Torrent
LABORATORY, INC.

Pangea Environmental
1710 Franklin Street, Ste 200
Oakland, California 94612
Tel: 510 836 3700

RE: 5925 Ocean View Dr

Work Order No.: 1008033 Rev: 1

Dear Tina De La Fuente:

Torrent Laboratory, Inc. received 3 sample(s) on August 04, 2010 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Patti Sandrock

August 11, 2010
Date

Date: 8/11/2010

Client: Pangea Environmental

Project: 5925 Ocean View Dr

Work Order: 1008033

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Due to insufficient sample volume submitted (minimum volume 1L), standard extraction procedure for TPH as Diesel and TPH as Heating Oil could not be performed. A micro extraction was perfomed (SW 3511) and Diesel Range Organics (DRO) from C9-C23 was anlayzed. Heating Oil, also called Diesel #2, falls within the same C9-C23 range. No pattern for either Diesel or Heating Oil was observed. Results are report as TPH DRO.

REVISIONS:

Per client request, report was re-issued to include MTBE data for sample -003 (SB-2). No QC affected by this revision (Method Blank already incudes MTBE parameter and is not a LCS/LCSD spike compound).

Rev 1 (11/15/10)

Sample Result Summary

Report prepared for: Tina De La Fuente
Pangea Environmental

Date Received: 08/04/10
Date Reported: 08/11/10

SB-2-4 1008033-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

SB-1-8 1008033-002

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

SB-2 1008033-003

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tina De La Fuente
Pangea Environmental

Date Received: 08/04/10
Date Reported: 08/11/10

Client Sample ID:	SB-2-4	**Lab Sample ID:**	1008033-001A
Project Name/Location:	5925 Ocean View Dr	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	08/03/10 / 10:17		
Tag Number:	5925 Ocean View Dr		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Benzene	SW8260B	NA	08/05/10	1	1.5	10	ND		ug/Kg	401674	NA
Toluene	SW8260B	NA	08/05/10	1	0.98	10	ND		ug/Kg	401674	NA
Ethyl Benzene	SW8260B	NA	08/05/10	1	0.86	10	ND		ug/Kg	401674	NA
m,p-Xylene	SW8260B	NA	08/05/10	1	1.9	10	ND		ug/Kg	401674	NA
o-Xylene	SW8260B	NA	08/05/10	1	0.66	5.0	ND		ug/Kg	401674	NA
(S) Dibromofluoromethane	SW8260B	NA	08/05/10	1	59.8	148	109		%	401674	NA
(S) Toluene-d8	SW8260B	NA	08/05/10	1	55.2	133	106		%	401674	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	08/05/10	1	55.8	141	105		%	401674	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Heating Oil	SW8015B	8/9/10	08/09/10	1	3.30	4.0	ND		mg/Kg	401722	0800
Pentacosane (S)	SW8015B	8/9/10	08/09/10	1	53.3	124	77.8		%	401722	0800

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tina De La Fuente
Pangea Environmental

Date Received: 08/04/10
Date Reported: 08/11/10

Client Sample ID:	SB-1-8	**Lab Sample ID:**	1008033-002A
Project Name/Location:	5925 Ocean View Dr	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	08/03/10 / 0:43		
Tag Number:	5925 Ocean View Dr		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Benzene	SW8260B	NA	08/05/10	1	1.5	10	ND		ug/Kg	401674	NA
Toluene	SW8260B	NA	08/05/10	1	0.98	10	ND		ug/Kg	401674	NA
Ethyl Benzene	SW8260B	NA	08/05/10	1	0.86	10	ND		ug/Kg	401674	NA
m,p-Xylene	SW8260B	NA	08/05/10	1	1.9	10	ND		ug/Kg	401674	NA
o-Xylene	SW8260B	NA	08/05/10	1	0.66	5.0	ND		ug/Kg	401674	NA
(S) Dibromofluoromethane	SW8260B	NA	08/05/10	1	59.8	148	117		%	401674	NA
(S) Toluene-d8	SW8260B	NA	08/05/10	1	55.2	133	104		%	401674	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	08/05/10	1	55.8	141	111		%	401674	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Heating Oil	SW8015B	8/9/10	08/09/10	1	100	120	ND		mg/Kg	401722	0800
Pentacosane (S)	SW8015B	8/9/10	08/09/10	1	53.3	124	94.8		%	401722	0800

