

# E N T R I X

---

**TO:** Marsh Assessment Subgroup  
Jim Hoff, NOAA  
Kevin Smith, MDNR  
Rick Ayella, MDE  
Jacqui Michel, RPI  
Al Rizzo, USFWS

**FROM:** Gary Harmon

**DATE:** September 11, 2001

**SUBJECT:** 2000 Chemistry Data Packages

---

Chemistry packages include 38 Total Petroleum Hydrocarbon (TPH) and 9 Polycyclic Aromatic Hydrocarbon (PAH) data sets. Samples were extracted and analyzed for TPH in extraction batches ENV425 and ENV429. PAH analysis was conducted on 9 samples from extraction batch ENV429. Laboratory control documents are included for each extraction batch and are in accordance with the "Quality Assurance Project Plan for Analysis of Environmental Samples from Environmental Studies Related to the Swanson Creek Marsh Oil Spill Incident." The following samples were analyzed for the following:

<u>Sample</u>	<u>Interval (cm)</u>	<u>Analyses</u>	<u>Extraction Batch</u>	<u>Collection</u>
AH2I	0-5	TPH, PAH	ENV429	7/20/00
AH2I	8-10	TPH, PAH	ENV429	7/20/00
AH3I	0-5	TPH	ENV425	7/27/00
AH3I	5-10	TPH	ENV425	7/27/00
AH3I	15-20	TPH	ENV425	7/27/00
AH2S	0-5	TPH	ENV429	7/17/00
CH1I	0-5	TPH	ENV429	7/20/00
CH1I	10-15	TPH, PAH	ENV429	7/20/00
CH1I	18-20	TPH, PAH	ENV429	7/20/00
CH3I	0-5	TPH	ENV429	7/20/00
CH3I	10-15	TPH	ENV429	7/20/00
CH3I	18-20	TPH, PAH	ENV429	7/20/00
CH3I	22-25	TPH	ENV429	7/20/00
CH2S	0-5	TPH	ENV429	7/17/00
CH3S	0-5	TPH	ENV429	7/17/00
CH3S	10-15	TPH	ENV429	7/17/00
DH1I	0-5	TPH	ENV425	9/18/00
DH1I	5-10	TPH	ENV425	9/18/00
DH1I	20-25	TPH	ENV425	9/18/00

# E N T R I X

page 2 of 2

<u>Sample</u>	<u>Interval (cm)</u>	<u>Analyses</u>	<u>Extraction Batch</u>	<u>Collection</u>
DH2I	0-5	TPH	ENV425	9/18/00
DH3I	10-15	TPH	ENV425	9/18/00
PH1I	0-5	TPH, PAH	ENV429	9/18/00
PH1I	18-20	TPH, PAH	ENV429	9/18/00
PH2I	0-5	TPH	ENV425	9/18/00
PH2I	10-15	TPH	ENV425	9/18/00
SH1I	0-5	TPH	ENV425	9/18/00
SH1I	12-17	TPH	ENV425	9/18/00
SH1I	21-25	TPH	ENV425	9/18/00
SH2I	0-5	TPH, PAH	ENV429	9/18/00
SH2I	12-17	TPH	ENV425	9/18/00
SH2I	25-28	TPH	ENV425	9/18/00
SH2I	30-32	TPH, PAH	ENV429	9/18/00
TH1I	0-5	TPH	ENV425	7/21/00
TH1I	5-10	TPH	ENV425	7/21/00
TH2I	0-5	TPH	ENV429	7/18/00
TH2I	10-15	TPH	ENV429	7/18/00
TH3S	0-5	TPH	ENV425	7/21/00
TH3S	5-10	TPH	ENV425	7/21/00

TPH

ENV425

Entrix, Inc.  
 PEPCO NRDA Core Samples  
 Total Petroleum Hydrocarbon Data  
 Client Submitted Samples

Sample Name	ETX1216	ETX1218	ETX1220	ETX1588	ETX1590	ETX1593
Client Name	TH11 (0-5 cm)	TH3S (0-5 cm)	AH3I (2 of 3) (0-5 cm)	SH11 (0-5 cm)	DH2I (0-5 cm)	DH3I (10-15 cm)
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Collection Date	07/21/00	07/21/00	07/27/00	09/18/00	09/18/00	09/18/00
Received Date	08/04/00	08/04/00	08/04/00	09/22/00	09/22/00	09/22/00
Extraction Date	07/24/01	07/24/01	07/24/01	07/24/01	07/24/01	07/24/01
Extraction Batch	ENV425	ENV425	ENV425	ENV425	ENV425	ENV425
Date Acquired	07/28/01	07/28/01	07/28/01	07/28/01	07/28/01	07/28/01
Method	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M
Sample Dry Weight (g)	13.9	2.1	2.2	2.1	15.1	15.0
% Moisture	80	80	80	90	25	19
% Dry	20	20	20	10	75	81
Dilution	NA	NA	NA	NA	NA	NA

Target Compounds	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q
n-C <sub>10</sub>	0.2		<0.11		0.2		0.5		0.0	
n-C <sub>11</sub>	0.1		<0.11		0.4		5.4		0.0	
n-C <sub>12</sub>	0.1		7.1		8.4		74.7		0.1	
n-C <sub>13</sub>	0.1		42.6		28.4		200.1		0.3	
n-C <sub>14</sub>	0.4		150.6		78.7		346.2		1.5	
n-C <sub>15</sub>	1.2		271.1		130.3		446.9		2.4	
n-C <sub>16</sub>	0.3		254.0		108.9		357.1		3.3	
n-C <sub>17</sub>	0.3		230.6		100.3		280.8		3.5	
Pristane	0.2		228.4		98.9		279.4		8.0	
n-C <sub>18</sub>	2.0		220.4		87.2		258.3		4.0	
Phytane	0.1		135.6		58.8		155.5		5.2	
n-C <sub>19</sub>	0.3		182.1		74.9		227.0		3.4	
n-C <sub>20</sub>	0.1		113.5		42.5		121.8		2.6	
n-C <sub>21</sub>	0.7		119.6		50.6		145.3		2.9	
n-C <sub>22</sub>	0.3		110.1		37.2		114.0		1.8	
n-C <sub>23</sub>	2.5		102.4		38.2		119.4		1.8	
n-C <sub>24</sub>	0.5		100.8		28.1		104.6		1.7	
n-C <sub>25</sub>	2.7		92.9		31.7		106.8		1.9	
n-C <sub>26</sub>	0.6		69.7		24.2		83.3		1.4	
n-C <sub>27</sub>	4.8		78.6		28.4		100.8		2.3	
n-C <sub>28</sub>	1.1		60.0		19.5		75.9		1.3	
n-C <sub>29</sub>	7.1		52.2		22.5		70.4		1.5	
n-C <sub>30</sub>	0.6		47.8		17.6		55.2		1.1	
n-C <sub>31</sub>	2.0		38.3		19.3		53.6		1.2	
n-C <sub>32</sub>	0.5		32.2		10.2		36.3		0.7	
n-C <sub>33</sub>	1.1		39.0		14.2		44.7		1.0	
n-C <sub>34</sub>	0.2		33.3		11.0		29.6		0.8	
<b>Total Alkanes</b>	<b>31</b>		<b>2813</b>		<b>1171</b>		<b>3893</b>		<b>56</b>	
<b>Total Petroleum Hydrocarbon</b>	<b>286</b>		<b>36839</b>		<b>15347</b>		<b>46861</b>		<b>1328</b>	
<b>Total Resolved Hydrocarbon</b>	<b>195</b>		<b>10048</b>		<b>4548</b>		<b>14321</b>		<b>274</b>	
<b>Unresolved Complex Mixture</b>	<b>91</b>		<b>26791</b>		<b>10799</b>		<b>32540</b>		<b>1054</b>	
<b>EOM (µg/dry g)</b>	<b>5579</b>		<b>98469</b>		<b>40786</b>		<b>161942</b>		<b>4303</b>	
<b>Surrogate (Su)</b>	<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>	
n-dodecane-d26	106		112		116		215	*I	101	
n-eicosane-d42	103		109		109		104		90	
n-triacontane-d62	94		102		102		99		91	

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative  
 If n-eicosane-d42 (surrogate) recovery is above 100%, TPH and aliphatic values were surrogate corrected to 100%.

Entrix, Inc.  
 PEPCO NRDA Core Samples  
 Total Petroleum Hydrocarbon Data  
 Client Submitted Samples

Sample Name	ETX1594	ETX1595	ETX1804	ETX1805	ETX1806	ETX1807
Client Name	DH11 (0-5 cm)	PH21 (0-5 cm)	TH11 (5-10 cm)	TH3S (5-10 cm)	AH3I (2 of 3) (5-10 cm)	AH3I (2 of 3) (15-20 cm)
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Collection Date	09/18/00	09/18/00	07/21/00	07/21/00	07/27/00	07/27/00
Received Date	09/22/00	09/22/00	08/04/00	08/04/00	08/04/00	08/04/00
Extraction Date	07/24/01	07/24/01	07/24/01	07/24/01	07/24/01	07/24/01
Extraction Batch	ENV425	ENV425	ENV425	ENV425	ENV425	ENV425
Date Acquired	07/28/01	07/28/01	07/28/01	07/28/01	07/28/01	07/28/01
Method	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M
Sample Dry Weight (g)	2.0	9.9	9.9	15.0	15.0	14.9
% Moisture	66	81	80	78	78	81
% Dry	34	19	20	22	22	19
Dilution	NA	NA	NA	NA	NA	NA

  

