. LOG-IN PHASE:

Date samples were logged-in: **4/21/2009 5:37PM**

Logged-in by Taryn Namba (sign) [signature]

9. Describe type of packing in cooler:

   ice in bags, bubble wrap, VOA foam holders

10. Were all bottles sealed in separate plastic bags? **NO**
11. Were labels in good condition? **YES**
12. Were all bottle labels complete (ID,date,time signature,preservative,etc.)? **YES**
13. Did all bottle labels agree with custody papers? **YES**
14. Were correct containers used for the tests indicated? **YES**
15. Were the correct pHs observed? **YES**
16. Was a sufficient amount of sample sent for tests indicated? **YES**
17. Were VOA samples compliant with headspace, septum and cap? **NO**
18. Temperatures: **3.0, 2.8, 2.6**

DISCREPANCIES:

1 OF 6 VOA VIALS FOR -603 ~~CONTINUED~~ WAS OUT OF EPA COMPLIANCE FOR HEADSPACE. TJN 4/22/09

1 OF 3 VOA VIALS FOR -605 WAS OUT OF EPA COMPLIANCE FOR HEADSPACE.

Date Printed: 4/21/2009 17:39

Supplemental Sample Receipt Log
Pace Analytical Services, Inc.

SDG: CPWA0931
Cooler: AAD995
Temperatures: 3.0, 2.8, 2.6
COC #:

Sample	Bottle #	Bottle Description	pH	VOA*
CPWA0931-001	0001	1000 mL boston round, amber glass, HCl	<2	N/A
	0002	40 ml OTWS, clear glass, HCl	N/C	Yes
	0003	40 ml OTWS, clear glass, HCl	N/C	Yes
	0004	40 ml OTWS, clear glass, HCl	N/C	Yes
	0005	40 ml OTWS, clear glass, HCl	N/C	Yes
	0006	40 ml OTWS, clear glass, HCl	N/C	Yes
	0007	40 ml OTWS, clear glass, HCl	N/C	Yes
CPWA0931-002	0001	1000 mL boston round, amber glass, HCl	<2	N/A
	0002	40 ml OTWS, clear glass, HCl	N/C	No
	0003	40 ml OTWS, clear glass, HCl	N/C	Yes
	0004	40 ml OTWS, clear glass, HCl	N/C	Yes
	0005	40 ml OTWS, clear glass, HCl	N/C	Yes
	0006	40 ml OTWS, clear glass, HCl	N/C	Yes
	0007	40 ml OTWS, clear glass, HCl	N/C	Yes
CPWA0931-003	0001	1000 mL boston round, amber glass, HCl	<2	N/A
	0002	40 ml OTWS, clear glass, HCl	N/C	Yes
	0003	40 ml OTWS, clear glass, HCl	N/C	Yes
	0004	40 ml OTWS, clear glass, HCl	N/C	Yes
	0005	40 ml OTWS, clear glass, HCl	N/C	Yes
	0006	40 ml OTWS, clear glass, HCl	N/C	Yes
	0007	40 ml OTWS, clear glass, HCl	N/C	Yes
CPWA0931-004	0001	1000 mL boston round, amber glass, HCl	<2	N/A
	0002	40 ml OTWS, clear glass, HCl	N/C	Yes
	0003	40 ml OTWS, clear glass, HCl	N/C	Yes
	0004	40 ml OTWS, clear glass, HCl	N/C	Yes
	0005	40 ml OTWS, clear glass, HCl	N/C	Yes
	0006	40 ml OTWS, clear glass, HCl	N/C	Yes
	0007	40 ml OTWS, clear glass, HCl	N/C	Yes
CPWA0931-005	0001	40 ml OTWS, clear glass, HCl	N/C	Yes
	0002	40 ml OTWS, clear glass, HCl	N/C	Yes
	0003	40 ml OTWS, clear glass, HCl	N/C	No

* VOA vial compliant

Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature	Allowable temperature range is 4+/- 2 degrees Celsius
Acid Preserved pH	pH must be less than 2
Base Preserved pH	pH must be greater than 12
NC	Not Checked for pH

Supplemental Sample Receipt Log
Pace Analytical Services, Inc.

SDG: CPWA0931
Cooler: AAD995
Temperatures: 3.0, 2.8, 2.6
COC #:

Sample	Bottle #	Bottle Description	pH	VOA*

* VOA vial compliant
Allowable temperature and pH ranges (neutral pH defined as a value between 5 and 9)

Temperature	Allowable temperature range is 4+/- 2 degrees Celsius
Acid Preserved pH	pH must be less than 2
Base Preserved pH	pH must be greater than 12
NC	Not Checked for pH

Sample Condition Upon Receipt

Pace Analytical

Client Name: Shaw Project #

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other

Tracking #:

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☑ Other VOA foam holder

Thermometer Used Ikeda 13203 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 3.0 2.9 2.6 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: LW 04/21/09

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: water				
All containers needing preservation have been checked.	☐Yes	☐No	☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☑N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☐No		Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
Headspace in VOA Vials (>6mm):	☑Yes	☐No	☐N/A	15. one of 6 vials for Air Sampler
Trip Blank Present:	☑Yes	☐No	☐N/A	16. one of three vials has headspace >6mm.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

ATTACHMENT C
REMEDIATION SYSTEM LABORATORY AQUEOUS ANALYTICAL REPORTS

ConocoPhillips Company Facility Number 3485
2423 Lind Avenue SW
Renton, Washington