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tina De La Fuente
Pangea Environmental

Date Received: 08/04/10
Date Reported: 08/11/10

Client Sample ID:	SB-2	**Lab Sample ID:**	1008033-003A
Project Name/Location:	5925 Ocean View Dr	**Sample Matrix:**	Water
Project Number:			
Date/Time Sampled:	08/03/10 / 12:00		
Tag Number:	5925 Ocean View Dr		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	08/09/10	1.46	0.55	0.73	ND		ug/L	401707	NA
Benzene	SW8260B	NA	08/09/10	1.46	0.49	0.73	ND		ug/L	401707	NA
Toluene	SW8260B	NA	08/09/10	1.46	0.28	0.73	ND		ug/L	401707	NA
Ethyl Benzene	SW8260B	NA	08/09/10	1.46	0.22	0.73	ND		ug/L	401707	NA
m,p-Xylene	SW8260B	NA	08/09/10	1.46	0.29	1.5	ND		ug/L	401707	NA
o-Xylene	SW8260B	NA	08/09/10	1.46	0.19	0.73	ND		ug/L	401707	NA
(S) Dibromofluoromethane	SW8260B	NA	08/09/10	1.46	61.2	131	94.1		%	401707	NA
(S) Toluene-d8	SW8260B	NA	08/09/10	1.46	75.1	127	99.9		%	401707	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	08/09/10	1.46	64.1	120	93.4		%	401707	NA

NOTE: Reporting limit raised due to sediment in all voas.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel/Oil (C9-C42)	SW8015B	8/10/10	08/10/10	1	0.0440	0.10	ND		mg/L	401733	0814
Pentacosane (S)	SW8015B	8/10/10	08/10/10	1	64.2	123	96.6		%	401733	0814

NOTE: Due to limit sample volume, micro extraction was perfromed and analyzed for DRO (Diesel Range Organics). No Diesel or Heating Oil pattern was present.

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1008033	**Prep Method:**	3545_TPH	**Prep Date:**	08/09/10	**Prep Batch:**	0800
Matrix:	Water	**Analytical Method:**	SW8015B	**Analyzed Date:**	08/09/10	**Analytical Batch:**	401722
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Diesel Range Organics (DRO)	0.76	2.0	ND	
TPH as Bunker Oil	1.78	4.0	ND	
TPH as Fuel Oil	1.78	4.0	ND	
TPH as Diesel	0.758	2.0	ND	
TPH as Heating Oil	3.30	4.0	ND	
TPH as Hydraulic Oil	1.78	4.0	ND	
TPH as Jet A	0.758	2.0	ND	
TPH as Jet Fuel	0.76	2.0	ND	
TPH as JP-4	0.758	2.0	ND	
TPH as JP-5	0.758	2.0	ND	
TPH as JP-7	0.758	2.0	ND	
TPH as JP-8	0.758	2.0	ND	
TPH as Kerosene	0.758	3.3	ND	
TPH as Mineral Oil	1.78	4.0	ND	
TPH as Motor Oil	1.8	4.0	ND	
TPH as Naphtha	0.758	3.3	ND	
TPH as Oil	1.78	4.0	ND	
TPH as Stoddard	0.758	3.3	ND	
TPH as Transformer Oil	1.78	4.0	ND	
Creosote	0.758	3.3	ND	
Pentacosane (S)			93.4	