Target Compounds	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q
n-C <sub>10</sub>	<0.11		0.2		0.2		0.2		0.2	0.3
n-C <sub>11</sub>	<0.11		0.2		0.2		0.1		0.1	0.2
n-C <sub>12</sub>	0.2		0.3		0.2		0.1		0.3	0.1
n-C <sub>13</sub>	0.5		0.5		0.2		0.2		0.6	0.2
n-C <sub>14</sub>	2.8		3.8		0.5		0.9		1.6	0.3
n-C <sub>15</sub>	5.5		3.1		1.9		1.1		3.0	1.1
n-C <sub>16</sub>	8.2		10.4		0.8		2.6		3.7	0.6
n-C <sub>17</sub>	8.5		12.1		0.8		3.4		4.1	0.8
Pristane	16.2		42.8		0.6		2.7		3.1	0.5
n-C <sub>18</sub>	11.5		18.8		1.8		4.5		5.4	1.1
Phytane	10.7		30.6		0.5		1.8		2.1	0.5
n-C <sub>19</sub>	10.6		17.2		0.8		4.0		3.8	0.7
n-C <sub>20</sub>	8.3		9.7		0.4		1.7		2.4	0.3
n-C <sub>21</sub>	8.9		10.5		1.7		3.1		4.2	0.8
n-C <sub>22</sub>	6.0		3.5		0.6		2.2		2.9	0.7
n-C <sub>23</sub>	6.1		3.5		4.1		3.9		4.1	1.3
n-C <sub>24</sub>	5.6		3.2		0.8		2.4		2.7	0.6
n-C <sub>25</sub>	5.4		4.5		4.0		3.2		3.8	1.6
n-C <sub>26</sub>	3.7		3.1		0.7		1.5		2.2	0.8
n-C <sub>27</sub>	7.3		9.9		5.9		4.2		5.5	3.6
n-C <sub>28</sub>	3.8		5.6		1.1		1.5		2.3	1.2
n-C <sub>29</sub>	6.3		6.9		7.6		5.2		8.6	6.6
n-C <sub>30</sub>	2.9		4.5		0.7		1.2		1.9	1.0
n-C <sub>31</sub>	4.0		3.0		4.1		3.2		5.6	5.4
n-C <sub>32</sub>	2.4		2.6		0.5		1.1		1.8	0.6
n-C <sub>33</sub>	3.4		2.0		1.6		2.1		4.4	3.6
n-C <sub>34</sub>	2.0		1.3		0.3		1.0		0.9	0.6
<b>Total Alkanes</b>	<b>151</b>		<b>214</b>		<b>42.4</b>		<b>59</b>		<b>81</b>	<b>35</b>
Total Petroleum Hydrocarbon	3923		8121		577		669		897	381
Total Resolved Hydrocarbon	863		1766		418		288		389	243
Unresolved Complex Mixture	3060		6356		159		381		508	138
EOM (µg/dry g)	13322		43634		7462		5916		5629	4083
Surrogate (Su)	Su Recovery (%)		Su Recovery (%)		Su Recovery (%)		Su Recovery (%)		Su Recovery (%)	
n-dodecane-d26	93		111		107		99		97	97
n-eicosane-d42	91		102		98		102		84	99
n-triacontane-d62	91		97		97		92		84	82

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative  
 If n-eicosane-d42 (surrogate) recovery is above 100%, TPH and aliphatic values were surrogate corrected to 100%.

Sample Name	ETX1808	ETX1809	ETX1810	ETX1811	ETX1813	ETX1814
Client Name	SH11 (12-17 cm)	SH11 (21-25 cm)	SH21 (12-17 cm)	SH21 (25-28 cm)	DH11 (5-10 cm)	DH11 (20-25 cm)
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Collection Date	09/18/00	09/18/00	09/18/00	09/18/00	09/18/00	09/18/00
Received Date	09/22/00	09/22/00	09/22/00	09/22/00	09/22/00	09/22/00
Extraction Date	07/24/01	07/24/01	07/24/01	07/24/01	07/24/01	07/24/01
Extraction Batch	ENV425	ENV425	ENV425	ENV425	ENV425	ENV425
Date Acquired	07/28/01	07/28/01	07/28/01	07/28/01	07/28/01	07/28/01
Method	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M
Sample Dry Weight (g)	11.5	9.9	9.5	2.0	2.1	8.7
% Moisture	86	86	83	83	73	90
% Dry	14	14	17	17	27	10
Dilution	NA	NA	NA	NA	NA	NA

  

Target Compounds	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q
n-C <sub>10</sub>	0.1		0.2		0.2		0.2		<0.11		0.2	
n-C <sub>11</sub>	0.2		0.2		0.2		0.3		<0.11		0.1	
n-C <sub>12</sub>	0.3		0.3		0.7		1.8		0.5		0.1	
n-C <sub>13</sub>	0.5		0.5		5.0		6.5		3.5		0.0	
n-C <sub>14</sub>	2.0		1.9		24.2		36.1		15.5		0.2	
n-C <sub>15</sub>	7.5		5.7		45.1		40.3		33.0		0.3	
n-C <sub>16</sub>	10.5		8.8		47.3		50.3		34.3		0.3	
n-C <sub>17</sub>	11.9		11.6		35.2		53.9		29.9		0.4	
Pristane	18.3		16.0		38.6		58.1		29.3		0.1	
n-C <sub>18</sub>	16.1		13.9		31.9		59.8		29.5		0.8	
Phytane	12.1		10.8		23.1		36.3		18.4		0.2	
n-C <sub>19</sub>	18.1		8.6		27.2		61.6		27.5		0.8	
n-C <sub>20</sub>	11.7		9.4		14.7		43.6		15.6		0.5	
n-C <sub>21</sub>	13.2		11.0		17.1		48.2		21.4		2.0	
n-C <sub>22</sub>	8.6		7.0		12.9		38.8		14.6		1.1	
n-C <sub>23</sub>	9.3		8.3		14.6		38.5		19.7		3.0	
n-C <sub>24</sub>	7.5		6.0		12.1		35.4		13.3		6.3	
n-C <sub>25</sub>	9.1		8.0		11.5		33.7		11.7		8.1	
n-C <sub>26</sub>	6.2		5.2		9.3		26.2		8.6		6.0	
n-C <sub>27</sub>	11.7		10.5		9.5		36.9		11.4		14.1	
n-C <sub>28</sub>	6.2		5.4		6.6		19.8		6.2		3.8	
n-C <sub>29</sub>	10.4		10.3		11.8		32.1		9.8		16.6	
n-C <sub>30</sub>	5.2		4.7		6.0		14.9		5.3		2.7	
n-C <sub>31</sub>	7.7		6.6		8.7		30.0		7.4		12.9	
n-C <sub>32</sub>	4.2		3.7		4.0		11.9		4.1		1.5	
n-C <sub>33</sub>	5.5		6.3		5.9		28.4		8.3		8.2	
n-C <sub>34</sub>	3.1		2.4		3.8		6.5		3.8		0.6	
<b>Total Alkanes</b>	<b>217</b>		<b>183</b>		<b>427</b>		<b>850</b>		<b>383</b>		<b>91</b>	
Total Petroleum Hydrocarbon	3353		2884		6318		10290		5640		2410	
Total Resolved Hydrocarbon	1011		918		1945		3536		1612		2060	
Unresolved Complex Mixture	2342		1966		4372		6754		4028		350	
EOM (µg/dry g)	21919		15953		35005		40956		20452		34593	
Surrogate (Su)	Su Recovery (%)		Su Recovery (%)		Su Recovery (%)		Su Recovery (%)		Su Recovery (%)		Su Recovery (%)	
n-dodecane-d26	107		106		107		105		101		103	
n-eicosane-d42	106		104		105		98		104		98	
n-triacontane-d62	105		95		96		94		93		87	

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative  
 If n-eicosane-d42 (surrogate) recovery is above 100%, TPH and aliphatic values were surrogate corrected to 100%.

Sample Name ETX1815  
 Client Name PH21 (10-15 cm)  
 Matrix Sediment  
 Collection Date 09/18/00  
 Received Date 09/22/00  
 Extraction Date 07/24/01  
 Extraction Batch ENV425  
 Date Acquired 07/28/01  
 Method ALL\_COMP.M  
 Sample Dry Weight (g) 11.2  
 % Moisture 83  
 % Dry 17  
 Dilution NA

Target Compounds	Su Corrected Conc (µg/dry g)	Q
n-C <sub>10</sub>	0.2	
n-C <sub>11</sub>	0.1	
n-C <sub>12</sub>	0.1	
n-C <sub>13</sub>	0.1	
n-C <sub>14</sub>	0.2	
n-C <sub>15</sub>	0.2	
n-C <sub>16</sub>	0.4	
n-C <sub>17</sub>	0.6	
Pristane	0.5	
n-C <sub>18</sub>	1.0	
Phytane	0.4	
n-C <sub>19</sub>	0.7	
n-C <sub>20</sub>	0.2	
n-C <sub>21</sub>	1.1	
n-C <sub>22</sub>	0.6	
n-C <sub>23</sub>	2.3	
n-C <sub>24</sub>	0.9	
n-C <sub>25</sub>	3.1	
n-C <sub>26</sub>	1.1	
n-C <sub>27</sub>	7.9	
n-C <sub>28</sub>	1.6	
n-C <sub>29</sub>	8.3	
n-C <sub>30</sub>	1.1	
n-C <sub>31</sub>	6.8	
n-C <sub>32</sub>	0.7	
n-C <sub>33</sub>	4.4	
n-C <sub>34</sub>	0.1	
<b>Total Alkanes</b>	<b>45</b>	
Total Petroleum Hydrocarbon	759	
Total Resolved Hydrocarbon	495	
Unresolved Complex Mixture	264	
EOM (µg/dry g)	12282	
<b>Surrogate (Su)</b>	<b>Su Recovery (%)</b>	
n-dodecane-d26	104	
n-eicosane-d42	102	
n-triacontane-d62	100	

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative  
 If n-eicosane-d42 (surrogate) recovery is above 100%, TPH and aliphatic values were surrogate corrected to 100%.



Sample Name ENV425A  
 Client Name Procedural Blank  
 Matrix Sediment  
 Collection Date NA  
 Received Date NA  
 Extraction Date 07/24/01  
 Extraction Batch ENV425  
 Date Acquired 07/27/01  
 Method ALL\_COMP.M  
 Sample Dry Weight (g) 15.0  
 % Moisture NA  
 % Dry NA  
 Dilution NA

Target Compounds	Su Corrected Conc (µg/dry g)	Q	3X MCL (µg/dry g)	Actual MDL (µg/dry g)
n-C <sub>10</sub>	<0.015		0.045	0.015
n-C <sub>11</sub>	<0.015		0.045	0.015
n-C <sub>12</sub>	<0.015		0.045	0.015
n-C <sub>13</sub>	<0.015		0.045	0.015
n-C <sub>14</sub>	<0.015		0.045	0.015
n-C <sub>15</sub>	<0.015		0.045	0.015
n-C <sub>16</sub>	<0.015		0.045	0.015
n-C <sub>17</sub>	<0.015		0.045	0.015
Pristane	<0.015		0.045	0.015
n-C <sub>18</sub>	<0.015		0.045	0.015
Phytane	<0.015		0.045	0.015
n-C <sub>19</sub>	<0.015		0.045	0.015
n-C <sub>20</sub>	<0.015		0.045	0.015
n-C <sub>21</sub>	<0.015		0.045	0.015
n-C <sub>22</sub>	<0.015		0.045	0.015
n-C <sub>23</sub>	<0.015		0.045	0.015
n-C <sub>24</sub>	<0.015		0.045	0.015
n-C <sub>25</sub>	<0.015		0.045	0.015
n-C <sub>26</sub>	<0.015		0.045	0.015
n-C <sub>27</sub>	<0.015		0.045	0.015
n-C <sub>28</sub>	<0.015		0.045	0.015
n-C <sub>29</sub>	<0.015		0.045	0.015
n-C <sub>30</sub>	<0.015		0.045	0.015
n-C <sub>31</sub>	<0.015		0.045	0.015
n-C <sub>32</sub>	<0.015		0.045	0.015
n-C <sub>33</sub>	<0.015		0.045	0.015
n-C <sub>34</sub>	<0.015		0.045	0.015
Total Petroleum Hydrocarbon	3		4.2	1.4
Total Resolved Hydrocarbon	2		4.2	1.4
Unresolved Complex Mixture	1		4.2	1.4
EOM (µg/dry g)		U		
<b>Surrogate (Su)</b>	<b>Su Recovery (%)</b>			
n-dodecane-d26	97			
n-eicosane-d42	92			
n-triacontane-d62	91			

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative

Sample Name	ENV425C	ENV425D
Client Name	Blank Spike	Blank Spike Duplicate
Matrix	Sediment	Sediment
Collection Date	NA	NA
Received Date	NA	NA
Extraction Date	07/24/01	07/24/01
Extraction Batch	ENV425	ENV425
Date Acquired	07/27/01	07/27/01
Method	ALI_COMP.M	ALI_COMP.M
Sample Dry Weight (g)	1.0	1.0
% Moisture	NA	NA
% Dry	NA	NA
Dilution	NA	NA

Target Compounds	Su Corrected Conc (µg/dry g)	Rec (%)	Q	Su Corrected Conc (µg/dry g)	Rec (%)	Q	RPD (%)	Q
n-C <sub>10</sub>	9.8	102		10.7	111		9	
n-C <sub>11</sub>	9.8	100		9.9	101		1	
n-C <sub>12</sub>	10.1	102		10.8	109		7	
n-C <sub>13</sub>	10.9	109		11.4	114		5	
n-C <sub>14</sub>	10.3	103		11.0	109		6	
n-C <sub>15</sub>	NA			NA				
n-C <sub>16</sub>	10.9	107		11.7	114		6	
n-C <sub>17</sub>	10.3	101		10.9	106		5	
Pristane	11.1	107		11.6	112		5	
n-C <sub>18</sub>	10.2	100		11.3	110		10	
Phytane	NA			NA				
n-C <sub>19</sub>	10.6	103		10.9	106		3	
n-C <sub>20</sub>	10.5	102		11.0	108		5	
n-C <sub>21</sub>	10.9	108		11.1	110		2	
n-C <sub>22</sub>	10.8	106		11.5	113		6	
n-C <sub>23</sub>	11.4	110		11.4	111		0	
n-C <sub>24</sub>	11.1	111		11.2	112		1	
n-C <sub>25</sub>	11.0	111		11.1	112		1	
n-C <sub>26</sub>	10.7	109		11.0	112		3	
n-C <sub>27</sub>	11.4	112		11.4	112		0	
n-C <sub>28</sub>	11.4	111		11.2	110		1	
n-C <sub>29</sub>	11.0	110		11.1	112		1	
n-C <sub>30</sub>	11.1	110		11.1	110		0	
n-C <sub>31</sub>	NA			NA				
n-C <sub>32</sub>	11.2	109		11.2	110		1	
n-C <sub>33</sub>	NA			NA				
n-C <sub>34</sub>	10.9	107		11.1	110		2	

Surrogate (Su)	Su Recovery (%)	Su Recovery (%)
n-dodecane-d26	102	95
n-eicosane-d42	101	100
n-triacontane-d62	96	108

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative

Sample Name	ETX1805	ENV425E
Client Name	TH3S (5-10 cm)	Dup (TH3S (5-10 cm))
Matrix	Sediment	Sediment
Collection Date	07/21/00	07/21/00
Received Date	08/04/00	08/04/00
Extraction Date	07/24/01	07/24/01
Extraction Batch	ENV425	ENV425
Date Acquired	07/28/01	07/28/01
Method	ALI_COMP.M	ALI_COMP.M
Sample Dry Weight (g)	15.0	15.1
% Moisture	78	78
% Dry	22	22
Dilution	NA	NA

Target Compounds	Su Corrected Conc (mg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	RPD (%)	Q
n-C <sub>10</sub>	0.2		0.2		3	
n-C <sub>11</sub>	0.1		0.1		11	
n-C <sub>12</sub>	0.1		0.1		1	
n-C <sub>13</sub>	0.2		0.2		12	
n-C <sub>14</sub>	0.9		0.8		1	
n-C <sub>15</sub>	1.1		1.1		4	
n-C <sub>16</sub>	2.6		2.7		5	
n-C <sub>17</sub>	3.4		3.3		3	
Pristane	2.7		2.7		2	
n-C <sub>18</sub>	4.5		4.7		5	
Phytane	1.8		1.8		2	
n-C <sub>19</sub>	4.0		4.0		0	
n-C <sub>20</sub>	1.7		1.7		1	
n-C <sub>21</sub>	3.1		3.1		0	
n-C <sub>22</sub>	2.2		2.1		7	
n-C <sub>23</sub>	3.9		4.1		6	
n-C <sub>24</sub>	2.4		2.3		2	
n-C <sub>25</sub>	3.2		3.4		7	
n-C <sub>26</sub>	1.5		1.6		6	
n-C <sub>27</sub>	4.2		4.9		14	
n-C <sub>28</sub>	1.5		1.5		0	
n-C <sub>29</sub>	5.2		5.6		6	
n-C <sub>30</sub>	1.2		1.2		6	
n-C <sub>31</sub>	3.2		3.2		0	
n-C <sub>32</sub>	1.1		1.2		7	
n-C <sub>33</sub>	2.1		1.8		16	
n-C <sub>34</sub>	1.0		0.8		16	
<b>Total Alkanes</b>	<b>59</b>		<b>60</b>		<b>2</b>	
Total Petroleum Hydrocarbon	669		682		2	
Total Resolved Hydrocarbon	288		299		4	
Unresolved Complex Mixture	381		382		0	
EOM (µg/dry g)	5916		5480		8	
<b>Surrogate (Su)</b>	<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>			
n-dodecane-d26	99		98			
n-eicosane-d42	102		100			
n-triacontane-d62	92		91			

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, X=<2x MDL, \*=Outside QA limits, refer to narrative  
 If n-eicosane-d42 (surrogate) recovery is above 100%, TPH and aliphatic values were surrogate corrected to 100%.

Sample Name GC10442B  
Client Name AL-WKDIESEL-50-001  
Matrix Solution  
Collection Date NA  
Received Date NA  
Extraction Date NA  
Extraction Batch ENV425  
Date Acquired 07/27/01  
Method ALI\_COMP.M  
Sample Volume (mL) 1.0  
Dilution NA

---

Target Compounds	Su Corrected Conc (ug/mL)	Q %RPD	B&B Average Conc (ug/mL)	-15% Conc (ug/mL)	+15% Conc (ug/mL)
Total Petroleum Hydrocarbon	49.7	0.6	50.0	42.5	57.5
<i>Surrogate (Su)</i>	<i>Su Recovery (%)</i>				
n-dodecane-d26	104				
n-eicosane-d42	107				
n-triacontane-d62	100				

---

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative



ENV429

Entrix, Inc.  
 PEPCo Oil Spill Project  
 NRDA Core Samples  
 Total Petroleum Hydrocarbon Data  
 Client Submitted Samples

Sample Name	ETX1180	ETX1186	ETX1189	ETX1190	ETX1207	ETX1210
Client Name	TH2I (0-5 cm)	AH2S (0-5 cm)	CH2S (0-5 cm)	CH3S (0-5 cm)	AH2I (0-5 cm)	CH1I (0-5 cm)
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Collection Date	07/18/00	07/17/00	07/17/00	07/17/00	07/20/00	07/20/00
Received Date	08/03/00	08/03/00	08/03/00	08/03/00	08/04/00	08/04/00
Extraction Date	08/02/01	08/02/01	08/02/01	08/02/01	08/02/01	08/02/01
Extraction Batch	ENV429	ENV429	ENV429	ENV429	ENV429	ENV429
Date Acquired	08/07/01	08/07/01	08/07/01	08/07/01	08/07/01	08/08/01
Method	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M
Sample Dry Weight (g)	15.1	15.3	15.1	3.1	5.1	5.5
% Moisture	76	30	66	65	78	78
% Dry	24	70	34	35	22	22
Dilution	NA	NA	NA	NA	NA	NA

Target Compounds	Su Corrected		Q		Su Corrected		Q		Su Corrected		Q	
	Conc (µg/dry g)	Q	Conc (µg/dry g)	Q	Conc (µg/dry g)	Q	Conc (µg/dry g)	Q	Conc (µg/dry g)	Q	Conc (µg/dry g)	Q
n-C <sub>10</sub>	0.2		0.0		0.2		0.2		0.1		0.1	
n-C <sub>11</sub>	0.1		0.0	J	0.1		3.5		0.1		0.2	
n-C <sub>12</sub>	0.1		0.0		0.1		22.3		0.3		2.0	
n-C <sub>13</sub>	0.2		0.1		0.2		51.4		0.8		7.7	
n-C <sub>14</sub>	0.4		0.3		0.4		116.8		3.4		21.5	
n-C <sub>15</sub>	0.6		0.6		0.5		169.8		4.9		55.1	
n-C <sub>16</sub>	0.7		0.9		0.4		152.8		5.3		50.4	
n-C <sub>17</sub>	0.9		1.2		0.8		106.0		7.2		48.3	
Pristane	1.0		4.3		2.1		91.0		20.8		39.0	
n-C <sub>18</sub>	1.5		1.4		1.2		99.0		8.9		48.7	
Phytane	0.8		3.0		2.2		49.3		12.3		24.7	
n-C <sub>19</sub>	0.9		1.0		0.7		100.1		4.5		47.7	
n-C <sub>20</sub>	0.2		0.2		0.5		62.4		2.2		39.0	
n-C <sub>21</sub>	1.3		1.1		1.4		68.2		6.5		39.1	
n-C <sub>22</sub>	0.6		0.2		0.1		47.9		1.9		29.7	
n-C <sub>23</sub>	1.3		0.8		1.4		60.6		4.0		40.7	
n-C <sub>24</sub>	0.6		0.1		0.2		35.9		1.9		30.3	
n-C <sub>25</sub>	1.6		0.3		1.6		37.1		3.1		26.2	
n-C <sub>26</sub>	0.7		0.1		0.5		28.2		2.1		20.9	
n-C <sub>27</sub>	3.4		0.4		2.7		32.8		7.5		25.2	
n-C <sub>28</sub>	1.1		0.2		0.9		21.7		3.4		16.0	
n-C <sub>29</sub>	4.4		0.4		2.2		21.6		9.1		19.3	
n-C <sub>30</sub>	0.9		0.1		0.8		18.2		3.4		13.0	
n-C <sub>31</sub>	2.2		0.2		1.3		15.1		8.3		14.9	
n-C <sub>32</sub>	0.8		0.1		0.5		10.8		1.8		8.0	
n-C <sub>33</sub>	2.0		0.2		1.2		13.0		5.4		12.0	
n-C <sub>34</sub>	0.6		0.1		0.3		8.6		1.3		7.3	
<b>Total Alkanes</b>	<b>29.0</b>		<b>17.4</b>		<b>24.3</b>		<b>1444</b>		<b>130</b>		<b>687</b>	
<b>Total Petroleum Hydrocarbon</b>	<b>653</b>		<b>734</b>		<b>1329</b>		<b>13919</b>		<b>3728</b>		<b>6417</b>	
<b>Total Resolved Hydrocarbon</b>	<b>188</b>		<b>145</b>		<b>225</b>		<b>4666</b>		<b>1127</b>		<b>2139</b>	
<b>Unresolved Complex Mixture</b>	<b>466</b>		<b>589</b>		<b>1104</b>		<b>9253</b>		<b>2601</b>		<b>4277</b>	
<b>EOM (µg/dry g)</b>	<b>7043</b>		<b>3320</b>		<b>10067</b>		<b>52583</b>		<b>15822</b>		<b>33673</b>	
<b>Surrogate (Su)</b>	<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>	
n-dodecane-d26	100		102		103		154	*1	95		98	
n-eicosane-d42	96		104		101		95		93		98	
n-triacontane-d62	94		95		101		91		104		101	

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative  
 If n-eicosane-d42 (surrogate) recovery is above 100%, TPH and aliphatic values were surrogate corrected to 100%.