Work Order:	1008033	**Prep Method:**	3511_DRO	**Prep Date:**	08/10/10	**Prep Batch:**	0814
Matrix:	Water	**Analytical Method:**	SW8015B	**Analyzed Date:**	08/10/10	**Analytical Batch:**	401733
Units:	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel/Oil (C9-C42)	0.0440	0.10	ND	
Pentacosane (S)			98.4	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1008033	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Water	**Analytical Method:**	SW8260B	**Analyzed Date:**	08/05/10	**Analytical Batch:**	401674
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	4.4	10	ND	
Chloromethane	4.6	10	ND	
Vinyl Chloride	2.6	10	ND	
Bromomethane	4.7	10	ND	
Trichlorofluoromethane	2.9	10	ND	
1,1-Dichloroethene	1.5	10	ND	
Freon 113	3.7	10	ND	
Methylene Chloride	2.0	10	ND	
trans-1,2-Dichloroethene	1.1	10	ND	
MTBE	2.6	10	ND	
tert-Butanol	21	50	ND	
Diisopropyl ether (DIPE)	2.2	10	ND	
1,1-Dichloroethane	1.3	10	ND	
ETBE	2.4	10	ND	
cis-1,2-Dichloroethene	1.8	10	ND	
2,2-Dichloropropane	1.2	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	1.2	10	ND	
Carbon Tetrachloride	1.6	10	ND	
1,1,1-Trichloroethane	1.2	10	ND	
1,1-Dichloropropene	1.4	10	ND	
Benzene	1.5	10	ND	
TAME	2.1	10	ND	
1,2-Dichloroethane	1.9	10	ND	
Trichloroethylene	3.9	10	ND	
Dibromomethane	2.2	10	ND	
1,2-Dichloropropane	1.3	10	ND	
Bromodichloromethane	1.1	10	ND	
2-Chloroethyl vinyl ether	4.5	10	ND	
cis-1,3-Dichloropropene	1.4	10	ND	
Toluene	0.98	10	ND	
Tetrachloroethylene	1.8	10	ND	
trans-1,3-Dichloropropene	1.2	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.1	10	ND	
1,3-Dichloropropane	2.1	10	ND	
1,2-Dibromoethane	1.7	10	ND	
Ethyl Benzene	0.86	10	ND	
Chlorobenzene	4.2	10	ND	
1,1,1,2-Tetrachloroethane	0.86	10	ND	
m,p-Xylene	1.9	10	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1008033	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Water	**Analytical Method:**	SW8260B	**Analyzed Date:**	08/05/10	**Analytical Batch:**	401674
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
o-Xylene	0.66	5.0	ND	
Styrene	0.77	10	ND	
Bromoform	1.9	10	ND	
Isopropyl Benzene	1.2	10	ND	
n-Propylbenzene	1.4	10	ND	
Bromobenzene	1.2	10	ND	
1,1,2,2-Tetrachloroethane	3.0	10	ND	
1,3,5-Trimethylbenzene	1.1	10	ND	
1,2,3-Trichloropropane	3.3	10	ND	
4-Chlorotoluene	1.6	10	ND	
2-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.4	10	ND	
1,2,4-Trimethylbenzene	1.1	10	ND	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.8	10	ND	
1,4-Dichlorobenzene	1.5	10	ND	
n-Butylbenzene	2.2	10	ND	
1,2-Dichlorobenzene	1.3	10	ND	
1,2-Dibromo-3-Chloropropane	4.2	10	ND	
Hexachlorobutadiene	2.6	10	ND	
1,2,4-Trichlorobenzene	2.1	10	ND	
Naphthalene	2.8	10	ND	
1,2,3-Trichlorobenzene	2.9	10	ND	
(S) Dibromofluoromethane			122	
(S) Toluene-d8			97.2	
(S) 4-Bromofluorobenzene			93.3	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1008033	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Water	**Analytical Method:**	SW8260B	**Analyzed Date:**	08/09/10	**Analytical Batch:**	401707