Entrix, Inc.  
 PEPco Oil Spill Project  
 NRDA Core Samples  
 Total Petroleum Hydrocarbon Data  
 Client Submitted Samples

Sample Name	ETX1211	ETX1592	ETX1596	ETX1796	ETX1797	ETX1798
Client Name	CH3I (0-5 cm)	SH2I (0-5 cm)	PH1I (0-5 cm)	TH2I (10-15 cm)	CH3S (10-15 cm)	AH2I (8-10 cm)
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Collection Date	07/20/00	09/18/00	09/18/00	07/18/00	07/17/00	07/20/00
Received Date	08/04/00	09/22/00	09/22/00	08/03/00	08/03/00	08/04/00
Extraction Date	08/02/01	08/02/01	08/02/01	08/02/01	08/02/01	08/02/01
Extraction Batch	ENV429	ENV429	ENV429	ENV429	ENV429	ENV429
Date Acquired	08/07/01	08/08/01	08/08/01	08/06/01	08/07/01	08/08/01
Method	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M
Sample Dry Weight (g)	2.2	2.2	2.2	14.8	3.3	10.0
% Moisture	88	88	74	73	64	81
% Dry	12	12	26	27	36	19
Dilution	NA	NA	NA	NA	NA	NA

  

Target Compounds	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q	Su Corrected Conc (µg/dry g)	Q
n-C <sub>10</sub>	0.3		0.3		0.9		0.0		0.2			U
n-C <sub>11</sub>	0.7		0.3		1.3		0.0		1.3			U
n-C <sub>12</sub>	3.3		3.5		12.1		0.1		10.1		0.1	
n-C <sub>13</sub>	10.5		14.6		77.7		0.1		28.0		0.2	
n-C <sub>14</sub>	39.3		43.1		263.4		0.3		56.9		0.4	
n-C <sub>15</sub>	80.2		94.6		581.3		0.5		106.7		0.9	
n-C <sub>16</sub>	86.1		101.8		473.7		0.6		110.4		1.2	
n-C <sub>17</sub>	83.0		101.7		392.4		0.8		116.2		2.3	
Pristane	74.2		87.9		489.4		0.7		64.4		12.2	
n-C <sub>18</sub>	76.7		90.1		379.8		1.5		105.7		4.3	
Phytane	47.3		55.5		305.2		0.5		37.5		9.0	
n-C <sub>19</sub>	66.6		91.0		380.5		0.7		96.9		4.1	
n-C <sub>20</sub>	50.1		76.9		237.8		0.2		75.4		2.0	
n-C <sub>21</sub>	57.3		80.6		289.7		1.1		81.4		3.6	
n-C <sub>22</sub>	46.6		55.5		166.9		0.5		67.5		1.4	
n-C <sub>23</sub>	51.6		76.9		284.0		1.7		67.5		3.5	
n-C <sub>24</sub>	37.4		56.4		145.9		0.8		61.0		0.7	
n-C <sub>25</sub>	36.0		45.0		133.0		1.6		56.8		2.0	
n-C <sub>26</sub>	26.4		39.6		101.6		0.6		44.7		1.4	
n-C <sub>27</sub>	32.6		68.8		160.9		3.2		46.5		8.9	
n-C <sub>28</sub>	21.5		32.7		91.3		0.9		32.9		3.0	
n-C <sub>29</sub>	25.1		37.7		73.4		4.8		32.2		9.9	
n-C <sub>30</sub>	17.9		23.5		75.7		0.9		26.1		2.8	
n-C <sub>31</sub>	19.9		34.1		49.3		3.7		23.5		8.7	
n-C <sub>32</sub>	10.3		13.4		40.6		0.6		15.2		1.8	
n-C <sub>33</sub>	13.8		21.1		35.8		4.9		17.6		10.1	
n-C <sub>34</sub>	9.9		13.5		34.8		0.7		12.4		2.1	
<b>Total Alkanes</b>	<b>1024</b>		<b>1360</b>		<b>5279</b>		<b>32.1</b>		<b>1395</b>		<b>96.8</b>	
Total Petroleum Hydrocarbon	11698		17554		77758		510		10209		2890	
Total Resolved Hydrocarbon	3909		5026		20332		230		3869		871	
Unresolved Complex Mixture	7789		12528		57426		279		6340		2019	
EOM (µg/dry g)	43797		84632		425688		6330		35618		21257	
<b>Surrogate (Su)</b>	<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>		<b>Su Recovery (%)</b>	
n-dodecane-d26	105		103		109		99		114		104	
n-eicosane-d42	94		80		113		102		98		97	
n-triacontane-d62	98		79		114		101		96		98	

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative  
 If n-eicosane-d42 (surrogate) recovery is above 100%, TPH and aliphatic values were surrogate corrected to 100%.

Entrix, Inc.  
 PEPCo Oil Spill Project  
 NRDA Core Samples  
 Total Petroleum Hydrocarbon Data  
 Client Submitted Samples

Sample Name	ETX1799	ETX1800	ETX1801	ETX1802	ETX1803	ETX1812
Client Name	CH11 (10-15 cm)	CH11 (18-20 cm)	CH31 (10-15 cm)	CH31 (18-20 cm)	CH31 (22-25 cm)	SH21 (30-32 cm)
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Collection Date	07/20/00	07/20/00	07/20/00	07/20/00	07/20/00	09/18/00
Received Date	08/04/00	08/04/00	08/04/00	08/04/00	08/04/00	09/22/00
Extraction Date	08/02/01	08/02/01	08/02/01	08/02/01	08/02/01	08/02/01
Extraction Batch	ENV429	ENV429	ENV429	ENV429	ENV429	ENV429
Date Acquired	08/07/01	08/06/01	08/07/01	08/07/01	08/07/01	08/07/01
Method	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M	ALI_COMP.M
Sample Dry Weight (g)	5.3	15.5	5.1	5.3	15.2	2.2
% Moisture	56	59	77	75	68	84
% Dry	44	41	23	25	32	16
Dilution	NA	NA	NA	NA	NA	NA
Target Compounds	Su Corrected Conc (µg/dry g)	Q Su Corrected Conc (µg/dry g)	Su Corrected Conc (µg/dry g)	Q Su Corrected Conc (µg/dry g)	Su Corrected Conc (µg/dry g)	Q Su Corrected Conc (µg/dry g)
n-C <sub>10</sub>	0.1		0.0		0.1	0.2
n-C <sub>11</sub>	0.2		0.0		0.1	0.1 J
n-C <sub>12</sub>	1.7		0.1		2.0	0.4
n-C <sub>13</sub>	5.4		0.2		5.5	0.6
n-C <sub>14</sub>	12.6		0.5		13.5	1.3
n-C <sub>15</sub>	21.6		0.8		26.2	4.2
n-C <sub>16</sub>	23.3		0.7		23.9	8.2
n-C <sub>17</sub>	23.9		0.7		24.3	12.7
Pristane	15.5		0.6		28.7	7.9
n-C <sub>18</sub>	23.0		1.2		26.1	15.8
Phytane	8.8		0.3		16.8	6.0
n-C <sub>19</sub>	20.9		0.6		22.3	14.6
n-C <sub>20</sub>	16.5		0.4		16.5	14.3
n-C <sub>21</sub>	17.6		0.5		21.0	16.3
n-C <sub>22</sub>	13.5		0.4		14.7	13.4
n-C <sub>23</sub>	16.4		0.8		17.2	16.4
n-C <sub>24</sub>	11.7		1.4		13.2	10.9
n-C <sub>25</sub>	13.2		1.2		12.3	13.9
n-C <sub>26</sub>	10.0		1.0		10.2	9.6
n-C <sub>27</sub>	11.9		2.7		13.1	19.1
n-C <sub>28</sub>	7.5		0.8		8.6	7.9
n-C <sub>29</sub>	8.8		2.3		13.9	15.9
n-C <sub>30</sub>	5.9		0.7		7.6	5.8
n-C <sub>31</sub>	7.0		1.6		10.6	13.6
n-C <sub>32</sub>	3.5		1.2		4.2	2.7
n-C <sub>33</sub>	6.7		6.0		7.5	5.1
n-C <sub>34</sub>	3.2		2.1		3.5	2.0
<b>Total Alkanes</b>	<b>310</b>		<b>28.9</b>		<b>363</b>	<b>239</b>
Total Petroleum Hydrocarbon	2652		318		4585	2341
Total Resolved Hydrocarbon	999		212		1539	1241
Unresolved Complex Mixture	1653		105		3046	1099
EOM (µg/dry g)	10440		2988		20203	18712
Surrogate (Su)	Su Recovery (%)	Su Recovery (%)	Su Recovery (%)	Su Recovery (%)	Su Recovery (%)	Su Recovery (%)
n-dodecane-d26	99		102		111	103
n-eicosane-d42	97		97		95	98
n-triacontane-d62	83		93		100	95

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative  
 If n-eicosane-d42 (surrogate) recovery is above 100%, TPH and aliphatic values were surrogate corrected to 100%.



Sample Name ETX1816  
 Client Name PH11 (18-20 cm)  
 Matrix Sediment  
 Collection Date 09/18/00  
 Received Date 09/22/00  
 Extraction Date 08/02/01  
 Extraction Batch ENV429  
 Date Acquired 08/07/01  
 Method ALI\_COMP.M  
 Sample Dry Weight (g) 3.0  
 % Moisture 89  
 % Dry 11  
 Dilution NA

Target Compounds	Su Corrected Conc (µg/dry g)	Q
n-C <sub>10</sub>	0.2	
n-C <sub>11</sub>	0.2	
n-C <sub>12</sub>	0.6	
n-C <sub>13</sub>	0.7	
n-C <sub>14</sub>	1.5	
n-C <sub>15</sub>	1.7	
n-C <sub>16</sub>	7.5	
n-C <sub>17</sub>	15.4	
Pristane	21.2	
n-C <sub>18</sub>	23.8	
Phytane	18.1	
n-C <sub>19</sub>	28.6	
n-C <sub>20</sub>	18.4	
n-C <sub>21</sub>	24.6	
n-C <sub>22</sub>	16.4	
n-C <sub>23</sub>	21.5	
n-C <sub>24</sub>	13.9	
n-C <sub>25</sub>	19.0	
n-C <sub>26</sub>	12.8	
n-C <sub>27</sub>	16.2	
n-C <sub>28</sub>	11.5	
n-C <sub>29</sub>	18.7	
n-C <sub>30</sub>	8.7	
n-C <sub>31</sub>	11.0	
n-C <sub>32</sub>	3.6	
n-C <sub>33</sub>	13.6	
n-C <sub>34</sub>	4.3	
<b>Total Alkanes</b>	<b>334</b>	
Total Petroleum Hydrocarbon	6298	
Total Resolved Hydrocarbon	2454	
Unresolved Complex Mixture	3844	
EOM (µg/dry g)	45900	
Surrogate (Su)	Su Recovery (%)	
n-dodecane-d26	100	
n-eicosane-d42	90	
n-triacontane-d62	91	

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative  
 If n-eicosane-d42 (surrogate) recovery is above 100%, TPH and aliphatic values were surrogate corrected to 100%.

Entrix, Inc.  
 PEPCo Oil Spill Project  
 NRDA Core Samples  
 Total Petroleum Hydrocarbon Data  
 Procedural Blank Report

Sample Name ENV429A  
 Client Name Procedural Blank  
 Matrix Sediment  
 Collection Date NA  
 Received Date NA  
 Extraction Date 08/02/01  
 Extraction Batch ENV429  
 Date Acquired 08/06/01  
 Method ALI\_COMP.M  
 Sample Dry Weight (g) 15.0  
 % Moisture NA  
 % Dry NA  
 Dilution NA

Target Compounds	Su Corrected Conc (µg/dry g)	Q	3X MCL (µg/dry g)	Actual MDL (µg/dry g)
n-C <sub>10</sub>		U	0.038	0.013
n-C <sub>11</sub>		U	0.032	0.011
n-C <sub>12</sub>		U	0.043	0.014
n-C <sub>13</sub>		U	0.044	0.015
n-C <sub>14</sub>		U	0.037	0.012
n-C <sub>15</sub>		U	0.031	0.010
n-C <sub>16</sub>		U	0.033	0.011
n-C <sub>17</sub>		U	0.037	0.012
Pristane		U	0.035	0.012
n-C <sub>18</sub>		U	0.040	0.013
Phytane		U	0.039	0.013
n-C <sub>19</sub>		U	0.020	0.007
n-C <sub>20</sub>		U	0.038	0.013
n-C <sub>21</sub>		U	0.039	0.013
n-C <sub>22</sub>		U	0.030	0.010
n-C <sub>23</sub>		U	0.035	0.012
n-C <sub>24</sub>		U	0.037	0.012
n-C <sub>25</sub>		U	0.019	0.006
n-C <sub>26</sub>		U	0.038	0.013
n-C <sub>27</sub>		U	0.025	0.008
n-C <sub>28</sub>		U	0.030	0.010
n-C <sub>29</sub>		U	0.042	0.014
n-C <sub>30</sub>		U	0.025	0.008
n-C <sub>31</sub>		U	0.024	0.008
n-C <sub>32</sub>		U	0.039	0.013
n-C <sub>33</sub>		U	0.039	0.013
n-C <sub>34</sub>		U	0.032	0.011
Total Petroleum Hydrocarbon		2	4.2	1.4
Total Resolved Hydrocarbon		U	4.2	1.4
Unresolved Complex Mixture		2	4.2	1.4
EOM (µg/dry g)		U		
<b>Surrogate (Su)</b>	<b>Su Recovery (%)</b>			
n-dodecane-d26	93			
n-eicosane-d42	92			
n-triacontane-d62	91			

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative

Entrix, Inc.  
 PEPC Oil Spill Project  
 NRDA Core Samples  
 Total Petroleum Hydrocarbon Data  
 Blank Spike Report

Sample Name	ENV429C	ENV429D
Client Name	Blank Spike	Blank Spike Duplicate
Matrix	Sediment	Sediment
Collection Date	NA	NA
Received Date	NA	NA
Extraction Date	08/02/01	08/02/01
Extraction Batch	ENV429	ENV429
Date Acquired	08/06/01	08/06/01
Method	ALI_COMP.M	ALI_COMP.M
Sample Dry Weight (g)	1.0	1.0
% Moisture	NA	NA
% Dry	NA	NA
Dilution	NA	NA

Target Compounds	Su Corrected Conc (µg/dry g)	Rec (%)	Q	Su Corrected Conc (µg/dry g)	Rec (%)	Q	RPD (%)
n-C <sub>10</sub>	11.3	117		10.7	111		5
n-C <sub>11</sub>	10.8	111		11.1	114		3
n-C <sub>12</sub>	10.6	107		11.0	111		4
n-C <sub>13</sub>	10.6	106		11.3	113		7
n-C <sub>14</sub>	10.5	104		11.0	109		5
n-C <sub>15</sub>	NA			NA			
n-C <sub>16</sub>	12.0	118		11.2	109		8
n-C <sub>17</sub>	10.8	106		11.2	109		3
Pristane	10.6	103		11.1	107		5
n-C <sub>18</sub>	10.4	101		10.5	102		1
Phytane	NA			NA			
n-C <sub>19</sub>	10.1	99		10.5	103		4
n-C <sub>20</sub>	10.4	102		10.6	104		2
n-C <sub>21</sub>	10.0	100		10.2	101		1
n-C <sub>22</sub>	10.4	103		10.7	106		3
n-C <sub>23</sub>	10.6	103		10.6	103		0
n-C <sub>24</sub>	10.5	105		10.5	105		0
n-C <sub>25</sub>	10.1	102		10.6	107		5
n-C <sub>26</sub>	10.2	104		10.7	109		4
n-C <sub>27</sub>	10.6	105		10.8	107		2
n-C <sub>28</sub>	10.9	106		11.0	108		1
n-C <sub>29</sub>	10.6	107		10.7	107		0
n-C <sub>30</sub>	10.5	104		10.4	103		1
n-C <sub>31</sub>	NA			NA			
n-C <sub>32</sub>	10.8	105		10.7	105		0
n-C <sub>33</sub>	NA			NA			
n-C <sub>34</sub>	10.5	103		10.5	103		0

Surrogate (Su)	Su Recovery (%)	Su Recovery (%)
n-dodecane-d26	102	103
n-eicosane-d42	101	96
n-triacontane-d62	95	90

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative

Entrix Inc.  
 PEPCo Project  
 NRDA Core Samples  
 Total Petroleum Hydrocarbon Data  
 Lab Control Standard Report

Sample Name GC10444B  
 Client Name AL-WKDIESEL-50-001  
 Matrix Solution  
 Collection Date NA  
 Received Date NA  
 Extraction Date NA  
 Extraction Batch ENV429  
 Date Acquired 08/06/01  
 Method ALI\_COMP.M  
 Sample Wet Weight (g) NA  
 Sample Volume (mL) 1.0  
 Dilution NA

---

Target Compounds	Su Corrected Conc (ug/mL)	Q	RPD (%)	B&B Average Conc (ug/mL)	-15% Conc (ug/mL)	+15% Conc (ug/mL)
Total Petroleum Hydrocarbon	100		0.4	100	85	115
<b>Surrogate (Su)</b>	Su Recovery (%)					
n-dodecane-d26	101					
n-eicosane-d42	103					
n-triacontane-d62	99					

---

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not applicable, \*=Outside QA limits, refer to narrative

PAH

ENV429

Entrix, Inc.  
 PEPCo Oil Spill Project  
 NRDA Core Samples  
 Polycyclic Aromatic Hydrocarbon Data  
 Client Submitted Samples

Sample Name	ETX1207.D	ETX1592.D	ETX1596.D	ETX1798.D	ETX1799.D	ETX1800.D
Client Name	AH21 (0-5 cm)	SH21 (0-5 cm)	PH11 (0-5 cm)	AH21 (8-10 cm)	CH11 (10-15 cm)	CH11 (18-20 cm)
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Collection Date	07/20/00	09/18/00	09/18/00	07/20/00	07/20/00	07/20/00
Received Date	08/04/00	09/22/00	09/22/00	08/04/00	08/04/00	08/04/00
Extraction Date	08/02/01	08/02/01	08/02/01	08/02/01	08/02/01	08/02/01
Extraction Batch	ENV 429	ENV 429	ENV 429	ENV 429	ENV 429	ENV 429
Date Acquired	08/05/01	08/06/01	08/06/01	08/05/01	08/06/01	08/06/01
Method	PAH-2000	PAH-2000	PAH-2000	PAH-2000	PAH-2000	PAH-2000
Sample Dry Weight (g)	5.1	2.2	2.2	10.0	5.3	15.5
% Moisture	78	88	74	81	56	59
% Dry	22	12	26	19	44	41
Dilution	NA	NA	400x	NA	NA	NA

Target Compounds	Su Corrected Conc. (ng/dry g)	Q	Su Corrected Conc. (ng/dry g)	Q	Su Corrected Conc. (ng/dry g)	Q	Su Corrected Conc. (ng/dry g)	Q	Su Corrected Conc. (ng/dry g)	Q
Naphthalene	62.3		272		93.3		71.5		1250	
C1-Naphthalenes	905		4140		12200		423		7260	
C2-Naphthalenes	8720		24300		215200		2720		16400	
C3-Naphthalenes	15500		43400		423500		5560		18500	
C4-Naphthalenes	11900		46300		343600		6510		11700	
Biphenyl	247		808		3830		126		886	
Acenaphthylene	50.3		267		1480		48.9		44.3	
Acenaphthene	219		752		8180		136		547	
Fluorene	843		2010		17000		415		1460	
C1-Fluorenes	3480		9650		98200		1950		4270	
C2-Fluorenes	8650		28700		267000		5790		8610	
C3-Fluorenes	10400		42900		280200		8440		8200	
Anthracene	390		1390		11600		284		425	
Phenanthrene	2760		9570		72800		1470		3660	
C1-Phenanthrenes/Anthracenes	11700		43800		429100		7820		12800	
C2-Phenanthrenes/Anthracenes	19600		94900		838200		20300		17500	
C3-Phenanthrenes/Anthracenes	16700		106700		739000		24200		13500	
C4-Phenanthrenes/Anthracenes	11700		65600		417700		15800		8080	
Dibenzothiophene	470		1720		13200		283		616	
C1-Dibenzothiophenes	2270		8030		81900		1590		2310	
C2-Dibenzothiophenes	4660		20300		200800		4880		4460	
C3-Dibenzothiophenes	4870		25200		204300		5740		3530	
Fluoranthene	491		1850		18300		399		461	
Pyrene	2570		16800		116100		2970		2140	
C1-Fluoranthenes/Pyrenes	8390		44100		341400		11000		6160	
C2-Fluoranthenes/Pyrenes	12800		60600		477400		17400		8280	
C3-Fluoranthenes/Pyrenes	8230		36500		259900		12300		4750	
Benz(a)anthracene	1510		9850		63000		2100		1340	
Chrysene	3580		19500		136700		5230		2740	
C1-Chrysenes	10300		55900		388200		14200		7220	
C2-Chrysenes	9340		51900		318100		15200		5620	
C3-Chrysenes	5830		30000		209000		7520		3840	
C4-Chrysenes	273		1090		7350		337		166	
Benzo(b)fluoranthene	933		4460		18700		1270		510	
Benzo(k)fluoranthene	118		502		5340		405		139	
Benzo(e)pyrene	1640		7060		36700		2540		910	
Benzo(a)pyrene	1230		5910		29500		1850		725	
Perylene	388		1500		9240		585		229	
Indeno(1,2,3-c,d)pyrene	336		1110		4820		375		160	
Dibenzo(a,h)anthracene	372		1240		6450		446		166	
Benzo(g,h,i)perylene	627		2040		12600		803		332	
<b>Total PAHs</b>	<b>205055</b>		<b>932621</b>		<b>7137883</b>		<b>211487</b>		<b>191896</b>	