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	0.41	0.50	ND	
Chloromethane	0.41	0.50	ND	
Vinyl Chloride	0.37	0.50	ND	
Bromomethane	0.37	0.50	ND	
Trichlorofluoromethane	0.34	0.50	ND	
1,1-Dichloroethene	0.29	0.50	ND	
Freon 113	0.38	0.50	ND	
Methylene Chloride	0.18	5.0	ND	
trans-1,2-Dichloroethene	0.31	0.50	ND	
MTBE	0.38	0.50	ND	
tert-Butanol	1.5	5.0	ND	
Diisopropyl ether (DIPE)	0.36	0.50	ND	
1,1-Dichloroethane	0.28	0.50	ND	
ETBE	0.40	0.50	ND	
cis-1,2-Dichloroethene	0.33	0.50	ND	
2,2-Dichloropropane	0.37	0.50	ND	
Bromochloromethane	0.34	0.50	ND	
Chloroform	0.29	0.50	ND	
Carbon Tetrachloride	0.26	0.50	ND	
1,1,1-Trichloroethane	0.32	0.50	ND	
1,1-Dichloropropene	0.40	0.50	ND	
Benzene	0.33	0.50	ND	
TAME	0.32	0.50	ND	
1,2-Dichloroethane	0.28	0.50	ND	
Trichloroethylene	0.38	0.50	ND	
Dibromomethane	0.21	0.50	ND	
1,2-Dichloropropane	0.37	0.50	ND	
Bromodichloromethane	0.23	0.50	ND	
2-Chloroethyl vinyl ether	0.91	2.0	ND	
cis-1,3-Dichloropropene	0.30	0.50	ND	
Toluene	0.19	0.50	ND	
Tetrachloroethylene	0.15	0.50	ND	
trans-1,3-Dichloropropene	0.20	0.50	ND	
1,1,2-Trichloroethane	0.20	0.50	ND	
Dibromochloromethane	0.21	0.50	ND	
1,3-Dichloropropane	0.18	0.50	ND	
1,2-Dibromoethane	0.19	0.50	ND	
Chlorobenzene	0.14	0.50	ND	
Ethyl Benzene	0.15	0.50	ND	
1,1,1,2-Tetrachloroethane	0.10	0.50	ND	
m,p-Xylene	0.20	1.0	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1008033	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Water	**Analytical Method:**	SW8260B	**Analyzed Date:**	08/09/10	**Analytical Batch:**	401707
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
o-Xylene	0.13	0.50	ND		
Styrene	0.20	0.50	ND		
Bromoform	0.45	1.0	ND		
Isopropyl Benzene	0.28	0.50	ND		
Bromobenzene	0.39	0.50	ND		
1,1,2,2-Tetrachloroethane	0.26	0.50	ND		
n-Propylbenzene	0.30	0.50	ND		
2-Chlorotoluene	0.33	0.50	ND		
1,3,5-Trimethylbenzene	0.20	0.50	ND		
4-Chlorotoluene	0.32	0.50	ND		
tert-Butylbenzene	0.29	0.50	ND		
1,2,3-Trichloropropane	0.59	1.0	ND		
1,2,4-Trimethylbenzene	0.33	0.50	ND		
sec-Butyl Benzene	0.24	0.50	ND		
p-Isopropyltoluene	0.25	0.50	ND		
1,3-Dichlorobenzene	0.31	0.50	ND		
1,4-Dichlorobenzene	0.37	0.50	ND		
n-Butylbenzene	0.32	0.50	ND		
1,2-Dichlorobenzene	0.39	0.50	ND		
1,2-Dibromo-3-Chloropropane	0.45	1.0	ND		
Hexachlorobutadiene	0.22	0.50	ND		
1,2,4-Trichlorobenzene	0.48	1.0	ND		
Naphthalene	0.57	1.0	ND		
1,2,3-Trichlorobenzene	0.52	1.0	ND		
Ethanol	100	100	ND	TIC	
(S) Dibromofluoromethane			90.0		
(S) Toluene-d8			95.7		
(S) 4-Bromofluorobenzene			96.7		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1008033	**Prep Method:**	3545_TPH	**Prep Date:**	08/09/10	**Prep Batch:**	0800
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	08/09/10	**Analytical Batch:**	401722
Units:	mg/Kg		LCSD				