Selected Ratios						
<b>D2/P2</b>	0.238	0.214	0.240	0.240	0.255	0.242
<b>D3/P3</b>	0.292	0.236	0.276	0.237	0.261	0.246
<b>D2/C2</b>	0.499	0.391	0.631	0.321	0.794	0.826
<b>D3/C3</b>	0.835	0.840	0.978	0.763	0.919	1.147
<b>FI-Py2/C2</b>	1.370	1.168	1.501	1.145	1.473	1.006
<b>FI-Py3/C3</b>	1.412	1.217	1.244	1.636	1.237	1.422

Individual Isomers						
2-Methylnaphthalene	879	4240	8420	405	7560	226
1-Methylnaphthalene	606	2550	11600	288	4360	132
2,6-Dimethylnaphthalene	4880	13400	119400	1450	9000	300
1,6,7-Trimethylnaphthalene	965	5090	52100	255	2740	63.2
1-Methylphenanthrene	2260	7500	75400	1380	2480	88.4
17a, 21b (H)-Hopane	21600	61900	529000	19400	12600	479

Surrogate (Su)	Su Recovery (%)	Su Recovery (%)	Su Recovery (%)	Su Recovery (%)	Su Recovery (%)	Su Recovery (%)
Naphthalene-d8	80	81	94	D	88	88
Acenaphthene-d10	74	81	99	D	87	94
Phenanthrene-d10	80	87	97	D	83	87
Chrysene-d12	76	80	99	D	82	81
Perylene-d12	76	80	100	D	79	79

Entrix, Inc.  
 PEPCo Oil Spill Project  
 NRDA Core Samples  
 Polycyclic Aromatic Hydrocarbon Data  
 Client Submitted Samples

Sample Name	ETX1802.D	ETX1812.D	ETX1816.D
Client Name	CH3I (18-20 cm)	SH2I (30-32 cm)	PH1I (18-20 cm)
Matrix	Sediment	Sediment	Sediment
Collection Date	07/20/00	09/18/00	09/18/00
Received Date	08/04/00	09/22/00	09/22/00
Extraction Date	08/02/01	08/02/01	08/02/01
Extraction Batch	ENV 429	ENV 429	ENV 429
Date Acquired	08/06/01	08/06/01	08/06/01
Method	PAH-2000	PAH-2000	PAH-2000
Sample Dry Weight (g)	5.3	2.2	3.0
% Moisture	75	84	89
% Dry	25	16	11
Dilution	NA	NA	NA

Target Compounds	Su Corrected Conc. (ng/dry g)	Q	Su Corrected Conc. (ng/dry g)	Q	Su Corrected Conc. (ng/dry g)	Q
Naphthalene	415		473		1960	
C1-Naphthalenes	2760		2360		6260	
C2-Naphthalenes	8310		7940		12300	
C3-Naphthalenes	11800		11100		18200	
C4-Naphthalenes	9560		7800		16000	
Biphenyl	396		439		736	
Acenaphthylene	36.3		55.7		97.8	
Acenaphthene	303		371		606	
Fluorene	819		1220		1500	
C1-Fluorenes	3200		3450		6040	
C2-Fluorenes	7550		7540		16600	
C3-Fluorenes	7620		7110		18400	
Anthracene	364.0		546		974	
Phenanthrene	2660		4490		5530	
C1-Phenanthrenes/Anthracenes	11700		14400		29200	
C2-Phenanthrenes/Anthracenes	19900		19500		49400	
C3-Phenanthrenes/Anthracenes	15600		14000		41100	
C4-Phenanthrenes/Anthracenes	8800		7570		24200	
Dibenzothiophene	443.0		729		992	
C1-Dibenzothiophenes	2220		2250		4610	
C2-Dibenzothiophenes	4580		4240		11800	
C3-Dibenzothiophenes	3880		3330		9650	
Fluoranthene	378		518		1080	
Pyrene	2480		2280		6770	
C1-Fluoranthenes/Pyrenes	7170		6570		18500	
C2-Fluoranthenes/Pyrenes	9690		8520		25600	
C3-Fluoranthenes/Pyrenes	7770		4740		13400	
Benz(a)anthracene	1530		1490		4140	
Chrysene	3020		2890		9120	
C1-Chrysenes	7930		7880		25000	
C2-Chrysenes	6850		5220		19300	
C3-Chrysenes	3830		3060		10300	
C4-Chrysenes	143		194		383	
Benzo(b)fluoranthene	437		430		1380	
Benzo(k)fluoranthene	153		102		323	
Benzo(e)pyrene	797		680		2450	
Benzo(a)pyrene	687		626		2140	
Perylene	218		196		653	
Indeno(1,2,3-c,d)pyrene	143		133		372	
Dibenzo(a,h)anthracene	160		132		454	
Benzo(g,h,i)perylene	278		242		742	
<b>Total PAHs</b>	<b>176580</b>		<b>166817</b>		<b>418263</b>	
<b>Selected Ratios</b>						
<b>D2/P2</b>	0.230		0.217		0.239	
<b>D3/P3</b>	0.249		0.238		0.235	
<b>D2/C2</b>	0.669		0.812		0.611	
<b>D3/C3</b>	1.013		1.088		0.937	
<b>Fl-Py2/C2</b>	1.415		1.632		1.326	
<b>Fl-Py3/C3</b>	2.029		1.549		1.301	
<b>Individual Isomers</b>						
2-Methylnaphthalene	2840		2460		6240	
1-Methylnaphthalene	1690		1410		4020	
2,6-Dimethylnaphthalene	4660		4200		6690	
1,6,7-Trimethylnaphthalene	1190		1200		1780	
1-Methylphenanthrene	2320		2460		5140	
17a, 21b (H)-Hopane	10600		10800		30200	

Surrogate (Su)	Su Recovery (%)	Su Recovery (%)	Su Recovery (%)
Naphthalene-d8	82	92	88
Acenaphthene-d10	87	95	87
Phenanthrene-d10	89	88	90
Chrysene-d12	90	90	99
Perylene-d12	89	83	97



Entrix, Inc.  
 PEPCo Oil Spill Project  
 NRDA Core Samples  
 Polycyclic Aromatic Hydrocarbon Data  
 Procedural Blank Report

Sample Name ENV429A.D  
 Client Name Procedural Blank  
 Matrix Sediment  
 Collection Date NA  
 Received Date NA  
 Extraction Date 08/02/01  
 Extraction Batch ENV 429  
 Date Acquired 08/05/01  
 Method PAH-2000  
 Sample Dry Weight (g) 15.0  
 % Moisture NA  
 % Dry NA  
 Dilution NA

Target Compounds	Su Corrected Conc. (ng/dry g)	Q	3X MDL	Actual MDL
Naphthalene	0.2	J	2.8	0.9
C1-Naphthalenes	0.2	J	1.3	0.4
C2-Naphthalenes	0.2	J	1.0	0.3
C3-Naphthalenes	0.4		1.0	0.3
C4-Naphthalenes		U	1.0	0.3
Biphenyl	0.2	J	0.9	0.3
Acenaphthylene		U	0.5	0.2
Acenaphthene		U	0.7	0.2
Fluorene		U	0.4	0.1
C1-Fluorenes		U	0.7	0.2
C2-Fluorenes		U	0.7	0.2
C3-Fluorenes		U	0.7	0.2
Anthracene		U	0.5	0.2
Phenanthrene	0.1	J	0.5	0.2
C1-Phenanthrenes/Anthracenes		U	1.0	0.3
C2-Phenanthrenes/Anthracenes		U	1.0	0.3
C3-Phenanthrenes/Anthracenes		U	1.0	0.3
C4-Phenanthrenes/Anthracenes		U	1.0	0.3
Dibenzothiophene		U	0.5	0.2
C1-Dibenzothiophenes		U	0.9	0.3
C2-Dibenzothiophenes		U	0.9	0.3
C3-Dibenzothiophenes		U	0.9	0.3
Fluoranthene	0.1	J	0.9	0.3
Pyrene	0.2	J	1.5	0.5
C1-Fluoranthenes/Pyrenes		U	1.8	0.6
C2-Fluoranthenes/Pyrenes		U	1.8	0.6
C3-Fluoranthenes/Pyrenes		U	1.8	0.6
Benz(a)anthracene	0.1	J	0.5	0.2
Chrysene	0.2	J	0.7	0.2
C1-Chrysenes		U	1.4	0.5
C2-Chrysenes		U	1.4	0.5
C3-Chrysenes		U	1.4	0.5
C4-Chrysenes		U	1.4	0.5
Benzo(b)fluoranthene		U	0.8	0.3
Benzo(k)fluoranthene		U	0.8	0.3
Benzo(e)pyrene		U	0.7	0.2
Benzo(a)pyrene		U	0.7	0.2
Perylene		U	0.5	0.2
Indeno(1,2,3-c,d)pyrene		U	0.9	0.3
Dibenzo(a,h)anthracene		U	0.6	0.2
Benzo(g,h,i)perylene		U	1.0	0.3
<b>Total PAHs</b>	<b>1.9</b>			
<b>Individual Isomers</b>				
2-Methylnaphthalene	0.2	J	0.7	0.2
1-Methylnaphthalene	0.2		0.5	0.2
2,6-Dimethylnaphthalene	0.1	J	0.5	0.2
1,6,7-Trimethylnaphthalene		U	0.5	0.2
1-Methylphenanthrene		U	0.5	0.2
17a, 21b (H)-Hopane		U	3.0	1.0

Surrogate (Su)	Su Recovery (%)
Naphthalene-d8	77
Acenaphthene-d10	82
Phenanthrene-d10	87
Chrysene-d12	84
Perylene-d12	69

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not Applicable, \*=Outside QA limits, refer to narrat

Entrix, Inc.  
 PEPco Oil Spill Project  
 NRDA Core Samples  
 Polycyclic Aromatic Hydrocarbon Data  
 Laboratory Duplicate Report

Sample Name	ETX1799.D	ENV429E.D
Client Name	CH11 (10-15 cm)	Duplicate (CH11 (10-15 cm))
Matrix	Sediment	Sediment
Collection Date	07/20/00	07/20/00
Received Date	08/04/00	08/04/00
Extraction Date	08/02/01	08/02/01
Extraction Batch	ENV 429	ENV 429
Date Acquired	08/06/01	08/05/01
Method	PAH-2000	PAH-2000
Sample Dry Weight (g)	5.3	5.5
% Moisture	56	56
% Dry	44	44
Dilution	NA	NA

Target Compounds	Su Corrected Conc. (ng/dry g)	Q	Su Corrected Conc. (ng/dry g)	Q	RPD (%)	Q
Naphthalene	1250		1370		9	
C1-Naphthalenes	7260		7400		2	
C2-Naphthalenes	16400		16100		2	
C3-Naphthalenes	18500		17700		4	
C4-Naphthalenes	11700		11100		5	
Biphenyl	886		870		2	
Acenaphthylene	44.3		40.4		9	
Acenaphthene	547		549.0		0	
Fluorene	1460		1410		3	
C1-Fluorenes	4270		4270		0	
C2-Fluorenes	8610		8250		4	
C3-Fluorenes	8200		8030		2	
Anthracene	425		439		3	
Phenanthrene	3660		3750		2	
C1-Phenanthrenes/Anthracenes	12800		13100		2	
C2-Phenanthrenes/Anthracenes	17500		18800		7	
C3-Phenanthrenes/Anthracenes	13500		13000		4	
C4-Phenanthrenes/Anthracenes	8080		7900		2	
Dibenzothiophene	616		622		1	
C1-Dibenzothiophenes	2310		2400		4	
C2-Dibenzothiophenes	4460		4350		2	
C3-Dibenzothiophenes	3530		3670		4	
Fluoranthene	461		463		0	
Pyrene	2140		2210		3	
C1-Fluoranthenes/Pyrenes	6160		6160		0	
C2-Fluoranthenes/Pyrenes	8280		8240		0	
C3-Fluoranthenes/Pyrenes	4750		5150		8	
Benz(a)anthracene	1340		1360		1	
Chrysene	2740		2740		0	
C1-Chrysenes	7220		7520		4	
C2-Chrysenes	5620		5690		1	
C3-Chrysenes	3840		3840		0	
C4-Chrysenes	166		171		3	
Benzo(b)fluoranthene	510		481		6	
Benzo(k)fluoranthene	139		129		7	
Benzo(e)pyrene	910		849		7	
Benzo(a)pyrene	725		659		10	
Perylene	229		210		9	
Indeno(1,2,3-c,d)pyrene	160		174		8	
Dibenzo(a,h)anthracene	166		166		0	
Benzo(g,h,i)perylene	332		327		2	
<b>Total PAHs</b>	<b>191896</b>		<b>191659</b>		<b>0</b>	
<b>Selected Ratios</b>						
<b>D2/P2</b>	0.255		0.231		10	
<b>D3/P3</b>	0.261		0.282		8	
<b>D2/C2</b>	0.794		0.764		4	
<b>D3/C3</b>	0.919		0.956		4	
<b>Fl-Py2/C2</b>	1.473		1.448		2	
<b>Fl-Py3/C3</b>	1.237		1.341		8	
<b>Individual Isomers</b>						
2-Methylnaphthalene	7560		7690		2	
1-Methylnaphthalene	4360		4450		2	
2,6-Dimethylnaphthalene	9000		8820		2	
1,6,7-Trimethylnaphthalene	2740		2710		1	
1-Methylphenanthrene	2480		2640		6	
17a, 21b (H)-Hopane	12600		11700		7	

Surrogate (Su)	Su Recovery (%)	Su Recovery (%)
Naphthalene-d8	76	89
Acenaphthene-d10	75	88
Phenanthrene-d10	72	81
Chrysene-d12	72	78
Perylene-d12	81	83

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not Applicable, X=<10x MDL, \*=Outside QA limits, refer to narrative

Entrix, Inc.  
 PEPco Oil Spill Project  
 NRDA Core Samples  
 Polycyclic Aromatic Hydrocarbon Data  
 Blank Spike Report

<b>Sample Name</b>	ENV429C.D	ENV429D.D
<b>Client Name</b>	Blank Spike	Blank Spike Dup.
<b>Matrix</b>	Sediment	Sediment
<b>Collection Date</b>	NA	NA
<b>Received Date</b>	NA	NA
<b>Extraction Date</b>	08/02/01	08/02/01
<b>Extraction Batch</b>	ENV 429	ENV 429
<b>Date Acquired</b>	08/05/01	08/05/01
<b>Method</b>	PAH-2000	PAH-2000
<b>Sample Dry Weight (g)</b>	1.0	1.0
<b>% Moisture</b>	NA	NA
<b>% Dry</b>	NA	NA
<b>Dilution</b>	NA	NA

Target Compounds	Su Corrected Conc. (ng/dry g)	Recovery (%)	Q	Su Corrected Conc. (ng/dry g)	Recovery (%)	Q	RPD (%)	Q
Naphthalene	92.7	87		95.4	90		3	
C1-Naphthalenes	NA			NA				
C2-Naphthalenes	NA			NA				
C3-Naphthalenes	NA			NA				
C4-Naphthalenes	NA			NA				
Biphenyl	103	97		102	96		1	
Acenaphthylene	98.2	97		98.6	97		0	
Acenaphthene	103	94		103	94		0	
Fluorene	97.1	92		101	96		4	
C1-Fluorenes	NA			NA				
C2-Fluorenes	NA			NA				
C3-Fluorenes	NA			NA				
Anthracene	62.2	78		61.3	77		1	
Phenanthrene	95.9	91		99.2	94		3	
C1-Phenanthrenes/Anthracenes	NA			NA				
C2-Phenanthrenes/Anthracenes	NA			NA				
C3-Phenanthrenes/Anthracenes	NA			NA				
C4-Phenanthrenes/Anthracenes	NA			NA				
Dibenzothiophene	97.6	98		104	104		6	
C1-Dibenzothiophenes	NA			NA				
C2-Dibenzothiophenes	NA			NA				
C3-Dibenzothiophenes	NA			NA				
Fluoranthene	98.6	93		101	95		2	
Pyrene	99.0	93		105	99		6	
C1-Fluoranthenes/Pyrenes	NA			NA				
C2-Fluoranthenes/Pyrenes	NA			NA				
C3-Fluoranthenes/Pyrenes	NA			NA				
Benz(a)anthracene	88.4	96		98.7	107		11	
Chrysene	104	98		114	107		9	
C1-Chrysenes	NA			NA				
C2-Chrysenes	NA			NA				
C3-Chrysenes	NA			NA				
C4-Chrysenes	NA			NA				
Benzo(b)fluoranthene	87.2	82		89.9	85		3	
Benzo(k)fluoranthene	86.6	82		88.1	84		2	
Benzo(e)pyrene	88.4	84		93.8	89		6	
Benzo(a)pyrene	62.4	65		64.3	67		3	
Perylene	50.9	64		56.1	70		10	
Indeno(1,2,3-c,d)pyrene	87.9	94		91.2	97		4	
Dibenzo(a,h)anthracene	77.8	98		80.5	101		3	
Benzo(g,h,i)perylene	86.4	91		89.0	94		3	
<b>Individual Isomers</b>								
2-Methylnaphthalene	101	96		98.5	94		3	
1-Methylnaphthalene	100	95		100	95		0	
2,6-Dimethylnaphthalene	102	97		106	100		4	
1,6,7-Trimethylnaphthalene	88.2	94		93.0	99		5	
1-Methylphenanthrene	97.4	93		103	98		6	
17a, 21b (H)-Hopane	NA			NA				

Surrogate (Su)	Su Recovery (%)	Su Recovery (%)
Naphthalene-d8	81	79
Acenaphthene-d10	91	85
Phenanthrene-d10	90	85
Chrysene-d12	93	87
Perylene-d12	58	64

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not Applicable, \*=Outside QA limits, refer to narrative

Entrix, Inc.  
 PEPco Oil Spill Project  
 NRDA Core Samples  
 Polycyclic Aromatic Hydrocarbon Data  
 Standard Reference Material Report

Sample Name ENV429B.D  
 Client Name SRM 1944  
 Matrix Sediment  
 Collection Date NA  
 Received Date NA  
 Extraction Date 08/02/01  
 Extraction Batch ENV 429  
 Date Acquired 08/05/01  
 Method PAH-2000  
 Sample Dry Weight (g) 0.6  
 % Moisture 1  
 % Dry 99  
 Dilution NA