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Diesel Range Organics (DRO)	0.76	2.0	ND	33.33	79.1	99.1	22.4	50.8 - 111	30	
Pentacosane (S)			ND	100	100	118		61.5 - 133		

Work Order:	1008033	**Prep Method:**	3511_DRO	**Prep Date:**	08/10/10	**Prep Batch:**	0814
Matrix:	Water	**Analytical Method:**	SW8015B	**Analyzed Date:**	08/10/10	**Analytical Batch:**	401733
Units:	mg/L		LCSD				

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel/Oil (C9-C42)	0.0440	0.10	ND	15	84.1	89.1	5.94	70.0 - 130	30	
Pentacosane (S)			98.4	150	108	101		70.0 - 130		

Work Order:	1008033	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	08/05/10	**Analytical Batch:**	401674
Units:	ug/Kg		LCSD				

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	1.5	10	ND	50	101	107	5.64	53.7 - 139	30	
Benzene	1.5	10	ND	50	117	123	4.75	66.5 - 135	30	
Trichloroethylene	3.9	10	ND	50	96.9	97.5	0.721	57.5 - 150	30	
Toluene	0.98	10	ND	50	92.5	98.2	5.87	56.8 - 134	30	
Chlorobenzene	4.2	10	ND	50	106	110	3.67	57.4 - 134	30	
(S) Dibromofluoromethane			ND	50	120	123		59.8 - 148		
(S) Toluene-d8			ND	50	92.9	92.8		55.2 - 133		
(S) 4-Bromofluorobenzene			ND	50	99.1	92.1		55.8 - 141		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1008033	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Water	**Analytical Method:**	SW8260B	**Analyzed Date:**	08/09/10	**Analytical Batch:**	401707
Units:	ug/L		LCSD				

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.29	0.50	ND	17.04	117	117	0.602	61.4 - 129	30	
Benzene	0.33	0.50	ND	17.04	107	101	5.19	66.9 - 140	30	
Trichloroethylene	0.38	0.50	ND	17.04	108	91.2	16.9	69.3 - 144	30	
Toluene	0.19	0.50	ND	17.04	110	92.4	17.7	76.6 - 123	30	
Chlorobenzene	0.14	0.50	ND	17.04	102	89.6	13.1	73.9 - 137	30	
(S) Dibromofluoromethane			ND	11.36	87.9	96.2		61.2 - 131		
(S) Toluene-d8			ND	11.36	87.7	89.1		75.1 - 127		
(S) 4-Bromofluorobenzene			ND	11.36	101	90.0		64.1 - 120		

Torrent LABORATORY, INC.

MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1008033	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	**Soil**	**Analytical Method:**	SW8260B	**Analyzed Date:**	08/05/10	**Analytical Batch:**	401674
Spiked Sample:	1008033-002A						
Units:	ug/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Benzene	1.5	10	0	50	117	108	8.02	66.5 - 135	30	
Toluene	0.98	10	0	50	112	116	2.95	56.8 - 134	30	
(S) Dibromofluoromethane				50	94.0	97.0		59.8 - 148		
(S) Toluene-d8				50	107	103		55.2 - 133		
(S) 4-Bromofluorobenzene				50	91.0	127		55.8 - 141		

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg.m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the anlayte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: Pangea Environmental

Project Name: 5925 Ocean View Dr

Work Order No.: 1008033

Date and Time Received: 8/4/2010 17:05

Received By: NK

Physically Logged By: MJ

Checklist Completed By: MJ

Carrier Name: Gold Bullet Courier

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes		
Container/Temp Blank temperature in compliance?		Temperature:	°C
Water-VOA vials have zero headspace?	Yes		
Water-pH acceptable upon receipt?			
pH Checked by:		pH Adjusted by:	

Login Summary Report

Client ID:	TL5322	Pangea Environmental	**QC Level:**	II
Project Name:	5925 Ocean View Dr		**TAT Requested:**	5+ day:0
Project # :			**Date Received:**	8/4/2010
Report Due Date:	8/11/2010		**Time Received:**	17:05

Comments: 5 day TAT! Received 2 soils, 1 water for TPH heating oil,BTEX.

Work Order # : ***1008033***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
1008033-001A	SB-2-4	08/03/10 10:17	Soil	01/31/11			S_8260MBTEX S_TEPH	
Sample Note:	Report TPH as Heating Oil, BTEX only for all samples.							
1008033-002A	SB-1-8	08/03/10 0:43	Soil	01/31/11			S_8260MBTEX S_TEPH	
Sample Note:	Report TPH as Heating Oil, 8260_For BTEX only.							
1008033-003A	SB-2	08/03/10 12:00	Water	09/18/10			W_8260MBTEX W_DRO	
Sample Note:	3 vials for 8260_BTEX and TPH Heating Oil. Please Manage.							

Torrent LABORATORY, INC.

Torrent LABORATORY, INC. 483 Sinclair Frontage Road Milpitas, CA 95035 Phone: 408.263.5258 FAX: 408.263.8293 www.torrentlab.com RESET

CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

LAB WORK ORDER NO: 1008033

Company Name: PANGEA ENVIRONMENTAL SERVICES

Address: 1710 FRANKLIN ST., STE 200

City: OAKLAND State: CA Zip Code: 94612

Telephone: 510-836-3700 FAX: 510-836-3709

REPORT TO: TINA DE LA FUENTE SAMPLER: TINA DE LA FUENTE

Location of Sampling: 5925 Ocean View Dr, Oakland

Purpose:

Special Instructions / Comments: ho = heating oil

EDF location ID for SB-2-4 is SB-2 & for SB-1-8 it is SB-1

P.O. #: 5925 Ocean View EMAIL: tdelafuente@pangeaenv.com

TURNAROUND TIME: ☐ 10 Work Days ☐ 3 Work Days ☐ Noon - Nxt Day ☐ 7 Work Days ☐ 2 Work Days ☐ 2 - 8 Hours ☒ 5 Work Days ☐ 1 Work Day ☐ Other

SAMPLE TYPE: ☐ Storm Water ☐ Air ☐ Waste Water ☐ Other ☒ Ground Water ☒ Soil

REPORT FORMAT: ☐ QC Level IV ☒ EDF ☐ Excel / EDD

ANALYSIS REQUESTED: ~~BTEX / TPH-g/MTBE (w/fuel oxygenates)~~ TDIF; TPH-ho + BTEX (8015 + 8021)

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	~~BTEX/TPH-g~~	TPH-ho + BTEX (8015+8021)	REMARKS
001A	SB-2-4	8/3/10 1017	S	1	LINER		X	ho = heating oil
002A	SB-1-8	8/3/10 1243	S	1	LINER		X	↓
003A	SB-2	8/3/10 1200	W	3	HCL VOAS		X	↓

	Relinquished By	Print	Date	Time	Received By	Print	Date	Time
1	[signature]	TDIF	8-4-10	1508	M. Marquez		8-4-10	1504
2	[signature]	Ivo	8-4-10	5-05	[signature]		8/4/10	5:05pm

Were Samples Received in Good Condition? ☐ Yes ☐ NO Samples on Ice? ☐ Yes ☐ NO Method of Shipment Gold Bullet Sample seals intact? ☐ Yes ☐ NO ☐ N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

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Log In By: ______ Date: ______ Log In Reviewed By: ______ Date: ______