Target Compounds	Su Corrected Conc. (ng/dry g)	Q	RPD (%)	SRM 1944 Certified Conc. (ng/dry g)	-20% Conc. (ng/dry g)	+20% Conc. (ng/dry g)	B&B Average Conc (ng/dry g)	-20% Conc. (ng/dry g)	+20% Conc. (ng/dry g)
Naphthalene	1325		22	1650	1320	1980			
C1-Naphthalenes	746		12				841	673	1010
C2-Naphthalenes	1430		13				1630	1304	1957
C3-Naphthalenes	1870		0				1862	1490	2235
C4-Naphthalenes	1870		16				2195	1756	2634
Biphenyl	228		7				212	170	255
Acenaphthylene	1280		18				1069	855	1283
Acenaphthene	412		2				402	322	483
Fluorene	550		4				575	460	690
C1-Fluorenes	687		2				673	539	808
C2-Fluorenes	1720		13				1504	1203	1805
C3-Fluorenes	2990		6				2807	2245	3368
Anthracene	1850		4	1770	1416	2124			
Phenanthrene	5200		1	5270	4216	6324			
C1-Phenanthrenes/Anthracenes	6360		17				5369	4295	6443
C2-Phenanthrenes/Anthracenes	6820		17				5744	4595	6892
C3-Phenanthrenes/Anthracenes	4370		6				4120	3296	4944
C4-Phenanthrenes/Anthracenes	2500		9				2281	1825	2737
Dibenzothiophene	716		6				674	539	809
C1-Dibenzothiophenes	1360		7				1462	1169	1754
C2-Dibenzothiophenes	2600		2				2541	2033	3050
C3-Dibenzothiophenes	2010		0				2019	1615	2423
Fluoranthene	8310		7	8920	7136	10704			
Pyrene	8510		13	9700	7760	11640			
C1-Fluoranthenes/Pyrenes	6740		4				6498	5198	7797
C2-Fluoranthenes/Pyrenes	4740		4				4547	3638	5456
C3-Fluoranthenes/Pyrenes	1600		7				1722	1377	2066
Benz(a)anthracene	5300		12	4720	3776	5664			
Chrysene	6270		6	5900	4720	7080			
C1-Chrysenes	5350		6				5060	4048	6072
C2-Chrysenes	2330		2				2281	1824	2737
C3-Chrysenes	873		4				837	670	1005
C4-Chrysenes	425		10				383	306	459
Benzo(b)fluoranthene	4080		5	3870	3096	4644			
Benzo(k)fluoranthene	2410		5	2300	1840	2760			
Benzo(e)pyrene	2880		13	3280	2624	3936			
Benzo(a)pyrene	3920		9	4300	3440	5160			
Perylene	1070		9	1170	936	1404			
Indeno(1,2,3-c,d)pyrene	3260		16	2780	2224	3336			
Dibenzo(a,h)anthracene	452		6	424	339	509			
Benzo(g,h,i)perylene	2960		4	2840	2272	3408			
<b>Total PAHs</b>	<b>120329</b>								
<b>Selected Ratios</b>									
D2/P2	0.381		16				0.449	0.323	0.593
D3/P3	0.460		5				0.485	0.360	0.624
D2/C2	1.116		1				1.106	0.681	1.634
D3/C3	2.302		9				2.103	1.245	3.180
Py-F12/C2	2.034		10				1.840	1.472	2.208
Py-F13/C3	1.833		0				1.835	1.468	2.202
<b>Individual Isomers</b>									
2-Methylnaphthalene	787		4				757	606	909
1-Methylnaphthalene	437		0				436	349	524
2,6-Dimethylnaphthalene	816		3				793	634	952
1,6,7-Trimethylnaphthalene	275		7				257	206	309
1-Methylphenanthrene	1320		8				1222	978	1466
17a, 21b (H)-Hopane	41700		9				38072	30458	45686
<b>Surrogate (Su)</b>									
Su Recovery (%)									
Naphthalene-d8	88								
Acenaphthene-d10	95								
Phenanthrene-d10	91								
Chrysene-d12	91								
Perylene-d12	87								

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not Applicable,\*=Outside QA limits, refer to narrative

Entrix, Inc.  
 PEPco Oil Spill Project  
 NRDA Core Samples  
 Polycyclic Aromatic Hydrocarbon Data  
 Standard Reference Material Report

Sample Name MS10526C.D  
 Client Name NIST SRM 1582  
 Matrix Petroleum  
 Collection Date NA  
 Received Date NA  
 Extraction Date NA  
 Extraction Batch ENV 429  
 Date Acquired 08/05/01  
 Method PAH-2000  
 Sample Weight (g) 1.7

Target Compounds	Su Corrected (ug/ g)	Q	RPD (%)	SRM 1582 Certified Conc. (ug/ g)	B&B Average	-15% Conc. (ug/g)	15% Conc. (ug/g)
Naphthalene	151		7.0		141	120	162
C1-Naphthalenes	529		11.2		592	503	681
C2-Naphthalenes	1030		3.8		1070	909	1230
C3-Naphthalenes	1090		3.7		1050	893	1208
C4-Naphthalenes	736		12.4		834	709	959
Biphenyl	32.1		8.1		29.6	25.2	34.0
Acenaphthylene		U					
Acenaphthene	17.7		1.5		17.4	14.8	20.0
Fluorene	31.0		10.0		34.3	29.1	39.4
C1-Fluorenes	136		6.8		127	108	146
C2-Fluorenes	277		9.1		253	215	291
C3-Fluorenes	245		1.5		241	205	278
Anthracene	4.0	J					
Phenanthrene	104		5.0	100 ± 7.0	109	92.9	126
C1-Phenanthrenes/Anthracenes	389		7.5		361	307	415
C2-Phenanthrenes/Anthracenes	553		5.2		525	446	604
C3-Phenanthrenes/Anthracenes	519		6.8		485	412	558
C4-Phenanthrenes/Anthracenes	288		0.8		290	247	334
Dibenzothiophene	36.7		4.6	32.9 ± 1.7	35.1	29.8	40.3
C1-Dibenzothiophenes	157		3.8		163	139	187
C2-Dibenzothiophenes	273		5.7		258	219	297
C3-Dibenzothiophenes	254		1.8		249	212	287
Fluoranthene	5.5	J					
Pyrene	13.3						
C1-Fluoranthenes/Pyrenes	70.9		4.8		74.4	63.2	85.5
C2-Fluoranthenes/Pyrenes	107		1.6		105	89.5	121
C3-Fluoranthenes/Pyrenes	91.5		7.8		84.6	71.9	97.3
Benz(a)anthracene	7.3	J					
Chrysene	22.4		4.7		21.4	18.2	24.6
C1-Chrysenes	69.4		1.1		70.2	59.6	80.7
C2-Chrysenes	124		2.0		127	108	146
C3-Chrysenes	90.2		1.8		88.6	75.3	102
C4-Chrysenes	5.1	J					
Benzo(b)fluoranthene	2.0	J					
Benzo(k)fluoranthene	0.9	J					
Benzo(e)pyrene	4.3	J					
Benzo(a)pyrene	4.4	J					
Perylene	35.3		5.3	30.2 ± 1.7	33.5	28.4	38.5
Indeno(1,2,3-c,d)pyrene	1.3	J					
Dibenzo(a,h)anthracene	0.9	J					
Benzo(g,h,i)perylene	2.1	J					
<b>Total PAHs</b>	<b>7510</b>						
<b>Selected Ratios</b>							
<b>D2/P2</b>	0.494		0.5		0.491	0.417	0.565
<b>D3/P3</b>	0.489		5.0		0.514	0.437	0.591
<b>D2/C2</b>	2.202		7.7		2.038	1.732	2.344
<b>D3/C3</b>	2.816		0.0		2.815	2.393	3.238
<b>Fl-Py2/C2</b>	0.863		3.6		0.832	0.707	0.957
<b>Fl-Py3/C3</b>	1.014		6.0		0.955	0.812	1.098
<b>Individual Isomers</b>							
2-Methylnaphthalene	505		4.8		481	409	553
1-Methylnaphthalene	362		12.1		321	273	369
2,6-Dimethylnaphthalene	531		9.8		481	409	554
1,6,7-Trimethylnaphthalene	150		7.7		139	118	160
1-Methylphenanthrene	87.5		3.6		90.7	77.10	104
17a, 21b (H)-Hopane	4080		0.2		4070	3460	4681

Surrogate (Su)	Su Recovery (%)
Naphthalene-d8	91
Acenaphthene-d10	95
Phenanthrene-d10	94
Chrysene-d12	100
Perylene-d12	94

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not Applicable, \*=Outside QA limits, refer to narrativ

**Entrix, Inc.**  
**Pepco Oil Spill Project**  
**Biostimulation Study #7**  
**Polycyclic Aromatic Hydrocarbon Data**  
**Standard Reference Material Report**

**Sample Name** MS10526E.D  
**Client Name** AR-WKCC-250-007 (SRM 2260)  
**Matrix** Solution  
**Collection Date** NA  
**Received Date** NA  
**Extraction Date** NA  
**Extraction Batch** ENV 429  
**Date Acquired** 08/05/01  
**Method** PAH-2000  
**Sample Volume (mL)** 1.0

Target Compounds	Su Corrected Conc. (ug/ml)	Q	RPD (%)	SRM 2260 Certified Conc. (ug/ml)	-15% Conc. (ug/ml)	+15% Conc. (ug/ml)
Naphthalene		266	0.4	265.1	225.3	304.8
C1-Naphthalenes		NA				
C2-Naphthalenes		NA				
C3-Naphthalenes		NA				
C4-Naphthalenes		NA				
Biphenyl		264	-0.2	264.4	224.7	304.1
Acenaphthylene		270	6.2	253.8	215.7	291.9
Acenaphthene		275	0.4	273.9	232.8	315.0
Fluorene		264	0.5	262.6	223.2	302.0
C1-Fluorenes		NA				
C2-Fluorenes		NA				
C3-Fluorenes		NA				
Anthracene		186	-7.2	199.8	169.8	229.8
Phenanthrene		227	-15.0	263.9	224.3	303.5
C1-Phenanthrenes/Anthracenes		NA				
C2-Phenanthrenes/Anthracenes		NA				
C3-Phenanthrenes/Anthracenes		NA				
C4-Phenanthrenes/Anthracenes		NA				
Dibenzothiophene		253	1.2	250.0	212.5	287.5
C1-Dibenzothiophenes		NA				
C2-Dibenzothiophenes		NA				
C3-Dibenzothiophenes		NA				
Fluoranthene		244	-8.2	265.0	225.2	304.7
Pyrene		238	-10.6	264.6	224.9	304.3
C1-Fluoranthenes/Pyrenes		NA				
C2-Fluoranthenes/Pyrenes		NA				
C3-Fluoranthenes/Pyrenes		NA				
Benzo(a)anthracene		223	-2.8	229.3	194.9	263.7
Chrysene		253	-5.0	265.9	226.0	305.7
C1-Chrysenes		NA				
C2-Chrysenes		NA				
C3-Chrysenes		NA				
C4-Chrysenes		NA				
Benzo(b)fluoranthene		242	-8.6	263.8	224.2	303.3
Benzo(k)fluoranthene		239	-9.5	262.7	223.3	302.1
Benzo(e)pyrene		240	-9.5	263.8	224.2	303.4
Benzo(a)pyrene		221	-7.5	238.2	202.5	274.0
Perylene		195	-2.3	199.6	169.6	229.5
Indeno(1,2,3-c,d)pyrene		258	9.7	234.1	199.0	269.2
Dibenzo(a,h)anthracene		212	6.8	198.0	168.3	227.7
Benzo(g,h,i)perylene		245	-3.5	253.8	215.7	291.8
<b>Individual Isomers</b>						
2-Methylnaphthalene		260	-0.6	261.4	222.2	300.7
1-Methylnaphthalene		267	1.5	263.0	223.6	302.5
2,6-Dimethylnaphthalene		271	2.8	263.4	223.9	303.0
1,6,7-Trimethylnaphthalene		235	0.2	234.5	199.4	269.7
1-Methylphenanthrene		239	-8.8	261.0	221.9	300.2
17a, 21b (H)-Hopane		270	7.7	250.0	212.5	287.5

Surrogate (Su)	Su Recovery (%)
Naphthalene-d8	100
Acenaphthene-d10	102
Phenanthrene-d10	91
Chrysene-d12	91
Perylene-d12	93

Qualifiers (Q): J=Below the MDL, U=Not detected, B=In procedural blank > 3x MDL, I=Interference, D=Diluted value, NA=Not Applicable, \*=Outside QA limits, refer to narrative